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ENVIRONMENT
& HEALTH

Mr. Frank Sowers
New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, NY 14414-9519

Date September 30, 2019

Former ITT Rochester Form Machine Facility Site, Town of Gates, New York - Site #8-28-112, 2019 Periodic Groundwater Sampling Report

Dear Mr. Sowers:

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O'Brien & Gere Engineers, Inc., a Ramboll company (Ramboll) presents this 2019 Periodic Groundwater Sampling Report for sampling conducted at the Former ITT Rochester Form Machine Facility (RFM), Site #828112 on the New York State Registry of Inactive Hazardous Waste Disposal Sites, located at 30 Pixley Industrial Parkway in Gates, New York (Site). A Site map is presented as **Figure 1**.

Groundwater sampling was completed at wells ITT-IBW-20, ITT-SBW-2, ITT-SBW-9, ITT-SBW-10, and ITT-SBW-23, as requested in a letter dated January 30, 2019 from the New York State Department of Environmental Conservation (NYSDEC) requesting a current groundwater sampling event.

As requested in the January 30, 2019 letter, sampling was completed in accordance with the *Periodic Groundwater Sampling (PGWS) Work Plan* submitted to NYSDEC on October 15, 2012 and subsequently approved by the NYSDEC in a letter dated November 8, 2012.

Objectives

The objective of the July 2019 groundwater monitoring event was to document the current groundwater conditions, including volatile organic compounds (VOCs) and 1,4-dioxane, at the RFM Site before NYSDEC completes the Proposed Remedial Action Plan (PRAP).

Groundwater Sampling

The July 2019 groundwater monitoring event for monitoring wells ITT-IBW-20, ITT-SBW-2, ITT-SBW-9, ITT-SBW-10, and ITT-SBW-23 occurred on July 29, 2019. The locations of groundwater monitoring wells sampled during this event are shown as highlighted in **Figure 1**. To avoid potential interference from the recharge wells in use on the adjacent Former Alliance Metal Stamping and Fabricating (AMSF) Site, sampling was conducted at least 5-days after a rain event of greater than 0.1-inches. For this sampling event, the intakes of the groundwater sampling pumps were located at the mid-point of the screened interval of each of the sampled monitoring wells.

Each monitoring well was purged using low-flow sampling techniques. Groundwater samples were collected from the wells following the stabilization of flow-through cell measured water quality parameters including temperature (±3%), pH (±0.1), specific conductivity (±3%), oxidation-reduction potential (ORP) (±10 mV), dissolved oxygen (DO) (±10%), and turbidity (±10%) as presented in Appendix D of the August 2007, *Remedial Investigation (RI) Phase II Work Plan Addendum* (O'Brien & Gere Engineers, Inc. 2007). Groundwater quality parameters collected during sampling were recorded on field sampling logs (**Appendix A**).

Laboratory Analysis

Groundwater samples were submitted to ALS Environmental, a New York State certified laboratory, under proper chain-of-custody procedures. Groundwater samples were analyzed for VOCs by United States Environmental Protection Agency (USEPA) Method 8260C. Additionally, consistent with NYSDEC provided guidance document *Groundwater Sampling for Emerging Contaminants* dated April 2018, laboratory analysis for 1,4-dioxane was completed by USEPA Method 8270 with Selective Ion Monitoring (SIM).

Laboratory analyses were performed in a manner consistent with the Quality Assurance Project Plan (QAPP) presented in the *RI Phase II Work Plan* (O'Brien & Gere Engineers, Inc. 2017).

Quality Assurance/Quality Control

An equipment blank, duplicate, matrix spike, and matrix spike duplicate, were collected at a frequency of 1 per 20 samples, as outlined in the *RI Phase II Work Plan* QAPP. The duplicate was collected from ITT-SBW-2 and the matrix spike/matrix spike duplicate from ITT-SBW-23.

A trip blank accompanied the cooler containing VOC samples. Analytical data were validated by Vali-Data of Western New York, LLC (Vali-Data of WNY, LLC) in accordance with the QAPP presented in the *RI Phase II Work Plan*. Upon completion of the data validation process a *Data Usability Summary Report* (DUSR) was prepared and is provided in **Attachment 1**.

Investigation Derived Waste

Investigation derived wastes (IDW), including purge water, decontamination fluids, and sampling materials (e.g., gloves, tubing), were containerized in 55-gallon drums, labeled, and stored on-Site. On July 29, 2019 characterization samples were collected from the IDW water drum to assist in the

generation of waste profiles. Following the generation of waste profiles, the IDW will be manifested, transported, and disposed off-site in accordance with applicable local, state and federal regulations.

Results

The groundwater analytical laboratory data report for the July 2019 groundwater monitoring event is provided in **Attachment 2**. The 2019 validated results are provided in **Table 1** and compared to the applicable groundwater Class GA Standards. **Appendix B** provides a table of the July 2019 validated results along with the historical analytical groundwater results for the five wells recently sampled. The results from the July 2019 sampling event have been highlighted in this table for ease of review.

Should you have any questions or comments pertaining to this report, please contact Lisa Hall of ITT Inc. at (949) 562-7402.

Yours sincerely

Douglas Crawford, PE
Vice President

cc: B. Schilling (NYSDEC)
D. Loew (NYSDEC)
M. Cruden (NYSDEC)
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M. Peters (The West Firm)
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List of Attachments: Table 1 – July 2019 Current Groundwater Sample Results
Figure 1 – Sampling Locations
Appendix A – Groundwater Sampling Logs
Appendix B – Focused 2019 and Historical Groundwater Sample VOC Results
Attachment 1 – Data Usability Summary Report
Attachment 2 – Laboratory Report

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TABLE 1
JULY 2019 CURRENT GROUNDWATER SAMPLING RESULTS

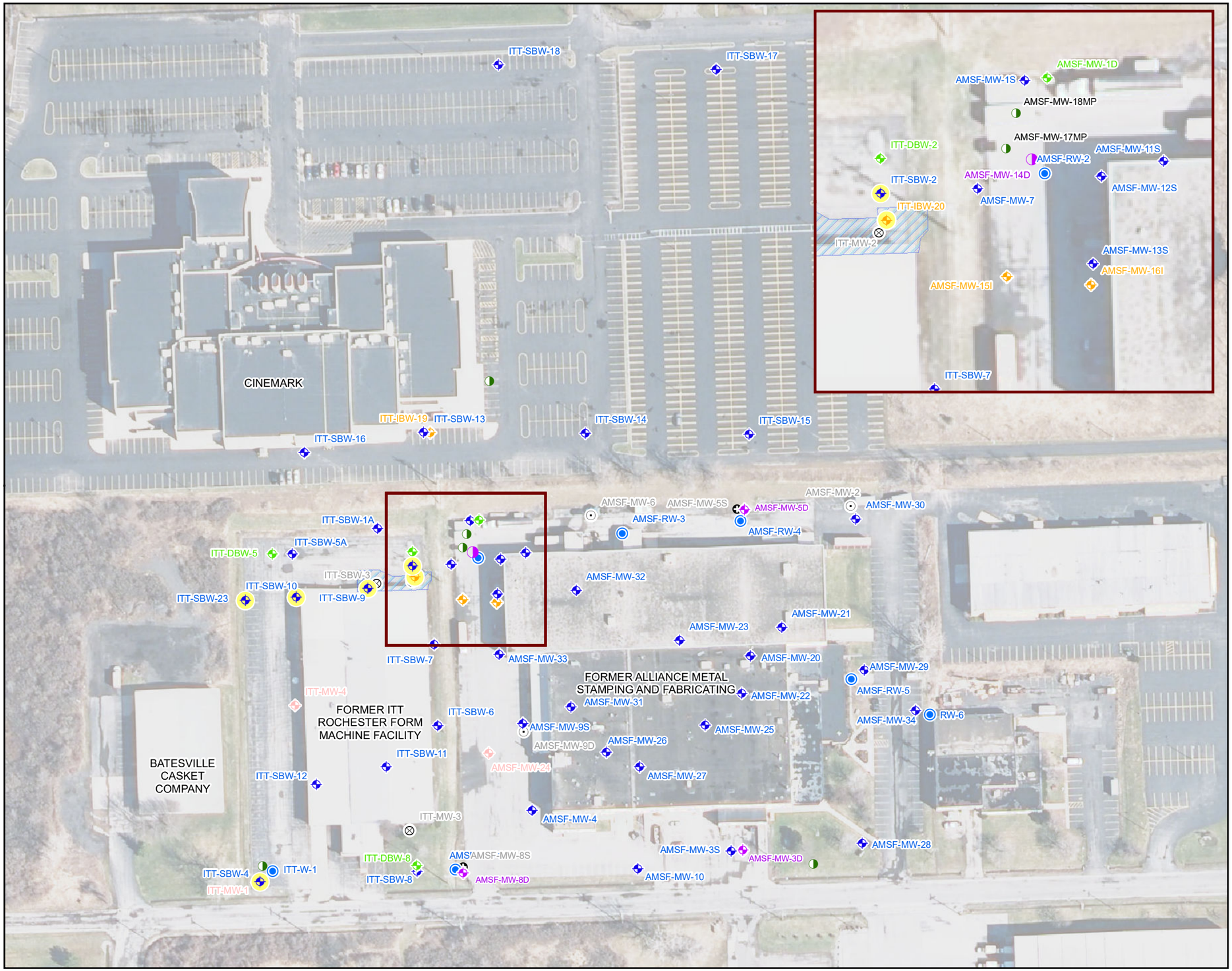
Table 1
July 2019 Current Groundwater Sample Results
Former ITT Rochester Form Machine Facility
Site #8-28-112
Town of Gates, New York

	Location Code:	ITT-IBW-20	ITT-SBW-2	ITT-SBW-2	ITT-SBW-9	ITT-SBW-10	ITT-SBW-23	
	Sample Name:	ITT-IBW-20-072919	ITT-SBW-2-072919	DUP-01-072919	ITT-SBW-9-072919	ITT-SBW-10-072919	ITT-SBW-23-072919	EB-072919
	Sample Type:	N	N	FD	N	N	N	EB
	Sample Date:	7/29/2019	7/29/2019	7/29/2019	7/29/2019	7/29/2019	7/29/2019	7/29/2019
Analyte	Criteria[1]							
Volatile Organic Compounds								
1,1,1-Trichloroethane	**5**	**90**	**980**	**910**	1.0 U	**78**	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,1-Dichloroethane	**5**	**23**	**7.9**	**8.1**	3.9	2.9	2.6	1.0 U
1,1-Dichloroethene	**5**	4.1	**34**	**35**	1.0 U	1.2	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane	0.0006	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	5.0 U	5.0 U	5.0 U	5.0 U	6.3 U	5.8 U	5.0 U
Benzene	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Bromoform	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	60	0.75 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	0.57 J	0.65 J	0.65 J	0.81 J	2.4	0.52 J	1.0 U
cis-1,3-Dichloropropene	0.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	NC	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
m,p-Xylene	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U
Methyl Acetate	NC	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylcyclohexane	NC	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MTBE	10.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	0.54 J	0.23 J	0.30 J	1.0 U	2.6	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trans-1,3-Dichloropropene	0.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.2	1.5	1.5	1.0 U	1.5	1.0 U	1.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorotrifluoroethane	NC	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	**2**	0.61 J	1.9	1.8	**2.8**	1.0 U	**2.1**	1.0 U
Other Compounds								
1,4-Dioxane	NC	5.1	8.9	9.3	4.3	1.1	3.4	0.040 U

Notes:
All units in nanograms per liter (ng/L)
BOLD - Exceedes New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values.
Sample type N = Normal, FD = Field Duplicate, EB = Equipment Blank
[1] New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, Revised June 1998.
NC - No criteria exists
U - Not Detected at the Detection Limit shown, J - Estimated Value

FIGURE 1
SAMPLE LOCATIONS

8/15/2019 2:41:28 PM



N

LEGEND

- RI PHASE I ABANDONED DEEP BORING
- OTHER DEEP BEDROCK WELL
- ABANDONED MULTIPORT BEDROCK BORING
- OVERBURDEN MONITORING WELL
- UPPER ERAMOSA DOLOMITE WELL
- LOWER ERAMOSA DOLOMITE WELL
- UPPER PENFIELD FORMATION WELL
- RECHARGE WELL
- PRE-RI MISSING WELL
- PRE-RI ABANDONED WELL
- PRE-RI DAMAGED WELL
- 1999 FORMER RFM SOIL REMEDIATION AREA

NOTE:
HIGHLIGHTED SAMPLING LOCATIONS REPRESENT SAMPLING LOCATIONS

FORMER ITT ROCHESTER FORM MACHINE FACILITY
TOWN OF GATES, NEW YORK
SITE #8-28-112

SAMPLING LOCATIONS

0 125 250
Feet

AUGUST 2019
3356.73105

O'BRIEN & GERE ENGINEERS, INC.

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APPENDIX A
GROUNDWATER SAMPLING LOGS

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Low Flow Groundwater Sampling Log

Well ID: ITT-IBW-20
Northing: 1146078.094
Easting: 1380540.888

Site Name: Auto FH-019 Former RFM | Sampling Method: Bladder Pump | Field Personnel: ASY, SLH
Site Location: Rochester, NY | Equipment Used: QED Bladder Pump | Date: 7/29/2019
Project #: 73105.001/002.016 | Pump/Controller ID#: FA01201/FA01037 | Weather: Sun, 85°F

Well information:

Installed Depth of Well*: 59.00 ft. bmp.
Measured Depth of Well*: 43.95 ft. bmp.
Depth to Water*: 12.55 ft. bmp.
Length of Water Column (LWC): 31.40 ft.
Well Diameter: 2.0 in.

Well Volume Multipliers:

	1 in. = 0.041 gal/ft
X	2 in. = 0.163 gal/ft
	4 in. = 0.653 gal/ft
	6 in. = 1.469 gal/ft
	8 in. = 2.611 gal/ft

* Measurement Point: Top of Well Casing
☐ Other:
Well Volume: 5.1 gal.
Pump Intake Depth*: 19.3 ft. bmp.

Start Purge Time: 12:50
Initial Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None

Select Units from Dropdown Menus

Elapsed Time *Minutes*	Depth to Water *ft bmp*	Temperature *Celsius*	pH *SU*	Specific Conductivity *mS/cm*	ORP *mV*	Dissolved Oxygen *mg/L*	Turbidity *NTU*	Flow Rate *ml/min*	Other
0	12.53	17.33	3.88	6.85	-153	7.35	3.84	280	
5	12.55	15.68	3.85	7.73	-177	2.24	1.43	290	
10	12.55	15.55	3.85	7.76	-181	2.22	1.07	290	
15	12.55	15.46	3.84	7.76	187	2.07	0.87	290	
20	12.54	15.36	3.84	7.64	-193	2.06	0.91	290	
25	12.55	15.15	3.85	7.55	-196	2.03	2.00	290	
30	12.55	15.23	3.85	7.49	-199	1.90	1.17	290	
35	12.55	15.22	3.86	7.43	-202	1.81	1.02	290	
40	12.55	15.18	3.86	7.41	-204	1.80	1.04	280	
45	12.55	14.90	3.87	7.37	-206	1.77	1.61	280	
50	12.55	14.90	3.87	7.36	-208	1.74	1.71	280	
55	12.55	15.00	3.88	7.33	-212	1.67	1.78	280	
60	12.55	15.01	3.89	7.33	-214	1.65	1.75	280	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 13:55
DO Titrataion: NA mg/L
Total volume of groundwater purged: 5.5 gal.

Final Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None
Specific Gravity NA

Analytical Sample ID: ITT-IBW-20-072919 **Date:** 7/29/2019 **Time:** 14:00

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
250 ml	Polyethylene	2	No	None	ALS Labs
250 ml	Amber Glass	2	No	None	ALS Labs
40 ml	Clear VOA	3	No	HCl	ALS Labs

Notes:

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Low Flow Groundwater Sampling Log

Well ID: ITT-SBW-2
Northing: 1146091.319
Easting: 1380537.904

Site Name:	Auto FH-019 Former RFM	Sampling Method:	Bladder Pump	Field Personnel:	ASY, SLH
Site Location:	Rochester, NY	Equipment Used:	QED Bladder Pump	Date:	7/29/2019
Project #:	73105.001/002.016	Pump/Controller ID#:	FA01201/FA01037	Weather:	Sun, 90°F

Well information:

Installed Depth of Well*:	25.00	ft. bmp.
Measured Depth of Well*:	23.97	ft. bmp.
Depth to Water*:	12.26	ft. bmp.
Length of Water Column (LWC):	11.71	ft.
Well Diameter:	4.0	in.

Well Volume Multipliers:

	1 in. = 0.041 gal/ft
	2 in. = 0.163 gal/ft
X	4 in. = 0.653 gal/ft
	6 in. = 1.469 gal/ft
	8 in. = 2.611 gal/ft

* Measurement Point: Top of Well Casing

☐ Other:

Well Volume: 7.6 gal.

Pump Intake Depth*: 19.3 ft. bmp.

Start Purge Time: 11:20

Initial Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None

Select Units from Dropdown Menus

Elapsed Time *Minutes*	Depth to Water *ft bmp*	Temperature *Celsius*	pH *SU*	Specific Conductivity *mS/cm*	ORP *mV*	Dissolved Oxygen *mg/L*	Turbidity *NTU*	Flow Rate *ml/min*	Other
0	12.27	21.00	3.55	2.92	-111	2.03	3.84	350	
5	12.30	20.82	3.68	2.72	-129	1.10	3.04	250	
10	12.30	17.57	3.61	3.04	-132	1.37	2.38	250	
15	12.29	16.29	3.61	3.04	-135	1.23	1.29	300	
20	12.30	16.18	3.62	3.02	-138	1.14	0.68	300	
25	12.29	16.20	3.62	3.06	-139	1.03	0.74	300	
30	12.29	16.17	3.62	3.06	-138	1.04	0.75	300	
35	12.30	15.86	3.67	3.06	-139	0.99	0.69	300	
40	12.30	15.98	3.69	3.05	-139	0.96	0.65	300	
45	12.30	15.86	3.70	3.05	-140	0.95	0.66	300	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 12:05

DO Titrataion: NA mg/L

Total volume of groundwater purged: 4 gal.

Final Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None

Specific Gravity NA

Analytical Sample ID: ITT-SBW-2-072919 **Date:** 7/29/2019 **Time:** 12:08

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
250 ml	Polyethylene	4	No	None	ALS Labs
250 ml	Amber Glass	4	No	None	ALS Labs
40 ml	Clear VOA	6	No	HCl	ALS Labs

Notes: DUP-01-072919

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Low Flow Groundwater Sampling Log

Well ID: ITT-SBW-4
Northing: 1145695.99
Easting: 1380347.004

Site Name: Auto FH-019 Former RFM | Sampling Method: Bladder Pump | Field Personnel: SLH, ASY
Site Location: Rochester, NY | Equipment Used: QED Bladder Pump | Date: 7/29/2019
Project #: 73105.001/002.016 | Pump/Controller ID#: FA02526/ FA03896 | Weather: Sun, 90°F

Well information:

Installed Depth of Well*: 25.00 ft. bmp.
Measured Depth of Well*: 22.10 ft. bmp.
Depth to Water*: 5.70 ft. bmp.
Length of Water Column (LWC): 16.40 ft.
Well Diameter: 4.0 in.

Well Volume Multipliers:

	1 in. = 0.041 gal/ft
	2 in. = 0.163 gal/ft
X	4 in. = 0.653 gal/ft
	6 in. = 1.469 gal/ft
	8 in. = 2.611 gal/ft

* Measurement Point: Top of Well Casing
☐ Other:
Well Volume: 10.7 gal.
Pump Intake Depth*: 19.3 ft. bmp.

Start Purge Time: 15:10

Initial Observations: *Color:* Orange *Odor:* Sulfur *Sheen/Free Product:* None

Select Units from Dropdown Menus

Elapsed Time *Minutes*	Depth to Water *ft bmp*	Temperature *Celsius*	pH *SU*	Specific Conductivity *mS/cm*	ORP *mV*	Dissolved Oxygen *mg/L*	Turbidity *NTU*	Flow Rate *ml/min*	Other
0	5.67	21.30	4.15	2.45	32	2.45	3559 AU	350	
5	5.68	15.25	4.05	3.02	-56	1.30	74.9	300	
10	5.68	14.87	4.01	3.05	-65	1.15	26.3	300	
15	5.66	14.57	4.01	3.06	-66	1.04	31.1	300	
20	5.66	14.82	4.02	3.05	-68	0.94	14.4	200	
25	5.68	14.55	4.03	3.07	-67	0.95	13.29	250	
30	5.67	14.39	4.03	3.10	-67	0.97	14.4	250	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 15:40
DO Titrataion: NA mg/L
Total volume of groundwater purged: 5 gal.

Final Observations: *Color:* Clear *Odor:* Sulfur *Sheen/Free Product:* Slight Chemical Sheen
Specific Gravity NA

Analytical Sample ID: ITT-SBW-10-072919 **Date:** 7/29/2019 **Time:** 15:50

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
250 ml	Polyethylene	6	No	None	ALS Labs

Notes: ITT-SBW-4-072919-MS/ITT-SBW-4-072919-MSD

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Low Flow Groundwater Sampling Log

Well ID: ITT-SBW-9
Northing: 1146063.401
Easting: 1380482.018

Site Name: Auto FH-019 Former RFM | Sampling Method: Bladder Pump | Field Personnel: ASY, SLH
Site Location: Rochester, NY | Equipment Used: QED Bladder Pump | Date: 7/29/2019
Project #: 73105.001/002.016 | Pump/Controller ID#: FA01201/FA01037 | Weather: Sun, 90°F

Well information:

Installed Depth of Well*: 25.00 ft. bmp.
Measured Depth of Well*: 24.12 ft. bmp.
Depth to Water*: 12.03 ft. bmp.
Length of Water Column (LWC): 12.09 ft.
Well Diameter: 4.0 in.

Well Volume Multipliers:

	1 in. = 0.041 gal/ft
	2 in. = 0.163 gal/ft
X	4 in. = 0.653 gal/ft
	6 in. = 1.469 gal/ft
	8 in. = 2.611 gal/ft

* Measurement Point: Top of Well Casing
☐ Other:
Well Volume: 7.9 gal.
Pump Intake Depth*: 20.0 ft. bmp.

Start Purge Time: 15:15

Initial Observations: *Color:* Orange Translucent *Odor:* None *Sheen/Free Product:* None

Select Units from Dropdown Menus

Elapsed Time *Minutes*	Depth to Water *ft bmp*	Temperature *Celsius*	pH *SU*	Specific Conductivity *mS/cm*	ORP *mV*	Dissolved Oxygen *mg/L*	Turbidity *NTU*	Flow Rate *ml/min*	Other
0	12.10	19.47	3.88	2.76	-149	8.21	68.3	300	
5	12.12	17.74	3.87	2.94	-144	3.58	56.1	300	
10	12.12	16.27	3.86	3.03	-145	2.02	26.1	300	
15	12.12	15.96	3.87	3.07	-145	1.89	20.40	300	
20	12.12	15.77	3.92	3.07	-145	1.66	11.32	300	
25	12.12	15.78	3.92	3.08	-147	1.59	6.78	300	
30	12.13	15.74	3.95	3.08	-148	1.53	4.02	300	
35	12.12	15.76	3.95	3.08	-150	1.48	2.54	300	
38	12.12	15.78	3.96	3.09	-150	1.46	2.56	300	
41	12.13	15.77	3.97	3.08	-151	1.43	2.57	300	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 15:58
DO Titrataion: NA mg/L
Total volume of groundwater purged: 5 gal.

Final Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None
Specific Gravity NA

Analytical Sample ID: ITT-SBW-9-072919 **Date:** 7/29/2019 **Time:** 16:00

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
250 ml	Amber Glass	2	No	None	ALS Labs
40 ml	Clear VOA	3	No	HCl	ALS Labs

Notes:

OBG
Part of Ramboll

Low Flow Groundwater Sampling Log

Well ID: ITT-SBW-10
Northing: 1146052.322
Easting: 1380392.717

Site Name:	Auto FH-019 Former RFM	Sampling Method:	Bladder Pump	Field Personnel:	SLH, ASY
Site Location:	Rochester, NY	Equipment Used:	QED Bladder Pump	Date:	7/29/2019
Project #:	73105.001/002.016	Pump/Controller ID#:	FA02526/ FA03896	Weather:	Sun, 90°F

Well information:

Installed Depth of Well*:	25.00	ft. bmp.
Measured Depth of Well*:	24.11	ft. bmp.
Depth to Water*:	11.64	ft. bmp.
Length of Water Column (LWC):	12.47	ft.
Well Diameter:	4.0	in.

Well Volume Multipliers:

	1 in. = 0.041 gal/ft
	2 in. = 0.163 gal/ft
X	4 in. = 0.653 gal/ft
	6 in. = 1.469 gal/ft
	8 in. = 2.611 gal/ft

* Measurement Point: Top of Well Casing

☐ Other:

Well Volume: 8.1 gal.

Pump Intake Depth*: 20.5 ft. bmp.

Start Purge Time: 13:30

Initial Observations: *Color:* Orange *Odor:* Metallic *Sheen/Free Product:* None

Select Units from Dropdown Menus

Elapsed Time *Minutes*	Depth to Water *ft bmp*	Temperature *Celsius*	pH *SU*	Specific Conductivity *mS/cm*	ORP *mV*	Dissolved Oxygen *mg/L*	Turbidity *NTU*	Flow Rate *ml/min*	Other
0	11.66	22.49	4.14	1.59	-59	2.69	Overrange	350	
5	11.65	17.69	4.12	1.81	-87	1.87	Overrange	350	
10	11.68	15.88	4.03	1.89	-92	1.34	Overrange	350	
15	11.67	15.49	4.01	1.9	-85	1.16	80.0	350	
20	11.70	15.37	4.01	1.91	-80	1.06	28.0	300	
25	11.66	15.14	4.02	1.93	-73	1.02	69.6	300	
30	11.66	15.15	4.03	1.94	-68	0.99	48.0	300	
33	11.67	14.96	4.03	1.94	-64	1.08	41.3	300	
36	11.66	14.98	4.04	1.94	-63	1.08	42.3	300	
39	11.67	14.98	4.04	1.94	-63	1.08	42.3	300	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 14:09

DO Titrataion: NA mg/L

Total volume of groundwater purged: 4 gal.

Final Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None

Specific Gravity NA

Analytical Sample ID: ITT-SBW-10-072919 **Date:** 7/29/2019 **Time:** 15:50

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
250 ml	Amber Glass	2	No	None	ALS Labs
40 ml	Clear VOA	3	No	HCl	ALS Labs

Notes:

OBG Part of Ramboll

Low Flow Groundwater Sampling Log

Well ID: ITT-SBW-23
Northing: 1146048.485
Easting: 1380328.786

Site Name: Auto FH-019 Former RFM | Sampling Method: Bladder Pump | Field Personnel: SLH, ASY
Site Location: Rochester, NY | Equipment Used: QED Bladder Pump | Date: 7/29/2019
Project #: 73105.001/002.016 | Pump/Controller ID#: FA02526/ FA03896 | Weather: Sun, 90°F

Well information:
Installed Depth of Well*: 26.00 ft. bmp.
Measured Depth of Well*: 25.80 ft. bmp.
Depth to Water*: 10.95 ft. bmp.
Length of Water Column (LWC): 14.85 ft.
Well Diameter: 4.0 in.

Well Volume Multipliers:
1 in. = 0.041 gal/ft
2 in. = 0.163 gal/ft
X 4 in. = 0.653 gal/ft
6 in. = 1.469 gal/ft
8 in. = 2.611 gal/ft

* Measurement Point: Top of Well Casing
☐ Other:
Well Volume: 9.7 gal.
Pump Intake Depth*: 21.8 ft. bmp.

Start Purge Time: 10:50
Initial Observations: *Color:* Trans. Med. Brown *Odor:* Slight Chemical *Sheen/Free Product:* None

Select Units from Dropdown Menus

Elapsed Time *Minutes*	Depth to Water *ft bmp*	Temperature *Celsius*	pH *SU*	Specific Conductivity *mS/cm*	ORP *mV*	Dissolved Oxygen *mg/L*	Turbidity *NTU*	Flow Rate *ml/min*	Other
0	11.82	16.48	4.38	0.389	-38	1.73	775	320	
5	12.2	14.95	4.34	0.363	-81	1.51	612	400	
10	12.35	15.2	4.32	0.355	-106	1.35	30.0	350	
15	12.55	15.26	4.29	0.366	-120	1.33	14.0	350	
20	12.30	17.55	4.21	0.370	-124	1.22	91.4	300	
25	12.28	17.05	4.26	0.484	-132	1.67	15.0	200	
30	12.22	16.72	4.26	0.62	-140	1.24	92.0	200	
35	12.22	16.63	4.25	0.79	-144	1.23	86.3	200	
40	12.14	16.49	4.21	1.01	-144	1.17	81.4	200	
45	12.09	16.44	4.19	1.27	-142	1.17	70.8	200	
50	12.06	16.65	4.18	1.41	-140	1.15	62.8	200	
55	11.98	16.57	4.14	1.59	-137	1.31	59.0	200	
60	12.11	15.37	4.13	1.73	-135	1.22	56.1	375	
65	12.11	16.25	4.13	1.78	-133	1.10	44.7	200	
70	11.92	17.07	4.12	1.88	-132	1.07	40.8	200	
75	11.90	17.22	4.11	1.96	-131	1.05	37.6	200	
80	11.82	17.39	4.11	2.02	-130	1.05	33.0	200	
83	11.79	17.45	4.11	2.06	-130	1.03	30.1	200	
86	11.78	17.46	4.11	2.09	-129	1.03	30.3	200	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 12:16
DO Titrataion: NA mg/L
Total volume of groundwater purged: 5 gal.

Final Observations: *Color:* Clear *Odor:* None *Sheen/Free Product:* None
Specific Gravity NA

Analytical Sample ID: ITT-SBW-23-072919 **Date:** 7/29/2019 **Time:** 12:30

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
250 ml	Amber Glass	6	No	None	ALS Labs
40 ml	Clear VOA	9	No	HCl	ALS Labs

Notes: ITT-SBW-23-072919-MS/ ITT-SBW-23-072919-MSD

APPENDIX B
FOCUSED 2019 AND HISTORICAL GROUNDWATER SAMPLE VOC RESULTS

Appendix B
Focused 2019 and Historical Groundwater Sample VOC Results
Former ITT Rochester Form Machine Facility
Site #8-28-112
Town of Gates, New York

	Location Code	ITT-IBW-19	ITT-IBW-19	ITT-IBW-19	ITT-IBW-20	ITT-IBW-20	ITT-IBW-20	ITT-IBW-20	ITT-IBW-20	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2
	Sample Name	ITT-IBW-19_042010	ITT-IBW-19_091410	ITT-IBW-19-061913	ITT-IBW-20_042210	ITT-IBW-20_091010	ITT-IBW-20-062513	ITT-FD-2-062513	ITT-IBW-20-072919	ITTSBW-2 9/10/98	ITTSBW-2 5/4/99	ITTSBW-2 5/4/99 DEC	ITTSBW-2 6/30/99	SBW-2 (9/22/99)	ITTSBW-2 11/16/00	ITT-SBW-2	ITT-SBW-2-083105	T-SBW-2_09302005_DE
	Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
	Sample Date	4/20/2010	9/14/2010	06/19/2013	4/22/2010	9/10/2010	06/25/2013	06/25/2013	7/29/2019	9/10/1998	5/4/1999	5/4/1999	6/30/1999	9/22/1999	11/16/2000	2/7/2005	8/31/2005	9/30/2005
	Start Depth (ft)																	
	End Depth (ft)																	
Analyte	**Criteria** [1]																	
Volatile Organic Compounds																		
1,1,1,2-Tetrachloroethane	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15 U
1,1,1-Trichloroethane	5	3.2	0.67 J	**7.6**	**700**	**180**	**2200**	**1900**	**90**	**1800**	**1200**	**1000**	**4400**	---	**7400**	**560**	**894**	**240**
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	**2 J**	10 U	10 U	15 U
1,1-Dichloroethane	5	3.1	1.6	**21**	**43**	**17**	**110**	**110**	**23**	**26**	50 U	**20 J**	250 U	---	**360**	**6 J**	2.8 J	15 U
1,1-Dichloroethene	5	1 U	1 U	1 U	3.7	1.5	**13**	**14**	4.1	**60**	50 U	**45 J**	**260**	---	**430**	**14**	**17.4**	15 U
1,2,3-Trichloropropane	0.04	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	15 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	2 U	2 U	2 U	2 U	2 U	10 U	2.0 U	2.0 U	---	---	---	---	---	---	---	---	50 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---	15 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	**12**	10 U	10 U	15 U
1,2-Dichloroethene (total)	5	---	---		---	---	---	---	---	20 U	---	100 U	---	---	10 U	---	---	---
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
2-Butanone (Methyl Ethyl Ketone)	50	5 U	5 U	5 U	5 U	5 U	25 U	5.0 U	5.0 U	20 U	250 U	100 U	1,300 U	---	10 U	200 U	200 U	50 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 UJ	25 U	5.0 U	5.0 U	20 U	100 U	100 U	500 U	---	10 U	100 U	100 U	50 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NC	5 U	5 U	5 U	5 U	5 U	25 U	5.0 U	5.0 U	---	---	---	---	---	2,000 U	100 U	100 U	50 U
Acetone	50	5 U	5 UJ	5 U	5 U	5 U	25 UJ	5.0 UJ	5.0 U	20 U	250 U	43 J	1,300 U	---	10 U	200 U	200 U	50 U
Acrylonitrile	5	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	250 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	7 U	100 U	35 U	---	2,000 U	10 U	10 U	---
Bromodichloromethane	50	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Bromoform	50	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Bromomethane (Methyl Bromide)	5	1 U	1 U	1 U	1 U	1 U	5.0 UJ	1.0 UJ	1.0 U	20 U	50 U	100 U	250 U	---	10 U	20 U	20 U	15 U
Carbon disulfide	60	1 U	1 U	1 U	1 U	1 U	5.0 U	0.25 J	0.75 J	20 U	50 U	100 U	250 U	---	10 U	3 J	10 U	15 U
Carbon tetrachloride	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Chlorobromomethane	5	---	---	1 U	---	---	5.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---	15 U
Chloroethane	5	1 U	1 U	0.43 J	0.56 J	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	20 U	20 U	15 U
Chloroform (Trichloromethane)	7	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Chloromethane (Methyl Chloride)	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	20 U	20 U	15 U
cis-1,2-Dichloroethene	5	1 U	1 U	0.48 J	0.48 J	1 U	5.0 U	1.2	0.57 J	---	50 U	---	250 U	---	---	10 U	10 U	15 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Dibromomethane	5	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	15 U
Ethane	NC	---	---		---	---	---	---	---	---	---	---	---	100 U	---	---	---	---
Ethylbenzene	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	2,000 U	10 U	10 U	15 U
Ethene	NC	---	---		---	---	---	---	---	---	---	---	---	100 U	---	---	---	---
Iodomethane	5	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	15 U
Methane	NC	---	---		---	---	---	---	---	---	---	---	---	82.6	---	---	---	---
Methylene chloride	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	**14 B**	40 U	**6.8 J**	15 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	---	50 U	---	250 U	---	---	---	---	15 U
Styrene	5	1 UJ	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	0.54 J	**12 J**	50 U	100 U	250 U	---	2,000 U	10 U	10 U	15 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	2,000 U	10 U	10 U	15 U
Total Btex	NC	---	---		---	---	---	---	---	20 U	---	100 U	---	---	2,000 U	10 U	20 U	---
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	---	50 U	---	250 U	---	---	10 U	10 U	15 U
trans-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	20 U	50 U	100 U	250 U	---	10 U	10 U	10 U	15 U
Trans-1,4-Dichlorobutene	NC	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	50 U
Trichloroethene	5	1 U	1 U	1 U	3.2	1.8	**6.2**	**6.8**	1.2	**13 J**	50 U	100 U	250 U	---	5 J	10 U	10 U	15 U
Trichlorofluoromethane (CFC-11)	5	1 U	1 U	1 U	1 U	1 U	5.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---	15 U
Vinyl Acetate	NC	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	250 U
Vinyl chloride	2	1 U	1 U	0.32 J	1 U	1 U	5.0 U	0.41 J	0.61 J	20 U	20 U	100 U	100 U	---	10 U	20 U	20 U	10 U
Xylene (m,p)	5	2 U	2 U	2 U	2 U	2 U	10 U	2.0 U	2.0 U	---	50 U	100 U	250 U	---	---	---	---	15 U
Xylene (total)	5	---	---		---	---	---	---	---	20 U	---	100 U	---	---	2,000 U	10 U	20 U	---
Other Compounds																		
1,4-Dioxane	NC	0.19 U	2 U	2.7	0.25 J	2 U	2.3	1.9	5.1	---	1,800 U	---	2,500 U	---	2,400	3 J	5 J	10 U

Notes:
All units in micrograms per liter (µg/L)
[1] New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, Revised June 1998.
BOLD - Exceedes New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values.
* - Elevation - ft amsl (ft bgs) [ft amsl - feet above mean sea level, ft bgs - feet below ground surface]
[2] Passive diffusion bags deployed 12/2/2005 and retrieved on 12/22/2005.
- Only wells with a discrete fracture or sampling interval have start and end depths.
- Well AMSF-MW-12S was found to be obstructed prior to the April/May 2010 sampling event. The obstruction was cleared prior to the September 2010 sampling event.
- Well ITT-DBW-8 was inadvertently missed during the April/May 2010 Sampling Event.
- Well ITT-SBW-9 was inadvertently missed during sampling in April 2010 and consequently sampled in May 2010 when the mistake was identified.
NC - No criteria exists
U - Not Detected at the Detection Limit shown, J - Estimated value, UJ - Approximate Non-detect, B - Blank Contamination, BJ - Estimated Value Detected in Blank, NJ - Tentative in Identification and Estimated in Value
--- Not Analyzed
2019 sampling event highlighted yellow

Appendix B
Focused 2019 and Historical Groundwater Sample VOC Results
Former ITT Rochester Form Machine Facility
Site #8-28-112
Town of Gates, New York

	Location Code	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-2	ITT-SBW-9	ITT-SBW-9	ITT-SBW-9	ITT-SBW-9	ITT-SBW-9	ITT-SBW-9	ITT-SBW-9
	Sample Name	ITT-SBW-2-093005	ITT-SBW-2 (551-549)	ITT-SBW-2 (546-544)	ITT-SBW-2 (542-540)	ITT-SBW-2_042210	ITT-SBW-2_091010	ITT-SBW-2-062113	ITT-SBW-2-072919	DUP-01-072919	ITT-SBW-9	ITT-SBW-9-083105	ITT-SBW-9-093005	ITT-SBW-9_051210	ITT-SBW-9_091510	ITT-SBW-9-062113	ITT-SBW-9-072919
	Sample Type	ITT-SBW-2-093005	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
	Sample Date	9/30/2005	12/22/2005	12/22/2005	12/22/2005	4/22/2010	9/10/2010	06/21/2013	7/29/2019	7/29/2019	2/7/2005	8/31/2005	9/30/2005	5/12/2010	9/15/2010	06/21/2013	7/29/2019
	Start Depth (ft)		551 (14.3)*	546 (19.3)*	542 (23.3)*												
	End Depth (ft)		549 (16.3)*	544 (21.3)*	540 (25.3)*												
Analyte	**Criteria** [1]																
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	5	**218**	**2070**	0.37 J	0.5 U	0.88 J	1.3	**760**	**980**	**910**	**460**	**687**	**1750**	**11**	0.9 J	**250**	1.0 U
1,1,2,2-Tetrachloroethane	5	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
1,1-Dichloroethane	5	**5.1**	**144**	**5.22**	4.36	**5.7**	2.9	**18**	**7.9**	**8.1**	**13**	**7.2 J**	**16.6**	2.8	2.9	**19**	3.9
1,1-Dichloroethene	5	**11.2**	**109**	1.56	1.38	1 U	0.68 J	**31**	**34**	**35**	**8 J**	**13**	**89.4**	1.1	0.71 J	**50**	1.0 U
1,2,3-Trichloropropane	0.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dibromo-3-chloropropane (DBCP)	0.04	---	---	---	---	2 U	2 U	2.0 U	2.0 U	2.0 U	---	---	---	2 U	2 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	---	---	---	---	1 U	1 U	1.0 U	1.0 U	1.0 U	---	---	---	1 U	1 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dichloropropane	1	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	50	100 U	1,000 U	10 U	10 U	5 U	5 U	5.0 U	5.0 U	5.0 U	200 U	200 U	200 U	5 UJ	5 U	5.0 U	5.0 U
2-Hexanone	50	50 U	500 U	5 U	5 U	5 U	5 UJ	5.0 U	5.0 U	5.0 U	100 U	100 U	100 U	5 U	5 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NC	50 U	500 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U	5.0 U	100 U	100 UJ	100 U	5 U	5 U	5.0 U	5.0 U
Acetone	50	100 U	1,000 U	10 U	1.1 J	5 U	5 U	5.0 U	5.0 U	5.0 U	200 U	200 UJ	200 U	5 U	5 UJ	1.9 J	5.0 U
Acrylonitrile	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzene	1	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Bromodichloromethane	50	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Bromoform	50	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Bromomethane (Methyl Bromide)	5	10 U	100 U	1 U	1 U	1 U	1 U	1.0 UJ	1.0 U	1.0 U	20 UJ	20 U	20 U	1 U	1 U	1.0 UJ	1.0 U
Carbon disulfide	60	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	5 U	1 U	1.0 U	1.0 U
Carbon tetrachloride	5	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Chlorobenzene	5	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Chlorobromomethane	5	---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	---	---	---	---	---	1.0 U	1.0 U
Chloroethane	5	10 U	100 U	0.7 J	0.83 J	0.96 J	1 U	0.55 J	1.0 U	1.0 U	20 U	20 U	20 U	1 U	1 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	7	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Chloromethane (Methyl Chloride)	5	10 U	100 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	20 U	20 U	20 U	1 U	1 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	5 U	50 U	0.5 U	0.5 U	0.53 J	0.42 J	0.59 J	0.65 J	0.65 J	10 U	10 U	10 U	1 U	0.45 J	0.61 J	0.81 J
cis-1,3-Dichloropropene	0.4	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Dibromochloromethane	50	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Dibromomethane	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ethane	NC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	5	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Ethene	NC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iodomethane	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methane	NC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene chloride	5	20 U	200 U	2 U	2 U	1 U	1 U	1.0 U	1.0 U	1.0 U	40 U	**7 J**	40 U	1 U	1 U	1.0 U	1.0 U
o-Xylene	5	---	---	---	---	1 U	1 U	1.0 U	1.0 U	1.0 U	---	---	---	1 U	1 U	1.0 U	1.0 U
Styrene	5	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Tetrachloroethene	5	5 U	50 UJ	0.5 UJ	0.5 UJ	1 U	1 U	1.0 U	0.23 J	0.30 J	10 U	10 U	4.6 J	1 U	1 U	**10**	1.0 U
Toluene	5	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Total Btex	NC	5 U	---	---	---	---	---	---	---	---	10 U	20 U	20 U	---	---	---	---
trans-1,2-Dichloroethene	5	5 U	50 UJ	0.5 UJ	0.5 UJ	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	5 U	50 U	0.5 U	0.5 U	1 U	1 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	1 U	1 U	1.0 U	1.0 U
Trans-1,4-Dichlorobutene	NC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene	5	1.1 J	50 U	0.29 J	0.26 J	1 U	1 U	1.1	1.5	1.5	10 U	**5.2 J**	**5.4 J**	1 U	1 U	**5.3**	1.0 U
Trichlorofluoromethane (CFC-11)	5	---	---	---	---	1 U	1 U	1.0 U	1.0 U	1.0 U	---	---	---	1 U	1 U	1.0 U	1.0 U
Vinyl Acetate	NC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Vinyl chloride	2	10 U	100 U	1 U	0.14 J	**2.3**	0.94 J	1.4	1.9	1.8	20 U	20 U	20 U	1 U	0.84 J	1.0 U	**2.8**
Xylene (m,p)	5	---	---	---	---	2 U	2 U	2.0 U	2.0 U	2.0 U	---	---	---	2 U	2 U	2.0 U	2.0 U
Xylene (total)	5	10 U	100 U	1 U	1 U	---	---	---	---	---	10 U	20 U	20 U	---	---	---	---
Other Compounds																	
1,4-Dioxane	NC	---	---	---	---	1.8	2 U	7.5	8.9	9.3	2 J	11	14	0.28	2 U	17	4.3

Notes:
All units in micrograms per liter (µg/L)
[1] New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, Revised June 1998.
BOLD - Exceedes New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values.
* - Elevation - ft amsl (ft bgs) [ft amsl - feet above mean sea level, ft bgs - feet below ground surface]
[2] Passive diffusion bags deployed 12/2/2005 and retrieved on 12/22/2005.
- Only wells with a discrete fracture or sampling interval have start and end depths.
- Well AMSF-MW-12S was found to be obstructed prior to the April/May 2010 sampling event. The obstruction was cleared prior to the September 2010 sampling event.
- Well ITT-DBW-8 was inadvertently missed during the April/May 2010 Sampling Event.
- Well ITT-SBW-9 was inadvertently missed during sampling in April 2010 and consequently sampled in May 2010 when the mistake was identified.
NC - No criteria exists
U - Not Detected at the Detection Limit shown, J - Estimated value, UJ - Approximate Non-detect, B - Blank Contamination, BJ - Estimated Value Detected in Blank, NJ - Tentative in Identification and Estimated in Value
--- Not Analyzed
2019 sampling event highlighted yellow

Appendix B
Focused 2019 and Historical Groundwater Sample VOC Results
Former ITT Rochester Form Machine Facility
Site #8-28-112
Town of Gates, New York

	Location Code	ITT-SBW-10	ITT-SBW-10	ITT-SBW-10	ITT-SBW-10	ITT-SBW-10	ITT-SBW-10	ITT-SBW-23	ITT-SBW-23	ITT-SBW-23	ITT-SBW-23	ITT-SBW-23
	Sample Name	ITT-SBW-10	ITT-SBW-10-092705	ITT-SBW-10_042110	ITT-SBW-10_091410	ITT-SBW-10-062713	ITT-SBW-10-072919	ITT-SBW-23_042110	ITT-SBW-23_091410	ITT-SBW-23-061913	ITT-FD-1-061913	ITT-SBW-23-072919
	Sample Type	N	N	N	N	N	N	N	N	N	FD	N
	Sample Date	2/7/2005	9/27/2005	4/21/2010	9/14/2010	06/27/2013	7/29/2019	4/21/2010	9/14/2010	06/19/2013	06/19/2013	7/29/2019
	Start Depth (ft)											
	End Depth (ft)											
Analyte	**Criteria** [1]											
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	5	---	---	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	5	**32**	**161**	**110**	**260**	**110**	**78**	1 U	1 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 UJ
1,1-Dichloroethane	5	2	4.55	**6.4**	**6.3**	**6.2**	2.9	4.2	3.3	1.8	1.8	2.6
1,1-Dichloroethene	5	2	**6.27**	3.3	3.3	3.2	1.2	1 U	0.56 J	1.0 U	1.0 U	1.0 U
1,2,3-Trichloropropane	0.04	---	---	---	---	---	---	---	---	---	---	---
1,2-Dibromo-3-chloropropane (DBCP)	0.04	---	---	2 U	4 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	---	---	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	5	---	---	---	---	---	---	---	---	---	---	---
1,2-Dichloropropane	1	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl Ethyl Ketone)	50	10 U	10 U	5 U	10 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50	5 U	5 U	5 U	10 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NC	5 U	5 U	5 U	10 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U
Acetone	50	10 U	1.08 J	5 U	10 UJ	5.0 U	6.3 U	5 U	5 UJ	5.0 U	5.0 U	5.8 U
Acrylonitrile	5	---	---	---	---	---	---	---	---	---	---	---
Benzene	1	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 UJ
Bromoform	50	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl Bromide)	5	1 U	1 U	1 U	2 U	1.0 UJ	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	60	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Chlorobromomethane	5	---	---	---	---	1.0 U	1.0 U	---	---	1.0 U	1.0 U	1.0 U
Chloroethane	5	1 U	1 U	1 U	2 U	1.0 U	1.0 U	1.1	1 U	0.24 J	0.35 J	1.0 U
Chloroform (Trichloromethane)	7	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl Chloride)	5	1 U	1 U	1 U	2 U	1.0 UJ	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	0.5 U	0.5 U	0.51 J	2 U	0.64 J	2.4	1 U	0.28 J	1.0 U	1.0 U	0.52 J
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Dibromomethane	5	---	---	---	---	---	---	---	---	---	---	---
Ethane	NC	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Ethene	NC	---	---	---	---	---	---	---	---	---	---	---
Iodomethane	5	---	---	---	---	---	---	---	---	---	---	---
Methane	NC	---	---	---	---	---	---	---	---	---	---	---
Methylene chloride	5	2 U	2 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
o-Xylene	5	---	---	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 UJ
Styrene	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	0.9	1.56	**6.4**	4.1	**5.1**	2.6	1 U	1 U	1.0 U	1.0 U	1.0 U
Toluene	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Total Btex	NC	0.5 U	1 U	---	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Trans-1,4-Dichlorobutene	NC	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene	5	0.4 J	1.19	2.3	2.4	2.1	1.5	1 U	1 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	5	---	---	1 U	2 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Vinyl Acetate	NC	---	---	---	---	---	---	---	---	---	---	---
Vinyl chloride	2	1 U	1 U	1 U	2 U	1.0 U	1.0 U	**2.1**	0.89 J	0.65 J	0.66 J	**2.1**
Xylene (m,p)	5	---	---	2 U	4 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	2.0 UJ
Xylene (total)	5	0.5 U	1 U	---	---	---	---	---	---	---	---	---
Other Compounds												
1,4-Dioxane	NC	2 J	3 J	2.4	2 U	3.9	1.1	0.92 J	2 U	0.31	0.3	3.4

Notes:
All units in micrograms per liter (µg/L)
[1] New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, Revised June 1998.
BOLD - Exceedes New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values.
* - Elevation - ft amsl (ft bgs) [ft amsl - feet above mean sea level, ft bgs - feet below ground surface]
[2] Passive diffusion bags deployed 12/2/2005 and retrieved on 12/22/2005.
- Only wells with a discrete fracture or sampling interval have start and end depths.
- Well AMSF-MW-12S was found to be obstructed prior to the April/May 2010 sampling event. The obstruction was cleared prior to the September 2010 sampling event.
- Well ITT-DBW-8 was inadvertently missed during the April/May 2010 Sampling Event.
- Well ITT-SBW-9 was inadvertently missed during sampling in April 2010 and consequently sampled in May 2010 when the mistake was identified.
NC - No criteria exists
U - Not Detected at the Detection Limit shown, J - Estimated value, UJ - Approximate Non-detect, B - Blank Contamination, BJ - Estimated Value Detected in Blank, NJ - Tentative in Identification and Estimated in Value
--- Not Analyzed
2019 sampling event highlighted yellow

ATTACHMENT 1
DATA USABILITY SUMMARY REPORT

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

ITT (Auto FH-019 Former RFM)
ALS Environmental SDG#R1907110
September 3, 2019
Sampling date: 7/29/2019

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for C&S Engineers, Inc., project located at ITT (Auto FH-019 Former RFM), ALS Environmental #R1907110 submitted to Vali-Data of WNY, LLC on August 14, 2019. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA methods Volatile Organics (8260C) and Semi-Volatile Organics (8270D SIM ID).

The temperature of the samples were outside QC limits, high, ice was used during transportation and the samples arrived within 2.5 hours of latest sampling, so no further action is required.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Method Blank, Compound Quantitation, MS/MSD and Initial Calibration.

Samples, ITT-SBW-2-072919 and DUP-01-072919 were diluted due to high target analyte concentration.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.
Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met except Carbon Disulfide was detected above the MDL, below the reporting limit and is qualified as estimated in RQ1908420-04. This target analyte should be qualified as undetected at the reporting limit in the associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in the associated samples in which it was detected above the reporting limit.
Acetone was detected above the reporting limit in RQ1908273-04 and RQ1908420-04. This target analyte should be qualified as undetected at the reporting limit in the associated samples in which it was detected below the reporting limit. This target analyte should be qualified as undetected in the associated samples in which it was detected above the reporting and below the blank concentration. This target analyte should be qualified as estimated high in the associated samples in which it was detected above the blank concentration.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met except the %Rec of 1,1,2-Trichloroethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Bromochloromethane, Bromodichloromethane, Isopropylbenzene, m&p-Xylene and o-Xylene were outside QC limits, low in ITT-SBW-23-0729MS/MSD. These target analytes should be qualified as estimated in ITT-SBW-23-0729 and ITT-SBW-23-0729MS/MSD.

COMPOUND QUANTITATION
All criteria were met except Acetone was detected above the MDL, below the reporting limit and is qualified as estimated in EB-072919 and TB072919. This target analyte should be qualified as undetected at the reporting limit in the associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in the associated samples in which it was detected above the reporting limit.

INITIAL CALIBRATION
All criteria were met except the RRF of 1,4-Dioxane was outside ASP outer QC limits. This target analyte should be qualified as estimated in the associated samples, blanks and spikes.
Alternate forms of regression were performed on target analytes in which the %RSD was >20%, with acceptable results.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.
Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times for the sample were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All the criteria were met.

LABORATORY CONTROL SAMPLES
All the criteria were met.

MS/MSD
All the criteria were met.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were performed on the target analytes in which the %RSD was >20%, with acceptable results.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

ATTACHMENT 1
LABORATORY REPORT

August 07, 2019 Service Request No:R1907110

Mr. Scott Tucker
O'Brien & Gere Engineers, Incorporated
P.O. Box 4873
Syracuse, NY 13221

Laboratory Results for: Auto FH-019 Former RFM

Dear Mr.Tucker,

Enclosed are the results of the sample(s) submitted to our laboratory July 29, 2019
For your reference, these analyses have been assigned our service request number **R1907110.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

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Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM
Sample Matrix: Water

Service Request: R1907110
Date Received: 07/29/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Eight water samples were received for analysis at ALS Environmental on 07/29/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 08/01/2019: The Method Blank contained a low level of one or more analytes at concentrations above the Method Reporting Limit (MRL), but less than ten times the concentration in the associated samples. Contamination is deemed insignificant relative to the reported samples and the data is reported with no further corrective action required.

Approved by _____ Date 08/07/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: ITT-SBW-10-072919			Lab ID: R1907110-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	78		0.21	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.9		0.20	1.0	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	1.2		0.25	1.0	ug/L	8260C
Acetone	6.3	B	2.1	5.0	ug/L	8260C
Tetrachloroethene (PCE)	2.6		0.21	1.0	ug/L	8260C
Trichloroethene (TCE)	1.5		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	2.4		0.23	1.0	ug/L	8260C
1,4-Dioxane	1.1		0.027	0.040	ug/L	8270D SIM

CLIENT ID: ITT-SBW-23-072919			Lab ID: R1907110-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1-Dichloroethane (1,1-DCA)	2.6		0.20	1.0	ug/L	8260C
Acetone	5.8	B	2.1	5.0	ug/L	8260C
Vinyl Chloride	2.1		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	0.52	J	0.23	1.0	ug/L	8260C
1,4-Dioxane	3.4		0.027	0.040	ug/L	8270D SIM

CLIENT ID: EB-072919			Lab ID: R1907110-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Acetone	4.0	BJ	2.1	5.0	ug/L	8260C

CLIENT ID: ITT-SBW-2-072919			Lab ID: R1907110-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	990	E	0.21	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.9		0.20	1.0	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	34		0.25	1.0	ug/L	8260C
Acetone	2.1	BJ	2.1	5.0	ug/L	8260C
Tetrachloroethene (PCE)	0.23	J	0.21	1.0	ug/L	8260C
Trichloroethene (TCE)	1.5		0.20	1.0	ug/L	8260C
Vinyl Chloride	1.9		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	0.65	J	0.23	1.0	ug/L	8260C
1,1,1-Trichloroethane (TCA)	980	D	2.1	10	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	8.7	DJ	2.0	10	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	33	D	2.5	10	ug/L	8260C
Vinyl Chloride	2.2	DJ	2.0	10	ug/L	8260C
1,4-Dioxane	8.9		0.027	0.040	ug/L	8270D SIM

CLIENT ID: DUP-01-072919			Lab ID: R1907110-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	1000	E	0.21	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	8.1		0.20	1.0	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	35		0.25	1.0	ug/L	8260C
Acetone	2.2	BJ	2.1	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: DUP-01-072919			Lab ID: R1907110-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Tetrachloroethene (PCE)	0.30	J	0.21	1.0	ug/L	8260C
Trichloroethene (TCE)	1.5		0.20	1.0	ug/L	8260C
Vinyl Chloride	1.8		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	0.65	J	0.23	1.0	ug/L	8260C
1,1,1-Trichloroethane (TCA)	910	D	2.1	10	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.9	DJ	2.0	10	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	31	D	2.5	10	ug/L	8260C
Vinyl Chloride	2.0	DJ	2.0	10	ug/L	8260C
1,4-Dioxane	9.3		0.027	0.040	ug/L	8270D SIM

CLIENT ID: ITT-IBW-20-072919			Lab ID: R1907110-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	90		0.21	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	23		0.20	1.0	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	4.1		0.25	1.0	ug/L	8260C
Acetone	2.2	BJ	2.1	5.0	ug/L	8260C
Carbon Disulfide	0.75	J	0.25	1.0	ug/L	8260C
Tetrachloroethene (PCE)	0.54	J	0.21	1.0	ug/L	8260C
Trichloroethene (TCE)	1.2		0.20	1.0	ug/L	8260C
Vinyl Chloride	0.61	J	0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	0.57	J	0.23	1.0	ug/L	8260C
1,4-Dioxane	5.1		0.027	0.040	ug/L	8270D SIM

CLIENT ID: ITT-SBW-9-072919			Lab ID: R1907110-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1-Dichloroethane (1,1-DCA)	3.9		0.20	1.0	ug/L	8260C
Acetone	4.1	BJ	2.1	5.0	ug/L	8260C
Vinyl Chloride	2.8		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	0.81	J	0.23	1.0	ug/L	8260C
1,4-Dioxane	4.3		0.027	0.040	ug/L	8270D SIM

CLIENT ID: TB-072919			Lab ID: R1907110-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Acetone	4.6	BJ	2.1	5.0	ug/L	8260C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1907110-001	ITT-SBW-10-072919	7/29/2019	1420
R1907110-002	ITT-SBW-23-072919	7/29/2019	1230
R1907110-003	EB-072919	7/29/2019	1640
R1907110-004	ITT-SBW-2-072919	7/29/2019	1208
R1907110-005	DUP-01-072919	7/29/2019	
R1907110-006	ITT-IBW-20-072919	7/29/2019	1400
R1907110-007	ITT-SBW-9-072919	7/29/2019	1600
R1907110-008	TB-072919	7/29/2019	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 57919

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: Auto FH-019 former RFM	Project Number: 73105.001/002.016
Project Manager: Scott Tucker	Report CC:
Company/Address: OBG, Part of Ramboll 333 West Washington St Syracuse, NY 13202	
Phone #: 315-463-7554	Email: Scott.tucker@ramboll.com
Sampler's Signature:	Sampler's Printed Name: Amanda Young / Sara Hahne

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 | 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ▪ 8260 ▪ 624 ▪ CLP	GC/MS SVOAs ▪ 8270 ▪ 625	GC VOAs ▪ 8021 ▪ 601/602	PESTICIDES ▪ 8081 ▪ 608	PCBs ▪ 8082 ▪ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	1,4-dioxane								REMARKS/ ALTERNATE DESCRIPTION
ITT-SBW-10-072919		7/29/19	1420	WG	S	X							X								
ITT-SBW-23-072919		7/29/19	1230	WG	S	X							X								
ITT-SBW-23-072919-MS		7/29/19	1230	WG	S	X							X								
ITT-SBW-23-072919-MSD		7/29/19	1230	WG	S	X							X								
EB-072919		7/29/19	1640	~~WQ~~ WG	S	X							X								
ITT-SBW-2-072919		7/29/19	1208	~~WQ~~ WG	S	X							X								
DUP-01-072919		7/29/19		WG	S	X							X								
ITT-IBW-20-072919		7/29/19	1400	WG	S	X							X								
ITT-SBW-9-072919		7/29/19	1600	WG	S	X							X								
TB-072919				WQ	3	X															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☒

STATE WHERE SAMPLES WERE COLLECTED: NY

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
X Standard (10 business days-No Surcharge)
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
X III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO # TBD
BILL TO: Accounts Payable
PO Box 4873
Syracuse, NY 13202

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Sara Hahne	Printed Name: Daniel Hirt	Printed Name	Printed Name	Printed Name	
Firm: OBG POR	Firm: ALS	Firm	Firm	Firm	
Date/Time: 7/29/19 5:50	Date/Time: 7/29/19 1750	Date/Time	Date/Time	Date/Time	

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O'Brien & Gere Engineers, Incorporated
Auto FH-019 Former RFM

Distribution: White - Lab Copy; Yellow - Return to Originator

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 57919

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: toFH - 019 former RFM | Project Number: 73105.001/002.016

Manager: Scott Tucker | Report CC:

Company/Address: OBG, Part of Ramboll
333 West Washington St
Syracuse, NY 13202

Phone #: 315-463-7554 | Email: Scott.tucker@ramboll.com

Sampler's Signature: | Sampler's Printed Name: Amanda Young / Sara Hahne

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 | 0

Preservative Key: 0. NONE; 1. HCL; 2. HNO_3; 3. H_2SO_4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. $NaHSO_4$; 8. Other

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	1,4-dioxane	REMARKS/ ALTERNATE DESCRIPTION
TT-SBW-10-072919		7/29/19	1420	WG	S	X							X	
T-SBW-23-072919		7/29/19	1230	WG	S	X							X	
T-SBW-23-072919-MS		7/29/19	1230	WG	S	X							X	
T-SBW-23-072919-MSD		7/29/19	1230	WG	S	X							X	
3-072919		7/29/19	1640	~~WG~~ WQ	S	X							X	
T-SBW-2-072919		7/29/19	1208	~~WQ~~ WG	S	X							X	
WP-01-072919		7/29/19		WG	S	X							X	
T-IBW-20-072919		7/29/19	1400	WG	S	X							X	
T-SBW-9-072919		7/29/19	1600	WG	S	X							X	
-072919				WQ	3	X								

SPECIAL INSTRUCTIONS/COMMENTS
ls

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
X Standard (10 business days-No Surcharge)
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
X III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO # TBD
BILL TO: Accounts Payable
PO Box 4873
Syracuse, NY 13202

APP X
STATE WHERE SAMPLES WERE COLLECTED NY

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Name Sara Hahne	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm OBG POR	Firm ALS	Firm	Firm	Firm	Firm
Date/Time 7/29/19 5:50	Date/Time 7/29/19 1750	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

R1907110 5
O'Brien & Gere Engineers, Incorporated
Auto FH-019 Former RFM

Project/Client OBG Folder Number

Cooler received on 7/29/19 by: DW

COURIER: ALS UPS FEDEX VELOCITY ~~CLIENT~~

1	Were **Custody seals** on outside of cooler?	Y (N)	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as:	Bulk Encore 5035set (NA)

8. Temperature Readings Date: 7/29/19 Time: 1800 ID: IR#7 (IR#10) From: ~~Temp Blank~~ Sample Bottle

Observed Temp (°C)	13.1	4.6	6.7				
Correction Factor (°C)	+0.3	+0.3	+0.3				
Corrected Temp (°C)	13.4	4.9	7.0				
Temp from:Type of bottle	Cont.tube	Cont.tube	Cont.tube				
Within 0-6°C?	Y (N)	(Y) N	Y (N)	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) (Same Day Rule)

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by DW on 7/29/19 at 1800
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 7/30/19 Time: 1144 by: (DO)

9.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
10.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
11.	Were correct containers used for the tests indicated?	(YES)	NO
12.	Were 5035 vials acceptable (no extra labels, not leaking)?	YES	NO (N/A)
13.	Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized		Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**	H17090					

Bottle lot numbers: 8-333-002, 061719-1BMC

Explain all Discrepancies/ Other Comments:

* 1 vial for IDW-072919
3 vials for the trip blank
1 vial for EB-072919
2 vials for ITT-SBW-23-072919

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: (DO)
PC Secondary Review: 8/1/19

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Internal Chain of Custody Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1907110-001.01					
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-001.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-001.03					
	8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1202	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-001.04					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-001.05					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-002.01					
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-002.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-002.03					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-002.04					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-002.05					

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-002.06					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1145	R-002 / GLAFORCE	
R1907110-002.07					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1145	R-002 / GLAFORCE	
R1907110-002.08					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1145	R-002 / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-002.09					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1145	R-002 / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-002.10					
	8260C				
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1144	R-001 / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-002.11					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1144	R-001 / GLAFORCE	
R1907110-002.12					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1144	R-001 / GLAFORCE	
R1907110-002.13					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1144	R-001 / GLAFORCE	
R1907110-002.14					

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1144	R-001 / GLAFORCE	
R1907110-002.15					
		7/30/2019	1144	SMO / GLAFORCE	
		7/30/2019	1144	R-001 / GLAFORCE	
R1907110-003.01					
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-003.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-003.03					
	8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-003.04					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-003.05					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-004.01					
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-004.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-004.03					

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C,8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-004.04					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/5/2019	1118	In Lab / DLIPANI	
		8/5/2019	1828	R-001-S10 / DLIPANI	
R1907110-004.05					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-005.01					
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-005.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-005.03					
	8260C,8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-005.04					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/5/2019	1118	In Lab / DLIPANI	
		8/5/2019	1827	R-001-S10 / DLIPANI	
R1907110-005.05					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-006.01					

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-006.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-006.03					
	8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1839	R-001-S10 / DLIPANI	
R1907110-006.04					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-006.05					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-007.01					
	8270D SIM				
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/2/2019	0850	In Lab / AMOSES	
R1907110-007.02					
		7/30/2019	1145	R-002 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-007.03					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-007.04					
	8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C				
		8/5/2019	1118	In Lab / DLIPANI	
		8/5/2019	1827	R-001-S10 / DLIPANI	
R1907110-007.05					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-008.01					
	8260C				
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
		8/1/2019	1203	In Lab / DLIPANI	
		8/1/2019	1838	R-001-S10 / DLIPANI	
R1907110-008.02					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	
R1907110-008.03					
		7/30/2019	1144	R-001 / GLAFORCE	
		7/30/2019	1147	SMO / GLAFORCE	

Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Sample Name: ITT-SBW-10-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-001 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Sample Name: ITT-SBW-23-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-002 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Sample Name: EB-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-003 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Sample Name: ITT-SBW-2-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-004 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Sample Name: ITT-SBW-2-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-004.R01 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: DUP-01-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-005 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Sample Name: DUP-01-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-005.R01 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: ITT-IBW-20-072919 **Date Collected:** 07/29/19
Lab Code: R1907110-006 **Date Received:** 07/29/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016		

Sample Name:	ITT-SBW-9-072919	**Date Collected:**	07/29/19
Lab Code:	R1907110-007	**Date Received:**	07/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI
8270D SIM	AMOSES	AMOSES

Sample Name:	TB-072919	**Date Collected:**	07/29/19
Lab Code:	R1907110-008	**Date Received:**	07/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

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Volatile Organic Compounds by GC/MS

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Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:20
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-10-072919	**Units:**	ug/L
Lab Code:	R1907110-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**78**	1.0	0.21	1	08/01/19 16:14	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,1-Dichloroethane (1,1-DCA)	**2.9**	1.0	0.20	1	08/01/19 16:14	
1,1-Dichloroethene (1,1-DCE)	**1.2**	1.0	0.25	1	08/01/19 16:14	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 16:14	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 16:14	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 16:14	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,4-Dioxane	ND U	40	13	1	08/01/19 16:14	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 16:14	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 16:14	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 16:14	
Acetone	**6.3 B**	5.0	2.1	1	08/01/19 16:14	
Benzene	ND U	1.0	0.20	1	08/01/19 16:14	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 16:14	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 16:14	
Bromoform	ND U	1.0	0.25	1	08/01/19 16:14	
Bromomethane	ND U	1.0	0.70	1	08/01/19 16:14	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 16:14	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 16:14	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
Chloroethane	ND U	1.0	0.23	1	08/01/19 16:14	
Chloroform	ND U	1.0	0.24	1	08/01/19 16:14	
Chloromethane	ND U	1.0	0.28	1	08/01/19 16:14	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 16:14	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 16:14	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 16:14	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 16:14	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 16:14	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 16:14	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 16:14	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 16:14	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 16:14	
Styrene	ND U	1.0	0.20	1	08/01/19 16:14	
Tetrachloroethene (PCE)	**2.6**	1.0	0.21	1	08/01/19 16:14	
Toluene	ND U	1.0	0.20	1	08/01/19 16:14	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:20
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-10-072919	**Units:**	ug/L
Lab Code:	R1907110-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.5**	1.0	0.20	1	08/01/19 16:14	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 16:14	
Vinyl Chloride	ND U	1.0	0.20	1	08/01/19 16:14	
cis-1,2-Dichloroethene	**2.4**	1.0	0.23	1	08/01/19 16:14	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 16:14	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 16:14	
o-Xylene	ND U	1.0	0.20	1	08/01/19 16:14	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 16:14	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 16:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 16:14	
Dibromofluoromethane	102	89 - 119	08/01/19 16:14	
Toluene-d8	102	87 - 121	08/01/19 16:14	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:30
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/01/19 16:36	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,1-Dichloroethane (1,1-DCA)	**2.6**	1.0	0.20	1	08/01/19 16:36	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/01/19 16:36	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 16:36	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 16:36	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 16:36	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,4-Dioxane	ND U	40	13	1	08/01/19 16:36	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 16:36	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 16:36	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 16:36	
Acetone	**5.8 B**	5.0	2.1	1	08/01/19 16:36	
Benzene	ND U	1.0	0.20	1	08/01/19 16:36	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 16:36	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 16:36	
Bromoform	ND U	1.0	0.25	1	08/01/19 16:36	
Bromomethane	ND U	1.0	0.70	1	08/01/19 16:36	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 16:36	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 16:36	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
Chloroethane	ND U	1.0	0.23	1	08/01/19 16:36	
Chloroform	ND U	1.0	0.24	1	08/01/19 16:36	
Chloromethane	ND U	1.0	0.28	1	08/01/19 16:36	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 16:36	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 16:36	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 16:36	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 16:36	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 16:36	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 16:36	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 16:36	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 16:36	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 16:36	
Styrene	ND U	1.0	0.20	1	08/01/19 16:36	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/01/19 16:36	
Toluene	ND U	1.0	0.20	1	08/01/19 16:36	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:30
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	1.0	0.20	1	08/01/19 16:36	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 16:36	
Vinyl Chloride	**2.1**	1.0	0.20	1	08/01/19 16:36	
cis-1,2-Dichloroethene	**0.52 J**	1.0	0.23	1	08/01/19 16:36	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 16:36	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 16:36	
o-Xylene	ND U	1.0	0.20	1	08/01/19 16:36	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 16:36	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 16:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 16:36	
Dibromofluoromethane	99	89 - 119	08/01/19 16:36	
Toluene-d8	102	87 - 121	08/01/19 16:36	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:40
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	EB-072919	**Units:**	ug/L
Lab Code:	R1907110-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/01/19 15:31	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,1-Dichloroethane (1,1-DCA)	ND U	1.0	0.20	1	08/01/19 15:31	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/01/19 15:31	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 15:31	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 15:31	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 15:31	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,4-Dioxane	ND U	40	13	1	08/01/19 15:31	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 15:31	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 15:31	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 15:31	
Acetone	**4.0 BJ**	5.0	2.1	1	08/01/19 15:31	
Benzene	ND U	1.0	0.20	1	08/01/19 15:31	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 15:31	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 15:31	
Bromoform	ND U	1.0	0.25	1	08/01/19 15:31	
Bromomethane	ND U	1.0	0.70	1	08/01/19 15:31	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 15:31	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 15:31	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
Chloroethane	ND U	1.0	0.23	1	08/01/19 15:31	
Chloroform	ND U	1.0	0.24	1	08/01/19 15:31	
Chloromethane	ND U	1.0	0.28	1	08/01/19 15:31	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 15:31	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 15:31	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 15:31	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 15:31	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 15:31	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 15:31	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 15:31	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 15:31	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 15:31	
Styrene	ND U	1.0	0.20	1	08/01/19 15:31	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/01/19 15:31	
Toluene	ND U	1.0	0.20	1	08/01/19 15:31	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:40
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	EB-072919	**Units:**	ug/L
Lab Code:	R1907110-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	1.0	0.20	1	08/01/19 15:31	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 15:31	
Vinyl Chloride	ND U	1.0	0.20	1	08/01/19 15:31	
cis-1,2-Dichloroethene	ND U	1.0	0.23	1	08/01/19 15:31	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 15:31	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 15:31	
o-Xylene	ND U	1.0	0.20	1	08/01/19 15:31	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 15:31	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 15:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	08/01/19 15:31	
Dibromofluoromethane	97	89 - 119	08/01/19 15:31	
Toluene-d8	99	87 - 121	08/01/19 15:31	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**980 D**	10	2.1	10	08/05/19 19:06	
1,1,2,2-Tetrachloroethane	ND U	10	2.0	10	08/05/19 19:06	
1,1,2-Trichloroethane	ND U	10	2.0	10	08/05/19 19:06	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	10	2.0	10	08/05/19 19:06	
1,1-Dichloroethane (1,1-DCA)	**8.7 DJ**	10	2.0	10	08/05/19 19:06	
1,1-Dichloroethene (1,1-DCE)	**33 D**	10	2.5	10	08/05/19 19:06	
1,2,3-Trichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,2,4-Trichlorobenzene	ND U	10	2.5	10	08/05/19 19:06	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	20	4.5	10	08/05/19 19:06	
1,2-Dibromoethane	ND U	10	2.0	10	08/05/19 19:06	
1,2-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,2-Dichloroethane	ND U	10	2.0	10	08/05/19 19:06	
1,2-Dichloropropane	ND U	10	2.0	10	08/05/19 19:06	
1,3-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,4-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,4-Dioxane	ND U	400	130	10	08/05/19 19:06	
2-Butanone (MEK)	ND U	50	7.8	10	08/05/19 19:06	
2-Hexanone	ND U	50	2.0	10	08/05/19 19:06	
4-Methyl-2-pentanone	ND U	50	2.0	10	08/05/19 19:06	
Acetone	ND U	50	21	10	08/05/19 19:06	
Benzene	ND U	10	2.0	10	08/05/19 19:06	
Bromochloromethane	ND U	10	2.4	10	08/05/19 19:06	
Bromodichloromethane	ND U	10	2.2	10	08/05/19 19:06	
Bromoform	ND U	10	2.5	10	08/05/19 19:06	
Bromomethane	ND U	10	7.0	10	08/05/19 19:06	
Carbon Disulfide	ND U	10	2.5	10	08/05/19 19:06	
Carbon Tetrachloride	ND U	10	3.4	10	08/05/19 19:06	
Chlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
Chloroethane	ND U	10	2.3	10	08/05/19 19:06	
Chloroform	ND U	10	2.4	10	08/05/19 19:06	
Chloromethane	ND U	10	2.8	10	08/05/19 19:06	
Cyclohexane	ND U	10	2.6	10	08/05/19 19:06	
Dibromochloromethane	ND U	10	2.0	10	08/05/19 19:06	
Dichlorodifluoromethane (CFC 12)	ND U	10	2.1	10	08/05/19 19:06	
Dichloromethane	ND U	10	3.6	10	08/05/19 19:06	
Ethylbenzene	ND U	10	2.0	10	08/05/19 19:06	
Isopropylbenzene (Cumene)	ND U	10	2.0	10	08/05/19 19:06	
Methyl Acetate	ND U	20	3.3	10	08/05/19 19:06	
Methyl tert-Butyl Ether	ND U	10	2.0	10	08/05/19 19:06	
Methylcyclohexane	ND U	10	2.0	10	08/05/19 19:06	
Styrene	ND U	10	2.0	10	08/05/19 19:06	
Tetrachloroethene (PCE)	ND U	10	2.1	10	08/05/19 19:06	
Toluene	ND U	10	2.0	10	08/05/19 19:06	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND	U	10	2.0	10	08/05/19 19:06	
Trichlorofluoromethane (CFC 11)	ND	U	10	2.4	10	08/05/19 19:06	
Vinyl Chloride	**2.2**	**DJ**	10	2.0	10	08/05/19 19:06	
cis-1,2-Dichloroethene	ND	U	10	2.3	10	08/05/19 19:06	
cis-1,3-Dichloropropene	ND	U	10	2.0	10	08/05/19 19:06	
m,p-Xylenes	ND	U	20	2.0	10	08/05/19 19:06	
o-Xylene	ND	U	10	2.0	10	08/05/19 19:06	
trans-1,2-Dichloroethene	ND	U	10	2.0	10	08/05/19 19:06	
trans-1,3-Dichloropropene	ND	U	10	2.3	10	08/05/19 19:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	08/05/19 19:06	
Dibromofluoromethane	102	89 - 119	08/05/19 19:06	
Toluene-d8	102	87 - 121	08/05/19 19:06	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**990**	**E**	1.0	0.21	1	08/01/19 16:58	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,1,2-Trichloroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,1-Dichloroethane (1,1-DCA)	**7.9**		1.0	0.20	1	08/01/19 16:58	
1,1-Dichloroethene (1,1-DCE)	**34**		1.0	0.25	1	08/01/19 16:58	
1,2,3-Trichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2,4-Trichlorobenzene	ND	U	1.0	0.25	1	08/01/19 16:58	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.0	0.45	1	08/01/19 16:58	
1,2-Dibromoethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2-Dichloroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2-Dichloropropane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,3-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,4-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,4-Dioxane	ND	U	40	13	1	08/01/19 16:58	
2-Butanone (MEK)	ND	U	5.0	0.78	1	08/01/19 16:58	
2-Hexanone	ND	U	5.0	0.20	1	08/01/19 16:58	
4-Methyl-2-pentanone	ND	U	5.0	0.20	1	08/01/19 16:58	
Acetone	**2.1**	**BJ**	5.0	2.1	1	08/01/19 16:58	
Benzene	ND	U	1.0	0.20	1	08/01/19 16:58	
Bromochloromethane	ND	U	1.0	0.24	1	08/01/19 16:58	
Bromodichloromethane	ND	U	1.0	0.22	1	08/01/19 16:58	
Bromoform	ND	U	1.0	0.25	1	08/01/19 16:58	
Bromomethane	ND	U	1.0	0.70	1	08/01/19 16:58	
Carbon Disulfide	ND	U	1.0	0.25	1	08/01/19 16:58	
Carbon Tetrachloride	ND	U	1.0	0.34	1	08/01/19 16:58	
Chlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
Chloroethane	ND	U	1.0	0.23	1	08/01/19 16:58	
Chloroform	ND	U	1.0	0.24	1	08/01/19 16:58	
Chloromethane	ND	U	1.0	0.28	1	08/01/19 16:58	
Cyclohexane	ND	U	1.0	0.26	1	08/01/19 16:58	
Dibromochloromethane	ND	U	1.0	0.20	1	08/01/19 16:58	
Dichlorodifluoromethane (CFC 12)	ND	U	1.0	0.21	1	08/01/19 16:58	
Dichloromethane	ND	U	1.0	0.36	1	08/01/19 16:58	
Ethylbenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
Isopropylbenzene (Cumene)	ND	U	1.0	0.20	1	08/01/19 16:58	
Methyl Acetate	ND	U	2.0	0.33	1	08/01/19 16:58	
Methyl tert-Butyl Ether	ND	U	1.0	0.20	1	08/01/19 16:58	
Methylcyclohexane	ND	U	1.0	0.20	1	08/01/19 16:58	
Styrene	ND	U	1.0	0.20	1	08/01/19 16:58	
Tetrachloroethene (PCE)	**0.23**	**J**	1.0	0.21	1	08/01/19 16:58	
Toluene	ND	U	1.0	0.20	1	08/01/19 16:58	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.5**	1.0	0.20	1	08/01/19 16:58	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 16:58	
Vinyl Chloride	**1.9**	1.0	0.20	1	08/01/19 16:58	
cis-1,2-Dichloroethene	**0.65 J**	1.0	0.23	1	08/01/19 16:58	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 16:58	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 16:58	
o-Xylene	ND U	1.0	0.20	1	08/01/19 16:58	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 16:58	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 16:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	08/01/19 16:58	
Dibromofluoromethane	100	89 - 119	08/01/19 16:58	
Toluene-d8	100	87 - 121	08/01/19 16:58	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**1000**	**E**	1.0	0.21	1	08/01/19 18:04	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,1,2-Trichloroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,1-Dichloroethane (1,1-DCA)	**8.1**		1.0	0.20	1	08/01/19 18:04	
1,1-Dichloroethene (1,1-DCE)	**35**		1.0	0.25	1	08/01/19 18:04	
1,2,3-Trichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2,4-Trichlorobenzene	ND	U	1.0	0.25	1	08/01/19 18:04	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.0	0.45	1	08/01/19 18:04	
1,2-Dibromoethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2-Dichloroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2-Dichloropropane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,3-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,4-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,4-Dioxane	ND	U	40	13	1	08/01/19 18:04	
2-Butanone (MEK)	ND	U	5.0	0.78	1	08/01/19 18:04	
2-Hexanone	ND	U	5.0	0.20	1	08/01/19 18:04	
4-Methyl-2-pentanone	ND	U	5.0	0.20	1	08/01/19 18:04	
Acetone	**2.2**	**BJ**	5.0	2.1	1	08/01/19 18:04	
Benzene	ND	U	1.0	0.20	1	08/01/19 18:04	
Bromochloromethane	ND	U	1.0	0.24	1	08/01/19 18:04	
Bromodichloromethane	ND	U	1.0	0.22	1	08/01/19 18:04	
Bromoform	ND	U	1.0	0.25	1	08/01/19 18:04	
Bromomethane	ND	U	1.0	0.70	1	08/01/19 18:04	
Carbon Disulfide	ND	U	1.0	0.25	1	08/01/19 18:04	
Carbon Tetrachloride	ND	U	1.0	0.34	1	08/01/19 18:04	
Chlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
Chloroethane	ND	U	1.0	0.23	1	08/01/19 18:04	
Chloroform	ND	U	1.0	0.24	1	08/01/19 18:04	
Chloromethane	ND	U	1.0	0.28	1	08/01/19 18:04	
Cyclohexane	ND	U	1.0	0.26	1	08/01/19 18:04	
Dibromochloromethane	ND	U	1.0	0.20	1	08/01/19 18:04	
Dichlorodifluoromethane (CFC 12)	ND	U	1.0	0.21	1	08/01/19 18:04	
Dichloromethane	ND	U	1.0	0.36	1	08/01/19 18:04	
Ethylbenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
Isopropylbenzene (Cumene)	ND	U	1.0	0.20	1	08/01/19 18:04	
Methyl Acetate	ND	U	2.0	0.33	1	08/01/19 18:04	
Methyl tert-Butyl Ether	ND	U	1.0	0.20	1	08/01/19 18:04	
Methylcyclohexane	ND	U	1.0	0.20	1	08/01/19 18:04	
Styrene	ND	U	1.0	0.20	1	08/01/19 18:04	
Tetrachloroethene (PCE)	**0.30**	**J**	1.0	0.21	1	08/01/19 18:04	
Toluene	ND	U	1.0	0.20	1	08/01/19 18:04	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.5**	1.0	0.20	1	08/01/19 18:04	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 18:04	
Vinyl Chloride	**1.8**	1.0	0.20	1	08/01/19 18:04	
cis-1,2-Dichloroethene	**0.65 J**	1.0	0.23	1	08/01/19 18:04	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 18:04	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 18:04	
o-Xylene	ND U	1.0	0.20	1	08/01/19 18:04	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 18:04	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 18:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	08/01/19 18:04	
Dibromofluoromethane	104	89 - 119	08/01/19 18:04	
Toluene-d8	102	87 - 121	08/01/19 18:04	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**910 D**	10	2.1	10	08/05/19 19:28	
1,1,2,2-Tetrachloroethane	ND U	10	2.0	10	08/05/19 19:28	
1,1,2-Trichloroethane	ND U	10	2.0	10	08/05/19 19:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	10	2.0	10	08/05/19 19:28	
1,1-Dichloroethane (1,1-DCA)	**7.9 DJ**	10	2.0	10	08/05/19 19:28	
1,1-Dichloroethene (1,1-DCE)	**31 D**	10	2.5	10	08/05/19 19:28	
1,2,3-Trichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,2,4-Trichlorobenzene	ND U	10	2.5	10	08/05/19 19:28	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	20	4.5	10	08/05/19 19:28	
1,2-Dibromoethane	ND U	10	2.0	10	08/05/19 19:28	
1,2-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,2-Dichloroethane	ND U	10	2.0	10	08/05/19 19:28	
1,2-Dichloropropane	ND U	10	2.0	10	08/05/19 19:28	
1,3-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,4-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,4-Dioxane	ND U	400	130	10	08/05/19 19:28	
2-Butanone (MEK)	ND U	50	7.8	10	08/05/19 19:28	
2-Hexanone	ND U	50	2.0	10	08/05/19 19:28	
4-Methyl-2-pentanone	ND U	50	2.0	10	08/05/19 19:28	
Acetone	ND U	50	21	10	08/05/19 19:28	
Benzene	ND U	10	2.0	10	08/05/19 19:28	
Bromochloromethane	ND U	10	2.4	10	08/05/19 19:28	
Bromodichloromethane	ND U	10	2.2	10	08/05/19 19:28	
Bromoform	ND U	10	2.5	10	08/05/19 19:28	
Bromomethane	ND U	10	7.0	10	08/05/19 19:28	
Carbon Disulfide	ND U	10	2.5	10	08/05/19 19:28	
Carbon Tetrachloride	ND U	10	3.4	10	08/05/19 19:28	
Chlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
Chloroethane	ND U	10	2.3	10	08/05/19 19:28	
Chloroform	ND U	10	2.4	10	08/05/19 19:28	
Chloromethane	ND U	10	2.8	10	08/05/19 19:28	
Cyclohexane	ND U	10	2.6	10	08/05/19 19:28	
Dibromochloromethane	ND U	10	2.0	10	08/05/19 19:28	
Dichlorodifluoromethane (CFC 12)	ND U	10	2.1	10	08/05/19 19:28	
Dichloromethane	ND U	10	3.6	10	08/05/19 19:28	
Ethylbenzene	ND U	10	2.0	10	08/05/19 19:28	
Isopropylbenzene (Cumene)	ND U	10	2.0	10	08/05/19 19:28	
Methyl Acetate	ND U	20	3.3	10	08/05/19 19:28	
Methyl tert-Butyl Ether	ND U	10	2.0	10	08/05/19 19:28	
Methylcyclohexane	ND U	10	2.0	10	08/05/19 19:28	
Styrene	ND U	10	2.0	10	08/05/19 19:28	
Tetrachloroethene (PCE)	ND U	10	2.1	10	08/05/19 19:28	
Toluene	ND U	10	2.0	10	08/05/19 19:28	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	10	2.0	10	08/05/19 19:28	
Trichlorofluoromethane (CFC 11)	ND U	10	2.4	10	08/05/19 19:28	
Vinyl Chloride	**2.0 DJ**	10	2.0	10	08/05/19 19:28	
cis-1,2-Dichloroethene	ND U	10	2.3	10	08/05/19 19:28	
cis-1,3-Dichloropropene	ND U	10	2.0	10	08/05/19 19:28	
m,p-Xylenes	ND U	20	2.0	10	08/05/19 19:28	
o-Xylene	ND U	10	2.0	10	08/05/19 19:28	
trans-1,2-Dichloroethene	ND U	10	2.0	10	08/05/19 19:28	
trans-1,3-Dichloropropene	ND U	10	2.3	10	08/05/19 19:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/05/19 19:28	
Dibromofluoromethane	100	89 - 119	08/05/19 19:28	
Toluene-d8	103	87 - 121	08/05/19 19:28	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-IBW-20-072919	**Units:**	ug/L
Lab Code:	R1907110-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**90**	1.0	0.21	1	08/01/19 18:49	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,1-Dichloroethane (1,1-DCA)	**23**	1.0	0.20	1	08/01/19 18:49	
1,1-Dichloroethene (1,1-DCE)	**4.1**	1.0	0.25	1	08/01/19 18:49	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 18:49	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 18:49	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 18:49	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,4-Dioxane	ND U	40	13	1	08/01/19 18:49	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 18:49	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 18:49	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 18:49	
Acetone	**2.2 BJ**	5.0	2.1	1	08/01/19 18:49	
Benzene	ND U	1.0	0.20	1	08/01/19 18:49	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 18:49	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 18:49	
Bromoform	ND U	1.0	0.25	1	08/01/19 18:49	
Bromomethane	ND U	1.0	0.70	1	08/01/19 18:49	
Carbon Disulfide	**0.75 J**	1.0	0.25	1	08/01/19 18:49	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 18:49	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
Chloroethane	ND U	1.0	0.23	1	08/01/19 18:49	
Chloroform	ND U	1.0	0.24	1	08/01/19 18:49	
Chloromethane	ND U	1.0	0.28	1	08/01/19 18:49	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 18:49	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 18:49	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 18:49	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 18:49	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 18:49	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 18:49	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 18:49	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 18:49	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 18:49	
Styrene	ND U	1.0	0.20	1	08/01/19 18:49	
Tetrachloroethene (PCE)	**0.54 J**	1.0	0.21	1	08/01/19 18:49	
Toluene	ND U	1.0	0.20	1	08/01/19 18:49	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-IBW-20-072919	**Units:**	ug/L
Lab Code:	R1907110-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.2**	1.0	0.20	1	08/01/19 18:49	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 18:49	
Vinyl Chloride	**0.61 J**	1.0	0.20	1	08/01/19 18:49	
cis-1,2-Dichloroethene	**0.57 J**	1.0	0.23	1	08/01/19 18:49	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 18:49	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 18:49	
o-Xylene	ND U	1.0	0.20	1	08/01/19 18:49	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 18:49	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 18:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 18:49	
Dibromofluoromethane	100	89 - 119	08/01/19 18:49	
Toluene-d8	100	87 - 121	08/01/19 18:49	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-9-072919	**Units:**	ug/L
Lab Code:	R1907110-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/05/19 15:27	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,1-Dichloroethane (1,1-DCA)	**3.9**	1.0	0.20	1	08/05/19 15:27	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/05/19 15:27	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/05/19 15:27	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/05/19 15:27	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/05/19 15:27	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,4-Dioxane	ND U	40	13	1	08/05/19 15:27	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/05/19 15:27	
2-Hexanone	ND U	5.0	0.20	1	08/05/19 15:27	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/05/19 15:27	
Acetone	**4.1 BJ**	5.0	2.1	1	08/05/19 15:27	
Benzene	ND U	1.0	0.20	1	08/05/19 15:27	
Bromochloromethane	ND U	1.0	0.24	1	08/05/19 15:27	
Bromodichloromethane	ND U	1.0	0.22	1	08/05/19 15:27	
Bromoform	ND U	1.0	0.25	1	08/05/19 15:27	
Bromomethane	ND U	1.0	0.70	1	08/05/19 15:27	
Carbon Disulfide	ND U	1.0	0.25	1	08/05/19 15:27	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/05/19 15:27	
Chlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
Chloroethane	ND U	1.0	0.23	1	08/05/19 15:27	
Chloroform	ND U	1.0	0.24	1	08/05/19 15:27	
Chloromethane	ND U	1.0	0.28	1	08/05/19 15:27	
Cyclohexane	ND U	1.0	0.26	1	08/05/19 15:27	
Dibromochloromethane	ND U	1.0	0.20	1	08/05/19 15:27	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/05/19 15:27	
Dichloromethane	ND U	1.0	0.36	1	08/05/19 15:27	
Ethylbenzene	ND U	1.0	0.20	1	08/05/19 15:27	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/05/19 15:27	
Methyl Acetate	ND U	2.0	0.33	1	08/05/19 15:27	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/05/19 15:27	
Methylcyclohexane	ND U	1.0	0.20	1	08/05/19 15:27	
Styrene	ND U	1.0	0.20	1	08/05/19 15:27	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/05/19 15:27	
Toluene	ND U	1.0	0.20	1	08/05/19 15:27	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-9-072919	**Units:**	ug/L
Lab Code:	R1907110-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND	U	1.0	0.20	1	08/05/19 15:27	
Trichlorofluoromethane (CFC 11)	ND	U	1.0	0.24	1	08/05/19 15:27	
Vinyl Chloride	**2.8**		1.0	0.20	1	08/05/19 15:27	
cis-1,2-Dichloroethene	**0.81**	**J**	1.0	0.23	1	08/05/19 15:27	
cis-1,3-Dichloropropene	ND	U	1.0	0.20	1	08/05/19 15:27	
m,p-Xylenes	ND	U	2.0	0.20	1	08/05/19 15:27	
o-Xylene	ND	U	1.0	0.20	1	08/05/19 15:27	
trans-1,2-Dichloroethene	ND	U	1.0	0.20	1	08/05/19 15:27	
trans-1,3-Dichloropropene	ND	U	1.0	0.23	1	08/05/19 15:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	08/05/19 15:27	
Dibromofluoromethane	100	89 - 119	08/05/19 15:27	
Toluene-d8	102	87 - 121	08/05/19 15:27	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	TB-072919	**Units:**	ug/L
Lab Code:	R1907110-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	08/01/19 15:09	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1,2-Trichloroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.0	0.25	1	08/01/19 15:09	
1,2,3-Trichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2,4-Trichlorobenzene	ND	U	1.0	0.25	1	08/01/19 15:09	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.0	0.45	1	08/01/19 15:09	
1,2-Dibromoethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2-Dichloroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2-Dichloropropane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,3-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,4-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,4-Dioxane	ND	U	40	13	1	08/01/19 15:09	
2-Butanone (MEK)	ND	U	5.0	0.78	1	08/01/19 15:09	
2-Hexanone	ND	U	5.0	0.20	1	08/01/19 15:09	
4-Methyl-2-pentanone	ND	U	5.0	0.20	1	08/01/19 15:09	
Acetone	**4.6**	**BJ**	5.0	2.1	1	08/01/19 15:09	
Benzene	ND	U	1.0	0.20	1	08/01/19 15:09	
Bromochloromethane	ND	U	1.0	0.24	1	08/01/19 15:09	
Bromodichloromethane	ND	U	1.0	0.22	1	08/01/19 15:09	
Bromoform	ND	U	1.0	0.25	1	08/01/19 15:09	
Bromomethane	ND	U	1.0	0.70	1	08/01/19 15:09	
Carbon Disulfide	ND	U	1.0	0.25	1	08/01/19 15:09	
Carbon Tetrachloride	ND	U	1.0	0.34	1	08/01/19 15:09	
Chlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
Chloroethane	ND	U	1.0	0.23	1	08/01/19 15:09	
Chloroform	ND	U	1.0	0.24	1	08/01/19 15:09	
Chloromethane	ND	U	1.0	0.28	1	08/01/19 15:09	
Cyclohexane	ND	U	1.0	0.26	1	08/01/19 15:09	
Dibromochloromethane	ND	U	1.0	0.20	1	08/01/19 15:09	
Dichlorodifluoromethane (CFC 12)	ND	U	1.0	0.21	1	08/01/19 15:09	
Dichloromethane	ND	U	1.0	0.36	1	08/01/19 15:09	
Ethylbenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
Isopropylbenzene (Cumene)	ND	U	1.0	0.20	1	08/01/19 15:09	
Methyl Acetate	ND	U	2.0	0.33	1	08/01/19 15:09	
Methyl tert-Butyl Ether	ND	U	1.0	0.20	1	08/01/19 15:09	
Methylcyclohexane	ND	U	1.0	0.20	1	08/01/19 15:09	
Styrene	ND	U	1.0	0.20	1	08/01/19 15:09	
Tetrachloroethene (PCE)	ND	U	1.0	0.21	1	08/01/19 15:09	
Toluene	ND	U	1.0	0.20	1	08/01/19 15:09	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	TB-072919	**Units:**	ug/L
Lab Code:	R1907110-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND	U	1.0	0.20	1	08/01/19 15:09	
Trichlorofluoromethane (CFC 11)	ND	U	1.0	0.24	1	08/01/19 15:09	
Vinyl Chloride	ND	U	1.0	0.20	1	08/01/19 15:09	
cis-1,2-Dichloroethene	ND	U	1.0	0.23	1	08/01/19 15:09	
cis-1,3-Dichloropropene	ND	U	1.0	0.20	1	08/01/19 15:09	
m,p-Xylenes	ND	U	2.0	0.20	1	08/01/19 15:09	
o-Xylene	ND	U	1.0	0.20	1	08/01/19 15:09	
trans-1,2-Dichloroethene	ND	U	1.0	0.20	1	08/01/19 15:09	
trans-1,3-Dichloropropene	ND	U	1.0	0.23	1	08/01/19 15:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 15:09	
Dibromofluoromethane	98	89 - 119	08/01/19 15:09	
Toluene-d8	101	87 - 121	08/01/19 15:09	

Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:20
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-10-072919	**Units:**	ug/L
Lab Code:	R1907110-001	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**1.1**	0.040	0.027	1	08/02/19 13:41	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	85	64 - 124	08/02/19 13:41	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:30
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**3.4**	0.040	0.027	1	08/02/19 14:00	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	88	64 - 124	08/02/19 14:00	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:40
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	EB-072919	**Units:**	ug/L
Lab Code:	R1907110-003	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	ND U	0.040	0.027	1	08/02/19 14:57	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	85	64 - 124	08/02/19 14:57	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**8.9**	0.040	0.027	1	08/02/19 15:17	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	82	64 - 124	08/02/19 15:17	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**9.3**	0.040	0.027	1	08/02/19 15:37	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	84	64 - 124	08/02/19 15:37	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-IBW-20-072919	**Units:**	ug/L
Lab Code:	R1907110-006	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**5.1**	0.040	0.027	1	08/02/19 15:57	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	86	64 - 124	08/02/19 15:57	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-9-072919	**Units:**	ug/L
Lab Code:	R1907110-007	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**4.3**	0.040	0.027	1	08/02/19 16:17	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	84	64 - 124	08/02/19 16:17	

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Dibromofluoromethane 89-119	Toluene-d8 87-121
ITT-SBW-10-072919	R1907110-001	100	102	102
ITT-SBW-23-072919	R1907110-002	100	99	102
EB-072919	R1907110-003	98	97	99
ITT-SBW-2-072919	R1907110-004	99	100	100
ITT-SBW-2-072919 DL	R1907110-004	103	102	102
DUP-01-072919	R1907110-005	102	104	102
DUP-01-072919 DL	R1907110-005	100	100	103
ITT-IBW-20-072919	R1907110-006	100	100	100
ITT-SBW-9-072919	R1907110-007	102	100	102
TB-072919	R1907110-008	100	98	101
Method Blank	RQ1908273-04	102	100	103
Method Blank	RQ1908420-04	97	98	99
Lab Control Sample	RQ1908273-03	101	100	102
Lab Control Sample	RQ1908420-03	101	99	100
ITT-SBW-23-072919 MS	RQ1908273-05	101	101	102
ITT-SBW-23-072919 DMS	RQ1908273-06	102	103	104

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19
		Date Analyzed:	08/1/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1908273-05			Duplicate Matrix Spike RQ1908273-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	ND U	38.5	50.0	77	41.0	50.0	82	74-127	6	30
1,1,2,2-Tetrachloroethane	ND U	37.4	50.0	75	38.7	50.0	77	72-122	3	30
1,1,2-Trichloroethane	ND U	35.1	50.0	70 *	37.1	50.0	74 *	82-121	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	37.0	50.0	74	39.1	50.0	78	50-147	6	30
1,1-Dichloroethane (1,1-DCA)	2.6	41.2	50.0	77	44.8	50.0	84	74-132	8	30
1,1-Dichloroethene (1,1-DCE)	ND U	37.7	50.0	75	39.3	50.0	79	71-118	4	30
1,2,3-Trichlorobenzene	ND U	32.5	50.0	65	35.3	50.0	71	59-129	8	30
1,2,4-Trichlorobenzene	ND U	32.8	50.0	66 *	35.1	50.0	70	69-122	7	30
1,2-Dibromo-3-chloropropane (DBCP)	ND U	31.8	50.0	64	36.0	50.0	72	37-150	12	30
1,2-Dibromoethane	ND U	35.2	50.0	70	38.5	50.0	77	67-127	9	30
1,2-Dichlorobenzene	ND U	34.7	50.0	69 *	35.9	50.0	72 *	77-120	4	30
1,2-Dichloroethane	ND U	37.9	50.0	76	39.0	50.0	78	68-130	3	30
1,2-Dichloropropane	ND U	37.3	50.0	75 *	39.7	50.0	79	79-124	6	30
1,3-Dichlorobenzene	ND U	34.1	50.0	68 *	36.2	50.0	72 *	83-121	6	30
1,4-Dichlorobenzene	ND U	33.1	50.0	66 *	35.7	50.0	71 *	82-120	8	30
1,4-Dioxane	ND U	754	1000	75	780	1000	78	44-154	3	30
2-Butanone (MEK)	ND U	40.2	50.0	80	41.8	50.0	84	61-137	4	30
2-Hexanone	ND U	38.1	50.0	76	40.1	50.0	80	56-132	5	30
4-Methyl-2-pentanone	ND U	39.1	50.0	78	40.2	50.0	80	60-141	3	30
Acetone	5.8 B	40.9	50.0	70	43.3	50.0	75	35-183	6	30
Benzene	ND U	37.4	50.0	75 *	39.1	50.0	78	76-129	4	30
Bromochloromethane	ND U	36.3	50.0	73 *	38.3	50.0	77 *	80-122	5	30
Bromodichloromethane	ND U	34.0	50.0	68 *	36.2	50.0	72 *	78-133	6	30
Bromoform	ND U	30.9	50.0	62	34.0	50.0	68	58-133	10	30
Bromomethane	ND U	14.6	50.0	29	15.5	50.0	31	10-184	6	30
Carbon Disulfide	ND U	32.5	50.0	65	33.7	50.0	67	59-140	4	30
Carbon Tetrachloride	ND U	34.5	50.0	69	37.0	50.0	74	65-135	7	30
Chlorobenzene	ND U	36.0	50.0	72 *	37.9	50.0	76	76-125	5	30
Chloroethane	ND U	37.0	50.0	74	38.1	50.0	76	48-146	3	30
Chloroform	ND U	38.3	50.0	77	40.2	50.0	80	75-130	5	30
Chloromethane	ND U	35.2	50.0	70	35.9	50.0	72	55-160	2	30
Cyclohexane	ND U	40.7	50.0	81	43.4	50.0	87	52-145	6	30
Dibromochloromethane	ND U	32.8	50.0	66 *	36.3	50.0	73	72-128	10	30
Dichlorodifluoromethane (CFC 12)	ND U	41.7	50.0	83	42.2	50.0	84	49-154	1	30
Dichloromethane	ND U	36.0	50.0	72 *	37.6	50.0	75	73-122	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19
		Date Analyzed:	08/1/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ1908273-05			RQ1908273-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	ND U	36.8	50.0	74	39.3	50.0	79	72-134	6	30
Isopropylbenzene (Cumene)	ND U	35.4	50.0	71 *	37.8	50.0	76 *	77-128	6	30
Methyl Acetate	ND U	42.6	50.0	85	44.4	50.0	89	26-121	4	30
Methyl tert-Butyl Ether	ND U	40.2	50.0	80	42.0	50.0	84	75-119	4	30
Methylcyclohexane	ND U	38.8	50.0	78	40.8	50.0	82	45-146	5	30
Styrene	ND U	35.6	50.0	71 *	38.8	50.0	78	74-136	8	30
Tetrachloroethene (PCE)	ND U	34.6	50.0	69 *	38.0	50.0	76	72-125	10	30
Toluene	ND U	37.3	50.0	75 *	38.9	50.0	78 *	79-119	4	30
Trichloroethene (TCE)	ND U	35.0	50.0	70 *	37.3	50.0	75	74-122	6	30
Trichlorofluoromethane (CFC 11)	ND U	38.6	50.0	77	40.7	50.0	81	71-136	5	30
Vinyl Chloride	2.1	40.2	50.0	76	43.4	50.0	82	74-159	8	30
cis-1,2-Dichloroethene	0.52 J	38.8	50.0	76 *	40.5	50.0	80	77-127	4	30
cis-1,3-Dichloropropene	ND U	36.3	50.0	73	38.5	50.0	77	52-134	6	30
m,p-Xylenes	ND U	71.7	100	72 *	76.5	100	76 *	80-126	7	30
o-Xylene	ND U	36.1	50.0	72 *	37.9	50.0	76 *	79-123	5	30
trans-1,2-Dichloroethene	ND U	38.2	50.0	76	40.3	50.0	81	73-118	5	30
trans-1,3-Dichloropropene	ND U	36.2	50.0	72	37.7	50.0	75	71-133	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/01/19 12:45
Sample Matrix:	Water	**Date Extracted:**	

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1908273-04
Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\080119\E3331.D\

Analysis Method: 8260C
Prep Method: EPA 5030C
Analysis Lot: 645566

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1908273-03	I:\ACQUDATA\msvoa10\data\080119\E3328.D\	08/01/19 11:29
TB-072919	R1907110-008	I:\ACQUDATA\msvoa10\data\080119\E3337.D\	08/01/19 15:09
EB-072919	R1907110-003	I:\ACQUDATA\msvoa10\data\080119\E3338.D\	08/01/19 15:31
ITT-SBW-10-072919	R1907110-001	I:\ACQUDATA\msvoa10\data\080119\E3340.D\	08/01/19 16:14
ITT-SBW-23-072919	R1907110-002	I:\ACQUDATA\msvoa10\data\080119\E3341.D\	08/01/19 16:36
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\msvoa10\data\080119\E3342.D\	08/01/19 16:58
DUP-01-072919	R1907110-005	I:\ACQUDATA\msvoa10\data\080119\E3345.D\	08/01/19 18:04
ITT-IBW-20-072919	R1907110-006	I:\ACQUDATA\msvoa10\data\080119\E3347.D\	08/01/19 18:49
ITT-SBW-23-072919MS	RQ1908273-05	I:\ACQUDATA\msvoa10\data\080119\E3355.D\	08/01/19 21:44
ITT-SBW-23-072919DMS	RQ1908273-06	I:\ACQUDATA\msvoa10\data\080119\E3356.D\	08/01/19 22:06

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/05/19 12:05
Sample Matrix:	Water	**Date Extracted:**	

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-10
Lab Code:	RQ1908420-04	**File ID:**	I:\ACQUDATA\msvoa10\data\080519\E3427.D\
Analysis Method:	8260C	**Analysis Lot:**	645842
Prep Method:	EPA 5030C		

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1908420-03	I:\ACQUDATA\msvoa10\data\080519\E3424.D\	08/05/19 10:49
ITT-SBW-9-072919	R1907110-007	I:\ACQUDATA\msvoa10\data\080519\E3436.D\	08/05/19 15:27
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\msvoa10\data\080519\E3446.D\	08/05/19 19:06
DUP-01-072919	R1907110-005	I:\ACQUDATA\msvoa10\data\080519\E3447.D\	08/05/19 19:28

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1908273-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/01/19 12:45	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 12:45	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 12:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 12:45	
1,1-Dichloroethane (1,1-DCA)	ND U	1.0	0.20	1	08/01/19 12:45	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/01/19 12:45	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 12:45	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 12:45	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 12:45	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 12:45	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 12:45	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 12:45	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 12:45	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 12:45	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 12:45	
1,4-Dioxane	ND U	40	13	1	08/01/19 12:45	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 12:45	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 12:45	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 12:45	
Acetone	**6.8**	5.0	2.1	1	08/01/19 12:45	
Benzene	ND U	1.0	0.20	1	08/01/19 12:45	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 12:45	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 12:45	
Bromoform	ND U	1.0	0.25	1	08/01/19 12:45	
Bromomethane	ND U	1.0	0.70	1	08/01/19 12:45	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 12:45	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 12:45	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 12:45	
Chloroethane	ND U	1.0	0.23	1	08/01/19 12:45	
Chloroform	ND U	1.0	0.24	1	08/01/19 12:45	
Chloromethane	ND U	1.0	0.28	1	08/01/19 12:45	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 12:45	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 12:45	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 12:45	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 12:45	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 12:45	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 12:45	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 12:45	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 12:45	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 12:45	
Styrene	ND U	1.0	0.20	1	08/01/19 12:45	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/01/19 12:45	
Toluene	ND U	1.0	0.20	1	08/01/19 12:45	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1908273-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND	U	1.0	0.20	1	08/01/19 12:45	
Trichlorofluoromethane (CFC 11)	ND	U	1.0	0.24	1	08/01/19 12:45	
Vinyl Chloride	ND	U	1.0	0.20	1	08/01/19 12:45	
cis-1,2-Dichloroethene	ND	U	1.0	0.23	1	08/01/19 12:45	
cis-1,3-Dichloropropene	ND	U	1.0	0.20	1	08/01/19 12:45	
m,p-Xylenes	ND	U	2.0	0.20	1	08/01/19 12:45	
o-Xylene	ND	U	1.0	0.20	1	08/01/19 12:45	
trans-1,2-Dichloroethene	ND	U	1.0	0.20	1	08/01/19 12:45	
trans-1,3-Dichloropropene	ND	U	1.0	0.23	1	08/01/19 12:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	08/01/19 12:45	
Dibromofluoromethane	100	89 - 119	08/01/19 12:45	
Toluene-d8	103	87 - 121	08/01/19 12:45	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1908420-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/05/19 12:05	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/05/19 12:05	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/05/19 12:05	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/05/19 12:05	
1,1-Dichloroethane (1,1-DCA)	ND U	1.0	0.20	1	08/05/19 12:05	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/05/19 12:05	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/05/19 12:05	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/05/19 12:05	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/05/19 12:05	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/05/19 12:05	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 12:05	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/05/19 12:05	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/05/19 12:05	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 12:05	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 12:05	
1,4-Dioxane	ND U	40	13	1	08/05/19 12:05	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/05/19 12:05	
2-Hexanone	ND U	5.0	0.20	1	08/05/19 12:05	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/05/19 12:05	
Acetone	**6.4**	5.0	2.1	1	08/05/19 12:05	
Benzene	ND U	1.0	0.20	1	08/05/19 12:05	
Bromochloromethane	ND U	1.0	0.24	1	08/05/19 12:05	
Bromodichloromethane	ND U	1.0	0.22	1	08/05/19 12:05	
Bromoform	ND U	1.0	0.25	1	08/05/19 12:05	
Bromomethane	ND U	1.0	0.70	1	08/05/19 12:05	
Carbon Disulfide	**0.29 J**	1.0	0.25	1	08/05/19 12:05	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/05/19 12:05	
Chlorobenzene	ND U	1.0	0.20	1	08/05/19 12:05	
Chloroethane	ND U	1.0	0.23	1	08/05/19 12:05	
Chloroform	ND U	1.0	0.24	1	08/05/19 12:05	
Chloromethane	ND U	1.0	0.28	1	08/05/19 12:05	
Cyclohexane	ND U	1.0	0.26	1	08/05/19 12:05	
Dibromochloromethane	ND U	1.0	0.20	1	08/05/19 12:05	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/05/19 12:05	
Dichloromethane	ND U	1.0	0.36	1	08/05/19 12:05	
Ethylbenzene	ND U	1.0	0.20	1	08/05/19 12:05	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/05/19 12:05	
Methyl Acetate	ND U	2.0	0.33	1	08/05/19 12:05	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/05/19 12:05	
Methylcyclohexane	ND U	1.0	0.20	1	08/05/19 12:05	
Styrene	ND U	1.0	0.20	1	08/05/19 12:05	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/05/19 12:05	
Toluene	ND U	1.0	0.20	1	08/05/19 12:05	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1908420-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	1.0	0.20	1	08/05/19 12:05	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/05/19 12:05	
Vinyl Chloride	ND U	1.0	0.20	1	08/05/19 12:05	
cis-1,2-Dichloroethene	ND U	1.0	0.23	1	08/05/19 12:05	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/05/19 12:05	
m,p-Xylenes	ND U	2.0	0.20	1	08/05/19 12:05	
o-Xylene	ND U	1.0	0.20	1	08/05/19 12:05	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/05/19 12:05	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/05/19 12:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	08/05/19 12:05	
Dibromofluoromethane	98	89 - 119	08/05/19 12:05	
Toluene-d8	99	87 - 121	08/05/19 12:05	

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/01/19 11:29
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1908273-03
Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\080119\E3328.D\

Analysis Method: 8260C
Prep Method: EPA 5030C
Analysis Lot: 645566

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1908273-04	I:\ACQUDATA\msvoa10\data\080119\E3331.D\	08/01/19 12:45
TB-072919	R1907110-008	I:\ACQUDATA\msvoa10\data\080119\E3337.D\	08/01/19 15:09
EB-072919	R1907110-003	I:\ACQUDATA\msvoa10\data\080119\E3338.D\	08/01/19 15:31
ITT-SBW-10-072919	R1907110-001	I:\ACQUDATA\msvoa10\data\080119\E3340.D\	08/01/19 16:14
ITT-SBW-23-072919	R1907110-002	I:\ACQUDATA\msvoa10\data\080119\E3341.D\	08/01/19 16:36
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\msvoa10\data\080119\E3342.D\	08/01/19 16:58
DUP-01-072919	R1907110-005	I:\ACQUDATA\msvoa10\data\080119\E3345.D\	08/01/19 18:04
ITT-IBW-20-072919	R1907110-006	I:\ACQUDATA\msvoa10\data\080119\E3347.D\	08/01/19 18:49
ITT-SBW-23-072919MS	RQ1908273-05	I:\ACQUDATA\msvoa10\data\080119\E3355.D\	08/01/19 21:44
ITT-SBW-23-072919DMS	RQ1908273-06	I:\ACQUDATA\msvoa10\data\080119\E3356.D\	08/01/19 22:06

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/05/19 10:49
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1908420-03
Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\080519\E3424.D\

Analysis Method: 8260C
Prep Method: EPA 5030C
Analysis Lot: 645842

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1908420-04	I:\ACQUDATA\msvoa10\data\080519\E3427.D\	08/05/19 12:05
ITT-SBW-9-072919	R1907110-007	I:\ACQUDATA\msvoa10\data\080519\E3436.D\	08/05/19 15:27
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\msvoa10\data\080519\E3446.D\	08/05/19 19:06
DUP-01-072919	R1907110-005	I:\ACQUDATA\msvoa10\data\080519\E3447.D\	08/05/19 19:28

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

Service Request: R1907110
Date Analyzed: 08/01/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1908273-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.6	20.0	93	75-125
1,1,2,2-Tetrachloroethane	8260C	18.2	20.0	91	78-126
1,1,2-Trichloroethane	8260C	18.0	20.0	90	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.7	20.0	94	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.1	20.0	96	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	18.6	20.0	93	71-118
1,2,3-Trichlorobenzene	8260C	17.0	20.0	85	67-136
1,2,4-Trichlorobenzene	8260C	17.1	20.0	86	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	15.7	20.0	78	55-136
1,2-Dibromoethane	8260C	18.1	20.0	91	82-127
1,2-Dichlorobenzene	8260C	16.8	20.0	84	80-119
1,2-Dichloroethane	8260C	19.1	20.0	95	71-127
1,2-Dichloropropane	8260C	18.3	20.0	91	80-119
1,3-Dichlorobenzene	8260C	16.9	20.0	84	83-121
1,4-Dichlorobenzene	8260C	16.9	20.0	84	79-119
1,4-Dioxane	8260C	371	400	93	44-154
2-Butanone (MEK)	8260C	19.1	20.0	95	61-137
2-Hexanone	8260C	17.8	20.0	89	63-124
4-Methyl-2-pentanone	8260C	19.6	20.0	98	66-124
Acetone	8260C	19.4	20.0	97	40-161
Benzene	8260C	18.0	20.0	90	79-119
Bromochloromethane	8260C	18.2	20.0	91	81-126
Bromodichloromethane	8260C	17.1	20.0	86	81-123
Bromoform	8260C	15.5	20.0	77	65-146
Bromomethane	8260C	18.1	20.0	90	42-166
Carbon Disulfide	8260C	16.7	20.0	83	66-128
Carbon Tetrachloride	8260C	16.8	20.0	84	70-127
Chlorobenzene	8260C	17.5	20.0	87	80-121
Chloroethane	8260C	15.9	20.0	79	62-131
Chloroform	8260C	18.8	20.0	94	79-120
Chloromethane	8260C	17.8	20.0	89	65-135
Cyclohexane	8260C	17.9	20.0	89	69-120
Dibromochloromethane	8260C	16.4	20.0	82	72-128

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

Service Request: R1907110
Date Analyzed: 08/01/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1908273-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	20.1	20.0	101	59-155
Dichloromethane	8260C	18.2	20.0	91	73-122
Ethylbenzene	8260C	17.4	20.0	87	76-120
Isopropylbenzene (Cumene)	8260C	16.8	20.0	84	77-128
Methyl Acetate	8260C	21.0	20.0	105	40-112
Methyl tert-Butyl Ether	8260C	20.1	20.0	101	75-118
Methylcyclohexane	8260C	17.2	20.0	86	51-129
Styrene	8260C	17.8	20.0	89	80-124
Tetrachloroethene (PCE)	8260C	17.0	20.0	85	72-125
Toluene	8260C	18.1	20.0	90	79-119
Trichloroethene (TCE)	8260C	18.3	20.0	91	74-122
Trichlorofluoromethane (CFC 11)	8260C	18.8	20.0	94	71-136
Vinyl Chloride	8260C	18.5	20.0	92	74-159
cis-1,2-Dichloroethene	8260C	18.8	20.0	94	80-121
cis-1,3-Dichloropropene	8260C	18.1	20.0	90	77-122
m,p-Xylenes	8260C	34.5	40.0	86	80-126
o-Xylene	8260C	17.5	20.0	88	79-123
trans-1,2-Dichloroethene	8260C	18.7	20.0	94	73-118
trans-1,3-Dichloropropene	8260C	18.2	20.0	91	71-133

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

Service Request: R1907110
Date Analyzed: 08/05/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1908420-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.6	20.0	98	75-125
1,1,2,2-Tetrachloroethane	8260C	16.5	20.0	83	78-126
1,1,2-Trichloroethane	8260C	17.7	20.0	89	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	19.9	20.0	99	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.6	20.0	98	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.0	20.0	95	71-118
1,2,3-Trichlorobenzene	8260C	17.1	20.0	85	67-136
1,2,4-Trichlorobenzene	8260C	17.2	20.0	86	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	15.3	20.0	76	55-136
1,2-Dibromoethane	8260C	17.7	20.0	88	82-127
1,2-Dichlorobenzene	8260C	17.2	20.0	86	80-119
1,2-Dichloroethane	8260C	19.3	20.0	96	71-127
1,2-Dichloropropane	8260C	18.5	20.0	92	80-119
1,3-Dichlorobenzene	8260C	16.8	20.0	84	83-121
1,4-Dichlorobenzene	8260C	16.5	20.0	82	79-119
1,4-Dioxane	8260C	362	400	90	44-154
2-Butanone (MEK)	8260C	19.5	20.0	97	61-137
2-Hexanone	8260C	17.4	20.0	87	63-124
4-Methyl-2-pentanone	8260C	18.3	20.0	92	66-124
Acetone	8260C	18.7	20.0	93	40-161
Benzene	8260C	19.2	20.0	96	79-119
Bromochloromethane	8260C	19.0	20.0	95	81-126
Bromodichloromethane	8260C	17.6	20.0	88	81-123
Bromoform	8260C	15.6	20.0	78	65-146
Bromomethane	8260C	18.4	20.0	92	42-166
Carbon Disulfide	8260C	16.8	20.0	84	66-128
Carbon Tetrachloride	8260C	17.7	20.0	88	70-127
Chlorobenzene	8260C	17.8	20.0	89	80-121
Chloroethane	8260C	16.4	20.0	82	62-131
Chloroform	8260C	19.3	20.0	97	79-120
Chloromethane	8260C	20.5	20.0	102	65-135
Cyclohexane	8260C	20.5	20.0	102	69-120
Dibromochloromethane	8260C	16.4	20.0	82	72-128

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

Service Request: R1907110
Date Analyzed: 08/05/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1908420-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	21.3	20.0	106	59-155
Dichloromethane	8260C	18.4	20.0	92	73-122
Ethylbenzene	8260C	17.8	20.0	89	76-120
Isopropylbenzene (Cumene)	8260C	17.7	20.0	88	77-128
Methyl Acetate	8260C	20.5	20.0	103	40-112
Methyl tert-Butyl Ether	8260C	20.4	20.0	102	75-118
Methylcyclohexane	8260C	19.2	20.0	96	51-129
Styrene	8260C	18.2	20.0	91	80-124
Tetrachloroethene (PCE)	8260C	18.0	20.0	90	72-125
Toluene	8260C	19.1	20.0	95	79-119
Trichloroethene (TCE)	8260C	18.8	20.0	94	74-122
Trichlorofluoromethane (CFC 11)	8260C	19.6	20.0	98	71-136
Vinyl Chloride	8260C	20.1	20.0	100	74-159
cis-1,2-Dichloroethene	8260C	19.0	20.0	95	80-121
cis-1,3-Dichloropropene	8260C	19.0	20.0	95	77-122
m,p-Xylenes	8260C	35.2	40.0	88	80-126
o-Xylene	8260C	18.1	20.0	90	79-123
trans-1,2-Dichloroethene	8260C	19.8	20.0	99	73-118
trans-1,3-Dichloropropene	8260C	18.6	20.0	93	71-133

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/01/19 10:23

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\080119\E3326.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 645566

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	22.27	29024	Pass
75	95	30	60	50.52	65853	Pass
95	95	100	100	100.00	130352	Pass
96	95	5	9	6.38	8313	Pass
173	174	0	2	0.75	798	Pass
174	95	50	120	81.11	105731	Pass
175	174	5	9	8.06	8526	Pass
176	174	95	101	99.29	104976	Pass
177	176	5	9	6.58	6905	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1908273-02	I:\ACQUDATA\msvoa10\data\080119\E3327.D\	08/01/19 10:50	
Lab Control Sample	RQ1908273-03	I:\ACQUDATA\msvoa10\data\080119\E3328.D\	08/01/19 11:29	
Method Blank	RQ1908273-04	I:\ACQUDATA\msvoa10\data\080119\E3331.D\	08/01/19 12:45	
TB-072919	R1907110-008	I:\ACQUDATA\msvoa10\data\080119\E3337.D\	08/01/19 15:09	
EB-072919	R1907110-003	I:\ACQUDATA\msvoa10\data\080119\E3338.D\	08/01/19 15:31	
ITT-SBW-10-072919	R1907110-001	I:\ACQUDATA\msvoa10\data\080119\E3340.D\	08/01/19 16:14	
ITT-SBW-23-072919	R1907110-002	I:\ACQUDATA\msvoa10\data\080119\E3341.D\	08/01/19 16:36	
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\msvoa10\data\080119\E3342.D\	08/01/19 16:58	
DUP-01-072919	R1907110-005	I:\ACQUDATA\msvoa10\data\080119\E3345.D\	08/01/19 18:04	
ITT-IBW-20-072919	R1907110-006	I:\ACQUDATA\msvoa10\data\080119\E3347.D\	08/01/19 18:49	
ITT-SBW-23-072919	RQ1908273-05	I:\ACQUDATA\msvoa10\data\080119\E3355.D\	08/01/19 21:44	
ITT-SBW-23-072919	RQ1908273-06	I:\ACQUDATA\msvoa10\data\080119\E3356.D\	08/01/19 22:06	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/05/19 09:41

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\080519\E3422.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 645842

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	23.47	29059	Pass
75	95	30	60	51.85	64208	Pass
95	95	100	100	100.00	123827	Pass
96	95	5	9	6.88	8523	Pass
173	174	0	2	0.72	731	Pass
174	95	50	120	81.84	101336	Pass
175	174	5	9	7.79	7893	Pass
176	174	95	101	96.65	97939	Pass
177	176	5	9	6.84	6699	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1908420-02	I:\ACQUDATA\msvoa10\data\080519\E3423.D\	08/05/19 10:08	
Lab Control Sample	RQ1908420-03	I:\ACQUDATA\msvoa10\data\080519\E3424.D\	08/05/19 10:49	
Method Blank	RQ1908420-04	I:\ACQUDATA\msvoa10\data\080519\E3427.D\	08/05/19 12:05	
ITT-SBW-9-072919	R1907110-007	I:\ACQUDATA\msvoa10\data\080519\E3436.D\	08/05/19 15:27	
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\msvoa10\data\080519\E3446.D\	08/05/19 19:06	
DUP-01-072919	R1907110-005	I:\ACQUDATA\msvoa10\data\080519\E3447.D\	08/05/19 19:28	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/01/19 10:50

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\080119\E3327.D\ **Lab Code:**RQ1908273-02
Instrument ID: R-MS-10 **Analysis Lot:**645566
Analysis Method: 8260C **Signal ID:**1

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	184,542	11.85	380,688	6.49	333,098	9.80
	Upper Limit ==>	369,084	12.35	761,376	6.99	666,196	10.30
	Lower Limit ==>	92,271	11.35	190,344	5.99	166,549	9.30
Associated Analyses							
Lab Control Sample	RQ1908273-03	186295	11.85	391020	6.49	342940	9.80
Method Blank	RQ1908273-04	172818	11.85	367340	6.49	319046	9.80
TB-072919	R1907110-008	178129	11.85	395678	6.49	339432	9.80
EB-072919	R1907110-003	179296	11.85	386410	6.49	333775	9.80
ITT-SBW-10-072919	R1907110-001	183840	11.85	397955	6.49	346375	9.80
ITT-SBW-23-072919	R1907110-002	175689	11.85	385590	6.49	333704	9.80
ITT-SBW-2-072919	R1907110-004	177084	11.85	382952	6.49	334481	9.80
DUP-01-072919	R1907110-005	173594	11.85	373123	6.49	329852	9.80
ITT-IBW-20-072919	R1907110-006	177031	11.85	396797	6.49	339536	9.80
ITT-SBW-23-072919MS	RQ1908273-05	184417	11.85	387013	6.49	336550	9.80
ITT-SBW-23-072919DMS	RQ1908273-06	181564	11.85	379859	6.49	328096	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/01/19 10:50

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\080119\E3327.D\ **Lab Code:**RQ1908273-02
Instrument ID: R-MS-10 **Analysis Lot:**645566
Analysis Method: 8260C **Signal ID:**1

		Pentafluorobenzene	
		Area	**RT**
	Result ==>	260,258	5.39
	Upper Limit ==>	520,516	5.89
	Lower Limit ==>	130,129	4.89
Associated Analyses			
Lab Control Sample	RQ1908273-03	264385	5.39
Method Blank	RQ1908273-04	250860	5.39
TB-072919	R1907110-008	273097	5.39
EB-072919	R1907110-003	261324	5.39
ITT-SBW-10-072919	R1907110-001	270684	5.39
ITT-SBW-23-072919	R1907110-002	260759	5.39
ITT-SBW-2-072919	R1907110-004	266604	5.39
DUP-01-072919	R1907110-005	258423	5.39
ITT-IBW-20-072919	R1907110-006	270574	5.39
ITT-SBW-23-072919MS	RQ1908273-05	261825	5.39
ITT-SBW-23-072919DMS	RQ1908273-06	256010	5.39

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/05/19 10:08

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\080519\E3423.D\ **Lab Code:**RQ1908420-02
Instrument ID: R-MS-10 **Analysis Lot:**645842
Analysis Method: 8260C **Signal ID:**1

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	201,824	11.85	390,306	6.49	350,805	9.80
	Upper Limit ==>	403,648	12.35	780,612	6.99	701,610	10.30
	Lower Limit ==>	100,912	11.35	195,153	5.99	175,403	9.30
Associated Analyses							
Lab Control Sample	RQ1908420-03	187718	11.85	374341	6.49	335089	9.80
Method Blank	RQ1908420-04	175544	11.85	374538	6.49	326432	9.80
ITT-SBW-9-072919	R1907110-007	176771	11.85	384795	6.49	339066	9.80
ITT-SBW-2-072919	R1907110-004	166566	11.85	364608	6.49	316927	9.80
DUP-01-072919	R1907110-005	172111	11.85	371816	6.49	327495	9.80

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/05/19 10:08

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\080519\E3423.D\ **Lab Code:**RQ1908420-02
Instrument ID: R-MS-10 **Analysis Lot:**645842
Analysis Method: 8260C **Signal ID:**1

		Pentafluorobenzene	
		Area	**RT**
	Result ==>	260,163	5.39
	Upper Limit ==>	520,326	5.89
	Lower Limit ==>	130,082	4.89
Associated Analyses			
Lab Control Sample	RQ1908420-03	254482	5.38
Method Blank	RQ1908420-04	254634	5.39
ITT-SBW-9-072919	R1907110-007	260012	5.39
ITT-SBW-2-072919	R1907110-004	245280	5.39
DUP-01-072919	R1907110-005	248756	5.39

Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Extraction Method: EPA 3535A

Sample Name	Lab Code	1,4-Dioxane-d8 64-124
ITT-SBW-10-072919	R1907110-001	85
ITT-SBW-23-072919	R1907110-002	88
EB-072919	R1907110-003	85
ITT-SBW-2-072919	R1907110-004	82
DUP-01-072919	R1907110-005	84
ITT-IBW-20-072919	R1907110-006	86
ITT-SBW-9-072919	R1907110-007	84
Method Blank	RQ1908224-01	82
Lab Control Sample	RQ1908224-02	86
Duplicate Lab Control Sample	RQ1908224-03	84
ITT-SBW-23-072919 MS	RQ1908224-04	86
ITT-SBW-23-072919 DMS	RQ1908224-05	84

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19
		Date Analyzed:	08/2/19
		Date Extracted:	08/2/19

Duplicate Matrix Spike Summary
1,4-Dioxane by GC/MS

Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA
Analysis Method:	8270D SIM		
Prep Method:	EPA 3535A		

		Matrix Spike RQ1908224-04			**Duplicate Matrix Spike** RQ1908224-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,4-Dioxane	3.4	12.2	10.1	87	12.0	10.1	84	33-146	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/02/19 12:44
Sample Matrix:	Water	**Date Extracted:**	08/02/19

Method Blank Summary
1,4-Dioxane by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-56
Lab Code:	RQ1908224-01	**File ID:**	I:\ACQUDATA\5975E\data\080219\AS982.D\
Analysis Method:	8270D SIM	**Analysis Lot:**	645815
Prep Method:	EPA 3535A	**Extraction Lot:**	341677

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1908224-02	I:\ACQUDATA\5975E\data\080219\AS983.D\	08/02/19 13:03
Duplicate Lab Control Sample	RQ1908224-03	I:\ACQUDATA\5975E\data\080219\AS984.D\	08/02/19 13:22
ITT-SBW-10-072919	R1907110-001	I:\ACQUDATA\5975E\data\080219\AS985.D\	08/02/19 13:41
ITT-SBW-23-072919	R1907110-002	I:\ACQUDATA\5975E\data\080219\AS986.D\	08/02/19 14:00
ITT-SBW-23-072919MS	RQ1908224-04	I:\ACQUDATA\5975E\data\080219\AS987.D\	08/02/19 14:19
ITT-SBW-23-072919DMS	RQ1908224-05	I:\ACQUDATA\5975E\data\080219\AS988.D\	08/02/19 14:37
EB-072919	R1907110-003	I:\ACQUDATA\5975E\data\080219\AS989.D\	08/02/19 14:57
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\5975E\data\080219\AS990.D\	08/02/19 15:17
DUP-01-072919	R1907110-005	I:\ACQUDATA\5975E\data\080219\AS991.D\	08/02/19 15:37
ITT-IBW-20-072919	R1907110-006	I:\ACQUDATA\5975E\data\080219\AS992.D\	08/02/19 15:57
ITT-SBW-9-072919	R1907110-007	I:\ACQUDATA\5975E\data\080219\AS993.D\	08/02/19 16:17

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1908224-01	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	ND U	0.040	0.027	1	08/02/19 12:44	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	82	64 - 124	08/02/19 12:44	

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QA/QC Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/02/19 13:03
Sample Matrix:	Water	**Date Extracted:**	08/02/19

Lab Control Sample Summary
1,4-Dioxane by GC/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	R-MS-56
Lab Code:	RQ1908224-02	**File ID:**	I:\ACQUDATA\5975E\data\080219\AS983.D\
Analysis Method:	8270D SIM	**Analysis Lot:**	645815
Prep Method:	EPA 3535A	**Extraction Lot:**	341677

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1908224-01	I:\ACQUDATA\5975E\data\080219\AS982.D\	08/02/19 12:44
Duplicate Lab Control Sample	RQ1908224-03	I:\ACQUDATA\5975E\data\080219\AS984.D\	08/02/19 13:22
ITT-SBW-10-072919	R1907110-001	I:\ACQUDATA\5975E\data\080219\AS985.D\	08/02/19 13:41
ITT-SBW-23-072919	R1907110-002	I:\ACQUDATA\5975E\data\080219\AS986.D\	08/02/19 14:00
ITT-SBW-23-072919MS	RQ1908224-04	I:\ACQUDATA\5975E\data\080219\AS987.D\	08/02/19 14:19
ITT-SBW-23-072919DMS	RQ1908224-05	I:\ACQUDATA\5975E\data\080219\AS988.D\	08/02/19 14:37
EB-072919	R1907110-003	I:\ACQUDATA\5975E\data\080219\AS989.D\	08/02/19 14:57
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\5975E\data\080219\AS990.D\	08/02/19 15:17
DUP-01-072919	R1907110-005	I:\ACQUDATA\5975E\data\080219\AS991.D\	08/02/19 15:37
ITT-IBW-20-072919	R1907110-006	I:\ACQUDATA\5975E\data\080219\AS992.D\	08/02/19 15:57
ITT-SBW-9-072919	R1907110-007	I:\ACQUDATA\5975E\data\080219\AS993.D\	08/02/19 16:17

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

Service Request: R1907110
Date Analyzed: 08/02/19

Duplicate Lab Control Sample Summary
1,4-Dioxane by GC/MS

Units:ug/L
Basis:NA

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ1908224-02			RQ1908224-03				
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,4-Dioxane	8270D SIM	8.78	10.1	87	8.78	10.1	87	58-124	<1	30

QC/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/02/19 11:44

Tune Summary
1,4-Dioxane by GC/MS

File ID: I:\ACQUDATA\5975E\data\080219\AS980.D\ **Analytical Method:** 8270D SIM
Instrument ID: R-MS-56 **Analysis Lot:** 645815

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	39.03	279936	Pass
68	69	0.00	2	1.51	4465	Pass
69	198	0.00	100	41.15	295106	Pass
70	69	0.00	2	0.57	1696	Pass
127	198	10	80	49.88	357748	Pass
197	198	0.00	2	0.60	4329	Pass
198	198	100	100	100.00	717163	Pass
199	198	5	9	6.90	49467	Pass
275	198	10	60	22.79	163413	Pass
365	198	1	100	2.59	18603	Pass
441	442	0.01	24	14.59	71189	Pass
442	442	100	100	100.00	487936	Pass
443	442	15	24	19.47	95005	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1908310-02	I:\ACQUDATA\5975E\data\080219\AS981.D\	08/02/19 12:19	
Method Blank	RQ1908224-01	I:\ACQUDATA\5975E\data\080219\AS982.D\	08/02/19 12:44	
Lab Control Sample	RQ1908224-02	I:\ACQUDATA\5975E\data\080219\AS983.D\	08/02/19 13:03	
Duplicate Lab Control Sample	RQ1908224-03	I:\ACQUDATA\5975E\data\080219\AS984.D\	08/02/19 13:22	
ITT-SBW-10-072919	R1907110-001	I:\ACQUDATA\5975E\data\080219\AS985.D\	08/02/19 13:41	
ITT-SBW-23-072919	R1907110-002	I:\ACQUDATA\5975E\data\080219\AS986.D\	08/02/19 14:00	
ITT-SBW-23-072919	RQ1908224-04	I:\ACQUDATA\5975E\data\080219\AS987.D\	08/02/19 14:19	
ITT-SBW-23-072919	RQ1908224-05	I:\ACQUDATA\5975E\data\080219\AS988.D\	08/02/19 14:37	
EB-072919	R1907110-003	I:\ACQUDATA\5975E\data\080219\AS989.D\	08/02/19 14:57	
ITT-SBW-2-072919	R1907110-004	I:\ACQUDATA\5975E\data\080219\AS990.D\	08/02/19 15:17	
DUP-01-072919	R1907110-005	I:\ACQUDATA\5975E\data\080219\AS991.D\	08/02/19 15:37	
ITT-IBW-20-072919	R1907110-006	I:\ACQUDATA\5975E\data\080219\AS992.D\	08/02/19 15:57	
ITT-SBW-9-072919	R1907110-007	I:\ACQUDATA\5975E\data\080219\AS993.D\	08/02/19 16:17	

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QA/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016 **Date Analyzed:**08/02/19 12:19

Internal Standard Area and RT SUMMARY
1,4-Dioxane by GC/MS

File ID: I:\ACQUDATA\5975E\data\080219\AS981.D\ **Lab Code:**RQ1908310-02
Instrument ID: R-MS-56 **Analysis Lot:**645815
Analysis Method: 8270D SIM **Signal ID:**1

		Tetrahydrofuran-d8	
		Area	**RT**
	Result ==>	29,423	2.91
	Upper Limit ==>	58,846	3.41
	Lower Limit ==>	14,712	2.41
Associated Analyses			
Method Blank	RQ1908224-01	31561	2.91
Lab Control Sample	RQ1908224-02	30406	2.89
Duplicate Lab Control Sample	RQ1908224-03	29756	2.87
ITT-SBW-10-072919	R1907110-001	27977	2.86
ITT-SBW-23-072919	R1907110-002	26881	2.86
ITT-SBW-23-072919MS	RQ1908224-04	28245	2.86
ITT-SBW-23-072919DMS	RQ1908224-05	29901	2.89
EB-072919	R1907110-003	28439	2.88
ITT-SBW-2-072919	R1907110-004	28713	2.87
DUP-01-072919	R1907110-005	28207	2.86
ITT-IBW-20-072919	R1907110-006	27644	2.86
ITT-SBW-9-072919	R1907110-007	29358	2.86

Raw Data

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Volatile Organic Compounds by GC/MS

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Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:20
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-10-072919	**Units:**	ug/L
Lab Code:	R1907110-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**78**	1.0	0.21	1	08/01/19 16:14	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,1-Dichloroethane (1,1-DCA)	**2.9**	1.0	0.20	1	08/01/19 16:14	
1,1-Dichloroethene (1,1-DCE)	**1.2**	1.0	0.25	1	08/01/19 16:14	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 16:14	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 16:14	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 16:14	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 16:14	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
1,4-Dioxane	ND U	40	13	1	08/01/19 16:14	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 16:14	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 16:14	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 16:14	
Acetone	**6.3 B**	5.0	2.1	1	08/01/19 16:14	
Benzene	ND U	1.0	0.20	1	08/01/19 16:14	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 16:14	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 16:14	
Bromoform	ND U	1.0	0.25	1	08/01/19 16:14	
Bromomethane	ND U	1.0	0.70	1	08/01/19 16:14	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 16:14	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 16:14	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 16:14	
Chloroethane	ND U	1.0	0.23	1	08/01/19 16:14	
Chloroform	ND U	1.0	0.24	1	08/01/19 16:14	
Chloromethane	ND U	1.0	0.28	1	08/01/19 16:14	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 16:14	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 16:14	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 16:14	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 16:14	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 16:14	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 16:14	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 16:14	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 16:14	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 16:14	
Styrene	ND U	1.0	0.20	1	08/01/19 16:14	
Tetrachloroethene (PCE)	**2.6**	1.0	0.21	1	08/01/19 16:14	
Toluene	ND U	1.0	0.20	1	08/01/19 16:14	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:20
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-10-072919	**Units:**	ug/L
Lab Code:	R1907110-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.5**	1.0	0.20	1	08/01/19 16:14	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 16:14	
Vinyl Chloride	ND U	1.0	0.20	1	08/01/19 16:14	
cis-1,2-Dichloroethene	**2.4**	1.0	0.23	1	08/01/19 16:14	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 16:14	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 16:14	
o-Xylene	ND U	1.0	0.20	1	08/01/19 16:14	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 16:14	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 16:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 16:14	
Dibromofluoromethane	102	89 - 119	08/01/19 16:14	
Toluene-d8	102	87 - 121	08/01/19 16:14	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:30
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/01/19 16:36	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,1-Dichloroethane (1,1-DCA)	**2.6**	1.0	0.20	1	08/01/19 16:36	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/01/19 16:36	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 16:36	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 16:36	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 16:36	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 16:36	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
1,4-Dioxane	ND U	40	13	1	08/01/19 16:36	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 16:36	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 16:36	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 16:36	
Acetone	**5.8 B**	5.0	2.1	1	08/01/19 16:36	
Benzene	ND U	1.0	0.20	1	08/01/19 16:36	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 16:36	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 16:36	
Bromoform	ND U	1.0	0.25	1	08/01/19 16:36	
Bromomethane	ND U	1.0	0.70	1	08/01/19 16:36	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 16:36	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 16:36	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 16:36	
Chloroethane	ND U	1.0	0.23	1	08/01/19 16:36	
Chloroform	ND U	1.0	0.24	1	08/01/19 16:36	
Chloromethane	ND U	1.0	0.28	1	08/01/19 16:36	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 16:36	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 16:36	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 16:36	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 16:36	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 16:36	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 16:36	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 16:36	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 16:36	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 16:36	
Styrene	ND U	1.0	0.20	1	08/01/19 16:36	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/01/19 16:36	
Toluene	ND U	1.0	0.20	1	08/01/19 16:36	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:30
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	1.0	0.20	1	08/01/19 16:36	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 16:36	
Vinyl Chloride	**2.1**	1.0	0.20	1	08/01/19 16:36	
cis-1,2-Dichloroethene	**0.52 J**	1.0	0.23	1	08/01/19 16:36	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 16:36	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 16:36	
o-Xylene	ND U	1.0	0.20	1	08/01/19 16:36	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 16:36	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 16:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 16:36	
Dibromofluoromethane	99	89 - 119	08/01/19 16:36	
Toluene-d8	102	87 - 121	08/01/19 16:36	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:40
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	EB-072919	**Units:**	ug/L
Lab Code:	R1907110-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/01/19 15:31	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,1-Dichloroethane (1,1-DCA)	ND U	1.0	0.20	1	08/01/19 15:31	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/01/19 15:31	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 15:31	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 15:31	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 15:31	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 15:31	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
1,4-Dioxane	ND U	40	13	1	08/01/19 15:31	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 15:31	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 15:31	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 15:31	
Acetone	**4.0 BJ**	5.0	2.1	1	08/01/19 15:31	
Benzene	ND U	1.0	0.20	1	08/01/19 15:31	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 15:31	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 15:31	
Bromoform	ND U	1.0	0.25	1	08/01/19 15:31	
Bromomethane	ND U	1.0	0.70	1	08/01/19 15:31	
Carbon Disulfide	ND U	1.0	0.25	1	08/01/19 15:31	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 15:31	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 15:31	
Chloroethane	ND U	1.0	0.23	1	08/01/19 15:31	
Chloroform	ND U	1.0	0.24	1	08/01/19 15:31	
Chloromethane	ND U	1.0	0.28	1	08/01/19 15:31	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 15:31	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 15:31	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 15:31	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 15:31	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 15:31	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 15:31	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 15:31	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 15:31	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 15:31	
Styrene	ND U	1.0	0.20	1	08/01/19 15:31	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/01/19 15:31	
Toluene	ND U	1.0	0.20	1	08/01/19 15:31	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:40
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	EB-072919	**Units:**	ug/L
Lab Code:	R1907110-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	1.0	0.20	1	08/01/19 15:31	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 15:31	
Vinyl Chloride	ND U	1.0	0.20	1	08/01/19 15:31	
cis-1,2-Dichloroethene	ND U	1.0	0.23	1	08/01/19 15:31	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 15:31	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 15:31	
o-Xylene	ND U	1.0	0.20	1	08/01/19 15:31	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 15:31	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 15:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	08/01/19 15:31	
Dibromofluoromethane	97	89 - 119	08/01/19 15:31	
Toluene-d8	99	87 - 121	08/01/19 15:31	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**980 D**	10	2.1	10	08/05/19 19:06	
1,1,2,2-Tetrachloroethane	ND U	10	2.0	10	08/05/19 19:06	
1,1,2-Trichloroethane	ND U	10	2.0	10	08/05/19 19:06	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	10	2.0	10	08/05/19 19:06	
1,1-Dichloroethane (1,1-DCA)	**8.7 DJ**	10	2.0	10	08/05/19 19:06	
1,1-Dichloroethene (1,1-DCE)	**33 D**	10	2.5	10	08/05/19 19:06	
1,2,3-Trichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,2,4-Trichlorobenzene	ND U	10	2.5	10	08/05/19 19:06	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	20	4.5	10	08/05/19 19:06	
1,2-Dibromoethane	ND U	10	2.0	10	08/05/19 19:06	
1,2-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,2-Dichloroethane	ND U	10	2.0	10	08/05/19 19:06	
1,2-Dichloropropane	ND U	10	2.0	10	08/05/19 19:06	
1,3-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,4-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
1,4-Dioxane	ND U	400	130	10	08/05/19 19:06	
2-Butanone (MEK)	ND U	50	7.8	10	08/05/19 19:06	
2-Hexanone	ND U	50	2.0	10	08/05/19 19:06	
4-Methyl-2-pentanone	ND U	50	2.0	10	08/05/19 19:06	
Acetone	ND U	50	21	10	08/05/19 19:06	
Benzene	ND U	10	2.0	10	08/05/19 19:06	
Bromochloromethane	ND U	10	2.4	10	08/05/19 19:06	
Bromodichloromethane	ND U	10	2.2	10	08/05/19 19:06	
Bromoform	ND U	10	2.5	10	08/05/19 19:06	
Bromomethane	ND U	10	7.0	10	08/05/19 19:06	
Carbon Disulfide	ND U	10	2.5	10	08/05/19 19:06	
Carbon Tetrachloride	ND U	10	3.4	10	08/05/19 19:06	
Chlorobenzene	ND U	10	2.0	10	08/05/19 19:06	
Chloroethane	ND U	10	2.3	10	08/05/19 19:06	
Chloroform	ND U	10	2.4	10	08/05/19 19:06	
Chloromethane	ND U	10	2.8	10	08/05/19 19:06	
Cyclohexane	ND U	10	2.6	10	08/05/19 19:06	
Dibromochloromethane	ND U	10	2.0	10	08/05/19 19:06	
Dichlorodifluoromethane (CFC 12)	ND U	10	2.1	10	08/05/19 19:06	
Dichloromethane	ND U	10	3.6	10	08/05/19 19:06	
Ethylbenzene	ND U	10	2.0	10	08/05/19 19:06	
Isopropylbenzene (Cumene)	ND U	10	2.0	10	08/05/19 19:06	
Methyl Acetate	ND U	20	3.3	10	08/05/19 19:06	
Methyl tert-Butyl Ether	ND U	10	2.0	10	08/05/19 19:06	
Methylcyclohexane	ND U	10	2.0	10	08/05/19 19:06	
Styrene	ND U	10	2.0	10	08/05/19 19:06	
Tetrachloroethene (PCE)	ND U	10	2.1	10	08/05/19 19:06	
Toluene	ND U	10	2.0	10	08/05/19 19:06	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	10	2.0	10	08/05/19 19:06	
Trichlorofluoromethane (CFC 11)	ND U	10	2.4	10	08/05/19 19:06	
Vinyl Chloride	**2.2 DJ**	10	2.0	10	08/05/19 19:06	
cis-1,2-Dichloroethene	ND U	10	2.3	10	08/05/19 19:06	
cis-1,3-Dichloropropene	ND U	10	2.0	10	08/05/19 19:06	
m,p-Xylenes	ND U	20	2.0	10	08/05/19 19:06	
o-Xylene	ND U	10	2.0	10	08/05/19 19:06	
trans-1,2-Dichloroethene	ND U	10	2.0	10	08/05/19 19:06	
trans-1,3-Dichloropropene	ND U	10	2.3	10	08/05/19 19:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	08/05/19 19:06	
Dibromofluoromethane	102	89 - 119	08/05/19 19:06	
Toluene-d8	102	87 - 121	08/05/19 19:06	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**990**	**E**	1.0	0.21	1	08/01/19 16:58	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,1,2-Trichloroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,1-Dichloroethane (1,1-DCA)	**7.9**		1.0	0.20	1	08/01/19 16:58	
1,1-Dichloroethene (1,1-DCE)	**34**		1.0	0.25	1	08/01/19 16:58	
1,2,3-Trichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2,4-Trichlorobenzene	ND	U	1.0	0.25	1	08/01/19 16:58	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.0	0.45	1	08/01/19 16:58	
1,2-Dibromoethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2-Dichloroethane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,2-Dichloropropane	ND	U	1.0	0.20	1	08/01/19 16:58	
1,3-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,4-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
1,4-Dioxane	ND	U	40	13	1	08/01/19 16:58	
2-Butanone (MEK)	ND	U	5.0	0.78	1	08/01/19 16:58	
2-Hexanone	ND	U	5.0	0.20	1	08/01/19 16:58	
4-Methyl-2-pentanone	ND	U	5.0	0.20	1	08/01/19 16:58	
Acetone	**2.1**	**BJ**	5.0	2.1	1	08/01/19 16:58	
Benzene	ND	U	1.0	0.20	1	08/01/19 16:58	
Bromochloromethane	ND	U	1.0	0.24	1	08/01/19 16:58	
Bromodichloromethane	ND	U	1.0	0.22	1	08/01/19 16:58	
Bromoform	ND	U	1.0	0.25	1	08/01/19 16:58	
Bromomethane	ND	U	1.0	0.70	1	08/01/19 16:58	
Carbon Disulfide	ND	U	1.0	0.25	1	08/01/19 16:58	
Carbon Tetrachloride	ND	U	1.0	0.34	1	08/01/19 16:58	
Chlorobenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
Chloroethane	ND	U	1.0	0.23	1	08/01/19 16:58	
Chloroform	ND	U	1.0	0.24	1	08/01/19 16:58	
Chloromethane	ND	U	1.0	0.28	1	08/01/19 16:58	
Cyclohexane	ND	U	1.0	0.26	1	08/01/19 16:58	
Dibromochloromethane	ND	U	1.0	0.20	1	08/01/19 16:58	
Dichlorodifluoromethane (CFC 12)	ND	U	1.0	0.21	1	08/01/19 16:58	
Dichloromethane	ND	U	1.0	0.36	1	08/01/19 16:58	
Ethylbenzene	ND	U	1.0	0.20	1	08/01/19 16:58	
Isopropylbenzene (Cumene)	ND	U	1.0	0.20	1	08/01/19 16:58	
Methyl Acetate	ND	U	2.0	0.33	1	08/01/19 16:58	
Methyl tert-Butyl Ether	ND	U	1.0	0.20	1	08/01/19 16:58	
Methylcyclohexane	ND	U	1.0	0.20	1	08/01/19 16:58	
Styrene	ND	U	1.0	0.20	1	08/01/19 16:58	
Tetrachloroethene (PCE)	**0.23**	**J**	1.0	0.21	1	08/01/19 16:58	
Toluene	ND	U	1.0	0.20	1	08/01/19 16:58	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.5**	1.0	0.20	1	08/01/19 16:58	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 16:58	
Vinyl Chloride	**1.9**	1.0	0.20	1	08/01/19 16:58	
cis-1,2-Dichloroethene	**0.65 J**	1.0	0.23	1	08/01/19 16:58	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 16:58	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 16:58	
o-Xylene	ND U	1.0	0.20	1	08/01/19 16:58	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 16:58	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 16:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	08/01/19 16:58	
Dibromofluoromethane	100	89 - 119	08/01/19 16:58	
Toluene-d8	100	87 - 121	08/01/19 16:58	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**1000**	**E**	1.0	0.21	1	08/01/19 18:04	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,1,2-Trichloroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,1-Dichloroethane (1,1-DCA)	**8.1**		1.0	0.20	1	08/01/19 18:04	
1,1-Dichloroethene (1,1-DCE)	**35**		1.0	0.25	1	08/01/19 18:04	
1,2,3-Trichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2,4-Trichlorobenzene	ND	U	1.0	0.25	1	08/01/19 18:04	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.0	0.45	1	08/01/19 18:04	
1,2-Dibromoethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2-Dichloroethane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,2-Dichloropropane	ND	U	1.0	0.20	1	08/01/19 18:04	
1,3-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,4-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
1,4-Dioxane	ND	U	40	13	1	08/01/19 18:04	
2-Butanone (MEK)	ND	U	5.0	0.78	1	08/01/19 18:04	
2-Hexanone	ND	U	5.0	0.20	1	08/01/19 18:04	
4-Methyl-2-pentanone	ND	U	5.0	0.20	1	08/01/19 18:04	
Acetone	**2.2**	**BJ**	5.0	2.1	1	08/01/19 18:04	
Benzene	ND	U	1.0	0.20	1	08/01/19 18:04	
Bromochloromethane	ND	U	1.0	0.24	1	08/01/19 18:04	
Bromodichloromethane	ND	U	1.0	0.22	1	08/01/19 18:04	
Bromoform	ND	U	1.0	0.25	1	08/01/19 18:04	
Bromomethane	ND	U	1.0	0.70	1	08/01/19 18:04	
Carbon Disulfide	ND	U	1.0	0.25	1	08/01/19 18:04	
Carbon Tetrachloride	ND	U	1.0	0.34	1	08/01/19 18:04	
Chlorobenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
Chloroethane	ND	U	1.0	0.23	1	08/01/19 18:04	
Chloroform	ND	U	1.0	0.24	1	08/01/19 18:04	
Chloromethane	ND	U	1.0	0.28	1	08/01/19 18:04	
Cyclohexane	ND	U	1.0	0.26	1	08/01/19 18:04	
Dibromochloromethane	ND	U	1.0	0.20	1	08/01/19 18:04	
Dichlorodifluoromethane (CFC 12)	ND	U	1.0	0.21	1	08/01/19 18:04	
Dichloromethane	ND	U	1.0	0.36	1	08/01/19 18:04	
Ethylbenzene	ND	U	1.0	0.20	1	08/01/19 18:04	
Isopropylbenzene (Cumene)	ND	U	1.0	0.20	1	08/01/19 18:04	
Methyl Acetate	ND	U	2.0	0.33	1	08/01/19 18:04	
Methyl tert-Butyl Ether	ND	U	1.0	0.20	1	08/01/19 18:04	
Methylcyclohexane	ND	U	1.0	0.20	1	08/01/19 18:04	
Styrene	ND	U	1.0	0.20	1	08/01/19 18:04	
Tetrachloroethene (PCE)	**0.30**	**J**	1.0	0.21	1	08/01/19 18:04	
Toluene	ND	U	1.0	0.20	1	08/01/19 18:04	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.5**	1.0	0.20	1	08/01/19 18:04	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 18:04	
Vinyl Chloride	**1.8**	1.0	0.20	1	08/01/19 18:04	
cis-1,2-Dichloroethene	**0.65 J**	1.0	0.23	1	08/01/19 18:04	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 18:04	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 18:04	
o-Xylene	ND U	1.0	0.20	1	08/01/19 18:04	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 18:04	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 18:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	08/01/19 18:04	
Dibromofluoromethane	104	89 - 119	08/01/19 18:04	
Toluene-d8	102	87 - 121	08/01/19 18:04	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**910 D**	10	2.1	10	08/05/19 19:28	
1,1,2,2-Tetrachloroethane	ND U	10	2.0	10	08/05/19 19:28	
1,1,2-Trichloroethane	ND U	10	2.0	10	08/05/19 19:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	10	2.0	10	08/05/19 19:28	
1,1-Dichloroethane (1,1-DCA)	**7.9 DJ**	10	2.0	10	08/05/19 19:28	
1,1-Dichloroethene (1,1-DCE)	**31 D**	10	2.5	10	08/05/19 19:28	
1,2,3-Trichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,2,4-Trichlorobenzene	ND U	10	2.5	10	08/05/19 19:28	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	20	4.5	10	08/05/19 19:28	
1,2-Dibromoethane	ND U	10	2.0	10	08/05/19 19:28	
1,2-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,2-Dichloroethane	ND U	10	2.0	10	08/05/19 19:28	
1,2-Dichloropropane	ND U	10	2.0	10	08/05/19 19:28	
1,3-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,4-Dichlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
1,4-Dioxane	ND U	400	130	10	08/05/19 19:28	
2-Butanone (MEK)	ND U	50	7.8	10	08/05/19 19:28	
2-Hexanone	ND U	50	2.0	10	08/05/19 19:28	
4-Methyl-2-pentanone	ND U	50	2.0	10	08/05/19 19:28	
Acetone	ND U	50	21	10	08/05/19 19:28	
Benzene	ND U	10	2.0	10	08/05/19 19:28	
Bromochloromethane	ND U	10	2.4	10	08/05/19 19:28	
Bromodichloromethane	ND U	10	2.2	10	08/05/19 19:28	
Bromoform	ND U	10	2.5	10	08/05/19 19:28	
Bromomethane	ND U	10	7.0	10	08/05/19 19:28	
Carbon Disulfide	ND U	10	2.5	10	08/05/19 19:28	
Carbon Tetrachloride	ND U	10	3.4	10	08/05/19 19:28	
Chlorobenzene	ND U	10	2.0	10	08/05/19 19:28	
Chloroethane	ND U	10	2.3	10	08/05/19 19:28	
Chloroform	ND U	10	2.4	10	08/05/19 19:28	
Chloromethane	ND U	10	2.8	10	08/05/19 19:28	
Cyclohexane	ND U	10	2.6	10	08/05/19 19:28	
Dibromochloromethane	ND U	10	2.0	10	08/05/19 19:28	
Dichlorodifluoromethane (CFC 12)	ND U	10	2.1	10	08/05/19 19:28	
Dichloromethane	ND U	10	3.6	10	08/05/19 19:28	
Ethylbenzene	ND U	10	2.0	10	08/05/19 19:28	
Isopropylbenzene (Cumene)	ND U	10	2.0	10	08/05/19 19:28	
Methyl Acetate	ND U	20	3.3	10	08/05/19 19:28	
Methyl tert-Butyl Ether	ND U	10	2.0	10	08/05/19 19:28	
Methylcyclohexane	ND U	10	2.0	10	08/05/19 19:28	
Styrene	ND U	10	2.0	10	08/05/19 19:28	
Tetrachloroethene (PCE)	ND U	10	2.1	10	08/05/19 19:28	
Toluene	ND U	10	2.0	10	08/05/19 19:28	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND U	10	2.0	10	08/05/19 19:28	
Trichlorofluoromethane (CFC 11)	ND U	10	2.4	10	08/05/19 19:28	
Vinyl Chloride	**2.0 DJ**	10	2.0	10	08/05/19 19:28	
cis-1,2-Dichloroethene	ND U	10	2.3	10	08/05/19 19:28	
cis-1,3-Dichloropropene	ND U	10	2.0	10	08/05/19 19:28	
m,p-Xylenes	ND U	20	2.0	10	08/05/19 19:28	
o-Xylene	ND U	10	2.0	10	08/05/19 19:28	
trans-1,2-Dichloroethene	ND U	10	2.0	10	08/05/19 19:28	
trans-1,3-Dichloropropene	ND U	10	2.3	10	08/05/19 19:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/05/19 19:28	
Dibromofluoromethane	100	89 - 119	08/05/19 19:28	
Toluene-d8	103	87 - 121	08/05/19 19:28	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-IBW-20-072919	**Units:**	ug/L
Lab Code:	R1907110-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**90**	1.0	0.21	1	08/01/19 18:49	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,1-Dichloroethane (1,1-DCA)	**23**	1.0	0.20	1	08/01/19 18:49	
1,1-Dichloroethene (1,1-DCE)	**4.1**	1.0	0.25	1	08/01/19 18:49	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/01/19 18:49	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/01/19 18:49	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/01/19 18:49	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/01/19 18:49	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
1,4-Dioxane	ND U	40	13	1	08/01/19 18:49	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/01/19 18:49	
2-Hexanone	ND U	5.0	0.20	1	08/01/19 18:49	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/01/19 18:49	
Acetone	**2.2 BJ**	5.0	2.1	1	08/01/19 18:49	
Benzene	ND U	1.0	0.20	1	08/01/19 18:49	
Bromochloromethane	ND U	1.0	0.24	1	08/01/19 18:49	
Bromodichloromethane	ND U	1.0	0.22	1	08/01/19 18:49	
Bromoform	ND U	1.0	0.25	1	08/01/19 18:49	
Bromomethane	ND U	1.0	0.70	1	08/01/19 18:49	
Carbon Disulfide	**0.75 J**	1.0	0.25	1	08/01/19 18:49	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/01/19 18:49	
Chlorobenzene	ND U	1.0	0.20	1	08/01/19 18:49	
Chloroethane	ND U	1.0	0.23	1	08/01/19 18:49	
Chloroform	ND U	1.0	0.24	1	08/01/19 18:49	
Chloromethane	ND U	1.0	0.28	1	08/01/19 18:49	
Cyclohexane	ND U	1.0	0.26	1	08/01/19 18:49	
Dibromochloromethane	ND U	1.0	0.20	1	08/01/19 18:49	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/01/19 18:49	
Dichloromethane	ND U	1.0	0.36	1	08/01/19 18:49	
Ethylbenzene	ND U	1.0	0.20	1	08/01/19 18:49	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/01/19 18:49	
Methyl Acetate	ND U	2.0	0.33	1	08/01/19 18:49	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/01/19 18:49	
Methylcyclohexane	ND U	1.0	0.20	1	08/01/19 18:49	
Styrene	ND U	1.0	0.20	1	08/01/19 18:49	
Tetrachloroethene (PCE)	**0.54 J**	1.0	0.21	1	08/01/19 18:49	
Toluene	ND U	1.0	0.20	1	08/01/19 18:49	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-IBW-20-072919	**Units:**	ug/L
Lab Code:	R1907110-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**1.2**	1.0	0.20	1	08/01/19 18:49	
Trichlorofluoromethane (CFC 11)	ND U	1.0	0.24	1	08/01/19 18:49	
Vinyl Chloride	**0.61 J**	1.0	0.20	1	08/01/19 18:49	
cis-1,2-Dichloroethene	**0.57 J**	1.0	0.23	1	08/01/19 18:49	
cis-1,3-Dichloropropene	ND U	1.0	0.20	1	08/01/19 18:49	
m,p-Xylenes	ND U	2.0	0.20	1	08/01/19 18:49	
o-Xylene	ND U	1.0	0.20	1	08/01/19 18:49	
trans-1,2-Dichloroethene	ND U	1.0	0.20	1	08/01/19 18:49	
trans-1,3-Dichloropropene	ND U	1.0	0.23	1	08/01/19 18:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 18:49	
Dibromofluoromethane	100	89 - 119	08/01/19 18:49	
Toluene-d8	100	87 - 121	08/01/19 18:49	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-9-072919	**Units:**	ug/L
Lab Code:	R1907110-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND U	1.0	0.21	1	08/05/19 15:27	
1,1,2,2-Tetrachloroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,1,2-Trichloroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,1-Dichloroethane (1,1-DCA)	**3.9**	1.0	0.20	1	08/05/19 15:27	
1,1-Dichloroethene (1,1-DCE)	ND U	1.0	0.25	1	08/05/19 15:27	
1,2,3-Trichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,2,4-Trichlorobenzene	ND U	1.0	0.25	1	08/05/19 15:27	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	2.0	0.45	1	08/05/19 15:27	
1,2-Dibromoethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,2-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,2-Dichloroethane	ND U	1.0	0.20	1	08/05/19 15:27	
1,2-Dichloropropane	ND U	1.0	0.20	1	08/05/19 15:27	
1,3-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,4-Dichlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
1,4-Dioxane	ND U	40	13	1	08/05/19 15:27	
2-Butanone (MEK)	ND U	5.0	0.78	1	08/05/19 15:27	
2-Hexanone	ND U	5.0	0.20	1	08/05/19 15:27	
4-Methyl-2-pentanone	ND U	5.0	0.20	1	08/05/19 15:27	
Acetone	**4.1 BJ**	5.0	2.1	1	08/05/19 15:27	
Benzene	ND U	1.0	0.20	1	08/05/19 15:27	
Bromochloromethane	ND U	1.0	0.24	1	08/05/19 15:27	
Bromodichloromethane	ND U	1.0	0.22	1	08/05/19 15:27	
Bromoform	ND U	1.0	0.25	1	08/05/19 15:27	
Bromomethane	ND U	1.0	0.70	1	08/05/19 15:27	
Carbon Disulfide	ND U	1.0	0.25	1	08/05/19 15:27	
Carbon Tetrachloride	ND U	1.0	0.34	1	08/05/19 15:27	
Chlorobenzene	ND U	1.0	0.20	1	08/05/19 15:27	
Chloroethane	ND U	1.0	0.23	1	08/05/19 15:27	
Chloroform	ND U	1.0	0.24	1	08/05/19 15:27	
Chloromethane	ND U	1.0	0.28	1	08/05/19 15:27	
Cyclohexane	ND U	1.0	0.26	1	08/05/19 15:27	
Dibromochloromethane	ND U	1.0	0.20	1	08/05/19 15:27	
Dichlorodifluoromethane (CFC 12)	ND U	1.0	0.21	1	08/05/19 15:27	
Dichloromethane	ND U	1.0	0.36	1	08/05/19 15:27	
Ethylbenzene	ND U	1.0	0.20	1	08/05/19 15:27	
Isopropylbenzene (Cumene)	ND U	1.0	0.20	1	08/05/19 15:27	
Methyl Acetate	ND U	2.0	0.33	1	08/05/19 15:27	
Methyl tert-Butyl Ether	ND U	1.0	0.20	1	08/05/19 15:27	
Methylcyclohexane	ND U	1.0	0.20	1	08/05/19 15:27	
Styrene	ND U	1.0	0.20	1	08/05/19 15:27	
Tetrachloroethene (PCE)	ND U	1.0	0.21	1	08/05/19 15:27	
Toluene	ND U	1.0	0.20	1	08/05/19 15:27	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-9-072919	**Units:**	ug/L
Lab Code:	R1907110-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND	U	1.0	0.20	1	08/05/19 15:27	
Trichlorofluoromethane (CFC 11)	ND	U	1.0	0.24	1	08/05/19 15:27	
Vinyl Chloride	**2.8**		1.0	0.20	1	08/05/19 15:27	
cis-1,2-Dichloroethene	**0.81**	**J**	1.0	0.23	1	08/05/19 15:27	
cis-1,3-Dichloropropene	ND	U	1.0	0.20	1	08/05/19 15:27	
m,p-Xylenes	ND	U	2.0	0.20	1	08/05/19 15:27	
o-Xylene	ND	U	1.0	0.20	1	08/05/19 15:27	
trans-1,2-Dichloroethene	ND	U	1.0	0.20	1	08/05/19 15:27	
trans-1,3-Dichloropropene	ND	U	1.0	0.23	1	08/05/19 15:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	08/05/19 15:27	
Dibromofluoromethane	100	89 - 119	08/05/19 15:27	
Toluene-d8	102	87 - 121	08/05/19 15:27	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	TB-072919	**Units:**	ug/L
Lab Code:	R1907110-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	08/01/19 15:09	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1,2-Trichloroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.0	0.20	1	08/01/19 15:09	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.0	0.25	1	08/01/19 15:09	
1,2,3-Trichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2,4-Trichlorobenzene	ND	U	1.0	0.25	1	08/01/19 15:09	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.0	0.45	1	08/01/19 15:09	
1,2-Dibromoethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2-Dichloroethane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,2-Dichloropropane	ND	U	1.0	0.20	1	08/01/19 15:09	
1,3-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,4-Dichlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
1,4-Dioxane	ND	U	40	13	1	08/01/19 15:09	
2-Butanone (MEK)	ND	U	5.0	0.78	1	08/01/19 15:09	
2-Hexanone	ND	U	5.0	0.20	1	08/01/19 15:09	
4-Methyl-2-pentanone	ND	U	5.0	0.20	1	08/01/19 15:09	
Acetone	**4.6**	**BJ**	5.0	2.1	1	08/01/19 15:09	
Benzene	ND	U	1.0	0.20	1	08/01/19 15:09	
Bromochloromethane	ND	U	1.0	0.24	1	08/01/19 15:09	
Bromodichloromethane	ND	U	1.0	0.22	1	08/01/19 15:09	
Bromoform	ND	U	1.0	0.25	1	08/01/19 15:09	
Bromomethane	ND	U	1.0	0.70	1	08/01/19 15:09	
Carbon Disulfide	ND	U	1.0	0.25	1	08/01/19 15:09	
Carbon Tetrachloride	ND	U	1.0	0.34	1	08/01/19 15:09	
Chlorobenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
Chloroethane	ND	U	1.0	0.23	1	08/01/19 15:09	
Chloroform	ND	U	1.0	0.24	1	08/01/19 15:09	
Chloromethane	ND	U	1.0	0.28	1	08/01/19 15:09	
Cyclohexane	ND	U	1.0	0.26	1	08/01/19 15:09	
Dibromochloromethane	ND	U	1.0	0.20	1	08/01/19 15:09	
Dichlorodifluoromethane (CFC 12)	ND	U	1.0	0.21	1	08/01/19 15:09	
Dichloromethane	ND	U	1.0	0.36	1	08/01/19 15:09	
Ethylbenzene	ND	U	1.0	0.20	1	08/01/19 15:09	
Isopropylbenzene (Cumene)	ND	U	1.0	0.20	1	08/01/19 15:09	
Methyl Acetate	ND	U	2.0	0.33	1	08/01/19 15:09	
Methyl tert-Butyl Ether	ND	U	1.0	0.20	1	08/01/19 15:09	
Methylcyclohexane	ND	U	1.0	0.20	1	08/01/19 15:09	
Styrene	ND	U	1.0	0.20	1	08/01/19 15:09	
Tetrachloroethene (PCE)	ND	U	1.0	0.21	1	08/01/19 15:09	
Toluene	ND	U	1.0	0.20	1	08/01/19 15:09	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	TB-072919	**Units:**	ug/L
Lab Code:	R1907110-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	ND	U	1.0	0.20	1	08/01/19 15:09	
Trichlorofluoromethane (CFC 11)	ND	U	1.0	0.24	1	08/01/19 15:09	
Vinyl Chloride	ND	U	1.0	0.20	1	08/01/19 15:09	
cis-1,2-Dichloroethene	ND	U	1.0	0.23	1	08/01/19 15:09	
cis-1,3-Dichloropropene	ND	U	1.0	0.20	1	08/01/19 15:09	
m,p-Xylenes	ND	U	2.0	0.20	1	08/01/19 15:09	
o-Xylene	ND	U	1.0	0.20	1	08/01/19 15:09	
trans-1,2-Dichloroethene	ND	U	1.0	0.20	1	08/01/19 15:09	
trans-1,3-Dichloropropene	ND	U	1.0	0.23	1	08/01/19 15:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	08/01/19 15:09	
Dibromofluoromethane	98	89 - 119	08/01/19 15:09	
Toluene-d8	101	87 - 121	08/01/19 15:09	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3340.D
Acq On : 1 Aug 2019 4:14 pm
Operator : D.Lipani
Sample : R1907110-001|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 02 15:36:53 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

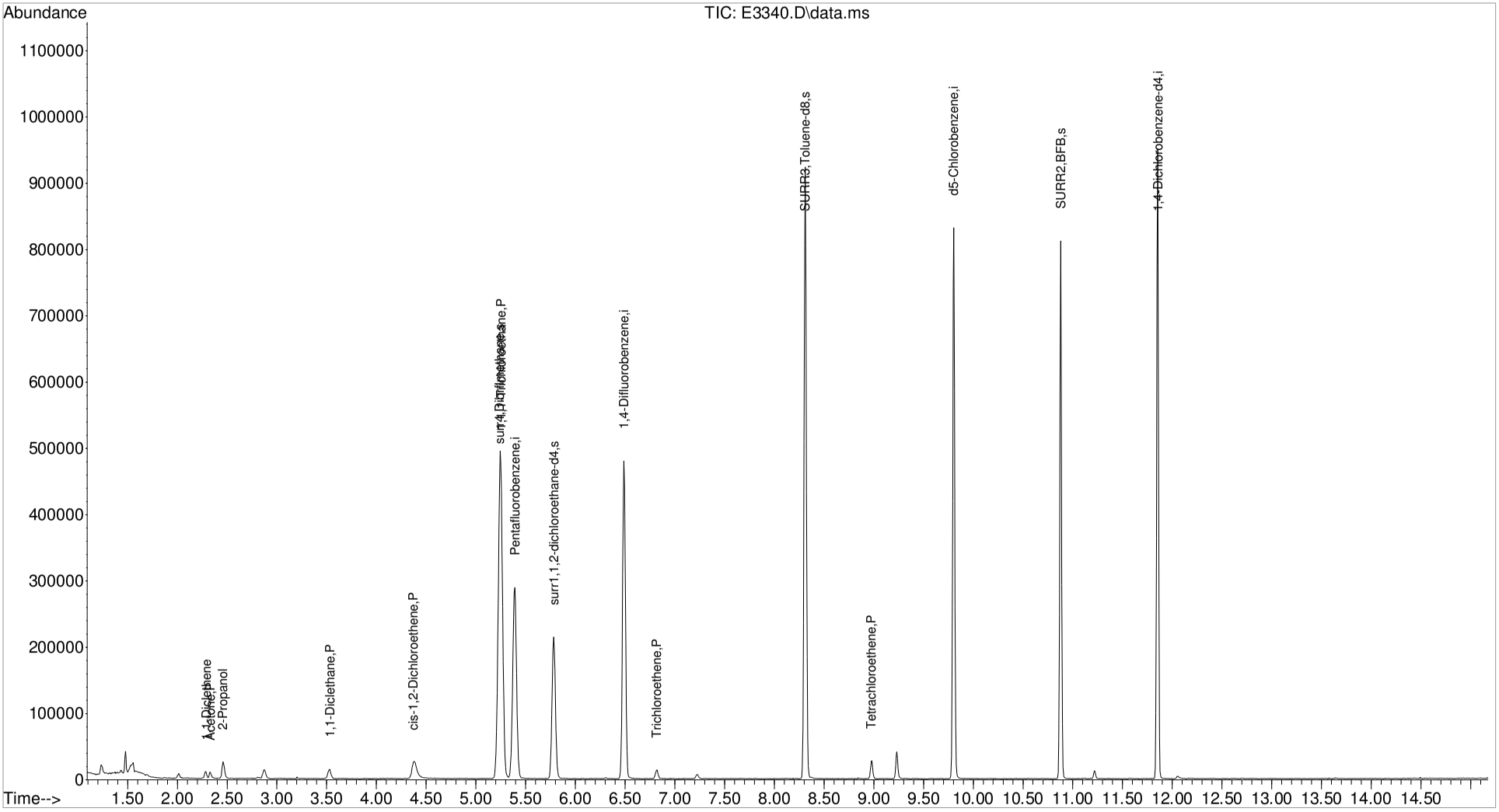
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	270684	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	397955	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	346375	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	183840	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	132945	50.79	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.58%				
46) surr1,1,2-dichloroetha...	5.781	65	186234	53.33	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.66%				
64) SURR3,Toluene-d8	8.311	98	533665	51.00	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.00%				
69) SURR2,BFB	10.878	95	199716	50.15	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.30%				
Target Compounds							Qvalue
5) Bromomethane	1.587	94	398	Below Cal		#	46
13) 1,1-Diclethene	2.288	96	3119	1.24	ug/L	#	77
15) Acetone	2.330	43	10118	6.32	ug/L		92
16) 2-Propanol	2.459	45	28776	74.49	ug/L		93
27) 1,1-Diclethane	3.531	63	15929	2.86	ug/L		94
33) cis-1,2-Dichloroethene	4.373	96	7060	2.41	ug/L	#	85
40) 1,1,1-Trichloroethane	5.251	97	327783	77.90	ug/L		98
53) Trichloroethene	6.817	130	4263	1.45	ug/L	#	89
71) Tetrachloroethene	8.976	164	5998	2.56	ug/L		95

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

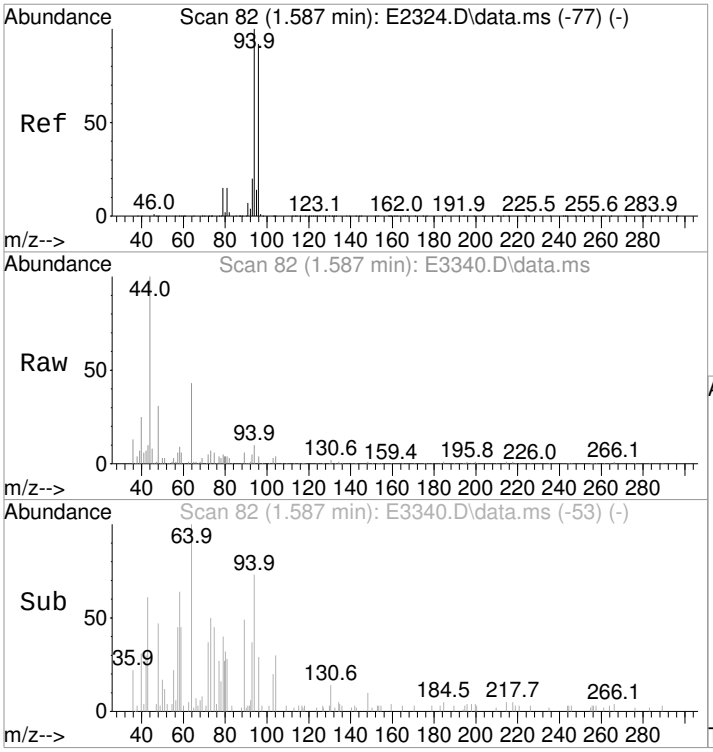
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3340.D
Acq On : 1 Aug 2019 4:14 pm
Operator : D.Lipani
Sample : R1907110-001|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 02 15:36:53 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



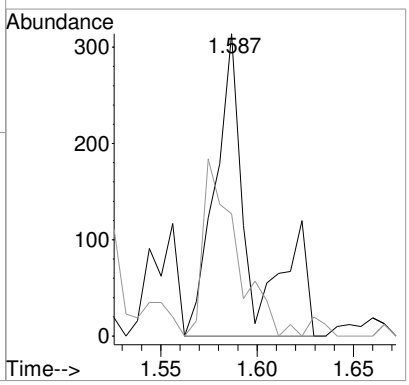
1st DL 08/03/19
2nd 08/05/19

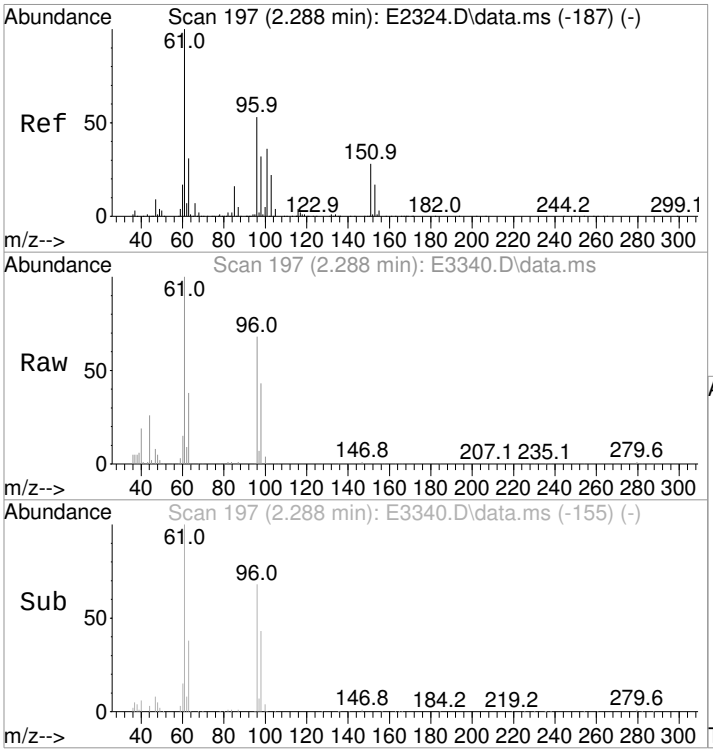


#5
Bromomethane
Concen: Below Cal
RT: 1.587 min Scan# 82
Delta R.T. 0.013 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 94 Resp: 398

