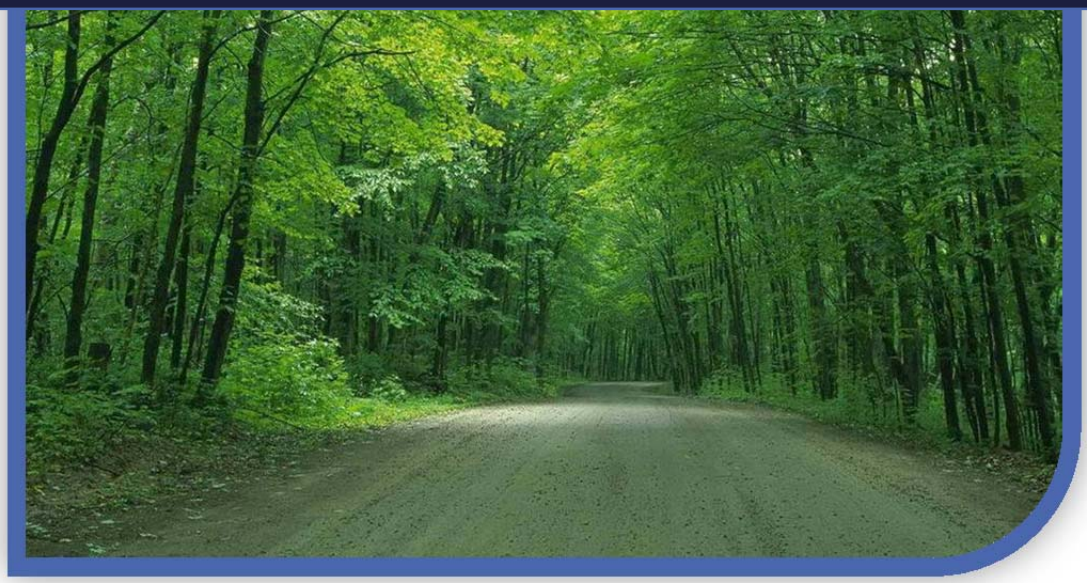
VERINA Engineering, P.C.

2018 REMEDIAL ACTION PROGRESS REPORT

FORMER BINGHAMTON PLASTICS FACILITY
BINGHAMTON, NEW YORK
NYSDEC SITE NO. 7-04-024



Verina Engineering, P.C.
1011 U.S. Highway 22, Suite 302
Bridgewater, New Jersey 08807

January 2019

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INTRODUCTION

This Remedial Action Progress Report (RAPR) was prepared by Verina Engineering, P.C. (VERINA), on behalf of Dover Corporation (Dover), for the remedial activities implemented in 2018 at the former Binghamton Plastics site in Binghamton, Broome County, New York, and New York State Department of Conservation (NYSDEC) Site No. 7-04-024.

The activities implemented in 2018 include:

- Quarterly in-situ chemical oxidation (ISCO) injections;
- Semi-annual groundwater monitoring; and
- Monthly monitoring of the Active Sub-Slab Depressurization (ASD) System.

The project was implemented in accordance with the executed Order on Consent between Dover and the New York State of Environmental Conservation (NYSDEC), dated January 19, 2001, and subsequent approvals from the NYSDEC.

SITE HISTORY AND BACKGROUND

The former Binghamton Plastics site is located at 498 Conklin Avenue in Binghamton, Broome County, New York. The site occupies approximately two acres and consists of a one-story industrial building (approximately 44,800 square feet [ft^2]) with associated parking, landscaping, and storage areas. The site is located in a combined industrial and residential setting. Figure 1 shows the site location. A site map is presented on Figure 2.

Binghamton Plastics operated the facility until the early 1980s when Universal Instruments Corporation (UIC), a former subsidiary of Dover, purchased the property and converted the facility into a circuit board manufacturing plant. UIC operated the facility until it was taken over by Dover Electronics Corporation in the late 1980s. Manufacturing activities ceased at the site in the early 1990s. In 1993 Dover Electronics was separated from Dover and re-named Dovatron, Inc. In 1996, Dovatron, Inc. changed its name to DII Group.

In the early 1990s, the property was transferred to Flextronics International, Inc. but UIC retained responsibilities for the remediation of pre-existing environmental conditions. From the early 1990s until August 2001, the facility was leased to and used by McIntosh Laboratories for electronics repair operations. The site was then sold to TeamWorld, Inc., and the building is now used for silk screening, embroidery, packaging of clothing, and storage.

REMEDIAL ACTIVITIES

Remedial actions were implemented following the approval of the Remedial Design (RD) Package (BBL 2002) by the NYSDEC on June 29, 2002. The remedial action consisted of excavating the main source areas of constituents of concern (COCs) within the perched groundwater zone. Excavation and groundwater extraction activities were conducted to remove residual contamination in the form of

phase-separated hydrocarbons (PSH), adsorbed volatile organic compounds (VOCs), and impacted groundwater. Groundwater that drained from the excavated perched-zone soil during the remedial action or that accumulated in the open excavations was removed for offsite treatment and disposal.

Since 2004, the groundwater monitoring program has been implemented to assess the effectiveness of the remedial action in remediating COC concentrations within the perched groundwater at the site. The groundwater monitoring program consists of a baseline groundwater monitoring event that was conducted on April 1, 2002 prior to remedial activities and subsequent post-remedial quarterly groundwater monitoring events. The groundwater monitoring frequency was reduced from a quarterly to a semi-annual basis in 2011 based on the NYSDEC approval on December 23, 2010.

Pursuant to approval from NYSDEC in its letter dated November 14, 2008, the ISCO injection program was initiated in June 2009 to further reduce the residual COCs in groundwater. The injection of sodium permanganate solution has been conducted in the upgradient monitoring wells (MW-9, MW-10, and MW-17) as well as in the source area (MW-8, MW-11, and MW-16). The injection frequency was reduced from quarterly to semi-annual basis in 2011, yet returned to a quarterly injection schedule in 2012. Additionally, one direct-push injection event within the plume area was conducted at the site in May 2013. Based upon a comparison of the March and September 2017 groundwater data, elevated levels of COCs in groundwater were still observed within several site monitoring wells and therefore VERINA continued the quarterly manual injection schedule in 2018. Since June 2009, a total of 36 rounds of sodium permanganate manual injections have been conducted at the site.

In accordance with the 2012 Remedial Design Work Plan - Active Sub-slab Depressurization (ASD) System (VERINA 2012), an ASD system was installed at the site in July 2012 to mitigate the degradation of indoor air quality at the site. Monthly inspections of the ASD system were implemented since its full-time operation in July 2012.

GROUNDWATER MONITORING AND ISCO INJECTION PROGRAM

GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring events were conducted semi-annually in 2018 to monitor site groundwater conditions and to assess the effectiveness of the ISCO injection program to remediate COCs at the site. The first-round groundwater sampling event was conducted between March 20 and 22, 2018 and the second-round groundwater sampling event was conducted on September 20, 2018.

Prior to each sampling event, the depth to groundwater was measured from all 14 monitoring wells (DMW-3, DMW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-16, MW-17, and TMP-A) on site and recorded on VERINA's groundwater gauging logs in order to establish groundwater elevations and groundwater flow direction at the site. Water level measurements were taken with a Solinst® brand laser-marked water level meter equipped with a stainless steel probe and measuring tape graduated in units of 0.01 foot. Groundwater elevation measurements from March 2018 and September 2018 are summarized in Tables 1 and 2, respectively. A map showing the perched groundwater elevation isocontours and groundwater flow direction is included as Figure 3 for the March 2018 event and as Figure 4 for the September 2018 event.

After well gauging was completed, select monitoring wells including MW-8, MW-9, MW-10, MW-16, and MW-17 were sampled in March 2018. In addition to these wells, monitoring wells DMW-3, TMP-A, MW-11, and MW-13 were also included during the September 2018 sampling event in accordance with VERINA'S 2017 Remedial Action Progress Report. Groundwater quality parameters, including pH, dissolved oxygen (DO), conductivity, temperature, turbidity, and oxidation-reduction potential (ORP), were measured via a YSI® 600XL or 556 water quality instrument coupled with a flow-through cell. In addition to measuring field parameters, the purged groundwater from each well was visually inspected for the presence of a purple or pink color, which would indicate the presence of un-reacted permanganate within the groundwater. A change in color of the water in the wells from dark purple to light pink (i.e., > visual concentration of 0.5 milligrams per liter [mg/L]) or clear (i.e., < visual concentration of 0.5 mg/L) indicates that the permanganate would have been consumed, diluted, or transported with groundwater.

Groundwater samples from monitoring wells that exhibited residual permanganate, as indicated by a pink or purple color of the purge water, were collected in laboratory-provided unpreserved vials pre-charged in the field with sodium thiosulfate. The sodium thiosulfate was added to neutralize the residual permanganate in the groundwater sample as it may influence the performance of the laboratory's analytical instruments. During the March 2018 sampling event, monitoring wells MW-8, MW-9, MW-16, and MW-17 exhibited residual permanganate while monitoring wells MW-8, MW-9, MW-11, MW-16, and MW-17 exhibited residual permanganate during the September 2018 sampling event. These wells had their residual sodium permanganate concentration analyzed for in the field immediately subsequent to site-specific parameter list (SSPL) VOC sampling using a Hach® DR890 or DR2800 colorimeter. A summary of the residual sodium permanganate groundwater concentrations is presented in Table 3.

As part of the QA/QC procedures, one duplicate sample, one matrix spike sample, one matrix spike duplicate sample, and one equipment blank sample per sampling date were also collected during each sampling event. All samples were collected in laboratory-supplied glassware, packaged on ice, and shipped to ALS Environmental (formerly Columbia Analytical Services, Inc.), of Rochester, New York (New York Laboratory Certification 10145) for analysis. All samples were analyzed for SSPL VOCs using United States Environmental Protection Agency (USEPA) Method 8260C. The SSPL VOCs analyzed for were: tetrachloroethylene (PCE); trichloroethylene (TCE); 1,1,1-trichloroethane (TCA); 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); and vinyl chloride (VC).

ISCO INJECTION PROGRAM

As approved by the NYSDEC, sodium permanganate is injected manually at six monitoring wells including MW-8, MW-9, MW-10, MW-11, MW-16, and MW-17 on a quarterly basis to further reduce the dissolved COC mass present in the groundwater. The ISCO injection program was initiated in June 2009. For 2018, manual injections occurred in the months of March, June, September and December. The manual injections were performed at the above mentioned wells, via gravity feed, to deliver a 10 percent by weight sodium permanganate solution during each of the 2018 injection events. A total of 60 gallons were injected during each injection event. The ISCO injection events occurring in March and September were conducted following that month's respective groundwater monitoring activities. A manual injection summary is presented in Table 4.

GROUNDWATER ELEVATION AND FLOW DIRECTION

The groundwater elevation data from March and September 2018 are summarized in Tables 1 and 2, respectively. The groundwater elevation contour map for the March and September 2018 events are provided as Figure 3 and Figure 4, respectively.

The groundwater elevation contour maps indicate that the hydraulic gradient is slight across the site and the groundwater flow within the perched groundwater zone is to the northwest, consistent with historical groundwater flow data. Although the groundwater flow is to the northwest, the slight hydraulic gradient as well as the fact that the groundwater plume has not migrated from the site supports the perched groundwater conceptual model for the site.

GROUNDWATER MONITORING ANALYTICAL RESULTS

The groundwater analytical data for the March and September 2018 monitoring events are summarized in Tables 5 and 6, respectively. The historical distribution of SSPL VOCs, including pre-full scale ISCO injection initiation sampling results, is summarized in Table 7. An isoconcentration map comparing the total molar concentration of PCE and its daughter products as chloride equivalents from June 2009, prior to the start of injection at the site, through September 2018 is presented as Figure 5. A graphical depiction of the decreasing trend of TCE concentrations, the site contaminant of concern with the highest observed historic concentrations, is presented as Figure 6. The groundwater sampling field logs for both the March and September 2018 sampling events are provided in Appendix A. The complete

laboratory data reports for the groundwater sampling events are presented in Appendix B. The electronic data deliverables (EDDs) for each groundwater sampling event have previously been submitted to the NYSDEC via the EQuIS Data Processor application and are also included under separate submission.

Based on the information collected during injection and 2018 semi-annual groundwater monitoring events, VERINA made the following conclusions:

- In comparing the September 2018 to the June 2009 total molar concentration of PCE and its daughter products, the plume size of the highest molar concentration as chloride equivalent observed within the source zone near MW-8 and MW-16 has decreased significantly. This indicates an overall COC mass reduction (as represented by both PCE and daughter products) within the perched groundwater beneath the site. Approximately 99% mass reduction of COCs in groundwater was estimated since the ISCO injection was implemented in 2009.

- Contaminant concentrations within the source zone continue to decline since the initiation of ISCO injections.

- The plume of PCE and its daughter products continue to be contained within the perched groundwater on site.

- Several VOCs were detected above their respective NYSDEC groundwater quality standards in wells MW-8, MW-9, and MW-16 during the March 2018 sampling event. These VOCs consist of 1,1-DCA, cis-1,2-DCE and/or TCE. PCE was only detected in well MW-10 and with concentration well below its NYSDEC groundwater quality standard in March 2018.

- During the September 2018 sampling event, 1,1-DCA, cis-1,2-DCE, PCE and/or TCE were detected above their respective NYSDEC groundwater quality standards in wells MW-8, MW-9, MW-10, MW-16 and/or MW-17. PCE was detected above its NYSDEC groundwater quality standard in well MW-16 sampled in September 2018.

ACTIVE SUB-SLAB DEPRESSURIZATION (ASD) OM&M

ASD SYSTEM INSPECTIONS

In accordance with the approved 2012 Remedial Design Work Plan – Active Sub-Slab Depressurization System (VERINA 2012), an ASD system was installed at the site. This system, shown on Figure 7, was installed in July 2012 to serve as a mitigation measure for elevated COC concentrations (specifically PCE and TCE) detected in the indoor air at the facility. Since installation and start-up, the ASD system has been operated continuously without disruption until December 2017 (see discussion below). Two rounds of indoor air sampling were conducted following implementation of the ASD system, on December 19, 2012 and December 10, 2013.

The ASD system has been effective at reducing the indoor air concentrations of COCs when comparing the December 2012 and December 2013 indoor air sampling results to the indoor air sampling results collected in March 2009 prior to the installation of the ASD system. Since no site specific COC concentrations in the indoor air samples exceeded the New York State Department of Health (NYSDOH)'s Indoor Air Guidance Values during the 2013 indoor air sampling event, VERINA proposed that no additional indoor air sampling events being conducted unless changes or modifications to the ASD system and/or to the building are identified during the monthly ASD system inspections in the January 2014 Periodic Review Report (PRP). NYSDEC approved the PRP on August 1, 2014.

During 2018, monthly inspections of the ASD system were implemented including observing and documenting the conditions of ASD system components and any structural changes or modifications to the building, as well as recording the pressure gauge measurements at each of the four vapor extraction points. Monthly ASD inspection logs are included as Appendix C.

INDOOR AIR SAMPLING AND ANALYSIS

During the December 2017 ASD system inspection event, the ASD system fan was found to not be operating properly and was therefore replaced in January 2018. To confirm that the repaired ASD system was working properly and effectively reducing indoor air concentrations of site COCs, VERINA collected indoor air samples at the site building in March 2018. VERINA collected five indoor air samples along with one outdoor ambient air sample over an 8-hour period. The air samples were collected in stainless steel Summa canisters and shipped to ALS Environmental of Rochester, New York. The locations of the air samples are shown on Figure 7 and the air sampling log is provided in Appendix D.

A review of the laboratory analytical results indicated only one compound, methylene chloride, had exceeded its respective New York State Department of Health (NYSDOH)'s Indoor Air Guidance Value in several of the indoor air samples. This compound is not a site COC and therefore the results indicate the ASD system is still effectively reducing indoor air concentrations of site COCs. The analytical results are summarized on Table 8 and the laboratory report is provided in Appendix E. The EDDs for the indoor air sampling event have previously been submitted to the NYSDEC via the EQuIS Data Processor application and are also included under separate submission.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings and conclusions of the groundwater monitoring program, field observation of the ISCO injection events, and ASD System OM&M results, VERINA has drawn the following conclusions:

- Based on the analytical results of the historic and current groundwater sampling events, COCs have not been detected in monitoring wells DMW-3, TMP-A, MW-11, MW-13, and MW-14 during several of the recent sampling events. This data supports the conclusion that the COC plume is contained at the site.

- A comparison of the 2018 groundwater sampling results to the historical sampling results indicates that the total VOC mass in the groundwater at the site has decreased by 99%. The overall total mass of COCs in groundwater have decreased significantly since the remedial action was implemented in June 2009.

- The 2018 groundwater monitoring results indicated several COCs still exceed their respective NYSDEC groundwater quality standards. However, the concentrations of these COCs are within one order of magnitude to the NYSDEC groundwater quality standards, except for PCE in well MW-16 during the September 2018 groundwater sampling event.

- The ASD system fan was replaced in early January 2018 and has been operating continuously since that time. The monthly ASD system inspections conducted in 2018 along with the indoor air sampling conducted in March 2018 confirm the system is now functioning properly.

Based on these conclusions, we recommend the following:

- VERINA will continue the semi-annual groundwater sampling program in March and September 2019. In March 2019, the wells to be sampled will include MW-8, MW-9, MW-10, MW-16, and MW-17. In addition to these wells, monitoring wells DMW-3, TMP-A, MW-11, and MW-13 will also be sampled during the September 2019 event, as shown on Table 9.

- As stated in VERINA'S 2017 RAPR and on the approval of the NYSDEC, VERINA will suspend sodium permanganate injections in 2019. Based upon the analytical results of the semi-annual groundwater sampling program in 2019, VERINA will assess the need for additional ISCO injections in the future.

- VERINA will continue monthly inspections of the ASD system. Additionally, since the ASD system fan was replaced in January 2018, VERINA collected indoor air samples in March 2018 which confirmed the ASD system is operating properly as all site COC were below the are below the NYSDOH Indoor Air Guidance Values.

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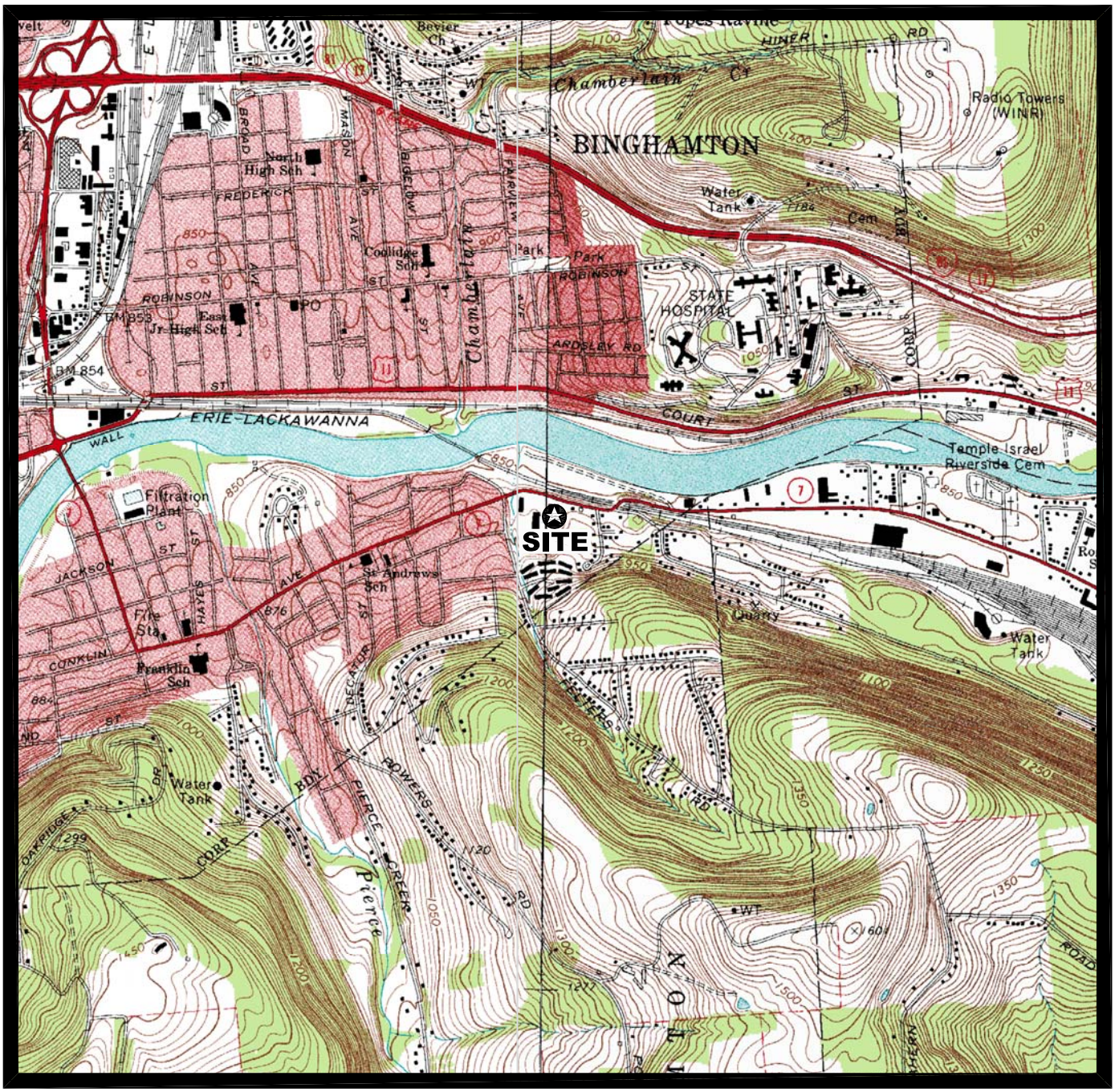
Figures



WEST BINGHAMTON AND
EAST BINGHAMTON QUADRANGLES
7.5–MINUTE SERIES

N

0 2000
APPROXIMATE SCALE

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

REGIONAL LOCATION MAP

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1

N

EXPLANATION

- MW-6 — DESIGNATION AND LOCATION OF MONITORING WELL
- TMP-B — DESIGNATION AND LOCATION OF DESTROYED MONITORING WELL
- UTILITY POLE
- UTILITY POLE W/LIGHT
- STORM MANHOLE
- CATCH BASIN
- SANITARY MANHOLE
- POST INDICATOR VALVE
- HYDRANT
- WATER VALVE
- GAS VALVE
- FORMER WALL

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *PRE-DESIGN INVESTIGATION REPORT FOR THE ACTIVE SLAP DEPRESSURIZATION SYSTEM*
PREPARED BY ARCADIS OF CRANBURY, NEW JERSEY, JUNE 26, 2009

0 40 FT.
APPROXIMATE SCALE

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

SITE MAP WITH MONITORING WELL LOCATIONS

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2

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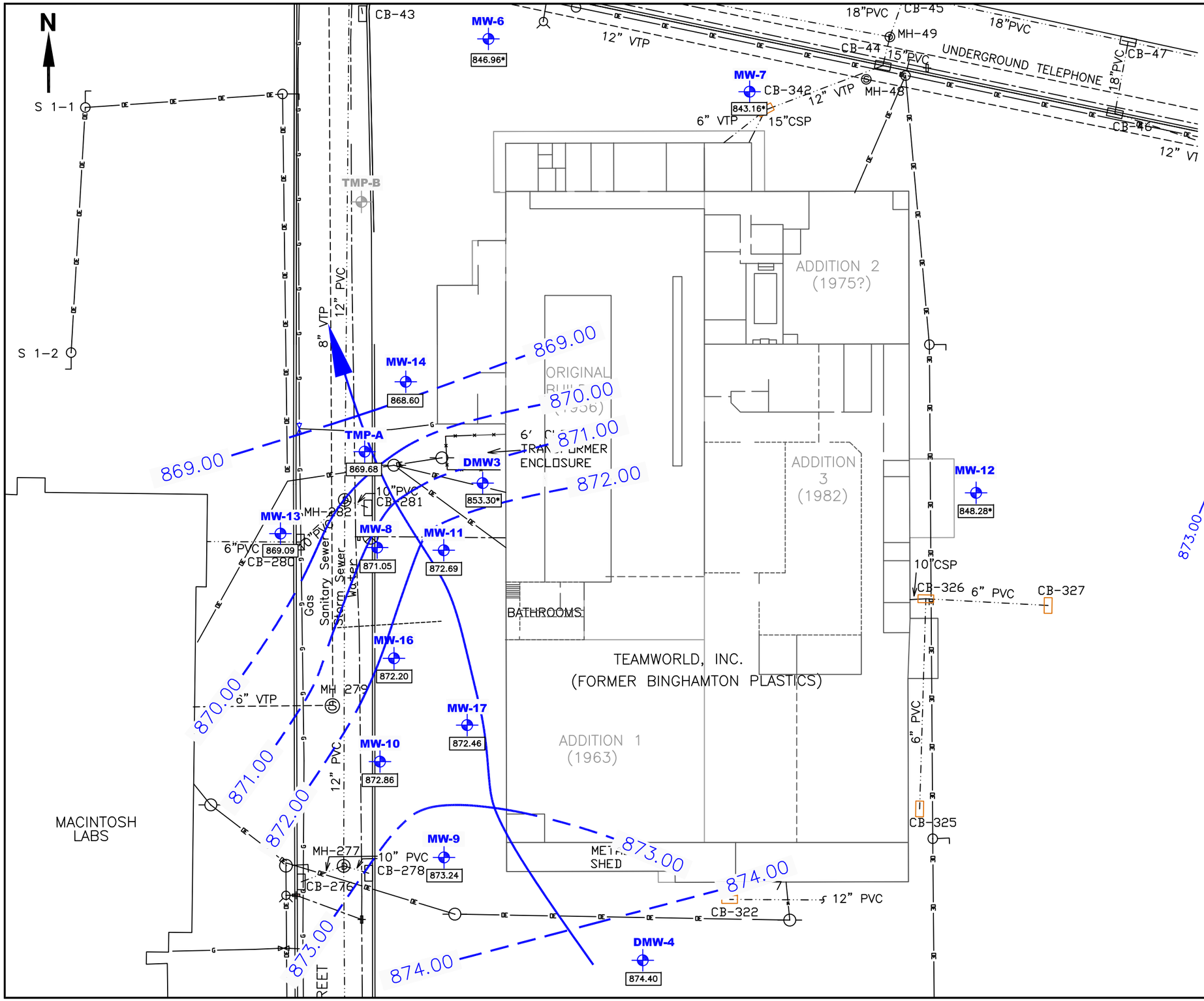