Ion	Ratio	Lower	Upper
94	100		
96	40.4	72.1	112.1#

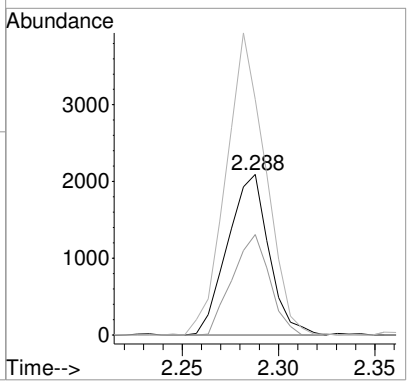


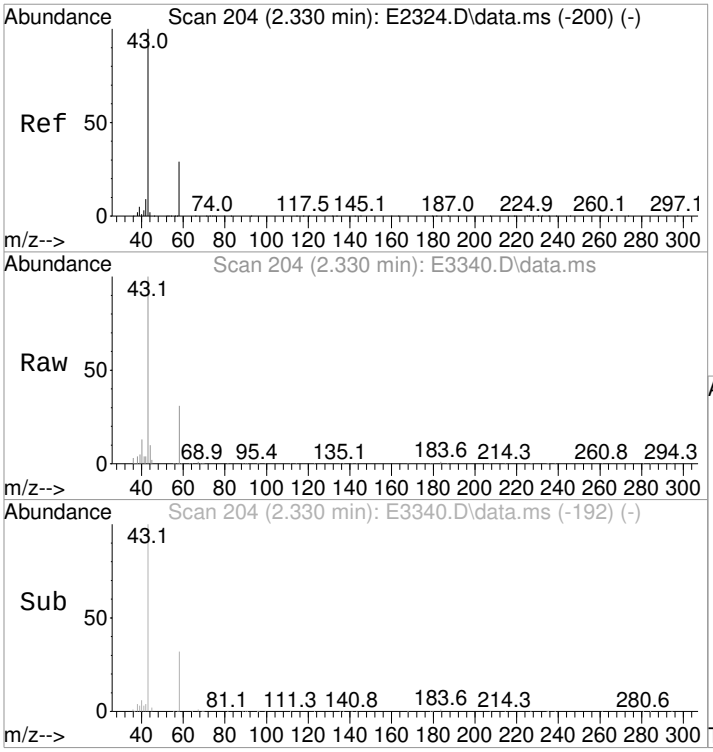


#13
1,1-Diclethene
Concen: 1.24 ug/L
RT: 2.288 min Scan# 197
Delta R.T. 0.006 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 96 Resp: 3119

Ion	Ratio	Lower	Upper
96	100		
98	62.5	40.4	80.4
61	146.7	169.9	209.9#

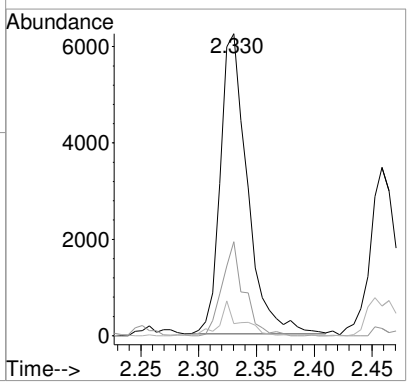


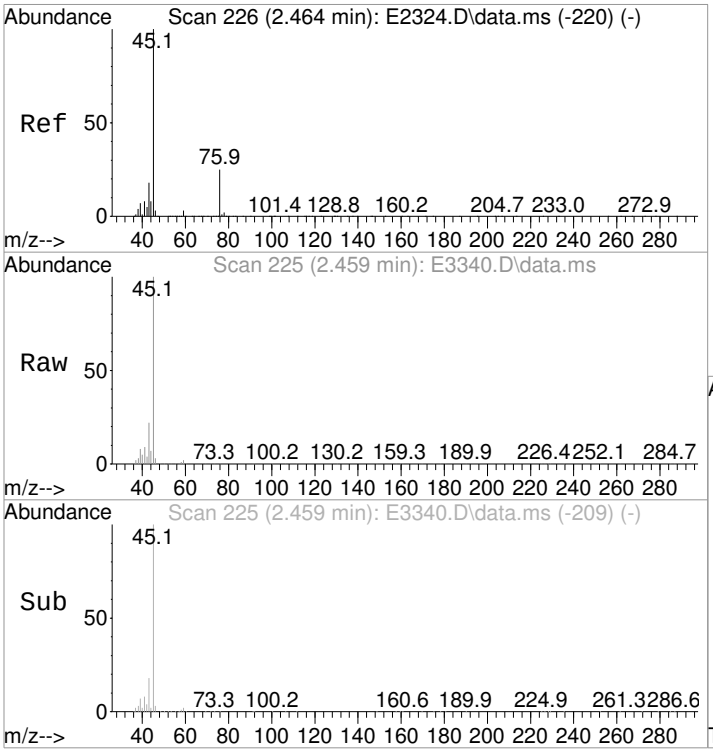


#15
Acetone
Concen: 6.32 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 43 Resp: 10118

Ion	Ratio	Lower	Upper
43	100		
58	31.1	8.4	48.4
42	4.0	0.0	29.4

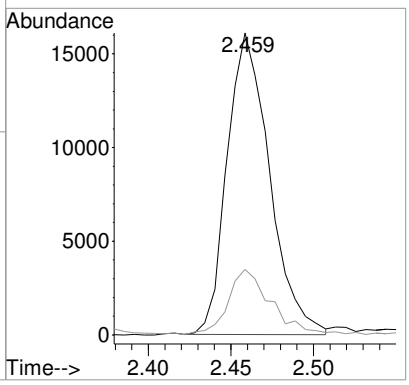


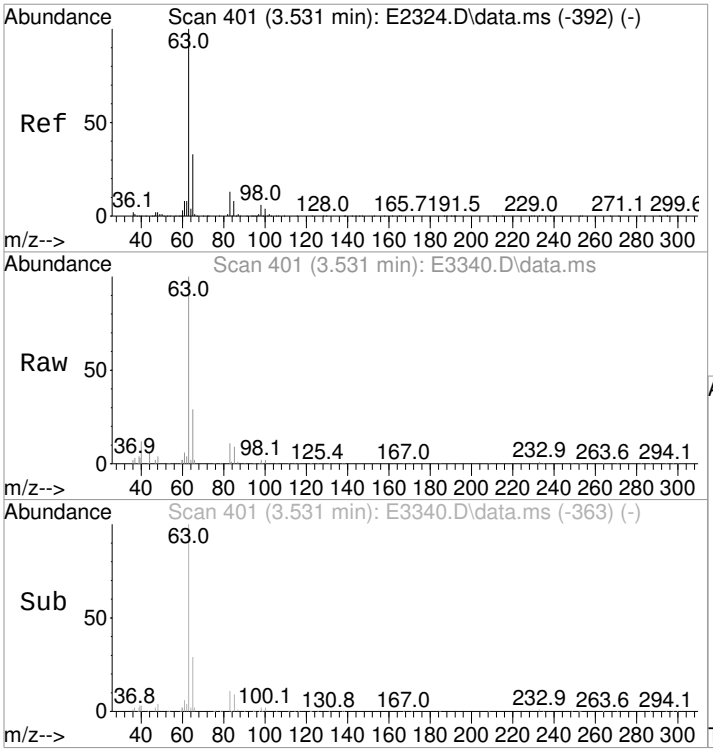


#16
2-Propanol
Concen: 74.49 ug/L
RT: 2.459 min Scan# 225
Delta R.T. -0.011 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 45 Resp: 28776

Ion	Ratio	Lower	Upper
45	100		
43	21.7	0.0	38.5

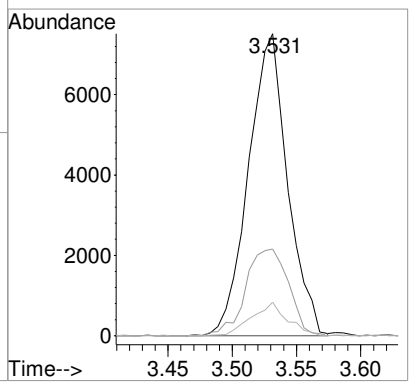


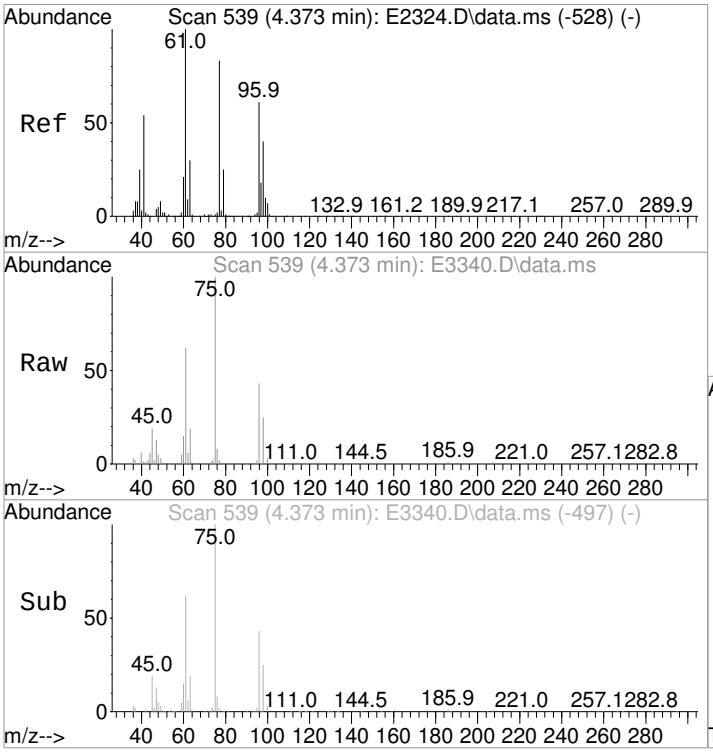


#27
1,1-Diclethane
Concen: 2.86 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 63 Resp: 15929

Ion	Ratio	Lower	Upper
63	100		
65	28.7	12.7	52.7
83	11.7	0.0	32.6

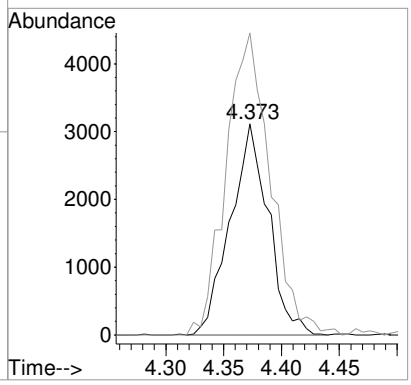


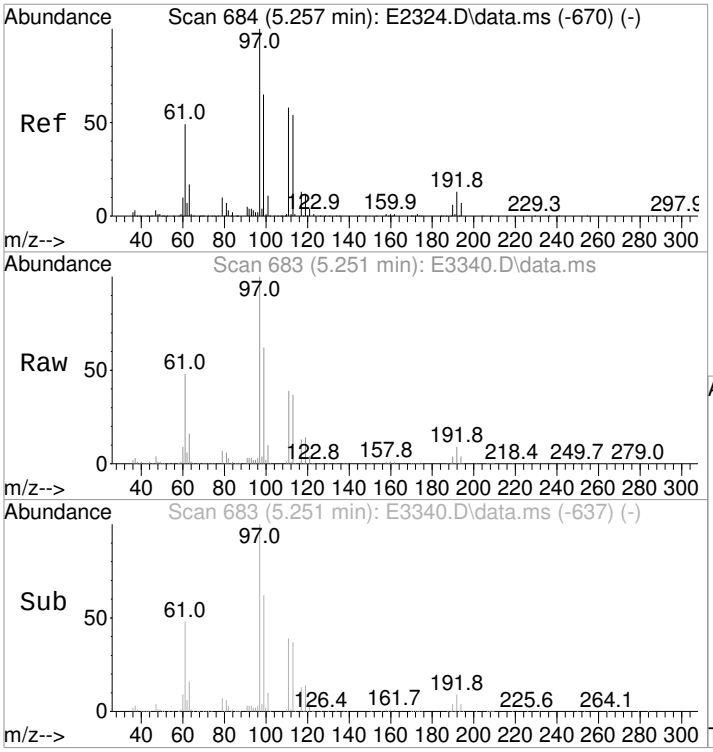


#33
cis-1,2-Dichloroethene
Concen: 2.41 ug/L
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 96 Resp: 7060

Ion	Ratio	Lower	Upper
96	100		
61	143.1	143.6	183.6#

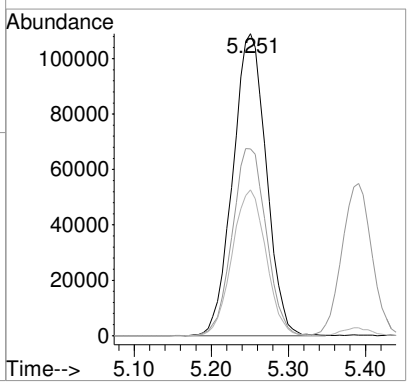


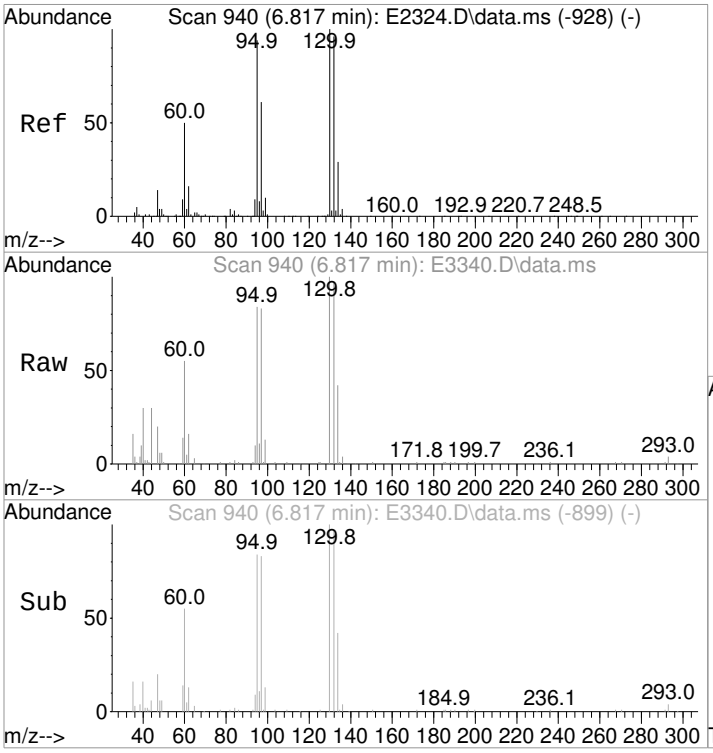


#40
1,1,1-Trichloroethane
Concen: 77.90 ug/L
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion: 97 Resp: 327783

Ion	Ratio	Lower	Upper
97	100		
99	61.8	44.7	84.7
61	48.3	28.6	68.6

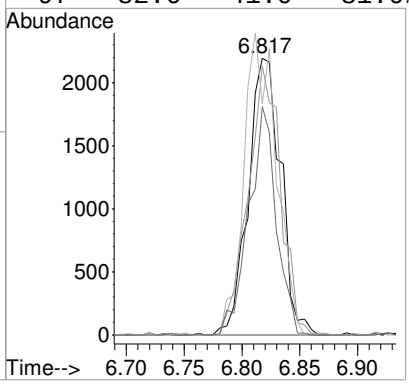


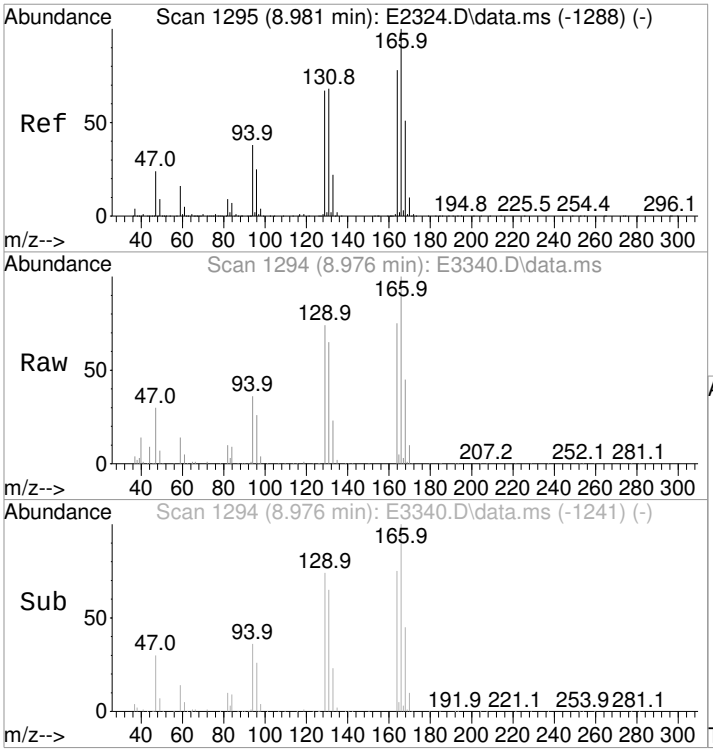


#53
Trichloroethene
Concen: 1.45 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion:130 Resp: 4263

Ion	Ratio	Lower	Upper
130	100		
132	97.2	76.1	116.1
95	83.5	73.9	113.9
97	82.6	41.0	81.0#

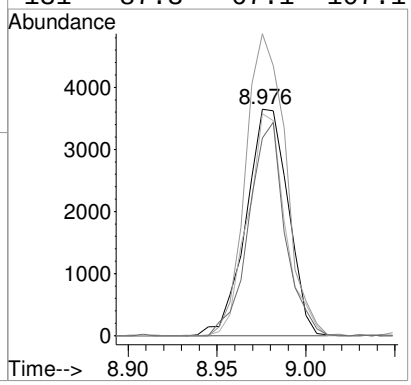




#71
Tetrachloroethene
Concen: 2.56 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.006 min
Lab File: E3340.D
Acq: 1 Aug 2019 4:14 pm

Tgt Ion:164 Resp: 5998

Ion	Ratio	Lower	Upper
164	100		
166	133.4	108.6	148.6
129	98.1	66.6	106.6
131	87.3	67.1	107.1

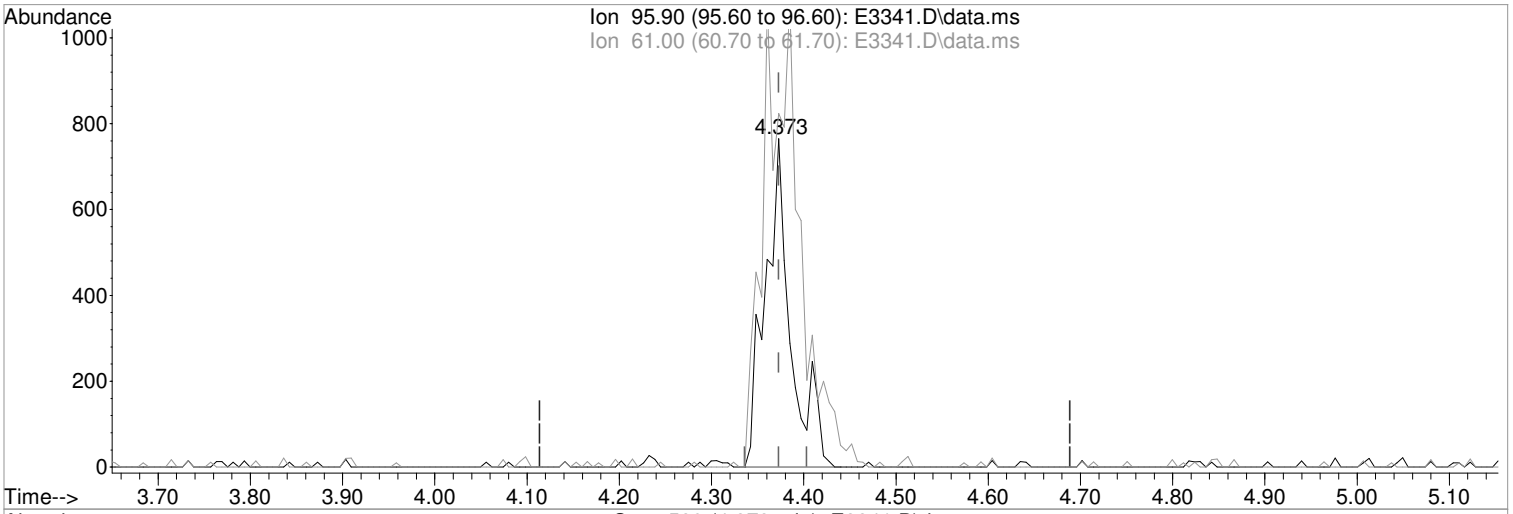


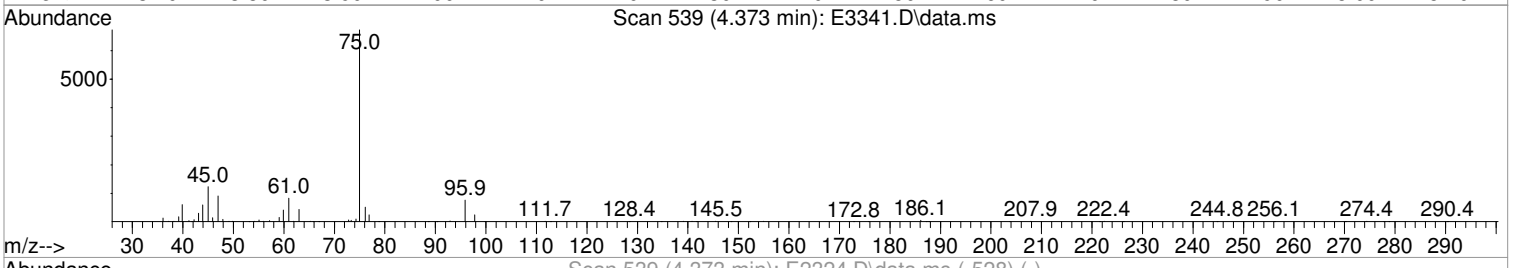
1st DL 08/03/19
2nd 08/05/19

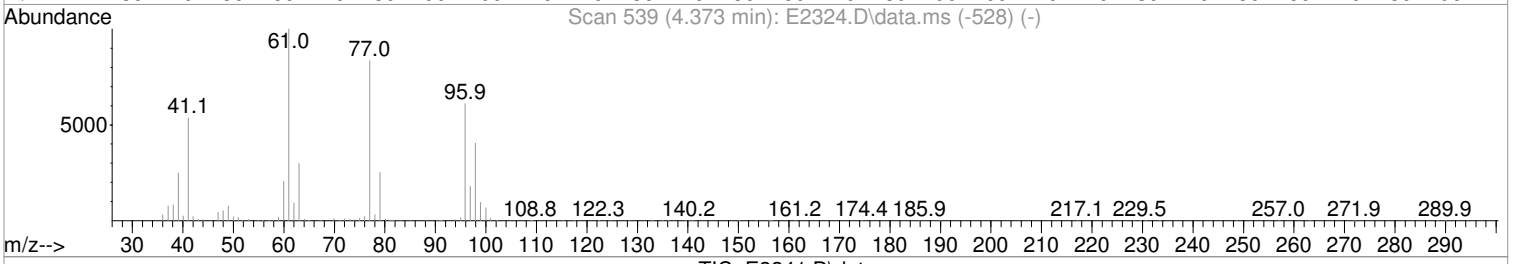
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3341.D
Acq On : 1 Aug 2019 4:36 pm
Operator : D.Lipani
Sample : R1907110-002|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 01 16:51:04 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3341.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.373min (-0.000) 0.52 ug/L m

response 1469

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	107.71#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

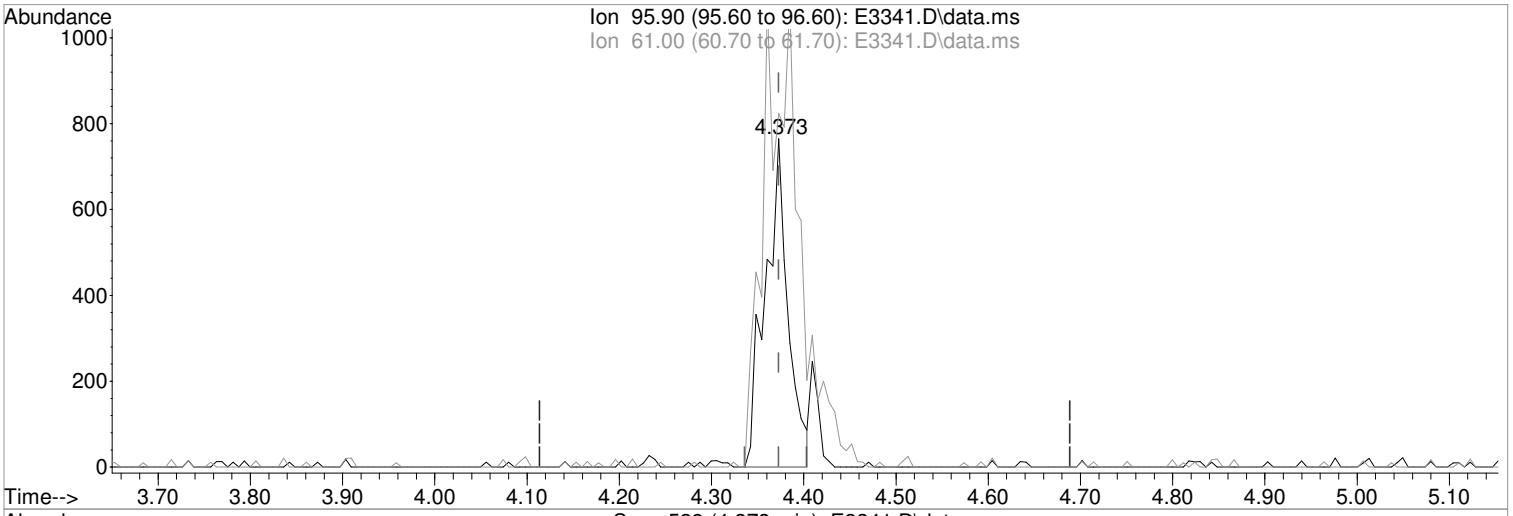
Poor integration.

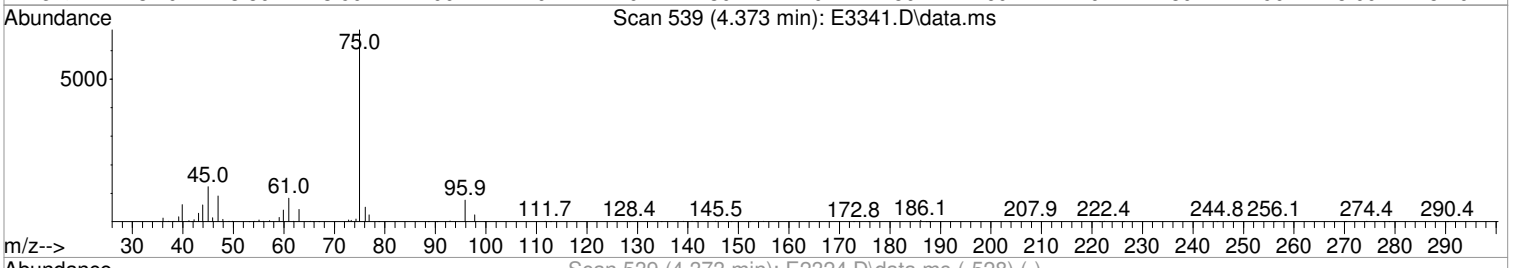
08/02/19

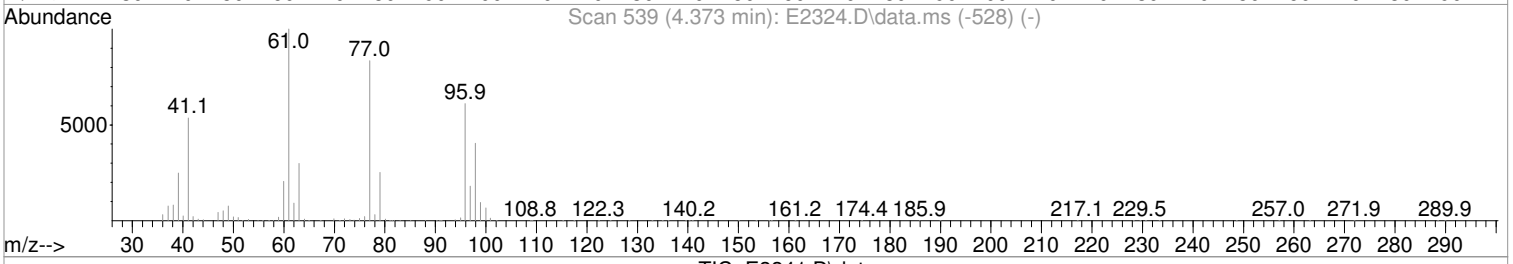
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3341.D
Acq On : 1 Aug 2019 4:36 pm
Operator : D.Lipani
Sample : R1907110-002|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 01 16:51:04 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3341.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.373min (-0.000) 0.46 ug/L

response 1307

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	107.71#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3341.D
Acq On : 1 Aug 2019 4:36 pm
Operator : D.Lipani
Sample : R1907110-002|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 02 15:40:10 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

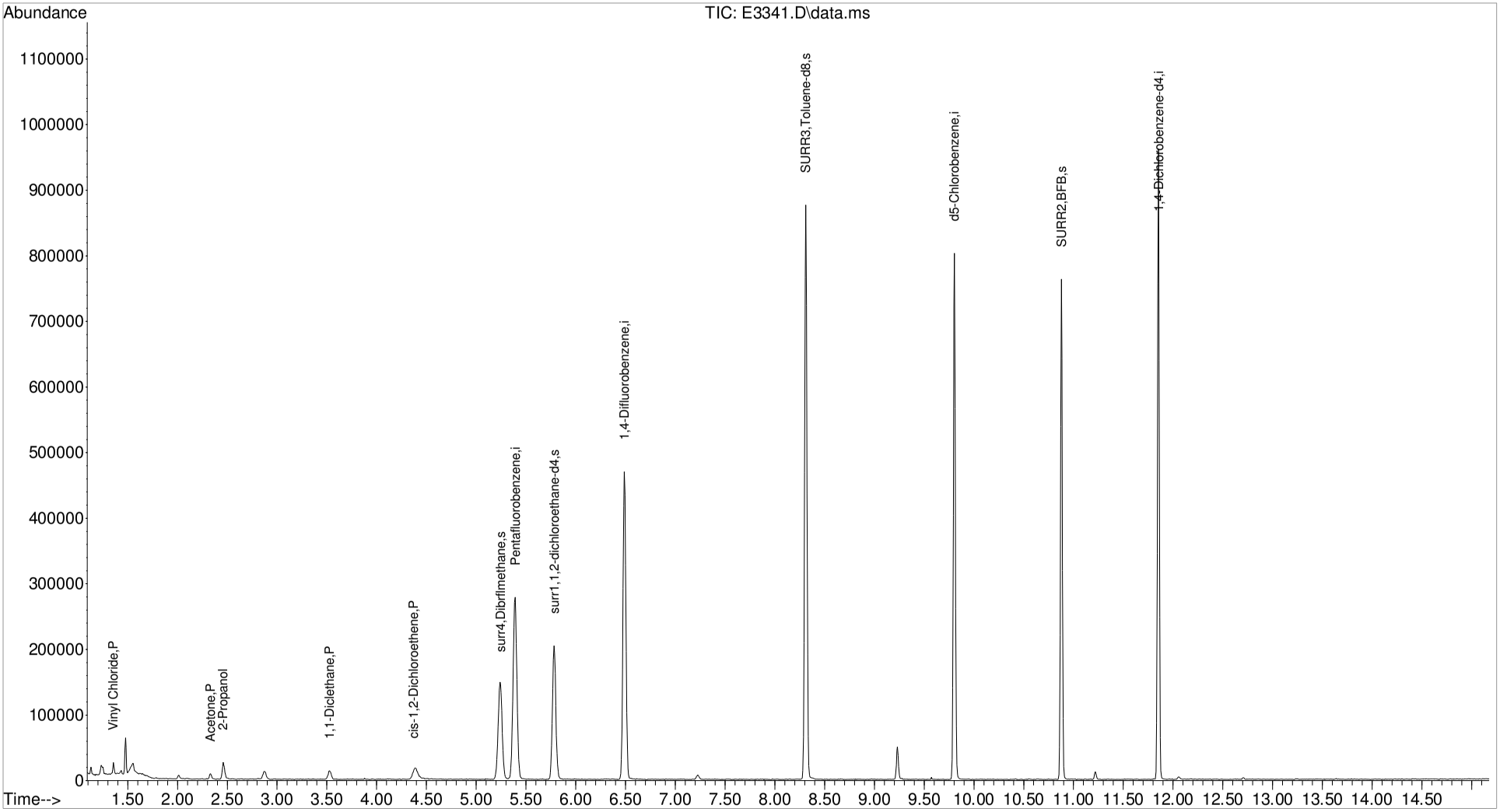
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	260759	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	385590	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	333704	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	175689	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	125021	49.29	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.58%			
46) surr1,1,2-dichloroetha...	5.781	65	176010	52.01	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.02%			
64) SURR3,Toluene-d8	8.311	98	515120	50.80	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.60%			
69) SURR2,BFB	10.878	95	193319	50.10	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.20%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	7912	2.14	ug/L	76
5) Bromomethane	1.587	94	487	Below Cal	#	59
15) Acetone	2.330	43	9006	5.84	ug/L	86
16) 2-Propanol	2.458	45	26852	72.15	ug/L	98
27) 1,1-Diclethane	3.525	63	14169	2.64	ug/L	92
33) cis-1,2-Dichloroethene	4.373	96	1469m	0.52	ug/L	

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

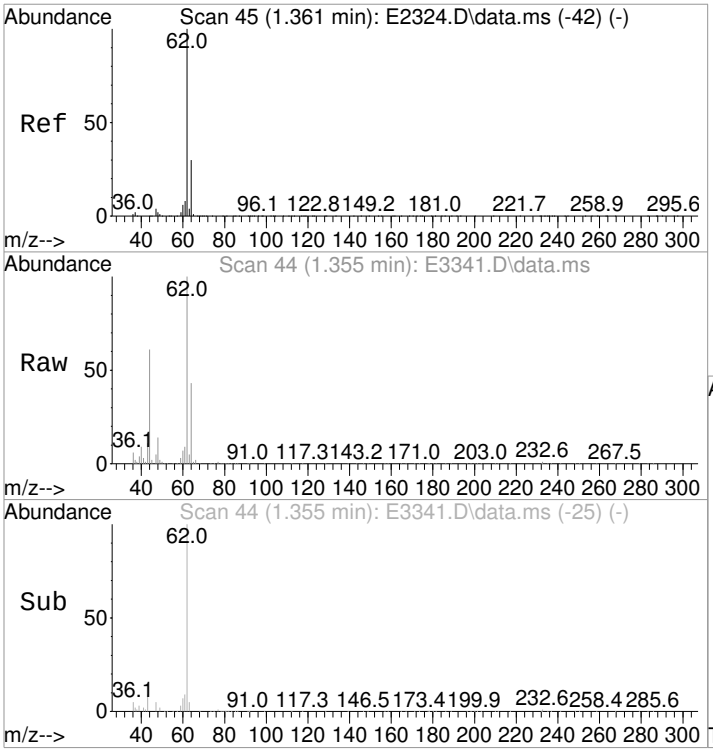
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3341.D
Acq On : 1 Aug 2019 4:36 pm
Operator : D.Lipani
Sample : R1907110-002|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 02 15:40:10 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



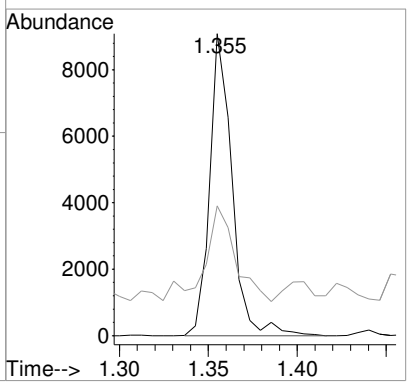
1st 08/03/19
2nd 08/05/19

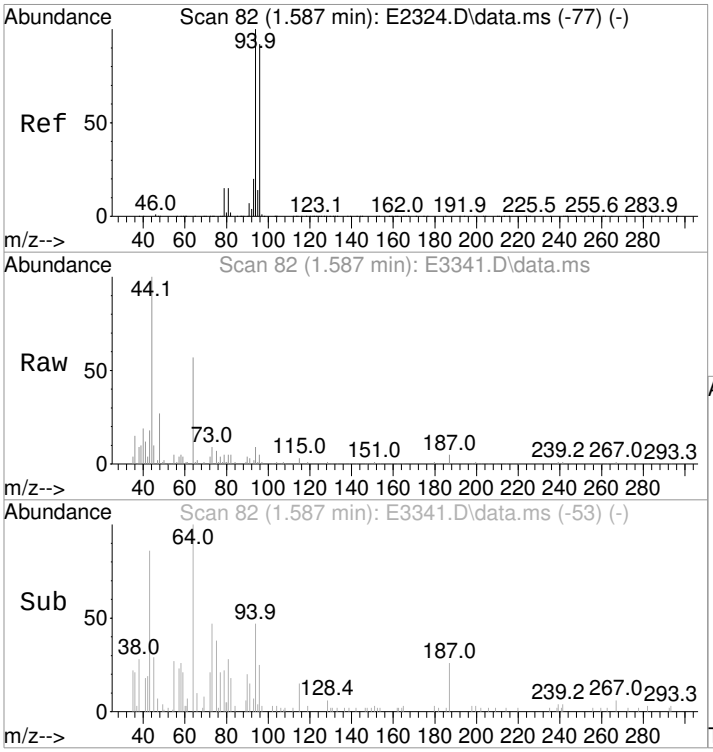


#4
Vinyl Chloride
Concen: 2.14 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3341.D
Acq: 1 Aug 2019 4:36 pm

Tgt Ion: 62 Resp: 7912

Ion	Ratio	Lower	Upper
62	100		
64	42.9	10.0	50.0

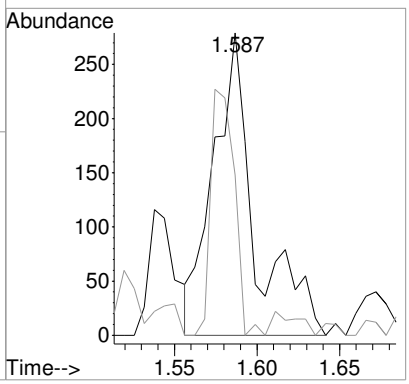


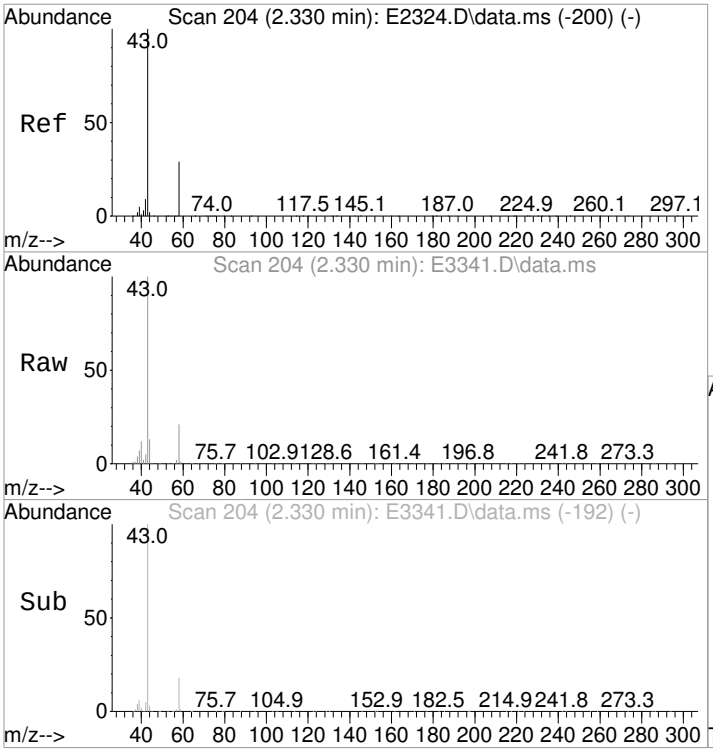


#5
Bromomethane
Concen: Below Cal
RT: 1.587 min Scan# 82
Delta R.T. 0.013 min
Lab File: E3341.D
Acq: 1 Aug 2019 4:36 pm

Tgt Ion: 94 Resp: 487

Ion	Ratio	Lower	Upper
94	100		
96	53.0	72.1	112.1#

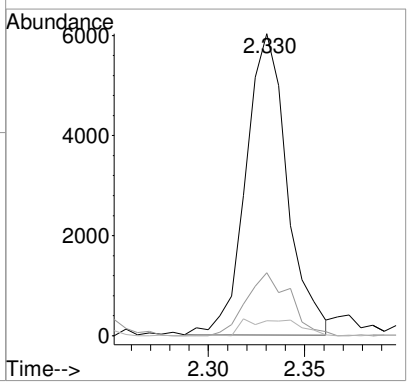


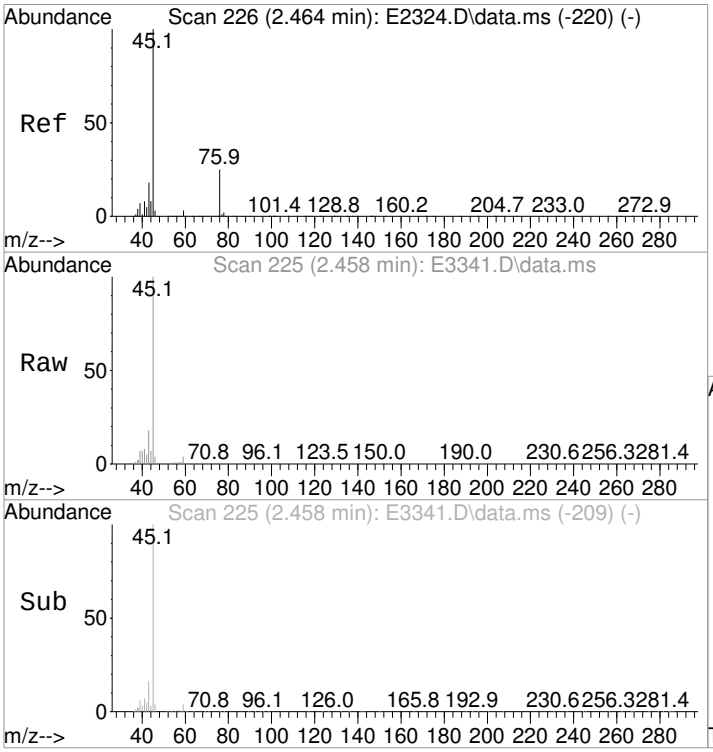


#15
Acetone
Concen: 5.84 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3341.D
Acq: 1 Aug 2019 4:36 pm

Tgt Ion: 43 Resp: 9006

Ion	Ratio	Lower	Upper
43	100		
58	20.9	8.4	48.4
42	4.9	0.0	29.4

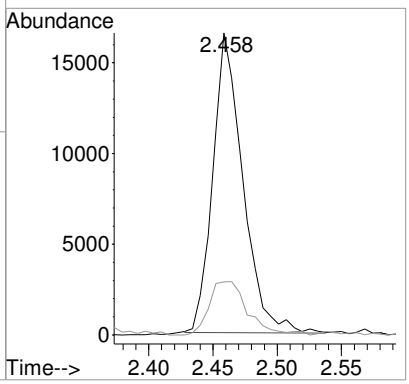


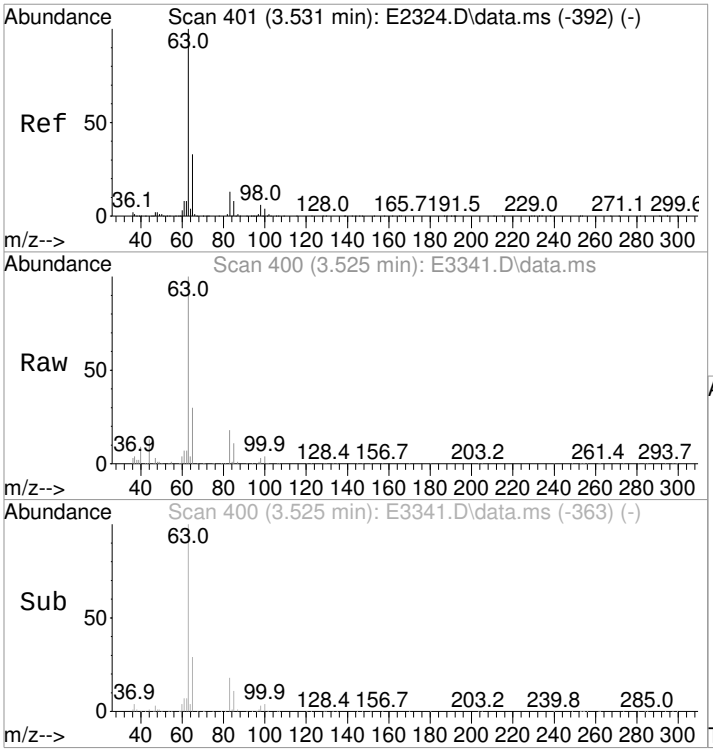


#16
2-Propanol
Concen: 72.15 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3341.D
Acq: 1 Aug 2019 4:36 pm

Tgt Ion: 45 Resp: 26852

Ion	Ratio	Lower	Upper
45	100		
43	17.6	0.0	38.5

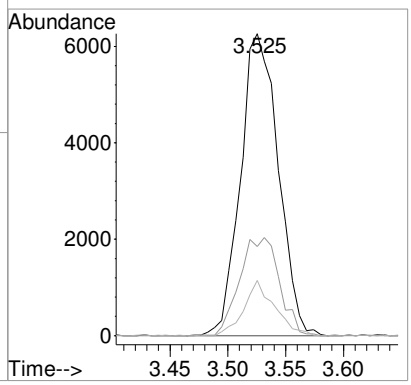


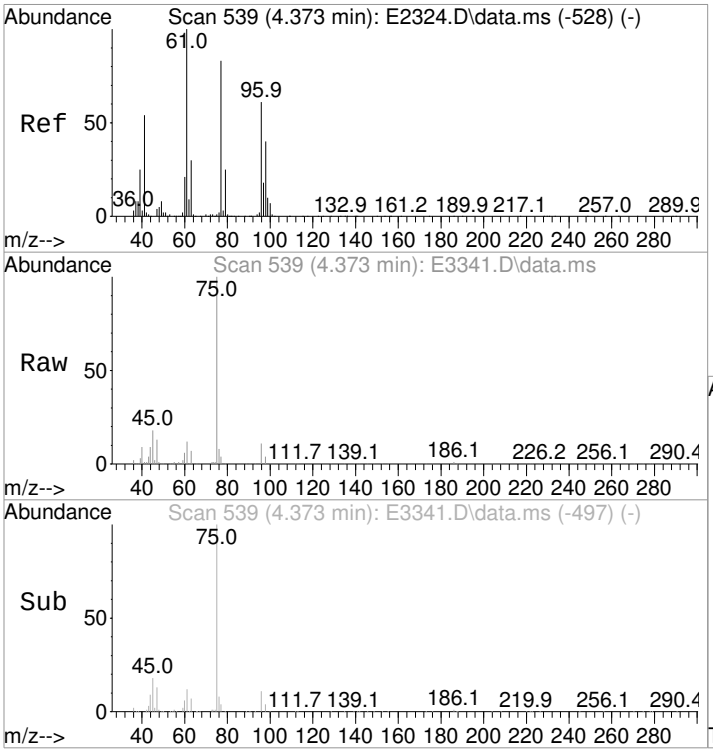


#27
1,1-Diclethane
Concen: 2.64 ug/L
RT: 3.525 min Scan# 400
Delta R.T. -0.000 min
Lab File: E3341.D
Acq: 1 Aug 2019 4:36 pm

Tgt Ion: 63 Resp: 14169

Ion	Ratio	Lower	Upper
63	100		
65	29.5	12.7	52.7
83	18.3	0.0	32.6

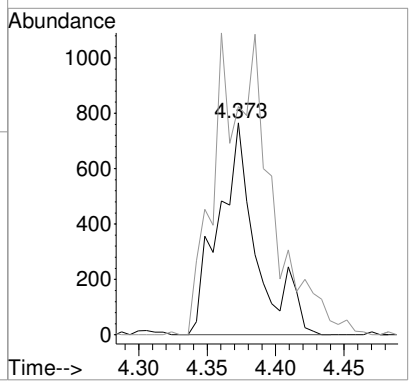




#33
cis-1,2-Dichloroethene
Concen: 0.52 ug/L m
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: E3341.D
Acq: 1 Aug 2019 4:36 pm

Tgt Ion: 96 Resp: 1469

Ion	Ratio	Lower	Upper
96	100		
61	107.7	143.6	183.6#

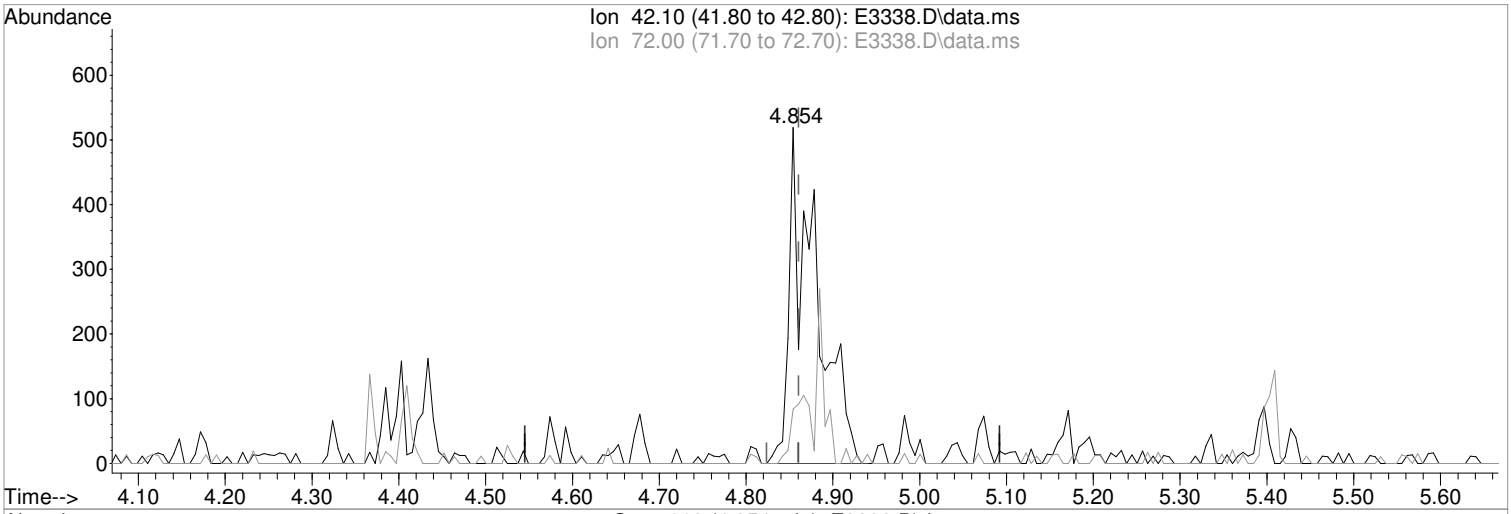


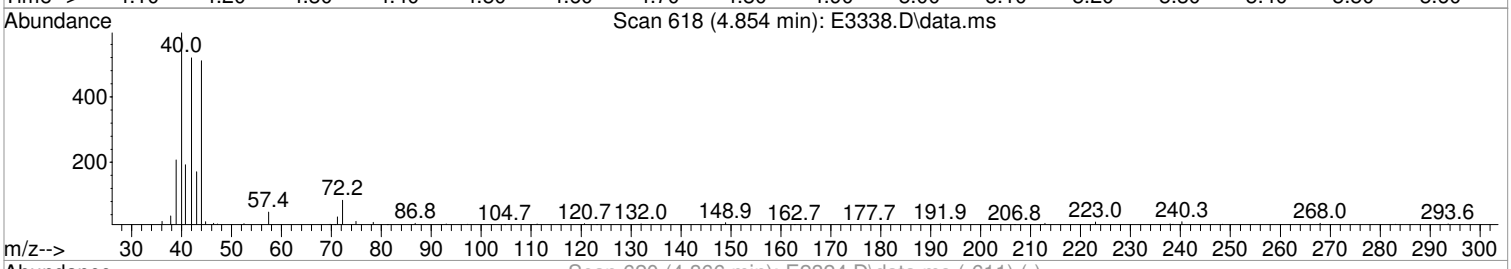
1st DL 08/03/19
2nd 08/05/19

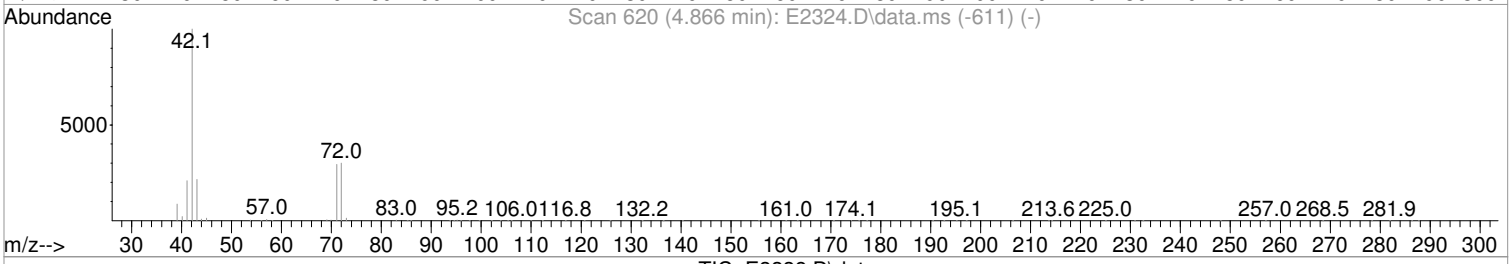
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3338.D
Acq On : 1 Aug 2019 3:31 pm
Operator : D.Lipani
Sample : R1907110-003|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 01 15:45:48 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3338.D\data.ms

(38) Tetrahydrofuran

4.854min (-0.006) 0.71 ug/L m

response 1115

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	16.18
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

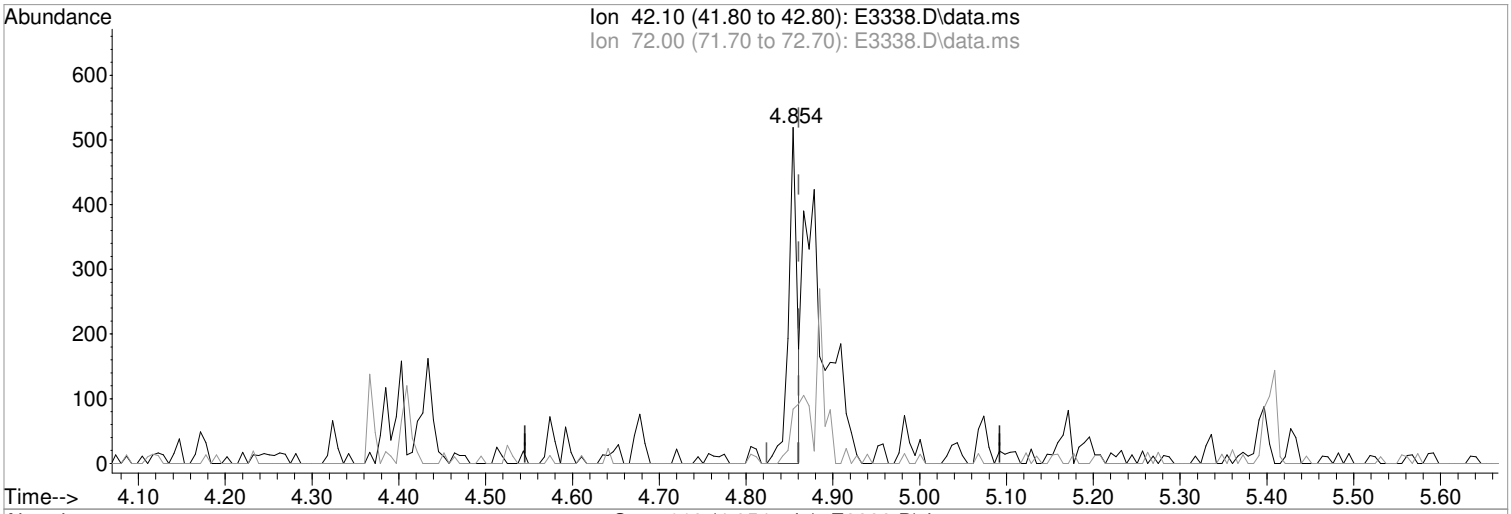
Poor integration.

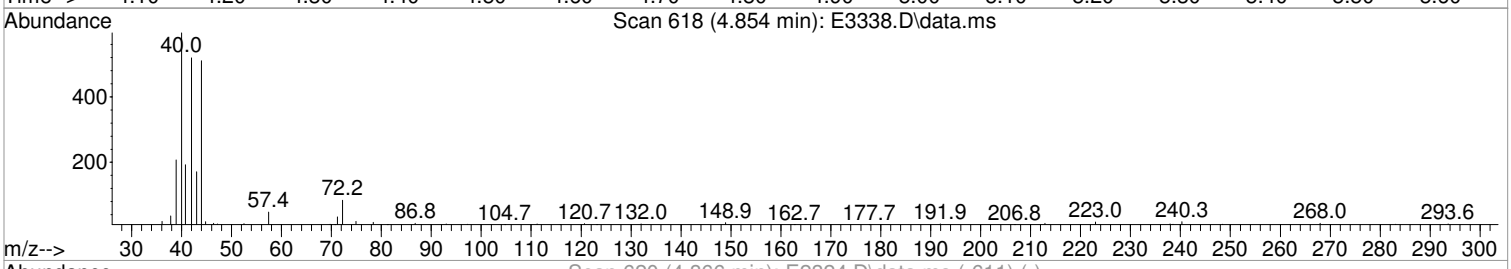
08/02/19

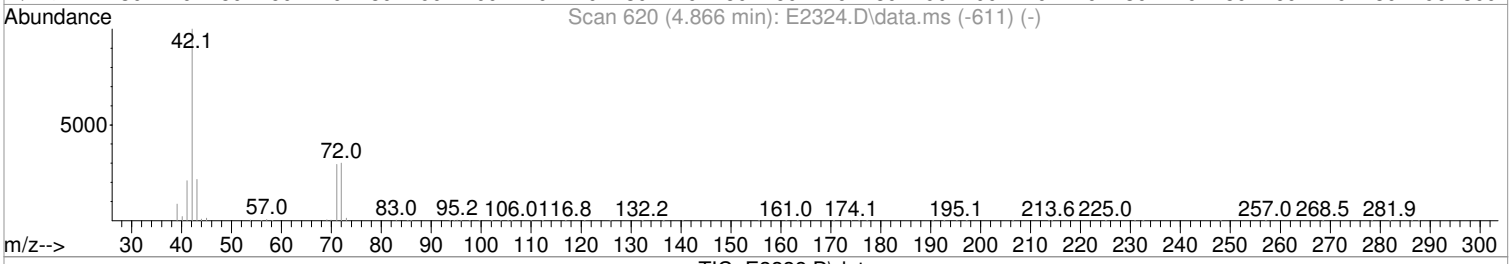
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3338.D
Acq On : 1 Aug 2019 3:31 pm
Operator : D.Lipani
Sample : R1907110-003|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 01 15:45:48 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3338.D\data.ms

(38) Tetrahydrofuran

4.854min (-0.006) 0.22 ug/L

response 351

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	16.18
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3338.D
Acq On : 1 Aug 2019 3:31 pm
Operator : D.Lipani
Sample : R1907110-003|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 02 15:02:04 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

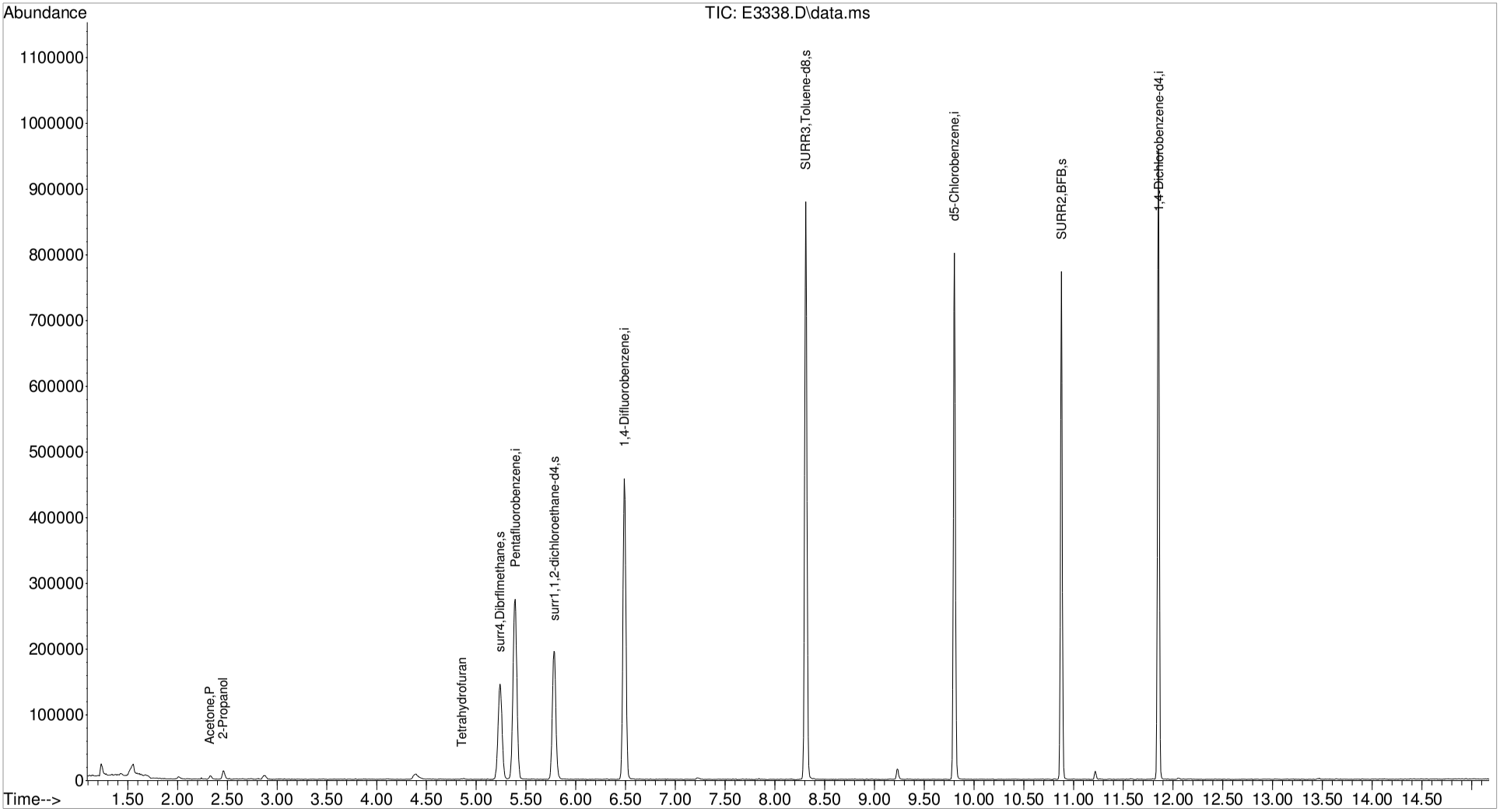
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	261324	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	386410	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	333775	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	179296	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	123483	48.58	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.16%			
46) surr1,1,2-dichloroetha...	5.787	65	174160	51.36	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.72%			
64) SURR3,Toluene-d8	8.311	98	500673	49.27	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.54%			
69) SURR2,BFB	10.877	95	188571	48.76	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.52%			
Target Compounds						Qvalue
5) Bromomethane	1.581	94	384	Below Cal	#	72
15) Acetone	2.324	43	6200	4.01	ug/L	95
16) 2-Propanol	2.458	45	15226	40.82	ug/L	89
38) Tetrahydrofuran	4.854	42	1115m	0.71	ug/L	

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

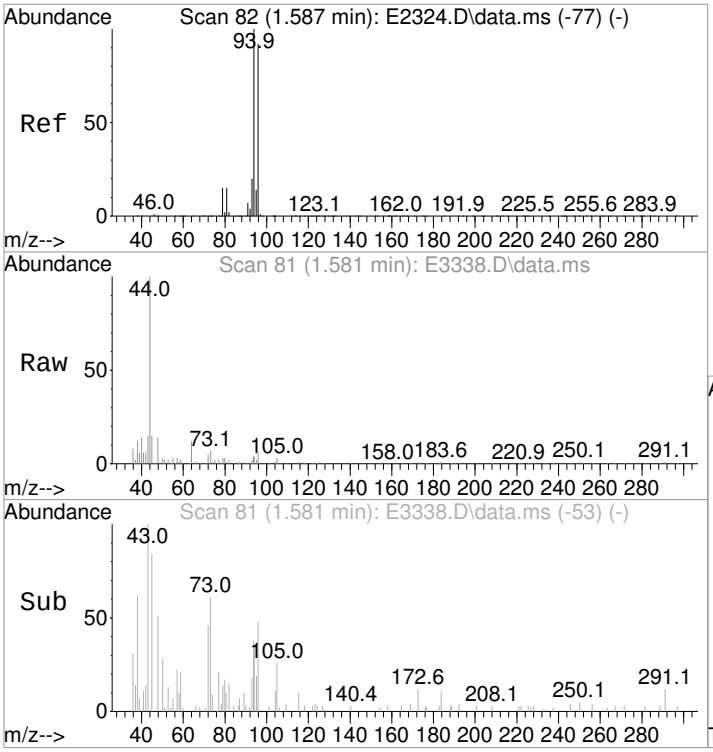
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3338.D
Acq On : 1 Aug 2019 3:31 pm
Operator : D.Lipani
Sample : R1907110-003|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 02 15:02:04 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



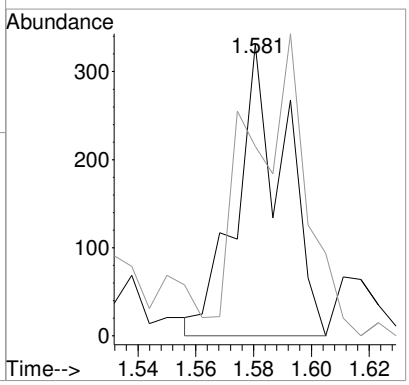
1st DL 08/03/19
2nd 08/05/19

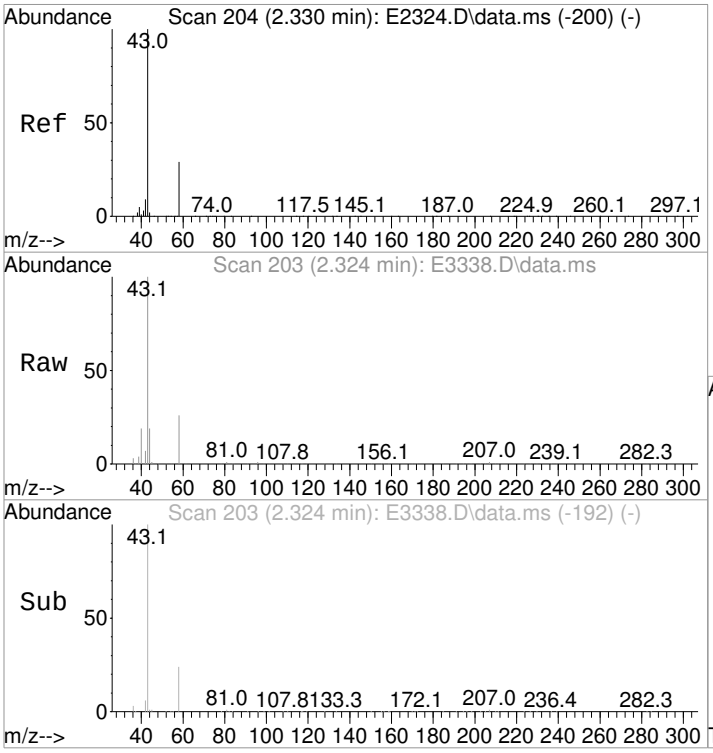


#5
Bromomethane
Concen: Below Cal
RT: 1.581 min Scan# 81
Delta R.T. 0.007 min
Lab File: E3338.D
Acq: 1 Aug 2019 3:31 pm

Tgt Ion: 94 Resp: 384

Ion	Ratio	Lower	Upper
94	100		
96	65.0	72.1	112.1#

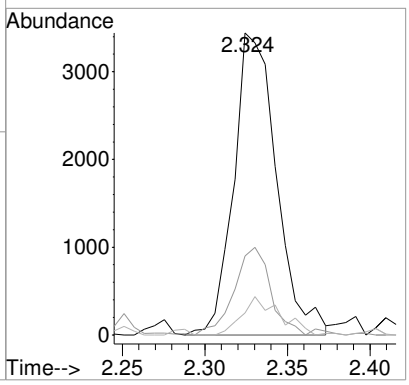


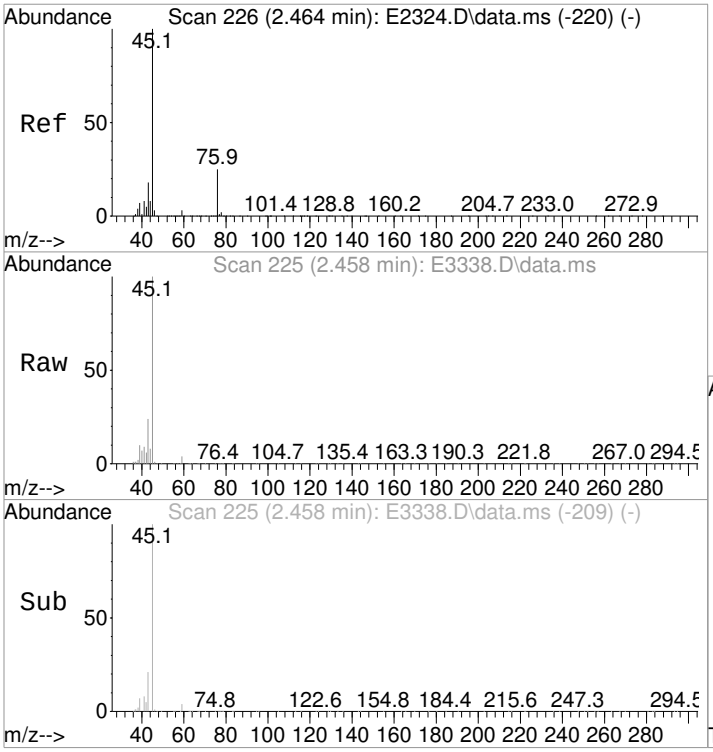


#15
Acetone
Concen: 4.01 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: E3338.D
Acq: 1 Aug 2019 3:31 pm

Tgt Ion: 43 Resp: 6200

Ion	Ratio	Lower	Upper
43	100		
58	26.1	8.4	48.4
42	7.3	0.0	29.4

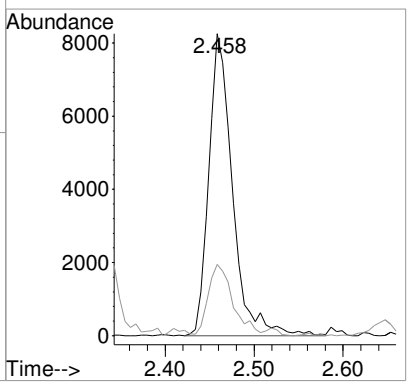


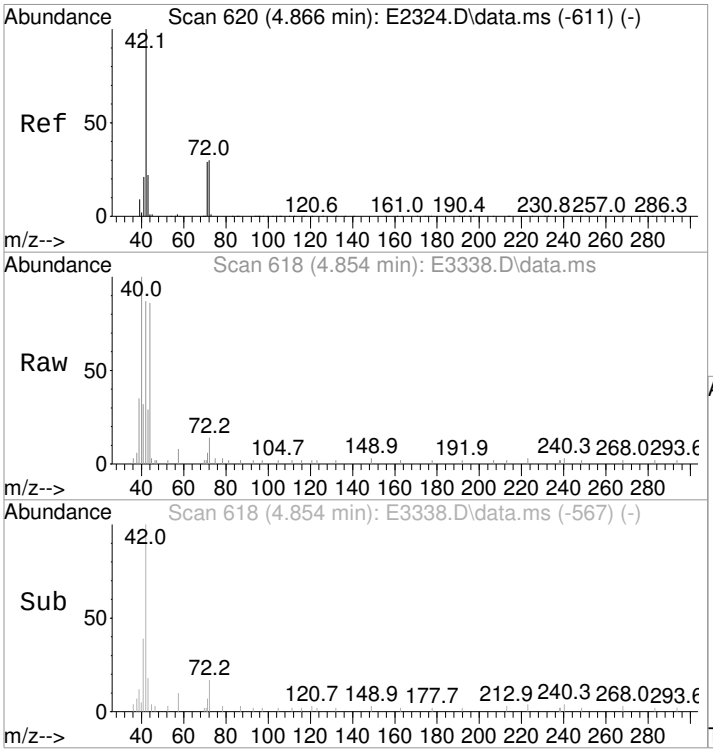


#16
2-Propanol
Concen: 40.82 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3338.D
Acq: 1 Aug 2019 3:31 pm

Tgt Ion: 45 Resp: 15226

Ion	Ratio	Lower	Upper
45	100		
43	23.6	0.0	38.5

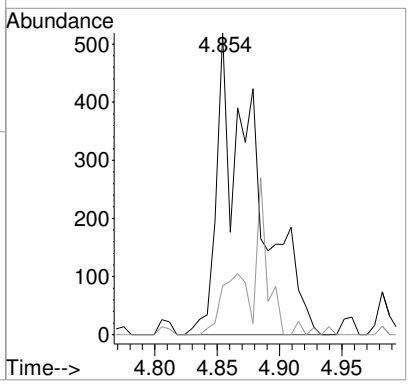




#38
Tetrahydrofuran
Concen: 0.71 ug/L m
RT: 4.854 min Scan# 618
Delta R.T. -0.006 min
Lab File: E3338.D
Acq: 1 Aug 2019 3:31 pm

Tgt Ion: 42 Resp: 1115

Ion	Ratio	Lower	Upper
42	100		
72	16.2	10.2	50.2



1st DL 08/03/19
2nd 08/05/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3342.D
Acq On : 1 Aug 2019 4:58 pm
Operator : D.Lipani
Sample : R1907110-004|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 02 15:43:49 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	266604	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	382952	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	334481	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	177084	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	126196	50.10	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.20%			
46) surr1,1,2-dichloroetha...	5.781	65	176556	52.54	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.08%			
64) SURR3,Toluene-d8	8.311	98	502263	49.88	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.76%			
69) SURR2,BFB	10.878	95	189861	49.54	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.08%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	7233	1.92	ug/L	78
5) Bromomethane	1.581	94	461	Below Cal		87
10) Freon 123a	2.087	67	917	0.28	ug/L #	37
13) 1,1-Diclethene	2.282	96	83180	33.51	ug/L	93
15) Acetone	2.324	43	3322	2.11	ug/L	97
16) 2-Propanol	2.458	45	4247	11.16	ug/L	90
27) 1,1-Diclethane	3.525	63	43259	7.88	ug/L	96
33) cis-1,2-Dichloroethene	4.361	96	1881	0.65	ug/L #	46
40) 1,1,1-Trichloroethane	5.251	97	4084332	985.50	ug/L	99
53) Trichloroethene	6.817	130	4110	1.46	ug/L	98
57) 1,4-Dioxane	7.299	88	537	9.71	ug/L #	53
71) Tetrachloroethene	8.976	164	523	0.23	ug/L #	72

rpt 1/10

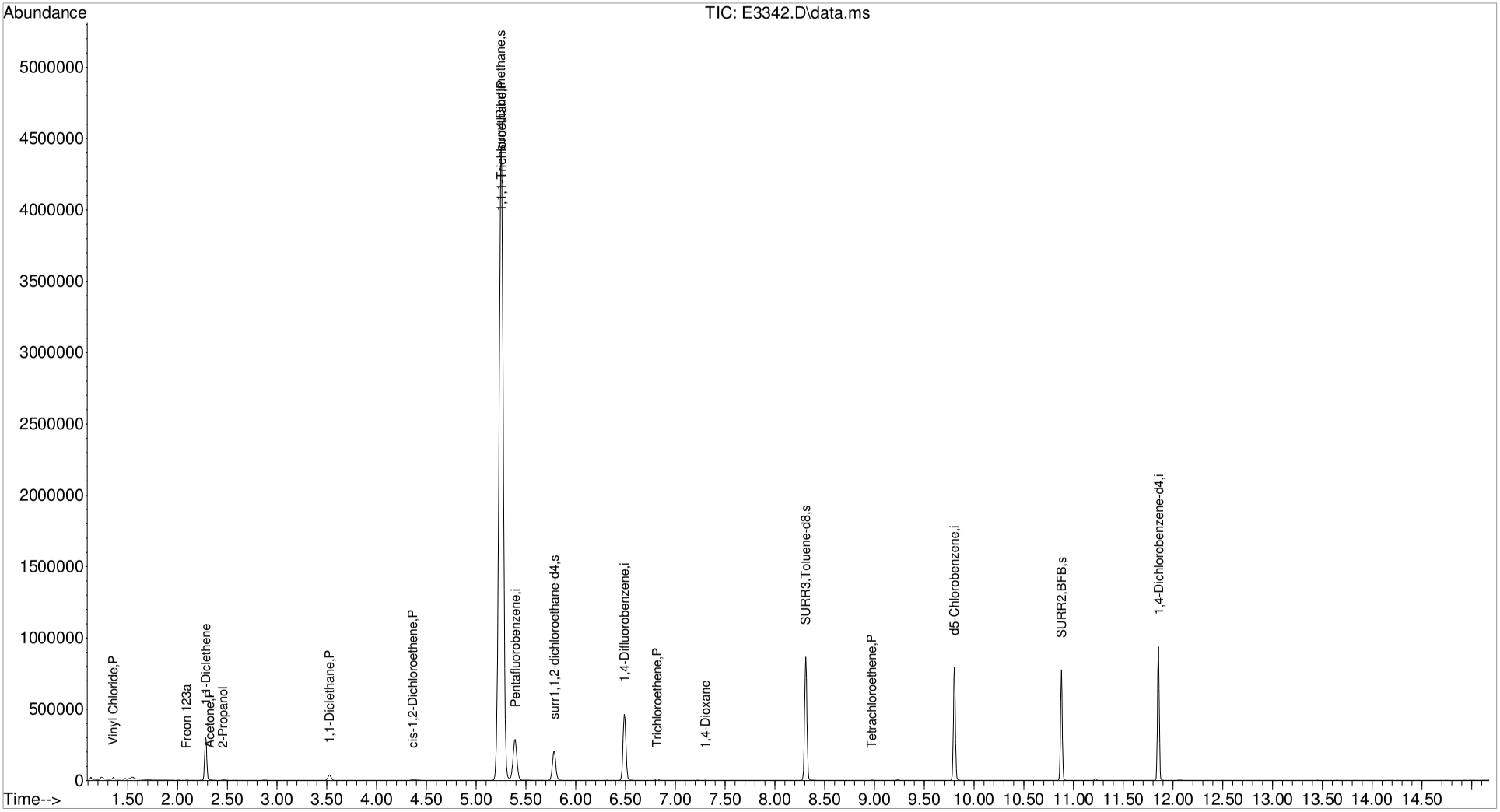
E-Over Calibration

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

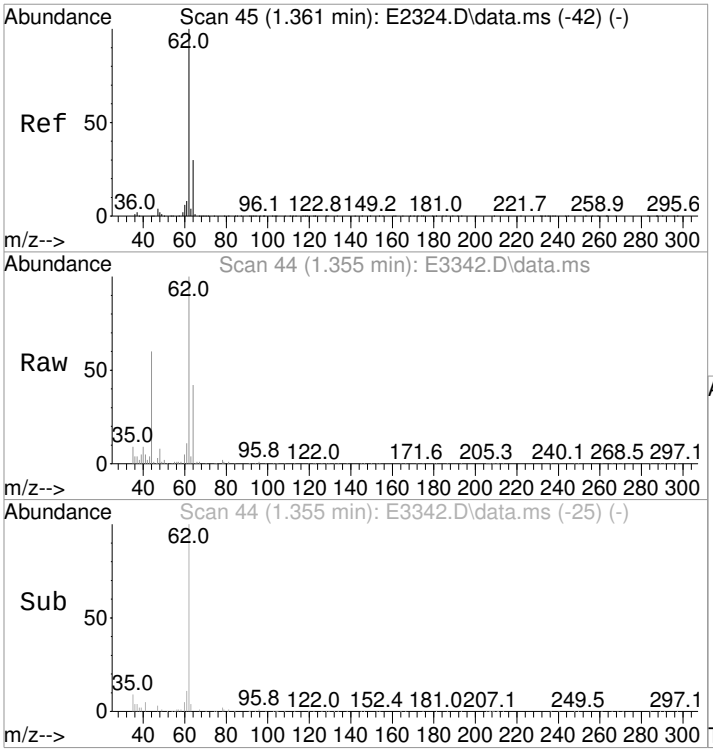
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3342.D
Acq On : 1 Aug 2019 4:58 pm
Operator : D.Lipani
Sample : R1907110-004|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 02 15:43:49 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



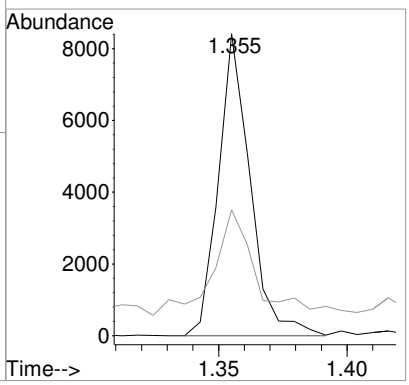
1st DL 08/03/19
2nd 08/05/19

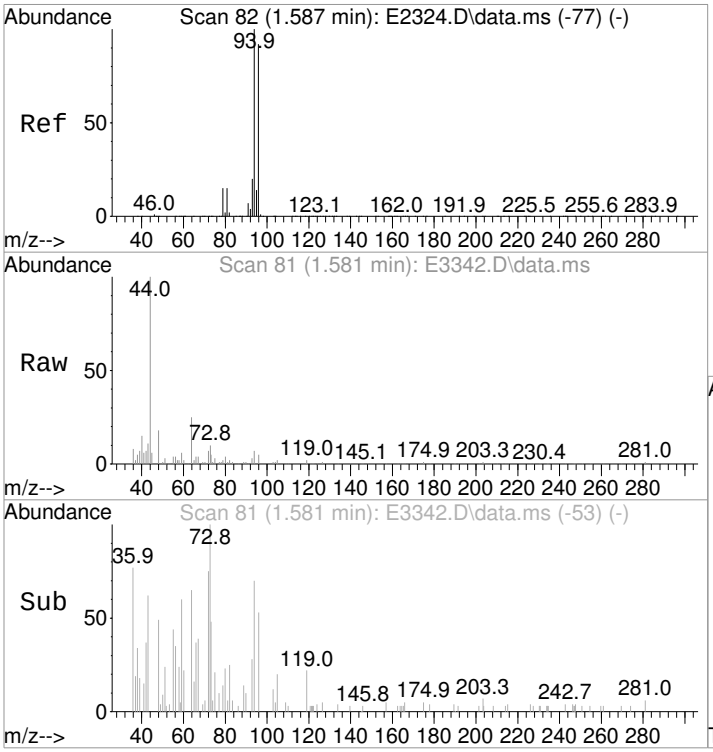


#4
Vinyl Chloride
Concen: 1.92 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 62 Resp: 7233

Ion	Ratio	Lower	Upper
62	100		
64	41.7	10.0	50.0

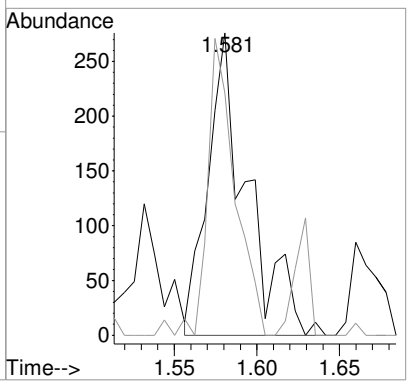


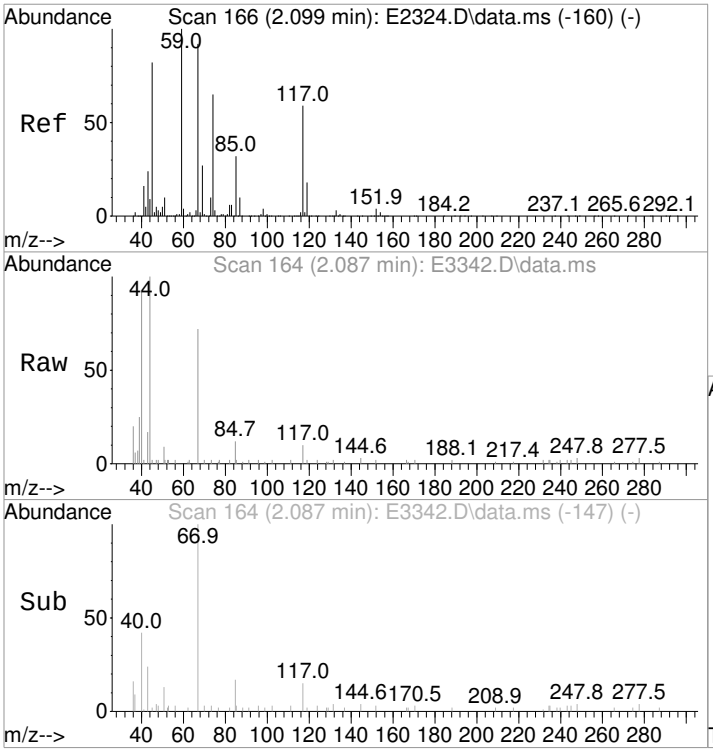


#5
Bromomethane
Concen: Below Cal
RT: 1.581 min Scan# 81
Delta R.T. 0.007 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 94 Resp: 461

Ion	Ratio	Lower	Upper
94	100		
96	80.1	72.1	112.1

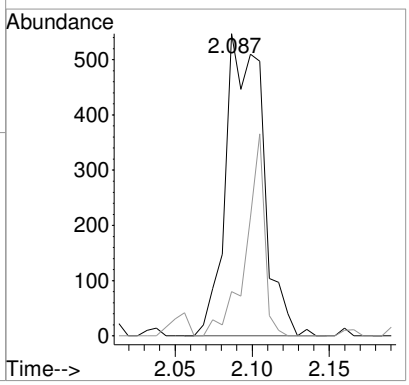


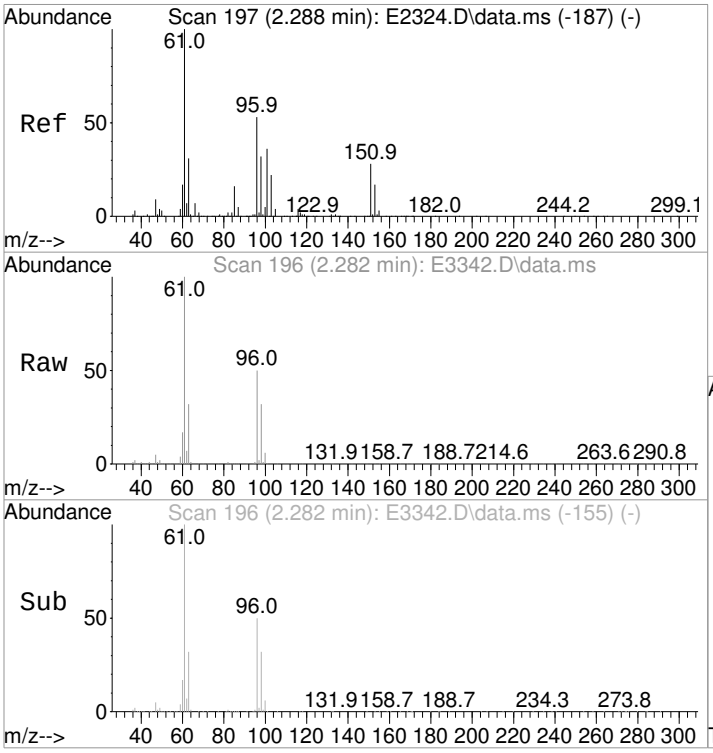


#10
Freon 123a
Concen: 0.28 ug/L
RT: 2.087 min Scan# 164
Delta R.T. -0.012 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 67 Resp: 917

Ion	Ratio	Lower	Upper
67	100		
117	14.6	44.3	84.3#

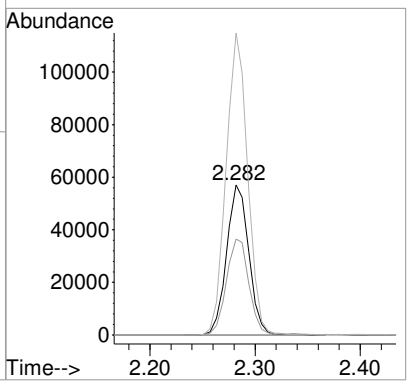


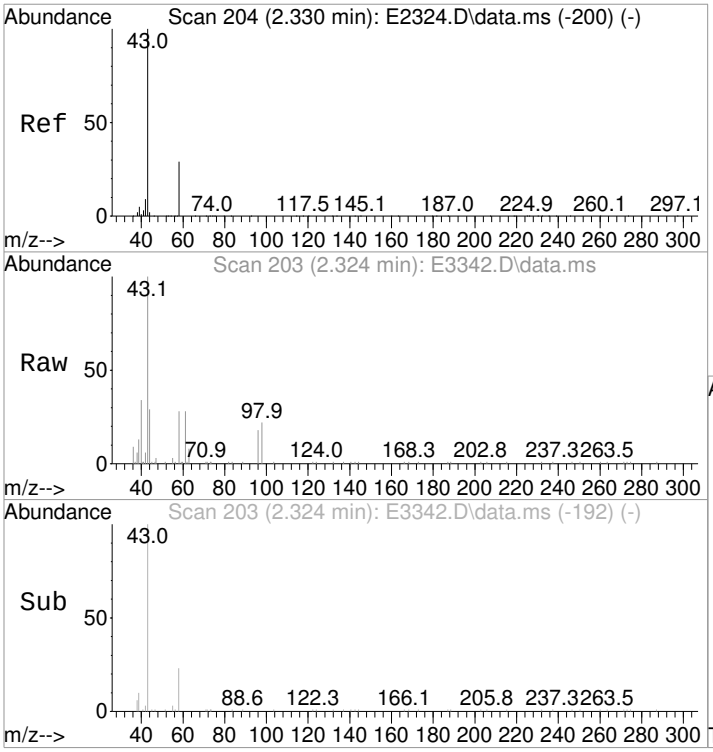


#13
1,1-Diclethene
Concen: 33.51 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 96 Resp: 83180

Ion	Ratio	Lower	Upper
96	100		
98	63.9	40.4	80.4
61	201.1	169.9	209.9

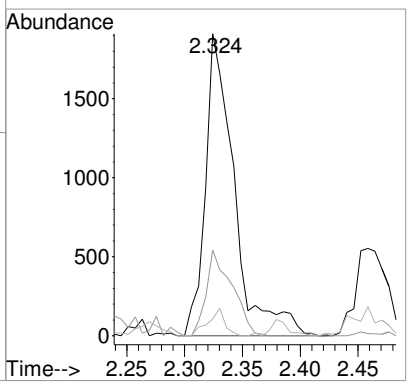


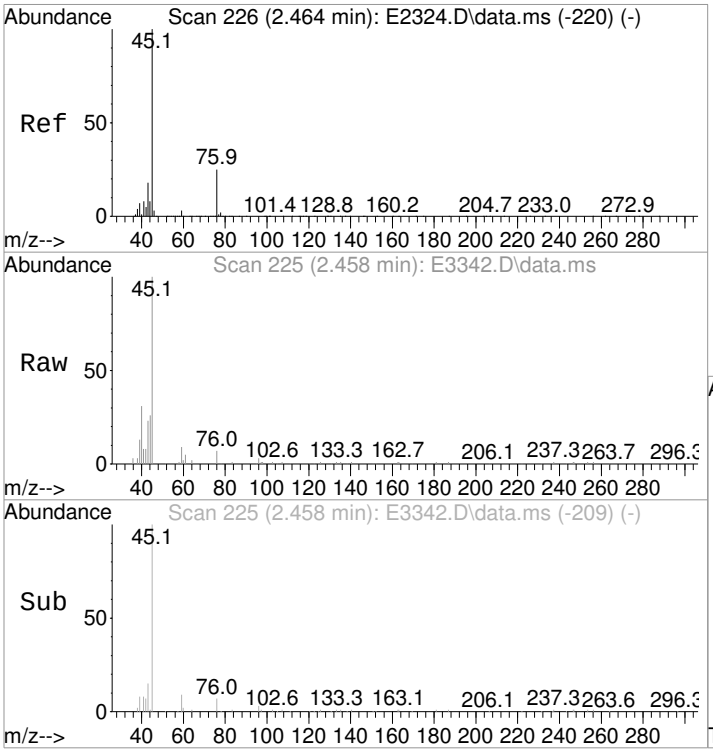


#15
Acetone
Concen: 2.11 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 43 Resp: 3322

Ion	Ratio	Lower	Upper
43	100		
58	28.4	8.4	48.4
42	5.6	0.0	29.4

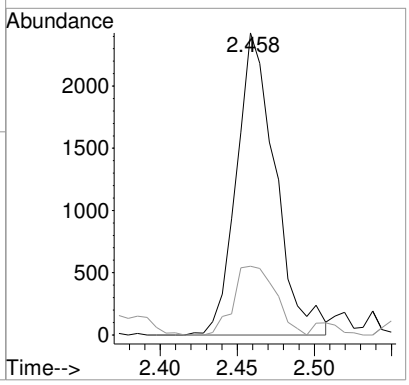


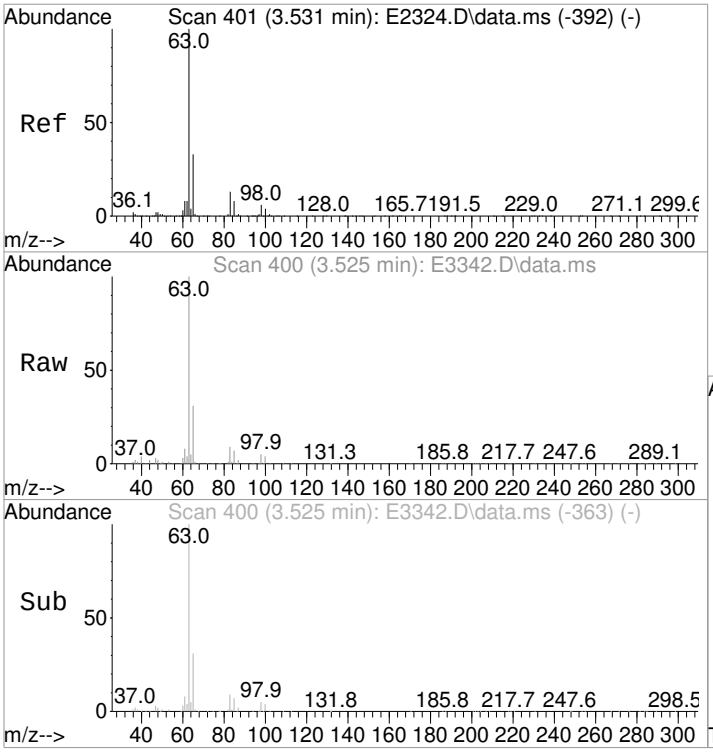


#16
2-Propanol
Concen: 11.16 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 45 Resp: 4247

Ion	Ratio	Lower	Upper
45	100		
43	22.8	0.0	38.5

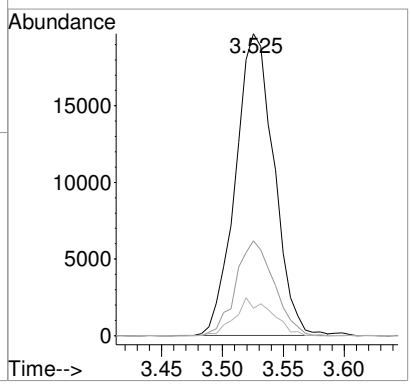


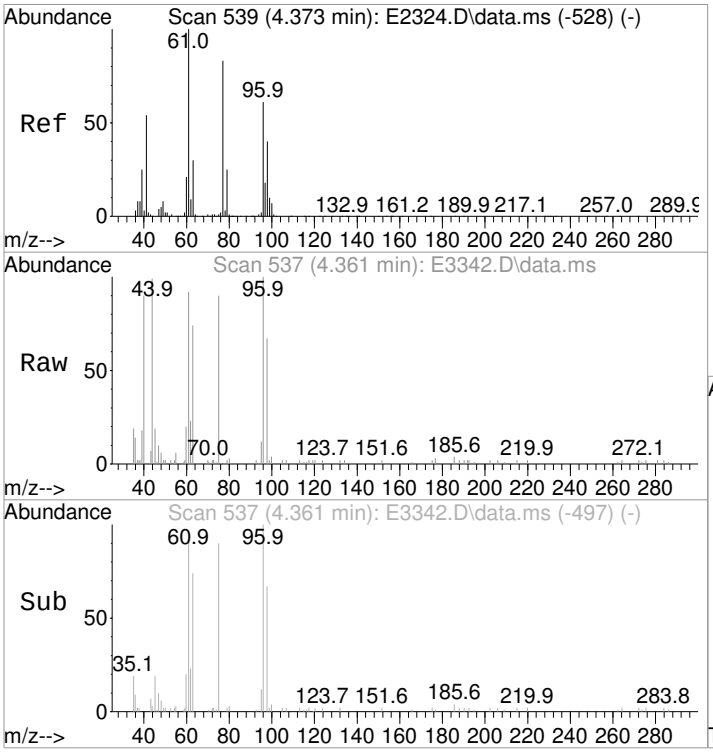


#27
1,1-Diclethane
Concen: 7.88 ug/L
RT: 3.525 min Scan# 400
Delta R.T. -0.000 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 63 Resp: 43259

Ion	Ratio	Lower	Upper
63	100		
65	31.4	12.7	52.7
83	9.0	0.0	32.6

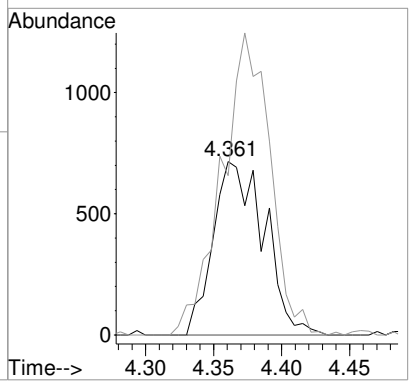


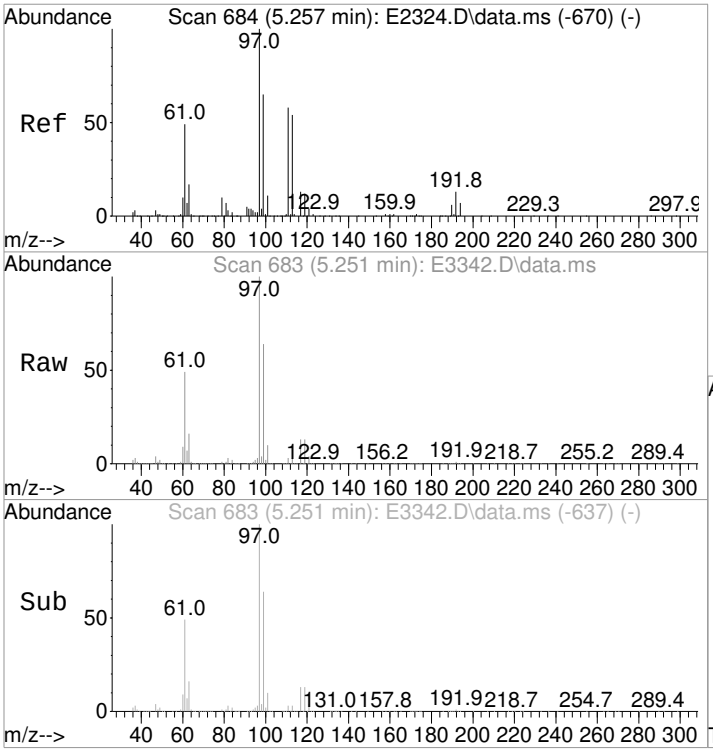


#33
cis-1,2-Dichloroethene
Concen: 0.65 ug/L
RT: 4.361 min Scan# 537
Delta R.T. -0.012 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 96 Resp: 1881

Ion	Ratio	Lower	Upper
96	100		
61	91.8	143.6	183.6#

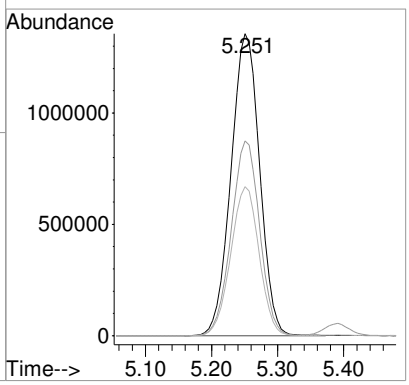


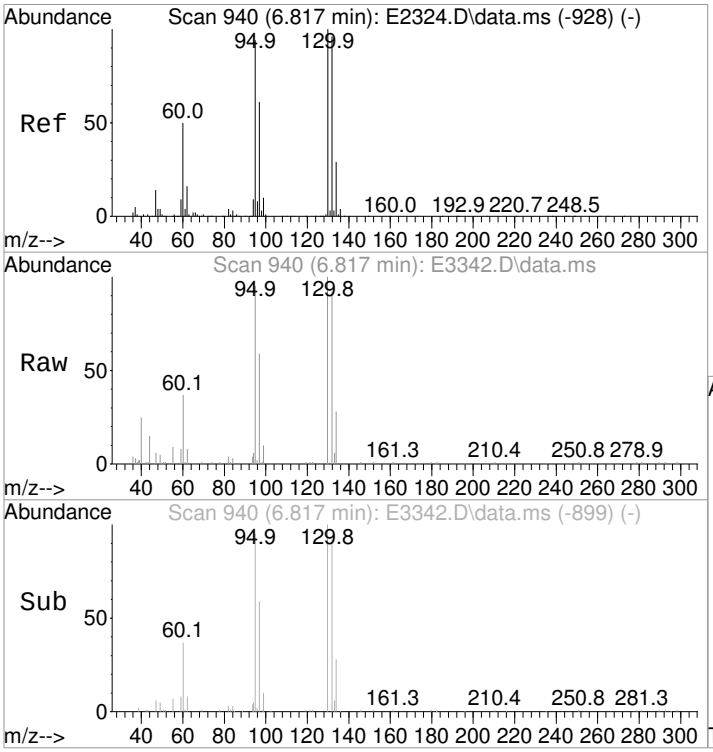


#40
1,1,1-Trichloroethane
Concen: 985.50 ug/L
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 97 Resp: 4084332

Ion	Ratio	Lower	Upper
97	100		
99	64.5	44.7	84.7
61	49.4	28.6	68.6

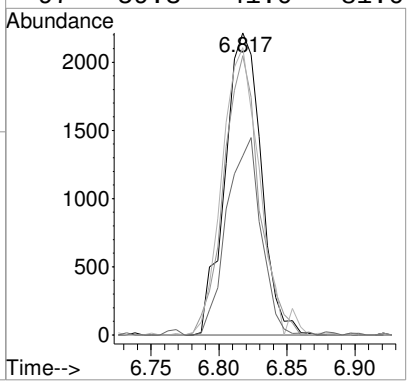


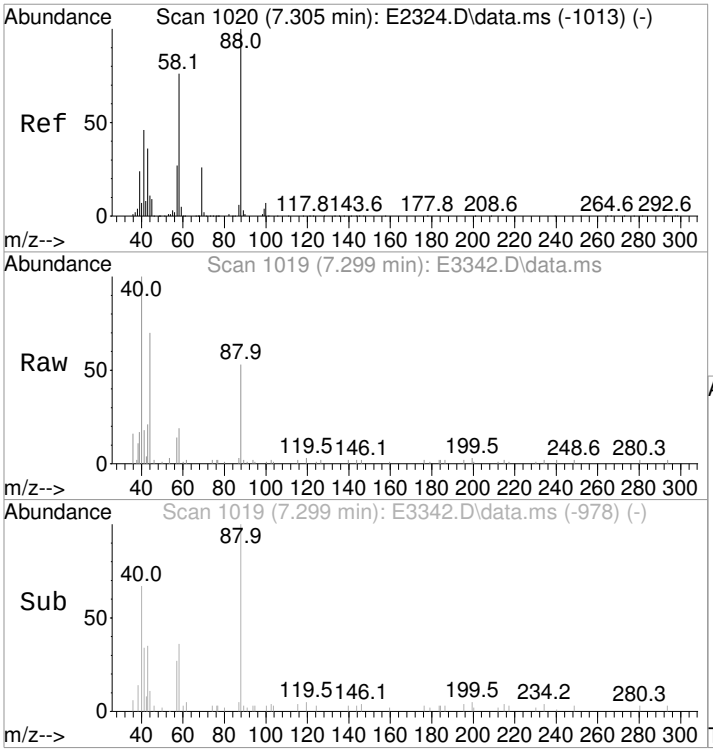


#53
Trichloroethene
Concen: 1.46 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion:130 Resp: 4110

Ion	Ratio	Lower	Upper
130	100		
132	92.5	76.1	116.1
95	95.2	73.9	113.9
97	59.3	41.0	81.0

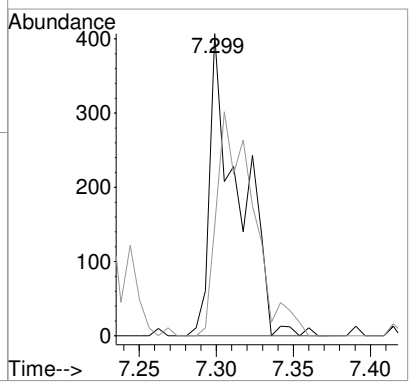


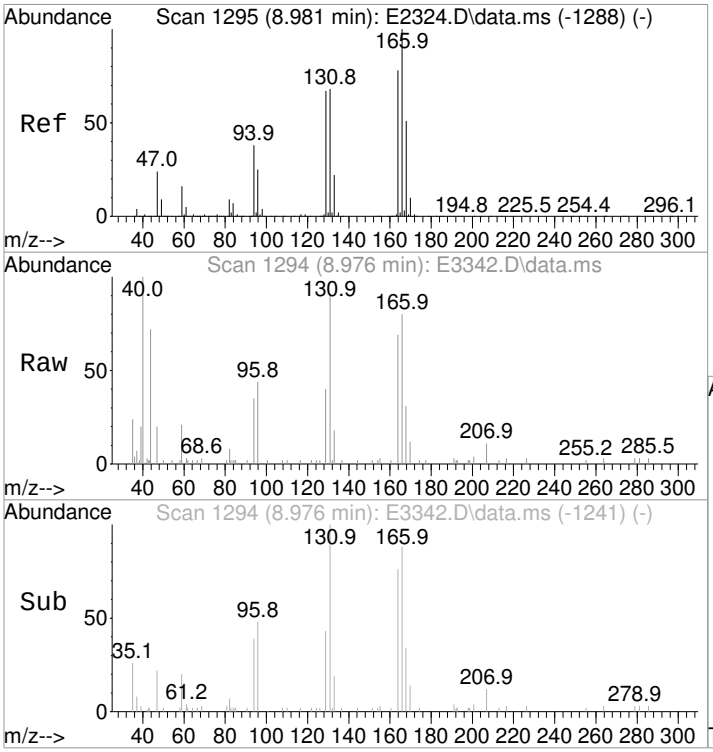


#57
1,4-Dioxane
Concen: 9.71 ug/L
RT: 7.299 min Scan# 1019
Delta R.T. -0.006 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion: 88 Resp: 537

Ion	Ratio	Lower	Upper
88	100		
58	36.4	56.6	96.6#

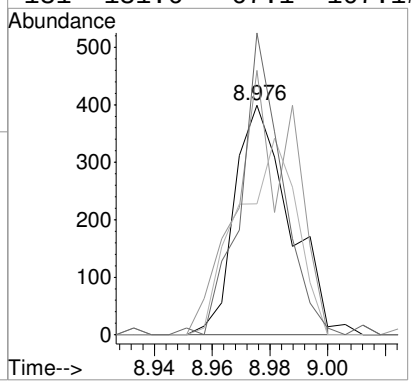




#71
Tetrachloroethene
Concen: 0.23 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.006 min
Lab File: E3342.D
Acq: 1 Aug 2019 4:58 pm

Tgt Ion:164 Resp: 523

Ion	Ratio	Lower	Upper
164	100		
166	115.3	108.6	148.6
129	57.1	66.6	106.6#
131	131.6	67.1	107.1#



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3446.D
Acq On : 5 Aug 2019 7:06 pm
Operator : D.Lipani
Sample : R1907110-004|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Aug 07 11:19:21 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge DL
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

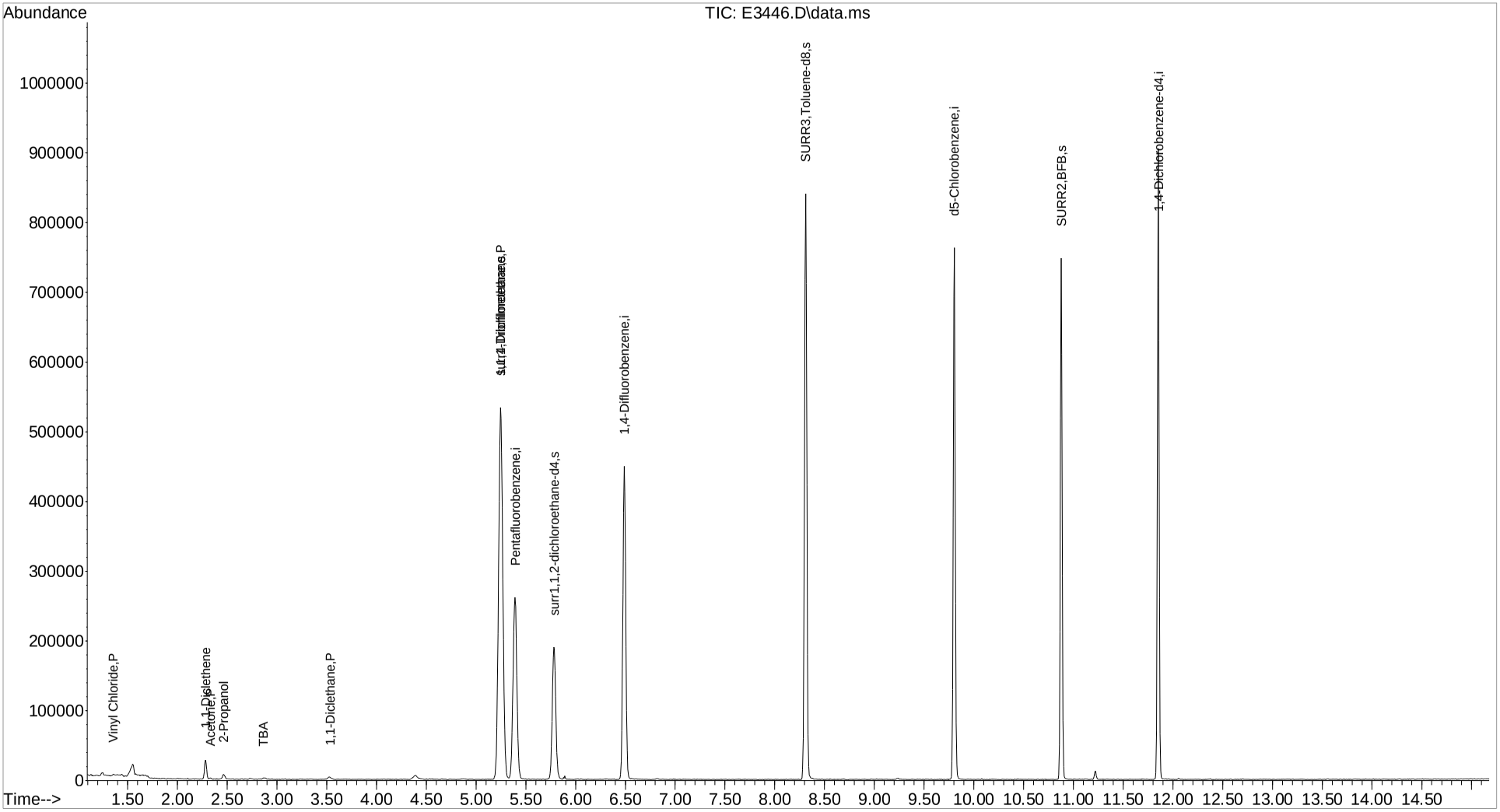
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	245280	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	364608	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	316927	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	166566	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	121760	50.77	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.54%			
46) surr1,1,2-dichloroetha...	5.781	65	170610	53.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.64%			
64) SURR3,Toluene-d8	8.311	98	490143	51.12	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.24%			
69) SURR2,BFB	10.878	95	188250	51.59	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.18%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	759	0.22	ug/L #	50
6) Chloroethane	1.642	64	326	Below Cal	#	66
13) 1,1-Diclethene	2.282	96	7544	3.30	ug/L	90
15) Acetone	2.331	43	1788	1.23	ug/L	93
16) 2-Propanol	2.465	45	7685	21.95	ug/L	94
23) TBA	2.861	59	1536	2.99	ug/L	94
27) 1,1-Diclethane	3.531	63	4390	0.87	ug/L	84
40) 1,1,1-Trichloroethane	5.245	97	372777	97.77	ug/L	99

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

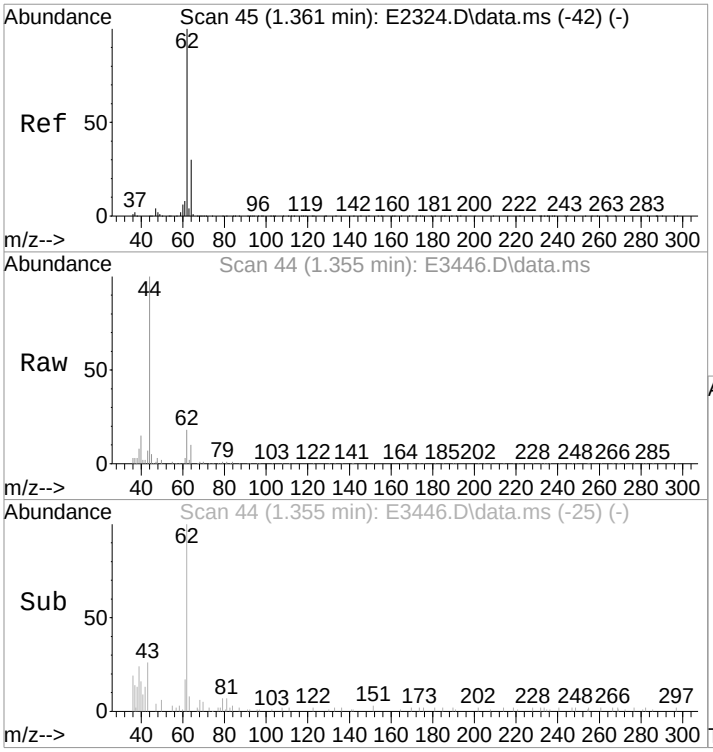
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3446.D
Acq On : 5 Aug 2019 7:06 pm
Operator : D.Lipani
Sample : R1907110-004|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Aug 07 11:19:21 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



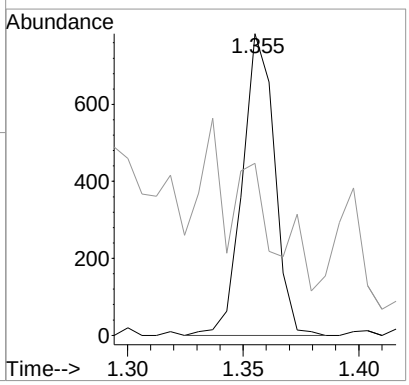
1st 08/07/19
2nd 08/07/19

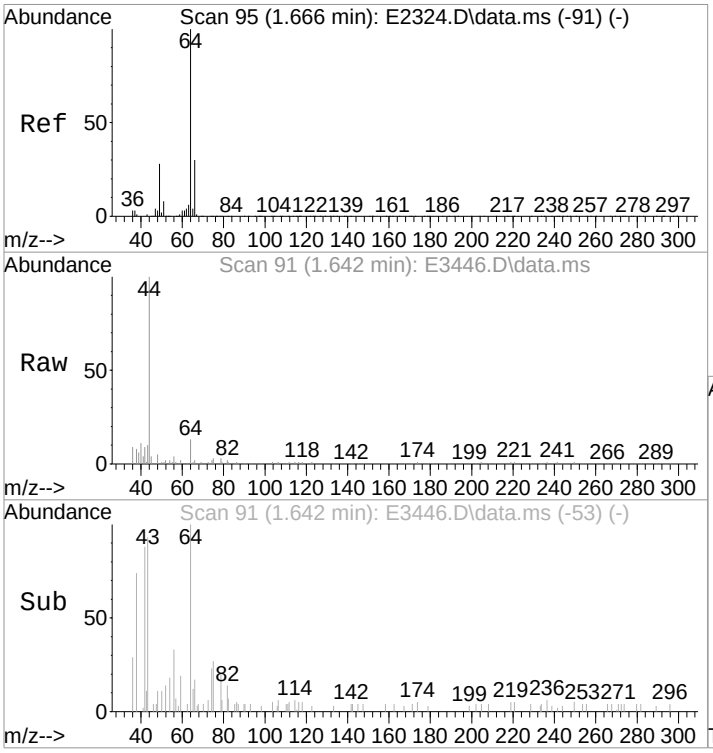


#4
Vinyl Chloride
Concen: 0.22 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 62 Resp: 759

Ion	Ratio	Lower	Upper
62	100		
64	57.0	10.0	50.0#

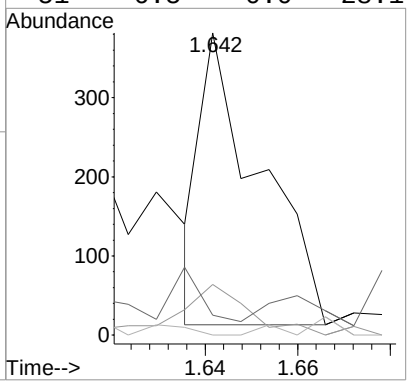


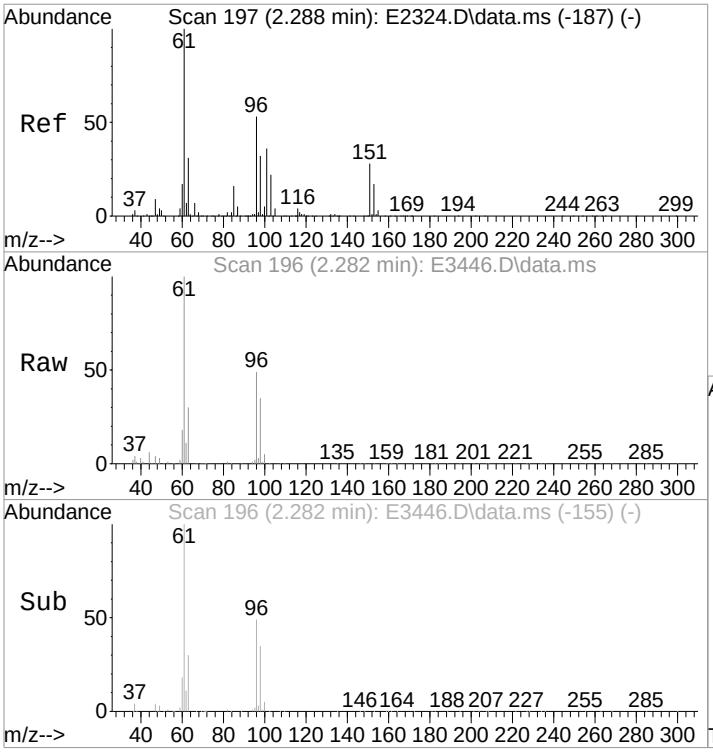


#6
Chloroethane
Concen: Below Cal
RT: 1.642 min Scan# 91
Delta R.T. -0.011 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 64 Resp: 326

Ion	Ratio	Lower	Upper
64	100		
66	16.8	9.8	49.8
49	0.0	8.1	48.1#
51	6.5	0.0	28.1

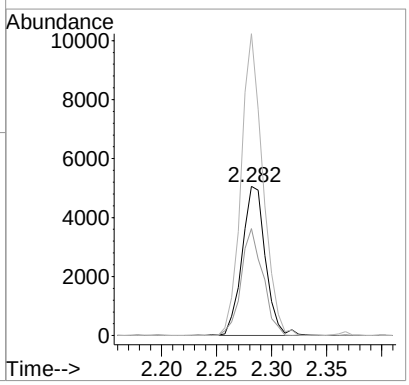


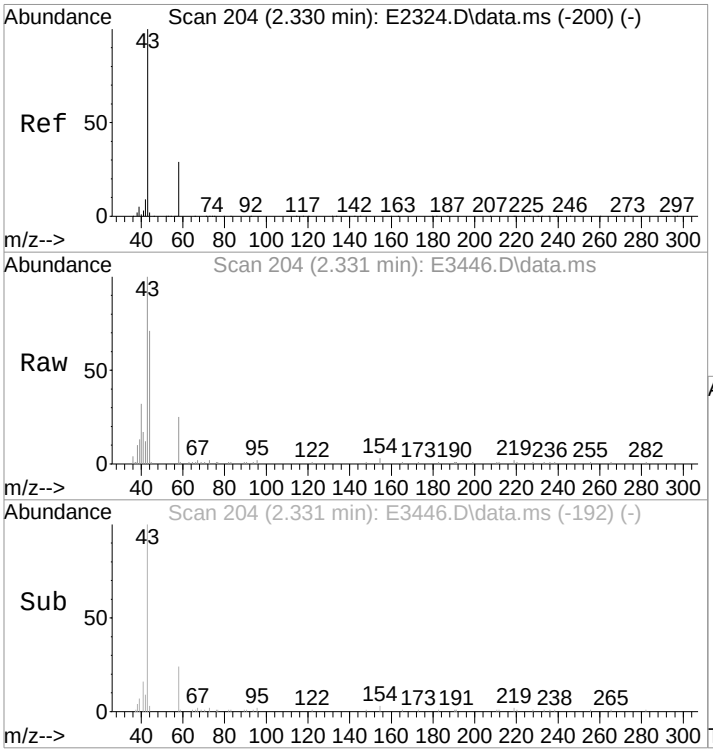


#13
1,1-Diclethene
Concen: 3.30 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 96 Resp: 7544

Ion	Ratio	Lower	Upper
96	100		
98	71.6	40.4	80.4
61	202.3	169.9	209.9

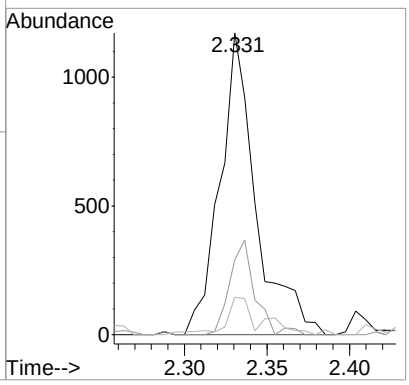


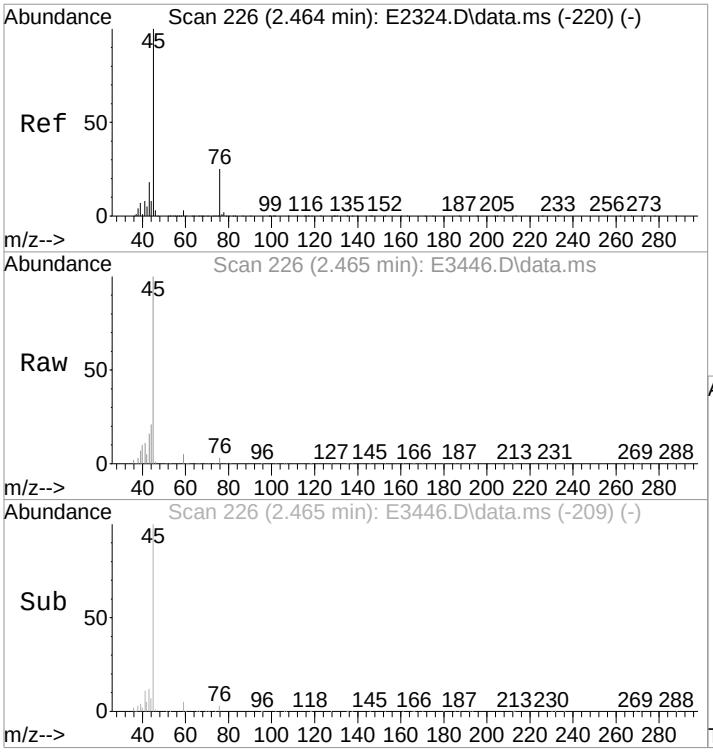


#15
Acetone
Concen: 1.23 ug/L
RT: 2.331 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 43 Resp: 1788

Ion	Ratio	Lower	Upper
43	100		
58	24.8	8.4	48.4
42	12.5	0.0	29.4

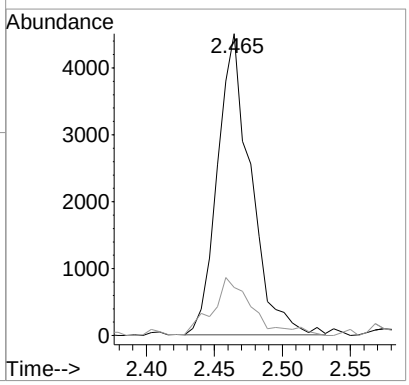


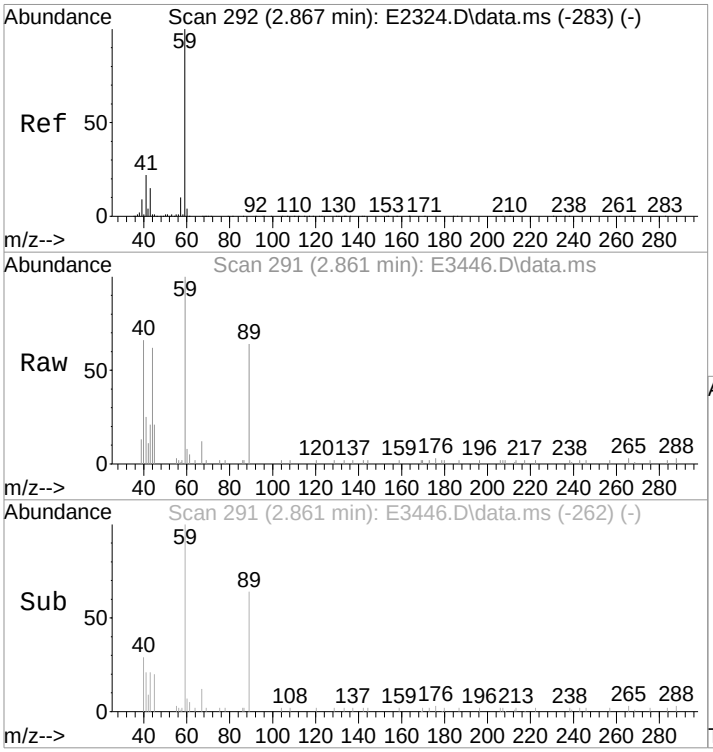


#16
2-Propanol
Concen: 21.95 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.005 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 45 Resp: 7685

Ion	Ratio	Lower	Upper
45	100		
43	16.0	0.0	38.5

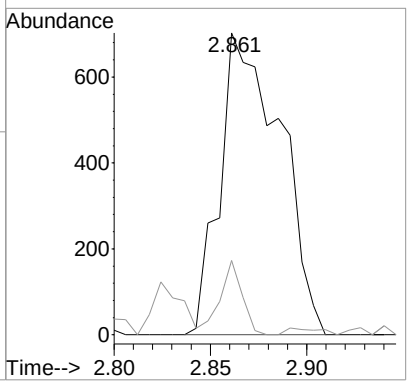


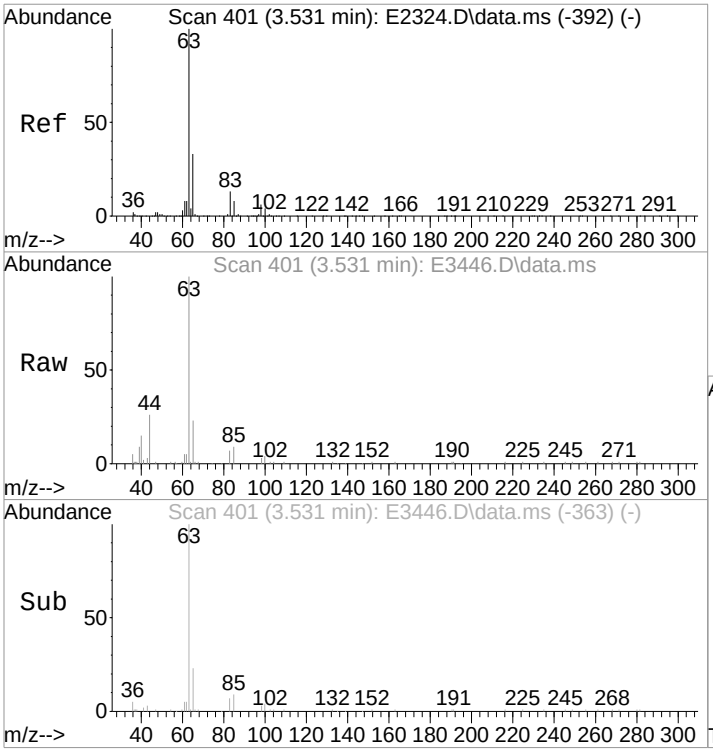


#23
TBA
Concen: 2.99 ug/L
RT: 2.861 min Scan# 291
Delta R.T. -0.012 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 59 Resp: 1536

Ion	Ratio	Lower	Upper
59	100		
41	24.6	1.8	41.8

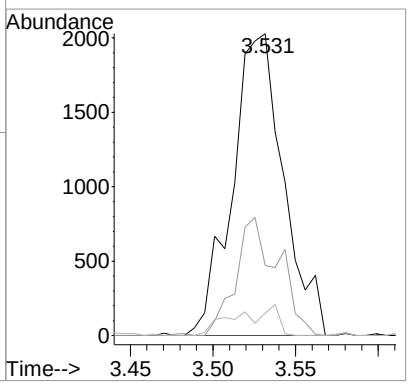


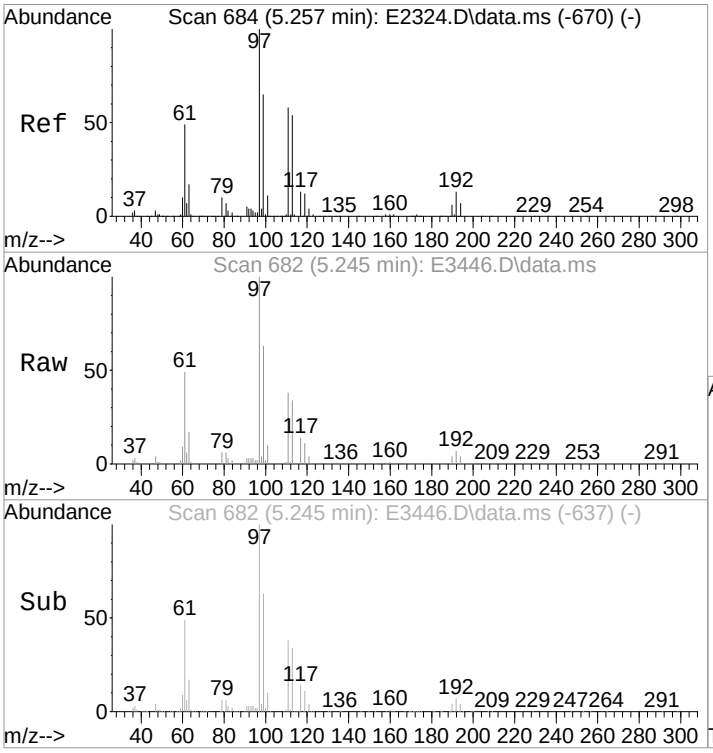


#27
1,1-Diclethane
Concen: 0.87 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 63 Resp: 4390

Ion	Ratio	Lower	Upper
63	100		
65	23.2	12.7	52.7
83	7.5	0.0	32.6

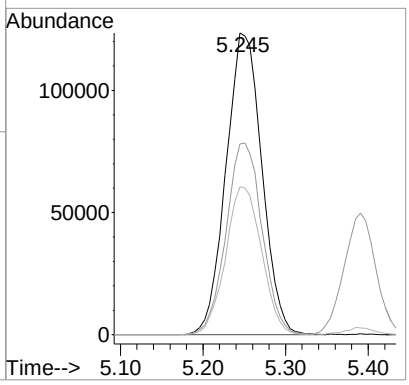




#40
1,1,1-Trichloroethane
Concen: 97.77 ug/L
RT: 5.245 min Scan# 682
Delta R.T. -0.006 min
Lab File: E3446.D
Acq: 5 Aug 2019 7:06 pm

Tgt Ion: 97 Resp: 372777

Ion	Ratio	Lower	Upper
97	100		
99	63.2	44.7	84.7
61	49.0	28.6	68.6



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3345.D
Acq On : 1 Aug 2019 6:04 pm
Operator : D.Lipani
Sample : R1907110-005|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 02 15:47:53 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	258423	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	373123	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	329852	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	173594	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	128199	52.23	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.46%			
46) surr1,1,2-dichloroetha...	5.781	65	176826	54.00	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.00%			
64) SURR3,Toluene-d8	8.311	98	499430	50.90	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.80%			
69) SURR2,BFB	10.878	95	191242	51.21	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.42%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	6675	1.83	ug/L #	50
5) Bromomethane	1.581	94	337	Below Cal	#	79
10) Freon 123a	2.099	67	790	0.25	ug/L #	57
13) 1,1-Diclethene	2.282	96	83245	34.60	ug/L	98
15) Acetone	2.330	43	3388	2.22	ug/L	97
16) 2-Propanol	2.458	45	5317	14.42	ug/L	62
27) 1,1-Diclethane	3.531	63	43036	8.09	ug/L	98
33) cis-1,2-Dichloroethene	4.367	96	1825	0.65	ug/L #	48
40) 1,1,1-Trichloroethane	5.251	97	4049956	1008.14	ug/L	99
53) Trichloroethene	6.811	130	4179	1.52	ug/L	90
57) 1,4-Dioxane	7.305	88	636	11.80	ug/L #	59
71) Tetrachloroethene	8.975	164	680	0.30	ug/L #	58

rpt 1/10

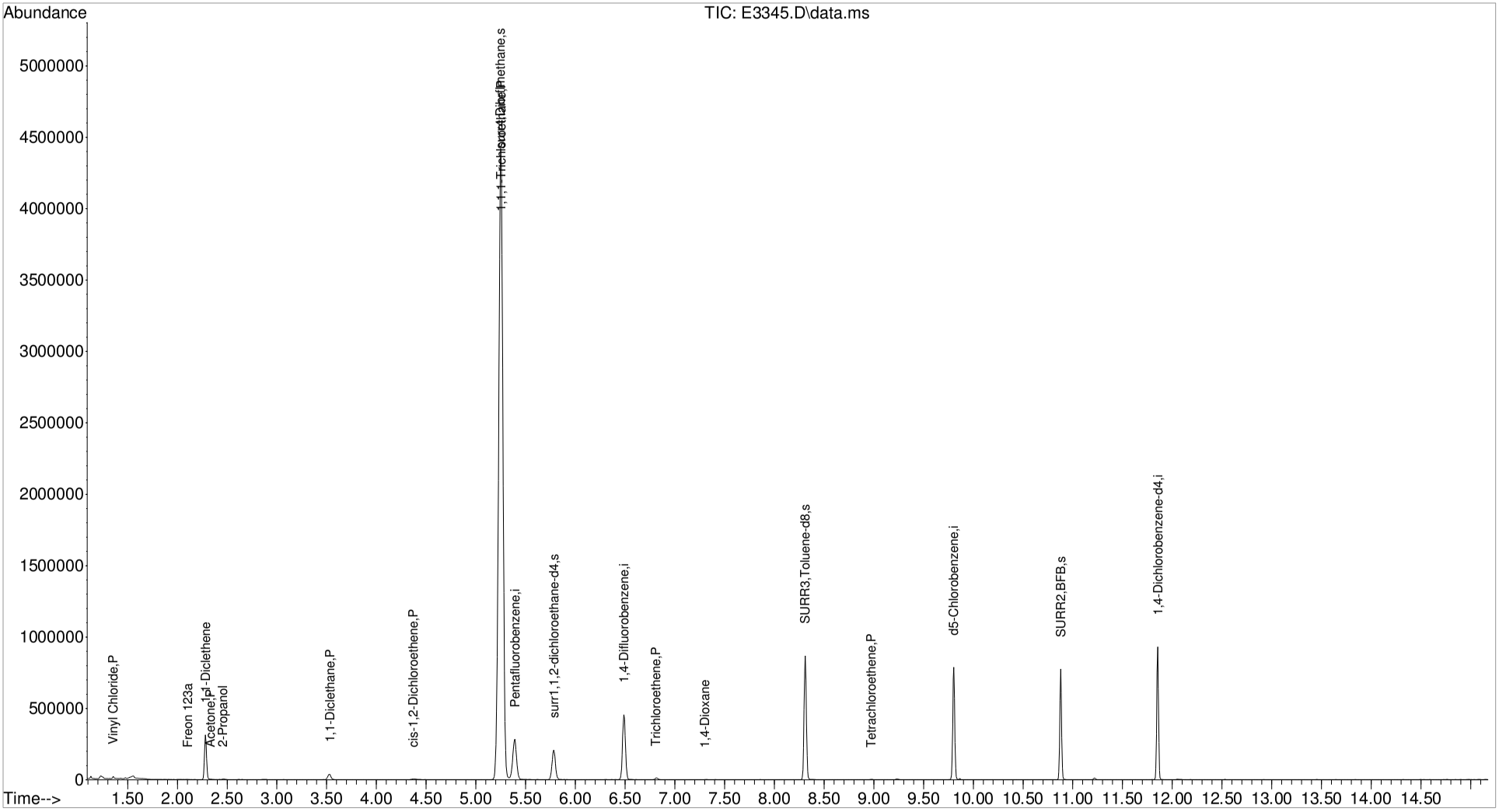
E-Over Calibration

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

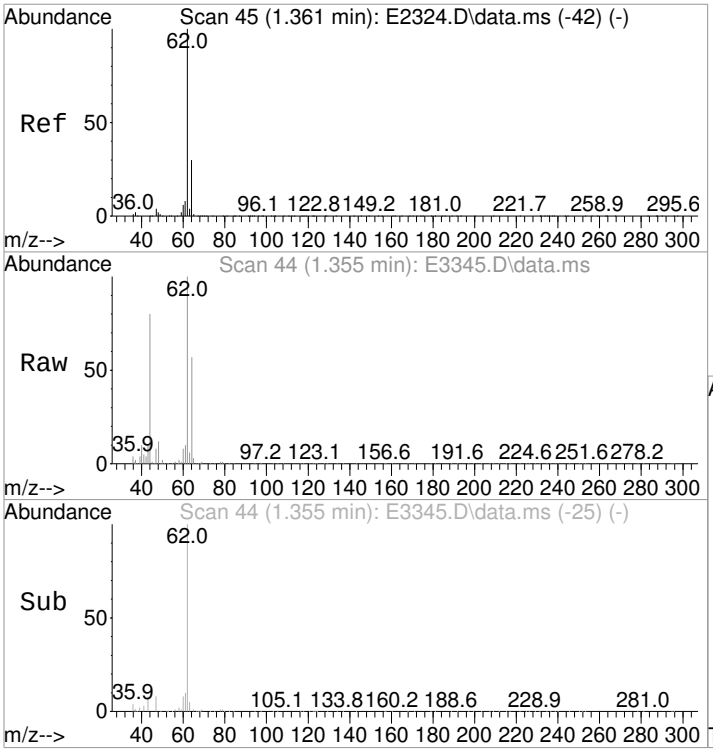
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3345.D
Acq On : 1 Aug 2019 6:04 pm
Operator : D.Lipani
Sample : R1907110-005|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 02 15:47:53 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



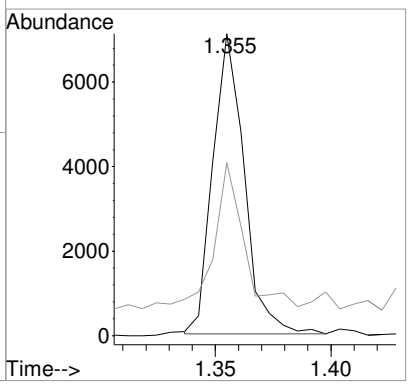
1st DL 08/03/19
2nd 08/05/19

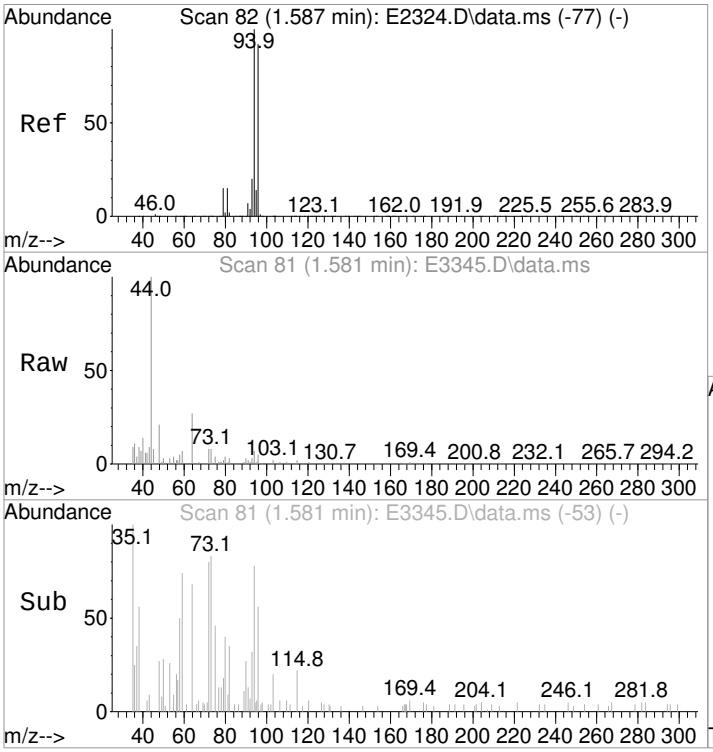


#4
Vinyl Chloride
Concen: 1.83 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 62 Resp: 6675

Ion	Ratio	Lower	Upper
62	100		
64	57.3	10.0	50.0#

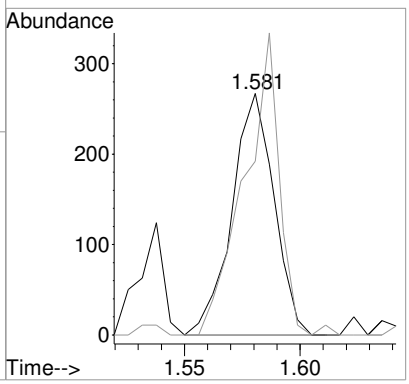


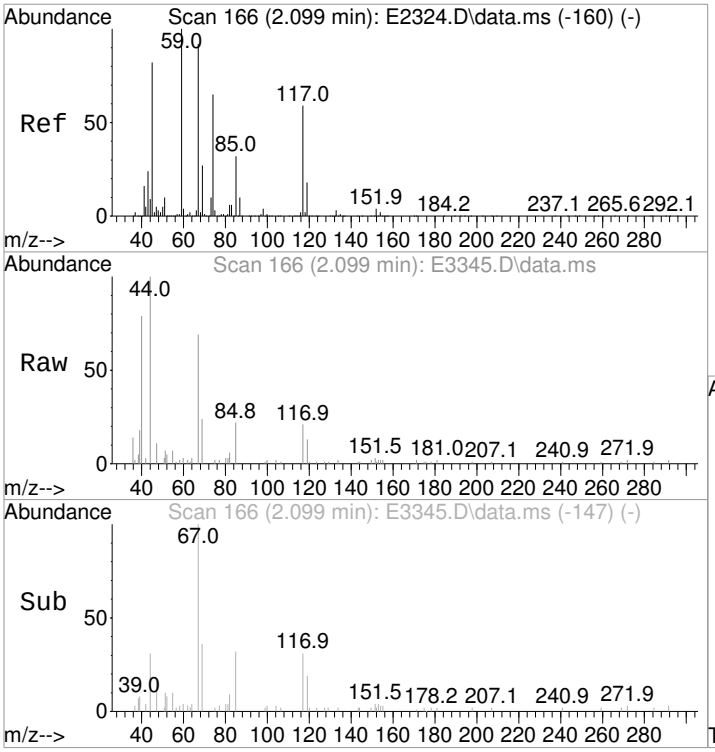


#5
Bromomethane
Concen: Below Cal
RT: 1.581 min Scan# 81
Delta R.T. 0.007 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 94 Resp: 337

Ion	Ratio	Lower	Upper
94	100		
96	71.9	72.1	112.1#

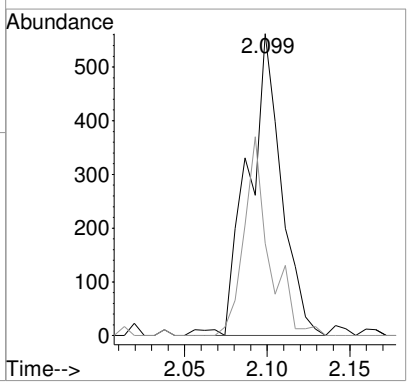


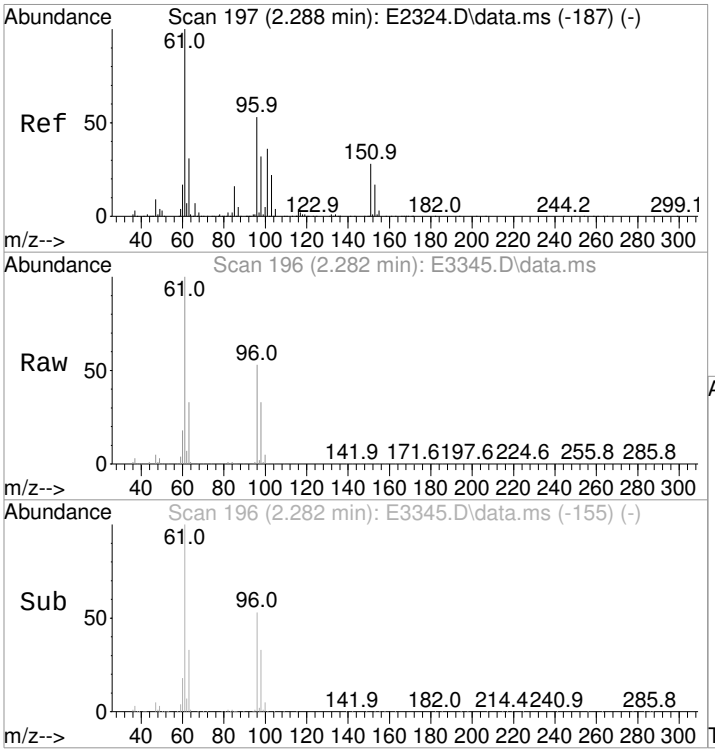


#10
Freon 123a
Concen: 0.25 ug/L
RT: 2.099 min Scan# 166
Delta R.T. -0.000 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 67 Resp: 790

Ion	Ratio	Lower	Upper
67	100		
117	30.6	44.3	84.3#

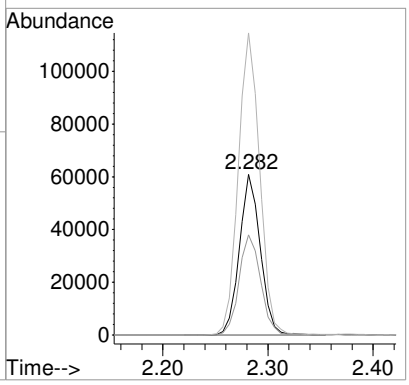


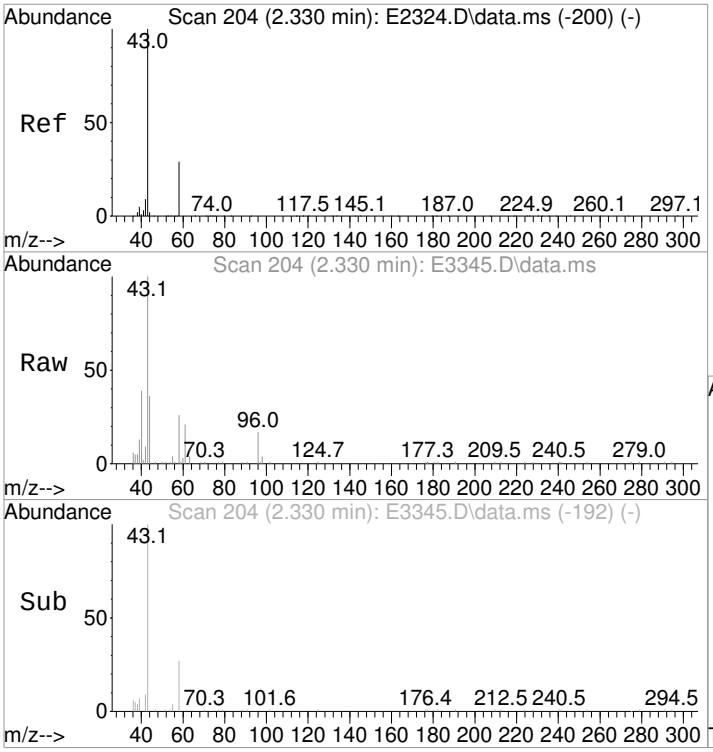


#13
1,1-Diclethene
Concen: 34.60 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 96 Resp: 83245

Ion	Ratio	Lower	Upper
96	100		
98	62.4	40.4	80.4
61	188.1	169.9	209.9

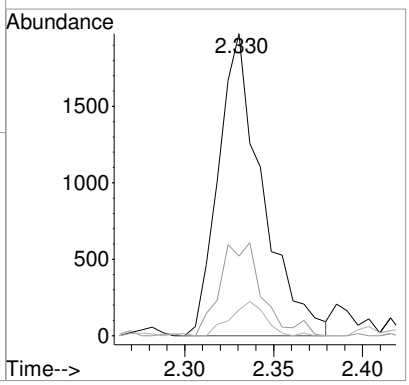


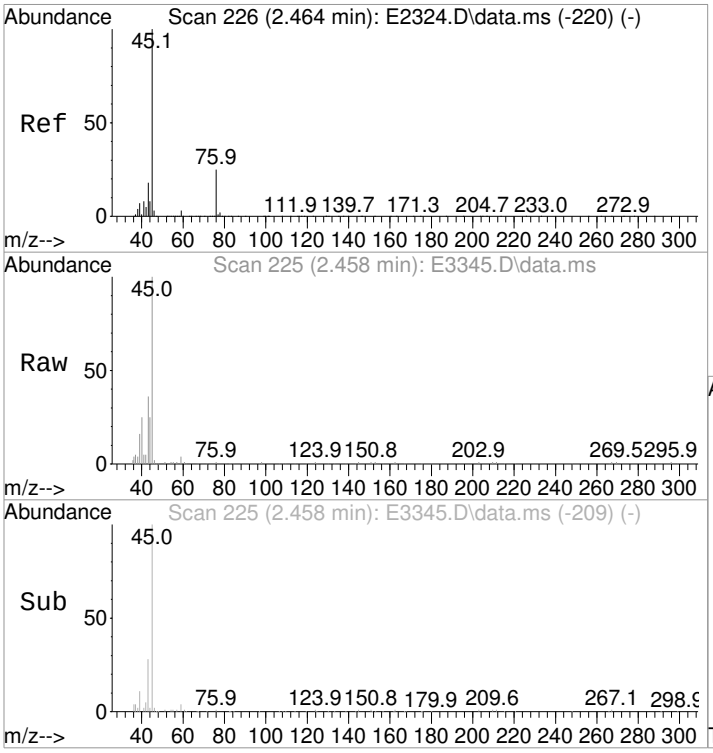


#15
Acetone
Concen: 2.22 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 43 Resp: 3388

Ion	Ratio	Lower	Upper
43	100		
58	26.3	8.4	48.4
42	8.6	0.0	29.4

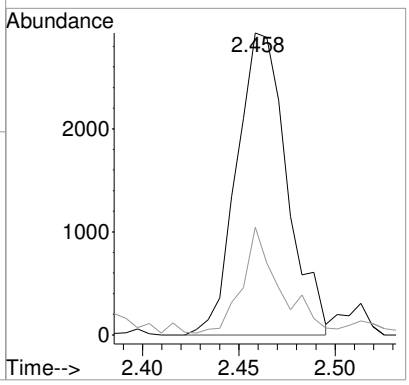


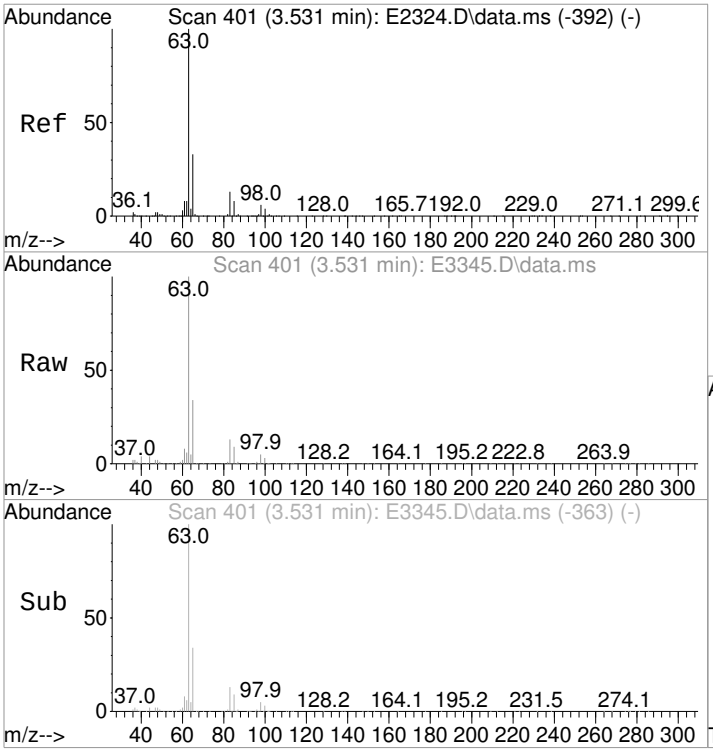


#16
2-Propanol
Concen: 14.42 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 45 Resp: 5317

Ion	Ratio	Lower	Upper
45	100		
43	35.7	0.0	38.5

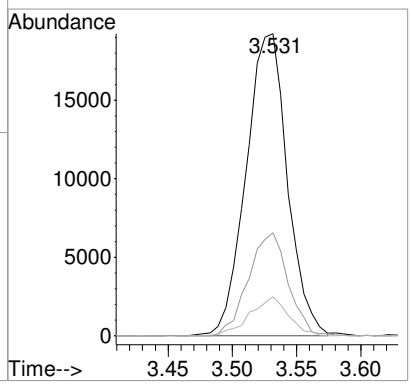


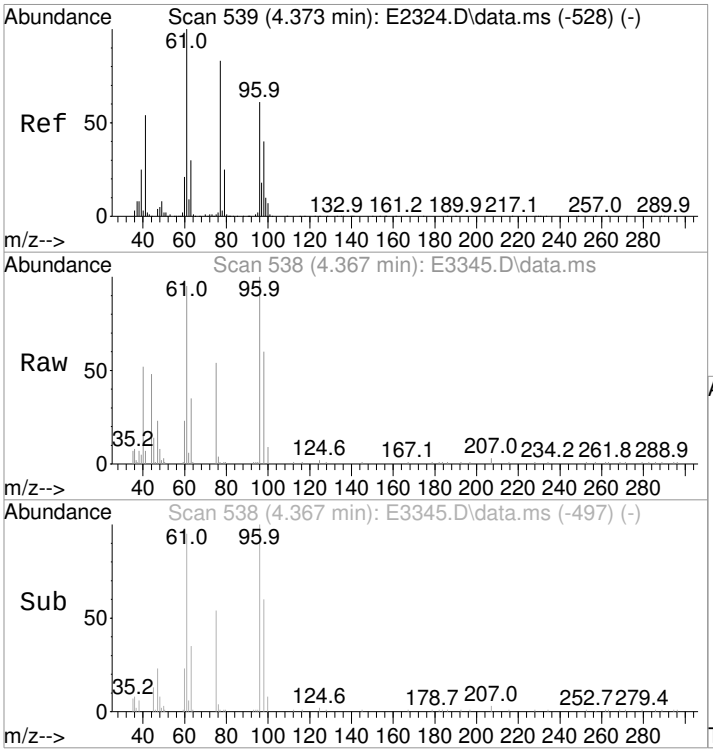


#27
1,1-Diclethane
Concen: 8.09 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 63 Resp: 43036

Ion	Ratio	Lower	Upper
63	100		
65	34.1	12.7	52.7
83	12.9	0.0	32.6

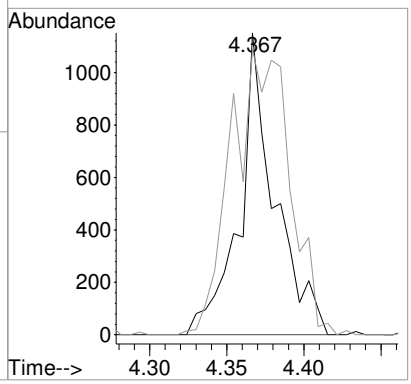


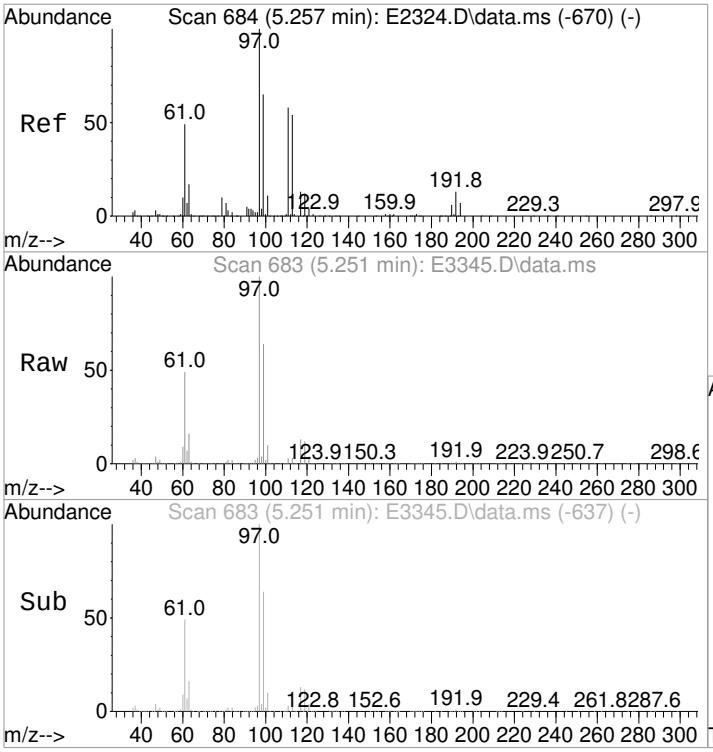


#33
cis-1,2-Dichloroethene
Concen: 0.65 ug/L
RT: 4.367 min Scan# 538
Delta R.T. -0.006 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 96 Resp: 1825

Ion	Ratio	Lower	Upper
96	100		
61	94.6	143.6	183.6#

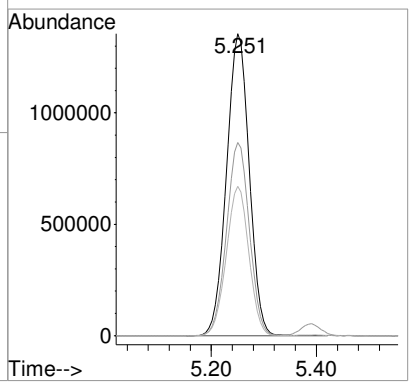


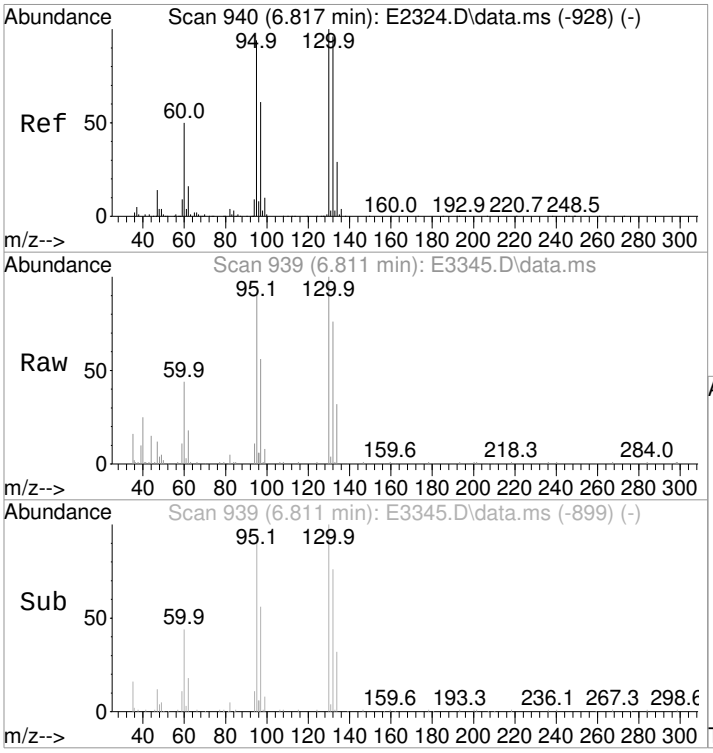


#40
1,1,1-Trichloroethane
Concen: 1008.14 ug/L
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 97 Resp: 4049956

Ion	Ratio	Lower	Upper
97	100		
99	64.0	44.7	84.7
61	49.4	28.6	68.6

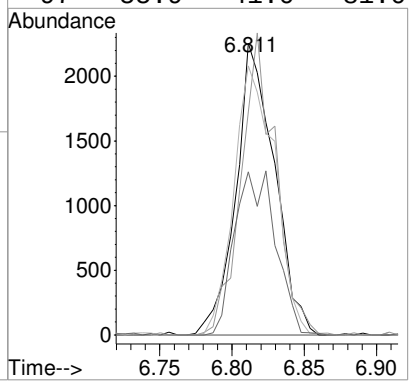


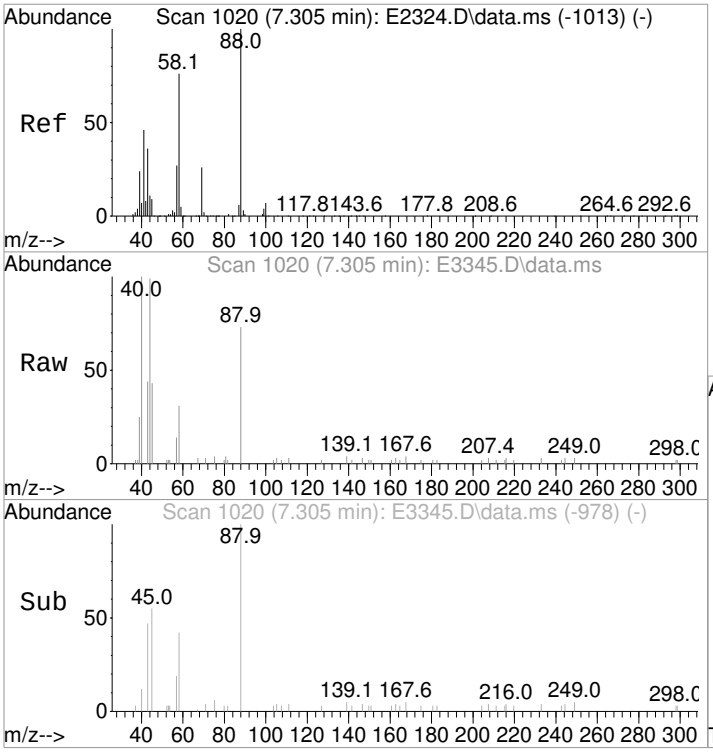


#53
Trichloroethene
Concen: 1.52 ug/L
RT: 6.811 min Scan# 939
Delta R.T. -0.006 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion:130 Resp: 4179

Ion	Ratio	Lower	Upper
130	100		
132	76.5	76.1	116.1
95	92.2	73.9	113.9
97	55.9	41.0	81.0

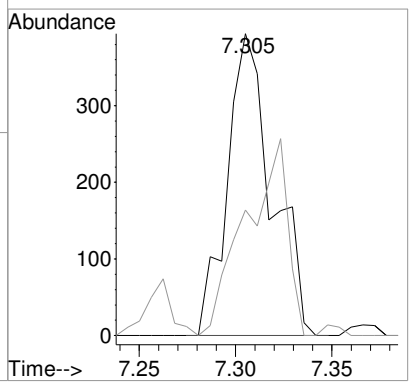


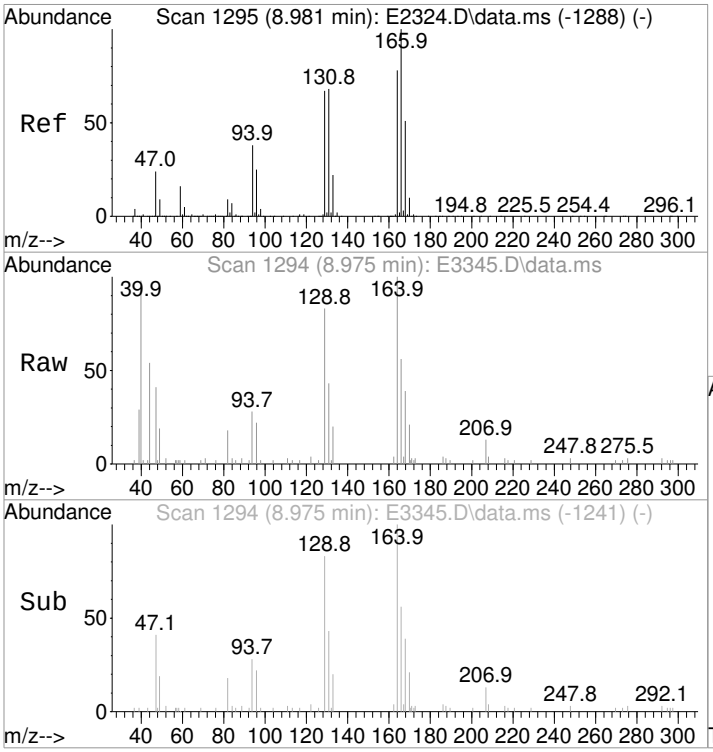


#57
1,4-Dioxane
Concen: 11.80 ug/L
RT: 7.305 min Scan# 1020
Delta R.T. -0.000 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion: 88 Resp: 636

Ion	Ratio	Lower	Upper
88	100		
58	41.6	56.6	96.6#

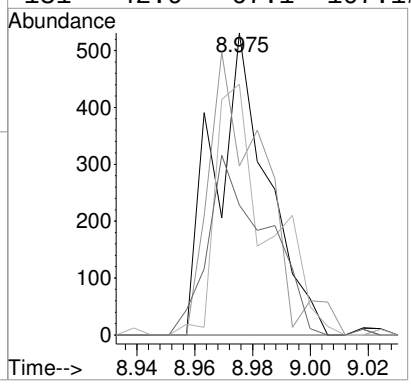




#71
Tetrachloroethene
Concen: 0.30 ug/L
RT: 8.975 min Scan# 1294
Delta R.T. -0.006 min
Lab File: E3345.D
Acq: 1 Aug 2019 6:04 pm

Tgt Ion:164 Resp: 680

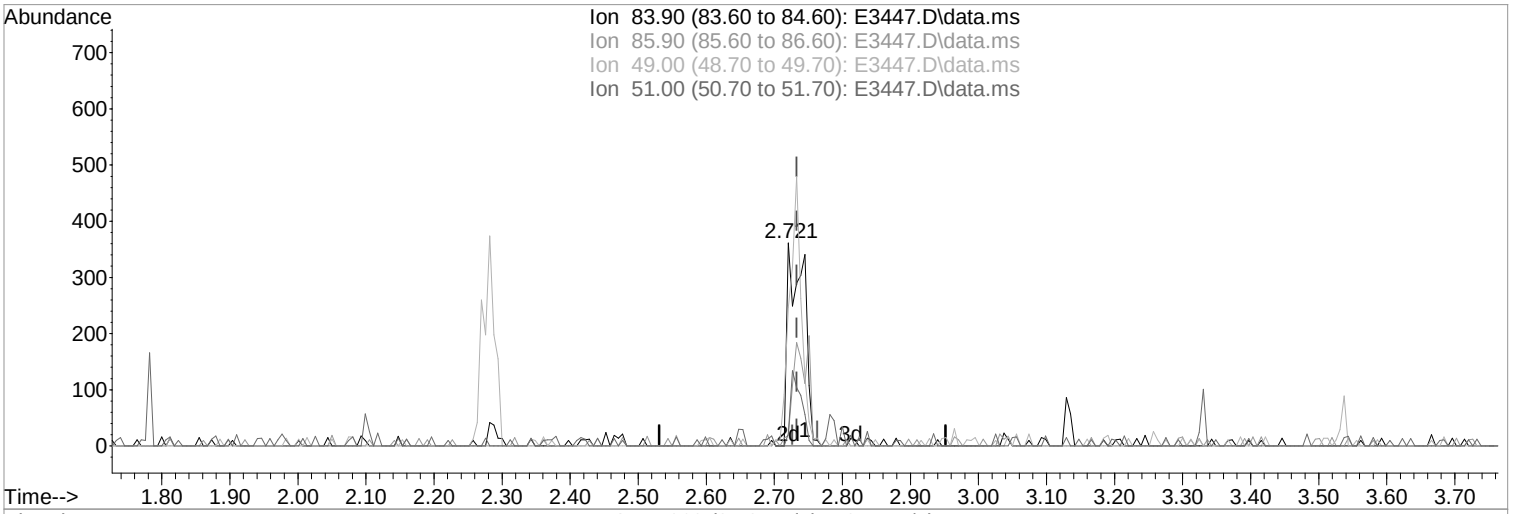
Ion	Ratio	Lower	Upper
164	100		
166	55.9	108.6	148.6#
129	83.1	66.6	106.6
131	42.9	67.1	107.1#

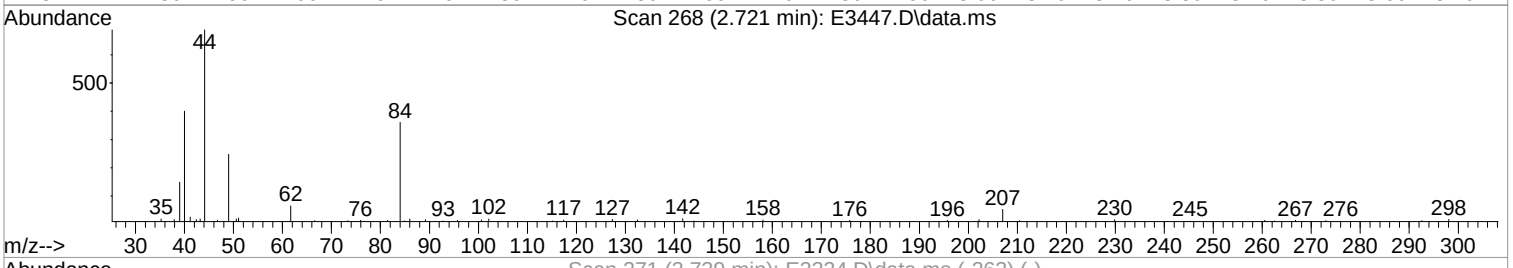


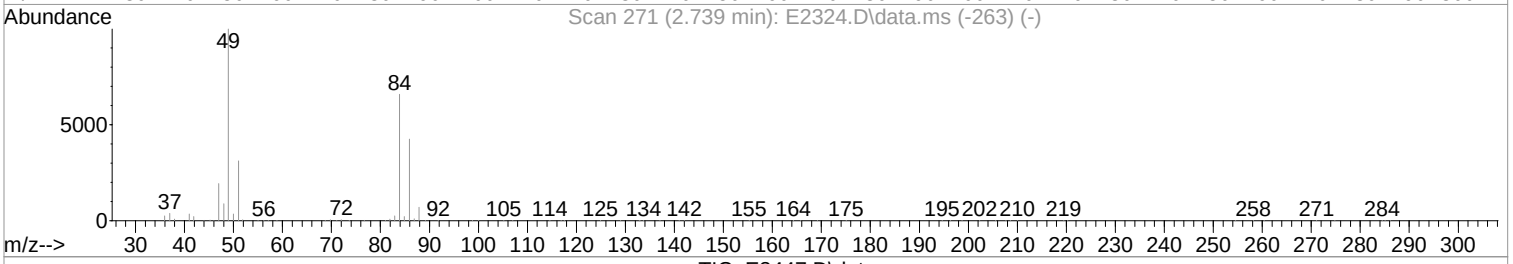
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3447.D
Acq On : 5 Aug 2019 7:28 pm
Operator : D.Lipani
Sample : R1907110-005|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 05 19:42:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3447.D\data.ms

(22) Methylene Chloride (P)

2.721min (-0.012) 0.23 ug/L m

response 612

Ion	Exp%	Act%
83.90	100	100
85.90	64.70	5.26#
49.00	152.20	68.42#
51.00	47.20	6.09#

Manual Integration:

After

Split Peak

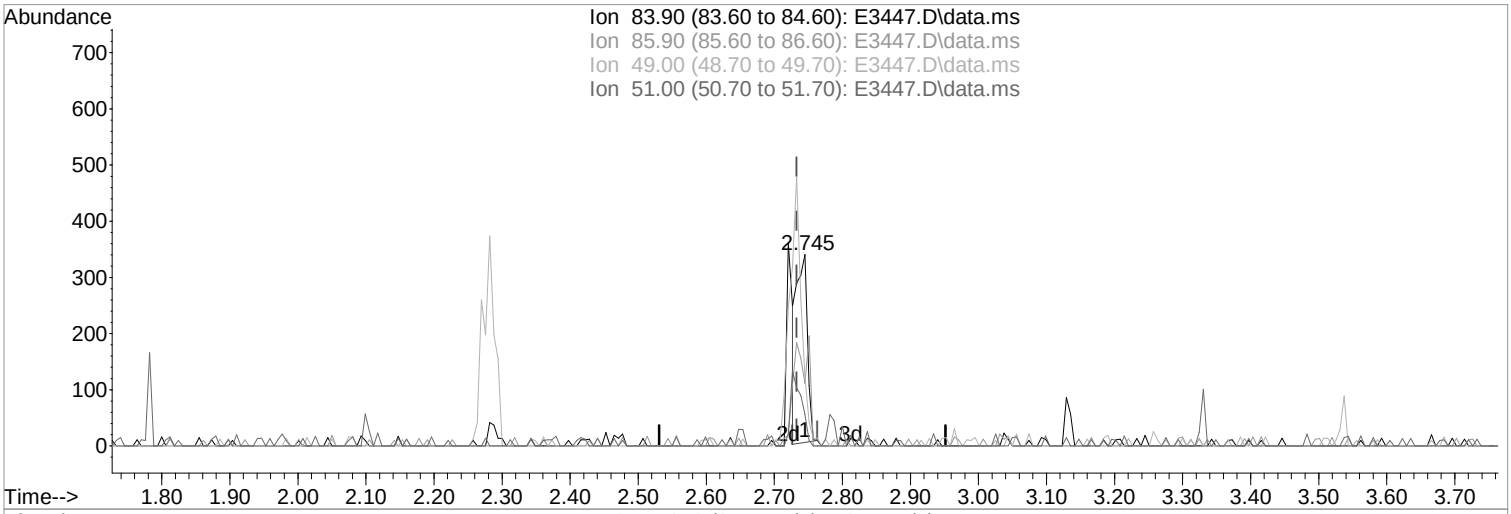
08/07/19

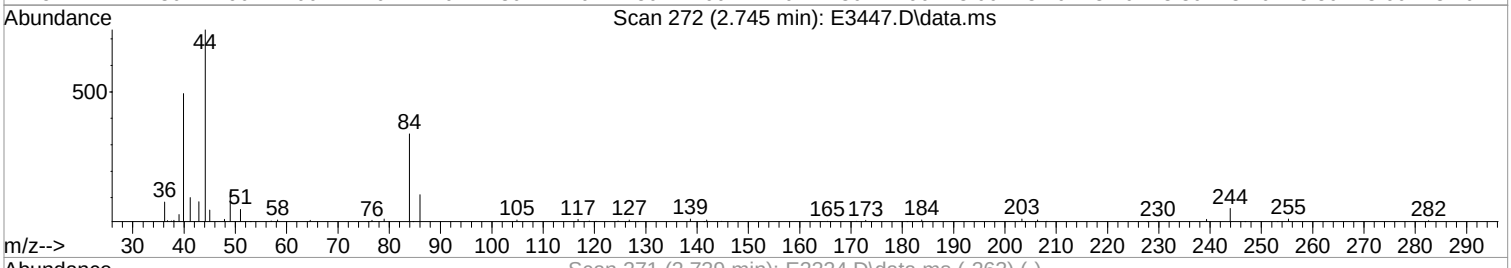
1st 08/07/19
2nd 08/07/19

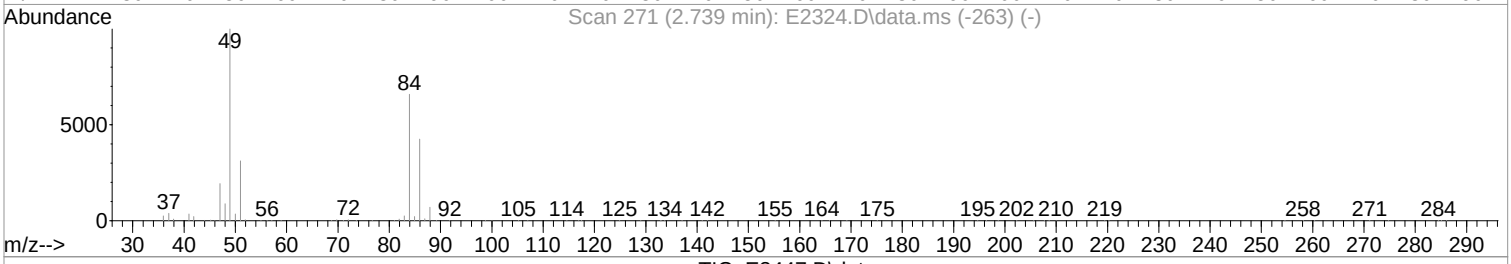
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3447.D
Acq On : 5 Aug 2019 7:28 pm
Operator : D.Lipani
Sample : R1907110-005|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 05 19:42:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3447.D\data.ms