EXPLANATION

- MW-6 — DESIGNATION AND LOCATION OF MONITORING WELL
- TMP-B — DESIGNATION AND LOCATION OF DESTROYED MONITORING WELL
- UTILITY POLE
- (FT., MSL)
- STORM MANHOLE
- CATCH BASIN
- SANITARY MANHOLE
- POST INDICATOR VALVE
- FLOW DIRECTION
- HYDRANT
- WATER VALVE
- GAS VALVE
- FORMER WALL
- 869.84 — GROUNDWATER ELEVATION UTILITY POLE W/LIGHT
- GROUNDWATER ELEVATION ISOCONTOUR INTERVAL IN FT., MSL (DASHED WHERE INFERRED)
- ARROW INDICATES GENERALIZED GROUNDWATER

CONTOUR INTERVAL = 1.0 FT., MSL
AVERAGE HYDRAULIC GRADIENT = 0.024 FT/FT

NOTES:
1) * = NOT USED TO GENERATE CONTOURS
2) FT. MSL = FEET, MEAN SEA LEVEL
3) NM = NOT MEASURED

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *PRE-DESIGN INVESTIGATION REPORT FOR THE ACTIVE SLAP DEPRESSURIZATION SYSTEM* PREPARED BY ARCADIS OF CRANBURY, NEW JERSEY, JUNE 26, 2009

0 40 FT.
APPROXIMATE SCALE

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

PERCHED GROUNDWATER ELEVATION CONTOUR MAP MARCH 2018

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3

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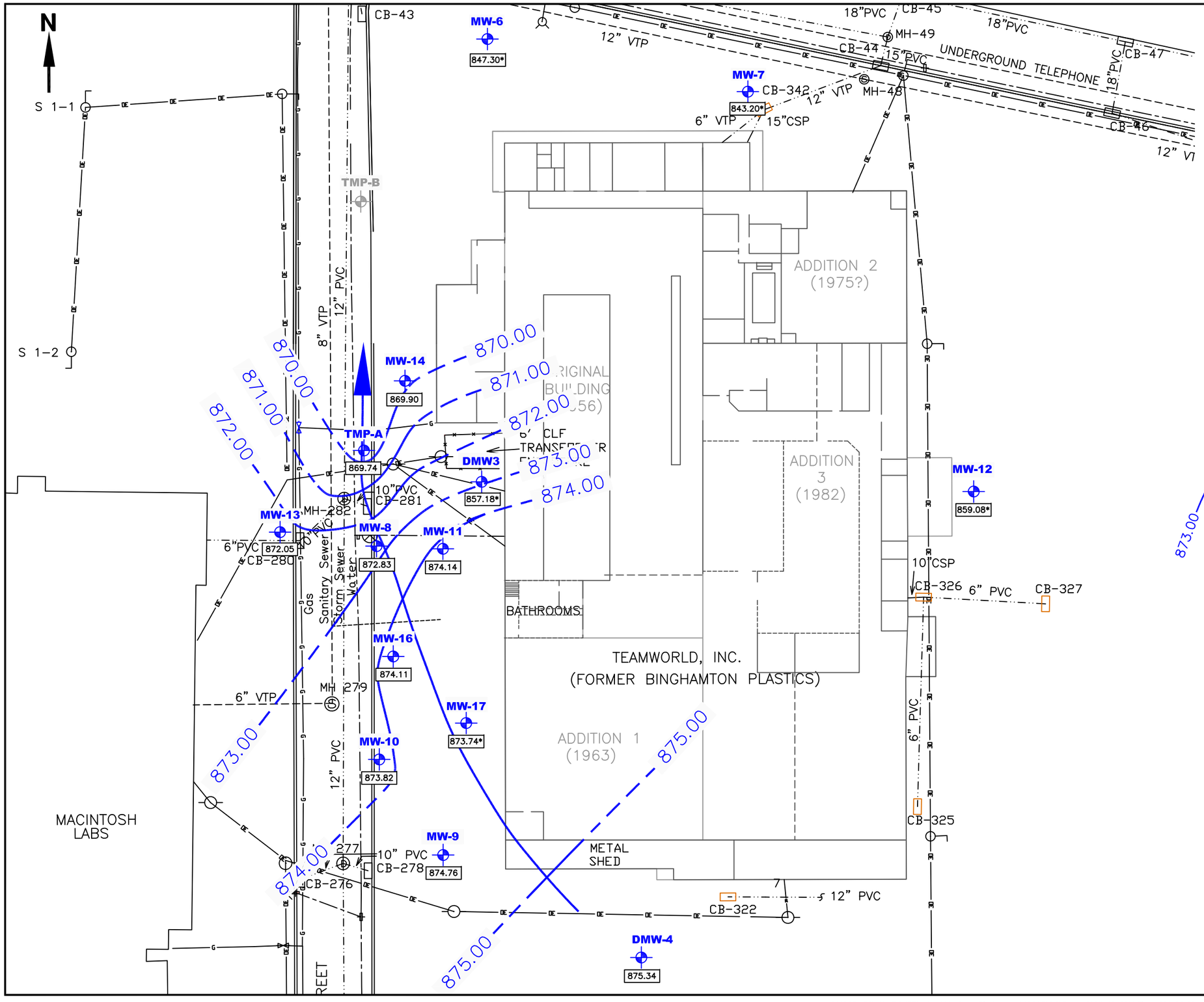

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

PERCHED GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 2018

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4

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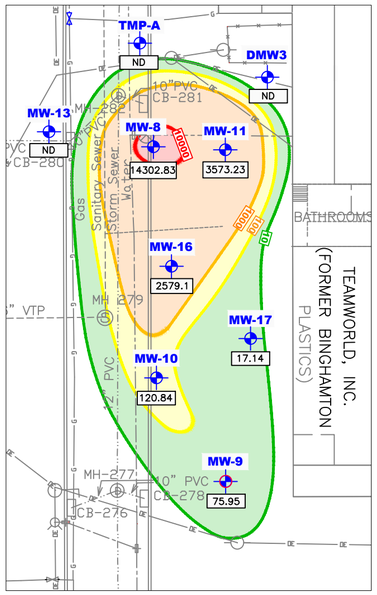
(Baseline) JUNE 2009



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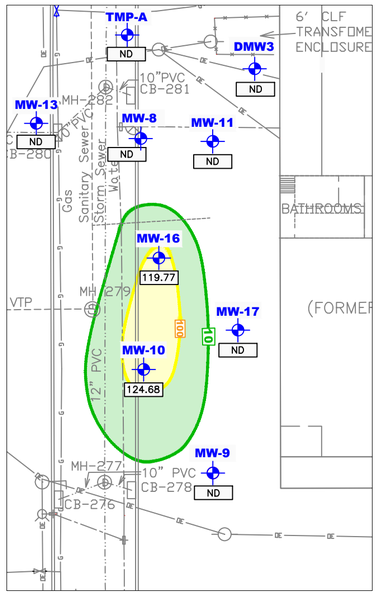

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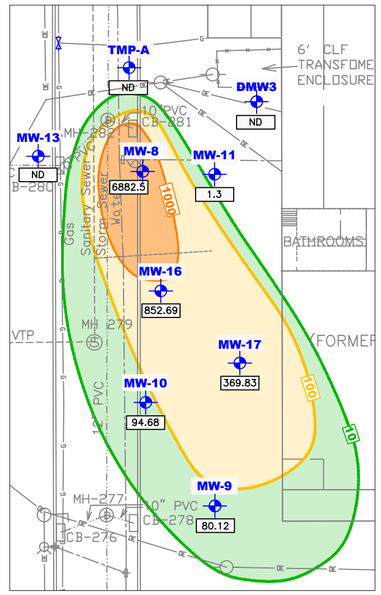

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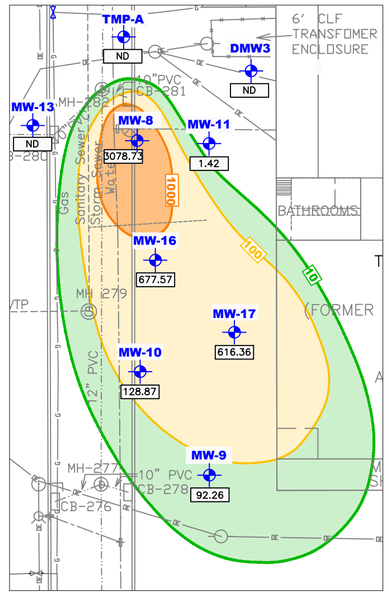

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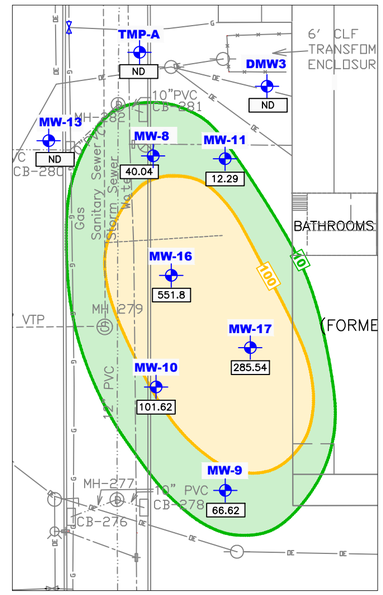

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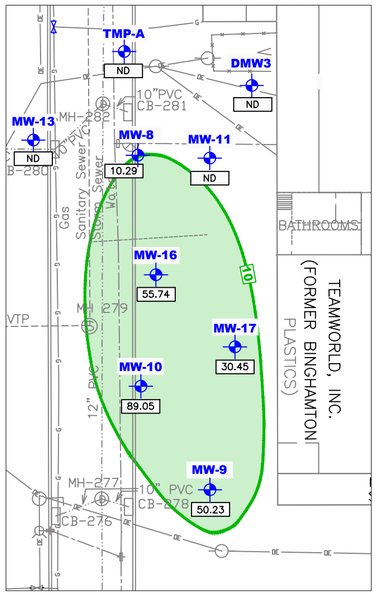

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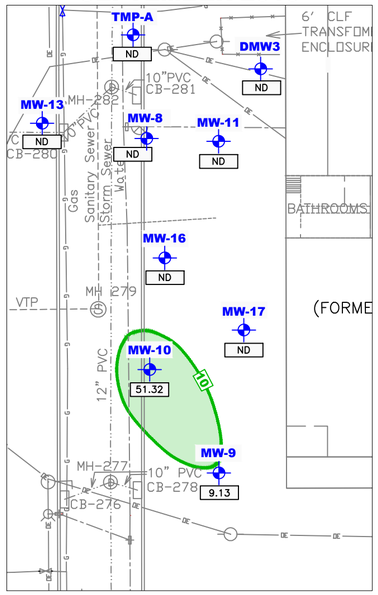

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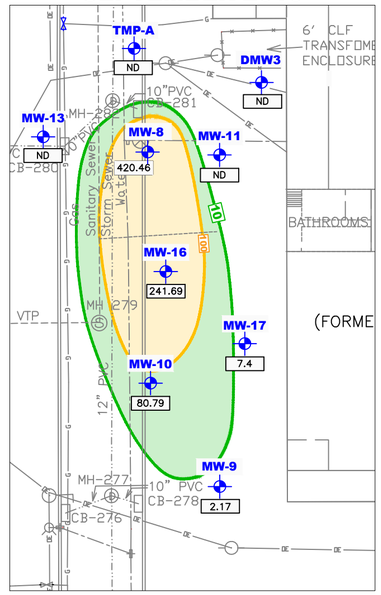

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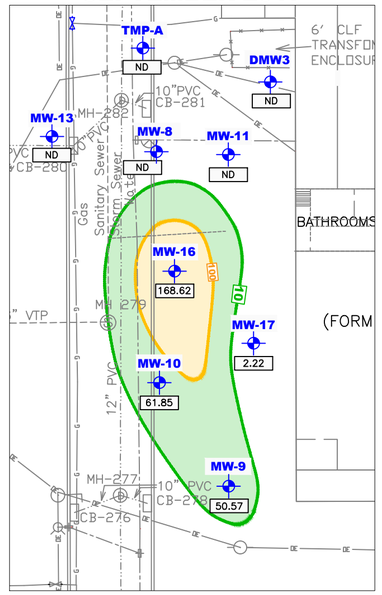

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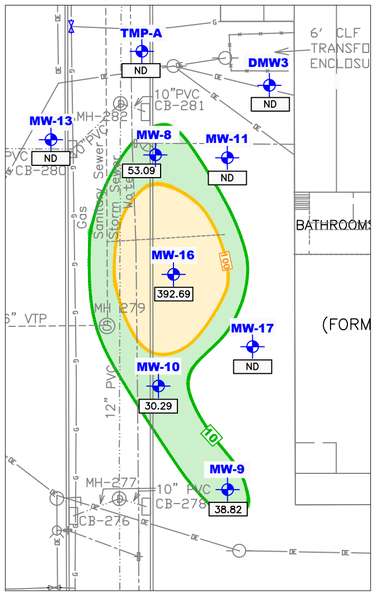

EXPLANATION

- MOLAR CONCENTRATION > 10 (mol x 10^8)/L (AS CHLORIDE EQUIVALENTS)
- MOLAR CONCENTRATION > 100 (mol x 10^8)/L (AS CHLORIDE EQUIVALENTS)
- MOLAR CONCENTRATION > 1000 (mol x 10^8)/L (AS CHLORIDE EQUIVALENTS)
- MOLAR CONCENTRATION > 10000 (mol x 10^8)/L (AS CHLORIDE EQUIVALENTS)

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *PRE-DESIGN INVESTIGATION REPORT FOR THE ACTIVE SLAP DEPRESSURIZATION SYSTEM* PREPARED BY ARCADIS OF CRANBURY, NEW JERSEY, JUNE 26, 2009

0 40 FT.
APPROXIMATE SCALE

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

ESTIMATED PCE AND DAUGHTER PRODUCTS TOTAL MOLAR ISOCONCENTRATION PLUME MAPS AS CHLORIDE EQUIVALENTS, BASELINE TO SEPTEMBER 2018

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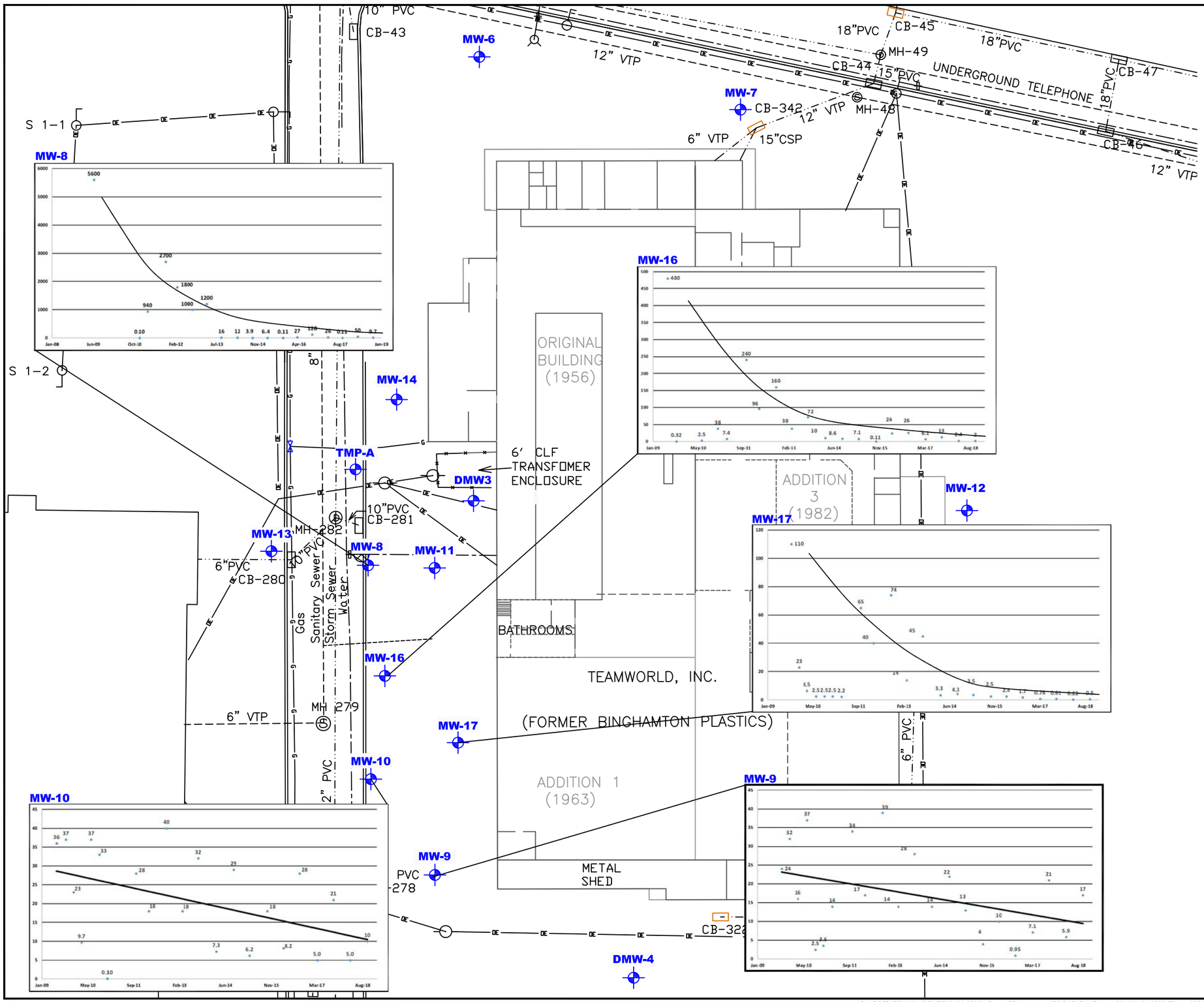

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0 40 FT.
APPROXIMATE SCALE

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

TCE TREND ANALYSIS AT SELECT WELLS

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6

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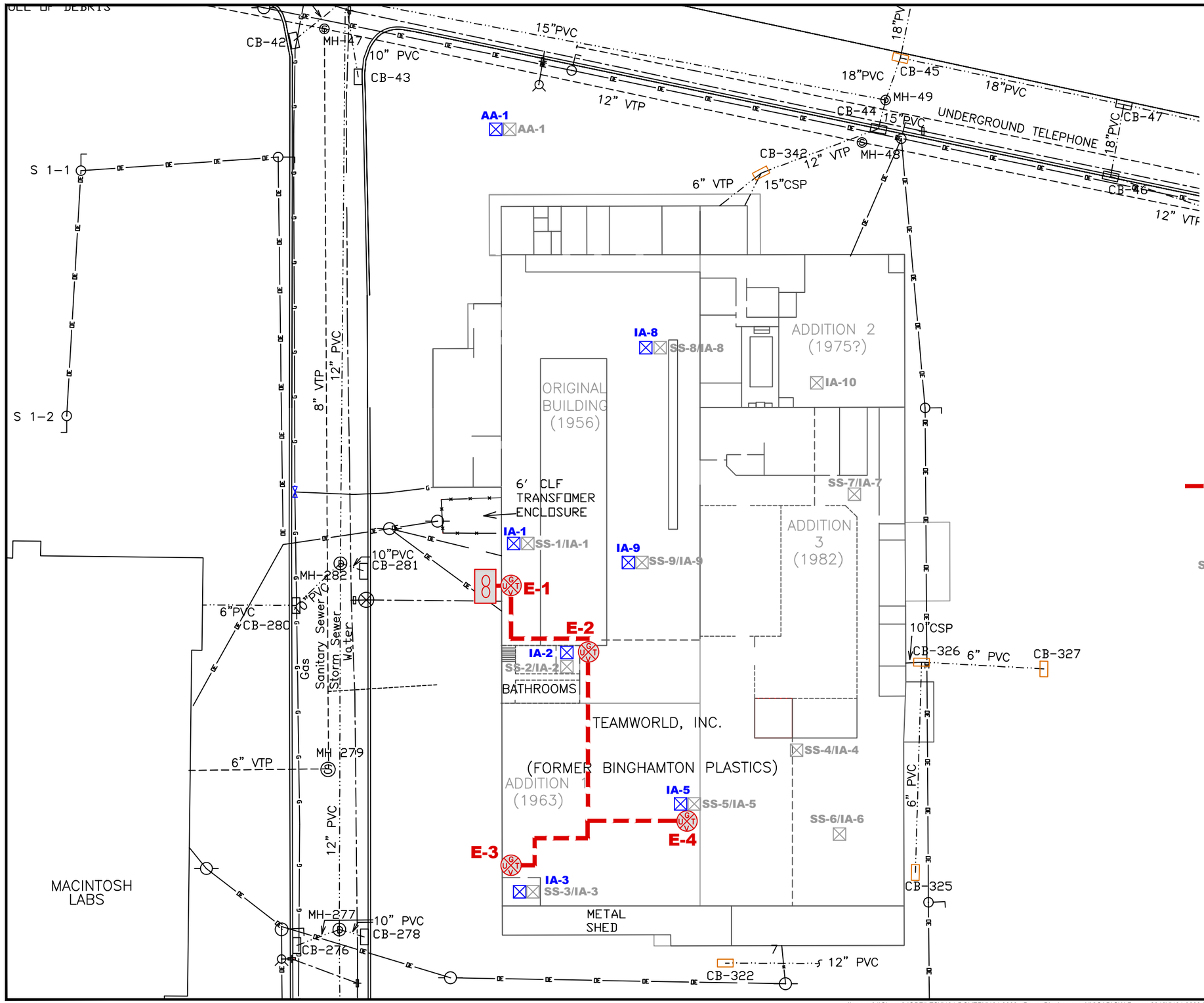
Tables



N

EXPLANATION

- UTILITY POLE
- UTILITY POLE W/LIGHT
- STORM MANHOLE
- CATCH BASIN
- SANITARY MANHOLE
- POST INDICATOR VALVE
- HYDRANT
- WATER VALVE
- GAS VALVE
- FORMER WALL
- **E-1** DESIGNATION AND APPROXIMATE LOCATION OF SUCTION POINT WITH GATE VALVE AND VACUUM GAUGE
- APPROXIMATE LOCATION OF EXHAUST FAN
- APPROXIMATE LOCATION OF PIPE ROUTE
- **IA-1** LOCATION OF INDOOR OR AMBIANT AIR SAMPLING LOCATION (DECEMBER 2012)
- **SS-1/IA-1** APPROXIMATE LOCATION OF SUB-SLAB SOIL GAS, INDOOR AND AMBIENT AIR SAMPLING LOCATION (MARCH 2009)

SOURCE:
1) SITE MAP AND FEATURES OBTAINED FROM *PRE-DESIGN INVESTIGATION REPORT FOR THE ACTIVE SLAP DEPRESSURIZATION SYSTEM* PREPARED BY ARCADIS OF CRANBURY, NEW JERSEY, JUNE 26, 2009
2) ASD SYSTEM LAYOUT OBTAINED FROM *SUB SLAB DEPRESSURIZATION AS BUILT SKETCH* PREPARED BY KEYSTONE MATERIAL TESTING, LLC OF BINGHAMTON, NEW YORK, AUGUST 1, 2012

0 40 FT.
APPROXIMATE SCALE

FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

ASD SYSTEM LAYOUT AND INDOOR AIR SAMPLING LOCATIONS

VERINA Engineering, P.C.

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Table 1 - Groundwater Elevation Data - March 2018, Former Binghamton Plastics, Binghamton, New York

Monitoring Well	Well Diameter (in)	Total Depth (ft, bg)	Screened Interval (ft, bg)	Surface Elevation (ft, msl)	Top of Casing Elevation (ft, msl)	Top of PVC Elevation (ft, msl)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, msl)
DMW-1	4	15	5-15	876.19	876.44	874.21	Abandoned	NA
DMW-3	2	48.36	41-48	875.16	875.16	874.22	20.92	853.30
DMW-4	2	15.59	4-14	878.32	878.38	877.91	3.51	874.40
MW-5	2	20	10-20	874.18	874.17	873.83	Abandoned	NA
MW-6	2	39.95	30-40	869.62	869.63	869.37	22.41	846.96
MW-7	2	40.31	30-40	869.96	869.99	869.60	26.44	843.16
MW-8	2	14.24	5-15	873.22	873.18	872.83	1.78	871.05
MW-9	2	14.63	5-15	875.02	875.04	874.76	1.52	873.24
MW-10	2	14.46	5-15	875.70	875.71	875.47	2.61	872.86
MW-11	2	19.31	10-20	874.53	874.52	874.14	1.45	872.69
MW-12	2	44.10	35-45	873.70	873.70	873.38	25.10	848.28
MW-13	2	13.97	5-15	874.08	874.09	873.60	4.51	869.09
MW-14	2	14.38	5-15	871.06	871.07	870.57	1.97	868.60
MW-15	2	15	5-15	874.06	874.16	873.69	Abandoned	NA
MW-16	2	13.27	5-15	874.56	NS	874.11	1.91	872.20
MW-17	2	15.11	5-15	874.03	NS	873.74	1.28	872.46
TMP-A	1	7.36	3-8	871.59	NS	871.39	1.71	869.68
TMP-B	1	10	5-10	869.57	NS	869.36	Abandoned	NA

NOTES:

Elevation is surveyed to National Vertical Datum - 1929

in = Inches

ft, bg = Feet below grade

ft, msl = Feet above mean sea level

ft, TOC = Feet from top of inner well casing

NA = Not available

NM = Not measured

NS = Not surveyed

Groundwater elevation measured on March 21, 2017

Table 2 - Groundwater Elevation Data - September 2018, Former Binghamton Plastics, Binghamton, New York

Monitoring Well	Well Diameter (in)	Total Depth (ft, bg)	Screened Interval (ft, bg)	Surface Elevation (ft, msl)	Top of Casing Elevation (ft, msl)	Top of PVC Elevation (ft, msl)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, msl)
DMW-1	4	15	5-15	876.19	876.44	874.21	Abandoned	NA
DMW-3	2	48.02	41-48	875.16	875.16	874.22	17.98	857.18
DMW-4	2	15.32	4-14	878.32	878.38	877.91	2.57	875.34
MW-5	2	20	10-20	874.18	874.17	873.83	Abandoned	NA
MW-6	2	39.43	30-40	869.62	869.63	869.37	21.44	847.93
MW-7	2	39.90	30-40	869.96	869.99	869.60	26.40	843.20
MW-8	2	14.11	5-15	873.22	873.18	872.83	0.00	872.83
MW-9	2	14.63	5-15	875.02	875.04	874.76	0.00	874.76
MW-10	2	14.43	5-15	875.70	875.71	875.47	1.65	873.82
MW-11	2	19.05	10-20	874.53	874.52	874.14	0.00	874.14
MW-12	2	44.30	35-45	873.70	873.70	873.38	14.30	859.08
MW-13	2	14.00	5-15	874.08	874.09	873.60	1.35	872.25
MW-14	2	14.18	5-15	871.06	871.07	870.57	0.67	869.90
MW-15	2	15	5-15	874.06	874.16	873.69	Abandoned	NA
MW-16	2	13.90	5-15	874.56	NS	874.11	0.00	874.11
MW-17	2	14.83	5-15	874.03	NS	873.74	0.00	873.74
TMP-A	1	7.35	3-8	871.59	NS	871.39	1.65	869.74
TMP-B	1	10	5-10	869.57	NS	869.36	Abandoned	NA

NOTES:

Elevation is surveyed to National Vertical Datum - 1929

in = Inches

ft, bg = Feet below grade

ft, msl = Feet above mean sea level

ft, TOC = Feet from top of inner well casing

NA = Not available

NM = Not measured

NS = Not surveyed

Groundwater elevation measured on September 14, 2017

Table 3 - Summary of Residual Sodium Permanganate Results, Former Binghamton Plastics, Binghamton, New York

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	December 2009	March 2010	June 2010	September 2010	December 2010	March 2011
MW-8	131.5	149	105.50	9.56	>19.8	3.74
MW-9	0.30	1.736	1.47	10.04	NS	18.91
MW-10	3.07	4.268	NS	3.57	>19.8	156.34
MW-11	132.2	149.1	151.70	120.80	>19.8	155.98
MW-16	29.71	95.1	76.99	105.60	>19.8	0.835
MW-17	NS	NS	103.00	11.21	>19.8	155.98

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	October 2011	March 2012	September 2012	March 2013	September 2013	March 2014
MW-8	0.16	17.2	1.3	0.5	70	14
MW-9	NS	7.3	NS	0.2	NS	3.0
MW-10	NS	2.4	NS	NS	NS	NS
MW-11	35.80	26.1	10.7	30	34	20
MW-16	146.46	4.6	1.7	1.1	1.3	3.1
MW-17	NS	NS	4.7	2.5	1.0	2.9

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	March 2014	September 2014	March 2015	September 2015	March 2016	September 2016
MW-8	14.0	10.0	10.3	164	102	35.1
MW-9	3.0	1.1	1.0	24	29	93.8
MW-10	NS	NS	NS	0.8	NS	NS
MW-11	20.0	11.1	NS	6.0	NS	221.2
MW-16	3.1	114	110.8	8.0	12	67
MW-17	2.9	24.4	23.7	104	99	112

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	March 2017	September 2017	March 2018	September 2018		
MW-8	81.9	68.6	93.6	1.2		
MW-9	13.7	8.7	16.8	0.1		
MW-10	NS	NS	NS	NS		
MW-11	NS	315.2	NS	22.7		
MW-16	160.0	302.4	93	0.1		
MW-17	12.0	238.5	84.6	2.4		

NOTES:

ppm = parts per million

NS = Not sampled due to no pink or purple color in water

A Hach DR890 or DR2800 colorimeter was used to measure the concentration of residual sodium permanganate

Table 4 - Summary of Sodium Permanganate Manual Injection Events, Former Binghamton Plastics, Binghamton, New York

	Injection Date				
Well ID No.	6/11/2009*	9/18/2009*	12/10/2009*	3/9/2010-3/10/2010*	6/23/2010*
MW-8	5	11	11	12.125	11
MW-9	5	11	11	11	11
MW-10	7	11	11	11	11
MW-11	3	5	5	2.75	5
MW-16	5	11	11	12.125	11
MW-17	5	11	11	11	11
Total	30	60	60	60	60

	Injection Date				
Well ID No.	9/22/2010*	12/16/2010*	3/24/2011**	11/4/2011**	3/22/2012**
MW-8	11	11	11	5	1.25
MW-9	11	11	11	22	35
MW-10	11	11	11	13	4.5
MW-11	5	5	5	2	1.25
MW-16	11	11	11	13	4.5
MW-17	11	11	11	5	1.5
Total	60	60	60	60	48

	Injection Date				
Well ID No.	6/22/2012**	9/17/2012-9/18/2012**	3/12/2013**	6/12/2013**	9/2/2013-9/6/2013*
MW-8	11	12	10	13	12.5
MW-9	11	12	13	10	11
MW-10	12	10	13	10	11
MW-11	3	4	2	4	4.5
MW-16	12	11	13	13	11
MW-17	11	11	9	10	10
Total	60	60	60	60	60

	Injection Date				
Well ID No.	12/10/2013*	3/20/2014-3/21/2014*	6/16/2014*	9/25/2014-9/26/2014*	12/17/2014 *
MW-8	10	10	12	6	6.5
MW-9	10	10	10	18	13
MW-10	12	10	10	15	15.5
MW-11	2	1.5	3	5	2
MW-16	15	12.5	15	13	13
MW-17	11	16	10	10	10
Total	60	60	60	67	60

NOTES:

All units are presented in gallons.

* A 10% of sodium permanganate solution was injected during this event .

** A 5% of sodium permanganate solution was injected during this event .

Table 4 (Continued) - Summary of Sodium Permanganate Manual Injection Events, Former Binghamton Plastics, Binghamton, New York

	Injection Date				
Well ID No.	3/18/2015-3/19/2015*	6/26/2015 *	8/27/2015 *	12/17/2015 *	3/17/2016 *
MW-8	14.5	10	10	10	10
MW-9	10	13	10	10	12
MW-10	10	11	10	10	12
MW-11	2	2	10	10	8
MW-16	13.5	17	10	10	10
MW-17	10	7	10	10	8
Total	60	60	60	60	60

	Injection Date				
Well ID No.	6/23/2016 *	9/29/2016 *	1/10/2017 *	3/22/2017 *	6/21/2017 *
MW-8	12	10	10	10	10
MW-9	10	10	10	10	10
MW-10	10	10	10	10	10
MW-11	6	10	10	10	10
MW-16	12	10	10	10	10
MW-17	10	10	10	10	10
Total	60	60	60	60	60

	Injection Date				
Well ID No.	9/18/2017 *	12/11/2017 *	3/22/2018 *	6/20/2018 *	9/21/2018 *
MW-8	10	10	10	10	12.5
MW-9	10	10	10	10	12.5
MW-10	10	10	10	10	7.5
MW-11	10	10	10	10	2.5
MW-16	10	10	10	10	12.5
MW-17	10	10	10	10	12.5
Total	60	60	60	60	60

	Injection Date				
Well ID No.	12/20/2018 *				
MW-8	10				
MW-9	10				
MW-10	10				
MW-11	10				
MW-16	10				
MW-17	10				
Total	60				

NOTES:

All units are presented in gallons.

* A 10% of sodium permanganate solution was injected during this event .

** A 5% of sodium permanganate solution was injected during this event .

Table 5 - Groundwater Analytical Data - March 2018, Former Binghamton Plastics, Binghamton, New York

Sample ID		MW-8	MW-9	MW-10	MW-16	DUP-032217
Laboratory ID		R1802551-004	R1802551-006	R1802551-002	R1802551-005	R1802551-009
Date Sampled	NYSDEC	3/22/2018	3/22/2018	3/20/2018	3/22/2018	3/22/2018
Units	GWQS	µg/l	µg/l	µg/l	µg/l	µg/l
1,1-Dichloroethane	5	2.2	0.20 U	0.72 J	**7.7**	**7.3**
1,1-Dichloroethene	5	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
cis-1,2-Dichloroethene	5	**67**	0.30 U	2.2	**15**	**14**
trans-1,2-Dichloroethene	5	0.33 J	0.33 U	0.33 U	0.33 U	0.33 U
Tetrachloroethene	5	0.30 U	0.30 U	0.52 J	0.30 U	0.30 U
1,1,1-Trichloroethane	5	1.9	0.36 U	0.54 J	2.8	2.5
Trichloroethene	5	**50**	**5.9**	5.0	2.4	2.3
Vinyl Chloride	2	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U

Sample ID		MW-17	EB-032018	EB-032218	TRIP BLANK
Laboratory ID		R1802551-003	R1802551-007	R1802551-008	R1802551-001
Date Sampled	NYSDEC	3/22/2018	3/20/2018	3/22/2018	3/20/2018
Units	GWQS	µg/l	µg/l	µg/l	µg/l
1,1-Dichloroethane	5	2.8	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	5	0.57 U	0.57 U	0.57 U	0.57 U
cis-1,2-Dichloroethene	5	0.30 U	0.30 U	0.30 U	0.30 U
trans-1,2-Dichloroethene	5	0.33 U	0.33 U	0.33 U	0.33 U
Tetrachloroethene	5	0.30 U	0.30 U	0.30 U	0.30 U
1,1,1-Trichloroethane	5	0.53 J	0.36 U	0.36 U	0.36 U
Trichloroethene	5	0.22 U	0.22 U	0.22 U	0.22 U
Vinyl Chloride	2	0.32 U	0.32 U	0.32 U	0.32 U

Notes:

J = Estimated value

µg/l = micrograms per liter

Bold = concentration exceeds NYSDEC GWQS

U = Compound analyzed for but not detected aboive method reporting limit given

"DUP" indicates the sample is a duplicate sample of that sample immediately preceding the duplicate sample on this table

NYSDEC = New York State Department of Environmental Conservation

GWQS = Ground Water Quality Standards

"EB" indicates the sample is an equipment blank sample

Table 6 - Groundwater Analytical Data - September 2018, Former Binghamton Plastics, Binghamton, New York

Sample ID		TMP-A	MW-8	DUP-092018	MW-9	MW-10	MW-11
Laboratory ID		R1809120-007	R1809120-009	R1809120-012	R1809120-008	R1809120-002	R1809120-010
Date Sampled	NYSDEC	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018
Units	GWQS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1-Dichloroethane	5	1.0 U	2.1	2.0	1.0 U	0.79 J	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	**11**	**15**	1.0 U	2.6	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
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U
1,1,1-Trichloroethane	5	1.0 U	0.62 J	0.51 J	0.42 J	1.3	1.0 U
Trichloroethene	5	1.0 U	**8.7**	**9.7**	**17**	**10**	1.0 U
Vinyl Chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Sample ID		MW-13	MW-16	MW-17	DMW-3	FB-092018	TRIP BLANK
Laboratory ID		R1809120-003	R1809120-006	R1809120-005	R1809120-004	R1809120-011	R1809120-001
Date Sampled	NYSDEC	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018
Units	GWQS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1-Dichloroethane	5	1.0 U	1.0 U	**7.1**	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.5	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
Tetrachloroethene	5	1.0 U	**160**	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

J = Estimated value

µg/l = micrograms per liter

U = Compound analyzed for but not detected aboive method reporting limit given

"DUP" indicates the sample is a duplicate sample of that sample immediately preceding the duplicate sample on this table

Bold = concentration exceeds NYSDEC GWQS

NYSDEC = New York State Department of Environmental Conservation

GWQS = Ground Water Quality Standards

"FB" indicates the sample is an equipment blank sample

Table 7 - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
DMW-1	2/8/1999	1000	< 180	< 360	8200	71
DMW-3	12/10/1998	<2.5	<2.5	<0.5	1.1 J	<10
	9/18/2001	< 0.5	< 0.5	< 0.5	0.5 J	< 0.5
	4/1/2002	0.03 J	< 0.5	< 0.5	0.3 J	< 0.5
	9/19/2002	0.2 J	<0.5	0.07 J	0.3 J	<0.5
	3/28/2003	<0.5	<0.5	0.2 J	0.1 J	<0.5
	6/19/2003	0.8	<0.5	0.3 J	0.8	<0.5
	9/16/2003	<0.5	<0.5	0.3 J	0.08 J	<0.5
	1/6/2004	<0.5	0.091 J	0.31 J	0.16 J	<0.5
	4/6/2004	0.2 J	<0.5	0.25 J	0.15 J	<0.5
	6/24/2004	<0.5	<0.5	0.17	<0.5	<0.5
	9/20/2004	<0.5	<0.5	0.23 J	0.13 J	<0.5
	3/23/2005	<0.5	<0.5	<0.5	0.13J	<0.5
	9/27/2005	<2	<2	<1	<1	<2
	3/7/2006	<5	<5	0.43J	<5	<5
	5/25/2006	<5	<5	<5	<5	<5
	9/19/2006	<5	<5	<5	<5	<5
	4/2/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	8/28/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	10/15/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	3/24/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	7/22/2008	<5.0	<5.0	<5.0	0.88 J	<5.0
	10/7/2008	<5.0	<5.0	<5.0	0.40 J	<5.0
	12/2/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	3/11/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	6/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	12/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	3/9/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	6/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/14/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/27/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	3/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/6/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0
DMW-4	12/9/1998	< 2.5	< 2.5	< 5	1.2J	< 10
TMP-A	3/22/2005	<0.5	<0.5	<0.5	<0.5	<0.5
	9/27/2005	<2	<2	<1	<2	<2
	3/7/2006	<5	<5	<5	<5	<5
	5/25/2006	<5	<5	<5	<5	<5
	9/19/2006	<5	<5	<5	<5	<5
	4/2/2007	<5	<5	<5	<5	<5
	7/23/2008	<5	<5	<5	<5	<5
	10/7/2008	<5	<5	<5	<5	<5
	3/9/2009	<5	<5	<5	<5	<5
	6/9/2009	<5	<5	<5	<5	<5
	9/16/2009	<5	<5	<5	<5	<5
	3/8/2010	<5	<5	<5	<5	<5
	10/27/2011	<5	<5	<5	<5	<5
	3/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	3/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/5/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0
MW-2	12/10/1998	7.9	< 2.5	1.3 J	86	< 10
MW-5	12/10/1998	480	11	1	17,000	20
	9/18/2001	370 J	< 500	<500	23,000	< 500
	4/1/2002	0.3 J	< 0.5	0.06 J	48	< 0.5
MW-6	12/9/1998	< 2.5	< 2.5	< 5	< 5	< 10
MW-7	12/8/1998	< 2.5	< 2.5	< 5	< 5	< 10

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-8	12/10/1998	0.25	< 5	< 0.01	0.35	<20
	9/18/2001	650	< 25	< 25	100	44
	4/1/2002	170	2	6	230	6
	9/18/2002	240	3 J	<6	560	<6
	3/28/2003	370	4	0.4 J	420	16
	6/19/2003	1,000	19	<13	810	36
	9/16/2003	960	14 J	<31	250	240
	1/6/2004	670	7.3 J	<18	500	7.7 J
	4/6/2004	1,900	12 J	<50	420	300
	6/24/2004	2,500	27	83	170	430
	9/20/2004	6,200	75	<210	380	740
	3/23/2005	4,000	44 J	<0.5	930	490
	6/14/2005	<2	<2	<1	<1	<2
	9/27/2005	<2	<2	<1	<1	<2
	3/7/2006	<50	<50	<50	<50	<50
	4/2/2007	110	0.69J	<5.0	360D	<5.0
	10/15/2007	640 D	9.8 J	<13	2700 D	66
	3/24/2008	170	3.3 J	<13	790 D	4.2 J
	7/22/2008	900	14 J	<100	3400	120
	10/7/2008	640	18 J	<100	3200	82 J
	12/2/2008	440	6.4 J	<25	2200 D	3.6 J
	3/10/2009	450	<100	<100	2200	38 J
	6/9/2009	680	14 J	<50	5600 D	53
	9/14/2009	NS	NS	NS	NS	NS
	12/8/2009	NS	NS	NS	NS	NS
	3/8/2010	NS	NS	NS	NS	NS
	6/21/2010	NS	NS	NS	NS	NS
	9/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/15/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	100	0.43 J	<5.0	940 D	3.9 J
	10/27/2011	330 D	1.6 J	<5.0	2700 D	21
	3/13/2012	290	3.2 J	<50	1800	32 J
	9/17/2012	360	<50	<50	1000	33 J
	3/11/2013	210	11 J	<50	1200	5.3 J
	9/2/2013	1.7 J	<5.0	<5.0	16	<5.0
	3/17/2014	0.85 J	<5.0	<5.0	12	<5.0
	9/20/2014	0.67 J	<5.0	<5.0	3.9 J	<5.0
	3/18/2015	0.75 J	<5.0	<5.0	6.4	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	3/17/2016	9.1	<1.0	<1.0	27	<1.0
	9/15/2016	71	<1.0	<1.0	120	<1.0
	3/22/2017	29	<1.0	<1.0	26	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	3/22/2018	67	0.33 J	<1.0	50	<1.0
	9/20/2018	11 (15)	<1.0	<1.0 (<1.0)	8.7 (9.7)	<1.0 (<1.0)
MW-9	12/10/1998	7.3	< 2.5	1.2J	77	< 10
	4/1/2002	0.6	< 0.5	0.2 J	20	< 0.5
	9/18/2002	7	0.08 J	1	57 J	0.9 J
	3/28/2003	1	<0.5	0.4 J	16	<0.5
	6/19/2003	3	0.04 J	0.5	26	0.09 J
	916/2003	4.1	<1.3	0.61 J	40	<1.3
	1/6/2004	2.4	0.083 J	0.48 J	23	<0.5
	4/6/2004	0.8 J	<1	0.61 J	30	<1
	6/24/2004	4.7	<0.5	0.53	27	0.52
	9/20/2004	6.2	<2.0	0.79 J	57	<2.0
	3/23/2005	0.78	<0.5	0.23 J	17	<0.5
	9/27/2005	5.5	<2	<2	46	<2
	3/7/2006	<5	<5	<5	<5	<5
	4/2/2007	0.85J	<5.0	<5.0	24	<5.0
	8/28/2007	8.4	<5.0	0.88 J	55	0.67 J
	10/15/2007	10	<5.0	0.81 J	55	<5.0
	3/24/2008	0.44 J	<5.0	<5.0	19	<5.0
	7/21/2008	12	<5.0	0.55 J	45	0.55 J
	10/8/2008	7.1	<5.0	0.59 J	49	<5.0
	12/2/2008	5.8	<5.0	0.47 J	49	<5.0
	3/10/2009	2.1 J	<5.0	<5.0	24	<5.0
	6/10/2009	1.4 J	<5.0	<5.0	32	<5.0
	9/16/2009	1.9 J	<5.0	0.83 J	24	<5.0
	12/8/2009	2.2 J	<5.0	0.43 J	32	<5.0
	3/8/2010	0.78 J	<5.0	<5.0	16	<5.0
	6/21/2010	1.60 J	<5.0	<5.0	37	<5.0
	9/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/16/2010	<5.0	<5.0	<5.0	3.6 J	<5.0
	3/23/2011	<5.0	<5.0	<5.0	14	<5.0
	10/26/2011	0.76 J	<5.0	0.38 J	34	<5.0
	3/13/2012	0.21 J	<5.0	<5.0	17	<5.0
	9/18/2012	1.1 J	<5.0	0.39 J	39	<5.0
	3/11/2013	<5.0	<5.0	<5.0	14	<5.0
	9/5/2013	0.94 J	<5.0	0.31 J	28	<5.0
	3/17/2014	0.41 J	<5.0	<5.0	14	<5.0
	9/21/2014	<5.0	<5.0	<5.0	22	<5.0
	3/19/2015	0.92 J	<5.0	<5.0	13	<5.0
	9/23/2015	<5.0	<5.0	<5.0	4.0 J	<5.0
	3/17/2016	0.31 J	<1.0	<1.0	10	<1.0
	9/15/2016	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	0.95 J (0.91 J)	<1.0 (<1.0)
	3/21/2017	<1.0	<1.0	<1.0	7.1	<1.0
	9/14/2017	0.92 J	<1.0	0.30 J	21	<1.0
	3/22/2018	<1.0	<1.0	<1.0	5.9	<1.0
	9/20/2018	<1.0	<1.0	<1.0	17	<1.0

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-10	12/10/1998	18	< 2.5	54	64	2.3 J
	9/18/2001	10	< 1.4	2	21	18
	4/1/2002	11	0.3 J	1	16	2
	9/18/2002	14	0.4 J	4	53 J	21
	3/28/2003	11	0.2 J	2	25	2
	6/19/2003	13	0.5 J	3	32	9
	9/16/2003	15	0.39 J	2.4	42	12
	1/6/2004	4.3	0.26 J	1.6	13	0.43 J
	4/6/2004	4.7	<0.5	0.89	13	0.38 J
	6/24/2004	16	0.65	2.6	45	8.6
	9/20/2004	3.4	0.15 J	2.7	16	0.9
	3/23/2005	3.8	0.11 J	1.1	12	0.57
	9/27/2005	13	<2	3	50	6.6
	3/7/2006	9.3	<5	1.6J	27	2.5J
	9/19/2006	17	0.48J	2.2J	32	5.9
	8/28/2007	12	0.33 J	2.2 J	31	5.9
	10/15/2007	4.8 J	<5.0	2.1 J	16	1.7 J
	3/24/2008	3.9 J	<5.0	0.53 J	6.6	<5.0
	7/21/2008	3.7 J	<5.0	0.45 J	5.3	0.72 J
	10/8/2008	12	0.26 J	1.4 J	25	5.3
	12/2/2008	4.4 J	<5.0	1.2 J	9.4	<5.0
	3/10/2009	4.3 J	<5.0	0.77 J	9.2	<5.0
	6/8/2009	15	<5.0	1.6 J	36	2.4 J
	9/14/2009	18	<5.0	2.0 J	37	4.8 J
	12/9/2009	13	<5.0	1.3 J	23	1.1 J
	3/8/2010	5.3	<5.0	0.71 J	9.7	<5.0
	6/22/2010	19	0.29 J	1.6 J	37	3.5 J
	9/21/2010	18	0.32 J	1.8 J	33	4.5 J
	12/15/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	86	<5.0	0.67 J	180	1.8 J
	10/26/2011	11	0.21 J	1.7 J	28	2.2 J
	3/13/2012	6	<5.0	0.81 J	18	0.46 J
	9/17/2012	14	<5.0	1.8 J	40	2.7 J
	3/11/2013	7.9	<5.0	0.72 J	18	0.49 J
	9/2/2013	11	<5.0	1.7 J	32	1.1 J
	3/17/2014	3.4 J	<5.0	0.63 J	7.3	<5.0
	9/21/2014	8.9	<5.0	1.4 J	29	0.69 J
	3/18/2015	2.1 J	<5.0	0.66 J	6.2	<5.0
	9/23/2015	3.2 J (3.1 J)	<5.0 (<5.0)	1.5 J (1.3 J)	18 (17)	<5.0 (<5.0)
	3/17/2016	2.9	<1.0	0.76 J	8.2	<1.0
	9/15/2016	6.3	<1.0	1.6	28	0.36 J
	3/21/2017	2.6	<1.0	0.70 J	5.0	<1.0
	9/14/2017	5.1 (4.9)	<1.0 (<1.0)	1.3 (1.4)	21 (21)	0.38 J (<1.0)
	3/20/2018	2.2	<1.0	0.52 J	5.0	<1.0
	9/20/2018	2.6	<1.0	0.87 J	10	<1.0
MW-11	12/9/1998	1,100	11	< 5	1,400	140
	9/18/2001	850	< 31	<31	700	77
	4/1/2002	1,100	12	<50	1,500	23
	9/19/2002	1,600	12 J	<25	2,100	82
	3/28/2003	1,200	11	0.2 J	2,400	58
	6/19/2003	1,300	10 J	<25	2,500	24 J
	9/16/2003	1,700	13 J	<83	2,500	170
	1/6/2004	1,200	31 J	<53	1,500	28 J
	4/6/2004	1,700	17	<83	2,300	6.8
	6/24/2004	1,600	18	<63	1,900	29
	9/20/2004	2,300 D	26 DJ	<63	2,200 D	58 DJ
	3/23/2005	1,500 D	21	<0.5	1,300 D	7.8
	6/14/2005	<2	<2	<1	<1	<2
	9/27/2005	<2	<2	<1	<1	<2
	3/7/2006	<500	<500	<500	<500	<500
	10/15/2007	<5.0	<5.0	<5.0	<5.0	< 5.0
	3/24/2008	130	<25	<25	520	5.2 J
	7/22/2008	1900	15 J	<100	2900	140
	10/7/2008	NS	NS	NS	NS	NS
	12/2/2008	NS	NS	NS	NS	NS
	3/11/2009	990	9.1 J	<25	3200 D	67
	6/8/2009	NS	NS	NS	NS	NS
	9/14/2009	NS	NS	NS	NS	NS
	12/8/2009	NS	NS	NS	NS	NS
	3/9/2010	NS	NS	NS	NS	NS
	6/21/2010	NS	NS	NS	NS	NS
	9/20/2010	NS	NS	NS	NS	NS
	12/16/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/27/2011	<5.0	<5.0	<5.0	0.57 J	<5.0
	3/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/17/2012	<5.0	<5.0	<5.0	0.62 J	<5.0
	3/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/2/2013	1.2 J	<5.0	<5.0	4.3 J	<5.0
	3/18/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<25	<25	<25	<25	<25
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<10	<10	<10	<10	<10
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on last page.