(22) Methylene Chloride (P)

2.745min (+0.012) 0.14 ug/L

response 375

Ion	Exp%	Act%
83.90	100	100
85.90	64.70	31.62#
49.00	152.20	34.76#
51.00	47.20	15.95#

Manual Integration:

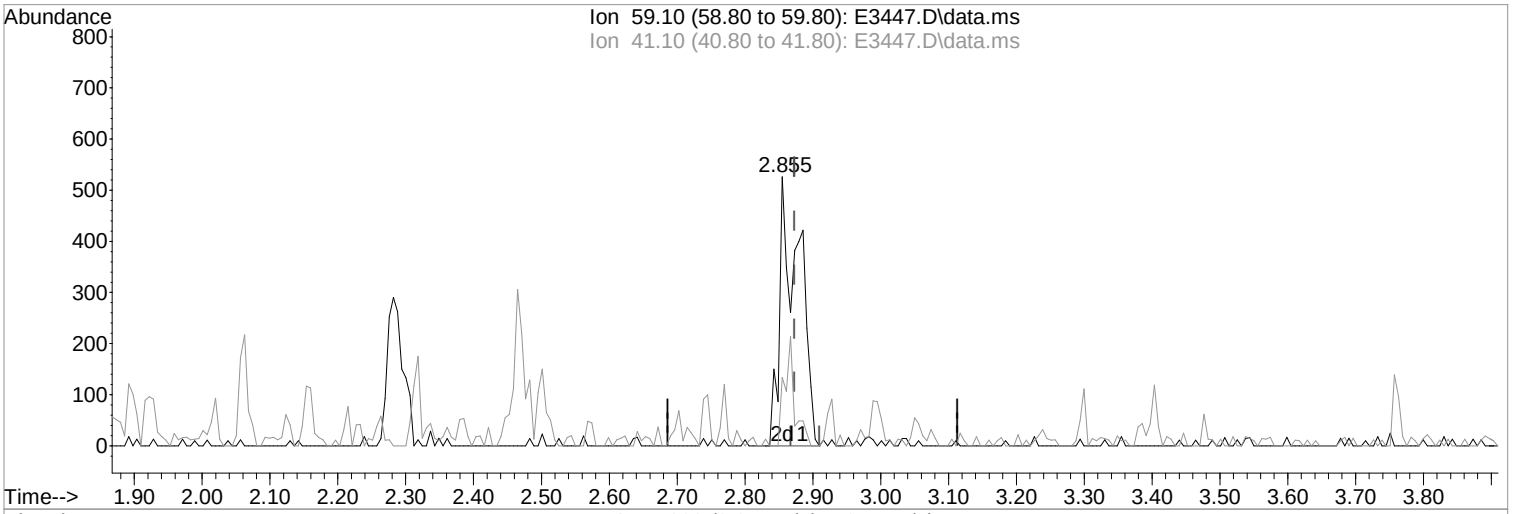
Before

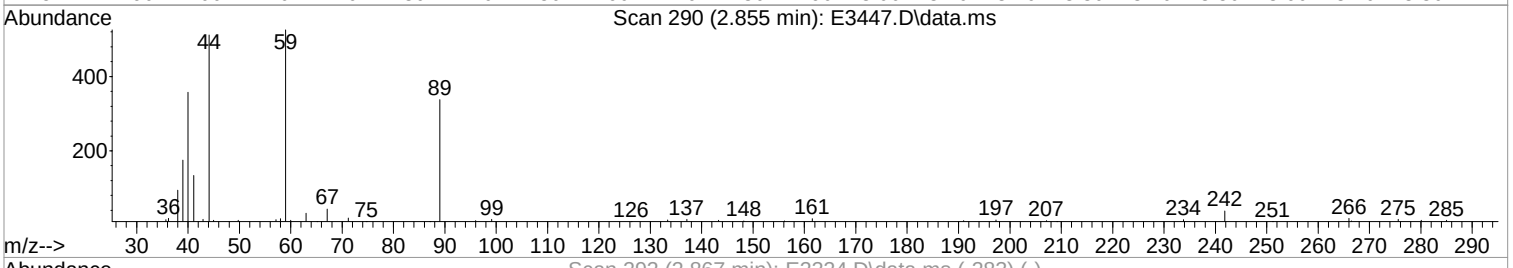
08/07/19

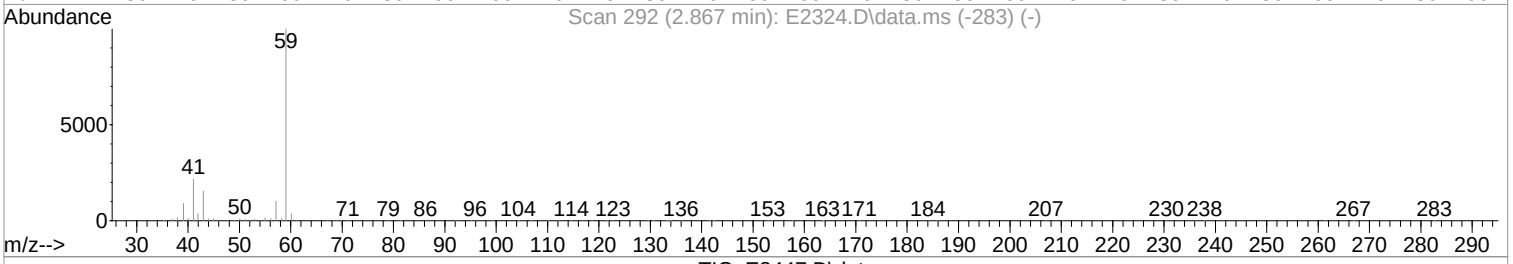
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3447.D
Acq On : 5 Aug 2019 7:28 pm
Operator : D.Lipani
Sample : R1907110-005|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 05 19:42:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3447.D\data.ms

(23) TBA

2.855min (-0.018) 2.06 ug/L m

response 1073

Ion	Exp%	Act%
59.10	100	100
41.10	21.80	25.48
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Split Peak

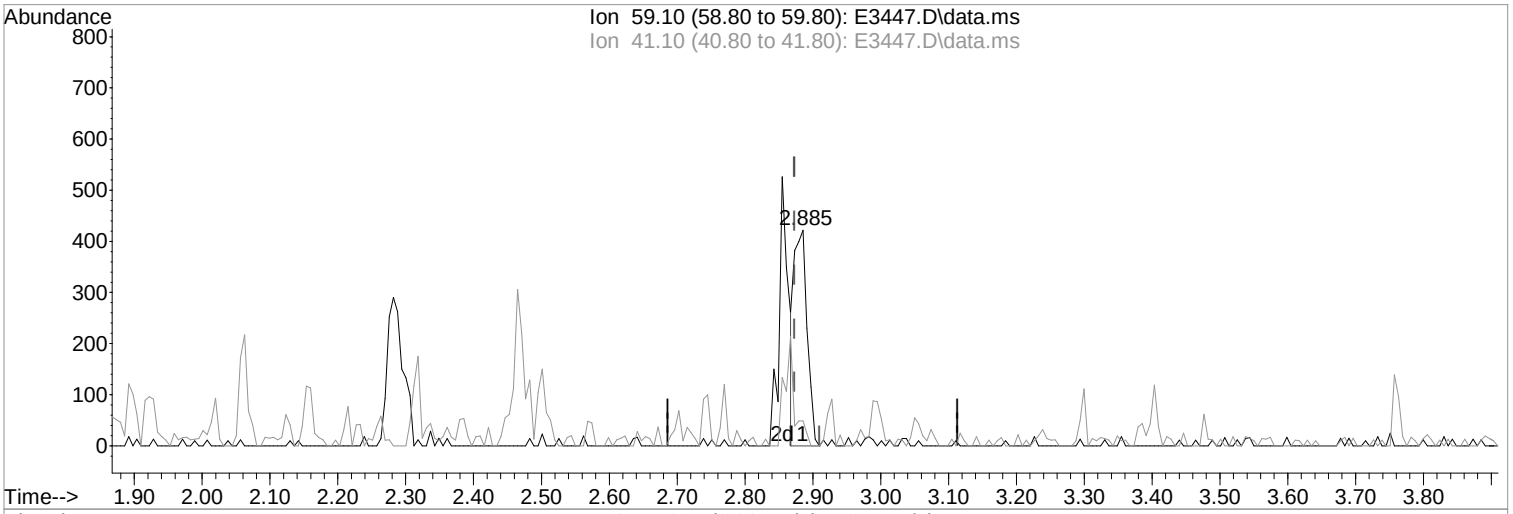
08/07/19

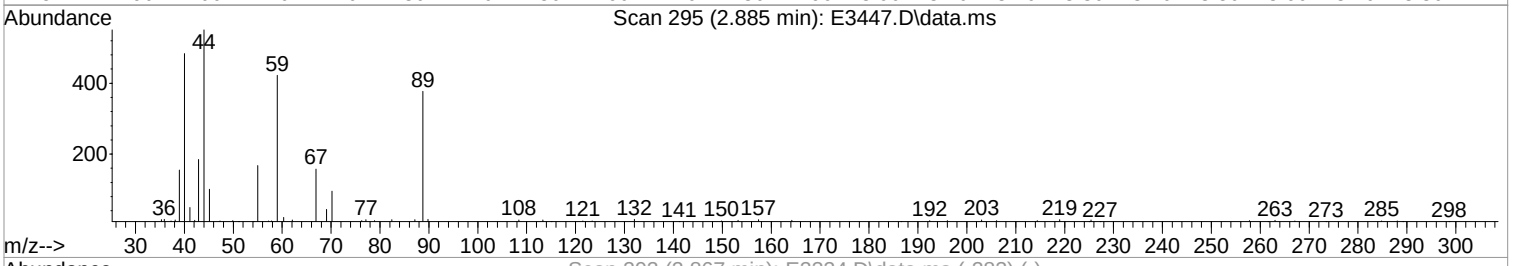
1st 08/07/19
2nd 08/07/19

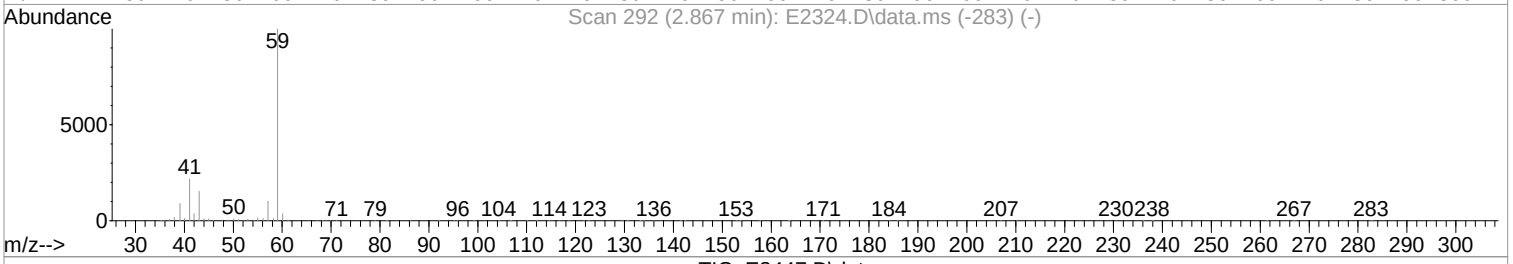
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3447.D
Acq On : 5 Aug 2019 7:28 pm
Operator : D.Lipani
Sample : R1907110-005|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 05 19:42:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3447.D\data.ms

(23) TBA

2.885min (+0.012) 1.10 ug/L

response 571

Ion	Exp%	Act%
59.10	100	100
41.10	21.80	11.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/07/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3447.D
Acq On : 5 Aug 2019 7:28 pm
Operator : D.Lipani
Sample : R1907110-005|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 07 11:22:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019 DL
Response via : Initial Calibration

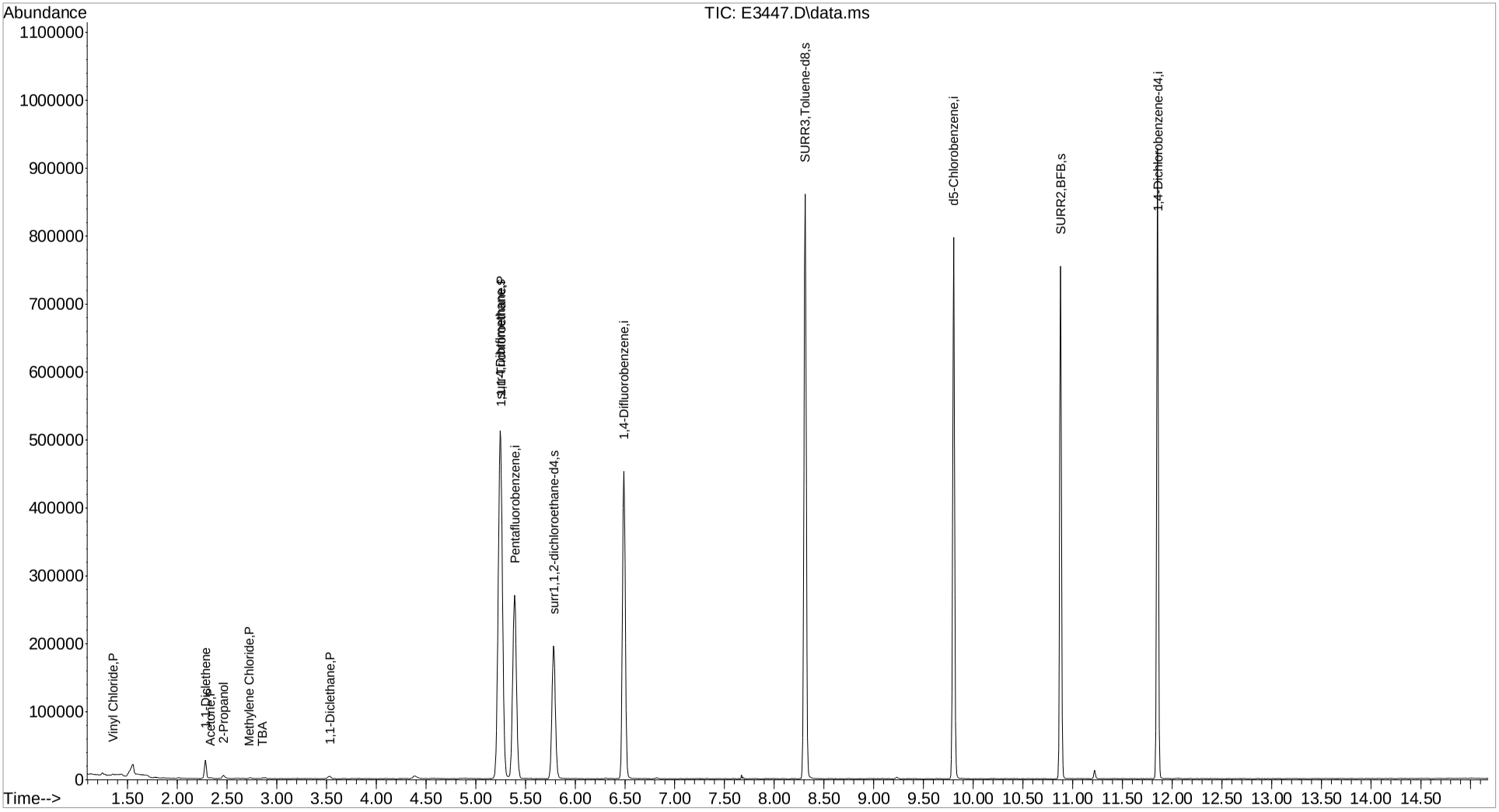
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	248756	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	371816	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	327495	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	172111	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	121968	49.87	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.74%			
46) surr1,1,2-dichloroetha...	5.781	65	170808	52.35	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.70%			
64) SURR3,Toluene-d8	8.311	98	502698	51.41	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.82%			
69) SURR2,BFB	10.878	95	186464	50.11	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.22%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	716	0.20	ug/L	75
13) 1,1-Diclethene	2.282	96	7249	3.13	ug/L	96
15) Acetone	2.331	43	1382	0.94	ug/L	86
16) 2-Propanol	2.465	45	4868	13.71	ug/L	93
22) Methylene Chloride	2.721	84	612m	0.23	ug/L	
23) TBA	2.855	59	1073m	2.06	ug/L	
27) 1,1-Diclethane	3.532	63	4056	0.79	ug/L	88
40) 1,1,1-Trichloroethane	5.251	97	353585	91.44	ug/L	97

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

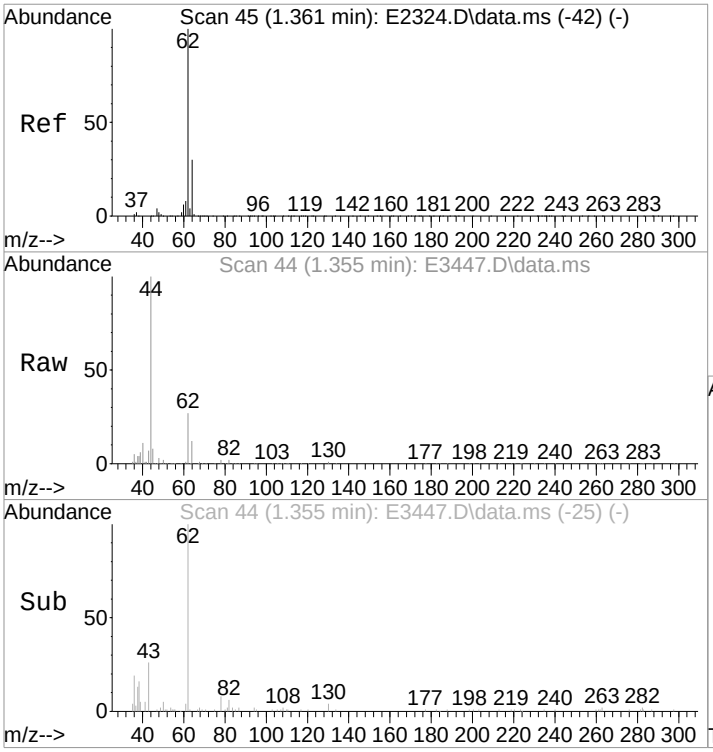
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3447.D
Acq On : 5 Aug 2019 7:28 pm
Operator : D.Lipani
Sample : R1907110-005|10 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 07 11:22:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



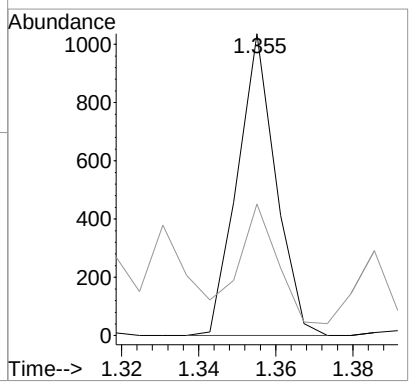
1st 08/07/19
2nd 08/07/19

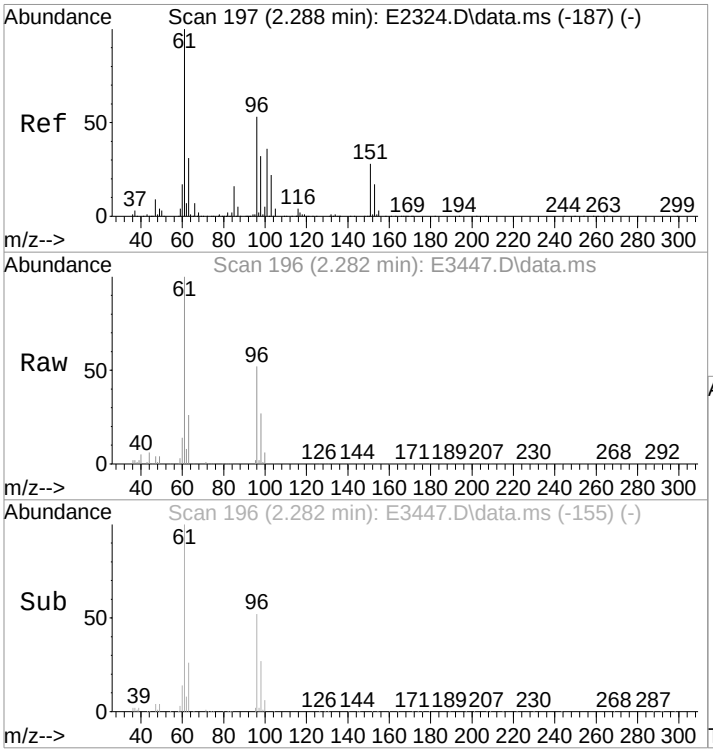


#4
Vinyl Chloride
Concen: 0.20 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 62 Resp: 716

Ion	Ratio	Lower	Upper
62	100		
64	43.6	10.0	50.0

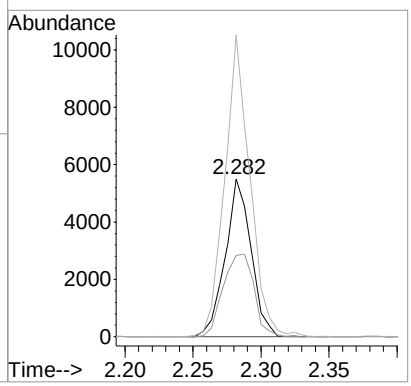


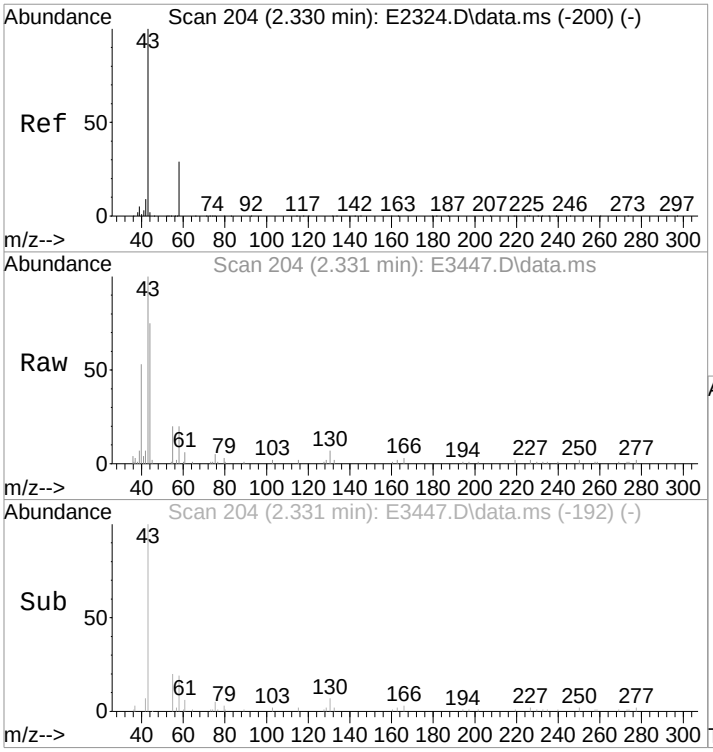


#13
1,1-Diclethene
Concen: 3.13 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 96 Resp: 7249

Ion	Ratio	Lower	Upper
96	100		
98	51.5	40.4	80.4
61	191.5	169.9	209.9

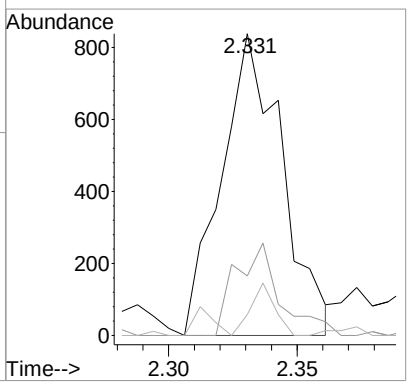


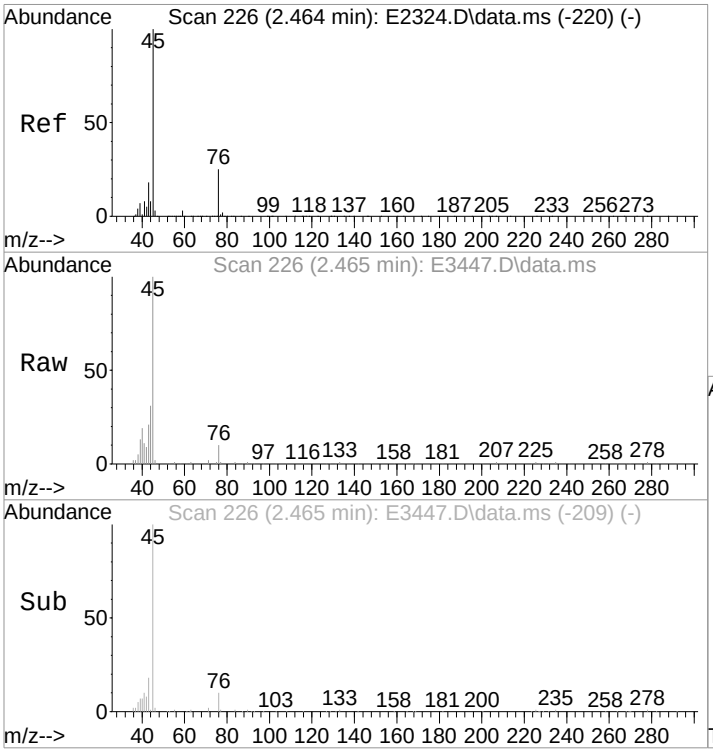


#15
Acetone
Concen: 0.94 ug/L
RT: 2.331 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 43 Resp: 1382

Ion	Ratio	Lower	Upper
43	100		
58	19.8	8.4	48.4
42	6.9	0.0	29.4

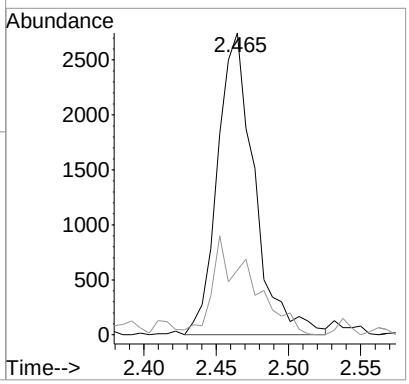


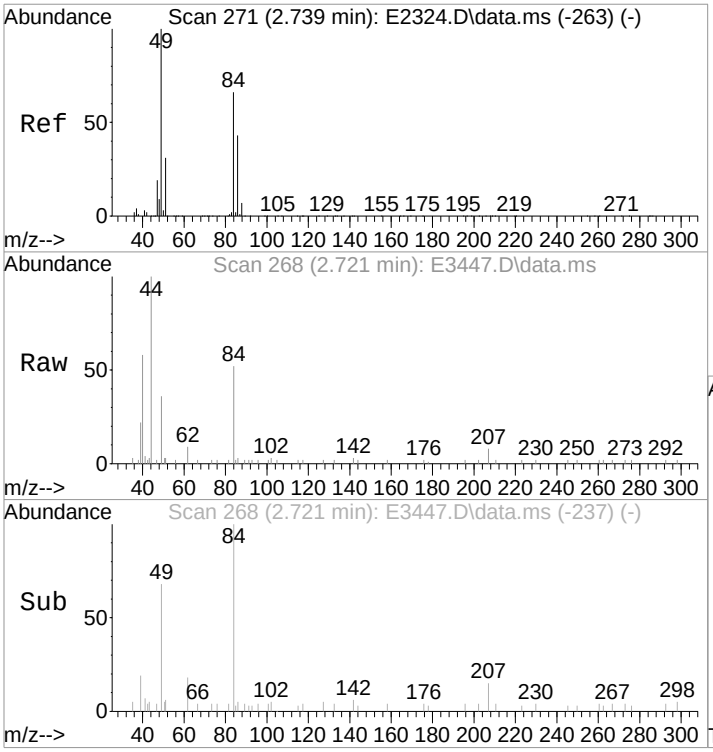


#16
2-Propanol
Concen: 13.71 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.005 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 45 Resp: 4868

Ion	Ratio	Lower	Upper
45	100		
43	21.5	0.0	38.5

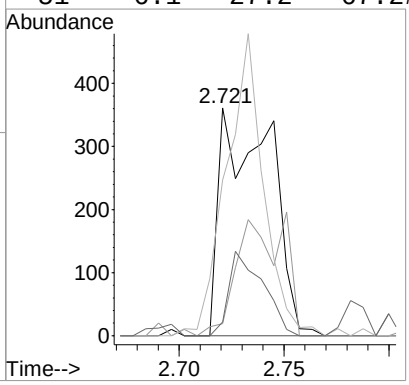


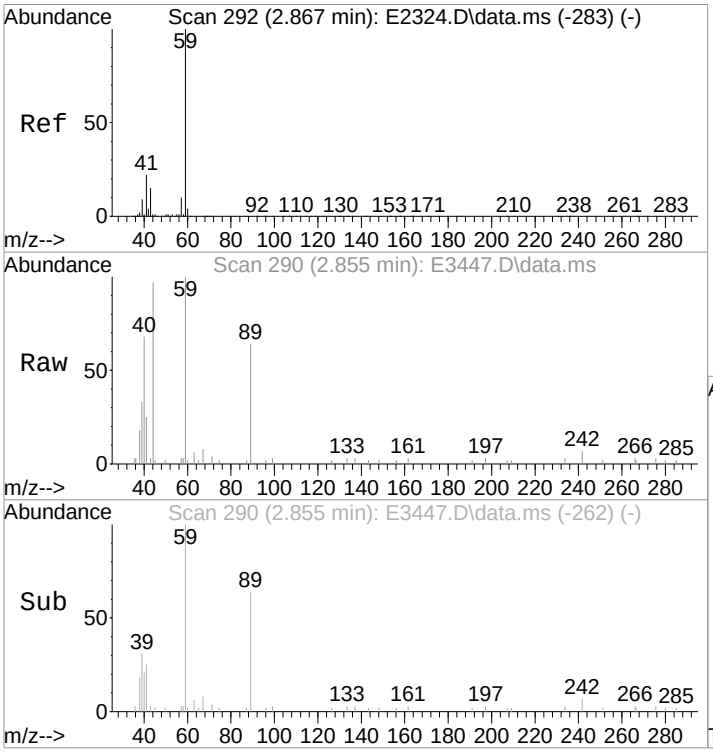


#22
Methylene Chloride
Concen: 0.23 ug/L m
RT: 2.721 min Scan# 268
Delta R.T. -0.012 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 84 Resp: 612

Ion	Ratio	Lower	Upper
84	100		
86	5.3	44.7	84.7#
49	68.4	132.2	172.2#
51	6.1	27.2	67.2#

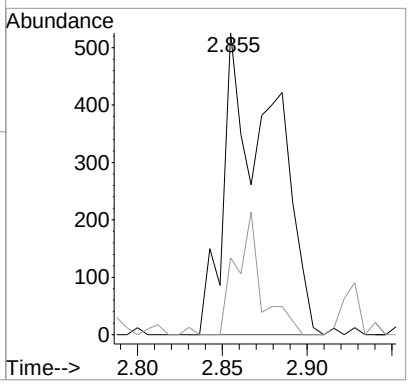


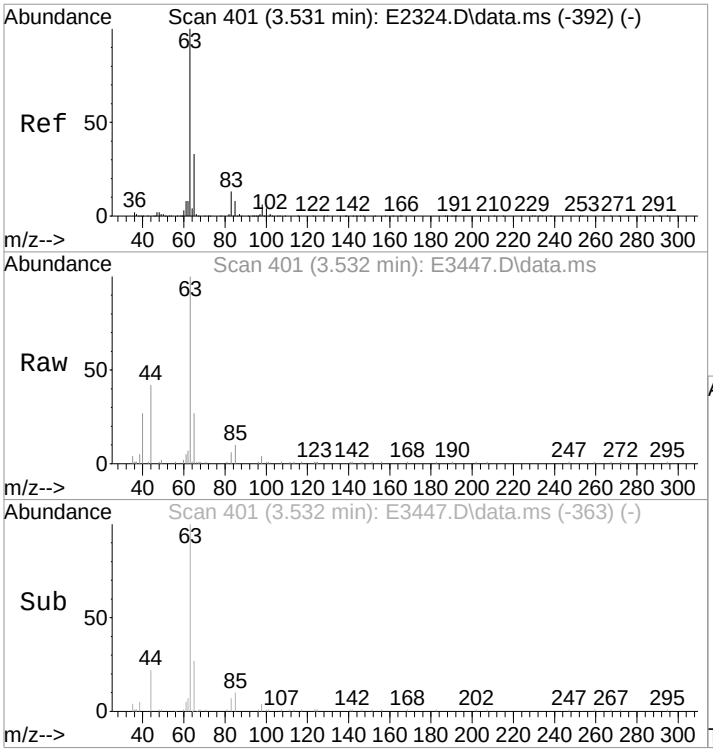


#23
TBA
Concen: 2.06 ug/L m
RT: 2.855 min Scan# 290
Delta R.T. -0.018 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 59 Resp: 1073

Ion	Ratio	Lower	Upper
59	100		
41	25.5	1.8	41.8

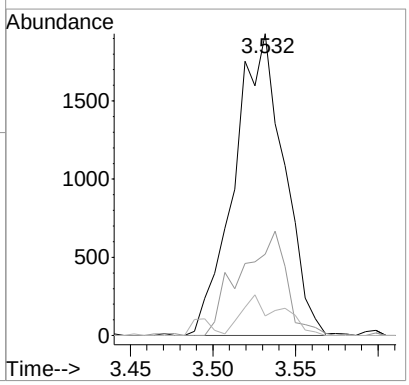


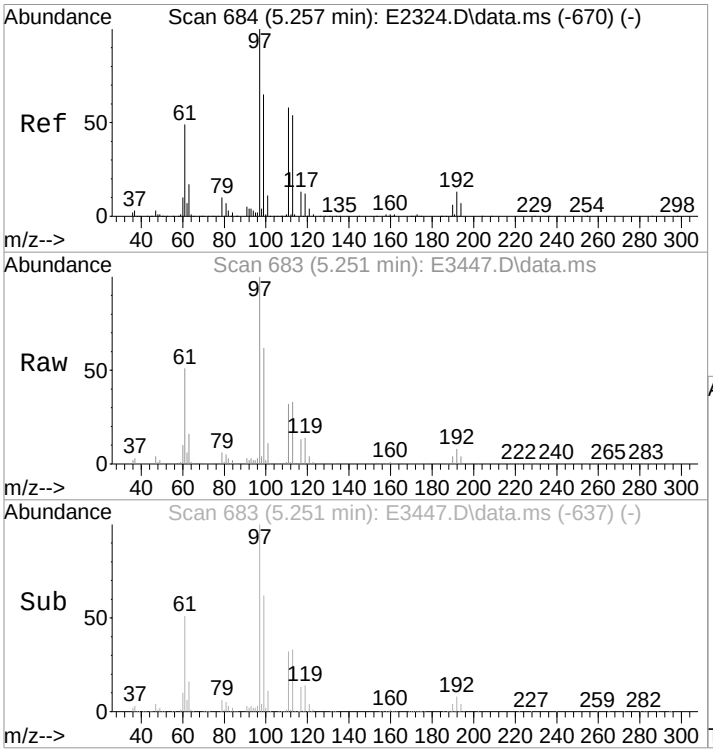


#27
1,1-Diclethane
Concen: 0.79 ug/L
RT: 3.532 min Scan# 401
Delta R.T. 0.006 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 63 Resp: 4056

Ion	Ratio	Lower	Upper
63	100		
65	26.9	12.7	52.7
83	6.5	0.0	32.6

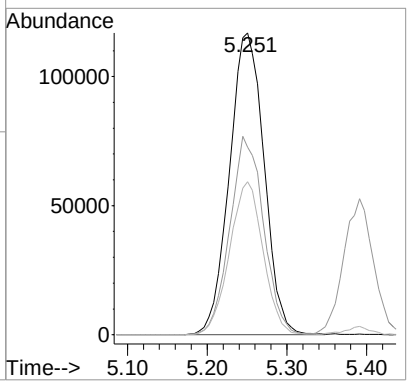




#40
1,1,1-Trichloroethane
Concen: 91.44 ug/L
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: E3447.D
Acq: 5 Aug 2019 7:28 pm

Tgt Ion: 97 Resp: 353585

Ion	Ratio	Lower	Upper
97	100		
99	62.1	44.7	84.7
61	50.7	28.6	68.6

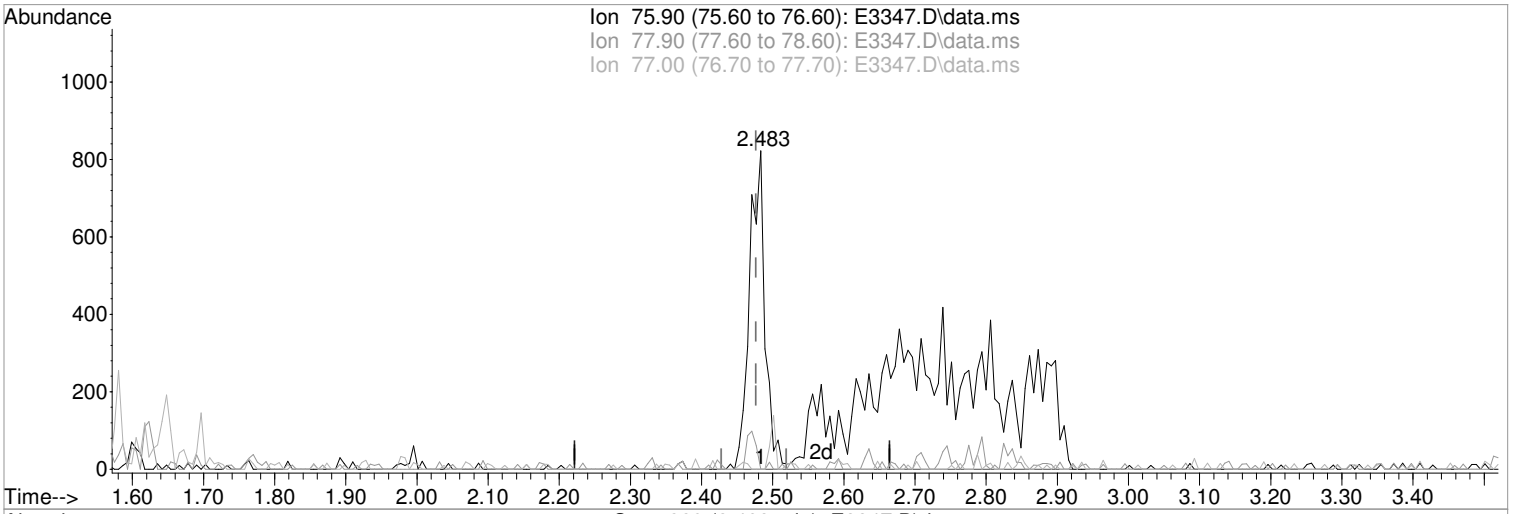


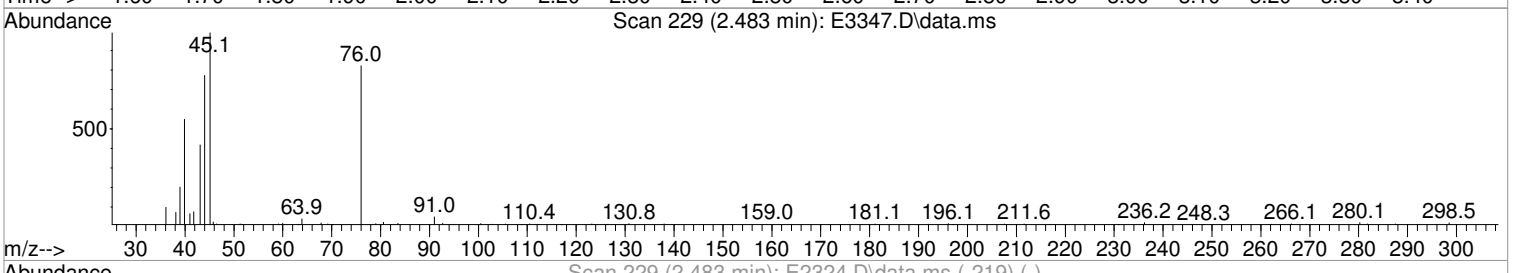
1st DL 08/03/19
2nd 08/05/19

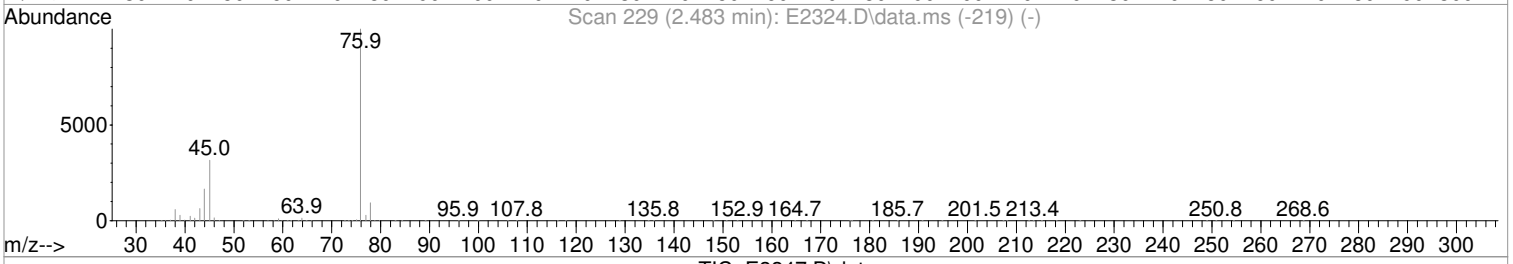
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3347.D
Acq On : 1 Aug 2019 6:49 pm
Operator : D.Lipani
Sample : R1907110-006|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 01 19:04:10 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3347.D\data.ms

(18) Carbon Disulfide (P)

2.483min (+0.006) 0.75 ug/L m

response 5853

Ion	Exp%	Act%
75.90	100	100
77.90	9.30	0.00
77.00	2.80	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

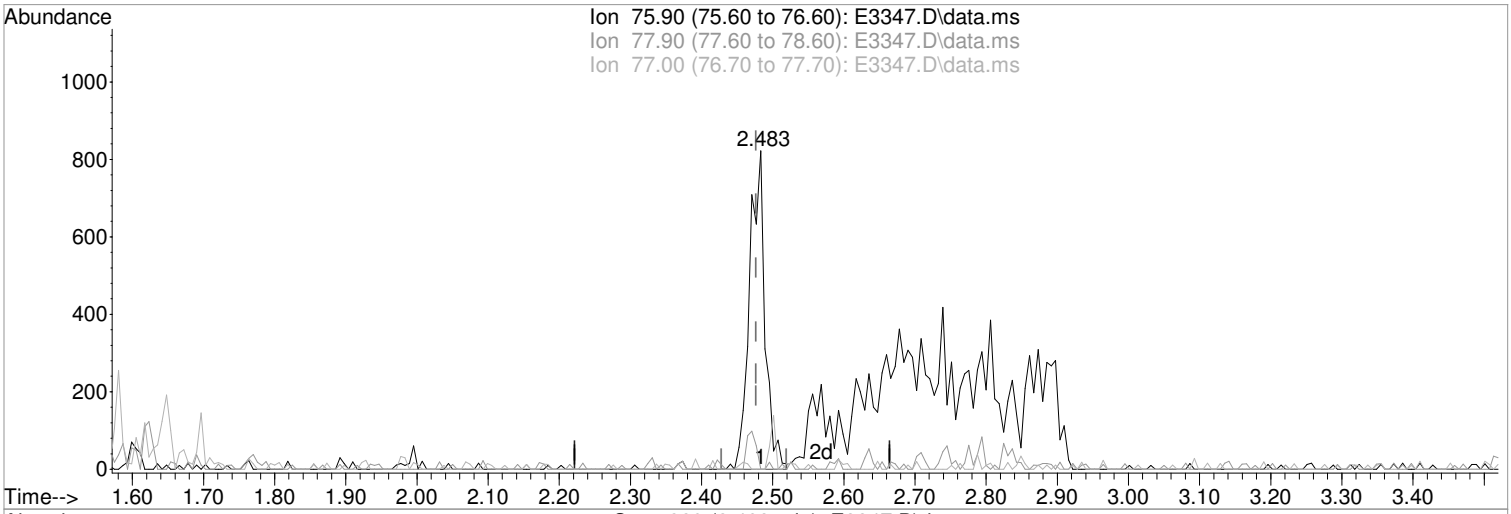
08/02/19

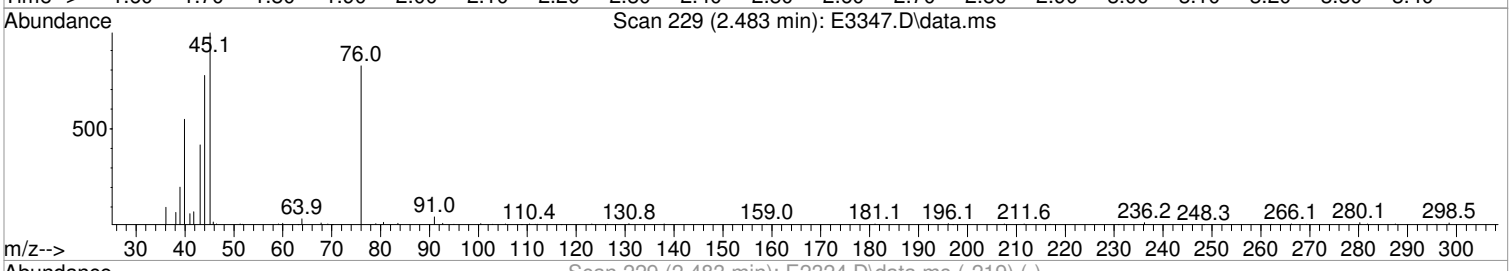
1st DL 08/03/19
2nd 08/05/19

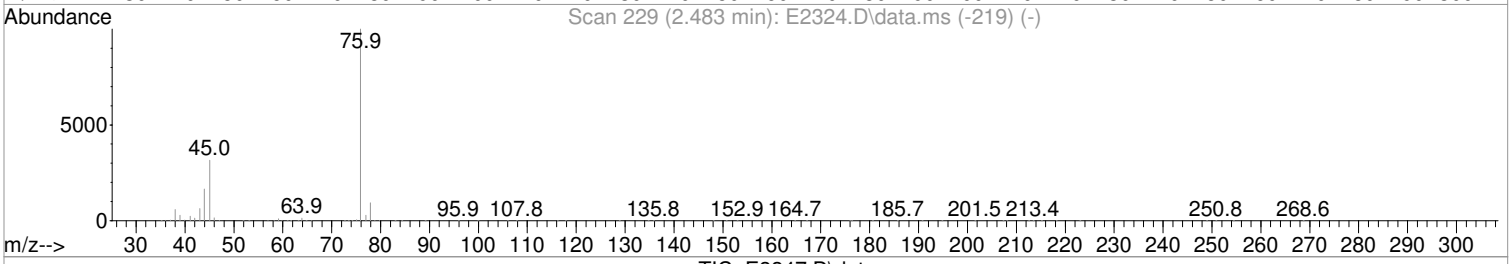
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3347.D
Acq On : 1 Aug 2019 6:49 pm
Operator : D.Lipani
Sample : R1907110-006|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 01 19:04:10 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3347.D\data.ms

(18) Carbon Disulfide (P)

2.483min (+0.006) 0.16 ug/L

response 1240

Ion	Exp%	Act%
75.90	100	100
77.90	9.30	0.00
77.00	2.80	0.00
0.00	0.00	0.00

Manual Integration:

Before

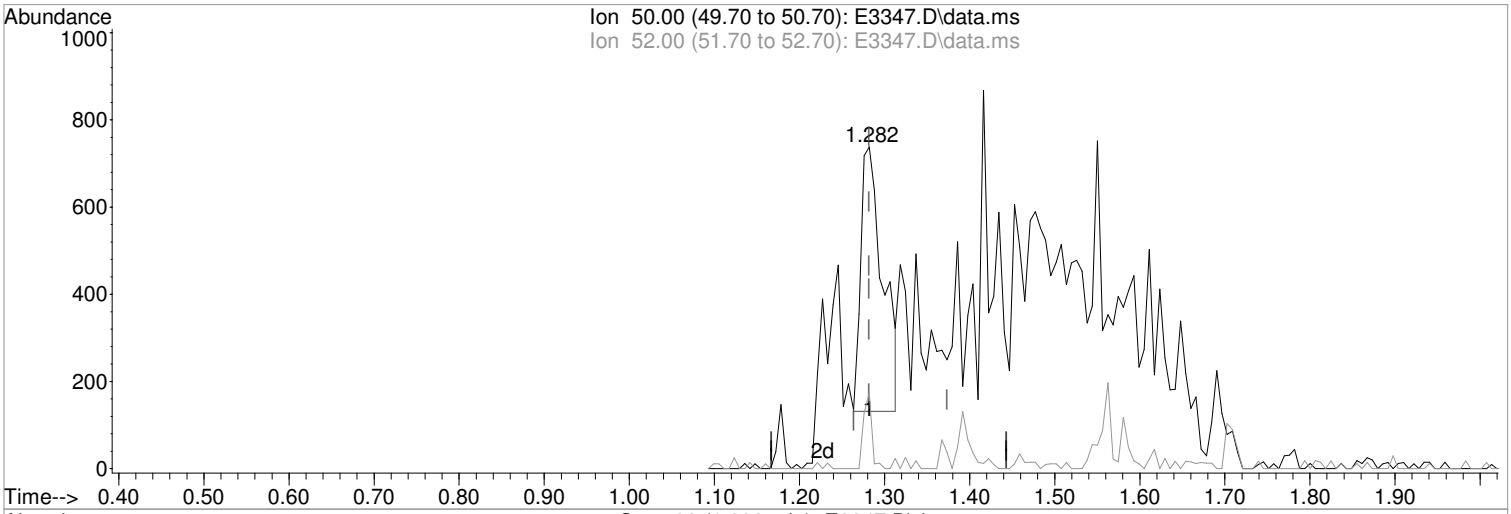
08/02/19

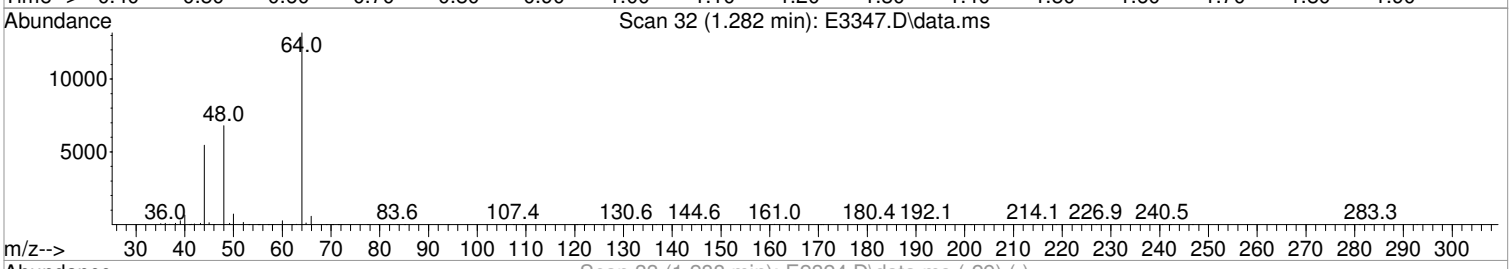
1st DL 08/03/19
2nd 08/05/19

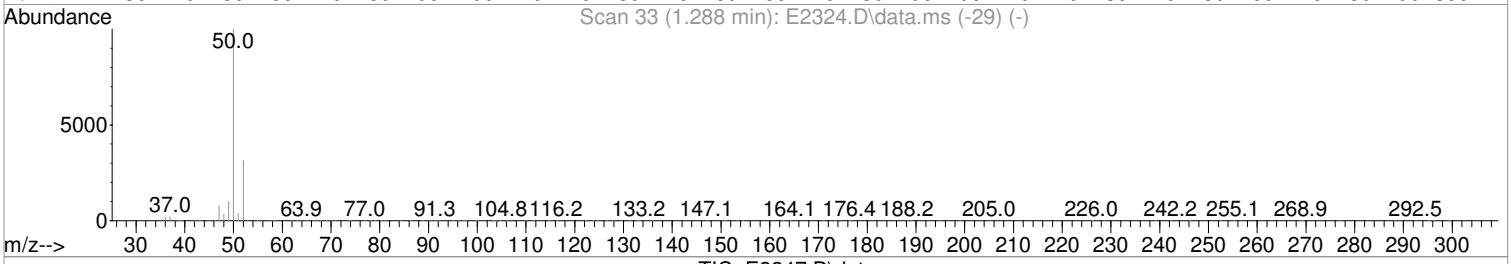
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3347.D
Acq On : 1 Aug 2019 6:49 pm
Operator : D.Lipani
Sample : R1907110-006|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 01 19:04:10 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3347.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.24 ug/L m

response 1090

Ion	Exp%	Act%
50.00	100	100
52.00	31.40	23.71
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

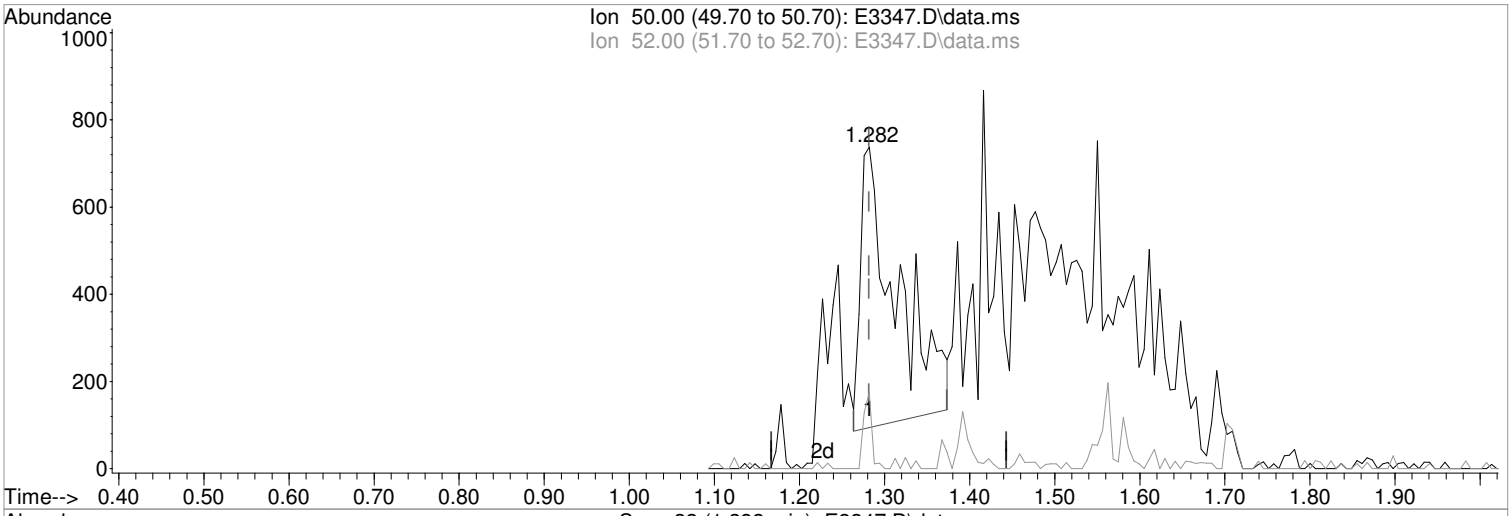
08/02/19

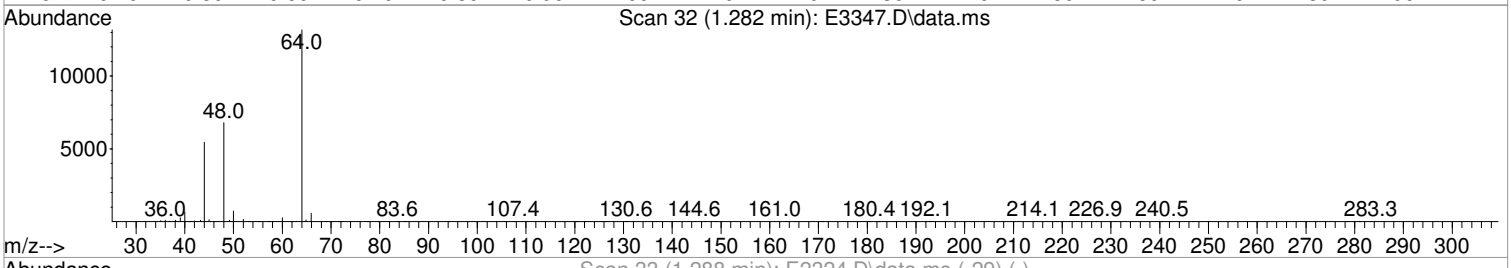
1st DL 08/03/19
2nd 08/05/19

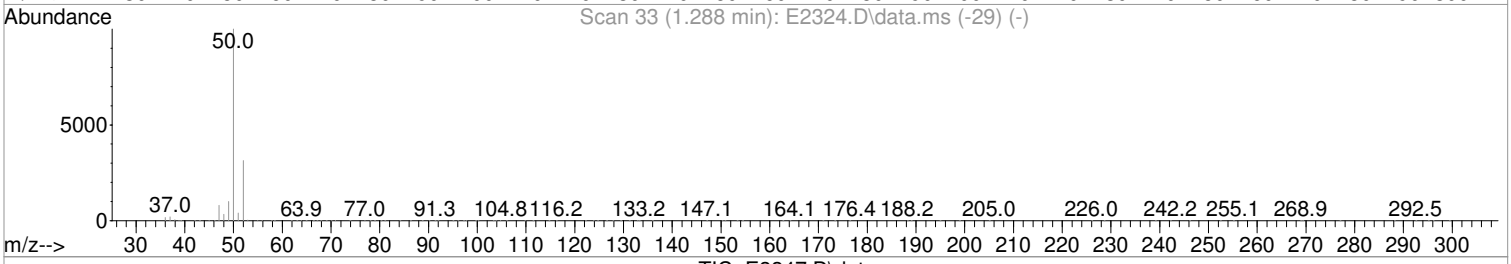
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3347.D
Acq On : 1 Aug 2019 6:49 pm
Operator : D.Lipani
Sample : R1907110-006|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 01 19:04:10 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3347.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.41 ug/L

response 1900

Ion	Exp%	Act%
50.00	100	100
52.00	31.40	23.71
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3347.D
Acq On : 1 Aug 2019 6:49 pm
Operator : D.Lipani
Sample : R1907110-006|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 02 16:14:51 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

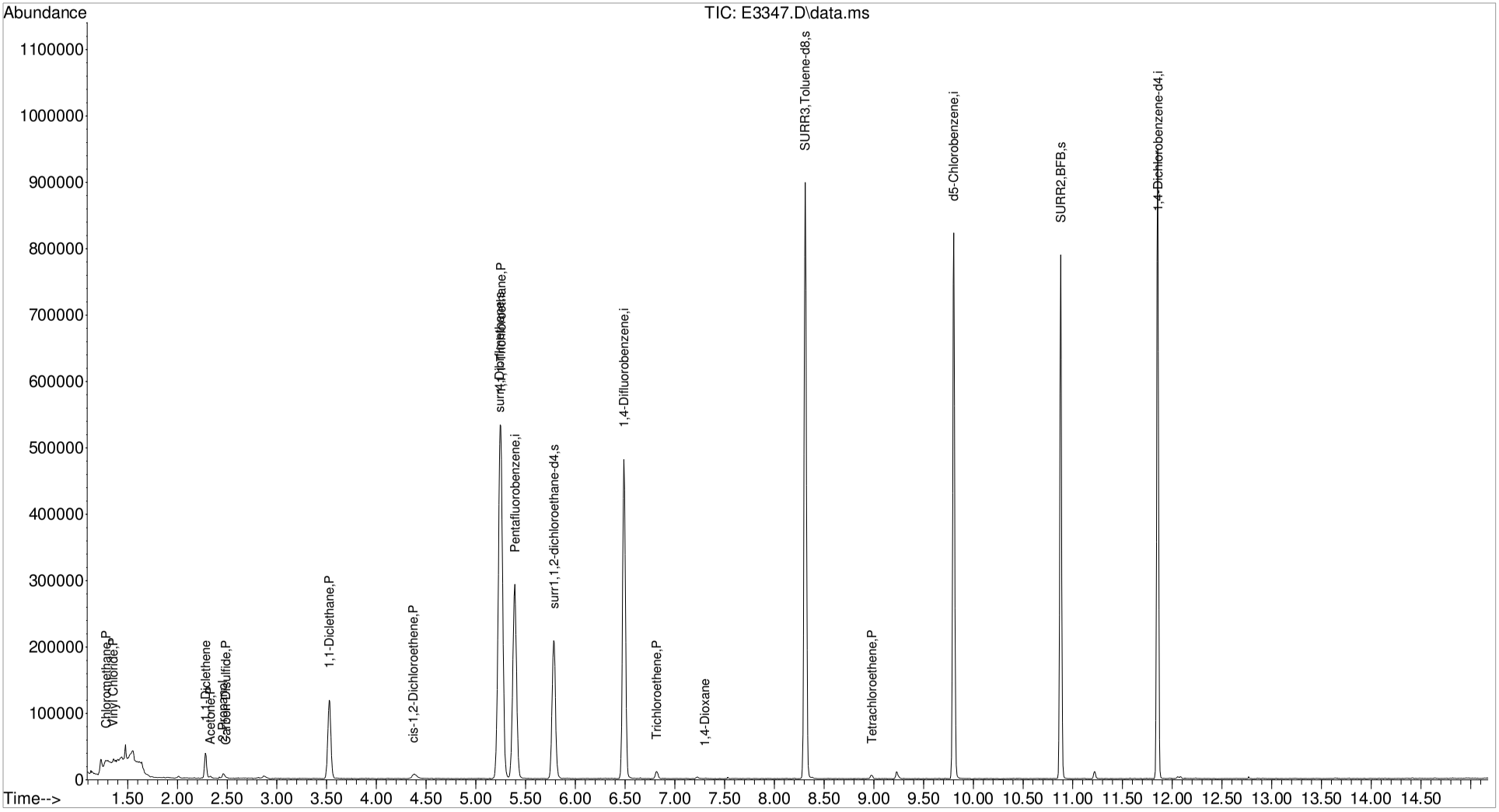
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	270574	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	396797	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	339536	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	177031	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	129928	49.78	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.56%				
46) surr1,1,2-dichloroetha...	5.781	65	180923	51.96	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.92%				
64) SURR3,Toluene-d8	8.311	98	523629	50.18	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.36%				
69) SURR2,BFB	10.878	95	199242	50.17	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.34%				
Target Compounds							Qvalue
3) Chloromethane	1.282	50	1090m	0.24	ug/L		
4) Vinyl Chloride	1.355	62	2324	0.61	ug/L	#	1
13) 1,1-Diclethene	2.282	96	10410	4.13	ug/L		97
15) Acetone	2.331	43	3438	2.15	ug/L		99
16) 2-Propanol	2.459	45	7812	20.23	ug/L		88
18) Carbon Disulfide	2.483	76	5853m	0.75	ug/L		
27) 1,1-Diclethane	3.525	63	128805	23.13	ug/L		97
33) cis-1,2-Dichloroethene	4.373	96	1656	0.57	ug/L		88
40) 1,1,1-Trichloroethane	5.251	97	376445	89.50	ug/L		100
53) Trichloroethene	6.817	130	3455	1.18	ug/L		93
57) 1,4-Dioxane	7.305	88	339	5.91	ug/L	#	18
71) Tetrachloroethene	8.982	164	1238	0.54	ug/L	#	69

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

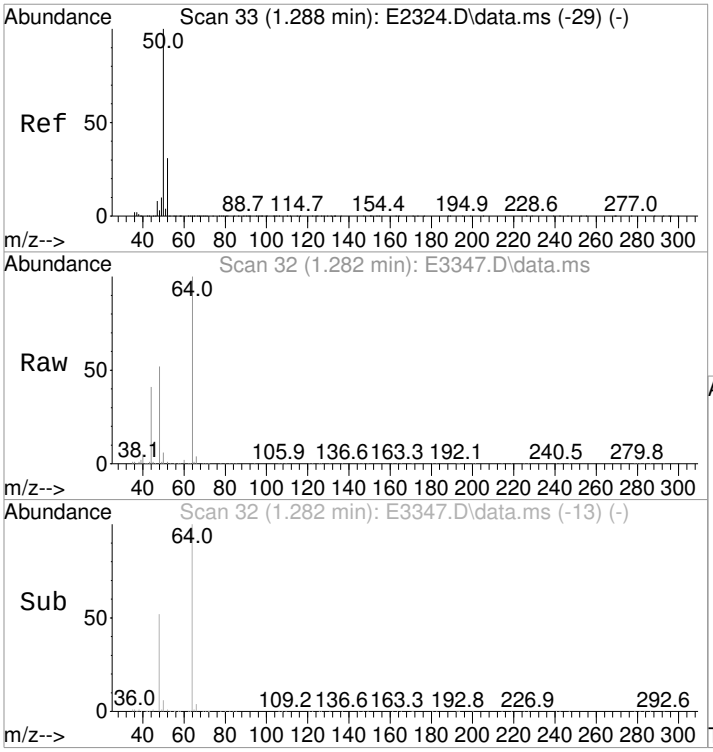
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3347.D
Acq On : 1 Aug 2019 6:49 pm
Operator : D.Lipani
Sample : R1907110-006|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 02 16:14:51 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



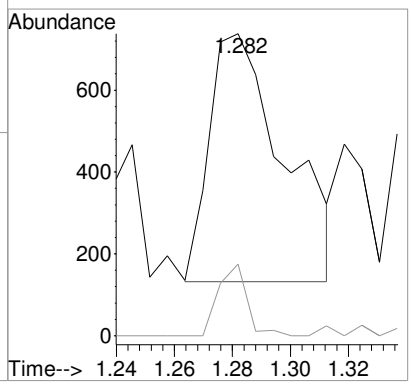
1st 08/03/19
2nd 08/05/19

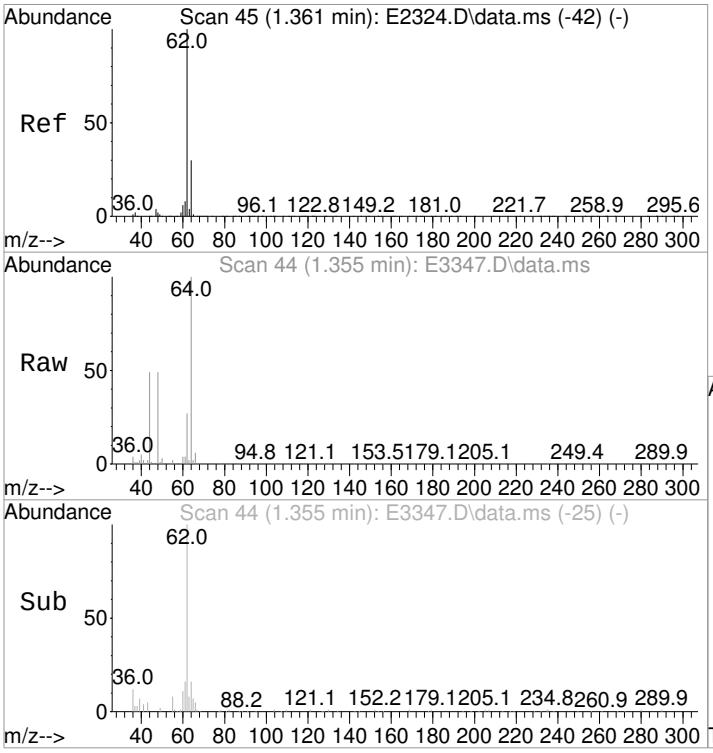


#3
Chloromethane
Concen: 0.24 ug/L m
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 50 Resp: 1090

Ion	Ratio	Lower	Upper
50	100		
52	23.7	11.4	51.4

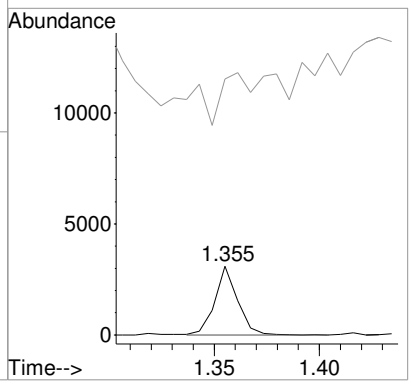


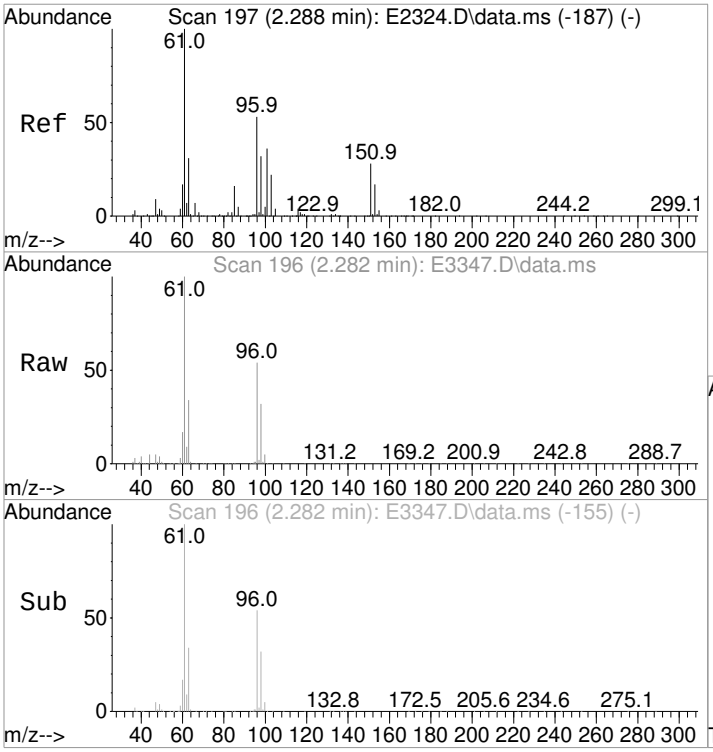


#4
Vinyl Chloride
Concen: 0.61 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 62 Resp: 2324

Ion	Ratio	Lower	Upper
62	100		
64	373.0	10.0	50.0#

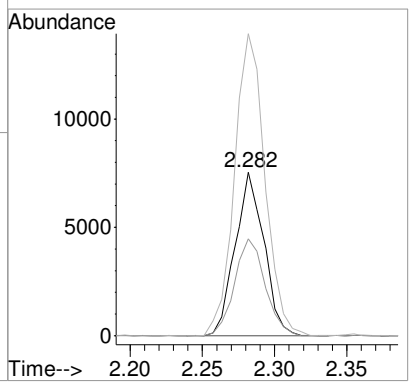


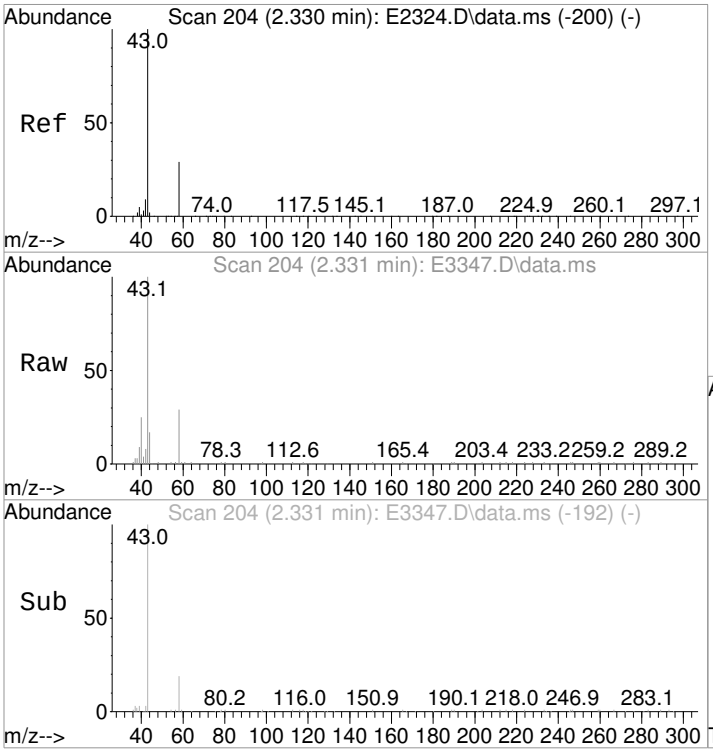


#13
1,1-Diclethene
Concen: 4.13 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 96 Resp: 10410

Ion	Ratio	Lower	Upper
96	100		
98	59.4	40.4	80.4
61	185.0	169.9	209.9

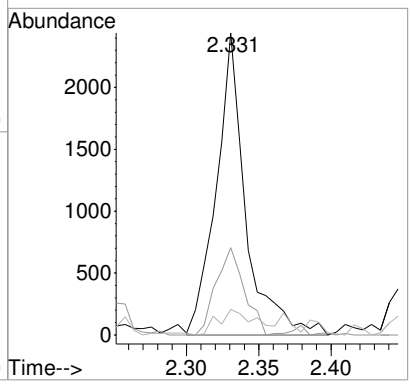


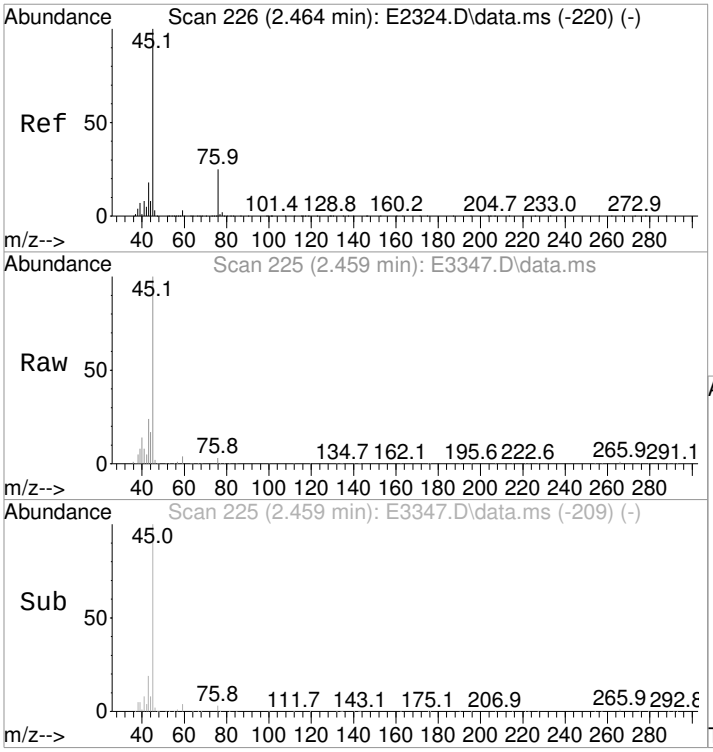


#15
Acetone
Concen: 2.15 ug/L
RT: 2.331 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 43 Resp: 3438

Ion	Ratio	Lower	Upper
43	100		
58	28.9	8.4	48.4
42	8.4	0.0	29.4

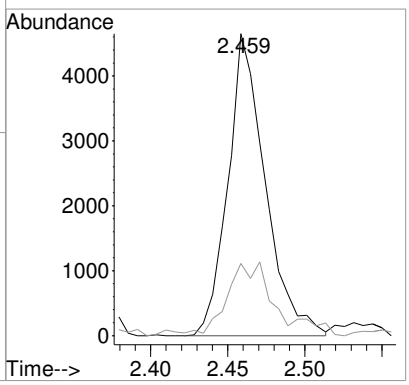


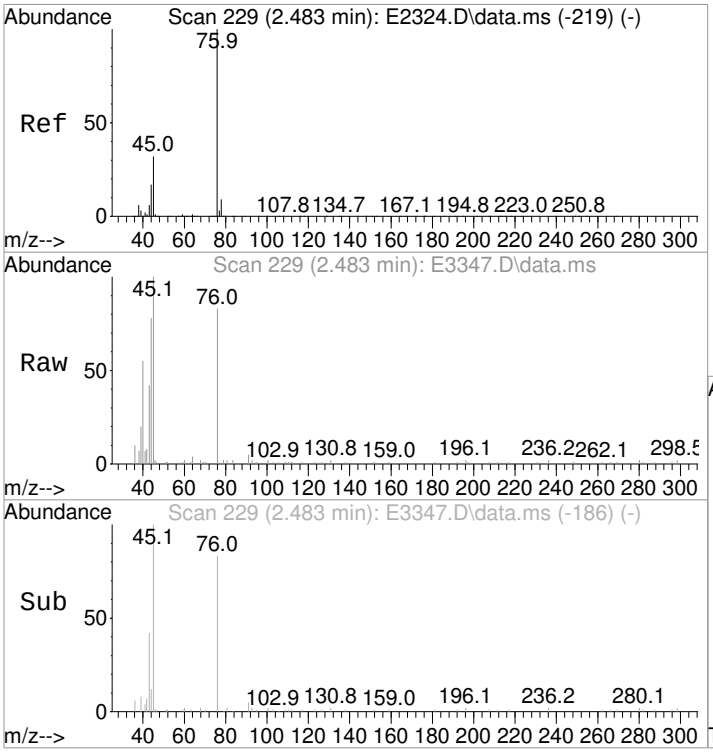


#16
2-Propanol
Concen: 20.23 ug/L
RT: 2.459 min Scan# 225
Delta R.T. -0.011 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 45 Resp: 7812

Ion	Ratio	Lower	Upper
45	100		
43	23.9	0.0	38.5

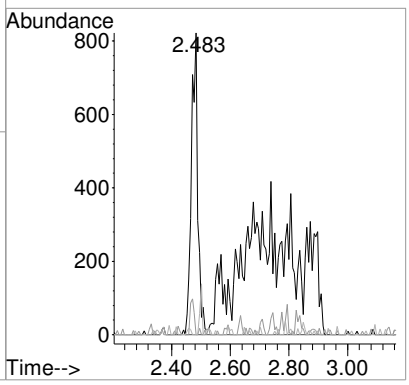


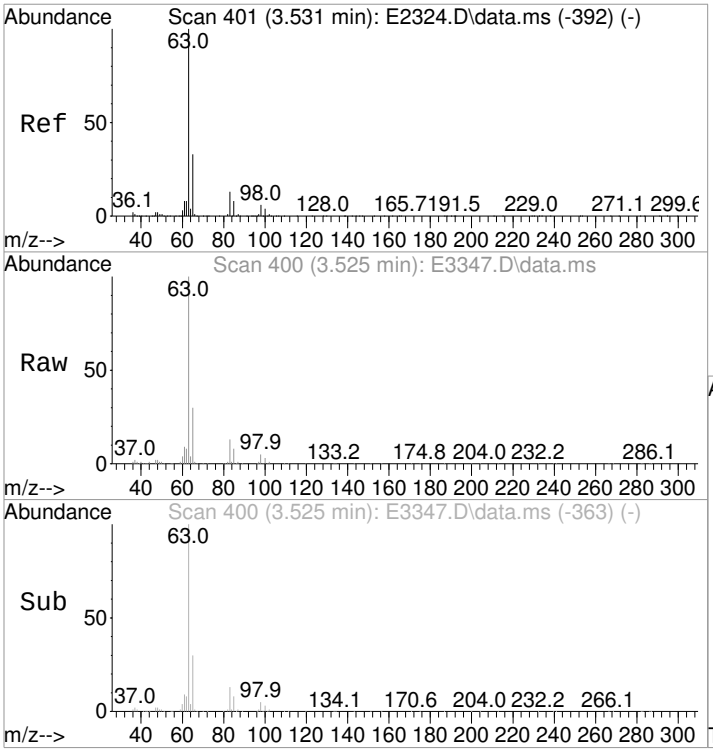


#18
Carbon Disulfide
Concen: 0.75 ug/L m
RT: 2.483 min Scan# 229
Delta R.T. 0.006 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 76 Resp: 5853

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	29.3
77	0.0	0.0	22.8

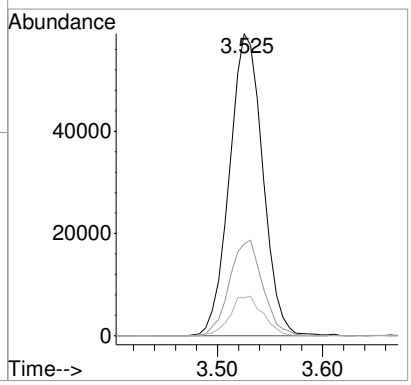


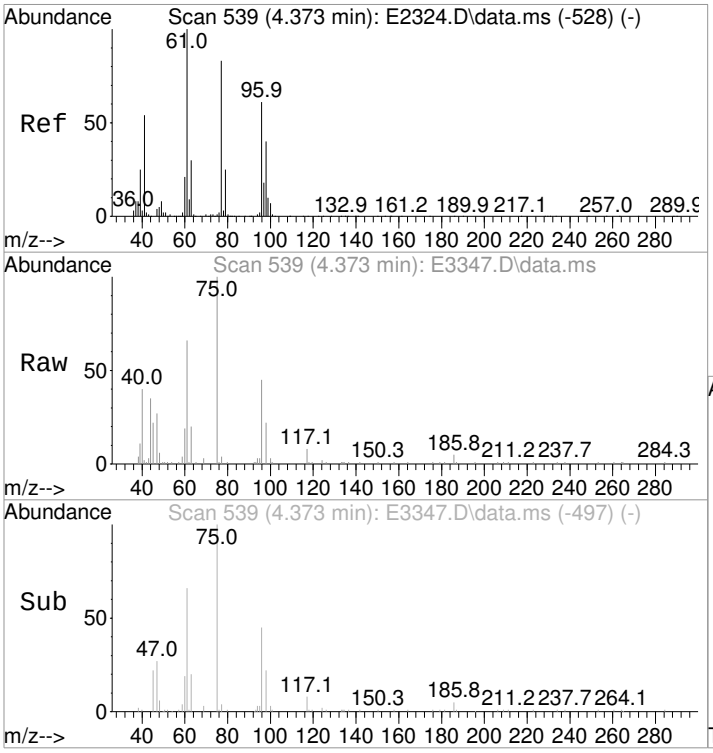


#27
1,1-Diclethane
Concen: 23.13 ug/L
RT: 3.525 min Scan# 400
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 63 Resp: 128805

Ion	Ratio	Lower	Upper
63	100		
65	30.3	12.7	52.7
83	12.5	0.0	32.6

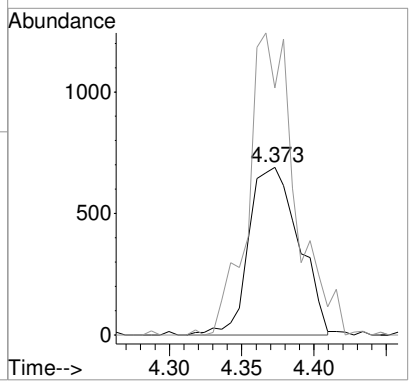


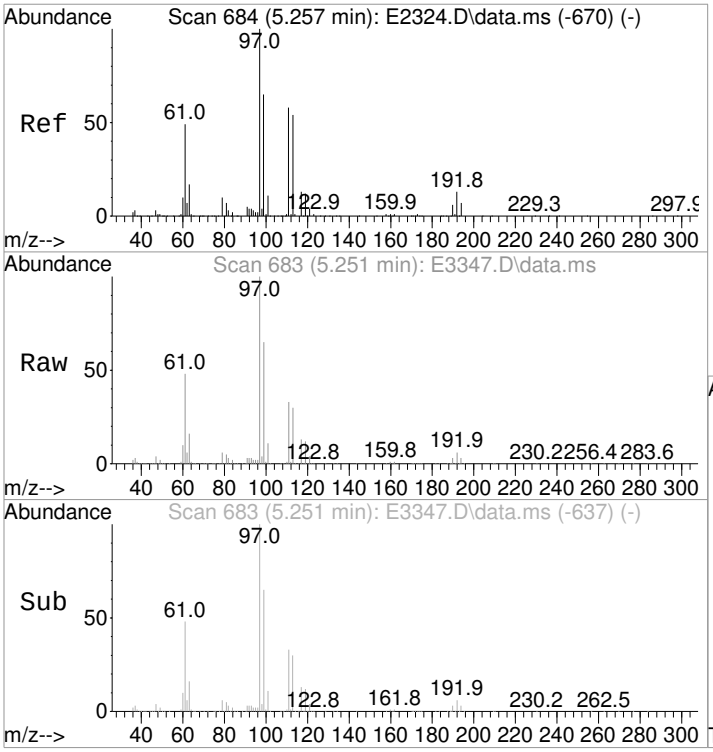


#33
cis-1,2-Dichloroethene
Concen: 0.57 ug/L
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 96 Resp: 1656

Ion	Ratio	Lower	Upper
96	100		
61	147.2	143.6	183.6

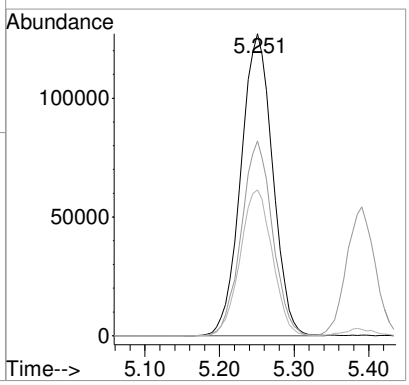


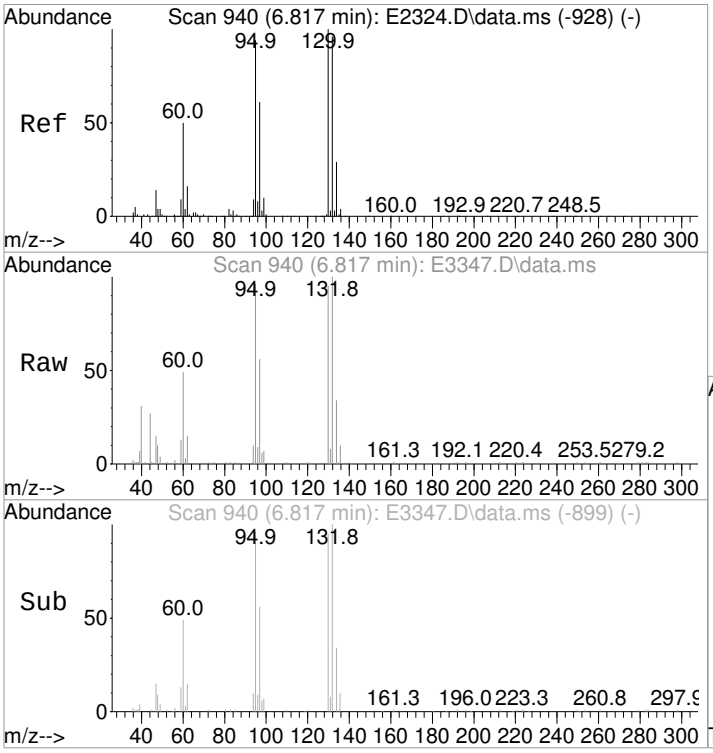


#40
1,1,1-Trichloroethane
Concen: 89.50 ug/L
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 97 Resp: 376445

Ion	Ratio	Lower	Upper
97	100		
99	64.5	44.7	84.7
61	48.3	28.6	68.6

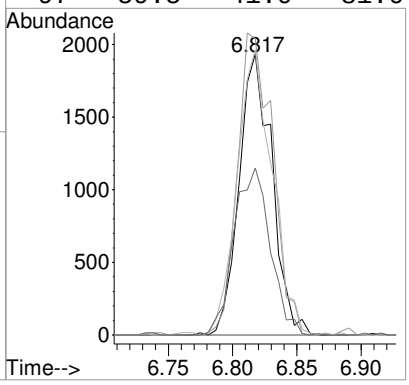


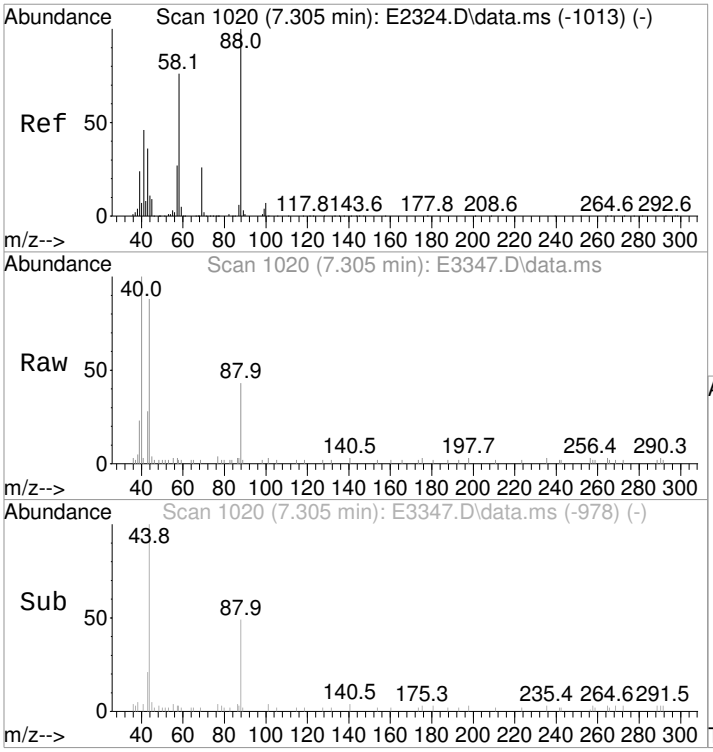


#53
Trichloroethene
Concen: 1.18 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion:130 Resp: 3455

Ion	Ratio	Lower	Upper
130	100		
132	105.5	76.1	116.1
95	101.6	73.9	113.9
97	59.5	41.0	81.0

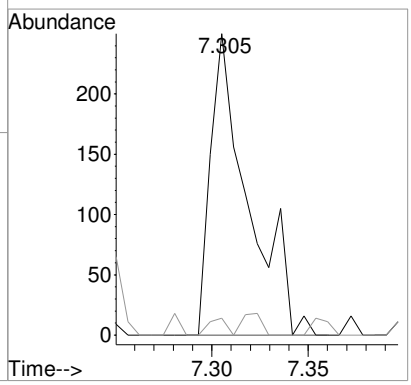


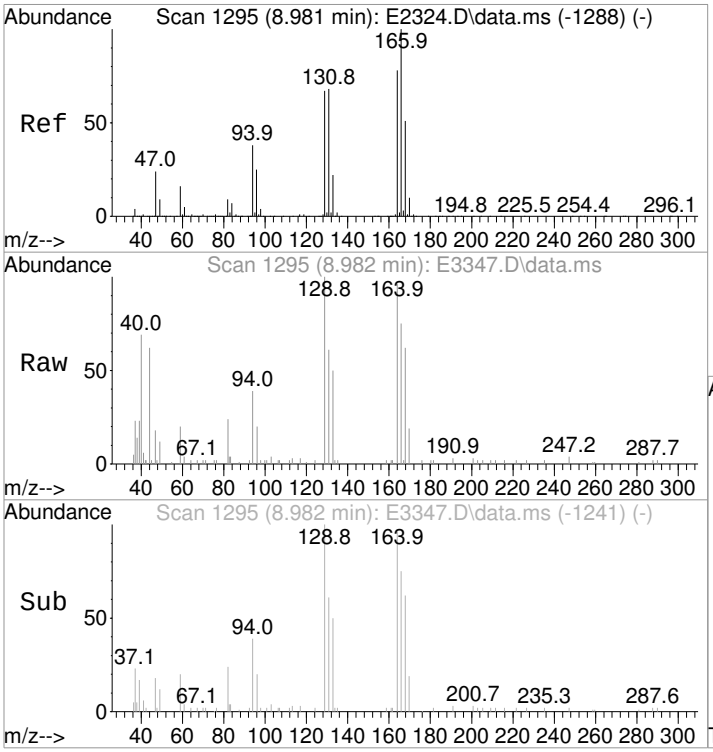


#57
1,4-Dioxane
Concen: 5.91 ug/L
RT: 7.305 min Scan# 1020
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion: 88 Resp: 339

Ion	Ratio	Lower	Upper
88	100		
58	5.6	56.6	96.6#

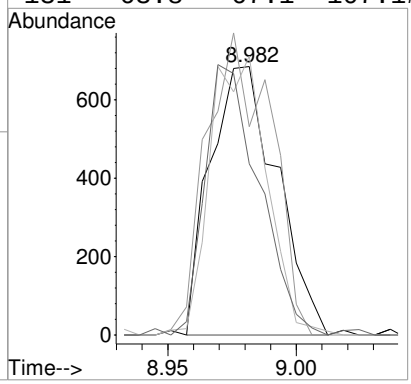




#71
Tetrachloroethene
Concen: 0.54 ug/L
RT: 8.982 min Scan# 1295
Delta R.T. -0.000 min
Lab File: E3347.D
Acq: 1 Aug 2019 6:49 pm

Tgt Ion:164 Resp: 1238

Ion	Ratio	Lower	Upper
164	100		
166	77.7	108.6	148.6#
129	103.9	66.6	106.6
131	63.8	67.1	107.1#

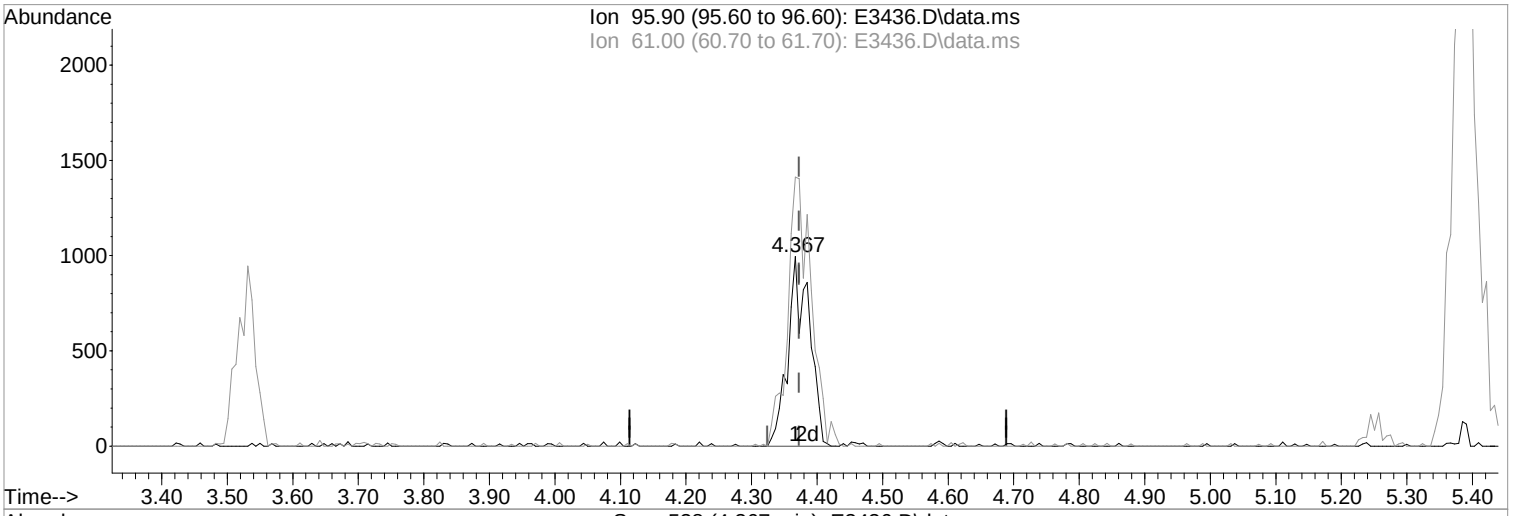


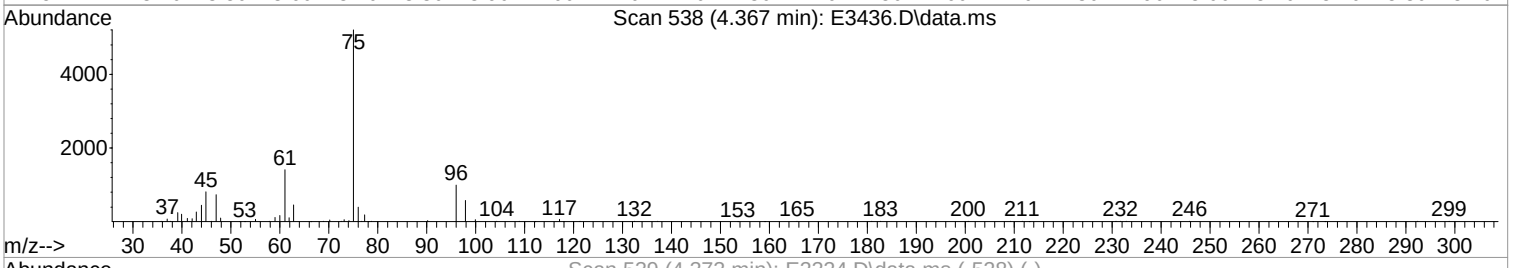
1st 08/07/19
2nd 08/07/19

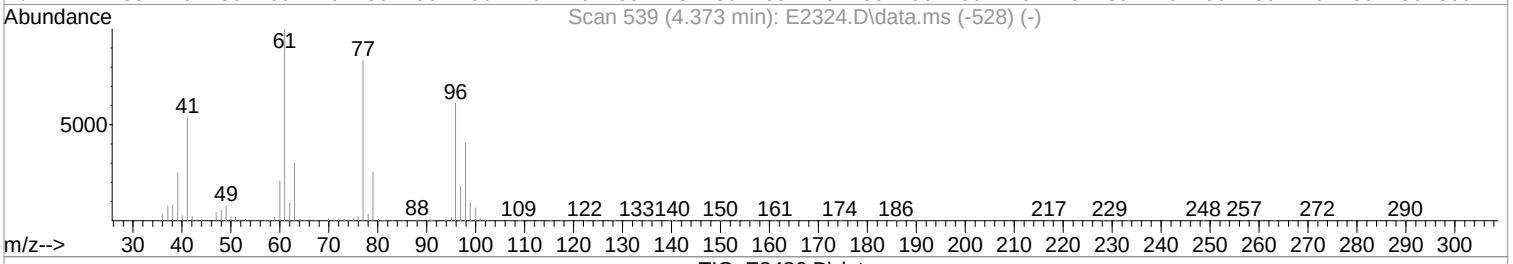
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3436.D
Acq On : 5 Aug 2019 3:27 pm
Operator : D.Lipani
Sample : R1907110-007|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 05 15:41:46 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3436.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.367min (-0.006) 0.81 ug/L m

response 2269

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	141.77#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Split Peak

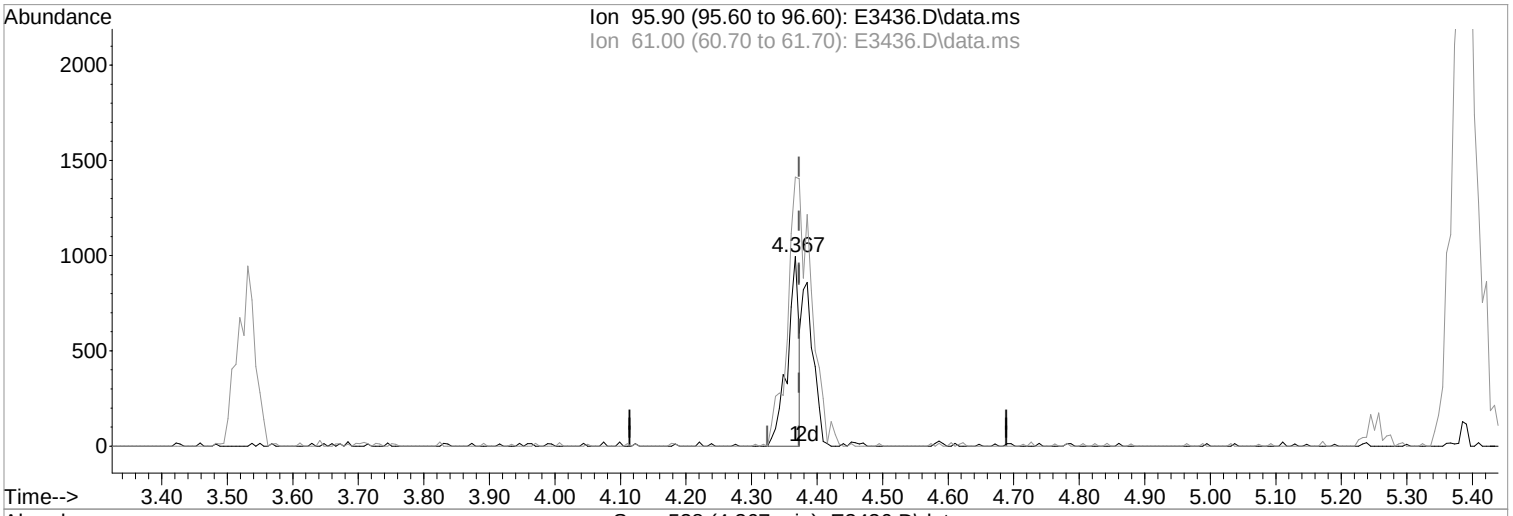
08/07/19

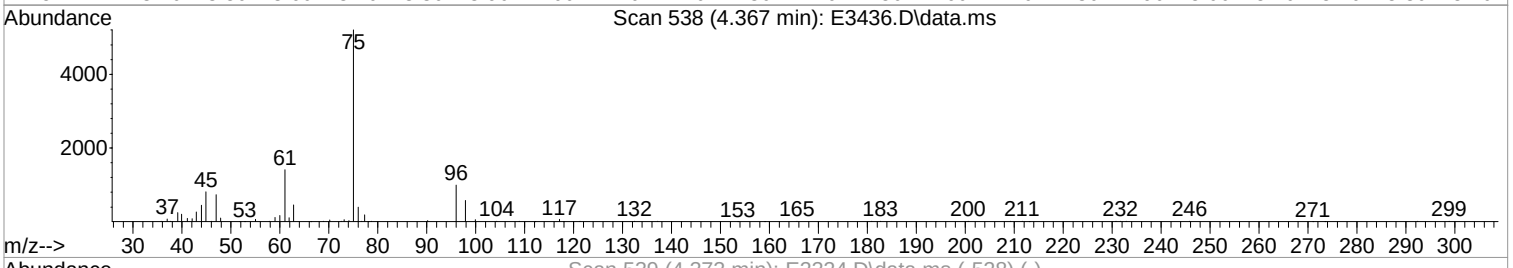
1st 08/07/19
2nd 08/07/19

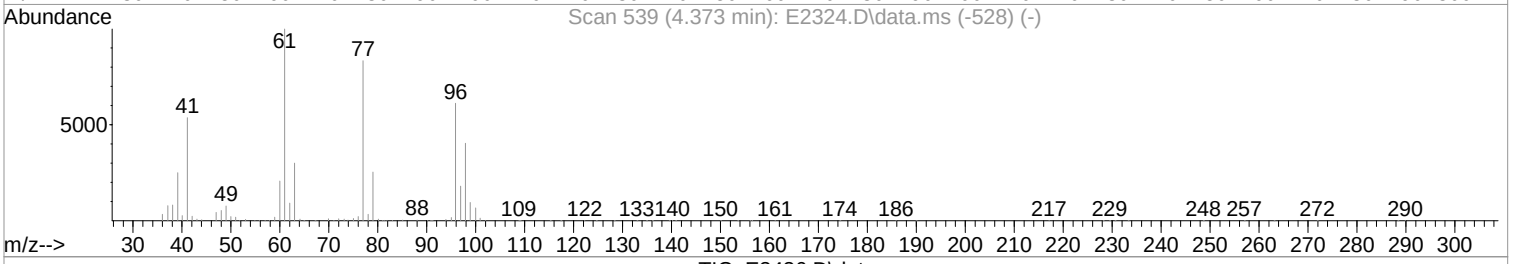
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3436.D
Acq On : 5 Aug 2019 3:27 pm
Operator : D.Lipani
Sample : R1907110-007|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 05 15:41:46 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3436.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.367min (-0.006) 0.43 ug/L

response 1225

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	141.77#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/07/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3436.D
Acq On : 5 Aug 2019 3:27 pm
Operator : D.Lipani
Sample : R1907110-007|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 07 10:00:13 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

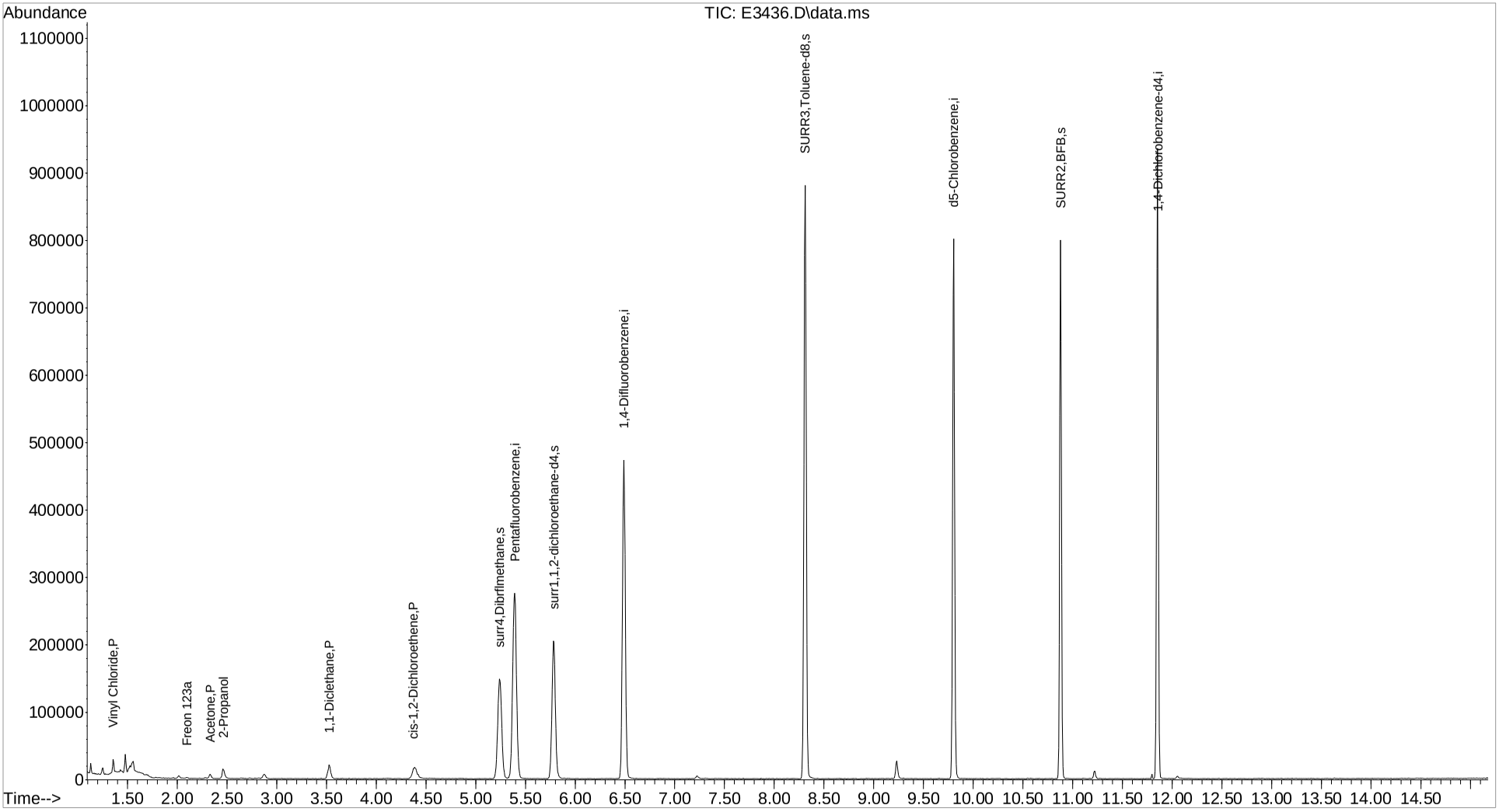
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	260012	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	384795	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	339066	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	176771	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	127167	50.24	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.48%			
46) surr1,1,2-dichloroetha...	5.781	65	178501	52.86	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.72%			
64) SURR3,Toluene-d8	8.311	98	514394	50.84	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.68%			
69) SURR2,BFB	10.878	95	196317	50.98	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.96%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	10448	2.84	ug/L	78
10) Freon 123a	2.093	67	797	0.25	ug/L #	66
15) Acetone	2.331	43	6321	4.11	ug/L	93
16) 2-Propanol	2.465	45	16327	44.00	ug/L	95
27) 1,1-Diclethane	3.525	63	20903	3.91	ug/L	95
33) cis-1,2-Dichloroethene	4.367	96	2269m	0.81	ug/L	

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

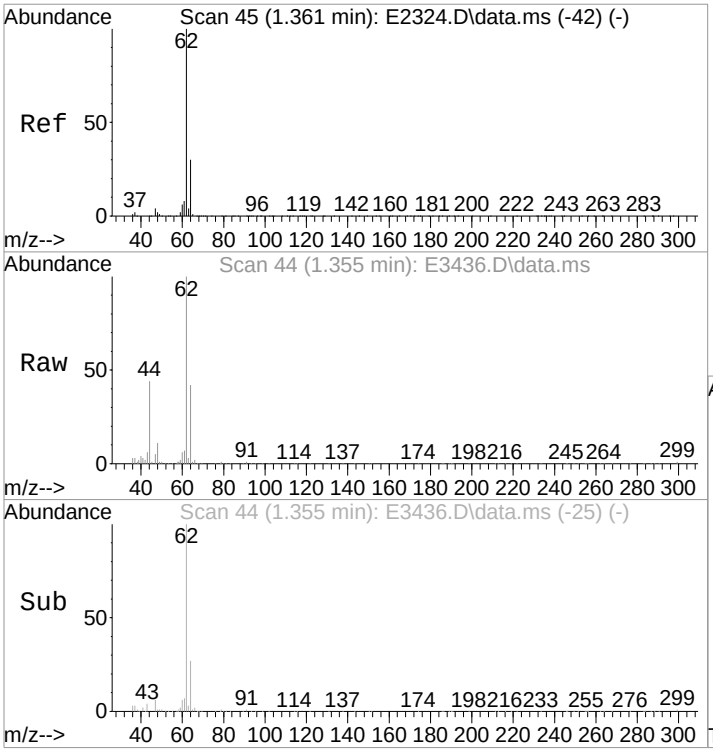
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3436.D
Acq On : 5 Aug 2019 3:27 pm
Operator : D.Lipani
Sample : R1907110-007|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 07 10:00:13 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



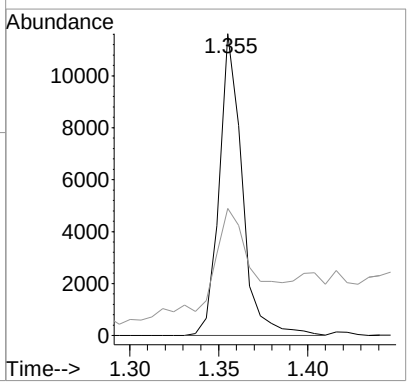
1st 08/07/19
2nd 08/07/19

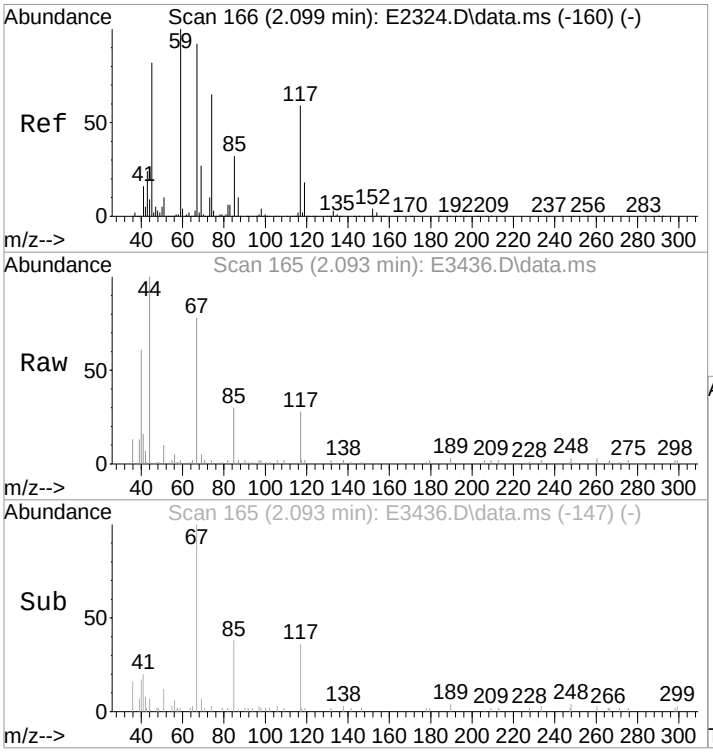


#4
Vinyl Chloride
Concen: 2.84 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: E3436.D
Acq: 5 Aug 2019 3:27 pm

Tgt Ion: 62 Resp: 10448

Ion	Ratio	Lower	Upper
62	100		
64	42.1	10.0	50.0

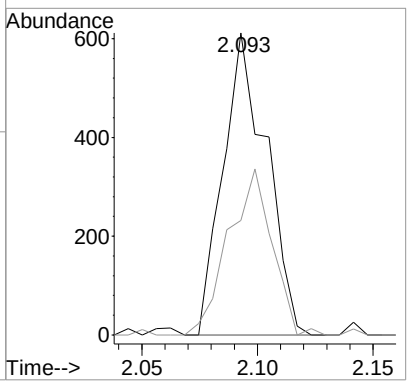


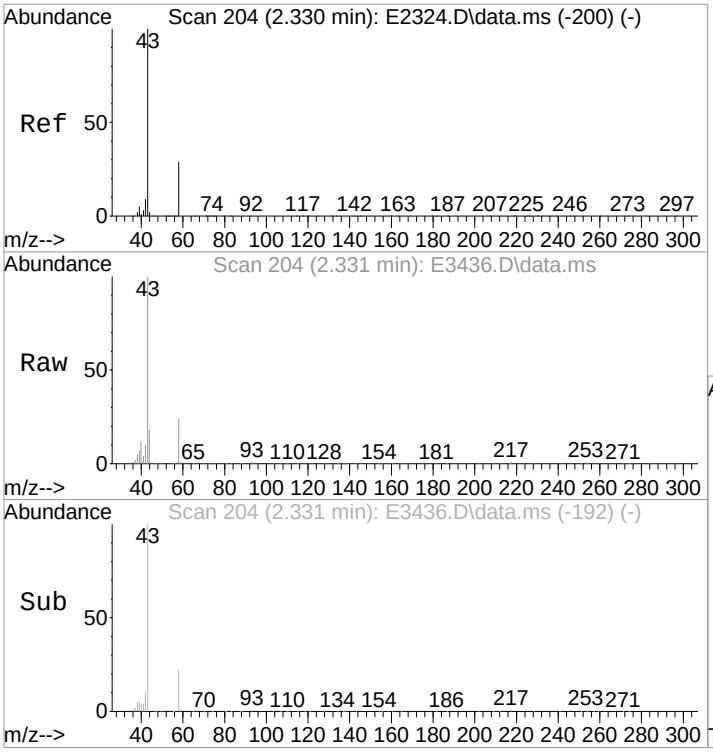


#10
Freon 123a
Concen: 0.25 ug/L
RT: 2.093 min Scan# 165
Delta R.T. -0.006 min
Lab File: E3436.D
Acq: 5 Aug 2019 3:27 pm

Tgt Ion: 67 Resp: 797

Ion	Ratio	Lower	Upper
67	100		
117	37.9	44.3	84.3#

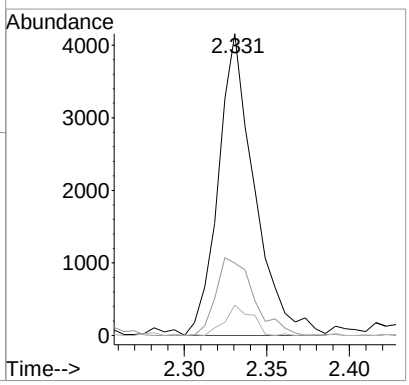


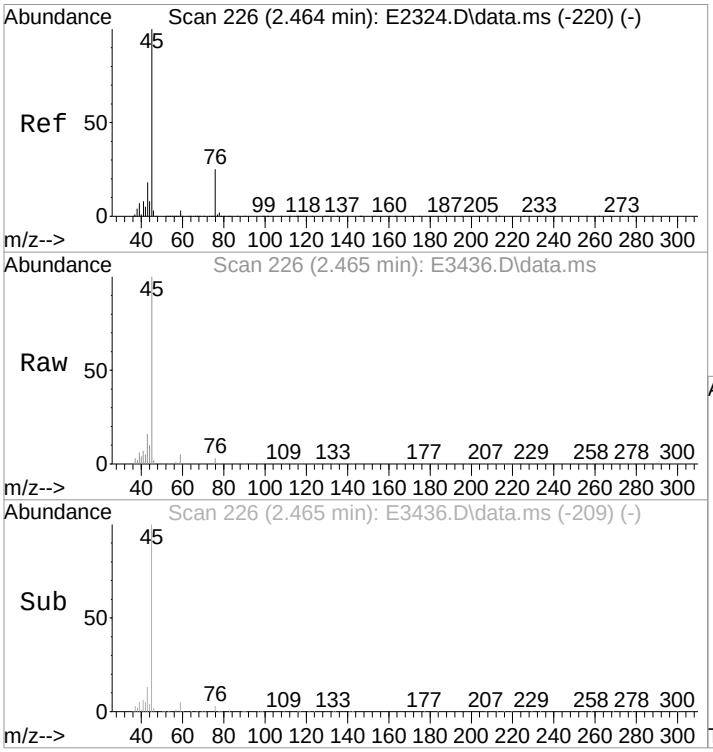


#15
Acetone
Concen: 4.11 ug/L
RT: 2.331 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3436.D
Acq: 5 Aug 2019 3:27 pm

Tgt Ion: 43 Resp: 6321

Ion	Ratio	Lower	Upper
43	100		
58	24.0	8.4	48.4
42	10.0	0.0	29.4

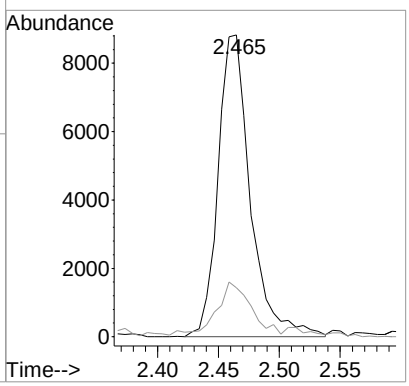


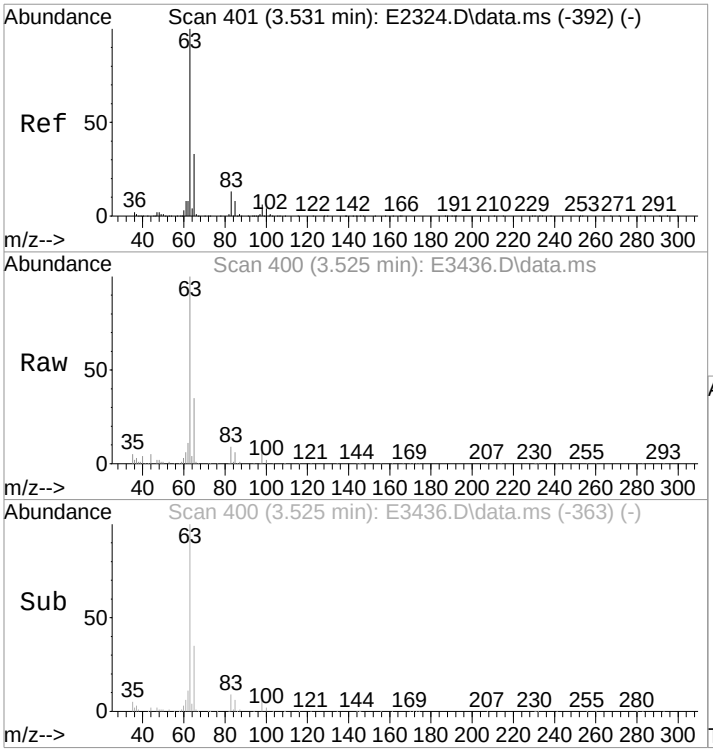


#16
2-Propanol
Concen: 44.00 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.005 min
Lab File: E3436.D
Acq: 5 Aug 2019 3:27 pm

Tgt Ion: 45 Resp: 16327

Ion	Ratio	Lower	Upper
45	100		
43	16.3	0.0	38.5

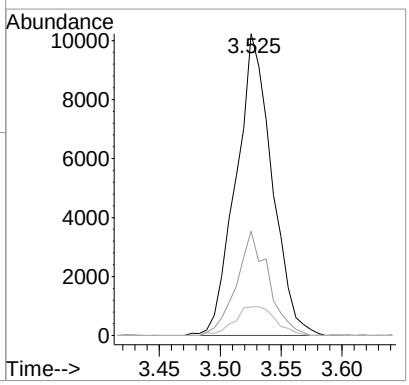


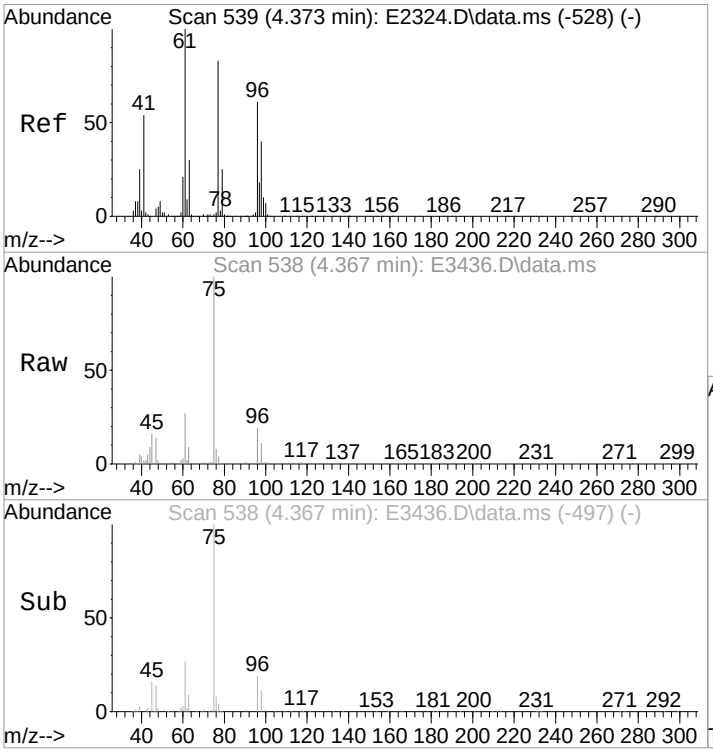


#27
1,1-Diclethane
Concen: 3.91 ug/L
RT: 3.525 min Scan# 400
Delta R.T. 0.000 min
Lab File: E3436.D
Acq: 5 Aug 2019 3:27 pm

Tgt Ion: 63 Resp: 20903

Ion	Ratio	Lower	Upper
63	100		
65	34.5	12.7	52.7
83	9.5	0.0	32.6

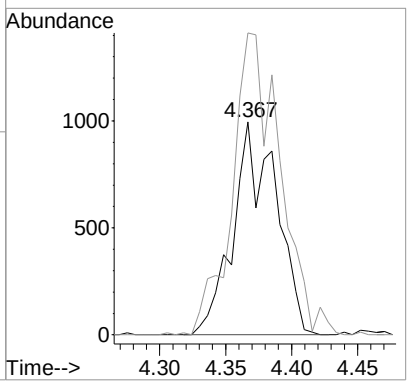




#33
cis-1,2-Dichloroethene
Concen: 0.81 ug/L m
RT: 4.367 min Scan# 538
Delta R.T. -0.006 min
Lab File: E3436.D
Acq: 5 Aug 2019 3:27 pm

Tgt Ion: 96 Resp: 2269

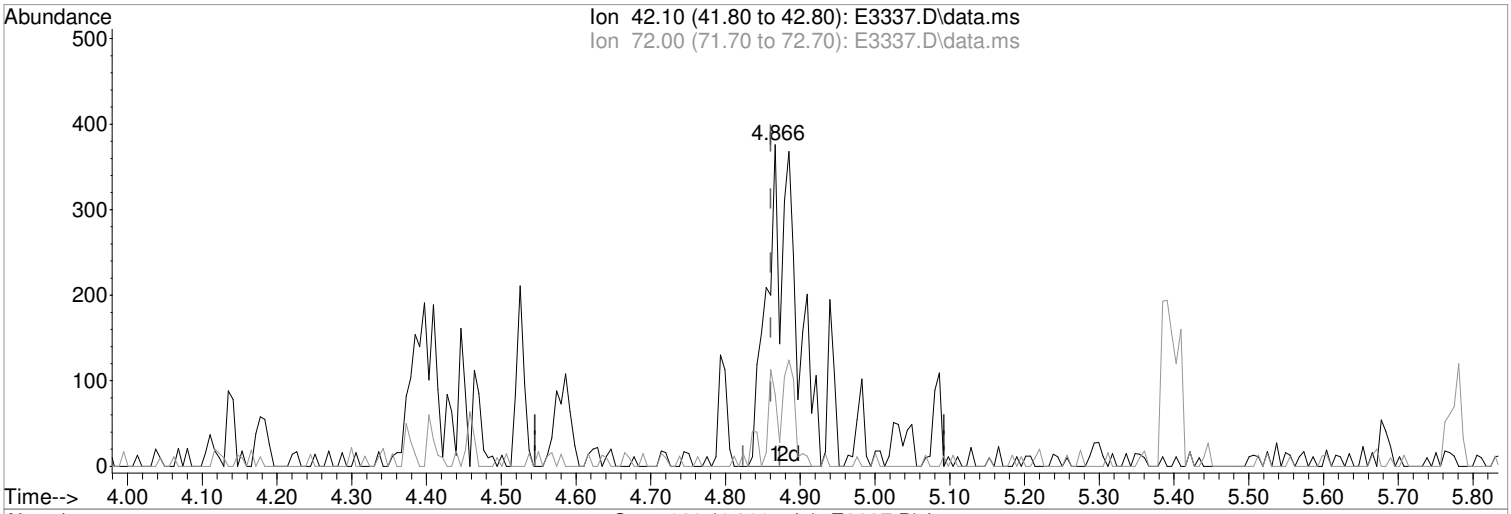
Ion	Ratio	Lower	Upper
96	100		
61	141.8	143.6	183.6#

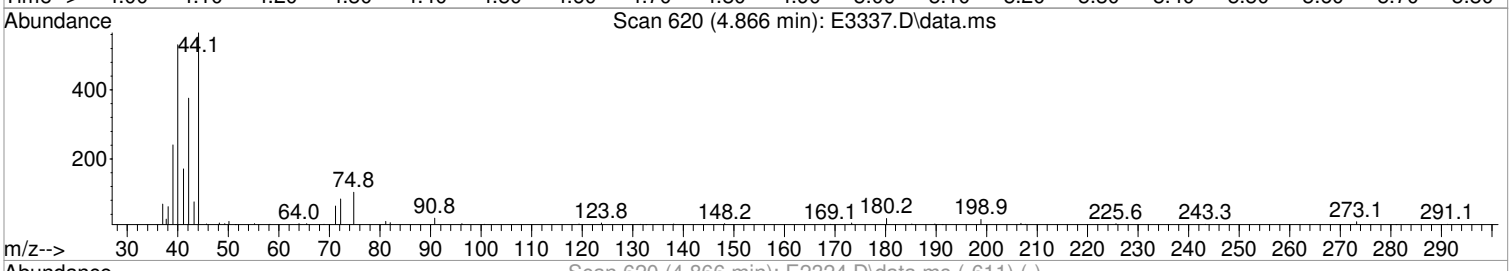


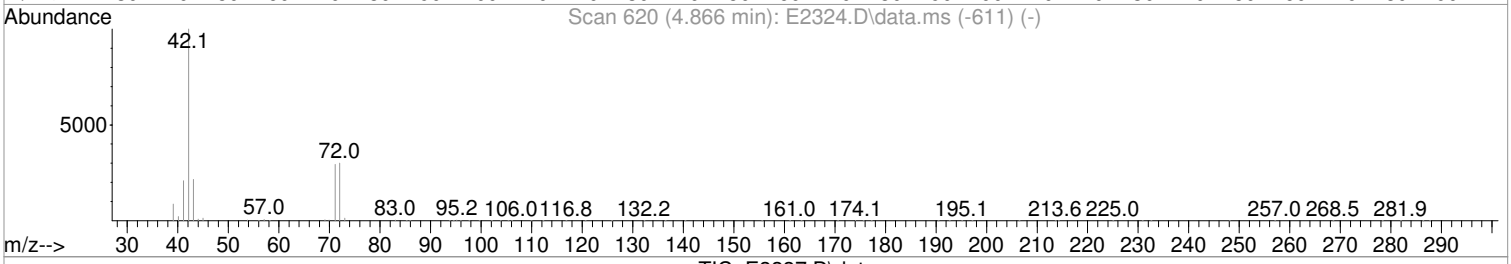
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3337.D
Acq On : 1 Aug 2019 3:09 pm
Operator : D.Lipani
Sample : R1907110-008|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 01 15:23:52 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3337.D\data.ms

(38) Tetrahydrofuran

4.866min (+0.006) 0.61 ug/L m

response 1003

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	22.34
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

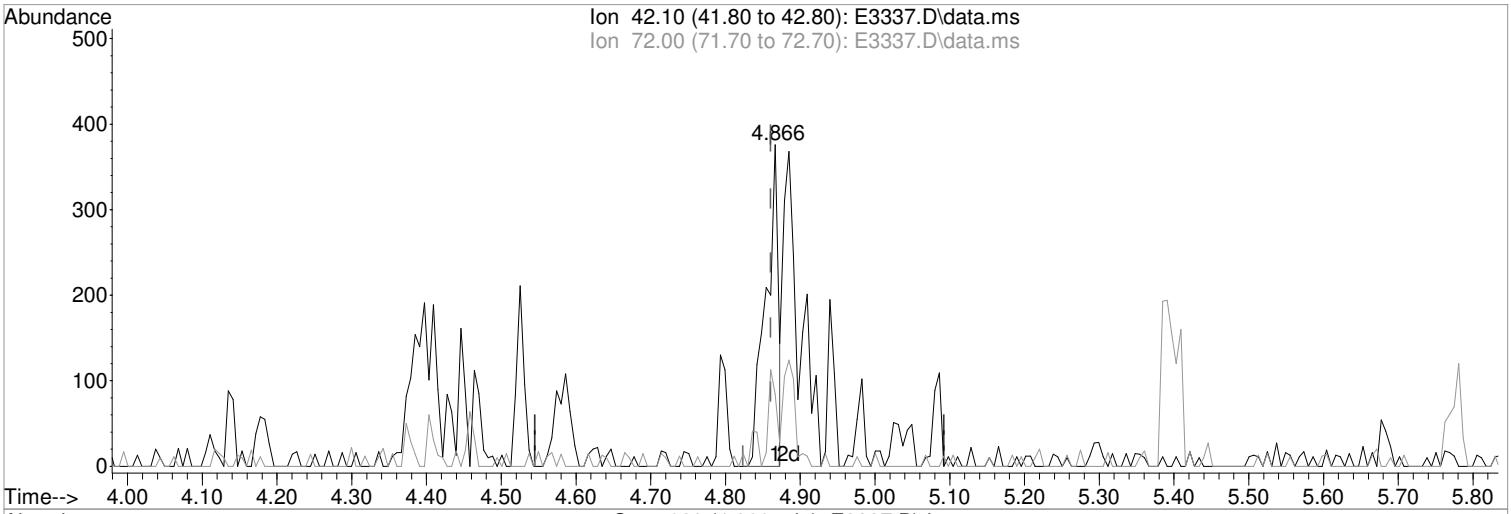
Poor integration.

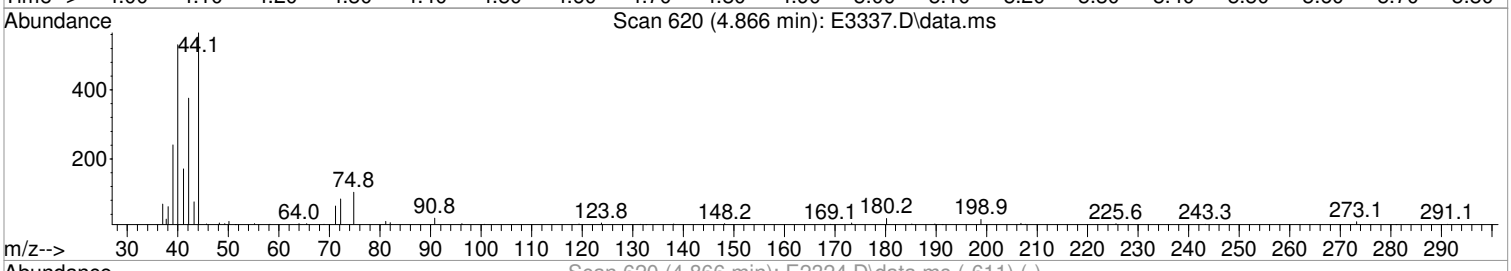
08/02/19

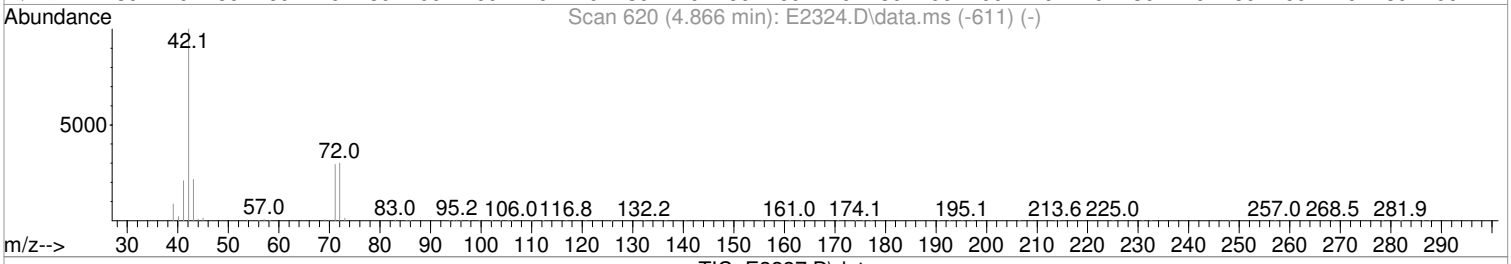
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3337.D
Acq On : 1 Aug 2019 3:09 pm
Operator : D.Lipani
Sample : R1907110-008|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 01 15:23:52 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration







TIC: E3337.D\data.ms

(38) Tetrahydrofuran

4.866min (+0.006) 0.27 ug/L

response 444

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	22.34
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3337.D
Acq On : 1 Aug 2019 3:09 pm
Operator : D.Lipani
Sample : R1907110-008|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 02 14:56:38 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

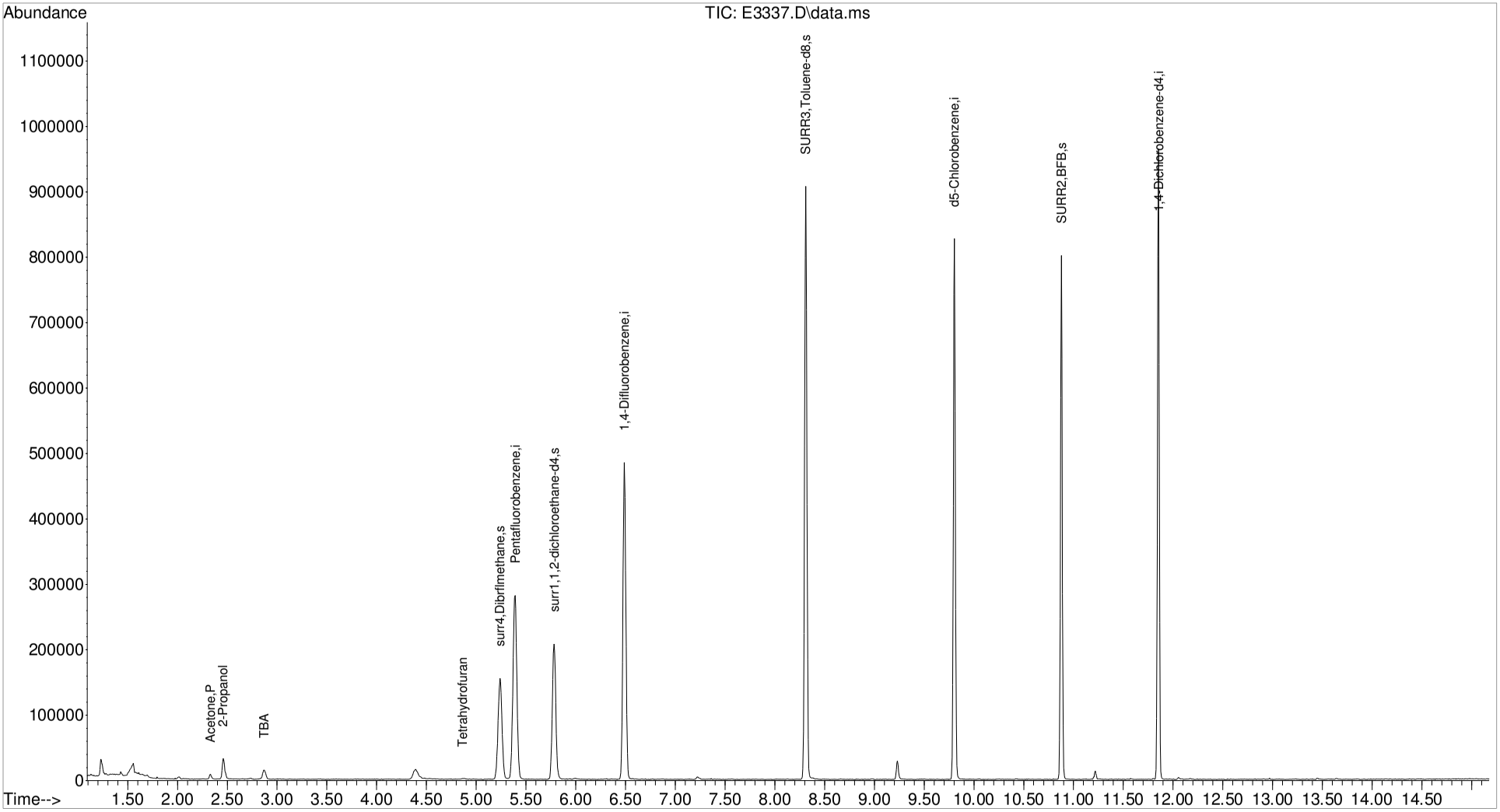
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	273097	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	395678	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	339432	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	178129	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	127149	48.85	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.70%			
46) surr1,1,2-dichloroetha...	5.781	65	183123	52.74	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.48%			
64) SURR3,Toluene-d8	8.311	98	523424	50.31	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.62%			
69) SURR2,BFB	10.878	95	197154	49.79	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.58%			
Target Compounds						Qvalue
5) Bromomethane	1.574	94	587	Below Cal	#	34
15) Acetone	2.330	43	7468	4.62	ug/L	94
16) 2-Propanol	2.458	45	37095	95.17	ug/L	98
23) TBA	2.867	59	10187	17.82	ug/L	76
38) Tetrahydrofuran	4.866	42	1003m	0.61	ug/L	

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

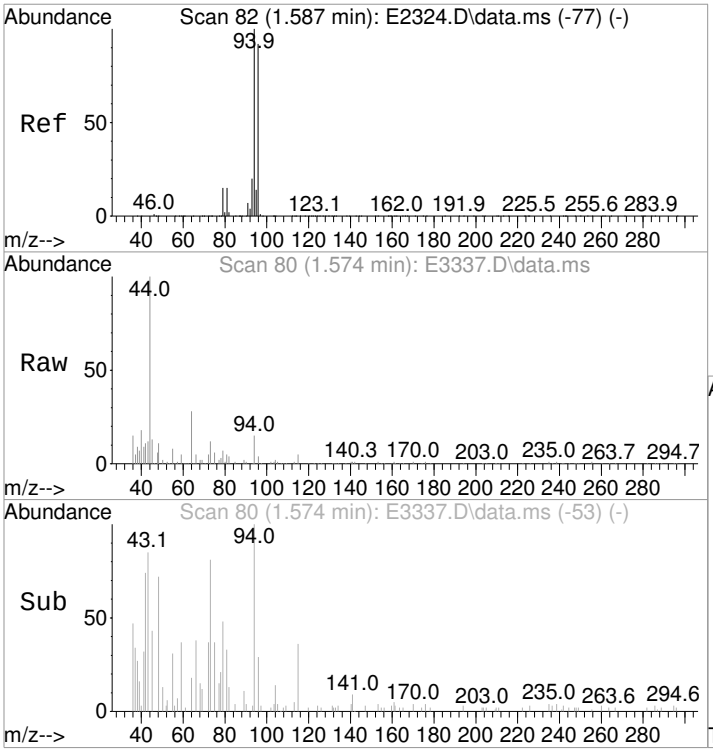
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3337.D
Acq On : 1 Aug 2019 3:09 pm
Operator : D.Lipani
Sample : R1907110-008|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 02 14:56:38 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



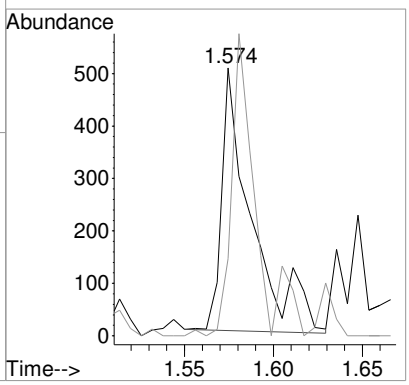
1st 08/03/19
2nd 08/05/19

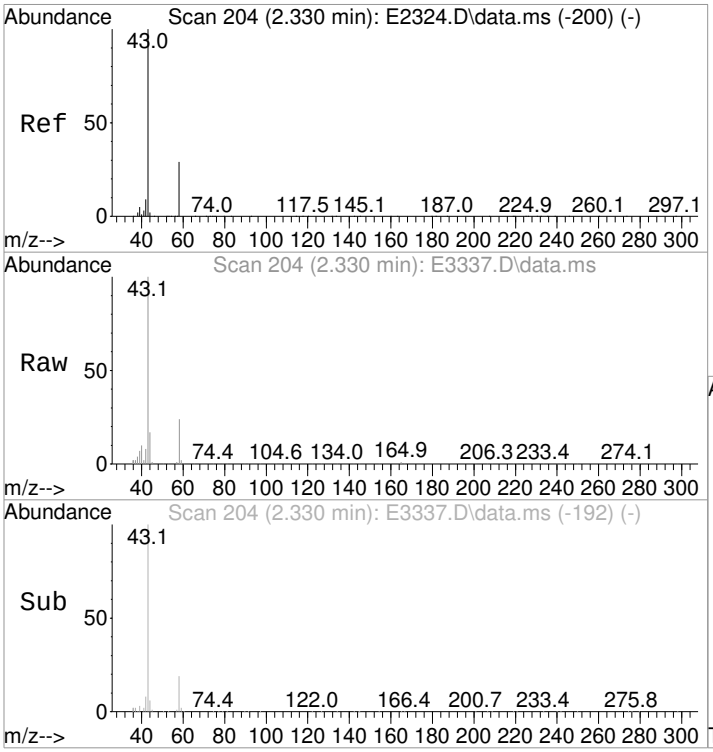


#5
Bromomethane
Concen: Below Cal
RT: 1.574 min Scan# 80
Delta R.T. 0.000 min
Lab File: E3337.D
Acq: 1 Aug 2019 3:09 pm

Tgt Ion: 94 Resp: 587

Ion	Ratio	Lower	Upper
94	100		
96	28.8	72.1	112.1#

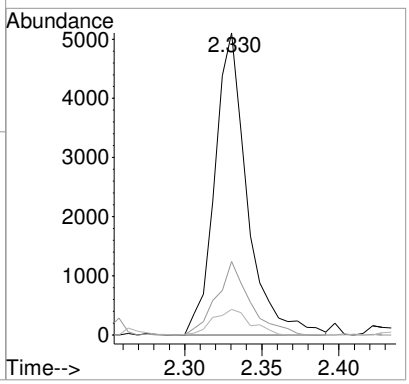


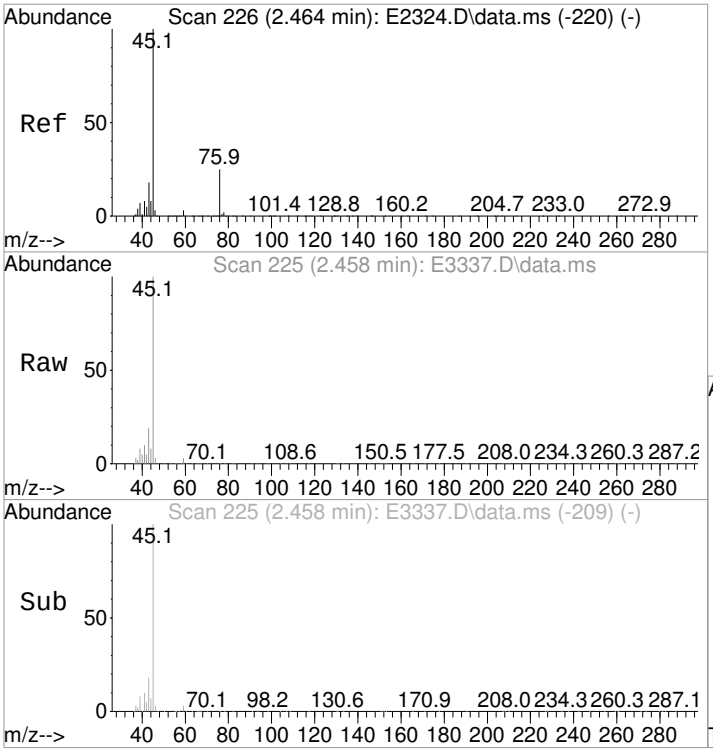


#15
Acetone
Concen: 4.62 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3337.D
Acq: 1 Aug 2019 3:09 pm

Tgt Ion: 43 Resp: 7468

Ion	Ratio	Lower	Upper
43	100		
58	24.3	8.4	48.4
42	8.4	0.0	29.4

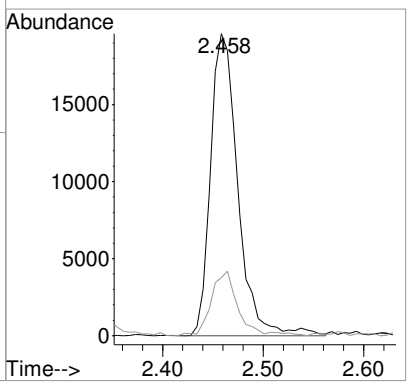


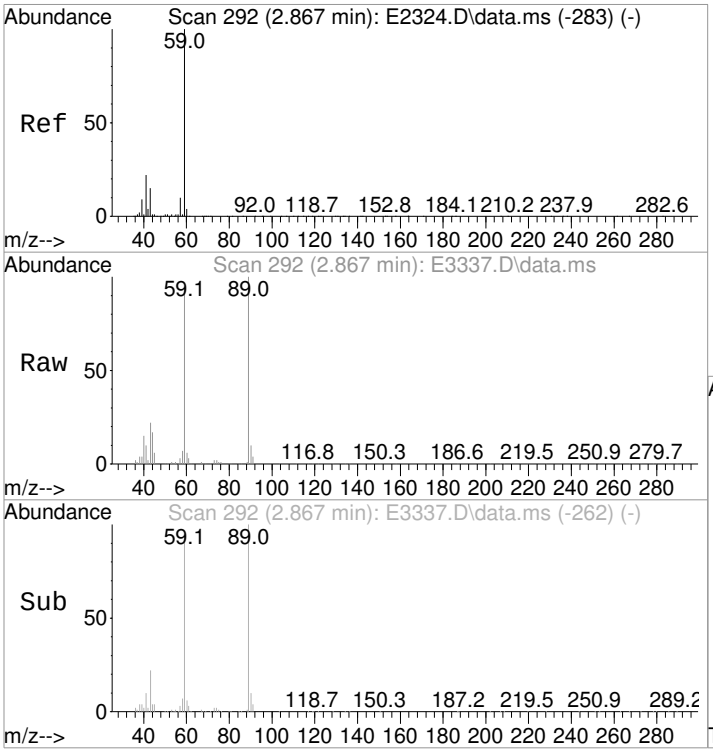


#16
2-Propanol
Concen: 95.17 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3337.D
Acq: 1 Aug 2019 3:09 pm

Tgt Ion: 45 Resp: 37095

Ion	Ratio	Lower	Upper
45	100		
43	19.2	0.0	38.5

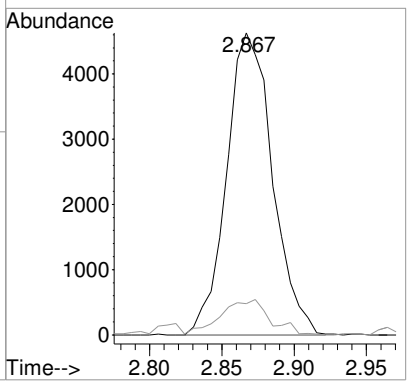


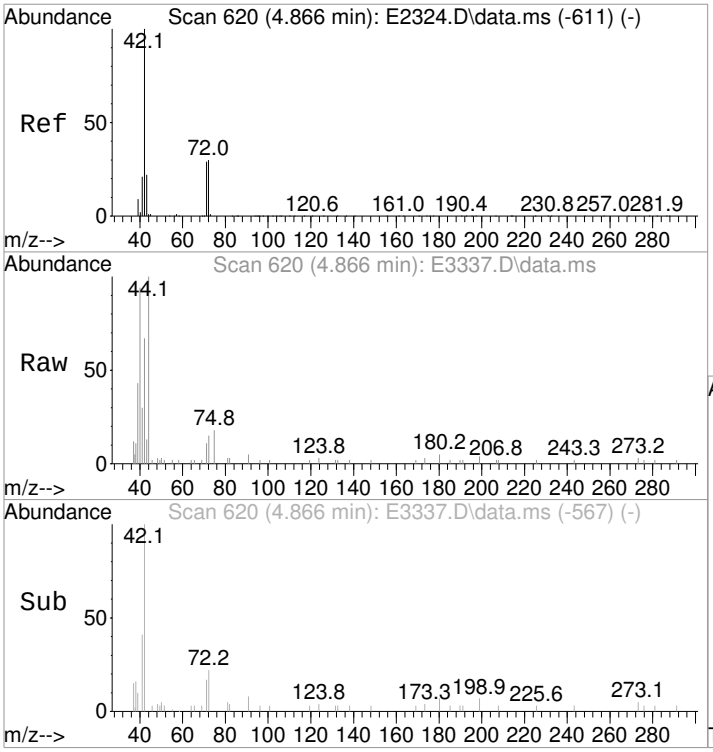


#23
TBA
Concen: 17.82 ug/L
RT: 2.867 min Scan# 292
Delta R.T. -0.006 min
Lab File: E3337.D
Acq: 1 Aug 2019 3:09 pm

Tgt Ion: 59 Resp: 10187

Ion	Ratio	Lower	Upper
59	100		
41	10.4	1.8	41.8

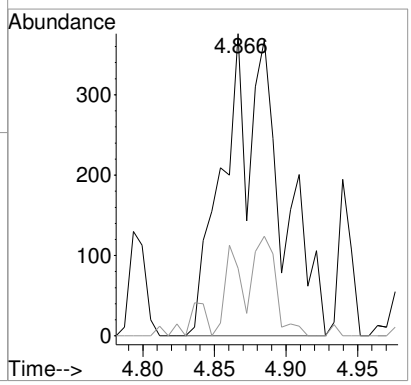




#38
Tetrahydrofuran
Concen: 0.61 ug/L m
RT: 4.866 min Scan# 620
Delta R.T. 0.006 min
Lab File: E3337.D
Acq: 1 Aug 2019 3:09 pm

Tgt Ion: 42 Resp: 1003

Ion	Ratio	Lower	Upper
42	100		
72	22.3	10.2	50.2



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3331.D
Acq On : 1 Aug 2019 12:45 pm
Operator : D.Lipani
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 02 13:53:30 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

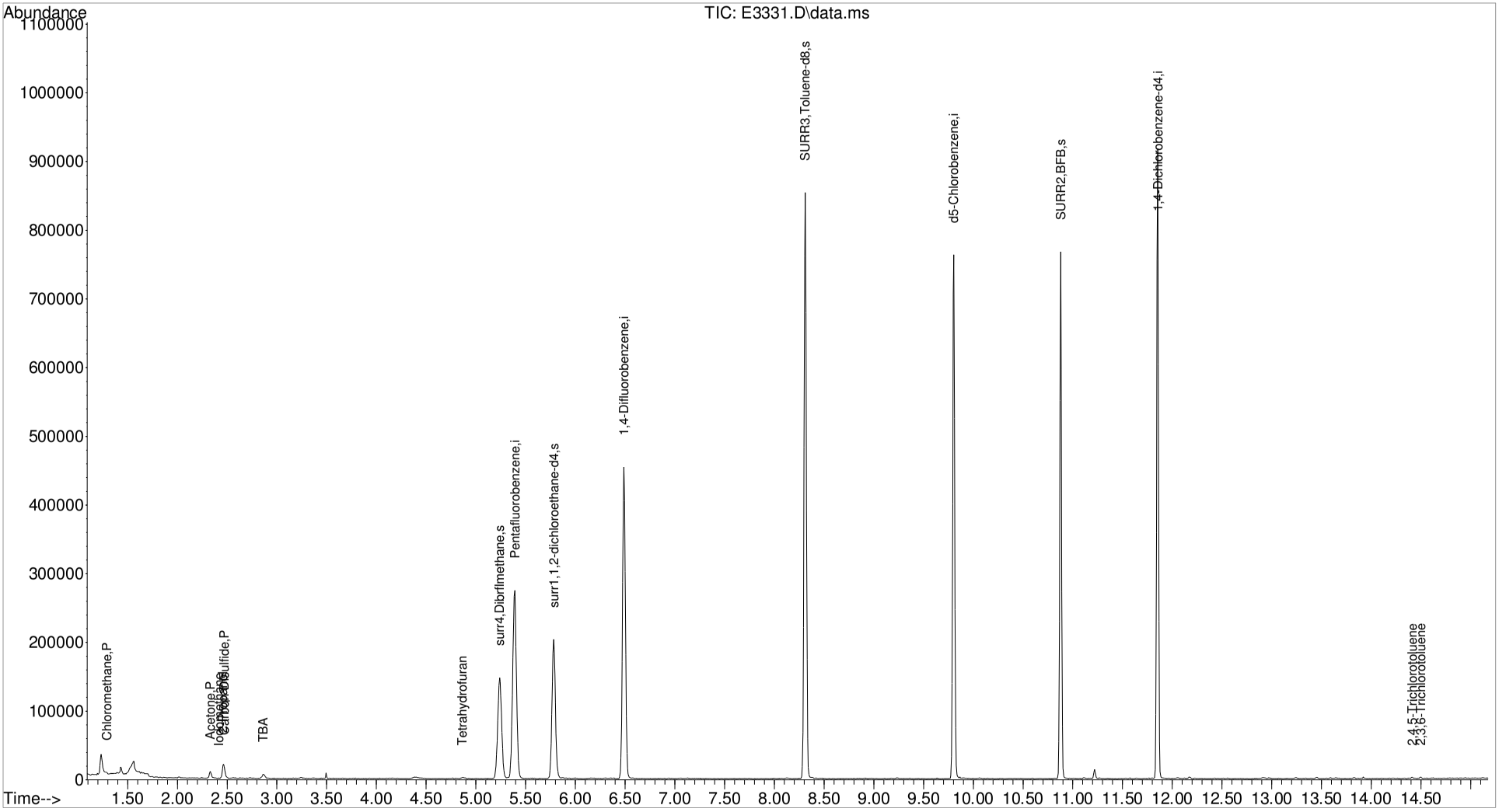
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	250860	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	367340	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	319046	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	172818	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	120952	50.06	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.12%				
46) surr1,1,2-dichloroetha...	5.781	65	171666	53.25	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.50%				
64) SURR3,Toluene-d8	8.311	98	499583	51.72	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.44%				
69) SURR2,BFB	10.878	95	187004	50.87	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.74%				
Target Compounds							Qvalue
3) Chloromethane	1.288	50	896	0.21	ug/L		99
5) Bromomethane	1.581	94	456	Below Cal		#	72
15) Acetone	2.330	43	10101	6.81	ug/L		95
16) 2-Propanol	2.458	45	22376	62.50	ug/L		99
17) Iodomethane	2.416	142	293	1.11	ug/L	#	48
18) Carbon Disulfide	2.471	76	1689	0.23	ug/L		79
23) TBA	2.861	59	5942	11.32	ug/L		88
38) Tetrahydrofuran	4.866	42	1177	0.78	ug/L	#	60
118) 2,4,5-Trichlorotoluene	14.413	159	494	0.58	ug/L	#	51
119) 2,3,6-Trichlorotoluene	14.499	159	383	0.53	ug/L	#	59

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

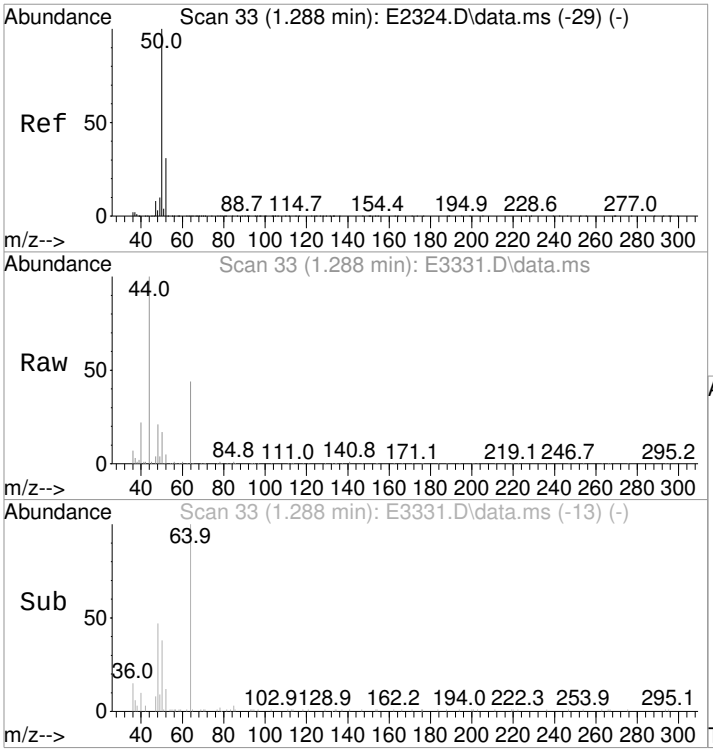
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3331.D
Acq On : 1 Aug 2019 12:45 pm
Operator : D.Lipani
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 02 13:53:30 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



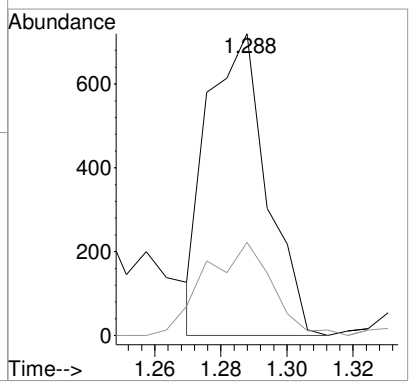
1st 08/03/19
2nd 08/05/19

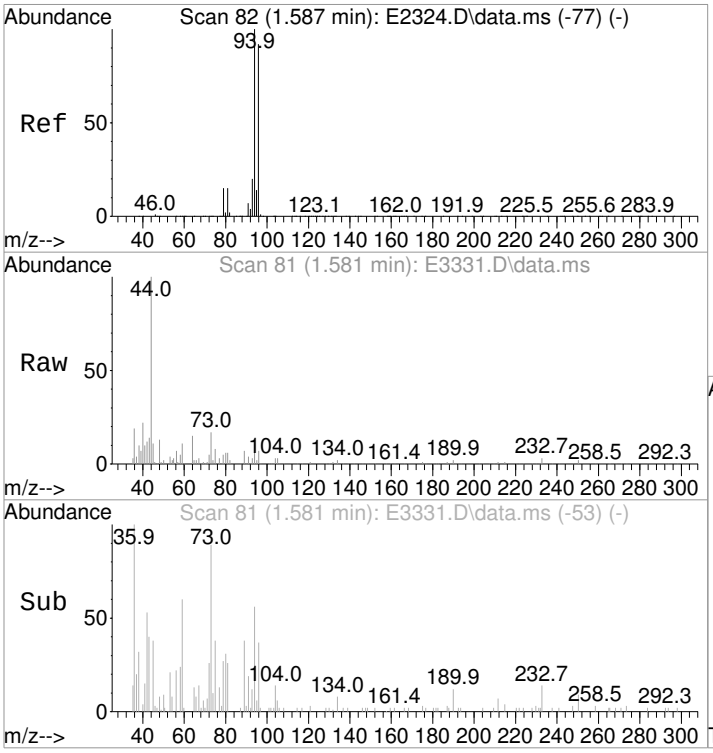


#3
Chloromethane
Concen: 0.21 ug/L
RT: 1.288 min Scan# 33
Delta R.T. 0.006 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 50 Resp: 896

Ion	Ratio	Lower	Upper
50	100		
52	30.8	11.4	51.4

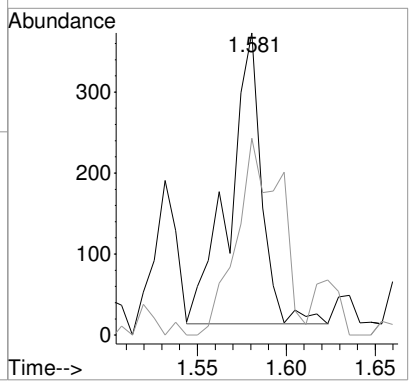


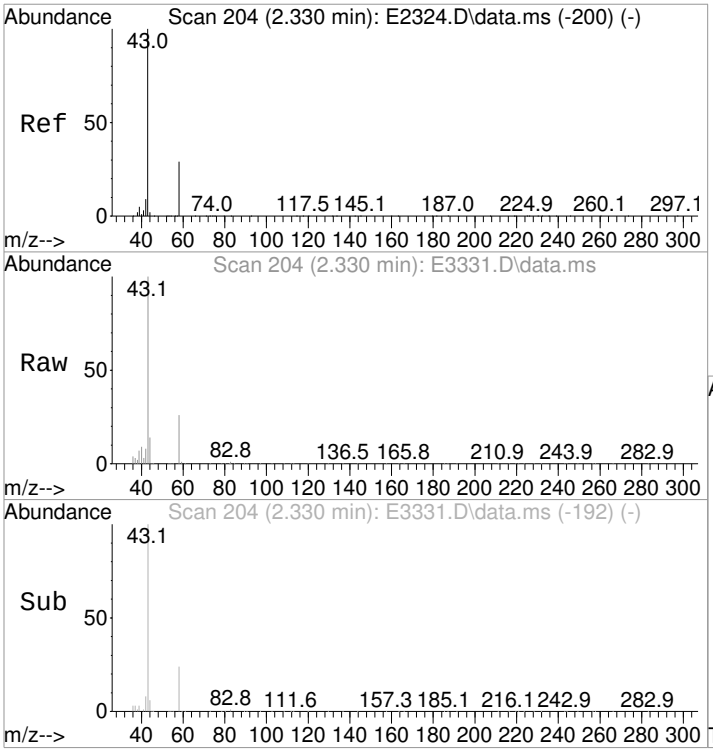


#5
Bromomethane
Concen: Below Cal
RT: 1.581 min Scan# 81
Delta R.T. 0.007 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 94 Resp: 456

Ion	Ratio	Lower	Upper
94	100		
96	65.1	72.1	112.1#

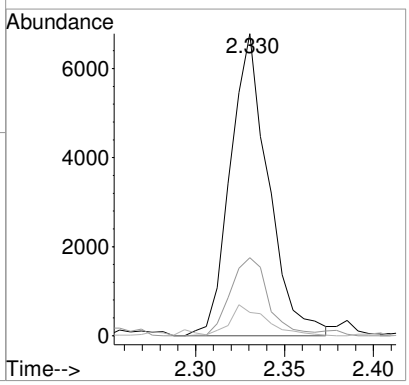


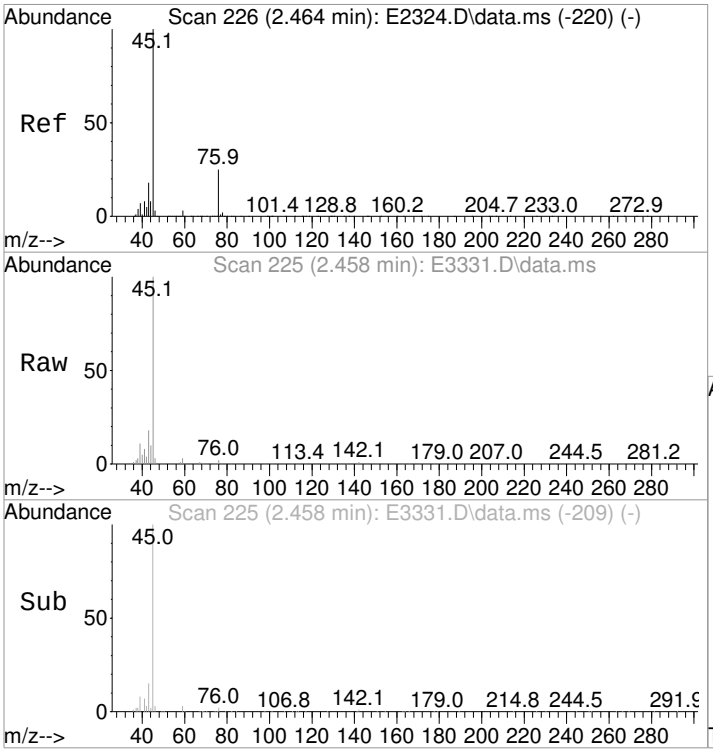


#15
Acetone
Concen: 6.81 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 43 Resp: 10101

Ion	Ratio	Lower	Upper
43	100		
58	25.9	8.4	48.4
42	7.7	0.0	29.4

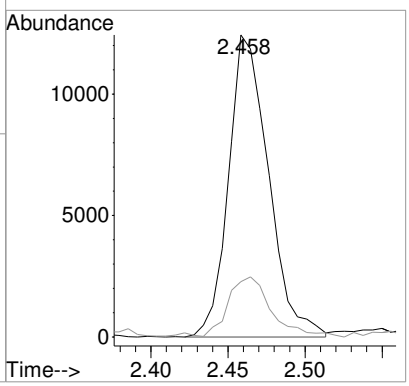




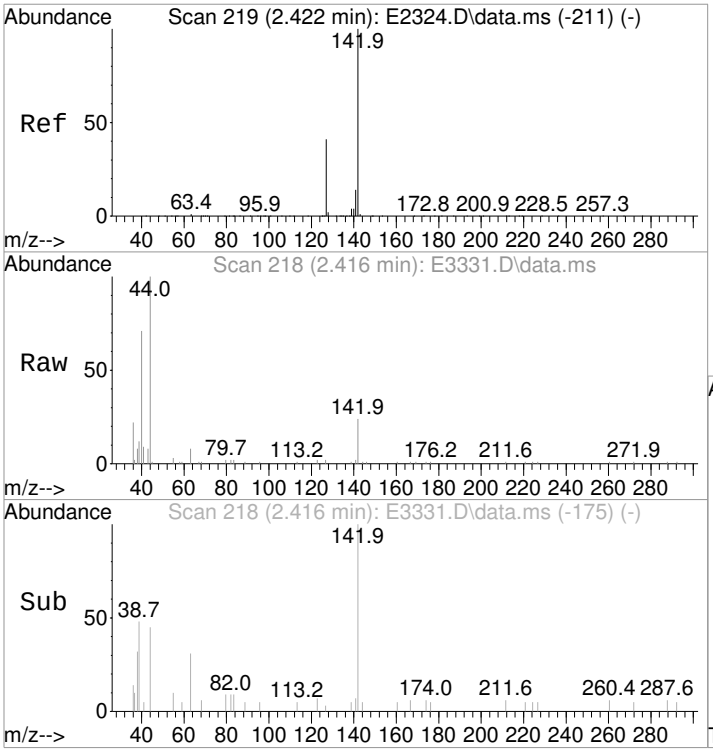
#16
2-Propanol
Concen: 62.50 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 45 Resp: 22376

Ion	Ratio	Lower	Upper
45	100		
43	18.3	0.0	38.5



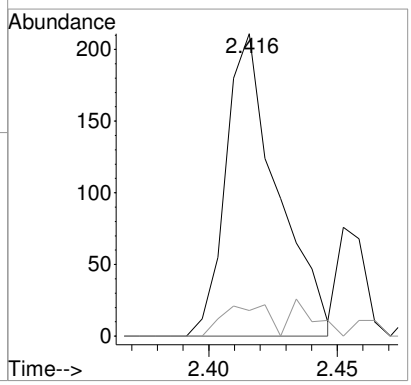
1st DL 08/03/19
2nd 08/05/19

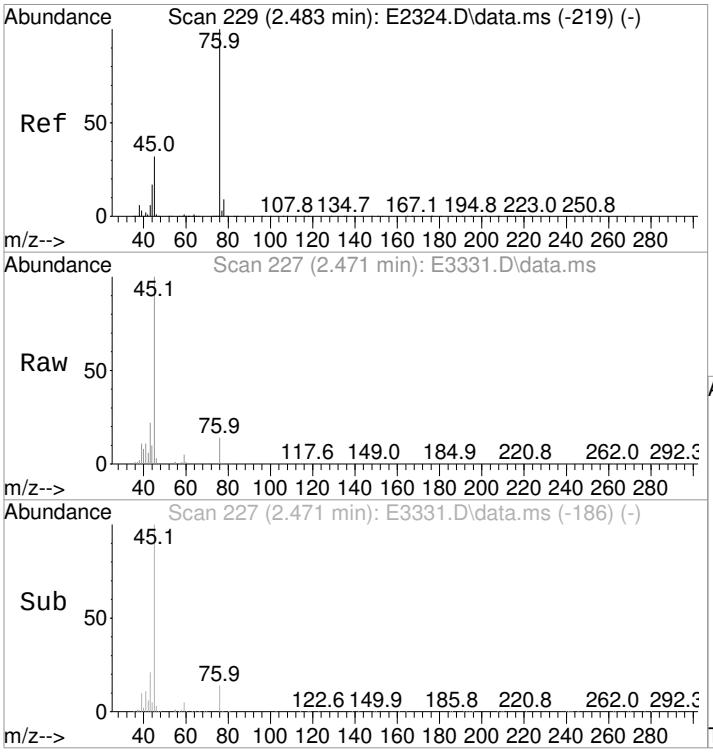


#17
Iodomethane
Concen: 1.11 ug/L
RT: 2.416 min Scan# 218
Delta R.T. 0.001 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion:142 Resp: 293

Ion	Ratio	Lower	Upper
142	100		
127	8.5	21.3	61.3#

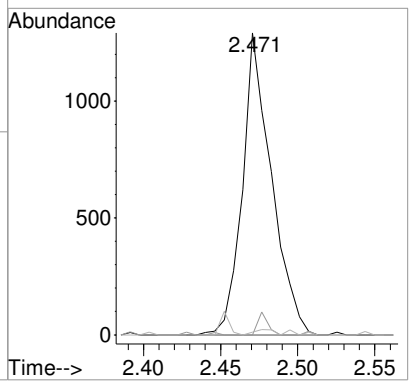


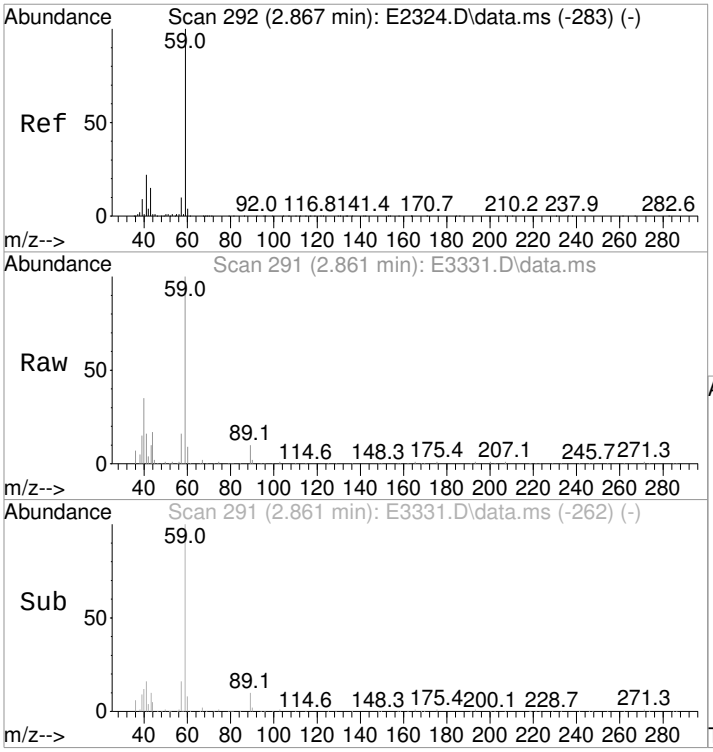


#18
Carbon Disulfide
Concen: 0.23 ug/L
RT: 2.471 min Scan# 227
Delta R.T. -0.006 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 76 Resp: 1689

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	29.3
77	0.9	0.0	22.8

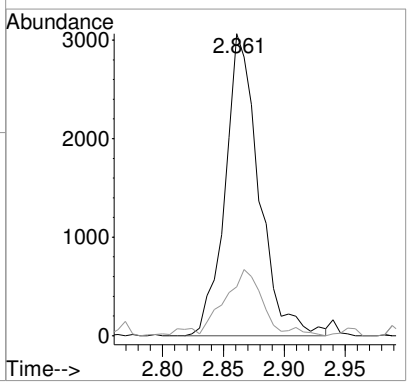


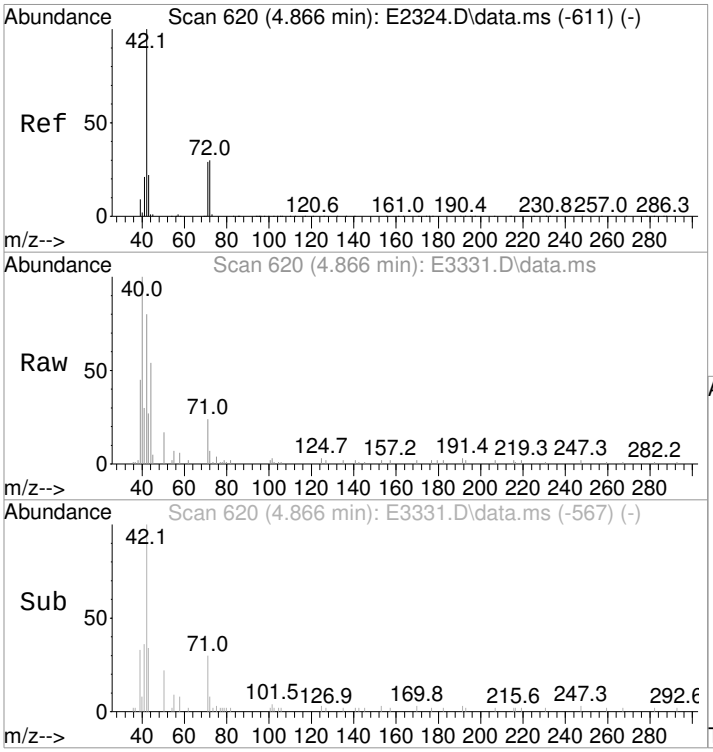


#23
TBA
Concen: 11.32 ug/L
RT: 2.861 min Scan# 291
Delta R.T. -0.012 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 59 Resp: 5942

Ion	Ratio	Lower	Upper
59	100		
41	16.2	1.8	41.8

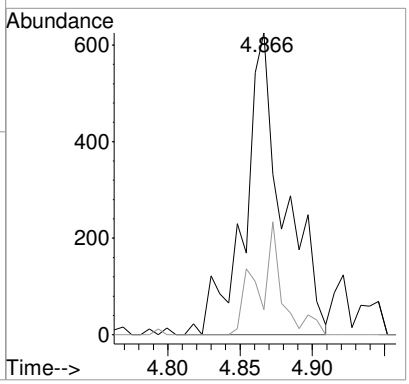


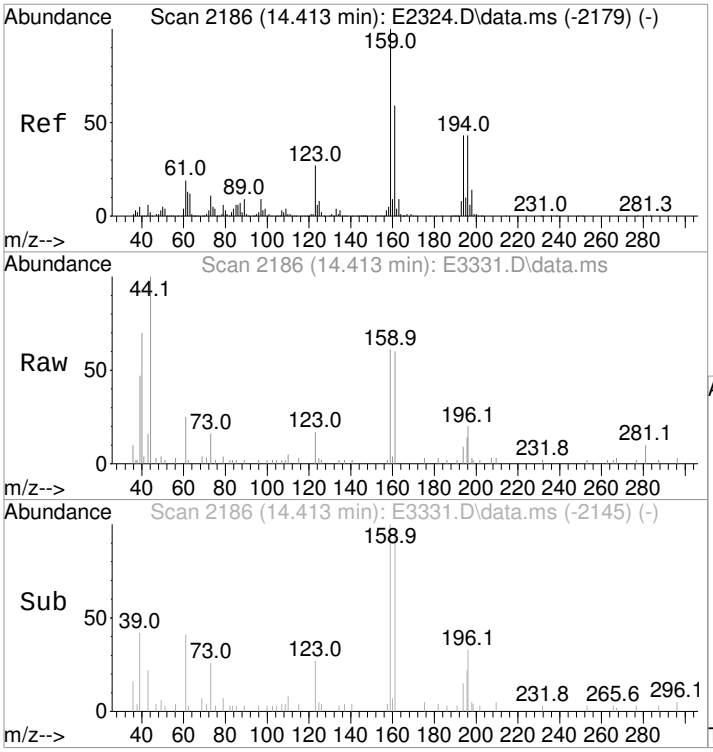


#38
Tetrahydrofuran
Concen: 0.78 ug/L
RT: 4.866 min Scan# 620
Delta R.T. 0.006 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion: 42 Resp: 1177