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-12	12/7/1998	< 2.5	< 2.5	< 5	< 5	< 10
MW-13	12/9/1998	< 2.5	< 2.5	< 5	< 5	< 10
	3/24/2008	NS	NS	NS	NS	NS
	7/23/2008	NS	NS	NS	NS	NS
	10/9/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	12/2/2008	<5.0	<5.0	<5.0	0.96 J	<5.0
	3/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	6/10/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	12/7/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	3/9/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	6/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/16/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/26/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	3/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/6/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0
MW-14	12/9/1998	< 2.5	< 2.5	< 5	< 5	< 10
	9/18/2001	< 0.5	< 0.5	< 0.5	0.2J	< 0.5
	3/28/2003	<0.5	<0.5	0.08 J	<0.5	<0.5
	6/19/2003	<0.5	<0.5	0.3 J	0.04 J	<0.5
	9/16/2003	<0.5	<0.5	0.087 J	<0.5	<0.5
	1/6/2004	<0.5	<0.5	<0.5	0.064 J	<0.5
	4/6/2004	<0.5	<0.5	<0.5	<0.5	<0.5
	6/24/2004	2.1	<0.5	0.27 J	6.5	<0.5
	9/20/2004	<0.5	<0.5	<0.5	<0.5	<0.5
	3/23/2005	<0.5	<0.5	<0.5	<0.5	<0.5
	3/7/2006	<5.0	<5.0	<5.0	<5.0	<5.0
	5/25/2006	<5.0	<5.0	<5.0	<5.0	<5.0
	9/19/2006	<5.0	<5.0	<5.0	<5.0	<5.0
	4/2/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	8/28/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	10/15/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	3/24/2008	<5.0	<5.0	<5.0	0.62 J	<5.0
	7/23/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	10/7/2008	<5.0	<5.0	<5.0	0.32 J	<5.0
	12/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	3/11/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	6/10/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	12/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	3/9/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	6/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/14/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/26/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	3/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/6/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
MW-15	12/10/1998	960	11	14	6,900	23
	9/18/2001	790	< 84	< 84	4,000	68 J
	4/1/2002	510	10	17	3,400	34

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-16	9/19/2002	1,500	11 J	<32	340	38
	3/28/2003	440	7	0.2 J	15	59
	6/19/2003	400	12	0.3 J	48	58
	9/16/2003	87	4.8	0.323 J	9	24
	1/6/2004	68	3.3	<2.5	6.6	20
	4/6/2004	22	1.1	0.23 J	2.6	5.6
	6/24/2004	6.8	2	0.23 J	4.1	2.3
	9/20/2004	78 D	5.2 D	<2.5	17	27 D
	3/23/2005	9.3	5.4	<0.5	0.95	4.4
	9/25/2005	12	5.4	<1	6.2	11
	3/7/2006	<500	<500	<500	<500	<500
	10/15/2007	240 D	13	0.64 J	110	140
	3/24/2008	NS	NS	NS	NS	NS
	7/22/2008	240	8.7 J	<13	69	87
	10/8/2008	710	13 J	1.1 J	330	180
	12/2/2008	450 D	10	0.94 J	320	88
	3/10/2009	270	4.6 J	1.1 J	280	42
	6/10/2009	650	10 J	<25	480	76
	9/15/2009	<5	<5	0.55 J	<5	<5
	12/8/2009	NS	NS	NS	NS	NS
	3/9/2010	NS	NS	NS	NS	NS
	6/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2010	NS	NS	NS	NS	NS
	12/16/2010	16	<5.0	<5.0	38	<5.0
	3/23/2011	4.1 J	<5.0	0.70 J	7.4	<5.0
	10/27/2011	140	5.6	1.8 J	240 D	<5.0
	3/13/2012	94	2.7 J	0.44 J	96	10
	9/17/2012	140	2.0 J	0.71 J	160	11
	3/11/2013	96	7.5	0.34 J	38	1.9 J
	9/5/2013	170	10	0.50 J	72	9.3
	3/17/2014	49	1.4 J	<5.0	10	14
	9/21/2014	17	<5.0	0.43 J	8.6	<5.0
	3/18/2015	31	0.35 J	<5.0	7.1	15
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	3/17/2016	87 (88)	1.4 (1.7)	0.89 J (0.70 J)	24 (24)	1.2 (0.96 J)
	9/15/2016	83	0.87 J	0.61 J	26	4.9
	3/22/2017	30 (40)	<1.0 (<1.0)	<1.0 (<1.0)	6.1 (7.3)	8.1 (8.7)
	9/14/2017	67	<1.0	0.30 J	13	2.7
	3/22/2018	15 (14)	<1.0 (<1.0)	<1.0 (<1.0)	2.4 (2.3)	<1.0 (<1.0)
	9/20/2018	1.5	<1.0	160	1.6	<1.0
MW-17	9/19/2002	1,800	18 J	<42	2,800	38 J
	3/28/2003	280	11	0.3 J	2	180
	6/19/2003	50	13	<6	1	65
	9/16/2003	4	11	1.6 J	0.74 J	9.1
	1/6/2004	3.3 J	6.4	<4.2	0.81 J	2.4 J
	4/6/2004	3 J	6.8	<5	1.6 J	4.5 J
	6/24/2004	<4.2	9.8	2.2	1.1	1.5
	9/20/2004	3.3 J	11	2.1 J	<5.0	6.7
	3/25/2005	7.9	7.3	<0.5	0.8	5.9
	9/27/2005	150	8	<1	71	24
	3/7/2006	<50	<50	<50	<50	<50
	9/19/2006	0.33	24	3.2	31	17
	8/28/2007	55	2.4 J	0.82 J	110	82
	10/15/2007	37	1.5 J	0.38 J	73	6.6
	3/24/2008	3.0 J	0.33 J	<5.0	1.2 J	0.93 J
	7/21/2008	2.4 J	0.94 J	<5.0	0.66 J	1.1 J
	10/8/2008	16	1.6 J	0.21 J	35	5.7
	12/2/2008	6.6	0.46 J	<5.0	15	1.3 J
	3/10/2009	3.7 J	0.46 J	<5.0	4.4 J	1.9 J
	6/9/2009	2.8 J	0.78 J	<5.0	3.5 J	1.1 J
	9/14/2009	38	2.5 J	0.60 J	110	9.1
	12/8/2009	7.4	0.61 J	<5.0	23	2.1 J
	3/9/2010	4.5 J	<5.0	<5.0	6.5	1.1 J
	6/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/15/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	5.6	<5.0	<5.0	2.2 J	<5.0
	10/26/2011	87	4.2 J	0.53 J	65	20
	3/14/2012	77	3.3 J	0.27 J	40	18
	9/17/2012	200	10	0.44 J	74	8.2
	3/11/2013	53	2.8 J	<5.0	14	0.41 J
	9/5/2013	84	3.6 J	<5.0	45	1.3 J
	3/17/2014	18	1.0 J	<5.0	3.3 J	<5.0
	9/21/2014	10	<5.0	<5.0	4.3 J	<5.0
	3/18/2015	5.8 (7.8)	<5.0 (<5.0)	<5.0 (<5.0)	3.5 J (4.6 J)	<5.0 (<5.0)
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	3/17/2016	3.7	<1.0	<1.0	2.4	<1.0
	9/15/2016	1.4	<1.0	0.30 J	1.7	<1.0
	3/21/2017	0.78 J	<1.0	<1.0	0.78 J	<1.0
	9/14/2017	0.40 J	<1.0	<1.0	0.61 J	<1.0
	3/22/2018	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

J = Estimated value; compound detected below Detection Limit.

D = Compound identified in an analysis at a secondary dilution factor

= Baseline result

NS=Not sampled

µg/l = Micrograms per liter

< = Not detected above laboratory reporting limit given

Table 8 Indoor Air Sampling Analytical Results - March 2018, Former Binghamton Plastics Site, Binghamton, New York

Sample ID	NYSDOH Indoor Air Guidance Values	IA-2				IA-3				IA-5			
Sampling Date		3/21/2018				3/21/2018				3/21/2018			
Laboratory ID		P1801538-003				P1801538-005				P1801538-004			
Units		ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q
Volatile Organic Compounds	(µg/m³)												
Dichlorodifluoromethane (CFC 12)	NA	0.42		2.1		0.45		2.2		0.43		2.1	
Chloromethane	NA	0.37	U	0.77	U	0.31	U	0.63	U	0.46	U	0.95	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NA	0.11	U	0.77	U	0.090	U	0.63	U	0.14	U	0.95	U
Vinyl Chloride	NA	0.30	U	0.77	U	0.25	U	0.63	U	0.37	U	0.95	U
1,3-Butadiene	NA	0.35	U	0.77	U	0.28	U	0.63	U	0.43	U	0.95	U
Bromomethane	NA	0.20	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
Chloroethane	NA	0.29	U	0.77	U	0.24	U	0.63	U	0.36	U	0.95	U
Ethanol	NA	100		190		100		200		94		180	
Acetonitrile	NA	0.46	U	0.77	U	0.38	U	0.63	U	0.57	U	0.95	U
Acrolein	NA	1.3	U	3.1	U	1.1	U	2.5	U	1.7	U	3.8	U
Acetone	NA	480	D	1100	D	160		370		380		910	
Trichlorofluoromethane	NA	0.39		2.2		0.36		2.0		0.35		2.0	
2-Propanol (Isopropyl Alcohol)	NA	3.8		9.3		4.2		10		3.9	U	9.5	U
Acrylonitrile	NA	0.35	U	0.77	U	0.29	U	0.63	U	0.44	U	0.95	U
1,1-Dichloroethene	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
Methylene Chloride	60	33		120		29		100		30		100	
3-Chloro-1-propene (Allyl Chloride)	NA	0.24	U	0.77	U	0.20	U	0.63	U	0.30	U	0.95	U
Trichlorotrifluoroethane	NA	0.11		0.82		0.13		1.0		0.12	U	0.95	U
Carbon Disulfide	NA	2.5	U	7.7	U	2.0	U	6.3	U	3.1	U	9.5	U
trans-1,2-Dichloroethene	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
1,1-Dichloroethane	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.23	U	0.95	U
Methyl tert-Butyl Ether	NA	0.21	U	0.77	U	0.17	U	0.63	U	0.26	U	0.95	U
Vinyl Acetate	NA	2.2	U	7.7	U	1.8	U	6.3	U	2.7	U	9.5	U
2-Butanone (MEK)	NA	2.6	U	7.7	U	2.1	U	6.3	U	3.2	U	9.5	U
cis-1,2-Dichloroethene	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
n-Hexane	NA	2.8		9.7		1.1		4.0		2.6		9.2	
Chloroform	NA	0.16	U	0.77	U	0.13	U	0.63	U	0.19	U	0.95	U
1,2-Dichloroethane	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.23	U	0.95	U
1,1,1-Trichloroethane	NA	0.15		0.84		0.24		1.3		0.17	U	0.95	U
Benzene	NA	0.28		0.89		0.25		0.81		0.35		1.1	
Carbon Tetrachloride	NA	0.072		0.45		0.063		0.40		0.030	U	0.19	U
1,2-Dichloropropane	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
Bromodichloromethane	NA	0.11	U	0.77	U	0.094	U	0.63	U	0.14	U	0.95	U
Trichloroethene (TCE)	5	0.71		3.8		0.85		4.5		0.70		3.8	
1,4-Dioxane	NA	0.21	U	0.77	U	0.17	U	0.63	U	0.26	U	0.95	U
cis-1,3-Dichloropropene	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
4-Methyl-2-pentanone	NA	0.19	U	0.77	U	0.15	U	0.63	U	0.23	U	0.95	U
trans-1,3-Dichloropropene	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
1,1,2-Trichloroethane	NA	0.14	U	0.77	U	0.12	U	0.63	U	0.17	U	0.95	U
Toluene	NA	3.0		11		3.8		14		3.8		14	
2-Hexanone	NA	0.19	U	0.77	U	0.15	U	0.63	U	0.23	U	0.95	U
Dibromochloromethane	NA	0.090	U	0.77	U	0.074	U	0.63	U	0.11	U	0.95	U
1,2-Dibromoethane	NA	0.10	U	0.77	U	0.082	U	0.63	U	0.12	U	0.95	U
n-Butyl Acetate	NA	2.5		12		3.8		18		2.1		9.9	
Tetrachloroethene (PCE)	100	2.4		17		1.8		12		2.2		15	
Chlorobenzene	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
Ethylbenzene	NA	0.51		2.2		0.66		2.9		0.56		2.4	
m,p-Xylenes	NA	2.1		8.9		2.5		11		2.1		8.9	
Bromoform	NA	0.074	U	0.77	U	0.061	U	0.63	U	0.092	U	0.95	U
Styrene	NA	0.18	U	0.77	U	0.15	U	0.63	U	0.22	U	0.95	U
o-Xylene	NA	3.1		13		2.6		11		2.8		12	
n-Nonane	NA	15		77		11		57		13		68	
1,1,2,2-Tetrachloroethane	NA	0.11	U	0.77	U	0.092	U	0.63	U	0.14	U	0.95	U
Cumene	NA	5.4		26		4.2		21		4.7		23	
alpha-Pinene	NA	1.5		8.4		0.80		4.5		1.6		8.9	
4-Ethyltoluene	NA	31		150		24		120		28		140	
1,3,5-Trimethylbenzene	NA	32		160		25		120		27		130	
1,2,4-Trimethylbenzene	NA	62	D	310	D	49	D	240	D	53	D	260	D
Benzyl Chloride	NA	0.30	U	1.5	U	0.24	U	1.3	U	0.37	U	1.9	U
1,3-Dichlorobenzene	NA	0.13	U	0.77	U	0.10	U	0.63	U	0.16	U	0.95	U
1,4-Dichlorobenzene	NA	0.13	U	0.77	U	0.10	U	0.63	U	0.16	U	0.95	U
1,2-Dichlorobenzene	NA	0.13	U	0.77	U	0.10	U	0.63	U	0.16	U	0.95	U
d-Limonene	NA	14		76		11		61		12		68	
1,2-Dibromo-3-chloropropane	NA	0.079	U	0.77	U	0.065	U	0.63	U	0.098	U	0.95	U
1,2,4-Trichlorobenzene	NA	0.10	U	0.77	U	0.085	U	0.63	U	0.13	U	0.95	U
Naphthalene	NA	0.15	U	0.77	U	0.12	U	0.63	U	0.18	U	0.95	U
Hexachlorobutadiene	NA	0.072	U	0.77	U	0.059	U	0.63	U	0.089	U	0.95	U

Notes:

Bold = compounds of concern

µg/m³ = micrograms per cubic meter

ppbv = parts per billion by volume

Q = Qualifier

U = Constituent not detected above reporting limit given

D = Result obtained from sample dilution

Sample AA-1 is an outdoor ambient air sample

Samples analyzed by ALS Environmental of Rochester, NY

Gray shading indicates compound exceeds respective NYSDOH Indoor Air Guidance Value

NYSDOH = New York State Department of Health

NYSDOH Indoor Air Guidance Values in µg/m³ are:

Methylene Chloride - 60

PCE - 100

TCE - 5

Table 8 Indoor Air Sampling Analytical Results - March 2018, Former Binghamton Plastics Site, Binghamton, New York

Sample ID	NYSDOH Indoor Air Guidance Values	IA-8				IA-9				AA-1			
Sampling Date		3/21/2018				3/21/2018				3/21/2018			
Laboratory ID		P1801538-001				P1801538-002				P1801538-006			
Units		ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q
Volatile Organic Compounds	(µg/m³)												
Dichlorodifluoromethane (CFC 12)	NA	0.49		2.4		0.44		2.2		0.33		1.6	
Chloromethane	NA	0.37	U	0.76	U	0.36	U	0.74	U	0.36	U	0.74	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NA	0.11	U	0.76	U	0.11	U	0.74	U	0.11	U	0.74	U
Vinyl Chloride	NA	0.30	U	0.76	U	0.29	U	0.74	U	0.29	U	0.74	U
1,3-Butadiene	NA	0.34	U	0.76	U	0.33	U	0.74	U	0.33	U	0.74	U
Bromomethane	NA	0.20	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
Chloroethane	NA	0.29	U	0.76	U	0.28	U	0.74	U	0.28	U	0.74	U
Ethanol	NA	120		230		110		200		3.9	U	7.4	U
Acetonitrile	NA	0.45	U	0.76	U	0.44	U	0.74	U	0.44	U	0.74	U
Acrolein	NA	1.3	U	3.0	U	1.3	U	3.0	U	1.3	U	3.0	U
Acetone	NA	390	D	920	D	420	D	1,000	D	3.1	U	7.4	U
Trichlorofluoromethane	NA	0.35		2.0		0.35		1.9		0.17		0.95	
2-Propanol (Isopropyl Alcohol)	NA	4.4		11		4.5		11		3.0	U	7.4	U
Acrylonitrile	NA	0.35	U	0.76	U	0.34	U	0.74	U	0.34	U	0.74	U
1,1-Dichloroethene	NA	0.19	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
Methylene Chloride	60	29		99		29		100		0.21	U	0.74	U
3-Chloro-1-propene (Allyl Chloride)	NA	0.24	U	0.76	U	0.24	U	0.74	U	0.24	U	0.74	U
Trichlorotrifluoroethane	NA	0.099	U	0.76	U	0.10		0.78		0.097	U	0.74	U
Carbon Disulfide	NA	2.4	U	7.6	U	2.4	U	7.4	U	2.4	U	7.4	U
trans-1,2-Dichloroethene	NA	0.19	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
1,1-Dichloroethane	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
Methyl tert-Butyl Ether	NA	0.21	U	0.76	U	0.21	U	0.74	U	0.21	U	0.74	U
Vinyl Acetate	NA	2.2	U	7.6	U	2.1	U	7.4	U	2.1	U	7.4	U
2-Butanone (MEK)	NA	2.6	U	7.6	U	2.5	U	7.4	U	2.5	U	7.4	U
cis-1,2-Dichloroethene	NA	0.19	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
n-Hexane	NA	2.4		8.4		3.1		11		0.21	U	0.74	U
Chloroform	NA	0.16	U	0.76	U	0.15	U	0.74	U	0.15	U	0.74	U
1,2-Dichloroethane	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
1,1,1-Trichloroethane	NA	0.14	U	0.76	U	0.14		0.77		0.14	U	0.74	U
Benzene	NA	0.32		1.0		0.33		1.1		0.23	U	0.74	U
Carbon Tetrachloride	NA	0.066		0.41		0.068		0.43		0.055		0.34	
1,2-Dichloropropane	NA	0.16	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
Bromodichloromethane	NA	0.11	U	0.76	U	0.11	U	0.74	U	0.11	U	0.74	U
Trichloroethene (TCE)	5	0.83		4.5		0.70		3.8		0.028	U	0.15	U
1,4-Dioxane	NA	0.21	U	0.76	U	0.21	U	0.74	U	0.21	U	0.74	U
cis-1,3-Dichloropropene	NA	0.17	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
4-Methyl-2-pentanone	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
trans-1,3-Dichloropropene	NA	0.17	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
1,1,2-Trichloroethane	NA	0.14	U	0.76	U	0.14	U	0.74	U	0.14	U	0.74	U
Toluene	NA	2.6		9.7		4.7		18		0.45		1.7	
2-Hexanone	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
Dibromochloromethane	NA	0.089	U	0.76	U	0.087	U	0.74	U	0.087	U	0.74	U
1,2-Dibromoethane	NA	0.099	U	0.76	U	0.096	U	0.74	U	0.096	U	0.74	U
n-Butyl Acetate	NA	2.4		11		2.6		12		0.16	U	0.74	U
Tetrachloroethene (PCE)	100	2.5		17		2.0		13		0.11	U	0.74	U
Chlorobenzene	NA	0.17	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
Ethylbenzene	NA	0.42		1.8		0.69		3.0		0.17	U	0.74	U
m,p-Xylenes	NA	1.7		7.5		2.5		11		0.34	U	1.5	U
Bromoform	NA	0.074	U	0.76	U	0.072	U	0.74	U	0.072	U	0.74	U
Styrene	NA	0.18	U	0.76	U	0.61		2.6		0.17	U	0.74	U
o-Xylene	NA	2.5		11		2.9		12		0.17	U	0.74	U
n-Nonane	NA	13		66		12		64		0.14	U	0.74	U
1,1,2,2-Tetrachloroethane	NA	0.11	U	0.76	U	0.11	U	0.74	U	0.11	U	0.74	U
Cumene	NA	4.2		20		4.4		21		0.15	U	0.74	U
alpha-Pinene	NA	1.8		10		1.6		8.9		0.13	U	0.74	U
4-Ethyltoluene	NA	26		130		27		130		0.15	U	0.74	U
1,3,5-Trimethylbenzene	NA	25		120		26		130		0.15	U	0.74	U
1,2,4-Trimethylbenzene	NA	48	D	230	D	50	D	240	D	0.15	U	0.74	U
Benzyl Chloride	NA	0.29	U	1.5	U	0.29	U	1.5	U	0.29	U	1.5	U
1,3-Dichlorobenzene	NA	0.13	U	0.76	U	0.12	U	0.74	U	0.12	U	0.74	U
1,4-Dichlorobenzene	NA	0.13	U	0.76	U	0.12	U	0.74	U	0.12	U	0.74	U
1,2-Dichlorobenzene	NA	0.13	U	0.76	U	0.12	U	0.74	U	0.12	U	0.74	U
d-Limonene	NA	11		59		12		66		0.13	U	0.74	U
1,2-Dibromo-3-chloropropane	NA	0.079	U	0.76	U	0.077	U	0.74	U	0.077	U	0.74	U
1,2,4-Trichlorobenzene	NA	0.10	U	0.76	U	0.10	U	0.74	U	0.10	U	0.74	U
Naphthalene	NA	0.15	U	0.76	U	0.14	U	0.74	U	0.14	U	0.74	U
Hexachlorobutadiene	NA	0.071	U	0.76	U	0.069	U	0.74	U	0.069	U	0.74	U

Bold = compounds of concern

µg/m³ = micrograms per cubic meter

ppbv = parts per billion by volume

Q = Qualifier

U = Constituent not detected above reporting limit given

D = Result obtained from sample dilution

Sample AA-1 is an outdoor ambient air sample

Samples analyzed by ALS Environmental of Rochester, NY

Gray shading indicates compound exceeds respective NYSDOH Indoor Air Guidance Value

NYSDOH = New York State Department of Health

NYSDOH Indoor Air Guidance Values in µg/m³ are:

Methylene Chloride - 60

PCE - 100

TCE - 5

Table 9 - Proposed 2019 Groundwater Monitoring Matrix, Former Binghamton Plactics, Binghamton, New York

Implemented Monitoring Matrix in 2018		
Well ID	Monitoring Schedule	Analysis
DMW-3	Annual	SSPL VOCs
TMP-A	Annual	SSPL VOCs
MW-8	Semiannual	SSPL VOCs
MW-9	Semiannual	SSPL VOCs
MW-10	Semiannual	SSPL VOCs
MW-11	Annual	SSPL VOCs
MW-13	Annual	SSPL VOCs
MW-16	Semiannual	SSPL VOCs
MW-17	Semiannual	SSPL VOCs

Proposed Monitoring Matrix to be Implemented in 2019		
Well ID	Monitoring Schedule	Analysis
DMW-3	Annual	SSPL VOCs
TMP-A	Annual	SSPL VOCs
MW-8	Semiannual	SSPL VOCs
MW-9	Semiannual	SSPL VOCs
MW-10	Semiannual	SSPL VOCs
MW-11	Annual	SSPL VOCs
MW-13	Annual	SSPL VOCs
MW-16	Semiannual	SSPL VOCs
MW-17	Semiannual	SSPL VOCs

Appendix A

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page: 1 of 1
Monitoring Well:	MW-8	Date:	3/22/2018	
Field Personnel:	MWG	Weather:	20's, Cold	

PRE-PURGE INFO:

Well Depth (ft btoc):	14.24	Depth to Water (ft btoc):	1.7
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder pump 1.75"	Depth of Pump (ft btoc):	~12

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	43.2/93.6
Volume Purged (gal):	~3	Sample ID:	MW-8
Final Depth to Water (ft btoc):	2.7	Sample Time:	10:35

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:00	6.61	7.44	6.022	683.5	11.04	Over Range	1.85	3.48	400	
10:05	7.78	7.43	6.705	680.1	8.98	Over Range	1.90	3.68	400	
10:10	6.97	7.42	6.301	670.4	8.71	Over Range	2.10	3.55	400	
10:15	6.51	7.42	6.219	664.3	8.20	11.6	2.13	3.47	400	
10:20	6.38	7.41	6.148	660.1	8.00	11.4	2.27	3.35	400	
10:25	6.37	7.40	6.140	658.0	7.91	12.1	2.40	3.33	400	
10:30	6.42	7.41	6.046	656.4	7.93	11.9	2.51	3.09	400	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page: 1 of 1
Monitoring Well:	MW-9	Date:	3/22/2018	
Field Personnel:	MWG	Weather:	20's, Cold, Sunny	

PRE-PURGE INFO:

Well Depth (ft btoc):	14.63	Depth to Water (ft btoc):	1.73
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder pump 1.75"	Depth of Pump (ft btoc):	~11

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	7.8/16.8
Volume Purged (gal):	~3	Sample ID:	MW-9
Final Depth to Water (ft btoc):	1.77	Sample Time:	12:25

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:35	8.19	7.18	0.995	661.3	9.29	Over Range	1.75	1.02	300	
11:40	8.53	6.86	1.865	683.7	8.77	Over Range	1.75	0.93	300	
11:45	8.3	6.86	1.801	675.1	8.51	103.0	1.75	0.90	300	
11:50	8.01	6.85	1.709	669.8	8.3	26.1	1.75	0.86	300	
11:55	7.71	6.84	1.631	660.3	7.97	19.4	1.75	0.85	300	
12:00	7.63	6.84	1.600	655.7	7.91	17.8	1.75	0.81	300	
12:05	7.51	6.82	1.604	654.1	7.87	12.5	1.75	0.81	300	
12:10	7.48	6.81	1.604	651.9	7.86	13.4	1.75	0.81	300	
12:15	7.47	6.80	1.604	649.1	7.84	14.0	1.75	0.81	300	
12:20	7.46	6.78	1.604	647.8	7.82	13.7	1.75	0.80	300	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page: 1 of 1
Monitoring Well:	MW-10	Date:	3/20/2018	
Field Personnel:	MWG + BSN	Weather:	20's, Cloudy	

PRE-PURGE INFO:

Well Depth (ft btoc):	14.46	Depth to Water (ft btoc):	2.75
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder pump 1.75"	Depth of Pump (ft btoc):	~12

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~5	Sample ID:	MW-10 (MS/MSD)
Final Depth to Water (ft btoc):	3.16	Sample Time:	12:35

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:40	7.24	6.17	0.833	360.0	7.69	1394	2.97	0.41	400	
11:45	6.87	6.57	0.838	362.2	6.25	Over Range	3.05	0.41	400	
11:50	6.24	6.76	0.795	347.1	6.48	Over Range	3.05	0.39	400	
11:55	5.81	6.80	0.814	336.4	6.00	Over Range	3.11	0.40	400	
12:00	5.64	6.85	0.837	335.4	5.44	11.4	3.10	0.41	400	
12:05	5.54	6.88	0.843	345.2	5.05	9.90	3.14	0.41	400	
12:10	5.51	6.90	0.846	354.1	4.90	8.77	3.14	0.42	400	
12:15	5.52	6.91	0.848	360.9	4.80	6.64	3.14	0.42	400	
12:20	5.51	6.92	0.852	367.0	4.74	6.00	3.14	0.42	400	
12:25	5.51	6.92	0.855	372.1	4.71	6.21	3.14	0.42	400	
12:30	5.51	6.93	0.854	374.9	4.70	5.98	3.14	0.42	400	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page: 1 of 1
Monitoring Well:	MW-16	Date:	3/22/2018	
Field Personnel:	BSN	Weather:	20"s, Cold, Sunny	

PRE-PURGE INFO:

Well Depth (ft btoc):	13.27	Depth to Water (ft btoc):	1.42
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder pump 1.75"	Depth of Pump (ft btoc):	~12

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	43.2/93
Volume Purged (gal):	~4	Sample ID:	MW-16 (DUP-032218)
Final Depth to Water (ft btoc):	3.16	Sample Time:	11:25

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:45	7.57	7.86	3.012	653.9	27.44	Over Range	2.61	1.62	400	
10:50	7.90	7.86	2.593	667.5	18.37	Over Range	3.10	1.27	400	Lowered Flow Rate
10:55	7.72	7.70	1.392	656.4	12.11	2278	3.15	0.67	200	
11:00	7.65	7.51	1.211	658.1	10.81	Over Range	3.15	0.59	200	
11:05	7.66	7.33	1.030	661.2	9.11	Over Range	3.15	0.53	200	
11:10	7.64	7.23	0.840	663.1	8.21	Over Range	3.15	0.46	200	
11:15	7.63	7.25	0.944	662.8	8.16	Over Range	3.15	0.47	200	
11:20	7.63	7.24	0.941	663.8	8.17	Over Range	3.16	0.45	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-17	Date:	3/22/2018	
Field Personnel:	BSN	Weather:	20's, Partly Cloudy, Cloud	

PRE-PURGE INFO:

Well Depth (ft btoc):	15.11	Depth to Water (ft btoc):	1.26
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder pump 1.75"	Depth of Pump (ft btoc):	~12

POST-PURGE INFO:

Color:	Dark Purple	Mn/MnO4 (mg/L):	100.8/202.9
Volume Purged (gal):	~3	Sample ID:	MW-17
Final Depth to Water (ft btoc):	2.23	Sample Time:	9:50