Ion	Ratio	Lower	Upper
42	100		
72	8.3	10.2	50.2#

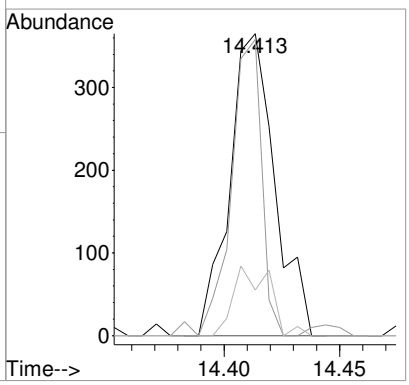


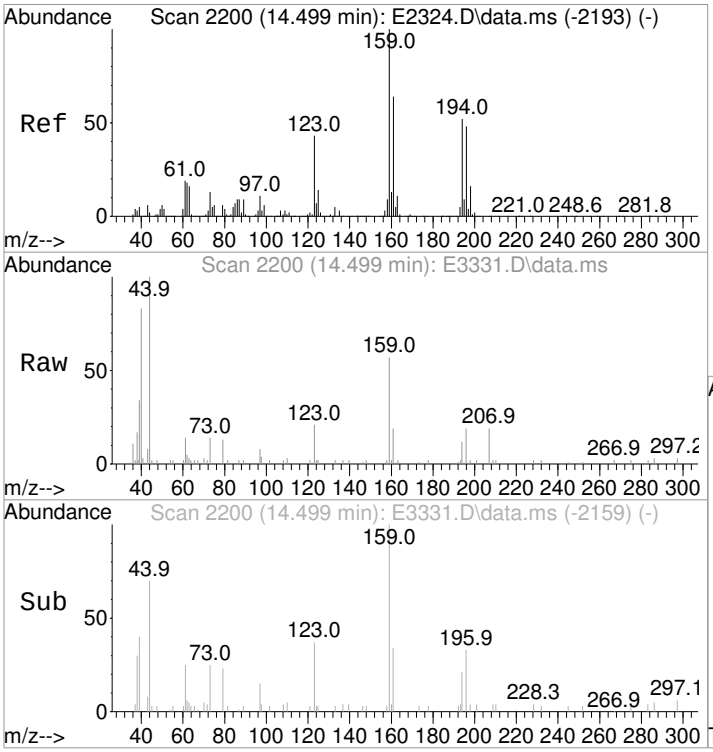


#118
2,4,5-Trichlorotoluene
Concen: 0.58 ug/L
RT: 14.413 min Scan# 2186
Delta R.T. 0.000 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion:159 Resp: 494

Ion	Ratio	Lower	Upper
159	100		
161	98.1	39.1	79.1#
194	15.1	23.3	63.3#

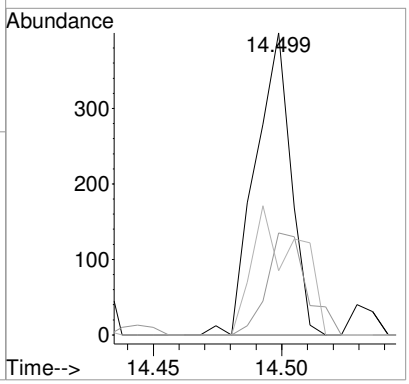




#119
2,3,6-Trichlorotoluene
Concen: 0.53 ug/L
RT: 14.499 min Scan# 2200
Delta R.T. 0.001 min
Lab File: E3331.D
Acq: 1 Aug 2019 12:45 pm

Tgt Ion:159 Resp: 383

Ion	Ratio	Lower	Upper
159	100		
161	33.8	43.9	83.9#
194	21.3	32.1	72.1#



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3427.D
Acq On : 5 Aug 2019 12:05 pm
Operator : D.Lipani
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 300 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

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

Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Title : MS#10 - 8260B WATERS 5.0mL Purge

Signal : TIC: E3427.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.562	64	78	82	rBV2	20978	59943	4.45%	0.837%
2	2.330	199	204	210	rBV	8941	13492	1.00%	0.188%
3	2.458	218	225	235	rBV	28285	54262	4.03%	0.758%
4	5.238	670	681	695	rBV2	144087	401288	29.79%	5.604%
5	5.391	695	706	719	rVB	270727	724300	53.77%	10.115%
6	5.781	758	770	782	rBV	196521	474564	35.23%	6.627%
7	6.488	877	886	895	rBV	462448	918943	68.22%	12.833%
8	8.311	1177	1185	1195	rBV	846985	1346993	100.00%	18.810%
9	9.805	1423	1430	1440	rBV	781995	1091876	81.06%	15.248%
10	10.878	1600	1606	1614	rBV	738045	927103	68.83%	12.947%
11	11.219	1657	1662	1667	rBV2	12216	16565	1.23%	0.231%
12	11.853	1760	1766	1773	rBV	918291	1131644	84.01%	15.803%

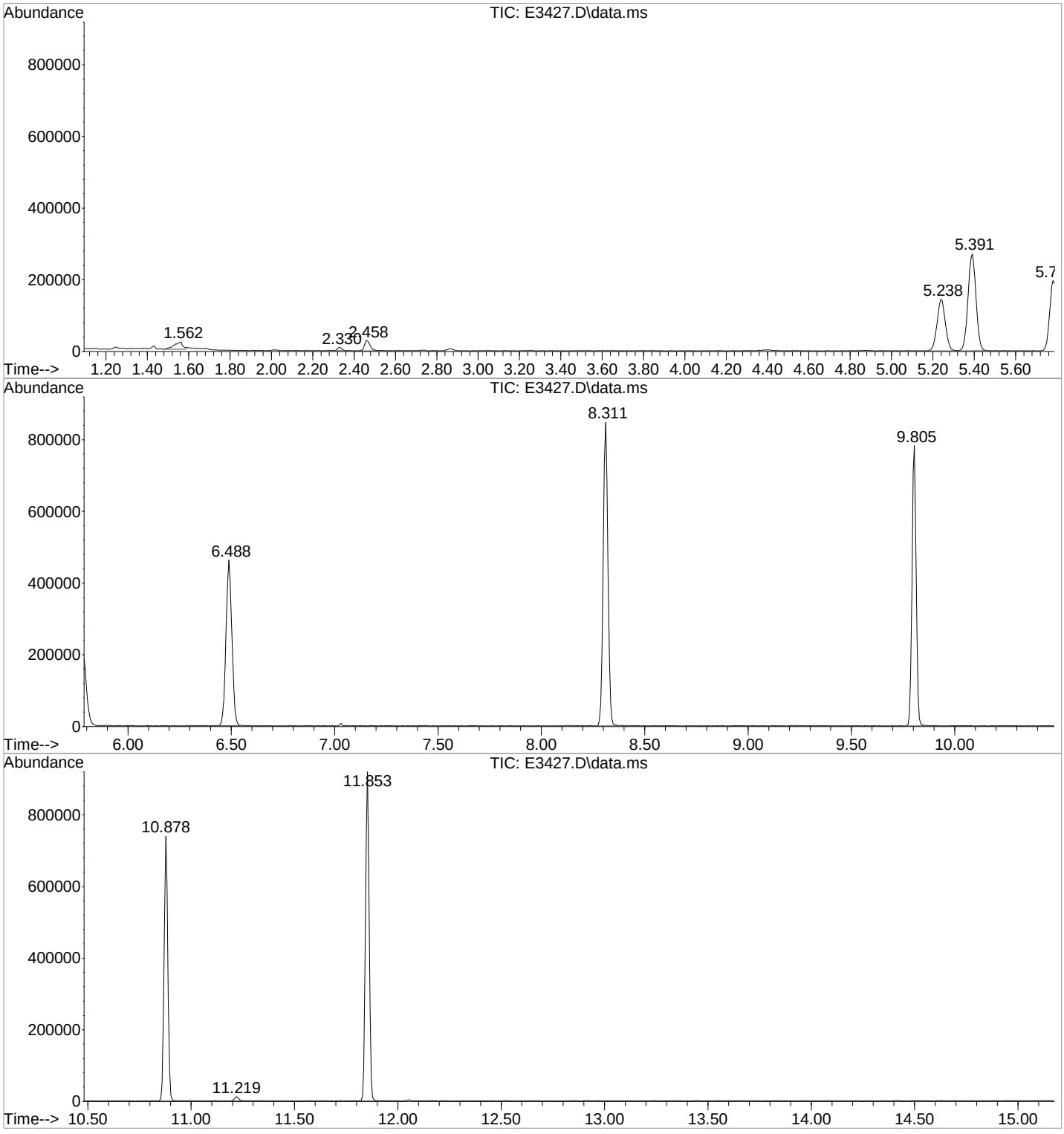
Sum of corrected areas: 7160973

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3427.D
Acq On : 5 Aug 2019 12:05 pm
Operator : D.Lipani
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



1st 08/06/19
2nd 08/07/19

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa10\data\080519\\
Data File : E3427.D
Acq On : 5 Aug 2019 12:05 pmm
Operator : D.Lipanii
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.MM
Quant Title : MS#10 - 8260B WATERS 5.0mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

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

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3427.D
Acq On : 5 Aug 2019 12:05 pm
Operator : D.Lipani
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 06 16:57:31 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

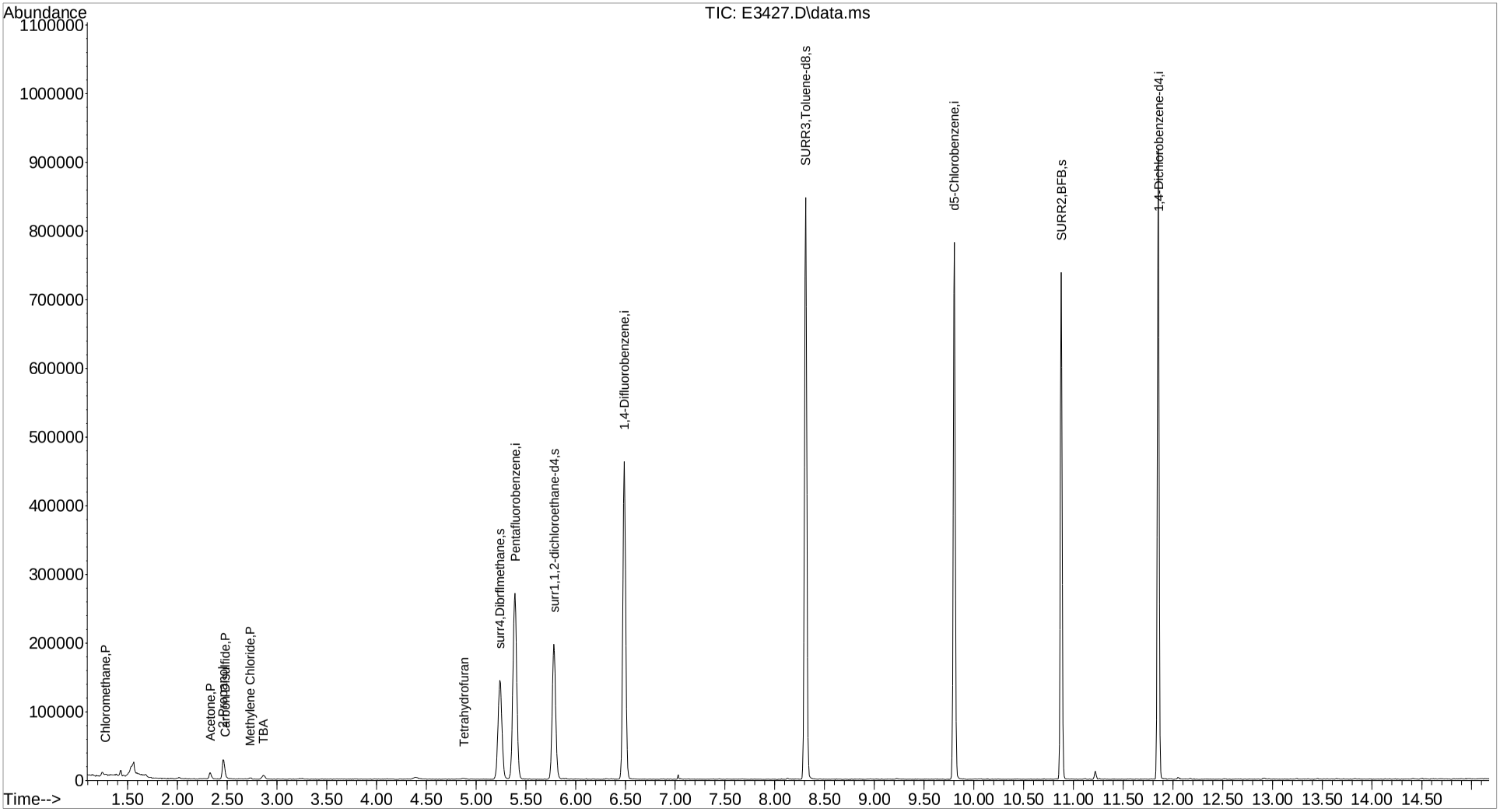
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	254634	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	374538	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	326432	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	175544	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	120168	48.78	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.56%			
46) surr1,1,2-dichloroetha...	5.781	65	171376	52.14	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.28%			
64) SURR3,Toluene-d8	8.311	98	489741	49.72	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.44%			
69) SURR2,BFB	10.878	95	182495	48.69	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.38%			
Target Compounds						Qvalue
3) Chloromethane	1.276	50	1058	0.24	ug/L	88
15) Acetone	2.330	43	9710	6.45	ug/L	90
16) 2-Propanol	2.458	45	30974	85.23	ug/L	86
18) Carbon Disulfide	2.477	76	2154	0.29	ug/L	87
22) Methylene Chloride	2.727	84	554	0.20	ug/L #	66
23) TBA	2.861	59	5986	11.23	ug/L	89
38) Tetrahydrofuran	4.879	42	1422	0.92	ug/L	84

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

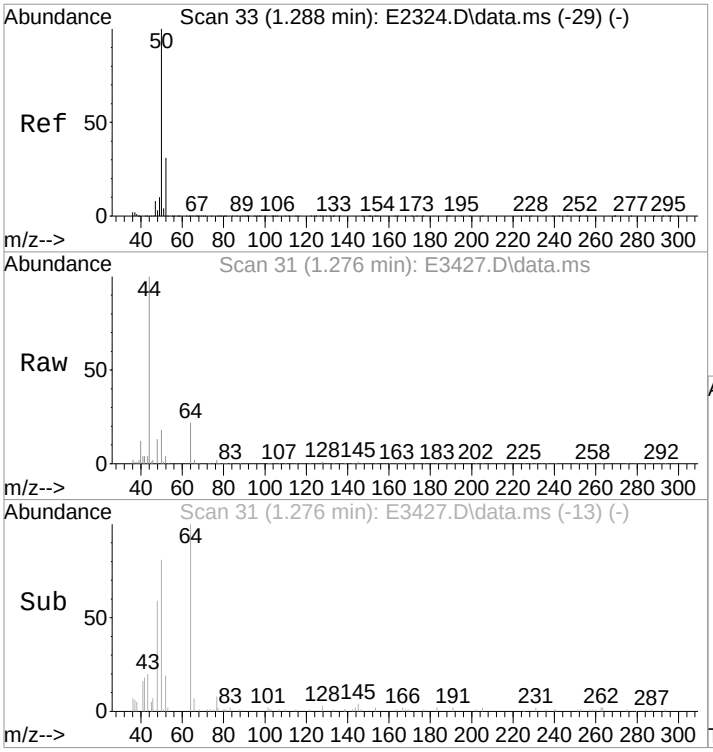
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3427.D
Acq On : 5 Aug 2019 12:05 pm
Operator : D.Lipani
Sample : MET BLK-Acid Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 06 16:57:31 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



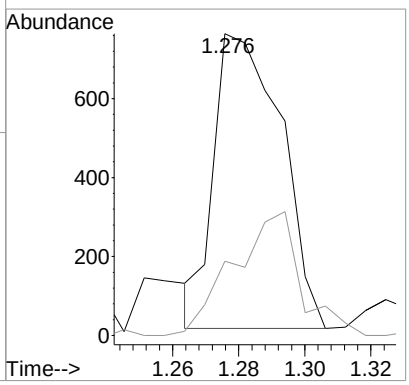
1st 08/06/19
2nd 08/07/19

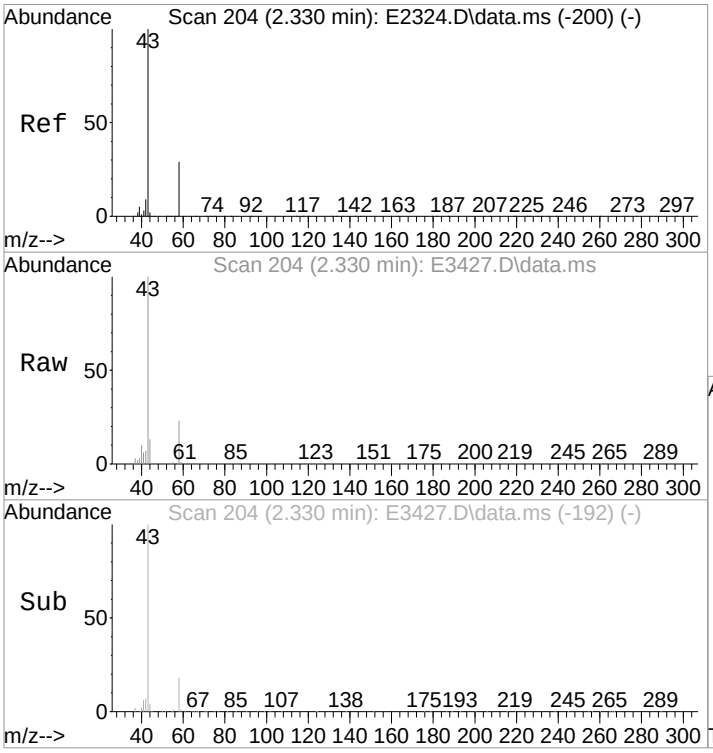


#3
Chloromethane
Concen: 0.24 ug/L
RT: 1.276 min Scan# 31
Delta R.T. -0.006 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 50 Resp: 1058

Ion	Ratio	Lower	Upper
50	100		
52	24.6	11.4	51.4

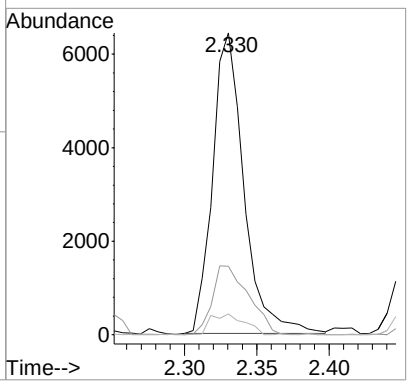


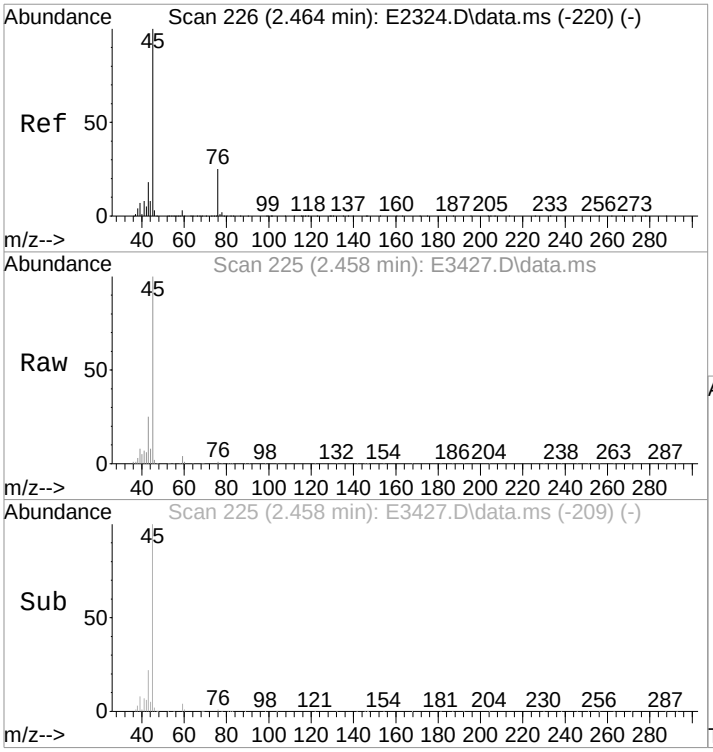


#15
Acetone
Concen: 6.45 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 43 Resp: 9710

Ion	Ratio	Lower	Upper
43	100		
58	22.7	8.4	48.4
42	6.9	0.0	29.4

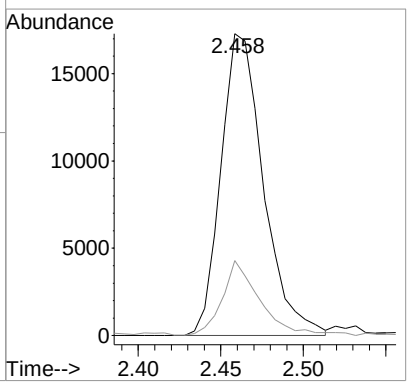


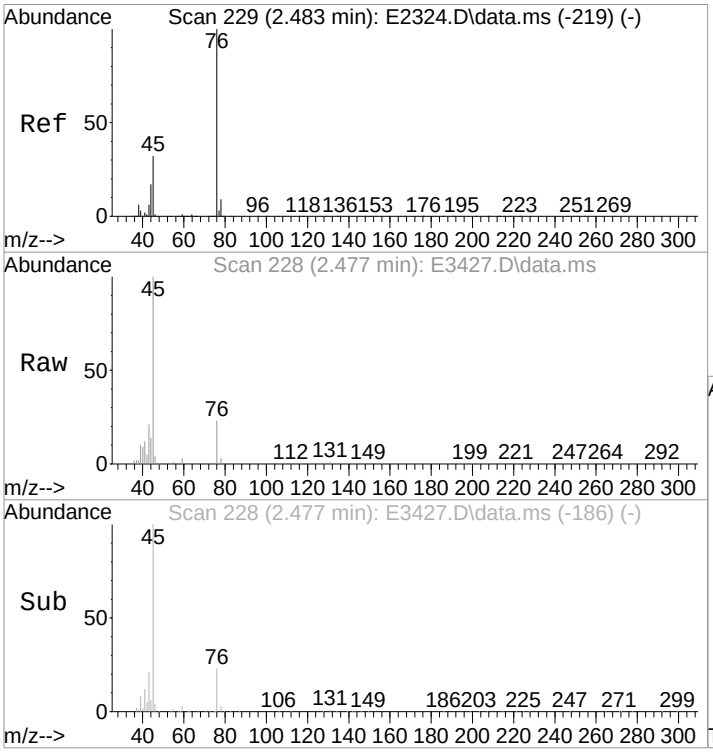


#16
2-Propanol
Concen: 85.23 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.012 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 45 Resp: 30974

Ion	Ratio	Lower	Upper
45	100		
43	24.8	0.0	38.5

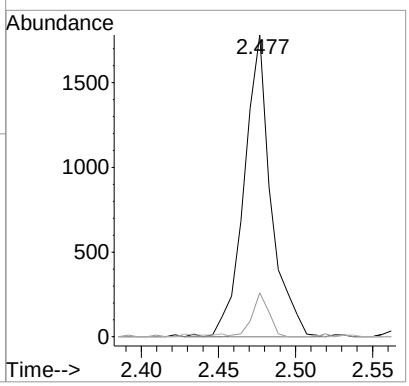


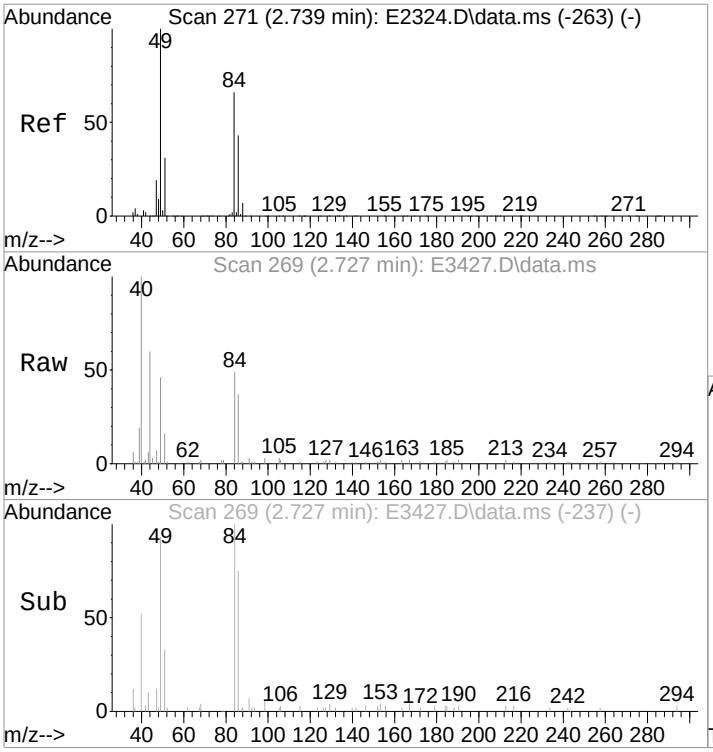


#18
Carbon Disulfide
Concen: 0.29 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 76 Resp: 2154

Ion	Ratio	Lower	Upper
76	100		
78	14.5	0.0	29.3
77	0.0	0.0	22.8

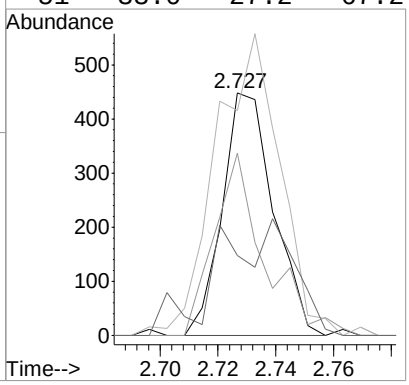


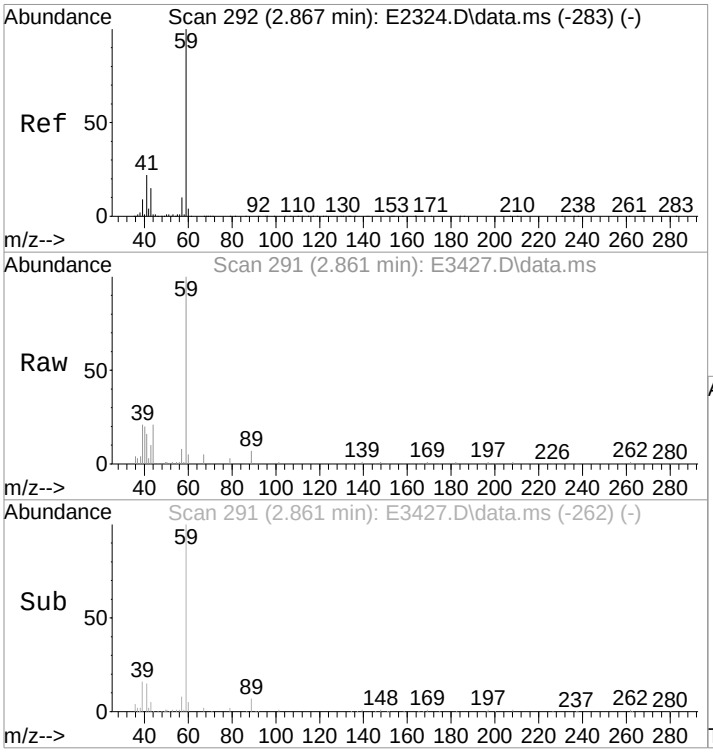


#22
Methylene Chloride
Concen: 0.20 ug/L
RT: 2.727 min Scan# 269
Delta R.T. -0.006 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 84 Resp: 554

Ion	Ratio	Lower	Upper
84	100		
86	75.2	44.7	84.7
49	92.9	132.2	172.2#
51	33.0	27.2	67.2

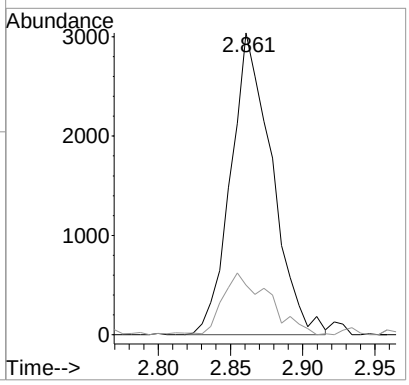


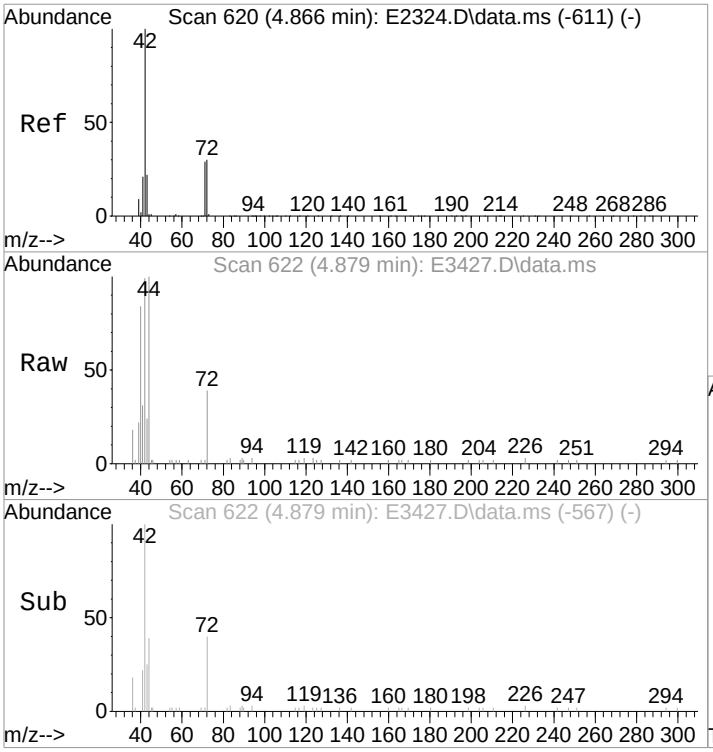


#23
TBA
Concen: 11.23 ug/L
RT: 2.861 min Scan# 291
Delta R.T. -0.012 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 59 Resp: 5986

Ion	Ratio	Lower	Upper
59	100		
41	16.4	1.8	41.8

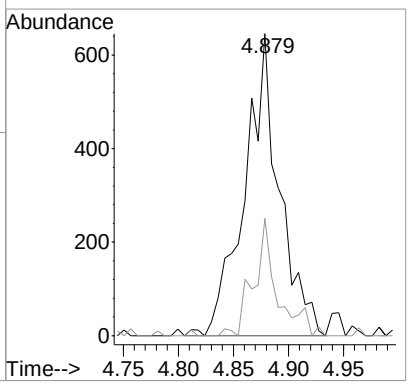




#38
Tetrahydrofuran
Concen: 0.92 ug/L
RT: 4.879 min Scan# 622
Delta R.T. 0.018 min
Lab File: E3427.D
Acq: 5 Aug 2019 12:05 pm

Tgt Ion: 42 Resp: 1422

Ion	Ratio	Lower	Upper
42	100		
72	38.9	10.2	50.2



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3328.D
Acq On : 1 Aug 2019 11:29 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:44:13 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	264385	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	391020	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	342940	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	186295	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	128016	49.77	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.54%				
46) surr1,1,2-dichloroetha...	5.781	65	178201	51.93	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.86%				
64) SURR3,Toluene-d8	8.311	98	524941	51.05	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.10%				
69) SURR2,BFB	10.878	95	197474	50.46	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.92%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	81569	20.10	ug/L		98
3) Chloromethane	1.282	50	80457	17.75	ug/L		98
4) Vinyl Chloride	1.355	62	69185	18.49	ug/L		94
5) Bromomethane	1.574	94	34610	18.07	ug/L		99
6) Chloroethane	1.660	64	33016	15.87	ug/L		98
7) Freon 21	1.806	67	91942	17.72	ug/L		98
8) Trichlorofluoromethane	1.855	101	79241	18.84	ug/L		98
9) Diethyl Ether	2.093	59	54900	20.52	ug/L		95
10) Freon 123a	2.093	67	60558	18.59	ug/L		100
11) Freon 123	2.148	83	70546	19.94	ug/L		97
12) Acrolein	2.190	56	19194	26.30	ug/L		97
13) 1,1-Diclethene	2.282	96	45846	18.63	ug/L		96
14) Freon 113	2.288	101	44745	18.74	ug/L		94
15) Acetone	2.324	43	30399	19.44	ug/L		93
16) 2-Propanol	2.458	45	143922	381.42	ug/L		93
17) Iodomethane	2.416	142	25011	7.51	ug/L		99
18) Carbon Disulfide	2.477	76	126861	16.65	ug/L		99
19) Acetonitrile	2.580	41	68616	102.29	ug/L		97
20) Allyl Chloride	2.611	76	27732	18.61	ug/L	#	77
21) Methyl Acetate	2.635	43	79329	20.98	ug/L		99
22) Methylene Chloride	2.733	84	52386	18.23	ug/L		95
23) TBA	2.861	59	210484	380.43	ug/L		95
24) Acrylonitrile	2.983	53	166905	103.20	ug/L		98
25) Methyl-t-Butyl Ether	3.031	73	183269	20.11	ug/L		99
26) trans-1,2-Dichloroethene	3.025	96	47754	18.73	ug/L		94
27) 1,1-Diclethane	3.525	63	104117	19.13	ug/L		97
28) Vinyl Acetate	3.617	86	11240	18.74	ug/L	#	88
29) DIPE	3.653	45	225495	20.32	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	90593	19.96	ug/L		96
31) ETBE	4.178	59	176146	18.67	ug/L		94
32) 2,2-Dichloropropane	4.361	77	85457	18.86	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	53766	18.77	ug/L		94
34) 2-Butanone	4.415	43	44368	19.09	ug/L		96
35) Propionitrile	4.495	54	65979	99.44	ug/L		97
36) Bromochloromethane	4.763	130	32756	18.15	ug/L		88
37) Methacrylonitrile	4.763	67	28968	17.74	ug/L	#	79
38) Tetrahydrofuran	4.854	42	32730	20.50	ug/L		93
39) Chloroform	4.946	83	89252	18.77	ug/L		99
40) 1,1,1-Trichloroethane	5.251	97	76580	18.63	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3328.D
Acq On : 1 Aug 2019 11:29 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:44:13 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.330	41	60232	17.85	ug/L	93
44) Carbontetrachloride	5.531	117	62298	16.83	ug/L	98
45) 1,1-Dichloropropene	5.543	75	70619	18.51	ug/L	98
47) Benzene	5.860	78	203863	17.95	ug/L	99
48) 1,2-Dichloroethane	5.897	62	83120	19.07	ug/L	95
49) Iso-Butyl Alcohol	5.878	43	90055	365.33	ug/L	96
50) TAME	6.098	73	168183	19.89	ug/L	98
51) n-Heptane	6.354	43	83916	17.97	ug/L	97
52) 1-Butanol	6.848	56	124283	1017.40	ug/L	97
53) Trichloroethene	6.817	130	52573	18.25	ug/L	88
54) Methylcyclohexane	7.055	55	68994	17.16	ug/L	99
55) 1,2-Diclpropane	7.098	63	57972	18.29	ug/L	98
56) Dibromomethane	7.238	93	32989	18.24	ug/L	96
57) 1,4-Dioxane	7.299	88	20981	371.41	ug/L	85
58) Methyl Methacrylate	7.329	69	51047	18.58	ug/L	94
59) Bromodichloromethane	7.470	83	65949	17.11	ug/L	98
60) 2-Nitropropane	7.750	41	44843	34.45	ug/L	92
61) 2-Chloroethylvinyl Ether	7.878	63	3045	1.90	ug/L	87
62) cis-1,3-Dichloropropene	8.012	75	90356	18.07	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	90191	19.60	ug/L	98
65) Toluene	8.384	91	211403	18.06	ug/L	100
66) trans-1,3-Dichloropropene	8.652	75	84329	18.20	ug/L	97
67) Ethyl Methacrylate	8.793	69	86221	18.17	ug/L	91
68) 1,1,2-Trichloroethane	8.841	97	48146	18.04	ug/L	99
71) Tetrachloroethene	8.982	164	39319	16.96	ug/L	90
72) 2-Hexanone	9.134	43	62184	17.79	ug/L	99
73) 1,3-Dichloropropane	9.012	76	87109	18.24	ug/L	96
74) Dibromochloromethane	9.238	129	47052	16.36	ug/L	93
75) N-Butyl Acetate	9.286	43	128051	18.95	ug/L	93
76) 1,2-Dibromoethane	9.335	107	50150	18.14	ug/L	97
77) 3-Chlorobenzotrifluoride	9.847	180	71285	16.75	ug/L	100
78) Chlorobenzene	9.829	112	131460	17.46	ug/L	99
79) 4-Chlorobenzotrifluoride	9.902	180	63714	16.89	ug/L	97
80) 1,1,1,2-Tetrachloroethane	9.914	131	48570	17.46	ug/L	95
81) Ethylbenzene	9.951	106	69547	17.35	ug/L	95
82) (m+p)Xylene	10.061	106	172472	34.50	ug/L	99
83) o-Xylene	10.420	106	86330	17.53	ug/L	94
84) Styrene	10.432	104	146592	17.84	ug/L	99
85) Bromoform	10.585	173	32607	15.46	ug/L	95
86) 2-Chlorobenzotrifluoride	10.664	180	70925	17.48	ug/L	95
87) Isopropylbenzene	10.756	105	214353	16.82	ug/L	99
88) Cyclohexanone	10.817	55	71195	93.33	ug/L	92
89) trans-1,4-Dichloro-2-B...	11.060	53	22105	18.72	ug/L	87
91) 1,1,2,2-Tetrachloroethane	11.012	83	71957	18.15	ug/L	96
92) Bromobenzene	10.999	156	56300	17.14	ug/L	91
93) 1,2,3-Trichloropropane	11.042	110	21450	17.28	ug/L	93
94) n-Propylbenzene	11.109	91	263996	17.85	ug/L	97
95) 2-Chlorotoluene	11.170	91	158394	17.80	ug/L	98
96) 3-Chlorotoluene	11.225	91	153652	17.42	ug/L	98
97) 4-Chlorotoluene	11.268	91	181861	17.69	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	181110	17.19	ug/L	98
99) tert-Butylbenzene	11.536	119	152563	16.73	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	185014	17.73	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.633	214	58018	17.11	ug/L	98
102) sec-Butylbenzene	11.719	105	222453	16.54	ug/L	97
103) p-Isopropyltoluene	11.841	119	189208	17.31	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3328.D
Acq On : 1 Aug 2019 11:29 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:44:13 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

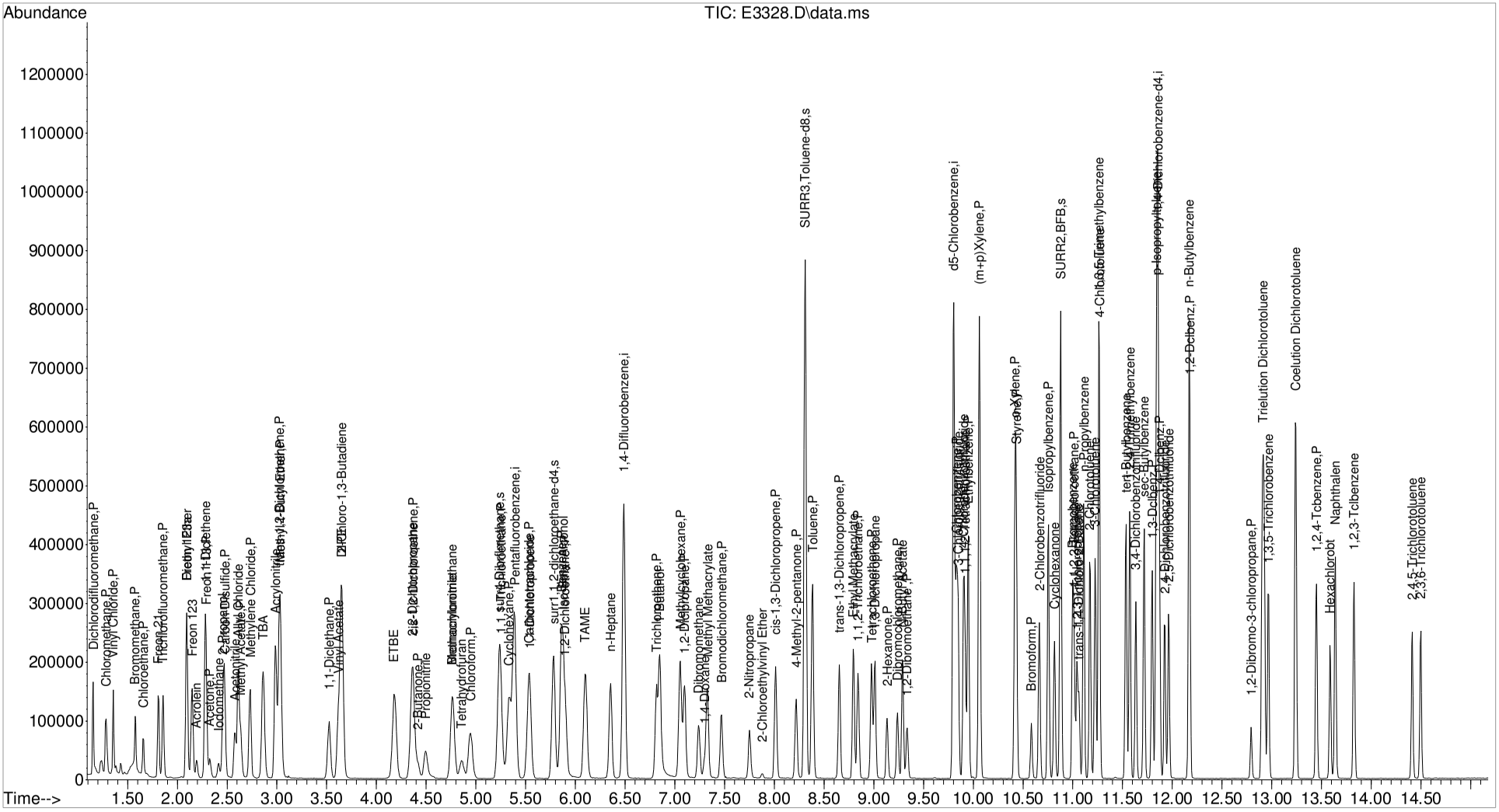
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	103568	16.87	ug/L	97
105) 1,4-Dclbenz	11.871	146	107962	16.89	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	52981	17.33	ug/L	91
107) 2,5-Dichlorobenzotrifl...	11.963	214	57995	16.42	ug/L	96
108) n-Butylbenzene	12.170	91	179296	17.63	ug/L	99
109) 1,2-Dclbenz	12.176	146	101810	16.83	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.792	157	15735	15.66	ug/L	91
111) Trielution Dichlorotol...	12.914	125	265748	52.00	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	77215	17.05	ug/L	94
113) Coelution Dichlorotoluene	13.237	125	195106	34.97	ug/L	94
114) 1,2,4-Tcbenzene	13.450	180	80591	17.14	ug/L	96
115) Hexachlorobt	13.584	225	34420	16.00	ug/L	98
116) Naphthalen	13.639	128	219513	17.92	ug/L	100
117) 1,2,3-Tclbenzene	13.828	180	77972	16.98	ug/L	98
118) 2,4,5-Trichlorotoluene	14.413	159	49100	18.76	ug/L	93
119) 2,3,6-Trichlorotoluene	14.499	159	45327	16.78	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3328.D
Acq On : 1 Aug 2019 11:29 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:44:13 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



1st 08/03/19
2nd 08/05/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3424.D
Acq On : 5 Aug 2019 10:49 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 05 11:04:01 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	254482	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	374341	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	335089	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	187718	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	122413	49.72	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.44%				
46) surr1,1,2-dichloroetha...	5.781	65	171829	52.31	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.62%				
64) SURR3,Toluene-d8	8.311	98	494271	50.21	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.42%				
69) SURR2,BFB	10.878	95	188443	50.30	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	83142	21.29	ug/L		100
3) Chloromethane	1.282	50	89247	20.46	ug/L		98
4) Vinyl Chloride	1.355	62	72228	20.06	ug/L		99
5) Bromomethane	1.581	94	33828	18.37	ug/L		98
6) Chloroethane	1.660	64	32755	16.37	ug/L		94
7) Freon 21	1.812	67	94483	18.92	ug/L		98
8) Trichlorofluoromethane	1.861	101	79431	19.62	ug/L		99
9) Diethyl Ether	2.093	59	52811	20.51	ug/L		97
10) Freon 123a	2.099	67	60943	19.44	ug/L		99
11) Freon 123	2.148	83	72385	21.25	ug/L		98
12) Acrolein	2.196	56	19121	27.22	ug/L		88
13) 1,1-Diclethene	2.282	96	44978	18.98	ug/L		94
14) Freon 113	2.288	101	45690	19.88	ug/L		92
15) Acetone	2.330	43	28116	18.68	ug/L		95
16) 2-Propanol	2.458	45	135315	372.57	ug/L		97
17) Iodomethane	2.416	142	53640	15.47	ug/L		97
18) Carbon Disulfide	2.477	76	123291	16.81	ug/L		98
19) Acetonitrile	2.574	41	63319	98.07	ug/L		98
20) Allyl Chloride	2.611	76	26706	18.62	ug/L	#	73
21) Methyl Acetate	2.641	43	74650	20.51	ug/L		97
22) Methylene Chloride	2.733	84	50885	18.40	ug/L		94
23) TBA	2.861	59	189158	355.19	ug/L		99
24) Acrylonitrile	2.989	53	155346	99.79	ug/L		99
25) Methyl-t-Butyl Ether	3.038	73	179243	20.43	ug/L		97
26) trans-1,2-Dichloroethene	3.025	96	48540	19.78	ug/L		97
27) 1,1-Diclethane	3.525	63	102851	19.63	ug/L		93
28) Vinyl Acetate	3.623	86	10854	18.80	ug/L	#	52
29) DIPE	3.653	45	224827	21.04	ug/L		99
30) 2-Chloro-1,3-Butadiene	3.653	53	89128	20.40	ug/L		99
31) ETBE	4.178	59	176258	19.41	ug/L		95
32) 2,2-Dichloropropane	4.361	77	83556	19.16	ug/L		100
33) cis-1,2-Dichloroethene	4.367	96	52431	19.02	ug/L		94
34) 2-Butanone	4.415	43	43577	19.48	ug/L		95
35) Propionitrile	4.495	54	60728	95.08	ug/L		97
36) Bromochloromethane	4.769	130	33062	19.03	ug/L		99
37) Methacrylonitrile	4.769	67	30107	19.15	ug/L		92
38) Tetrahydrofuran	4.860	42	29240	19.02	ug/L		94
39) Chloroform	4.946	83	88524	19.34	ug/L		99
40) 1,1,1-Trichloroethane	5.245	97	77355	19.55	ug/L		97

1st 08/06/19
2nd 08/07/19

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3424.D
Acq On : 5 Aug 2019 10:49 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 05 11:04:01 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	66096	20.46	ug/L	95
44) Carbontetrachloride	5.525	117	62627	17.67	ug/L	98
45) 1,1-Dichloropropene	5.549	75	72239	19.77	ug/L	97
47) Benzene	5.860	78	208576	19.18	ug/L	97
48) 1,2-Dichloroethane	5.903	62	80405	19.27	ug/L	98
49) Iso-Butyl Alcohol	5.879	43	87182	369.43	ug/L	98
50) TAME	6.104	73	168182	20.77	ug/L	98
51) n-Heptane	6.354	43	88667	19.84	ug/L	95
52) 1-Butanol	6.848	56	120491	1030.31	ug/L	96
53) Trichloroethene	6.817	130	51977	18.84	ug/L	97
54) Methylcyclohexane	7.055	55	73830	19.18	ug/L	94
55) 1,2-Diclpropane	7.098	63	56112	18.49	ug/L	98
56) Dibromomethane	7.238	93	32724	18.90	ug/L	90
57) 1,4-Dioxane	7.299	88	19550	361.50	ug/L	97
58) Methyl Methacrylate	7.329	69	45270	17.21	ug/L	98
59) Bromodichloromethane	7.470	83	65118	17.65	ug/L	98
60) 2-Nitropropane	7.750	41	41324	33.16	ug/L	92
61) 2-Chloroethylvinyl Ether	7.878	63	1464	0.96	ug/L	93
62) cis-1,3-Dichloropropene	8.012	75	90914	18.99	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	80783	18.34	ug/L	97
65) Toluene	8.384	91	213593	19.07	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	82454	18.59	ug/L	97
67) Ethyl Methacrylate	8.793	69	82773	18.22	ug/L	89
68) 1,1,2-Trichloroethane	8.841	97	45348	17.75	ug/L	98
71) Tetrachloroethene	8.975	164	40752	17.98	ug/L	95
72) 2-Hexanone	9.134	43	59566	17.44	ug/L	95
73) 1,3-Dichloropropane	9.012	76	88238	18.91	ug/L	98
74) Dibromochloromethane	9.238	129	46009	16.37	ug/L	97
75) N-Butyl Acetate	9.286	43	125270	18.97	ug/L	96
76) 1,2-Dibromoethane	9.335	107	47790	17.69	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	73896	17.77	ug/L	97
78) Chlorobenzene	9.829	112	131168	17.83	ug/L	95
79) 4-Chlorobenzotrifluoride	9.902	180	66691	18.10	ug/L	97
80) 1,1,1,2-Tetrachloroethane	9.914	131	47242	17.38	ug/L	94
81) Ethylbenzene	9.951	106	69623	17.78	ug/L	92
82) (m+p)Xylene	10.061	106	172097	35.23	ug/L	96
83) o-Xylene	10.420	106	86982	18.08	ug/L	91
84) Styrene	10.433	104	146270	18.22	ug/L	98
85) Bromoform	10.585	173	32201	15.63	ug/L	92
86) 2-Chlorobenzotrifluoride	10.664	180	70684	17.83	ug/L	93
87) Isopropylbenzene	10.756	105	220067	17.67	ug/L	97
88) Cyclohexanone	10.817	55	68299	91.63	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.060	53	20546	17.81	ug/L	94
91) 1,1,2,2-Tetrachloroethane	11.012	83	65970	16.52	ug/L	98
92) Bromobenzene	10.999	156	57172	17.27	ug/L	96
93) 1,2,3-Trichloropropane	11.042	110	19900	15.91	ug/L	98
94) n-Propylbenzene	11.109	91	260627	17.49	ug/L	99
95) 2-Chlorotoluene	11.176	91	157125	17.52	ug/L	99
96) 3-Chlorotoluene	11.225	91	156147	17.57	ug/L	97
97) 4-Chlorotoluene	11.268	91	181554	17.53	ug/L	98
98) 1,3,5-Trimethylbenzene	11.262	105	183476	17.29	ug/L	98
99) tert-Butylbenzene	11.536	119	151324	16.47	ug/L	96
100) 1,2,4-Trimethylbenzene	11.573	105	188386	17.92	ug/L	97
101) 3,4-Dichlorobenzotrifl...	11.634	214	59892	17.53	ug/L	99
102) sec-Butylbenzene	11.719	105	233083	17.20	ug/L	99
103) p-Isopropyltoluene	11.841	119	190864	17.33	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3424.D
Acq On : 5 Aug 2019 10:49 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 05 11:04:01 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

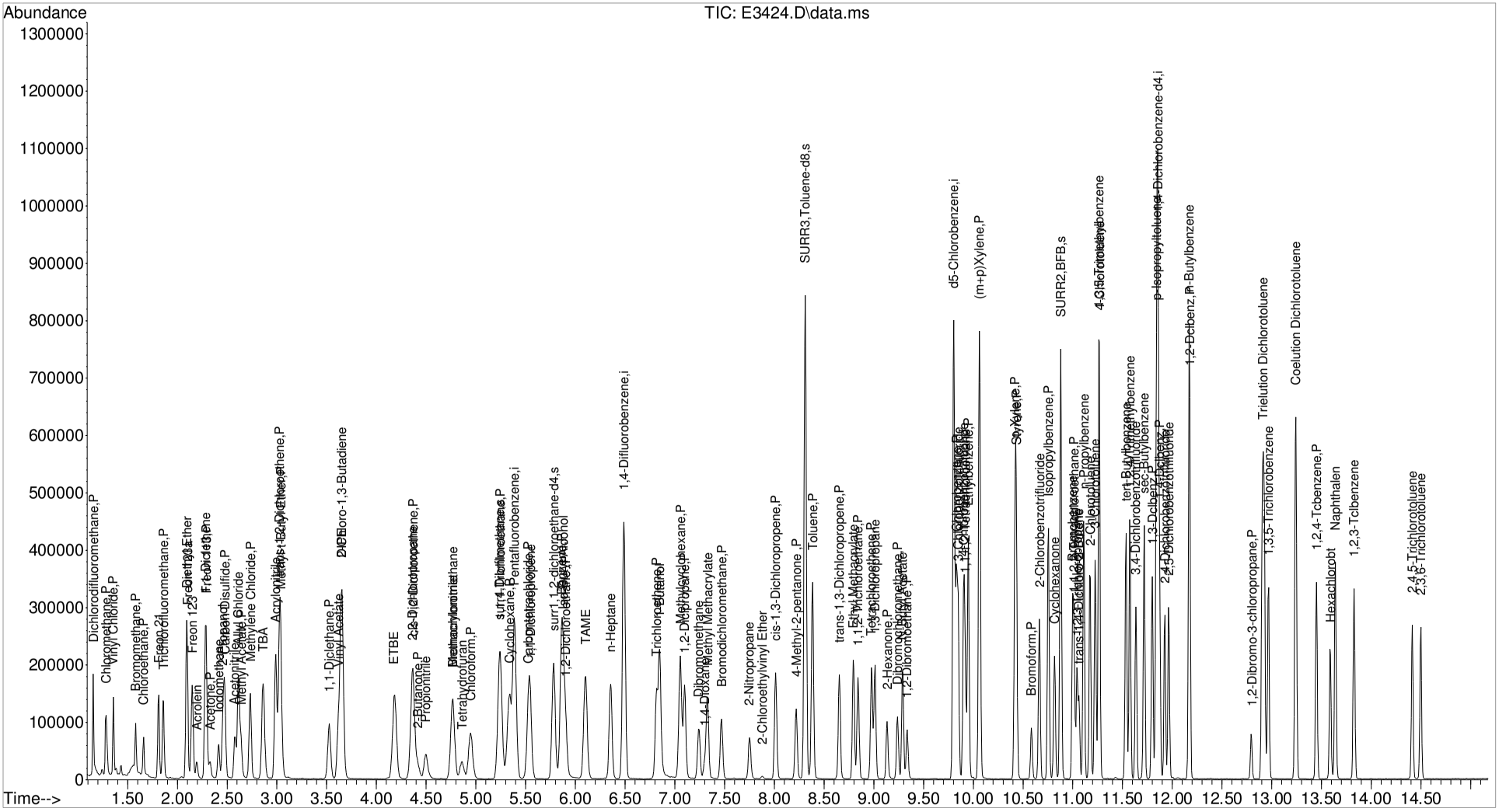
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	103986	16.81	ug/L	95
105) 1,4-Dclbenz	11.871	146	106081	16.47	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	54039	17.54	ug/L	98
107) 2,5-Dichlorobenzotrifl...	11.963	214	61222	17.20	ug/L	98
108) n-Butylbenzene	12.170	91	185352	18.09	ug/L	97
109) 1,2-Dclbenz	12.176	146	104835	17.20	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	15460	15.27	ug/L	92
111) Trielution Dichlorotol...	12.914	125	274394	53.28	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	82111	18.00	ug/L	93
113) Coelution Dichlorotoluene	13.243	125	201266	35.80	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	81254	17.15	ug/L	98
115) Hexachlorobt	13.590	225	36240	16.72	ug/L	99
116) Naphthalen	13.639	128	207552	16.82	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	79113	17.09	ug/L	100
118) 2,4,5-Trichlorotoluene	14.413	159	53652	20.28	ug/L	92
119) 2,3,6-Trichlorotoluene	14.499	159	47087	17.28	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3424.D
Acq On : 5 Aug 2019 10:49 am
Operator : D.Lipani
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 05 11:04:01 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



1st 08/06/19
2nd 08/07/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3355.D
Acq On : 1 Aug 2019 9:44 pm
Operator : D.Lipani
Sample : R1907110-002MS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Aug 02 08:11:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	261825	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	387013	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	336550	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	184417	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	128659	50.54	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.08%				
46) surr1,1,2-dichloroetha...	5.781	65	178782	52.64	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.28%				
64) SURR3,Toluene-d8	8.311	98	521360	51.23	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.46%				
69) SURR2,BFB	10.878	95	195549	50.49	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	167515	41.69	ug/L		99
3) Chloromethane	1.282	50	158062	35.22	ug/L		100
4) Vinyl Chloride	1.355	62	148953	40.20	ug/L		84
5) Bromomethane	1.575	94	28134	14.56	ug/L		99
6) Chloroethane	1.654	64	74557	37.02	ug/L		99
7) Freon 21	1.806	67	210123	40.89	ug/L		100
8) Trichlorofluoromethane	1.855	101	160544	38.55	ug/L		98
9) Diethyl Ether	2.093	59	104484	39.44	ug/L		92
10) Freon 123a	2.093	67	139315	43.20	ug/L		99
11) Freon 123	2.148	83	156384	44.62	ug/L		99
12) Acrolein	2.196	56	35494	49.10	ug/L		95
13) 1,1-Diclethene	2.282	96	91887	37.70	ug/L		98
14) Freon 113	2.288	101	87391	36.97	ug/L		97
15) Acetone	2.325	43	63389	40.94	ug/L		96
16) 2-Propanol	2.465	45	327805	877.24	ug/L		98
17) Iodomethane	2.410	142	103186	28.02	ug/L		97
18) Carbon Disulfide	2.477	76	245010	32.47	ug/L		99
19) Acetonitrile	2.574	41	137235	206.58	ug/L		99
20) Allyl Chloride	2.617	76	57629	39.05	ug/L		97
21) Methyl Acetate	2.635	43	159363	42.55	ug/L		97
22) Methylene Chloride	2.733	84	102494	36.03	ug/L		94
23) TBA	2.867	59	441553	805.88	ug/L		99
24) Acrylonitrile	2.989	53	324944	202.89	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	362685	40.18	ug/L		100
26) trans-1,2-Dichloroethene	3.026	96	96450	38.21	ug/L		93
27) 1,1-Diclethane	3.525	63	222189	41.23	ug/L		97
28) Vinyl Acetate	3.617	86	20643	34.76	ug/L	#	82
29) DIPE	3.654	45	473833	43.11	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	178153	39.64	ug/L		99
31) ETBE	4.184	59	364500	39.02	ug/L		97
32) 2,2-Dichloropropane	4.361	77	158537	35.34	ug/L		98
33) cis-1,2-Dichloroethene	4.373	96	109933	38.76	ug/L		95
34) 2-Butanone	4.416	43	92551	40.22	ug/L		98
35) Propionitrile	4.495	54	132516	201.66	ug/L		100
36) Bromochloromethane	4.769	130	64934	36.33	ug/L		93
37) Methacrylonitrile	4.769	67	59830	36.99	ug/L		95
38) Tetrahydrofuran	4.861	42	63118	39.91	ug/L		95
39) Chloroform	4.946	83	180470	38.32	ug/L		98
40) 1,1,1-Trichloroethane	5.251	97	156852	38.54	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3355.D
Acq On : 1 Aug 2019 9:44 pm
Operator : D.Lipani
Sample : R1907110-002MS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Aug 02 08:11:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	135953	40.72	ug/L		90
44) Carbontetrachloride	5.531	117	126313	34.48	ug/L		95
45) 1,1-Dichloropropene	5.543	75	145526	38.53	ug/L		97
47) Benzene	5.867	78	420747	37.43	ug/L		98
48) 1,2-Dichloroethane	5.903	62	163569	37.92	ug/L		98
49) Iso-Butyl Alcohol	5.879	43	194224	796.07	ug/L		96
50) TAME	6.098	73	345100	41.23	ug/L		99
51) n-Heptane	6.354	43	151607	32.81	ug/L		98
52) 1-Butanol	6.848	56	269331	2227.62	ug/L		99
53) Trichloroethene	6.818	130	99767	34.98	ug/L		97
54) Methylcyclohexane	7.055	55	154572	38.83	ug/L		93
55) 1,2-Diclpropane	7.098	63	117117	37.34	ug/L		100
56) Dibromomethane	7.238	93	65415	36.54	ug/L		93
57) 1,4-Dioxane	7.305	88	42146	753.81	ug/L		89
58) Methyl Methacrylate	7.330	69	98411	36.19	ug/L		98
59) Bromodichloromethane	7.470	83	129710	34.00	ug/L		98
60) 2-Nitropropane	7.750	41	89525	69.50	ug/L		99
62) cis-1,3-Dichloropropene	8.012	75	179790	36.32	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	178057	39.10	ug/L		99
65) Toluene	8.384	91	431856	37.29	ug/L		99
66) trans-1,3-Dichloropropene	8.653	75	165916	36.18	ug/L		98
67) Ethyl Methacrylate	8.799	69	171169	36.45	ug/L		93
68) 1,1,2-Trichloroethane	8.842	97	92733	35.10	ug/L		97
71) Tetrachloroethene	8.976	164	78664	34.57	ug/L		94
72) 2-Hexanone	9.134	43	130542	38.06	ug/L		99
73) 1,3-Dichloropropane	9.012	76	175458	37.43	ug/L		98
74) Dibromochloromethane	9.238	129	92645	32.83	ug/L		98
75) N-Butyl Acetate	9.287	43	278879	42.05	ug/L		96
76) 1,2-Dibromoethane	9.335	107	95510	35.21	ug/L		95
77) 3-Chlorobenzotrifluoride	9.847	180	153769	36.82	ug/L		99
78) Chlorobenzene	9.829	112	265622	35.95	ug/L		99
79) 4-Chlorobenzotrifluoride	9.902	180	136118	36.77	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	97636	35.76	ug/L		99
81) Ethylbenzene	9.951	106	144897	36.84	ug/L		95
82) (m+p)Xylene	10.061	106	351561	71.66	ug/L		99
83) o-Xylene	10.420	106	174402	36.08	ug/L	#	86
84) Styrene	10.433	104	287219	35.61	ug/L		98
85) Bromoform	10.585	173	63893	30.88	ug/L		99
86) 2-Chlorobenzotrifluoride	10.664	180	149198	37.48	ug/L		99
87) Isopropylbenzene	10.756	105	442992	35.42	ug/L		98
88) Cyclohexanone	10.817	55	146086	195.13	ug/L		96
89) trans-1,4-Dichloro-2-B...	11.061	53	39886	34.42	ug/L		89
91) 1,1,2,2-Tetrachloroethane	11.012	83	146800	37.41	ug/L		96
92) Bromobenzene	11.000	156	114778	35.30	ug/L		97
93) 1,2,3-Trichloropropane	11.042	110	41948	34.14	ug/L		94
94) n-Propylbenzene	11.109	91	525508	35.90	ug/L		98
95) 2-Chlorotoluene	11.176	91	317237	36.01	ug/L		99
96) 3-Chlorotoluene	11.225	91	322909	36.99	ug/L		99
97) 4-Chlorotoluene	11.268	91	358061	35.19	ug/L		100
98) 1,3,5-Trimethylbenzene	11.262	105	362003	34.72	ug/L		98
99) tert-Butylbenzene	11.536	119	307722	34.09	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	370867	35.90	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	118208	35.22	ug/L		98
102) sec-Butylbenzene	11.719	105	452915	34.02	ug/L		99
103) p-Isopropyltoluene	11.841	119	374745	34.64	ug/L		97
104) 1,3-Dclbenz	11.798	146	207050	34.06	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3355.D
Acq On : 1 Aug 2019 9:44 pm
Operator : D.Lipani
Sample : R1907110-002MS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Aug 02 08:11:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

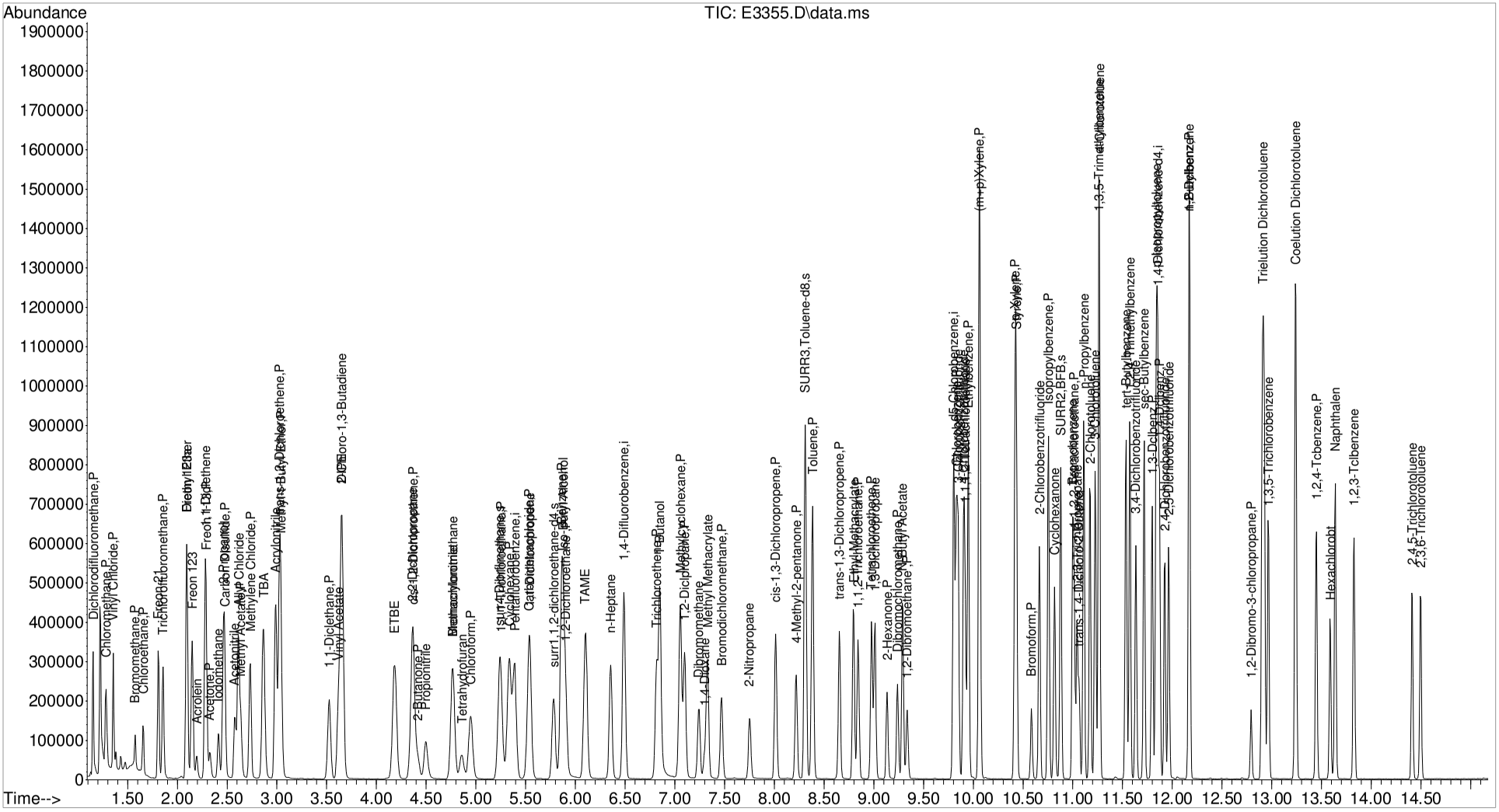
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	209309	33.07	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	107156	35.40	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.963	214	120403	34.43	ug/L	96
108) n-Butylbenzene	12.170	91	350606	34.83	ug/L	98
109) 1,2-Dclbenz	12.170	146	207715	34.68	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.792	157	31632	31.80	ug/L	89
111) Trielution Dichlorotol...	12.914	125	558041	110.30	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	159075	35.49	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	400744	72.55	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	152466	32.76	ug/L	100
115) Hexachlorobt	13.591	225	63471	29.80	ug/L	96
116) Naphthalen	13.639	128	430707	35.52	ug/L	100
117) 1,2,3-Tclbenzene	13.828	180	147622	32.47	ug/L	96
118) 2,4,5-Trichlorotoluene	14.414	159	96207	36.02	ug/L	95
119) 2,3,6-Trichlorotoluene	14.499	159	88975	32.33	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3355.D
Acq On : 1 Aug 2019 9:44 pm
Operator : D.Lipani
Sample : R1907110-002MS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Aug 02 08:11:25 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



1st 08/03/19
2nd 08/05/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3356.D
Acq On : 1 Aug 2019 10:06 pm
Operator : D.Lipani
Sample : R1907110-002DMS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Aug 01 22:21:00 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	256010	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	379859	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	328096	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	181564	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	128301	51.35	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.70%			
46) surr1,1,2-dichloroetha...	5.781	65	178450	53.53	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.06%			
64) SURR3,Toluene-d8	8.311	98	517718	51.83	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.66%			
69) SURR2,BFB	10.878	95	193673	50.94	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	165738	42.18	ug/L	97
3) Chloromethane	1.282	50	157461	35.88	ug/L	99
4) Vinyl Chloride	1.355	62	157166	43.38	ug/L	91
5) Bromomethane	1.575	94	29100	15.48	ug/L	98
6) Chloroethane	1.654	64	74978	38.10	ug/L	98
7) Freon 21	1.806	67	213456	42.48	ug/L	99
8) Trichlorofluoromethane	1.855	101	165673	40.68	ug/L	99
9) Diethyl Ether	2.093	59	111845	43.18	ug/L	98
10) Freon 123a	2.093	67	138955	44.06	ug/L	98
11) Freon 123	2.148	83	161262	47.06	ug/L	100
12) Acrolein	2.190	56	35075	49.63	ug/L	97
13) 1,1-Diclethene	2.282	96	93734	39.33	ug/L	95
14) Freon 113	2.288	101	90450	39.13	ug/L	100
15) Acetone	2.324	43	65569	43.30	ug/L	98
16) 2-Propanol	2.459	45	354128	969.21	ug/L	98
17) Iodomethane	2.416	142	117212	32.39	ug/L	99
18) Carbon Disulfide	2.477	76	248855	33.73	ug/L	99
19) Acetonitrile	2.580	41	144457	222.39	ug/L	100
20) Allyl Chloride	2.611	76	59512	41.24	ug/L #	76
21) Methyl Acetate	2.635	43	162473	44.36	ug/L	98
22) Methylene Chloride	2.733	84	104599	37.60	ug/L	97
23) TBA	2.861	59	462058	862.45	ug/L	99
24) Acrylonitrile	2.983	53	338673	216.26	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	370538	41.99	ug/L	100
26) trans-1,2-Dichloroethene	3.026	96	99366	40.25	ug/L	93
27) 1,1-Diclethane	3.525	63	235814	44.75	ug/L	96
28) Vinyl Acetate	3.623	86	21415	36.88	ug/L #	66
29) DIPE	3.653	45	454481	42.28	ug/L	100
30) 2-Chloro-1,3-Butadiene	3.647	53	177051	40.29	ug/L	96
31) ETBE	4.184	59	351035	38.43	ug/L	96
32) 2,2-Dichloropropane	4.361	77	166491	37.96	ug/L	94
33) cis-1,2-Dichloroethene	4.367	96	112371	40.52	ug/L	87
34) 2-Butanone	4.415	43	94026	41.79	ug/L	94
35) Propionitrile	4.495	54	135845	211.43	ug/L	99
36) Bromochloromethane	4.763	130	67010	38.34	ug/L	95
37) Methacrylonitrile	4.769	67	64365	40.70	ug/L	93
38) Tetrahydrofuran	4.861	42	63778	41.24	ug/L	94
39) Chloroform	4.946	83	184977	40.17	ug/L	98
40) 1,1,1-Trichloroethane	5.251	97	162968	40.95	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3356.D
Acq On : 1 Aug 2019 10:06 pm
Operator : D.Lipani
Sample : R1907110-002DMS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Aug 01 22:21:00 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	142152	43.37	ug/L		91
44) Carbontetrachloride	5.525	117	132922	36.97	ug/L		97
45) 1,1-Dichloropropene	5.543	75	147053	39.67	ug/L		98
47) Benzene	5.860	78	431477	39.11	ug/L		98
48) 1,2-Dichloroethane	5.903	62	164927	38.96	ug/L		97
49) Iso-Butyl Alcohol	5.885	43	202825	846.98	ug/L		93
50) TAME	6.104	73	338187	41.17	ug/L		98
51) n-Heptane	6.354	43	155773	34.34	ug/L		98
52) 1-Butanol	6.848	56	273672	2306.16	ug/L		100
53) Trichloroethene	6.817	130	104446	37.31	ug/L		94
54) Methylcyclohexane	7.055	55	159341	40.78	ug/L		94
55) 1,2-Diclpropane	7.098	63	122107	39.66	ug/L		99
56) Dibromomethane	7.238	93	66828	38.04	ug/L		94
57) 1,4-Dioxane	7.299	88	42777	779.50	ug/L		96
58) Methyl Methacrylate	7.330	69	100655	37.72	ug/L		97
59) Bromodichloromethane	7.470	83	135567	36.21	ug/L		99
60) 2-Nitropropane	7.756	41	95158	75.26	ug/L		97
62) cis-1,3-Dichloropropene	8.012	75	186819	38.46	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	179539	40.17	ug/L		99
65) Toluene	8.384	91	442735	38.94	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	169644	37.69	ug/L		98
67) Ethyl Methacrylate	8.793	69	183750	39.87	ug/L		100
68) 1,1,2-Trichloroethane	8.841	97	96289	37.13	ug/L		96
71) Tetrachloroethene	8.976	164	84344	38.02	ug/L		96
72) 2-Hexanone	9.134	43	134218	40.13	ug/L		95
73) 1,3-Dichloropropane	9.012	76	179953	39.38	ug/L		98
74) Dibromochloromethane	9.238	129	99943	36.33	ug/L		96
75) N-Butyl Acetate	9.286	43	291057	45.01	ug/L		96
76) 1,2-Dibromoethane	9.335	107	101679	38.45	ug/L		96
77) 3-Chlorobenzotrifluoride	9.847	180	149098	36.62	ug/L		99
78) Chlorobenzene	9.829	112	272716	37.86	ug/L		97
79) 4-Chlorobenzotrifluoride	9.902	180	133757	37.07	ug/L		96
80) 1,1,1,2-Tetrachloroethane	9.914	131	99994	37.56	ug/L		97
81) Ethylbenzene	9.951	106	150509	39.25	ug/L	#	90
82) (m+p)Xylene	10.061	106	365780	76.48	ug/L		99
83) o-Xylene	10.420	106	178465	37.88	ug/L		90
84) Styrene	10.433	104	304807	38.77	ug/L		99
85) Bromoform	10.585	173	68642	34.03	ug/L		94
86) 2-Chlorobenzotrifluoride	10.664	180	145528	37.50	ug/L		97
87) Isopropylbenzene	10.756	105	460532	37.77	ug/L		98
88) Cyclohexanone	10.817	55	152911	209.51	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.061	53	40261	35.64	ug/L		93
91) 1,1,2,2-Tetrachloroethane	11.012	83	149493	38.70	ug/L		99
92) Bromobenzene	11.000	156	120048	37.50	ug/L		97
93) 1,2,3-Trichloropropane	11.042	110	43908	36.30	ug/L		93
94) n-Propylbenzene	11.109	91	546053	37.89	ug/L		99
95) 2-Chlorotoluene	11.170	91	326301	37.62	ug/L		99
96) 3-Chlorotoluene	11.225	91	318882	37.10	ug/L		99
97) 4-Chlorotoluene	11.268	91	375446	37.48	ug/L		98
98) 1,3,5-Trimethylbenzene	11.262	105	376801	36.71	ug/L		98
99) tert-Butylbenzene	11.536	119	320709	36.09	ug/L		100
100) 1,2,4-Trimethylbenzene	11.573	105	378776	37.25	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.634	214	111317	33.68	ug/L		97
102) sec-Butylbenzene	11.719	105	472382	36.04	ug/L		99
103) p-Isopropyltoluene	11.841	119	398860	37.45	ug/L		98
104) 1,3-Dclbenz	11.798	146	216577	36.19	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3356.D
Acq On : 1 Aug 2019 10:06 pm
Operator : D.Lipani
Sample : R1907110-002DMS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Aug 01 22:21:00 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

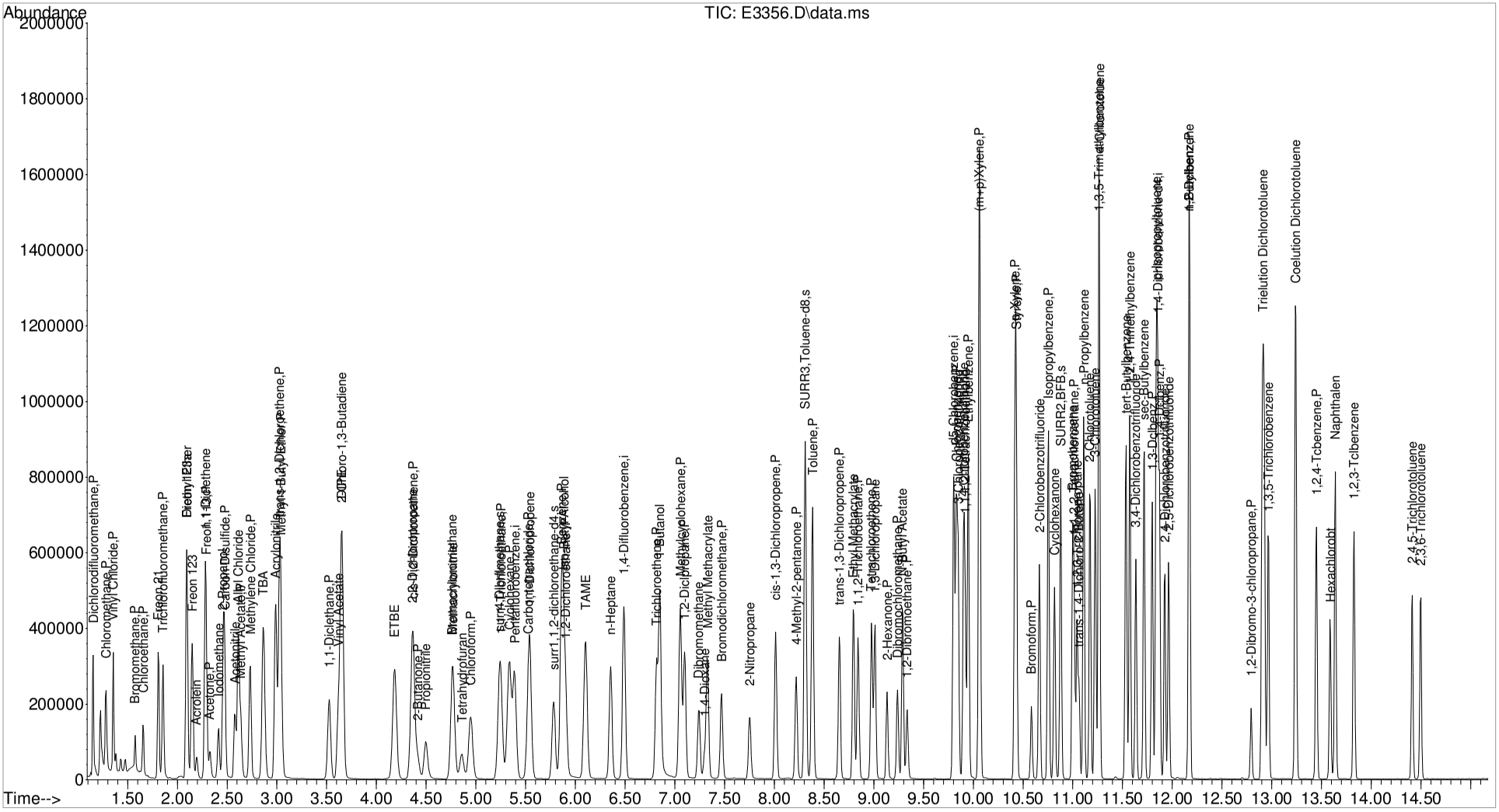
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	222303	35.68	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	104425	35.04	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.963	214	119409	34.69	ug/L	99
108) n-Butylbenzene	12.170	91	370848	37.42	ug/L	100
109) 1,2-Dclbenz	12.170	146	211944	35.94	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.792	157	35261	36.00	ug/L	97
111) Trielution Dichlorotol...	12.914	125	542737	108.96	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	152342	34.52	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	398802	73.34	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	160629	35.06	ug/L	99
115) Hexachlorobt	13.591	225	66914	31.91	ug/L	97
116) Naphthalen	13.639	128	458912	38.44	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	157944	35.28	ug/L	96
118) 2,4,5-Trichlorotoluene	14.414	159	97822	37.14	ug/L	96
119) 2,3,6-Trichlorotoluene	14.499	159	91429	33.67	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3356.D
Acq On : 1 Aug 2019 10:06 pm
Operator : D.Lipani
Sample : R1907110-002DMS|1.0 Inst : MSVOA10
Misc : OBG 8043 T4
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Aug 01 22:21:00 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



1st 08/03/19
2nd 08/05/19

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 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	Pentafluorobenzene	1.0000	1.0000	0.0	101	0.00	
2	P	Dichlorodifluoromethane	0.7674	0.8135	-6.0	99	0.00	
3	P	Chloromethane	0.8571	0.8338	2.7	97	0.00	
4	P	Vinyl Chloride	0.7075	0.7150	-1.1	99	0.00	
5	P	Bromomethane	0.4103	0.3092	-1.0 ~~24.6#~~	92	0.00	
6	P	Chloroethane	0.4199	0.3795	-0.4 ~~9.6~~	101	0.00	
7		Freon 21	0.9813	0.9911	-1.0	106	0.00	
8	P	Trichlorofluoromethane	0.7954	0.8035	-1.0	100	0.00	
9		Diethyl Ether	0.5059	0.5029	0.6	97	0.00	
10		Freon 123a	0.6159	0.6220	-1.0	106	0.00	
11		Freon 123	0.6692	0.6661	0.5	105	0.00	
12		Acrolein	0.1380	0.1082	21.6#	85	0.00	NT
13		1,1-Diclethene	0.4655	0.4486	3.6	96	0.00	
14	P	Freon 113	0.4515	0.4537	-0.5	99	0.00	
15	P	Acetone	0.2957	0.3073	-3.9	110	0.00	
16		2-Propanol	0.0714	0.0718	-0.6	109	-0.01	
17		Iodomethane	0.6449	0.3657	-47.8 ~~43.3#~~	52	0.00	NT
18	P	Carbon Disulfide	1.4409	1.4037	2.6	102	0.00	
19		Acetonitrile	0.1269	0.1397	-10.1	110	0.00	
20		Allyl Chloride	0.2818	0.2634	6.5	93	0.00	
21	P	Methyl Acetate	0.7153	0.7577	-5.9	114	0.00	
22	P	Methylene Chloride	0.5433	0.5110	5.9	98	0.00	
23		TBA	0.1046	0.1033	1.2	103	-0.01	
24		Acrylonitrile	0.3059	0.3143	-2.7	104	-0.01	
25	P	Methyl-t-Butyl Ether	1.7236	1.7086	0.9	99	0.00	
26	P	trans-1,2-Dichloroethene	0.4821	0.4685	2.8	95	0.00	
27	P	1,1-Diclethane	1.0292	1.0313	-0.2	99	0.00	
28		Vinyl Acetate	0.1134	0.1084	4.4	99	0.00	
29		DIPE	2.0992	2.0549	2.1	101	0.00	
30		2-Chloro-1,3-Butadiene	0.8582	0.8603	-0.2	107	0.00	
31		ETBE	1.7840	1.7601	1.3	102	0.00	
32		2,2-Dichloropropane	0.8567	0.8382	2.2	96	0.00	
33	P	cis-1,2-Dichloroethene	0.5416	0.5297	2.2	99	0.00	
34	P	2-Butanone	0.4395	0.4638	-5.5	113	0.00	
35		Propionitrile	0.1255	0.1264	-0.7	106	-0.01	
36		Bromochloromethane	0.3414	0.3270	4.2	95	0.00	
37		Methacrylonitrile	0.3089	0.2871	7.1	98	0.00	
38		Tetrahydrofuran	0.3020	0.3012	0.3	108	0.00	
39	P	Chloroform	0.8993	0.8800	2.1	99	0.00	
40	P	1,1,1-Trichloroethane	0.7773	0.7657	1.5	100	0.00	
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	103	0.00	
42	P	Cyclohexane	0.4314	0.4219	2.2	103	0.00	
43	s	surr4,Dibrflmethane	0.3289	0.3387	-3.0	104	0.00	
44	P	Carbontetrachloride	0.4733	0.4415	6.7	96	0.00	
45		1,1-Dichloropropene	0.4880	0.4887	-0.1	101	0.00	
46	s	surr1,1,2-dichloroethane-d4	0.4388	0.4661	-6.2	108	0.00	
47	P	Benzene	1.4522	1.4198	2.2	99	0.00	
48	P	1,2-Dichloroethane	0.5572	0.5567	0.1	103	0.00	
49		Iso-Butyl Alcohol	0.0315	0.0326	-3.5	110	-0.02	
50		TAME	1.0813	1.0641	1.6	103	0.00	
51		n-Heptane	0.5970	0.5867	1.7	98	0.00	

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 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)
52		1-Butanol	0.0156	0.0174	-11.5	111	-0.02
53	P	Trichloroethene	0.3684	0.3509	4.8	98	0.00
54	P	Methylcyclohexane	0.5143	0.5009	2.6	102	0.00
55	P	1,2-Diclpropane	0.4053	0.4029	0.6	101	0.00
56		Dibromomethane	0.2313	0.2281	1.4	101	0.00
57		1,4-Dioxane	0.0072	0.0068	5.6	104	0.00
58		Methyl Methacrylate	0.3513	0.3247	7.6	102	0.00
59	P	Bromodichloromethane	0.4929	0.4551	7.7	98	0.00
60		2-Nitropropane	0.1664	0.1499	9.9	99	0.00
61		2-Chloroethylvinyl Ether	0.2047	0.2181	-6.5	114	0.00
62	P	cis-1,3-Dichloropropene	0.6395	0.6164	3.6	99	0.00
63	P	4-Methyl-2-pentanone	0.5883	0.6086	-3.5	115	0.00
64	s	SURR3,Toluene-d8	1.3148	1.3442	-2.2	103	0.00
65	P	Toluene	1.4964	1.4741	1.5	100	0.00
66	P	trans-1,3-Dichloropropene	0.5924	0.5624	5.1	98	0.00
67		Ethyl Methacrylate	0.6067	0.5648	6.9	97	0.00
68	P	1,1,2-Trichloroethane	0.3413	0.3249	4.8	101	0.00
69	s	SURR2,BFB	0.5004	0.5186	-3.6	106	0.00
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	104	0.00
71	P	Tetrachloroethene	0.3381	0.3105	8.2	95	0.00
72	P	2-Hexanone	0.5096	0.5229	-2.6	111	0.00
73		1,3-Dichloropropane	0.6964	0.6824	2.0	100	0.00
74	P	Dibromochloromethane	0.4193	0.3866	7.8	93	0.00
75		N-Butyl Acetate	0.9854	0.9569	2.9	107	0.00
76	P	1,2-Dibromoethane	0.4030	0.3926	2.6	101	0.00
77		3-Chlorobenzotrifluoride	0.6204	0.5776	6.9	98	0.00
78	P	Chlorobenzene	1.0978	1.0381	5.4	97	0.00
79		4-Chlorobenzotrifluoride	0.5499	0.5278	4.0	99	0.00
80		1,1,1,2-Tetrachloroethane	0.4057	0.3745	7.7	96	0.00
81	P	Ethylbenzene	0.5844	0.5692	2.6	98	0.00
82	P	(m+p)Xylene	0.7289	0.6986	4.2	98	0.00
83	P	o-Xylene	0.7181	0.6928	3.5	99	0.00
84	P	Styrene	1.1981	1.1672	2.6	99	0.00
85	P	Bromoform	0.3074	0.2787	9.3	93	0.00
86		2-Chlorobenzotrifluoride	0.5914	0.5621	5.0	99	0.00
87	P	Isopropylbenzene	1.8581	1.7860	3.9	98	0.00
88		Cyclohexanone	0.1112	0.0956	14.0	89	0.00
89		trans-1,4-Dichloro-2-Butene	0.1722	0.1594	7.4	96	0.00
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	104	0.00
91	P	1,1,2,2-Tetrachloroethane	1.0638	0.9939	6.6	101	0.00
92		Bromobenzene	0.8815	0.8246	6.5	98	0.00
93		1,2,3-Trichloropropane	0.3331	0.2945	11.6	99	0.00
94		n-Propylbenzene	3.9686	3.8383	3.3	99	0.00
95		2-Chlorotoluene	2.3886	2.2739	4.8	99	0.00
96		3-Chlorotoluene	2.3668	2.2037	6.9	102	0.00
97		4-Chlorotoluene	2.7586	2.6497	3.9	100	0.00
98		1,3,5-Trimethylbenzene	2.8269	2.6814	5.1	98	0.00
99		tert-Butylbenzene	2.4473	2.2571	7.8	95	0.00
100		1,2,4-Trimethylbenzene	2.8006	2.6829	4.2	98	0.00
101		3,4-Dichlorobenzotrifluorid	0.9101	0.8275	9.1	96	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 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)
102		sec-Butylbenzene	3.6094	3.3490	7.2	96	0.00
103		p-Isopropyltoluene	2.9329	2.8233	3.7	96	0.00
104	P	1,3-Dclbenz	1.6481	1.5324	7.0	96	0.00
105	P	1,4-Dclbenz	1.7158	1.5745	8.2	97	0.00
106		2,4-Dichlorobenzotrifluorid	0.8206	0.7600	7.4	96	0.00
107		2,5-Dichlorobenzotrifluorid	0.9480	0.8523	10.1	96	0.00
108		n-Butylbenzene	2.7293	2.6998	1.1	98	0.00
109	P	1,2-Dclbenz	1.6239	1.5491	4.6	98	0.00
110	P	1,2-Dibromo-3-chloropropane	0.2697	0.2480	8.0	96	0.00
111		Trielution Dichlorotoluene	1.3717	1.2675	7.6	93	0.00
112		1,3,5-Trichlorobenzene	1.2153	1.0966	9.8	94	0.00
113		Coelution Dichlorotoluene	1.4976	1.3944	6.9	94	0.00
114	P	1,2,4-Tcbenzene	1.2616	1.1727	7.0	93	0.00
115		Hexachlorobt	0.5775	0.5047	12.6	89	0.00
116		Naphthalen	3.2873	3.2161	2.2	94	0.00
117		1,2,3-Tclbenzene	1.2328	1.1213	9.0	89	0.00
118		2,4,5-Trichlorotoluene	0.6987	0.6968	0.3	86	0.00
119		2,3,6-Trichlorotoluene	0.7212	0.7231	-0.3	89	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	260258	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	380688	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	333098	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	184542	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	128955	51.50	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.00%				
46) surr1,1,2-dichloroetha...	5.781	65	177421	53.11	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.22%				
64) SURR3,Toluene-d8	8.311	98	511706	51.12	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.24%				
69) SURR2,BFB	10.878	95	197421	51.82	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.64%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	211719	53.01	ug/L		98
3) Chloromethane	1.282	50	216993	48.64	ug/L		97
4) Vinyl Chloride	1.355	62	186077	50.53	ug/L		95
5) Bromomethane	1.575	94	80474	49.49	ug/L		100
6) Chloroethane	1.654	64	98765	49.82	ug/L		96
7) Freon 21	1.806	67	257935	50.50	ug/L		99
8) Trichlorofluoromethane	1.855	101	209126	50.51	ug/L		99
9) Diethyl Ether	2.093	59	130877	49.70	ug/L		96
10) Freon 123a	2.093	67	161877	50.49	ug/L		99
11) Freon 123	2.148	83	173359	49.77	ug/L		98
12) Acrolein	2.190	56	140818	195.98	ug/L		95
13) 1,1-Diclethene	2.282	96	116753	48.19	ug/L		98
14) Freon 113	2.288	101	118074	50.25	ug/L		98
15) Acetone	2.324	43	79990	51.97	ug/L		94
16) 2-Propanol	2.459	45	373926	1006.69	ug/L		96
17) Iodomethane	2.410	142	95184	26.08	ug/L		99
18) Carbon Disulfide	2.471	76	365335	48.71	ug/L		99
19) Acetonitrile	2.574	41	181800	275.31	ug/L		98
20) Allyl Chloride	2.611	76	68539	46.73	ug/L	#	80
21) Methyl Acetate	2.635	43	197194	52.97	ug/L		96
22) Methylene Chloride	2.727	84	132996	47.03	ug/L		94
23) TBA	2.861	59	537686	987.24	ug/L		96
24) Acrylonitrile	2.983	53	408978	256.89	ug/L		96
25) Methyl-t-Butyl Ether	3.038	73	444673	49.57	ug/L		99
26) trans-1,2-Dichloroethene	3.026	96	121926	48.59	ug/L		93
27) 1,1-Diclethane	3.525	63	268416	50.11	ug/L		97
28) Vinyl Acetate	3.617	86	28207	47.78	ug/L	#	89
29) DIPE	3.653	45	534794	48.94	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	223910	50.12	ug/L		100
31) ETBE	4.184	59	458084	49.33	ug/L		97
32) 2,2-Dichloropropane	4.361	77	218150	48.92	ug/L		98
33) cis-1,2-Dichloroethene	4.367	96	137858	48.90	ug/L		97
34) 2-Butanone	4.409	43	120705	52.77	ug/L		95
35) Propionitrile	4.495	54	164490	251.83	ug/L		99
36) Bromochloromethane	4.763	130	85114	47.90	ug/L	#	81
37) Methacrylonitrile	4.769	67	74714	46.47	ug/L	#	82
38) Tetrahydrofuran	4.854	42	78377	49.86	ug/L		98
39) Chloroform	4.946	83	229020	48.93	ug/L		98
40) 1,1,1-Trichloroethane	5.245	97	199275	49.26	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	160630	48.91	ug/L		92
44) Carbontetrachloride	5.525	117	168086	46.64	ug/L		93
45) 1,1-Dichloropropene	5.537	75	186039	50.07	ug/L		95
47) Benzene	5.860	78	540488	48.88	ug/L		97
48) 1,2-Dichloroethane	5.897	62	211942	49.96	ug/L		95
49) Iso-Butyl Alcohol	5.879	43	248299	1034.61	ug/L		96
50) TAME	6.104	73	405072	49.20	ug/L		98
51) n-Heptane	6.354	43	223364	49.14	ug/L		98
52) 1-Butanol	6.848	56	331199	2784.84	ug/L		99
53) Trichloroethene	6.817	130	133592	47.62	ug/L		97
54) Methylcyclohexane	7.055	55	190693	48.70	ug/L		94
55) 1,2-Diclpropane	7.098	63	153378	49.71	ug/L		99
56) Dibromomethane	7.238	93	86837	49.32	ug/L		91
57) 1,4-Dioxane	7.299	88	52115	947.60	ug/L		92
58) Methyl Methacrylate	7.330	69	123605	46.21	ug/L		92
59) Bromodichloromethane	7.470	83	173266	46.17	ug/L		99
60) 2-Nitropropane	7.750	41	114163	90.09	ug/L		99
61) 2-Chloroethylvinyl Ether	7.878	63	83037	53.27	ug/L		97
62) cis-1,3-Dichloropropene	8.012	75	234675	48.20	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	231672	51.72	ug/L		99
65) Toluene	8.384	91	561191	49.26	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	214103	47.46	ug/L		97
67) Ethyl Methacrylate	8.793	69	215005	46.55	ug/L		94
68) 1,1,2-Trichloroethane	8.841	97	123688	47.59	ug/L		95
71) Tetrachloroethene	8.976	164	103417	45.91	ug/L		97
72) 2-Hexanone	9.134	43	174192	51.31	ug/L		96
73) 1,3-Dichloropropane	9.012	76	227312	49.00	ug/L		96
74) Dibromochloromethane	9.238	129	128762	46.10	ug/L		98
75) N-Butyl Acetate	9.286	43	318731	48.55	ug/L		96
76) 1,2-Dibromoethane	9.335	107	130767	48.71	ug/L		98
77) 3-Chlorobenzotrifluoride	9.847	180	192401	46.55	ug/L		96
78) Chlorobenzene	9.829	112	345797	47.28	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	175796	47.98	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.914	131	124754	46.16	ug/L		98
81) Ethylbenzene	9.951	106	189601	48.70	ug/L		92
82) (m+p)Xylene	10.061	106	465420	95.85	ug/L		99
83) o-Xylene	10.420	106	230765	48.24	ug/L		90
84) Styrene	10.433	104	388807	48.71	ug/L		99
85) Bromoform	10.585	173	92821	45.32	ug/L		98
86) 2-Chlorobenzotrifluoride	10.664	180	187238	47.52	ug/L		95
87) Isopropylbenzene	10.756	105	594897	48.06	ug/L		99
88) Cyclohexanone	10.817	55	637133	859.86	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.061	53	53095	46.29	ug/L		98
91) 1,1,2,2-Tetrachloroethane	11.012	83	183412	46.71	ug/L		96
92) Bromobenzene	11.000	156	152173	46.77	ug/L		97
93) 1,2,3-Trichloropropane	11.042	110	54346	44.20	ug/L	#	87
94) n-Propylbenzene	11.109	91	708328	48.36	ug/L		99
95) 2-Chlorotoluene	11.170	91	419637	47.60	ug/L		99
96) 3-Chlorotoluene	11.225	91	406670	46.55	ug/L		99
97) 4-Chlorotoluene	11.268	91	488982	48.03	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	494824	47.43	ug/L		99
99) tert-Butylbenzene	11.536	119	416535	46.11	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	495107	47.90	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	152713	45.47	ug/L		99
102) sec-Butylbenzene	11.719	105	618030	46.39	ug/L		99
103) p-Isopropyltoluene	11.841	119	521016	48.13	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

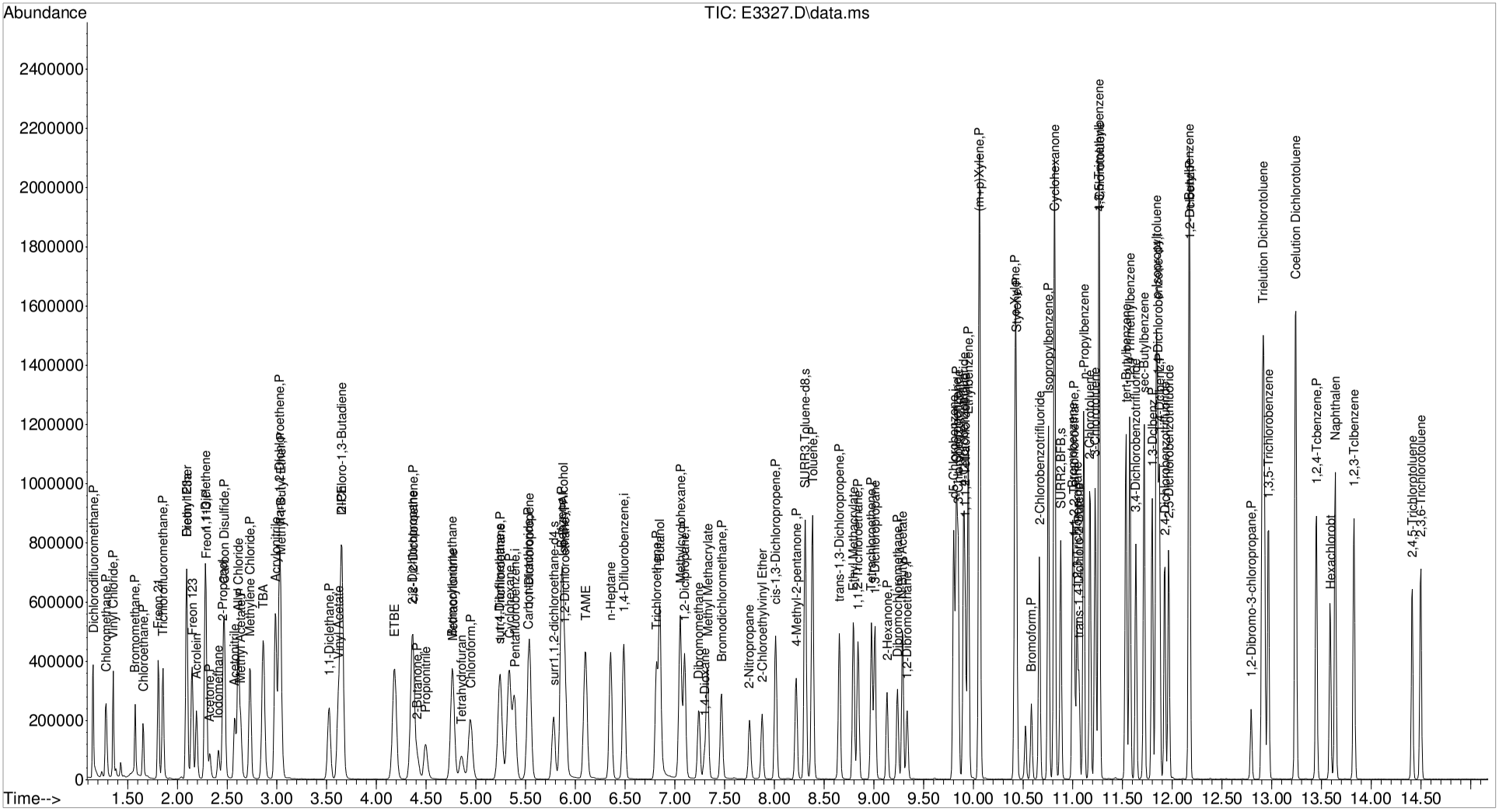
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	282800	46.49	ug/L	96
105) 1,4-Dclbenz	11.871	146	290570	45.88	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	140260	46.31	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.963	214	157279	44.95	ug/L	98
108) n-Butylbenzene	12.170	91	498222	49.46	ug/L	98
109) 1,2-Dclbenz	12.176	146	285868	47.70	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.792	157	45769	45.98	ug/L	99
111) Trielution Dichlorotol...	12.914	125	701715	138.61	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	202376	45.12	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	514649	93.11	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	216412	46.47	ug/L	99
115) Hexachlorobt	13.591	225	93131	43.69	ug/L	98
116) Naphthalen	13.639	128	593512	48.92	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	206930	45.48	ug/L	98
118) 2,4,5-Trichlorotoluene	14.414	159	128581	47.35	ug/L	95
119) 2,3,6-Trichlorotoluene	14.499	159	133439	47.46	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3327.D
Acq On : 1 Aug 2019 10:50 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:04:15 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



1st 08/03/19
2nd 08/05/19

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 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	Pentafluorobenzene	1.0000	1.0000	0.0	101	0.00
2	P	Dichlorodifluoromethane	0.7674	0.8034	-4.7	98	0.00
3	P	Chloromethane	0.8571	0.8839	-3.1	103	0.00
4	P	Vinyl Chloride	0.7075	0.7418	-4.8	103	0.00
5	P	Bromomethane	0.4103	0.3055	~~25.5#~~	91	0.00
6	P	Chloroethane	0.4199	0.3815	~~9.1~~	102	0.00
7		Freon 21	0.9813	0.9881	-0.7	105	0.00
8	P	Trichlorofluoromethane	0.7954	0.7905	0.6	98	0.00
9		Diethyl Ether	0.5059	0.5155	-1.9	99	0.00
10		Freon 123a	0.6159	0.6376	-3.5	108	0.00
11		Freon 123	0.6692	0.6823	-2.0	108	0.00
12		Acrolein	0.1380	0.1617	-17.2	127	0.00
13		1,1-Diclethene	0.4655	0.4509	3.1	97	0.00
14	P	Freon 113	0.4515	0.4575	-1.3	100	0.00
15	P	Acetone	0.2957	0.2897	2.0	104	0.00
16		2-Propanol	0.0714	0.0727	-1.8	110	-0.01
17		Iodomethane	0.6449	0.6810	-5.6	96	0.00
18	P	Carbon Disulfide	1.4409	1.4849	-3.1	108	0.00
19		Acetonitrile	0.1269	0.1346	-6.1	106	0.00
20		Allyl Chloride	0.2818	0.2713	3.7	96	0.00
21	P	Methyl Acetate	0.7153	0.7400	-3.5	111	0.00
22	P	Methylene Chloride	0.5433	0.5142	5.4	98	0.00
23		TBA	0.1046	0.1002	4.2	100	-0.01
24		Acrylonitrile	0.3059	0.3101	-1.4	102	0.00
25	P	Methyl-t-Butyl Ether	1.7236	1.7249	-0.1	100	0.00
26	P	trans-1,2-Dichloroethene	0.4821	0.4742	1.6	96	0.00
27	P	1,1-Diclethane	1.0292	1.0451	-1.5	100	0.00
28		Vinyl Acetate	0.1134	0.1158	-2.1	105	0.00
29		DIPE	2.0992	2.0778	1.0	103	0.00
30		2-Chloro-1,3-Butadiene	0.8582	0.8820	-2.8	109	0.00
31		ETBE	1.7840	1.7638	1.1	102	0.00
32		2,2-Dichloropropane	0.8567	0.8565	0.0	98	0.00
33	P	cis-1,2-Dichloroethene	0.5416	0.5308	2.0	99	0.00
34	P	2-Butanone	0.4395	0.4390	0.1	107	0.00
35		Propionitrile	0.1255	0.1265	-0.8	106	0.00
36		Bromochloromethane	0.3414	0.3344	2.1	97	0.00
37		Methacrylonitrile	0.3089	0.2887	6.5	99	0.00
38		Tetrahydrofuran	0.3020	0.2997	0.8	107	0.00
39	P	Chloroform	0.8993	0.8929	0.7	101	0.00
40	P	1,1,1-Trichloroethane	0.7773	0.7678	1.2	100	0.00
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	106	0.00
42	P	Cyclohexane	0.4314	0.4430	-2.7	111	0.00
43	s	surr4,Dibrflmethane	0.3289	0.3169	3.6	100	0.00
44	P	Carbontetrachloride	0.4733	0.4403	7.0	98	0.00
45		1,1-Dichloropropene	0.4880	0.4741	2.8	100	0.00
46	s	surr1,1,2-dichloroethane-d4	0.4388	0.4553	-3.8	108	0.00
47	P	Benzene	1.4522	1.4151	2.6	101	0.00
48	P	1,2-Dichloroethane	0.5572	0.5419	2.7	102	0.00
49		Iso-Butyl Alcohol	0.0315	0.0332	-5.4	114	-0.02
50		TAME	1.0813	1.0385	4.0	103	0.00
51		n-Heptane	0.5970	0.5809	2.7	99	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 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)
52		1-Butanol	0.0156	0.0178	-14.1	116	-0.02
53	P	Trichloroethene	0.3684	0.3524	4.3	101	0.00
54	P	Methylcyclohexane	0.5143	0.5084	1.1	107	0.00
55	P	1,2-Diclpropane	0.4053	0.4006	1.2	103	0.00
56		Dibromomethane	0.2313	0.2274	1.7	104	0.00
57		1,4-Dioxane	0.0072	0.0065	9.7	102	0.00
58		Methyl Methacrylate	0.3513	0.3069	12.6	99	0.00
59	P	Bromodichloromethane	0.4929	0.4502	8.7	100	0.00
60		2-Nitropropane	0.1664	0.1437	13.6	98	0.00
61		2-Chloroethylvinyl Ether	0.2047	0.2487	-21.5#	133	0.00
62	P	cis-1,3-Dichloropropene	0.6395	0.6064	5.2	99	0.00
63	P	4-Methyl-2-pentanone	0.5883	0.5835	0.8	113	0.00
64	s	SURR3,Toluene-d8	1.3148	1.2931	1.7	101	0.00
65	P	Toluene	1.4964	1.4633	2.2	102	0.00
66	P	trans-1,3-Dichloropropene	0.5924	0.5632	4.9	101	0.00
67		Ethyl Methacrylate	0.6067	0.5562	8.3	98	0.00
68	P	1,1,2-Trichloroethane	0.3413	0.3150	7.7	100	0.00
69	s	SURR2,BFB	0.5004	0.4893	2.2	102	0.00
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	109	0.00
71	P	Tetrachloroethene	0.3381	0.3030	10.4	97	0.00
72	P	2-Hexanone	0.5096	0.4826	5.3	108	0.00
73		1,3-Dichloropropane	0.6964	0.6627	4.8	102	0.00
74	P	Dibromochloromethane	0.4193	0.3776	9.9	95	0.00
75		N-Butyl Acetate	0.9854	0.0013	99.9#	0#	0.02
76	P	1,2-Dibromoethane	0.4030	0.3715	7.8	101	0.00
77		3-Chlorobenzotrifluoride	0.6204	0.5502	11.3	98	0.00
78	P	Chlorobenzene	1.0978	1.0089	8.1	99	0.00
79		4-Chlorobenzotrifluoride	0.5499	0.4829	12.2	96	0.00
80		1,1,1,2-Tetrachloroethane	0.4057	0.3613	10.9	98	0.00
81	P	Ethylbenzene	0.5844	0.5508	5.7	100	0.00
82	P	(m+p)Xylene	0.7289	0.6705	8.0	99	0.00
83	P	o-Xylene	0.7181	0.6605	8.0	99	0.00
84	P	Styrene	1.1981	1.1164	6.8	99	0.00
85	P	Bromoform	0.3074	0.2597	15.5	92	0.00
86		2-Chlorobenzotrifluoride	0.5914	0.5261	11.0	98	0.00
87	P	Isopropylbenzene	1.8581	1.6937	8.8	98	0.00
88		Cyclohexanone	0.1112	0.1189	-6.9	116	0.00
89		trans-1,4-Dichloro-2-Butene	0.1722	0.1611	6.4	102	0.00
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	114	0.00
91	P	1,1,2,2-Tetrachloroethane	1.0638	0.9045	15.0	101	0.00
92		Bromobenzene	0.8815	0.7535	14.5	98	0.00
93		1,2,3-Trichloropropane	0.3331	0.2722	18.3	100	0.00
94		n-Propylbenzene	3.9686	3.5198	11.3	100	0.00
95		2-Chlorotoluene	2.3886	2.1234	11.1	101	0.00
96		3-Chlorotoluene	2.3668	2.0632	12.8	105	0.00
97		4-Chlorotoluene	2.7586	2.3811	13.7	98	0.00
98		1,3,5-Trimethylbenzene	2.8269	2.4705	12.6	98	0.00
99		tert-Butylbenzene	2.4473	2.0948	14.4	97	0.00
100		1,2,4-Trimethylbenzene	2.8006	2.4965	10.9	100	0.00
101		3,4-Dichlorobenzotrifluorid	0.9101	0.7541	17.1	96	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 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)
102		sec-Butylbenzene	3.6094	3.1019	14.1	97	0.00
103		p-Isopropyltoluene	2.9329	2.5895	11.7	96	0.00
104	P	1,3-Dclbenz	1.6481	1.4174	14.0	97	0.00
105	P	1,4-Dclbenz	1.7158	1.4611	14.8	99	0.00
106		2,4-Dichlorobenzotrifluorid	0.8206	0.6847	16.6	95	0.00
107		2,5-Dichlorobenzotrifluorid	0.9480	0.7650	19.3	94	0.00
108		n-Butylbenzene	2.7293	2.4498	10.2	97	0.00
109	P	1,2-Dclbenz	1.6239	1.4096	13.2	98	0.00
110	P	1,2-Dibromo-3-chloropropane	0.2697	0.2248	16.6	95	0.00
111		Trielution Dichlorotoluene	1.3717	1.1496	16.2	92	0.00
112		1,3,5-Trichlorobenzene	1.2153	1.0159	16.4	95	0.00
113		Coelution Dichlorotoluene	1.4976	1.2643	15.6	94	0.00
114	P	1,2,4-Tcbenzene	1.2616	1.0583	16.1	91	0.00
115		Hexachlorobt	0.5775	0.4592	20.5#	88	0.00
116		Naphthalen	3.2873	2.9299	10.9	94	0.00
117		1,2,3-Tclbenzene	1.2328	1.0467	15.1	91	0.00
118		2,4,5-Trichlorotoluene	0.6987	0.6486	7.2	88	0.00
119		2,3,6-Trichlorotoluene	0.7212	0.6653	7.8	90	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	260163	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	390306	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	350805	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	201824	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	123689	48.18	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.36%				
46) surr1,1,2-dichloroetha...	5.781	65	177696	51.88	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.76%				
64) SURR3,Toluene-d8	8.311	98	504698	49.17	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.34%				
69) SURR2,BFB	10.878	95	190980	48.89	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.78%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	209008	52.35	ug/L		99
3) Chloromethane	1.282	50	229953	51.56	ug/L		100
4) Vinyl Chloride	1.355	62	192987	52.42	ug/L		99
5) Bromomethane	1.581	94	79467	48.70	ug/L		95
6) Chloroethane	1.660	64	99257	50.09	ug/L		98
7) Freon 21	1.812	67	257058	50.35	ug/L		100
8) Trichlorofluoromethane	1.855	101	205652	49.69	ug/L		99
9) Diethyl Ether	2.093	59	134107	50.95	ug/L		98
10) Freon 123a	2.093	67	165877	51.76	ug/L		96
11) Freon 123	2.148	83	177507	50.97	ug/L		98
12) Acrolein	2.190	56	210356	292.87	ug/L		99
13) 1,1-Diclethene	2.282	96	117315	48.44	ug/L		97
14) Freon 113	2.288	101	119028	50.67	ug/L		97
15) Acetone	2.324	43	75364	48.98	ug/L		98
16) 2-Propanol	2.458	45	378209	1018.59	ug/L		97
17) Iodomethane	2.416	142	177172	47.67	ug/L		94
18) Carbon Disulfide	2.477	76	386326	51.53	ug/L		98
19) Acetonitrile	2.574	41	175059	265.20	ug/L		99
20) Allyl Chloride	2.611	76	70570	48.13	ug/L	#	73
21) Methyl Acetate	2.635	43	192528	51.73	ug/L		97
22) Methylene Chloride	2.733	84	133777	47.32	ug/L		98
23) TBA	2.861	59	521366	957.62	ug/L		95
24) Acrylonitrile	2.989	53	403332	253.44	ug/L		96
25) Methyl-t-Butyl Ether	3.038	73	448743	50.04	ug/L		98
26) trans-1,2-Dichloroethene	3.025	96	123362	49.18	ug/L		96
27) 1,1-Diclethane	3.525	63	271905	50.78	ug/L		99
28) Vinyl Acetate	3.617	86	30115	51.03	ug/L	#	68
29) DIPE	3.653	45	540562	49.49	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	229469	51.39	ug/L		97
31) ETBE	4.184	59	458864	49.43	ug/L		96
32) 2,2-Dichloropropane	4.361	77	222842	49.99	ug/L		93
33) cis-1,2-Dichloroethene	4.367	96	138106	49.01	ug/L		97
34) 2-Butanone	4.415	43	114220	49.95	ug/L		99
35) Propionitrile	4.501	54	164575	252.05	ug/L		98
36) Bromochloromethane	4.763	130	87006	48.98	ug/L		96
37) Methacrylonitrile	4.769	67	75103	46.73	ug/L		90
38) Tetrahydrofuran	4.854	42	77960	49.61	ug/L		92
39) Chloroform	4.946	83	232307	49.65	ug/L		98
40) 1,1,1-Trichloroethane	5.251	97	199746	49.39	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	172890	51.34	ug/L	95
44) Carbontetrachloride	5.531	117	171837	46.51	ug/L	96
45) 1,1-Dichloropropene	5.543	75	185027	48.57	ug/L	99
47) Benzene	5.866	78	552311	48.72	ug/L	99
48) 1,2-Dichloroethane	5.897	62	211488	48.62	ug/L	98
49) Iso-Butyl Alcohol	5.879	43	258894	1052.18	ug/L	100
50) TAME	6.104	73	405318	48.02	ug/L	98
51) n-Heptane	6.354	43	226727	48.65	ug/L	99
52) 1-Butanol	6.848	56	346601	2842.53	ug/L	100
53) Trichloroethene	6.817	130	137544	47.82	ug/L	96
54) Methylcyclohexane	7.055	55	198421	49.43	ug/L	95
55) 1,2-Diclpropane	7.098	63	156365	49.43	ug/L	98
56) Dibromomethane	7.238	93	88742	49.16	ug/L	92
57) 1,4-Dioxane	7.305	88	50935	903.32	ug/L	94
58) Methyl Methacrylate	7.329	69	119800	43.69	ug/L	97
59) Bromodichloromethane	7.470	83	175707	45.67	ug/L	98
60) 2-Nitropropane	7.750	41	112193	86.36	ug/L	98
61) 2-Chloroethylvinyl Ether	7.878	63	97068	60.74	ug/L	96
62) cis-1,3-Dichloropropene	8.012	75	236690	47.42	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	227734	49.59	ug/L	97
65) Toluene	8.384	91	571120	48.89	ug/L	100
66) trans-1,3-Dichloropropene	8.652	75	219802	47.53	ug/L	97
67) Ethyl Methacrylate	8.793	69	217105	45.85	ug/L	95
68) 1,1,2-Trichloroethane	8.841	97	122941	46.14	ug/L	99
71) Tetrachloroethene	8.976	164	106294	44.81	ug/L	95
72) 2-Hexanone	9.134	43	169303	47.35	ug/L	97
73) 1,3-Dichloropropane	9.012	76	232478	47.58	ug/L	98
74) Dibromochloromethane	9.238	129	132466	45.03	ug/L	99
76) 1,2-Dibromoethane	9.335	107	130313	46.09	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	193020	44.34	ug/L	94
78) Chlorobenzene	9.829	112	353939	45.95	ug/L	96
79) 4-Chlorobenzotrifluoride	9.902	180	169401	43.91	ug/L	93
80) 1,1,1,2-Tetrachloroethane	9.914	131	126737	44.53	ug/L	98
81) Ethylbenzene	9.951	106	193216	47.13	ug/L	98
82) (m+p)Xylene	10.061	106	470446	92.00	ug/L	97
83) o-Xylene	10.420	106	231706	45.99	ug/L	95
84) Styrene	10.433	104	391626	46.59	ug/L	98
85) Bromoform	10.585	173	91117	42.24	ug/L	100
86) 2-Chlorobenzotrifluoride	10.664	180	184548	44.47	ug/L	96
87) Isopropylbenzene	10.756	105	594173	45.58	ug/L	98
88) Cyclohexanone	10.817	55	833915	1068.62	ug/L	97
89) trans-1,4-Dichloro-2-B...	11.060	53	56503	46.78	ug/L	91
91) 1,1,2,2-Tetrachloroethane	11.012	83	182551	42.51	ug/L	98
92) Bromobenzene	10.999	156	152082	42.74	ug/L	92
93) 1,2,3-Trichloropropane	11.042	110	54943	40.86	ug/L	97
94) n-Propylbenzene	11.109	91	710376	44.35	ug/L	99
95) 2-Chlorotoluene	11.176	91	428557	44.45	ug/L	99
96) 3-Chlorotoluene	11.225	91	416401	43.59	ug/L	99
97) 4-Chlorotoluene	11.268	91	480561	43.16	ug/L	99
98) 1,3,5-Trimethylbenzene	11.262	105	498612	43.70	ug/L	100
99) tert-Butylbenzene	11.536	119	422778	42.80	ug/L	97
100) 1,2,4-Trimethylbenzene	11.573	105	503855	44.57	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	152187	41.43	ug/L	97
102) sec-Butylbenzene	11.719	105	626045	42.97	ug/L	97
103) p-Isopropyltoluene	11.841	119	522620	44.14	ug/L	98
104) 1,3-Dclbenz	11.798	146	286056	43.00	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

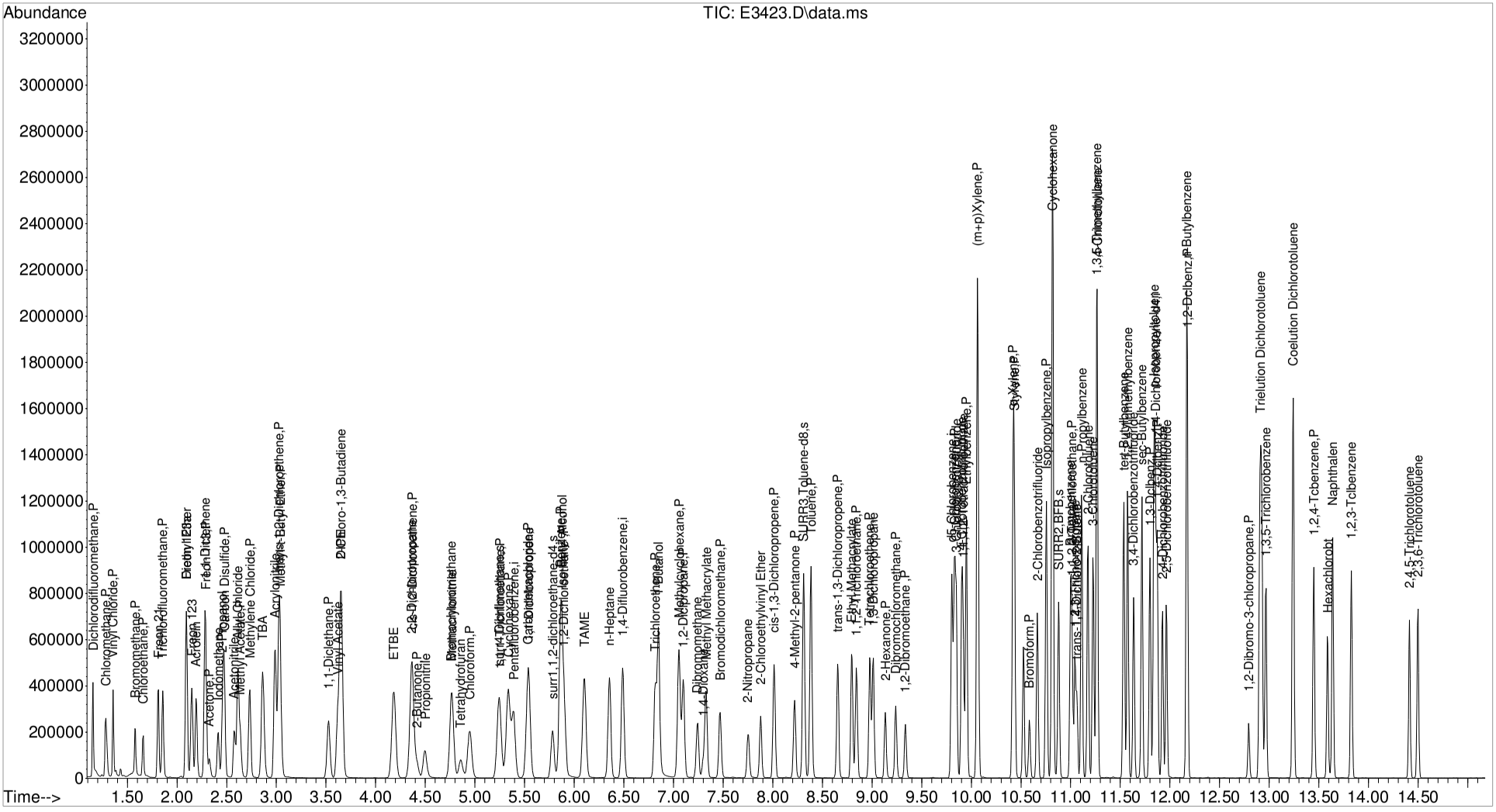
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	294888	42.58	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	138179	41.72	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.963	214	154404	40.35	ug/L	96
108) n-Butylbenzene	12.170	91	494428	44.88	ug/L	99
109) 1,2-Dclbenz	12.176	146	284498	43.40	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.792	157	45373	41.68	ug/L	94
111) Trielution Dichlorotol...	12.914	125	696059	125.72	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	205028	41.79	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	510346	84.43	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	213598	41.94	ug/L	98
115) Hexachlorobt	13.590	225	92686	39.76	ug/L	99
116) Naphthalen	13.639	128	591330	44.56	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	211254	42.45	ug/L	98
118) 2,4,5-Trichlorotoluene	14.413	159	130900	44.26	ug/L	98
119) 2,3,6-Trichlorotoluene	14.499	159	134266	43.87	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3423.D
Acq On : 5 Aug 2019 10:08 am
Operator : D.Lipani
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 05 10:23:09 2019
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



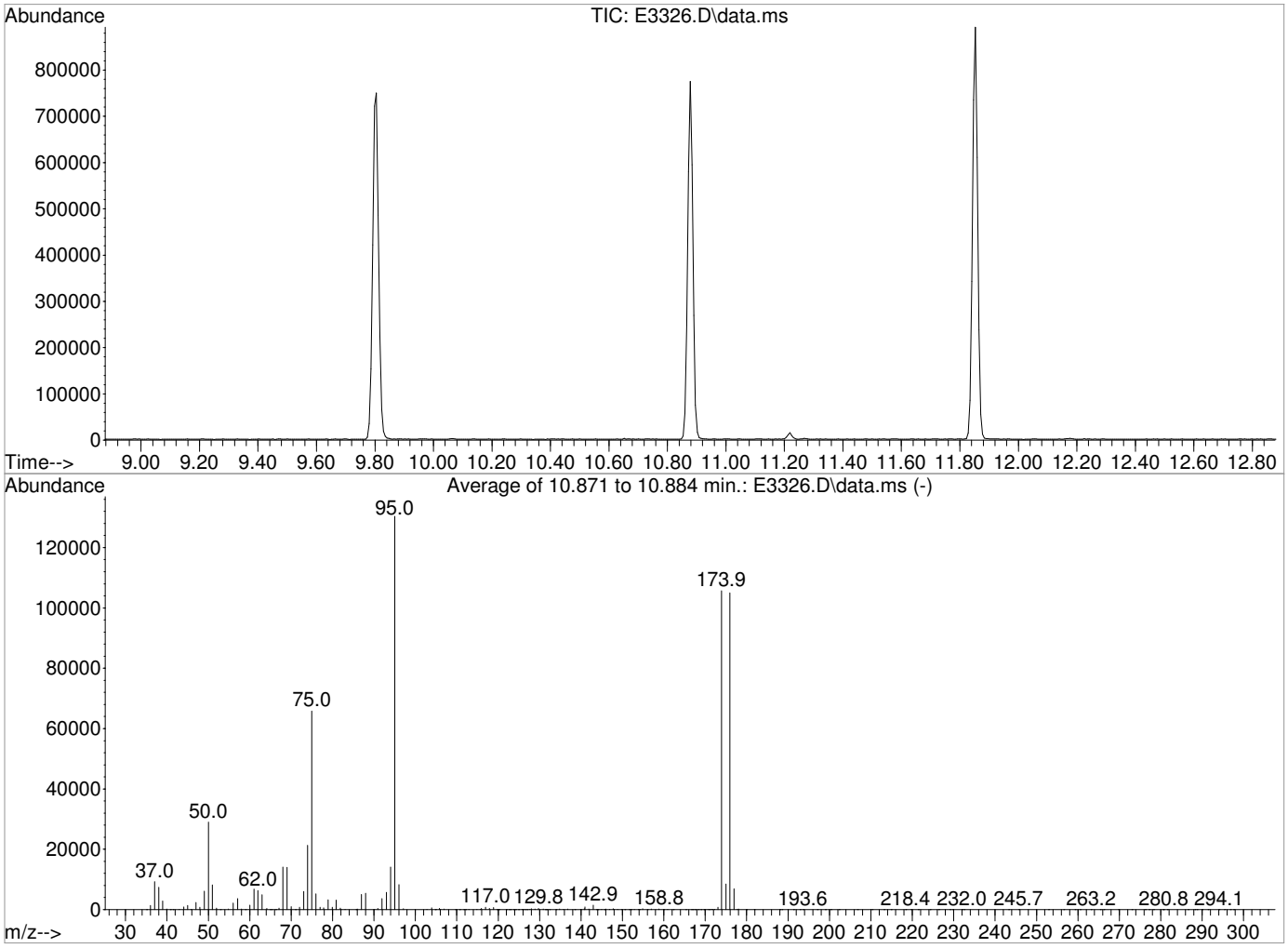
1st 08/06/19
2nd 08/07/19

BFB

Data Path : I:\ACQUDATA\msvoa10\data\080119\
Data File : E3326.D
Acq On : 1 Aug 2019 10:23 am
Operator : D.Lipani
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Mon Jul 01 18:10:52 2019



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1597

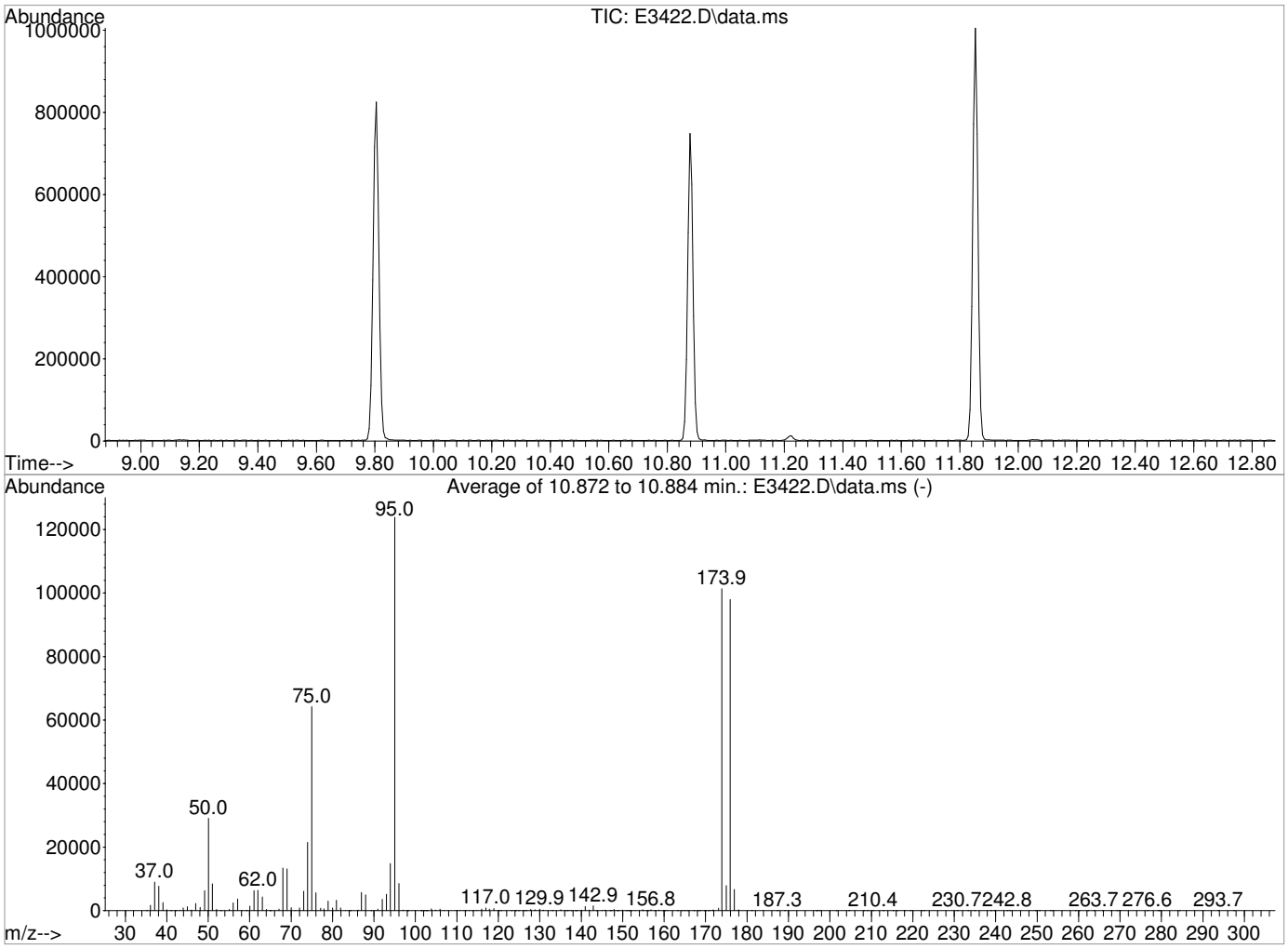
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	29024	PASS
75	95	30	60	50.5	65853	PASS
95	95	100	100	100.0	130352	PASS
96	95	5	9	6.4	8313	PASS
173	174	0.00	2	0.8	798	PASS
174	95	50	120	81.1	105731	PASS
175	174	5	9	8.1	8526	PASS
176	174	95	101	99.3	104976	PASS
177	176	5	9	6.6	6905	PASS

1st 08/06/19
2nd 08/07/19

Data Path : I:\ACQUDATA\msvoa10\data\080519\
Data File : E3422.D
Acq On : 5 Aug 2019 9:41 am
Operator : D.Lipani
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W070119.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Mon Jul 01 18:10:52 2019



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.5	29059	PASS
75	95	30	60	51.9	64208	PASS
95	95	100	100	100.0	123827	PASS
96	95	5	9	6.9	8523	PASS
173	174	0.00	2	0.7	731	PASS
174	95	50	120	81.8	101336	PASS
175	174	5	9	7.8	7893	PASS
176	174	95	101	96.6	97939	PASS
177	176	5	9	6.8	6699	PASS

Analysis: 8260C/624.1 Analyst: D. Lippam pH strips: — Tune Method: W070119.M

Date: 07/01/19 Balance ID: — ResCl strips: — Run Method: ↓

Instr. MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: -ICAL-

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	Blk		(Source Cleaned on 6/28/18 & pumped down)					E2313	Y	
2	Blk							14	Y	
3	Blk							15	Y	
4	Tune Check		(Run as a Blk)					16	Y	
5	Inst Blk							↓ 17	Y	
			Atomx							
			Surr Added (to 5.0mL Final)							
6	STD#1-0.5PPB		1.0ul					E2318	N	Atomx R.T. shift - rpt.
7	#1-0.5PPB		1.0ul					↓ 19	Y	
8	#2-1.0PPB		1.0ul					E2320	Y	
9	#3-2.0PPB		1.0ul					21	Y	
10	#4-5.0PPB		1.0ul					22	Y	
11	#5-20PPB		2.0ul					23	Y	
12	#6-50PPB		5.0ul	curved portion				24	Y	
13	#7-100PPB		10ul					25	Y	
14	#8-150PPB		20ul					26	Y	
15	↓ #9-200PPB		5.0ul					27	Y	
16-20	Blks							↓ 28-32	Y	
21	ICV-50							E2333	Y	bromometh/chloroeth 70-130 good! (not 80-120)

WATER ICAL TABLE

CONC (PPB)	0.5	1.0	2.0	5.0	20	50	100	150	200
1° TIG =	10mL/1mL → 5mL/50mL	10mL/50mL	20mL/50mL	50mL/50mL	2mL/50mL	5mL/50mL	10mL/50mL	15mL/50mL	20mL/50mL
1° HSL =	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° Fr =	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° OCC =	↓	↓	↓	↓	↓	↓	↓	↓	↓

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Combined IS/Surr : —

Primary TG : 200610 ~~5.0~~ DL

Primary HSL : 200455

Primary OCC : 200015

Primary Fr+ : 200014

Primary :

Secondary TG : 200191 5.0ul

Secondary HSL : 200723

Secondary OCC : 200611

Secondary Fr+ : 200189 12.5ul

Secondary :

50mL DI = ICV.

Surrogate 50 : 200712

Internal Std 50 : 200716

Reagents:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2333.D
Acq On : 1 Jul 2019 5:27 pm
Operator : D.LIPANI
Sample : ICV 50 Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 01 18:11:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	282358	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	404673	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	350312	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	193306	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	137410	51.62	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.24%				
46) surr1,1,2-dichloroetha...	5.781	65	181940	51.23	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.46%				
64) SURR3,Toluene-d8	8.311	98	532863	50.07	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.14%				
69) SURR2,BFB	10.877	95	202459	49.99	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	183877	42.43	ug/L		98
3) Chloromethane	1.282	50	202998	41.94	ug/L		97
4) Vinyl Chloride	1.355	62	174981	43.79	ug/L		97
5) Bromomethane	1.581	94	73244	39.62	ug/L		100
6) Chloroethane	1.660	64	83560	38.52	ug/L		99
7) Freon 21	1.812	67	259726	46.87	ug/L		100
8) Trichlorofluoromethane	1.855	101	211048	46.99	ug/L		99
9) Diethyl Ether	2.093	59	136030	47.62	ug/L		93
10) Freon 123a	2.099	67	168626	48.48	ug/L		96
11) Freon 123	2.147	83	200468	53.04	ug/L		98
12) Acrolein	2.196	56	79306	101.74	ug/L		96
13) 1,1-Diclethene	2.282	96	120684	45.91	ug/L		98
14) Freon 113	2.288	101	127813	50.13	ug/L		94
15) Acetone	2.330	43	77001	46.11	ug/L		95
16) 2-Propanol	2.465	45	399666	991.77	ug/L		99
17) Iodomethane	2.416	142	166837	41.50	ug/L		100
18) Carbon Disulfide	2.477	76	351208	43.16	ug/L		99
19) Acetonitrile	2.580	41	173889	242.72	ug/L		98
20) Allyl Chloride	2.611	76	77757	48.86	ug/L	#	84
21) Methyl Acetate	2.635	43	191066	47.30	ug/L		96
22) Methylene Chloride	2.733	84	133771	43.60	ug/L		98
23) TBA	2.867	59	553695	937.06	ug/L		97
24) Acrylonitrile	2.989	53	413928	239.65	ug/L		99
25) Methyl-t-Butyl Ether	3.038	73	473220	48.62	ug/L		100
26) trans-1,2-Dichloroethene	3.025	96	126720	46.55	ug/L		91
27) 1,1-Diclethane	3.525	63	268764	46.24	ug/L		96
28) Vinyl Acetate	3.617	86	35589	55.57	ug/L	#	79
29) DIPE	3.653	45	612826	51.70	ug/L		99
30) 2-Chloro-1,3-Butadiene	3.653	53	234324	48.35	ug/L		99
31) ETBE	4.184	59	483640	48.01	ug/L		96
32) 2,2-Dichloropropane	4.360	77	221252	45.73	ug/L		96
33) cis-1,2-Dichloroethene	4.367	96	140535	45.95	ug/L		98
34) 2-Butanone	4.409	43	115010	46.34	ug/L		97
35) Propionitrile	4.495	54	169161	238.71	ug/L		97
36) Bromochloromethane	4.763	130	86455	44.85	ug/L	#	82
37) Methacrylonitrile	4.769	67	78418	44.95	ug/L		89
38) Tetrahydrofuran	4.860	42	72748	42.66	ug/L		98
39) Chloroform	4.946	83	232435	45.77	ug/L		98
40) 1,1,1-Trichloroethane	5.251	97	206394	47.02	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2333.D
Acq On : 1 Jul 2019 5:27 pm
Operator : D.LIPANI
Sample : ICV 50 Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 01 18:11:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	166620	47.72	ug/L		98
44) Carbontetrachloride	5.525	117	177851	46.43	ug/L		94
45) 1,1-Dichloropropene	5.543	75	191493	48.49	ug/L		99
47) Benzene	5.860	78	535944	45.60	ug/L		98
48) 1,2-Dichloroethane	5.903	62	207752	46.07	ug/L		99
49) Iso-Butyl Alcohol	5.885	43	225235	882.88	ug/L		98
50) TAME	6.104	73	454885	51.98	ug/L		99
51) n-Heptane	6.354	43	248525	51.43	ug/L		99
52) 1-Butanol	6.854	56	327835	2593.18	ug/L		99
53) Trichloroethene	6.817	130	137178	46.00	ug/L		95
54) Methylcyclohexane	7.055	55	207409	49.83	ug/L		95
55) 1,2-Diclpropane	7.098	63	151034	46.05	ug/L		96
56) Dibromomethane	7.244	93	85389	45.62	ug/L		97
57) 1,4-Dioxane	7.305	88	52418	896.62	ug/L		94
58) Methyl Methacrylate	7.329	69	126546	44.51	ug/L		93
59) Bromodichloromethane	7.470	83	174978	43.87	ug/L		100
60) 2-Nitropropane	7.750	41	122586	91.01	ug/L		98
61) 2-Chloroethylvinyl Ether	7.878	63	81172	48.99	ug/L		98
62) cis-1,3-Dichloropropene	8.012	75	235555	45.51	ug/L		97
63) 4-Methyl-2-pentanone	8.219	43	221659	46.56	ug/L		99
65) Toluene	8.384	91	559640	46.21	ug/L		98
66) trans-1,3-Dichloropropene	8.652	75	221557	46.21	ug/L		96
67) Ethyl Methacrylate	8.793	69	228203	46.48	ug/L		96
68) 1,1,2-Trichloroethane	8.841	97	122254	44.25	ug/L		99
71) Tetrachloroethene	8.975	164	111057	46.88	ug/L		96
72) 2-Hexanone	9.134	43	163975	45.92	ug/L		95
73) 1,3-Dichloropropane	9.012	76	224526	46.02	ug/L		97
74) Dibromochloromethane	9.238	129	134704	45.86	ug/L		99
75) N-Butyl Acetate	9.286	43	355065	51.43	ug/L		96
76) 1,2-Dibromoethane	9.335	107	129965	46.03	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	222281	51.14	ug/L		99
78) Chlorobenzene	9.829	112	351401	45.69	ug/L		99
79) 4-Chlorobenzotrifluoride	9.902	180	195082	50.63	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	133959	47.13	ug/L		99
81) Ethylbenzene	9.951	106	190926	46.63	ug/L		94
82) (m+p)Xylene	10.061	106	474049	92.83	ug/L		99
83) o-Xylene	10.420	106	228559	45.43	ug/L		95
84) Styrene	10.432	104	389792	46.43	ug/L		98
85) Bromoform	10.585	173	96825	44.95	ug/L		96
86) 2-Chlorobenzotrifluoride	10.664	180	209413	50.54	ug/L		94
87) Isopropylbenzene	10.756	105	595479	45.74	ug/L		98
88) Cyclohexanone	10.817	55	702468	901.44	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.060	53	54288	45.01	ug/L		99
91) 1,1,2,2-Tetrachloroethane	11.012	83	189371	46.04	ug/L		98
92) Bromobenzene	10.999	156	156706	45.98	ug/L		99
93) 1,2,3-Trichloropropane	11.042	110	53727	41.72	ug/L	#	82
94) n-Propylbenzene	11.109	91	720658	46.97	ug/L		99
95) 2-Chlorotoluene	11.170	91	421887	45.69	ug/L		99
96) 3-Chlorotoluene	11.225	91	433706	47.40	ug/L		99
97) 4-Chlorotoluene	11.268	91	482048	45.20	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	501542	45.89	ug/L		98
99) tert-Butylbenzene	11.536	119	433514	45.82	ug/L		97
100) 1,2,4-Trimethylbenzene	11.572	105	505132	46.65	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.633	214	180816	51.39	ug/L		93
102) sec-Butylbenzene	11.719	105	644020	46.15	ug/L		100
103) p-Isopropyltoluene	11.841	119	541284	47.74	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2333.D
Acq On : 1 Jul 2019 5:27 pm
Operator : D.LIPANI
Sample : ICV 50 Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 01 18:11:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

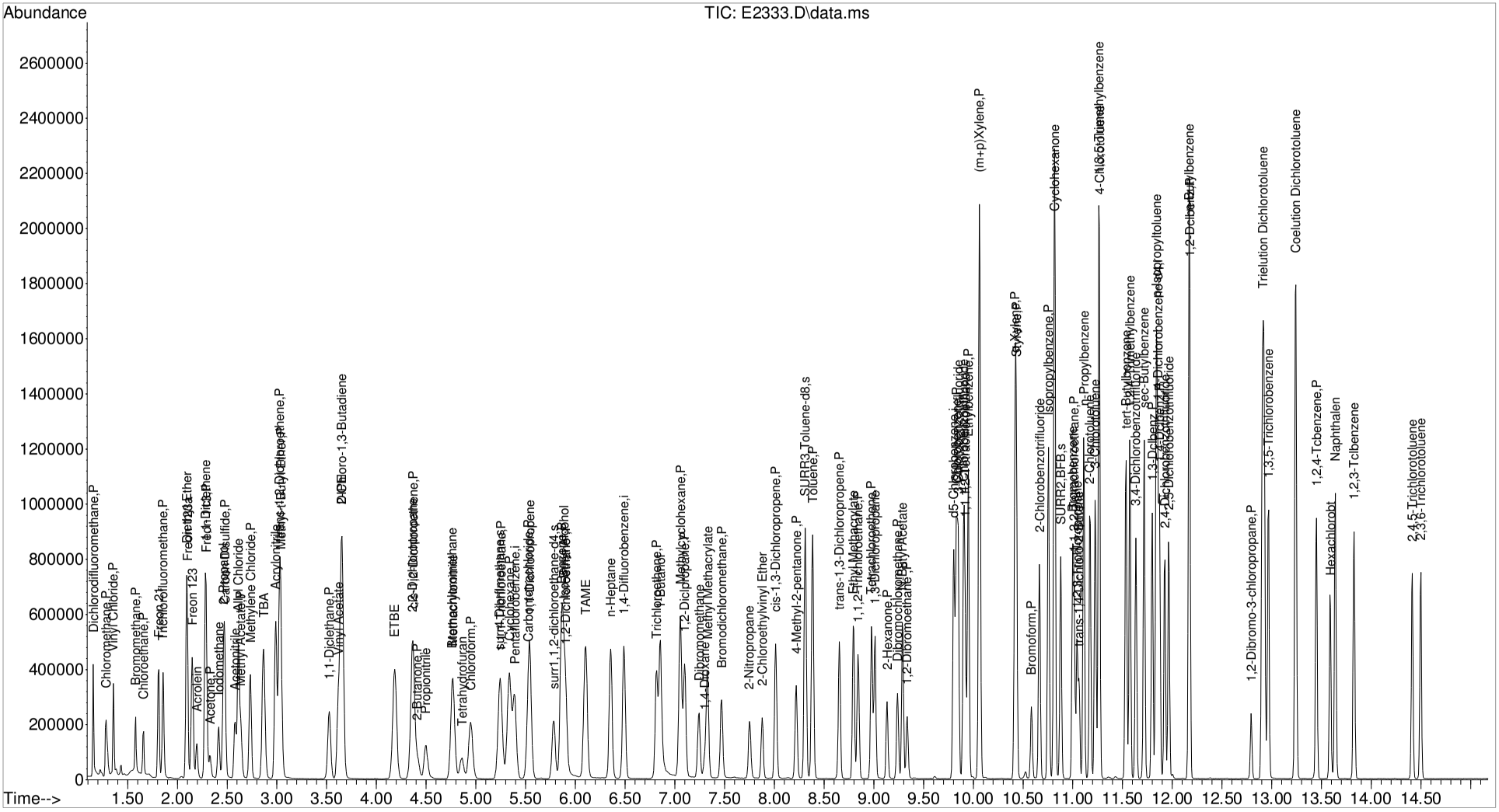
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	286753	45.00	ug/L	97
105) 1,4-Dclbenz	11.871	146	293296	44.21	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	157781	49.73	ug/L	98
107) 2,5-Dichlorobenzotrifl...	11.963	214	184012	50.21	ug/L	98
108) n-Butylbenzene	12.170	91	514320	48.74	ug/L	97
109) 1,2-Dclbenz	12.176	146	282641	45.02	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.792	157	45877	43.99	ug/L	97
111) Trielution Dichlorotol...	12.914	125	799377	150.74	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	235876	50.20	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	585454	101.12	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	228090	46.76	ug/L	98
115) Hexachlorobt	13.590	225	105448	47.23	ug/L	97
116) Naphthalen	13.639	128	594508	46.78	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	219140	45.98	ug/L	98
118) 2,4,5-Trichlorotoluene	14.413	159	151759	52.96	ug/L	96
119) 2,3,6-Trichlorotoluene	14.499	159	137532	46.74	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2333.D
Acq On : 1 Jul 2019 5:27 pm
Operator : D.LIPANI
Sample : ICV 50 Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 01 18:11:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



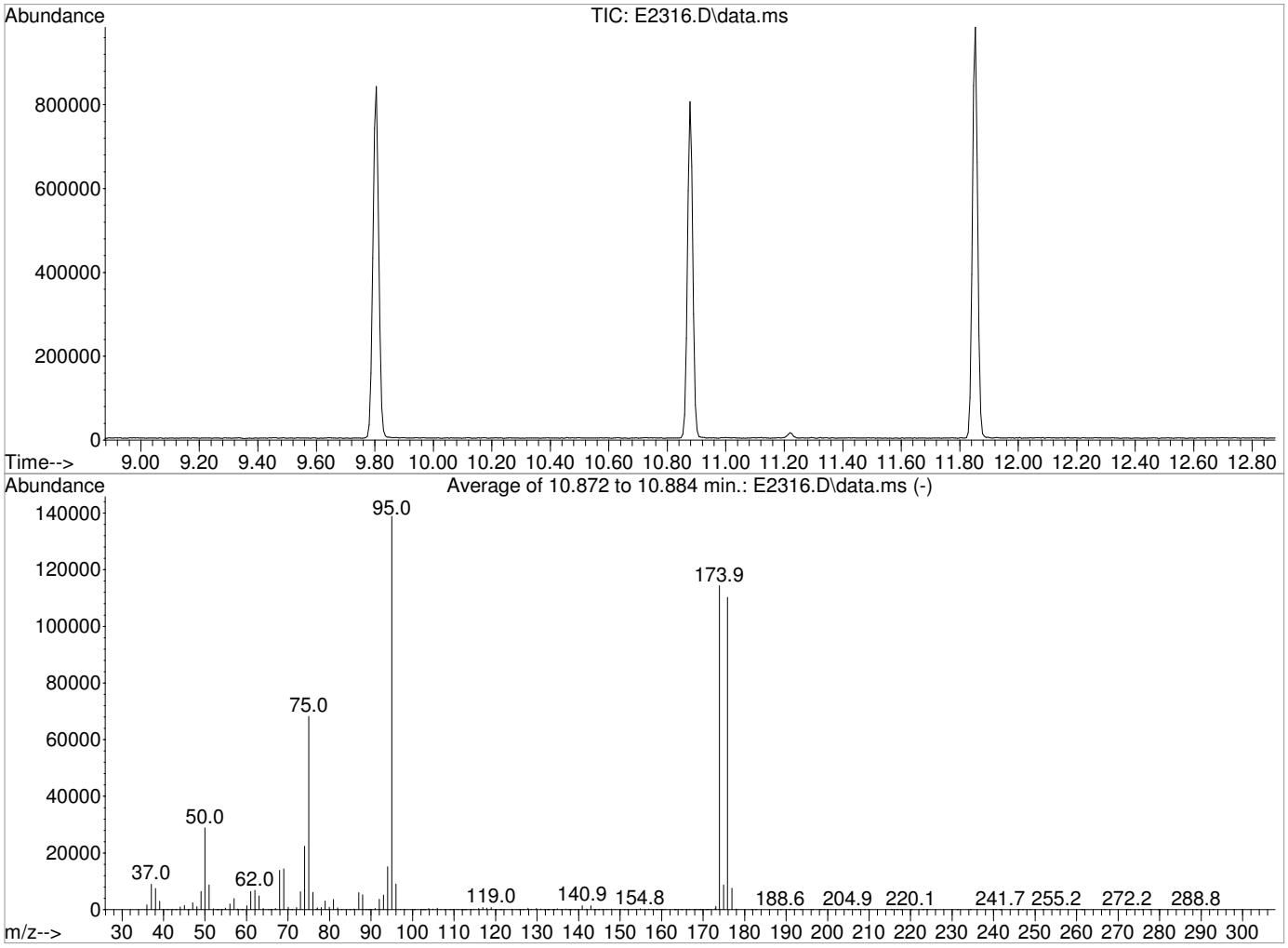
1st 07/01/19
2nd 07/02/19

1st DL 07/01/19
2nd MR 07/02/19

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2316.D
Acq On : 1 Jul 2019 10:29 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Mon Jul 01 17:27:21 2019



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1599

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	28927	PASS
75	95	30	60	49.1	68216	PASS
95	95	100	100	100.0	138835	PASS
96	95	5	9	6.5	9064	PASS
173	174	0.00	2	1.0	1122	PASS
174	95	50	120	82.3	114307	PASS
175	174	5	9	7.6	8701	PASS
176	174	95	101	96.5	110269	PASS
177	176	5	9	6.8	7550	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2317.D
Acq On : 1 Jul 2019 10:51 am
Operator : D.LIPANI
Sample : INST BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 01 20:54:21 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration

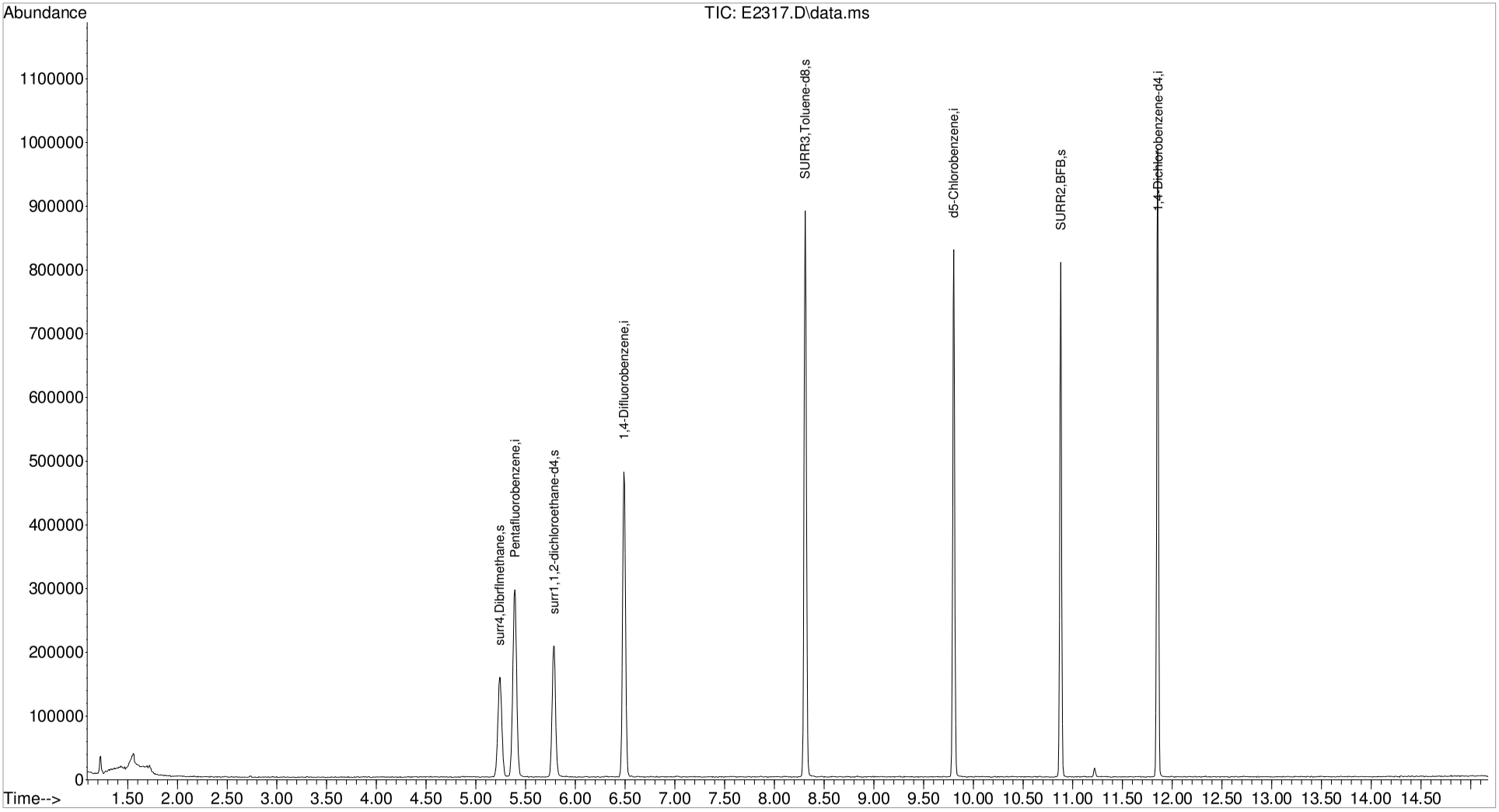
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	284278	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	406684	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	348615	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	192918	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	133666	49.97	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.94%			
46) surr1,1,2-dichloroetha...	5.781	65	179414	50.27	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.54%			
64) SURR3,Toluene-d8	8.311	98	530805	49.63	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.26%			
69) SURR2,BFB	10.878	95	199136	48.93	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.86%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2317.D
Acq On : 1 Jul 2019 10:51 am
Operator : D.LIPANI
Sample : INST BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 01 20:54:21 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 18:10:52 2019
Response via : Initial Calibration



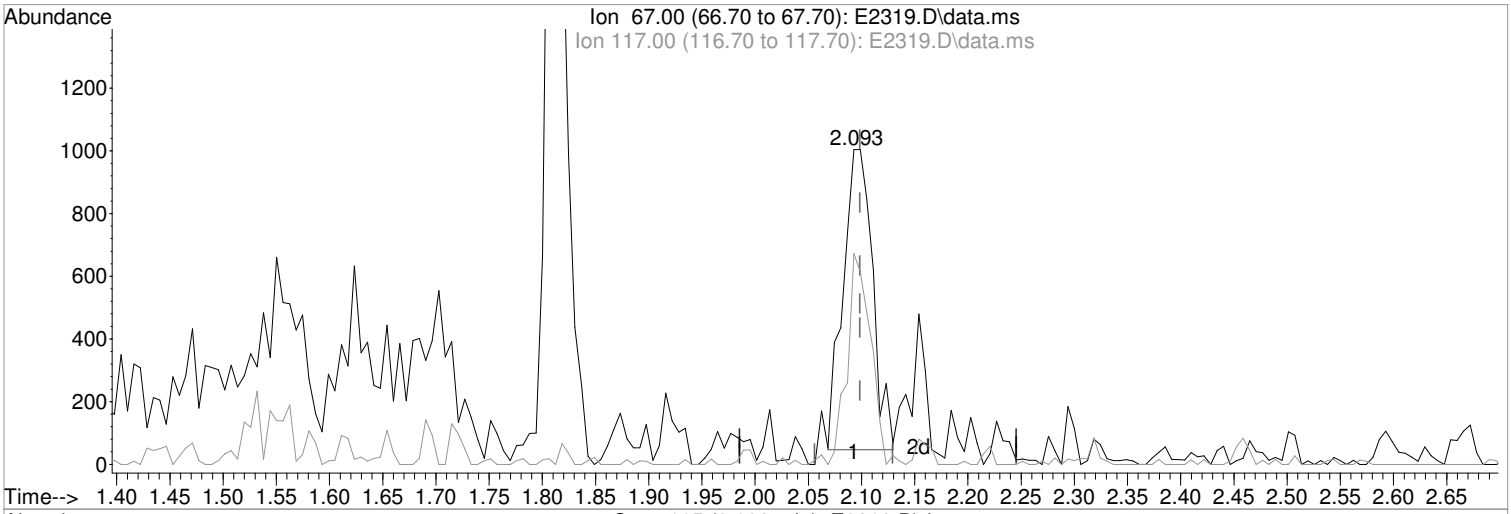
1st 07/01/19
2nd 07/02/19

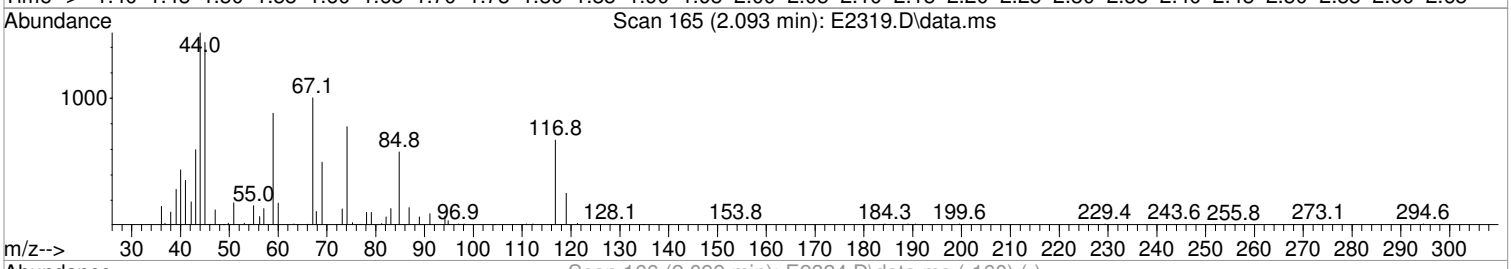
1st DL 07/01/19
2nd 07/02/19

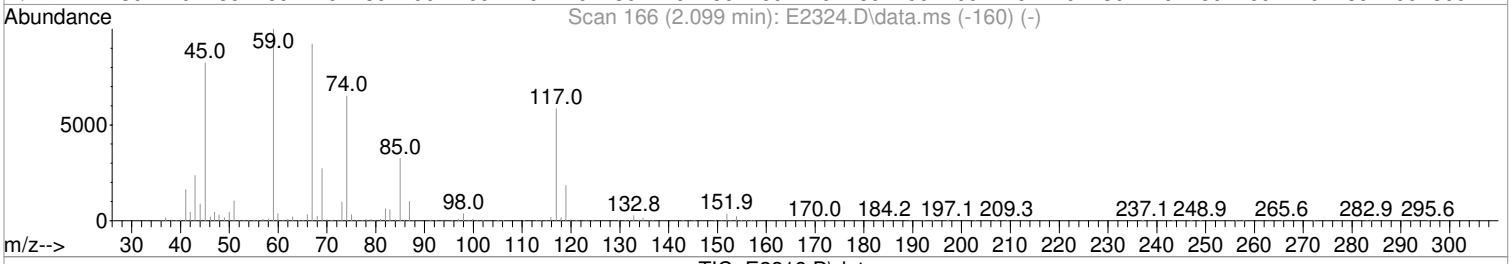
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:51:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(10) Freon 123a

2.093min (-0.006) 0.54 ug/L m

response 1846

Ion	Exp%	Act%
67.00	100	100
117.00	64.30	66.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

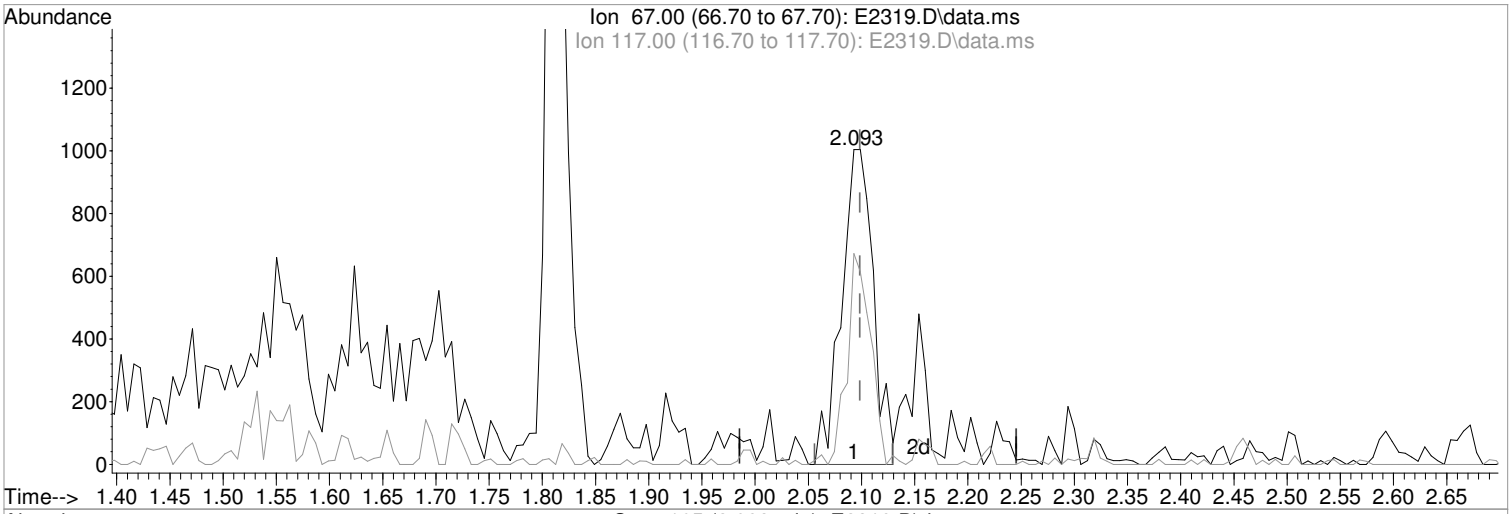
Poor integration.

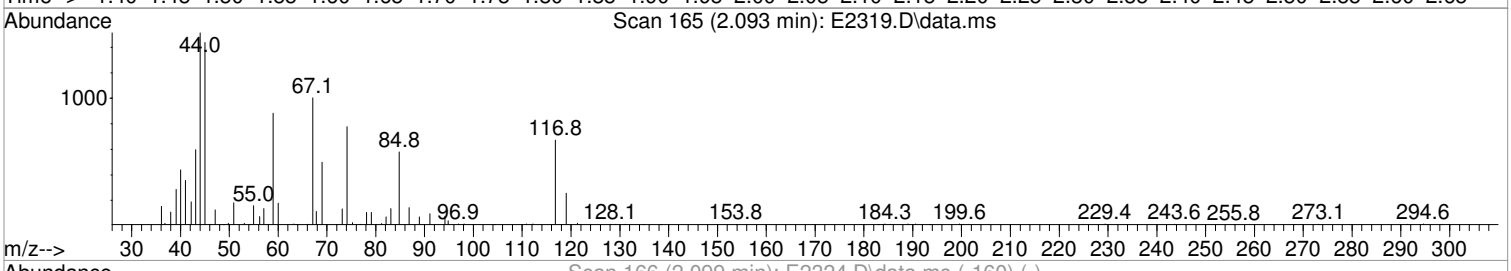
07/01/19

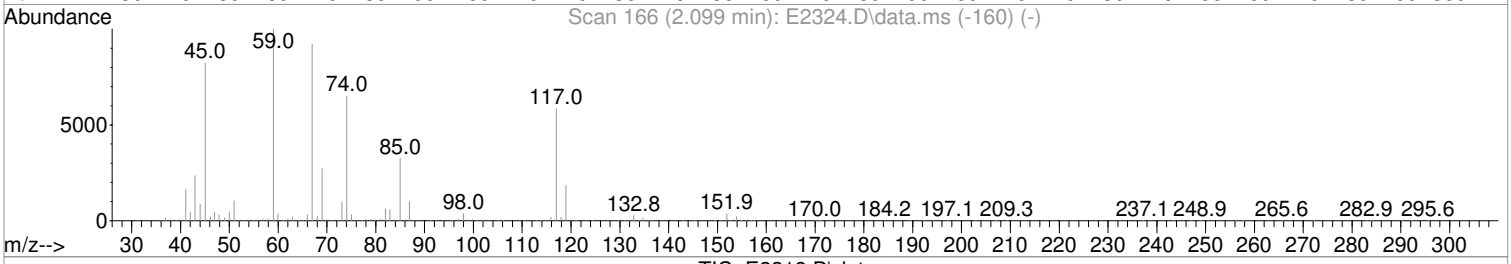
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:51:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(10) Freon 123a

2.093min (-0.006) 0.61 ug/L

response 2100

Ion	Exp%	Act%
67.00	100	100
117.00	64.30	66.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

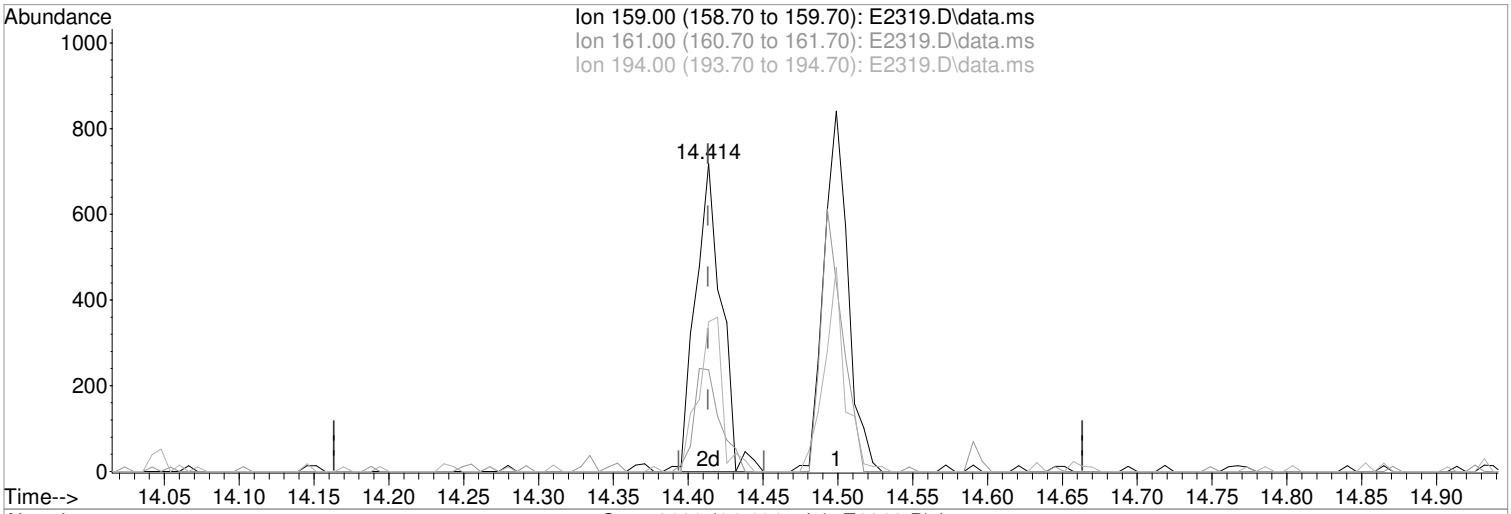
07/01/19

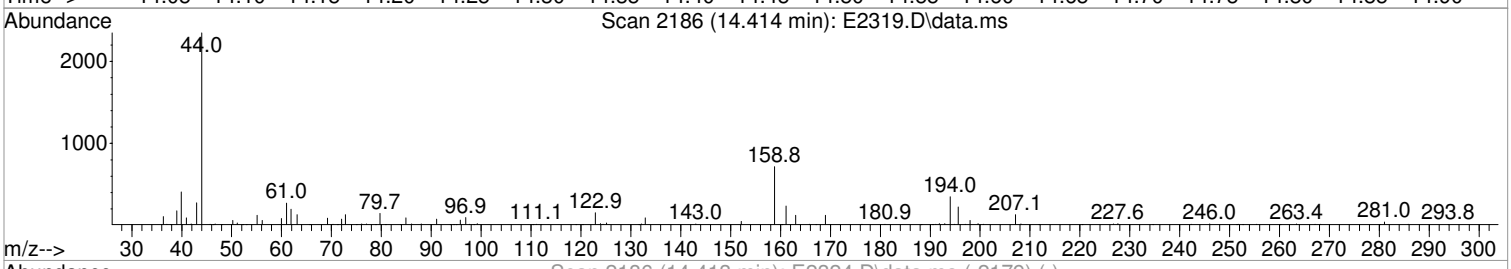
1st DL 07/01/19
2nd 07/02/19

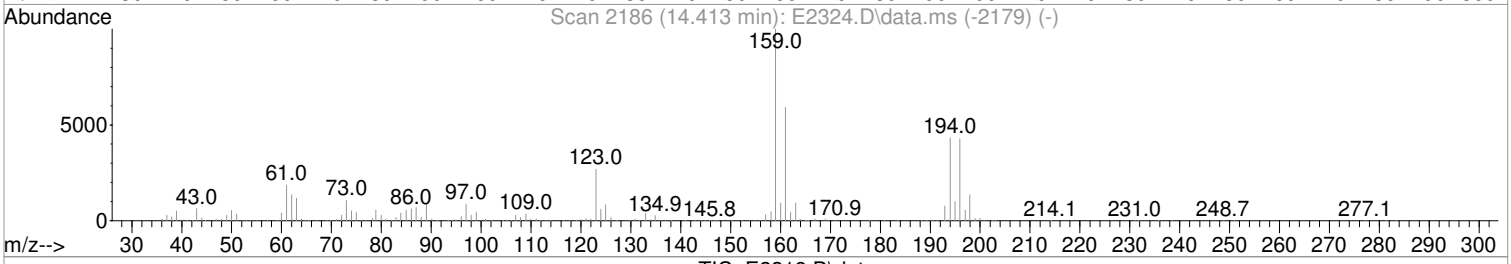
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.414min (+0.000) 0.36 ug/L m

response 864

Ion	Exp%	Act%
159.00	100	100
161.00	59.10	33.01#
194.00	43.30	48.61
0.00	0.00	0.00

Manual Integration:

After

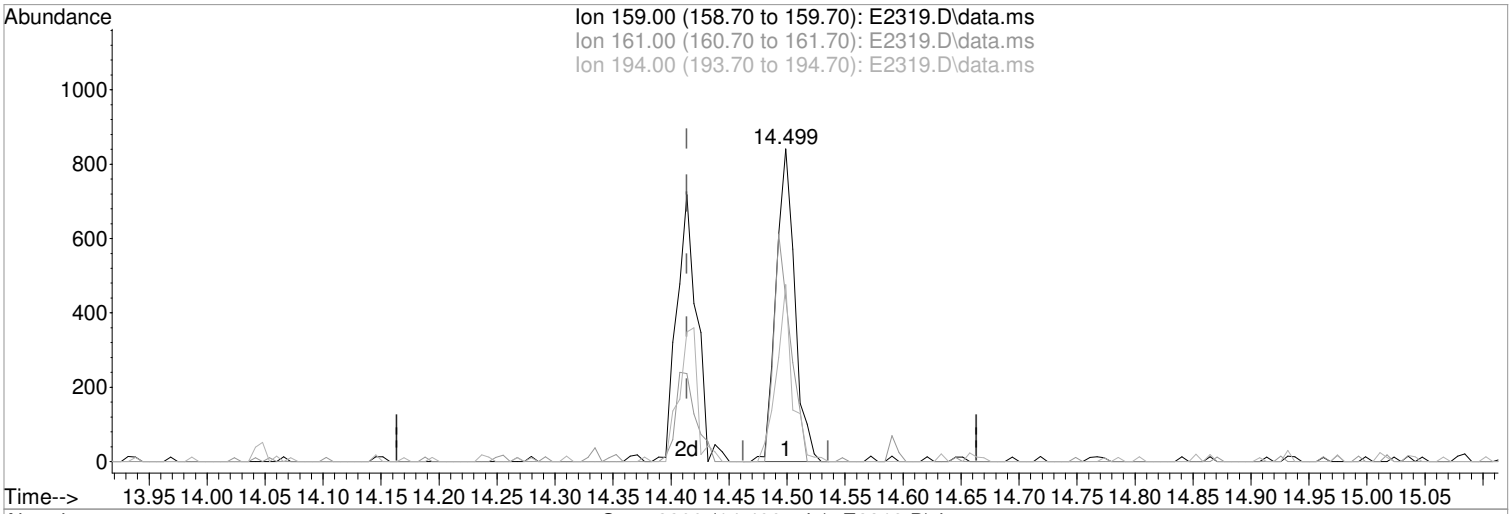
Wrong peak selected.

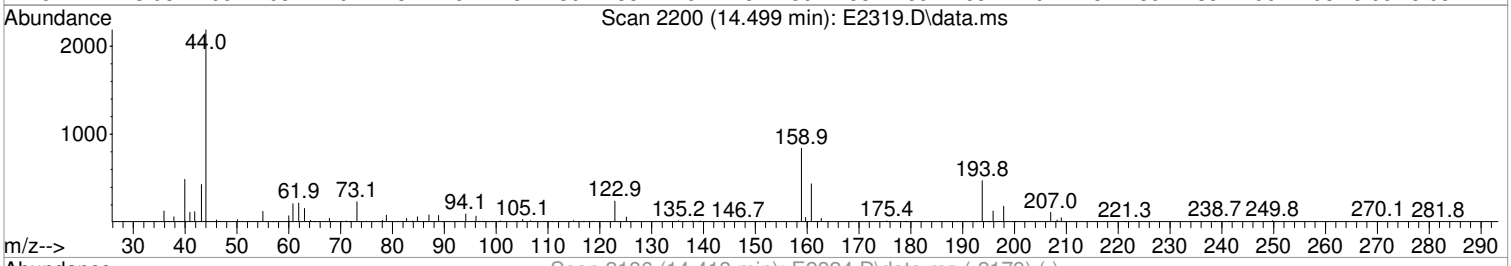
07/01/19

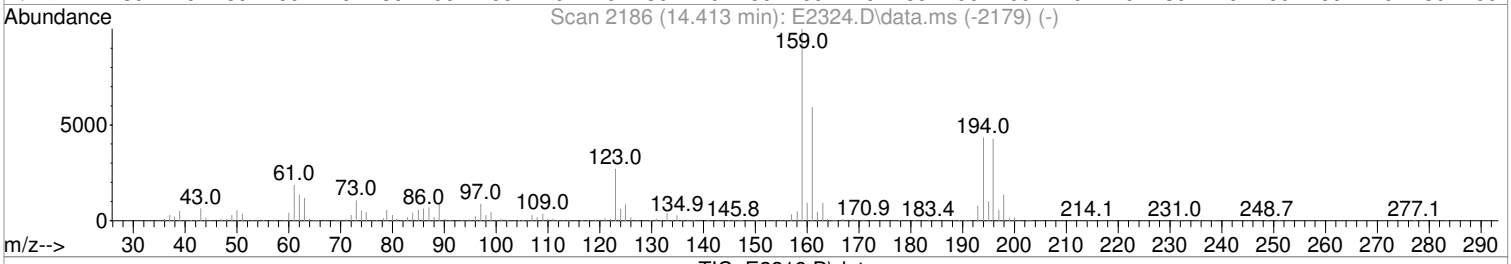
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.499min (+0.086) 0.40 ug/L

response 946

Ion	Exp%	Act%
159.00	100	100
161.00	59.10	49.00
194.00	43.30	53.01
0.00	0.00	0.00

Manual Integration:

Before

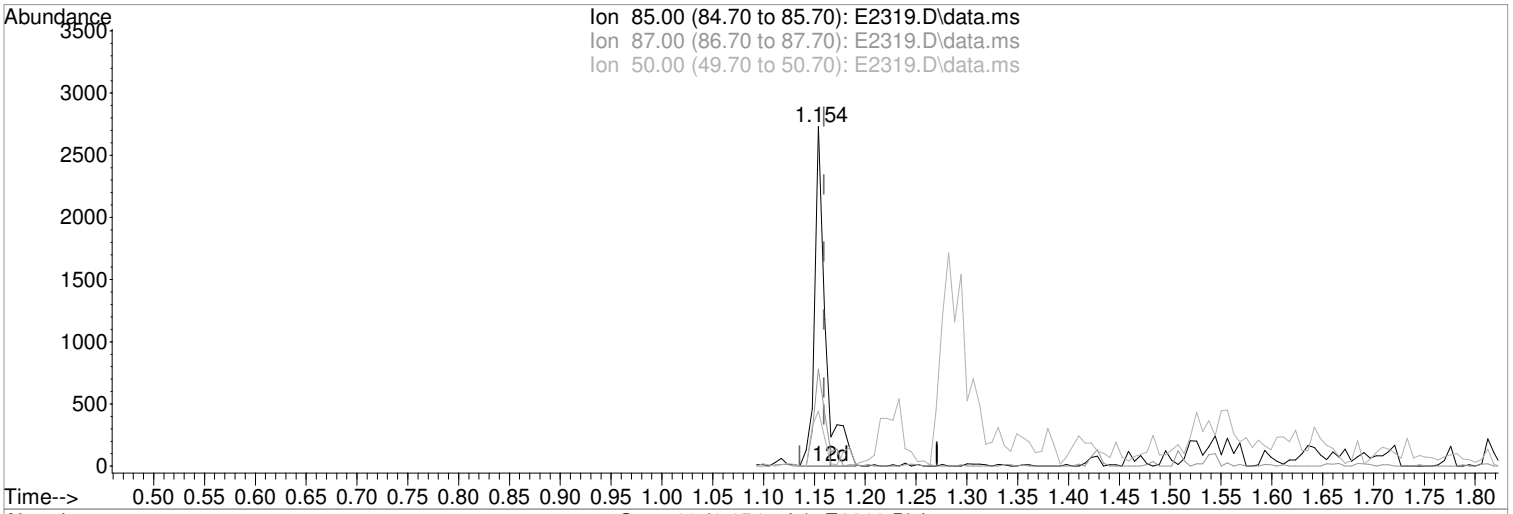
07/01/19

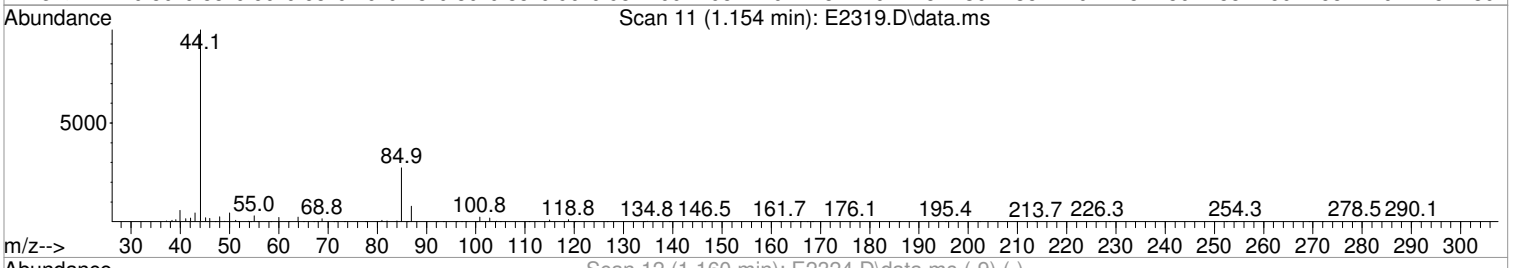
1st DL 07/01/19
2nd 07/02/19

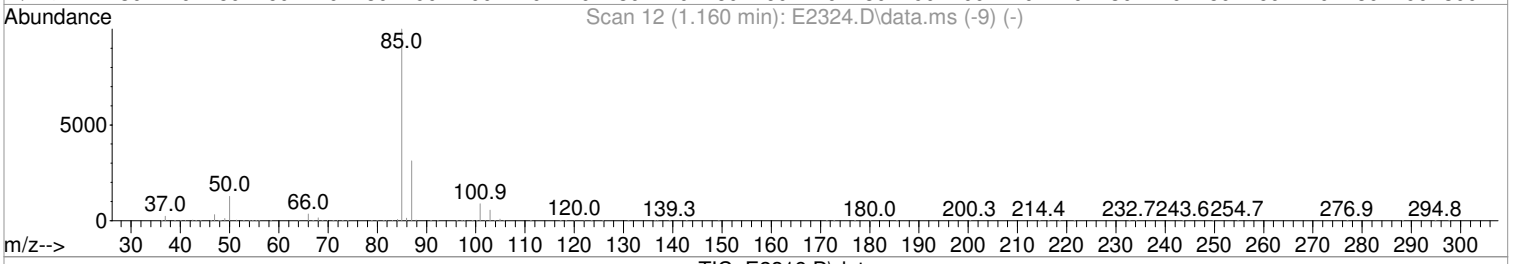
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:51:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(2) Dichlorodifluoromethane (P)

1.154min (-0.006) 0.48 ug/L m

response 2033

Ion	Exp%	Act%
85.00	100	100
87.00	31.20	28.61
50.00	12.80	16.23
0.00	0.00	0.00

Manual Integration:

After

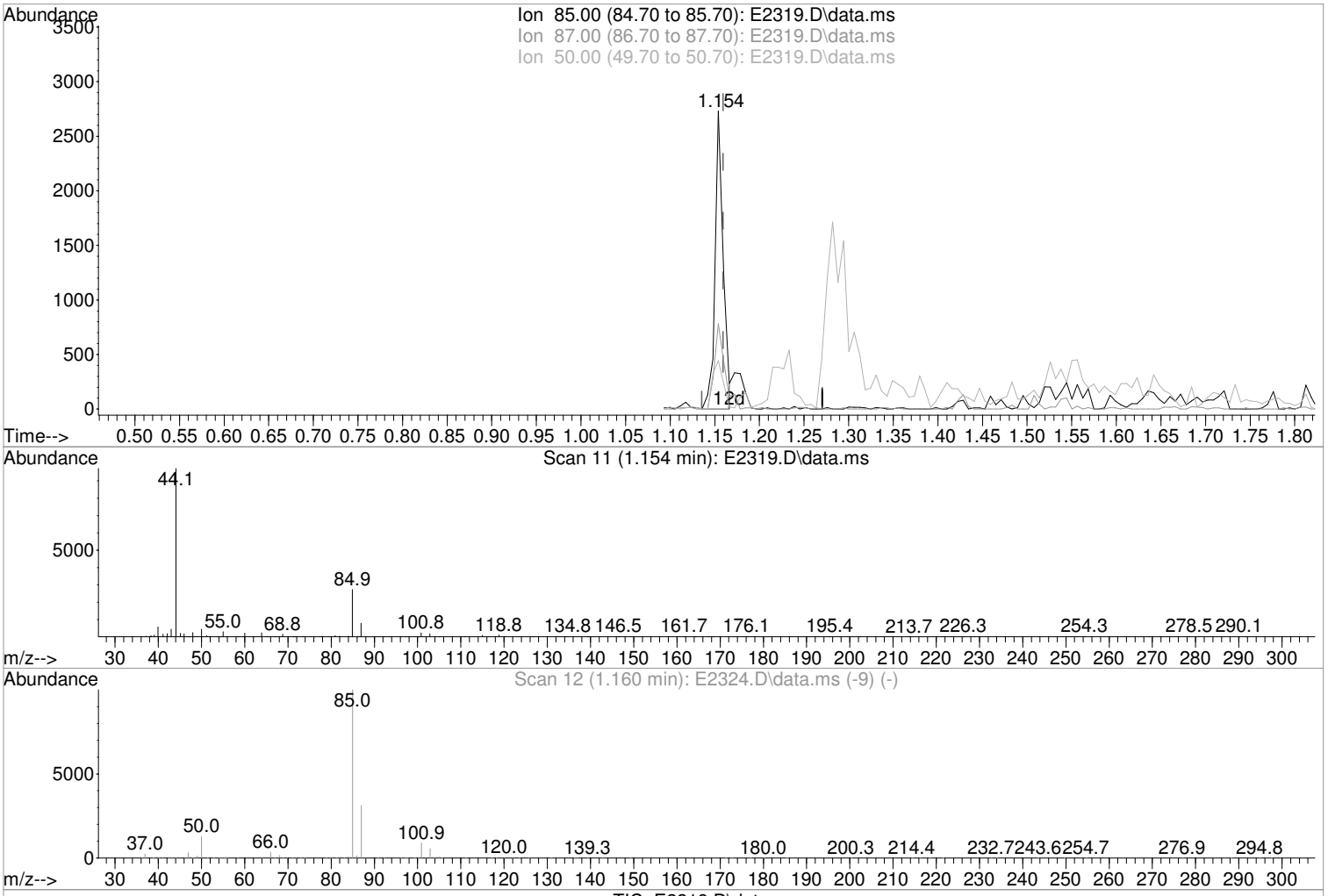
Poor integration.

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:51:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(2) Dichlorodifluoromethane (P)

1.154min (-0.006) 0.41 ug/L

response 1733

Ion	Exp%	Act%
85.00	100	100
87.00	31.20	28.61
50.00	12.80	16.23
0.00	0.00	0.00

Manual Integration:

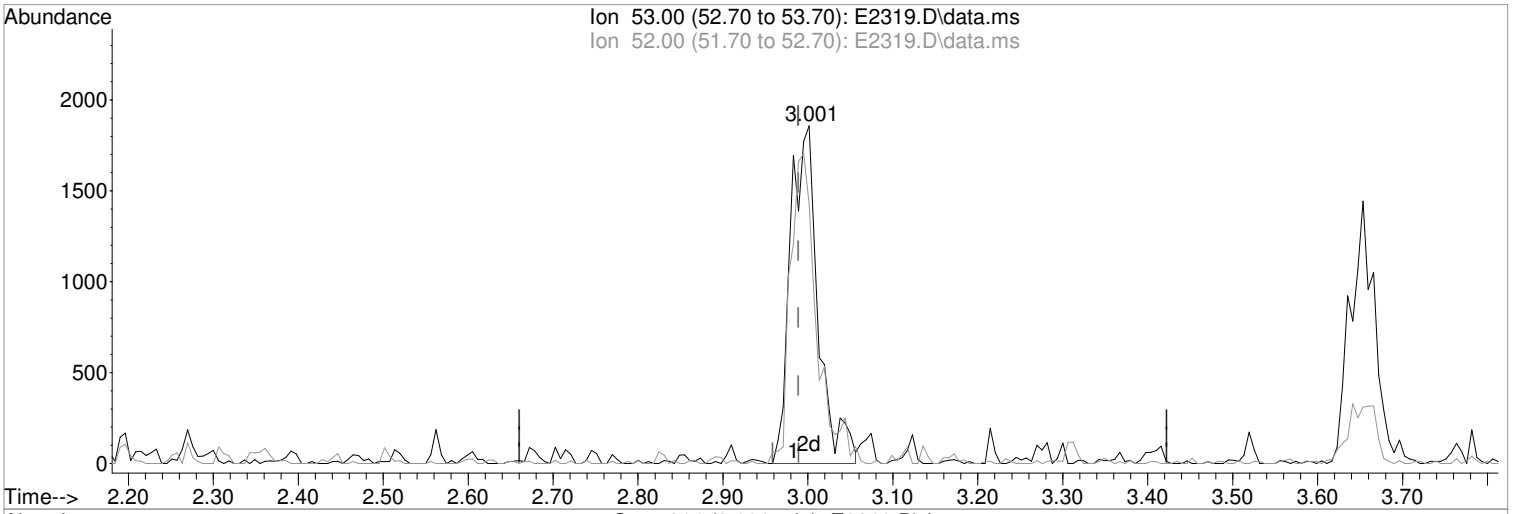
Before

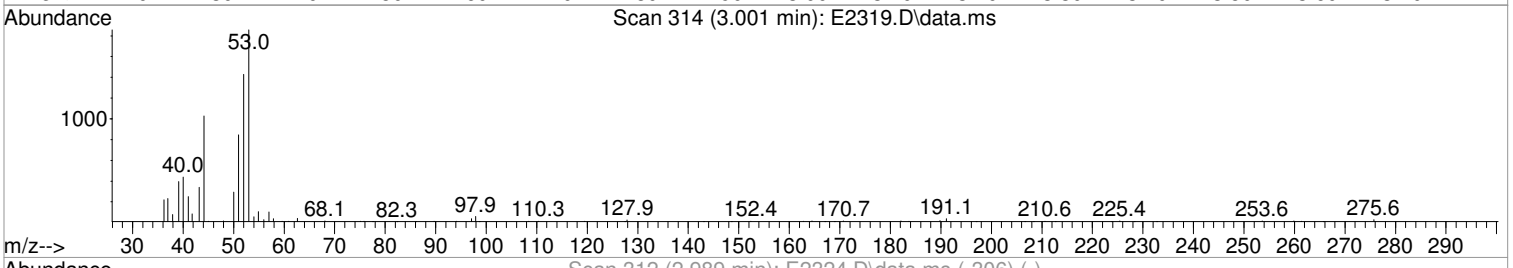
07/01/19

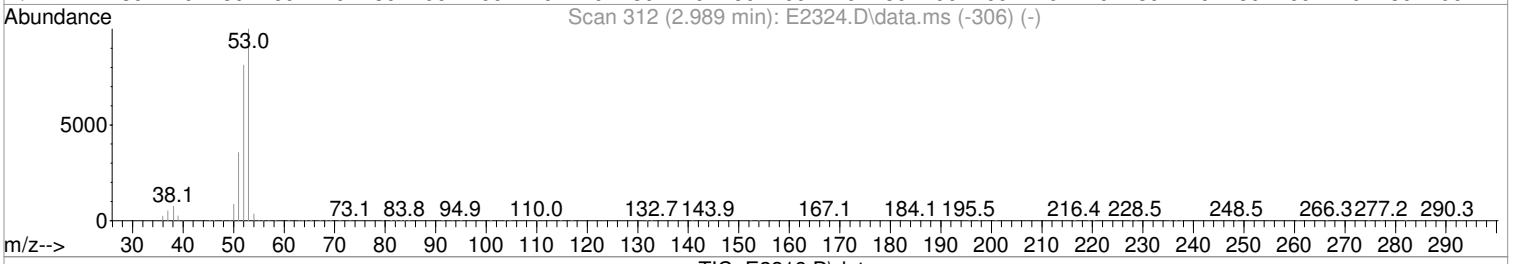
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(24) Acrylonitrile

3.001min (+0.012) 2.52 ug/L m

response 4227

Ion	Exp%	Act%
53.00	100	100
52.00	81.20	76.95
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

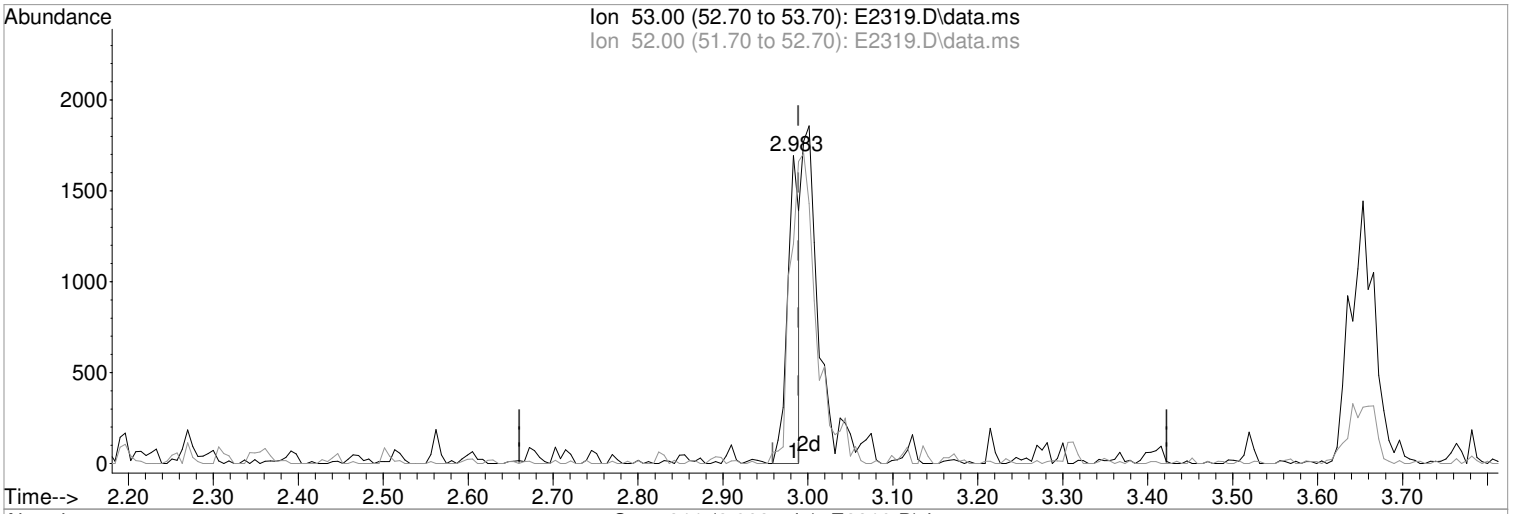
Poor integration.

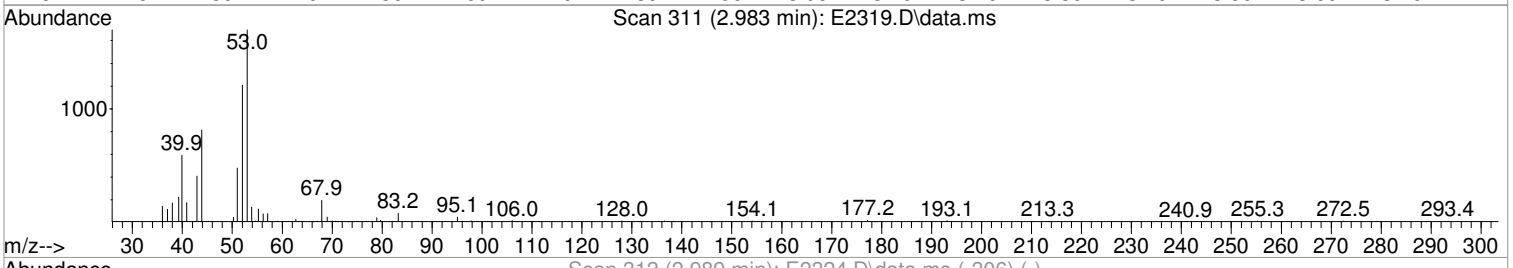
07/01/19

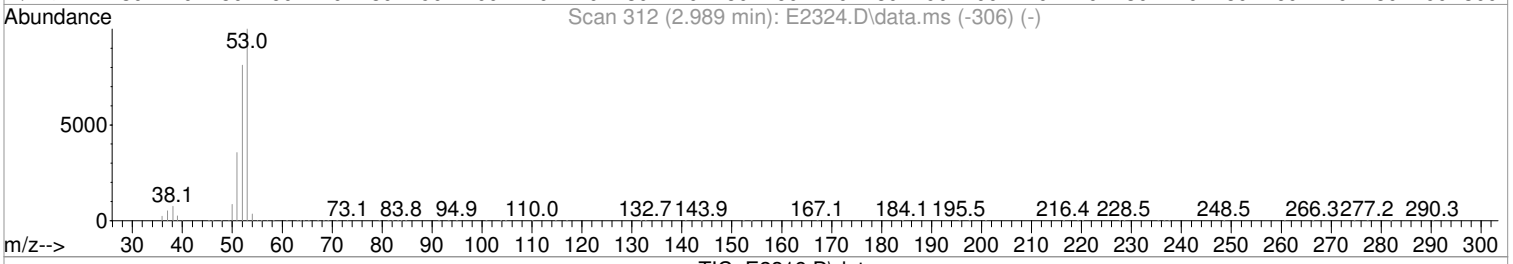
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(24) Acrylonitrile

2.983min (-0.006) 0.99 ug/L

response 1667

Ion	Exp%	Act%
53.00	100	100
52.00	81.20	71.25
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

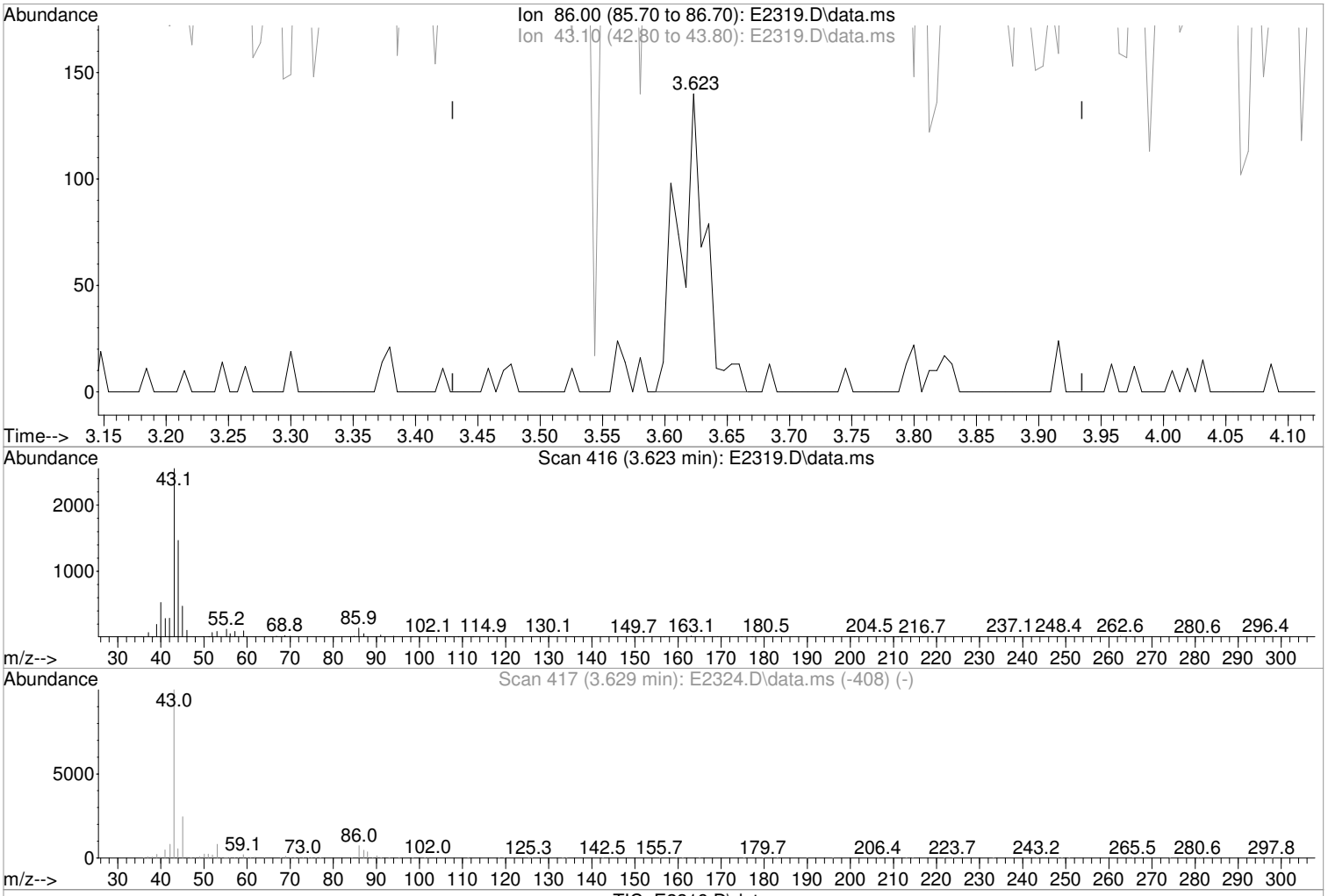
07/01/19

1st DL 07/01/19
2nd 07/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(28) Vinyl Acetate

3.623min (-0.006) 0.38 ug/L m

response 208

Ion	Exp%	Act%
86.00	100	100
43.10	1349.90	1823.57#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

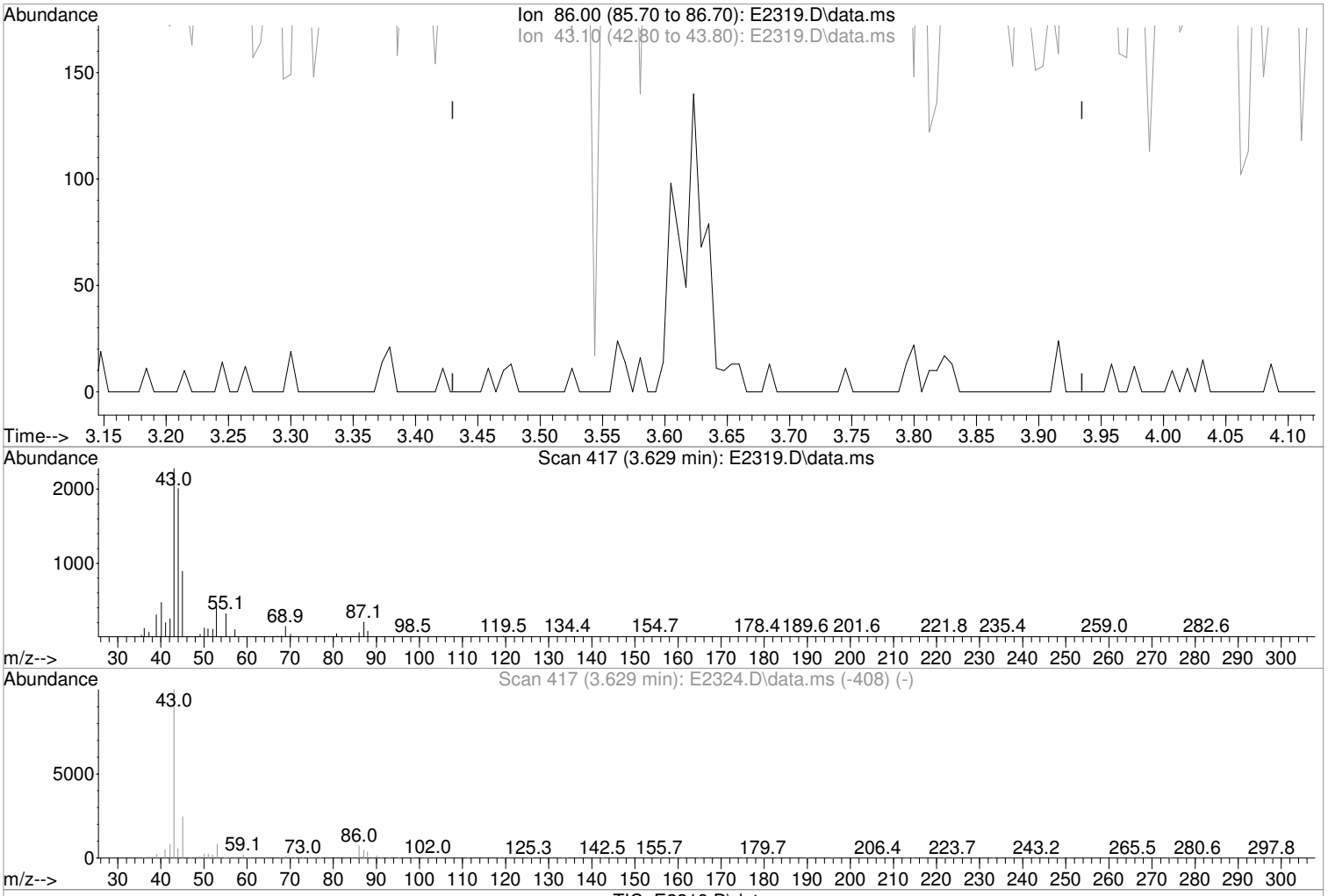
Peak not found.

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(28) Vinyl Acetate

3.629min (-3.629) 0.00 ug/L

response 0

Ion	Exp%	Act%
86.00	100	0.00
43.10	1349.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

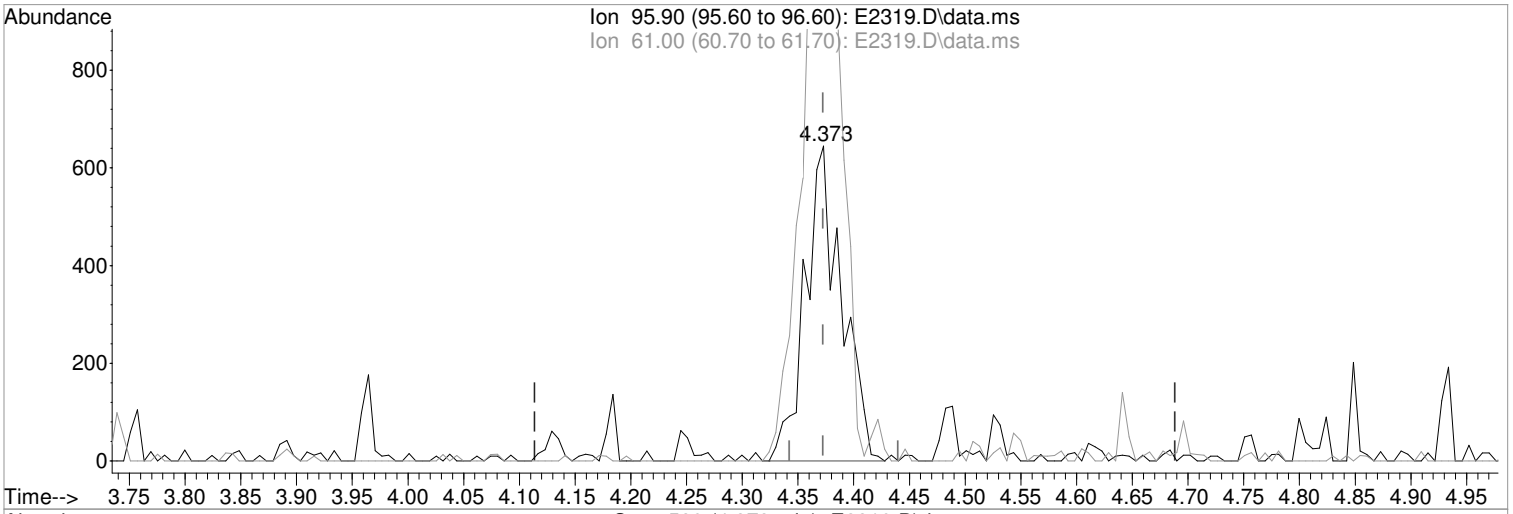
07/01/19

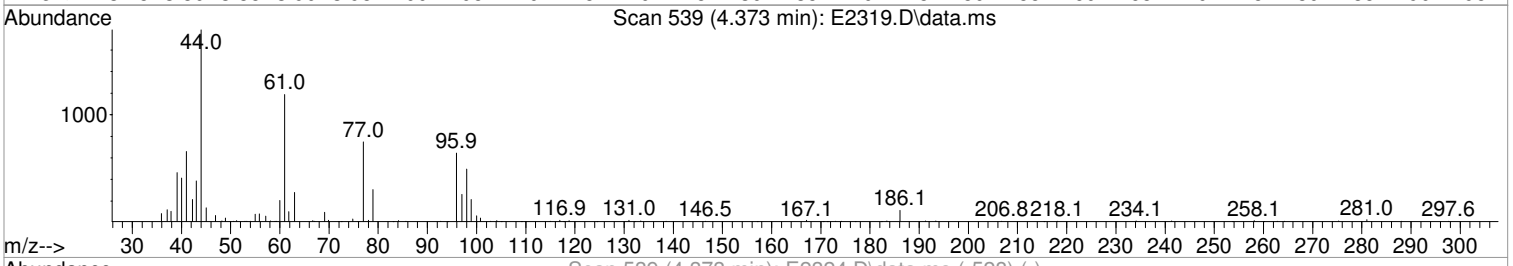
1st DL 07/01/19
2nd 07/02/19

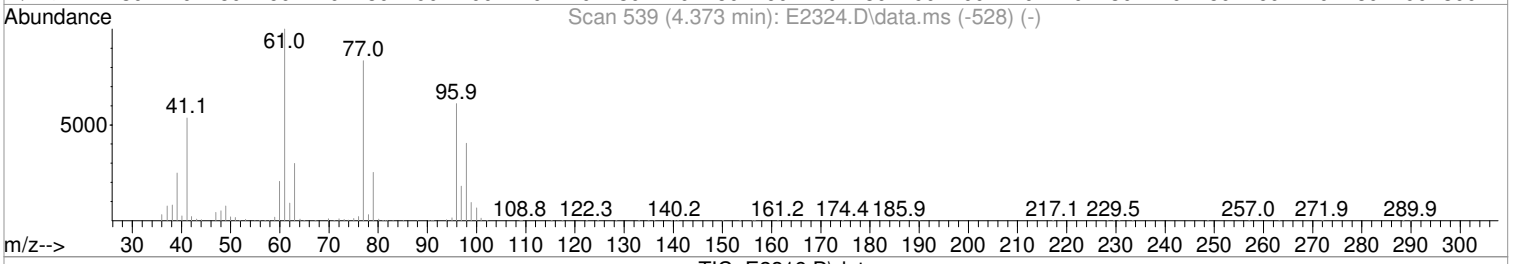
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.373min (+0.000) 0.44 ug/L m

response 1453

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	184.19#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

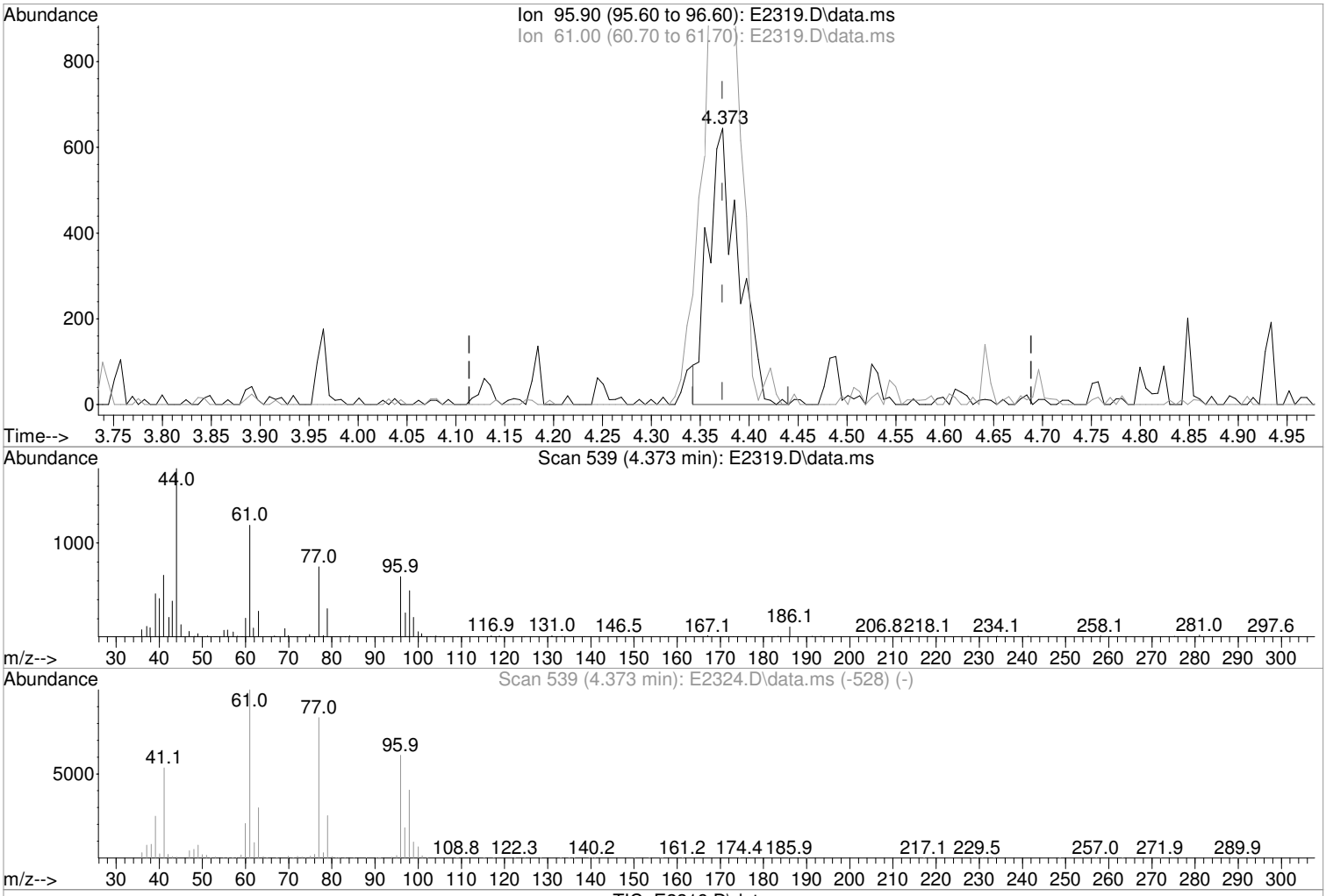
07/01/19

1st DL 07/01/19
2nd 07/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.373min (+0.000) 0.42 ug/L

response 1384

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	184.19#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

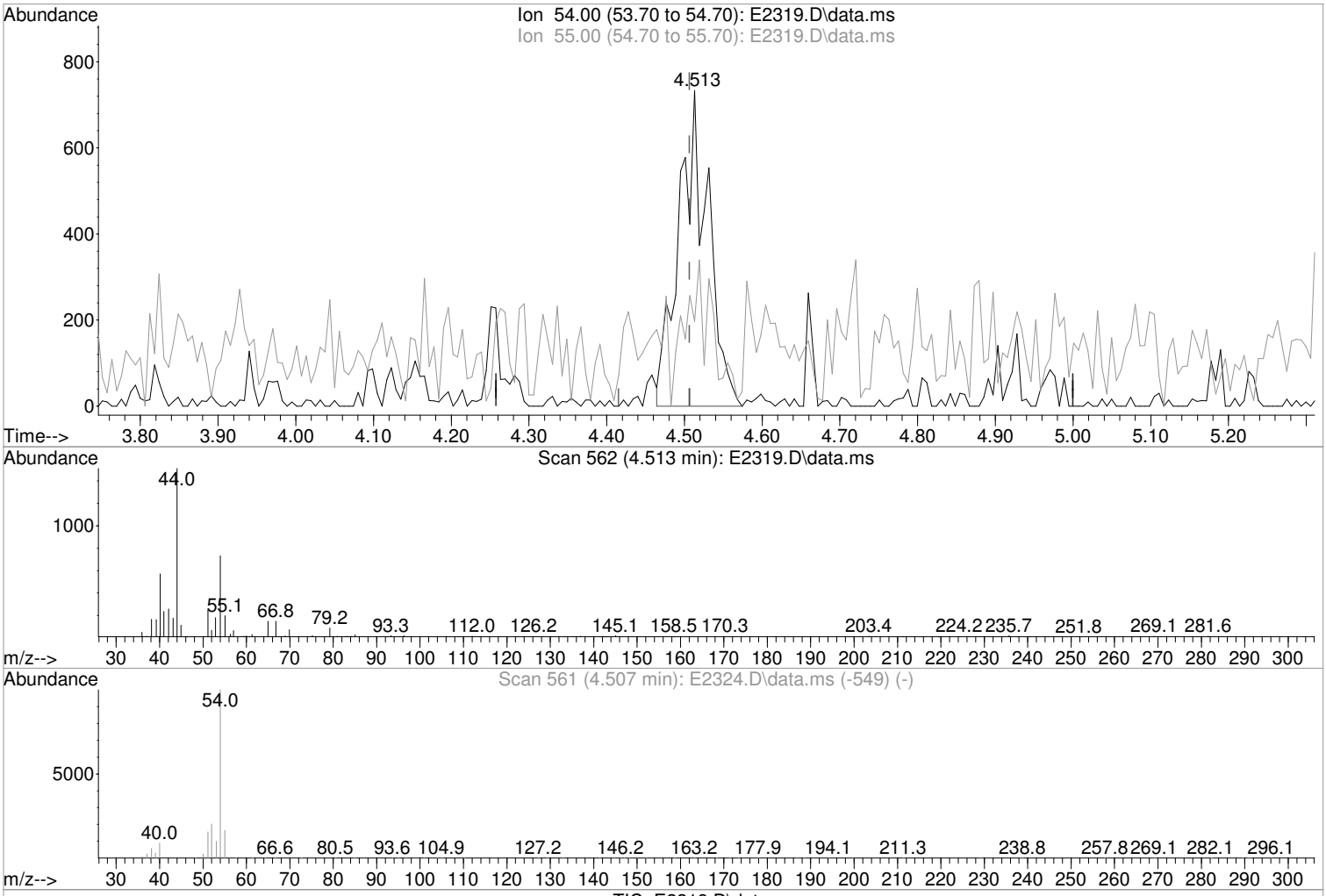
Before

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(35) Propionitrile

4.513min (+0.006) 2.78 ug/L m

response 1914

Ion	Exp%	Act%
54.00	100	100
55.00	17.00	26.88
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

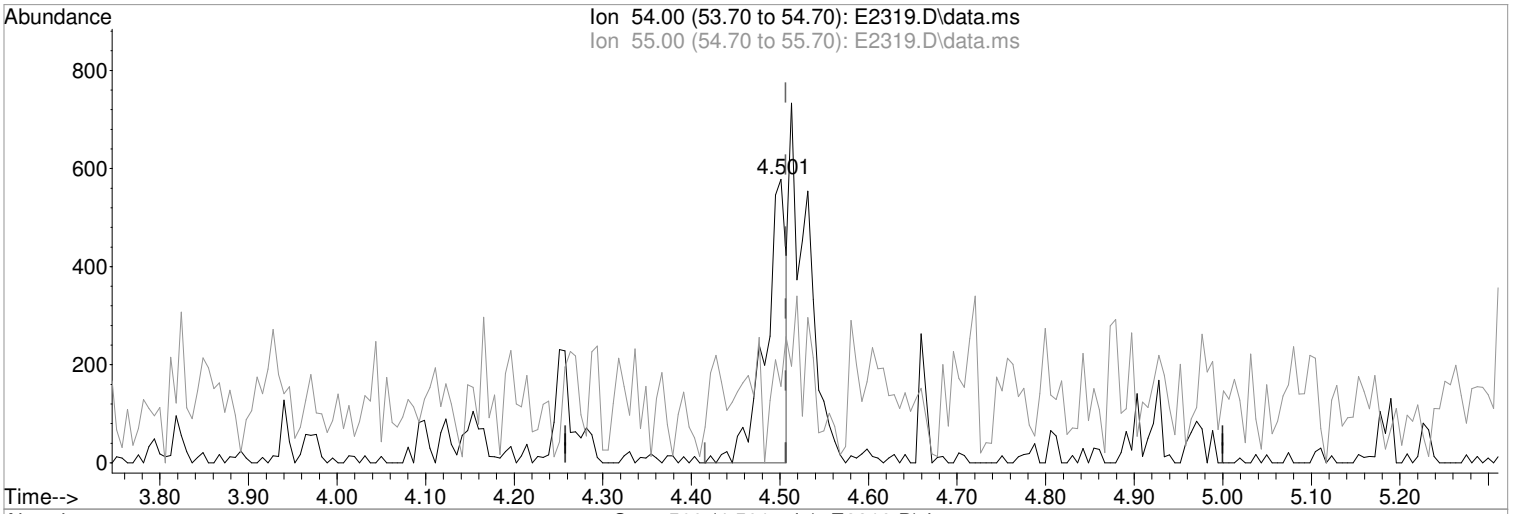
07/01/19

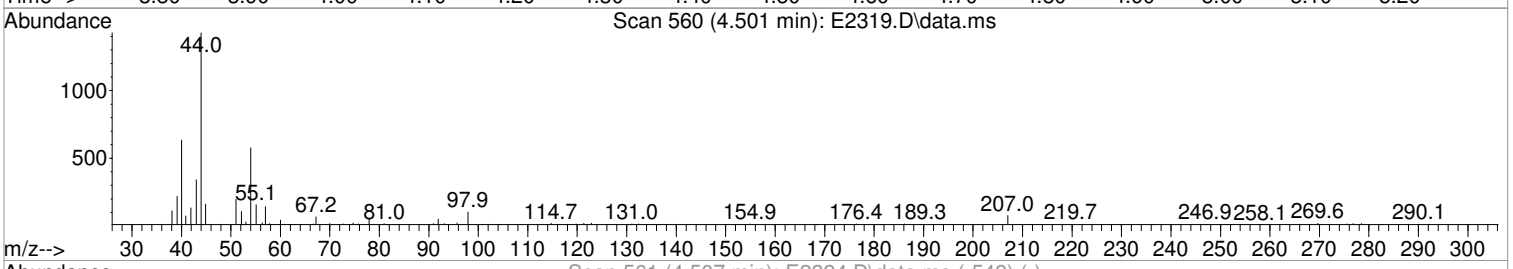
1st DL 07/01/19
2nd 07/02/19

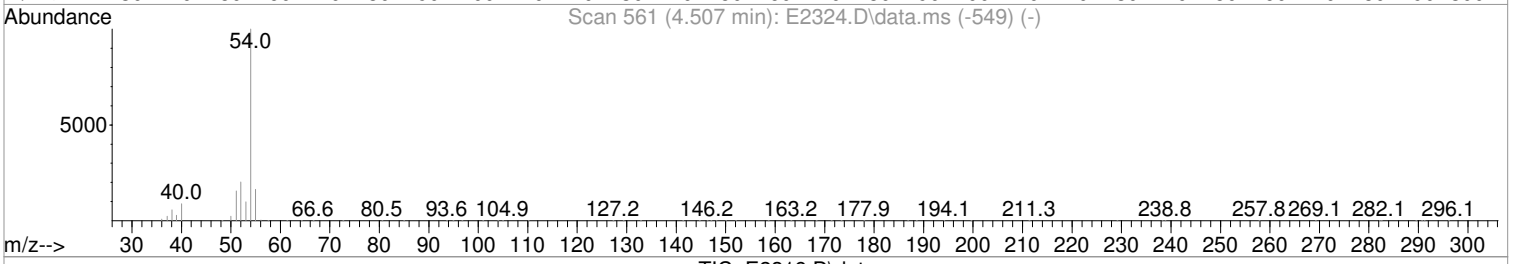
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(35) Propionitrile

4.501min (-0.006) 1.38 ug/L

response 950

Ion	Exp%	Act%
54.00	100	100
55.00	17.00	26.99
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

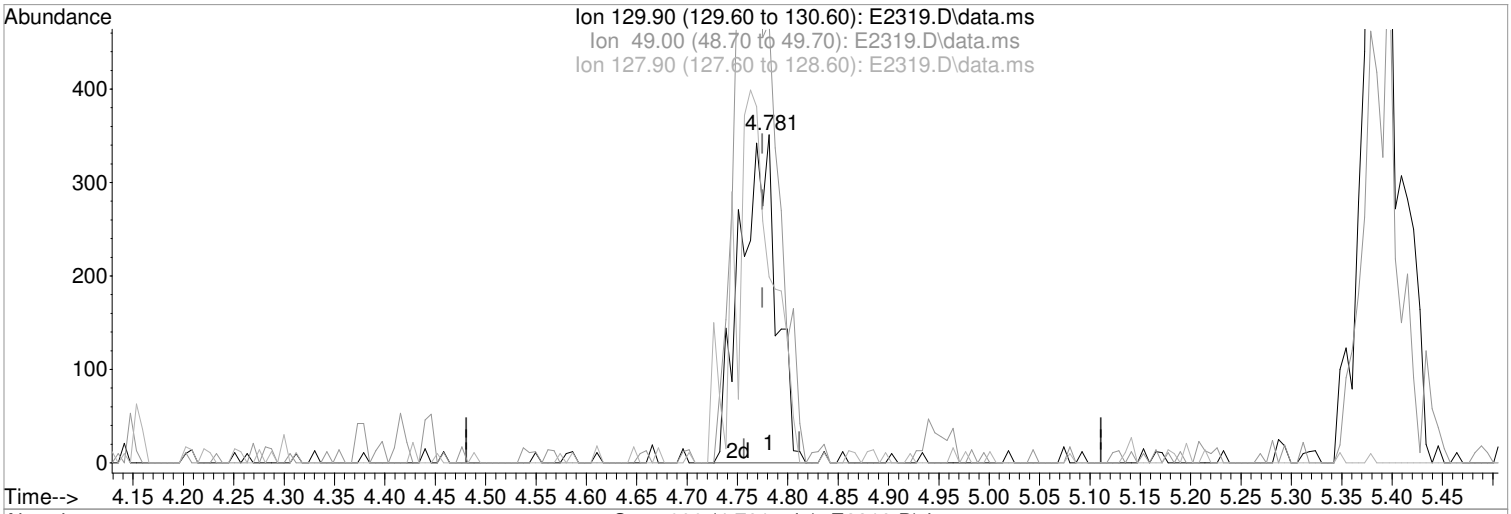
07/01/19

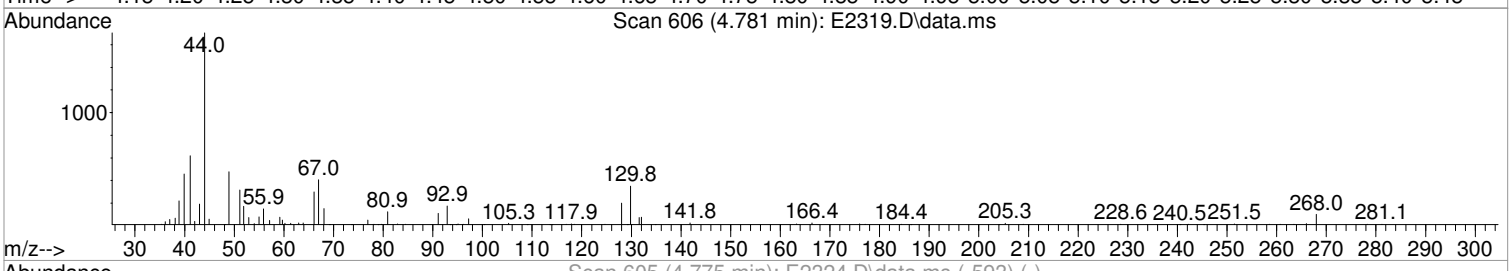
1st DL 07/01/19
2nd 07/02/19

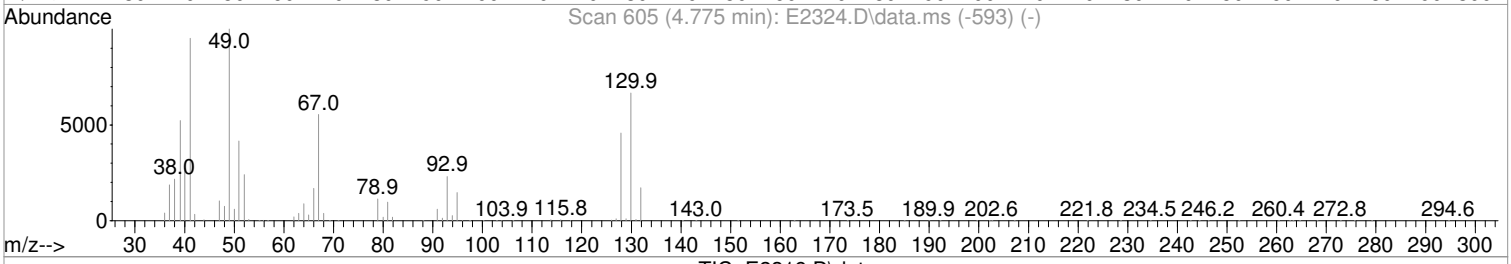
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(36) Bromochloromethane

4.781min (+0.006) 0.42 ug/L m

response 874

Ion	Exp%	Act%
129.90	100	100
49.00	150.10	135.61
127.90	68.70	56.70
0.00	0.00	0.00

Manual Integration:

After

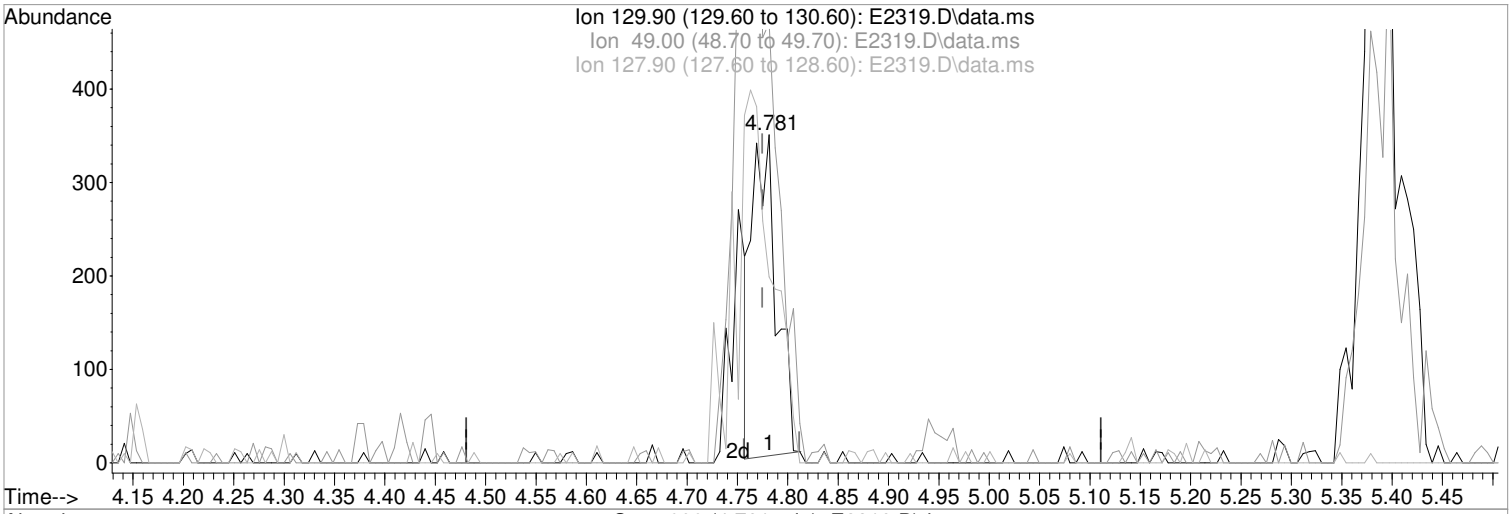
Poor integration.

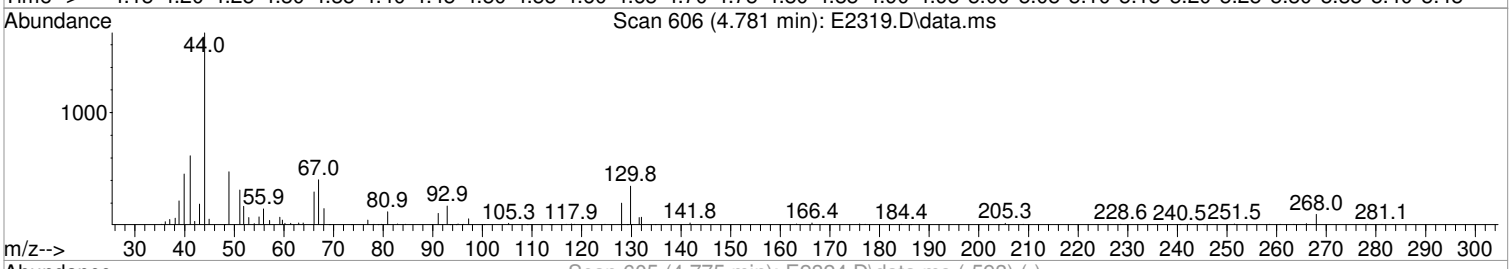
07/01/19

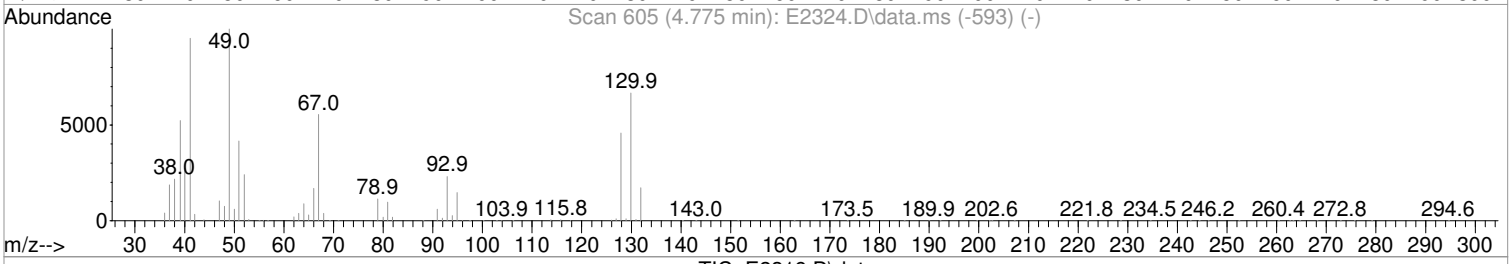
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(36) Bromochloromethane

4.781min (+0.006) 0.28 ug/L

response 578

Ion	Exp%	Act%
129.90	100	100
49.00	150.10	135.61
127.90	68.70	56.70
0.00	0.00	0.00

Manual Integration:

Before

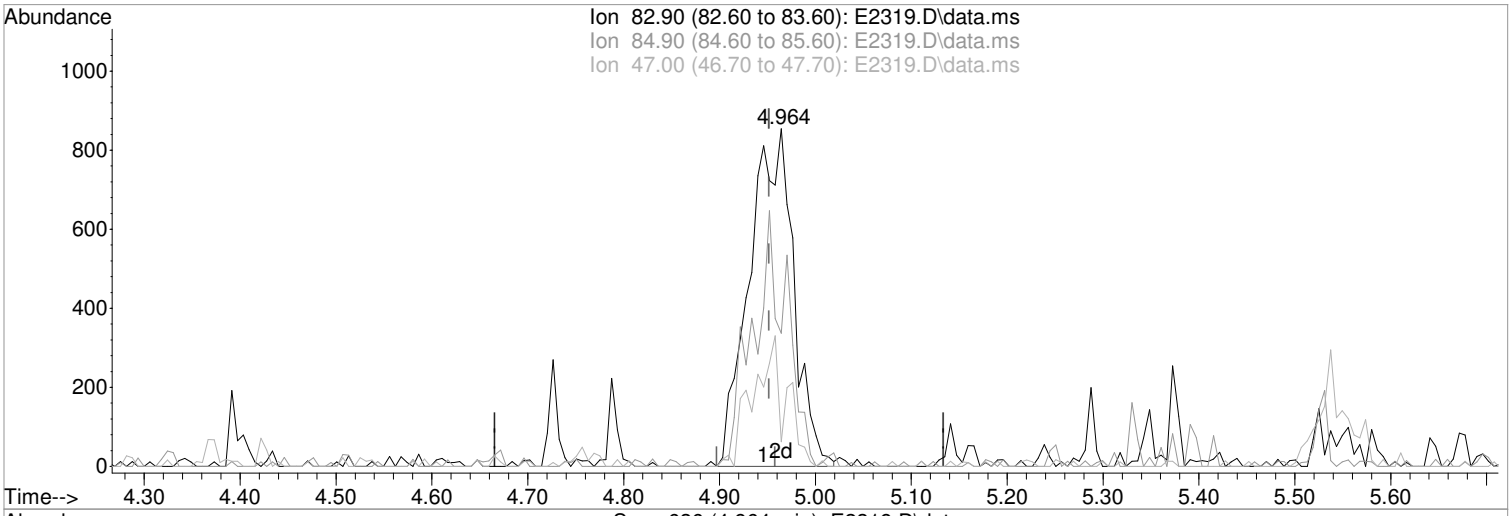
07/01/19

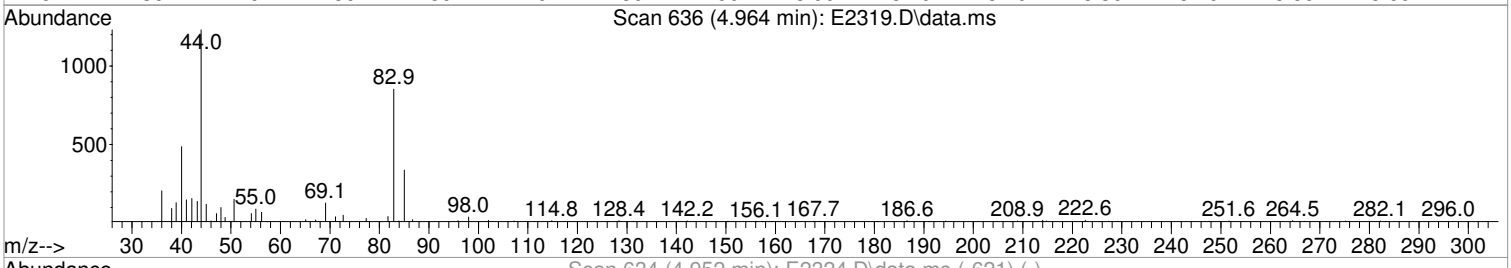
1st DL 07/01/19
2nd 07/02/19

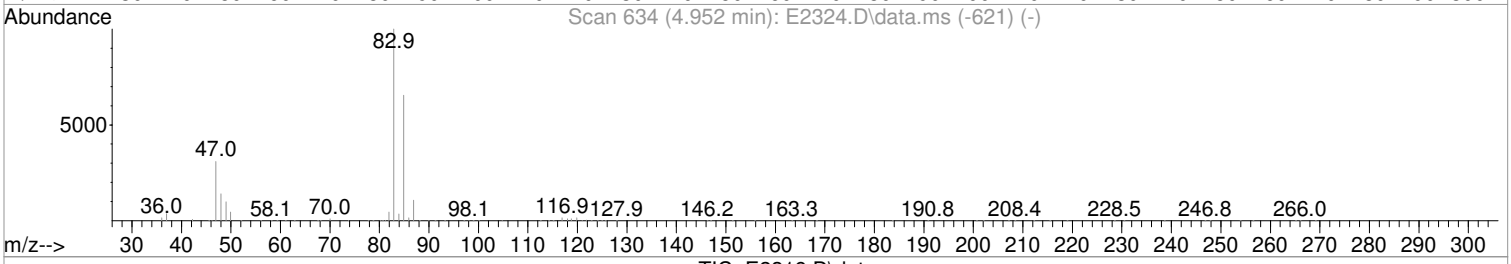
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(39) Chloroform (P)

4.964min (+0.012) 0.52 ug/L m

response 2737

Ion	Exp%	Act%
82.90	100	100
84.90	65.50	39.46#
47.00	30.90	7.26#
0.00	0.00	0.00

Manual Integration:

After

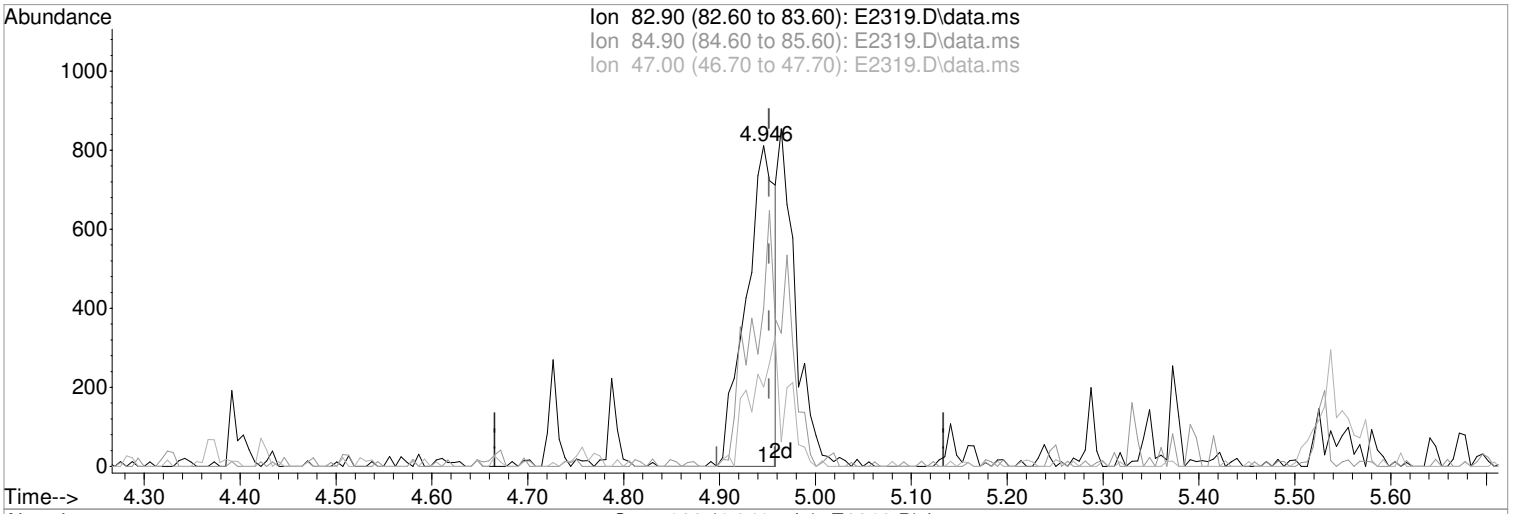
Poor integration.

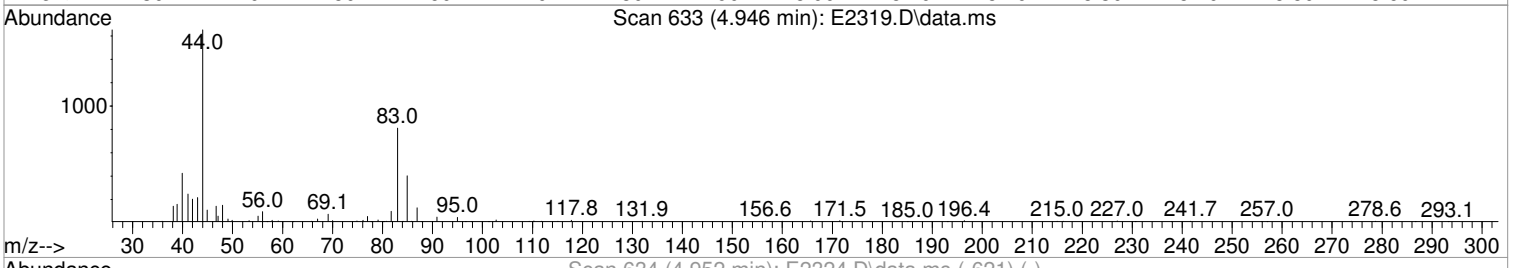
07/01/19

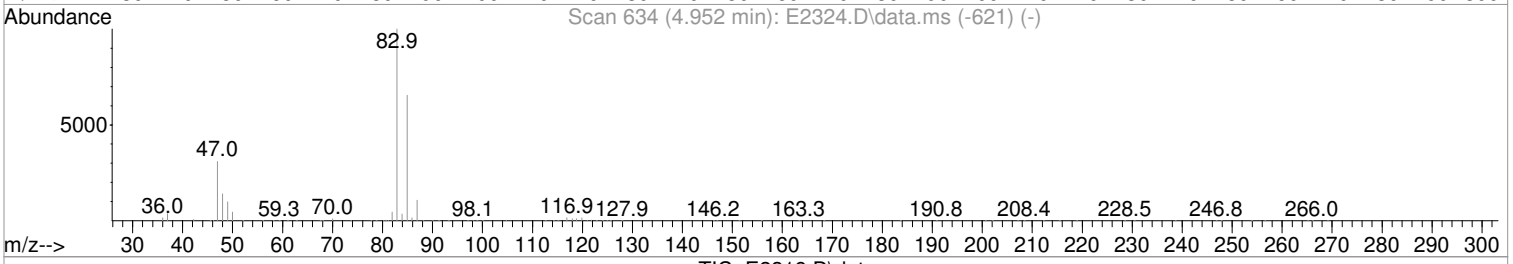
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(39) Chloroform (P)

4.946min (-0.006) 0.32 ug/L

response 1702

Ion	Exp%	Act%
82.90	100	100
84.90	65.50	49.45
47.00	30.90	24.78
0.00	0.00	0.00

Manual Integration:

Before

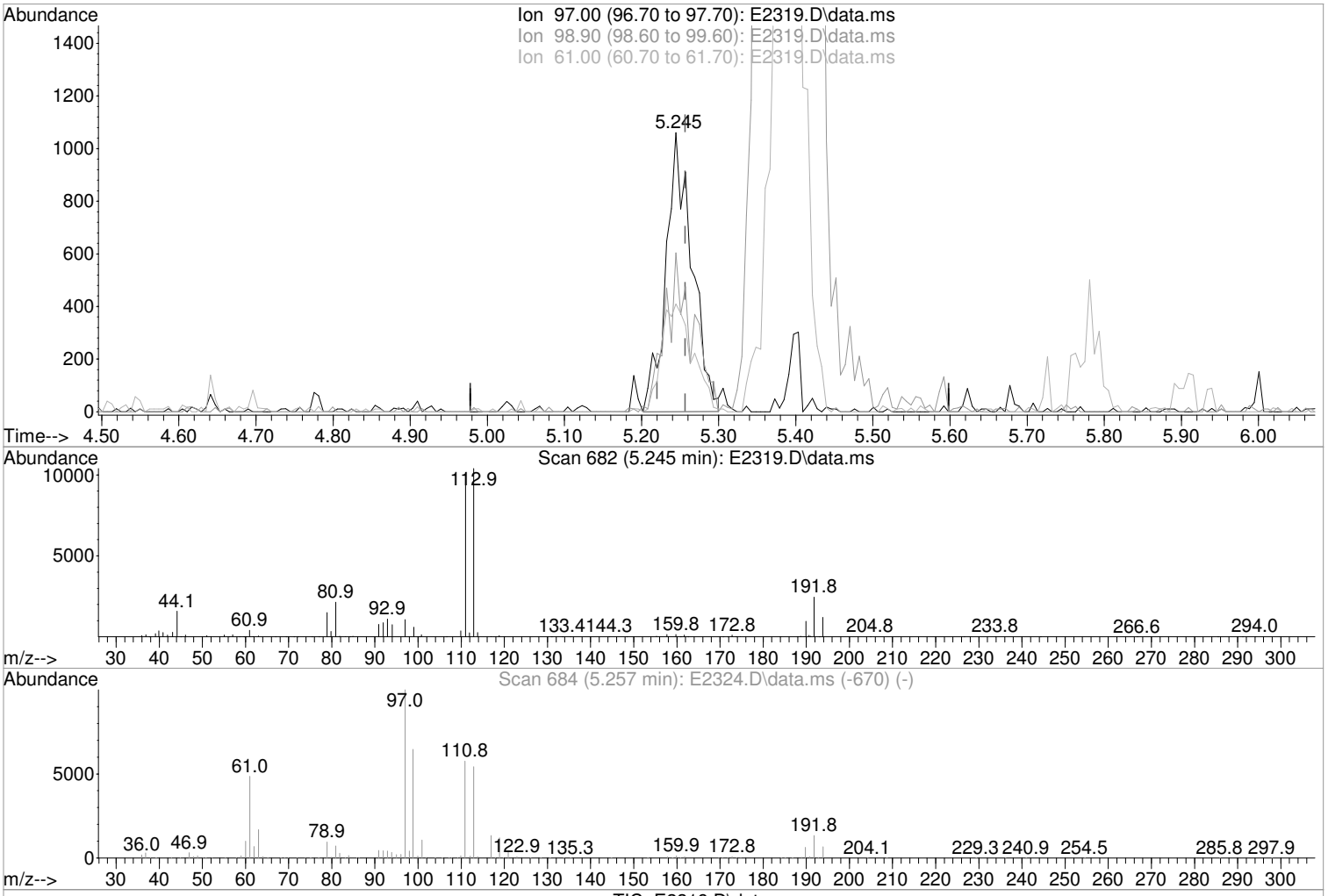
07/01/19

1st DL 07/01/19
2nd 07/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.012) 0.61 ug/L m

response 2480

Ion	Exp%	Act%
97.00	100	100
98.90	64.70	56.93
61.00	48.60	38.64
0.00	0.00	0.00

Manual Integration:

After

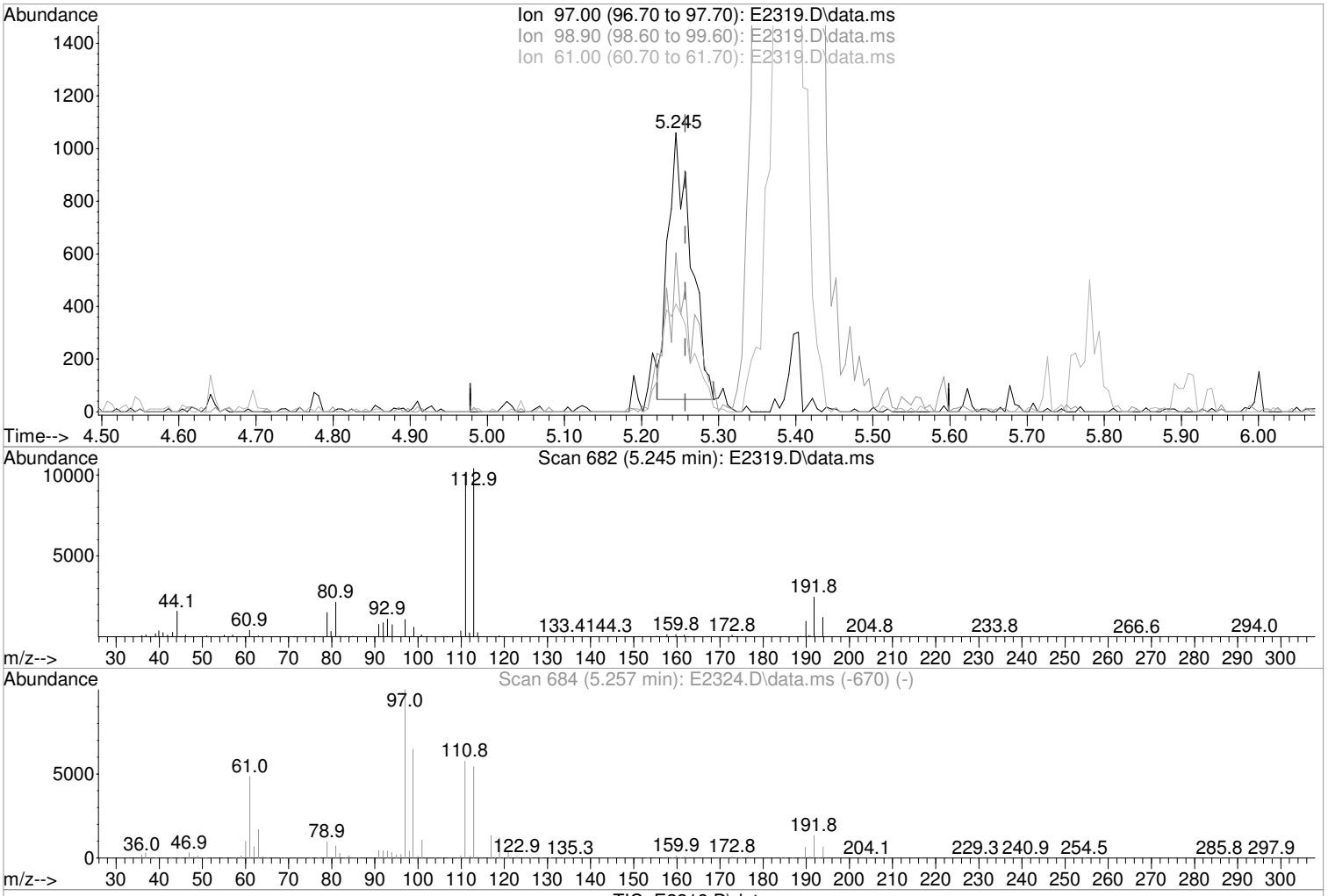
Poor integration.

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.012) 0.51 ug/L

response 2082

Ion	Exp%	Act%
97.00	100	100
98.90	64.70	56.93
61.00	48.60	38.64
0.00	0.00	0.00

Manual Integration:

Before

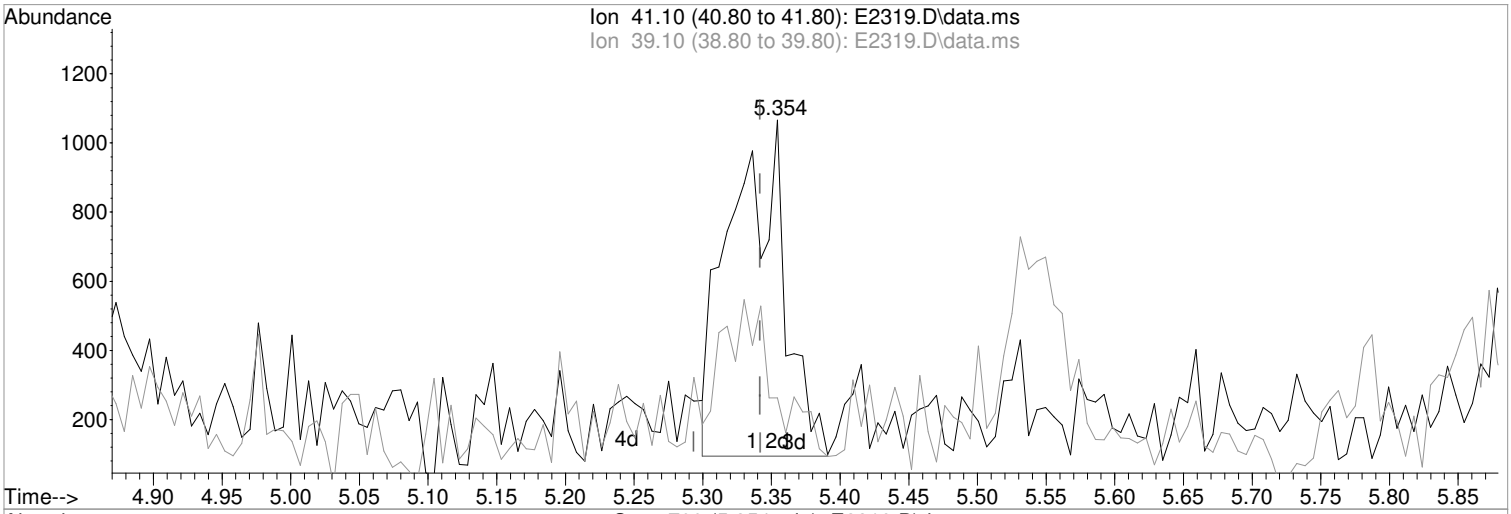
07/01/19

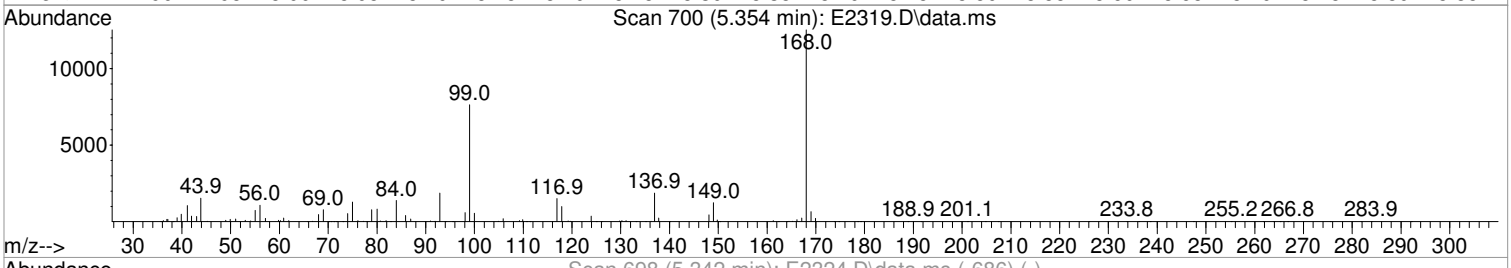
1st DL 07/01/19
2nd 07/02/19

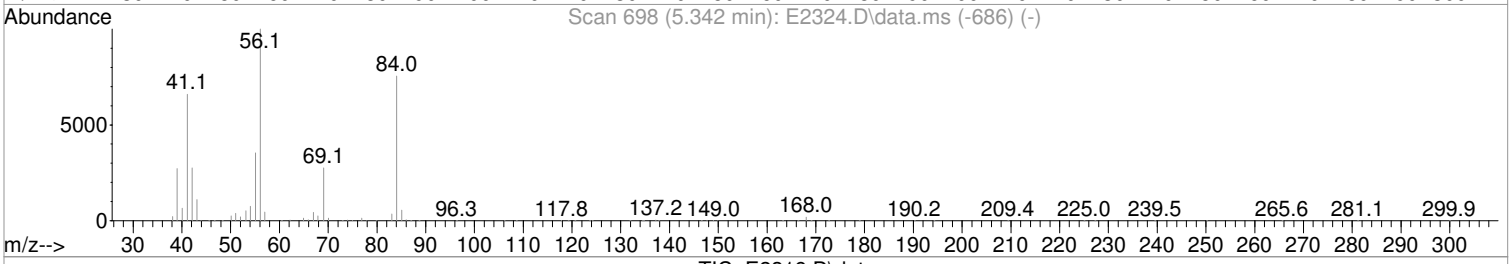
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(42) Cyclohexane (P)

5.354min (+0.012) 0.77 ug/L m

response 2695

Ion	Exp%	Act%
41.10	100	100
39.10	41.10	24.67
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

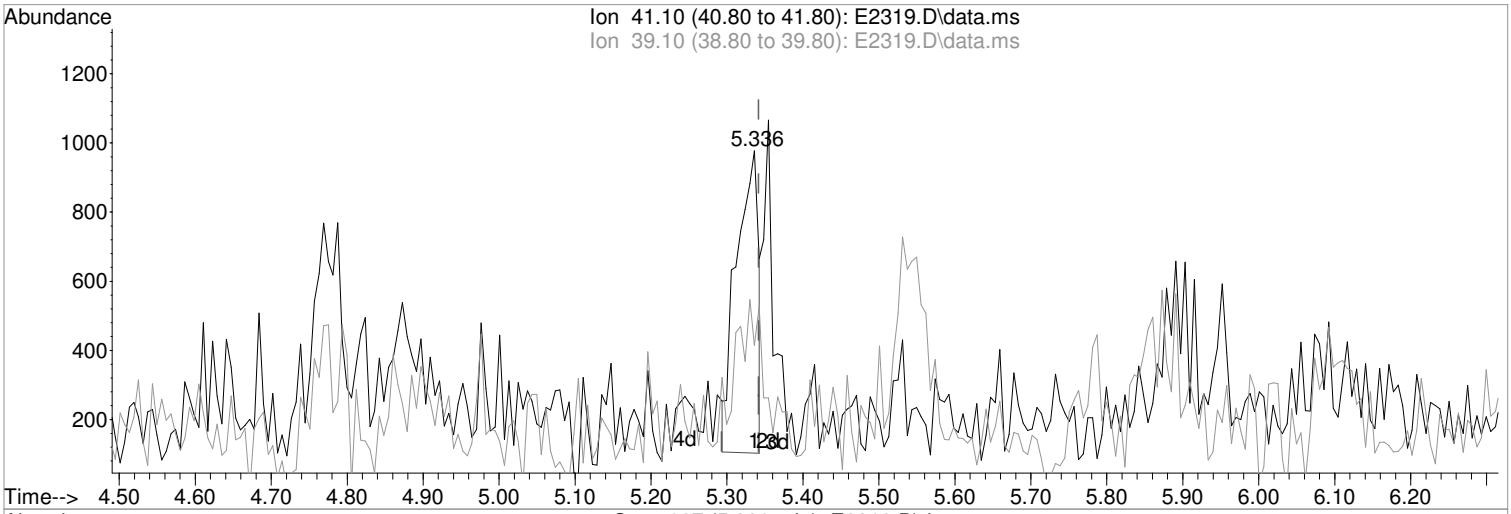
Poor integration.

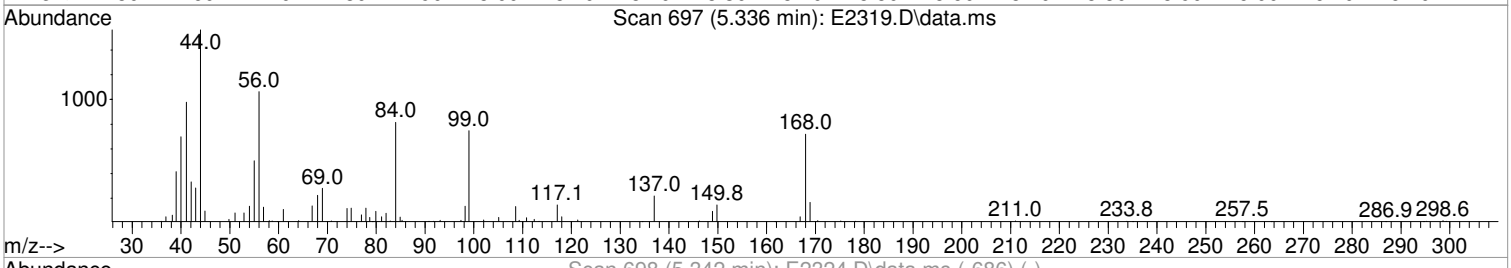
07/01/19

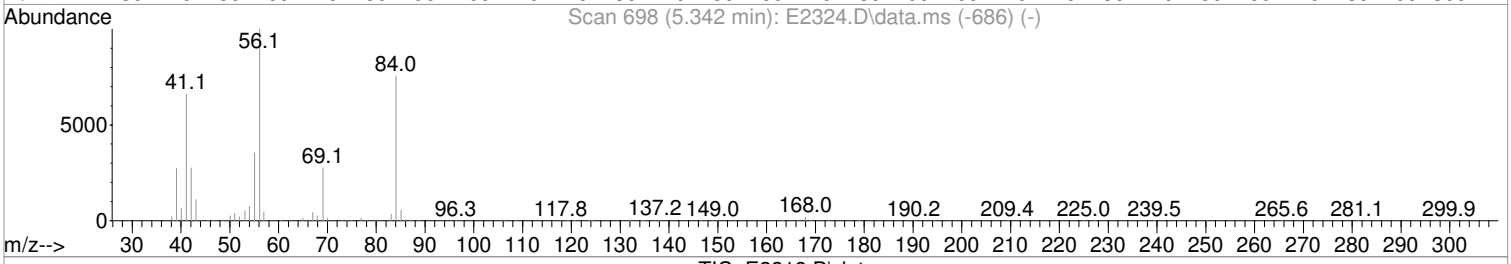
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(42) Cyclohexane (P)

5.336min (-0.006) 0.50 ug/L

response 1746

Ion	Exp%	Act%
41.10	100	100
39.10	41.10	42.37
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

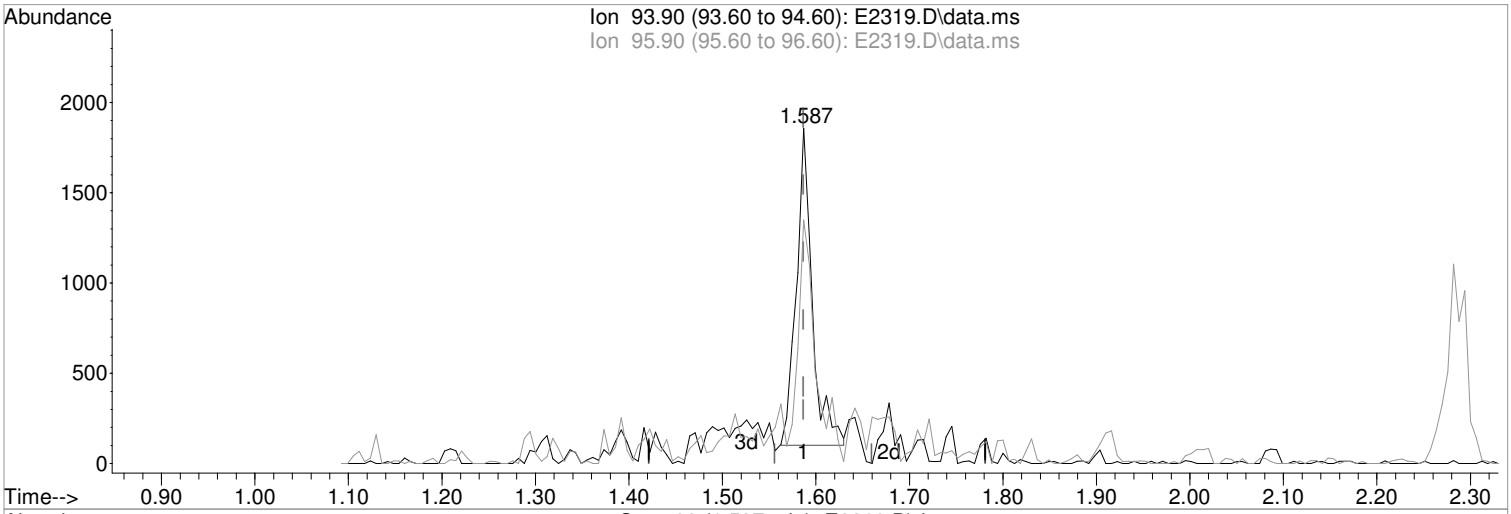
07/01/19

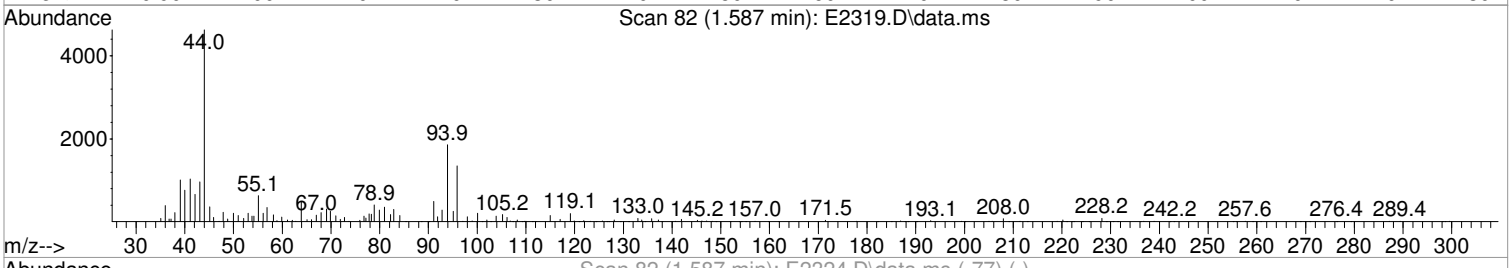
1st DL 07/01/19
2nd 07/02/19

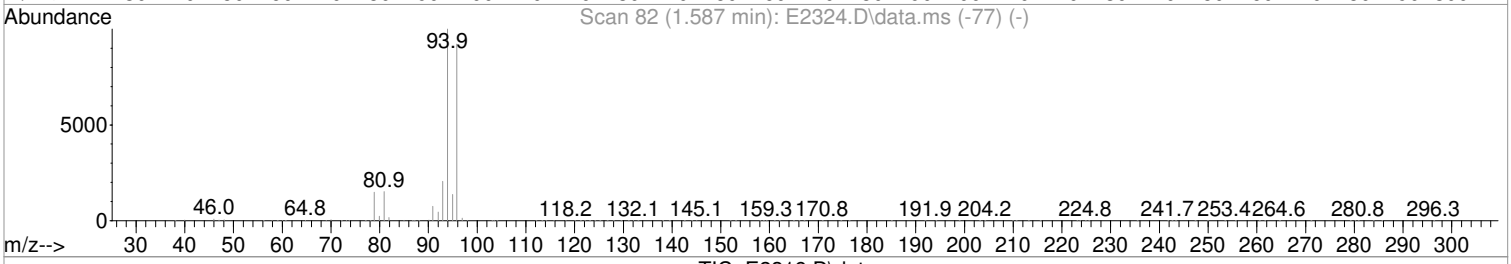
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:51:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(5) Bromomethane (P)

1.587min (+0.000) 0.72 ug/L m

response 2077

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	72.60
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

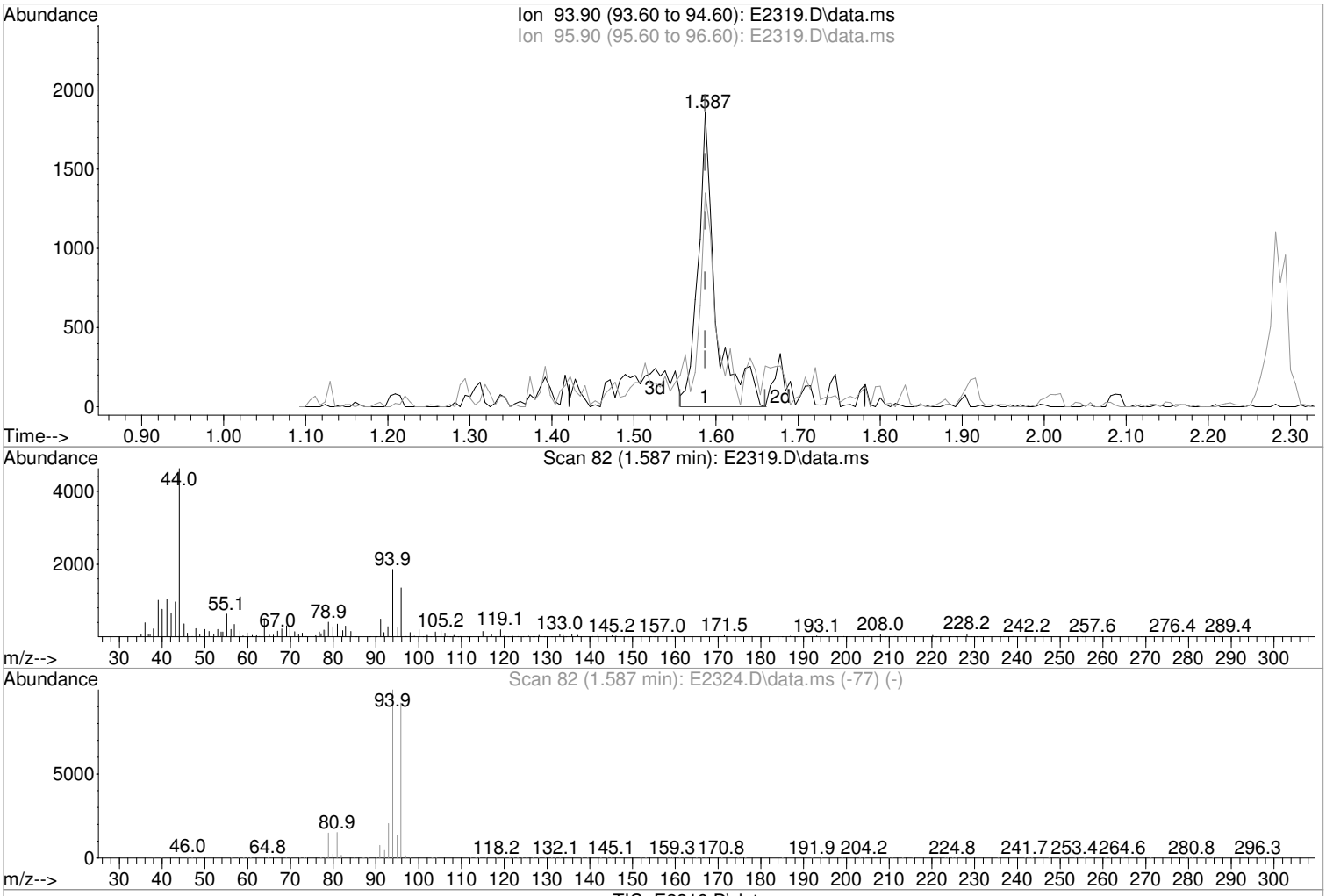
Poor integration.

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:51:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



TIC: E2319.D\data.ms

(5) Bromomethane (P)

1.587min (+0.000) 0.96 ug/L

response 2757

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	72.60
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

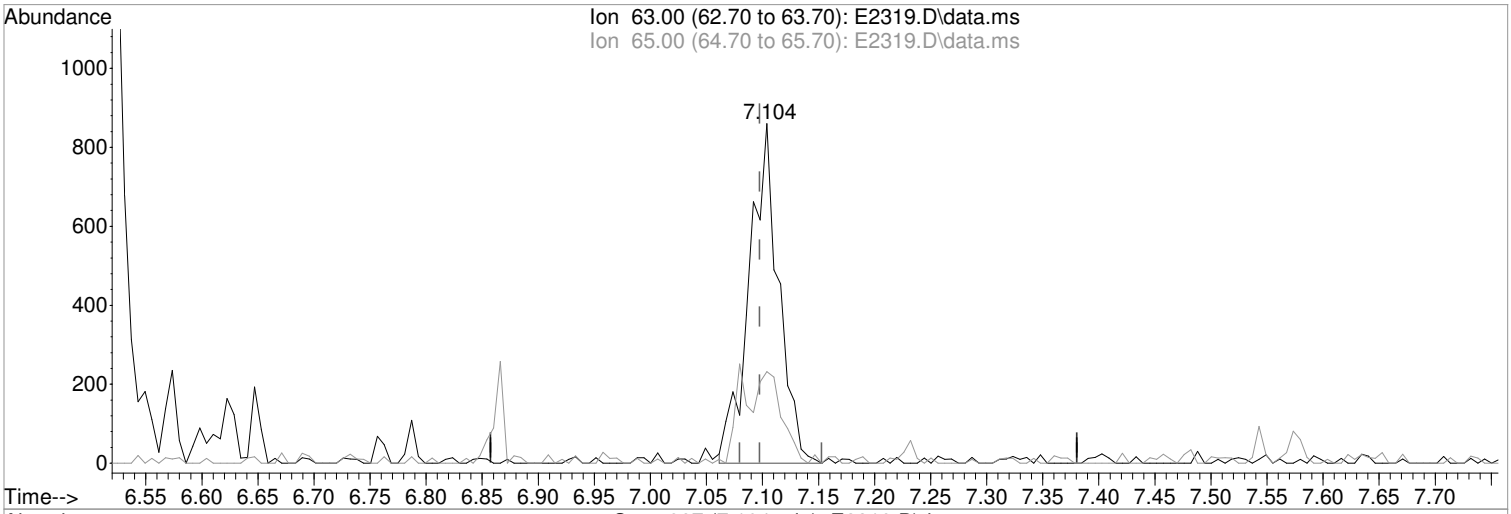
07/01/19

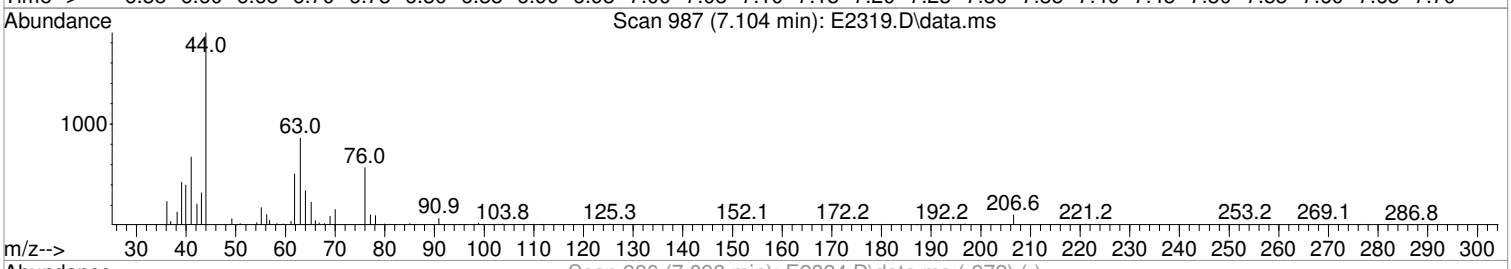
1st DL 07/01/19
2nd 07/02/19

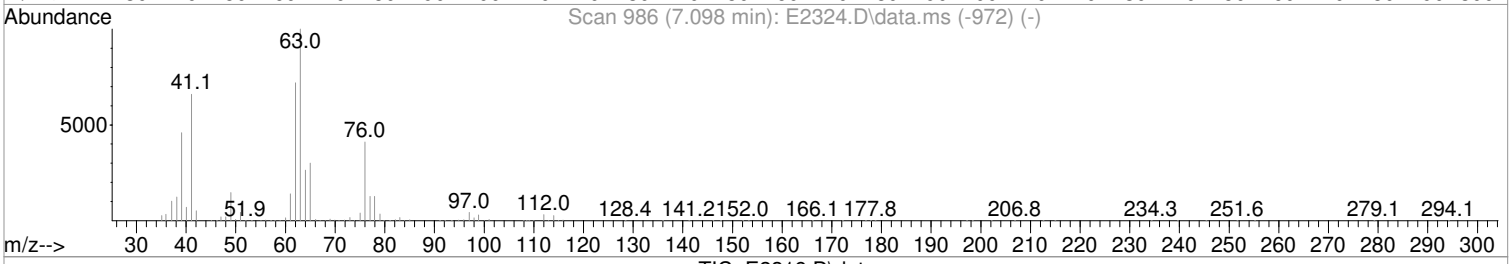
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(55) 1,2-Diclpropane (P)

7.104min (+0.006) 0.46 ug/L m

response 1566

Ion	Exp%	Act%
63.00	100	100
65.00	30.10	26.98
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

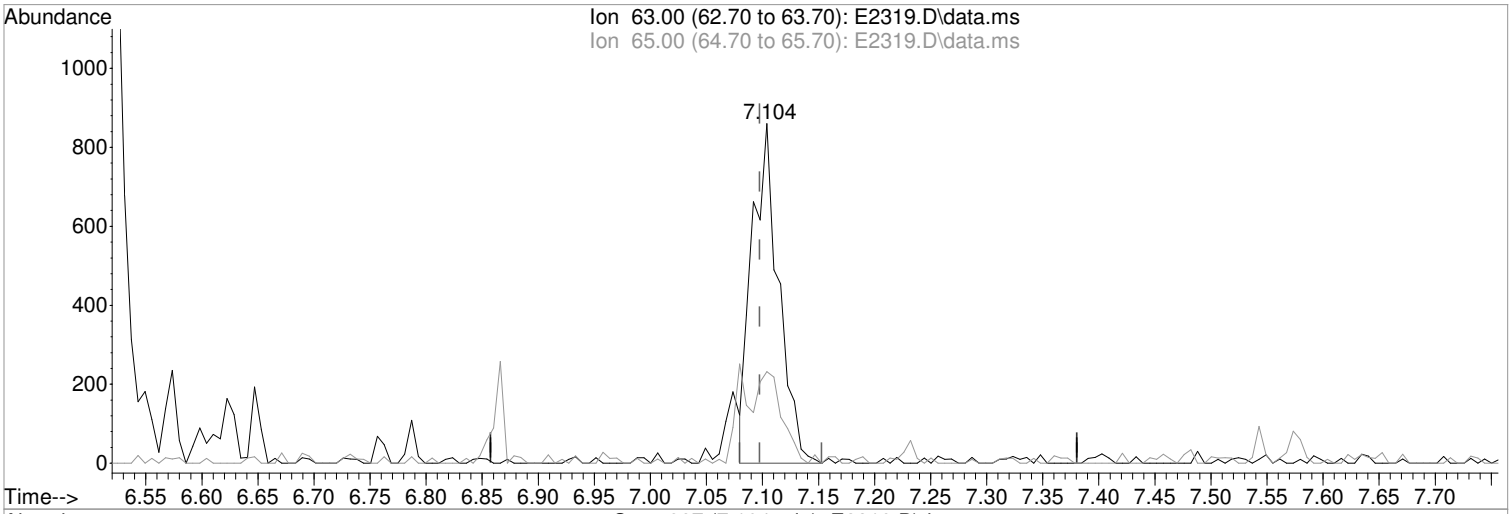
07/01/19

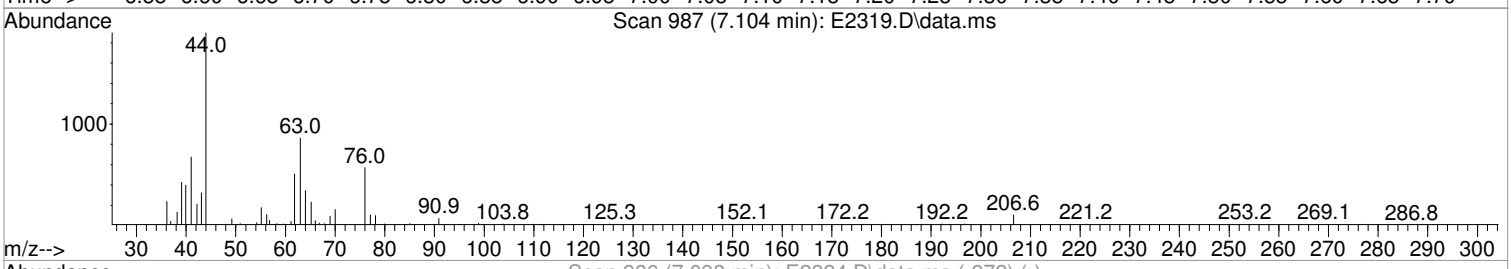
1st DL 07/01/19
2nd 07/02/19

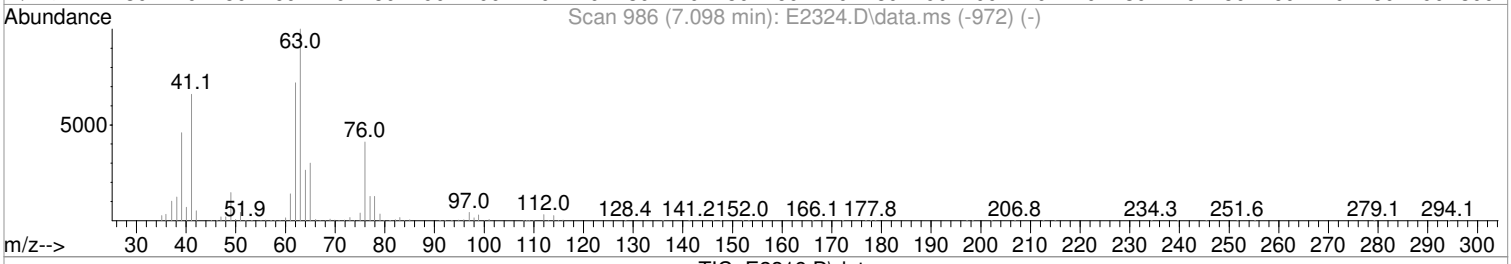
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(55) 1,2-Diclpropane (P)

7.104min (+0.006) 0.41 ug/L

response 1417

Ion	Exp%	Act%
63.00	100	100
65.00	30.10	26.98
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

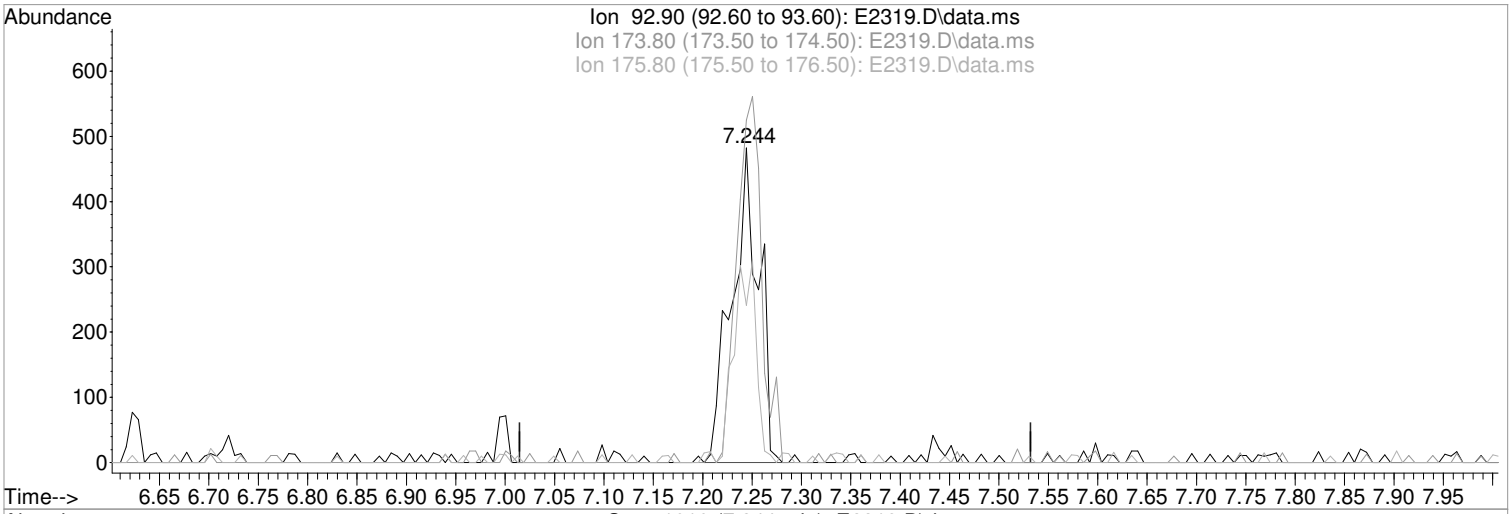
07/01/19

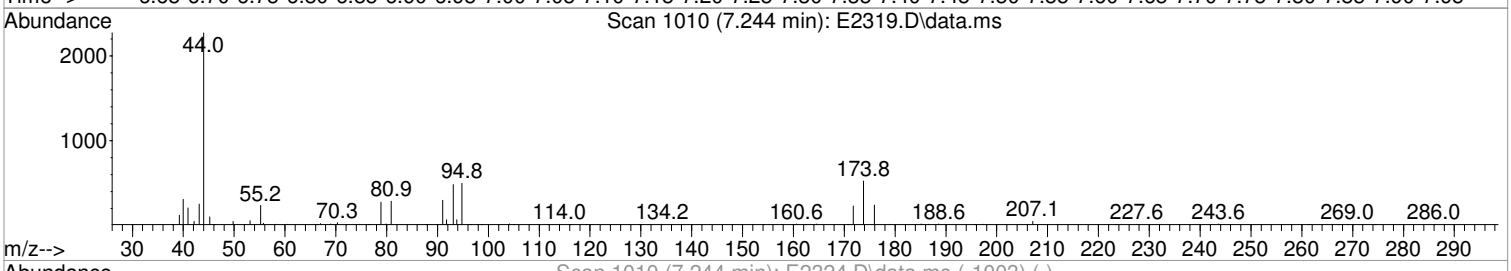
1st DL 07/01/19
2nd 07/02/19

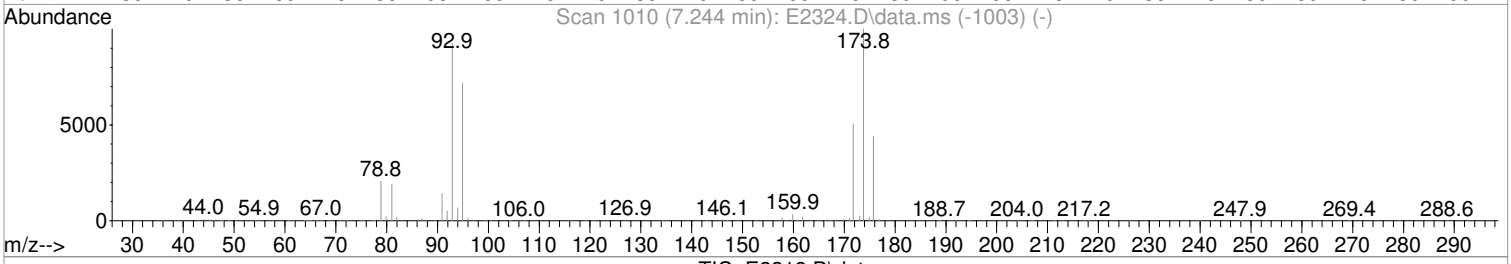
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(56) Dibromomethane

7.244min (+0.000) 0.47 ug/L m

response 916

Ion	Exp%	Act%
92.90	100	100
173.80	108.30	108.92
175.80	47.60	50.00
0.00	0.00	0.00

Manual Integration:

After

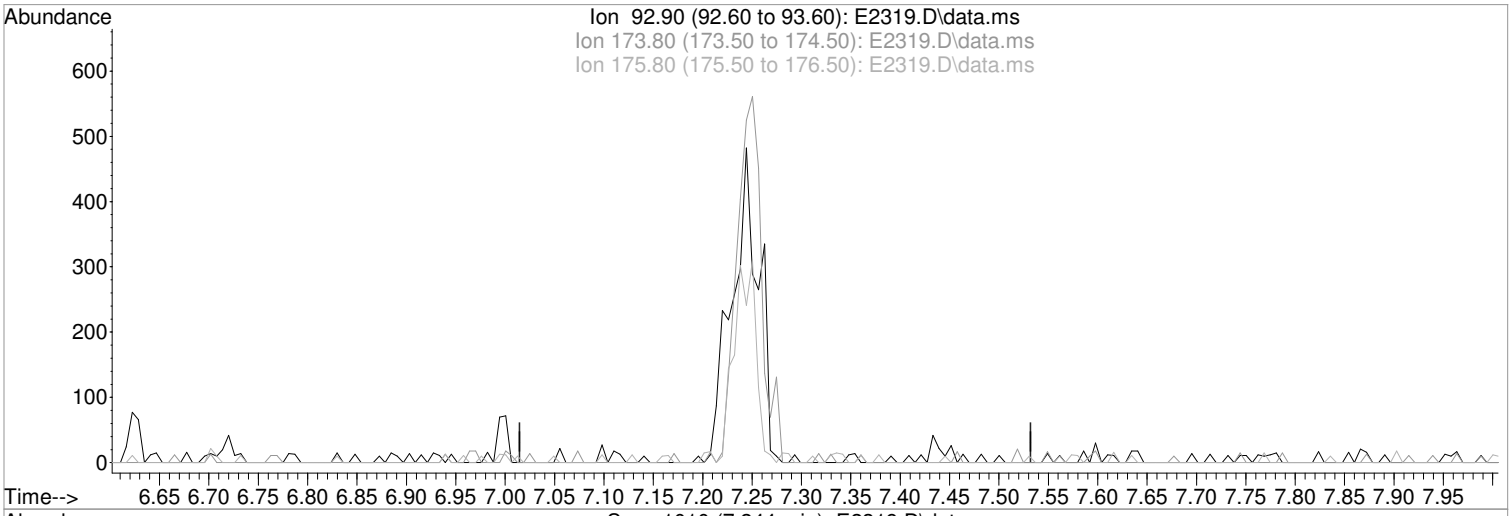
Poor integration.

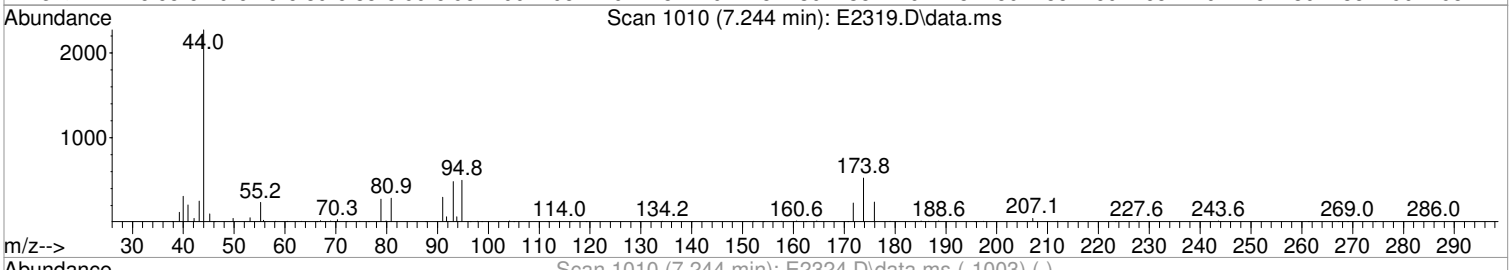
07/01/19

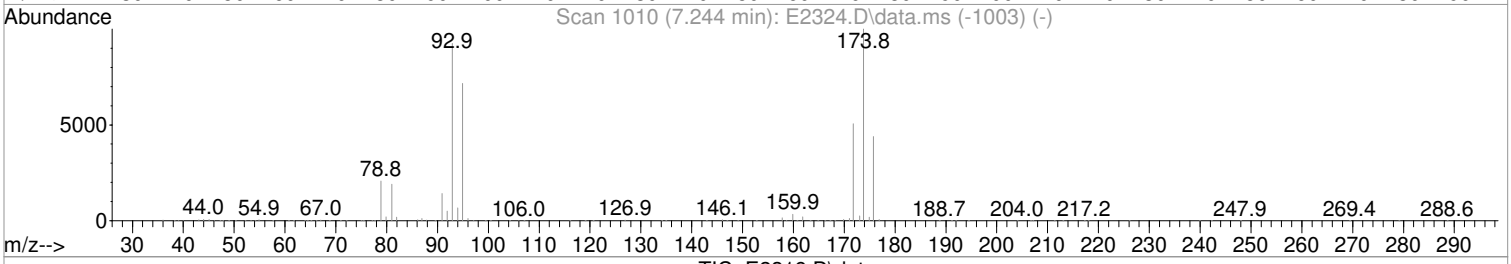
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(56) Dibromomethane

7.244min (-7.244) 0.00 ug/L

response 0

Ion	Exp%	Act%
92.90	100	0.00
173.80	108.30	0.00#
175.80	47.60	0.00#
0.00	0.00	0.00

Manual Integration:

Before

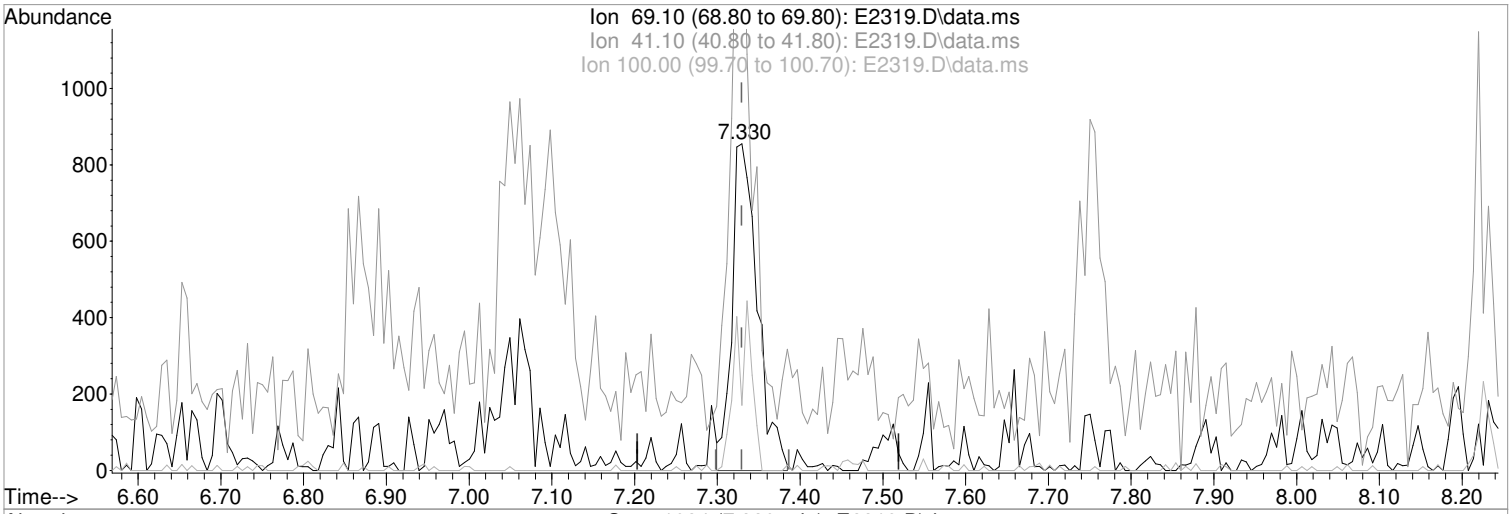
07/01/19

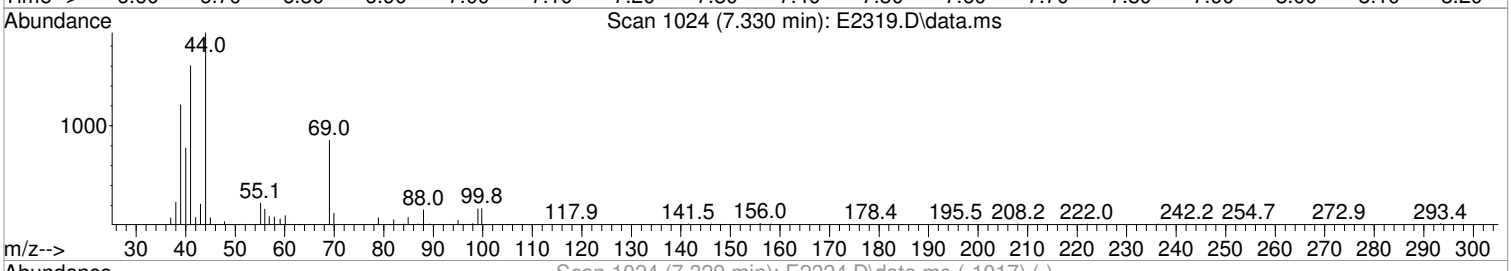
1st DL 07/01/19
2nd 07/02/19

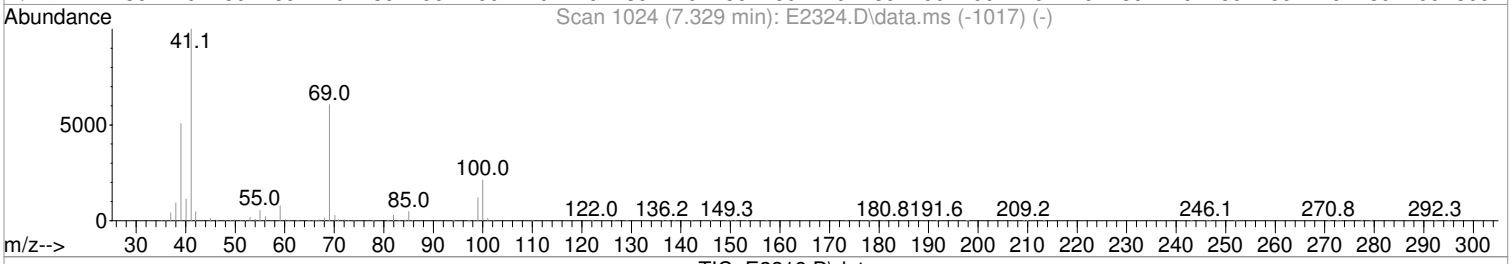
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 16:09:45 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(58) Methyl Methacrylate

7.330min (+0.000) 0.75 ug/L m

response 1813

Ion	Exp%	Act%
69.10	100	100
41.10	166.50	187.37#
100.00	34.90	20.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

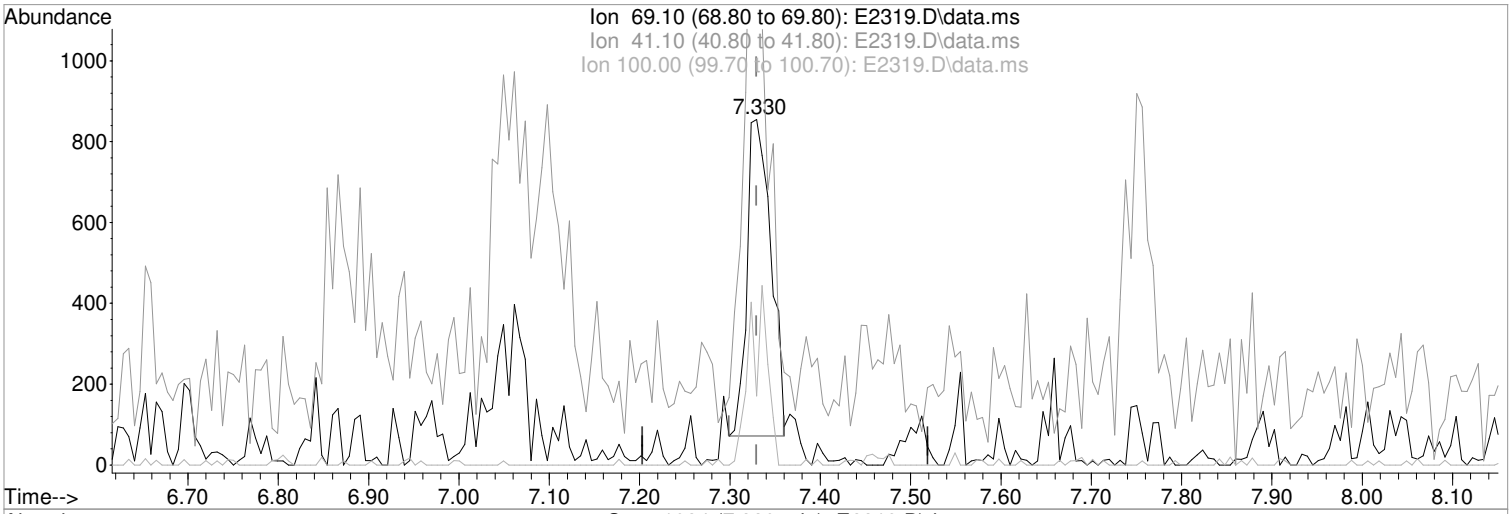
07/01/19

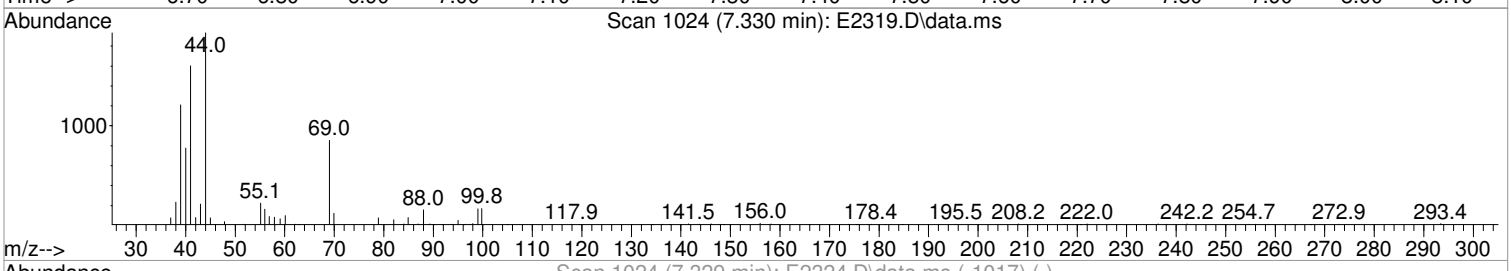
1st DL 07/01/19
2nd 07/02/19

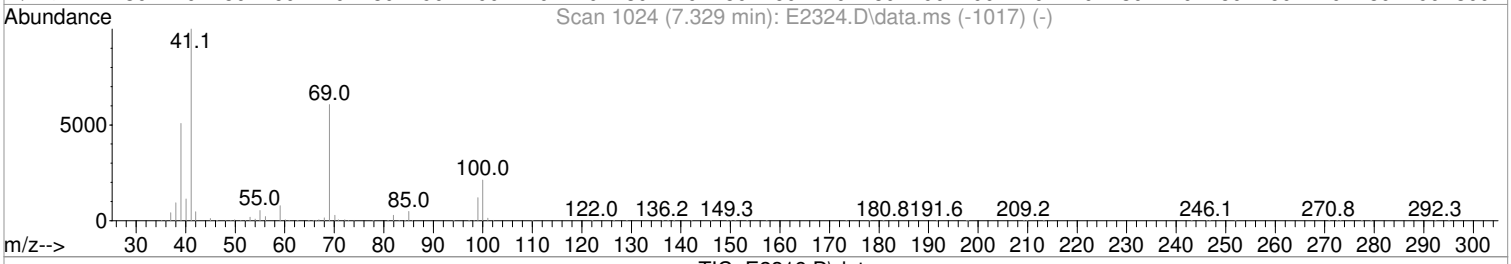
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(58) Methyl Methacrylate

7.330min (+0.000) 0.59 ug/L

response 1437

Ion	Exp%	Act%
69.10	100	100
41.10	166.50	187.37#
100.00	34.90	20.00
0.00	0.00	0.00

Manual Integration:

Before

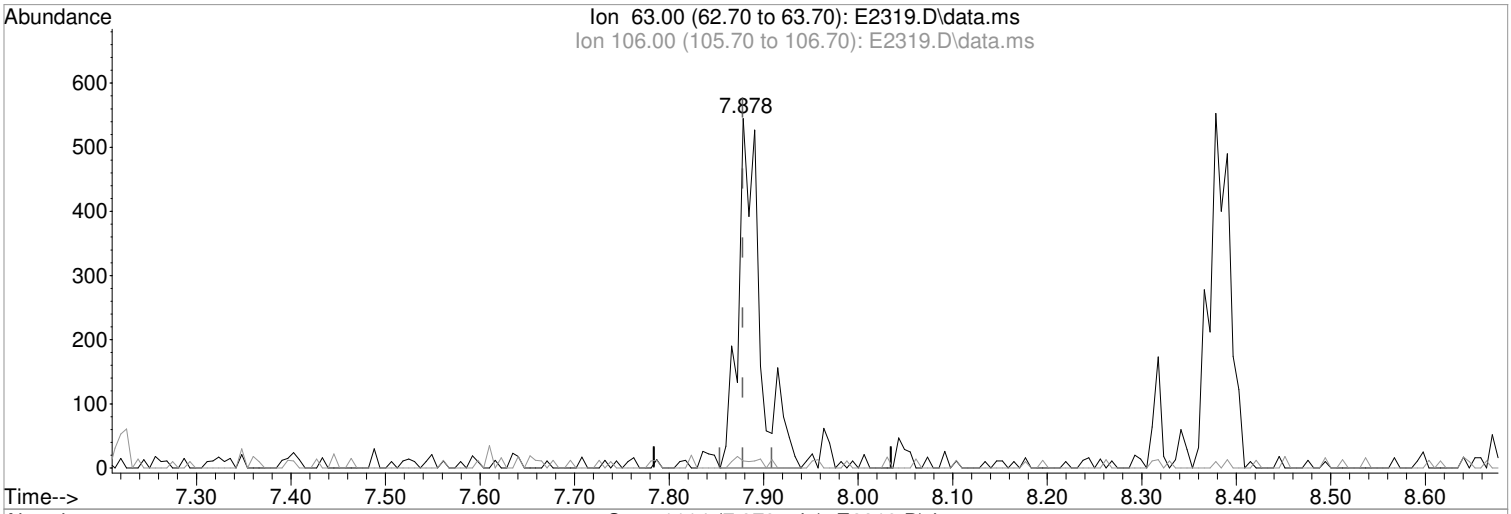
07/01/19

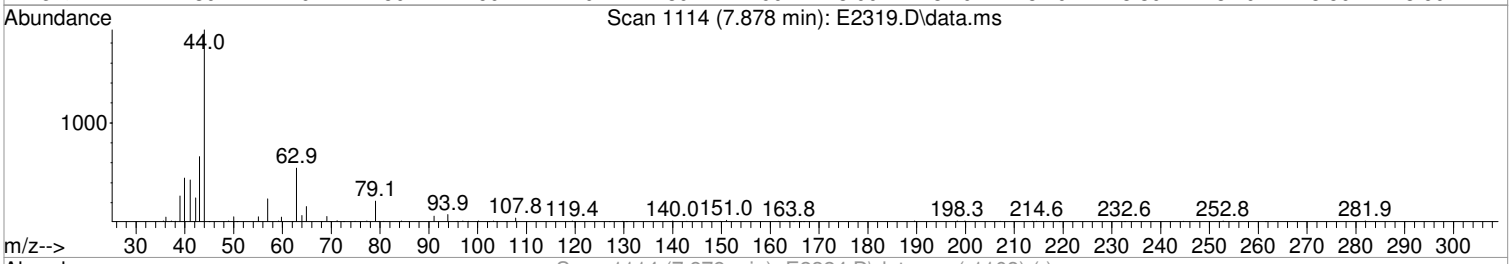
1st DL 07/01/19
2nd 07/02/19

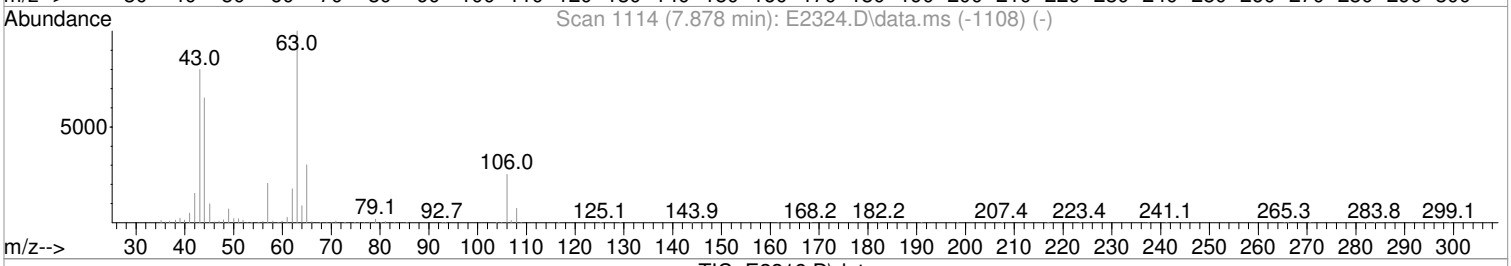
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(61) 2-Chloroethylvinyl Ether

7.878min (+0.000) 0.50 ug/L m

response 876

Ion	Exp%	Act%
63.00	100	100
106.00	25.10	2.02#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

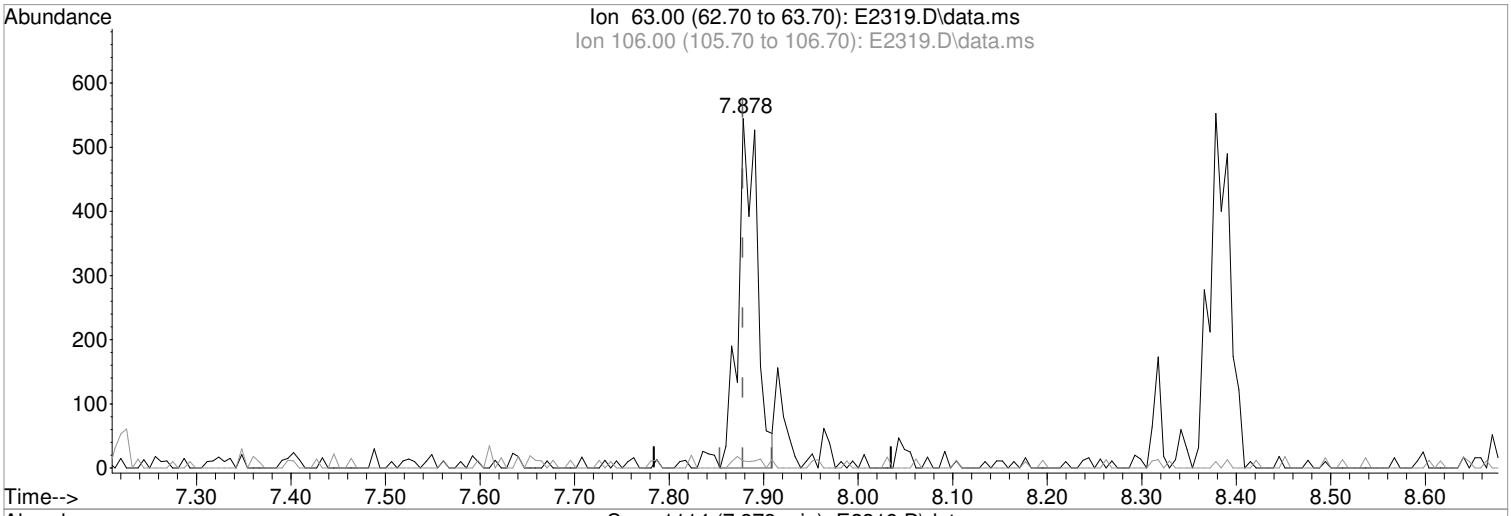
07/01/19

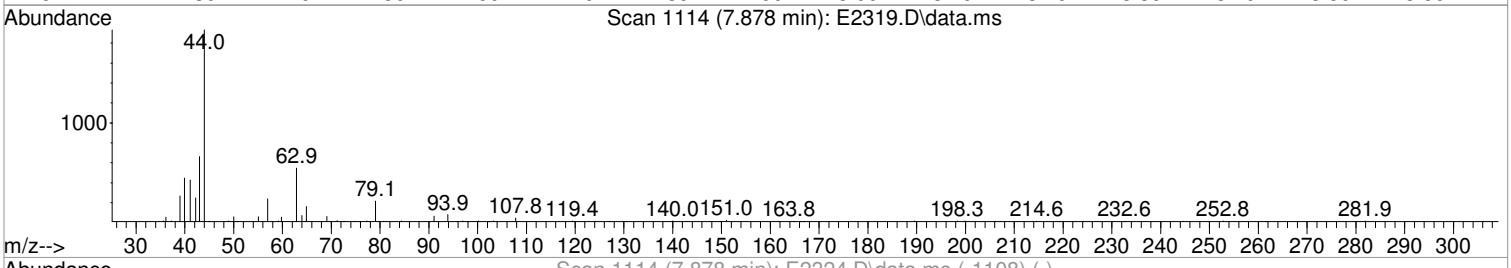
1st DL 07/01/19
2nd 07/02/19

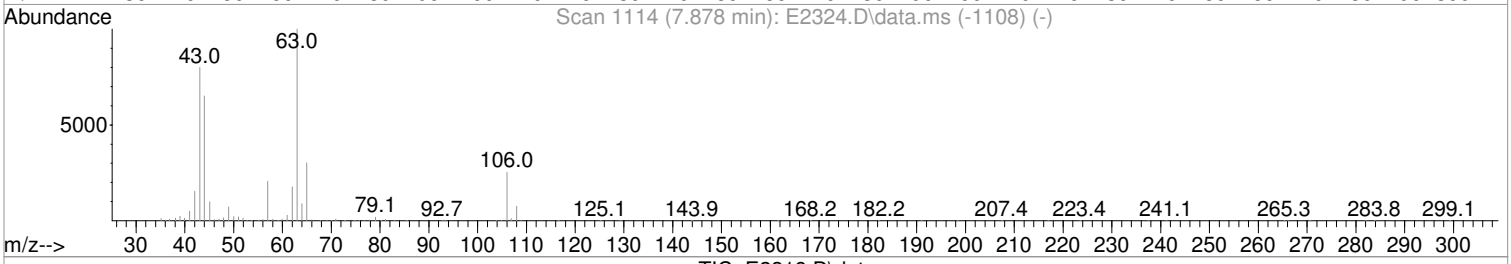
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(61) 2-Chloroethylvinyl Ether

7.878min (+0.000) 0.44 ug/L

response 765

Ion	Exp%	Act%
63.00	100	100
106.00	25.10	2.02#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

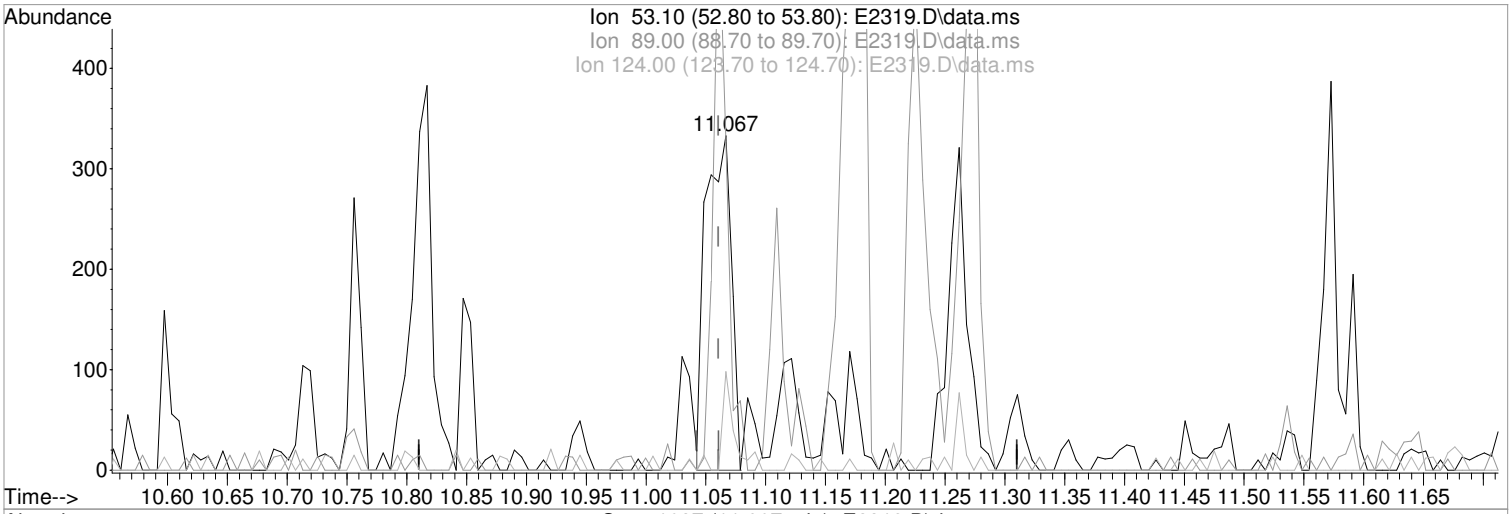
07/01/19

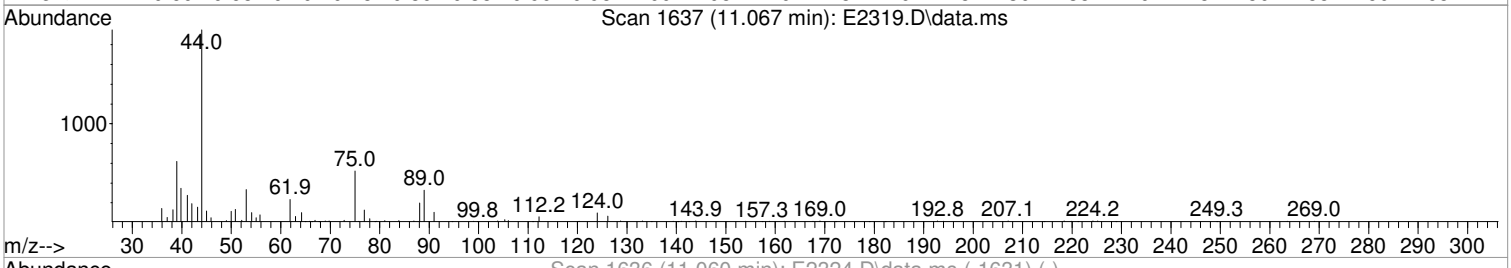
1st DL 07/01/19
2nd 07/02/19

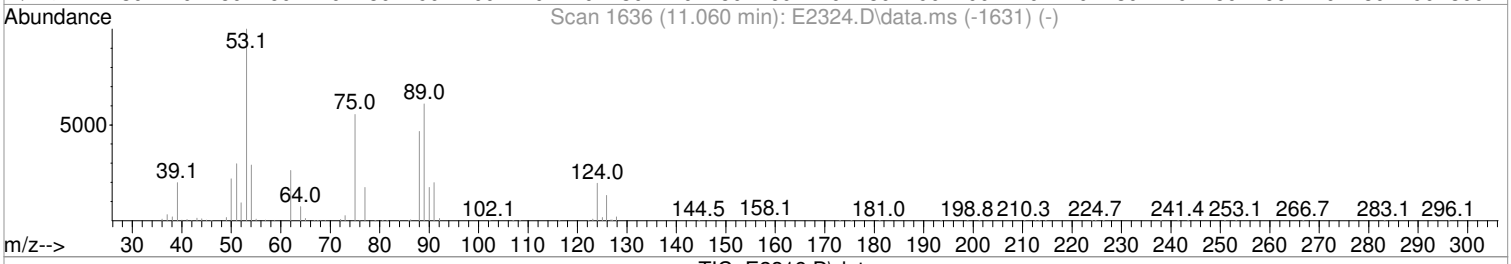
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.067min (+0.006) 0.51 ug/L m

response 495

Ion	Exp%	Act%
53.10	100	100
89.00	60.90	98.20#
124.00	19.50	29.43
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

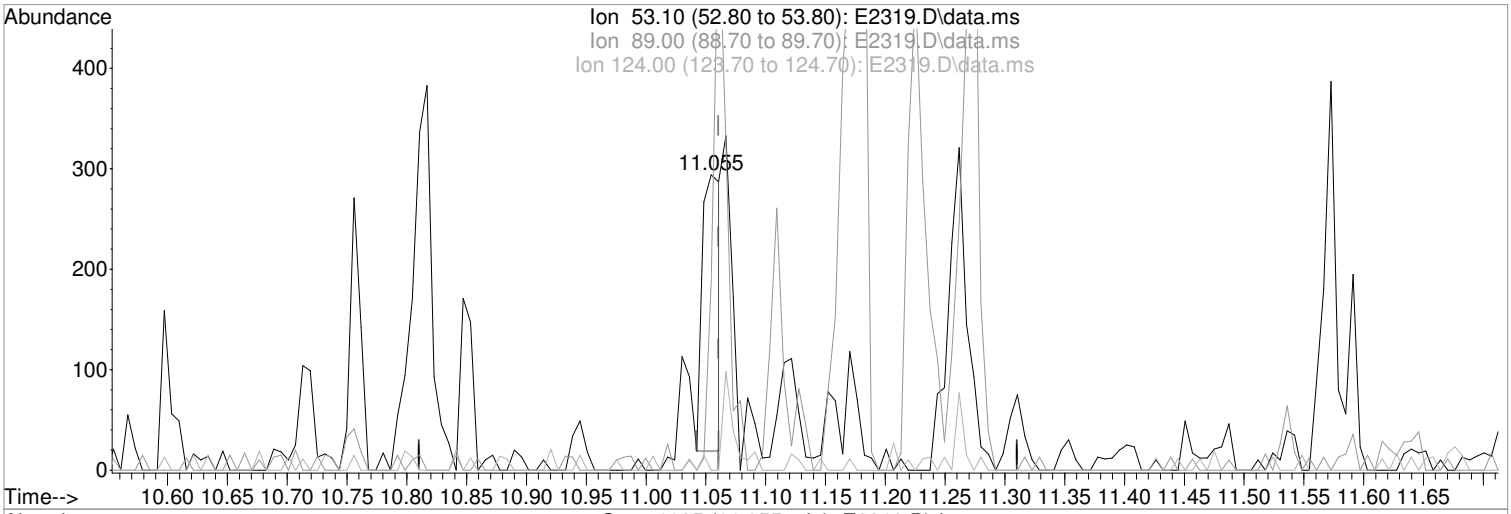
07/01/19

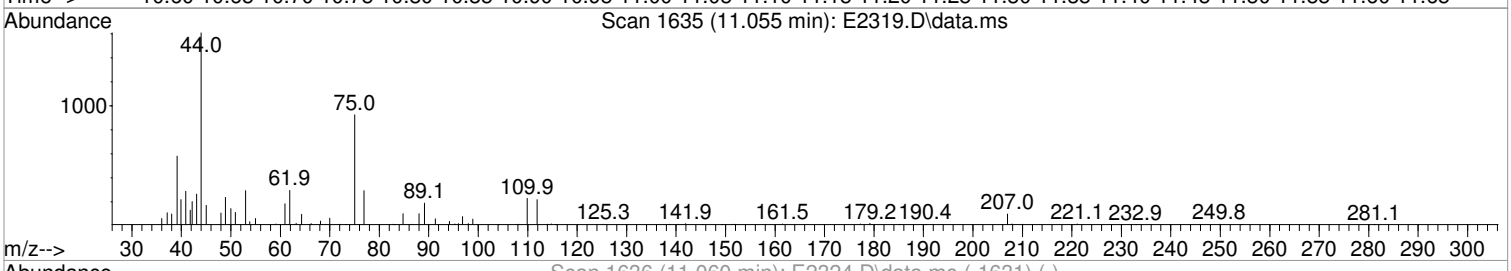
1st DL 07/01/19
2nd 07/02/19

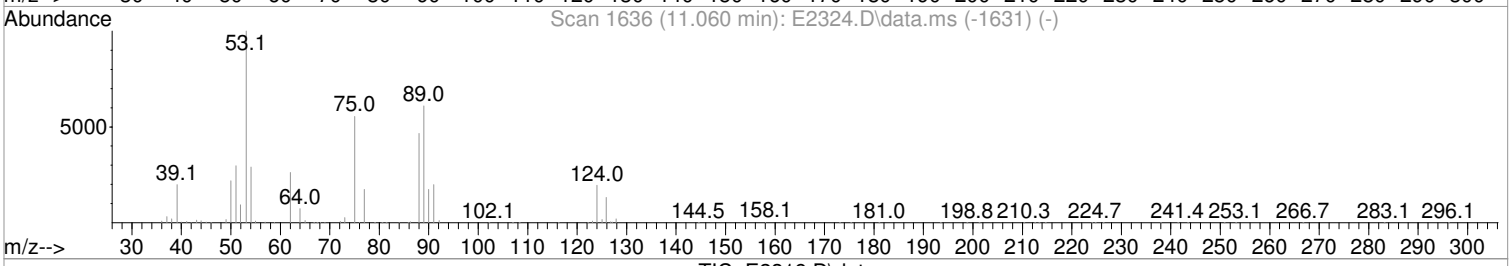
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 15:56:53 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration







TIC: E2319.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.055min (-0.006) 0.30 ug/L

response 290

Ion	Exp%	Act%
53.10	100	100
89.00	60.90	57.14
124.00	19.50	0.00
0.00	0.00	0.00

Manual Integration:

Before

07/01/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 16:09:45 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	287214	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	406815	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	349567	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	183490	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	29039	10.89	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 21.78%#				
46) surr1,1,2-dichloroetha...	5.787	65	40240	11.33	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 22.66%#				
64) SURR3,Toluene-d8	8.311	98	114882	10.69	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 21.38%#				
69) SURR2,BFB	10.878	95	43595	10.91	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.82%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	2033m	0.48	ug/L		
3) Chloromethane	1.282	50	2876	0.53	ug/L		81
4) Vinyl Chloride	1.361	62	1996	0.51	ug/L	#	58
5) Bromomethane	1.587	94	2077m	0.72	ug/L		
6) Chloroethane	1.666	64	1591	0.67	ug/L		91
7) Freon 21	1.806	67	3320	0.66	ug/L		84
8) Trichlorofluoromethane	1.855	101	2856	0.69	ug/L		85
9) Diethyl Ether	2.093	59	1288	0.46	ug/L	#	37
10) Freon 123a	2.093	67	1846m	0.54	ug/L		
11) Freon 123	2.148	83	2227	0.59	ug/L	#	75
12) Acrolein	2.196	56	2400	3.73	ug/L		100
13) 1,1-Diclethene	2.282	96	1596	0.62	ug/L		95
14) Freon 113	2.294	101	1591	0.63	ug/L	#	70
16) 2-Propanol	2.459	45	3411	11.74	ug/L		66
18) Carbon Disulfide	2.477	76	4441	0.56	ug/L		98
19) Acetonitrile	2.581	41	1062	1.71	ug/L	#	39
20) Allyl Chloride	2.611	76	843	0.58	ug/L	#	95
21) Methyl Acetate	2.648	43	2112	0.55	ug/L		90
22) Methylene Chloride	2.733	84	1985	0.63	ug/L		94
23) TBA	2.861	59	5828	12.99	ug/L		90
24) Acrylonitrile	3.001	53	4227m	2.52	ug/L		
25) Methyl-t-Butyl Ether	3.038	73	5109	0.56	ug/L		95
26) trans-1,2-Dichloroethene	3.032	96	1428	0.50	ug/L		96
27) 1,1-Diclethane	3.532	63	3201	0.54	ug/L		98
28) Vinyl Acetate	3.623	86	208m	0.38	ug/L		
29) DIPE	3.647	45	6665	0.57	ug/L		88
30) 2-Chloro-1,3-Butadiene	3.654	53	2825	0.62	ug/L		90
31) ETBE	4.190	59	5360	0.61	ug/L		95
32) 2,2-Dichloropropane	4.367	77	2945	0.82	ug/L		94
33) cis-1,2-Dichloroethene	4.373	96	1453m	0.44	ug/L		
35) Propionitrile	4.513	54	1914m	2.78	ug/L		
36) Bromochloromethane	4.781	130	874m	0.42	ug/L		
38) Tetrahydrofuran	4.867	42	1912	1.15	ug/L	#	63
39) Chloroform	4.964	83	2737m	0.52	ug/L		
40) 1,1,1-Trichloroethane	5.245	97	2480m	0.61	ug/L		
42) Cyclohexane	5.354	41	2695m	0.77	ug/L		
44) Carbontetrachloride	5.537	117	2054	0.68	ug/L	#	72
45) 1,1-Dichloropropene	5.543	75	1950	0.48	ug/L		95
47) Benzene	5.860	78	5768	0.47	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 16:09:45 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) 1,2-Dichloroethane	5.909	62	2547	0.57	ug/L		76
50) TAME	6.110	73	4167	0.52	ug/L		80
53) Trichloroethene	6.818	130	1673	0.54	ug/L	#	65
55) 1,2-Diclpropane	7.104	63	1566m	0.46	ug/L		
56) Dibromomethane	7.244	93	916m	0.47	ug/L		
57) 1,4-Dioxane	7.317	88	682	12.03	ug/L	#	28
58) Methyl Methacrylate	7.330	69	1813m	0.75	ug/L		
59) Bromodichloromethane	7.470	83	2522	0.68	ug/L		89
61) 2-Chloroethylvinyl Ether	7.878	63	876m	0.50	ug/L		
62) cis-1,3-Dichloropropene	8.012	75	2681	0.58	ug/L		89
63) 4-Methyl-2-pentanone	8.214	43	2933	0.64	ug/L		86
65) Toluene	8.384	91	5823	0.45	ug/L		89
66) trans-1,3-Dichloropropene	8.653	75	2606	0.69	ug/L		98
67) Ethyl Methacrylate	8.799	69	2671	0.66	ug/L	#	72
68) 1,1,2-Trichloroethane	8.848	97	1422	0.49	ug/L		81
71) Tetrachloroethene	8.982	164	1175	0.49	ug/L	#	81
72) 2-Hexanone	9.140	43	1444	0.43	ug/L		96
73) 1,3-Dichloropropane	9.012	76	2310	0.46	ug/L		82
74) Dibromochloromethane	9.238	129	1380	0.53	ug/L		82
75) N-Butyl Acetate	9.287	43	3784	0.68	ug/L		94
76) 1,2-Dibromoethane	9.329	107	1287	0.49	ug/L		89
77) 3-Chlorobenzotrifluoride	9.847	180	2466	0.56	ug/L	#	77
78) Chlorobenzene	9.829	112	4065	0.52	ug/L		88
79) 4-Chlorobenzotrifluoride	9.902	180	1855	0.46	ug/L		85
80) 1,1,1,2-Tetrachloroethane	9.914	131	1354	0.55	ug/L		92
81) Ethylbenzene	9.945	106	1939	0.47	ug/L		95
82) (m+p)Xylene	10.061	106	5451	1.07	ug/L		87
83) o-Xylene	10.414	106	2731	0.55	ug/L	#	65
84) Styrene	10.433	104	4025	0.48	ug/L		85
85) Bromoform	10.579	173	993	0.57	ug/L		83
86) 2-Chlorobenzotrifluoride	10.664	180	2081	0.49	ug/L		85
87) Isopropylbenzene	10.756	105	6552	0.51	ug/L		97
88) Cyclohexanone	10.817	55	7194	9.98	ug/L		94
89) trans-1,4-Dichloro-2-B...	11.067	53	495m	0.51	ug/L		
91) 1,1,2,2-Tetrachloroethane	11.012	83	2017	0.53	ug/L		95
92) Bromobenzene	11.006	156	1689	0.52	ug/L	#	77
93) 1,2,3-Trichloropropane	11.042	110	759	0.66	ug/L	#	59
94) n-Propylbenzene	11.109	91	7609	0.53	ug/L		98
95) 2-Chlorotoluene	11.176	91	4646	0.53	ug/L		87
96) 3-Chlorotoluene	11.225	91	4645	0.54	ug/L		86
97) 4-Chlorotoluene	11.268	91	5705	0.58	ug/L		86
98) 1,3,5-Trimethylbenzene	11.262	105	5951	0.60	ug/L		89
99) tert-Butylbenzene	11.536	119	4865	0.56	ug/L		85
100) 1,2,4-Trimethylbenzene	11.573	105	5304	0.53	ug/L		95
101) 3,4-Dichlorobenzotrifl...	11.640	214	1780	0.53	ug/L		90
102) sec-Butylbenzene	11.719	105	7300	0.56	ug/L		86
103) p-Isopropyltoluene	11.841	119	5034	0.47	ug/L		73
104) 1,3-Dclbenz	11.798	146	3192	0.52	ug/L		91
105) 1,4-Dclbenz	11.871	146	3601	0.58	ug/L	#	77
106) 2,4-Dichlorobenzotrifl...	11.926	214	1451	0.47	ug/L		77
107) 2,5-Dichlorobenzotrifl...	11.963	214	2000	0.55	ug/L		86
108) n-Butylbenzene	12.170	91	4503	0.44	ug/L		85
109) 1,2-Dclbenz	12.176	146	2892	0.47	ug/L	#	72
110) 1,2-Dibromo-3-chloropr...	12.792	157	594	0.78	ug/L	#	75
111) Trielution Dichlorotol...	12.920	125	7650	1.53	ug/L		97
112) 1,3,5-Trichlorobenzene	12.969	180	2506	0.54	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 16:09:45 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration

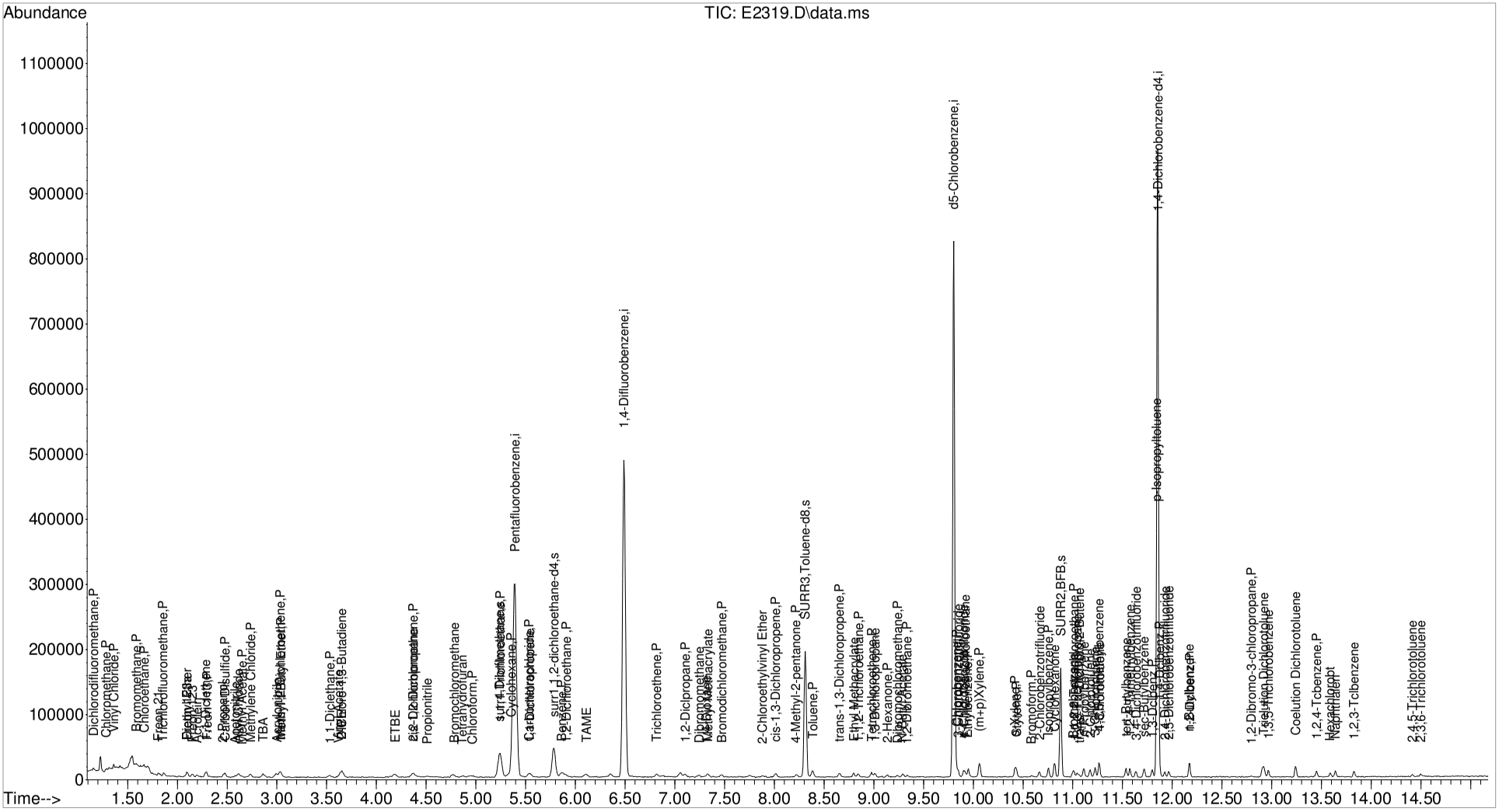
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
113) Coelution Dichlorotoluene	13.243	125	5513	1.03	ug/L		89
114) 1,2,4-Tcbenzene	13.450	180	2424	0.53	ug/L	#	66
115) Hexachlorobt	13.585	225	1067	0.52	ug/L		78
116) Naphthalen	13.639	128	5384	0.47	ug/L		99
117) 1,2,3-Tclbenzene	13.828	180	2109	0.48	ug/L	#	77
118) 2,4,5-Trichlorotoluene	14.414	159	864m	0.36	ug/L		
119) 2,3,6-Trichlorotoluene	14.499	159	946	0.38	ug/L		89

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2319.D
Acq On : 1 Jul 2019 11:56 am
Operator : D.LIPANI
Sample : STD #1 - 0.5 PPB Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 01 16:09:45 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:51:31 2019
Response via : Initial Calibration



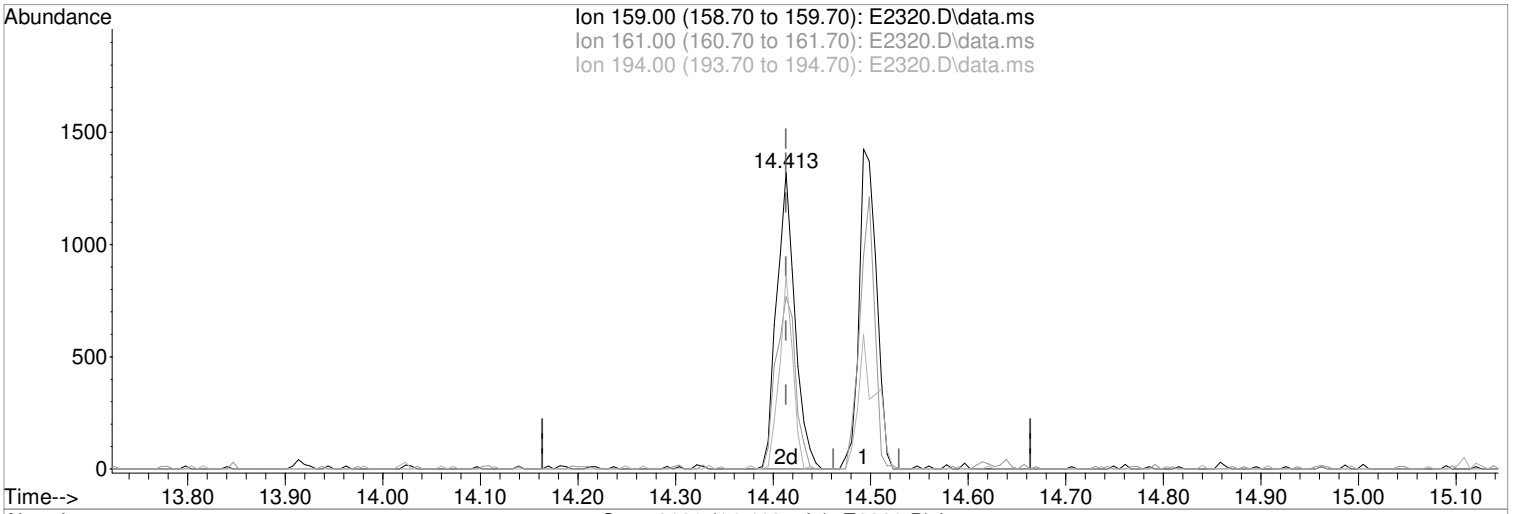
1st 07/01/19
2nd 07/02/19

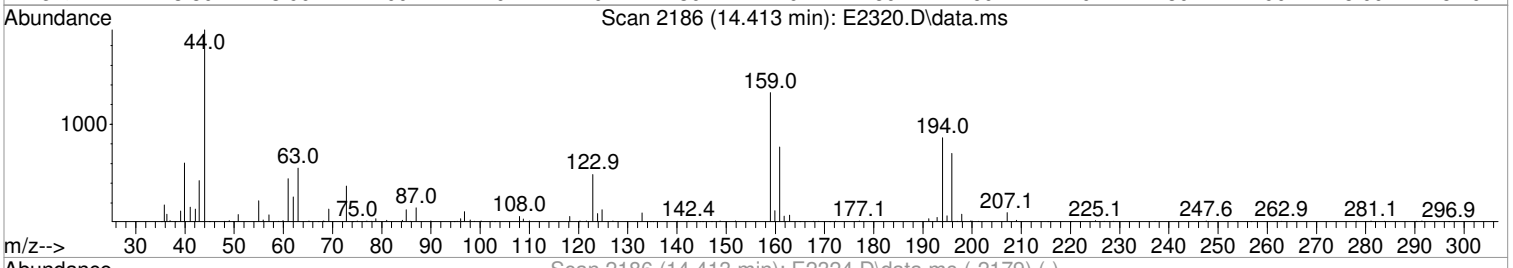
1st DL 07/01/19
2nd 07/02/19

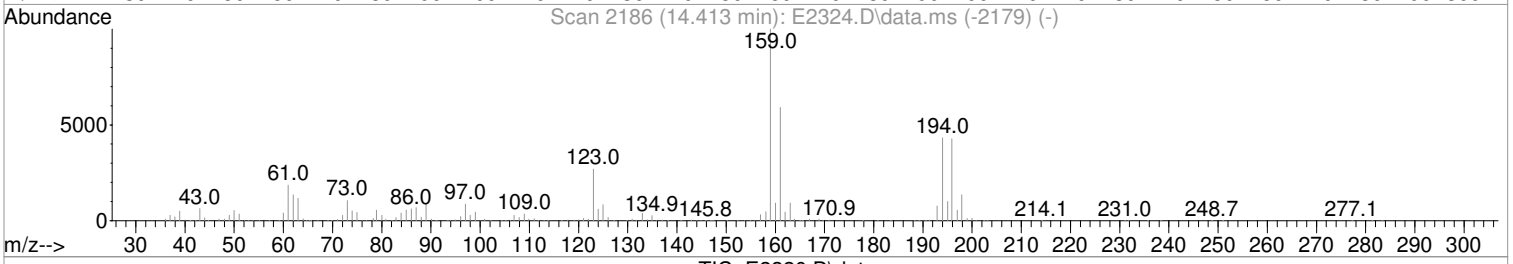
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.413min (-0.000) 0.71 ug/L m

response 1723

Ion	Exp%	Act%
159.00	100	100
161.00	59.10	58.06
194.00	43.30	65.33#
0.00	0.00	0.00

Manual Integration:

After

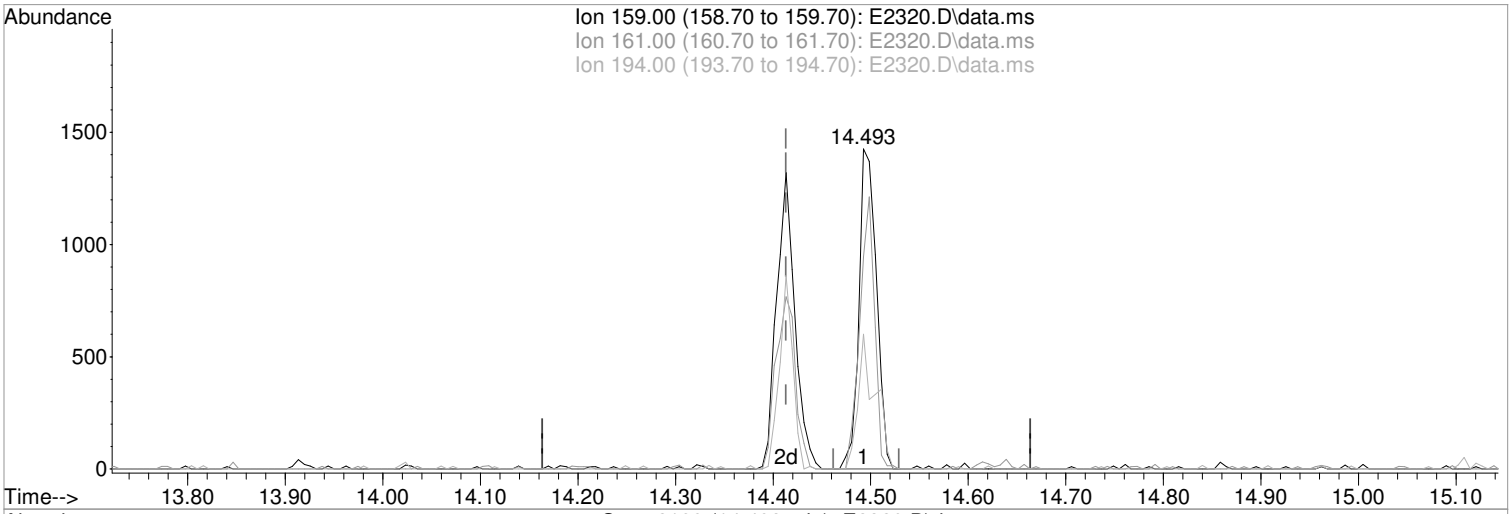
Wrong peak selected.

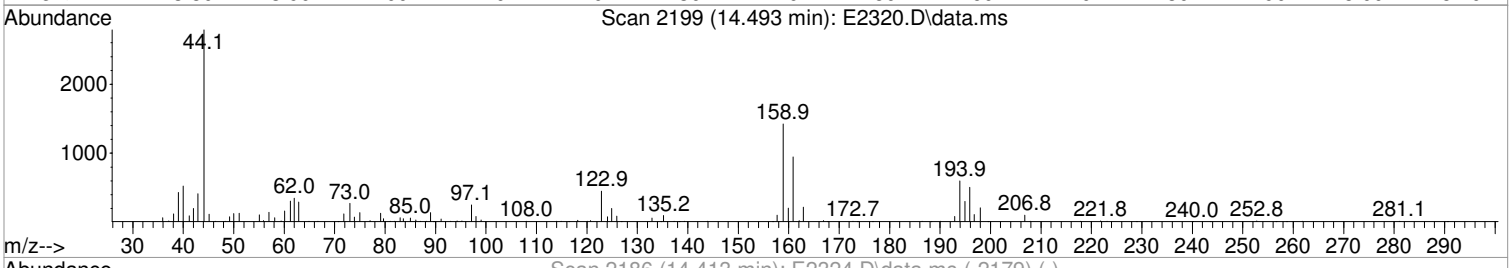
07/01/19

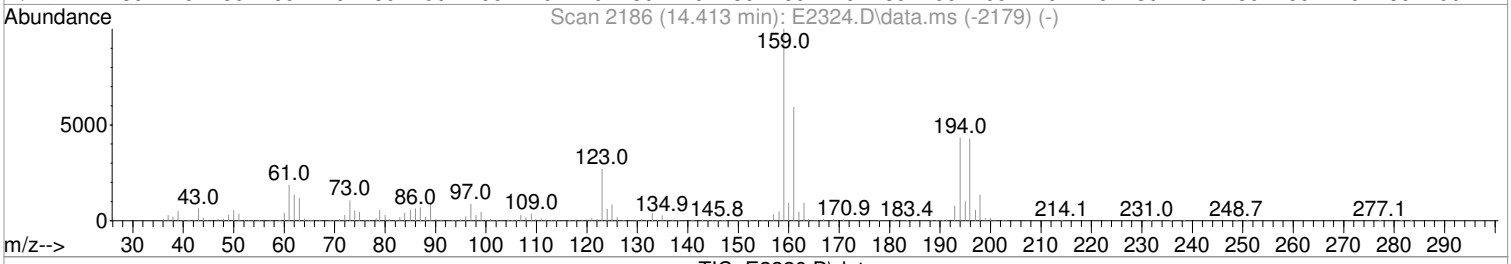
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.493min (+0.079) 0.73 ug/L

response 1779

Ion	Exp%	Act%
159.00	100	100
161.00	59.10	66.34
194.00	43.30	42.08
0.00	0.00	0.00

Manual Integration:

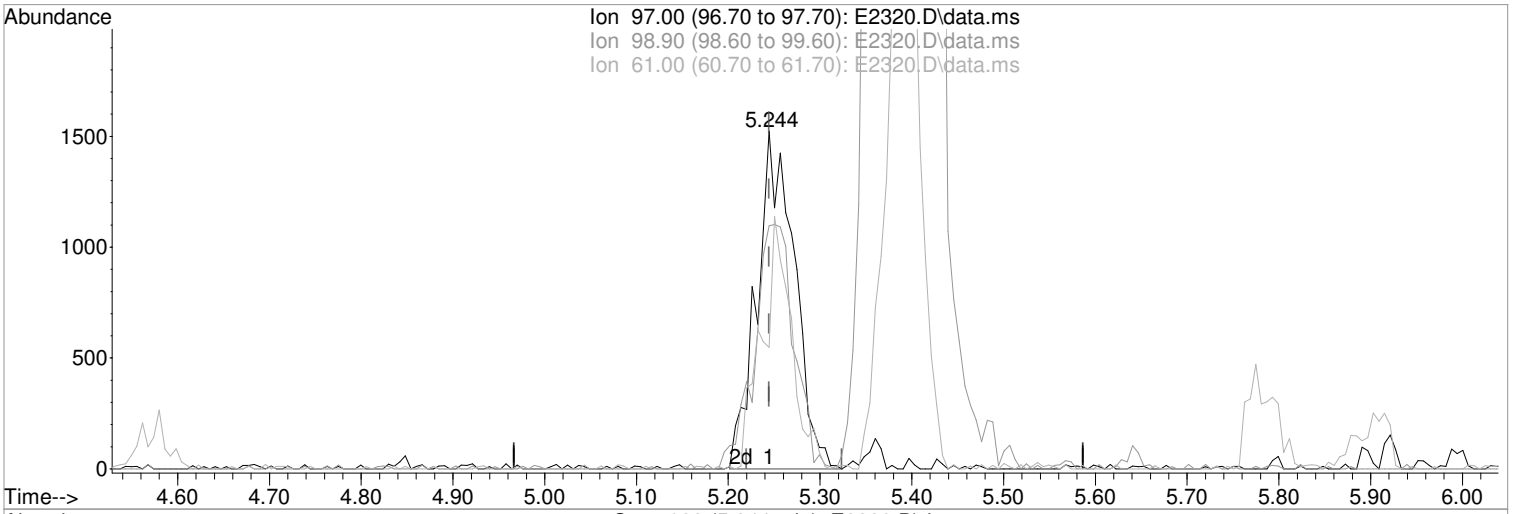
Before

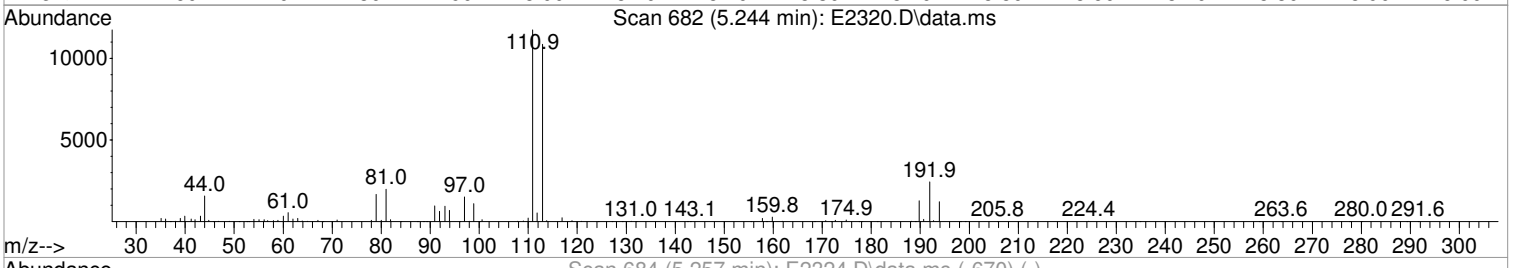
07/01/19

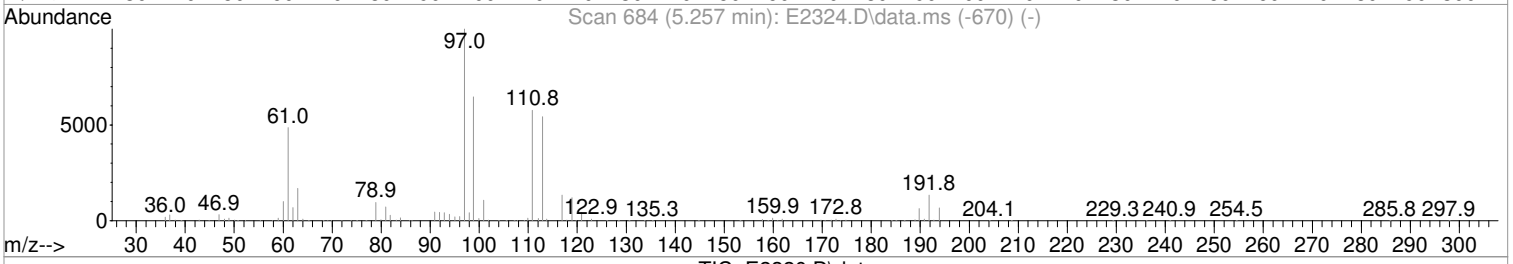
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.244min (-0.000) 1.02 ug/L m

response 4310

Ion	Exp%	Act%
97.00	100	100
98.90	64.70	72.08
61.00	48.60	36.07
0.00	0.00	0.00

Manual Integration:

After

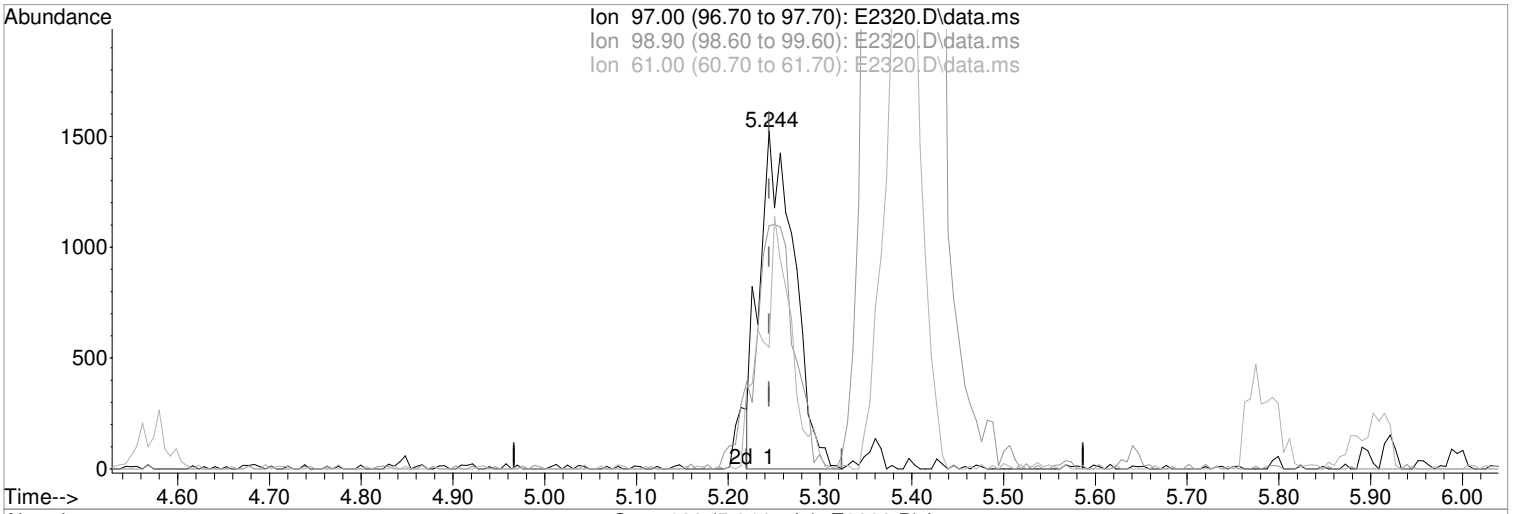
Poor integration.