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
9:00	8.84	6.49	7.229	710.0	31.07	Over Range	1.74	4.09	400	Lowered Flow Rate
9:05	8.64	7.10	5.271	687.1	28.81	Over Range	1.91	2.75	300	
9:10	8.12	7.12	4.569	685.9	27.63	Over Range	1.95	2.33	300	
9:15	7.42	6.99	2.924	684.5	24.28	Over Range	2.01	1.51	300	
9:20	7.31	6.94	2.384	682.0	22.41	Over Range	2.05	1.20	300	
9:25	7.69	6.94	1.917	684.8	20.05	Over Range	2.10	0.93	300	
9:30	7.82	6.91	1.680	681.7	17.80	Over Range	2.15	0.85	300	
9:35	7.64	6.93	1.605	684.9	17.58	Over Range	2.19	0.75	300	
9:40	7.49	6.92	1.571	684.2	17.26	Over Range	2.20	0.73	300	
9:45	7.48	6.93	1.575	686.2	17.21	Over Range	2.21	0.73	300	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-10	Date:	9/20/2018	
Field Personnel:	RDA	Weather:	70's Cloudy	

PRE-PURGE INFO:

Well Depth (ft btoc):	15.00	Depth to Water (ft btoc):	2.73
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder	Depth of Pump (ft btoc):	10

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	-
Volume Purged (gal):	2.5	Sample ID:	MW-10
Final Depth to Water (ft btoc):	2.68	Sample Time:	11:15

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:25	18.18	6.61	0.574	601.8	1.32	4	2.73	0.28	200	
10:30	18.18	6.54	0.590	646.1	1.77	64.2	2.69	0.29	100	
10:35	18.31	6.61	0.596	638.3	1.90	55.5	2.70	0.29	100	
10:40	18.41	6.64	0.598	626.0	1.03	47.6	2.65	0.29	100	
10:45	18.50	6.67	0.600	613.5	1.03	33.2	2.65	0.29	100	
10:50	18.58	6.69	0.606	604.2	0.98	22.4	2.67	0.30	100	
10:55	18.64	6.70	0.619	597.5	0.99	16.5	2.65	0.30	100	
11:00	18.69	6.70	0.638	592.1	0.81	12.7	2.65	0.31	100	
11:05	18.80	6.70	0.655	586.6	0.82	11.25	2.67	0.32	100	
11:10	18.84	6.70	0.657	580.6	0.80	11.97	2.68	0.33	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	DMW-3	Date:	9/20/2018	
Field Personnel:	CF, CJP	Weather:	Cloudy, 65 F	

PRE-PURGE INFO:

Well Depth (ft btoc):	48.00	Depth to Water (ft btoc):	17.40
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	41-48
Pump Used:	Bladder	Depth of Pump (ft btoc):	45

POST-PURGE INFO:

Color:		Mn/MnO4 (mg/L):	-
Volume Purged (gal):		Sample ID:	DMW-3
Final Depth to Water (ft btoc):		Sample Time:	11:20

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:35	15.67	12.11	3.343	421.6	6.34	6.62	18.65	1.76	120	
10:40	16.33	12.15	3.450	396.1	6.05	6.1	19.17	1.83	100	
10:45	16.57	12.23	3.607	360.3	5.90	6.57	19.73	1.91	100	
10:50	16.66	12.27	3.716	291.5	5.81	5.78	20.34	1.97	100	
10:55	16.65	12.29	3.745	256.1	5.76	7.55	21.17	1.99	100	
11:00	16.66	12.30	3.741	237.4	5.70	6.11	21.75	1.98	100	
11:05	16.68	12.31	3.740	235.1	5.69	4.56	22.06	2.00	100	
11:10	16.70	12.31	3.749	234.8	5.67	4.33	22.63	2.00	100	
11:15	16.67	12.32	3.751	234.5	5.65	4.54	23.52	2.00	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	TMP-A	Date:	9/20/2018	
Field Personnel:	CF, CJP	Weather:	Partly Cloudy, 75 F	

PRE-PURGE INFO:

Well Depth (ft btoc):	8.00	Depth to Water (ft btoc):	1.54
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	3-8
Pump Used:	Bladder	Depth of Pump (ft btoc):	5

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	-
Volume Purged (gal):	1	Sample ID:	TMP-A
Final Depth to Water (ft btoc):	3.35	Sample Time:	12:45

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
12:05	22.91	8.10	3.179	411.4	0.64	8.32	2.73	1.67	400	
12:10	22.21	7.60	3.309	407.9	0.49	18	3.25	1.74	400	
12:15	22.04	7.61	3.291	391.0	7.30	37.5	3.39	1.68	50	
12:20	22.01	7.70	3.194	345.0	8.27	27.3	3.37	1.59	50	
12:25	22.03	7.85	3.201	341.0	8.54	20.1	3.35	1.60	50	
12:30	21.97	7.88	3.105	325.4	8.70	18.2	3.35	1.63	50	
12:35	21.87	7.89	3.019	321.7	8.97	18.5	3.35	1.64	50	
12:40	21.90	7.93	3.004	316.9	9.02	17.1	3.35	1.64	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-13	Date:	9/20/2018	
Field Personnel:	RPW	Weather:	65 F, Cloudy	

PRE-PURGE INFO:

Well Depth (ft btoc):	13.76	Depth to Water (ft btoc):	4.55
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder	Depth of Pump (ft btoc):	10

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	-
Volume Purged (gal):	2	Sample ID:	MW-13
Final Depth to Water (ft btoc):	5.15	Sample Time:	11:15

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:30	16.86	6.72	4.946	490.9	2.29	12.08	4.71	2.68	180	
10:35	16.97	6.76	5.022	494.6	1.96	11.51	4.86	2.71	180	
10:40	17.16	6.85	4.410	490.4	2.17	7.12	4.96	2.31	180	
10:45	17.47	7.09	2.839	479.3	3.06	5.84	5.11	1.44	180	
10:50	17.56	7.14	2.521	476.1	3.23	5.41	5.10	1.29	180	
10:55	17.64	7.13	2.509	474.2	3.38	2.43	5.13	1.32	180	
11:00	17.66	7.12	2.530	474.2	3.44	2.37	5.11	1.38	180	
11:05	17.68	7.10	2.605	474.6	3.47	2.48	5.11	1.43	180	
11:10	17.71	7.09	2.599	476.6	3.5	2.51	5.13	1.49	180	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-11	Date:	9/20/2018	
Field Personnel:	CF, CJP	Weather:	Partly Cloudy, 75 F	

PRE-PURGE INFO:

Well Depth (ft btoc):	20.00	Depth to Water (ft btoc):	1.49
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	10-20
Pump Used:	Bladder	Depth of Pump (ft btoc):	15

POST-PURGE INFO:

Color:	Dark Purple	Mn/MnO4 (mg/L):	22.7
Volume Purged (gal):	2	Sample ID:	MW-11
Final Depth to Water (ft btoc):	7.56	Sample Time:	8:24

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:45	20.43	7.68	46.410	714.4	24.17	Error	2.29	29.85	150	
14:50	20.08	7.61	28.400	718.8	23.45	-	2.95	16.29	150	
14:55	19.75	7.55	15.640	717.2	21.46	-	3.70	8.74	150	
15:00	19.55	7.54	9.881	714.3	18.06	-	4.32	5.54	150	
15:05	19.48	7.53	7.394	711.4	17.40	-	4.97	4.06	150	
15:10	19.4	7.52	6.584	710.2	16.44	-	5.55	3.61	150	
15:15	19.39	7.52	6.067	709.6	16.91	-	6.10	3.31	150	
15:20	19.29	7.52	5.840	710.0	16.30	-	6.63	3.17	150	
15:25	19.23	7.53	5.803	710.3	16.63	-	7.02	3.16	150	
15:30	19.18	7.54	5.797	709.8	17.13	-	7.34	3.15	150	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-8	Date:	9/20/2018	
Field Personnel:	RPW	Weather:	75 F, Sunny	

PRE-PURGE INFO:

Well Depth (ft btoc):	13.99	Depth to Water (ft btoc):	1.66
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder	Depth of Pump (ft btoc):	10

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	1.2
Volume Purged (gal):	2	Sample ID:	MW-8 (DUP-092018)
Final Depth to Water (ft btoc):	2.23	Sample Time:	15:30

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:55	19.92	7.93	1.369	571.5	6.75	-	1.89	0.69	150	Turbidity out of range, too dark purple
15:00	19.04	7.84	1.376	598.7	8.44	-	2.05	0.69	150	
15:05	18.83	7.72	1.345	614.6	8.47	-	2.01	0.67	150	
15:10	18.79	7.76	1.331	616.5	8.59	-	2.11	0.67	150	
15:15	18.77	7.81	1.325	616.3	8.58	-	2.13	0.66	150	
15:20	18.69	7.85	1.319	615.5	8.53	-	2.17	0.66	150	
15:25	18.69	7.89	1.317	615.1	8.52	-	2.20	0.66	150	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-9	Date:	9/20/2018	
Field Personnel:	RDA	Weather:	Cloudy, 70's	

PRE-PURGE INFO:

Well Depth (ft btoc):	15.00	Depth to Water (ft btoc):	1.27
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder	Depth of Pump (ft btoc):	10

POST-PURGE INFO:

Color:	Pink	Mn/MnO4 (mg/L):	0.1
Volume Purged (gal):		Sample ID:	MW-9
Final Depth to Water (ft btoc):		Sample Time:	15:18

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:38	19.78	7.12	1.265	553.4	1.79	25.8	1.50	0.64	100	
14:43	18.77	6.82	1.303	626.4	0.41	25.8	1.51	0.65	100	
14:48	18.52	6.76	1.281	634.4	0.40	30.9	1.50	0.65	100	
14:53	18.54	6.75	1.265	634.0	0.36	33.5	1.49	0.63	100	
14:58	18.53	6.75	1.243	630.9	0.41	30.4	1.47	0.62	100	
15:03	18.48	6.74	1.223	631.5	0.39	20.5	1.50	0.61	100	
15:08	18.45	6.74	1.203	632.8	0.35	14	1.49	0.60	100	
15:13	18.45	6.73	1.185	635.2	0.43	10.3	1.50	0.59	100	
15:18	18.43	6.72	1.173	638.1	0.37	10.47	1.49	0.59	100	
15:23	18.4	6.71	1.163	641.4	0.4	10.35	1.48	0.58	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-16	Date:	9/20/2018	
Field Personnel:	RPW	Weather:	65 F, Partly Cloudy	

PRE-PURGE INFO:

Well Depth (ft btoc):	13.94	Depth to Water (ft btoc):	1.76
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder	Depth of Pump (ft btoc):	10

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	0.1
Volume Purged (gal):	1.25	Sample ID:	MW-16
Final Depth to Water (ft btoc):	1.97	Sample Time:	12:23

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:53	18.3	7.20	1.065	658.8	3.55	962 AU	1.74	0.54	140	
11:58	17.93	7.03	1.130	681.8	2.94	959 AU	2.09	0.57	140	
12:03	17.63	6.97	1.126	691.8	2.90	767 AU	2.16	0.56	140	
12:08	17.61	6.94	1.105	696.1	2.90	-	2.20	0.55	140	Turbidity out of range
12:13	17.6	6.93	1.089	697.2	3.01	-	2.22	0.54	140	
12:18	17.57	6.93	1.084	697.9	3.05	-	2.22	0.54	140	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

Project Name:	Dover-Binghamton	Project #:	5101.0003	Page 1 of 1
Monitoring Well:	MW-17	Date:	9/20/2018	
Field Personnel:	RDA	Weather:	70's, Cloudy	

PRE-PURGE INFO:

Well Depth (ft btoc):	15.00	Depth to Water (ft btoc):	0.09
PID Beneath PVC Cap (ppm):	NA	Screened/Open Interval (ft btoc):	5-15
Pump Used:	Bladder	Depth of Pump (ft btoc):	10

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	2.4
Volume Purged (gal):	1.5	Sample ID:	MW-17 (MS/MSD)
Final Depth to Water (ft btoc):	2.50	Sample Time:	12:14

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (ms/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:44	18.21	7.01	1.222	703.1	2.14	-	1.80	0.60	100	Too dark for turbidity
11:49	18.1	6.91	1.213	717.5	2.23	-	1.96	0.60	100	
11:54	18.03	6.87	1.110	720.2	2.10	-	2.25	0.55	100	
11:59	18.04	6.87	1.083	720.9	2.13	-	2.32	0.54	100	
12:04	18.02	6.89	1.099	721.4	2.07	-	2.47	0.55	100	
12:09	18.05	6.90	1.124	721.4	2.29	-	5.52	0.56	100	

Appendix B

April 12, 2018 Service Request No:R1802551

Ms. Sarah MacCarter
Verina Consulting Group, LLC
1011 US Highway 22, Suite 302
Bridgewater, NJ 08807

Laboratory Results for: Dover-Binghamton

Dear Ms.MacCarter,

Enclosed are the results of the sample(s) submitted to our laboratory March 23, 2018
For your reference, these analyses have been assigned our service request number **R1802551.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, 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) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

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

Brady Kalkman
For
Janice Jaeger
Project Manager

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PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
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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

ALS Environmental

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton
Sample Matrix: Water

Service Request: R1802551
Date Received: 03/23/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 03/23/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by _____ Date 03/30/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-10			Lab ID: R1802551-002			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	0.54	J	0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	0.72	J	0.20	1.0	ug/L	8260C
Tetrachloroethene (PCE)	0.52	J	0.30	1.0	ug/L	8260C
Trichloroethene (TCE)	5.0		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	2.2		0.30	1.0	ug/L	8260C

CLIENT ID: MW-17			Lab ID: R1802551-003			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	0.53	J	0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.8		0.20	1.0	ug/L	8260C

CLIENT ID: MW-8			Lab ID: R1802551-004			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	1.9		0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.2		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	50		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	67		0.30	1.0	ug/L	8260C
trans-1,2-Dichloroethene	0.33	J	0.33	1.0	ug/L	8260C

CLIENT ID: MW-16			Lab ID: R1802551-005			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	2.8		0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.7		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	2.4		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	15		0.30	1.0	ug/L	8260C

CLIENT ID: MW-9			Lab ID: R1802551-006			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Trichloroethene (TCE)	5.9		0.22	1.0	ug/L	8260C

CLIENT ID: DUP-032218			Lab ID: R1802551-009			
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	2.5		0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.3		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	2.3		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	14		0.30	1.0	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: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1802551-001	Trip Blank	3/20/2018	
R1802551-002	MW-10	3/20/2018	1235
R1802551-003	MW-17	3/22/2018	0945
R1802551-004	MW-8	3/22/2018	1035
R1802551-005	MW-16	3/22/2018	1125
R1802551-006	MW-9	3/22/2018	1225
R1802551-007	EB-032018	3/20/2018	1240
R1802551-008	EB-032218	3/22/2018	1220
R1802551-009	DUP-032218	3/22/2018	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

50277

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: Dover - Binghamton	Project Number: 5101.0003
Project Manager: Sarah MacCarter	Report CC:
Company/Address: Verina Consulting Group, LLC, 1011 US Highway 22, Suite 302, Bridgewater NJ 08807	
Phone #: 908-864-4400	Email: smaccarter@vcg-llc.com
Sampler's Signature:	Sampler's Printed Name: Matthew Gindy

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1/18

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOC's	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		—		TB	3	X	Trip Blank
MW-10 (MS/MSD)		3/20/18	12:35	GW	9	X	
MW-17		3/22/18	9:45	GW	3	X	
MW-8		3/22/18	10:35	GW	3	X	
MW-16		3/22/18	11:25	GW	3	X	
MW-9		3/22/18	12:25	GW	3	X	
EB-032018		3/20/18	12:40	EB	3	X	Equipment Blank
EB-032218		3/22/18	12:20	EB	3	X	Equipment Blank
DUP-032218		3/22/18	—	GW	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 Sodium thiosulfate

SPECIAL INSTRUCTIONS/COMMENTS

Metals SSPL VOC's: PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,1-DCA, 1,1,1-TCA, and VC

* = HCl

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

REQUESTED REPORT DATE: Standard

REPORT REQUIREMENTS

____ I. Results Only

X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata X Yes ____ No

INVOICE INFORMATION

PO #:

BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Matthew Gindy	Printed Name: Gregory C. Esmerian	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Verina	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 3/22/18	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1802551 5

Verina Consulting Group, LLC
Dover-Binghamton

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

Cooler Receipt and Preservation Check Form

R1802551 5
Verina Consulting Group, LLC
Dover-Binghamton

Project/Client Verina Consulting Folder Number .

Cooler received on 3-23-18 by: ME

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y	(N)
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	N	NA
6	Where did the bottles originate?	ALS/ROC	CLIENT	
7	Soil VOA received as:	Bulk	Encore	5035set NA

8. Temperature Readings Date: 3-23-18 Time: 09:51 ID: IR#7 (IR#9) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	6.2	7.1					
Correction Factor (°C)	+1.0	+0.7					
Corrected Temp (°C)	7.2	7.8					
Temp from:Type of bottle	cent tube	Voa vial					
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: MM 3/26/18

All samples held in storage location: R-002 by ME on 3-23-18 at 09:58
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 3/23/18 Time: 1335 by: @

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	-	-						
		HCl	**	**	4115120					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 7-249-002, 7-254-004

Explain all Discrepancies/ Other Comments:

* 1 bag of ice set on top of bubble wrapped VOA sets.

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

Labels secondary reviewed by: @
PC Secondary Review: MM 3/26/18 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-001.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-001.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-001.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-002.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-002.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-002.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-002.04					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.05					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.06					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.07					

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		3/23/2018	1347	SMO / DWARD	
R1802551-002.08					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.09					
		3/23/2018	1347	SMO / DWARD	
R1802551-003.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-003.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-003.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-004.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-004.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-004.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-005.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-005.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-005.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-006.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
R1802551-006.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-006.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-007.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-007.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-007.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-008.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-008.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-008.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-009.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1136	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-009.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-009.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	

Miscellaneous Forms

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

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 Method Reporting Limit. Also known as:
LOQ 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	New Hampshire ID # 294100 A/B
Delaware Approved	New Jersey ID # NY004	
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

[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:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003		

Sample Name:	Trip Blank	**Date Collected:**	03/20/18
Lab Code:	R1802551-001	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	MW-10	**Date Collected:**	03/20/18
Lab Code:	R1802551-002	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	MW-17	**Date Collected:**	03/22/18
Lab Code:	R1802551-003	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	MW-8	**Date Collected:**	03/22/18
Lab Code:	R1802551-004	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	MW-16	**Date Collected:**	03/22/18
Lab Code:	R1802551-005	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003		

Sample Name:	MW-9	**Date Collected:**	03/22/18
Lab Code:	R1802551-006	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	EB-032018	**Date Collected:**	03/20/18
Lab Code:	R1802551-007	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	EB-032218	**Date Collected:**	03/22/18
Lab Code:	R1802551-008	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name:	DUP-032218	**Date Collected:**	03/22/18
Lab Code:	R1802551-009	**Date Received:**	03/23/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

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

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
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www.alsglobal.com

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1802551-001	**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)	1.0 U	1.0	0.36	1	03/27/18 16:10	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:10	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:10	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:10	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:10	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:10	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:10	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 16:10	
Dibromofluoromethane	89	89 - 119	03/27/18 16:10	
Toluene-d8	98	87 - 121	03/27/18 16:10	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18 12:35
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1802551-002	**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)	**0.54**	**J**	1.0	0.36	1	03/27/18 15:05	
1,1-Dichloroethane (1,1-DCA)	**0.72**	**J**	1.0	0.20	1	03/27/18 15:05	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.57	1	03/27/18 15:05	
Tetrachloroethene (PCE)	**0.52**	**J**	1.0	0.30	1	03/27/18 15:05	
Trichloroethene (TCE)	**5.0**		1.0	0.22	1	03/27/18 15:05	
Vinyl Chloride	1.0	U	1.0	0.32	1	03/27/18 15:05	
cis-1,2-Dichloroethene	**2.2**		1.0	0.30	1	03/27/18 15:05	
trans-1,2-Dichloroethene	1.0	U	1.0	0.33	1	03/27/18 15:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 15:05	
Dibromofluoromethane	93	89 - 119	03/27/18 15:05	
Toluene-d8	100	87 - 121	03/27/18 15:05	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18 12:40
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	EB-032018	**Units:**	ug/L
Lab Code:	R1802551-007	**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)	1.0 U	1.0	0.36	1	03/27/18 16:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:32	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:32	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:32	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:32	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:32	
Dibromofluoromethane	91	89 - 119	03/27/18 16:32	
Toluene-d8	100	87 - 121	03/27/18 16:32	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 12:20
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	EB-032218	**Units:**	ug/L
Lab Code:	R1802551-008	**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)	1.0 U	1.0	0.36	1	03/27/18 16:54	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:54	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:54	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:54	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:54	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:54	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:54	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:54	
Dibromofluoromethane	92	89 - 119	03/27/18 16:54	
Toluene-d8	100	87 - 121	03/27/18 16:54	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 09:45
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	R1802551-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.53 J**	1.0	0.36	1	03/27/18 13:15	
1,1-Dichloroethane (1,1-DCA)	**2.8**	1.0	0.20	1	03/27/18 13:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:15	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:15	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 13:15	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:15	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 13:15	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:15	
Dibromofluoromethane	91	89 - 119	03/27/18 13:15	
Toluene-d8	100	87 - 121	03/27/18 13:15	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 10:35
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1802551-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**1.9**		1.0	0.36	1	03/27/18 13:37	
1,1-Dichloroethane (1,1-DCA)	**2.2**		1.0	0.20	1	03/27/18 13:37	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.57	1	03/27/18 13:37	
Tetrachloroethene (PCE)	1.0	U	1.0	0.30	1	03/27/18 13:37	
Trichloroethene (TCE)	**50**		1.0	0.22	1	03/27/18 13:37	
Vinyl Chloride	1.0	U	1.0	0.32	1	03/27/18 13:37	
cis-1,2-Dichloroethene	**67**		1.0	0.30	1	03/27/18 13:37	
trans-1,2-Dichloroethene	**0.33**	**J**	1.0	0.33	1	03/27/18 13:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:37	
Dibromofluoromethane	92	89 - 119	03/27/18 13:37	
Toluene-d8	100	87 - 121	03/27/18 13:37	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 11:25
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	R1802551-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**2.8**	1.0	0.36	1	03/27/18 13:59	
1,1-Dichloroethane (1,1-DCA)	**7.7**	1.0	0.20	1	03/27/18 13:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:59	
Trichloroethene (TCE)	**2.4**	1.0	0.22	1	03/27/18 13:59	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:59	
cis-1,2-Dichloroethene	**15**	1.0	0.30	1	03/27/18 13:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 13:59	
Dibromofluoromethane	92	89 - 119	03/27/18 13:59	
Toluene-d8	100	87 - 121	03/27/18 13:59	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 12:25
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1802551-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 14:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 14:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:21	
Trichloroethene (TCE)	**5.9**	1.0	0.22	1	03/27/18 14:21	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 14:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	03/27/18 14:21	
Dibromofluoromethane	90	89 - 119	03/27/18 14:21	
Toluene-d8	100	87 - 121	03/27/18 14:21	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	DUP-032218	**Units:**	ug/L
Lab Code:	R1802551-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**2.5**	1.0	0.36	1	03/27/18 14:43	
1,1-Dichloroethane (1,1-DCA)	**7.3**	1.0	0.20	1	03/27/18 14:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:43	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:43	
Trichloroethene (TCE)	**2.3**	1.0	0.22	1	03/27/18 14:43	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:43	
cis-1,2-Dichloroethene	**14**	1.0	0.30	1	03/27/18 14:43	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 14:43	
Dibromofluoromethane	92	89 - 119	03/27/18 14:43	
Toluene-d8	99	87 - 121	03/27/18 14:43	

QC Summary Forms

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

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: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton/5101.0003
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
Trip Blank	R1802551-001	92	89	98
MW-10	R1802551-002	92	93	100
EB-032018	R1802551-007	94	91	100
EB-032218	R1802551-008	94	92	100
Lab Control Sample	RQ1802745-03	94	96	99
Method Blank	RQ1802745-04	91	92	99
MW-10 MS	RQ1802745-05	97	98	102
MW-10 DMS	RQ1802745-06	97	100	100

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18
Sample Matrix:	Water	**Date Received:**	03/23/18
		Date Analyzed:	03/27/18
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1802551-002	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1802745-05			**Duplicate Matrix Spike** RQ1802745-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	0.54 J	53.7	50.0	106	54.3	50.0	108	74-127	1	30
1,1-Dichloroethane (1,1-DCA)	0.72 J	66.5	50.0	132	67.5	50.0	134 *	74-132	1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	57.8	50.0	116	57.8	50.0	116	74-139	<1	30
Tetrachloroethene (PCE)	0.52 J	57.2	50.0	113	58.5	50.0	116	67-137	2	30
Trichloroethene (TCE)	5.0	60.9	50.0	112	61.3	50.0	113	62-142	<1	30
Vinyl Chloride	1.0 U	63.6	50.0	127	65.8	50.0	132	60-157	3	30
cis-1,2-Dichloroethene	2.2	60.8	50.0	117	62.3	50.0	120	72-133	2	30
trans-1,2-Dichloroethene	1.0 U	59.8	50.0	120	62.2	50.0	124	77-125	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:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Analyzed:**	03/27/18 12:22
Sample Matrix:	Water	**Date Extracted:**	

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1802745-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\
Analysis Method:	8260C	**Analysis Lot:**	585036
Prep Method:	EPA 5030C		

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30
MW-10	R1802551-002	I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	03/27/18 15:05
Trip Blank	R1802551-001	I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	03/27/18 16:10
EB-032018	R1802551-007	I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	03/27/18 16:32
EB-032218	R1802551-008	I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	03/27/18 16:54
MW-10	RQ1802745-05	I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	03/27/18 20:11
MW-10	RQ1802745-06	I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	03/27/18 20:33

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1802745-04	**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)	1.0 U	1.0	0.36	1	03/27/18 12:22	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 12:22	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 12:22	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 12:22	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 12:22	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 12:22	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 12:22	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 12:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	03/27/18 12:22	
Dibromofluoromethane	92	89 - 119	03/27/18 12:22	
Toluene-d8	99	87 - 121	03/27/18 12:22	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Analyzed:**	03/27/18 11:30
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	R-MS-12
Lab Code:	RQ1802745-03	**File ID:**	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\
Analysis Method:	8260C	**Analysis Lot:**	585036
Prep Method:	EPA 5030C		

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22
MW-10	R1802551-002	I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	03/27/18 15:05
Trip Blank	R1802551-001	I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	03/27/18 16:10
EB-032018	R1802551-007	I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	03/27/18 16:32
EB-032218	R1802551-008	I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	03/27/18 16:54
MW-10	RQ1802745-05	I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	03/27/18 20:11
MW-10	RQ1802745-06	I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	03/27/18 20:33