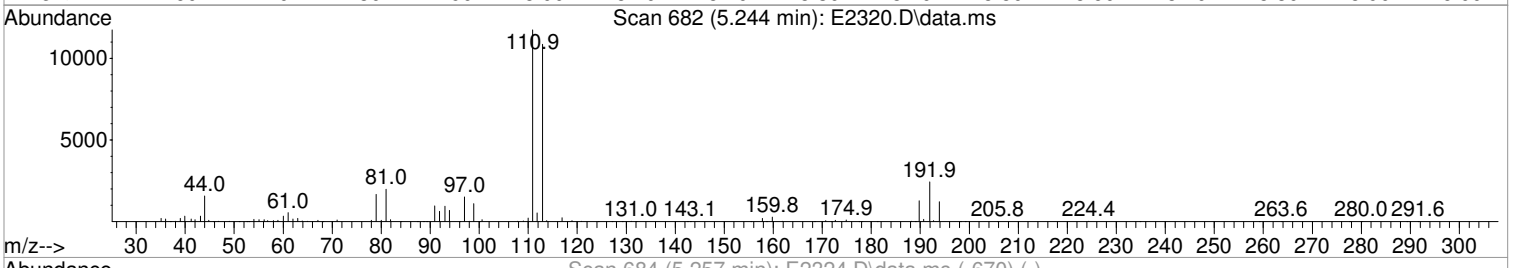
07/01/19

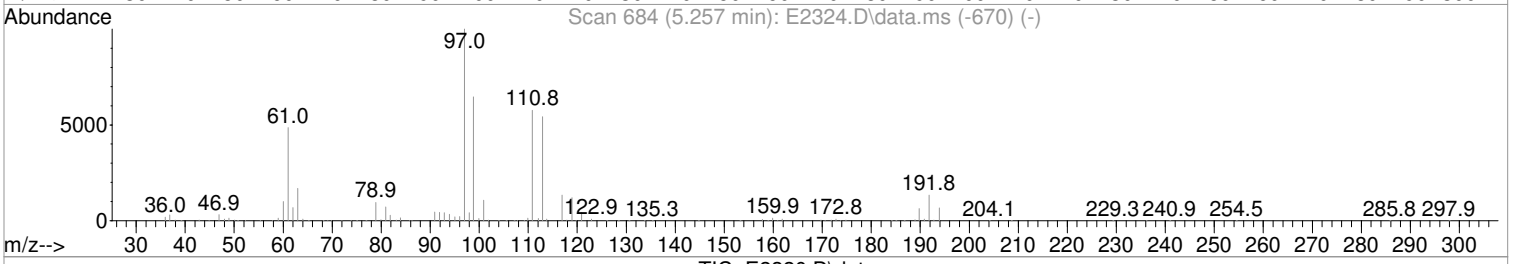
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.244min (-0.000) 0.96 ug/L

response 4040

Ion	Exp%	Act%
97.00	100	100
98.90	64.70	72.08
61.00	48.60	36.07
0.00	0.00	0.00

Manual Integration:

Before

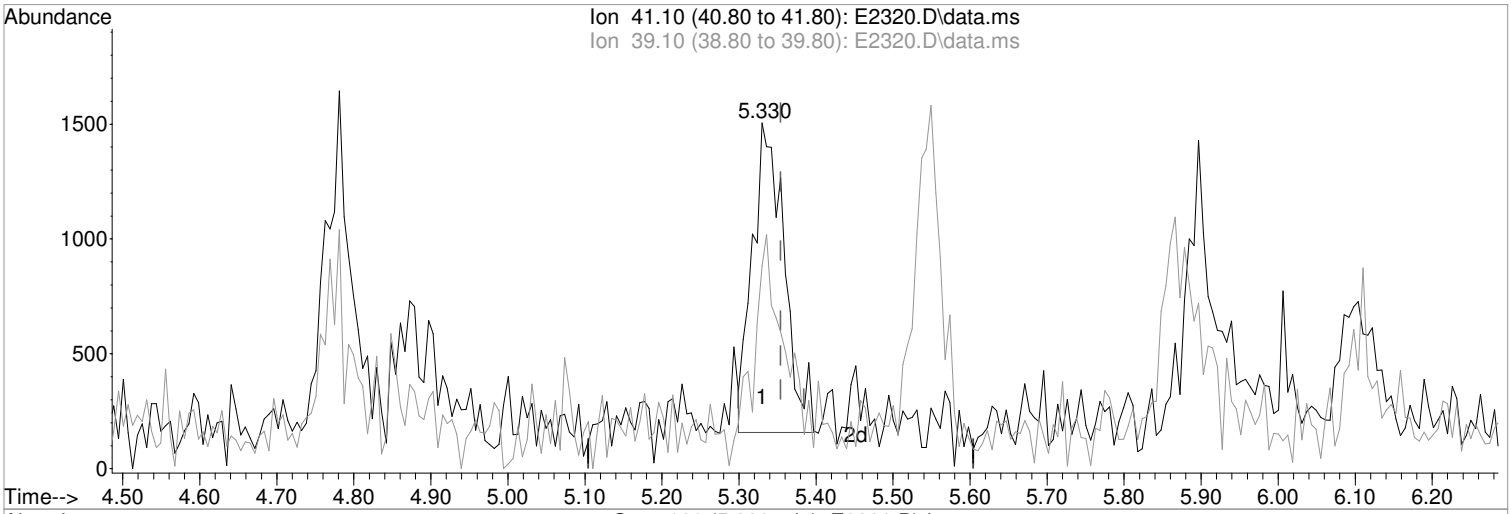
07/01/19

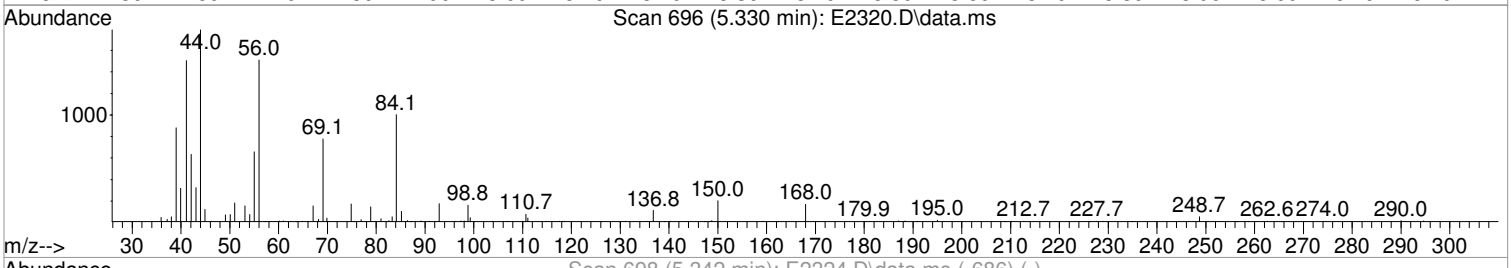
1st DL 07/01/19
2nd 07/02/19

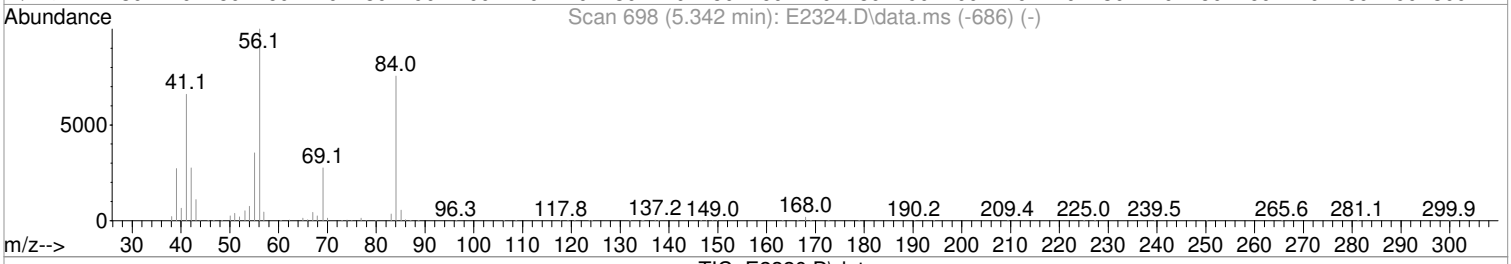
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.025) 1.07 ug/L m

response 3840

Ion	Exp%	Act%
41.10	100	100
39.10	41.10	58.60
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

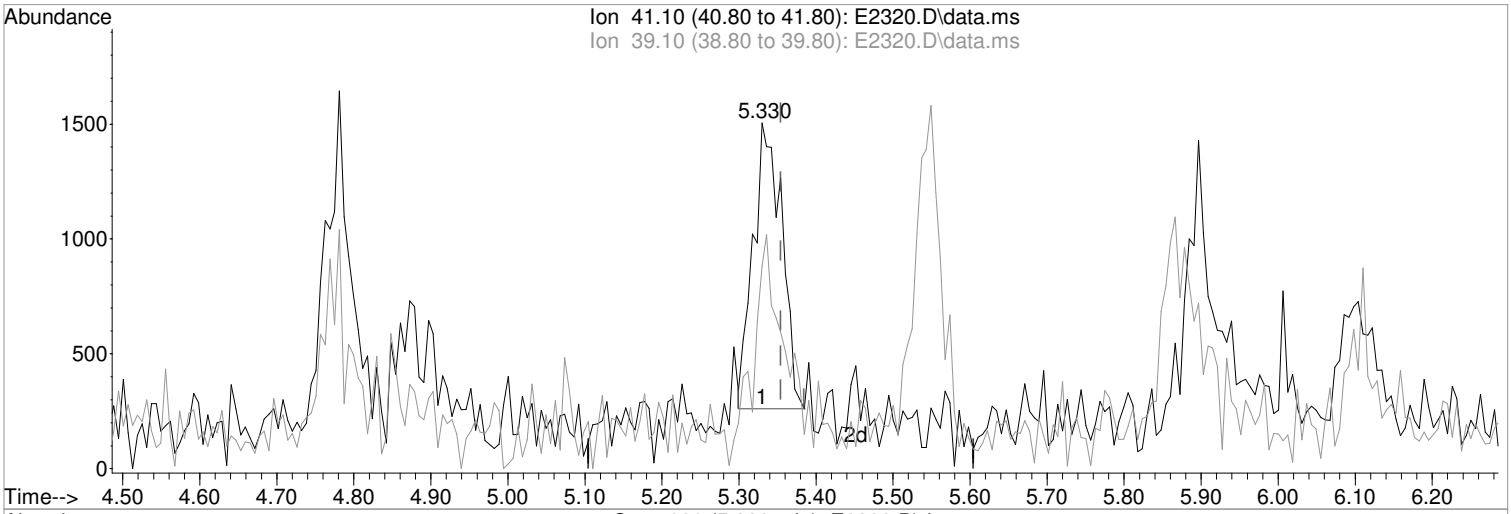
07/01/19

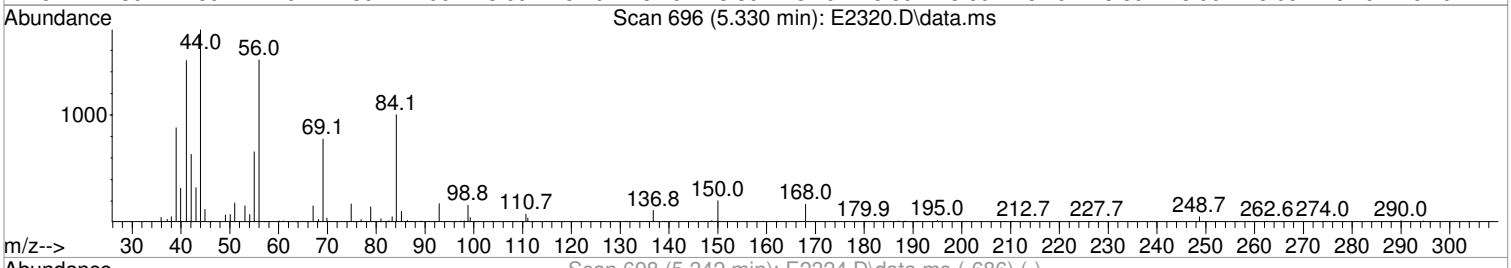
1st DL 07/01/19
2nd 07/02/19

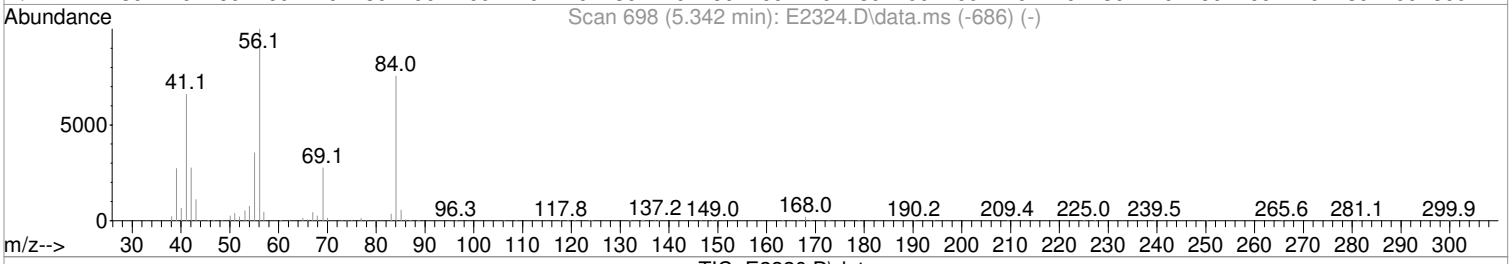
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.025) 0.89 ug/L

response 3199

Ion	Exp%	Act%
41.10	100	100
39.10	41.10	58.60
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

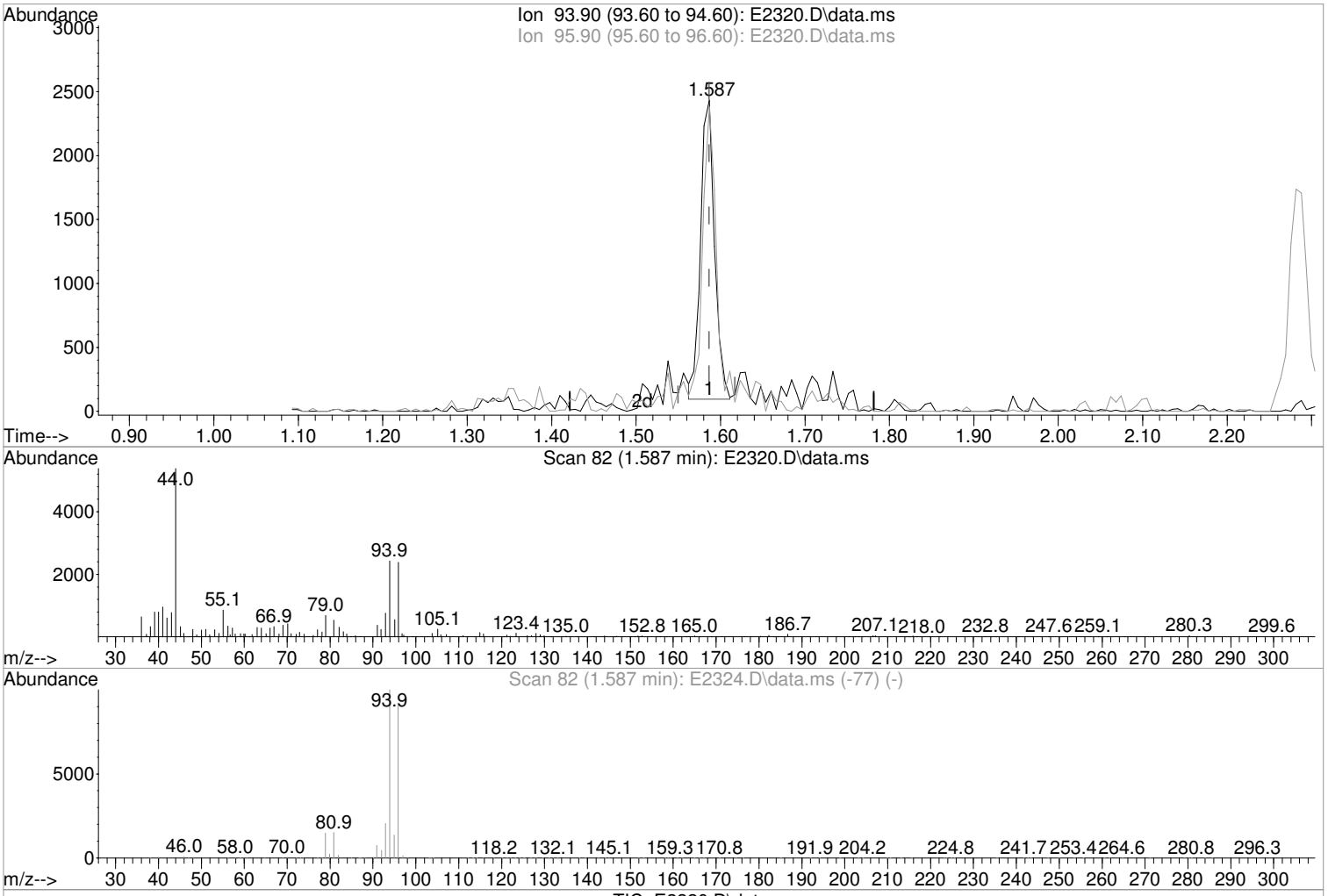
Before

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration



TIC: E2320.D\data.ms

(5) Bromomethane (P)

1.587min (-0.000) 0.93 ug/L m

response 2689

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	97.86
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

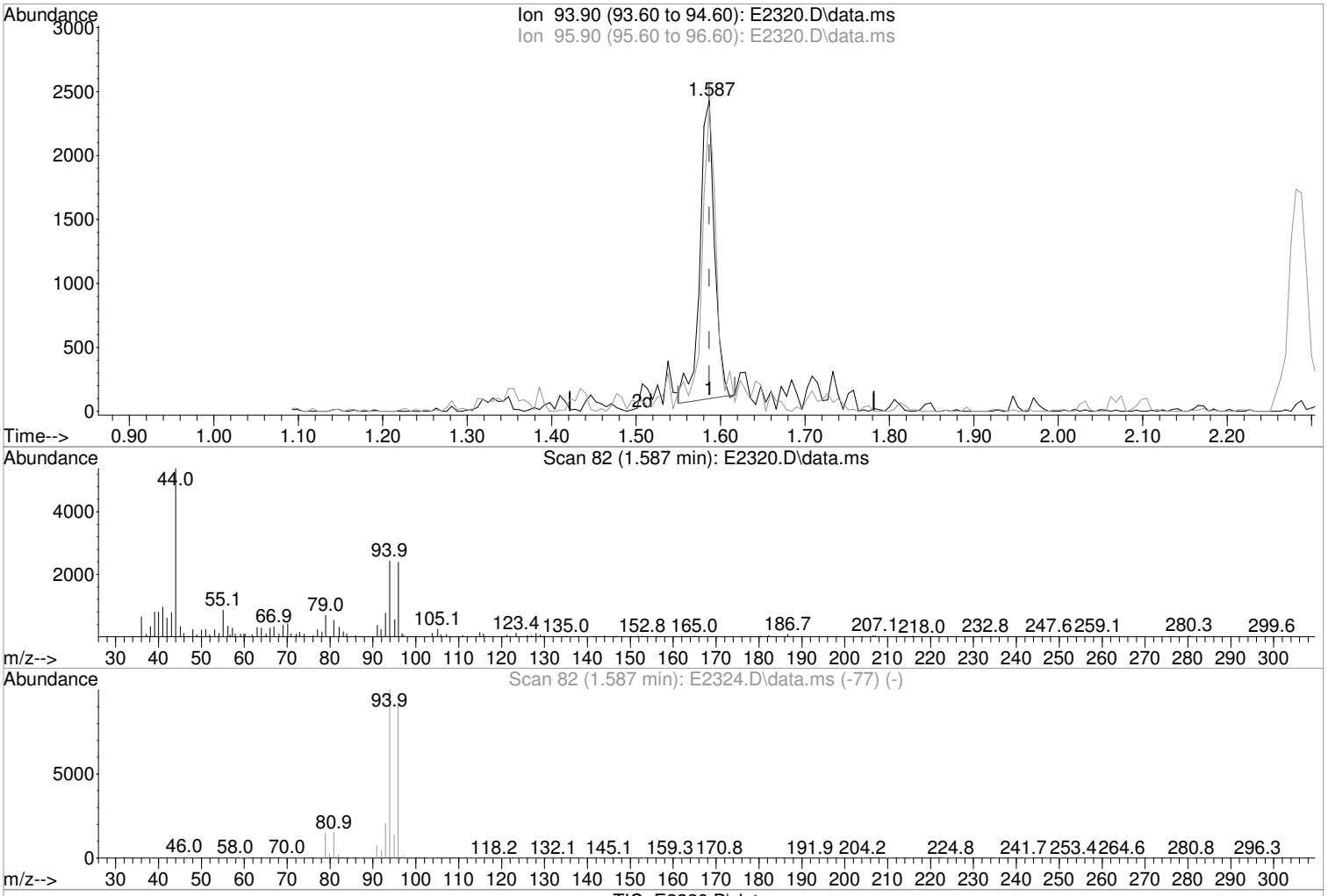
Poor integration.

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration



TIC: E2320.D\data.ms

(5) Bromomethane (P)

1.587min (-0.000) 0.97 ug/L

response 2816

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	97.86
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

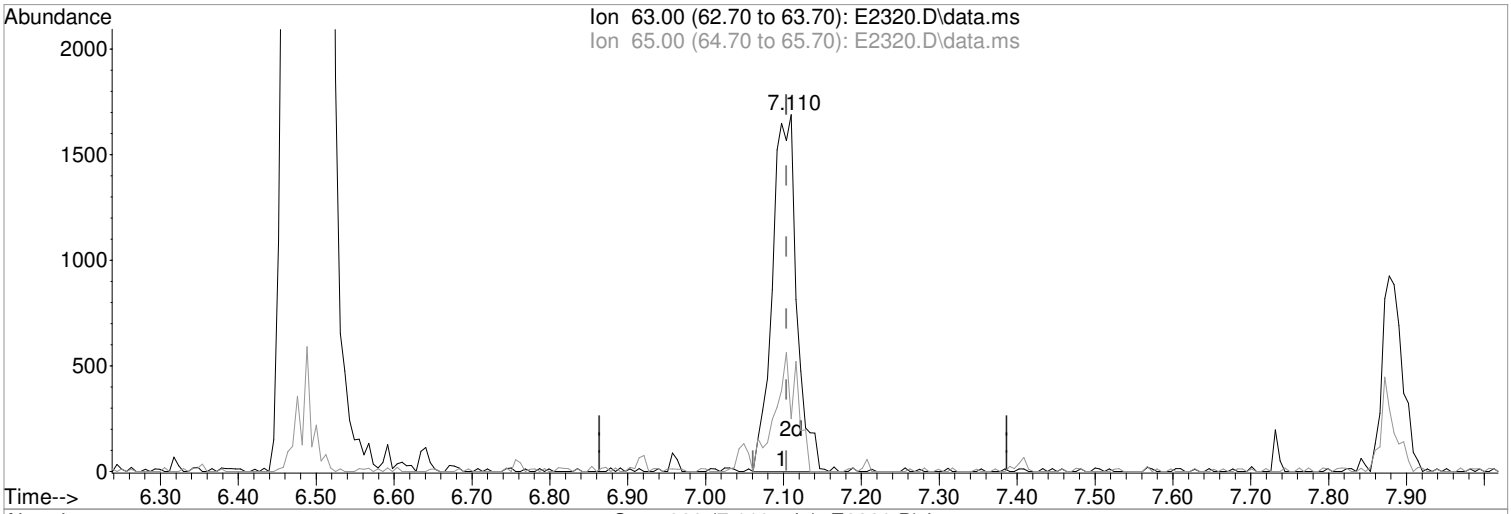
Before

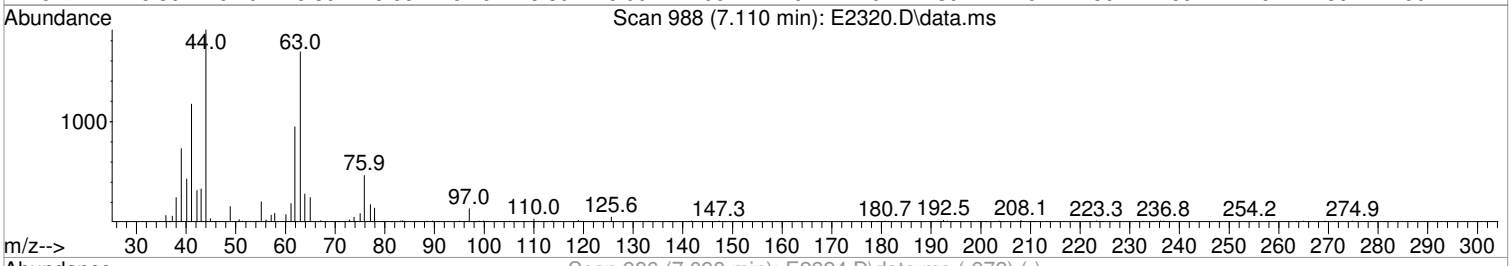
07/01/19

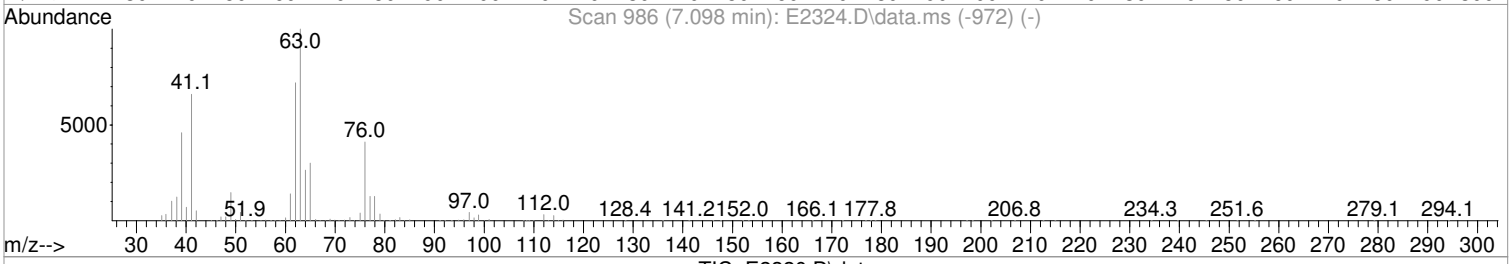
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(55) 1,2-Diclpropane (P)

7.110min (+0.006) 1.07 ug/L m

response 3679

Ion	Exp%	Act%
63.00	100	100
65.00	30.10	14.73
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

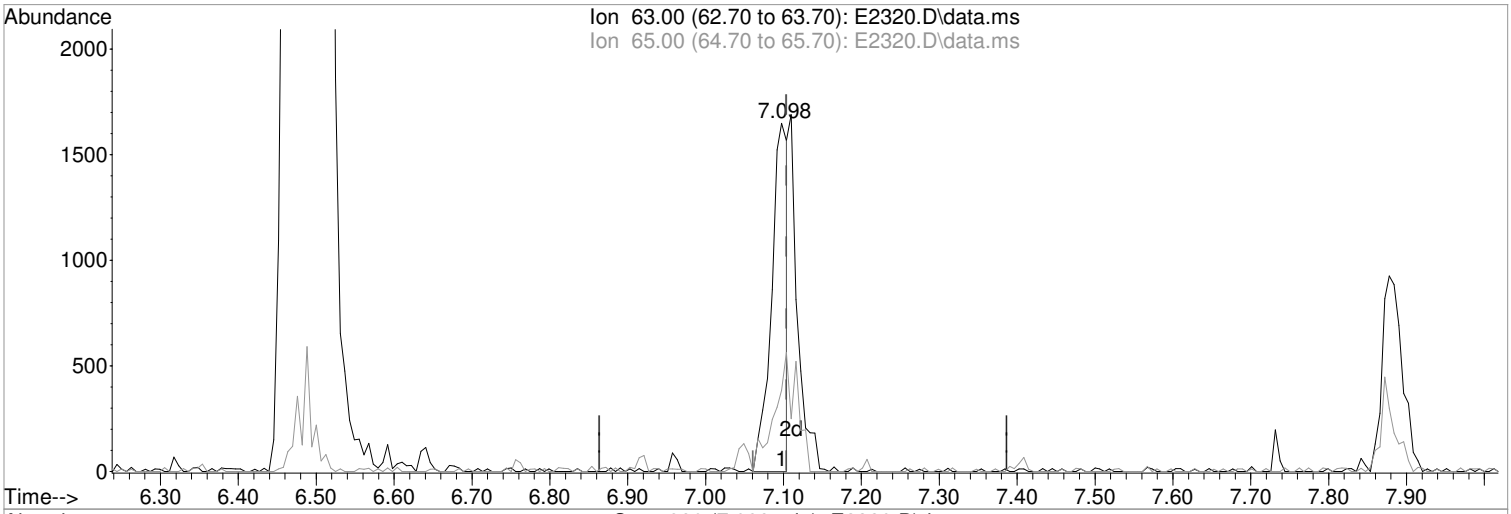
07/01/19

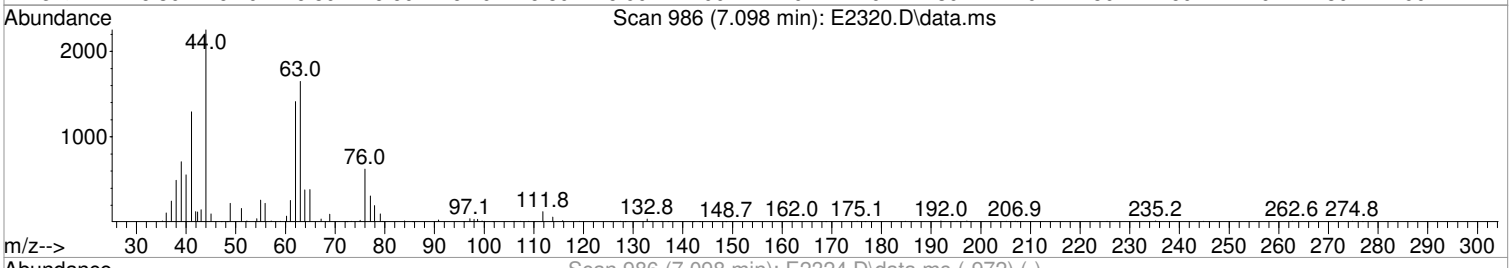
1st DL 07/01/19
2nd 07/02/19

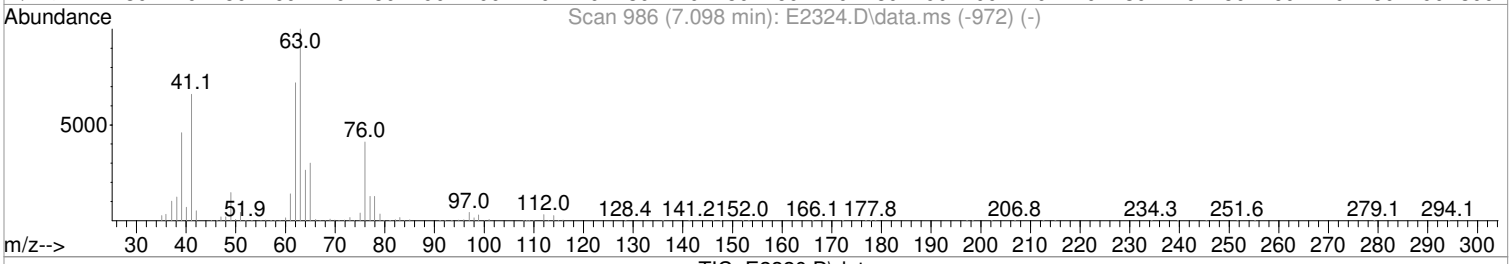
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(55) 1,2-Diclpropane (P)

7.098min (-0.006) 0.69 ug/L

response 2372

Ion	Exp%	Act%
63.00	100	100
65.00	30.10	23.29
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

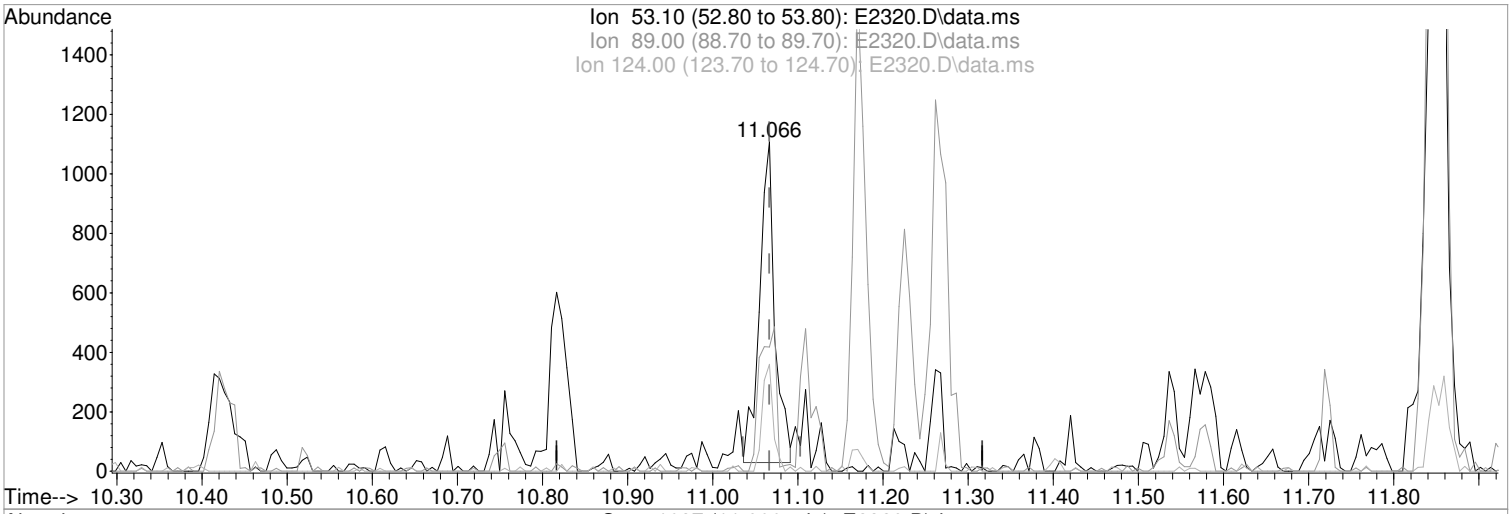
07/01/19

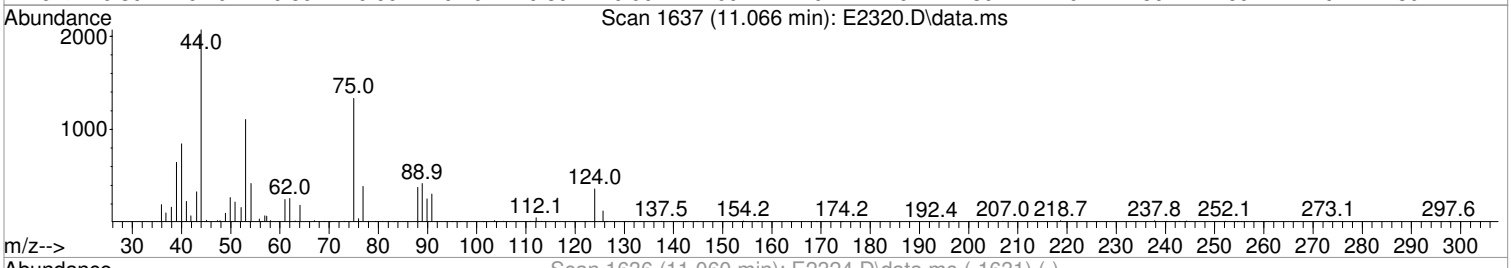
1st DL 07/01/19
2nd 07/02/19

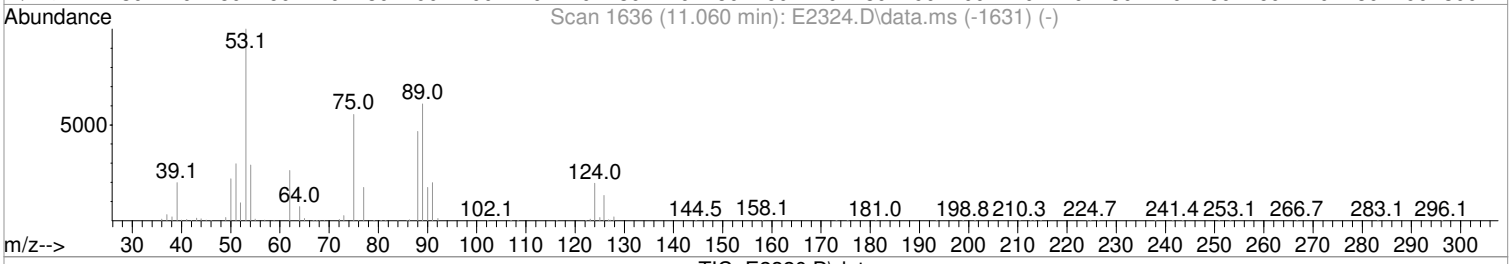
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.066min (-0.000) 1.32 ug/L m

response 1356

Ion	Exp%	Act%
53.10	100	100
89.00	60.90	37.76#
124.00	19.50	32.52
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

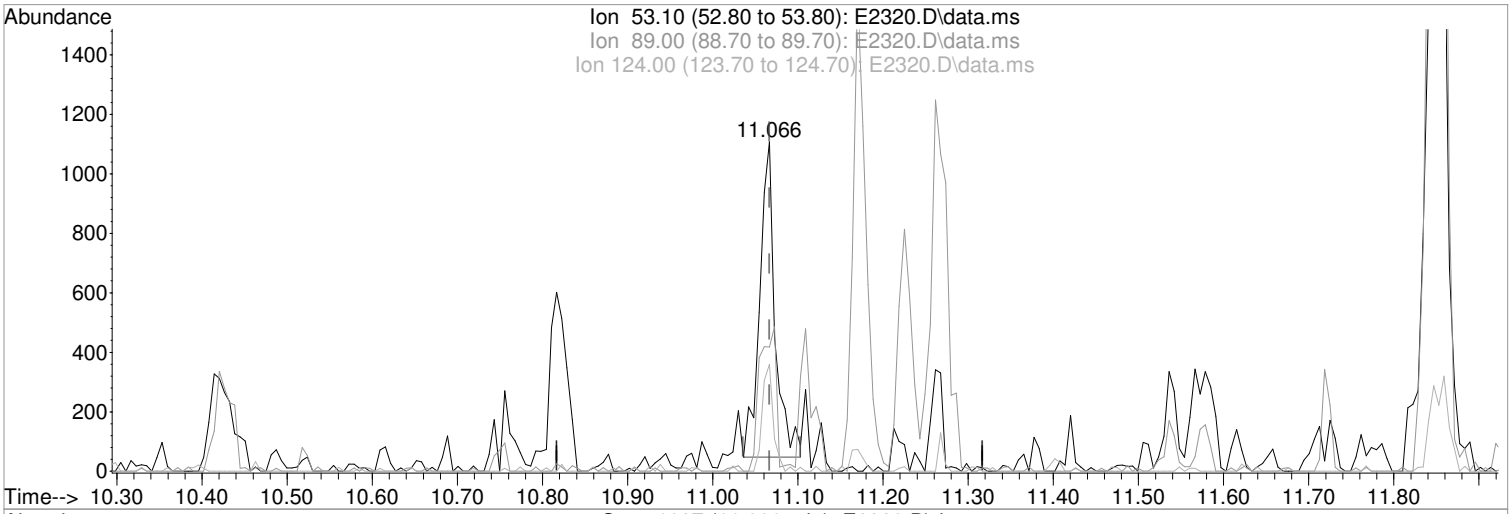
07/01/19

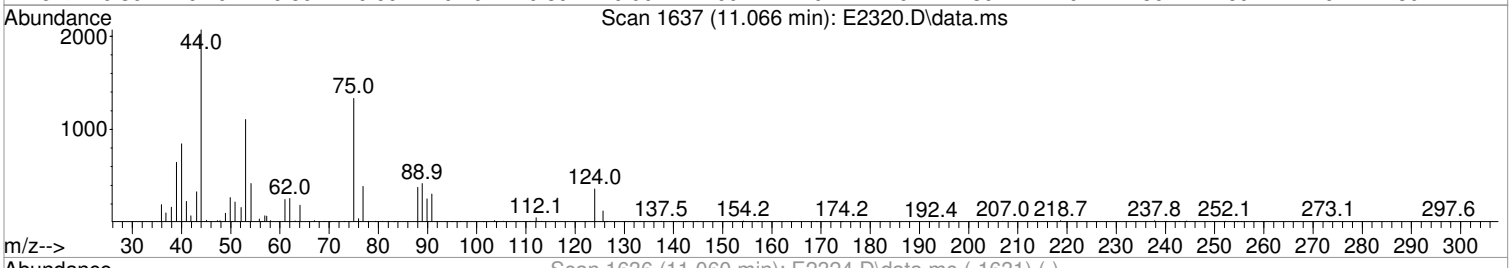
1st DL 07/01/19
2nd 07/02/19

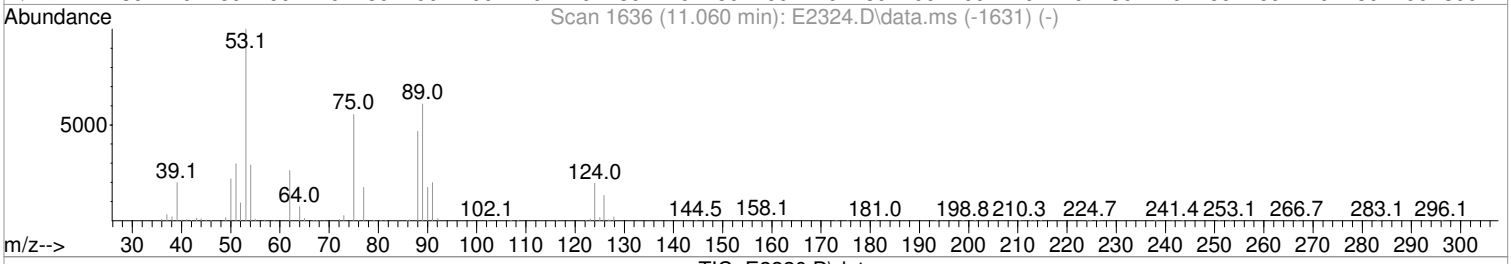
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:10:40 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration







TIC: E2320.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.066min (-0.000) 1.31 ug/L

response 1348

Ion	Exp%	Act%
53.10	100	100
89.00	60.90	37.76#
124.00	19.50	32.52
0.00	0.00	0.00

Manual Integration:

Before

07/01/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:19:43 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.397	168	289917	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	414901	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	356779	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	187998	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.244	113	30415	11.18	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.36%#				
46) surr1,1,2-dichloroetha...	5.781	65	39546	10.92	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 21.84%#				
64) SURR3,Toluene-d8	8.311	98	118478	10.81	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 21.62%#				
69) SURR2,BFB	10.877	95	44110	10.82	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.64%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	4148	0.96	ug/L		89
3) Chloromethane	1.282	50	4873	0.89	ug/L		91
4) Vinyl Chloride	1.355	62	4480	1.14	ug/L		87
5) Bromomethane	1.587	94	2689m	0.93	ug/L		
6) Chloroethane	1.666	64	3436	1.49	ug/L		85
7) Freon 21	1.812	67	5514	1.05	ug/L		92
8) Trichlorofluoromethane	1.861	101	4204	0.96	ug/L		83
9) Diethyl Ether	2.099	59	3127	1.15	ug/L		95
10) Freon 123a	2.099	67	3725	1.08	ug/L		95
11) Freon 123	2.147	83	4348	1.15	ug/L		82
12) Acrolein	2.196	56	3714	5.49	ug/L		98
13) 1,1-Diclethene	2.282	96	2769	1.05	ug/L		88
14) Freon 113	2.288	101	2679	1.05	ug/L	#	69
16) 2-Propanol	2.458	45	8409	28.67	ug/L		69
17) Iodomethane	2.416	142	1773	0.51	ug/L		93
18) Carbon Disulfide	2.477	76	9247	1.16	ug/L		94
19) Acetonitrile	2.592	41	3629	5.80	ug/L		87
20) Allyl Chloride	2.611	76	1621	1.08	ug/L		98
21) Methyl Acetate	2.641	43	4200	1.07	ug/L		85
22) Methylene Chloride	2.733	84	3551	1.10	ug/L		96
23) TBA	2.861	59	12443	27.47	ug/L		95
24) Acrylonitrile	2.989	53	8933	5.17	ug/L		90
25) Methyl-t-Butyl Ether	3.044	73	10191	1.08	ug/L		83
26) trans-1,2-Dichloroethene	3.025	96	2747	0.96	ug/L	#	74
27) 1,1-Diclethane	3.531	63	6294	1.06	ug/L		96
28) Vinyl Acetate	3.629	86	725	1.30	ug/L	#	21
29) DIPE	3.659	45	12740	1.07	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.659	53	5642	1.20	ug/L		91
31) ETBE	4.178	59	10633	1.16	ug/L		82
32) 2,2-Dichloropropane	4.367	77	4860	1.24	ug/L		91
33) cis-1,2-Dichloroethene	4.373	96	3647	1.13	ug/L	#	54
35) Propionitrile	4.507	54	3876	5.41	ug/L		78
36) Bromochloromethane	4.763	130	2400	1.19	ug/L	#	82
37) Methacrylonitrile	4.775	67	2237	1.26	ug/L		92
39) Chloroform	4.946	83	5595	1.03	ug/L		83
40) 1,1,1-Trichloroethane	5.244	97	4310m	1.02	ug/L		
42) Cyclohexane	5.330	41	3840m	1.07	ug/L		
44) Carbontetrachloride	5.531	117	4142	1.28	ug/L		86
45) 1,1-Dichloropropene	5.543	75	4220	1.04	ug/L		83

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:19:43 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) Benzene	5.860	78	12533	1.00	ug/L		96
48) 1,2-Dichloroethane	5.909	62	4513	0.97	ug/L		91
49) Iso-Butyl Alcohol	5.897	43	5949	27.05	ug/L		96
50) TAME	6.098	73	9986	1.20	ug/L		94
51) n-Heptane	6.360	43	5208	1.13	ug/L		89
52) 1-Butanol	6.872	56	5451	46.32	ug/L		81
53) Trichloroethene	6.823	130	3227	1.02	ug/L	#	81
54) Methylcyclohexane	7.049	55	4457	1.06	ug/L	#	79
55) 1,2-Diclpropane	7.110	63	3679m	1.07	ug/L		
56) Dibromomethane	7.238	93	2049	1.05	ug/L		83
57) 1,4-Dioxane	7.317	88	1271	21.99	ug/L	#	50
58) Methyl Methacrylate	7.329	69	3084	1.17	ug/L		95
59) Bromodichloromethane	7.476	83	4018	1.02	ug/L		93
60) 2-Nitropropane	7.756	41	3013	3.38	ug/L		95
61) 2-Chloroethylvinyl Ether	7.878	63	1667	0.93	ug/L		99
62) cis-1,3-Dichloropropene	8.012	75	5493	1.13	ug/L		94
63) 4-Methyl-2-pentanone	8.219	43	5023	1.07	ug/L		95
65) Toluene	8.384	91	13365	1.04	ug/L		96
66) trans-1,3-Dichloropropene	8.658	75	5127	1.24	ug/L		76
67) Ethyl Methacrylate	8.793	69	5240	1.20	ug/L		88
68) 1,1,2-Trichloroethane	8.841	97	2846	0.96	ug/L		92
71) Tetrachloroethene	8.975	164	2706	1.11	ug/L		90
72) 2-Hexanone	9.140	43	3927	1.16	ug/L		91
73) 1,3-Dichloropropane	9.012	76	4992	0.99	ug/L	#	77
74) Dibromochloromethane	9.244	129	2931	1.10	ug/L		96
75) N-Butyl Acetate	9.286	43	7565	1.33	ug/L		89
76) 1,2-Dibromoethane	9.341	107	2949	1.08	ug/L		88
77) 3-Chlorobenzotrifluoride	9.847	180	4381	0.97	ug/L		92
78) Chlorobenzene	9.835	112	7907	0.99	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	4226	1.05	ug/L		82
80) 1,1,1,2-Tetrachloroethane	9.914	131	3070	1.21	ug/L	#	78
81) Ethylbenzene	9.951	106	4147	0.98	ug/L		99
82) (m+p)Xylene	10.061	106	10460	1.99	ug/L		97
83) o-Xylene	10.420	106	4855	0.94	ug/L		90
84) Styrene	10.432	104	8515	1.00	ug/L		91
85) Bromoform	10.585	173	2199	1.24	ug/L		91
86) 2-Chlorobenzotrifluoride	10.664	180	4215	0.97	ug/L	#	77
87) Isopropylbenzene	10.756	105	13515	1.02	ug/L		92
88) Cyclohexanone	10.817	55	15743	21.39	ug/L		88
89) trans-1,4-Dichloro-2-B...	11.066	53	1356m	1.32	ug/L		
91) 1,1,2,2-Tetrachloroethane	11.012	83	4080	1.03	ug/L		91
92) Bromobenzene	10.999	156	3498	1.05	ug/L		95
93) 1,2,3-Trichloropropane	11.042	110	1309	1.07	ug/L	#	77
94) n-Propylbenzene	11.109	91	15853	1.06	ug/L		99
95) 2-Chlorotoluene	11.176	91	8903	0.98	ug/L		93
96) 3-Chlorotoluene	11.225	91	9630	1.09	ug/L		87
97) 4-Chlorotoluene	11.268	91	10444	1.02	ug/L		96
98) 1,3,5-Trimethylbenzene	11.262	105	10756	1.03	ug/L		97
99) tert-Butylbenzene	11.536	119	9448	1.05	ug/L		95
100) 1,2,4-Trimethylbenzene	11.579	105	10882	1.05	ug/L		84
101) 3,4-Dichlorobenzotrifl...	11.640	214	3697	1.06	ug/L		89
102) sec-Butylbenzene	11.719	105	13535	1.00	ug/L		96
103) p-Isopropyltoluene	11.835	119	10568	0.96	ug/L		90
104) 1,3-Dclbenz	11.798	146	6683	1.07	ug/L		90
105) 1,4-Dclbenz	11.871	146	6322	0.97	ug/L		79
106) 2,4-Dichlorobenzotrifl...	11.926	214	3356	1.08	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:19:43 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration

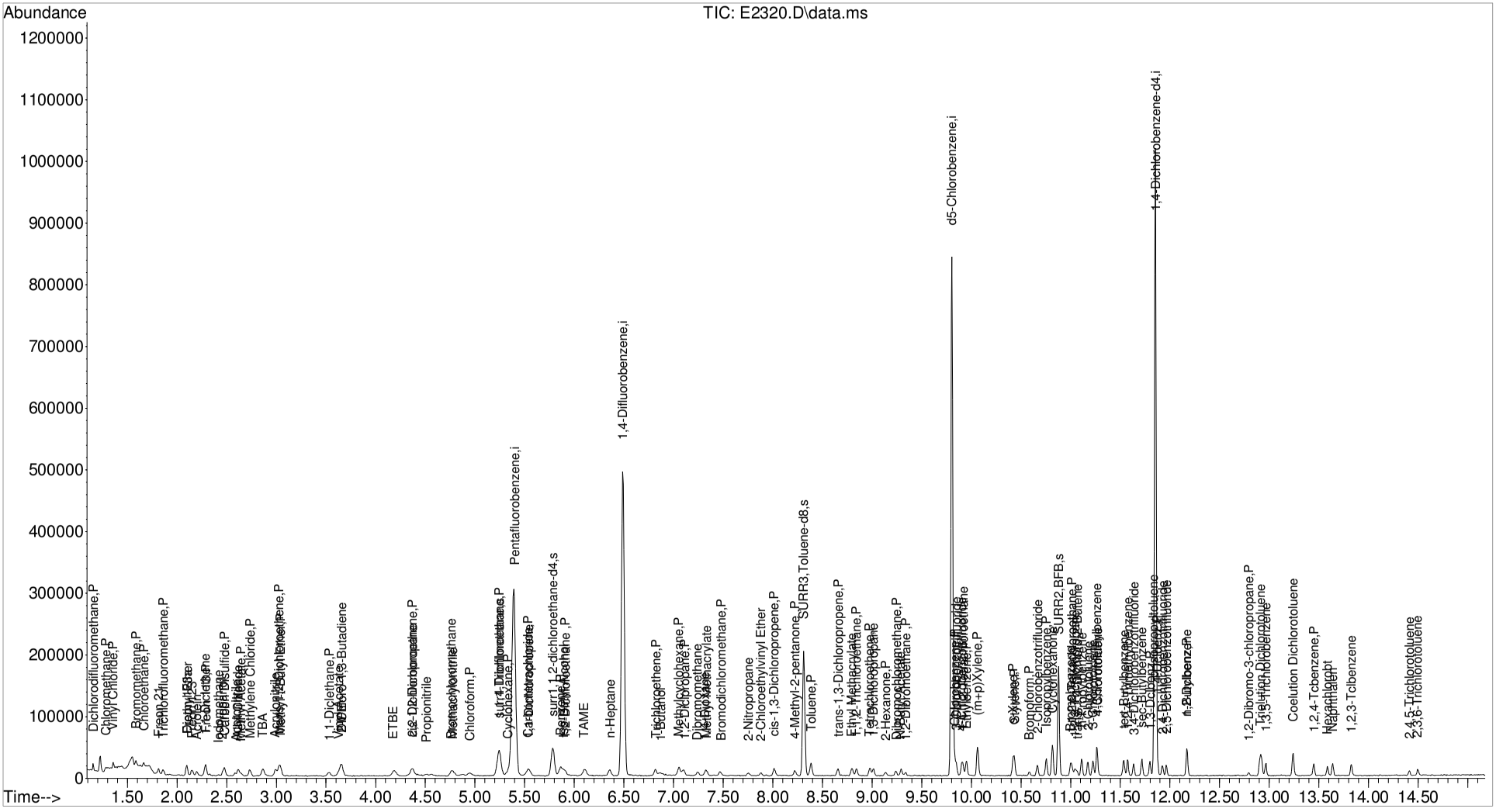
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
107) 2,5-Dichlorobenzotrifl...	11.963	214	3536	0.94	ug/L		87
108) n-Butylbenzene	12.170	91	10184	0.98	ug/L		97
109) 1,2-Dclbenz	12.170	146	6466	1.03	ug/L		96
110) 1,2-Dibromo-3-chloropr...	12.792	157	1043	1.35	ug/L		90
111) Trielution Dichlorotol...	12.908	125	14700	2.85	ug/L		96
112) 1,3,5-Trichlorobenzene	12.969	180	4460	0.94	ug/L		100
113) Coelution Dichlorotoluene	13.243	125	11540	2.07	ug/L		97
114) 1,2,4-Tcbenzene	13.450	180	4446	0.94	ug/L		89
115) Hexachlorobt	13.584	225	2108	1.01	ug/L	#	77
116) Naphthalen	13.639	128	10892	0.92	ug/L		95
117) 1,2,3-Tclbenzene	13.828	180	4397	0.97	ug/L		99
118) 2,4,5-Trichlorotoluene	14.413	159	1723m	0.71	ug/L		
119) 2,3,6-Trichlorotoluene	14.493	159	1779	0.70	ug/L		92

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2320.D
Acq On : 1 Jul 2019 12:18 pm
Operator : D.LIPANI
Sample : STD #2 - 1.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 01 16:19:43 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:10:29 2019
Response via : Initial Calibration



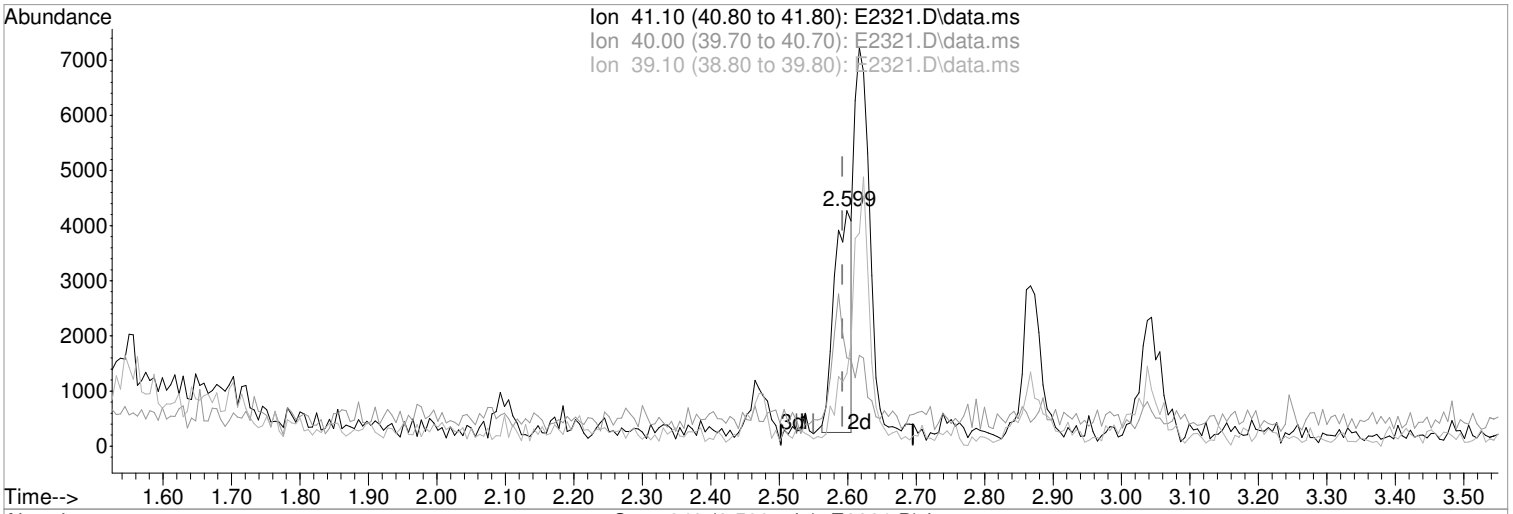
1st 07/01/19
2nd 07/02/19

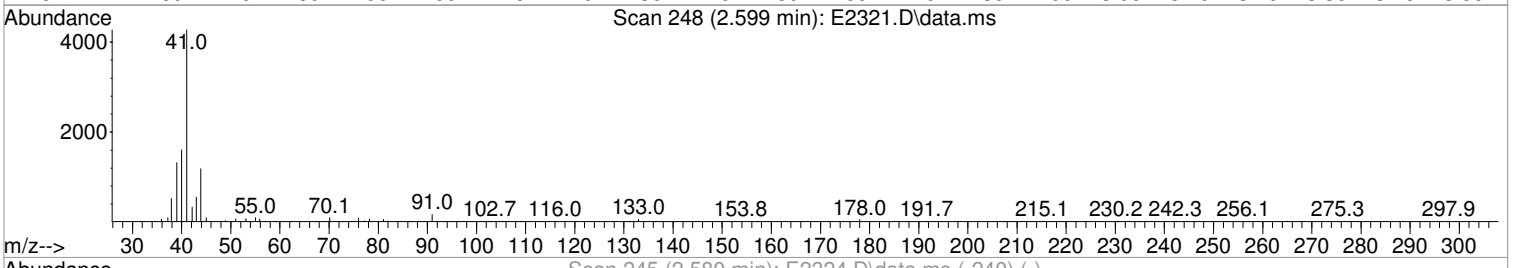
1st DL 07/01/19
2nd 07/02/19

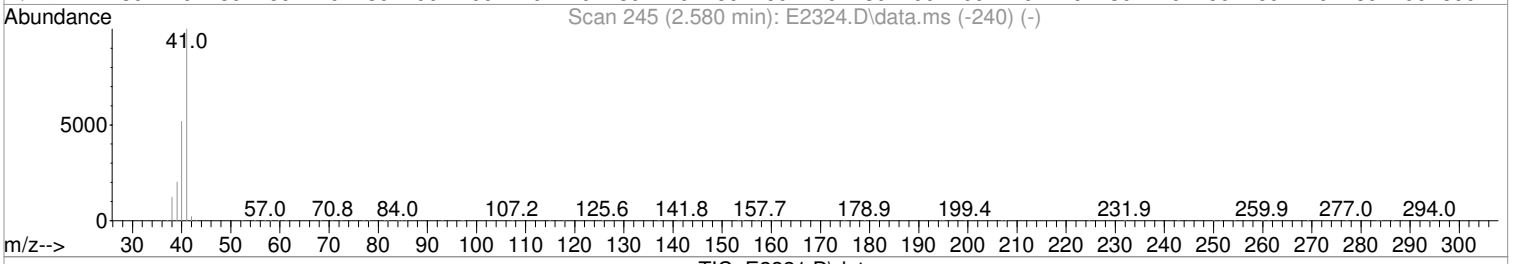
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(19) Acetonitrile

2.599min (+0.006) 12.54 ug/L m

response 7225

Ion	Exp%	Act%
41.10	100	100
40.00	52.10	37.53
39.10	20.40	30.86
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

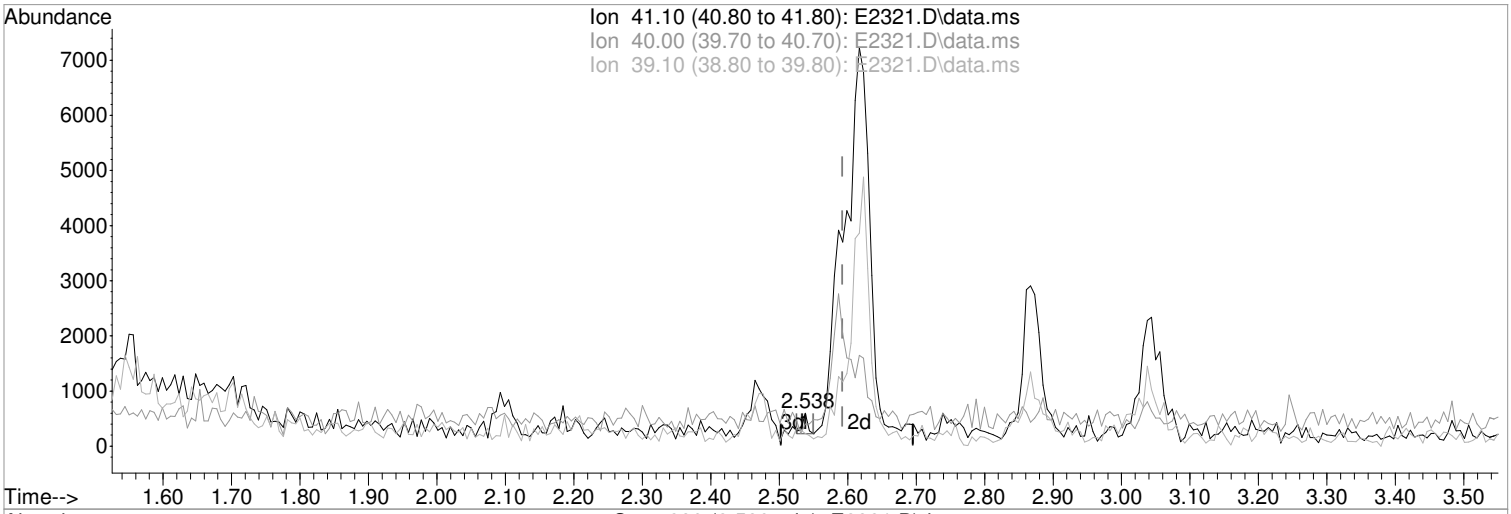
07/01/19

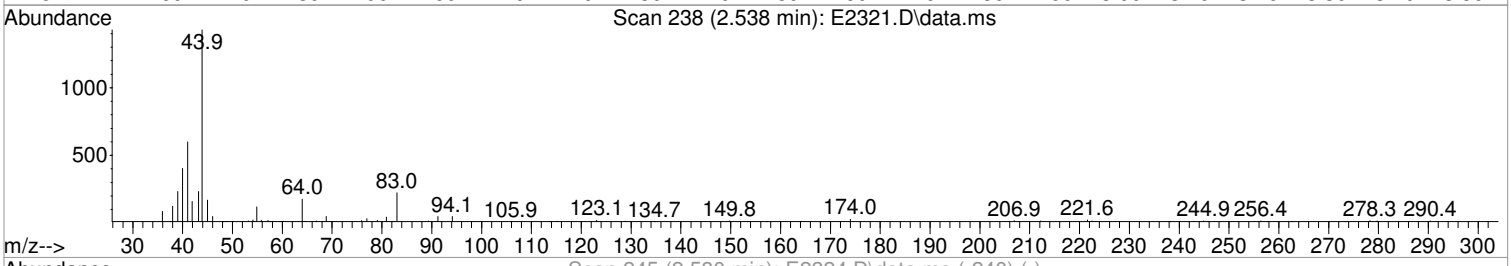
1st DL 07/01/19
2nd 07/02/19

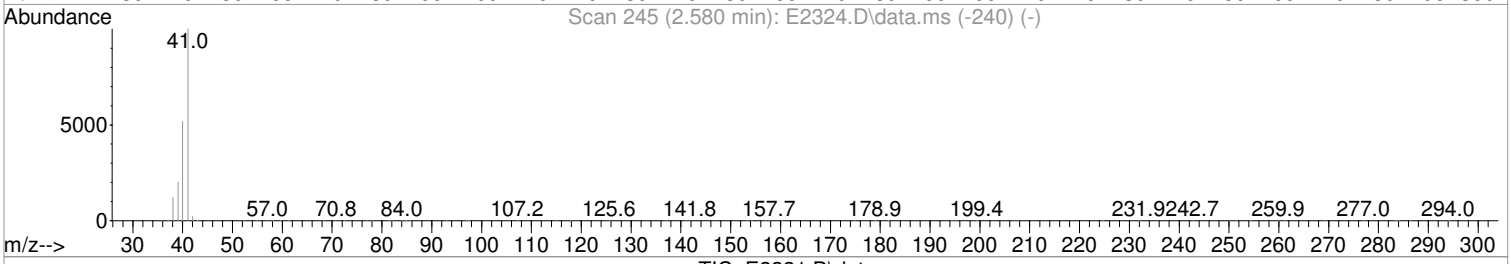
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(19) Acetonitrile

2.538min (-0.055) 0.31 ug/L

response 181

Ion	Exp%	Act%
41.10	100	100
40.00	52.10	67.00
39.10	20.40	38.83
0.00	0.00	0.00

Manual Integration:

Before

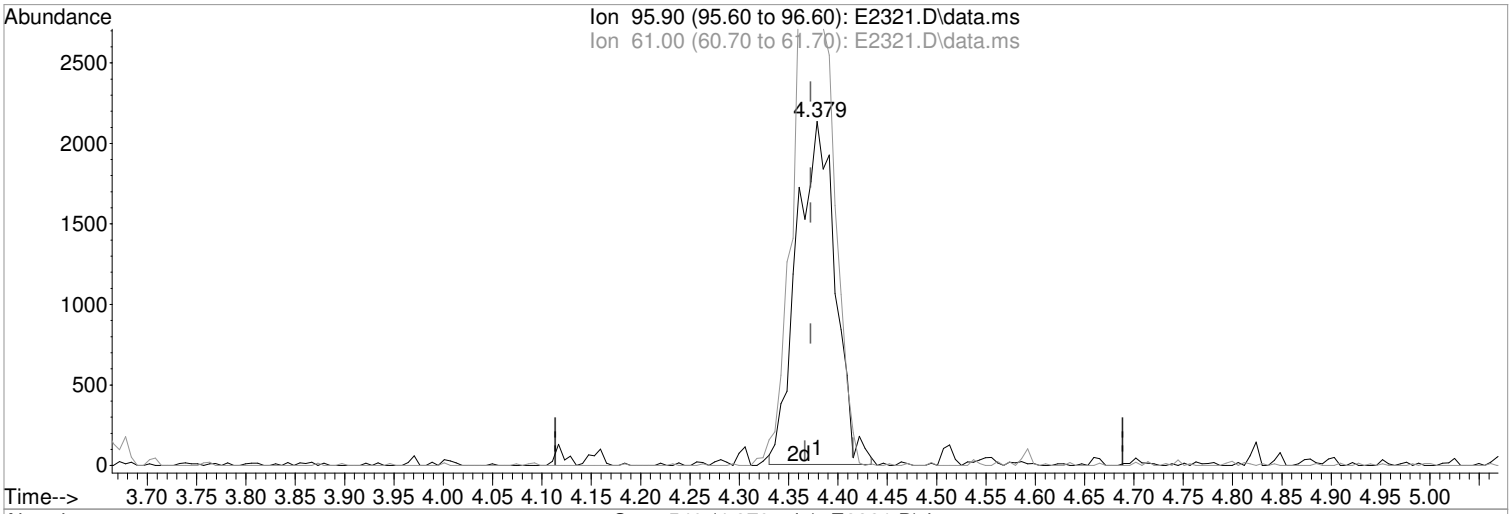
07/01/19

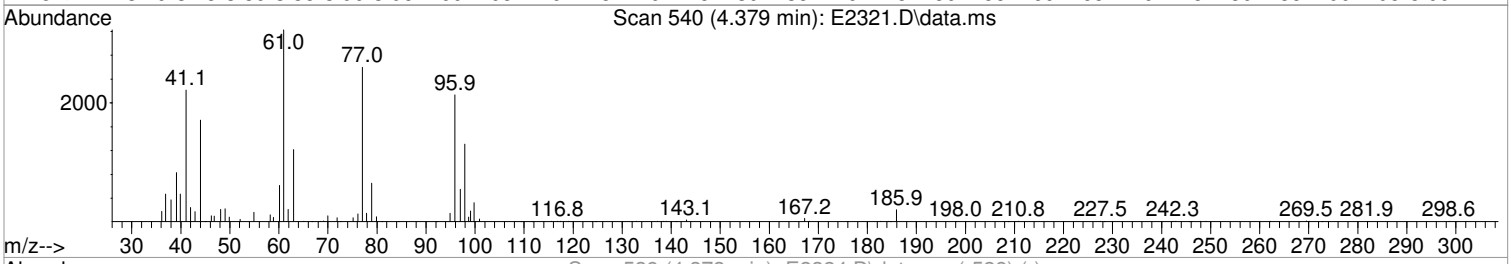
1st DL 07/01/19
2nd 07/02/19

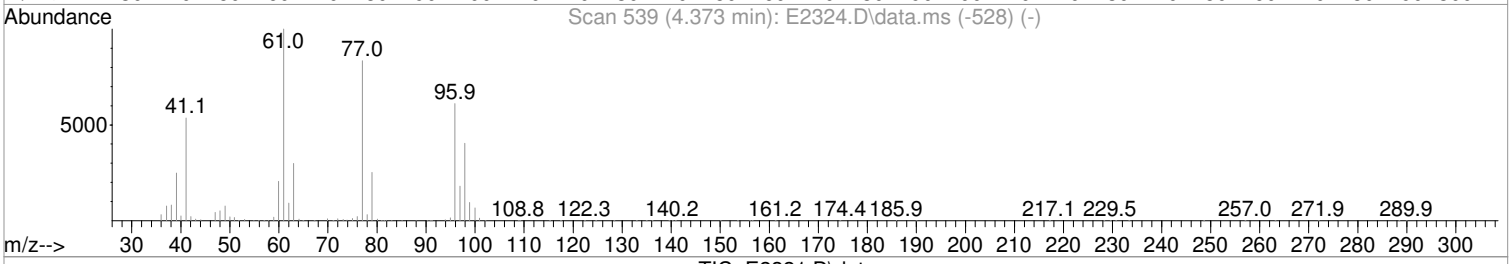
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.379min (+0.006) 2.06 ug/L m

response 5796

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	150.94
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

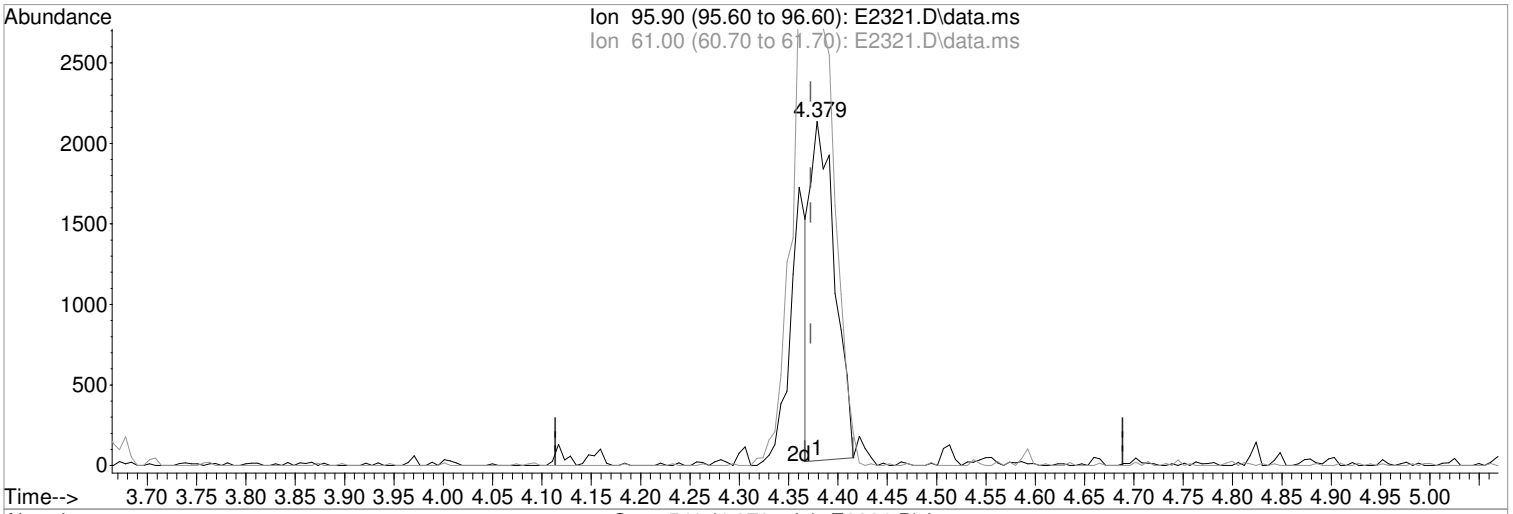
07/01/19

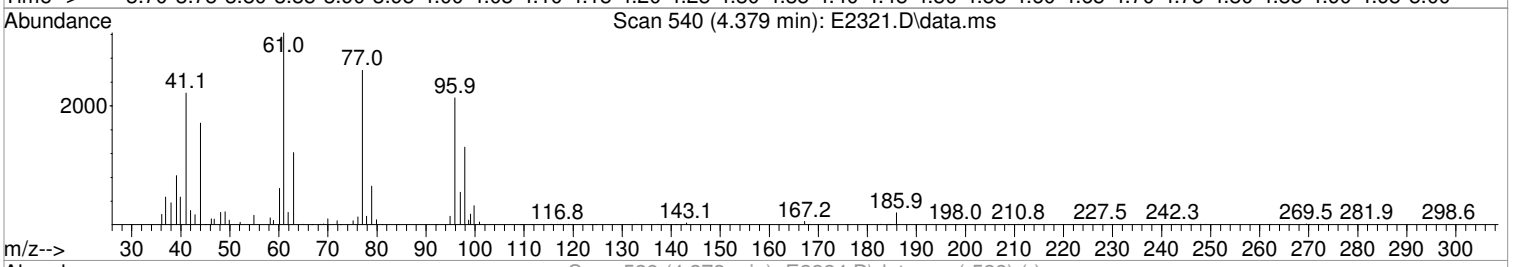
1st DL 07/01/19
2nd 07/02/19

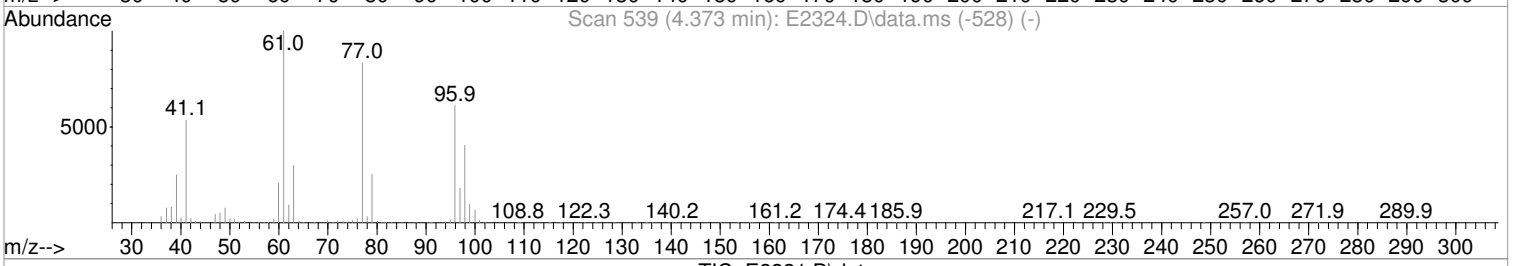
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.379min (+0.006) 1.28 ug/L

response 3620

Ion	Exp%	Act%
95.90	100	100
61.00	163.60	150.94
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

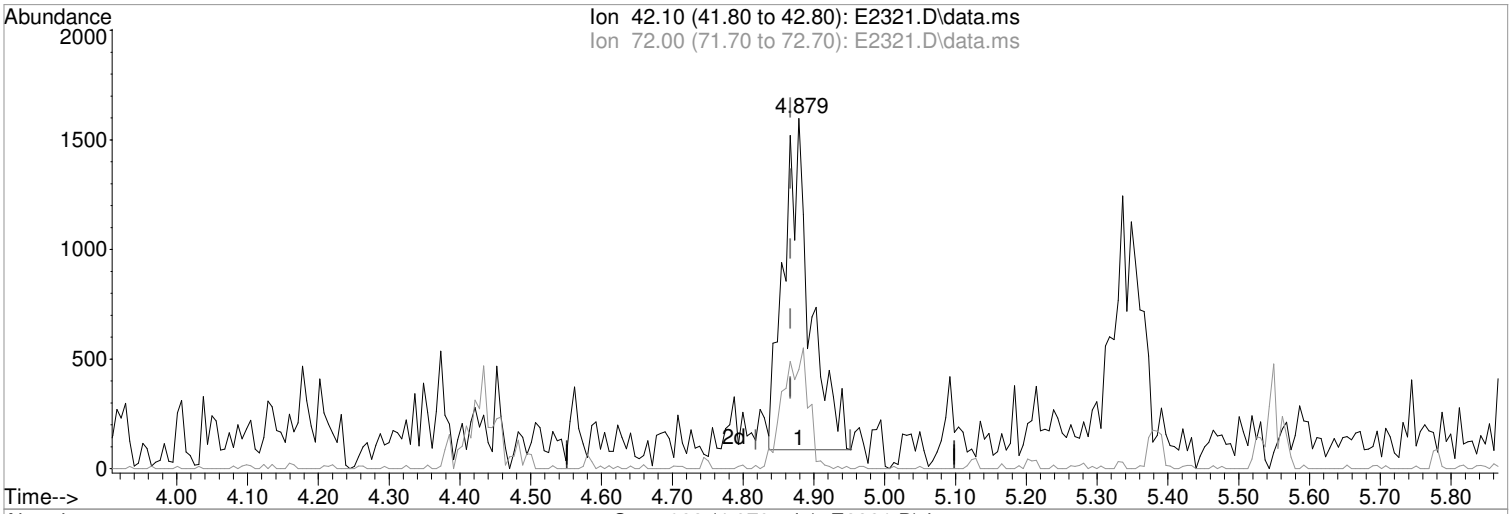
07/01/19

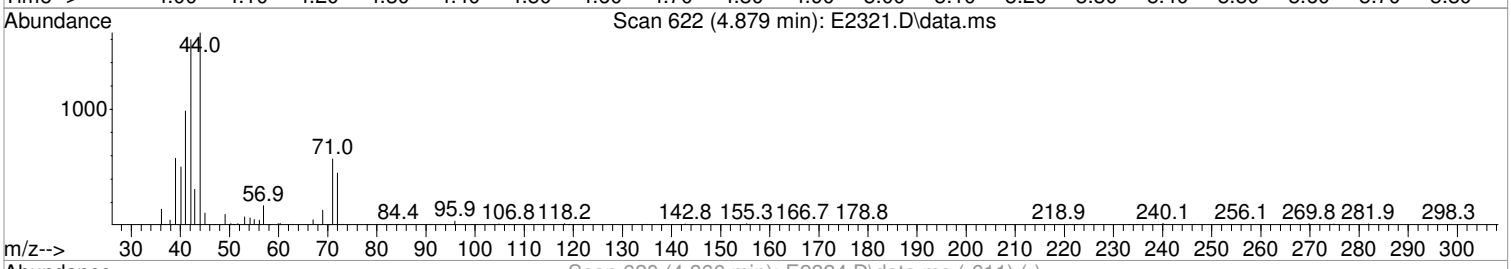
1st DL 07/01/19
2nd 07/02/19

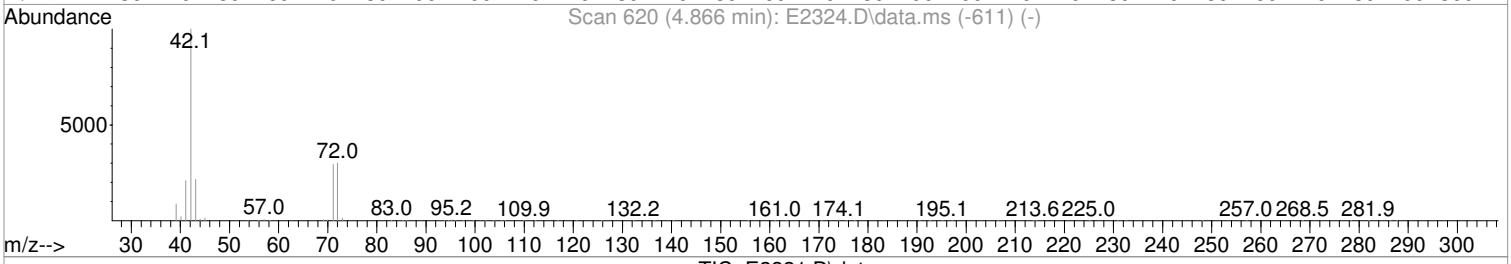
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(38) Tetrahydrofuran

4.879min (+0.012) 2.67 ug/L m

response 3957

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	28.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

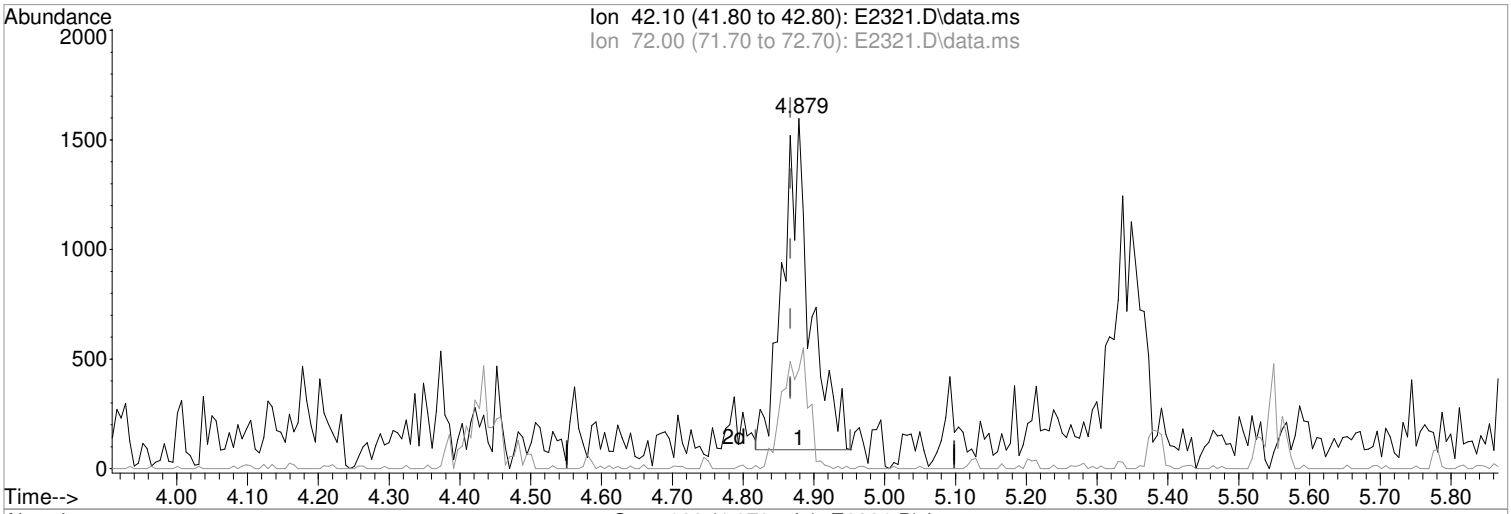
07/01/19

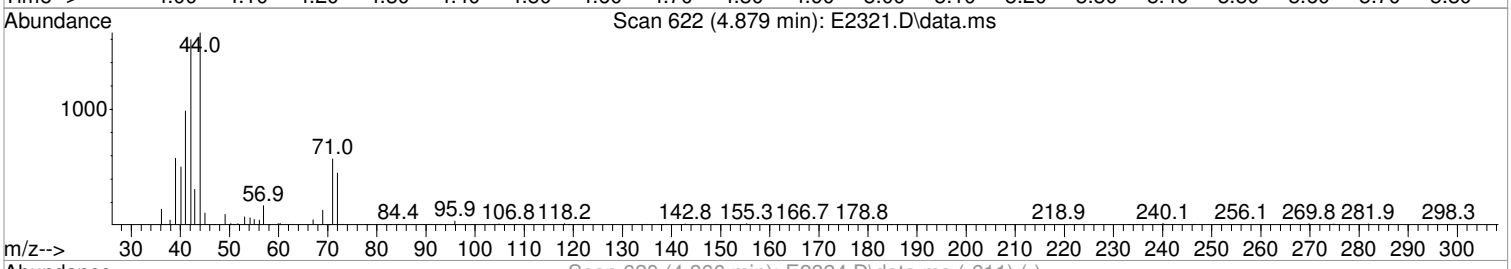
1st DL 07/01/19
2nd 07/02/19

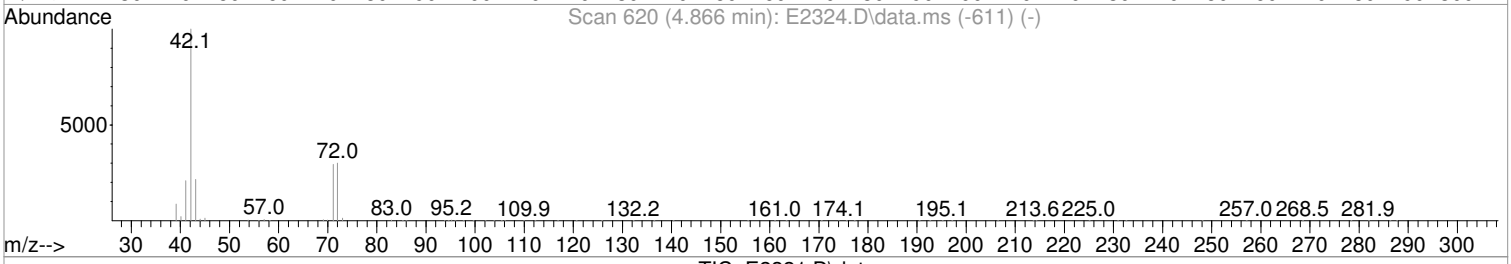
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(38) Tetrahydrofuran

4.879min (+0.012) 2.77 ug/L

response 4101

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	28.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

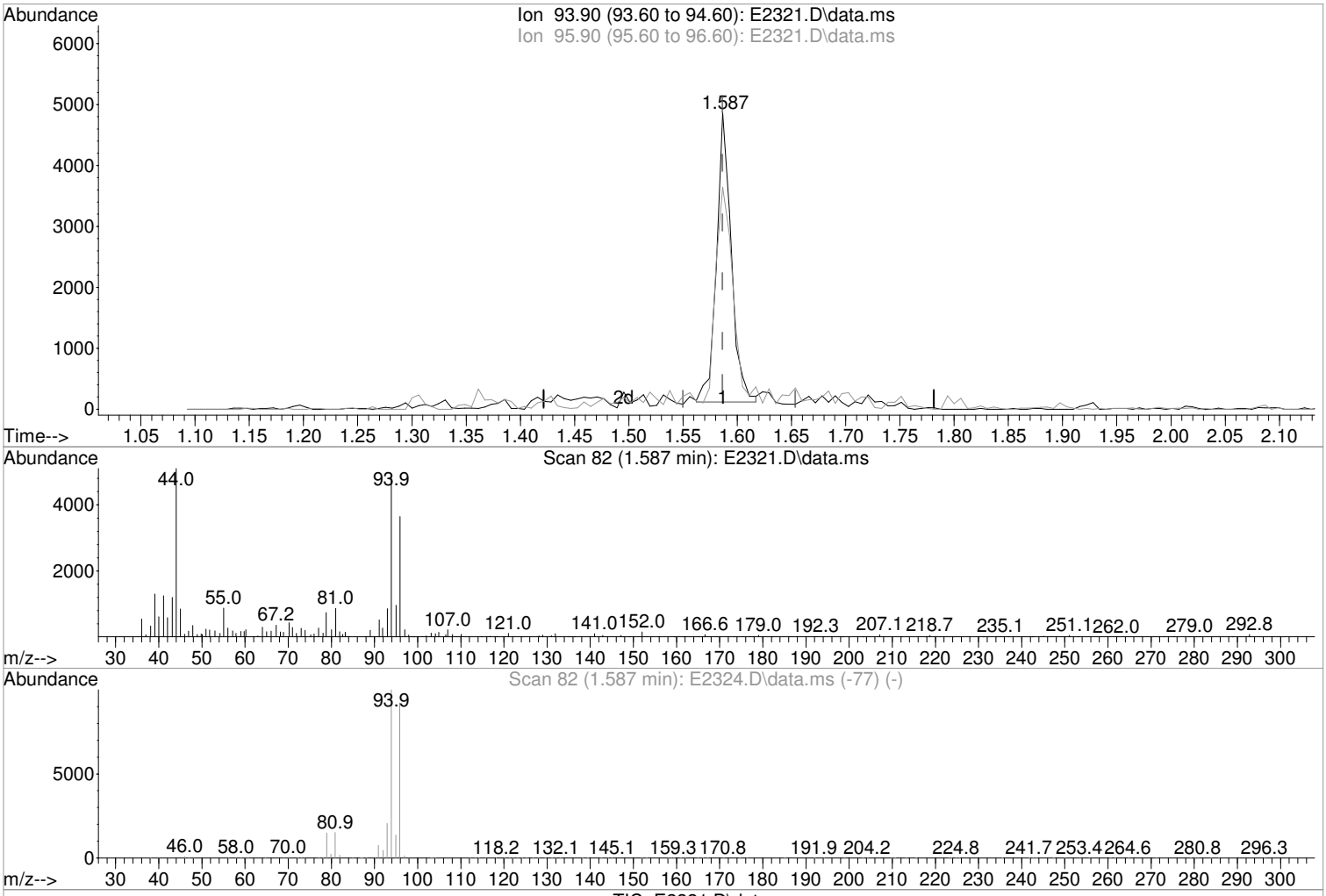
Before

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration



TIC: E2321.D\data.ms

(5) Bromomethane (P)

1.587min (+0.000) 1.80 ug/L m

response 4471

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	74.94
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

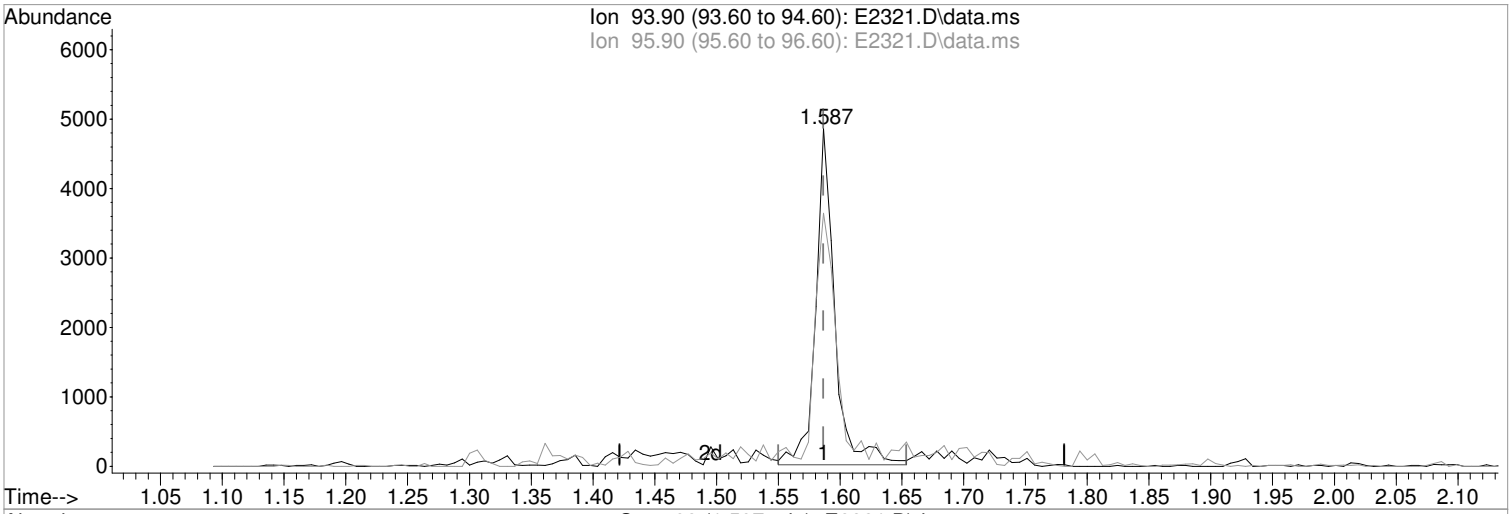
Poor integration.

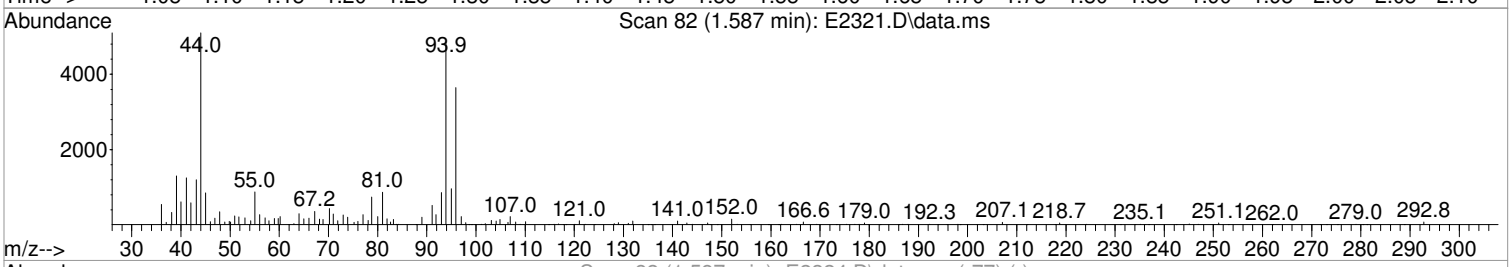
07/01/19

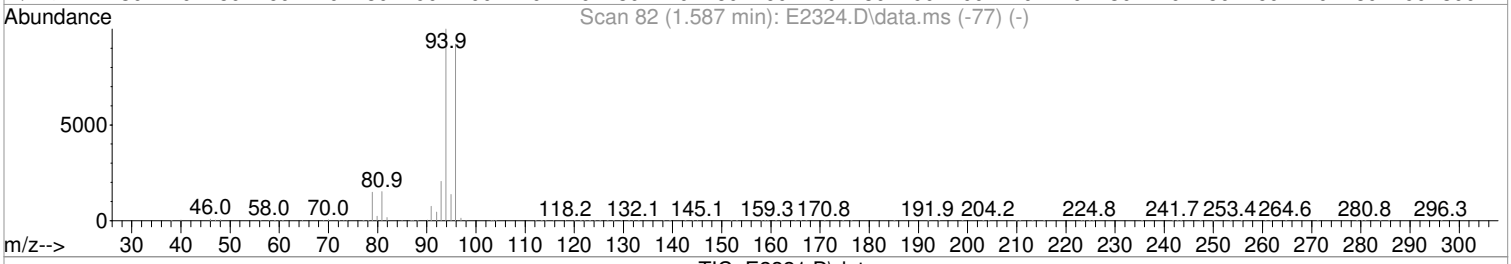
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(5) Bromomethane (P)

1.587min (+0.000) 2.09 ug/L

response 5201

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	74.94
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

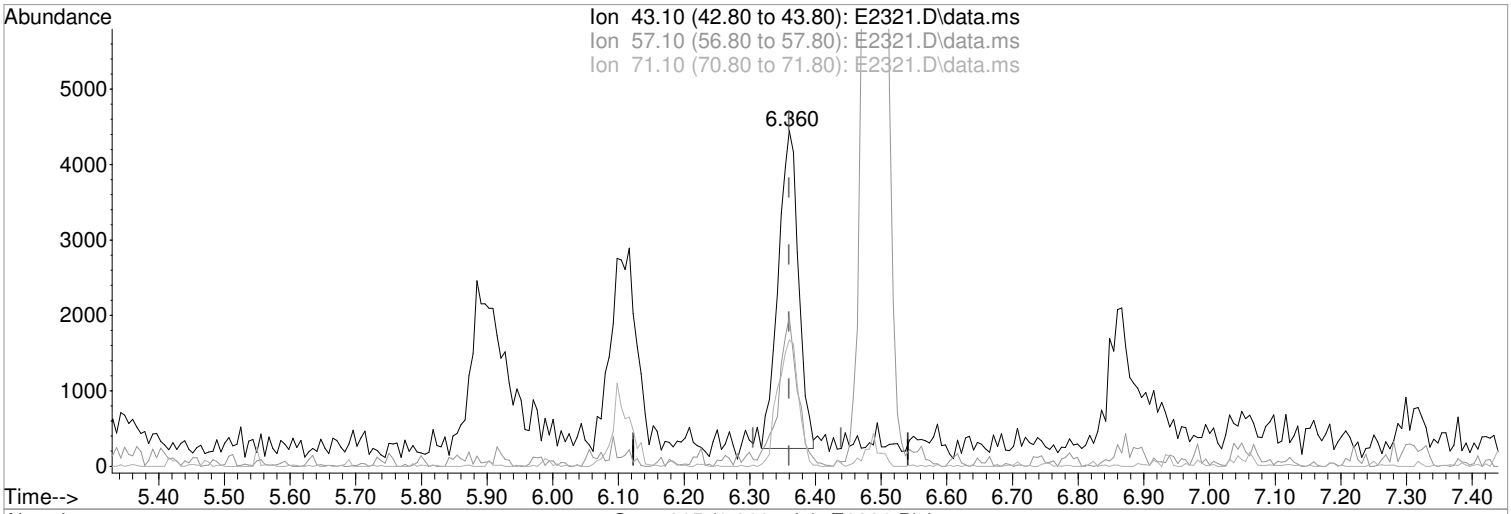
07/01/19

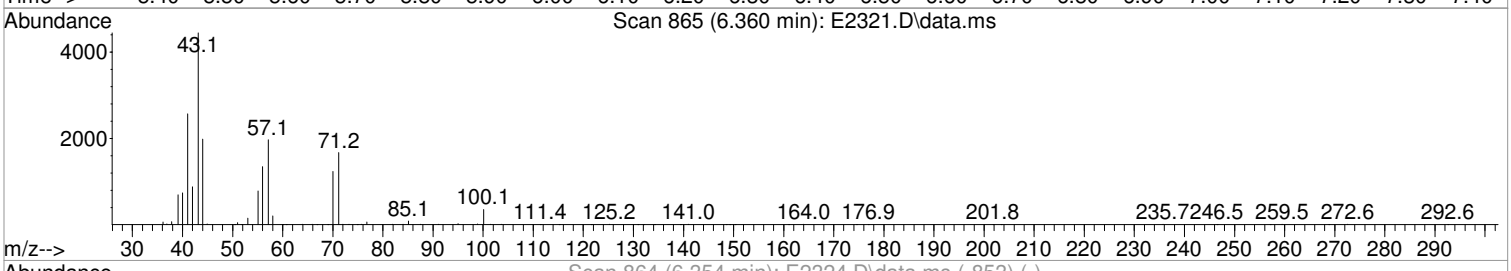
1st DL 07/01/19
2nd 07/02/19

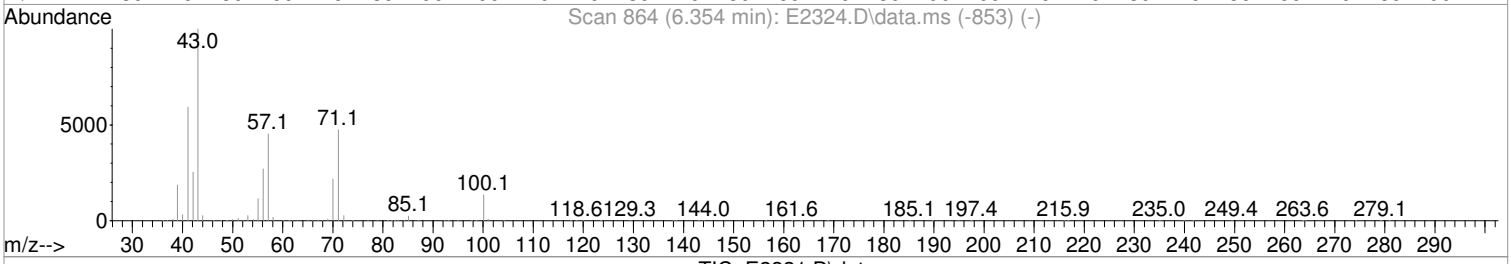
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(51) n-Heptane

6.360min (+0.000) 2.20 ug/L m

response 9082

Ion	Exp%	Act%
43.10	100	100
57.10	45.10	44.41
71.10	47.20	37.69
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

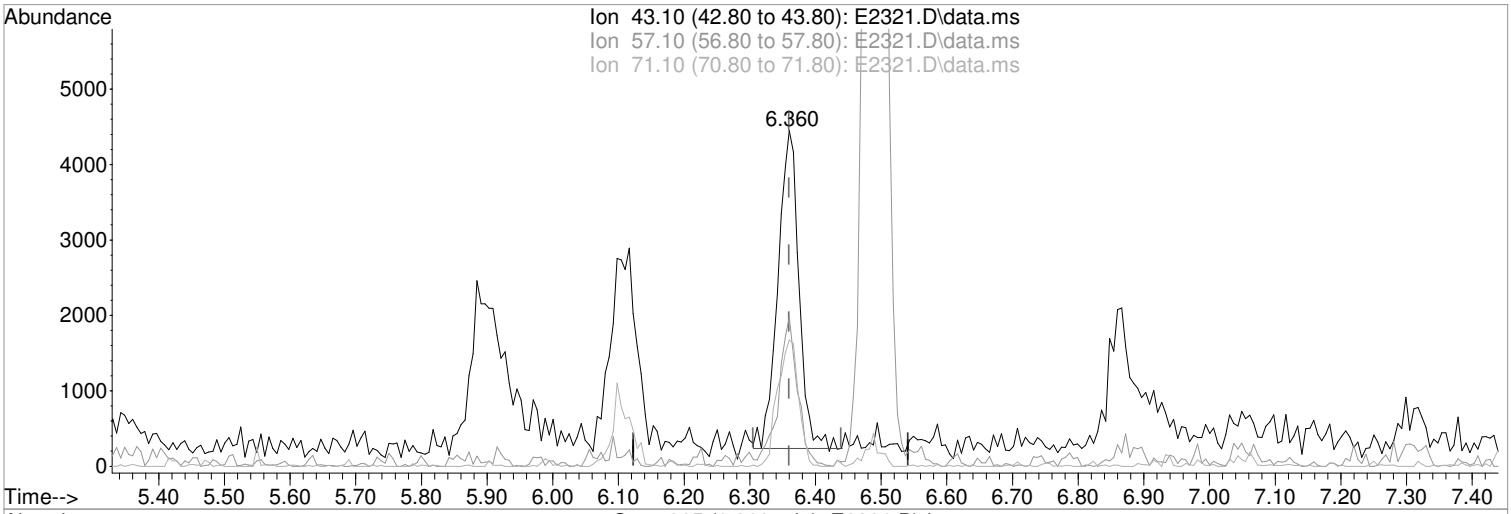
07/01/19

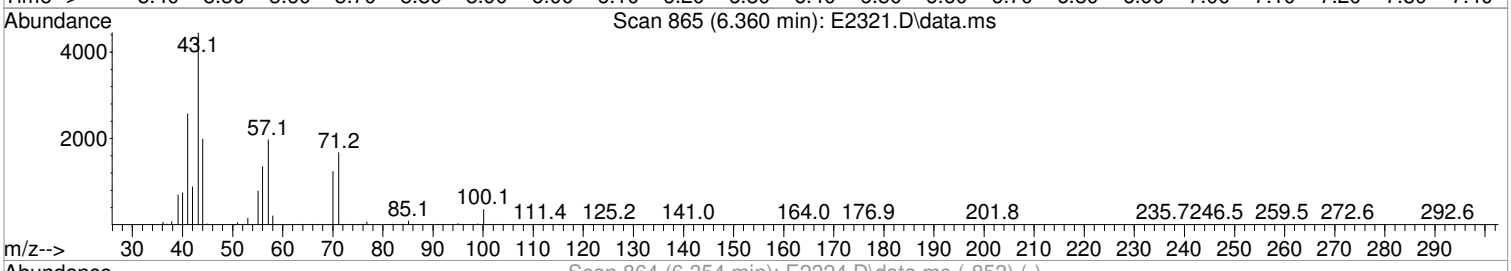
1st DL 07/01/19
2nd 07/02/19

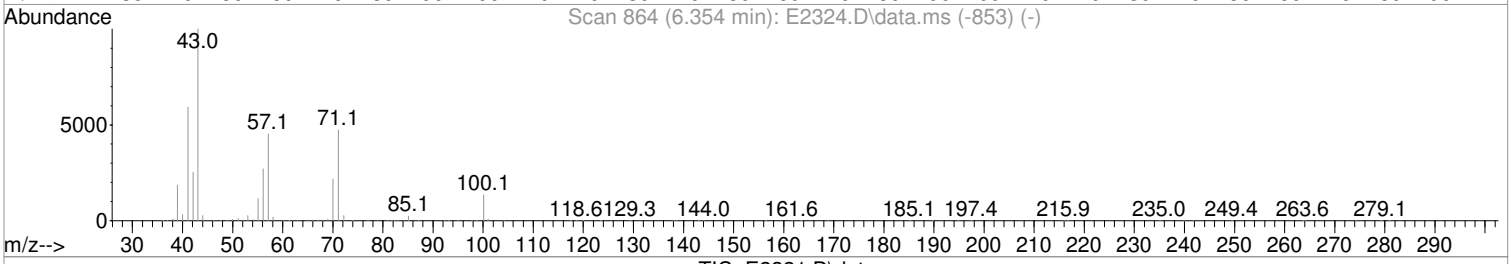
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(51) n-Heptane

6.360min (+0.000) 2.27 ug/L

response 9388

Ion	Exp%	Act%
43.10	100	100
57.10	45.10	44.41
71.10	47.20	37.69
0.00	0.00	0.00

Manual Integration:

Before

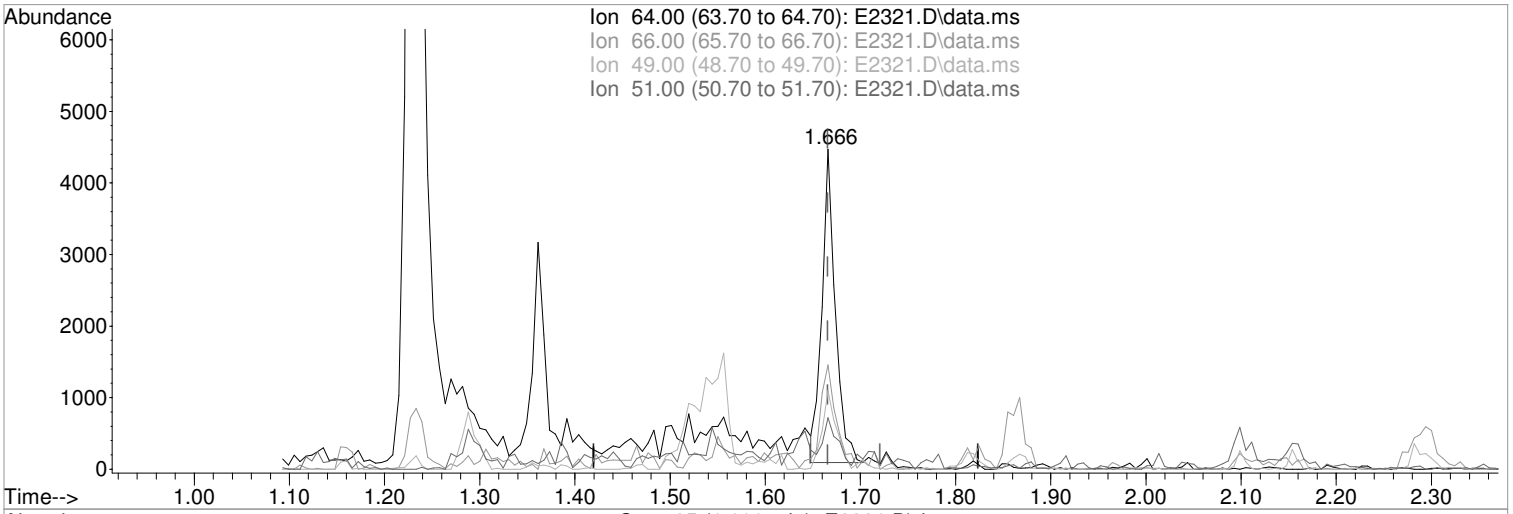
07/01/19

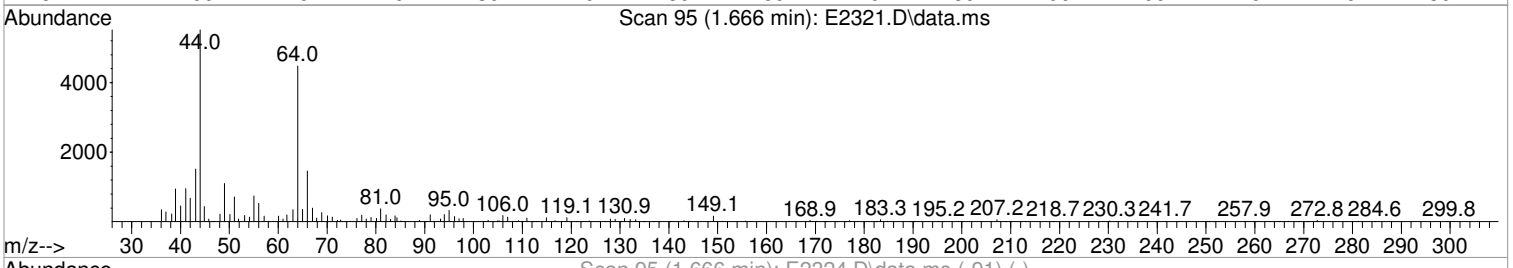
1st DL 07/01/19
2nd 07/02/19

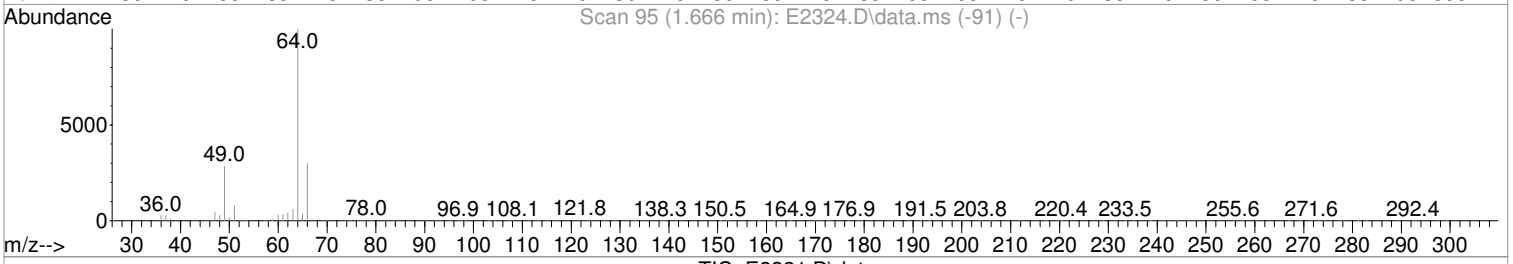
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(6) Chloroethane (P)

1.666min (+0.000) 2.01 ug/L m

response 4270

Ion	Exp%	Act%
64.00	100	100
66.00	29.80	32.60
49.00	28.10	24.61
51.00	8.10	16.10

Manual Integration:

After

Poor integration.

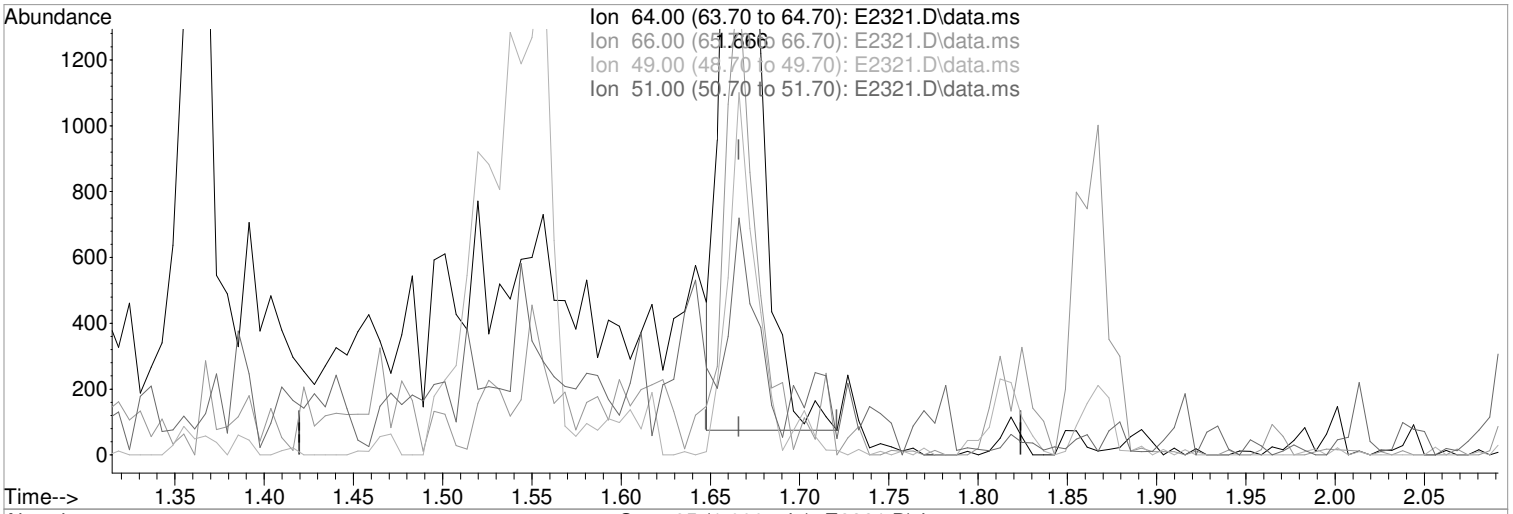
07/01/19

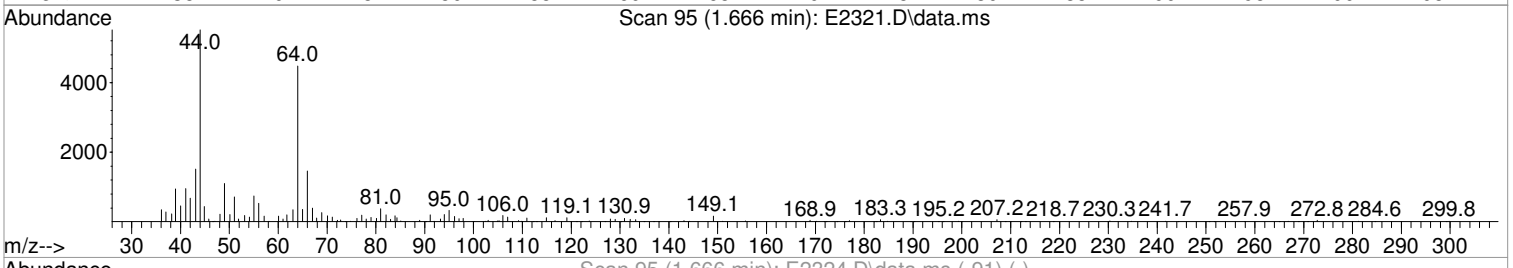
1st DL 07/01/19
2nd 07/02/19

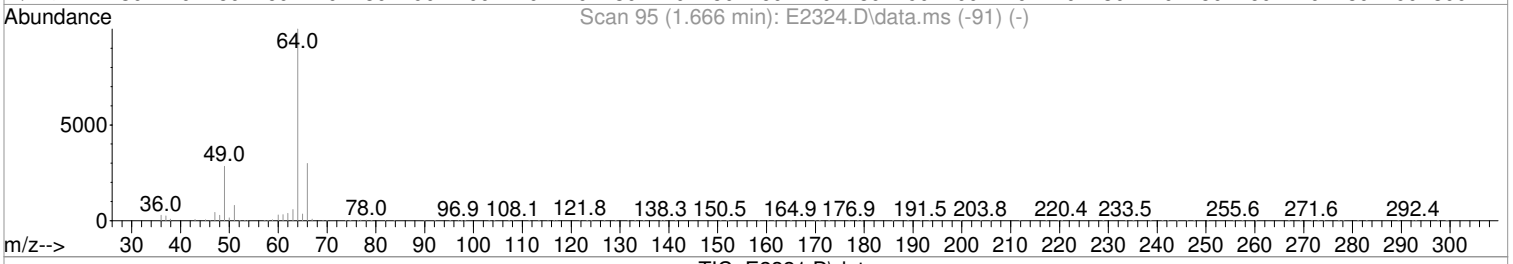
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:20:35 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration







TIC: E2321.D\data.ms

(6) Chloroethane (P)

1.666min (+0.000) 2.06 ug/L

response 4380

Ion	Exp%	Act%
64.00	100	100
66.00	29.80	32.60
49.00	28.10	24.61
51.00	8.10	16.10

Manual Integration:

Before

07/01/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:26:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.397	168	255161	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.494	114	365029	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	316306	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	169100	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	26828	11.21	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.42%#				
46) surr1,1,2-dichloroetha...	5.793	65	34934	10.96	ug/L		0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 21.92%#				
64) SURR3,Toluene-d8	8.311	98	105798	10.98	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 21.96%#				
69) SURR2,BFB	10.878	95	39179	10.93	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.86%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	7716	2.02	ug/L		98
3) Chloromethane	1.282	50	9359	1.97	ug/L		84
4) Vinyl Chloride	1.361	62	7167	2.02	ug/L		88
5) Bromomethane	1.587	94	4471m	1.80	ug/L		
6) Chloroethane	1.666	64	4270m	2.01	ug/L		
7) Freon 21	1.818	67	9959	2.13	ug/L		84
8) Trichlorofluoromethane	1.867	101	8010	2.08	ug/L		90
9) Diethyl Ether	2.099	59	5324	2.19	ug/L		94
10) Freon 123a	2.105	67	7071	2.31	ug/L		98
11) Freon 123	2.160	83	6270	1.85	ug/L		93
12) Acrolein	2.202	56	6927	11.27	ug/L		98
13) 1,1-Diclethene	2.294	96	4779	2.06	ug/L	#	75
14) Freon 113	2.294	101	4127	1.83	ug/L		99
15) Acetone	2.337	43	4150	3.13	ug/L		79
16) 2-Propanol	2.465	45	15380	53.80	ug/L		96
17) Iodomethane	2.422	142	4006	1.30	ug/L		97
18) Carbon Disulfide	2.483	76	15276	2.13	ug/L		99
19) Acetonitrile	2.599	41	7225m	12.54	ug/L		
20) Allyl Chloride	2.629	76	2928	2.20	ug/L	#	68
21) Methyl Acetate	2.647	43	7827	2.27	ug/L		88
22) Methylene Chloride	2.739	84	5855	2.05	ug/L	#	89
23) TBA	2.867	59	23230	58.27	ug/L		92
24) Acrylonitrile	2.995	53	16134	10.60	ug/L		98
25) Methyl-t-Butyl Ether	3.044	73	17510	2.08	ug/L		89
26) trans-1,2-Dichloroethene	3.032	96	5145	2.07	ug/L		97
27) 1,1-Diclethane	3.531	63	10654	2.02	ug/L		89
28) Vinyl Acetate	3.629	86	1148	2.34	ug/L	#	35
29) DIPE	3.659	45	23224	2.19	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.659	53	8789	2.08	ug/L		86
31) ETBE	4.184	59	19237	2.32	ug/L		98
32) 2,2-Dichloropropane	4.367	77	8750	2.44	ug/L		87
33) cis-1,2-Dichloroethene	4.379	96	5796m	2.06	ug/L		
34) 2-Butanone	4.428	43	7753	3.58	ug/L		79
35) Propionitrile	4.513	54	6249	9.83	ug/L		95
36) Bromochloromethane	4.775	130	3439	1.92	ug/L		94
37) Methacrylonitrile	4.781	67	3133	1.94	ug/L		87
38) Tetrahydrofuran	4.879	42	3957m	2.67	ug/L		
39) Chloroform	4.952	83	10150	2.13	ug/L		95
40) 1,1,1-Trichloroethane	5.251	97	8355	2.22	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:26:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.342	41	7630	2.44	ug/L		89
44) Carbontetrachloride	5.537	117	7001	2.37	ug/L	#	76
45) 1,1-Dichloropropene	5.543	75	7741	2.15	ug/L		100
47) Benzene	5.860	78	22510	2.05	ug/L		94
48) 1,2-Dichloroethane	5.903	62	8282	2.02	ug/L		93
49) Iso-Butyl Alcohol	5.885	43	8097	38.85	ug/L		87
50) TAME	6.110	73	15213	2.03	ug/L		96
51) n-Heptane	6.360	43	9082m	2.20	ug/L		
52) 1-Butanol	6.860	56	9322	86.57	ug/L		83
53) Trichloroethene	6.830	130	5528	1.99	ug/L		92
54) Methylcyclohexane	7.061	55	8372	2.25	ug/L	#	83
55) 1,2-Diclpropane	7.098	63	5985	1.96	ug/L		100
56) Dibromomethane	7.244	93	3378	1.94	ug/L		93
57) 1,4-Dioxane	7.305	88	2459	48.20	ug/L		88
58) Methyl Methacrylate	7.330	69	5177	2.13	ug/L	#	73
59) Bromodichloromethane	7.470	83	7171	2.06	ug/L		97
60) 2-Nitropropane	7.750	41	5553	6.55	ug/L		99
61) 2-Chloroethylvinyl Ether	7.878	63	2767	1.76	ug/L		95
62) cis-1,3-Dichloropropene	8.018	75	9242	2.10	ug/L		94
63) 4-Methyl-2-pentanone	8.220	43	9458	2.29	ug/L		94
65) Toluene	8.384	91	22163	1.95	ug/L		98
66) trans-1,3-Dichloropropene	8.659	75	8785	2.30	ug/L		93
67) Ethyl Methacrylate	8.799	69	8824	2.17	ug/L		83
68) 1,1,2-Trichloroethane	8.847	97	5498	2.13	ug/L		95
71) Tetrachloroethene	8.982	164	4212	1.94	ug/L		89
72) 2-Hexanone	9.134	43	7315	2.43	ug/L		92
73) 1,3-Dichloropropane	9.012	76	9184	2.05	ug/L		88
74) Dibromochloromethane	9.238	129	5335	2.20	ug/L		92
75) N-Butyl Acetate	9.293	43	12471	2.32	ug/L		91
76) 1,2-Dibromoethane	9.335	107	5337	2.15	ug/L		98
77) 3-Chlorobenzotrifluoride	9.847	180	7632	1.91	ug/L		89
78) Chlorobenzene	9.829	112	13752	1.94	ug/L		84
79) 4-Chlorobenzotrifluoride	9.902	180	6762	1.87	ug/L		96
80) 1,1,1,2-Tetrachloroethane	9.920	131	4845	2.07	ug/L		92
81) Ethylbenzene	9.951	106	7518	2.00	ug/L		90
82) (m+p)Xylene	10.061	106	17936	3.82	ug/L		97
83) o-Xylene	10.420	106	9225	2.01	ug/L		92
84) Styrene	10.433	104	14699	1.92	ug/L		95
85) Bromoform	10.585	173	3828	2.33	ug/L	#	67
86) 2-Chlorobenzotrifluoride	10.664	180	7126	1.85	ug/L		97
87) Isopropylbenzene	10.756	105	23923	2.02	ug/L		99
88) Cyclohexanone	10.817	55	29451	43.75	ug/L		95
89) trans-1,4-Dichloro-2-B...	11.067	53	2162	2.22	ug/L		90
91) 1,1,2,2-Tetrachloroethane	11.012	83	7987	2.22	ug/L		90
92) Bromobenzene	11.000	156	6193	2.08	ug/L	#	87
93) 1,2,3-Trichloropropane	11.042	110	2450	2.23	ug/L		95
94) n-Propylbenzene	11.109	91	26750	1.96	ug/L		97
95) 2-Chlorotoluene	11.170	91	16826	2.07	ug/L		90
96) 3-Chlorotoluene	11.225	91	16931	2.11	ug/L		96
97) 4-Chlorotoluene	11.268	91	19669	2.09	ug/L		93
98) 1,3,5-Trimethylbenzene	11.262	105	19281	2.03	ug/L		99
99) tert-Butylbenzene	11.536	119	16802	2.06	ug/L		98
100) 1,2,4-Trimethylbenzene	11.573	105	18681	1.97	ug/L		100
101) 3,4-Dichlorobenzotrifl...	11.634	214	6144	1.95	ug/L		89
102) sec-Butylbenzene	11.719	105	24999	2.05	ug/L		96
103) p-Isopropyltoluene	11.841	119	20802	2.11	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:26:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration

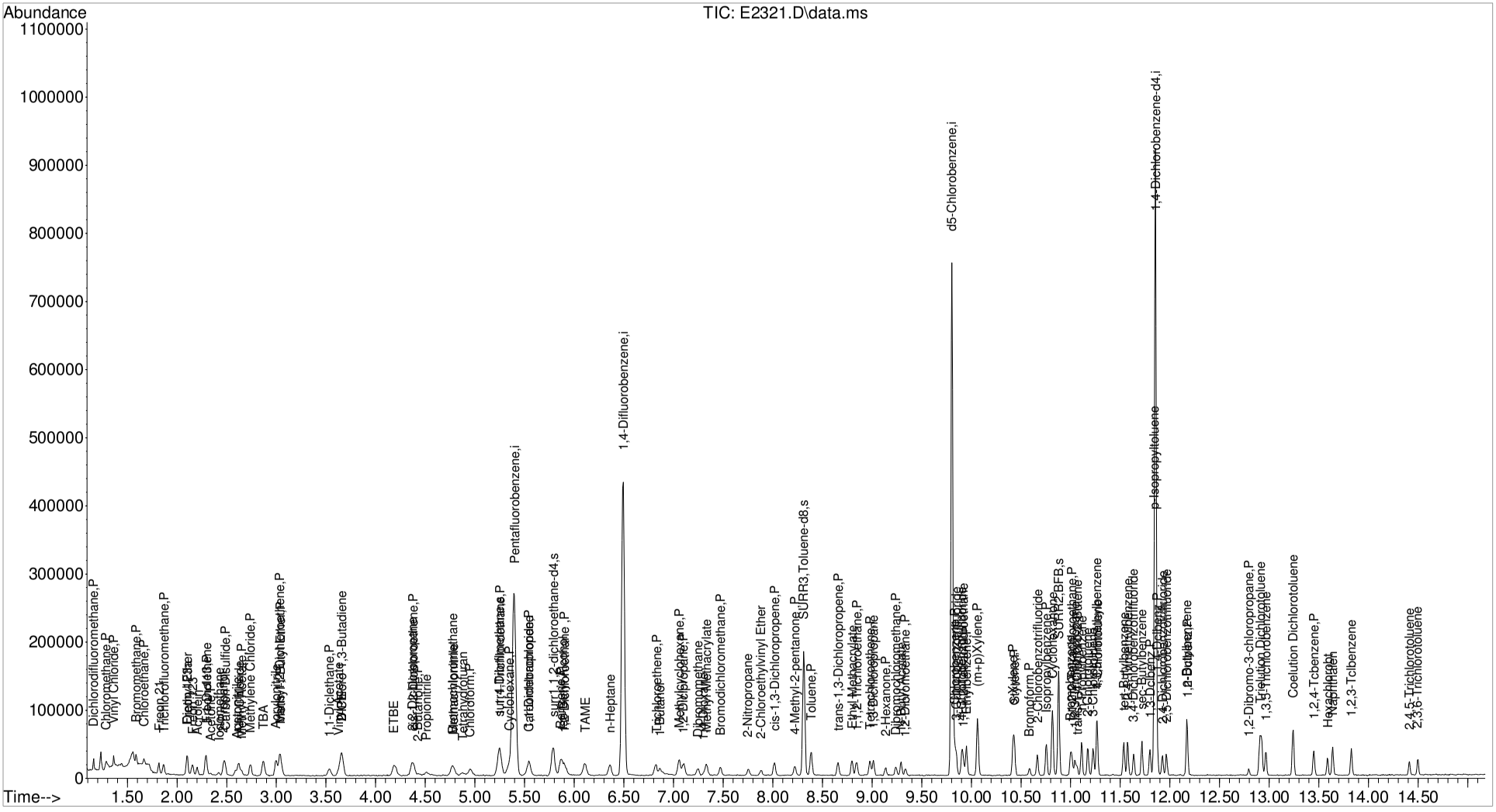
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) 1,3-Dclbenz	11.798	146	11172	1.97	ug/L		86
105) 1,4-Dclbenz	11.871	146	12281	2.10	ug/L		98
106) 2,4-Dichlorobenzotrifl...	11.926	214	5329	1.88	ug/L		85
107) 2,5-Dichlorobenzotrifl...	11.963	214	6731	2.04	ug/L		93
108) n-Butylbenzene	12.170	91	18598	1.97	ug/L		92
109) 1,2-Dclbenz	12.176	146	10744	1.91	ug/L		95
110) 1,2-Dibromo-3-chloropr...	12.792	157	1781	2.40	ug/L	#	71
111) Trielution Dichlorotol...	12.908	125	28463	6.12	ug/L		90
112) 1,3,5-Trichlorobenzene	12.969	180	7996	1.87	ug/L		93
113) Coelution Dichlorotoluene	13.243	125	20102	3.95	ug/L		93
114) 1,2,4-Tcbenzene	13.450	180	8595	2.01	ug/L		94
115) Hexachlorobt	13.590	225	3950	2.11	ug/L		98
116) Naphthalen	13.639	128	22432	2.08	ug/L		90
117) 1,2,3-Tclbenzene	13.828	180	9032	2.20	ug/L		94
118) 2,4,5-Trichlorotoluene	14.413	159	3849	1.72	ug/L		97
119) 2,3,6-Trichlorotoluene	14.493	159	3931	1.68	ug/L		93

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2321.D
Acq On : 1 Jul 2019 12:43 pm
Operator : D.LIPANI
Sample : STD #3 - 2.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 01 16:26:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:20:22 2019
Response via : Initial Calibration



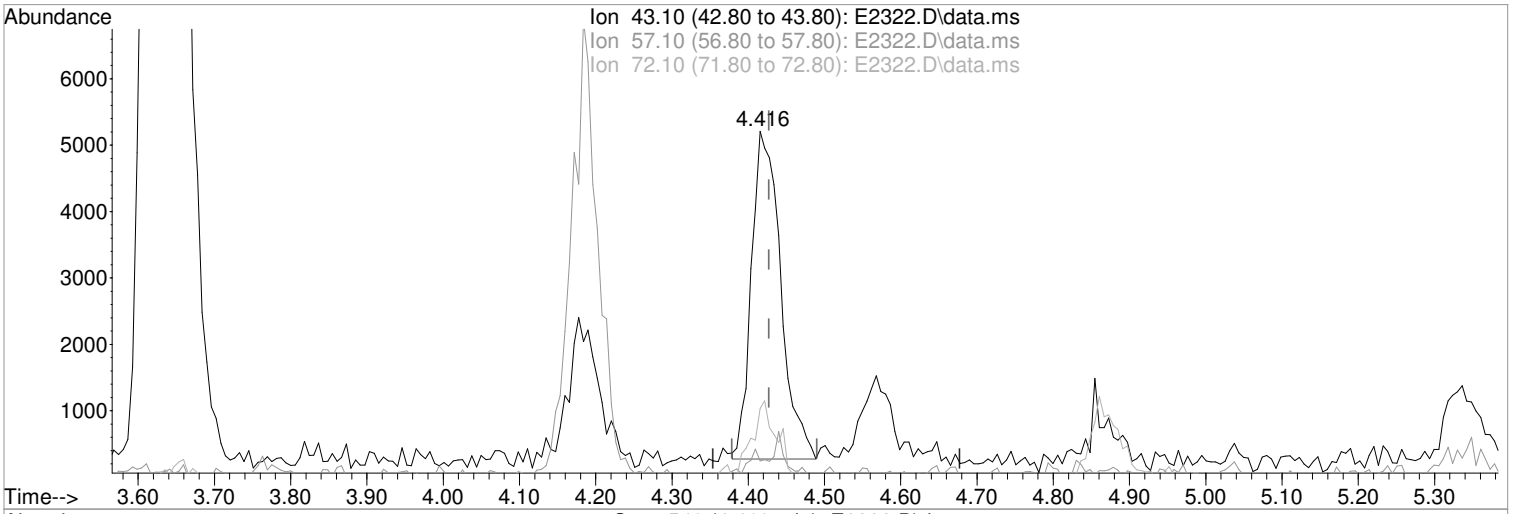
1st 07/01/19
2nd 07/02/19

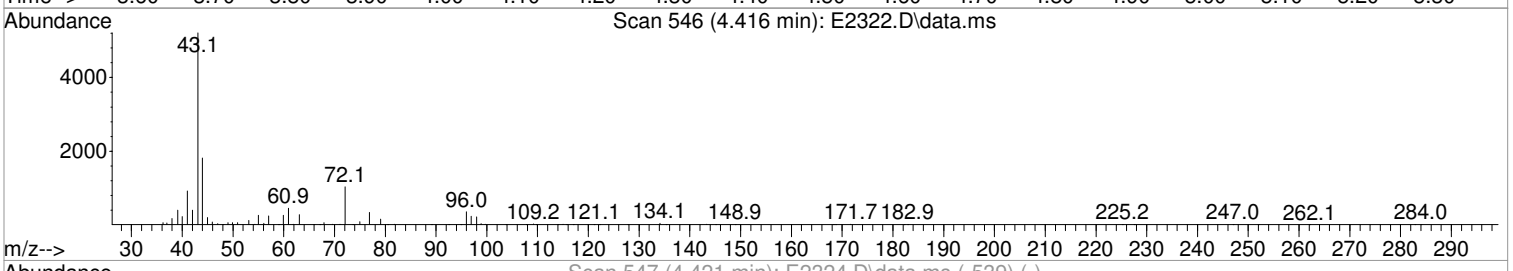
1st DL 07/01/19
2nd 07/02/19

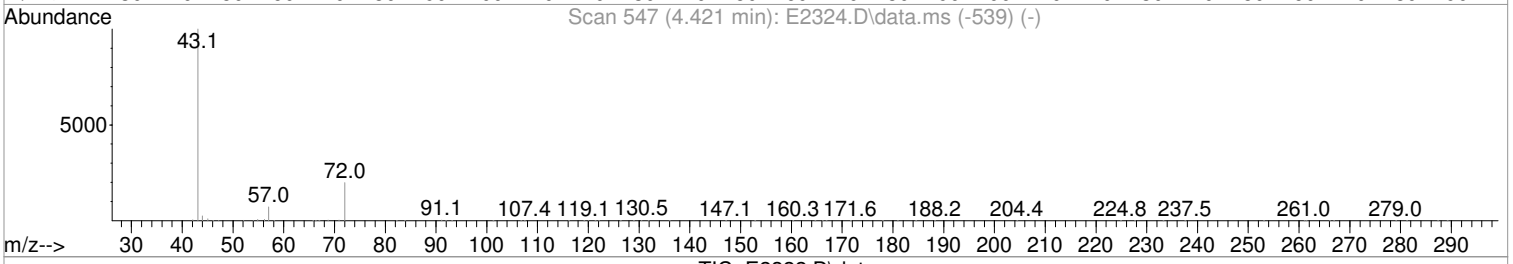
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration







TIC: E2322.D\data.ms

(34) 2-Butanone (P)

4.416min (-0.012) 5.37 ug/L m

response 13142

Ion	Exp%	Act%
43.10	100	100
57.10	7.30	4.70
72.10	21.50	19.83
0.00	0.00	0.00

Manual Integration:

After

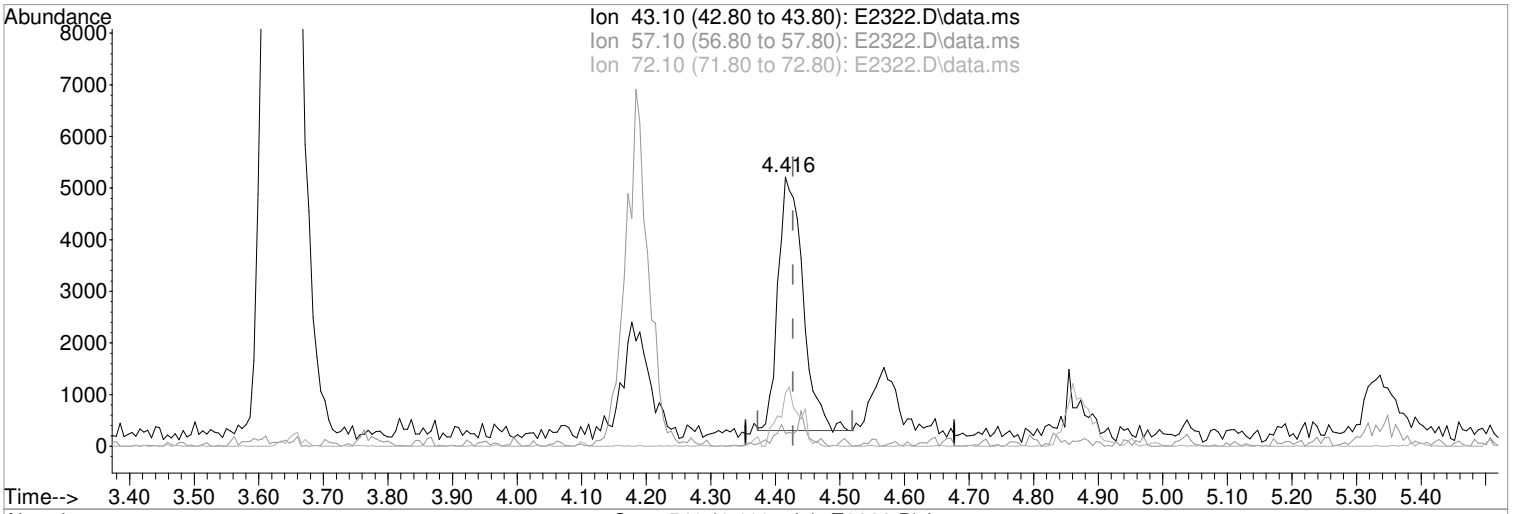
Poor integration.

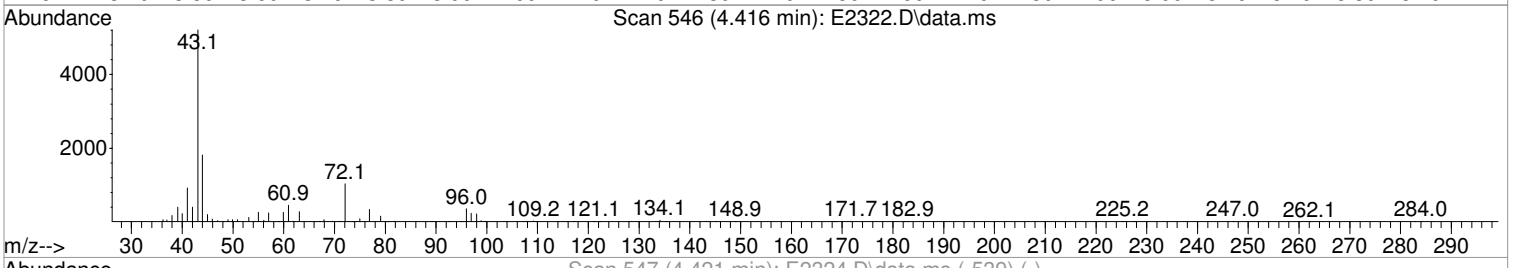
07/01/19

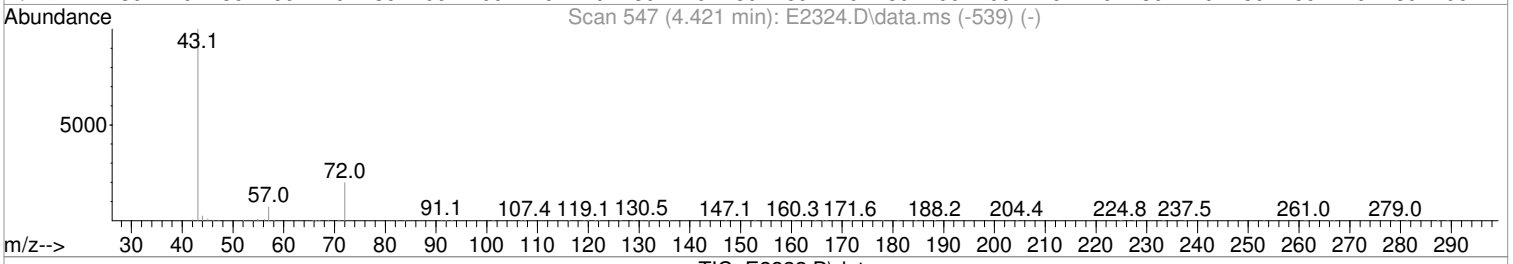
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration







TIC: E2322.D\data.ms

(34) 2-Butanone (P)

4.416min (-0.012) 5.36 ug/L

response 13109

Ion	Exp%	Act%
43.10	100	100
57.10	7.30	4.70
72.10	21.50	19.83
0.00	0.00	0.00

Manual Integration:

Before

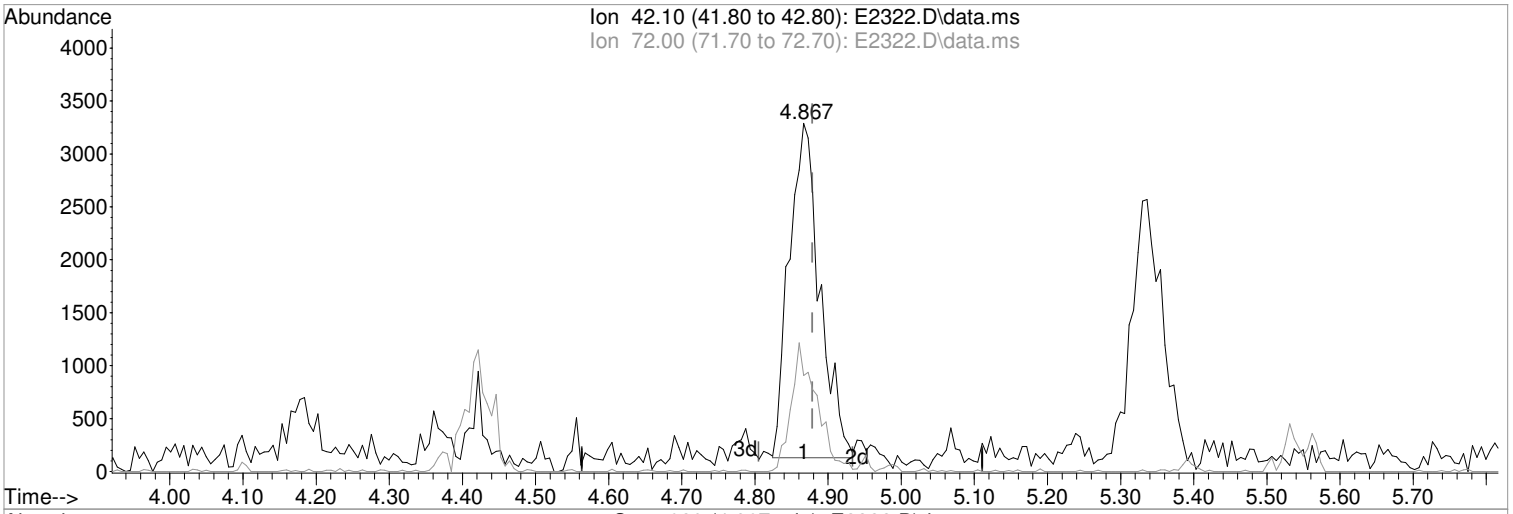
07/01/19

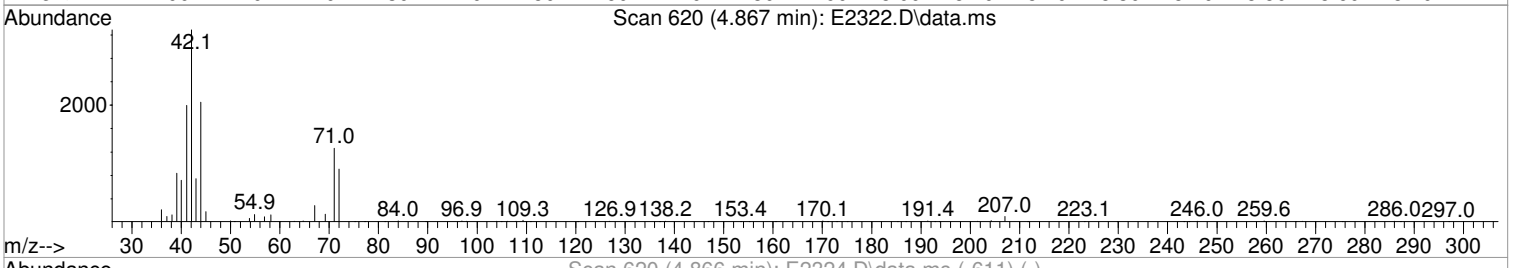
1st DL 07/01/19
2nd 07/02/19

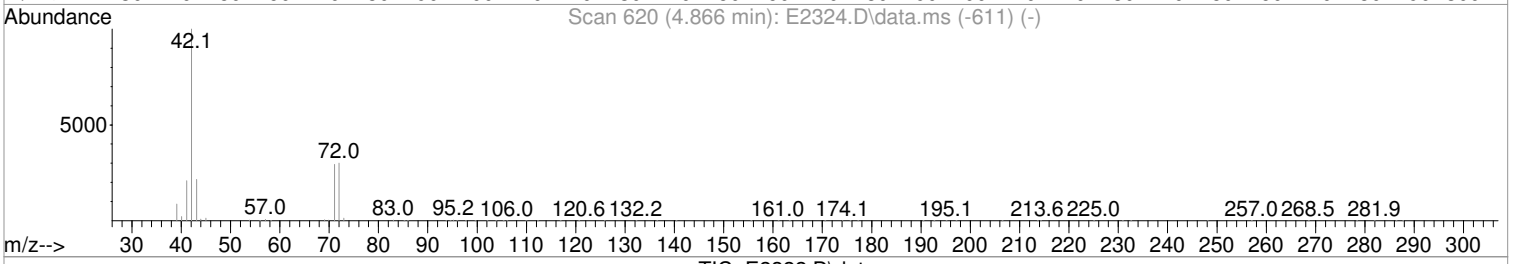
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration







TIC: E2322.D\data.ms

(38) Tetrahydrofuran

4.867min (-0.012) 5.39 ug/L m

response 9221

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	27.62
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

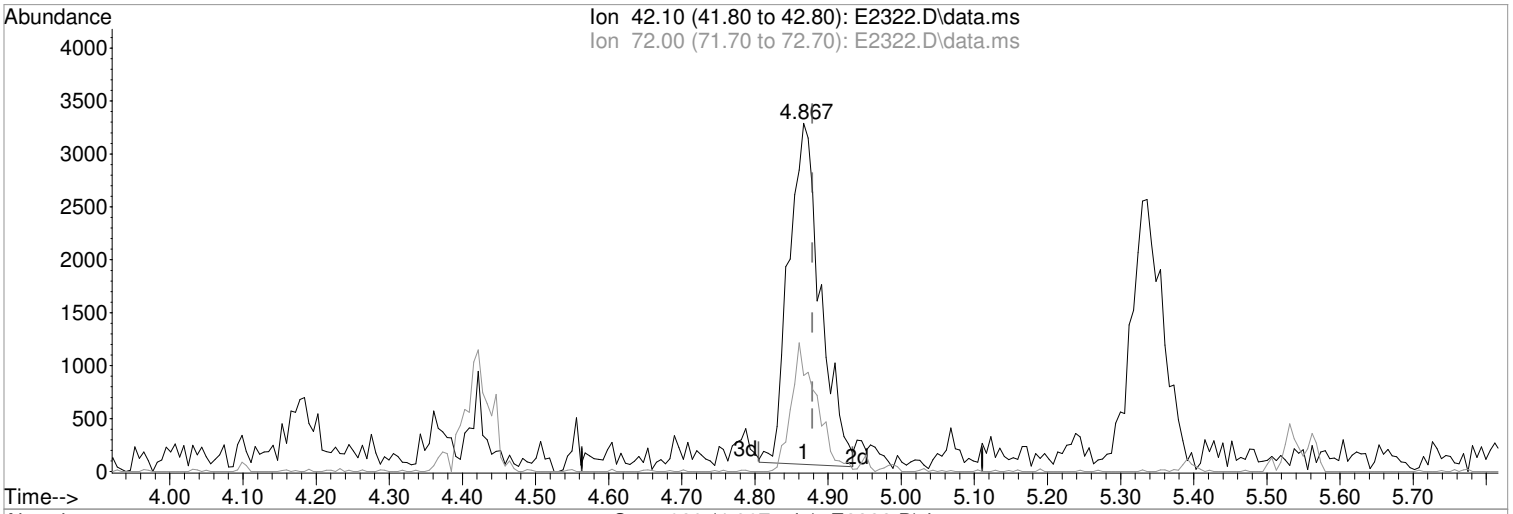
07/01/19

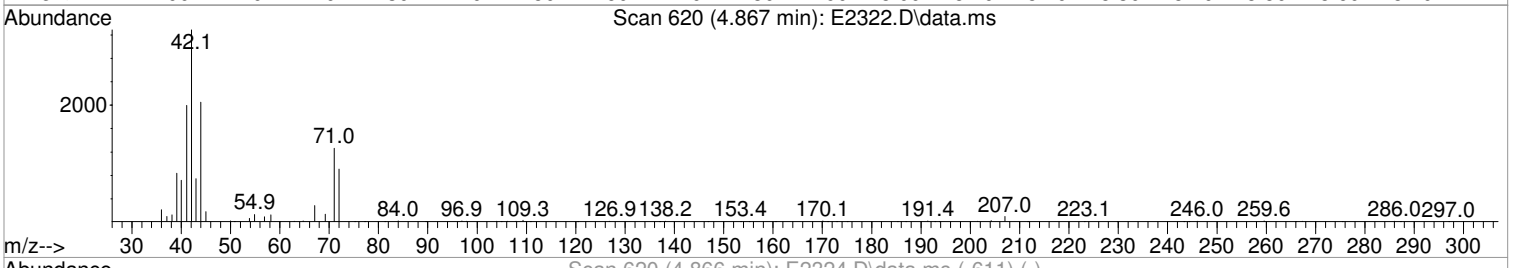
1st DL 07/01/19
2nd 07/02/19

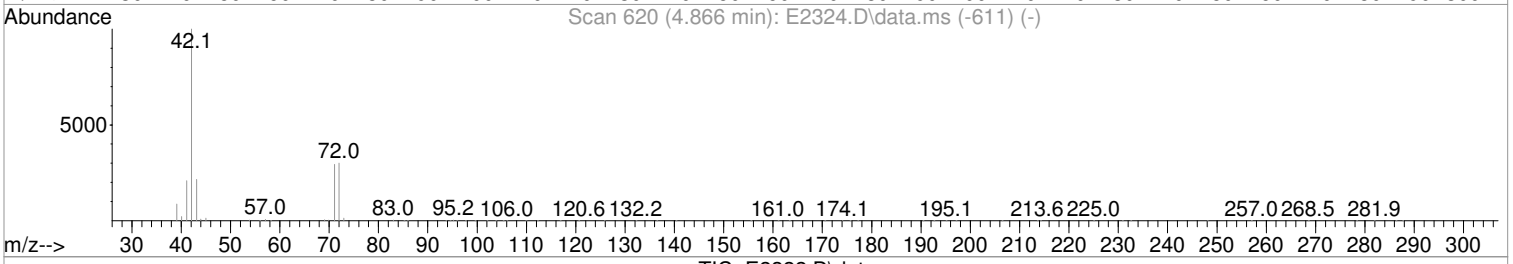
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration







TIC: E2322.D\data.ms

(38) Tetrahydrofuran

4.867min (-0.012) 5.69 ug/L

response 9738

Ion	Exp%	Act%
42.10	100	100
72.00	30.20	27.62
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

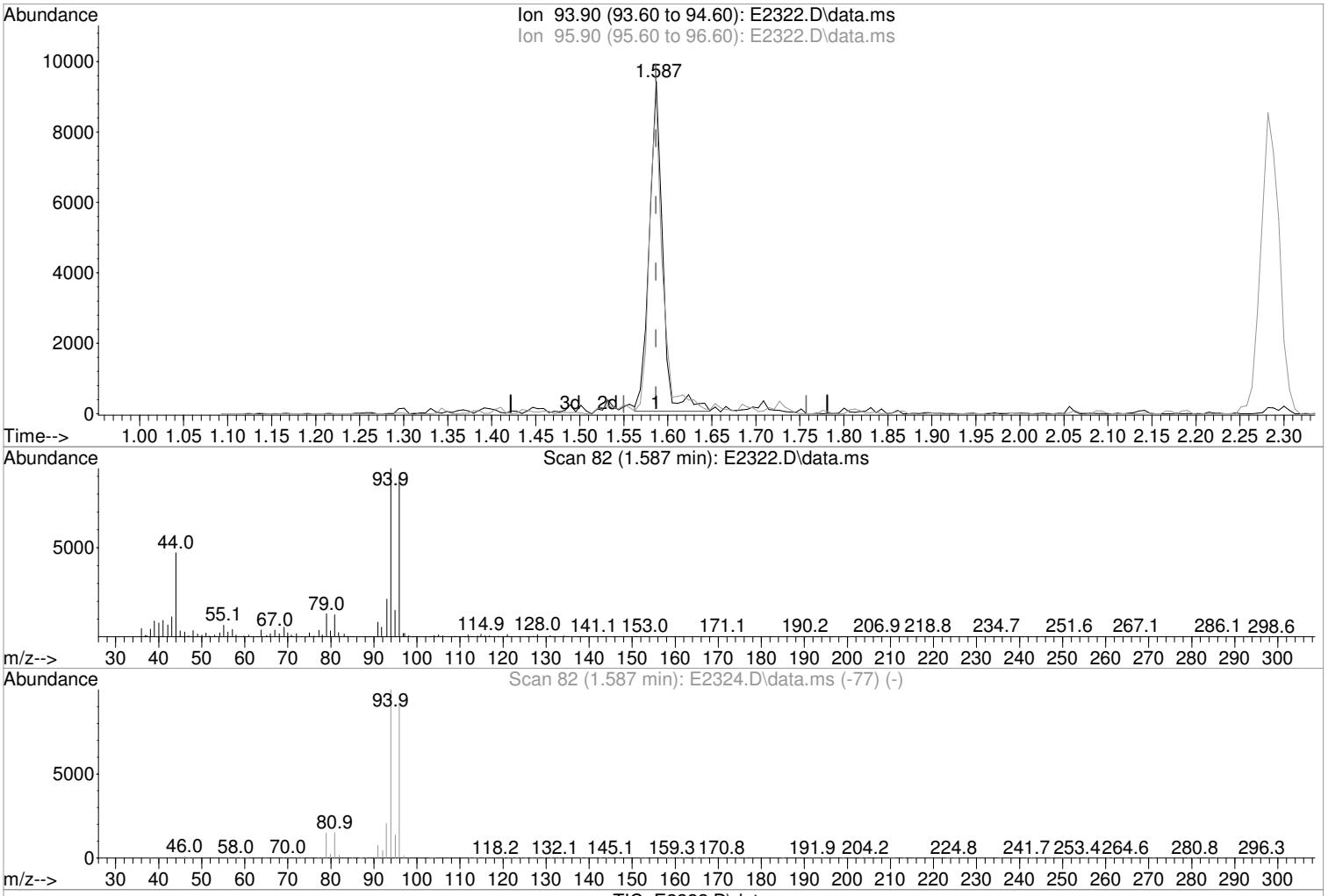
Before

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration



TIC: E2322.D\data.ms

(5) Bromomethane (P)

1.587min (+0.000) 3.63 ug/L m

response 9966

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	95.25
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

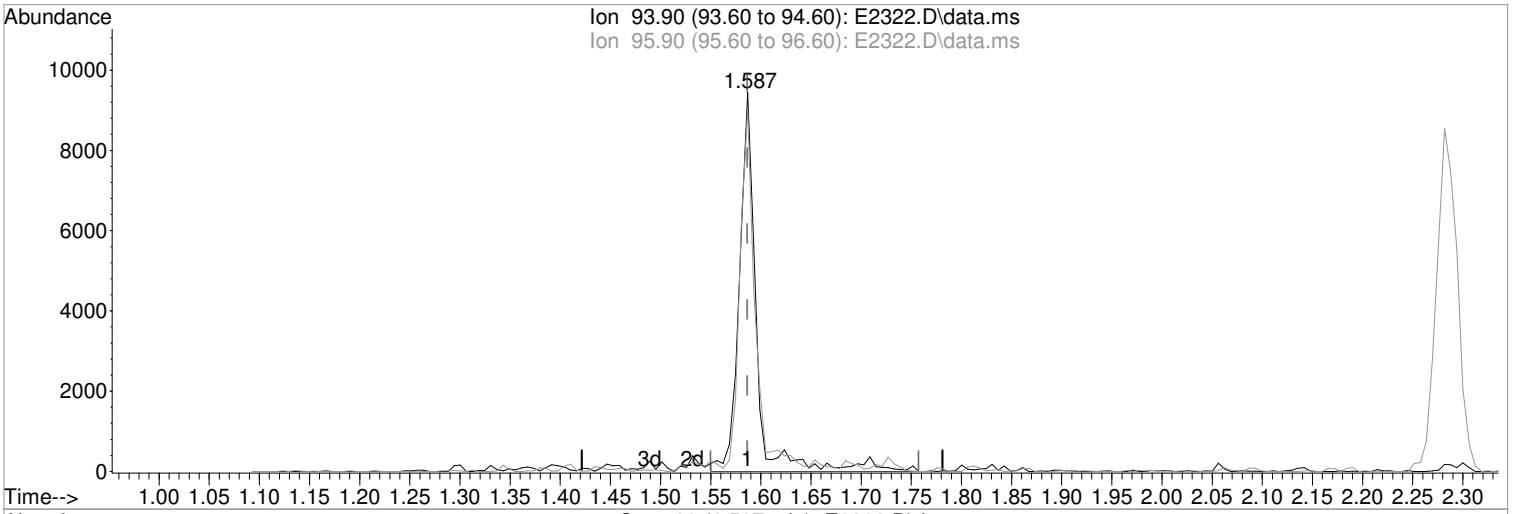
Poor integration.

07/01/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration



TIC: E2322.D\data.ms

(5) Bromomethane (P)

1.587min (+0.000) 4.11 ug/L

response 11302

Ion	Exp%	Act%
93.90	100	100
95.90	92.10	95.25
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

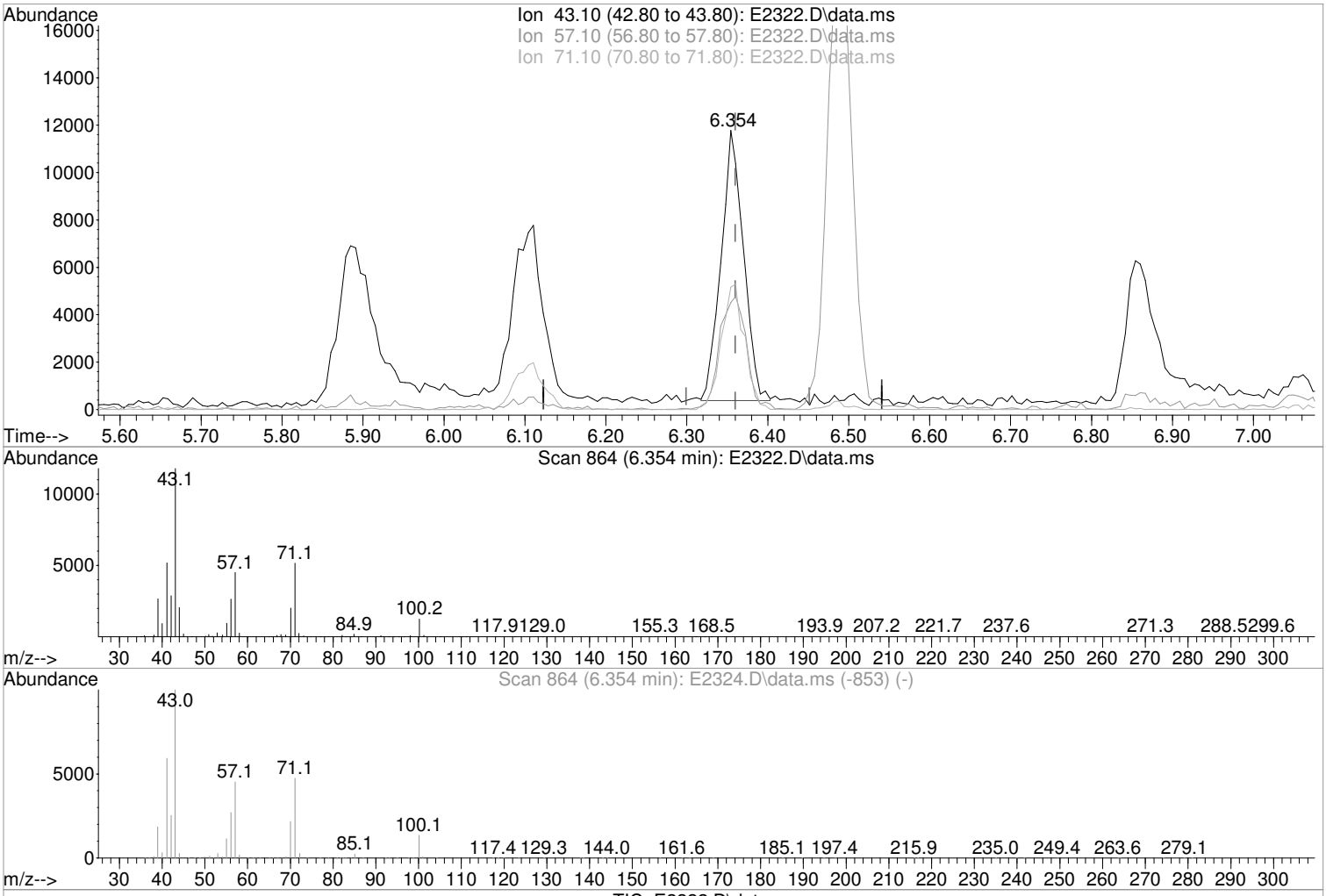
07/01/19

1st DL 07/01/19
2nd 07/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration



TIC: E2322.D\data.ms

(51) n-Heptane

6.354min (-0.006) 4.68 ug/L m

response 21980

Ion	Exp%	Act%
43.10	100	100
57.10	45.10	38.28
71.10	47.20	43.81
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

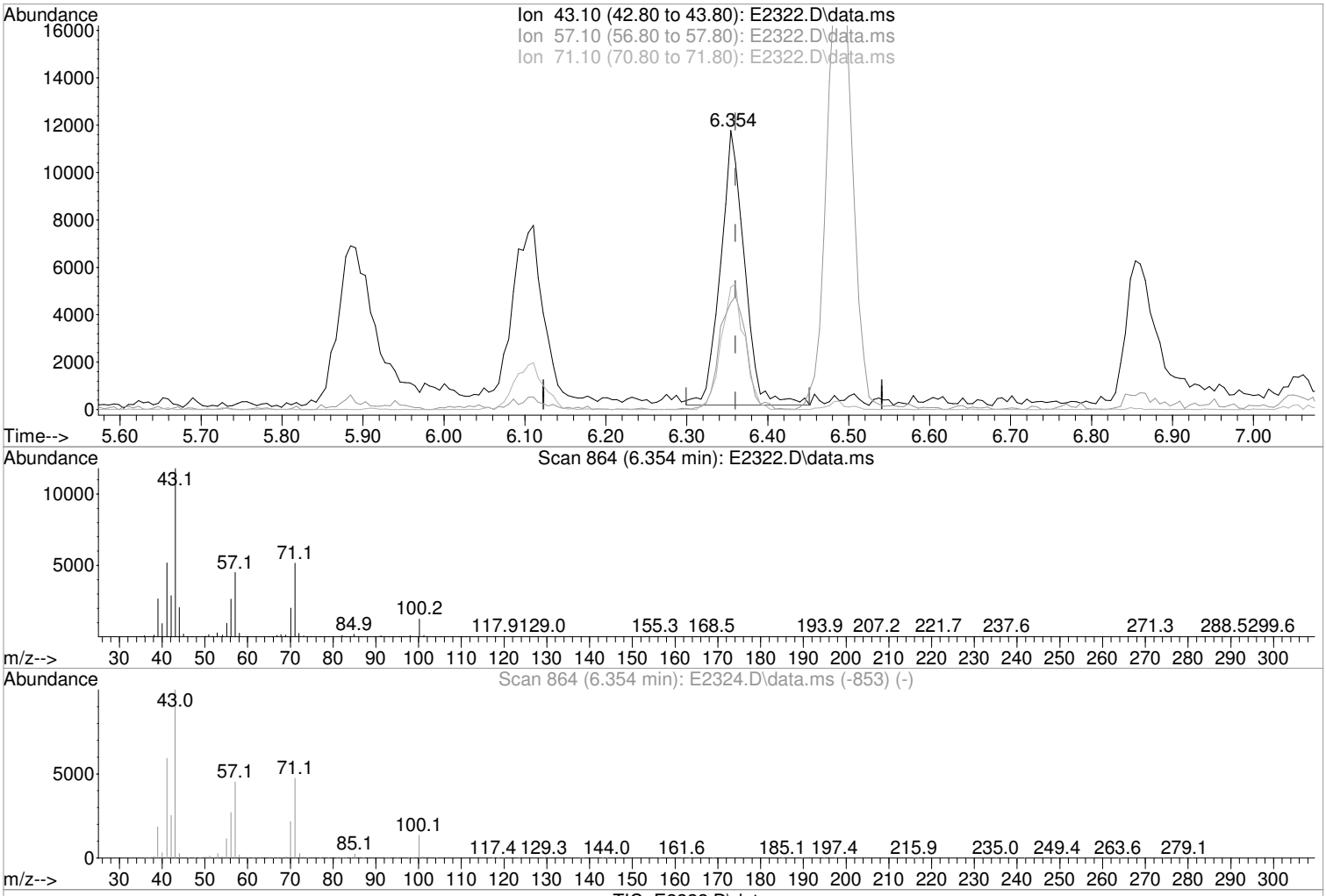
07/01/19

1st DL 07/01/19
2nd 07/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration



TIC: E2322.D\data.ms

(51) n-Heptane

6.354min (-0.006) 5.09 ug/L

response 23919

Ion	Exp%	Act%
43.10	100	100
57.10	45.10	38.28
71.10	47.20	43.81
0.00	0.00	0.00

Manual Integration:

Before

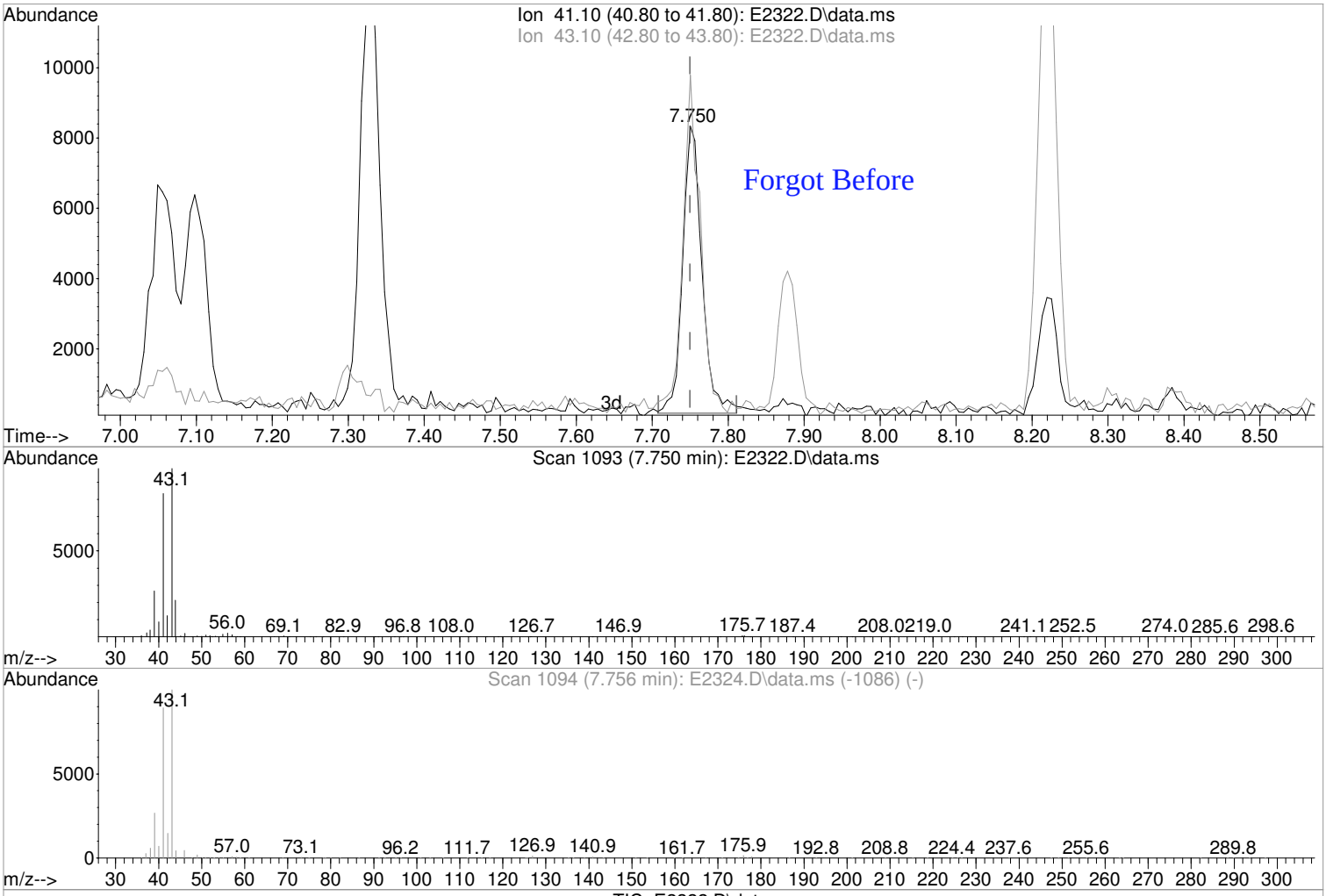
07/01/19

1st DL 07/01/19
2nd 07/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:28:15 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration



TIC: E2322.D\data.ms

(60) 2-Nitropropane

7.750min (+0.000) 13.82 ug/L m

response 14402

Ion	Exp%	Act%
41.10	100	100
43.10	111.90	117.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

07/01/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:33:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	288389	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	407407	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	349219	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	190070	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	28664	10.73	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 21.46%#			
46) surr1,1,2-dichloroetha...	5.787	65	39363	11.07	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 22.14%#			
64) SURR3,Toluene-d8	8.311	98	118864	11.05	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 22.10%#			
69) SURR2,BFB	10.878	95	43739	10.93	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.86%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	22212	5.12	ug/L	99
3) Chloromethane	1.282	50	21157	3.94	ug/L	98
4) Vinyl Chloride	1.355	62	19392	4.84	ug/L	93
5) Bromomethane	1.587	94	9966m	3.63	ug/L	
6) Chloroethane	1.666	64	11402	4.71	ug/L	93
7) Freon 21	1.812	67	27132	5.08	ug/L	97
8) Trichlorofluoromethane	1.861	101	20818	4.79	ug/L	96
9) Diethyl Ether	2.093	59	14303	5.17	ug/L	94
10) Freon 123a	2.099	67	16515	4.76	ug/L	91
11) Freon 123	2.154	83	18186	4.82	ug/L	89
12) Acrolein	2.196	56	20200	28.51	ug/L	93
13) 1,1-Diclethene	2.282	96	12475	4.76	ug/L	98
14) Freon 113	2.288	101	12398	4.92	ug/L	99
15) Acetone	2.331	43	9042	6.03	ug/L	93
16) 2-Propanol	2.459	45	41090	118.04	ug/L	99
17) Iodomethane	2.416	142	14563	4.09	ug/L	100
18) Carbon Disulfide	2.477	76	36866	4.51	ug/L	91
19) Acetonitrile	2.581	41	20843	30.65	ug/L	94
20) Allyl Chloride	2.611	76	7942	5.15	ug/L #	91
21) Methyl Acetate	2.641	43	21306	5.40	ug/L	92
22) Methylene Chloride	2.733	84	14000	4.33	ug/L	95
23) TBA	2.867	59	62763	125.34	ug/L	99
24) Acrylonitrile	2.989	53	45865	26.49	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	48454	5.04	ug/L	99
26) trans-1,2-Dichloroethene	3.032	96	13852	4.94	ug/L	92
27) 1,1-Diclethane	3.532	63	28189	4.75	ug/L	97
28) Vinyl Acetate	3.623	86	3355	5.98	ug/L #	84
29) DIPE	3.653	45	59110	4.89	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.653	53	23829	4.93	ug/L	80
31) ETBE	4.190	59	51533	5.34	ug/L	91
32) 2,2-Dichloropropane	4.361	77	23645	5.51	ug/L	95
33) cis-1,2-Dichloroethene	4.379	96	15589	4.86	ug/L	99
34) 2-Butanone	4.416	43	13142m	5.37	ug/L	
35) Propionitrile	4.501	54	18343	25.55	ug/L	99
36) Bromochloromethane	4.763	130	9633	4.77	ug/L #	86
37) Methacrylonitrile	4.775	67	9257	5.09	ug/L	91
38) Tetrahydrofuran	4.867	42	9221m	5.39	ug/L	
39) Chloroform	4.958	83	24361	4.50	ug/L	97
40) 1,1,1-Trichloroethane	5.257	97	21911	5.03	ug/L	91

1st DL 07/01/19
2nd 07/02/19

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:33:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.342	41	15720	4.40	ug/L		85
44) Carbontetrachloride	5.537	117	18701	5.42	ug/L		96
45) 1,1-Dichloropropene	5.543	75	18872	4.65	ug/L		94
47) Benzene	5.866	78	58017	4.74	ug/L		97
48) 1,2-Dichloroethane	5.909	62	22643	4.91	ug/L		94
49) Iso-Butyl Alcohol	5.885	43	25548	106.51	ug/L		88
50) TAME	6.104	73	45164	5.32	ug/L		95
51) n-Heptane	6.354	43	21980m	4.68	ug/L		
52) 1-Butanol	6.854	56	29305	237.77	ug/L		98
53) Trichloroethene	6.817	130	13831	4.45	ug/L		94
54) Methylcyclohexane	7.055	55	20140	4.78	ug/L		93
55) 1,2-Diclpropane	7.098	63	16146	4.76	ug/L		92
56) Dibromomethane	7.244	93	9133	4.69	ug/L		98
57) 1,4-Dioxane	7.305	88	6113	103.25	ug/L		91
58) Methyl Methacrylate	7.330	69	13745	4.92	ug/L		95
59) Bromodichloromethane	7.470	83	18915	4.76	ug/L		97
60) 2-Nitropropane	7.750	41	14402m	13.82	ug/L		
61) 2-Chloroethylvinyl Ether	7.878	63	8324	4.74	ug/L		99
62) cis-1,3-Dichloropropene	8.012	75	25074	4.98	ug/L		97
63) 4-Methyl-2-pentanone	8.220	43	24132	5.14	ug/L		97
65) Toluene	8.384	91	58694	4.66	ug/L		98
66) trans-1,3-Dichloropropene	8.659	75	22301	4.99	ug/L		97
67) Ethyl Methacrylate	8.793	69	24108	5.11	ug/L		92
68) 1,1,2-Trichloroethane	8.848	97	13814	4.80	ug/L		91
71) Tetrachloroethene	8.976	164	11421	4.78	ug/L		92
72) 2-Hexanone	9.134	43	18786	5.65	ug/L		95
73) 1,3-Dichloropropane	9.012	76	24816	5.04	ug/L		95
74) Dibromochloromethane	9.238	129	14237	5.23	ug/L		90
75) N-Butyl Acetate	9.293	43	34684	5.57	ug/L		97
76) 1,2-Dibromoethane	9.335	107	14438	5.16	ug/L		98
77) 3-Chlorobenzotrifluoride	9.847	180	21103	4.80	ug/L		98
78) Chlorobenzene	9.829	112	37420	4.81	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	19204	4.89	ug/L		90
80) 1,1,1,2-Tetrachloroethane	9.914	131	14303	5.46	ug/L		95
81) Ethylbenzene	9.951	106	19720	4.77	ug/L	#	87
82) (m+p)Xylene	10.067	106	47892	9.27	ug/L		91
83) o-Xylene	10.420	106	24113	4.74	ug/L		95
84) Styrene	10.433	104	40453	4.77	ug/L		96
85) Bromoform	10.585	173	9710	5.08	ug/L		79
86) 2-Chlorobenzotrifluoride	10.664	180	20593	4.86	ug/L		94
87) Isopropylbenzene	10.756	105	62104	4.71	ug/L		98
88) Cyclohexanone	10.817	55	81523	106.32	ug/L		97
89) trans-1,4-Dichloro-2-B...	11.061	53	5917	5.36	ug/L		96
91) 1,1,2,2-Tetrachloroethane	11.012	83	20849	5.15	ug/L		94
92) Bromobenzene	11.000	156	16140	4.81	ug/L	#	80
93) 1,2,3-Trichloropropane	11.048	110	6695	5.30	ug/L		98
94) n-Propylbenzene	11.109	91	72578	4.75	ug/L		97
95) 2-Chlorotoluene	11.176	91	44210	4.84	ug/L		97
96) 3-Chlorotoluene	11.225	91	43329	4.77	ug/L		92
97) 4-Chlorotoluene	11.268	91	52573	4.94	ug/L		94
98) 1,3,5-Trimethylbenzene	11.262	105	50690	4.70	ug/L		98
99) tert-Butylbenzene	11.536	119	45097	4.88	ug/L		100
100) 1,2,4-Trimethylbenzene	11.573	105	51876	4.86	ug/L		93
101) 3,4-Dichlorobenzotrifl...	11.640	214	16635	4.71	ug/L		95
102) sec-Butylbenzene	11.719	105	64660	4.66	ug/L		99
103) p-Isopropyltoluene	11.841	119	52400	4.66	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:33:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration

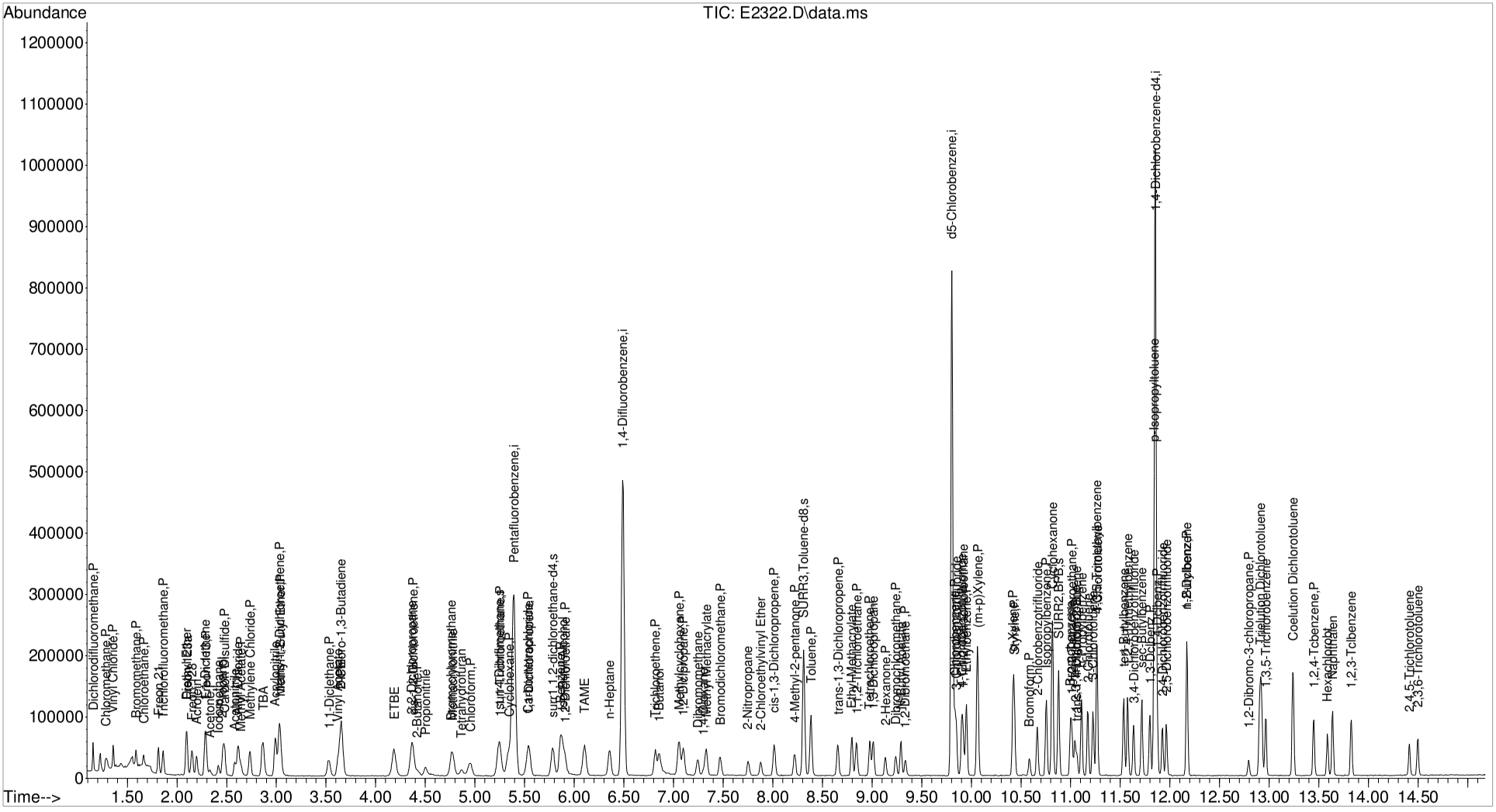
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	29706	4.66	ug/L	95
105) 1,4-Dclbenz	11.871	146	31744	4.83	ug/L	95
106) 2,4-Dichlorobenzotrifl...	11.926	214	15453	4.84	ug/L	93
107) 2,5-Dichlorobenzotrifl...	11.963	214	17295	4.69	ug/L	99
108) n-Butylbenzene	12.170	91	48088	4.51	ug/L	97
109) 1,2-Dclbenz	12.170	146	30620	4.89	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.792	157	5145	5.74	ug/L	96
111) Trielution Dichlorotol...	12.914	125	76045	14.42	ug/L	97
112) 1,3,5-Trichlorobenzene	12.969	180	21936	4.58	ug/L	98
113) Coelution Dichlorotoluene	13.237	125	55225	9.56	ug/L	95
114) 1,2,4-Tcbenzene	13.450	180	22699	4.68	ug/L	89
115) Hexachlorobt	13.584	225	10911	5.13	ug/L	96
116) Naphthalen	13.639	128	62523	5.07	ug/L	98
117) 1,2,3-Tclbenzene	13.828	180	21892	4.64	ug/L	90
118) 2,4,5-Trichlorotoluene	14.414	159	10476	4.06	ug/L	98
119) 2,3,6-Trichlorotoluene	14.499	159	11037	4.10	ug/L	91

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2322.D
Acq On : 1 Jul 2019 1:05 pm
Operator : D.LIPANI
Sample : STD #4 - 5.0 PPB Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 16:33:19 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:28:06 2019
Response via : Initial Calibration



1st 07/01/19
2nd 07/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2323.D
Acq On : 1 Jul 2019 1:27 pm
Operator : D.LIPANI
Sample : STD #5 - 20 PPB Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 01 16:35:18 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:35:04 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	281764	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	403990	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	349317	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	188685	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	50075	18.87	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 37.74%#				
46) surr1,1,2-dichloroetha...	5.781	65	66696	18.76	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 37.52%#				
64) SURR3,Toluene-d8	8.311	98	198799	18.48	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 36.96%#				
69) SURR2,BFB	10.878	95	75147	18.64	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 37.28%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	88161	20.50	ug/L		98
3) Chloromethane	1.282	50	91354	17.76	ug/L		99
4) Vinyl Chloride	1.355	62	76135	19.23	ug/L		98
5) Bromomethane	1.587	94	37086	13.99	ug/L		94
6) Chloroethane	1.666	64	41603	17.40	ug/L		97
7) Freon 21	1.812	67	110107	20.78	ug/L		99
8) Trichlorofluoromethane	1.861	101	87719	20.38	ug/L		99
9) Diethyl Ether	2.093	59	56410	20.55	ug/L		93
10) Freon 123a	2.099	67	70166	20.50	ug/L		99
11) Freon 123	2.148	83	74484	19.98	ug/L		94
12) Acrolein	2.196	56	79305	110.32	ug/L		96
13) 1,1-Diclethene	2.282	96	50826	19.56	ug/L		97
14) Freon 113	2.294	101	49443	19.75	ug/L		90
15) Acetone	2.330	43	34320	22.51	ug/L		98
16) 2-Propanol	2.458	45	166595	452.30	ug/L		99
17) Iodomethane	2.416	142	79358	22.26	ug/L		100
18) Carbon Disulfide	2.477	76	162778	20.20	ug/L		99
19) Acetonitrile	2.580	41	67337	96.07	ug/L		90
20) Allyl Chloride	2.617	76	31029	20.00	ug/L	#	84
21) Methyl Acetate	2.641	43	84010	21.00	ug/L		98
22) Methylene Chloride	2.733	84	55788	17.67	ug/L		99
23) TBA	2.861	59	235073	432.50	ug/L		99
24) Acrylonitrile	2.989	53	174452	100.23	ug/L		97
25) Methyl-t-Butyl Ether	3.038	73	194569	20.20	ug/L		99
26) trans-1,2-Dichloroethene	3.032	96	53096	18.99	ug/L		98
27) 1,1-Diclethane	3.531	63	112415	19.08	ug/L		99
28) Vinyl Acetate	3.617	86	12427	21.19	ug/L	#	93
29) DIPE	3.653	45	218519	18.10	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.653	53	94691	19.50	ug/L		100
31) ETBE	4.190	59	192895	19.69	ug/L		93
32) 2,2-Dichloropropane	4.361	77	92098	20.70	ug/L		98
33) cis-1,2-Dichloroethene	4.373	96	58196	18.27	ug/L		97
34) 2-Butanone	4.415	43	51640	20.66	ug/L		99
35) Propionitrile	4.495	54	69632	96.21	ug/L		96
36) Bromochloromethane	4.769	130	37011	18.68	ug/L		91
37) Methacrylonitrile	4.769	67	32362	17.99	ug/L		99
38) Tetrahydrofuran	4.860	42	33270	19.44	ug/L		97
39) Chloroform	4.946	83	97531	18.55	ug/L		92
40) 1,1,1-Trichloroethane	5.257	97	84927	19.63	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2323.D
Acq On : 1 Jul 2019 1:27 pm
Operator : D.LIPANI
Sample : STD #5 - 20 PPB Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 01 16:35:18 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:35:04 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.342	41	68623	19.33	ug/L		91
44) Carbontetrachloride	5.531	117	72246	20.26	ug/L		98
45) 1,1-Dichloropropene	5.543	75	77113	19.06	ug/L		98
47) Benzene	5.866	78	230314	19.04	ug/L		99
48) 1,2-Dichloroethane	5.903	62	88798	19.33	ug/L		97
49) Iso-Butyl Alcohol	5.885	43	96753	387.03	ug/L		95
50) TAME	6.104	73	171329	19.97	ug/L		99
51) n-Heptane	6.360	43	93690	19.92	ug/L		98
52) 1-Butanol	6.854	56	128692	1021.65	ug/L		98
53) Trichloroethene	6.817	130	56947	18.62	ug/L		97
54) Methylcyclohexane	7.055	55	79922	19.06	ug/L		97
55) 1,2-Diclpropane	7.098	63	64488	19.06	ug/L		96
56) Dibromomethane	7.244	93	37254	19.37	ug/L		99
57) 1,4-Dioxane	7.299	88	21947	367.50	ug/L		90
58) Methyl Methacrylate	7.329	69	54099	19.07	ug/L		97
59) Bromodichloromethane	7.470	83	76909	19.31	ug/L		98
60) 2-Nitropropane	7.750	41	49397	43.80	ug/L		98
61) 2-Chloroethylvinyl Ether	7.878	63	32892	18.85	ug/L		96
62) cis-1,3-Dichloropropene	8.012	75	102115	20.02	ug/L		94
63) 4-Methyl-2-pentanone	8.220	43	95356	20.13	ug/L		99
65) Toluene	8.384	91	241646	19.36	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	91499	19.88	ug/L		97
67) Ethyl Methacrylate	8.793	69	93831	19.35	ug/L		94
68) 1,1,2-Trichloroethane	8.841	97	55224	19.39	ug/L		98
71) Tetrachloroethene	8.975	164	45831	19.14	ug/L		96
72) 2-Hexanone	9.134	43	71920	20.80	ug/L		100
73) 1,3-Dichloropropane	9.012	76	97502	19.70	ug/L		99
74) Dibromochloromethane	9.238	129	56699	20.27	ug/L		96
75) N-Butyl Acetate	9.286	43	141685	21.57	ug/L		96
76) 1,2-Dibromoethane	9.335	107	54931	19.31	ug/L		98
77) 3-Chlorobenzotrifluoride	9.847	180	78990	17.87	ug/L		97
78) Chlorobenzene	9.829	112	150170	19.25	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	70417	17.91	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.920	131	56612	20.77	ug/L		97
81) Ethylbenzene	9.951	106	79929	19.32	ug/L		94
82) (m+p)Xylene	10.061	106	196946	37.94	ug/L		98
83) o-Xylene	10.420	106	96646	18.94	ug/L		93
84) Styrene	10.433	104	167167	19.61	ug/L		99
85) Bromoform	10.585	173	42904	21.56	ug/L		92
86) 2-Chlorobenzotrifluoride	10.664	180	76870	18.19	ug/L		99
87) Isopropylbenzene	10.756	105	248716	18.80	ug/L		98
88) Cyclohexanone	10.817	55	299703	378.79	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.060	53	23847	20.87	ug/L		99
91) 1,1,2,2-Tetrachloroethane	11.012	83	79938	19.67	ug/L		98
92) Bromobenzene	10.999	156	66074	19.81	ug/L		96
93) 1,2,3-Trichloropropane	11.042	110	23817	18.89	ug/L	#	83
94) n-Propylbenzene	11.109	91	298249	19.68	ug/L		99
95) 2-Chlorotoluene	11.170	91	181740	20.00	ug/L		96
96) 3-Chlorotoluene	11.225	91	165760	18.36	ug/L		98
97) 4-Chlorotoluene	11.268	91	204271	19.23	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	205801	19.11	ug/L		98
99) tert-Butylbenzene	11.536	119	179078	19.35	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	206790	19.43	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.634	214	61675	17.67	ug/L		99
102) sec-Butylbenzene	11.719	105	265124	19.20	ug/L		99
103) p-Isopropyltoluene	11.841	119	220474	19.73	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2323.D
Acq On : 1 Jul 2019 1:27 pm
Operator : D.LIPANI
Sample : STD #5 - 20 PPB Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 01 16:35:18 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:35:04 2019
Response via : Initial Calibration

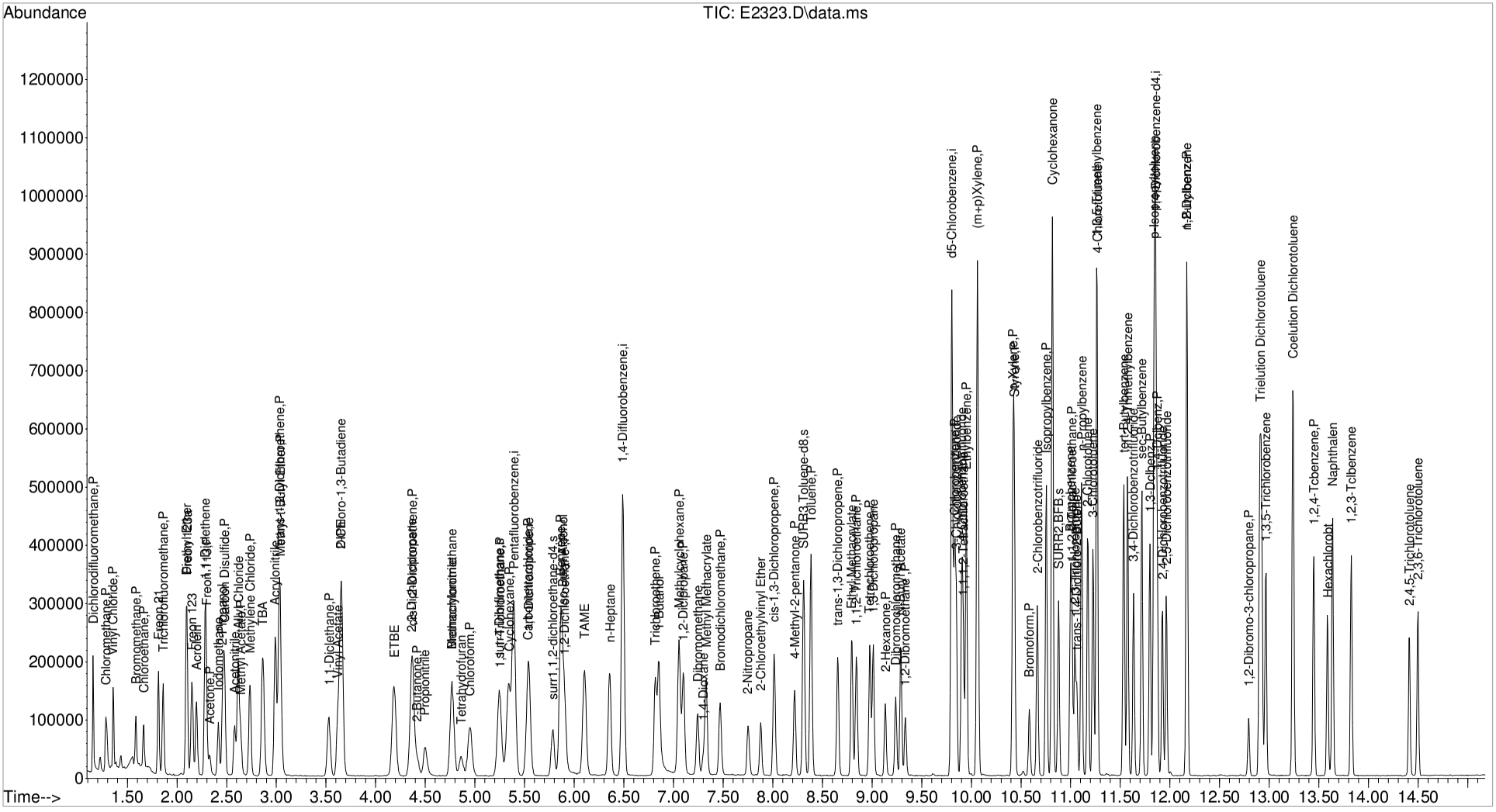
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	118427	18.79	ug/L	97
105) 1,4-Dclbenz	11.871	146	124268	19.01	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	56405	17.88	ug/L	92
107) 2,5-Dichlorobenzotrifl...	11.963	214	62890	17.28	ug/L	95
108) n-Butylbenzene	12.170	91	202628	19.15	ug/L	100
109) 1,2-Dclbenz	12.170	146	122273	19.68	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.792	157	20024	21.36	ug/L	94
111) Trielution Dichlorotol...	12.914	125	294314	56.06	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	85366	18.15	ug/L	96
113) Coelution Dichlorotoluene	13.237	125	213957	37.32	ug/L	95
114) 1,2,4-Tcbenzene	13.450	180	92298	19.19	ug/L	99
115) Hexachlorobt	13.590	225	42532	19.85	ug/L	99
116) Naphthalen	13.639	128	253799	20.52	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	91643	19.57	ug/L	98
118) 2,4,5-Trichlorotoluene	14.413	159	50898	19.78	ug/L	98
119) 2,3,6-Trichlorotoluene	14.499	159	53641	20.08	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2323.D
Acq On : 1 Jul 2019 1:27 pm
Operator : D.LIPANI
Sample : STD #5 - 20 PPB Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 01 16:35:18 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:35:04 2019
Response via : Initial Calibration



1st 07/01/19
2nd 07/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2324.D
Acq On : 1 Jul 2019 1:51 pm
Operator : D.LIPANI
Sample : STD #6 - 50 PPB Inst : MSVOA10
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 15:49:48 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:49:35 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.397	168	256481	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	369417	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	321722	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	177696	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	123446	50.97	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.94%			
46) surr1,1,2-dichloroetha...	5.787	65	165016	51.16	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.32%			
64) SURR3,Toluene-d8	8.311	98	498532	51.11	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.22%			
69) SURR2,BFB	10.877	95	187033	51.54	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.08%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.160	85	212785	55.91	ug/L	100
3) Chloromethane	1.288	50	223257	45.64	ug/L	100
4) Vinyl Chloride	1.361	62	187306	53.59	ug/L	100
5) Bromomethane	1.587	94	87320	33.91	ug/L	100
6) Chloroethane	1.666	64	97645	46.31	ug/L	100
7) Freon 21	1.818	67	244434	54.21	ug/L	100
8) Trichlorofluoromethane	1.861	101	208928	56.83	ug/L	100
9) Diethyl Ether	2.099	59	134781	53.83	ug/L	100
10) Freon 123a	2.099	67	152934	49.69	ug/L	100
11) Freon 123	2.154	83	164712	48.96	ug/L	100
12) Acrolein	2.196	56	165078	287.26	ug/L	100
13) 1,1-Diclethene	2.288	96	121374	53.21	ug/L	100
14) Freon 113	2.294	101	119496	53.35	ug/L	100
15) Acetone	2.330	43	72802	54.57	ug/L	100
16) 2-Propanol	2.464	45	342888	1321.28	ug/L	100
17) Iodomethane	2.422	142	184736	59.78	ug/L	100
18) Carbon Disulfide	2.483	76	356812	50.44	ug/L	100
19) Acetonitrile	2.580	41	164660	297.57	ug/L	100
20) Allyl Chloride	2.623	76	73861	57.03	ug/L	100
21) Methyl Acetate	2.641	43	173151	50.05	ug/L	100
22) Methylene Chloride	2.739	84	136295	48.13	ug/L	100
23) TBA	2.867	59	520959	1299.97	ug/L	100
24) Acrylonitrile	2.989	53	393585	262.95	ug/L	100
25) Methyl-t-Butyl Ether	3.044	73	449566	55.11	ug/L	100
26) trans-1,2-Dichloroethene	3.031	96	128737	50.95	ug/L	100
27) 1,1-Diclethane	3.531	63	270571	51.33	ug/L	100
28) Vinyl Acetate	3.629	86	28595	57.93	ug/L	100
29) DIPE	3.659	45	527060	50.80	ug/L	100
30) 2-Chloro-1,3-Butadiene	3.653	53	210233	51.66	ug/L	100
31) ETBE	4.190	59	448405	56.78	ug/L	100
32) 2,2-Dichloropropane	4.367	77	227020	70.37	ug/L	100
33) cis-1,2-Dichloroethene	4.373	96	139654	47.62	ug/L	100
34) 2-Butanone	4.421	43	107135	49.26	ug/L	100
35) Propionitrile	4.507	54	155124	252.60	ug/L	100
36) Bromochloromethane	4.775	130	89742	48.72	ug/L	100
37) Methacrylonitrile	4.775	67	76131	48.29	ug/L	100
38) Tetrahydrofuran	4.866	42	72833	48.96	ug/L	100
39) Chloroform	4.952	83	230709	48.70	ug/L	100
40) 1,1,1-Trichloroethane	5.257	97	199477	54.58	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2324.D
Acq On : 1 Jul 2019 1:51 pm
Operator : D.LIPANI
Sample : STD #6 - 50 PPB Inst : MSVOA10
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 15:49:48 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:49:35 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.342	41	155502	48.73	ug/L	100
44) Carbontetrachloride	5.537	117	174659	63.57	ug/L	100
45) 1,1-Dichloropropene	5.543	75	184131	50.42	ug/L	100
47) Benzene	5.866	78	544484	48.37	ug/L	100
48) 1,2-Dichloroethane	5.903	62	206398	50.49	ug/L	100
49) Iso-Butyl Alcohol	5.885	43	226657	1157.30	ug/L	100
50) TAME	6.104	73	392310	53.71	ug/L	100
51) n-Heptane	6.354	43	228807	55.79	ug/L	100
52) 1-Butanol	6.854	56	299473	2858.33	ug/L	100
53) Trichloroethene	6.817	130	135881	47.97	ug/L	100
54) Methylcyclohexane	7.055	55	186292	49.83	ug/L	100
55) 1,2-Diclpropane	7.098	63	151245	48.46	ug/L	100
56) Dibromomethane	7.244	93	85665	48.20	ug/L	100
57) 1,4-Dioxane	7.305	88	50010	971.74	ug/L	100
58) Methyl Methacrylate	7.329	69	121416	55.06	ug/L	100
59) Bromodichloromethane	7.470	83	176542	52.42	ug/L	100
60) 2-Nitropropane	7.756	41	114881	144.95	ug/L	100
61) 2-Chloroethylvinyl Ether	7.878	63	72720	45.61	ug/L	100
62) cis-1,3-Dichloropropene	8.018	75	238115	56.58	ug/L	100
63) 4-Methyl-2-pentanone	8.219	43	200814	48.04	ug/L	100
65) Toluene	8.384	91	560879	48.11	ug/L	100
66) trans-1,3-Dichloropropene	8.652	75	217397	63.42	ug/L	100
67) Ethyl Methacrylate	8.799	69	221388	60.42	ug/L	100
68) 1,1,2-Trichloroethane	8.841	97	122613	46.96	ug/L	100
71) Tetrachloroethene	8.981	164	109229	49.90	ug/L	100
72) 2-Hexanone	9.134	43	156274	51.04	ug/L	100
73) 1,3-Dichloropropane	9.012	76	226965	48.96	ug/L	100
74) Dibromochloromethane	9.238	129	138835	57.48	ug/L	100
75) N-Butyl Acetate	9.292	43	298866	58.26	ug/L	100
76) 1,2-Dibromoethane	9.335	107	129610	53.52	ug/L	100
77) 3-Chlorobenzotrifluoride	9.847	180	196770	48.92	ug/L	100
78) Chlorobenzene	9.829	112	357390	50.02	ug/L	100
79) 4-Chlorobenzotrifluoride	9.902	180	176723	48.05	ug/L	100
80) 1,1,1,2-Tetrachloroethane	9.920	131	129282	56.61	ug/L	100
81) Ethylbenzene	9.951	106	193578	50.81	ug/L	100
82) (m+p)Xylene	10.061	106	475801	101.12	ug/L	100
83) o-Xylene	10.420	106	233427	51.09	ug/L	100
84) Styrene	10.432	104	394313	51.52	ug/L	100
85) Bromoform	10.585	173	99392	61.95	ug/L	100
86) 2-Chlorobenzotrifluoride	10.664	180	188434	47.75	ug/L	100
87) Isopropylbenzene	10.756	105	605310	51.46	ug/L	100
88) Cyclohexanone	10.817	55	716630	1079.81	ug/L	100
89) trans-1,4-Dichloro-2-B...	11.060	53	55515	62.17	ug/L	100
91) 1,1,2,2-Tetrachloroethane	11.012	83	180960	48.73	ug/L	100
92) Bromobenzene	10.999	156	155578	49.20	ug/L	100
93) 1,2,3-Trichloropropane	11.042	110	54936	49.45	ug/L	100
94) n-Propylbenzene	11.109	91	712164	50.97	ug/L	100
95) 2-Chlorotoluene	11.170	91	425260	49.81	ug/L	100
96) 3-Chlorotoluene	11.225	91	398240	47.80	ug/L	100
97) 4-Chlorotoluene	11.268	91	488132	51.63	ug/L	100
98) 1,3,5-Trimethylbenzene	11.262	105	507446	52.49	ug/L	100
99) tert-Butylbenzene	11.536	119	436982	51.95	ug/L	100
100) 1,2,4-Trimethylbenzene	11.572	105	504768	51.95	ug/L	100
101) 3,4-Dichlorobenzotrifl...	11.633	214	159066	48.56	ug/L	100
102) sec-Butylbenzene	11.719	105	646293	51.65	ug/L	100
103) p-Isopropyltoluene	11.841	119	543126	52.48	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2324.D
Acq On : 1 Jul 2019 1:51 pm
Operator : D.LIPANI
Sample : STD #6 - 50 PPB Inst : MSVOA10
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 15:49:48 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:49:35 2019
Response via : Initial Calibration

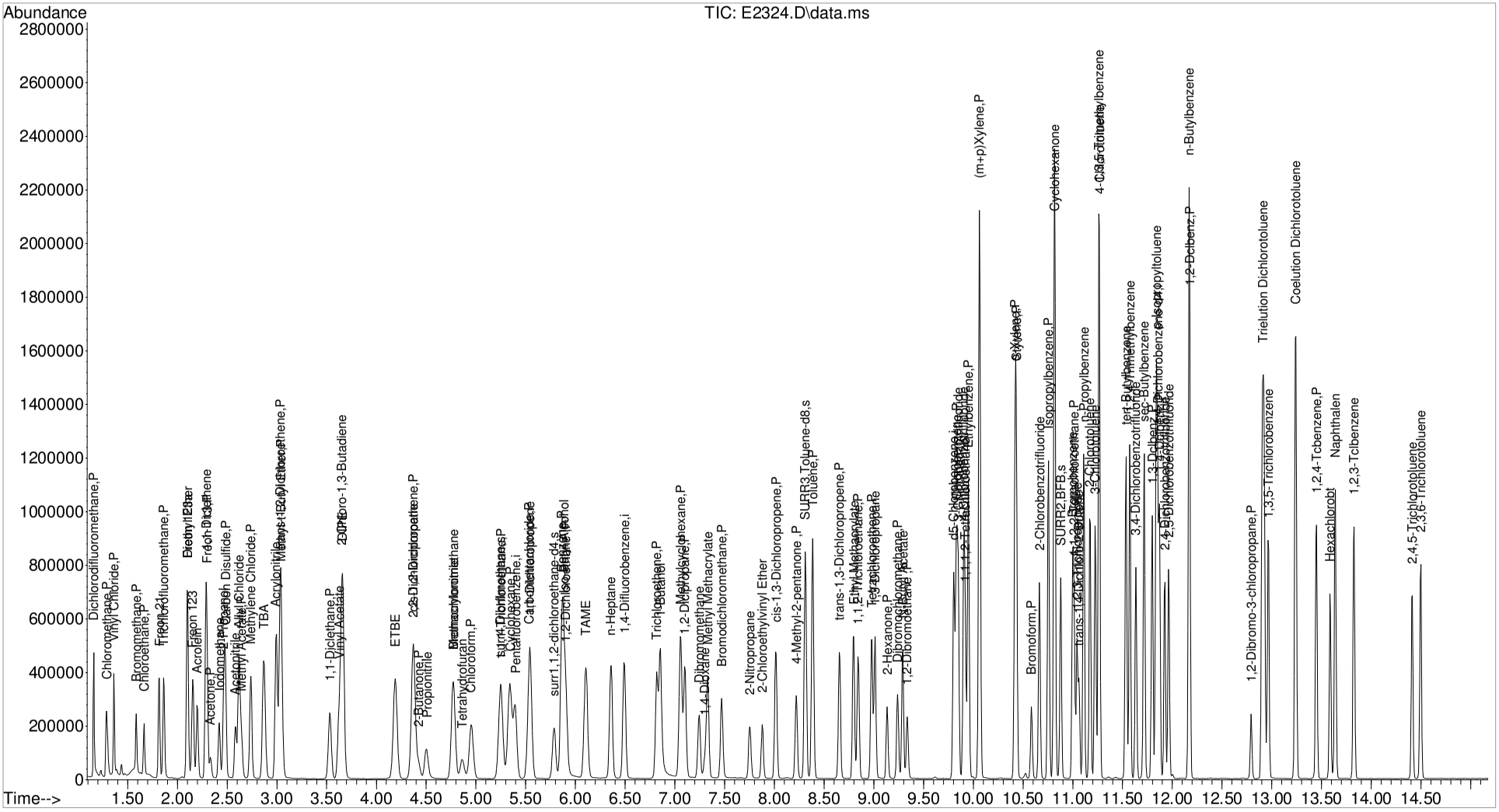
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	294510	49.99	ug/L	100
105) 1,4-Dclbenz	11.871	146	299209	50.04	ug/L	100
106) 2,4-Dichlorobenzotrifl...	11.926	214	145613	49.18	ug/L	100
107) 2,5-Dichlorobenzotrifl...	11.963	214	164415	46.46	ug/L	100
108) n-Butylbenzene	12.170	91	510766	51.83	ug/L	100
109) 1,2-Dclbenz	12.176	146	291207	48.85	ug/L	100
110) 1,2-Dibromo-3-chloropr...	12.792	157	47518	64.83	ug/L	100
111) Trielution Dichlorotol...	12.914	125	753132	155.69	ug/L	100
112) 1,3,5-Trichlorobenzene	12.969	180	215671	48.18	ug/L	100
113) Coelution Dichlorotoluene	13.243	125	545672	105.64	ug/L	100
114) 1,2,4-Tcbenzene	13.450	180	233892	52.73	ug/L	100
115) Hexachlorobt	13.584	225	105174	53.35	ug/L	100
116) Naphthalen	13.639	128	629590	57.35	ug/L	100
117) 1,2,3-Tclbenzene	13.828	180	232427	54.92	ug/L	100
118) 2,4,5-Trichlorotoluene	14.413	159	149528	64.87	ug/L	100
119) 2,3,6-Trichlorotoluene	14.499	159	150017	62.24	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2324.D
Acq On : 1 Jul 2019 1:51 pm
Operator : D.LIPANI
Sample : STD #6 - 50 PPB Inst : MSVOA10
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 15:49:48 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 15:49:35 2019
Response via : Initial Calibration



1st 07/01/19
2nd 07/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2325.D
Acq On : 1 Jul 2019 2:13 pm
Operator : D.LIPANI
Sample : STD #7 - 100 PPB Inst : MSVOA10
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 16:40:50 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:40:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	278912	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	397110	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	346922	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	194685	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	264013	100.14	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 200.28%#				
46) surr1,1,2-dichloroetha...	5.787	65	346941	97.61	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 195.22%#				
64) SURR3,Toluene-d8	8.311	98	1033711	96.68	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 193.36%#				
69) SURR2,BFB	10.878	95	399393	100.03	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 200.06%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	444989	104.93	ug/L		99
3) Chloromethane	1.282	50	475115	98.78	ug/L		98
4) Vinyl Chloride	1.355	62	398655	100.94	ug/L		97
5) Bromomethane	1.581	94	129425	52.73	ug/L		99
6) Chloroethane	1.654	64	204729	81.25	ug/L		97
7) Freon 21	1.806	67	552578	99.83	ug/L		100
8) Trichlorofluoromethane	1.855	101	446695	99.70	ug/L		100
9) Diethyl Ether	2.093	59	291701	103.50	ug/L		99
10) Freon 123a	2.099	67	338355	96.55	ug/L		97
11) Freon 123	2.148	83	374992	99.02	ug/L		97
12) Acrolein	2.196	56	379457	485.59	ug/L		100
13) 1,1-Diclethene	2.282	96	250856	94.40	ug/L		97
14) Freon 113	2.288	101	249186	97.29	ug/L		97
15) Acetone	2.331	43	166416	99.23	ug/L		95
16) 2-Propanol	2.471	45	757926	1887.90	ug/L		98
17) Iodomethane	2.416	142	430398	132.92	ug/L		100
18) Carbon Disulfide	2.477	76	811668	99.76	ug/L		100
19) Acetonitrile	2.581	41	335510	456.21	ug/L		96
20) Allyl Chloride	2.611	76	157110	99.49	ug/L	#	89
21) Methyl Acetate	2.642	43	387736	95.20	ug/L		99
22) Methylene Chloride	2.733	84	285453	90.60	ug/L		99
23) TBA	2.873	59	1101554	1843.55	ug/L		99
24) Acrylonitrile	2.989	53	837092	485.86	ug/L		95
25) Methyl-t-Butyl Ether	3.038	73	966003	99.80	ug/L		100
26) trans-1,2-Dichloroethene	3.026	96	266664	97.95	ug/L		97
27) 1,1-Diclethane	3.525	63	569113	97.57	ug/L		97
28) Vinyl Acetate	3.617	86	61705	98.20	ug/L	#	90
29) DIPE	3.654	45	1171061	98.13	ug/L		99
30) 2-Chloro-1,3-Butadiene	3.654	53	467546	94.82	ug/L		96
31) ETBE	4.184	59	1000425	99.35	ug/L		96
32) 2,2-Dichloropropane	4.361	77	470756	96.58	ug/L		98
33) cis-1,2-Dichloroethene	4.373	96	296188	96.42	ug/L		99
34) 2-Butanone	4.416	43	245330	99.08	ug/L		98
35) Propionitrile	4.501	54	337600	477.07	ug/L		98
36) Bromochloromethane	4.763	130	191425	99.59	ug/L		88
37) Methacrylonitrile	4.769	67	164127	92.08	ug/L		88
38) Tetrahydrofuran	4.861	42	151067	84.20	ug/L		95
39) Chloroform	4.952	83	488485	95.15	ug/L		98
40) 1,1,1-Trichloroethane	5.251	97	431762	98.47	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2325.D
Acq On : 1 Jul 2019 2:13 pm
Operator : D.LIPANI
Sample : STD #7 - 100 PPB Inst : MSVOA10
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 16:40:50 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:40:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	337835	95.94	ug/L		90
44) Carbontetrachloride	5.531	117	378332	99.85	ug/L		99
45) 1,1-Dichloropropene	5.543	75	389067	99.40	ug/L		99
47) Benzene	5.866	78	1163473	99.96	ug/L		98
48) 1,2-Dichloroethane	5.903	62	444304	98.69	ug/L		97
49) Iso-Butyl Alcohol	5.891	43	488609	1977.62	ug/L		99
50) TAME	6.104	73	883064	102.63	ug/L		99
51) n-Heptane	6.354	43	489258	103.07	ug/L		100
52) 1-Butanol	6.854	56	661921	5752.99	ug/L		99
53) Trichloroethene	6.818	130	291529	98.39	ug/L		99
54) Methylcyclohexane	7.055	55	415483	100.46	ug/L		95
55) 1,2-Diclpropane	7.098	63	324146	100.24	ug/L		99
56) Dibromomethane	7.244	93	188208	102.29	ug/L		97
57) 1,4-Dioxane	7.305	88	105099	1781.46	ug/L		98
58) Methyl Methacrylate	7.330	69	263902	91.76	ug/L		97
59) Bromodichloromethane	7.470	83	381735	95.70	ug/L		100
60) 2-Nitropropane	7.750	41	251093	184.50	ug/L		94
61) 2-Chloroethylvinyl Ether	7.878	63	165963	103.58	ug/L		99
62) cis-1,3-Dichloropropene	8.012	75	517741	101.70	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	463712	98.38	ug/L		100
65) Toluene	8.384	91	1208876	101.31	ug/L		98
66) trans-1,3-Dichloropropene	8.653	75	478735	101.53	ug/L		98
67) Ethyl Methacrylate	8.799	69	481627	99.30	ug/L		98
68) 1,1,2-Trichloroethane	8.842	97	267203	96.97	ug/L		97
71) Tetrachloroethene	8.976	164	235324	99.61	ug/L		97
72) 2-Hexanone	9.134	43	350643	98.55	ug/L		99
73) 1,3-Dichloropropane	9.012	76	488416	100.56	ug/L		98
74) Dibromochloromethane	9.238	129	305946	107.02	ug/L		99
75) N-Butyl Acetate	9.293	43	671432	97.12	ug/L		97
76) 1,2-Dibromoethane	9.335	107	284486	101.96	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	449818	105.02	ug/L		99
78) Chlorobenzene	9.829	112	767441	100.32	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	400584	106.24	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.921	131	289347	103.52	ug/L		99
81) Ethylbenzene	9.951	106	420099	104.74	ug/L		95
82) (m+p)Xylene	10.061	106	1036767	206.04	ug/L		98
83) o-Xylene	10.420	106	509717	102.54	ug/L		94
84) Styrene	10.433	104	865802	105.65	ug/L		100
85) Bromoform	10.585	173	222265	106.44	ug/L		95
86) 2-Chlorobenzotrifluoride	10.664	180	436442	108.62	ug/L		96
87) Isopropylbenzene	10.756	105	1314447	102.41	ug/L		99
88) Cyclohexanone	10.817	55	1474221	1890.18	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.061	53	120539	102.68	ug/L		99
91) 1,1,2,2-Tetrachloroethane	11.012	83	398493	93.90	ug/L		98
92) Bromobenzene	11.000	156	345352	99.16	ug/L		97
93) 1,2,3-Trichloropropane	11.042	110	117935	86.50	ug/L	#	89
94) n-Propylbenzene	11.109	91	1564178	100.03	ug/L		99
95) 2-Chlorotoluene	11.176	91	939054	99.70	ug/L		98
96) 3-Chlorotoluene	11.225	91	955702	102.89	ug/L		99
97) 4-Chlorotoluene	11.268	91	1044322	94.58	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	1099829	98.51	ug/L		99
99) tert-Butylbenzene	11.536	119	961472	99.75	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	1119886	102.38	ug/L		100
101) 3,4-Dichlorobenzotrifl...	11.634	214	370121	104.66	ug/L		99
102) sec-Butylbenzene	11.719	105	1430711	101.01	ug/L		100
103) p-Isopropyltoluene	11.841	119	1208002	107.20	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2325.D
Acq On : 1 Jul 2019 2:13 pm
Operator : D.LIPANI
Sample : STD #7 - 100 PPB Inst : MSVOA10
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 16:40:50 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:40:34 2019
Response via : Initial Calibration

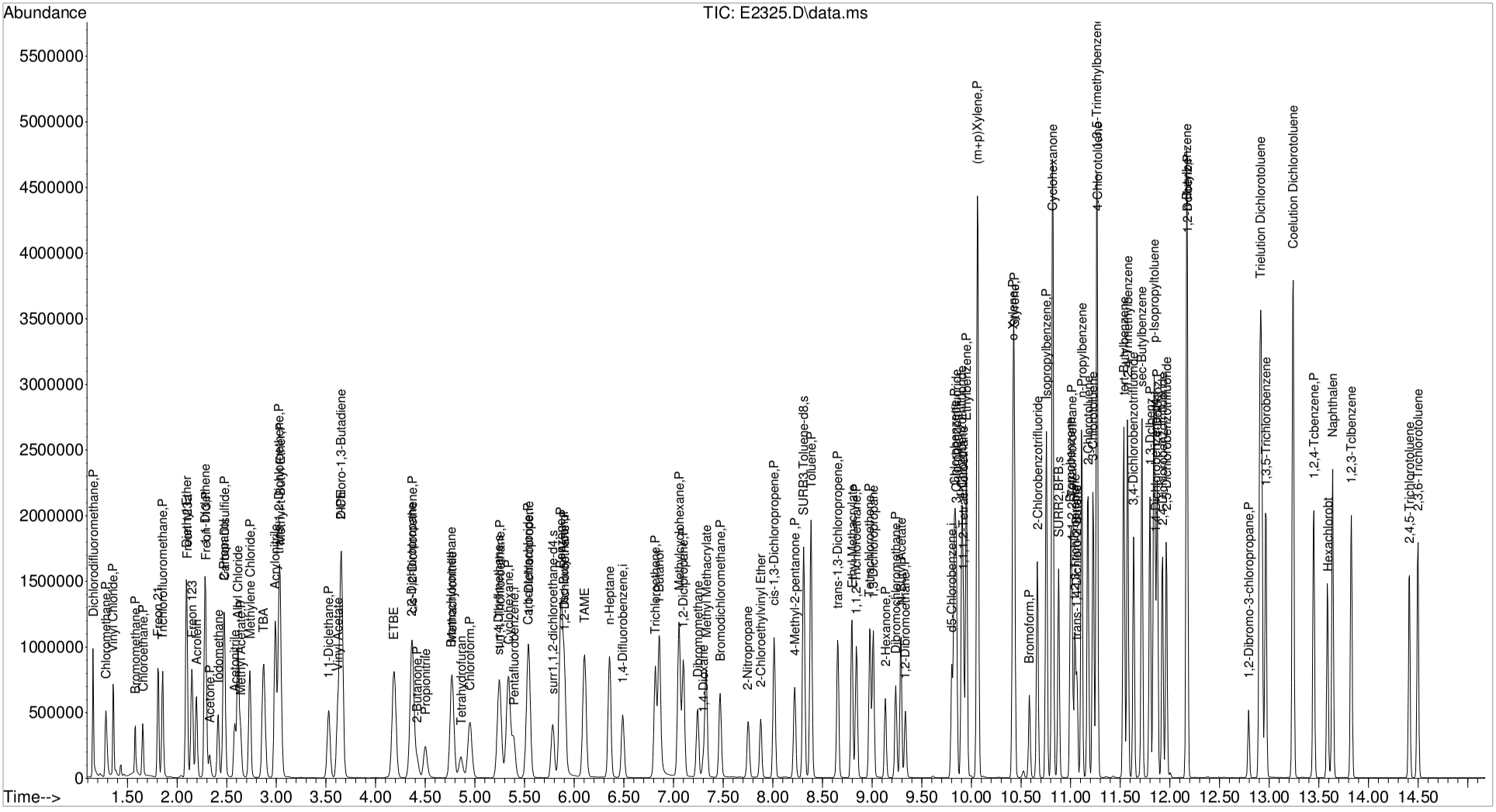
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	650352	100.64	ug/L	96
105) 1,4-Dclbenz	11.871	146	663531	97.75	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	340995	108.32	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.963	214	382648	103.56	ug/L	99
108) n-Butylbenzene	12.170	91	1140762	109.86	ug/L	99
109) 1,2-Dclbenz	12.176	146	646081	102.07	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.792	157	105554	100.84	ug/L	99
111) Trielution Dichlorotol...	12.914	125	1694794	320.76	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	497239	105.93	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	1224869	211.40	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	506320	103.92	ug/L	99
115) Hexachlorobt	13.591	225	228180	101.95	ug/L	98
116) Naphthalen	13.639	128	1345506	107.19	ug/L	100
117) 1,2,3-Tclbenzene	13.828	180	492679	103.60	ug/L	98
118) 2,4,5-Trichlorotoluene	14.414	159	324039	134.47	ug/L	94
119) 2,3,6-Trichlorotoluene	14.499	159	339484	136.66	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2325.D
Acq On : 1 Jul 2019 2:13 pm
Operator : D.LIPANI
Sample : STD #7 - 100 PPB Inst : MSVOA10
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 16:40:50 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:40:34 2019
Response via : Initial Calibration

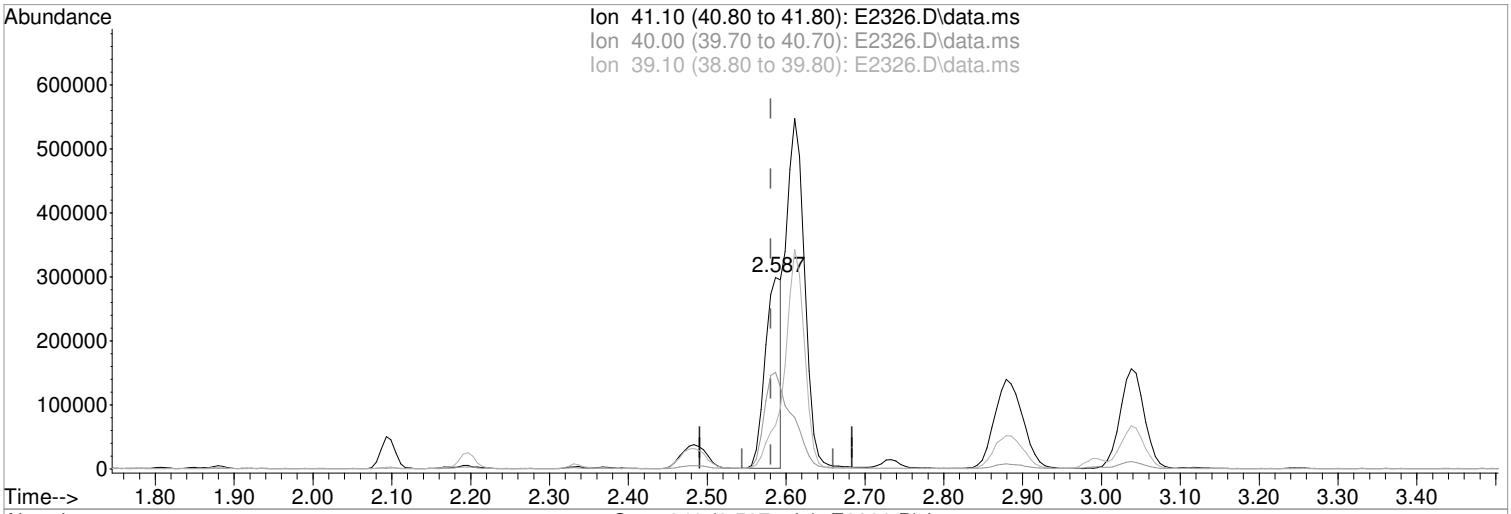


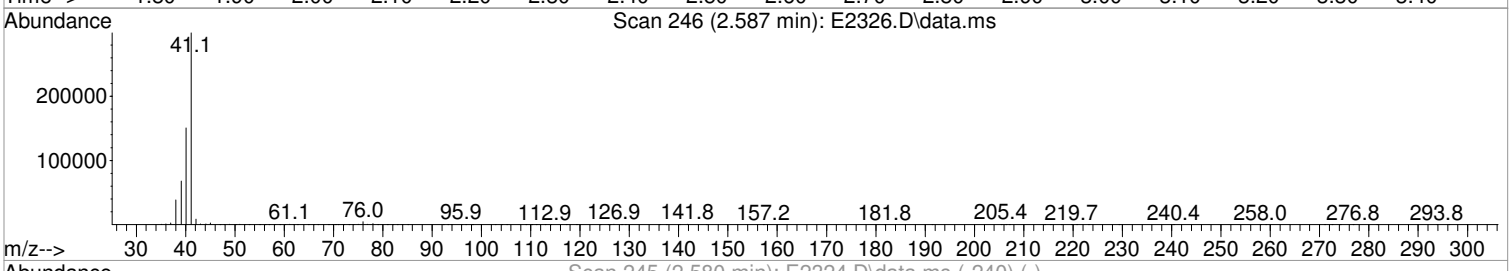
1st 07/01/19
2nd 07/02/19

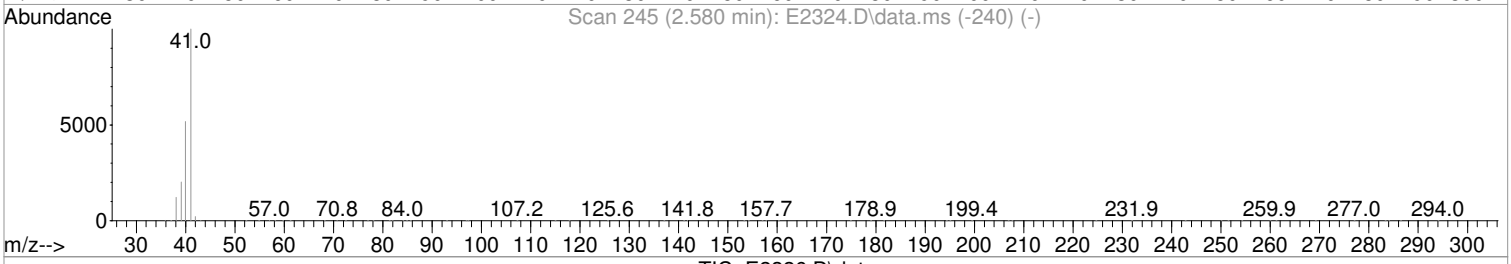
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2326.D
Acq On : 1 Jul 2019 2:35 pm
Operator : D.LIPANI
Sample : STD #8 - 150 PPB Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 16:42:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:42:32 2019
Response via : Initial Calibration







TIC: E2326.D\data.ms

(19) Acetonitrile

2.587min (+0.006) 649.08 ug/L m

response 432662

Ion	Exp%	Act%
41.10	100	100
40.00	52.10	50.39
39.10	20.40	22.64
0.00	0.00	0.00

Manual Integration:

After

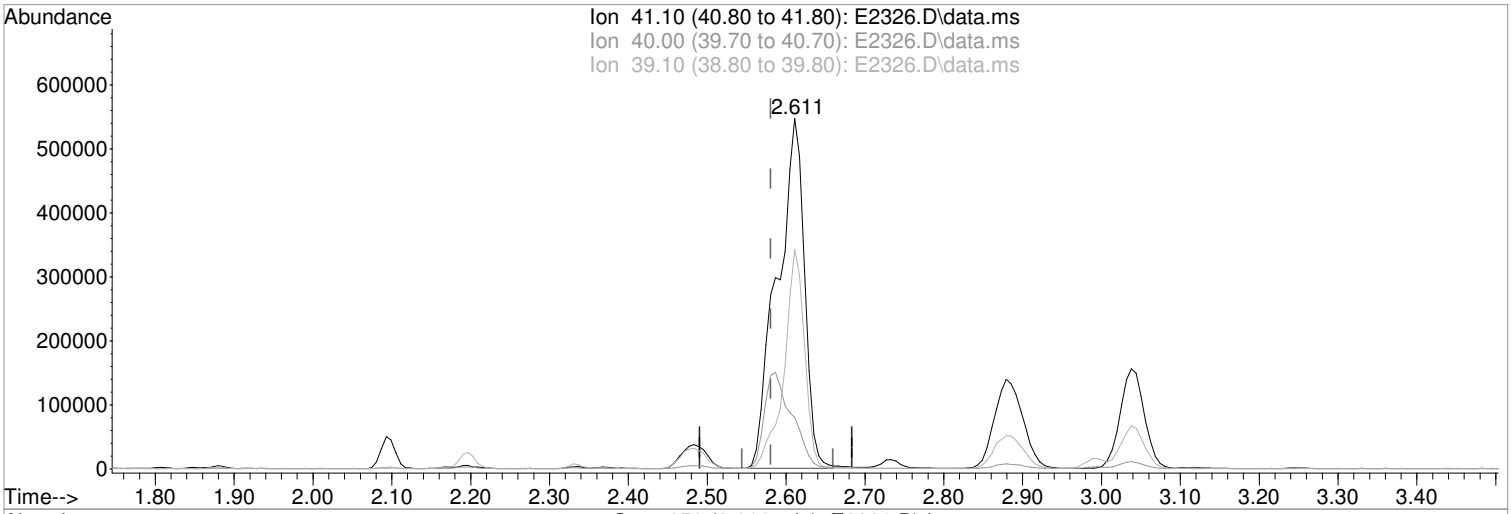
Peak not found.

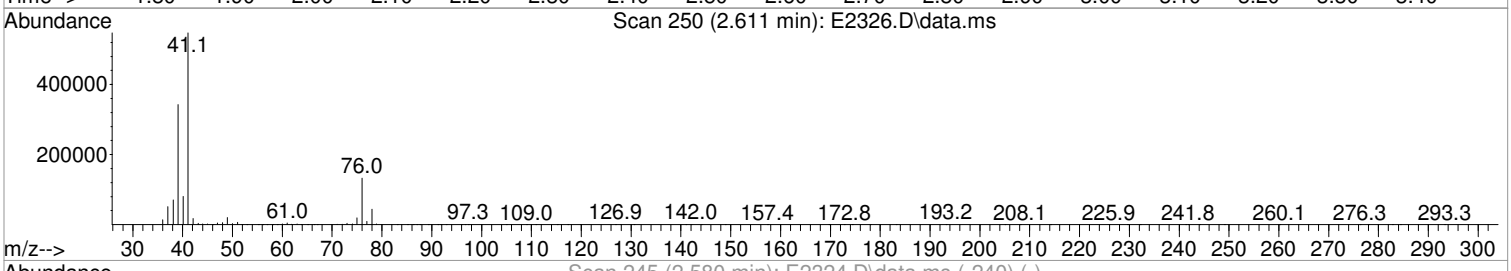
07/01/19

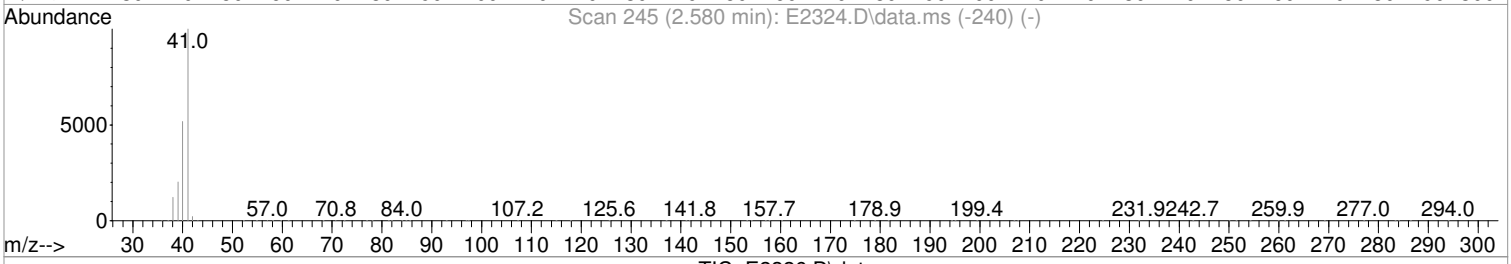
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2326.D
Acq On : 1 Jul 2019 2:35 pm
Operator : D.LIPANI
Sample : STD #8 - 150 PPB Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 16:42:59 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:42:32 2019
Response via : Initial Calibration







TIC: E2326.D\data.ms

(19) Acetonitrile

2.611min (+0.030) 1966.07 ug/L

response 1310533

Ion	Exp%	Act%
41.10	100	100
40.00	52.10	14.65#
39.10	20.40	62.65#
0.00	0.00	0.00

Manual Integration:

Before

07/01/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2326.D
Acq On : 1 Jul 2019 2:35 pm
Operator : D.LIPANI
Sample : STD #8 - 150 PPB Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 16:44:07 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:42:32 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	256545	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	371705	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	324640	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	192121	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	470088	190.43	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 380.86%#				
46) surr1,1,2-dichloroetha...	5.781	65	616416	186.40	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 372.80%#				
64) SURR3,Toluene-d8	8.311	98	1834848	184.88	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 369.76%#				
69) SURR2,BFB	10.878	95	730070	195.34	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 390.68%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	606886	154.50	ug/L		99
3) Chloromethane	1.282	50	674302	152.68	ug/L		100
4) Vinyl Chloride	1.355	62	554245	152.37	ug/L		99
5) Bromomethane	1.575	94	175854	83.53	ug/L		98
6) Chloroethane	1.648	64	274803	121.84	ug/L		100
7) Freon 21	1.806	67	735964	144.59	ug/L		99
8) Trichlorofluoromethane	1.849	101	598679	145.34	ug/L		99
9) Diethyl Ether	2.093	59	385755	148.07	ug/L		95
10) Freon 123a	2.093	67	456068	142.19	ug/L		99
11) Freon 123	2.148	83	496930	142.86	ug/L		97
12) Acrolein	2.196	56	500679	699.46	ug/L		96
13) 1,1-Diclethene	2.282	96	341845	140.99	ug/L		94
14) Freon 113	2.288	101	333616	142.17	ug/L		99
15) Acetone	2.331	43	214437	139.28	ug/L		98
16) 2-Propanol	2.483	45	1087669	2973.23	ug/L		99
17) Iodomethane	2.410	142	543089	171.08	ug/L		99
18) Carbon Disulfide	2.471	76	1066082	142.50	ug/L		100
19) Acetonitrile	2.587	41	432662m	649.08	ug/L		
20) Allyl Chloride	2.611	76	215025	148.14	ug/L	#	78
21) Methyl Acetate	2.641	43	519060	139.68	ug/L		99
22) Methylene Chloride	2.733	84	383596	134.16	ug/L		99
23) TBA	2.879	59	1552594	2869.85	ug/L		98
24) Acrylonitrile	2.989	53	1143816	724.69	ug/L		97
25) Methyl-t-Butyl Ether	3.038	73	1303678	146.47	ug/L		99
26) trans-1,2-Dichloroethene	3.026	96	361345	144.72	ug/L		98
27) 1,1-Diclethane	3.525	63	768236	143.69	ug/L		96
28) Vinyl Acetate	3.617	86	83215	144.50	ug/L	#	85
29) DIPE	3.653	45	1534912	140.20	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	609527	135.39	ug/L		99
31) ETBE	4.190	59	1337668	144.55	ug/L		95
32) 2,2-Dichloropropane	4.361	77	630682	141.36	ug/L		98
33) cis-1,2-Dichloroethene	4.373	96	405120	144.11	ug/L		99
34) 2-Butanone	4.416	43	324685	142.89	ug/L		94
35) Propionitrile	4.507	54	468877	725.09	ug/L		100
36) Bromochloromethane	4.769	130	258006	146.02	ug/L		96
37) Methacrylonitrile	4.775	67	219531	135.69	ug/L		88
38) Tetrahydrofuran	4.861	42	210325	131.60	ug/L		90
39) Chloroform	4.952	83	658379	140.40	ug/L		96
40) 1,1,1-Trichloroethane	5.251	97	586450	145.72	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2326.D
Acq On : 1 Jul 2019 2:35 pm
Operator : D.LIPANI
Sample : STD #8 - 150 PPB Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 16:44:07 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:42:32 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	453239	138.45	ug/L	91
44) Carbontetrachloride	5.531	117	513401	144.79	ug/L	98
45) 1,1-Dichloropropene	5.543	75	525983	143.69	ug/L	96
47) Benzene	5.860	78	1568451	143.97	ug/L	98
48) 1,2-Dichloroethane	5.903	62	588243	139.85	ug/L	98
49) Iso-Butyl Alcohol	5.897	43	716226	3102.81	ug/L	98
50) TAME	6.104	73	1174066	145.23	ug/L	98
51) n-Heptane	6.354	43	654135	146.48	ug/L	99
52) 1-Butanol	6.866	56	970389	8789.81	ug/L	100
53) Trichloroethene	6.817	130	395098	142.78	ug/L	96
54) Methylcyclohexane	7.055	55	556006	143.51	ug/L	97
55) 1,2-Diclpropane	7.104	63	443382	146.43	ug/L	98
56) Dibromomethane	7.244	93	255529	147.88	ug/L	96
57) 1,4-Dioxane	7.305	88	154772	2854.73	ug/L	99
58) Methyl Methacrylate	7.330	69	361465	135.87	ug/L	95
59) Bromodichloromethane	7.470	83	522523	140.82	ug/L	99
60) 2-Nitropropane	7.756	41	346238	275.35	ug/L	98
61) 2-Chloroethylvinyl Ether	7.878	63	230779	153.09	ug/L	98
62) cis-1,3-Dichloropropene	8.012	75	701819	146.93	ug/L	97
63) 4-Methyl-2-pentanone	8.220	43	627449	142.68	ug/L	99
65) Toluene	8.384	91	1636605	146.26	ug/L	99
66) trans-1,3-Dichloropropene	8.653	75	648243	146.55	ug/L	97
67) Ethyl Methacrylate	8.799	69	660229	145.58	ug/L	98
68) 1,1,2-Trichloroethane	8.841	97	362625	141.20	ug/L	97
71) Tetrachloroethene	8.982	164	320110	144.89	ug/L	99
72) 2-Hexanone	9.134	43	483245	145.67	ug/L	97
73) 1,3-Dichloropropane	9.012	76	662628	145.67	ug/L	96
74) Dibromochloromethane	9.238	129	416288	154.06	ug/L	99
75) N-Butyl Acetate	9.287	43	925631	143.77	ug/L	96
76) 1,2-Dibromoethane	9.335	107	387282	147.92	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	601489	149.00	ug/L	98
78) Chlorobenzene	9.829	112	1056267	147.49	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	543272	152.61	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.921	131	396711	150.91	ug/L	99
81) Ethylbenzene	9.951	106	577330	152.78	ug/L	94
82) (m+p)Xylene	10.067	106	1430004	302.39	ug/L	96
83) o-Xylene	10.420	106	705195	151.06	ug/L	92
84) Styrene	10.433	104	1200118	155.24	ug/L	99
85) Bromoform	10.585	173	318319	161.17	ug/L	95
86) 2-Chlorobenzotrifluoride	10.664	180	596123	156.61	ug/L	94
87) Isopropylbenzene	10.756	105	1834944	152.25	ug/L	99
88) Cyclohexanone	10.823	55	2169087	2999.43	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.067	53	174259	158.02	ug/L	93
91) 1,1,2,2-Tetrachloroethane	11.018	83	575543	138.64	ug/L	100
92) Bromobenzene	11.000	156	482839	140.66	ug/L	97
93) 1,2,3-Trichloropropane	11.042	110	170469	129.19	ug/L	90
94) n-Propylbenzene	11.109	91	2196474	142.34	ug/L	100
95) 2-Chlorotoluene	11.176	91	1321248	142.20	ug/L	98
96) 3-Chlorotoluene	11.225	91	1316748	143.06	ug/L	99
97) 4-Chlorotoluene	11.268	91	1482530	137.12	ug/L	99
98) 1,3,5-Trimethylbenzene	11.262	105	1572051	142.99	ug/L	100
99) tert-Butylbenzene	11.536	119	1371269	144.22	ug/L	99
100) 1,2,4-Trimethylbenzene	11.573	105	1598346	147.56	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.634	214	523951	149.15	ug/L	98
102) sec-Butylbenzene	11.719	105	2036104	145.46	ug/L	100
103) p-Isopropyltoluene	11.841	119	1733002	154.26	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2326.D
Acq On : 1 Jul 2019 2:35 pm
Operator : D.LIPANI
Sample : STD #8 - 150 PPB Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 16:44:07 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:42:32 2019
Response via : Initial Calibration

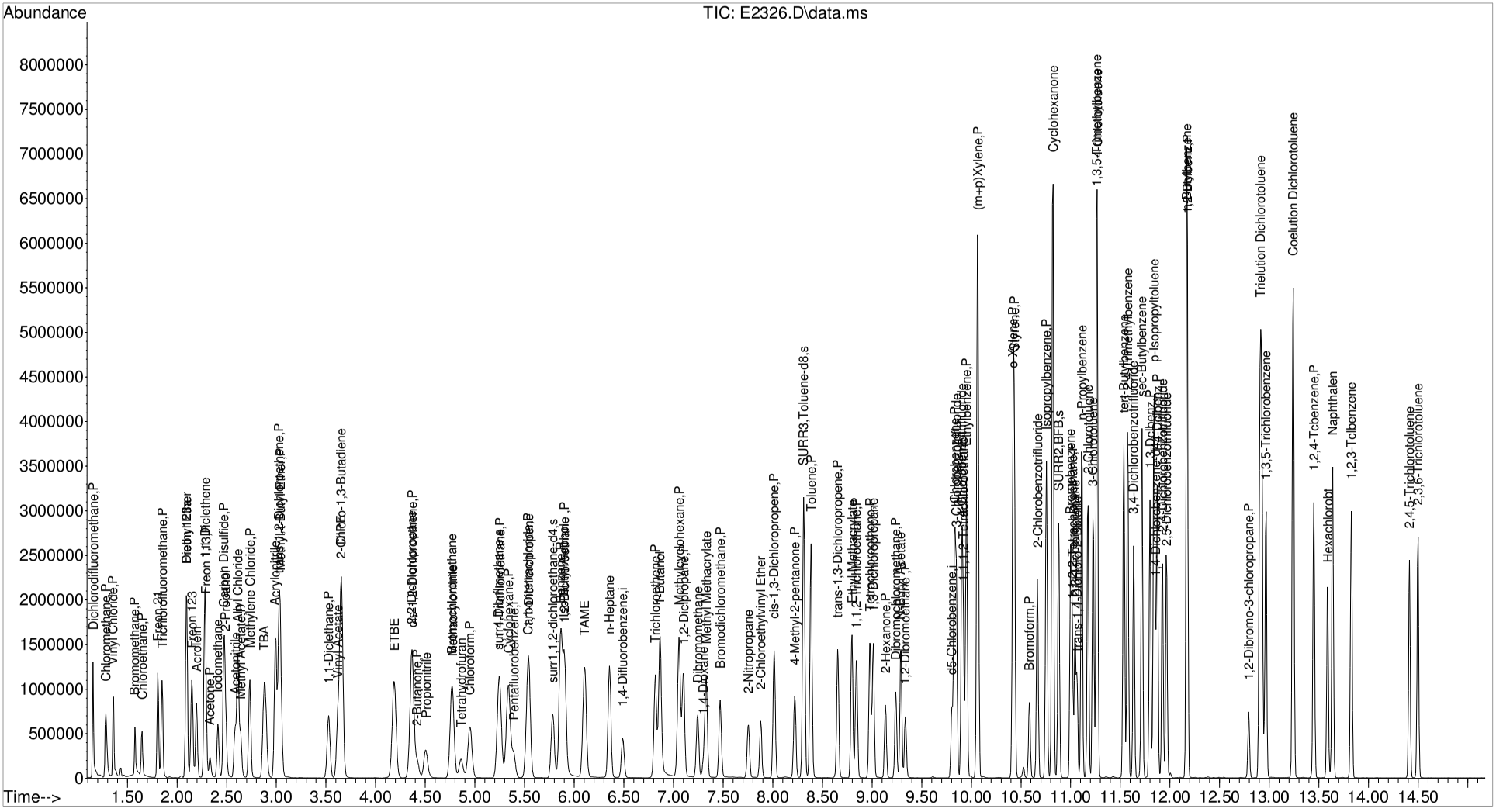
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	934745	146.44	ug/L	98
105) 1,4-Dclbenz	11.871	146	955562	143.11	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	483922	153.94	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	545101	148.73	ug/L	96
108) n-Butylbenzene	12.170	91	1648891	158.68	ug/L	100
109) 1,2-Dclbenz	12.176	146	942762	150.48	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.792	157	154562	149.42	ug/L	98
111) Trielution Dichlorotol...	12.914	125	2447957	464.89	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	716678	153.42	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	1767194	306.57	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	755681	156.30	ug/L	100
115) Hexachlorobt	13.591	225	343002	154.79	ug/L	99
116) Naphthalen	13.639	128	1983949	158.53	ug/L	99
117) 1,2,3-Tclbenzene	13.828	180	733968	155.60	ug/L	98
118) 2,4,5-Trichlorotoluene	14.414	159	490158	194.93	ug/L	97
119) 2,3,6-Trichlorotoluene	14.499	159	505708	194.41	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2326.D
Acq On : 1 Jul 2019 2:35 pm
Operator : D.LIPANI
Sample : STD #8 - 150 PPB Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 16:44:07 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:42:32 2019
Response via : Initial Calibration



1st 07/01/19
2nd 07/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2327.D
Acq On : 1 Jul 2019 2:57 pm
Operator : D.LIPANI
Sample : STD #9 - 200 PPB Inst : MSVOA10
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 16:46:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:45:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	278280	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	396769	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	347526	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	200104	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	133140	51.02	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.04%			
46) surr1,1,2-dichloroetha...	5.781	65	180395	51.81	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.62%			
64) SURR3,Toluene-d8	8.311	98	527527	50.56	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.12%			
69) SURR2,BFB	10.878	95	204327	51.46	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.92%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	844524	197.46	ug/L	98
3) Chloromethane	1.282	50	904395	188.37	ug/L	97
4) Vinyl Chloride	1.355	62	762304	192.82	ug/L	98
5) Bromomethane	1.575	94	258591	119.88	ug/L	100
6) Chloroethane	1.654	64	384341	160.87	ug/L	98
7) Freon 21	1.806	67	1036433	188.57	ug/L	99
8) Trichlorofluoromethane	1.855	101	846763	190.25	ug/L	96
9) Diethyl Ether	2.093	59	553799	196.29	ug/L	97
10) Freon 123a	2.099	67	639674	185.06	ug/L	95
11) Freon 123	2.148	83	703575	187.59	ug/L	98
12) Acrolein	2.196	56	755177	980.87	ug/L	97
13) 1,1-Diclethene	2.282	96	486836	186.50	ug/L	97
14) Freon 113	2.288	101	476612	188.47	ug/L	96
15) Acetone	2.331	43	328879	199.79	ug/L	97
16) 2-Propanol	2.471	45	1612563	4068.97	ug/L	100
17) Iodomethane	2.416	142	796197	225.93	ug/L	99
18) Carbon Disulfide	2.477	76	1532076	189.98	ug/L	100
19) Acetonitrile	2.581	41	684449	965.17	ug/L	99
20) Allyl Chloride	2.617	76	307881	195.85	ug/L	97
21) Methyl Acetate	2.642	43	781453	195.79	ug/L	100
22) Methylene Chloride	2.733	84	546138	178.45	ug/L	99
23) TBA	2.873	59	2323608	3988.39	ug/L	97
24) Acrylonitrile	2.995	53	1681650	986.40	ug/L	97
25) Methyl-t-Butyl Ether	3.038	73	1864700	193.71	ug/L	99
26) trans-1,2-Dichloroethene	3.026	96	515276	191.09	ug/L	96
27) 1,1-Diclethane	3.525	63	1080334	187.27	ug/L	98
28) Vinyl Acetate	3.623	86	125774	202.58	ug/L	99
29) DIPE	3.654	45	2184362	185.45	ug/L	99
30) 2-Chloro-1,3-Butadiene	3.654	53	879379	182.29	ug/L	97
31) ETBE	4.190	59	1884790	188.62	ug/L	97
32) 2,2-Dichloropropane	4.361	77	894942	186.26	ug/L	98
33) cis-1,2-Dichloroethene	4.373	96	571077	188.21	ug/L	99
34) 2-Butanone	4.416	43	493744	202.24	ug/L	98
35) Propionitrile	4.507	54	697557	998.63	ug/L	100
36) Bromochloromethane	4.769	130	363345	190.20	ug/L	89
37) Methacrylonitrile	4.775	67	327281	189.06	ug/L	96
38) Tetrahydrofuran	4.861	42	315411	185.74	ug/L	96
39) Chloroform	4.952	83	935673	185.43	ug/L	97
40) 1,1,1-Trichloroethane	5.251	97	826965	190.12	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2327.D
Acq On : 1 Jul 2019 2:57 pm
Operator : D.LIPANI
Sample : STD #9 - 200 PPB Inst : MSVOA10
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 16:46:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:45:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	638853	184.86	ug/L		93
44) Carbontetrachloride	5.531	117	731112	194.01	ug/L		99
45) 1,1-Dichloropropene	5.543	75	751140	193.25	ug/L		98
47) Benzene	5.866	78	2230236	192.76	ug/L		98
48) 1,2-Dichloroethane	5.903	62	836130	187.82	ug/L		97
49) Iso-Butyl Alcohol	5.897	43	1071279	4326.60	ug/L		99
50) TAME	6.104	73	1692572	196.92	ug/L		99
51) n-Heptane	6.354	43	929114	195.56	ug/L		99
52) 1-Butanol	6.866	56	1464528	12129.73	ug/L		99
53) Trichloroethene	6.818	130	565155	192.50	ug/L		98
54) Methylcyclohexane	7.055	55	775515	188.69	ug/L		97
55) 1,2-Diclpropane	7.098	63	632591	196.30	ug/L		99
56) Dibromomethane	7.244	93	357523	194.18	ug/L		95
57) 1,4-Dioxane	7.305	88	225045	3915.77	ug/L		98
58) Methyl Methacrylate	7.330	69	527673	188.03	ug/L		97
59) Bromodichloromethane	7.470	83	750899	191.04	ug/L		100
60) 2-Nitropropane	7.756	41	512053	386.03	ug/L		94
61) 2-Chloroethylvinyl Ether	7.878	63	342938	212.58	ug/L		99
62) cis-1,3-Dichloropropene	8.012	75	996640	195.97	ug/L		98
63) 4-Methyl-2-pentanone	8.220	43	948493	203.72	ug/L		98
65) Toluene	8.384	91	2322860	195.08	ug/L		98
66) trans-1,3-Dichloropropene	8.653	75	929616	197.46	ug/L		97
67) Ethyl Methacrylate	8.799	69	947991	196.55	ug/L		98
68) 1,1,2-Trichloroethane	8.841	97	521555	191.66	ug/L		98
71) Tetrachloroethene	8.982	164	461910	196.13	ug/L		98
72) 2-Hexanone	9.134	43	719865	203.88	ug/L		96
73) 1,3-Dichloropropane	9.012	76	949320	195.66	ug/L		98
74) Dibromochloromethane	9.238	129	601630	207.29	ug/L		98
75) N-Butyl Acetate	9.293	43	1366171	199.40	ug/L		97
76) 1,2-Dibromoethane	9.335	107	565317	202.05	ug/L		95
77) 3-Chlorobenzotrifluoride	9.854	180	853268	197.62	ug/L		97
78) Chlorobenzene	9.829	112	1493782	195.25	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	769637	201.53	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.921	131	569356	202.17	ug/L		98
81) Ethylbenzene	9.951	106	823639	203.14	ug/L		100
82) (m+p)Xylene	10.067	106	2021525	398.92	ug/L		93
83) o-Xylene	10.420	106	980492	196.02	ug/L		95
84) Styrene	10.433	104	1690588	203.39	ug/L		99
85) Bromoform	10.585	173	460013	215.29	ug/L		97
86) 2-Chlorobenzotrifluoride	10.664	180	843812	205.95	ug/L		94
87) Isopropylbenzene	10.756	105	2565389	198.47	ug/L		100
88) Cyclohexanone	10.823	55	3062804	3956.47	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.067	53	252557	212.52	ug/L		92
91) 1,1,2,2-Tetrachloroethane	11.018	83	810520	189.24	ug/L		98
92) Bromobenzene	11.000	156	674525	190.14	ug/L		97
93) 1,2,3-Trichloropropane	11.042	110	238951	176.93	ug/L	#	85
94) n-Propylbenzene	11.115	91	3036425	190.13	ug/L		98
95) 2-Chlorotoluene	11.176	91	1823754	189.69	ug/L		98
96) 3-Chlorotoluene	11.225	91	1800352	188.90	ug/L		99
97) 4-Chlorotoluene	11.268	91	2048392	183.88	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	2149994	188.86	ug/L		99
99) tert-Butylbenzene	11.536	119	1860778	188.80	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	2160816	191.92	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.640	214	705662	193.00	ug/L		98
102) sec-Butylbenzene	11.719	105	2762449	190.20	ug/L		99
103) p-Isopropyltoluene	11.841	119	2339689	199.24	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2327.D
Acq On : 1 Jul 2019 2:57 pm
Operator : D.LIPANI
Sample : STD #9 - 200 PPB Inst : MSVOA10
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 16:46:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:45:44 2019
Response via : Initial Calibration

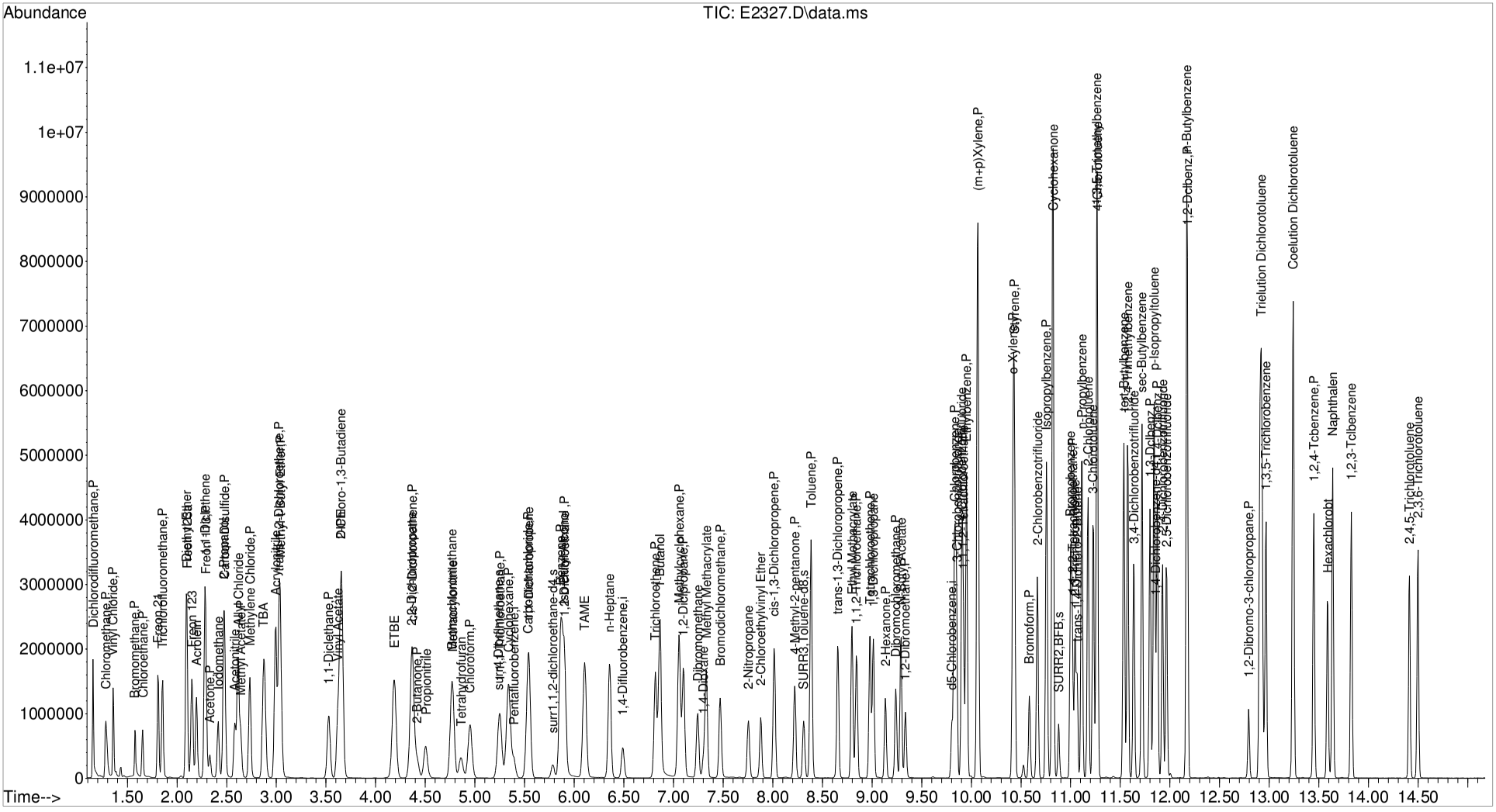
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	1266685	191.10	ug/L	95
105) 1,4-Dclbenz	11.871	146	1297032	187.58	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	655674	199.60	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.969	214	728128	190.95	ug/L	98
108) n-Butylbenzene	12.170	91	2218636	203.51	ug/L	98
109) 1,2-Dclbenz	12.176	146	1253204	191.98	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.792	157	219642	203.98	ug/L	98
111) Trielution Dichlorotol...	12.920	125	3209738	582.84	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	948228	194.34	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	2311070	383.88	ug/L	99
114) 1,2,4-Tcbenzene	13.450	180	989111	195.39	ug/L	100
115) Hexachlorobt	13.591	225	448757	193.56	ug/L	99
116) Naphthalen	13.639	128	2677264	203.95	ug/L	98
117) 1,2,3-Tclbenzene	13.828	180	982831	199.11	ug/L	98
118) 2,4,5-Trichlorotoluene	14.414	159	650727	238.26	ug/L	96
119) 2,3,6-Trichlorotoluene	14.499	159	664568	235.34	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\070119\
Data File : E2327.D
Acq On : 1 Jul 2019 2:57 pm
Operator : D.LIPANI
Sample : STD #9 - 200 PPB Inst : MSVOA10
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 16:46:32 2019
Quant Method : I:\ACQUDATA\msvoa10\Methods\W070119.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Mon Jul 01 16:45:44 2019
Response via : Initial Calibration



1st 07/01/19
2nd 07/02/19

ALS Group USA, Corp.

DBA ALS Environmetal

QC/QC Report

Date Analyzed: 7/1/19 10:29

ICAL Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA10\DATA\070119\E2316.D Analytical Method: 8260C/624.1

Instrument ID: R-MS-10

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Results Pass/Fail
50	95	15	40	20.8	28927	PASS
75	95	30	60	49.1	68216	PASS
95	95	100	100	100.0	138835	PASS
96	95	5	9	6.5	9064	PASS
173	174	0	2	1.0	1122	PASS
174	95	50	120	82.3	114307	PASS
175	174	5	9	7.6	8701	PASS
176	174	95	101	96.5	110269	PASS
177	176	5	9	6.8	7550	PASS

Sample Name	Lab Code	File ID:	Date Analyzes:	Q
INST BLK	INST BLK	I:\ACQUDATA\msvoa10\data\070119\E2317.D	7/1/19 10:51	
STD #1 - 0.5 PPB	STD #1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\070119\E2319.D	7/1/19 11:56	
STD #2 - 1.0 PPB	STD #2 - 1.0 PPB	I:\ACQUDATA\MSVOA10\DATA\070119\E2320.D	7/1/19 12:18	
STD #3 - 2.0 PPB	STD #3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\070119\E2321.D	7/1/19 12:43	
STD #4 - 5.0 PPB	STD #4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\070119\E2322.D	7/1/19 13:05	
STD #5 - 20 PPB	STD #5 - 20 PPB	I:\ACQUDATA\msvoa10\data\070119\E2323.D	7/1/19 13:27	
STD #6 - 50 PPB	STD #6 - 50 PPB	I:\ACQUDATA\msvoa10\data\070119\E2324.D	7/1/19 13:51	
STD #7 - 100 PPB	STD #7 - 100 PPB	I:\ACQUDATA\msvoa10\data\070119\E2325.D	7/1/19 14:13	
STD #8 - 150 PPB	STD #8 - 150 PPB	I:\ACQUDATA\msvoa10\data\070119\E2326.D	7/1/19 14:35	
STD #9 - 200 PPB	STD #9 - 200 PPB	I:\ACQUDATA\msvoa10\data\070119\E2327.D	7/1/19 14:57	
ICV 50	ICV 50	I:\ACQUDATA\msvoa10\data\070119\E2333.D	7/1/19 17:27	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1900068-01	STD #1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\070119\E2319.D	07/01/2019 11:56
02	RC1900068-02	STD #2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\070119\E2320.D	07/01/2019 12:18
03	RC1900068-03	STD #3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\070119\E2321.D	07/01/2019 12:43
04	RC1900068-04	STD #4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\070119\E2322.D	07/01/2019 13:05
05	RC1900068-05	STD #5 - 20 PPB	I:\ACQUDATA\msvoa10\data\070119\E2323.D	07/01/2019 13:27
09	RC1900068-09	STD #6 - 50 PPB	I:\ACQUDATA\msvoa10\data\070119\E2324.D	07/01/2019 13:51
06	RC1900068-06	STD #7 - 100 PPB	I:\ACQUDATA\msvoa10\data\070119\E2325.D	07/01/2019 14:13
07	RC1900068-07	STD #8 - 150 PPB	I:\ACQUDATA\msvoa10\data\070119\E2326.D	07/01/2019 14:35
08	RC1900068-08	STD #9 - 200 PPB	I:\ACQUDATA\msvoa10\data\070119\E2327.D	07/01/2019 14:57

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8635	02	1.000	0.7433	03	2.000	0.8186	04	5.000	0.7598
05	20.000	0.7535	09	50.000	0.7777	06	100.000	0.774	07	150.000	0.762
08	200.000	0.7429									

1,1,2,2-Tetrachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.099	02	1.000	1.085	03	2.000	1.181	04	5.000	1.097
05	20.000	1.059	09	50.000	1.018	06	100.000	1.023	07	150.000	0.9986
08	200.000	1.013									

1,1,2-Trichloro-1,2,2-trifluoroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5539	02	1.000	0.462	03	2.000	0.4044	04	5.000	0.4299
05	20.000	0.4387	09	50.000	0.4659	06	100.000	0.4467	07	150.000	0.4335
08	200.000	0.4282									

1,1,2-Trichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3495	02	1.000	0.343	03	2.000	0.3765	04	5.000	0.3391
05	20.000	0.3417	09	50.000	0.3319	06	100.000	0.3364	07	150.000	0.3252
08	200.000	0.3286									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.114	02	1.000	1.085	03	2.000	1.044	04	5.000	0.9775
05	20.000	0.9974	09	50.000	1.055	06	100.000	1.02	07	150.000	0.9982
08	200.000	0.9705									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5557	02	1.000	0.4776	03	2.000	0.4682	04	5.000	0.4326
05	20.000	0.451	09	50.000	0.4732	06	100.000	0.4497	07	150.000	0.4442
08	200.000	0.4374									

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

1,2,3-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.149	02	1.000	1.169	03	2.000	1.335	04	5.000	1.152
05	20.000	1.214	09	50.000	1.308	06	100.000	1.265	07	150.000	1.273
08	200.000	1.228									

1,2,4-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.321	02	1.000	1.182	03	2.000	1.271	04	5.000	1.194
05	20.000	1.223	09	50.000	1.316	06	100.000	1.3	07	150.000	1.311
08	200.000	1.236									

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2774	03	2.000	0.2633	04	5.000	0.2707	05	20.000	0.2653
09	50.000	0.2674	06	100.000	0.2711	07	150.000	0.2682	08	200.000	0.2744

1,2-Dibromoethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3682	02	1.000	0.4133	03	2.000	0.4218	04	5.000	0.4134
05	20.000	0.3931	09	50.000	0.4029	06	100.000	0.41	07	150.000	0.3977
08	200.000	0.4067									

1,2-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.576	02	1.000	1.72	03	2.000	1.588	04	5.000	1.611
05	20.000	1.62	09	50.000	1.639	06	100.000	1.659	07	150.000	1.636
08	200.000	1.566									

1,2-Dichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6261	02	1.000	0.5439	03	2.000	0.5672	04	5.000	0.5558
05	20.000	0.5495	09	50.000	0.5587	06	100.000	0.5594	07	150.000	0.5275
08	200.000	0.5268									

1,2-Dichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3849	02	1.000	0.4434	03	2.000	0.4099	04	5.000	0.3963
05	20.000	0.3991	09	50.000	0.4094	06	100.000	0.4081	07	150.000	0.3976
08	200.000	0.3986									

1,3-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.74	02	1.000	1.777	03	2.000	1.652	04	5.000	1.563
05	20.000	1.569	09	50.000	1.657	06	100.000	1.67	07	150.000	1.622
08	200.000	1.583									

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

1,4-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.963	02	1.000	1.681	03	2.000	1.816	04	5.000	1.67
05	20.000	1.647	09	50.000	1.684	06	100.000	1.704	07	150.000	1.658
08	200.000	1.62									

1,4-Dioxane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.007658	03	40.000	0.008421	04	100.000	0.007502	05	400.000	0.006791
09	1000.000	0.006769	06	2000.000	0.006616	07	3000.000	0.00694	08	4000.000	0.00709

2-Butanone (MEK)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.4557	05	20.000	0.4582	09	50.000	0.4177	06	100.000	0.4398
07	150.000	0.4219	08	200.000	0.4436						

2-Hexanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.5379	05	20.000	0.5147	09	50.000	0.4857	06	100.000	0.5054
07	150.000	0.4962	08	200.000	0.5178						

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.5368	05	20.000	0.465	09	50.000	0.5063	06	100.000	0.5029
07	200.000	0.491									

4-Methyl-2-pentanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.6478	04	5.000	0.5923	05	20.000	0.5901	09	50.000	0.5436
06	100.000	0.5839	07	150.000	0.5627	08	200.000	0.5976			

Acetone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.3135	05	20.000	0.3045	09	50.000	0.2838	06	100.000	0.2983
07	150.000	0.2786	08	200.000	0.2955						

Benzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.418	02	1.000	1.51	03	2.000	1.542	04	5.000	1.424
05	20.000	1.425	09	50.000	1.474	06	100.000	1.465	07	150.000	1.407
08	200.000	1.405									

Bromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3043	02	1.000	0.4139	03	2.000	0.3369	04	5.000	0.334
05	20.000	0.3284	09	50.000	0.3499	06	100.000	0.3432	07	150.000	0.3352
08	200.000	0.3264									

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Bromodichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6199	02	1.000	0.4842	03	2.000	0.4911	04	5.000	0.4643
05	20.000	0.4759	09	50.000	0.4779	06	100.000	0.4806	07	150.000	0.4686
08	200.000	0.4731									

Bromoform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2841	02	1.000	0.3082	03	2.000	0.3026	04	5.000	0.278
05	20.000	0.3071	09	50.000	0.3089	06	100.000	0.3203	07	150.000	0.3268
08	200.000	0.3309									

Bromomethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7232	02	1.000	0.4638	03	2.000	0.4381	04	5.000	0.3456
05	20.000	0.3291	09	50.000	0.3405	06	100.000	0.232			

Carbon Disulfide

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.546	02	1.000	1.595	03	2.000	1.497	04	5.000	1.278
05	20.000	1.444	09	50.000	1.391	06	100.000	1.455	07	150.000	1.385
08	200.000	1.376									

Carbon Tetrachloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5049	02	1.000	0.4992	03	2.000	0.4795	04	5.000	0.459
05	20.000	0.4471	09	50.000	0.4728	06	100.000	0.4764	07	150.000	0.4604
08	200.000	0.4607									

Chlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.163	02	1.000	1.108	03	2.000	1.087	04	5.000	1.072
05	20.000	1.075	09	50.000	1.111	06	100.000	1.106	07	150.000	1.085
08	200.000	1.075									

Chloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5539	02	1.000	0.5926	03	2.000	0.4184	04	5.000	0.3954
05	20.000	0.3691	09	50.000	0.3807	06	100.000	0.367	07	150.000	0.3571
08	200.000	0.3453									

Chloroform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9529	02	1.000	0.9649	03	2.000	0.9945	04	5.000	0.8447
05	20.000	0.8654	09	50.000	0.8995	06	100.000	0.8757	07	150.000	0.8554
08	200.000	0.8406									

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Chloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.001	02	1.000	0.8404	03	2.000	0.917	04	5.000	0.7336
05	20.000	0.8106	09	50.000	0.8705	06	100.000	0.8517	07	150.000	0.8761
08	200.000	0.8125									

Cyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4628	03	2.000	0.5226	04	5.000	0.3859	05	20.000	0.4247
09	50.000	0.4209	06	100.000	0.4254	07	150.000	0.4065	08	200.000	0.4025

Dibromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3948	02	1.000	0.4108	03	2.000	0.4217	04	5.000	0.4077
05	20.000	0.4058	09	50.000	0.4315	06	100.000	0.4409	07	150.000	0.4274
08	200.000	0.4328									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.3518	05	20.000	0.3099	09	50.000	0.3342	06	100.000	0.3324
07	200.000	0.3162									

Dichlorodifluoromethane (CFC 12)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7078	02	1.000	0.7154	03	2.000	0.756	04	5.000	0.7702
05	20.000	0.7822	09	50.000	0.8296	06	100.000	0.7977	07	150.000	0.7885
08	200.000	0.7587									

Dichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6911	02	1.000	0.6124	03	2.000	0.5737	04	5.000	0.4855
05	20.000	0.495	09	50.000	0.5314	06	100.000	0.5117	07	150.000	0.4984
08	200.000	0.4906									

Ethylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5547	02	1.000	0.5812	03	2.000	0.5942	04	5.000	0.5647
05	20.000	0.572	09	50.000	0.6017	06	100.000	0.6055	07	150.000	0.5928
08	200.000	0.5925									

Isopropylbenzene (Cumene)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.874	02	1.000	1.894	03	2.000	1.891	04	5.000	1.778
05	20.000	1.78	09	50.000	1.881	06	100.000	1.894	07	150.000	1.884
08	200.000	1.845									

Methyl Acetate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7243	03	2.000	0.7669	04	5.000	0.7388	05	20.000	0.7454

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Methyl Acetate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	50.000	0.6751	06	100.000	0.6951	07	150.000	0.6744	08	200.000	0.702

Methyl tert-Butyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.779	02	1.000	1.758	03	2.000	1.716	04	5.000	1.68
05	20.000	1.726	09	50.000	1.753	06	100.000	1.732	07	150.000	1.694
08	200.000	1.675									

Methylcyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.5371	03	2.000	0.5734	04	5.000	0.4943	05	20.000	0.4946
09	50.000	0.5043	06	100.000	0.5231	07	150.000	0.4986	08	200.000	0.4886

Styrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.151	02	1.000	1.193	03	2.000	1.162	04	5.000	1.158
05	20.000	1.196	09	50.000	1.226	06	100.000	1.248	07	150.000	1.232
08	200.000	1.216									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3361	02	1.000	0.3792	03	2.000	0.3329	04	5.000	0.327
05	20.000	0.328	09	50.000	0.3395	06	100.000	0.3392	07	150.000	0.3287
08	200.000	0.3323									

Toluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.431	02	1.000	1.611	03	2.000	1.518	04	5.000	1.441
05	20.000	1.495	09	50.000	1.518	06	100.000	1.522	07	150.000	1.468
08	200.000	1.464									

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.459	05	20.000	1.23	09	50.000	1.35	06	100.000	1.302
07	200.000	1.234									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4112	02	1.000	0.3889	03	2.000	0.3786	04	5.000	0.3395
05	20.000	0.3524	09	50.000	0.3678	06	100.000	0.3671	07	150.000	0.3543
08	200.000	0.3561									

Trichlorofluoromethane (CFC 11)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9944	02	1.000	0.725	03	2.000	0.7848	04	5.000	0.7219
05	20.000	0.7783	09	50.000	0.8146	06	100.000	0.8008	07	150.000	0.7779
08	200.000	0.7607									

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QA/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.695	02	1.000	0.7726	03	2.000	0.7022	04	5.000	0.6724
05	20.000	0.6755	09	50.000	0.7303	06	100.000	0.7147	07	150.000	0.7201
08	200.000	0.6848									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5059	02	1.000	0.629	03	2.000	0.5679	04	5.000	0.5406
05	20.000	0.5164	09	50.000	0.5445	06	100.000	0.531	07	150.000	0.5264
08	200.000	0.513									

cis-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.659	02	1.000	0.662	03	2.000	0.633	04	5.000	0.6155
05	20.000	0.6319	09	50.000	0.6446	06	100.000	0.6519	07	150.000	0.6294
08	200.000	0.628									

m,p-Xylenes

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.7797	02	2.000	0.7329	03	4.000	0.7088	04	10.000	0.6857
05	40.000	0.7048	09	100.000	0.7395	06	200.000	0.7471	07	300.000	0.7341
08	400.000	0.7271									

o-Xylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7813	02	1.000	0.6804	03	2.000	0.7291	04	5.000	0.6905
05	20.000	0.6917	09	50.000	0.7256	06	100.000	0.7346	07	150.000	0.7241
08	200.000	0.7053									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4972	02	1.000	0.4738	03	2.000	0.5041	04	5.000	0.4803
05	20.000	0.4711	09	50.000	0.5019	06	100.000	0.478	07	150.000	0.4695
08	200.000	0.4629									

trans-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6406	02	1.000	0.6179	03	2.000	0.6017	04	5.000	0.5474
05	20.000	0.5662	09	50.000	0.5885	06	100.000	0.6028	07	150.000	0.5813
08	200.000	0.5857									

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,1,1-Trichloroethane (TCA)	TRG	Average RF	% RSD	5.1	≤20	0.7773	0.100
1,1,2,2-Tetrachloroethane	TRG	Average RF	% RSD	5.5	≤20	1.064	0.300
1,1,2-Trichloro-1,2,2-trifluoroethane	TRG	Average RF	% RSD	9.4	≤20	0.4515	0.100
1,1,2-Trichloroethane	TRG	Average RF	% RSD	4.5	≤20	0.3413	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	4.8	≤20	1.029	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	8.0	≤20	0.4655	0.100
1,2,3-Trichlorobenzene	TRG	Average RF	% RSD	5.5	≤20	1.233	
1,2,4-Trichlorobenzene	TRG	Average RF	% RSD	4.3	≤20	1.262	0.200
1,2-Dibromo-3-chloropropane (DBCP)	TRG	Average RF	% RSD	1.7	≤20	0.2697	0.050
1,2-Dibromoethane	TRG	Average RF	% RSD	3.9	≤20	0.403	0.100
1,2-Dichlorobenzene	TRG	Average RF	% RSD	2.9	≤20	1.624	0.400
1,2-Dichloroethane	TRG	Average RF	% RSD	5.3	≤20	0.5572	0.100
1,2-Dichloropropane	TRG	Average RF	% RSD	4.0	≤20	0.4053	0.100
1,3-Dichlorobenzene	TRG	Average RF	% RSD	4.5	≤20	1.648	0.600
1,4-Dichlorobenzene	TRG	Average RF	% RSD	6.3	≤20	1.716	0.500
1,4-Dioxane	TRG	Average RF	% RSD	8.4	≤20	0.007223	
2-Butanone (MEK)	TRG	Average RF	% RSD	3.8	≤20	0.4395	0.05
2-Hexanone	TRG	Average RF	% RSD	3.6	≤20	0.5096	0.05
4-Bromofluorobenzene	SURR	Average RF	% RSD	5.2	≤20	0.5004	
4-Methyl-2-pentanone	TRG	Average RF	% RSD	5.5	≤20	0.5883	0.05
Acetone	TRG	Average RF	% RSD	4.4	≤20	0.2957	0.05
Benzene	TRG	Average RF	% RSD	3.4	≤20	1.452	0.500
Bromochloromethane	TRG	Average RF	% RSD	8.8	≤20	0.3414	
Bromodichloromethane	TRG	Average RF	% RSD	9.8	≤20	0.4929	0.200
Bromoform	TRG	Average RF	% RSD	5.8	≤20	0.3074	0.100
Bromomethane	TRG	Quadratic	COD	0.9934	≥0.99	0.4103	0.100
Carbon Disulfide	TRG	Average RF	% RSD	6.7	≤20	1.441	0.100
Carbon Tetrachloride	TRG	Average RF	% RSD	4.0	≤20	0.4733	0.05
Chlorobenzene	TRG	Average RF	% RSD	2.6	≤20	1.098	0.500
Chloroethane	TRG	Quadratic	COD	0.9999	≥0.99	0.4199	0.100
Chloroform	TRG	Average RF	% RSD	6.4	≤20	0.8993	0.200
Chloromethane	TRG	Average RF	% RSD	8.7	≤20	0.8571	0.100
Cyclohexane	TRG	Average RF	% RSD	10.0	≤20	0.4314	0.100
Dibromochloromethane	TRG	Average RF	% RSD	3.6	≤20	0.4193	0.100

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Dibromofluoromethane	SURR	Average RF	% RSD	5.0	≤20	0.3289	
Dichlorodifluoromethane (CFC 12)	TRG	Average RF	% RSD	5.0	≤20	0.7674	0.100
Dichloromethane	TRG	Average RF	% RSD	12.9	≤20	0.5433	0.100
Ethylbenzene	TRG	Average RF	% RSD	3.0	≤20	0.5844	0.100
Isopropylbenzene (Cumene)	TRG	Average RF	% RSD	2.5	≤20	1.858	0.100
Methyl Acetate	TRG	Average RF	% RSD	4.7	≤20	0.7153	0.100
Methyl tert-Butyl Ether	TRG	Average RF	% RSD	2.1	≤20	1.724	0.100
Methylcyclohexane	TRG	Average RF	% RSD	5.6	≤20	0.5143	0.100
Styrene	TRG	Average RF	% RSD	2.9	≤20	1.198	0.300
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	4.8	≤20	0.3381	0.200
Toluene	TRG	Average RF	% RSD	3.7	≤20	1.496	0.400
Toluene-d8	SURR	Average RF	% RSD	7.2	≤20	1.315	
Trichloroethene (TCE)	TRG	Average RF	% RSD	5.9	≤20	0.3684	0.200
Trichlorofluoromethane (CFC 11)	TRG	Average RF	% RSD	10.2	≤20	0.7954	0.100
Vinyl Chloride	TRG	Average RF	% RSD	4.4	≤20	0.7075	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	7.0	≤20	0.5416	0.100
cis-1,3-Dichloropropene	TRG	Average RF	% RSD	2.5	≤20	0.6395	0.200
m,p-Xylenes	TRG	Average RF	% RSD	3.7	≤20	0.7289	0.100
o-Xylene	TRG	Average RF	% RSD	4.3	≤20	0.7181	0.300
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	3.1	≤20	0.4821	0.100
trans-1,3-Dichloropropene	TRG	Average RF	% RSD	4.6	≤20	0.5924	0.100

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QA/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Acquisition Date
10	RC1900068-10	ICV 50	I:\ACQUDATA\msvoa10\data\070119\E2333.D	07/01/2019 17:27

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	47.0	7.773E-1	7.31E-1	-5.956	±30	Average RF
1,1,2,2-Tetrachloroethane	50.0	46.0	1.064E0	9.796E-1	-7.911	±30	Average RF
1,1,2-Trichloroethane	50.0	44.3	3.413E-1	3.021E-1	-11.494	±30	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.1	4.515E-1	4.527E-1	0.265	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	46.2	1.029E0	9.519E-1	-7.513	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.9	4.655E-1	4.274E-1	-8.181	±30	Average RF
1,2,3-Trichlorobenzene	50.0	46.0	1.233E0	1.134E0	-8.040	±30	Average RF
1,2,4-Trichlorobenzene	50.0	46.8	1.262E0	1.18E0	-6.476	±30	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	44.0	2.697E-1	2.373E-1	-12.010	±30	Average RF
1,2-Dibromoethane	50.0	46.0	4.03E-1	3.71E-1	-7.942	±30	Average RF
1,2-Dichlorobenzene	50.0	45.0	1.624E0	1.462E0	-9.959	±30	Average RF
1,2-Dichloroethane	50.0	46.1	5.572E-1	5.134E-1	-7.866	±30	Average RF
1,2-Dichloropropane	50.0	46.0	4.053E-1	3.732E-1	-7.905	±30	Average RF
1,3-Dichlorobenzene	50.0	45.0	1.648E0	1.483E0	-9.991	±30	Average RF
1,4-Dichlorobenzene	50.0	44.2	1.716E0	1.517E0	-11.573	±30	Average RF
1,4-Dioxane	1000	897	7.223E-3	6.477E-3	-10.338	±30	Average RF
2-Butanone (MEK)	50.0	46.3	4.395E-1	4.073E-1	-7.316	±30	Average RF
2-Hexanone	50.0	45.9	5.096E-1	4.681E-1	-8.153	±30	Average RF
4-Methyl-2-pentanone	50.0	46.6	5.883E-1	5.477E-1	-6.889	±30	Average RF
Acetone	50.0	46.1	2.957E-1	2.727E-1	-7.781	±30	Average RF
Benzene	50.0	45.6	1.452E0	1.324E0	-8.801	±30	Average RF
Bromochloromethane	50.0	44.8	3.414E-1	3.062E-1	-10.304	±30	Average RF
Bromodichloromethane	50.0	43.9	4.929E-1	4.324E-1	-12.268	±30	Average RF
Bromoform	50.0	45.0	3.074E-1	2.764E-1	-10.097	±30	Average RF
Bromomethane	50.0	39.6	4.103E-1	2.594E-1	-20.757	±30	Quadratic
Carbon Disulfide	50.0	43.2	1.441E0	1.244E0	-13.676	±30	Average RF
Carbon Tetrachloride	50.0	46.4	4.733E-1	4.395E-1	-7.146	±30	Average RF
Chlorobenzene	50.0	45.7	1.098E0	1.003E0	-8.626	±30	Average RF
Chloroethane	50.0	38.5	4.199E-1	2.959E-1	-22.969	±30	Quadratic
Chloroform	50.0	45.8	8.993E-1	8.232E-1	-8.463	±30	Average RF
Chloromethane	50.0	41.9	8.571E-1	7.189E-1	-16.118	±30	Average RF
Cyclohexane	50.0	47.7	4.314E-1	4.117E-1	-4.555	±30	Average RF
Dibromochloromethane	50.0	45.9	4.193E-1	3.845E-1	-8.285	±30	Average RF

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 7/1/2019

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900068 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Dichlorodifluoromethane (CFC 12)	50.0	42.4	7.674E-1	6.512E-1	-15.135	±30	Average RF
Dichloromethane	50.0	43.6	5.433E-1	4.738E-1	-12.801	±30	Average RF
Ethylbenzene	50.0	46.6	5.844E-1	5.45E-1	-6.733	±30	Average RF
Isopropylbenzene (Cumene)	50.0	45.7	1.858E0	1.7E0	-8.517	±30	Average RF
Methyl Acetate	50.0	47.3	7.153E-1	6.767E-1	-5.393	±30	Average RF
Methyl tert-Butyl Ether	50.0	48.6	1.724E0	1.676E0	-2.762	±30	Average RF
Methylcyclohexane	50.0	49.8	5.143E-1	5.125E-1	-0.336	±30	Average RF
Styrene	50.0	46.4	1.198E0	1.113E0	-7.130	±30	Average RF
Tetrachloroethene (PCE)	50.0	46.9	3.381E-1	3.17E-1	-6.235	±30	Average RF
Toluene	50.0	46.2	1.496E0	1.383E0	-7.582	±30	Average RF
Trichloroethene (TCE)	50.0	46.0	3.684E-1	3.39E-1	-7.994	±30	Average RF
Trichlorofluoromethane (CFC 11)	50.0	47.0	7.954E-1	7.474E-1	-6.025	±30	Average RF
Vinyl Chloride	50.0	43.8	7.075E-1	6.197E-1	-12.410	±30	Average RF
cis-1,2-Dichloroethene	50.0	45.9	5.416E-1	4.977E-1	-8.105	±30	Average RF
cis-1,3-Dichloropropene	50.0	45.5	6.395E-1	5.821E-1	-8.972	±30	Average RF
m,p-Xylenes	100	92.8	7.289E-1	6.766E-1	-7.169	±30	Average RF
o-Xylene	50.0	45.4	7.181E-1	6.524E-1	-9.138	±30	Average RF
trans-1,2-Dichloroethene	50.0	46.5	4.821E-1	4.488E-1	-6.908	±30	Average RF
trans-1,3-Dichloropropene	50.0	46.2	5.924E-1	5.475E-1	-7.588	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	50.0	5.004E-1	5.003E-1	-0.020	±30	Average RF
Dibromofluoromethane	50.0	51.6	3.289E-1	3.396E-1	3.25	±30	Average RF
Toluene-d8	50.0	50.1	1.315E0	1.317E0	0.148	±30	Average RF

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016

Service Request: R1907110
Date Analyzed: 08/01/19 10:50

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\080119\E3327.D\
Signal ID: 1

Calibration Date: 7/1/2019
Calibration ID: RC1900068
Analysis Lot: 645566
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.3	0.7773	0.7657	-1.5	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	46.7	1.0638	0.9939	-6.6	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	47.6	0.3413	0.3249	-4.8	NA	±20	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.3	0.4515	0.4537	0.5	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	50.1	1.0292	1.0313	0.2	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	48.2	0.4655	0.4486	-3.6	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	45.5	1.2328	1.1213	-9.0	NA	±20	Average RF
1,2,4-Trichlorobenzene	50.0	46.5	1.2616	1.1727	-7.1	NA	±20	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	46.0	0.2697	0.248	-8.0	NA	±20	Average RF
1,2-Dibromoethane	50.0	48.7	0.403	0.3926	-2.6	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	47.7	1.6239	1.5491	-4.6	NA	±20	Average RF
1,2-Dichloroethane	50.0	50.0	0.5572	0.5567	-0.1	NA	±20	Average RF
1,2-Dichloropropane	50.0	49.7	0.4053	0.4029	-0.6	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	46.5	1.6481	1.5324	-7.0	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	45.9	1.7158	1.5745	-8.2	NA	±20	Average RF
1,4-Dioxane	1000	948	0.0072	0.0068	-5.2	NA	±20	Average RF
2-Butanone (MEK)	50.0	52.8	0.4395	0.4638	5.5	NA	±20	Average RF
2-Hexanone	50.0	51.3	0.5096	0.5229	2.6	NA	±20	Average RF
4-Methyl-2-pentanone	50.0	51.7	0.5883	0.6086	3.4	NA	±20	Average RF
Acetone	50.0	52.0	0.2957	0.3073	3.9	NA	±20	Average RF
Benzene	50.0	48.9	1.4522	1.4198	-2.2	NA	±20	Average RF
Bromochloromethane	50.0	47.9	0.3414	0.327	-4.2	NA	±20	Average RF
Bromodichloromethane	50.0	46.2	0.4929	0.4551	-7.7	NA	±20	Average RF
Bromoform	50.0	45.3	0.3074	0.2787	-9.4	NA	±20	Average RF
Bromomethane	50.0	49.5	0.4103	0.3092	NA	-1.0	±20	Quadratic
Carbon Disulfide	50.0	48.7	1.4409	1.4037	-2.6	NA	±20	Average RF
Carbon Tetrachloride	50.0	46.6	0.4733	0.4415	-6.7	NA	±20	Average RF
Chlorobenzene	50.0	47.3	1.0978	1.0381	-5.4	NA	±20	Average RF
Chloroethane	50.0	49.8	0.4199	0.3795	NA	-0.4	±20	Quadratic
Chloroform	50.0	48.9	0.8993	0.88	-2.1	NA	±20	Average RF
Chloromethane	50.0	48.6	0.8571	0.8338	-2.7	NA	±20	Average RF
Cyclohexane	50.0	48.9	0.4314	0.4219	-2.2	NA	±20	Average RF
Dibromochloromethane	50.0	46.1	0.4193	0.3866	-7.8	NA	±20	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	53.0	0.7674	0.8135	6.0	NA	±20	Average RF
Dichloromethane	50.0	47.0	0.5433	0.511	-5.9	NA	±20	Average RF
Ethylbenzene	50.0	48.7	0.5844	0.5692	-2.6	NA	±20	Average RF
Isopropylbenzene (Cumene)	50.0	48.1	1.8581	1.786	-3.9	NA	±20	Average RF
Methyl Acetate	50.0	53.0	0.7153	0.7577	5.9	NA	±20	Average RF
Methyl tert-Butyl Ether	50.0	49.6	1.7236	1.7086	-0.9	NA	±20	Average RF

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/01/19 10:50

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	**Calibration Date:**	7/1/2019
File ID:	I:\ACQUDATA\msvoa10\data\080119\E3327.D\	**Calibration ID:**	RC1900068
Signal ID:	1	**Analysis Lot:**	645566
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Methylcyclohexane	50.0	48.7	0.5143	0.5009	-2.6	NA	±20	Average RF
Styrene	50.0	48.7	1.1981	1.1672	-2.6	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	45.9	0.3381	0.3105	-8.2	NA	±20	Average RF
Toluene	50.0	49.3	1.4964	1.4741	-1.5	NA	±20	Average RF
Trichloroethene (TCE)	50.0	47.6	0.3684	0.3509	-4.8	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	50.5	0.7954	0.8035	1.0	NA	±20	Average RF
Vinyl Chloride	50.0	50.5	0.7075	0.715	1.1	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	48.9	0.5416	0.5297	-2.2	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	48.2	0.6395	0.6164	-3.6	NA	±20	Average RF
m,p-Xylenes	100	95.9	0.7289	0.6986	-4.1	NA	±20	Average RF
o-Xylene	50.0	48.2	0.7181	0.6928	-3.5	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	48.6	0.4821	0.4685	-2.8	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	47.5	0.5924	0.5624	-5.1	NA	±20	Average RF
4-Bromofluorobenzene	50.0	51.8	0.5004	0.5186	3.6	NA	±20	Average RF
Dibromofluoromethane	50.0	51.5	0.3289	0.3387	3.0	NA	±20	Average RF
Toluene-d8	50.0	51.1	1.3148	1.3442	2.2	NA	±20	Average RF

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM/73105.001/002.016

Service Request: R1907110
Date Analyzed: 08/05/19 10:08

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\080519\E3423.D\
Signal ID: 1

Calibration Date: 7/1/2019
Calibration ID: RC1900068
Analysis Lot: 645842
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.4	0.7773	0.7678	-1.2	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	42.5	1.0638	0.9045	-15.0	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	46.1	0.3413	0.315	-7.7	NA	±20	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.7	0.4515	0.4575	1.3	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	50.8	1.0292	1.0451	1.6	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	48.4	0.4655	0.4509	-3.1	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	42.5	1.2328	1.0467	-15.1	NA	±20	Average RF
1,2,4-Trichlorobenzene	50.0	41.9	1.2616	1.0583	-16.1	NA	±20	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	41.7	0.2697	0.2248	-16.6	NA	±20	Average RF
1,2-Dibromoethane	50.0	46.1	0.403	0.3715	-7.8	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	43.4	1.6239	1.4096	-13.2	NA	±20	Average RF
1,2-Dichloroethane	50.0	48.6	0.5572	0.5419	-2.8	NA	±20	Average RF
1,2-Dichloropropane	50.0	49.4	0.4053	0.4006	-1.1	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	43.0	1.6481	1.4174	-14.0	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	42.6	1.7158	1.4611	-14.8	NA	±20	Average RF
1,4-Dioxane	1000	903	0.0072	0.0065	-9.7	NA	±20	Average RF
2-Butanone (MEK)	50.0	50.0	0.4395	0.439	-0.1	NA	±20	Average RF
2-Hexanone	50.0	47.3	0.5096	0.4826	-5.3	NA	±20	Average RF
4-Methyl-2-pentanone	50.0	49.6	0.5883	0.5835	-0.8	NA	±20	Average RF
Acetone	50.0	49.0	0.2957	0.2897	-2.0	NA	±20	Average RF
Benzene	50.0	48.7	1.4522	1.4151	-2.6	NA	±20	Average RF
Bromochloromethane	50.0	49.0	0.3414	0.3344	-2.0	NA	±20	Average RF
Bromodichloromethane	50.0	45.7	0.4929	0.4502	-8.7	NA	±20	Average RF
Bromoform	50.0	42.2	0.3074	0.2597	-15.5	NA	±20	Average RF
Bromomethane	50.0	48.7	0.4103	0.3055	NA	-2.6	±20	Quadratic
Carbon Disulfide	50.0	51.5	1.4409	1.4849	3.1	NA	±20	Average RF
Carbon Tetrachloride	50.0	46.5	0.4733	0.4403	-7.0	NA	±20	Average RF
Chlorobenzene	50.0	46.0	1.0978	1.0089	-8.1	NA	±20	Average RF
Chloroethane	50.0	50.1	0.4199	0.3815	NA	0.2	±20	Quadratic
Chloroform	50.0	49.6	0.8993	0.8929	-0.7	NA	±20	Average RF
Chloromethane	50.0	51.6	0.8571	0.8839	3.1	NA	±20	Average RF
Cyclohexane	50.0	51.3	0.4314	0.443	2.7	NA	±20	Average RF
Dibromochloromethane	50.0	45.0	0.4193	0.3776	-9.9	NA	±20	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	52.3	0.7674	0.8034	4.7	NA	±20	Average RF
Dichloromethane	50.0	47.3	0.5433	0.5142	-5.4	NA	±20	Average RF
Ethylbenzene	50.0	47.1	0.5844	0.5508	-5.7	NA	±20	Average RF
Isopropylbenzene (Cumene)	50.0	45.6	1.8581	1.6937	-8.8	NA	±20	Average RF
Methyl Acetate	50.0	51.7	0.7153	0.74	3.5	NA	±20	Average RF
Methyl tert-Butyl Ether	50.0	50.0	1.7236	1.7249	0.1	NA	±20	Average RF

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/05/19 10:08

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	**Calibration Date:**	7/1/2019
File ID:	I:\ACQUDATA\msvoa10\data\080519\E3423.D\	**Calibration ID:**	RC1900068
Signal ID:	1	**Analysis Lot:**	645842
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Methylcyclohexane	50.0	49.4	0.5143	0.5084	-1.1	NA	±20	Average RF
Styrene	50.0	46.6	1.1981	1.1164	-6.8	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	44.8	0.3381	0.303	-10.4	NA	±20	Average RF
Toluene	50.0	48.9	1.4964	1.4633	-2.2	NA	±20	Average RF
Trichloroethene (TCE)	50.0	47.8	0.3684	0.3524	-4.4	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	49.7	0.7954	0.7905	-0.6	NA	±20	Average RF
Vinyl Chloride	50.0	52.4	0.7075	0.7418	4.8	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	49.0	0.5416	0.5308	-2.0	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	47.4	0.6395	0.6064	-5.2	NA	±20	Average RF
m,p-Xylenes	100	92.0	0.7289	0.6705	-8.0	NA	±20	Average RF
o-Xylene	50.0	46.0	0.7181	0.6605	-8.0	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	49.2	0.4821	0.4742	-1.6	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	47.5	0.5924	0.5632	-4.9	NA	±20	Average RF
4-Bromofluorobenzene	50.0	48.9	0.5004	0.4893	-2.2	NA	±20	Average RF
Dibromofluoromethane	50.0	48.2	0.3289	0.3169	-3.6	NA	±20	Average RF
Toluene-d8	50.0	49.2	1.3148	1.2931	-1.7	NA	±20	Average RF

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**645566
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\080119 \E3326.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	10:23:00	
I:\ACQUDATA\msvoa10\data\080119 \E3327.D\	Continuing Calibration Verification	RQ1908273-02	8/1/2019	10:50:00	
I:\ACQUDATA\msvoa10\data\080119 \E3328.D\	Lab Control Sample	RQ1908273-03	8/1/2019	11:29:00	
I:\ACQUDATA\msvoa10\data\080119 \E3331.D\	Method Blank	RQ1908273-04	8/1/2019	12:45:00	
I:\ACQUDATA\msvoa10\data\080119 \E3332.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	13:20:00	
I:\ACQUDATA\msvoa10\data\080119 \E3333.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	13:42:00	
I:\ACQUDATA\msvoa10\data\080119 \E3334.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	14:04:00	
I:\ACQUDATA\msvoa10\data\080119 \E3336.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	14:47:00	
I:\ACQUDATA\msvoa10\data\080119 \E3337.D\	TB-072919	R1907110-008	8/1/2019	15:09:00	
I:\ACQUDATA\msvoa10\data\080119 \E3338.D\	EB-072919	R1907110-003	8/1/2019	15:31:00	
I:\ACQUDATA\msvoa10\data\080119 \E3339.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	15:53:00	
I:\ACQUDATA\msvoa10\data\080119 \E3340.D\	ITT-SBW-10-072919	R1907110-001	8/1/2019	16:14:00	
I:\ACQUDATA\msvoa10\data\080119 \E3341.D\	ITT-SBW-23-072919	R1907110-002	8/1/2019	16:36:00	
I:\ACQUDATA\msvoa10\data\080119 \E3342.D\	ITT-SBW-2-072919	R1907110-004	8/1/2019	16:58:00	
I:\ACQUDATA\msvoa10\data\080119 \E3345.D\	DUP-01-072919	R1907110-005	8/1/2019	18:04:00	
I:\ACQUDATA\msvoa10\data\080119 \E3347.D\	ITT-IBW-20-072919	R1907110-006	8/1/2019	18:49:00	
I:\ACQUDATA\msvoa10\data\080119 \E3349.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	19:33:00	
I:\ACQUDATA\msvoa10\data\080119 \E3350.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	19:55:00	
I:\ACQUDATA\msvoa10\data\080119 \E3351.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	20:17:00	
I:\ACQUDATA\msvoa10\data\080119 \E3352.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	20:39:00	
I:\ACQUDATA\msvoa10\data\080119 \E3353.D\	ZZZZZZZ	ZZZZZZZ	8/1/2019	21:00:00	
I:\ACQUDATA\msvoa10\data\080119 \E3355.D\	ITT-SBW-23-072919 MS	RQ1908273-05	8/1/2019	21:44:00	
I:\ACQUDATA\msvoa10\data\080119 \E3356.D\	ITT-SBW-23-072919 DMS	RQ1908273-06	8/1/2019	22:06:00	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**645842
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\080519\E3422.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	09:41:00	
I:\ACQUDATA\msvoa10\data\080519\E3423.D\	Continuing Calibration Verification	RQ1908420-02	8/5/2019	10:08:00	
I:\ACQUDATA\msvoa10\data\080519\E3424.D\	Lab Control Sample	RQ1908420-03	8/5/2019	10:49:00	
I:\ACQUDATA\msvoa10\data\080519\E3427.D\	Method Blank	RQ1908420-04	8/5/2019	12:05:00	
I:\ACQUDATA\msvoa10\data\080519\E3428.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	12:32:00	
I:\ACQUDATA\msvoa10\data\080519\E3429.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	12:54:00	
I:\ACQUDATA\msvoa10\data\080519\E3430.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	13:16:00	
I:\ACQUDATA\msvoa10\data\080519\E3431.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	13:38:00	
I:\ACQUDATA\msvoa10\data\080519\E3432.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	14:00:00	
I:\ACQUDATA\msvoa10\data\080519\E3433.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	14:22:00	
I:\ACQUDATA\msvoa10\data\080519\E3434.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	14:43:00	
I:\ACQUDATA\msvoa10\data\080519\E3435.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	15:05:00	
I:\ACQUDATA\msvoa10\data\080519\E3436.D\	ITT-SBW-9-072919	R1907110-007	8/5/2019	15:27:00	
I:\ACQUDATA\msvoa10\data\080519\E3437.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	15:49:00	
I:\ACQUDATA\msvoa10\data\080519\E3438.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	16:11:00	
I:\ACQUDATA\msvoa10\data\080519\E3439.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	16:33:00	
I:\ACQUDATA\msvoa10\data\080519\E3440.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	16:54:00	
I:\ACQUDATA\msvoa10\data\080519\E3441.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	17:16:00	
I:\ACQUDATA\msvoa10\data\080519\E3442.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	17:38:00	
I:\ACQUDATA\msvoa10\data\080519\E3443.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	18:00:00	
I:\ACQUDATA\msvoa10\data\080519\E3444.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	18:22:00	
I:\ACQUDATA\msvoa10\data\080519\E3445.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	18:44:00	
I:\ACQUDATA\msvoa10\data\080519\E3446.D\	ITT-SBW-2-072919	R1907110-004	8/5/2019	19:06:00	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**645842
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\080519 \E3447.D\	DUP-01-072919	R1907110-005	8/5/2019	19:28:00	
I:\ACQUDATA\msvoa10\data\080519 \E3448.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	19:49:00	
I:\ACQUDATA\msvoa10\data\080519 \E3449.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	20:11:00	
I:\ACQUDATA\msvoa10\data\080519 \E3450.D\	ZZZZZZZ	ZZZZZZZ	8/5/2019	20:33:00	

Analysis: 8260C | Analyst: D. Rigani | pH strips: Hyd 204018 | Tune Method: W070719.M

Date: 08/01/19 | Balance ID: — | ResCl strips: — | Run Method: ↓

Instr. MS#10 | 50 mL Class A used for dilution FV | Syringes: 181117 | LIMS Run#: 645566

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1-2	High Std & Blk							E3323-24		
(DL) 3	Tune Check							~~24~~ 25	N	- filename corrections
4	Tune Check							~~25~~ 26	Y	DL 8-1-19
5	CCV							~~26~~ 27	Y	iodo ↓ (≥ 40) - NT
6	LCS-Acid							~~27~~ 28	Y	
7	Blk							~~28~~ 29	N	
8	Met Blk-Unp.							~~29~~ 30	Y	
9	Met Blk-Acid							E3331	Y	
10	R1907174-001	1.0		14818	II	1	<2	32	Y	
11	↓ -002	1.0		↓	↓	1	<2	33	Y	
12	R1907100-001	1.0	20µl conc./100mL DI	14755	II	amp.	—	34	Y	PEO-120 Lot NO719, MeAc & MeCH only
13	Blk			—	—	—	—	35	O.K.	PCE = 0.3
14	R1907099-095	1.0		18619	II	1	<2	36	Y	
15	R1907110-008	1.0		8043	IV	1	<2	37	Y	
16	↓ -003	1.0				1	<2	38	Y	
17	R1907109-001	1.0				1	<2	↓ 39	Y	
18	R1907110-001	1.0				1	<2	E3340	Y	
19	-002	1.0				1	<2	41	Y	
20	-004	1.0				1	<2	42	(Y)	rpt 1/10 III-↑
21	↓ -007	1.0		↓	↓	1	<2	43	(N)	x-over rpt 1.0
22	Blk			—	—	—	—	44	—	
23	R1907110-005	1.0		8043	IV	1	<2	45	(Y)	rpt 1/10 III ↑
24	Blk			↓	↓	—	←	46	O.K.	III = 0.48
25	R1907110-006	1.0		↓	↓	1	<2	47	Y	
26	Blk			—	—	—	—	↓ 48	Y	
27	R1906994-003	1.0	T.B.	14733	II	1	<2	49	Y	
28	R1906934-001	2.0	25mL/50mL			1	<2	E3350	Y	
29	(DL) ↓ -002	1.0				1	<2	51	Y	
30	R1906993-001	2.0	25mL/50mL			1	<2	52	(Y)	rpt 1/5
31	↓ -001	5.0	10mL/50mL	↓	↓	1	<2	53	~~O.K.~~ Y=DL	
32	Blk			—	—	—	—	54	O.K.	(DL)
33-34	R1907110-002MS/DMS	1.0		8043	IV	2	<2	↓ 55-56		

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Combined IS/Surr : —

Primary TG : 201289 5.0µl

Primary HSL : 201094

Primary OCC : 200015

Primary Fr+ : 200816

Primary : —

↓ / 50mL DI = CCV.

Secondary TG : 201348 2.0µl , 4.2µl

Secondary HSL : 201127 ↓ ↓

Secondary OCC : 200611

Secondary Fr+ : 201013 5.0µl ↓ , 10.6µl ↓

Secondary : —

50mL → LCS.

42mL vials samp = MS/DMS

Surrogate 50 : 201409

Internal Std 50 : 201410

Reagents:

Study Closes August 29, 2019

R1907100
ALS Environmental - Rochester
NSI DOD Extras

Volatiles
Catalog# PEO-120
Description and Instructions

Sample Description

- This PT sample is packaged as a 1.5 mL concentrate in P/T Methanol and requires dilution into reagent water prior to analysis.
- The sample should be stored at 2-8°C.
- This PT sample presents you with quantitative as well as qualitative challenges. A subset of the 59 possible analytes are to be identified as well as quantified.
- When prepared according to instructions, the PT sample will contain analytes drawn from the following list
in the listed range:

Analyte	Conc Range	NELAC PTRL	Analyte	Conc Range	NELAC PTRL
Benzene	10-120 ug/L	7.0 ug/L	1,1-Dichloroethane	10-150 ug/L	6.4 ug/L
Bromodichloromethane	10-100 ug/L	6.0 ug/L	1,2-Dichloroethane	15-150 ug/L	10.6 ug/L
Bromoform	10-100 ug/L	6.0 ug/L	1,1-Dichloroethene	10-150 ug/L	6.2 ug/L
Bromomethane	20-120 ug/L	8.0 ug/L	cis-1,2-Dichloroethene	10-150 ug/L	7.0 ug/L
Carbon tetrachloride	15-150 ug/L	7.7 ug/L	trans-1,2-Dichloroethene	10-120 ug/L	6.0 ug/L
Chlorobenzene	10-120 ug/L	7.0 ug/L	1,2-Dichloropropane	10-150 ug/L	7.0 ug/L
Dibromochloromethane	10-100 ug/L	6.0 ug/L	cis-1,3-Dichloropropene	10-120 ug/L	6.5 ug/L
Chloroethane	20-120 ug/L	8.0 ug/L	trans-1,3-Dichloropropene	10-120 ug/L	6.5 ug/L
2-Chloroethyl vinyl ether	5-500 ug/L	Not Applicable	Ethylbenzene	10-120 ug/L	7.0 ug/L
Chloroform	10-100 ug/L	7.0 ug/L	2-Hexanone	20-200 ug/L	4.4 ug/L
Chloromethane	20-120 ug/L	8.0 ug/L	Methylene chloride	10-120 ug/L	6.0 ug/L
Dibromomethane	10-120 ug/L	6.5 ug/L	4-Methyl-2-pentanone	20-200 ug/L	2.0 ug/L
1,2-Dichlorobenzene	10-120 ug/L	7.0 ug/L	Styrene	20-120 ug/L	13.0 ug/L
1,3-Dichlorobenzene	10-120 ug/L	7.0 ug/L	1,1,1,2-Tetrachloroethane	15-150 ug/L	9.8 ug/L
1,4-Dichlorobenzene	10-120 ug/L	7.0 ug/L	1,1,2,2-Tetrachloroethane	15-150 ug/L	9.8 ug/L
Dichlorodifluoromethane	20-100 ug/L	Not Applicable	Tetrachloroethene	10-150 ug/L	4.3 ug/L
Trichlorofluoromethane	20-120 ug/L	8.0 ug/L	Toluene	10-120 ug/L	7.0 ug/L
Vinyl chloride	20-120 ug/L	8.0 ug/L	1,1,1-Trichloroethane	10-100 ug/L	6.0 ug/L
m+p-Xylenes	10-150 ug/L	6.0 ug/L	o-Xylene	10-150 ug/L	6.0 ug/L
Total Xylenes	20-300 ug/L	12 ug/L	1,1,2-Trichloroethane	15-150 ug/L	10.5 ug/L
1,2,4-Trimethylbenzene	10-120 ug/L	6.5 ug/L	1,3,5-Trimethylbenzene	10-120 ug/L	6.5 ug/L
MTBE	15-150 ug/L	9.0 ug/L	Trichloroethene	10-100 ug/L	6.2 ug/L
2-Butanone	5-500 ug/L	Not Applicable	Acetonitrile	5-500 ug/L	Not Applicable
Acetone	20-200 ug/L	3.9 ug/L	Acrylonitrile	5-500 ug/L	Not Applicable
Acrolein	5-500 ug/L	Not Applicable	Vinyl acetate	5-500 ug/L	Not Applicable
Carbon disulfide	5-500 ug/L	Not Applicable	Naphthalene	15-150 ug/L	6.3 ug/L
Ethylene dibromide	10-120 ug/L	6.5 ug/L	1,2-Dibromo-3-chloropropane	15-150 ug/L	9.0 ug/L
Methyl acetate	5-500 ug/L	Not Applicable	Methyl cyclohexane	20-100 ug/L	Not Applicable
1,4-Dioxane	20-500 ug/L	Not Applicable	1,2,4-Trichlorobenzene	15-150 ug/L	4.3 ug/L
1,2,3-Trichloropropane	15-150 ug/L	4.1 ug/L	1,2,3-Trichlorobenzene	15-150 ug/L	Not Applicable
n-Hexane	10-150 ug/L	Not Applicable			

Note: The concentration range refers to the formulated concentration. Most analytical techniques do not recover 100% of the analyte. Therefore, it is possible that your determined result may fall under these specified ranges.

Where applicable, all NSI PT samples are formulated in ranges specified in the most current NELAC standards
(see www.nelac-institute.org). NELAC Proficiency Testing Reporting Limits (PTRLs) apply. **Do not report values below the NELAC PTRL.**

General Information

- This PT sample can be evaluated for 59 analytes even though (according to NELAC) only a subset of analytes will be present. For an analyte to be evaluated, you must report a result for the analyte. If an analyte is determined to be present, report the determined concentration in 3 significant figures. If an analyte is not detected, report a "0" or "<" your detection limit. If you choose not to be evaluated for any analyte in this sample, leave that line blank on your data report form. Blank data report lines will not be evaluated and a "not-reported" will appear on your final PT report.
- The ampule concentrate is very stable. However, the diluted PT sample is unstable due to possible volatilization of analytes. Therefore, be ready to analyze the prepared sample immediately following dilution.

Instructions

- Fill a 100 mL Class A Volumetric Flask to volume with organic free reagent water.
- Allow the ampule concentrate to equilibrate to room temperature (15-30°C).
- Prior to opening, mix contents by gentle inversion.
- Open the ampule and withdraw 20 uL of the solution using a gas tight microsyringe.
- Inject the concentrate into the expanded area of the flask well below the surface of the water.
- Stopper the flask and mix by gentle inversion 3 times. Excessive mixing will result in loss of volatiles and should be avoided.
- This represents the sample for analysis.
- Report results in ug/L.

Analysis: 8260C | Analyst: D. Lippani | pH strips: Hyd.2014018 | Tune Method: W070119.M

Date: 08/05/19 | Balance ID: — | ResCl strips: — | Run Method: ↓

Instr. MS#10 | 50 mL Class A used for dilution FV | Syringes: 181117 | LIMS Run#: 645842

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	High Std.							E3420	Y	
2	Blk							21	O.K.	
3	Tune Check		(Run as a Blk					22	Y	
4	CCV							23	Y	
5	LCS-Acid							24	Y	
6	Blk							25	—	
7	Met Blk-Unp.							26	Y	
8	Met Blk-Acid							27	Y	
9	R1907121-006	1.0		6656	II	3	<2	28	Y	
10	R1907122-012	1.0				1	<2	29	Y	
11	-013	1.0				1	<2	E3430	Y	
12	-014	1.0				1	<2	31	Y	
13	-015	1.0				1	<2	32	Y	
14	-016	1.0				1	<2	33	Y	
15	-017	1.0				1	<2	34	Y	
16	DL -018	1.0				1	<2	35	Y	
17	R1907110-007	1.0	(7110-007)	8043	IV	2	<2	36	Y	
18	R1907156-004	1.0	*-DOD T.B.	19519	IV	1	<2	37	Y	
19	-005	1.0				1	<2	38	Y	high NTs!
20	-003	1.0				1	<2	39	Y	
21	-002	1.0				1	<2	E3440	Y	
22	-001	1.0				1	<2	41	Y	
23	R1907099-101	1.0		18619	II	1	<2	42	Y	
24	-052	1.0			DL	12	<2	43	Y	
25	-053	1.0				12	<2	44	Y	
26	-069	1.0				12	<2	45	Y	
27	R1907110-004	10	5.0mL/50mL	8043	IV	2	<2	46	Y	= DL
28	-005	10				2	<2	47	Y	= DL
29	R1907156-003MS	1.0	*-DOD	19519	IV	2	<2	48	Y	
30	-003DMS	1.0				3	<2	49	Y	
31	Closing CCV		*-DOD	—	—	—	—	E3450	Y	@ 20:33
—	EOD	DL 8-5-19								

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 201289 5.0µl
Primary HSL : 201651
Primary OCC : 200015
Primary Fr+ : 201718
Primary : —

50mL DI = CCV

Secondary TG : 201348 2.0µl, 4.2µl
Secondary HSL : 201127
Secondary OCC : 200611
Secondary Fr+ : 201013 5.0µl, 10.6µl
Secondary : —

50mL LCS. 42mL vials samp. = MS/DMS

Combined IS/Surr : —
Surrogate 50 : 201409
Internal Std 50 : 201410
Reagents:

O-1008 Page 131

Runlog-MSVOAr4 1/17/17

Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:20
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-10-072919	**Units:**	ug/L
Lab Code:	R1907110-001	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**1.1**	0.040	0.027	1	08/02/19 13:41	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	85	64 - 124	08/02/19 13:41	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:30
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-23-072919	**Units:**	ug/L
Lab Code:	R1907110-002	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**3.4**	0.040	0.027	1	08/02/19 14:00	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	88	64 - 124	08/02/19 14:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:40
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	EB-072919	**Units:**	ug/L
Lab Code:	R1907110-003	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	ND U	0.040	0.027	1	08/02/19 14:57	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	85	64 - 124	08/02/19 14:57	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 12:08
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-2-072919	**Units:**	ug/L
Lab Code:	R1907110-004	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**8.9**	0.040	0.027	1	08/02/19 15:17	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	82	64 - 124	08/02/19 15:17	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	DUP-01-072919	**Units:**	ug/L
Lab Code:	R1907110-005	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**9.3**	0.040	0.027	1	08/02/19 15:37	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	84	64 - 124	08/02/19 15:37	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 14:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-IBW-20-072919	**Units:**	ug/L
Lab Code:	R1907110-006	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**5.1**	0.040	0.027	1	08/02/19 15:57	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	86	64 - 124	08/02/19 15:57	

Analytical Report

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Collected:**	07/29/19 16:00
Sample Matrix:	Water	**Date Received:**	07/29/19 17:50
Sample Name:	ITT-SBW-9-072919	**Units:**	ug/L
Lab Code:	R1907110-007	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**4.3**	0.040	0.027	1	08/02/19 16:17	8/2/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	84	64 - 124	08/02/19 16:17	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS985.D
Acq On : 2 Aug 2019 1:41 pm
Operator : JMisiurewicz
Sample : R1907110-001 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 05 08:49:59 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

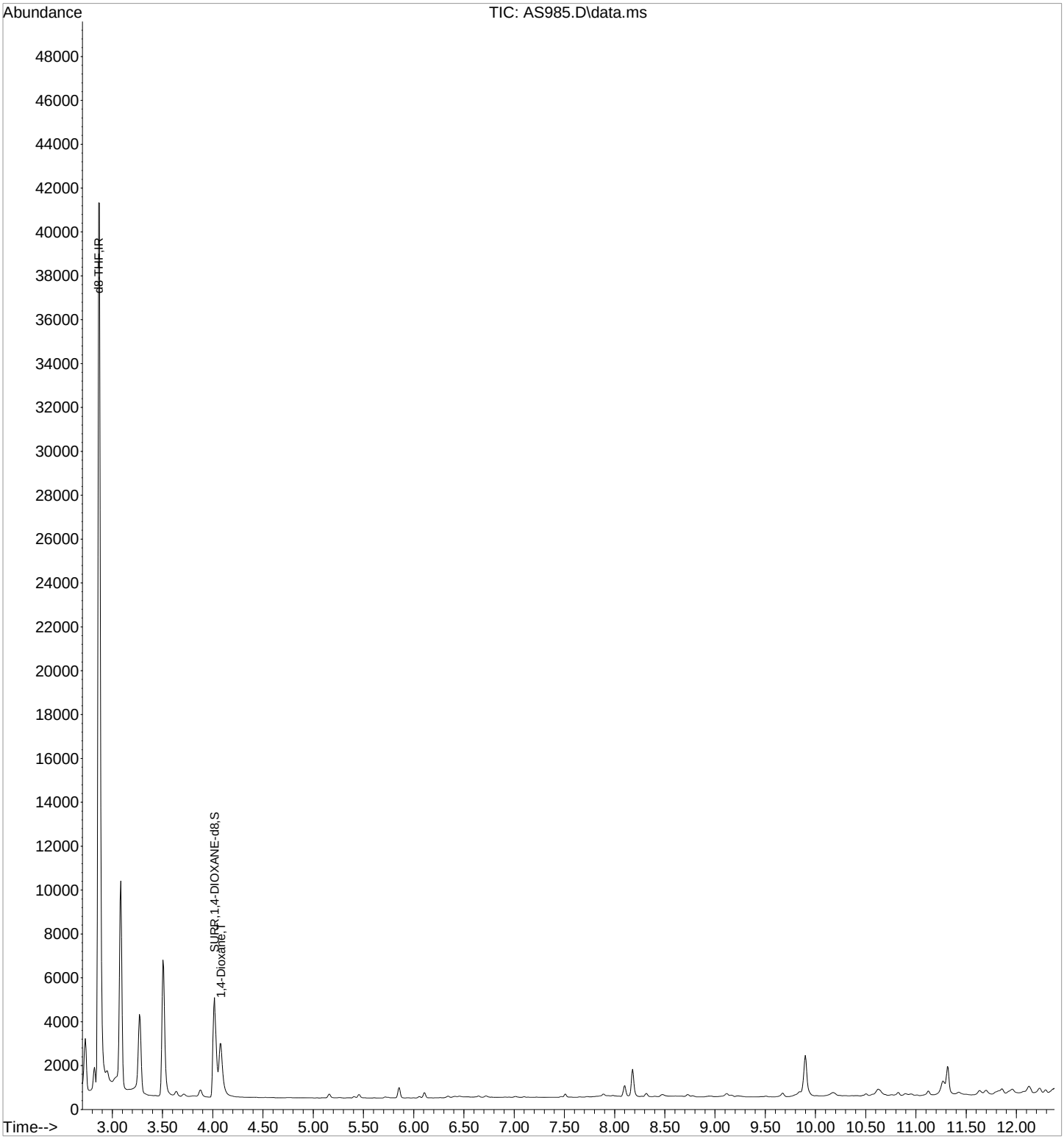
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.865	46	27977	500.00	PPB	-0.04
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.016	96	5448	85.26	PPB	-0.03
Spiked Amount 100.000	Range 70 - 130		Recovery = 85.26%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.080	88	3676	54.89	PPB	97

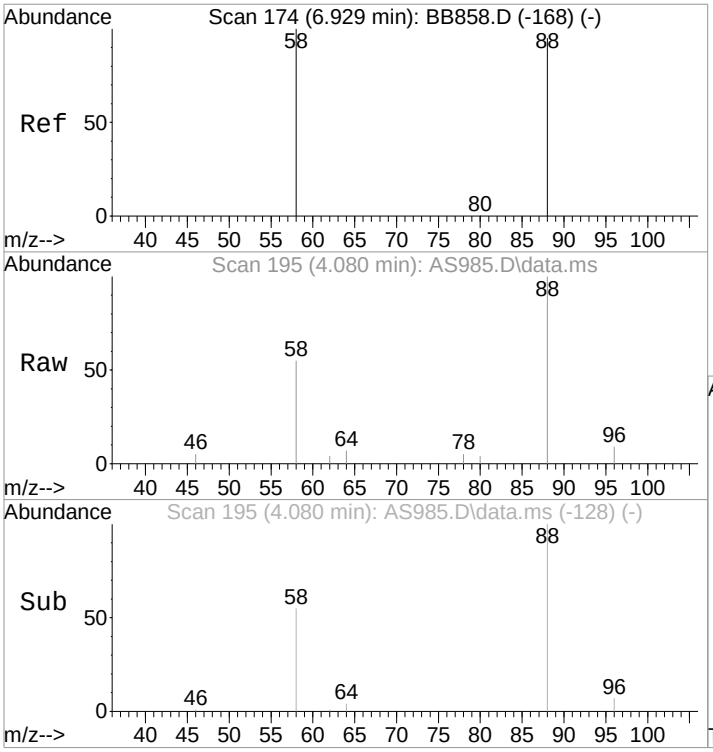
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS985.D
Acq On : 2 Aug 2019 1:41 pm
Operator : JMisiurewicz
Sample : R1907110-001 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 05 08:49:59 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

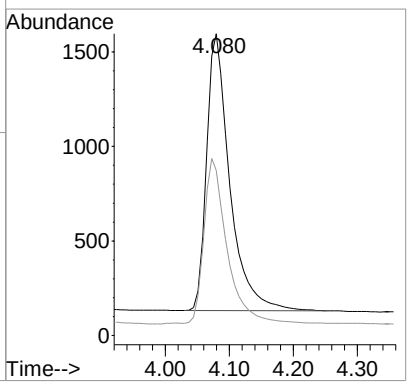




#2
1,4-Dioxane
Concen: 54.89 PPB
RT: 4.080 min Scan# 195
Delta R.T. -0.021 min
Lab File: AS985.D
Acq: 2 Aug 2019 1:41 pm

Tgt Ion: 88 Resp: 3676

Ion	Ratio	Lower	Upper
88	100		
58	55.1	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS986.D
Acq On : 2 Aug 2019 2:00 pm
Operator : JMisiurewicz
Sample : R1907110-002 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 05 08:50:01 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

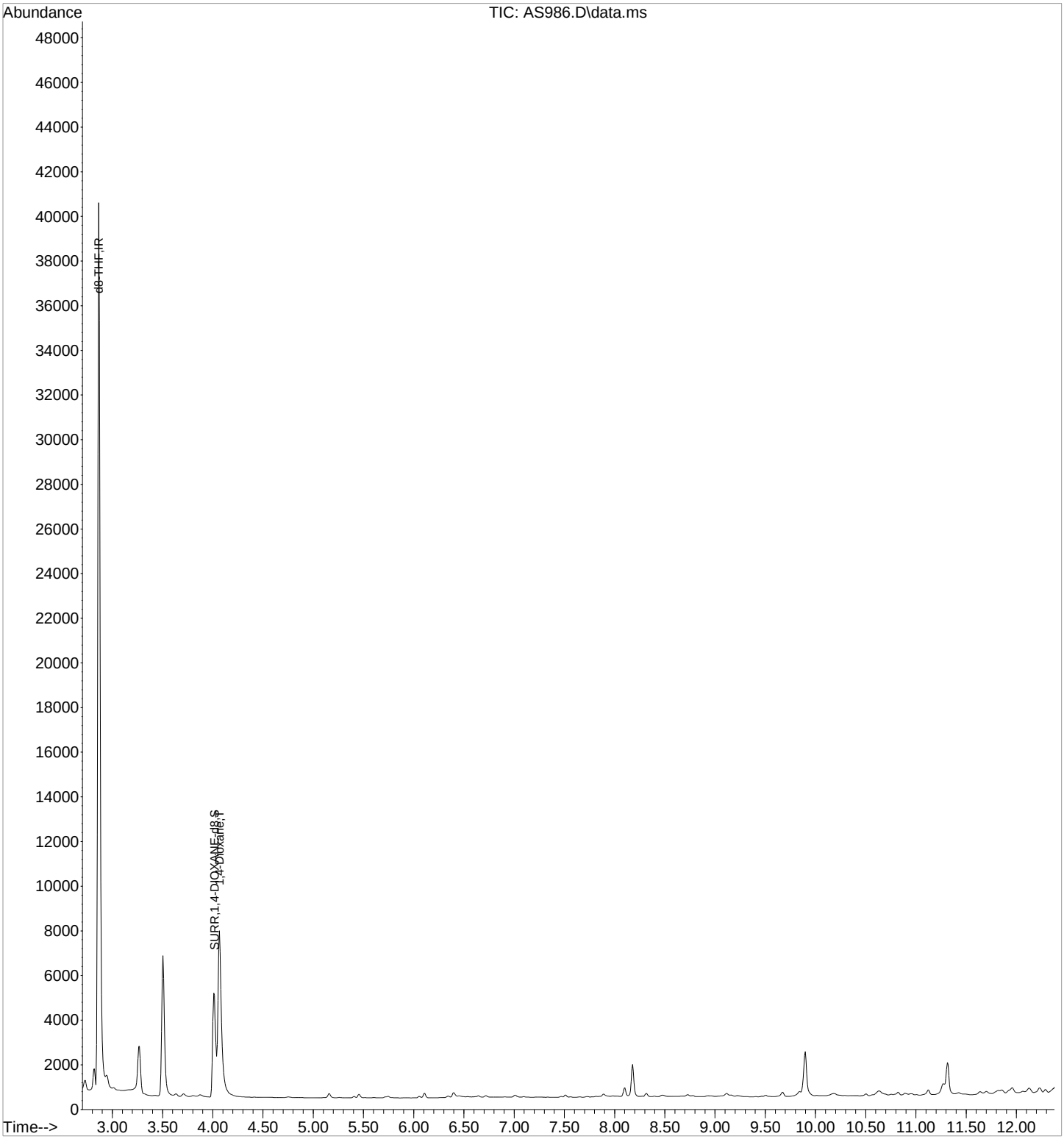
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.864	46	26881	500.00	PPB	-0.04
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.015	96	5393	87.83	PPB	-0.03
Spiked Amount 100.000	Range 70 - 130		Recovery = 87.83%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.065	88	11062	172.34	PPB	98

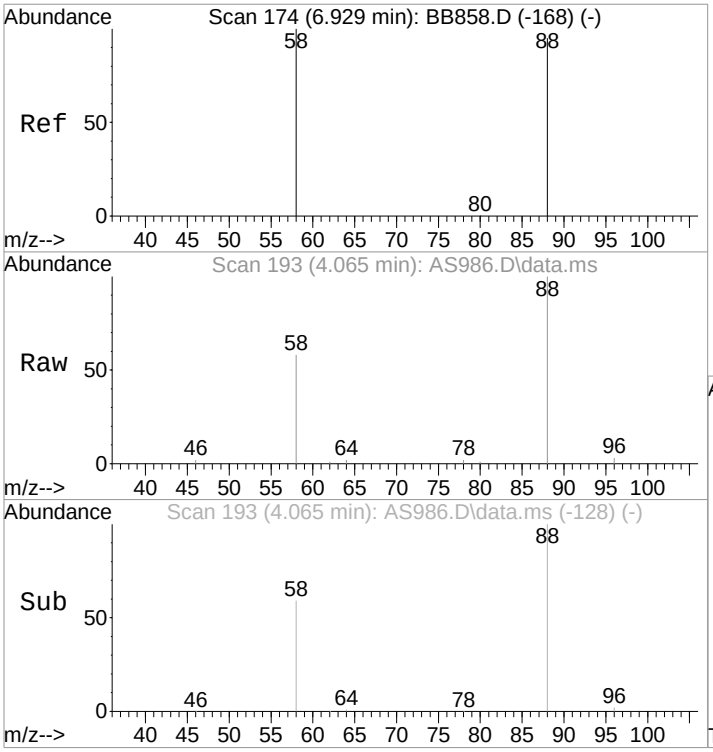
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS986.D
Acq On : 2 Aug 2019 2:00 pm
Operator : JMisiurewicz
Sample : R1907110-002 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 05 08:50:01 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

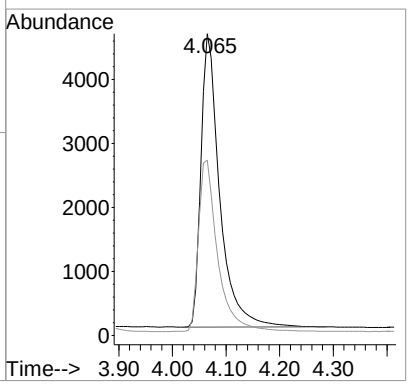




#2
1,4-Dioxane
Concen: 172.34 PPB
RT: 4.065 min Scan# 193
Delta R.T. -0.036 min
Lab File: AS986.D
Acq: 2 Aug 2019 2:00 pm

Tgt Ion: 88 Resp: 11062

Ion	Ratio	Lower	Upper
88	100		
58	58.3	37.0	77.0

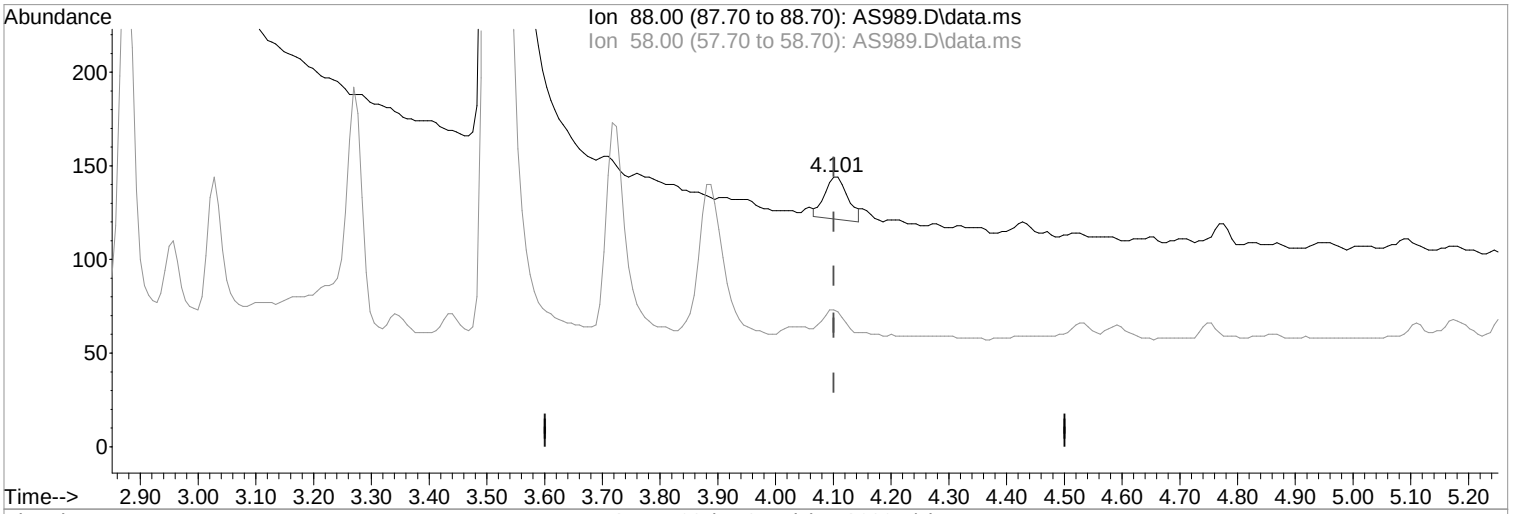


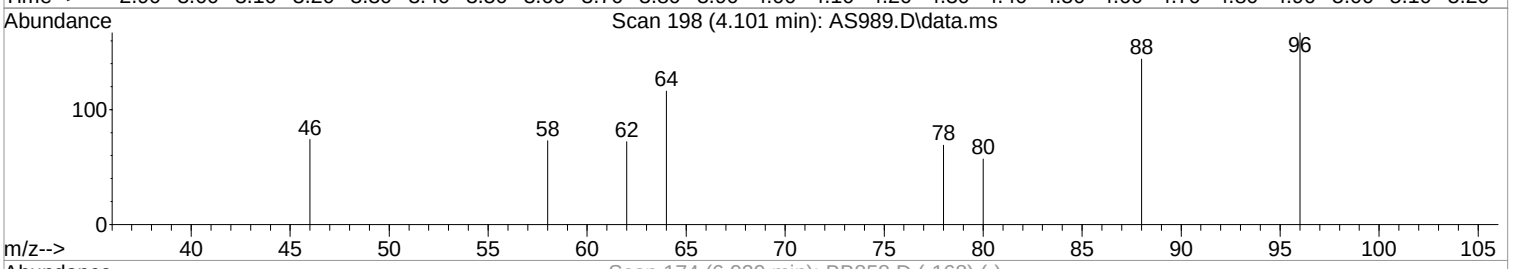
1st 08/05/19
2nd 08/05/19

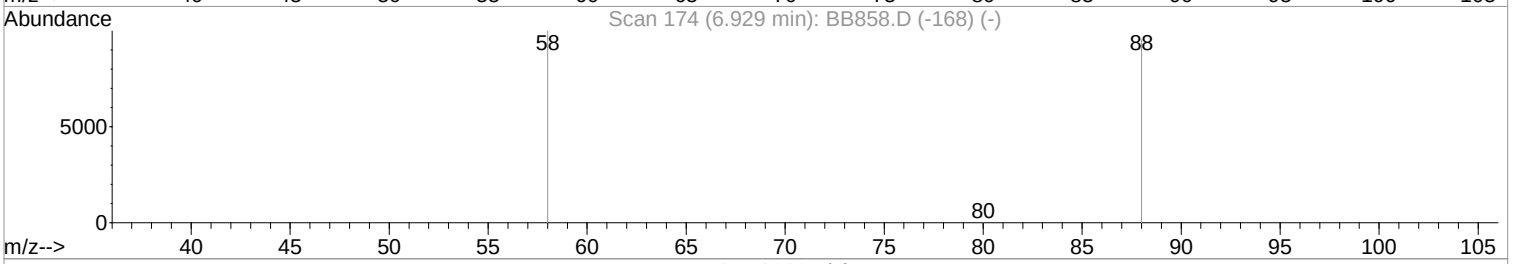
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS989.D
Acq On : 2 Aug 2019 2:57 pm
Operator : JMisiurewicz
Sample : R1907110-003 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 05 08:50:07 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration







TIC: AS989.D\data.ms

(2) 1,4-Dioxane (T)

4.101min (0.000) 0.66 PPB m

response 63

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	57.00	50.69
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

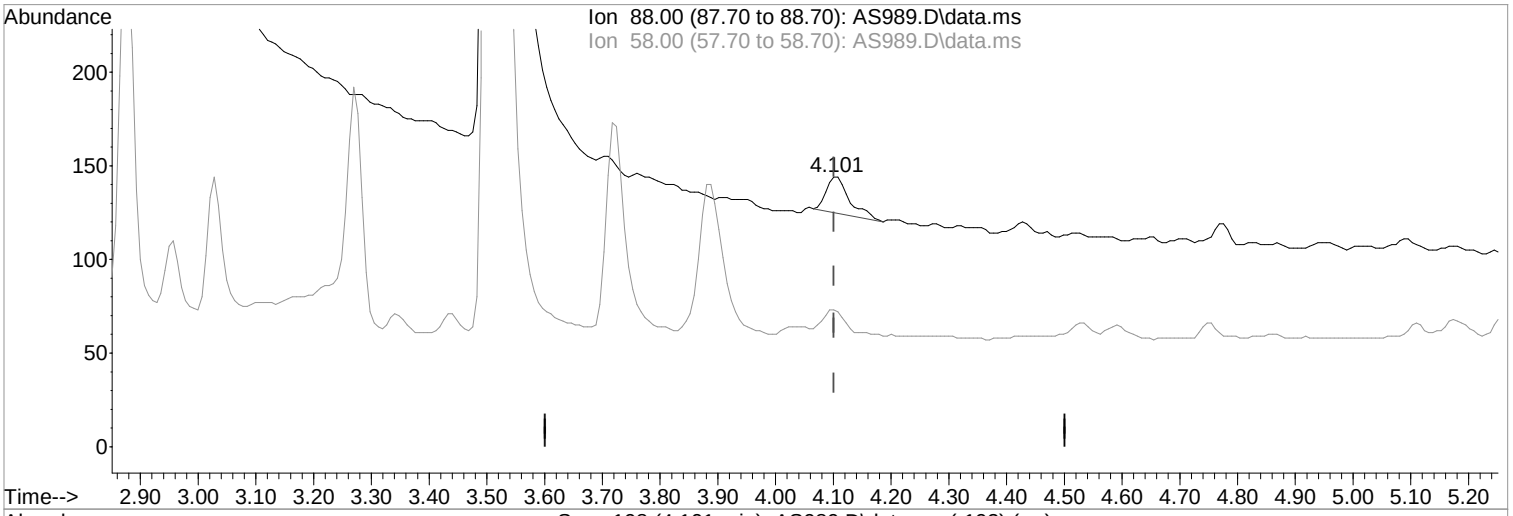
08/05/19

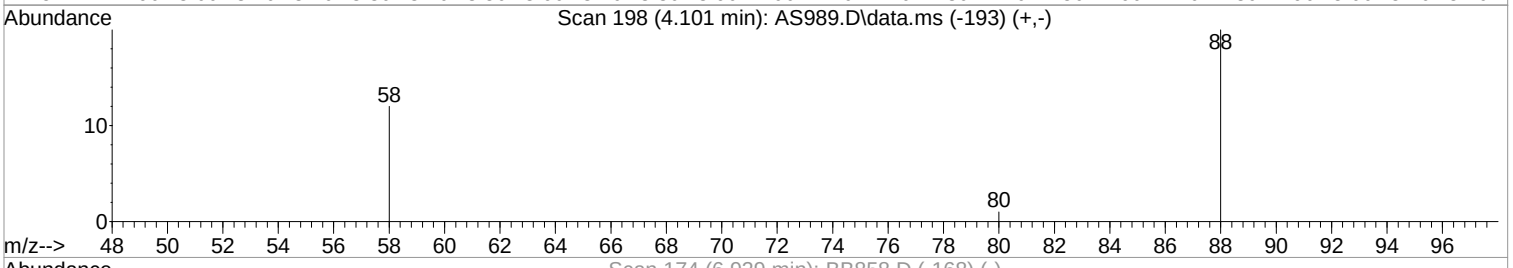
1st 08/05/19
2nd 08/05/19

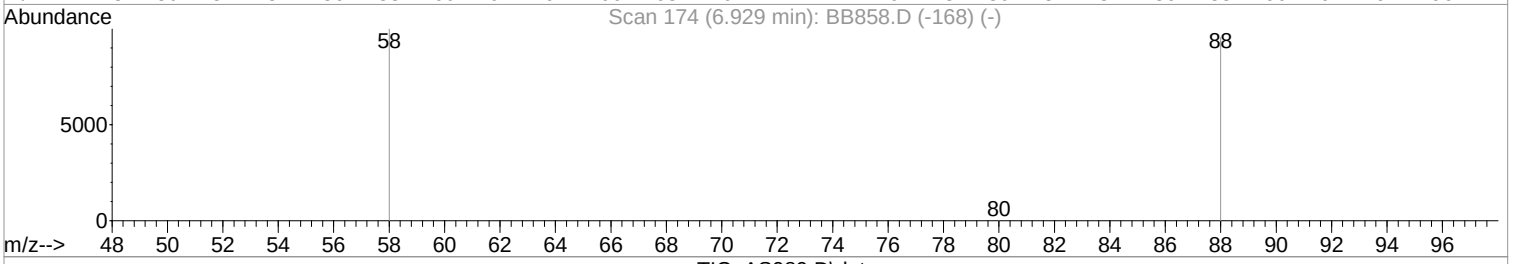
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS989.D
Acq On : 2 Aug 2019 2:57 pm
Operator : JMisiurewicz
Sample : R1907110-003 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 05 08:50:07 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration







TIC: AS989.D\data.ms

(2) 1,4-Dioxane (T)

4.101min (0.000) 0.51 PPB

response 53

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	57.00	58.54
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/05/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS989.D
Acq On : 2 Aug 2019 2:57 pm
Operator : JMisiurewicz
Sample : R1907110-003 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 05 08:56:02 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

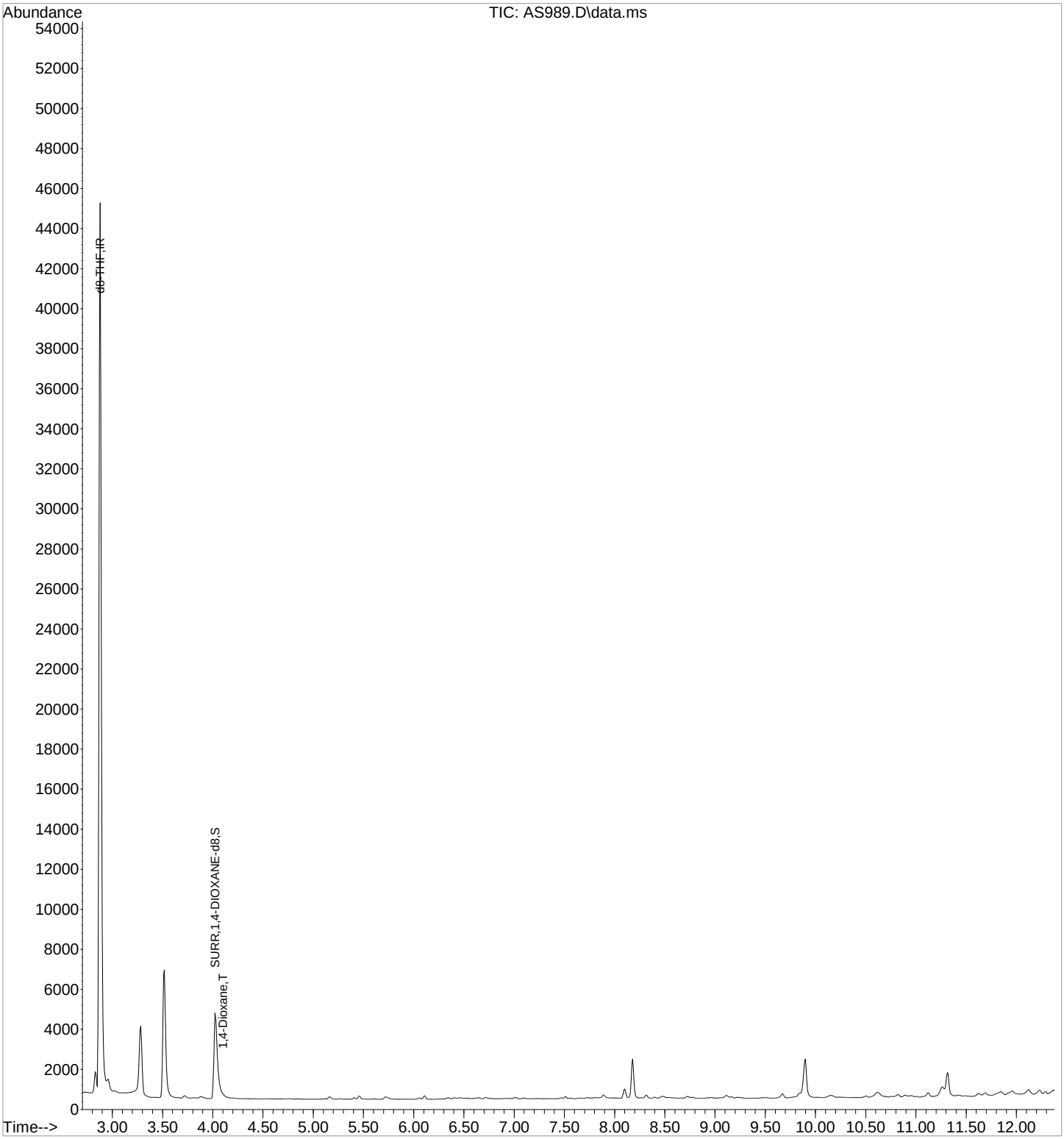
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.879	46	28439	500.00	PPB	-0.03
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.023	96	5511	84.84	PPB	-0.02
Spiked Amount 100.000	Range 70 - 130		Recovery = 84.84%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.101	88	63m	0.66	PPB	

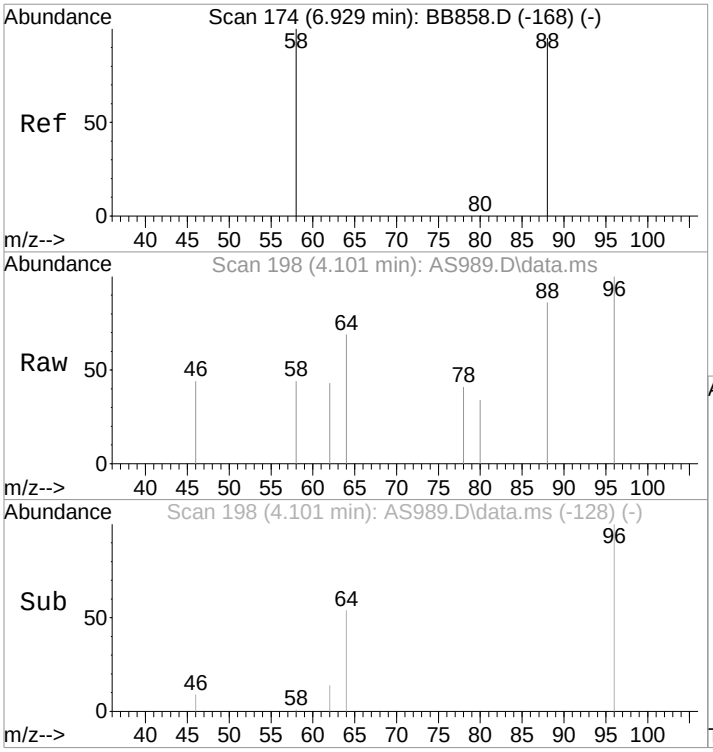
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS989.D
Acq On : 2 Aug 2019 2:57 pm
Operator : JMisiurewicz
Sample : R1907110-003 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 05 08:56:02 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

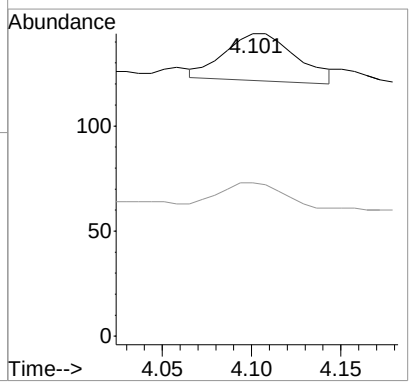




#2
1,4-Dioxane
Concen: 0.66 PPB m
RT: 4.101 min Scan# 198
Delta R.T. 0.000 min
Lab File: AS989.D
Acq: 2 Aug 2019 2:57 pm

Tgt Ion: 88 Resp: 63

Ion	Ratio	Lower	Upper
88	100		
58	50.7	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS990.D
Acq On : 2 Aug 2019 3:17 pm
Operator : JMisiurewicz
Sample : R1907110-004 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 05 08:50:09 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

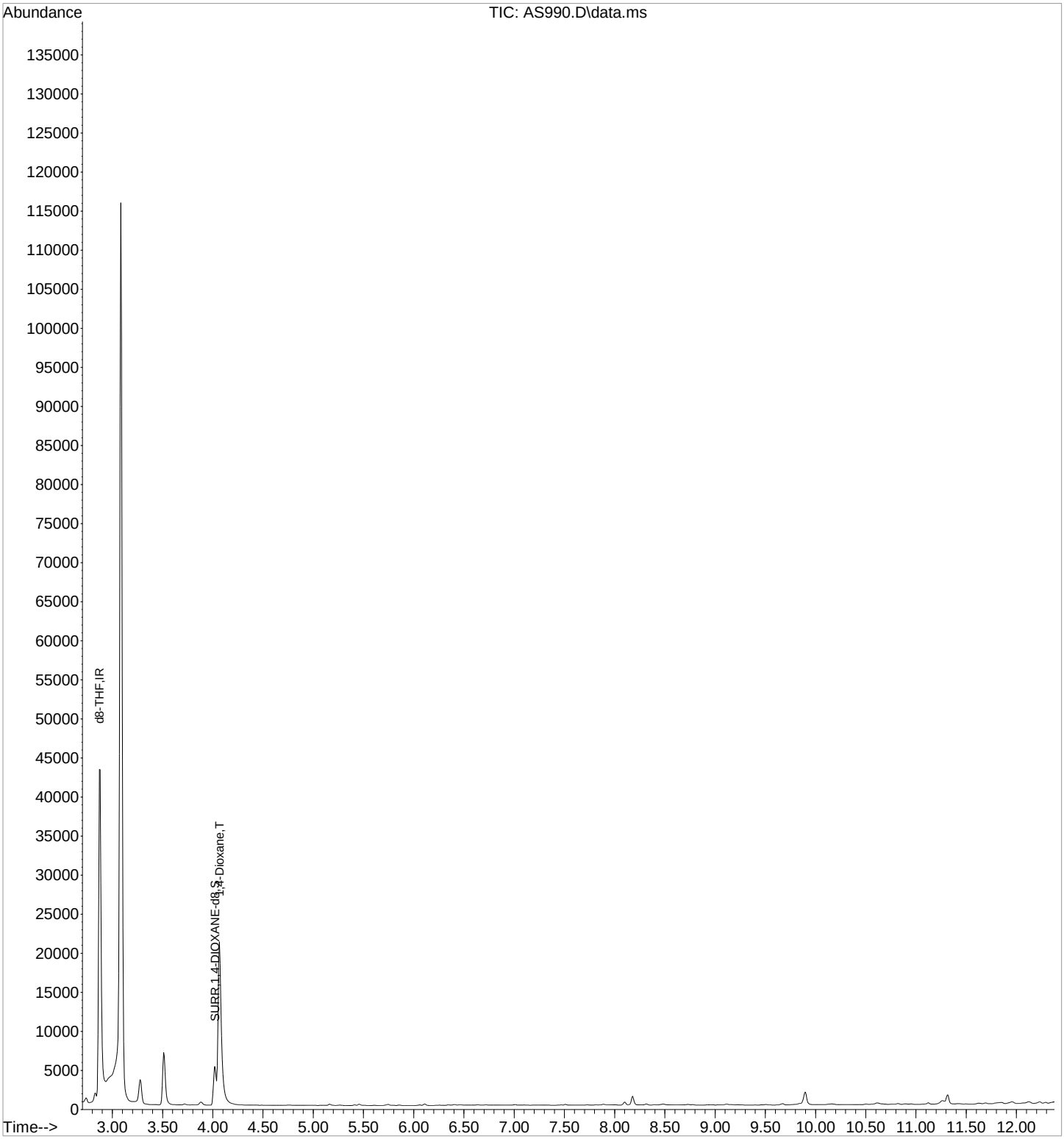
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.871	46	28713	500.00	PPB	-0.04
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.022	96	5366	81.83	PPB	-0.02
Spiked Amount 100.000	Range 70 - 130		Recovery = 81.83%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.065	88	30653	446.50	PPB	99

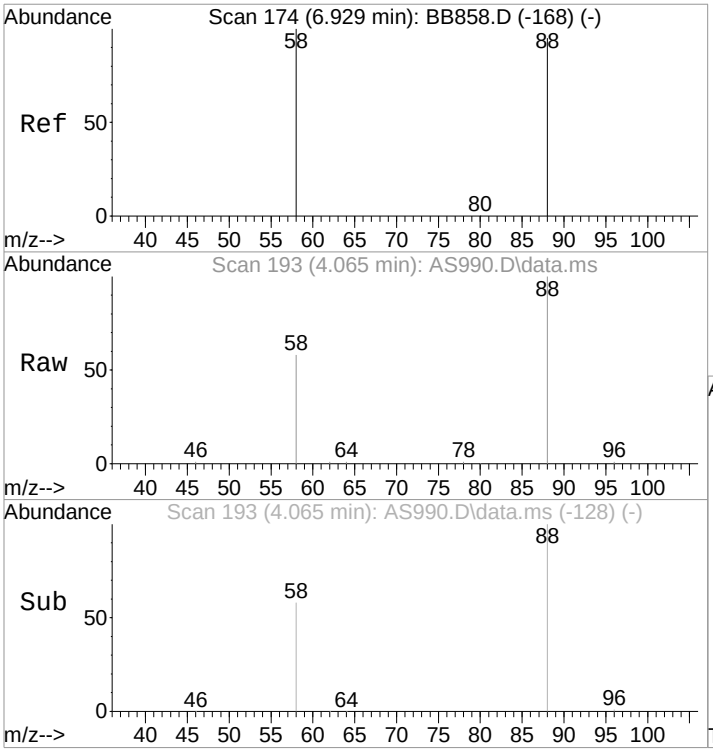
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS990.D
Acq On : 2 Aug 2019 3:17 pm
Operator : JMisiurewicz
Sample : R1907110-004 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 05 08:50:09 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

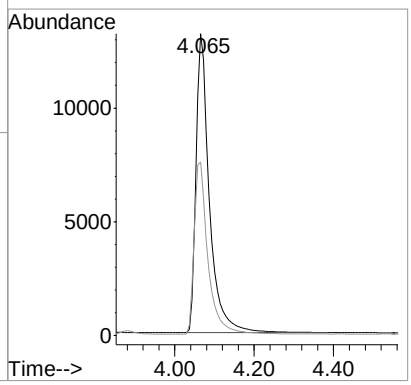




#2
1,4-Dioxane
Concen: 446.50 PPB
RT: 4.065 min Scan# 193
Delta R.T. -0.036 min
Lab File: AS990.D
Acq: 2 Aug 2019 3:17 pm

Tgt Ion: 88 Resp: 30653

Ion	Ratio	Lower	Upper
88	100		
58	57.5	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS991.D
Acq On : 2 Aug 2019 3:37 pm
Operator : JMisiurewicz
Sample : R1907110-005 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 05 08:50:11 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.864	46	28207	500.00	PPB	-0.04
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.008	96	5435	84.36	PPB	-0.04
Spiked Amount 100.000	Range 70 - 130		Recovery = 84.36%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.058	88	31409	465.65	PPB	98