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1802745-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.2	20.0	86	74-120
1,1-Dichloroethane (1,1-DCA)	8260C	22.9	20.0	114	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	96	74-135
Tetrachloroethene (PCE)	8260C	17.3	20.0	86	78-124
Trichloroethene (TCE)	8260C	18.8	20.0	94	78-123
Vinyl Chloride	8260C	21.5	20.0	108	69-133
cis-1,2-Dichloroethene	8260C	21.0	20.0	105	80-121
trans-1,2-Dichloroethene	8260C	20.7	20.0	103	80-120

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003 **Date Analyzed:**03/27/18 10:03

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16693.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-12 **Analysis Lot:** 585036

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.24	30995	Pass
75	95	30	60	50.14	76771	Pass
95	95	100	100	100.00	153101	Pass
96	95	5	9	6.89	10555	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	70.91	108565	Pass
175	174	5	9	7.23	7848	Pass
176	174	95	101	96.80	105096	Pass
177	176	5	9	7.53	7909	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1802745-02	I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	03/27/18 10:32	
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30	
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22	
MW-10	R1802551-002	I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	03/27/18 15:05	
Trip Blank	R1802551-001	I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	03/27/18 16:10	
EB-032018	R1802551-007	I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	03/27/18 16:32	
EB-032218	R1802551-008	I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	03/27/18 16:54	
MW-10	RQ1802745-05	I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	03/27/18 20:11	
MW-10	RQ1802745-06	I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	03/27/18 20:33	

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003 **Date Analyzed:**03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\ **Lab Code:**RQ1802745-02
Instrument ID: R-MS-12 **Analysis Lot:**585036
Analysis Method: 8260C **Signal ID:**

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	234,637	11.84	530,528	6.47	459,768	9.78
	Upper Limit ==>	469,274	12.34	1,061,056	6.97	919,536	10.28
	Lower Limit ==>	117,319	11.34	265,264	5.97	229,884	9.28
Associated Analyses							
Lab Control Sample	RQ1802745-03	225614	11.84	517963	6.47	456652	9.78
Method Blank	RQ1802745-04	202807	11.84	478787	6.47	414857	9.78
MW-10	R1802551-002	209468	11.84	482698	6.47	424525	9.78
Trip Blank	R1802551-001	204404	11.84	475796	6.47	410509	9.78
EB-032018	R1802551-007	210915	11.84	474659	6.47	421343	9.78
EB-032218	R1802551-008	208421	11.84	487658	6.47	425042	9.78
MW-10	RQ1802745-05	215946	11.84	472299	6.47	422527	9.78
MW-10	RQ1802745-06	210824	11.84	471508	6.47	415628	9.78

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003 **Date Analyzed:**03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\ **Lab Code:**RQ1802745-02
Instrument ID: R-MS-12 **Analysis Lot:**585036
Analysis Method: 8260C **Signal ID:**

		Pentafluorobenzene	
		Area	**RT**
	ICAL Result ==>	315,594	5.38
	Upper Limit ==>	631,188	5.88
	Lower Limit ==>	157,797	4.88
Associated Analyses			
Lab Control Sample	RQ1802745-03	302355	5.38
Method Blank	RQ1802745-04	285373	5.38
MW-10	R1802551-002	285631	5.38
Trip Blank	R1802551-001	281048	5.38
EB-032018	R1802551-007	280405	5.38
EB-032218	R1802551-008	288147	5.38
MW-10	RQ1802745-05	284362	5.38
MW-10	RQ1802745-06	280872	5.38

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85 - 122	Dibromofluoromethane 89 - 119	Toluene-d8 87 - 121
MW-17	R1802551-003	92	91	100
MW-8	R1802551-004	92	92	100
MW-16	R1802551-005	93	92	100
MW-9	R1802551-006	95	90	100
DUP-032218	R1802551-009	93	92	99
Lab Control Sample	RQ1802745-03	94	96	99
Method Blank	RQ1802745-04	91	92	99

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Analyzed:**	03/27/18 12:22
Sample Matrix:	Water	**Date Extracted:**	

Method Blank Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1802745-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\
Analysis Method:	8260C	**Analysis Lot:**	585036
Prep Method:	EPA 5030C		

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30
MW-17	R1802551-003	I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	03/27/18 13:15
MW-8	R1802551-004	I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	03/27/18 13:37
MW-16	R1802551-005	I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	03/27/18 13:59
MW-9	R1802551-006	I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	03/27/18 14:21
DUP-032218	R1802551-009	I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	03/27/18 14:43

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1802745-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 12:22	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 12:22	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 12:22	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 12:22	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 12:22	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 12:22	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 12:22	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 12:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	03/27/18 12:22	
Dibromofluoromethane	92	89 - 119	03/27/18 12:22	
Toluene-d8	99	87 - 121	03/27/18 12:22	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Analyzed:**	03/27/18 11:30
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	Lab Control Sample	**Instrument ID:**	R-MS-12
Lab Code:	RQ1802745-03	**File ID:**	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\
Analysis Method:	8260C	**Analysis Lot:**	585036
Prep Method:	EPA 5030C		

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22
MW-17	R1802551-003	I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	03/27/18 13:15
MW-8	R1802551-004	I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	03/27/18 13:37
MW-16	R1802551-005	I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	03/27/18 13:59
MW-9	R1802551-006	I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	03/27/18 14:21
DUP-032218	R1802551-009	I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	03/27/18 14:43

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ1802745-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.2	20.0	86	74-120
1,1-Dichloroethane (1,1-DCA)	8260C	22.9	20.0	114	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	96	74-135
Tetrachloroethene (PCE)	8260C	17.3	20.0	86	78-124
Trichloroethene (TCE)	8260C	18.8	20.0	94	78-123
Vinyl Chloride	8260C	21.5	20.0	108	69-133
cis-1,2-Dichloroethene	8260C	21.0	20.0	105	80-121
trans-1,2-Dichloroethene	8260C	20.7	20.0	103	80-120

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003 **Date Analyzed:**03/27/18 10:03

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16693.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-12 **Analysis Lot:** 585036

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.24	30995	Pass
75	95	30	60	50.14	76771	Pass
95	95	100	100	100.00	153101	Pass
96	95	5	9	6.89	10555	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	70.91	108565	Pass
175	174	5	9	7.23	7848	Pass
176	174	95	101	96.80	105096	Pass
177	176	5	9	7.53	7909	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1802745-02	I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	03/27/18 10:32	
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30	
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22	
MW-17	R1802551-003	I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	03/27/18 13:15	
MW-8	R1802551-004	I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	03/27/18 13:37	
MW-16	R1802551-005	I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	03/27/18 13:59	
MW-9	R1802551-006	I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	03/27/18 14:21	
DUP-032218	R1802551-009	I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	03/27/18 14:43	

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003 **Date Analyzed:**03/27/18 10:32

Internal Standard Area and RT SUMMARY

Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\ **Lab Code:**RQ1802745-02
Instrument ID: R-MS-12 **Analysis Lot:**585036
Analysis Method: 8260C **Signal ID:**

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	234,637	11.84	530,528	6.47	459,768	9.78
	Upper Limit ==>	469,274	12.34	1,061,056	6.97	919,536	10.28
	Lower Limit ==>	117,319	11.34	265,264	5.97	229,884	9.28
Associated Analyses							
Lab Control Sample	RQ1802745-03	225614	11.84	517963	6.47	456652	9.78
Method Blank	RQ1802745-04	202807	11.84	478787	6.47	414857	9.78
MW-17	R1802551-003	236506	11.84	554963	6.47	484861	9.78
MW-8	R1802551-004	207194	11.84	486905	6.47	428671	9.78
MW-16	R1802551-005	206108	11.84	484154	6.47	423298	9.78
MW-9	R1802551-006	213624	11.84	488979	6.47	427171	9.78
DUP-032218	R1802551-009	201775	11.84	479735	6.47	422035	9.78

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003 **Date Analyzed:**03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\ **Lab Code:**RQ1802745-02
Instrument ID: R-MS-12 **Analysis Lot:**585036
Analysis Method: 8260C **Signal ID:**

		Pentafluorobenzene	
		Area	**RT**
	ICAL Result ==>	315,594	5.38
	Upper Limit ==>	631,188	5.88
	Lower Limit ==>	157,797	4.88
Associated Analyses			
Lab Control Sample	RQ1802745-03	302355	5.38
Method Blank	RQ1802745-04	285373	5.38
MW-17	R1802551-003	326286	5.38
MW-8	R1802551-004	289539	5.38
MW-16	R1802551-005	285139	5.38
MW-9	R1802551-006	289167	5.38
DUP-032218	R1802551-009	282631	5.38

Raw Data

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

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1802551-001	**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)	1.0 U	1.0	0.36	1	03/27/18 16:10	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:10	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:10	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:10	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:10	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:10	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:10	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 16:10	
Dibromofluoromethane	89	89 - 119	03/27/18 16:10	
Toluene-d8	98	87 - 121	03/27/18 16:10	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18 12:35
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1802551-002	**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)	**0.54**	**J**	1.0	0.36	1	03/27/18 15:05	
1,1-Dichloroethane (1,1-DCA)	**0.72**	**J**	1.0	0.20	1	03/27/18 15:05	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.57	1	03/27/18 15:05	
Tetrachloroethene (PCE)	**0.52**	**J**	1.0	0.30	1	03/27/18 15:05	
Trichloroethene (TCE)	**5.0**		1.0	0.22	1	03/27/18 15:05	
Vinyl Chloride	1.0	U	1.0	0.32	1	03/27/18 15:05	
cis-1,2-Dichloroethene	**2.2**		1.0	0.30	1	03/27/18 15:05	
trans-1,2-Dichloroethene	1.0	U	1.0	0.33	1	03/27/18 15:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 15:05	
Dibromofluoromethane	93	89 - 119	03/27/18 15:05	
Toluene-d8	100	87 - 121	03/27/18 15:05	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/20/18 12:40
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	EB-032018	**Units:**	ug/L
Lab Code:	R1802551-007	**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)	1.0 U	1.0	0.36	1	03/27/18 16:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:32	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:32	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:32	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:32	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:32	
Dibromofluoromethane	91	89 - 119	03/27/18 16:32	
Toluene-d8	100	87 - 121	03/27/18 16:32	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 12:20
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	EB-032218	**Units:**	ug/L
Lab Code:	R1802551-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

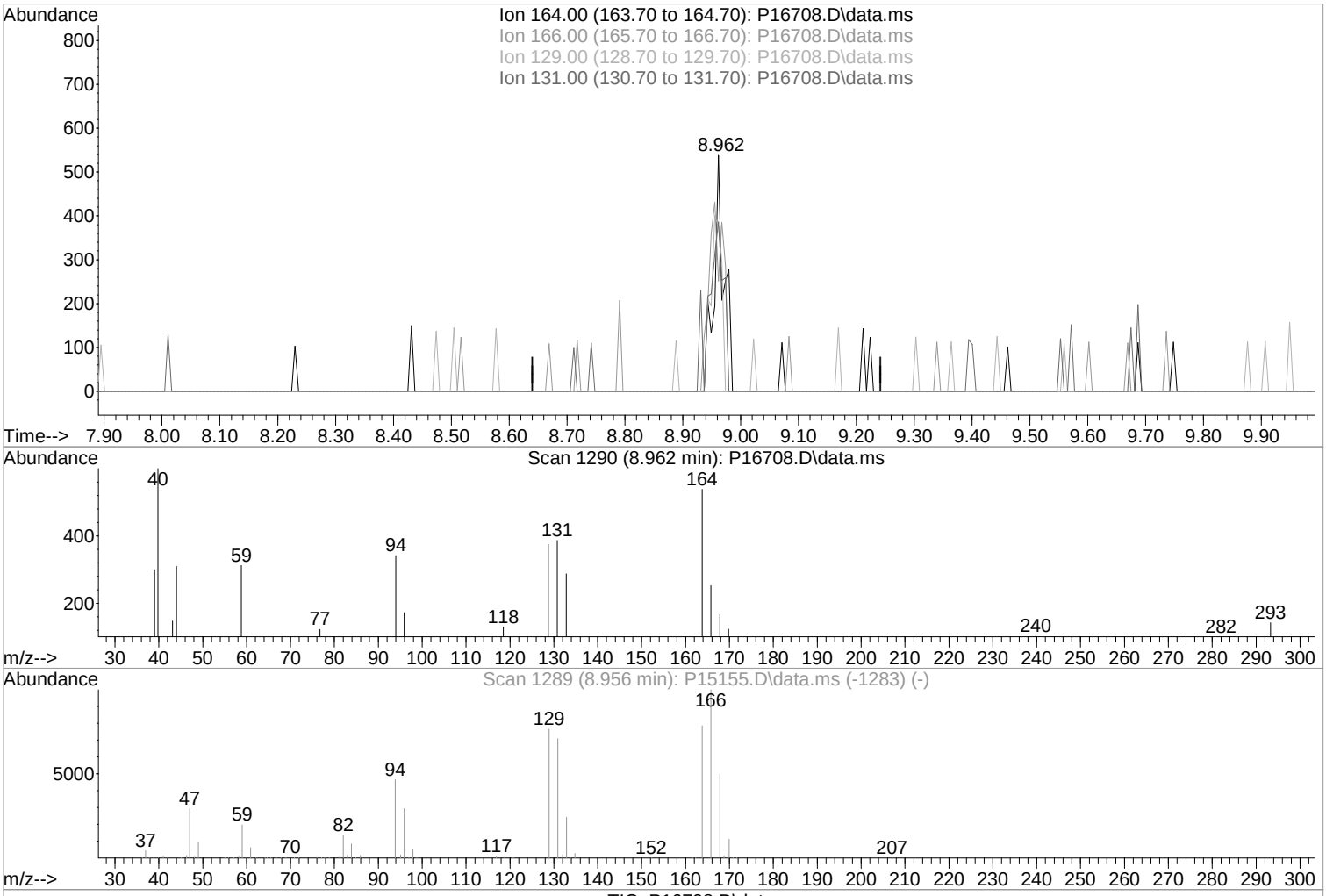
Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:54	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:54	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:54	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:54	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:54	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:54	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:54	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:54	
Dibromofluoromethane	92	89 - 119	03/27/18 16:54	
Toluene-d8	100	87 - 121	03/27/18 16:54	

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 16:43:01 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16708.D\data.ms

(72) Tetrachloroethene (P)

8.962min (-0.006) 0.29 ppb m

response 661

Ion	Exp%	Act%
164.00	100	100
166.00	127.20	46.84#
129.00	97.50	69.70#
131.00	90.20	71.75

Manual Integration:

After

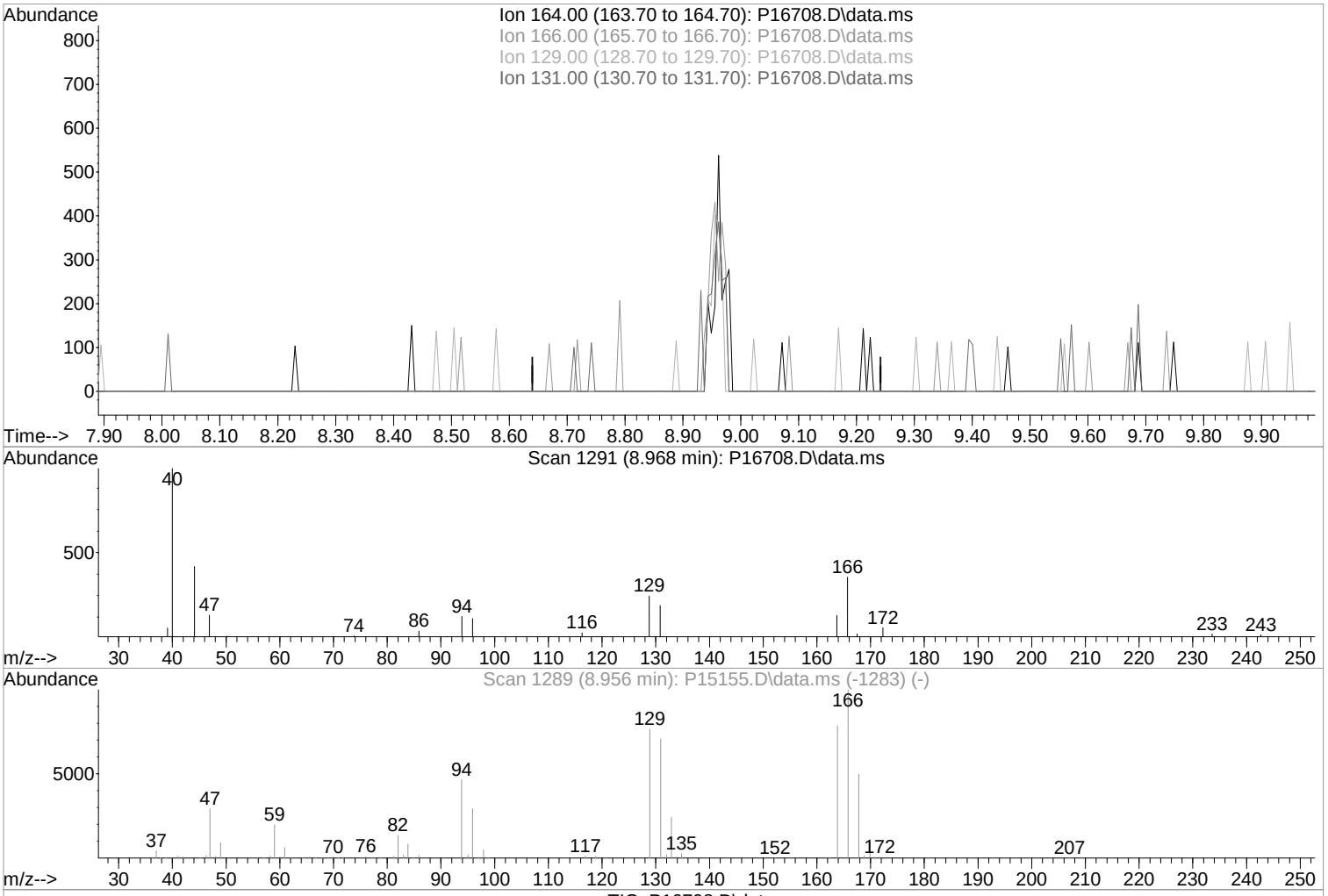
Peak not found.

03/27/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 16:43:01 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16708.D\data.ms

(72) Tetrachloroethene (P)

8.968min (-8.968) 0.00 ppb

response 0

Ion	Exp%	Act%
164.00	100	0.00
166.00	127.20	0.00#
129.00	97.50	0.00#
131.00	90.20	0.00#

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 17:08:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

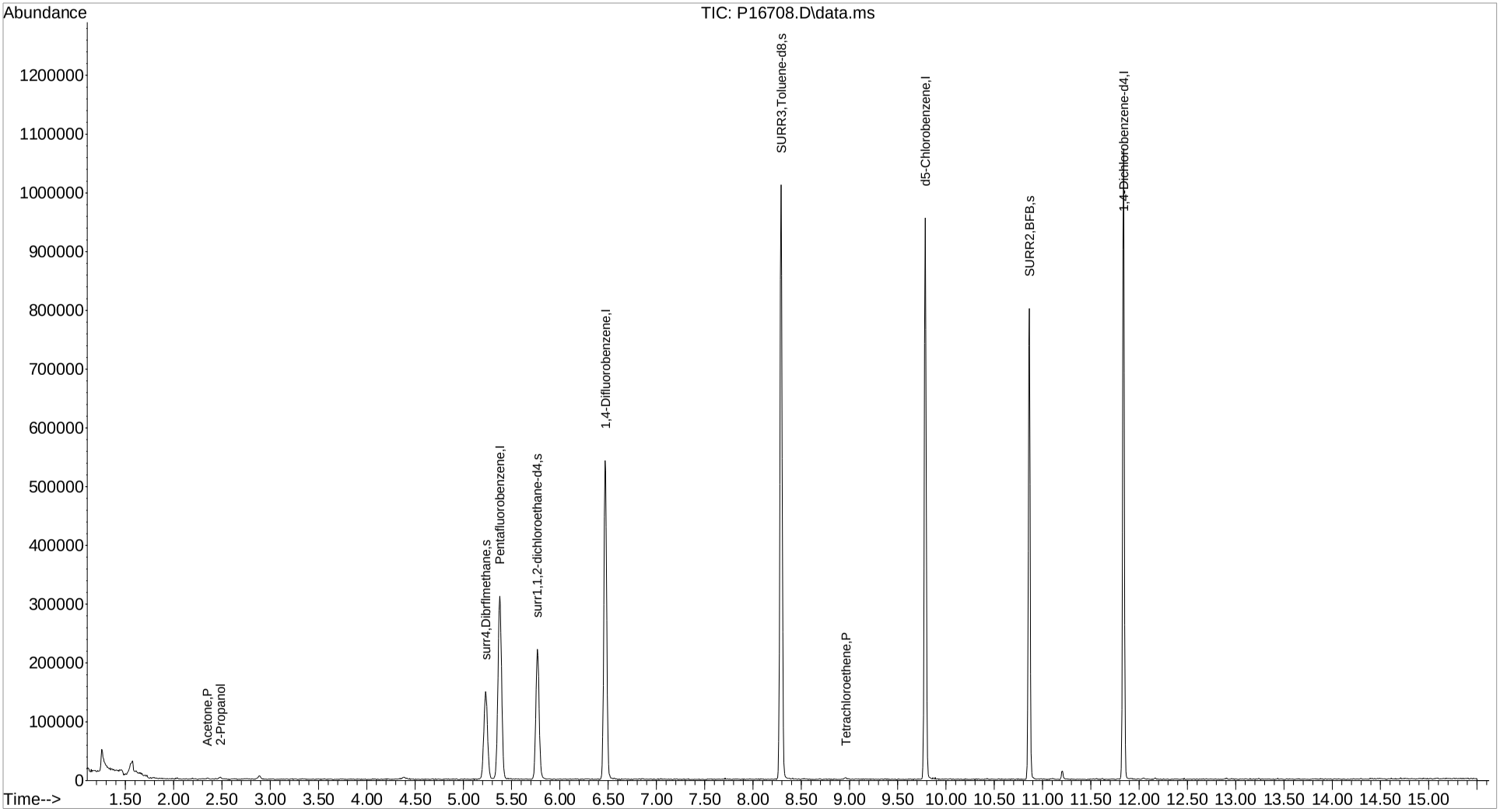
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	5.377	168	281048	50.00	ppb	0.00	
43) 1,4-Difluorobenzene	6.468	114	475796	50.00	ppb	0.00	
71) d5-Chlorobenzene	9.785	117	410509	50.00	ppb	0.00	
86) 1,4-Dichlorobenzene-d4	11.839	152	204404	50.00	ppb	0.00	
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	125562	44.45	ppb	0.00	
Spiked Amount 50.000	Range 89 - 119		Recovery = 88.90%#				
48) surr1,1,2-dichloroetha...	5.767	65	186420	48.15	ppb	0.00	
Spiked Amount 50.000	Range 73 - 125		Recovery = 96.30%				
65) SURR3,Toluene-d8	8.291	98	619979	49.15	ppb	0.00	
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.30%				
70) SURR2,BFB	10.864	95	224336	45.96	ppb	0.00	
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.92%				
Target Compounds						Qvalue	
15) Acetone	2.347	43	1530	0.89	ppb	93	
16) 2-Propanol	2.481	45	2839	8.63	ppb	97	
72) Tetrachloroethene	8.962	164	661m	0.29	ppb		< MRL

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

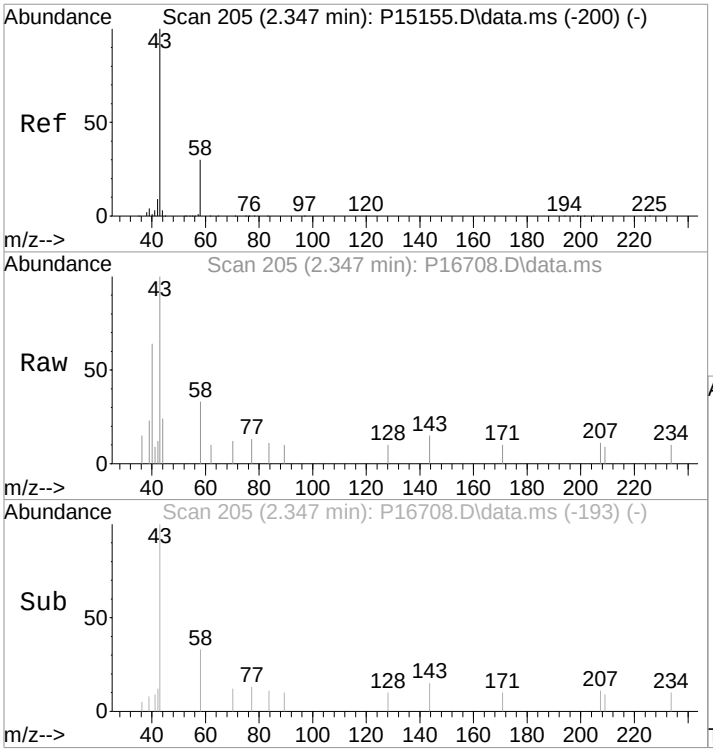
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 17:08:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



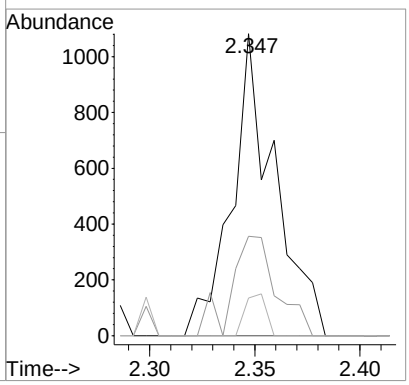
1st 03/27/18
2nd 03/29/18

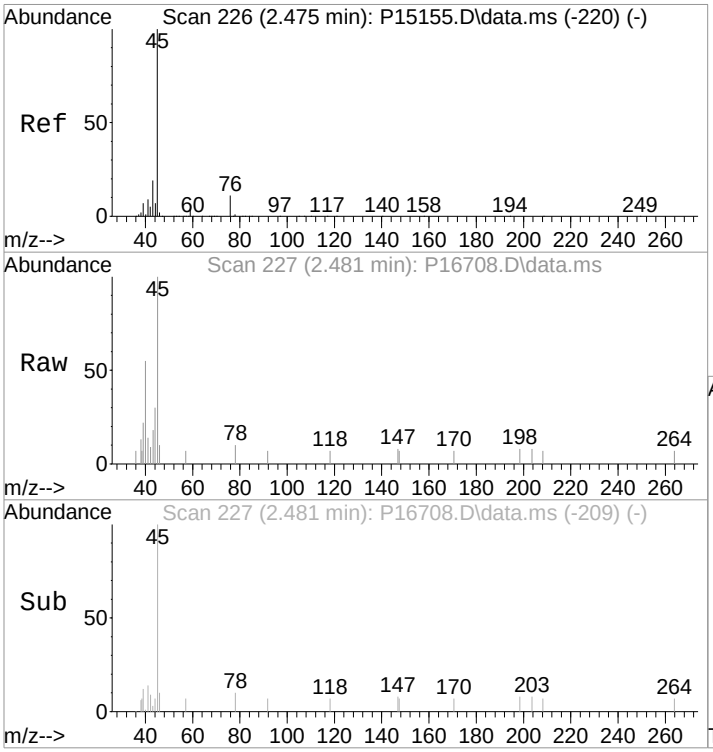


#15
Acetone
Concen: 0.89 ppb
RT: 2.347 min Scan# 205
Delta R.T. -0.000 min
Lab File: P16708.D
Acq: 27 Mar 2018 4:10 pm