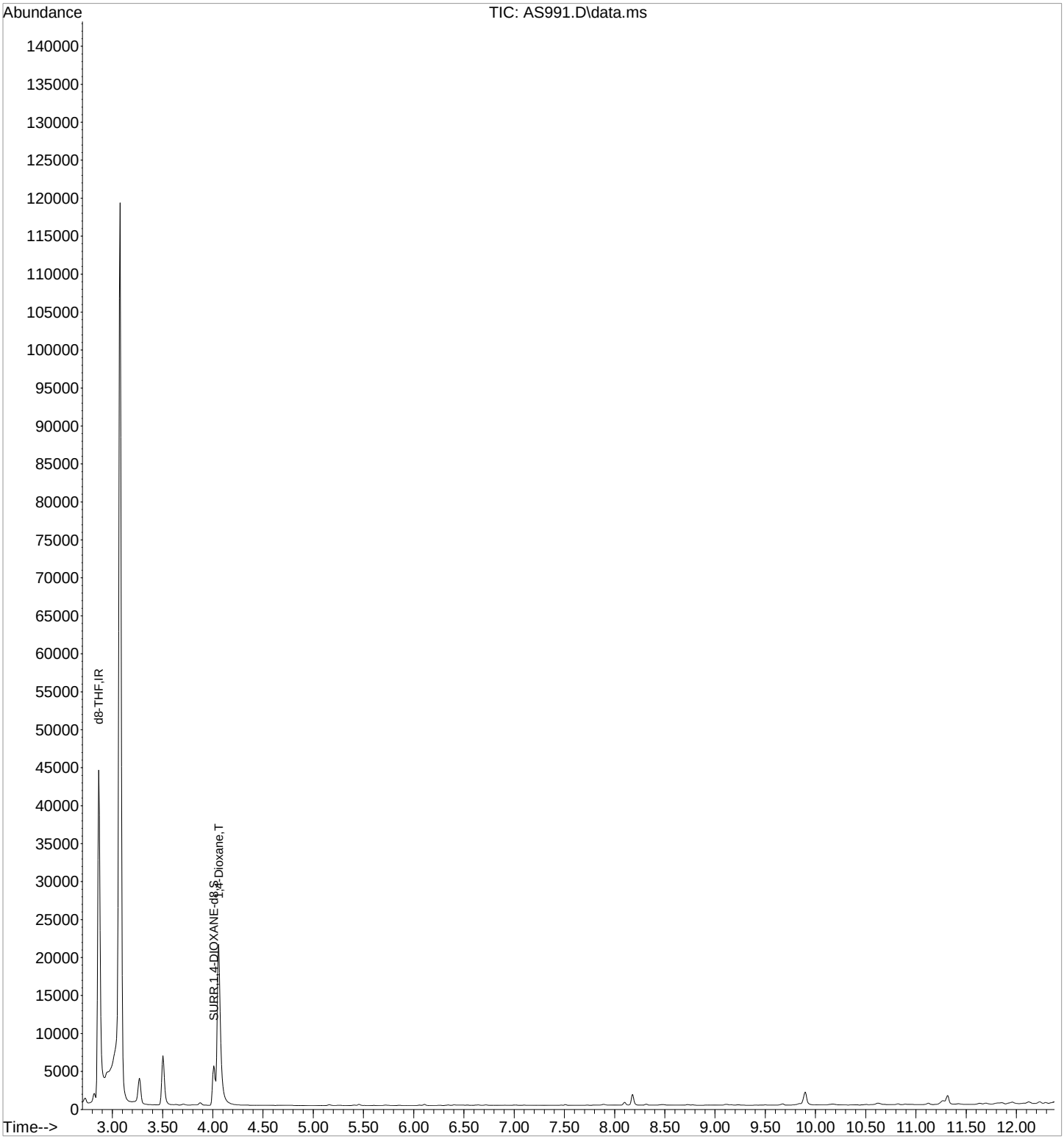
(#) = qualifier out of range (m) = manual integration (+) = signals summed

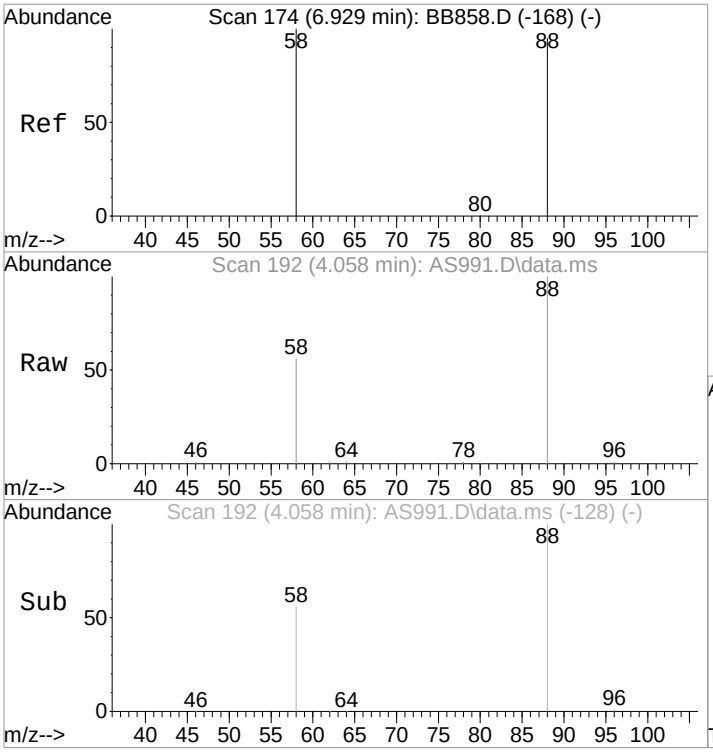
1st 08/05/19
2nd 08/05/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS991.D
Acq On : 2 Aug 2019 3:37 pm
Operator : JMisiurewicz
Sample : R1907110-005 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 05 08:50:11 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

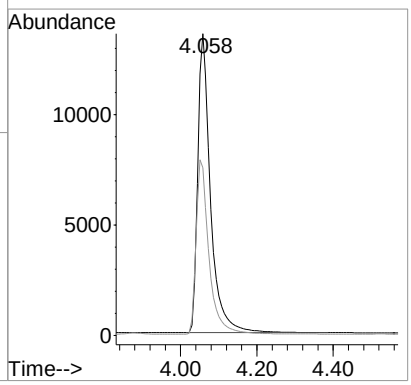




#2
1,4-Dioxane
Concen: 465.65 PPB
RT: 4.058 min Scan# 192
Delta R.T. -0.043 min
Lab File: AS991.D
Acq: 2 Aug 2019 3:37 pm

Tgt Ion: 88 Resp: 31409

Ion	Ratio	Lower	Upper
88	100		
58	55.6	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS992.D
Acq On : 2 Aug 2019 3:57 pm
Operator : JMisiurewicz
Sample : R1907110-006 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 05 08:50:13 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

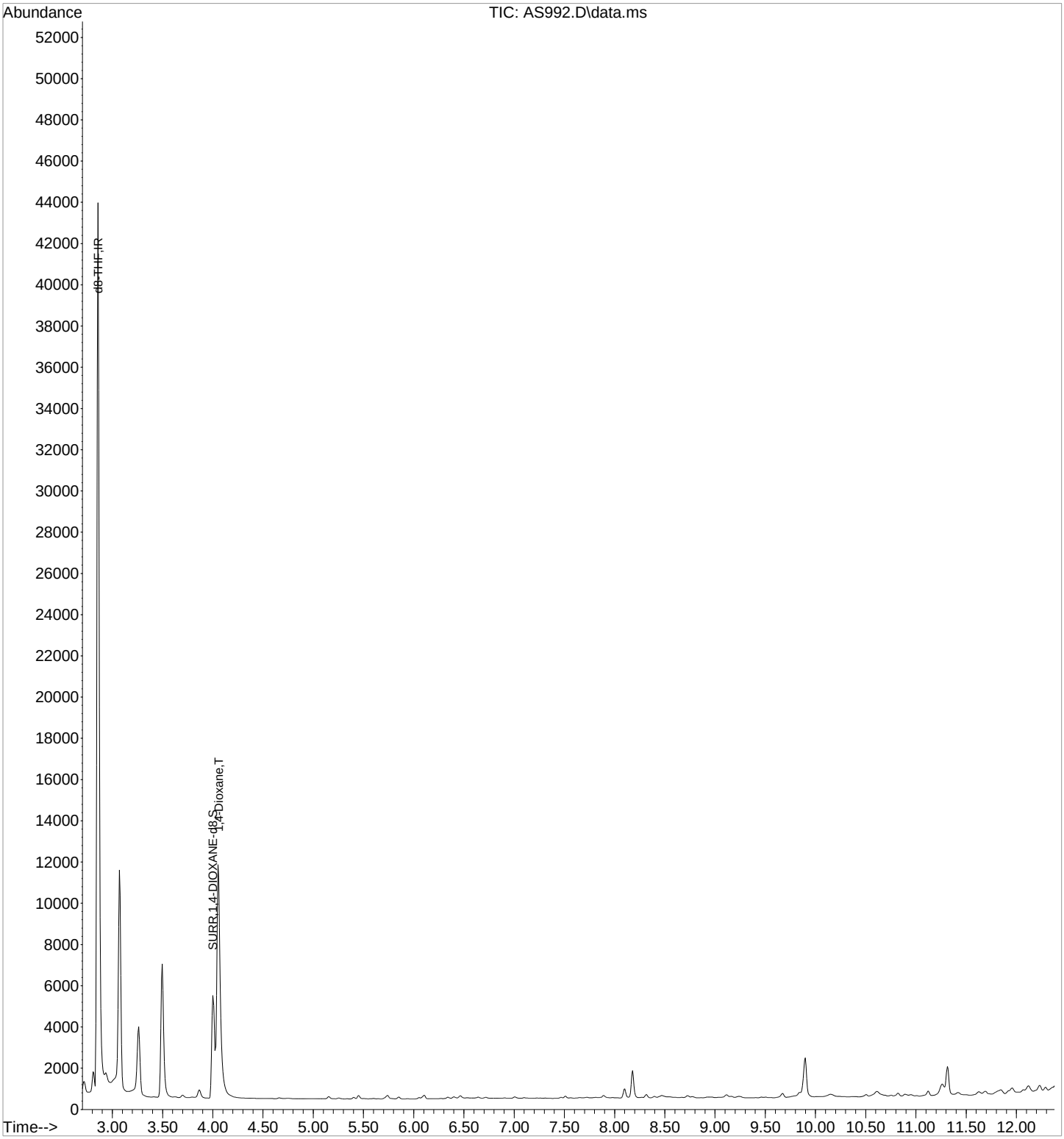
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.857	46	27644	500.00	PPB	-0.05
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.001	96	5457	86.42	PPB	-0.04
Spiked Amount 100.000	Range 70 - 130		Recovery = 86.42%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.058	88	16966	256.97	PPB	94

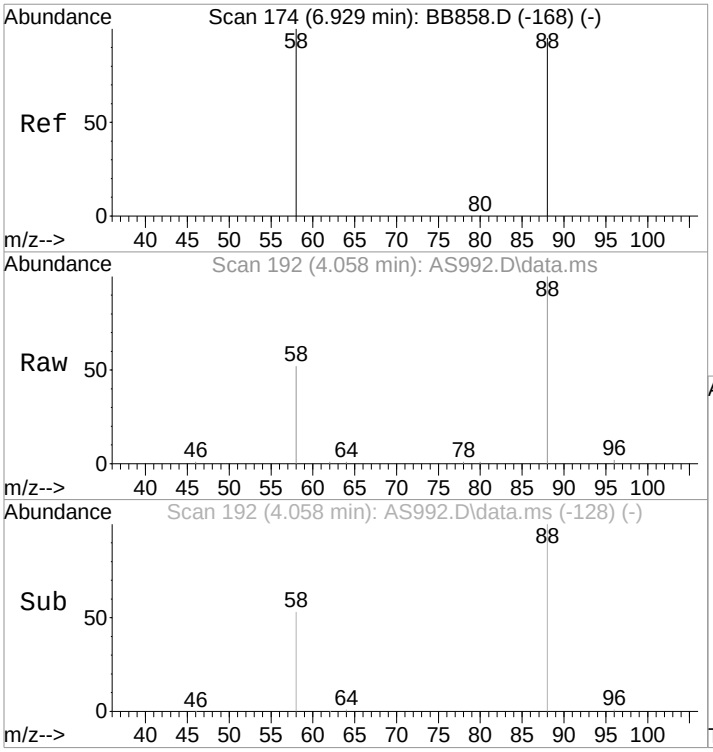
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS992.D
Acq On : 2 Aug 2019 3:57 pm
Operator : JMisiurewicz
Sample : R1907110-006 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 05 08:50:13 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

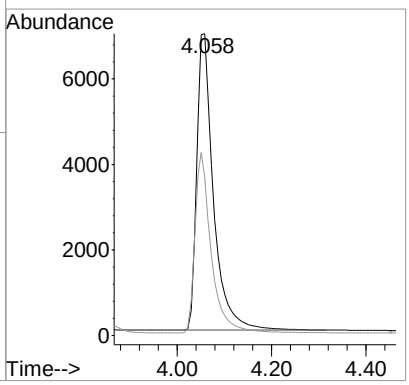




#2
1,4-Dioxane
Concen: 256.97 PPB
RT: 4.058 min Scan# 192
Delta R.T. -0.043 min
Lab File: AS992.D
Acq: 2 Aug 2019 3:57 pm

Tgt Ion: 88 Resp: 16966

Ion	Ratio	Lower	Upper
88	100		
58	52.4	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS993.D
Acq On : 2 Aug 2019 4:17 pm
Operator : JMisiurewicz
Sample : R1907110-007 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 05 08:50:15 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

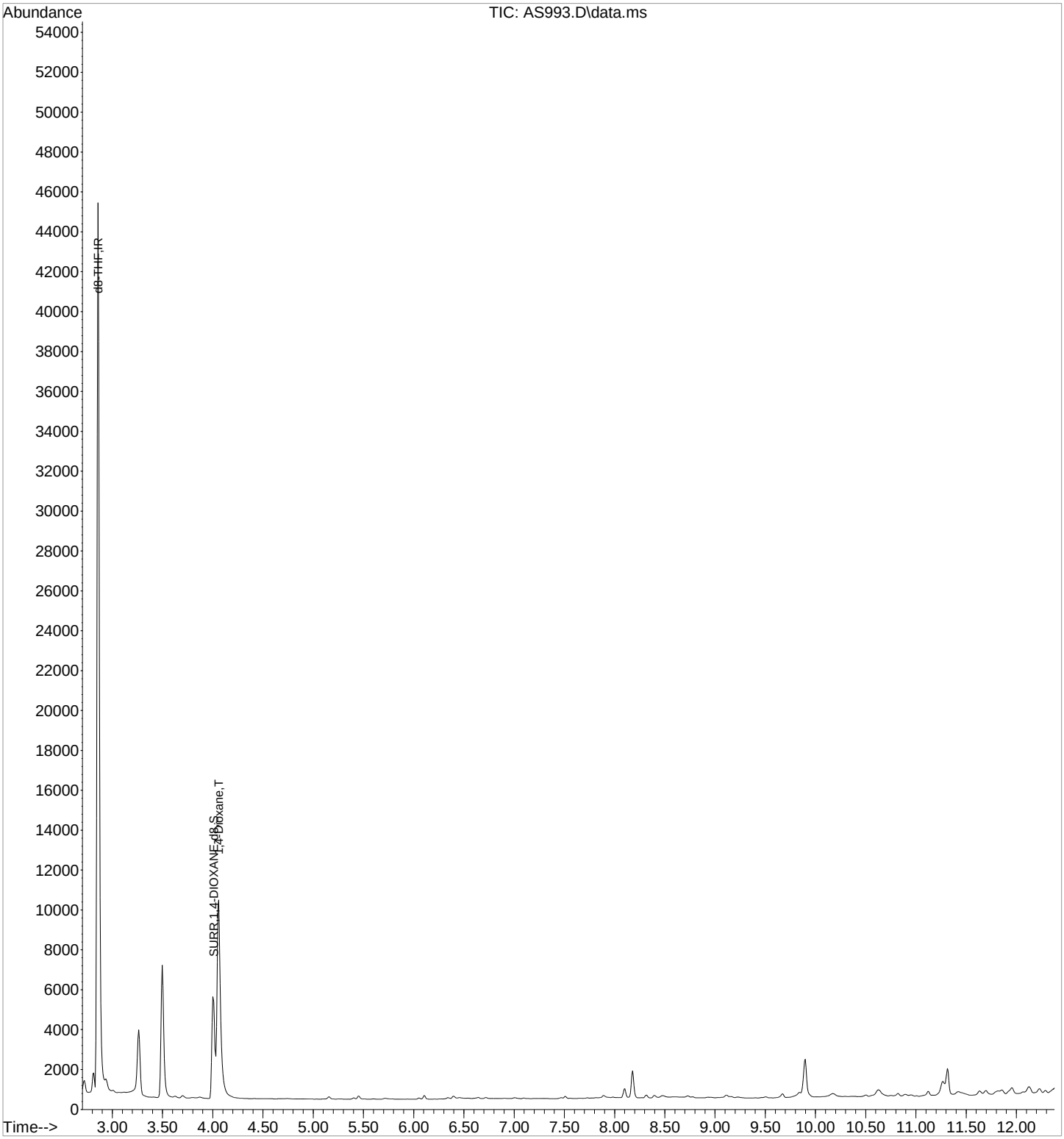
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.857	46	29358	500.00	PPB	-0.05
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.008	96	5654	84.32	PPB	-0.04
Spiked Amount 100.000	Range 70 - 130		Recovery = 84.32%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.058	88	14986	213.76	PPB	97

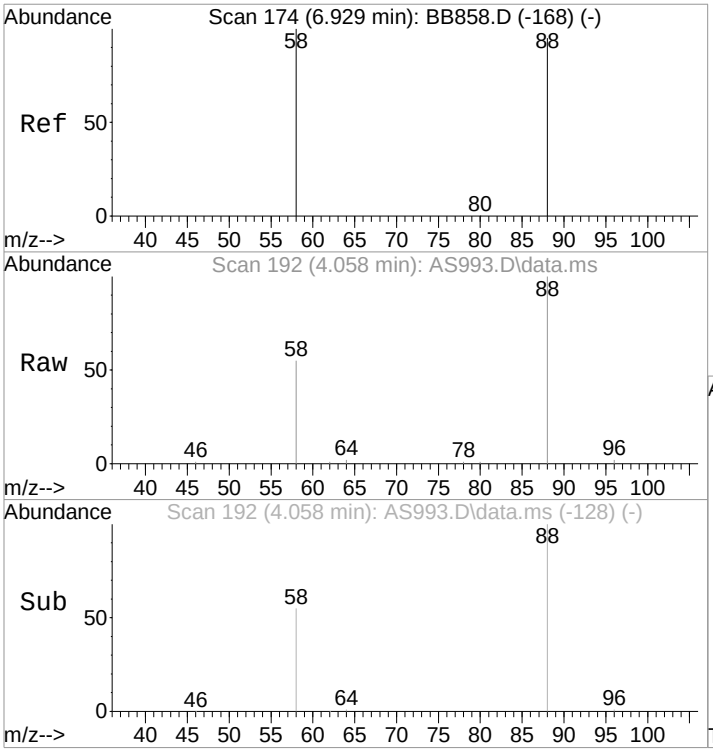
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS993.D
Acq On : 2 Aug 2019 4:17 pm
Operator : JMisiurewicz
Sample : R1907110-007 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 05 08:50:15 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

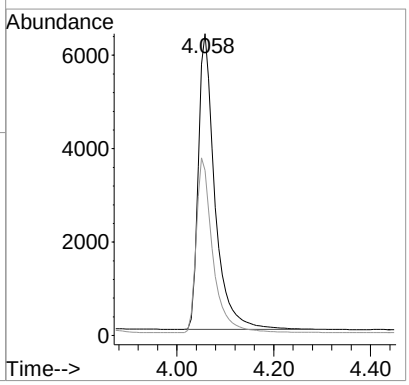




#2
1,4-Dioxane
Concen: 213.76 PPB
RT: 4.058 min Scan# 192
Delta R.T. -0.043 min
Lab File: AS993.D
Acq: 2 Aug 2019 4:17 pm

Tgt Ion: 88 Resp: 14986

Ion	Ratio	Lower	Upper
88	100		
58	54.8	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS982.D
Acq On : 2 Aug 2019 12:44 pm
Operator : JMisiurewicz
Sample : RQ1908224-01 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 02 13:22:43 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:22:17 2019
Response via : Initial Calibration

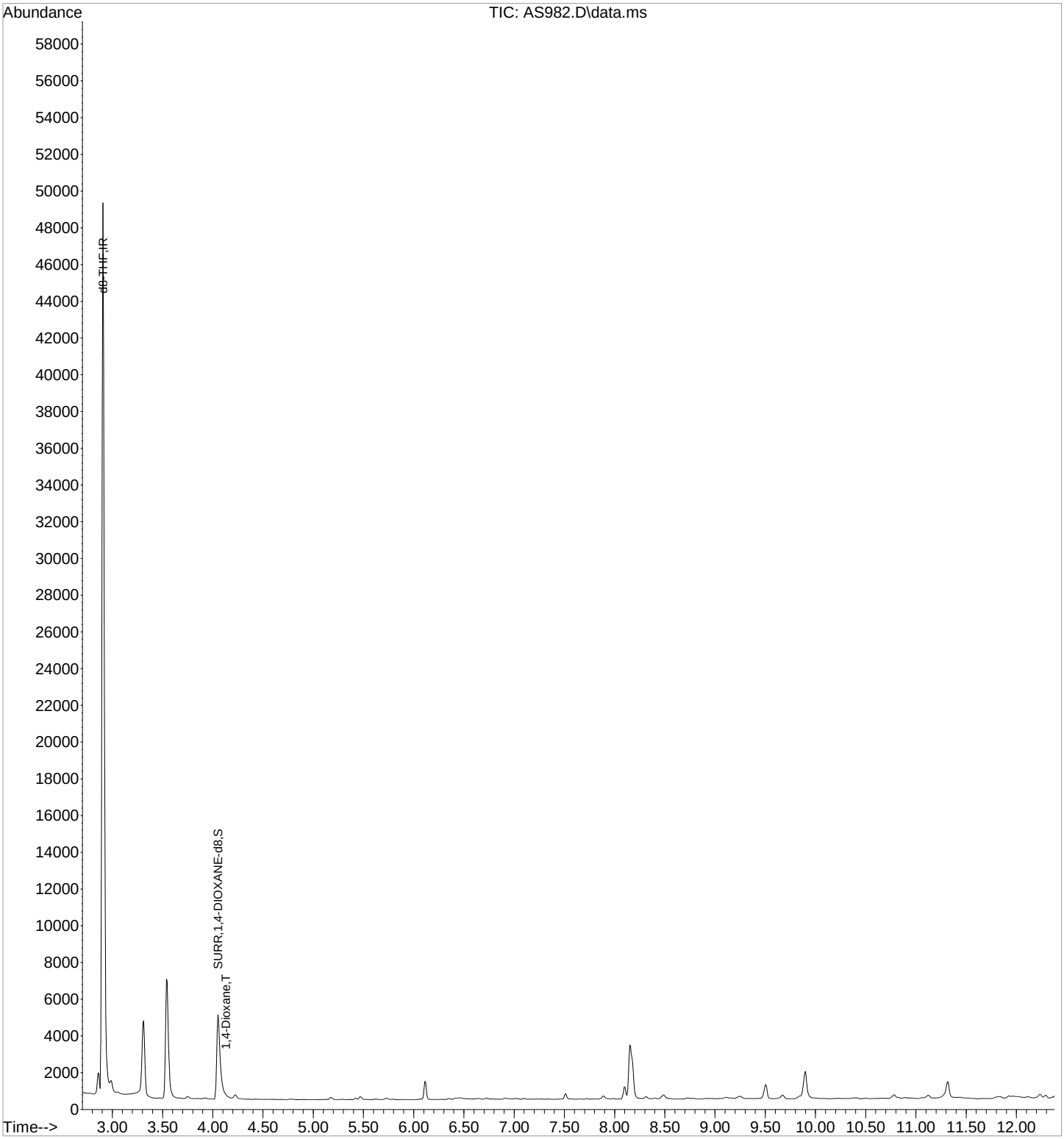
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.907	46	31561	500.00	PPB	-0.20
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.051	96	5917	82.09	PPB	-0.24
Spiked Amount 100.000	Range 70 - 130		Recovery = 82.09%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.129	88	46	0.34	PPB	90

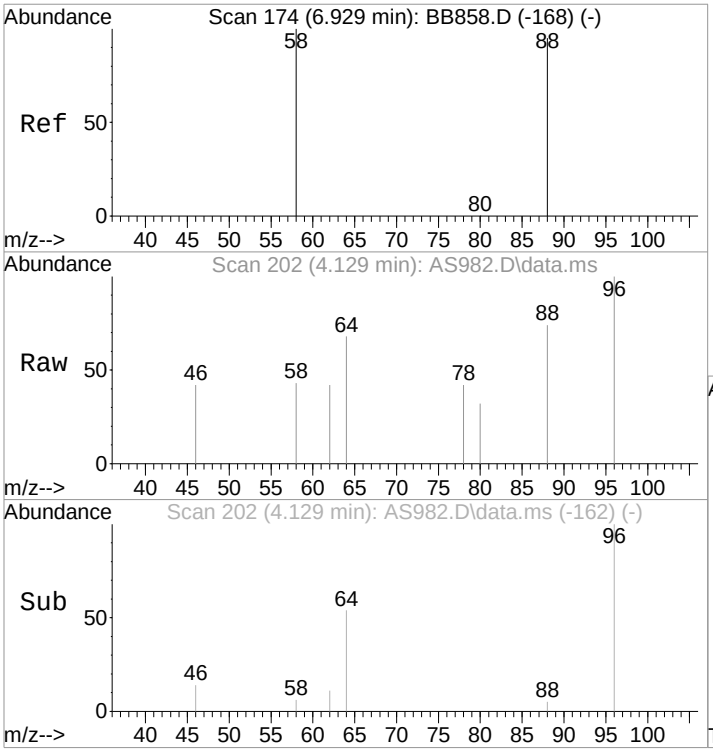
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS982.D
Acq On : 2 Aug 2019 12:44 pm
Operator : JMisiurewicz
Sample : RQ1908224-01 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 02 13:22:43 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:22:17 2019
Response via : Initial Calibration

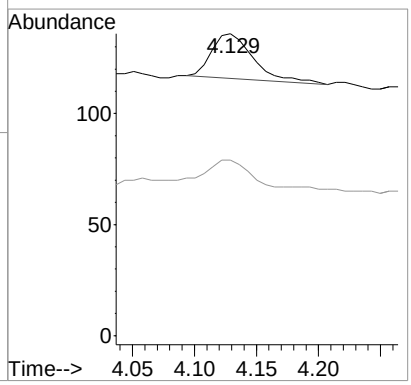




#2
1,4-Dioxane
Concen: 0.34 PPB
RT: 4.129 min Scan# 202
Delta R.T. -0.213 min
Lab File: AS982.D
Acq: 2 Aug 2019 12:44 pm

Tgt Ion: 88 Resp: 46

Ion	Ratio	Lower	Upper
88	100		
58	50.0	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS983.D
Acq On : 2 Aug 2019 1:03 pm
Operator : JMisiurewicz
Sample : RQ1908224-02 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 02 13:19:00 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:18:32 2019
Response via : Initial Calibration

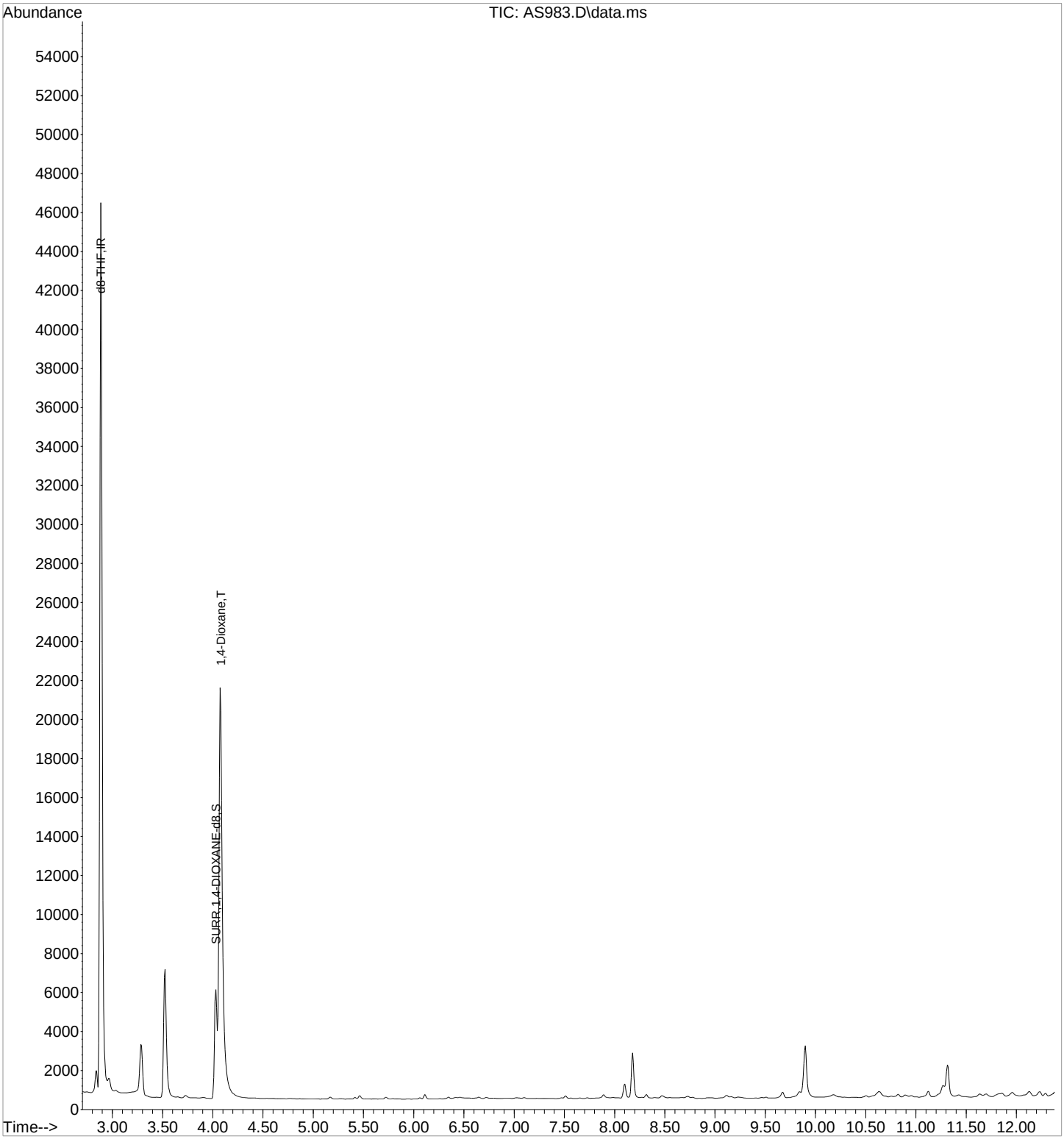
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.886	46	30406	500.00	PPB	-0.02
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.029	96	5939	85.52	PPB	-0.01
Spiked Amount 100.000	Range 70 - 130		Recovery = 85.52%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.079	88	31912	438.98	PPB	95

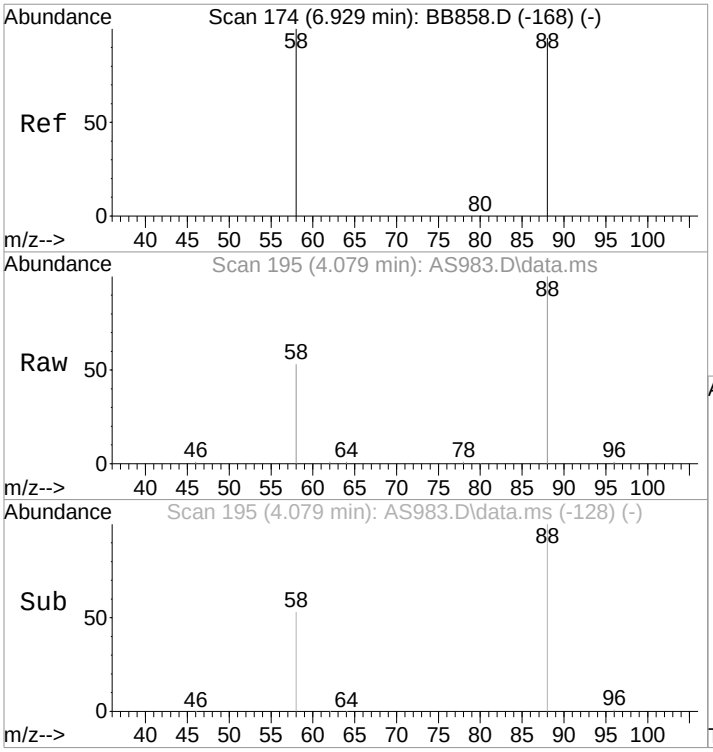
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS983.D
Acq On : 2 Aug 2019 1:03 pm
Operator : JMisiurewicz
Sample : RQ1908224-02 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 02 13:19:00 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:18:32 2019
Response via : Initial Calibration

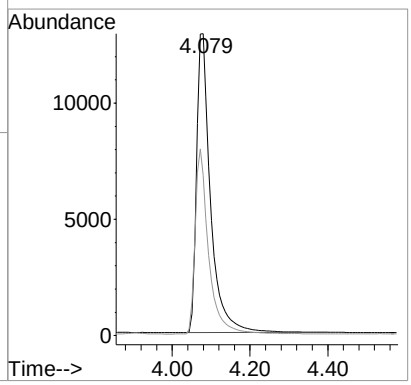




#2
1,4-Dioxane
Concen: 438.98 PPB
RT: 4.079 min Scan# 195
Delta R.T. -0.022 min
Lab File: AS983.D
Acq: 2 Aug 2019 1:03 pm

Tgt Ion: 88 Resp: 31912

Ion	Ratio	Lower	Upper
88	100		
58	53.0	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS984.D
Acq On : 2 Aug 2019 1:22 pm
Operator : JMisiurewicz
Sample : RQ1908224-03 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 05 08:49:39 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

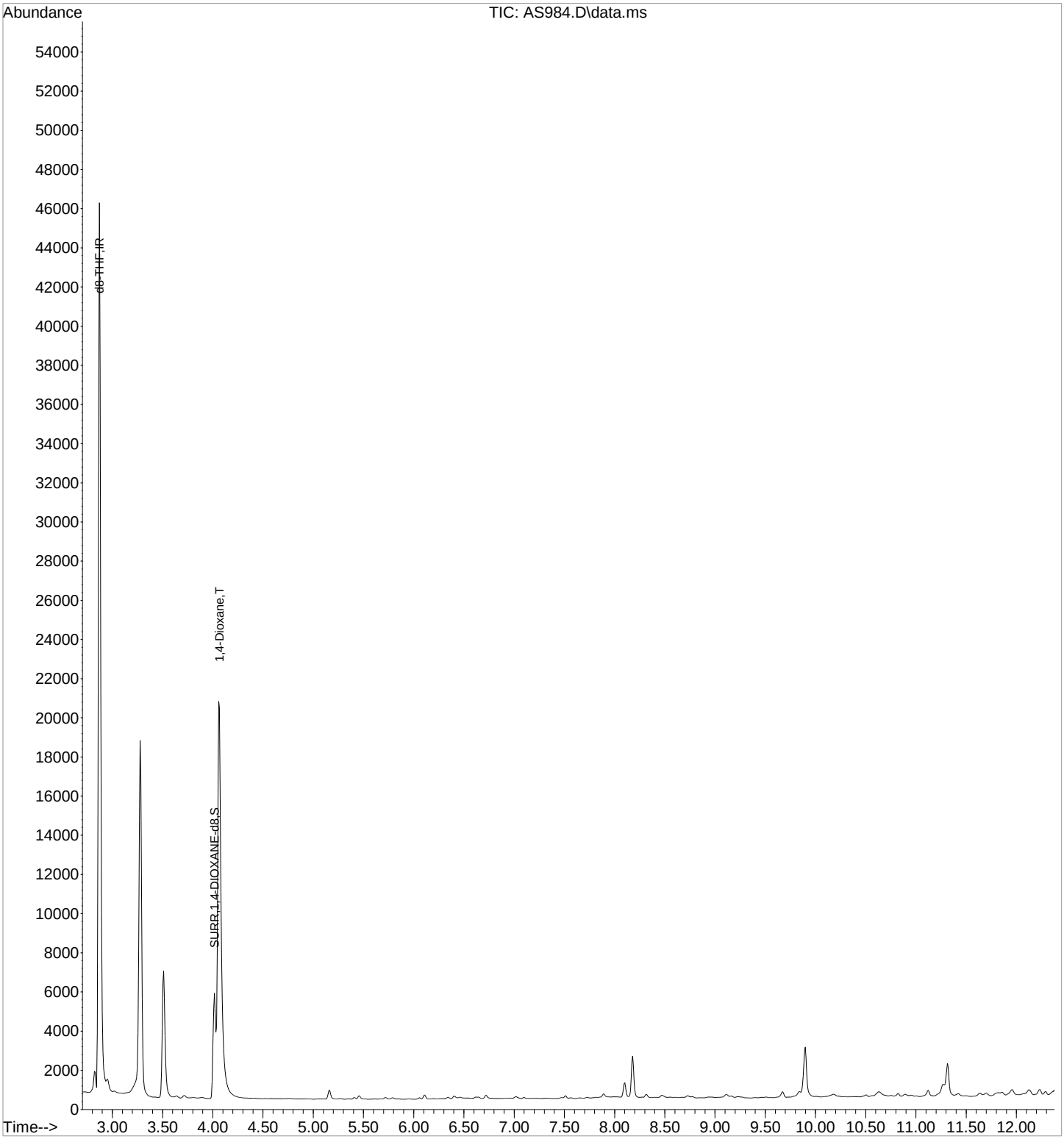
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.871	46	29756	500.00	PPB	-0.04
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.015	96	5700	83.87	PPB	-0.03
Spiked Amount 100.000	Range 70 - 130		Recovery = 83.87%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.065	88	31218	438.81	PPB	96

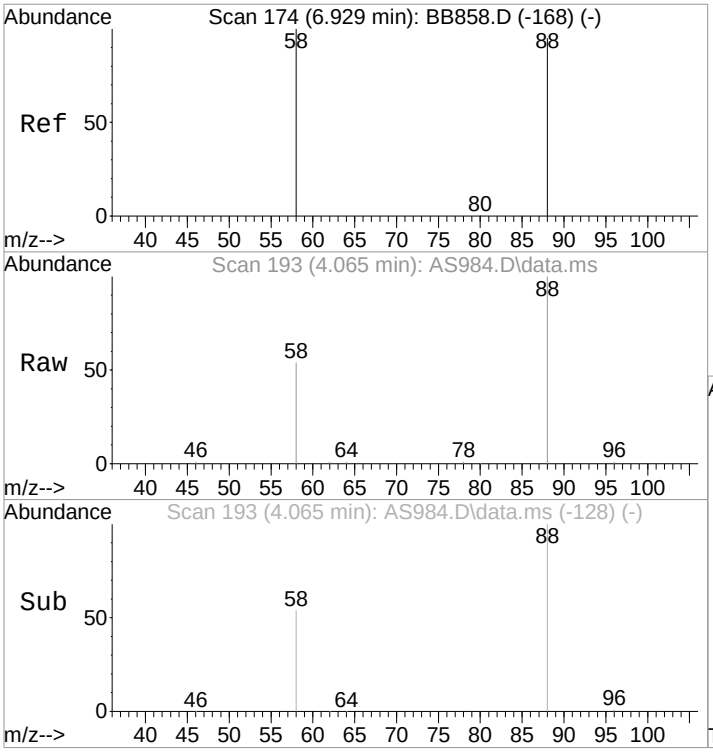
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS984.D
Acq On : 2 Aug 2019 1:22 pm
Operator : JMisiurewicz
Sample : RQ1908224-03 Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 05 08:49:39 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

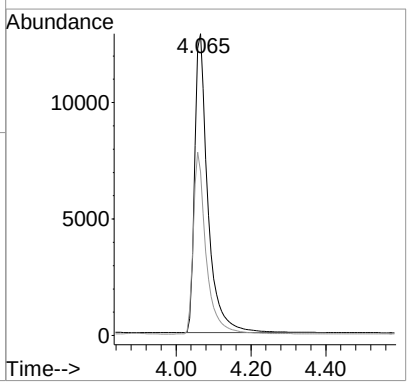




#2
1,4-Dioxane
Concen: 438.81 PPB
RT: 4.065 min Scan# 193
Delta R.T. -0.036 min
Lab File: AS984.D
Acq: 2 Aug 2019 1:22 pm

Tgt Ion: 88 Resp: 31218

Ion	Ratio	Lower	Upper
88	100		
58	54.2	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS987.D
Acq On : 2 Aug 2019 2:19 pm
Operator : JMisiurewicz
Sample : R1907110-002MS Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 05 08:50:03 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

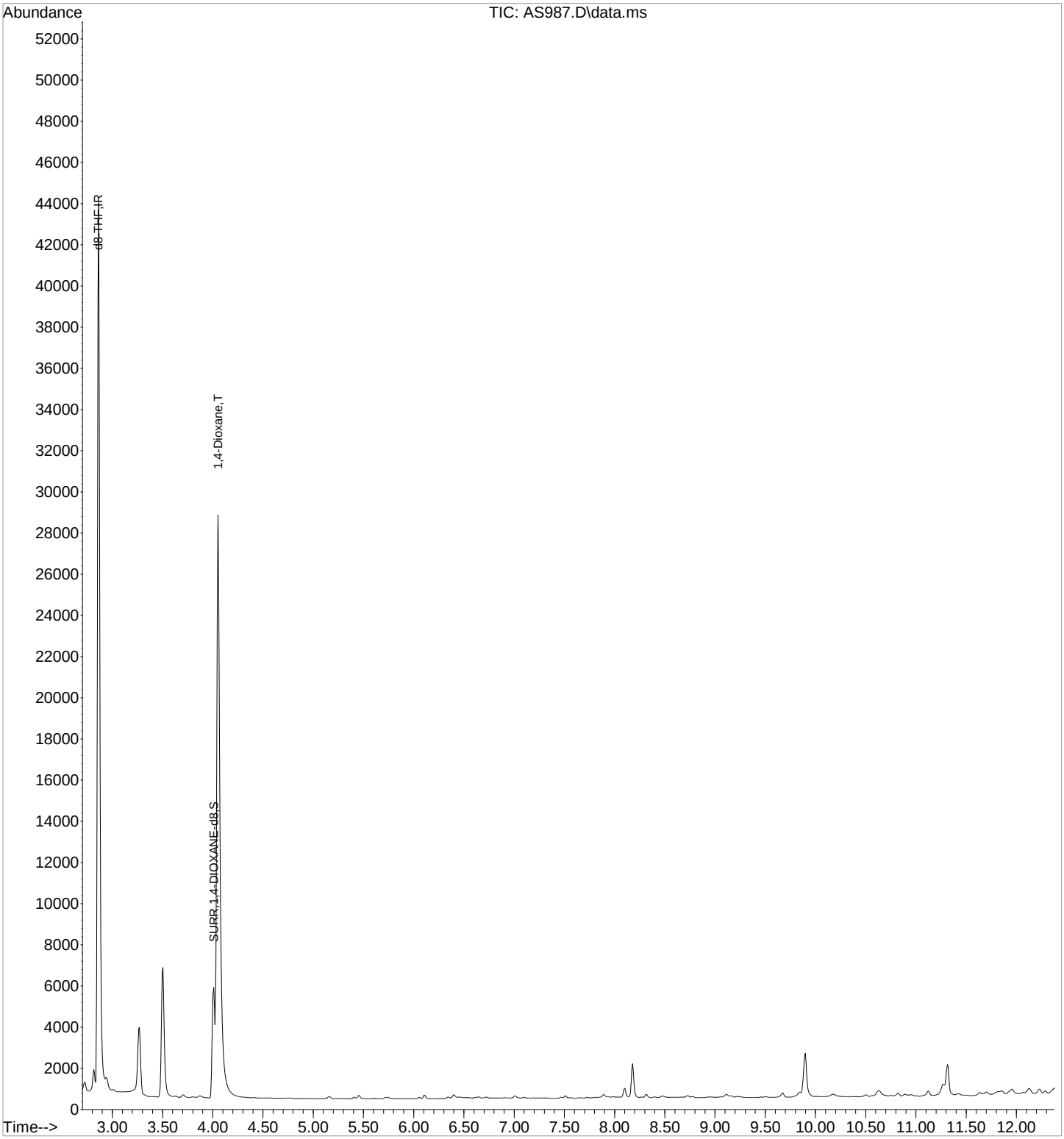
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.857	46	28245	500.00	PPB	-0.05
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.008	96	5572	86.37	PPB	-0.04
Spiked Amount 100.000	Range 70 - 130		Recovery = 86.37%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.051	88	41330	611.26	PPB	98

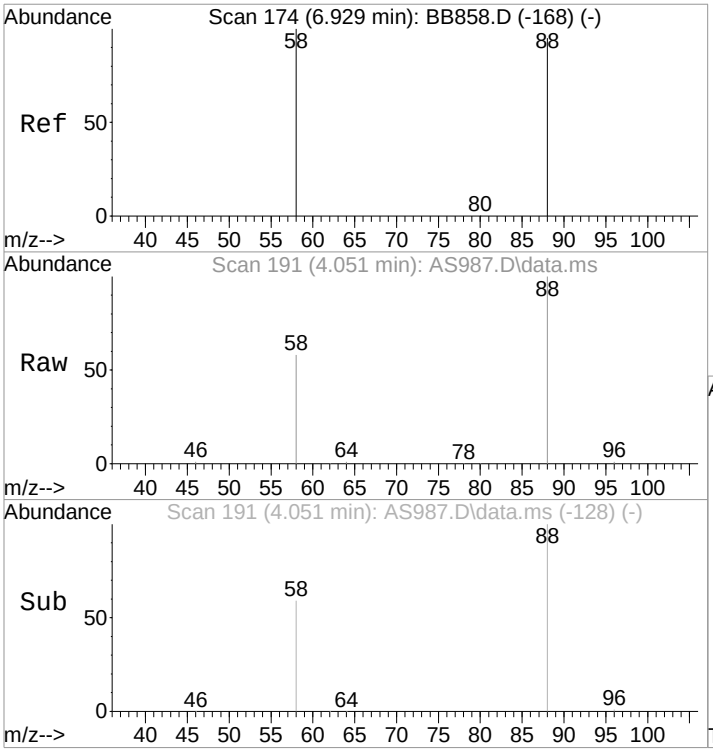
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS987.D
Acq On : 2 Aug 2019 2:19 pm
Operator : JMisiurewicz
Sample : R1907110-002MS Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 05 08:50:03 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

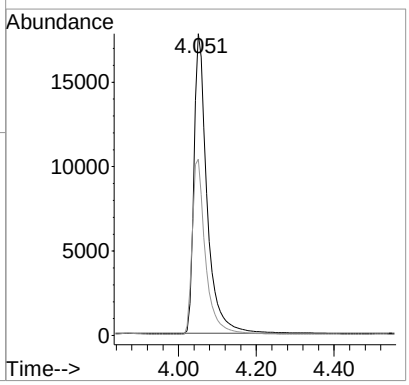




#2
1,4-Dioxane
Concen: 611.26 PPB
RT: 4.051 min Scan# 191
Delta R.T. -0.050 min
Lab File: AS987.D
Acq: 2 Aug 2019 2:19 pm

Tgt Ion: 88 Resp: 41330

Ion	Ratio	Lower	Upper
88	100		
58	58.4	37.0	77.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS988.D
Acq On : 2 Aug 2019 2:37 pm
Operator : JMisiurewicz
Sample : R1907110-002DMS Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 05 08:50:05 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

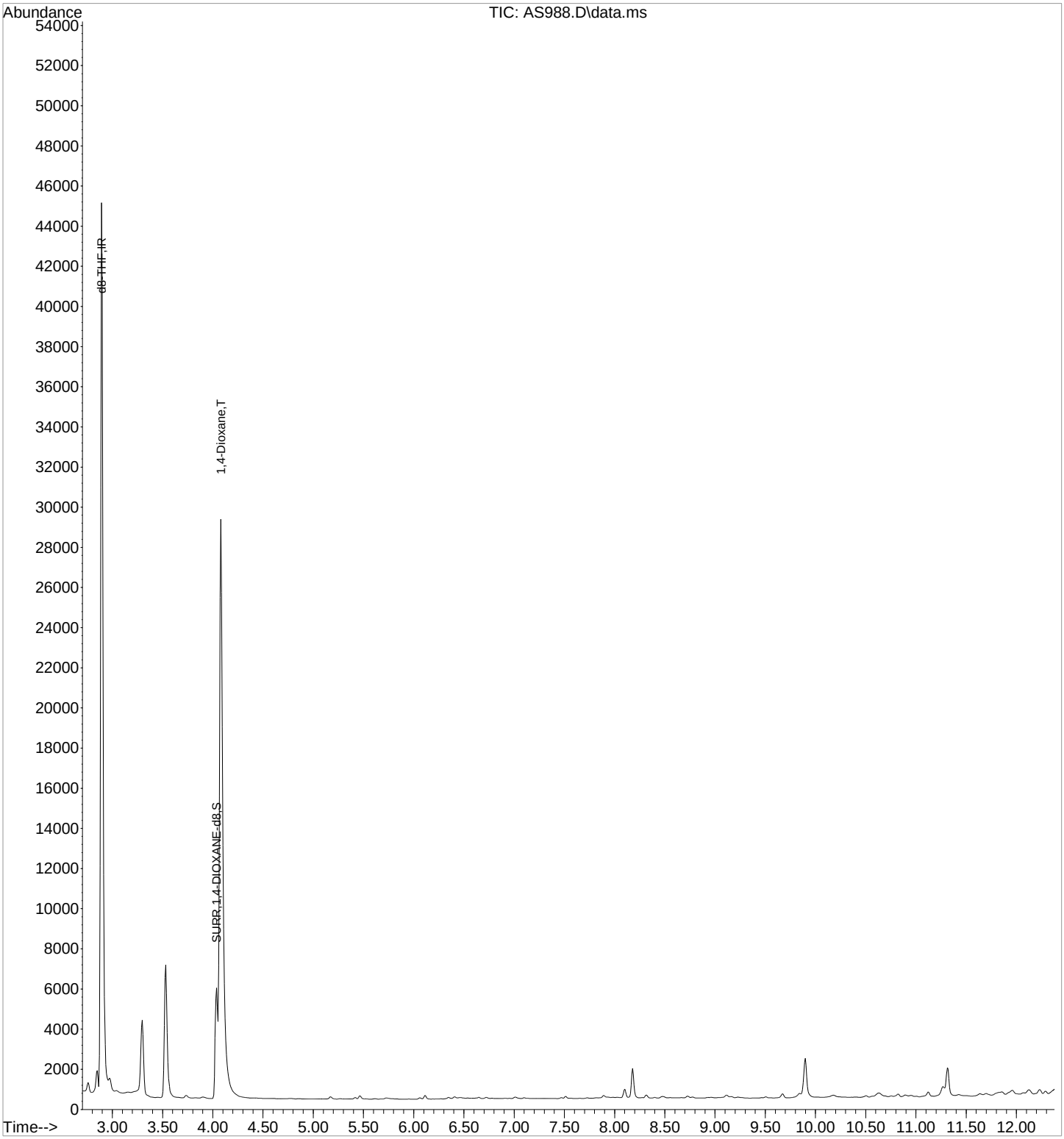
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.893	46	29901	500.00	PPB	-0.01
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.037	96	5763	84.38	PPB	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 84.38%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.079	88	42956	600.17	PPB	99

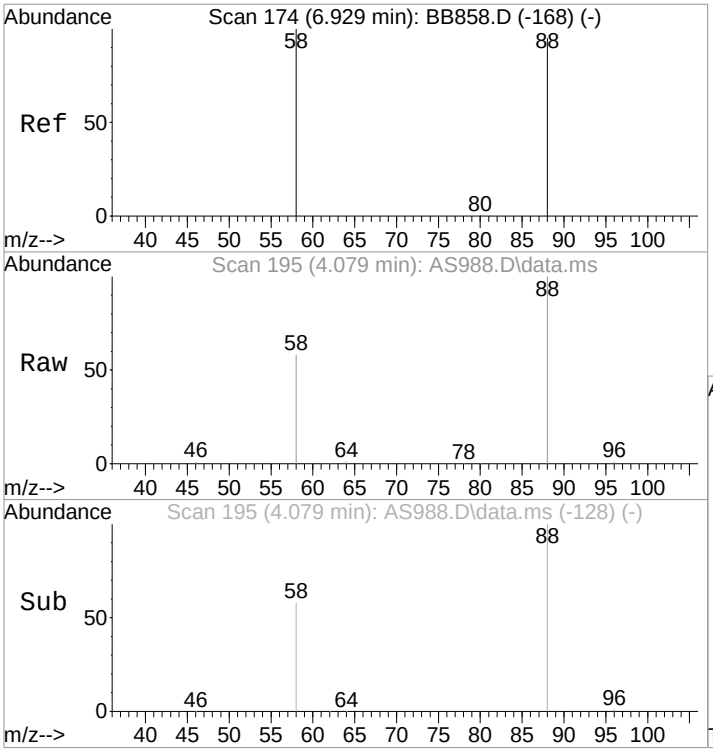
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS988.D
Acq On : 2 Aug 2019 2:37 pm
Operator : JMisiurewicz
Sample : R1907110-002DMS Inst : 5975 E
Misc : 341677 8270 DIOX
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 05 08:50:05 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Fri Aug 02 13:29:55 2019
Response via : Initial Calibration

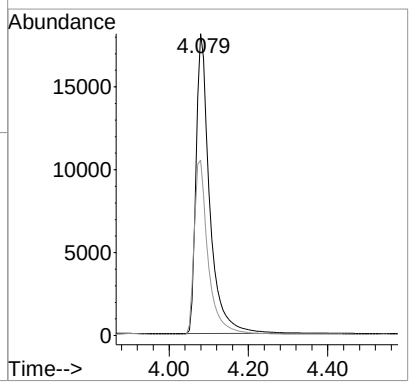




#2
1,4-Dioxane
Concen: 600.17 PPB
RT: 4.079 min Scan# 195
Delta R.T. -0.021 min
Lab File: AS988.D
Acq: 2 Aug 2019 2:37 pm

Tgt Ion: 88 Resp: 42956

Ion	Ratio	Lower	Upper
88	100		
58	58.1	37.0	77.0



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS981.D
Acq On : 2 Aug 2019 12:19 pm
Operator : JMisiurewicz
Sample : CCV Inst : 5975 E
Misc : 200ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 02 12:42:45 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Wed Jul 31 12:54:08 2019
Response via : Initial Calibration

Min. RRF : 0.050 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	IR	d8-THF	1.000	1.000	0.0	97	0.00
2	T	1,4-Dioxane	1.263	1.095	13.3	89	0.00
3	S	SURR,1,4-DIOXANE-d8	1.148	1.057	7.9	89	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS981.D
Acq On : 2 Aug 2019 12:19 pm
Operator : JMisiurewicz
Sample : CCV Inst : 5975 E
Misc : 200ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 02 12:42:45 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Wed Jul 31 12:54:08 2019
Response via : Initial Calibration

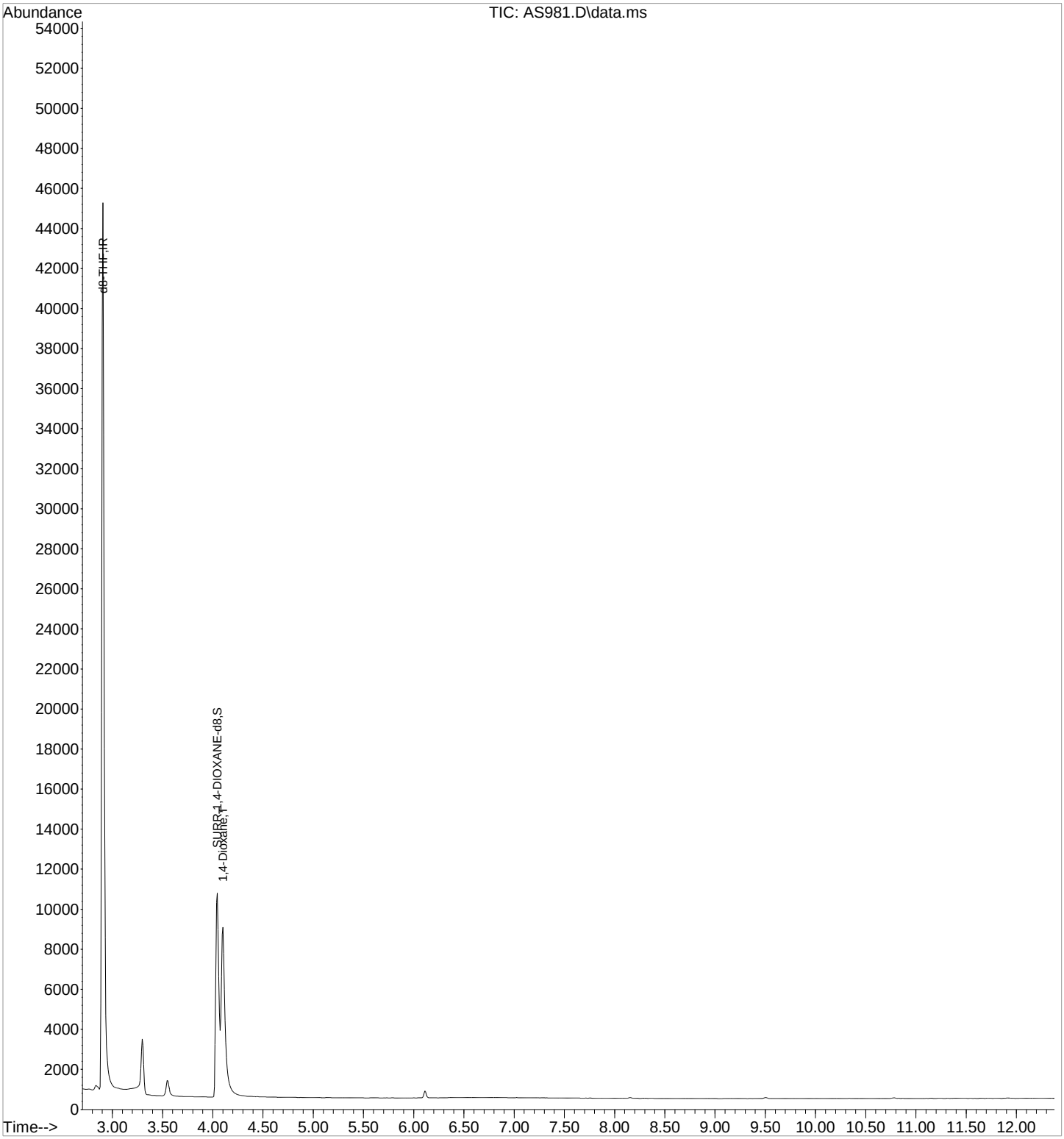
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	2.907	46	29423	500.00	PPB	-0.20
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.044	96	12443	184.82	PPB	-0.24
Spiked Amount 100.000	Range 70 - 130		Recovery = 184.82%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.101	88	12891	183.48	PPB	99

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS981.D
Acq On : 2 Aug 2019 12:19 pm
Operator : JMisiurewicz
Sample : CCV Inst : 5975 E
Misc : 200ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 02 12:42:45 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Wed Jul 31 12:54:08 2019
Response via : Initial Calibration

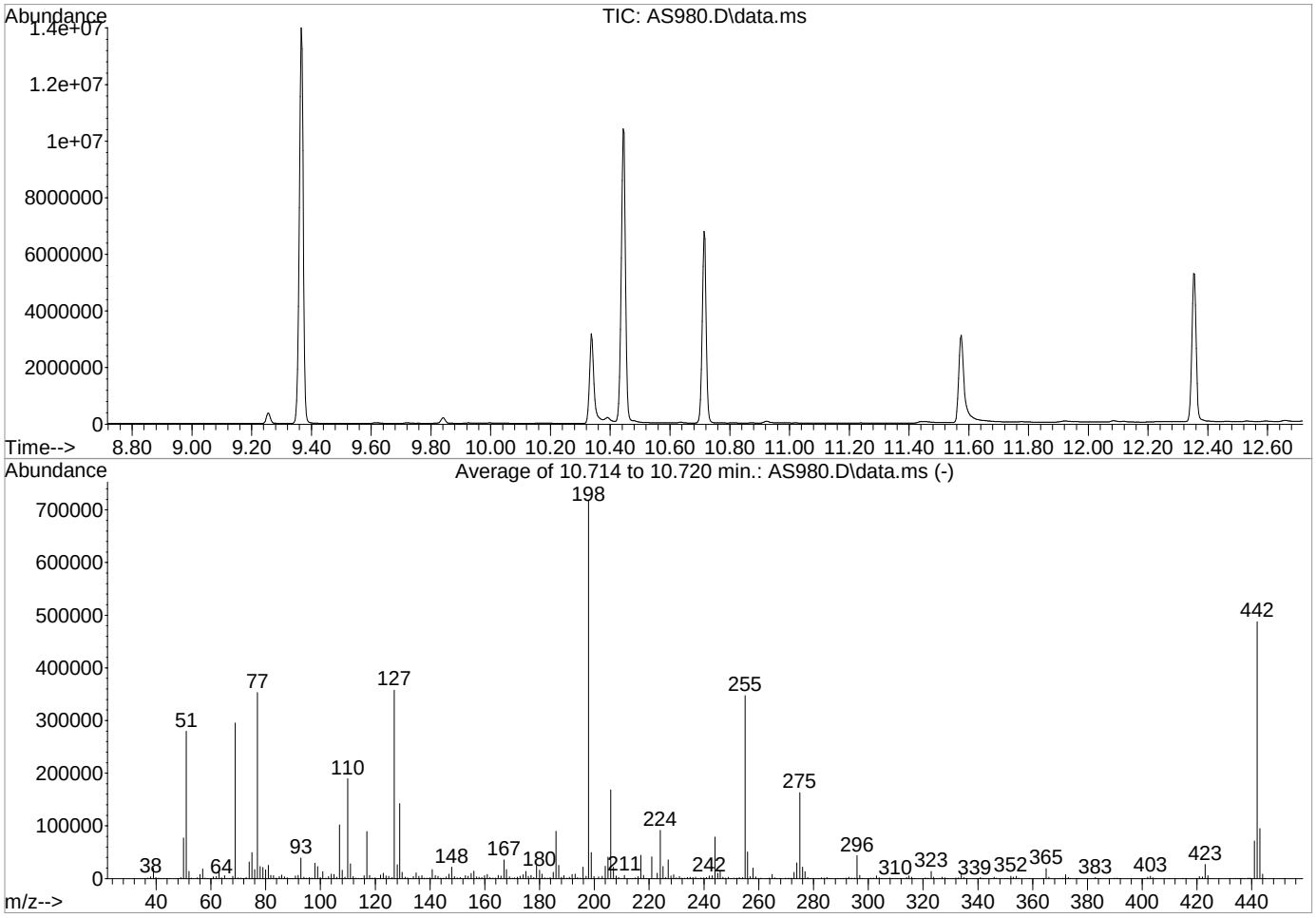


1st 08/05/19
2nd 08/05/19

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Title :
Last Update : Thu Mar 07 09:53:27 2019



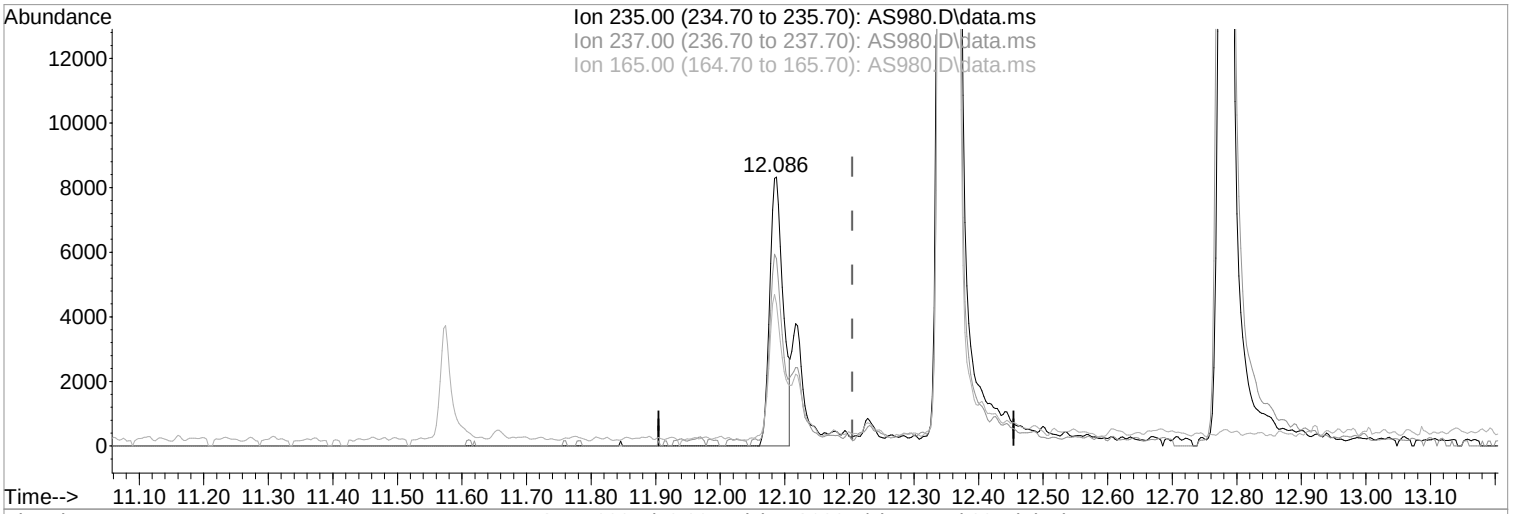
AutoFind: Scans 1918, 1919, 1920; Background Corrected with Scan 1907

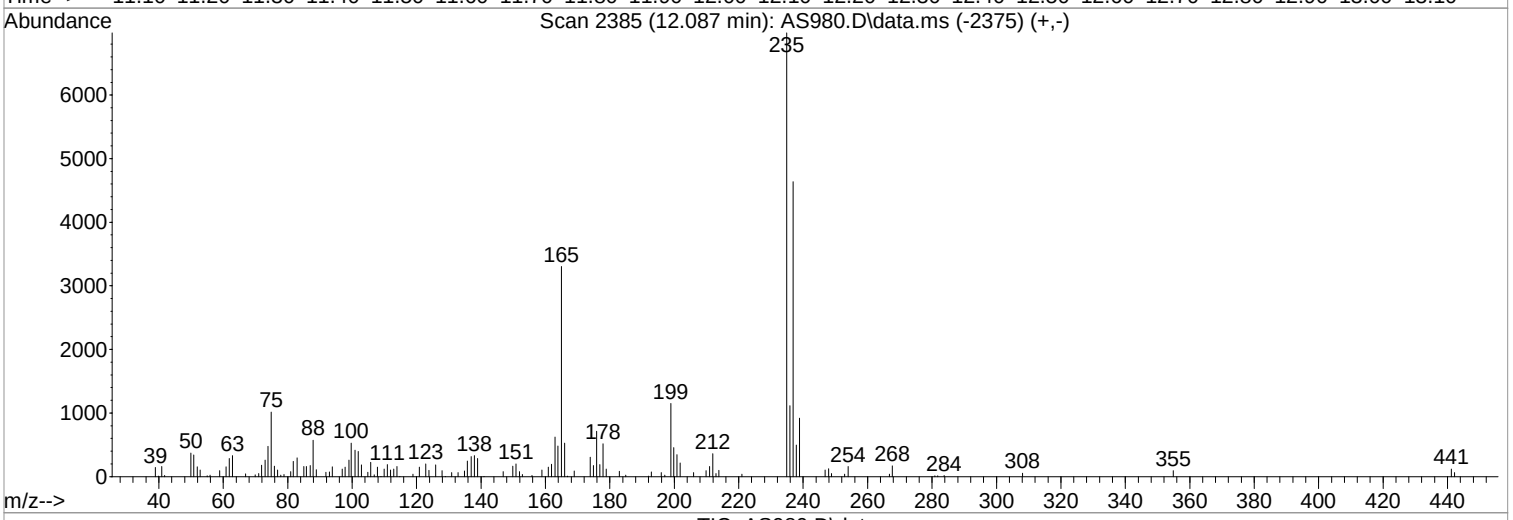
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	39.0	279936	PASS
68	69	0.00	2	1.5	4465	PASS
70	69	0.00	2	0.6	1696	PASS
127	198	10	80	49.9	357748	PASS
197	198	0.00	2	0.6	4329	PASS
198	198	100	100	100.0	717163	PASS
199	198	5	9	6.9	49467	PASS
275	198	10	60	22.8	163413	PASS
365	198	1	500	2.6	18603	PASS
441	442	0.01	24	14.6	71189	PASS
442	442	100	100	100.0	487936	PASS
443	442	15	24	19.5	95005	PASS

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 02 12:16:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration





TIC: AS980.D\data.ms

(10) 4,4'-DDD (T)

12.087min (-0.117) 0.64 ppm m

response 115093

Ion	Exp%	Act%
235.00	100.00	100.00
237.00	62.20	69.64
165.00	61.60	52.85
0.00	0.00	0.00

Manual Integration:

After

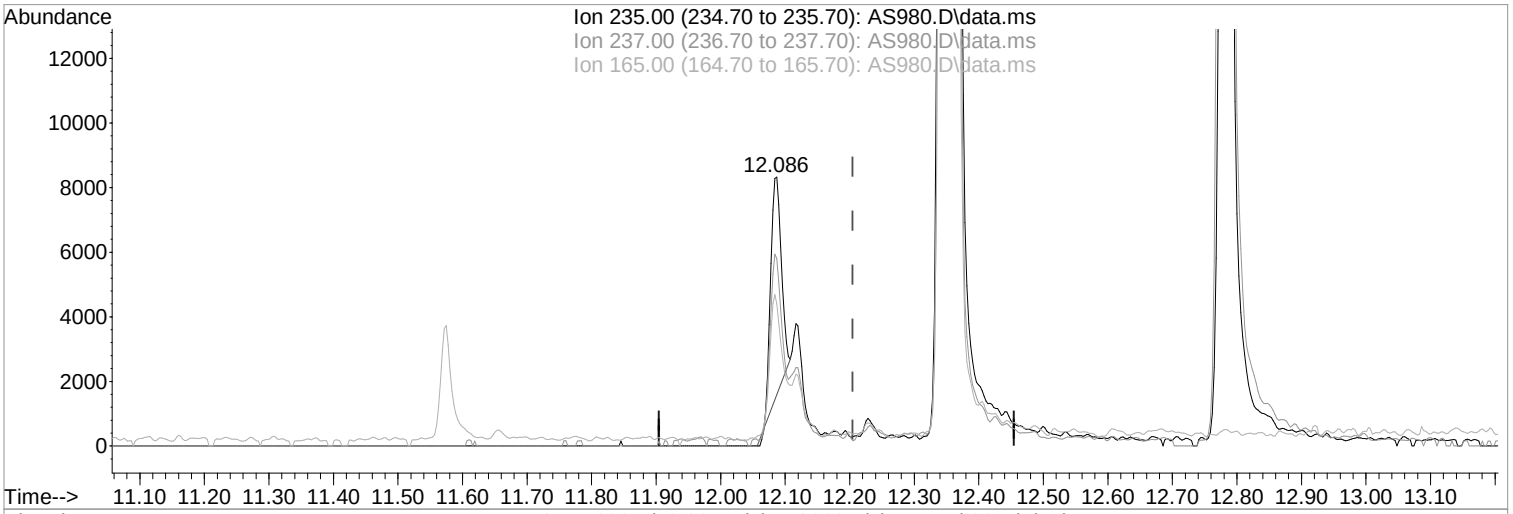
Poor integration.

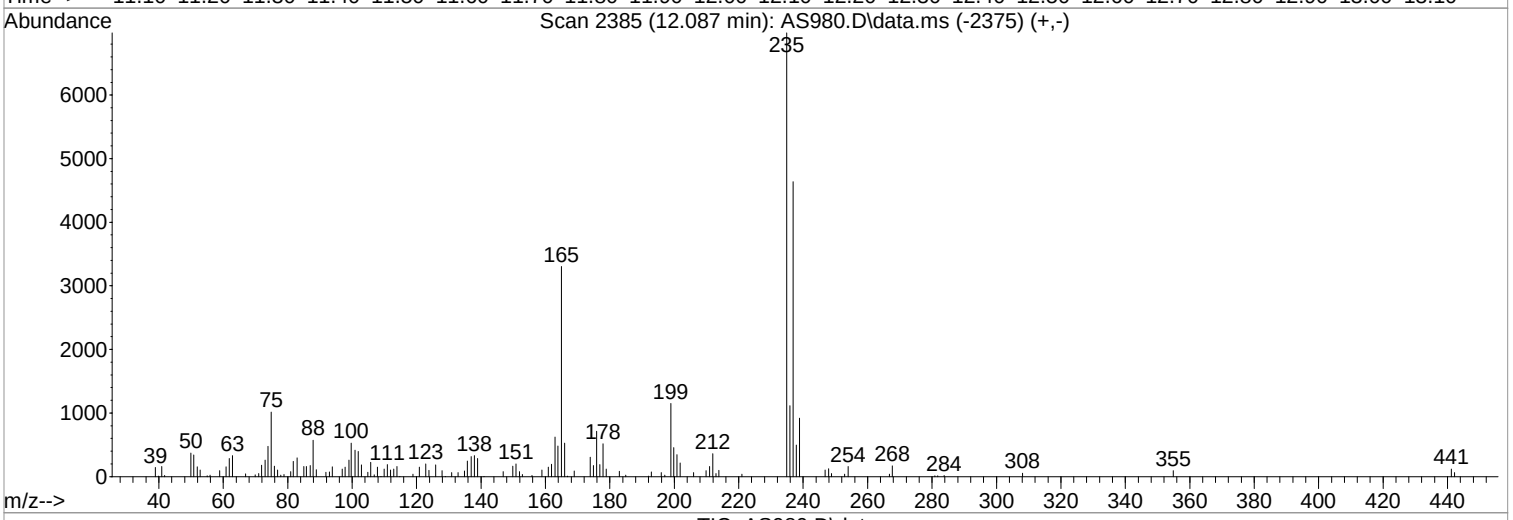
08/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 02 12:16:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration





TIC: AS980.D\data.ms

(10) 4,4'-DDD (T)

12.087min (-0.117) 0.42 ppm

response 75752

Ion	Exp%	Act%
235.00	100.00	100.00
237.00	62.20	66.47
165.00	61.60	47.35
0.00	0.00	0.00

Manual Integration:

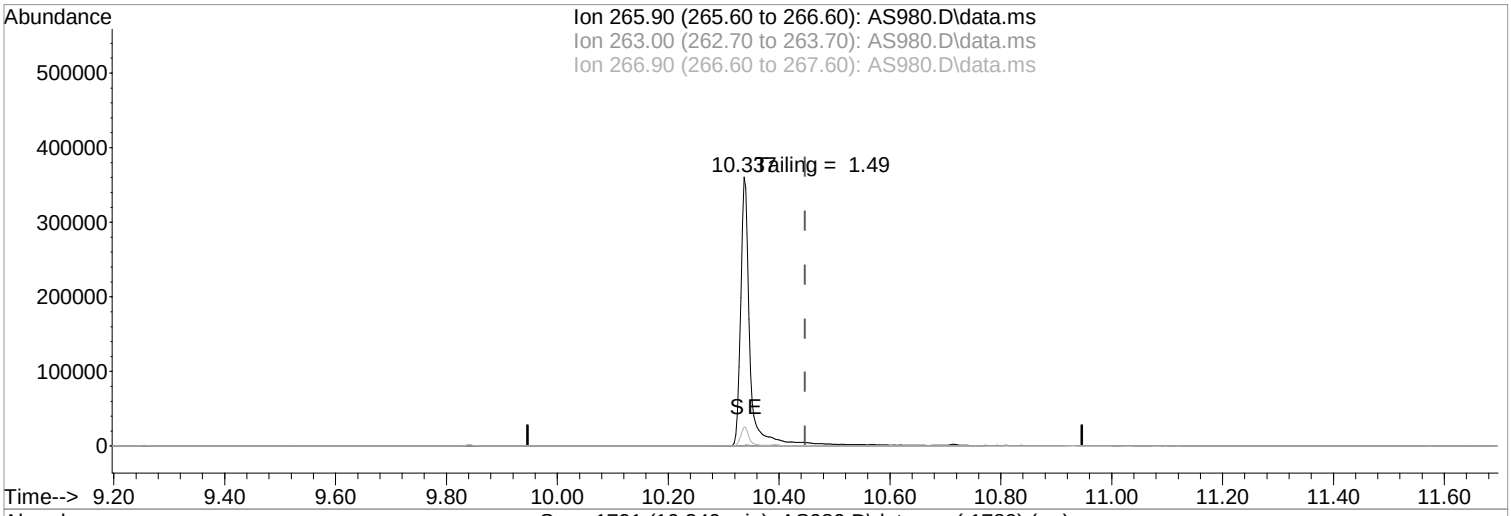
Before

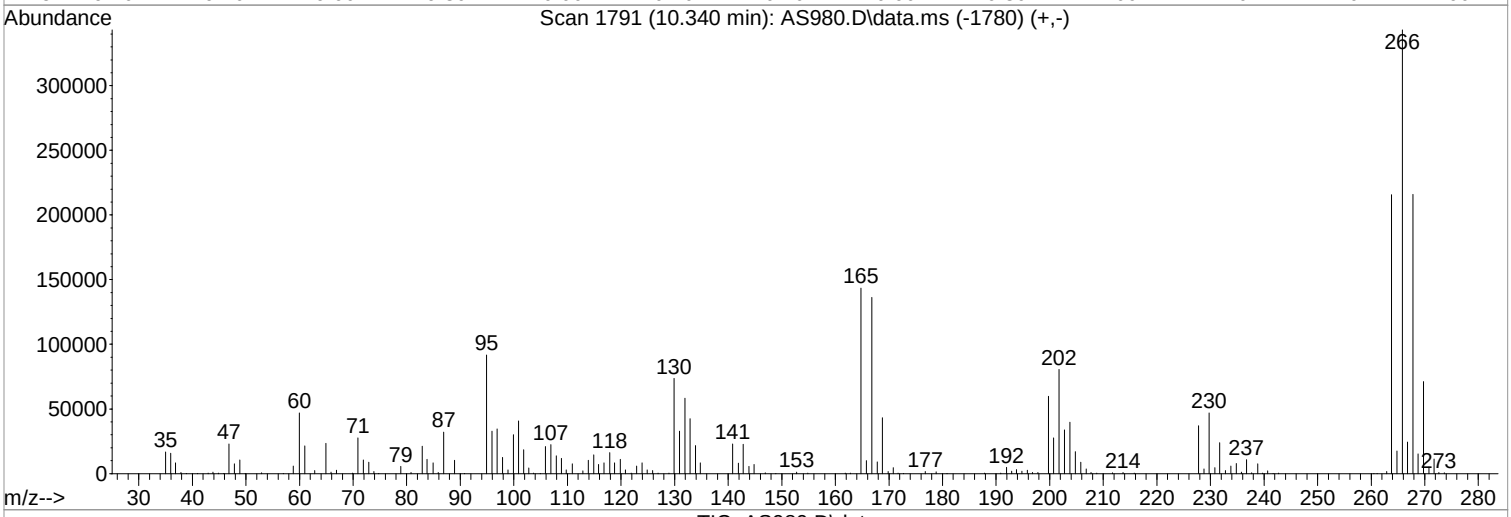
08/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 02 12:16:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration





TIC: AS980.D\data.ms

(5) Pentachlorophenol (T)

10.339min (-0.108) 54.95 ppm

response 3872130

Ion	Exp%	Act%
265.90	100.00	100.00
263.00	0.00	0.48
266.90	7.70	7.12
0.00	0.00	0.00

Manual Integration:

After

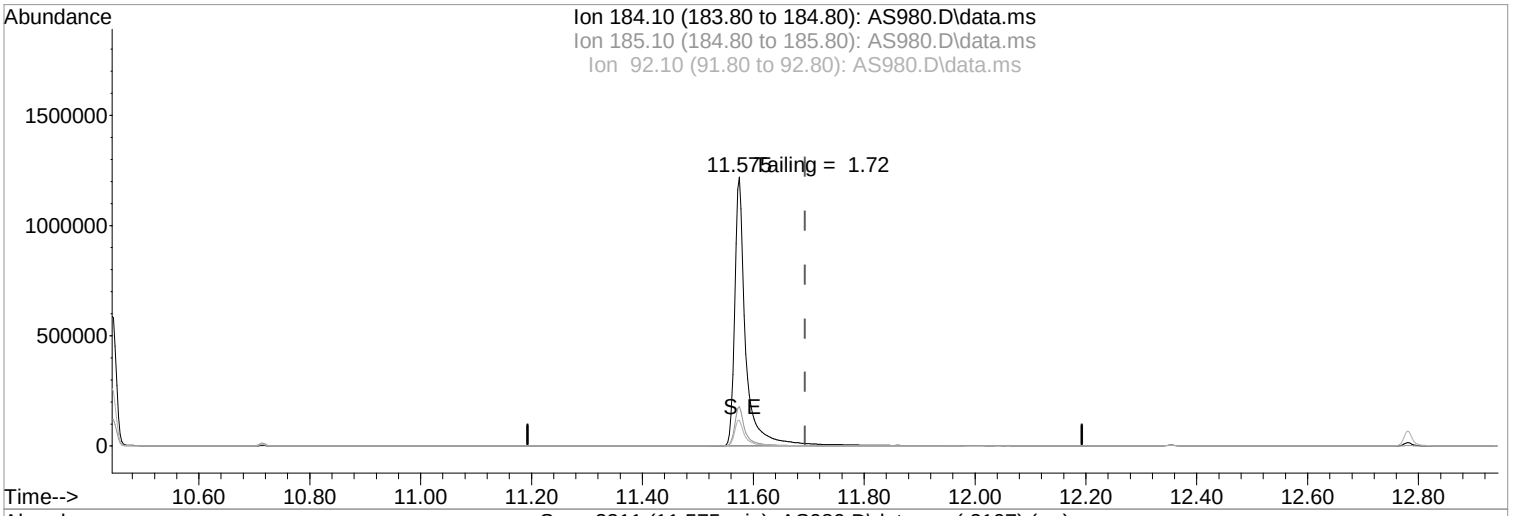
Other - TAILING

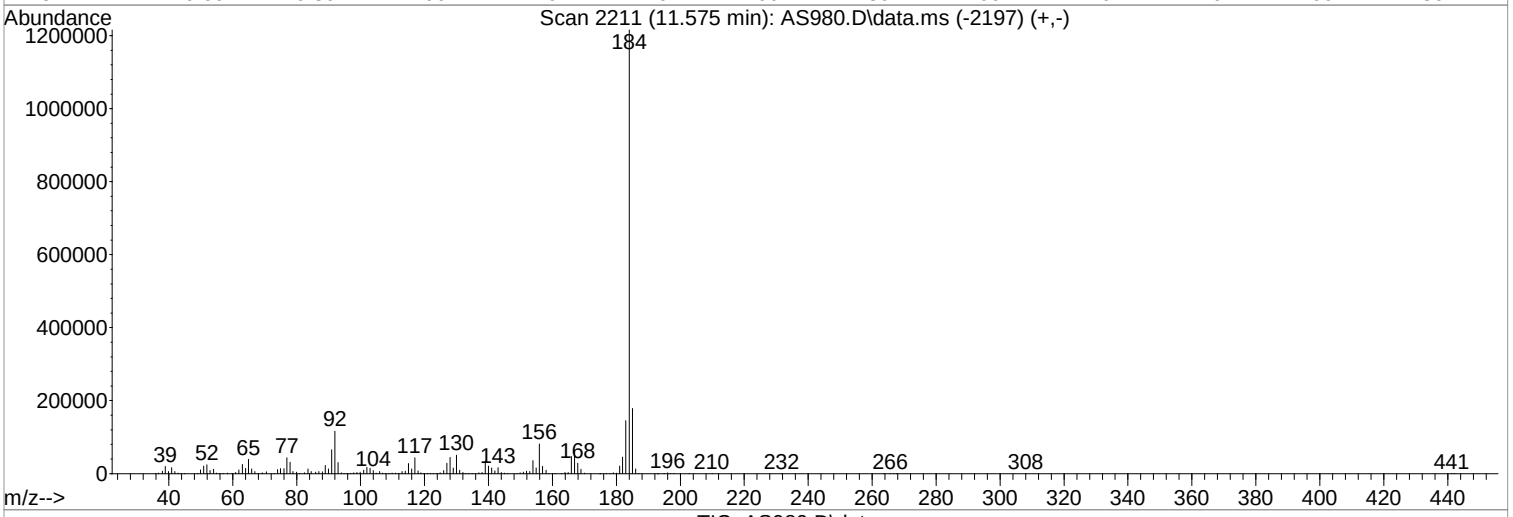
08/02/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 02 12:16:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration





TIC: AS980.D\data.ms

(8) Benzidine (T)

11.576min (-0.117) 43.95 ppm

response 16406673

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	13.80	14.65
92.10	10.70	9.54
0.00	0.00	0.00

Manual Integration:

After

Other - TAILING

08/02/19

2nd 08/05/19

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 02 12:17:09 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration

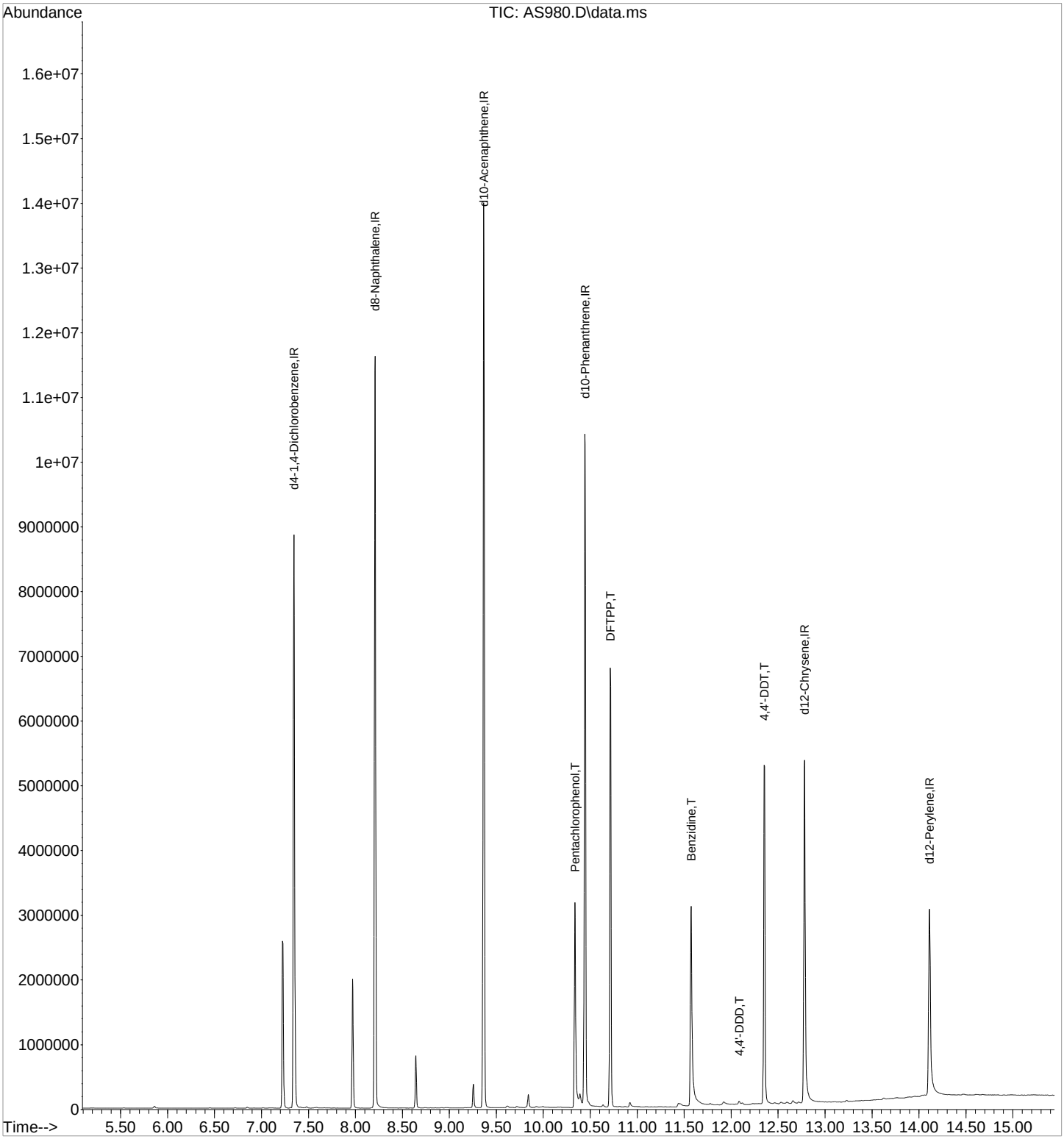
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) d4-1,4-Dichlorobenzene	7.346	152	14485445	20.00	ppm		-0.10
2) d8-Naphthalene	8.210	136	50052974	20.00	ppm		-0.10
3) d10-Acenaphthene	9.367	164	27089120	20.00	ppm		-0.10
4) d10-Phenanthrene	10.445	188	37976969	20.00	ppm		-0.11
7) d12-Chrysene	12.782	240	20477435	20.00	ppm		-0.13
12) d12-Perylene	14.113	264	14572587	20.00	ppm		-0.15
Target Compounds							Qvalue
5) Pentachlorophenol	10.339	266	3872130	54.95	ppm		98
6) DFTPP	10.716	198	7362998	50.68	ppm	#	73
8) Benzidine	11.576	184	16406673	43.95	ppm		97
9) 4,4'-DDE	0.000		0	N.D.			
10) 4,4'-DDD	12.087	235	115093m	0.64	ppm		
11) 4,4'-DDT	12.355	235	9225057	51.30	ppm		99

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

2nd 08/05/19

Data Path : I:\ACQUDATA\5975E\data\080219\
Data File : AS980.D
Acq On : 2 Aug 2019 11:44 am
Operator : JMisiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 02 12:17:09 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR889.D
Acq On : 7 Mar 2019 1:02 pm
Operator : J.Misiurewicz
Sample : ICV Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 08:02:51 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Mar 11 08:01:23 2019
Response via : Initial Calibration

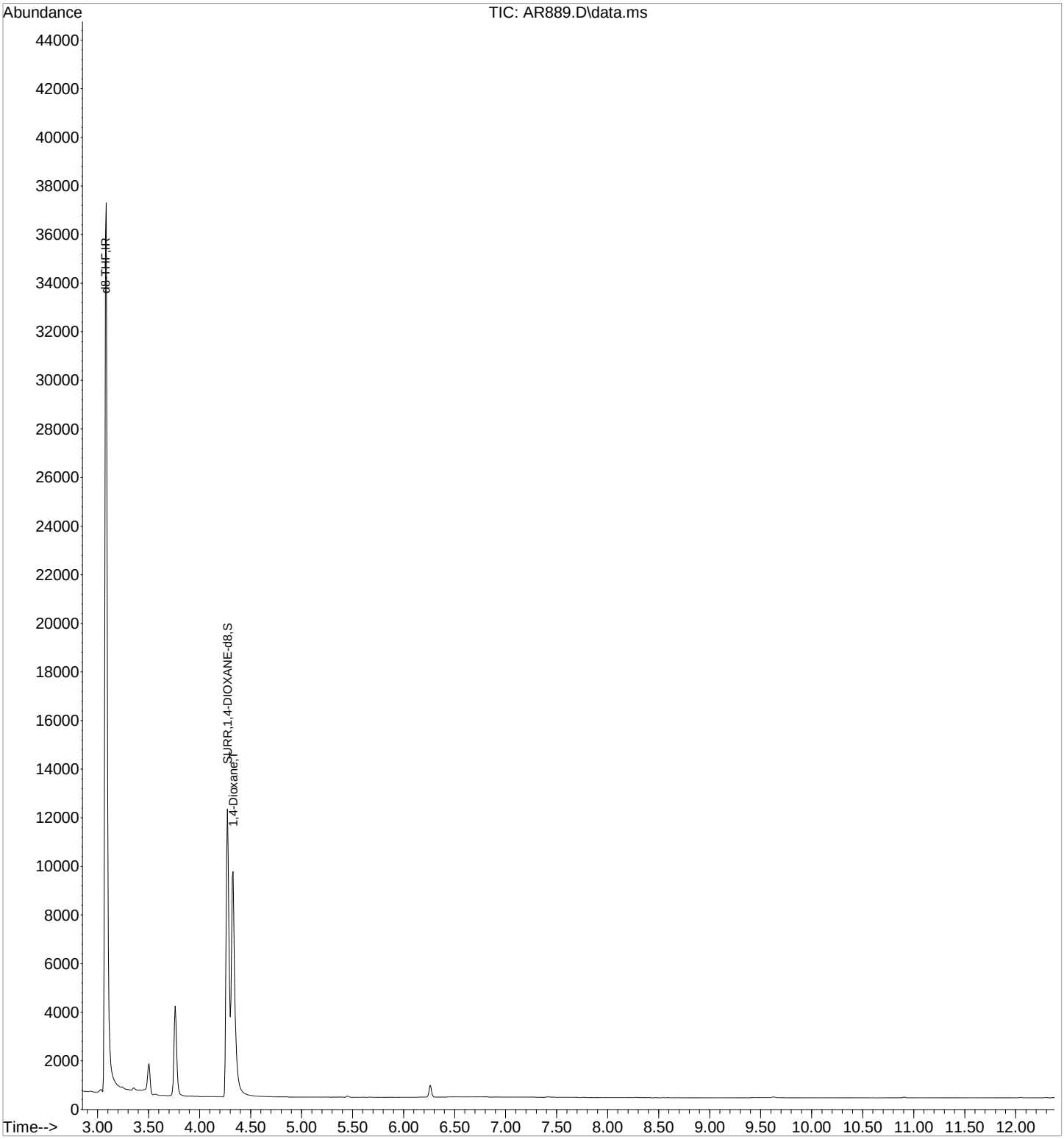
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.078	46	26221	500.00	PPB	-0.02
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.272	96	12949	215.71	PPB	-0.02
Spiked Amount 100.000	Range 70 - 130		Recovery = 215.71%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.329	88	13104	209.28	PPB	95

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR889.D
Acq On : 7 Mar 2019 1:02 pm
Operator : J.Misiurewicz
Sample : ICV Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 08:02:51 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Mar 11 08:01:23 2019
Response via : Initial Calibration

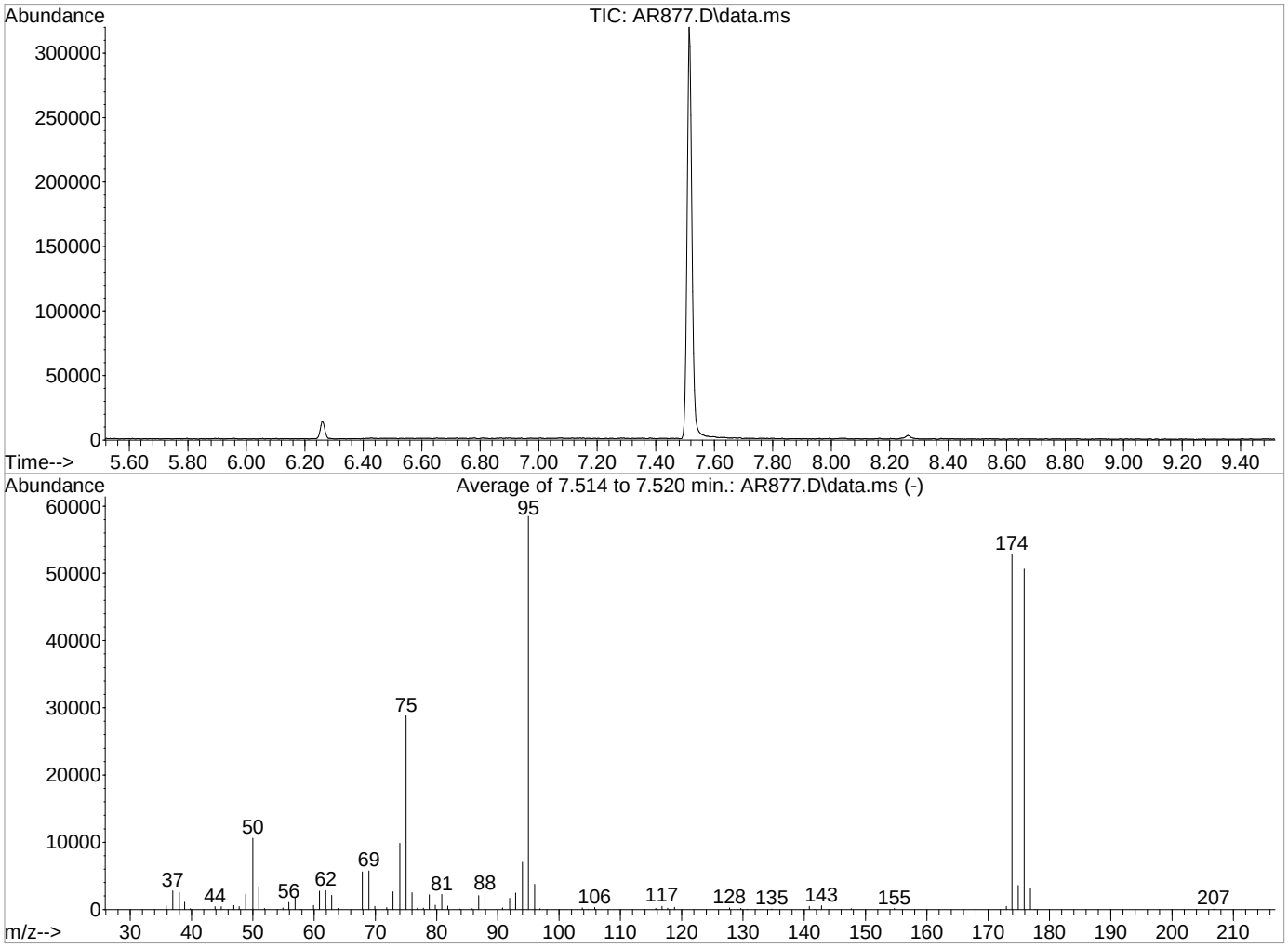


1st DM 03/11/19
2nd BA 03/12/19

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR877.D
Acq On : 7 Mar 2019 8:48 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5975 E
Misc : BFB
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\bfbtune.M
Title :
Last Update : Wed Mar 28 08:41:26 2012



AutoFind: Scans 828, 829, 830; Background Corrected with Scan 818

AUTOFIND via AUTOINTEGRATE

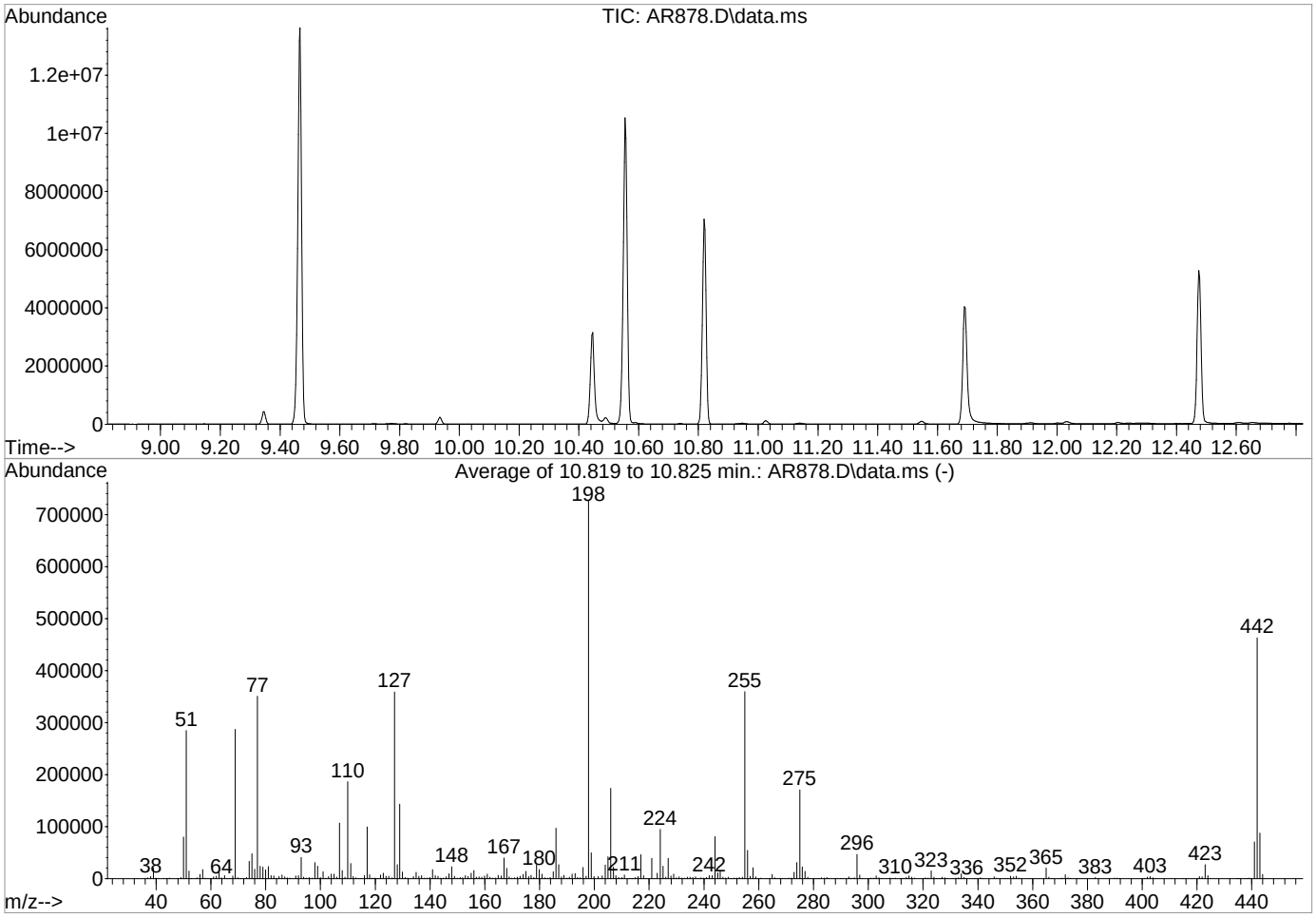
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	10608	PASS
75	95	30	60	49.2	28795	PASS
95	95	100	100	100.0	58496	PASS
96	95	5	9	6.4	3754	PASS
173	174	0.00	2	0.9	453	PASS
174	95	50	100	90.3	52795	PASS
175	174	5	9	6.7	3552	PASS
176	174	95	101	95.9	50645	PASS
177	176	5	9	6.2	3119	PASS

1st DM 03/11/19
2nd BA 03/12/19

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR878.D
Acq On : 7 Mar 2019 9:26 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Title :
Last Update : Thu Mar 07 09:53:27 2019



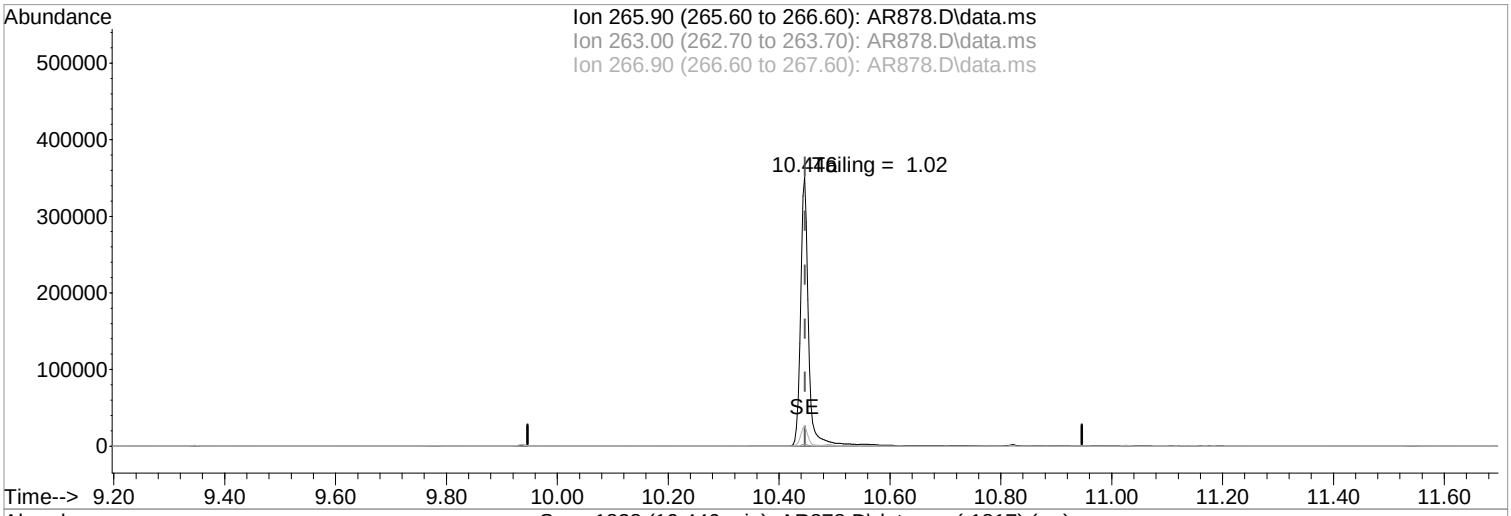
AutoFind: Scans 1955, 1956, 1957; Background Corrected with Scan 1944

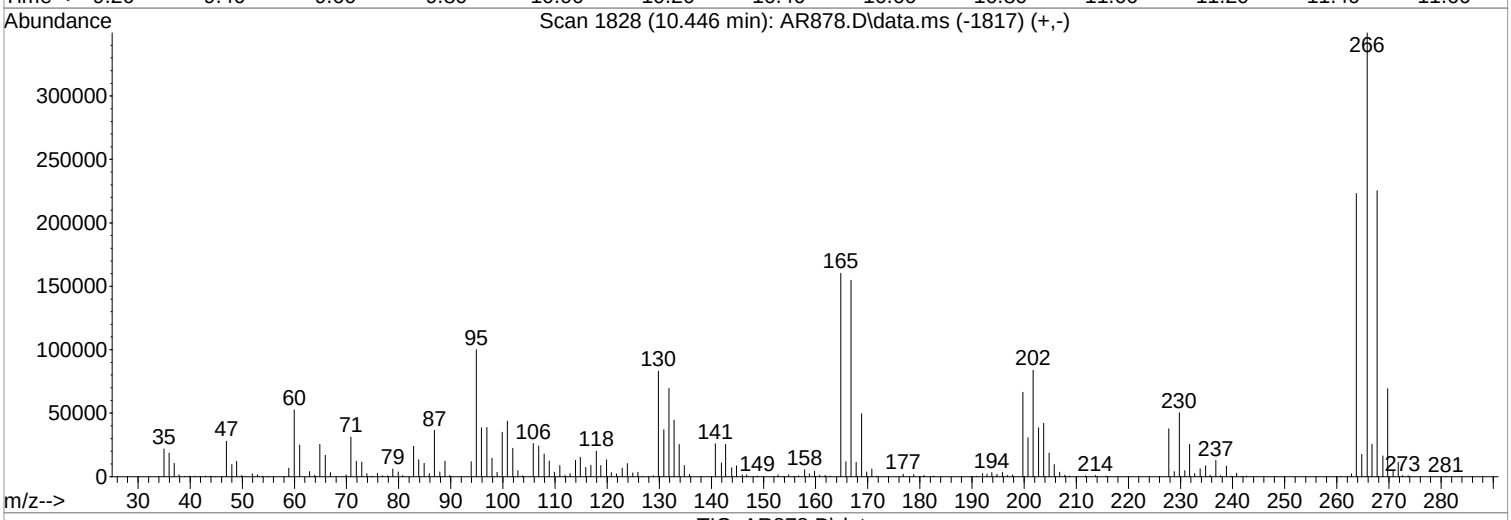
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	39.2	284437	PASS
68	69	0.00	2	1.7	4731	PASS
70	69	0.00	2	0.6	1594	PASS
127	198	10	80	49.4	358763	PASS
197	198	0.00	2	0.6	4573	PASS
198	198	100	100	100.0	726443	PASS
199	198	5	9	6.8	49555	PASS
275	198	10	60	23.5	170368	PASS
365	198	1	500	2.8	20440	PASS
441	442	0.01	24	15.2	70493	PASS
442	442	100	100	100.0	463019	PASS
443	442	15	24	18.9	87381	PASS

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR878.D
Acq On : 7 Mar 2019 9:26 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 09:53:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration





TIC: AR878.D\data.ms

(5) Pentachlorophenol (T)

10.447min (-0.000) 49.98 ppm

response 3365802

Ion	Exp%	Act%
265.90	100.00	100.00
263.00	0.00	0.40
266.90	7.70	7.22
0.00	0.00	0.00

Manual Integration:

After

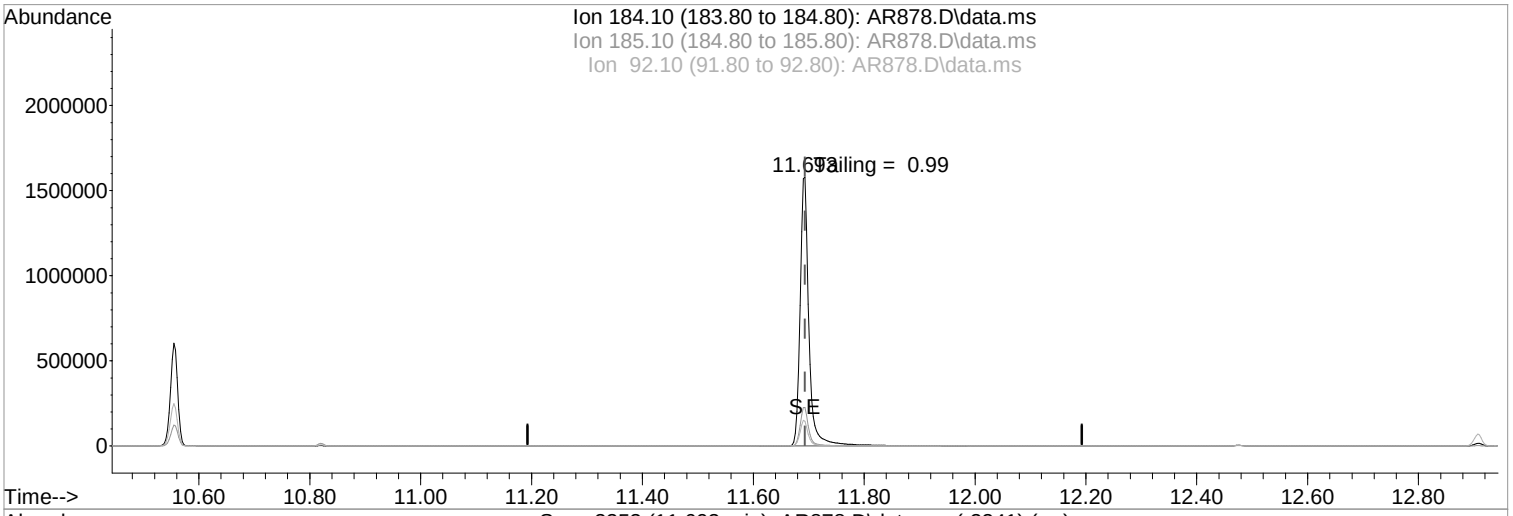
Other - Tailing

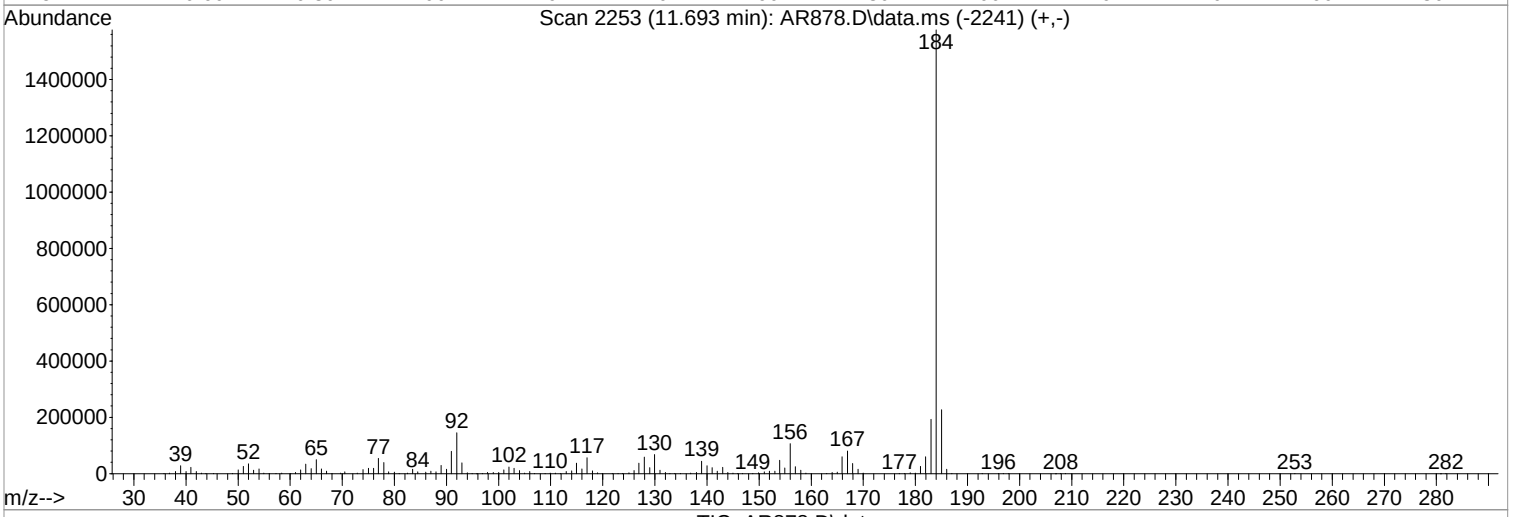
03/07/19

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR878.D
Acq On : 7 Mar 2019 9:26 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 09:53:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration





TIC: AR878.D\data.ms

(8) Benzidine (T)

11.693min (-0.000) 50.02 ppm

response 17095336

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	13.80	14.35
92.10	10.70	9.20
0.00	0.00	0.00

Manual Integration:

After

Other - Tailing

03/07/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR878.D
Acq On : 7 Mar 2019 9:26 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 09:53:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration

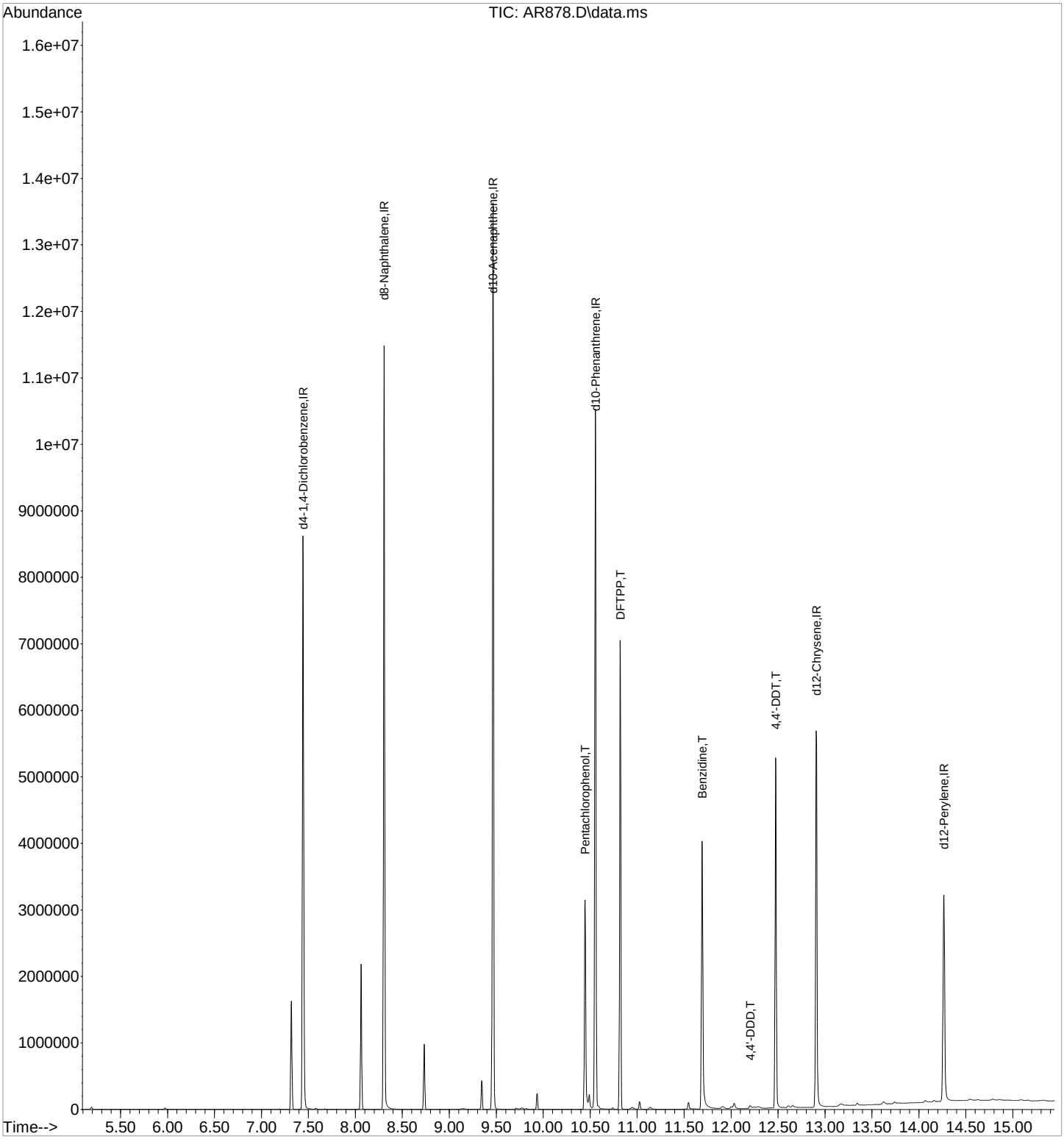
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) d4-1,4-Dichlorobenzene	7.444	152	13155341	20.00	ppm		0.00
2) d8-Naphthalene	8.308	136	46323987	20.00	ppm		0.00
3) d10-Acenaphthene	9.467	164	25822964	20.00	ppm		0.00
4) d10-Phenanthrene	10.557	188	36290290	20.00	ppm		0.00
7) d12-Chrysene	12.909	240	18750575	20.00	ppm		0.00
12) d12-Perylene	14.267	264	13019042	20.00	ppm		0.00
Target Compounds							Qvalue
5) Pentachlorophenol	10.447	266	3365802	49.98	ppm		99
6) DFTPP	10.821	198	6942205	50.00	ppm	#	70
8) Benzidine	11.693	184	17095336	50.02	ppm		97
9) 4,4'-DDE	0.000		0	N.D.			
10) 4,4'-DDD	12.205	235	68491	0.42	ppm		95
11) 4,4'-DDT	12.477	235	8237188	50.03	ppm		99

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR878.D
Acq On : 7 Mar 2019 9:26 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5975 E
Misc : DFTPP
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 09:53:50 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M
Quant Title :
QLast Update : Thu Mar 07 09:53:27 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR879.D
Acq On : 7 Mar 2019 9:57 am
Operator : J.Misiurewicz
Sample : BLK Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:02:24 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Mar 11 08:01:23 2019
Response via : Initial Calibration

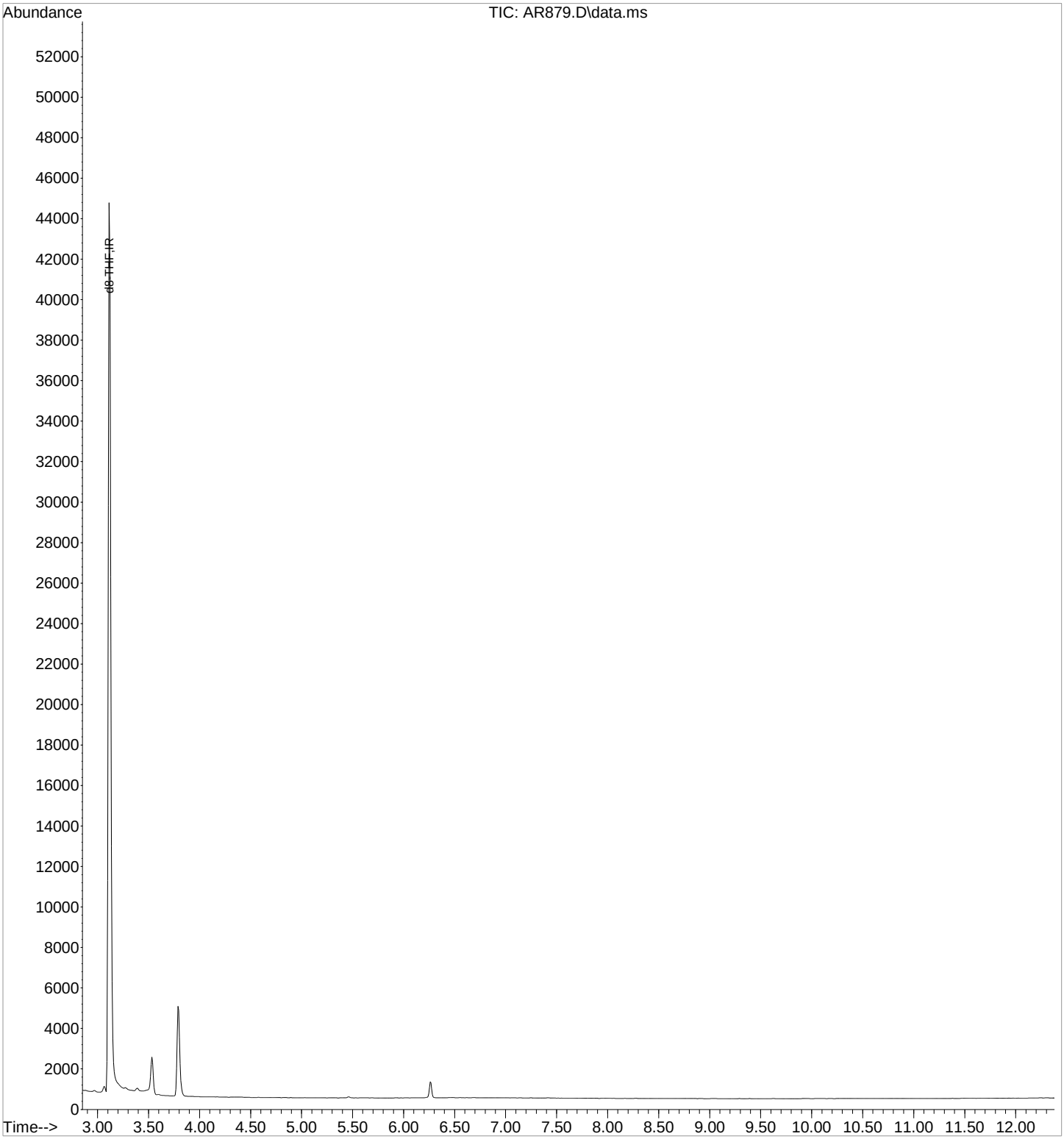
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.114	46	31772	500.00	PPB	0.01
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	0.000	96	0	0.00	PPB	
Spiked Amount 100.000	Range 70 - 130		Recovery =	0.00%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	0.000		0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR879.D
Acq On : 7 Mar 2019 9:57 am
Operator : J.Misiurewicz
Sample : BLK Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:02:24 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Mar 11 08:01:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR880.D
Acq On : 7 Mar 2019 10:16 am
Operator : J.Misiurewicz
Sample : 1 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 07:58:46 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

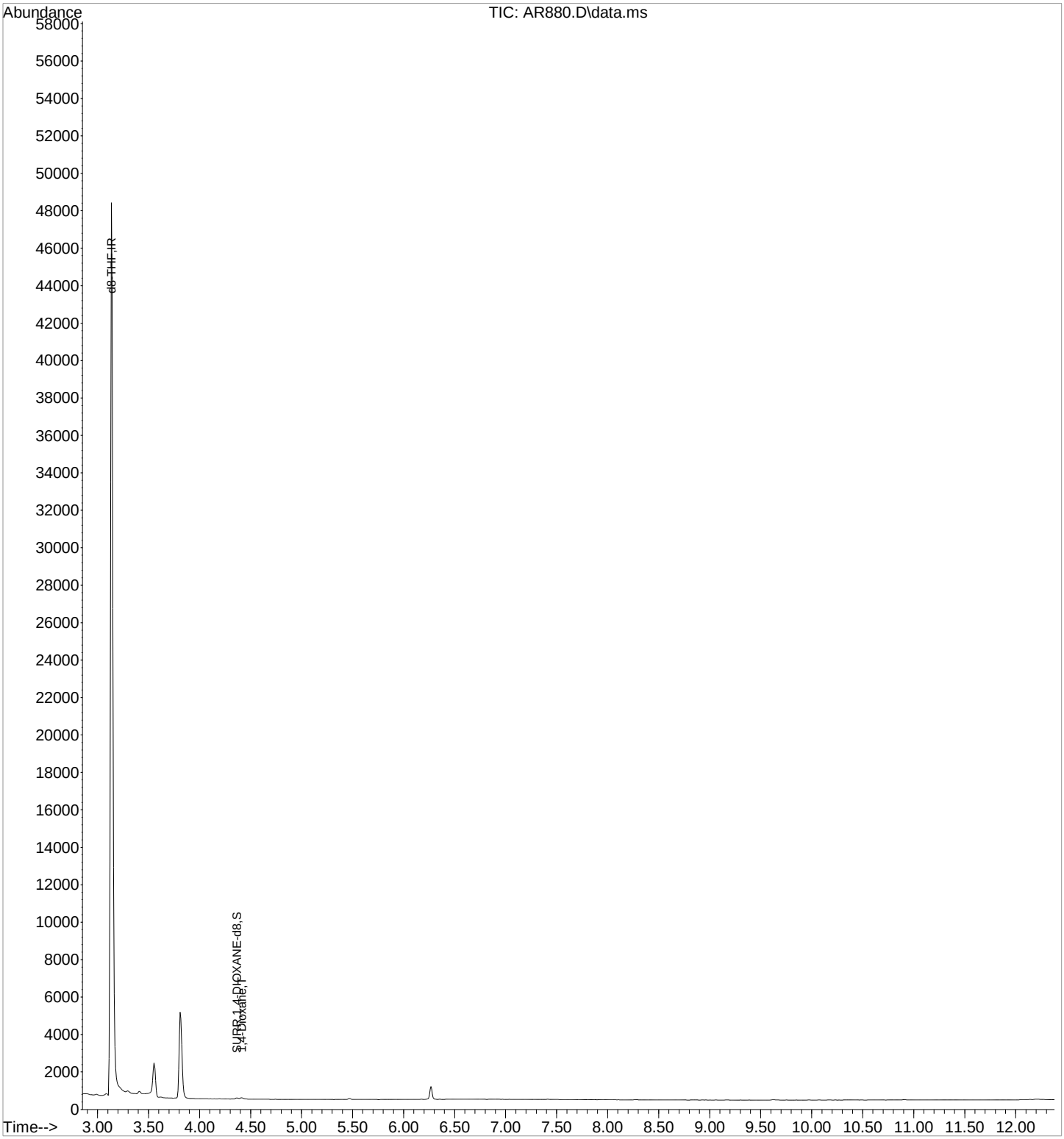
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.135	46	33629	500.00	PPB	0.03
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.364	96	76	1.03	PPB	0.07
Spiked Amount 100.000	Range 70 - 130		Recovery = 1.03%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.414	88	100	0.98	PPB	94

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR880.D
Acq On : 7 Mar 2019 10:16 am
Operator : J.Misiurewicz
Sample : 1 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 07:58:46 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR881.D
Acq On : 7 Mar 2019 10:35 am
Operator : J.Misiurewicz
Sample : 2 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 07:58:49 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

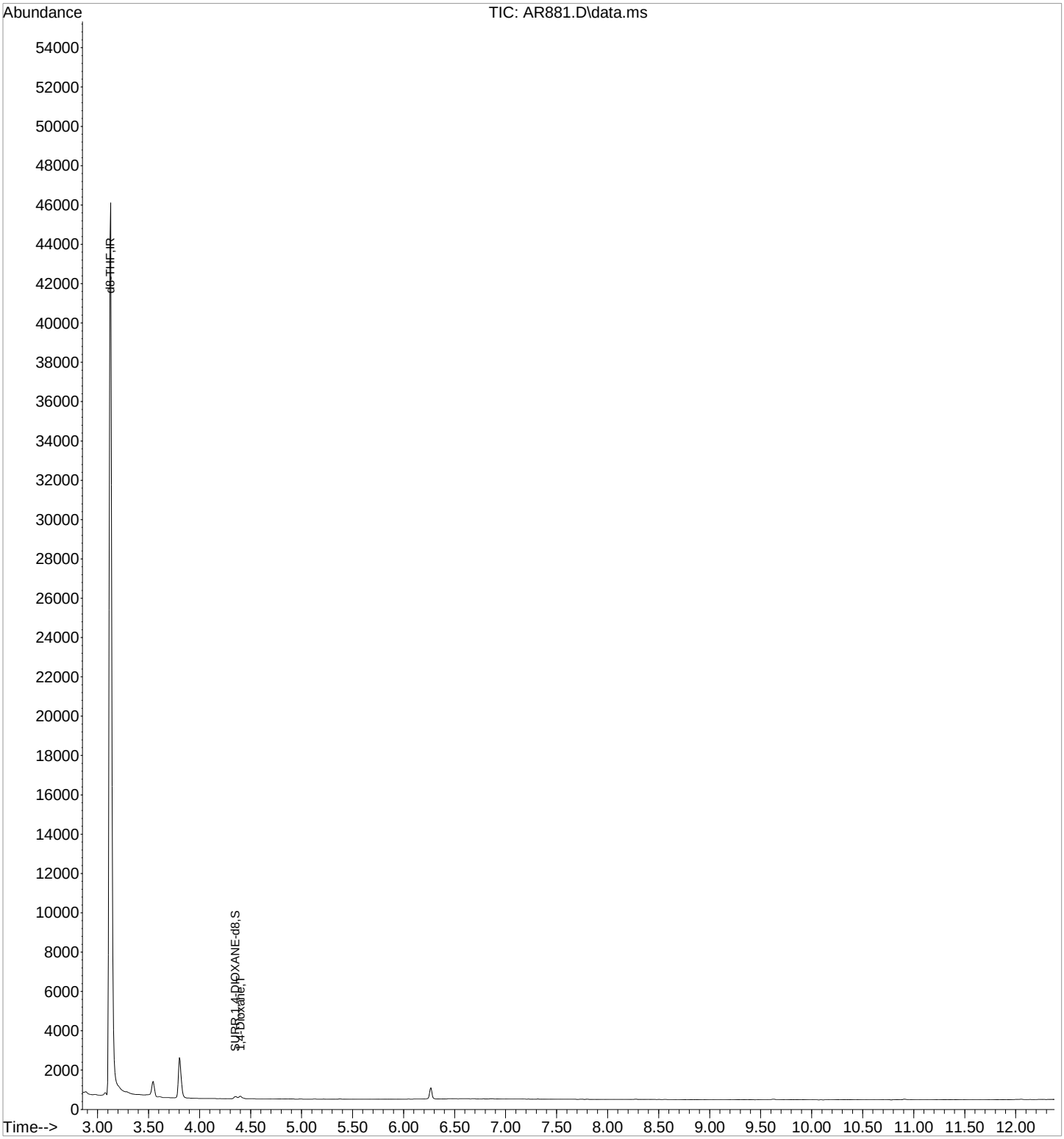
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.121	46	31773	500.00	PPB	0.02
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.350	96	134	1.89	PPB	0.06
Spiked Amount 100.000	Range 70 - 130		Recovery = 1.89%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.400	88	180	2.11	PPB	100

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR881.D
Acq On : 7 Mar 2019 10:35 am
Operator : J.Misiurewicz
Sample : 2 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 11 07:58:49 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR882.D
Acq On : 7 Mar 2019 10:53 am
Operator : J.Misiurewicz
Sample : 10 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 07:58:51 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

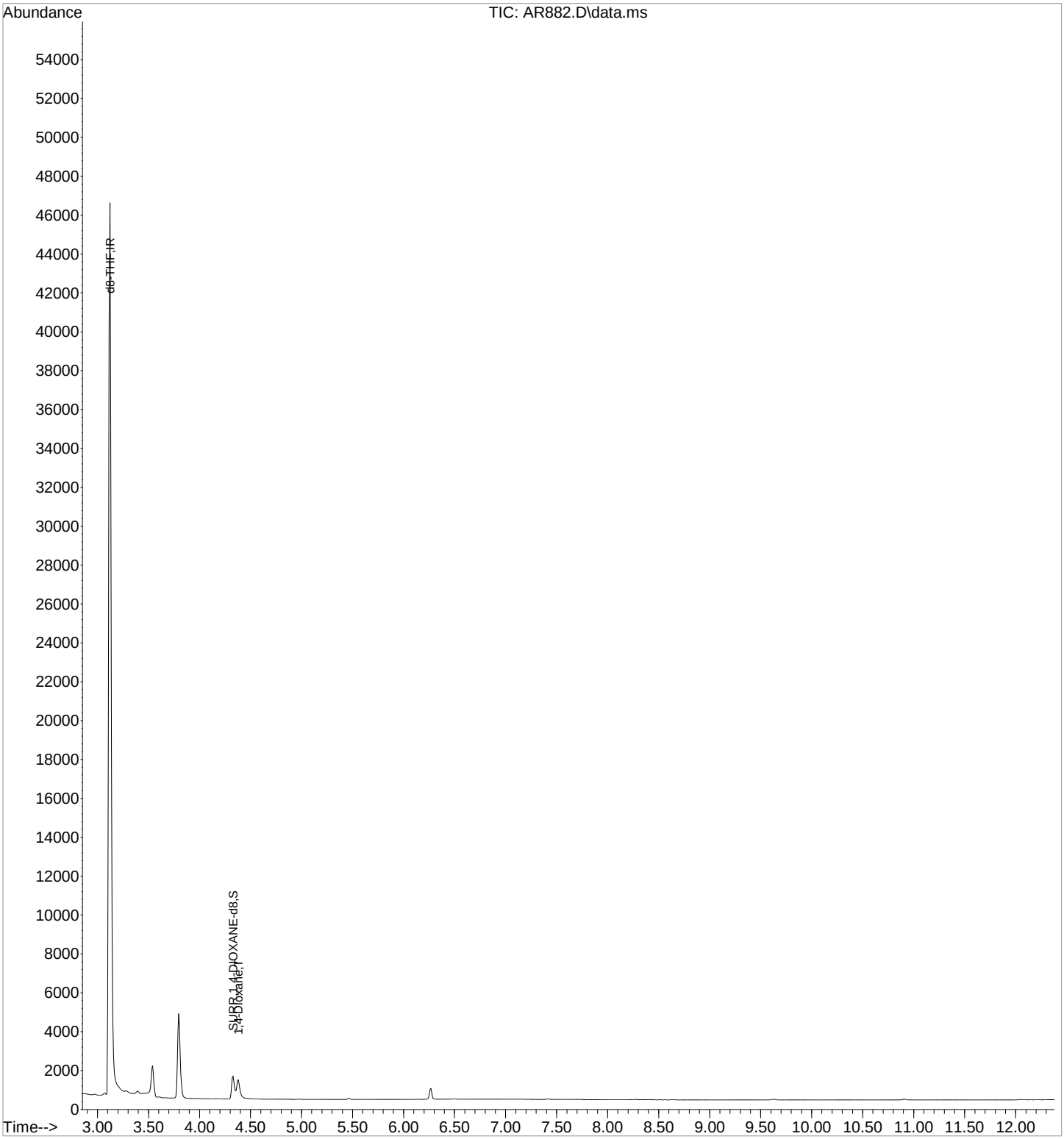
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.121	46	30566	500.00	PPB	0.02
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.329	96	1300	18.67	PPB	0.04
Spiked Amount 100.000	Range 70 - 130		Recovery = 18.67%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.379	88	1328	17.97	PPB	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR882.D
Acq On : 7 Mar 2019 10:53 am
Operator : J.Misiurewicz
Sample : 10 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 07:58:51 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR883.D
Acq On : 7 Mar 2019 11:10 am
Operator : J.Misiurewicz
Sample : 20 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 11 07:58:53 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

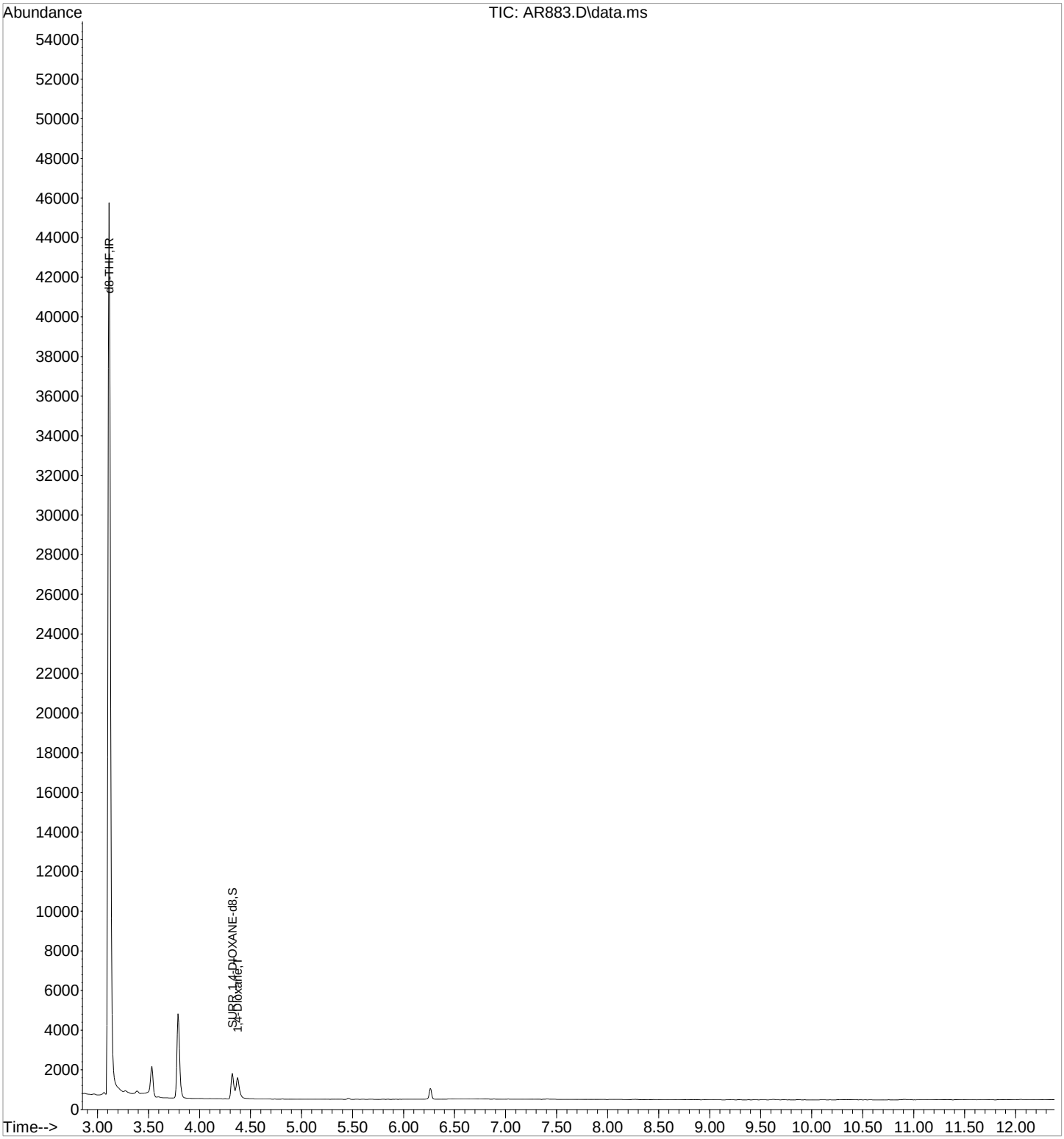
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.114	46	29977	500.00	PPB	0.00
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.322	96	1358	19.88	PPB	0.03
Spiked Amount 100.000	Range 70 - 130		Recovery = 19.88%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.371	88	1398	19.31	PPB	99

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR883.D
Acq On : 7 Mar 2019 11:10 am
Operator : J.Misiurewicz
Sample : 20 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 11 07:58:53 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR884.D
Acq On : 7 Mar 2019 11:29 am
Operator : J.Misiurewicz
Sample : 100 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 11 07:58:55 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

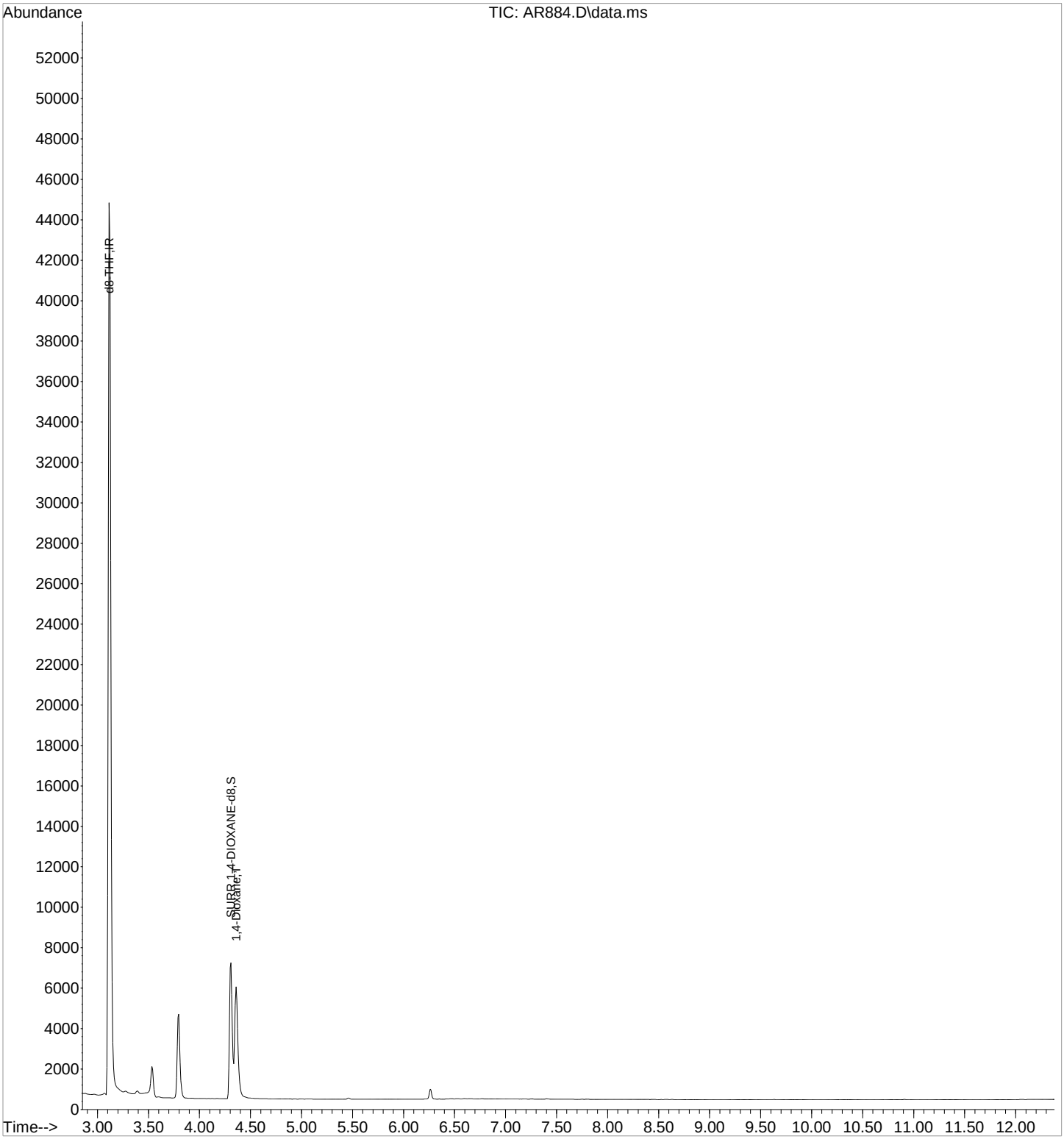
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.114	46	31220	500.00	PPB	0.01
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.308	96	6970	97.72	PPB	0.02
Spiked Amount 100.000	Range 70 - 130		Recovery = 97.72%			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.358	88	7240	97.06	PPB	99

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR884.D
Acq On : 7 Mar 2019 11:29 am
Operator : J.Misiurewicz
Sample : 100 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 11 07:58:55 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR885.D
Acq On : 7 Mar 2019 11:48 am
Operator : J.Misiurewicz
Sample : 200 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 11 07:58:57 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

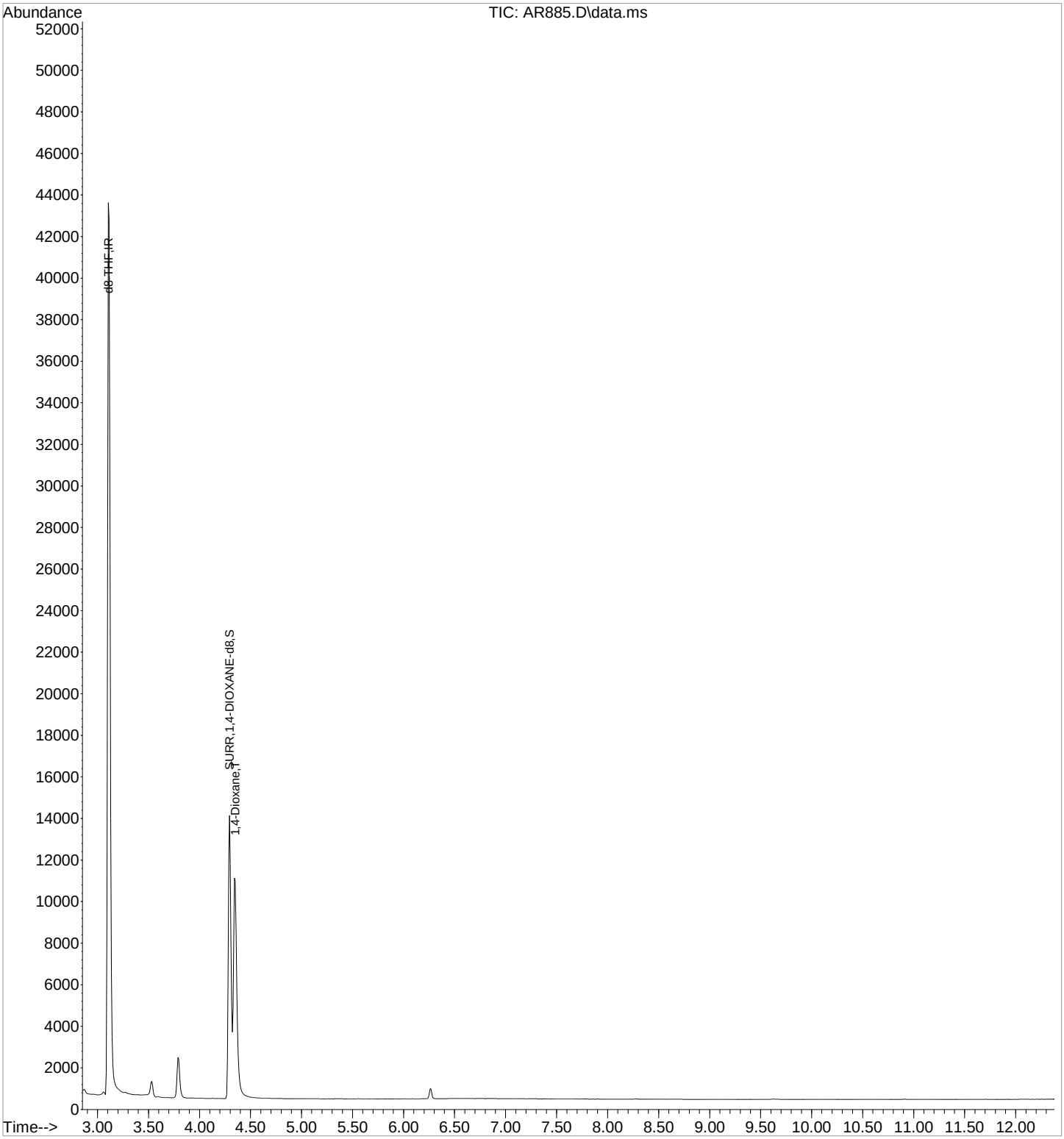
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.107	46	30306	500.00	PPB	0.00
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.293	96	13939	200.94	PPB	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 200.94%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.350	88	14464	199.86	PPB	93

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR885.D
Acq On : 7 Mar 2019 11:48 am
Operator : J.Misiurewicz
Sample : 200 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 11 07:58:57 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR886.D
Acq On : 7 Mar 2019 12:07 pm
Operator : J.Misiurewicz
Sample : 500 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 07:58:59 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

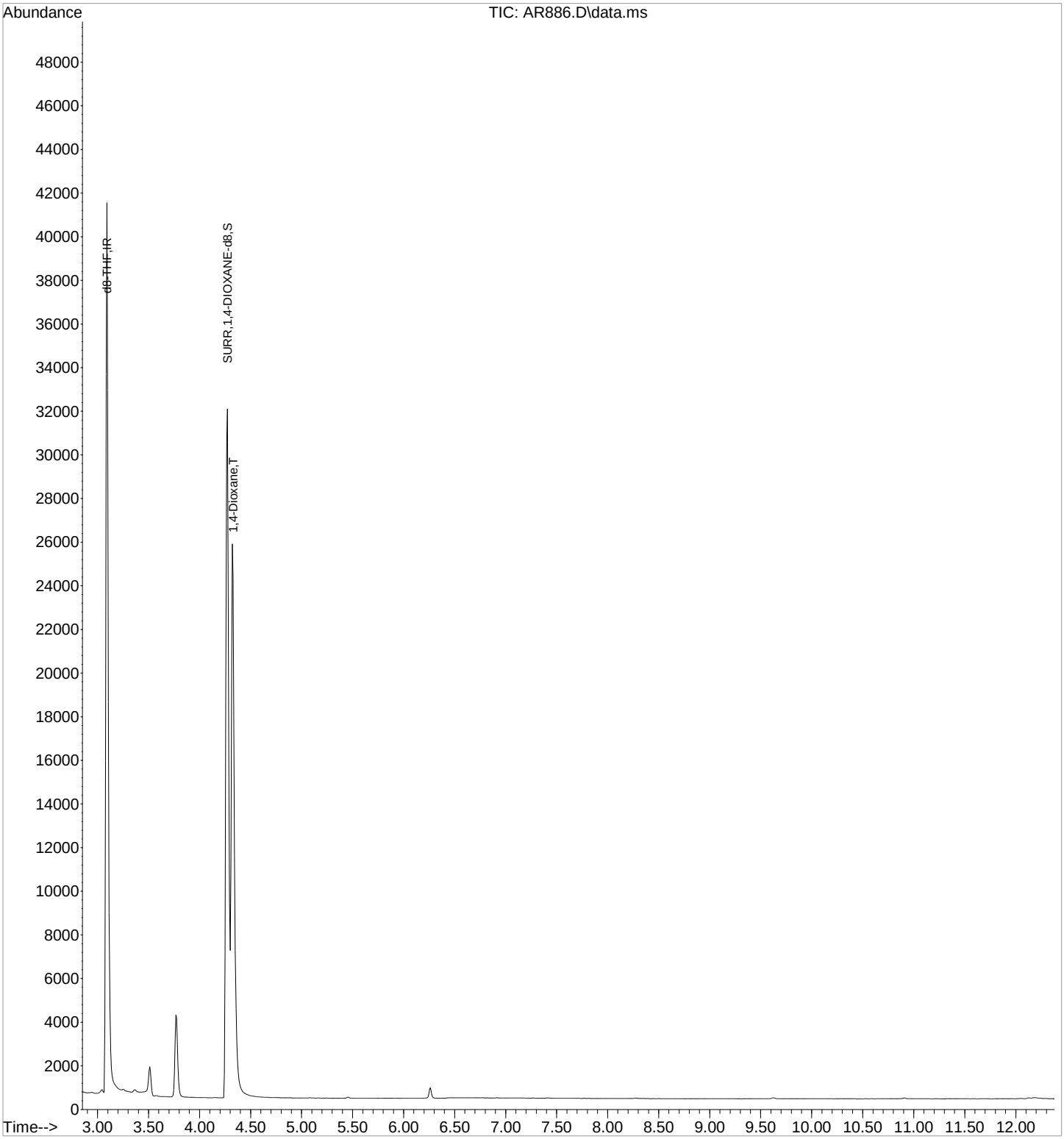
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.092	46	27178	500.00	PPB	-0.01
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.272	96	32095	513.35	PPB	-0.02
Spiked Amount 100.000	Range 70 - 130		Recovery = 513.35%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.328	88	33610	516.94	PPB	91

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR886.D
Acq On : 7 Mar 2019 12:07 pm
Operator : J.Misiurewicz
Sample : 500 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 07:58:59 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR887.D
Acq On : 7 Mar 2019 12:26 pm
Operator : J.Misiurewicz
Sample : 1000 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 11 07:59:01 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

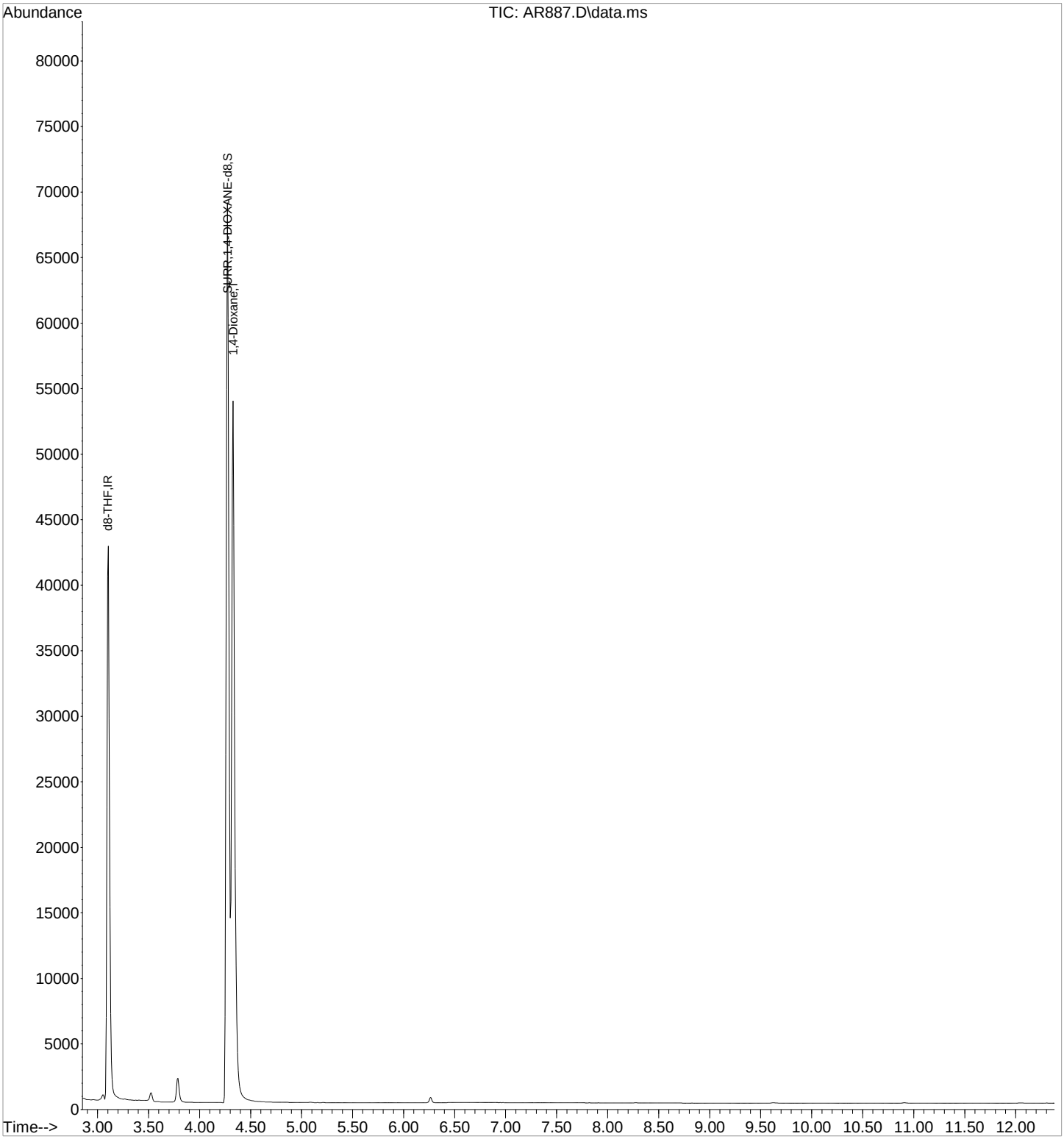
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.100	46	28419	500.00	PPB	0.00
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.272	96	68073	1032.81	PPB	-0.02
Spiked Amount 100.000	Range 70 - 130		Recovery = 1032.81%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.329	88	68622	1005.54	PPB	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR887.D
Acq On : 7 Mar 2019 12:26 pm
Operator : J.Misiurewicz
Sample : 1000 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 11 07:59:01 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR888.D
Acq On : 7 Mar 2019 12:43 pm
Operator : J.Misiurewicz
Sample : 5000 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 11 07:59:03 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration

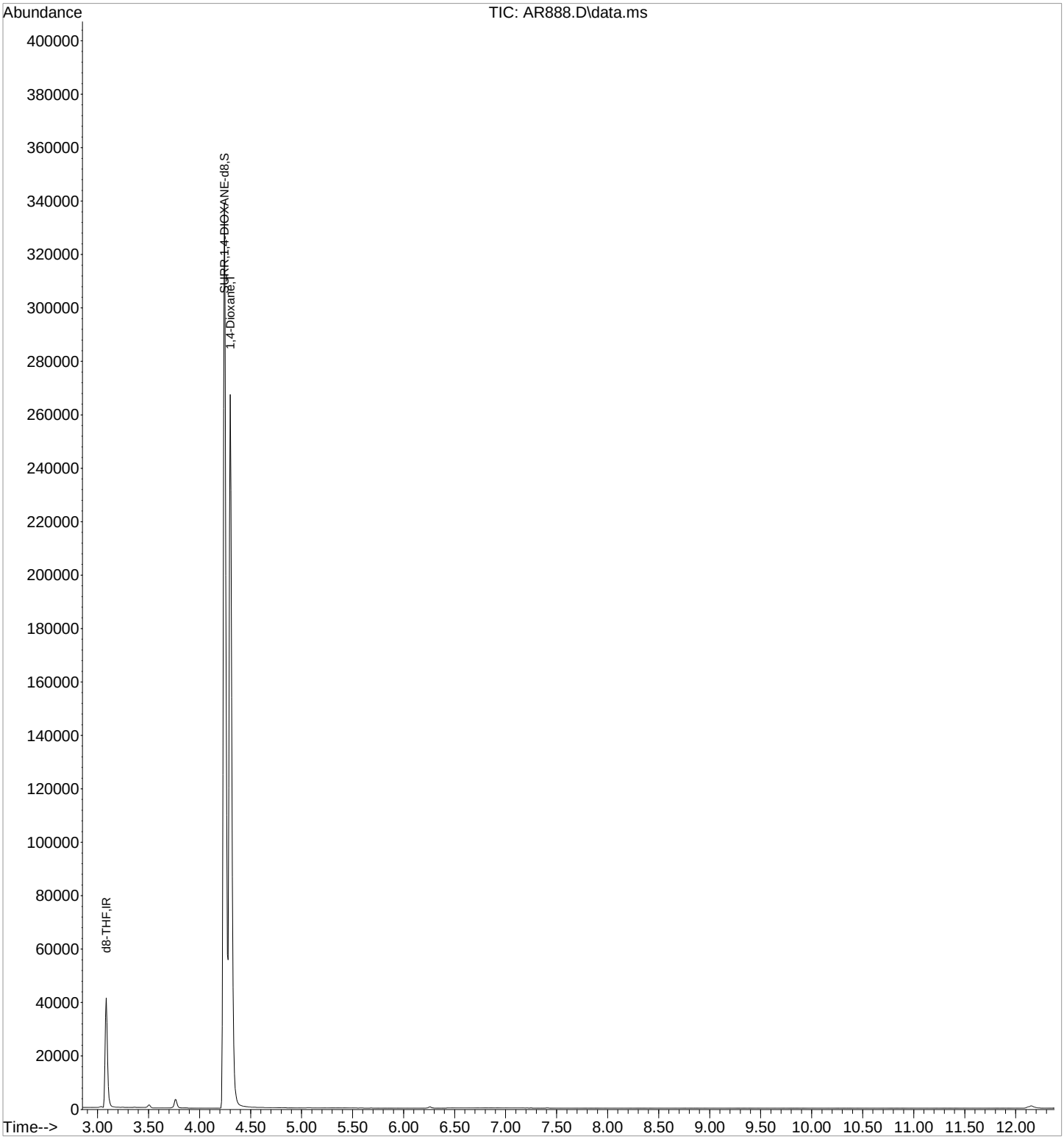
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d8-THF	3.085	46	26196	500.00	PPB	-0.02
System Monitoring Compounds						
3) SURR,1,4-DIOXANE-d8	4.243	96	319777	4960.34	PPB	-0.05
Spiked Amount 100.000	Range 70 - 130		Recovery = 4960.34%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	4.300	88	323652	4982.41	PPB	100

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR888.D
Acq On : 7 Mar 2019 12:43 pm
Operator : J.Misiurewicz
Sample : 5000 ppb STD Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 11 07:59:03 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Mar 07 13:34:31 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5975E\data\030719\
Data File : AR889.D
Acq On : 7 Mar 2019 1:02 pm
Operator : J.Misiurewicz
Sample : ICV Inst : 5975 E
Misc : Initial Calibration 522/8270D DIOX
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 11 08:02:51 2019
Quant Method : I:\ACQUDATA\5975E\METHODS\SDIOX030719.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Mar 11 08:01:23 2019
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	IR	d8-THF	500.000	500.000	0.0	87	-0.02
2	T	1,4-Dioxane	200.000	209.282	-4.6	91	-0.01
3	S	SURR,1,4-DIOXANE-d8	200.000	215.709	-7.9	93	-0.02

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

ALS Group USA, Corp.

DBA ALS Environmetal

QC/QC Report

Date Analyzed: 3/7/19 9:26

ICAL Tune Summary
Semi Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5975E\data\030719\AR878.D Analytical Method: 8270D

Instrument ID: R-MS-56

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Results Pass/Fail
51	198	10	80	39.2	284437	PASS
68	69	0	2	1.7	4731	PASS
69	198	0	100	39.5	286677	PASS
70	69	0	2	0.6	1594	PASS
127	198	10	80	49.4	358763	PASS
197	198	0	2	0.6	4573	PASS
198	198	100	100	100.0	726443	PASS
199	198	5	9	6.8	49555	PASS
275	198	10	60	23.5	170368	PASS
365	198	1	100	2.8	20440	PASS
441	442	0.01	24	15.2	70493	PASS
442	442	100	100	100.0	463019	PASS
443	442	15	24	18.9	87381	PASS

Sample Name	Lab Code	File ID:	Date Analyzes:	Q
BLK	BLK	I:\ACQUDATA\5975E\data\030719\AR879.D	3/7/19 9:57	
1 ppb STD	1 ppb STD	I:\ACQUDATA\5975E\data\030719\AR880.D	3/7/19 10:16	
2 ppb STD	2 ppb STD	I:\ACQUDATA\5975E\data\030719\AR881.D	3/7/19 10:35	
20 ppb STD	20 ppb STD	I:\ACQUDATA\5975E\data\030719\AR883.D	3/7/19 11:10	
100 ppb STD	100 ppb STD	I:\ACQUDATA\5975E\data\030719\AR884.D	3/7/19 11:29	
200 ppb STD	200 ppb STD	I:\ACQUDATA\5975E\data\030719\AR885.D	3/7/19 11:48	
500 ppb STD	500 ppb STD	I:\ACQUDATA\5975E\data\030719\AR886.D	3/7/19 12:07	
1000 ppb STD	1000 ppb STD	I:\ACQUDATA\5975E\data\030719\AR887.D	3/7/19 12:26	
5000 ppb STD	5000 ppb STD	I:\ACQUDATA\5975E\data\030719\AR888.D	3/7/19 12:43	
ICV	ICV	I:\ACQUDATA\5975E\data\030719\AR889.D	3/7/19 13:02	

ALS Group USA, Corp.

DBA ALS Environmetal

QC/QC Report

Date Analyzed: 3/7/19 8:48

ICAL Tune Summary
1,4-Dioxane by GC/MS

File ID: I:\ACQUDATA\5975E\data\030719\AR877.D Analytical Method: 522

Instrument ID: R-MS-56

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Results Pass/Fail
50	95	15	40	18.1	10608	PASS
75	95	30	60	49.2	28795	PASS
95	95	100	100	100.0	58496	PASS
96	95	5	9	6.4	3754	PASS
173	174	0	2	0.9	453	PASS
174	95	50	120	90.3	52795	PASS
175	174	5	9	6.7	3552	PASS
176	174	95	101	95.9	50645	PASS
177	176	5	9	6.2	3119	PASS

Sample Name	Lab Code	File ID:	Date Analyzes:	Q
BLK	BLK	I:\ACQUDATA\5975E\data\030719\AR879.D	3/7/19 9:57	
1 ppb STD	1 ppb STD	I:\ACQUDATA\5975E\data\030719\AR880.D	3/7/19 10:16	
2 ppb STD	2 ppb STD	I:\ACQUDATA\5975E\data\030719\AR881.D	3/7/19 10:35	
20 ppb STD	20 ppb STD	I:\ACQUDATA\5975E\data\030719\AR883.D	3/7/19 11:10	
100 ppb STD	100 ppb STD	I:\ACQUDATA\5975E\data\030719\AR884.D	3/7/19 11:29	
200 ppb STD	200 ppb STD	I:\ACQUDATA\5975E\data\030719\AR885.D	3/7/19 11:48	
500 ppb STD	500 ppb STD	I:\ACQUDATA\5975E\data\030719\AR886.D	3/7/19 12:07	
1000 ppb STD	1000 ppb STD	I:\ACQUDATA\5975E\data\030719\AR887.D	3/7/19 12:26	
5000 ppb STD	5000 ppb STD	I:\ACQUDATA\5975E\data\030719\AR888.D	3/7/19 12:43	
ICV	ICV	I:\ACQUDATA\5975E\data\030719\AR889.D	3/7/19 13:02	

Analysis: S270522 Analyst: Misiorewicz Run Method: SDioxane2.F / BFB TUNE / DFTPPDIO
Date: 3/7/19 Instr. _5975E MS-56_ Quant Method: SDiox030719.M
Syringes: LIMS Run#: 627754

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
				A2875	—	
1	Blk			76	—	
1	Blk			77	YT	
2	Tune BFB			78	YT	
3	Tune DFTPP			79	Y	
4	Blk			80	Y	
5	1ppb STD		197539	81	Y	
6	2		195750	82	(N)	made wrong
7	10		197540	83	Y	
8	20		197541	84	Y	
9	100		197542	85	Y	
10	200		195751	86	Y	
11	500		197543	87	Y	
12	1000		195752	88	Y	
13	5000		197544	89	YQ	
14	ICV		197456	90	YCC	
15	CCV 2ppb		195750	91	Y	
16	RQ1901867-01	Blk	332379 (522)	92	YQ	
17	-02	LCS		93	YCQ	
18	-03	LCD		94	YQ	↑
19	-05	LCSLL		95	Y	
20	R1901793-001			96	Y	
21	R1901794-001			97	YQ	
22	RQ1901867-04			98	YQ	
23	-05			99	Y	
24	R1901794-002			900	Y	
25	-004			01	Y/C	
26	CCV 200ppb		195751	02	Y	
27	R1901794-005			03	Y	
28	-006			04	Y	
29	-007			05	Y	
30	R1901803-013			06	(N)	re-extract
31	RQ1901866-01	Blk	332378 (520)	07		
32	-07	LODv		08	↓	↓
33	-06	LOQ		09	YCC	
34	CCV 1000ppb		195752			

DM 3/7/19

All samples = ______mL + ______uL Combined IS/Surr.;

Primary :____________ exp: Secondary :____________ exp:
Primary:____________ exp: Secondary :____________ exp:
Reagents:

Runlog GCEXT r2 4/27/17
O-995 Page 61

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 3/7/2019

Initial Calibration Summary
1,4-Dioxane by GC/MS

Calibration ID: RC1900029 **Signal ID:** 1
Instrument ID: R-MS-56

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1900029-01	1 ppb STD	I:\ACQUDATA\5975E\data\030719\AR880.D	03/07/2019 10:16
02	RC1900029-02	2 ppb STD	I:\ACQUDATA\5975E\data\030719\AR881.D	03/07/2019 10:35
03	RC1900029-03	20 ppb STD	I:\ACQUDATA\5975E\data\030719\AR883.D	03/07/2019 11:10
04	RC1900029-04	100 ppb STD	I:\ACQUDATA\5975E\data\030719\AR884.D	03/07/2019 11:29
05	RC1900029-05	200 ppb STD	I:\ACQUDATA\5975E\data\030719\AR885.D	03/07/2019 11:48
06	RC1900029-06	500 ppb STD	I:\ACQUDATA\5975E\data\030719\AR886.D	03/07/2019 12:07
07	RC1900029-07	1000 ppb STD	I:\ACQUDATA\5975E\data\030719\AR887.D	03/07/2019 12:26
08	RC1900029-08	5000 ppb STD	I:\ACQUDATA\5975E\data\030719\AR888.D	03/07/2019 12:43

Analyte

1,4-Dioxane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.487	02	2.000	1.416	03	20.000	1.166	04	100.000	1.16
05	200.000	1.193	06	500.000	1.237	07	1000.000	1.207	08	5000.000	1.236

1,4-Dioxane-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.13	02	2.000	1.054	03	20.000	1.133	04	100.000	1.116
05	200.000	1.15	06	500.000	1.181	07	1000.000	1.198	08	5000.000	1.221

Client: O'Brien & Gere Engineers, Incorporated
Project: Auto FH-019 Former RFM

Service Request: R1907110
Calibration Date: 3/7/2019

Initial Calibration Summary
1,4-Dioxane by GC/MS

Calibration ID: RC1900029
Instrument ID: R-MS-56

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,4-Dioxane	TRG	Quadratic	COD	1.0000	≥0.99	1.263	
1,4-Dioxane-d8	SURR	Quadratic	COD	0.9998	≥0.99	1.148	

Client: O'Brien & Gere Engineers, Incorporated **Service Request:** R1907110
Project: Auto FH-019 Former RFM **Calibration Date:** 3/7/2019

Initial Calibration Verification Summary
1,4-Dioxane by GC/MS

Calibration ID: RC1900029 **Signal ID:** 1
Instrument ID: R-MS-56

#	Lab Code	Sample Name	File Location	Acquisition Date
09	RC1900029-09	ICV	I:\ACQUDATA\5975E\data\030719\AR889.D	03/07/2019 13:02

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,4-Dioxane	200	209	1.263E0	1.249E0	4.64	±20	Quadratic

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,4-Dioxane-d8	200	216	1.148E0	1.235E0	7.86	±20	Quadratic

Client:	O'Brien & Gere Engineers, Incorporated	**Service Request:**	R1907110
Project:	Auto FH-019 Former RFM/73105.001/002.016	**Date Analyzed:**	08/02/19 12:19

Continuing Calibration Verification (CCV) Summary
1,4-Dioxane by GC/MS

Analysis Method:	8270D SIM	**Calibration Date:**	3/7/2019
File ID:	I:\ACQUDATA\5975E\data\080219\AS981.D\	**Calibration ID:**	RC1900029
Signal ID:	1	**Analysis Lot:**	645815
		Units:	ppb

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
1,4-Dioxane	202	183	1.2626	1.0901	90.9	-9.1	±20	Quadratic

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
1,4-Dioxane-d8	200	185	1.1478	1.0615	92.4	-7.6	±20	Quadratic

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016

Analysis Run Log
1,4-Dioxane by GC/MS

Analysis Method: **Analysis Lot:**645815
Instrument ID:R-MS-56

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\5975E\data\080219\AS980.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	11:44:00	
I:\ACQUDATA\5975E\data\080219\AS981.D\	Continuing Calibration Verification	RQ1908310-02	8/2/2019	12:19:00	
I:\ACQUDATA\5975E\data\080219\AS982.D\	Method Blank	RQ1908224-01	8/2/2019	12:44:00	
I:\ACQUDATA\5975E\data\080219\AS983.D\	Lab Control Sample	RQ1908224-02	8/2/2019	13:03:00	
I:\ACQUDATA\5975E\data\080219\AS984.D\	Duplicate Lab Control Sample	RQ1908224-03	8/2/2019	13:22:00	
I:\ACQUDATA\5975E\data\080219\AS985.D\	ITT-SBW-10-072919	R1907110-001	8/2/2019	13:41:00	
I:\ACQUDATA\5975E\data\080219\AS986.D\	ITT-SBW-23-072919	R1907110-002	8/2/2019	14:00:00	
I:\ACQUDATA\5975E\data\080219\AS987.D\	ITT-SBW-23-072919 MS	RQ1908224-04	8/2/2019	14:19:00	
I:\ACQUDATA\5975E\data\080219\AS988.D\	ITT-SBW-23-072919 DMS	RQ1908224-05	8/2/2019	14:37:00	
I:\ACQUDATA\5975E\data\080219\AS989.D\	EB-072919	R1907110-003	8/2/2019	14:57:00	
I:\ACQUDATA\5975E\data\080219\AS990.D\	ITT-SBW-2-072919	R1907110-004	8/2/2019	15:17:00	
I:\ACQUDATA\5975E\data\080219\AS991.D\	DUP-01-072919	R1907110-005	8/2/2019	15:37:00	
I:\ACQUDATA\5975E\data\080219\AS992.D\	ITT-IBW-20-072919	R1907110-006	8/2/2019	15:57:00	
I:\ACQUDATA\5975E\data\080219\AS993.D\	ITT-SBW-9-072919	R1907110-007	8/2/2019	16:17:00	
I:\ACQUDATA\5975E\data\080219\AS994.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	16:36:00	
I:\ACQUDATA\5975E\data\080219\AS995.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	16:55:00	
I:\ACQUDATA\5975E\data\080219\AS996.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	17:15:00	
I:\ACQUDATA\5975E\data\080219\AS997.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	17:35:00	
I:\ACQUDATA\5975E\data\080219\AS998.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	17:54:00	
I:\ACQUDATA\5975E\data\080219\AS999.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	18:13:00	
I:\ACQUDATA\5975E\data\080219\AT000.D\	ZZZZZZZ	ZZZZZZZ	8/2/2019	18:33:00	

Analysis: 1,4 Dioxane	**Analyst:** A. Mostz	**Run Method:** SD.dxa-c2-F.m
Date: 8/2/19	**Instr.** _5975E MS-56_	**Quant Method:** SD.dx030719.m
Syringes:		**LIMS Run#:** 645615

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
	BLK			A5979	✓	
	TUNE (DFTPP)		200188	80	✓	
	LCV (200)		199763	81	✓	
	R1908224-01			82	✓	
	02			83	✓	
	03			84	✓	
	R1907110-001			85	✓	
	002			86	✓	
	002MS			87	✓	
	002Dms			88	✓	
	003			89	✓	
	004			90	✓	
	005			91	✓	
	006			92	✓	
	007			93	✓	
	R1907123-007			94	✓	
	008			95	✓	
	009			96	✓	
	R1907161-001			97	✓	
	002			98	✓	
	003			99	✓	
	004			AF000	✓	
				AM 8/5		

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:

Primary:_____ exp: Secondary :_____ exp:

Reagents:

Prep Summary Report

Client: O'Brien & Gere Engineers, Incorporated **Service Request:**R1907110
Project: Auto FH-019 Former RFM/73105.001/002.016
Sample Matrix: Water

1,4-Dioxane by GC/MS

Prep Method: EPA 3535A **Extraction Lot:** 341677
Analytical Method: 8270D SIM **Extraction Date:** 08/02/19 08:30

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
ITT-SBW-10-072919	R1907110-001	7/29/19	7/29/19	100 mL	2 mL	
ITT-SBW-23-072919	R1907110-002	7/29/19	7/29/19	100 mL	2 mL	
EB-072919	R1907110-003	7/29/19	7/29/19	100 mL	2 mL	
ITT-SBW-2-072919	R1907110-004	7/29/19	7/29/19	100 mL	2 mL	
DUP-01-072919	R1907110-005	7/29/19	7/29/19	100 mL	2 mL	
ITT-IBW-20-072919	R1907110-006	7/29/19	7/29/19	100 mL	2 mL	
ITT-SBW-9-072919	R1907110-007	7/29/19	7/29/19	100 mL	2 mL	
Method Blank	RQ1908224-01MB	NA	NA	100 mL	2 mL	
Lab Control Sample	RQ1908224-02LCS	NA	NA	100 mL	2 mL	
Duplicate Lab Control Sample	RQ1908224-03DLCS	NA	NA	100 mL	2 mL	
Matrix Spike	RQ1908224-04MS	7/29/19	7/29/19	100 mL	2 mL	
Duplicate Matrix Spike	RQ1908224-05DMS	7/29/19	7/29/19	100 mL	2 mL	

Preparation Information Benchsheet

Prep Run#: 341677 **Prep WorkFlow:** OrgExtSPEaq(7) **Status:** Prepped
Team: Semivoa GCMS/AMOSES **Prep Method:** EPA 3535A **Prep Date/Time:** 8/2/19 08:30

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1908224-01	MB		100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
2	RQ1908224-02	LCS		100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359; 200.0000 uL/200767	
3	RQ1908224-03	DLCS		100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359; 200.0000 uL/200767	
4	R1907110-002	ITT-SBW-23-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		200.0000 uL/200359; 10.0000 uL/199760	
5	RQ1908224-04	R1907110-002 MS	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200767; 200.0000 uL/200359	
6	RQ1908224-05	R1907110-002 DMS	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200767; 200.0000 uL/200359	
7	R1907110-003	EB-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
8	R1907110-004	ITT-SBW-2-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
9	R1907110-005	DUP-01-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		200.0000 uL/200359; 10.0000 uL/199760	
10	R1907110-006	ITT-IBW-20-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		200.0000 uL/200359; 10.0000 uL/199760	
11	R1907110-007	ITT-SBW-9-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
12	R1907110-001	ITT-SBW-10-072919	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
13	R1907123-007	1907271200A JER-2-504	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
14	R1907123-008	1907271210A JER-2-584	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
15	R1907123-009	1907271250A JER-2-684	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
16	R1907161-001	1907291324A JER-1-483	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		200.0000 uL/200359; 10.0000 uL/199760	
17	R1907161-002	1907291350A JER-1-563	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
18	R1907161-003	1907291412A JER-1-683	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		10.0000 uL/199760; 200.0000 uL/200359	
19	R1907161-004	1907291413A JER-1-683	.01	100mL	8270D SIM/1,4-Dioxane				2.00mL		200.0000 uL/200359; 10.0000 uL/199760	

Spiking Solutions

Name:	SVOA Tetrahydrofuran-D8 100ppm	Inventory ID	199760	Logbook Ref:		Expires On:	09/03/2019
Name:	1,4-Dioxane-d8 1ppm Surr. Std.	Inventory ID	200359	Logbook Ref:		Expires On:	12/19/2019
Name:	EPA 522 LCS Spike 5ppm	Inventory ID	200767	Logbook Ref:		Expires On:	12/28/2019

Preparation Information Benchsheet

Prep Run#: 341677
Team: Semivoa GCMS/AMOSES

Prep WorkFlow: OrgExtSPEaq(7)
Prep Method: EPA 3535A

Status: Prepped
Prep Date/Time: 8/2/19 08:30

Preparation Steps

Step: Extraction
Started: 8/2/19 08:30
Finished: 8/2/19 11:00
By: AMOSES
Comments

Comments: _____

Reviewed By: _____ Date: 8/6/19 Spike Witness: KSERCU Date: _____

Chain of Custody

Relinquished By:		Date:	Extracts Examined
Received By:		Date:	Yes No