Tgt Ion: 43 Resp: 1530

Ion	Ratio	Lower	Upper
43	100		
58	32.9	9.7	49.7
42	12.5	0.0	29.2

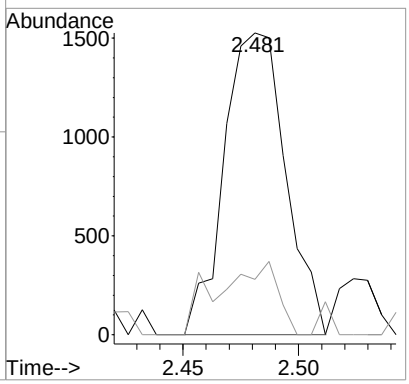


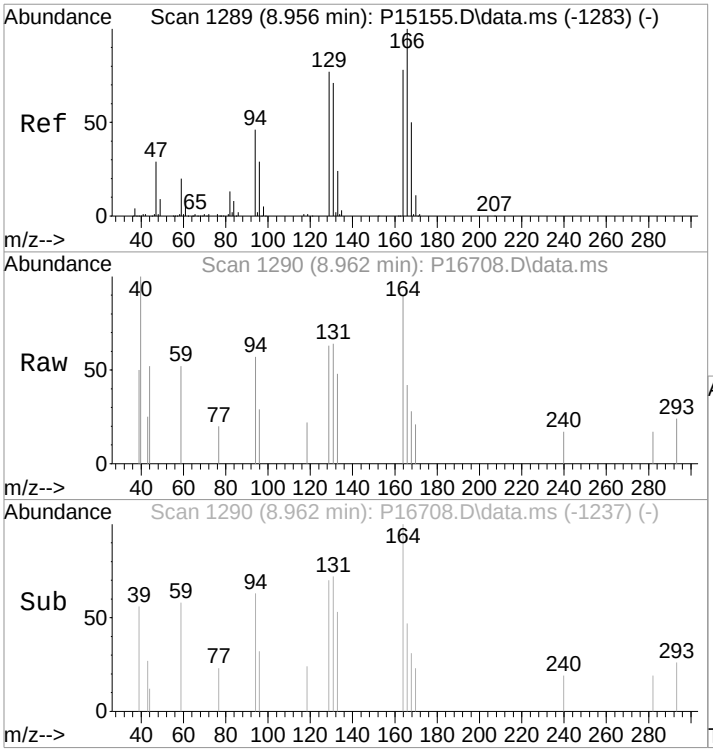


#16
2-Propanol
Concen: 8.63 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.000 min
Lab File: P16708.D
Acq: 27 Mar 2018 4:10 pm

Tgt Ion: 45 Resp: 2839

Ion	Ratio	Lower	Upper
45	100		
43	18.3	0.0	39.6

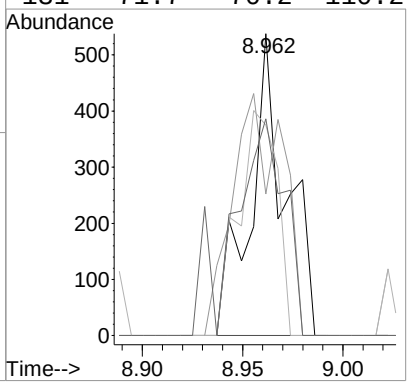




#72
Tetrachloroethene
Concen: 0.29 ppb m
RT: 8.962 min Scan# 1290
Delta R.T. -0.006 min
Lab File: P16708.D
Acq: 27 Mar 2018 4:10 pm

Tgt Ion:164 Resp: 661

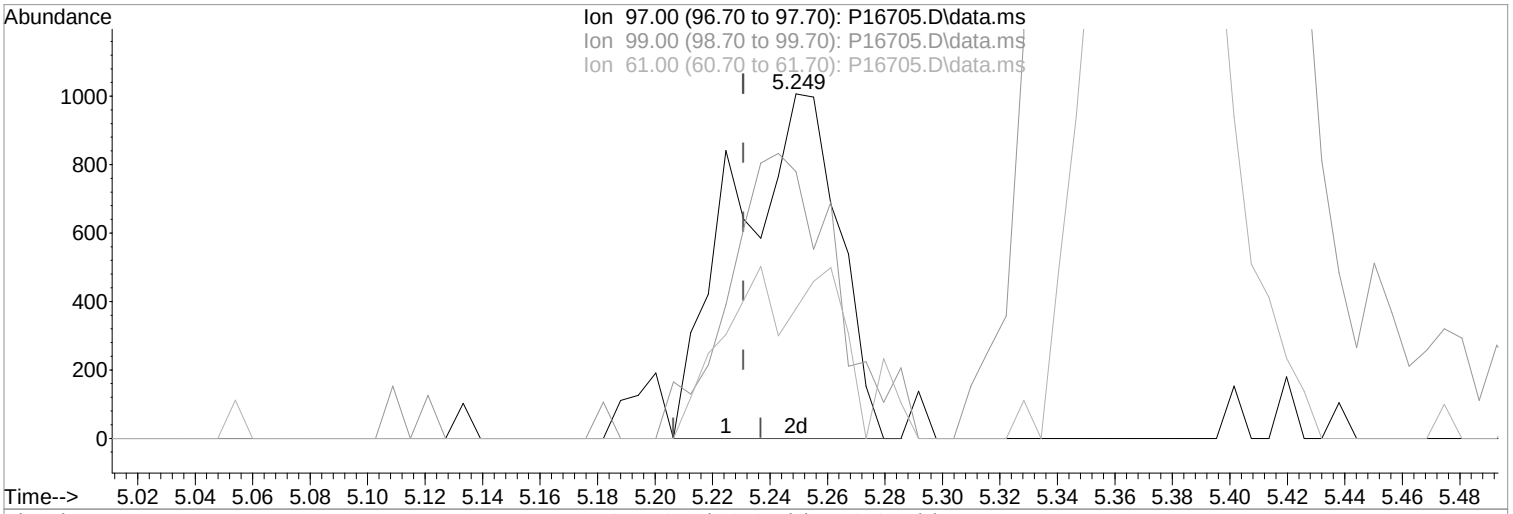
Ion	Ratio	Lower	Upper
164	100		
166	46.8	107.2	147.2#
129	69.7	77.5	117.5#
131	71.7	70.2	110.2

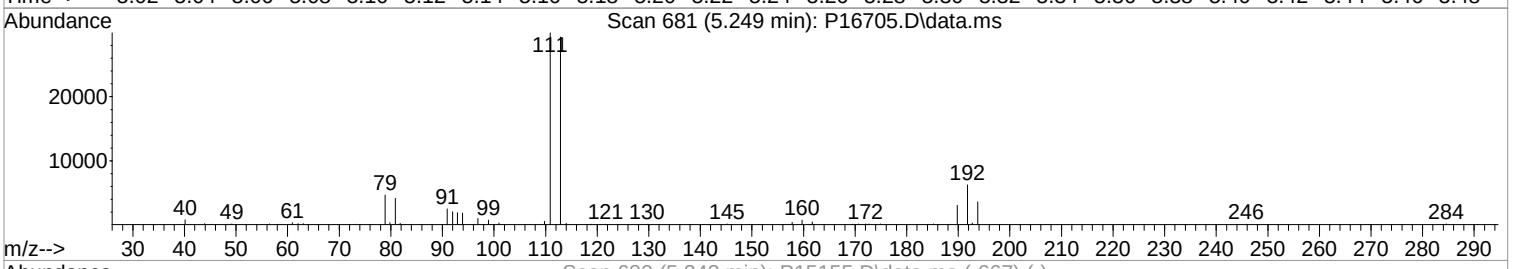


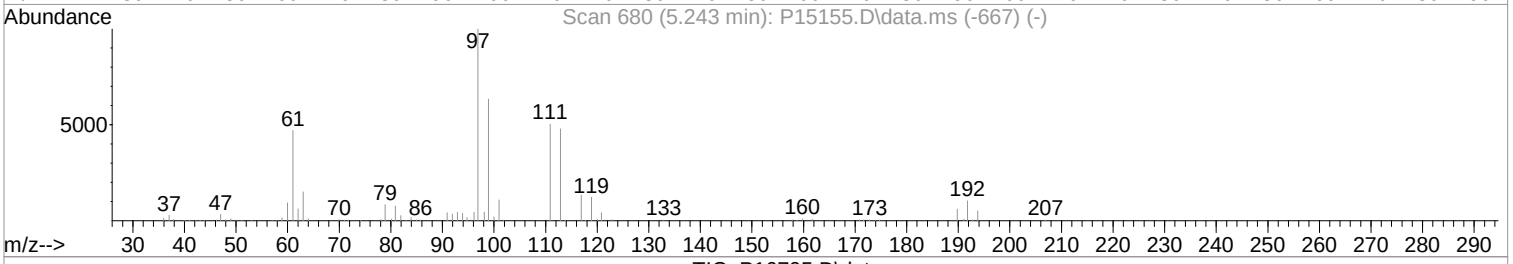
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16705.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.249min (+0.018) 0.54 ppb m

response 2539

Ion	Exp%	Act%
97.00	100	100
99.00	63.10	77.36
61.00	46.90	37.64
0.00	0.00	0.00

Manual Integration:

After

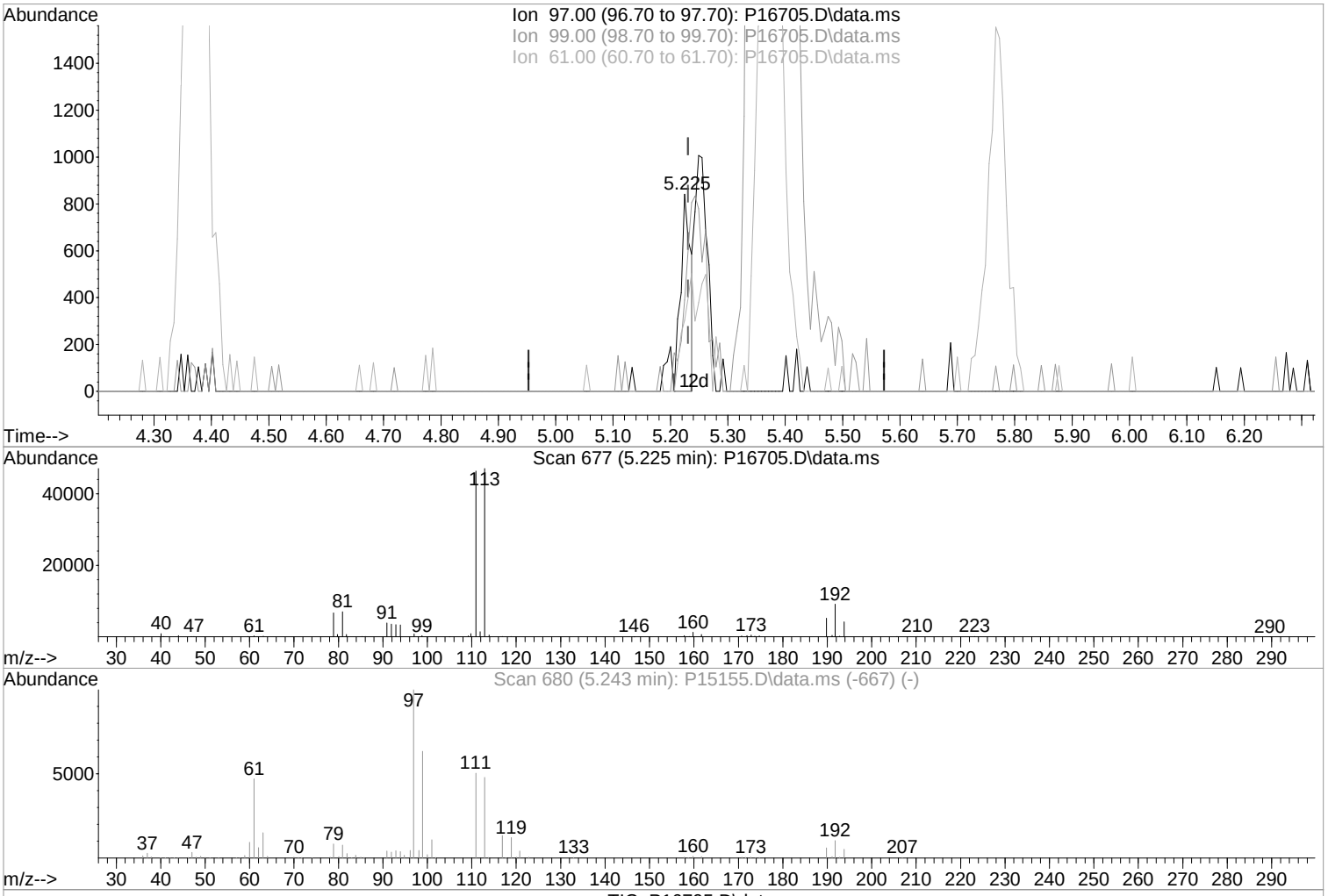
Split Peak

03/27/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16705.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.225min (-0.006) 0.22 ppb

response 1023

Ion	Exp%	Act%
97.00	100	100
99.00	63.10	46.37
61.00	46.90	36.03
0.00	0.00	0.00

Manual Integration:

Before

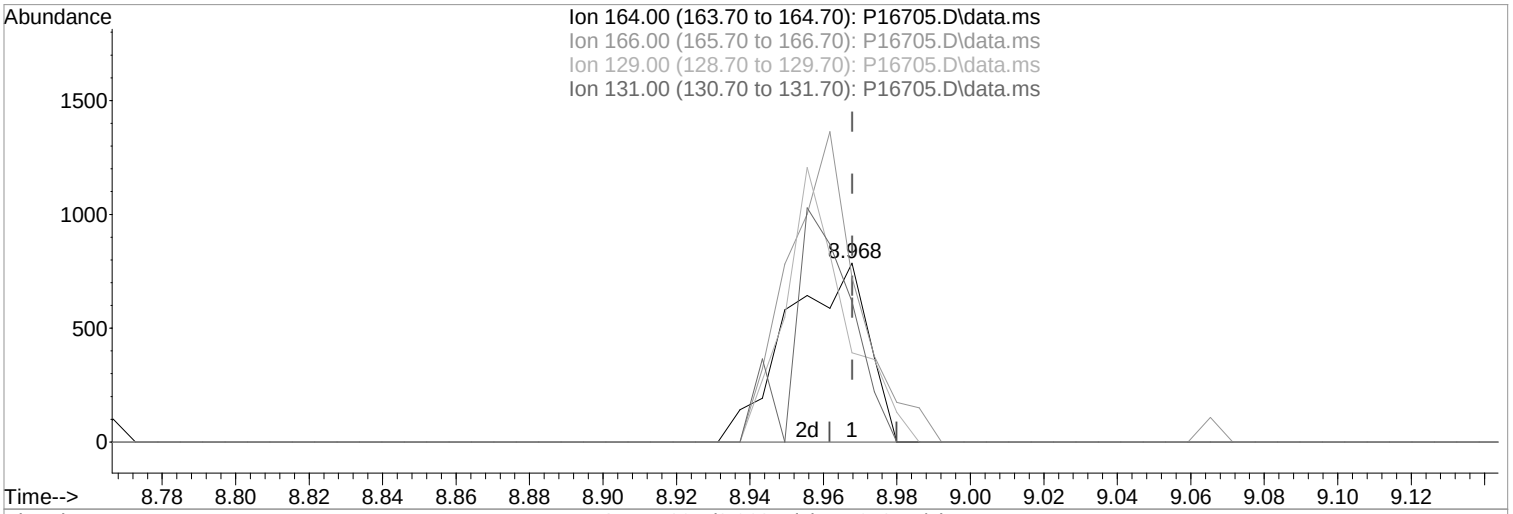
03/27/18

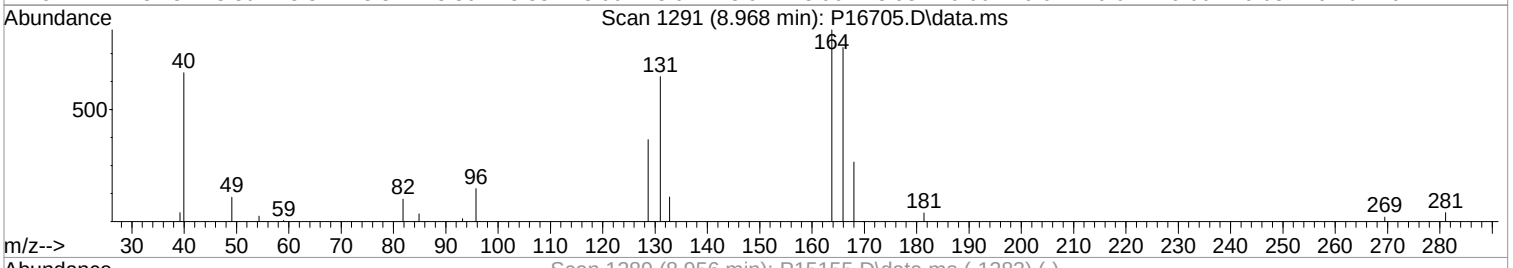
1st 03/27/18
2nd 03/29/18

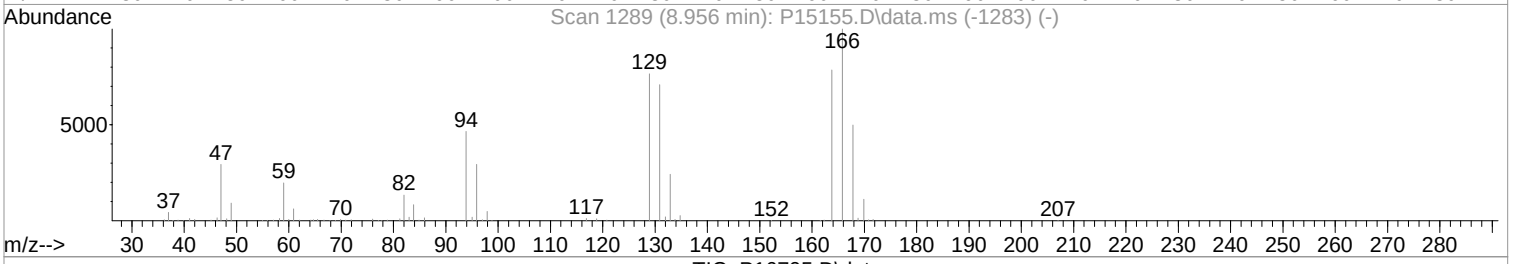
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16705.D\data.ms

(72) Tetrachloroethene (P)

8.968min (-0.000) 0.52 ppb m

response 1207

Ion	Exp%	Act%
164.00	100	100
166.00	127.20	91.97#
129.00	97.50	49.94#
131.00	90.20	78.60

Manual Integration:

After

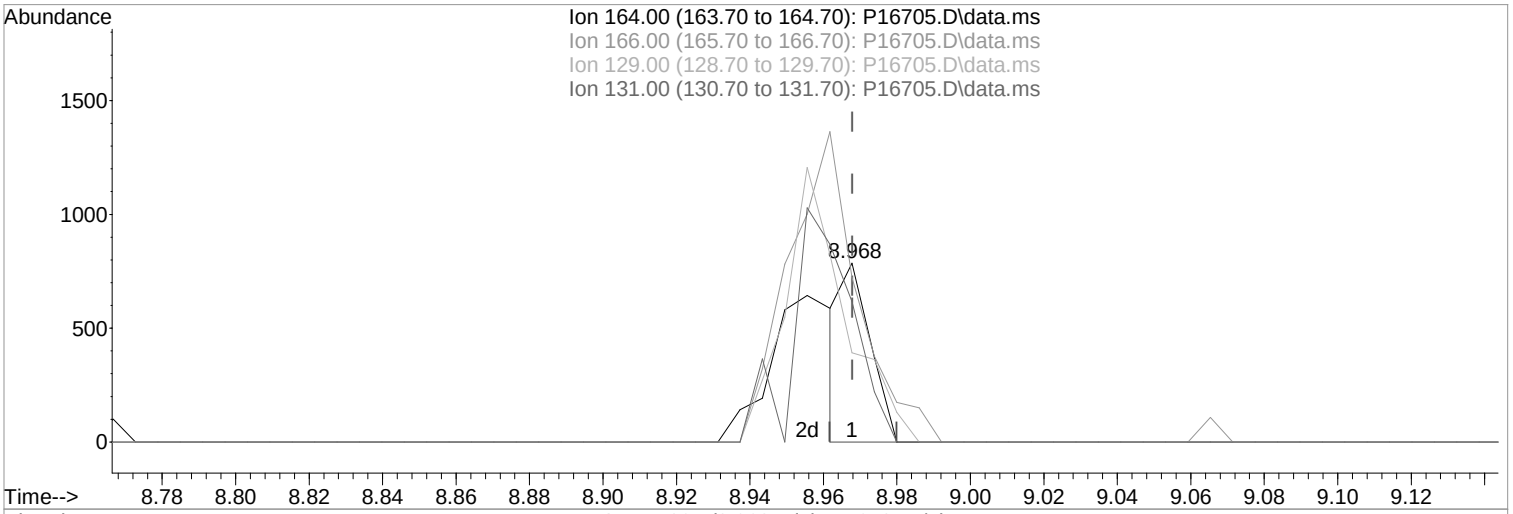
Split Peak

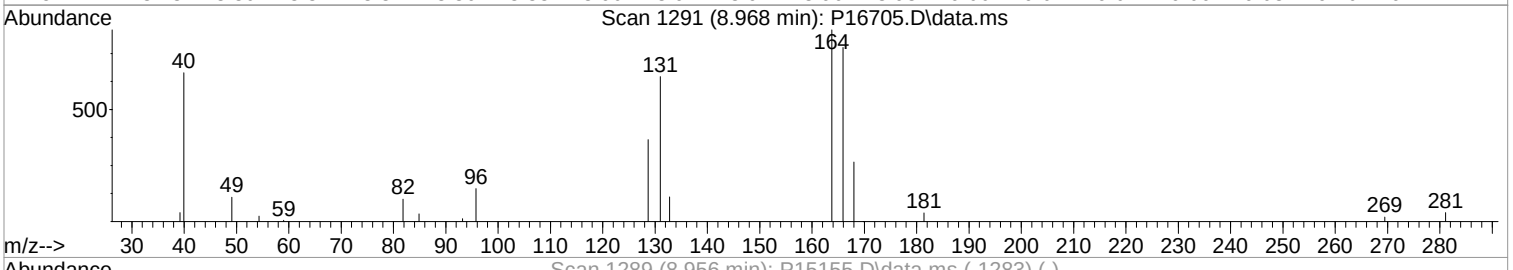
03/27/18

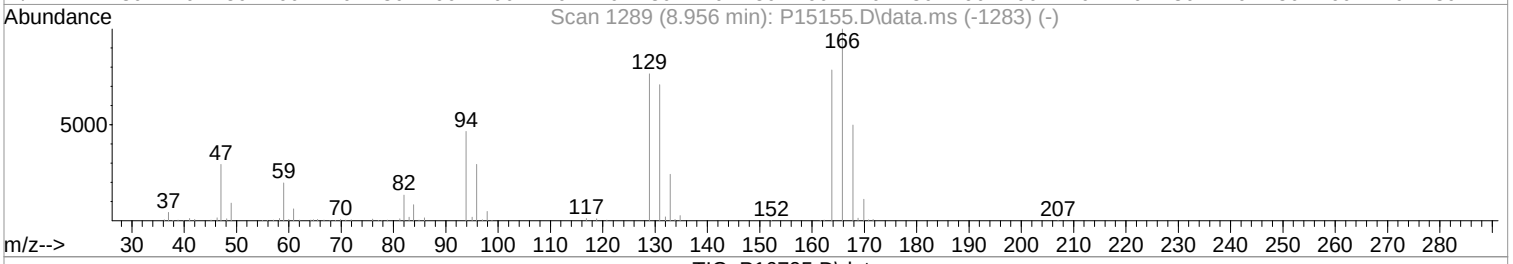
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16705.D\data.ms

(72) Tetrachloroethene (P)

8.968min (-0.000) 0.18 ppb

response 423

Ion	Exp%	Act%
164.00	100	100
166.00	127.20	91.97#
129.00	97.50	49.94#
131.00	90.20	78.60

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 17:03:45 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

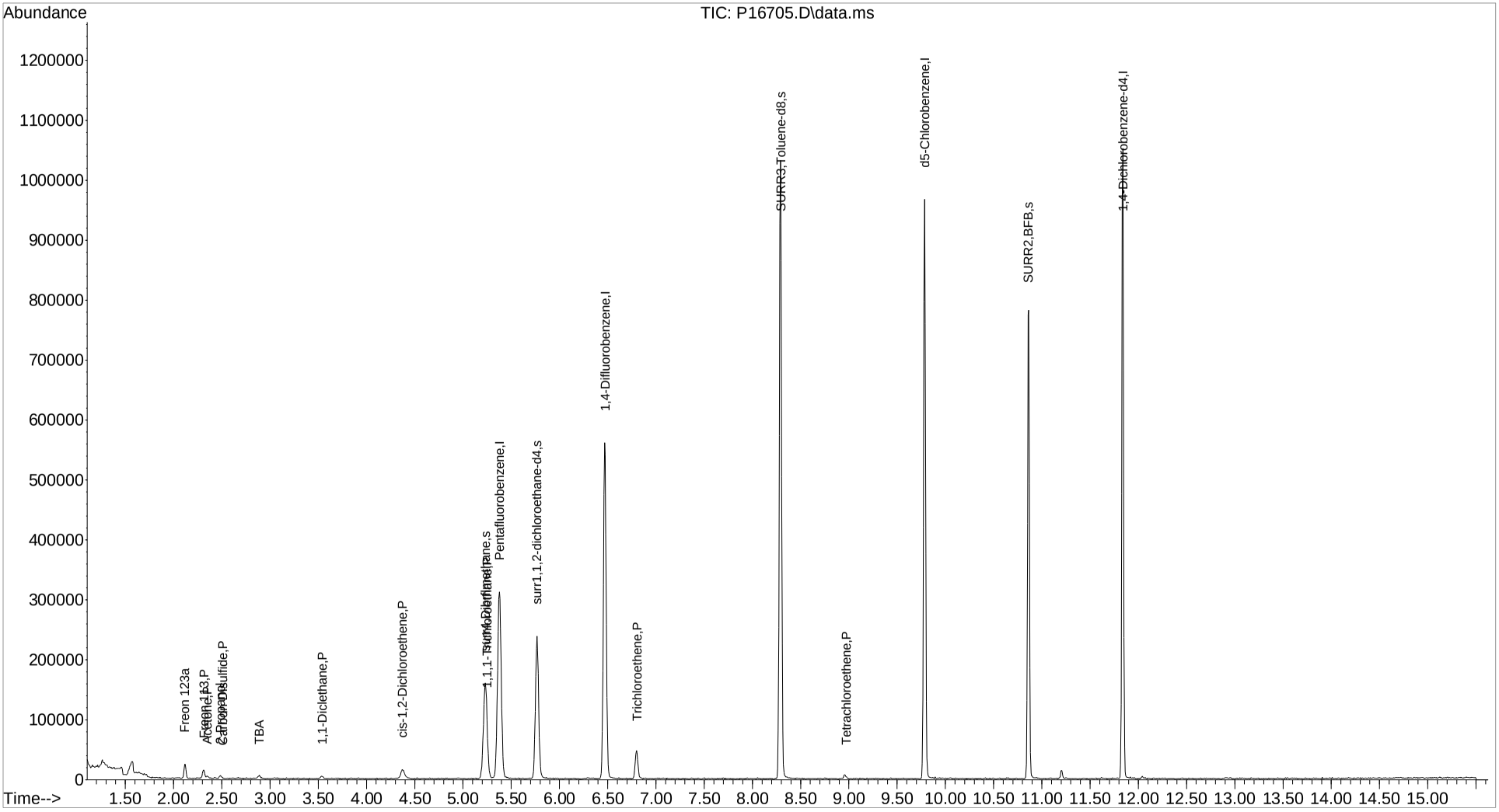
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	285631	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	482698	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	424525	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	209468	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	133809	46.69	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.38%				
48) surr1,1,2-dichloroetha...	5.767	65	197579	50.31	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.62%				
65) SURR3,Toluene-d8	8.291	98	641524	50.13	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.26%				
70) SURR2,BFB	10.858	95	228757	46.20	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.40%				
Target Compounds							Qvalue
10) Freon 123a	2.115	67	9651	2.80	ppb		96
14) Freon 113	2.311	101	4565	1.65	ppb		81
15) Acetone	2.347	43	3526	2.02	ppb		95
16) 2-Propanol	2.481	45	3161	9.46	ppb		91
18) Carbon Disulfide	2.506	76	1973	0.23	ppb		95
23) TBA	2.884	59	2110	3.66	ppb		79
28) 1,1-Diclethane	3.536	63	3976	0.72	ppb		92
34) cis-1,2-Dichloroethene	4.371	96	7420	2.17	ppb	#	73
41) 1,1,1-Trichloroethane	5.249	97	2539m	0.54	ppb		
54) Trichloroethene	6.804	130	16292	5.04	ppb		94
72) Tetrachloroethene	8.968	164	1207m	0.52	ppb		

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

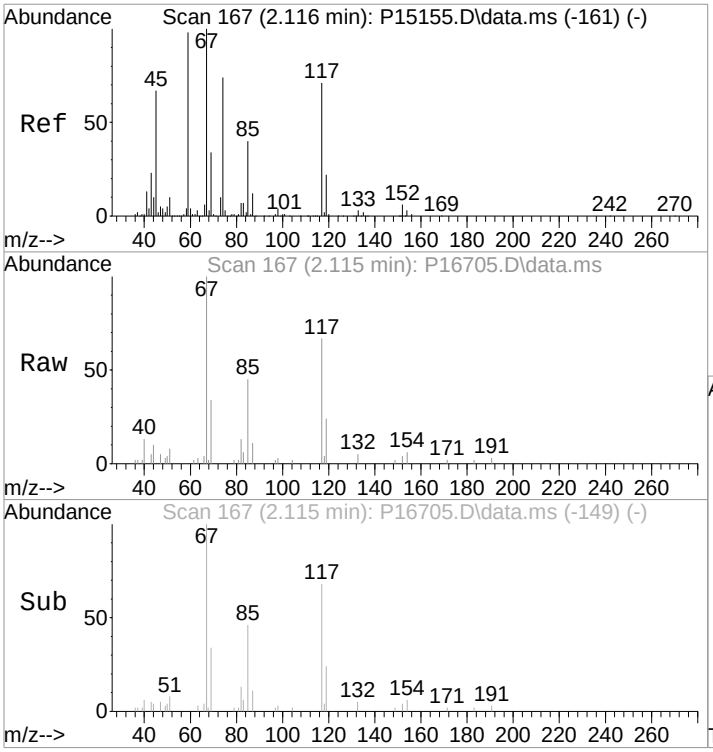
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 17:03:45 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



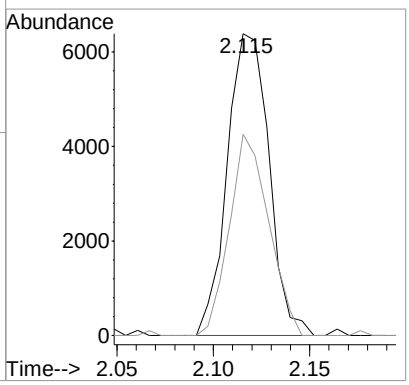
1st 03/27/18
2nd 03/29/18

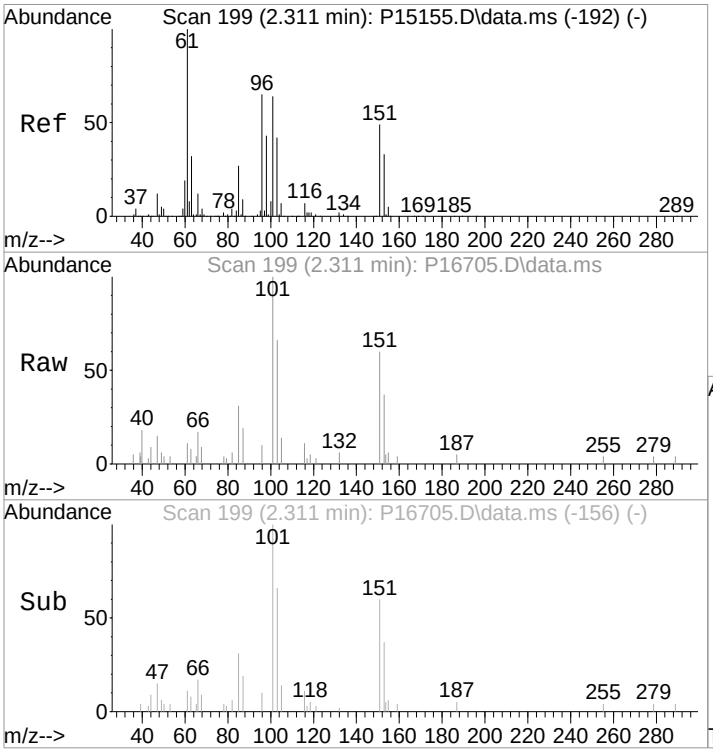


#10
Freon 123a
Concen: 2.80 ppb
RT: 2.115 min Scan# 167
Delta R.T. -0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 67 Resp: 9651

Ion	Ratio	Lower	Upper
67	100		
117	66.6	50.3	90.3

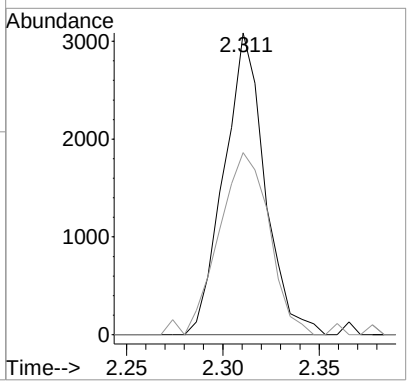


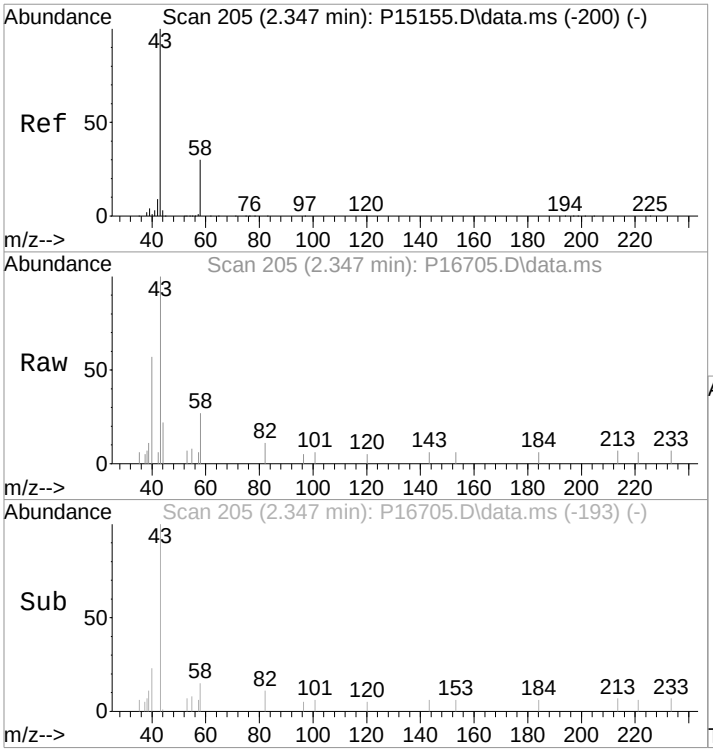


#14
Freon 113
Concen: 1.65 ppb
RT: 2.311 min Scan# 199
Delta R.T. 0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion:101 Resp: 4565

Ion	Ratio	Lower	Upper
101	100		
151	60.3	56.3	96.3

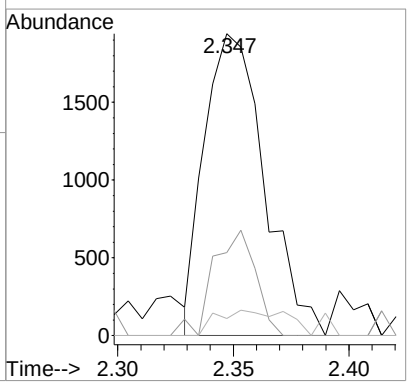


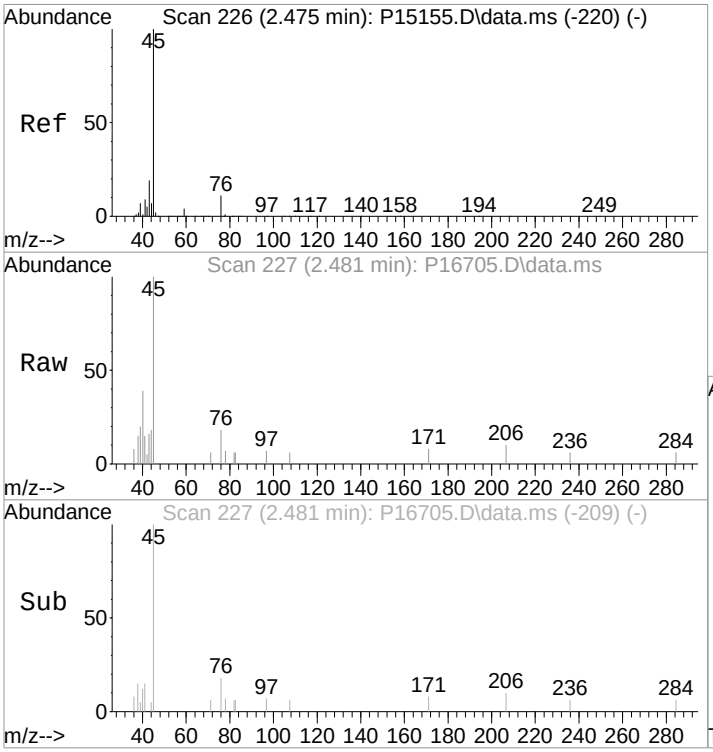


#15
Acetone
Concen: 2.02 ppb
RT: 2.347 min Scan# 205
Delta R.T. 0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 43 Resp: 3526

Ion	Ratio	Lower	Upper
43	100		
58	27.5	9.7	49.7
42	5.6	0.0	29.2

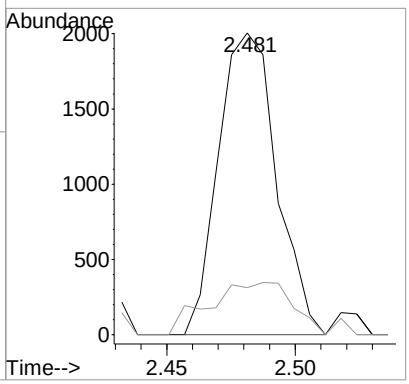


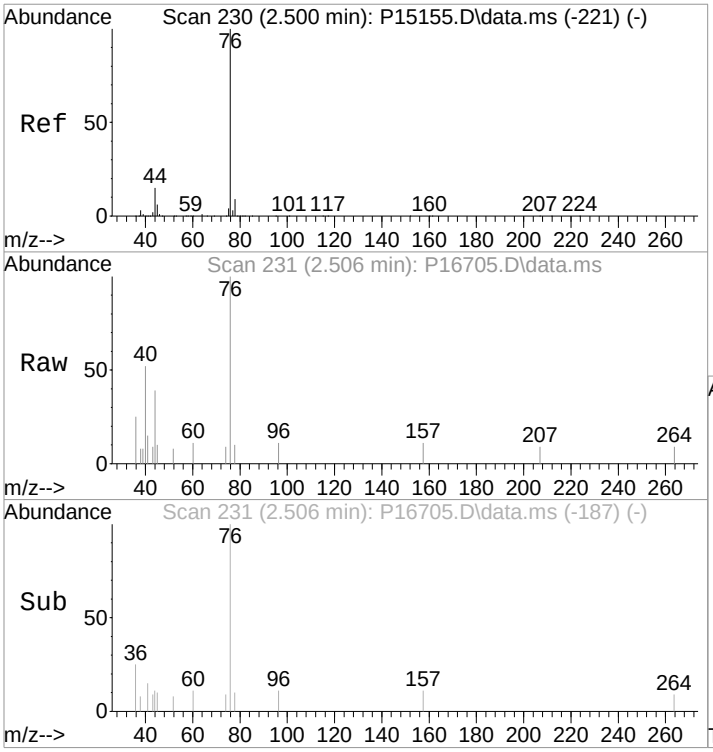


#16
2-Propanol
Concen: 9.46 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 45 Resp: 3161

Ion	Ratio	Lower	Upper
45	100		
43	15.6	0.0	39.6

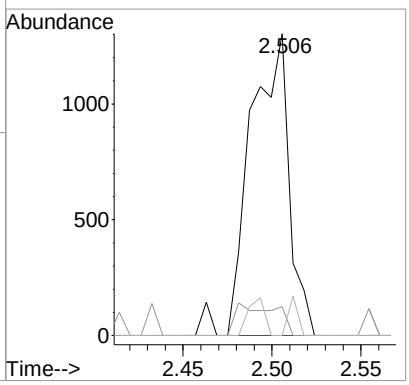


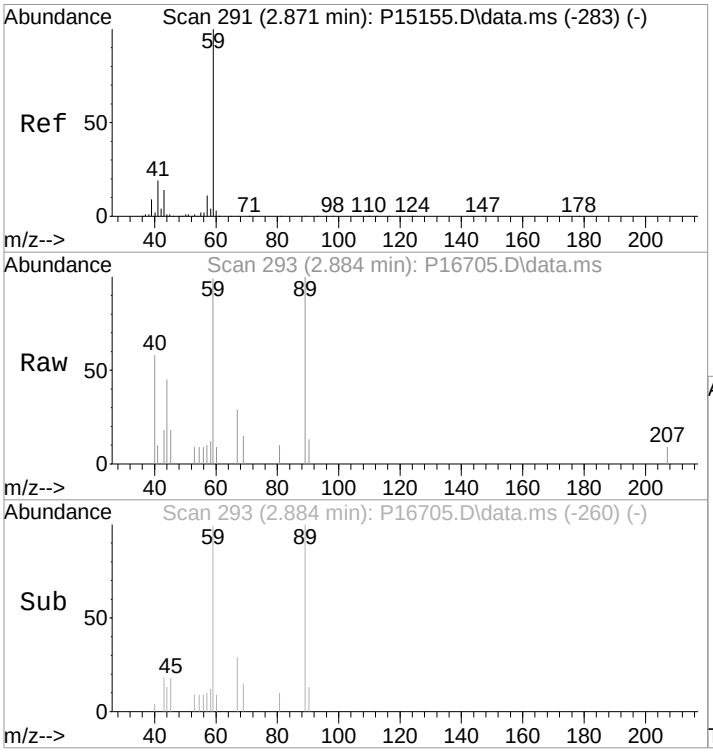


#18
Carbon Disulfide
Concen: 0.23 ppb
RT: 2.506 min Scan# 231
Delta R.T. 0.012 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 76 Resp: 1973

Ion	Ratio	Lower	Upper
76	100		
78	9.6	0.0	29.5
77	9.6	0.0	23.1

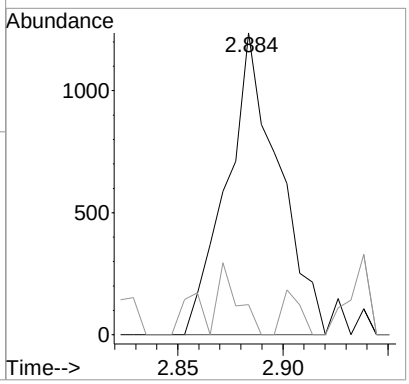


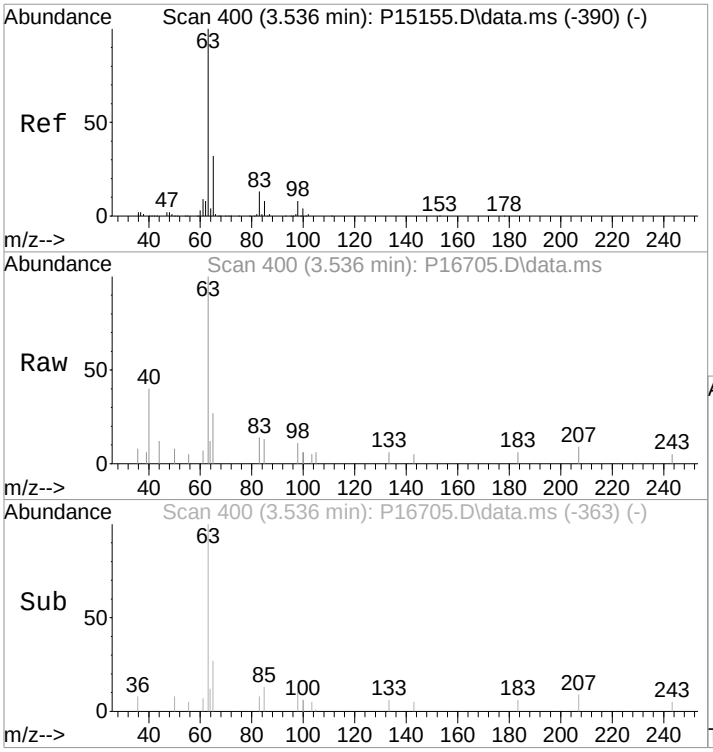


#23
TBA
Concen: 3.66 ppb
RT: 2.884 min Scan# 293
Delta R.T. 0.012 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 59 Resp: 2110

Ion	Ratio	Lower	Upper
59	100		
41	9.9	0.0	39.4

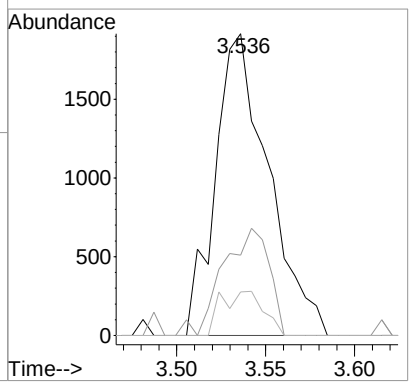


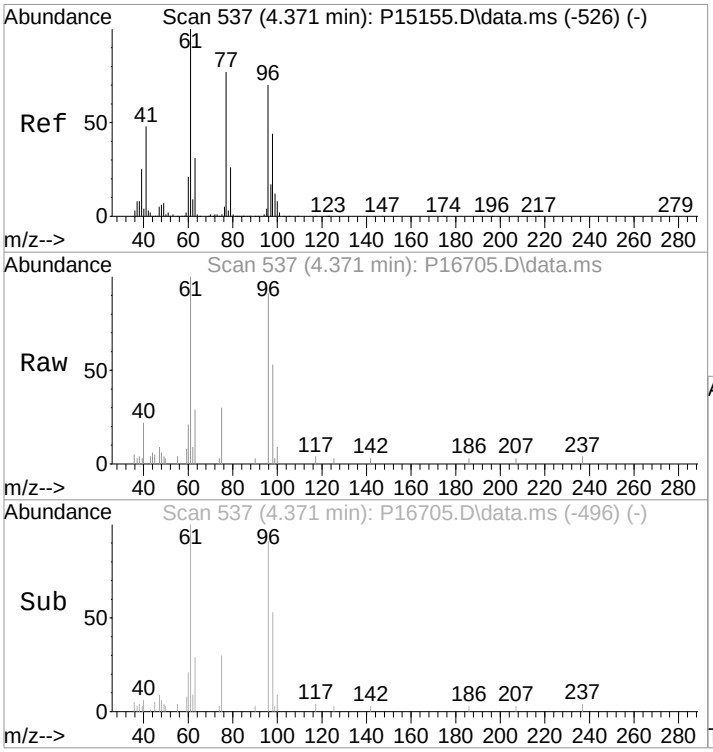


#28
1,1-Diclethane
Concen: 0.72 ppb
RT: 3.536 min Scan# 400
Delta R.T. -0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 63 Resp: 3976

Ion	Ratio	Lower	Upper
63	100		
65	26.6	12.3	52.3
83	14.4	0.0	33.4

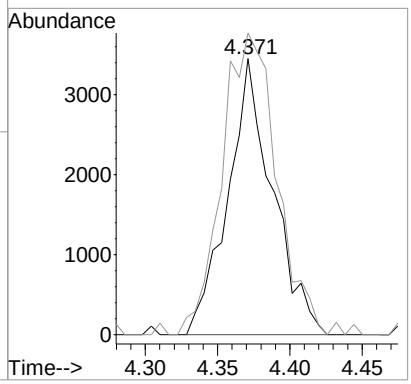


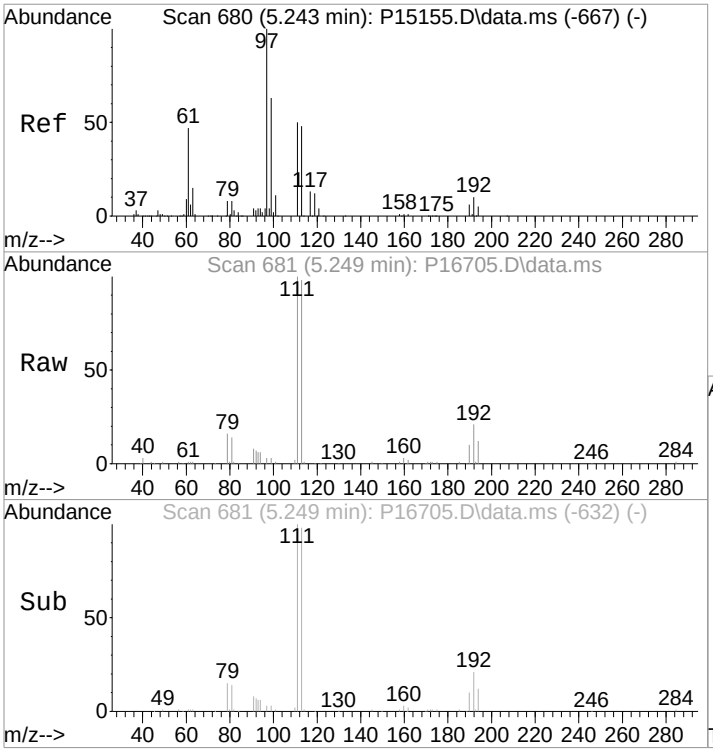


#34
cis-1,2-Dichloroethene
Concen: 2.17 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 96 Resp: 7420

Ion	Ratio	Lower	Upper
96	100		
61	109.3	122.8	162.8#

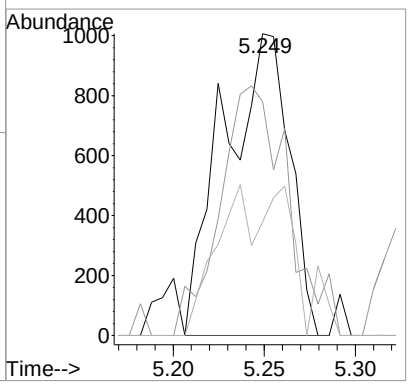


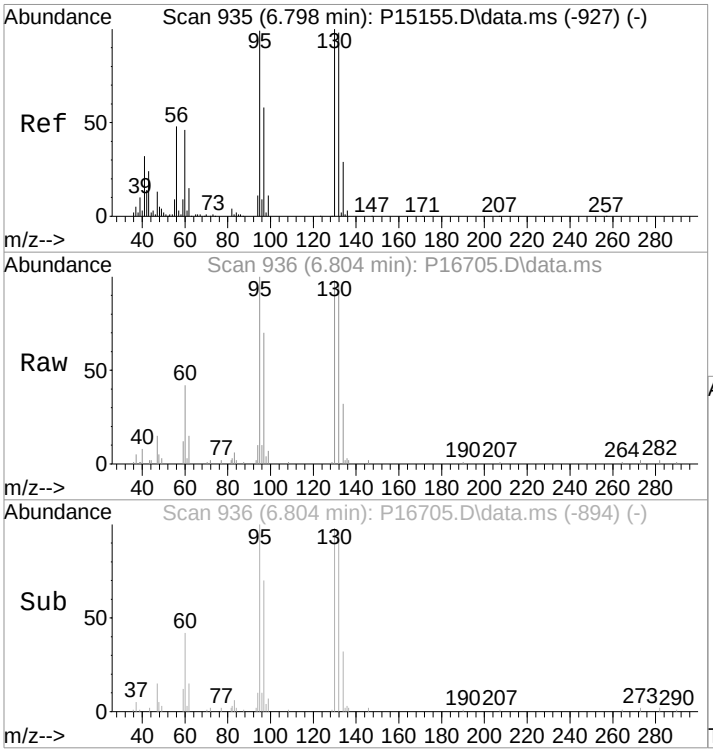


#41
1,1,1-Trichloroethane
Concen: 0.54 ppb m
RT: 5.249 min Scan# 681
Delta R.T. 0.018 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion: 97 Resp: 2539

Ion	Ratio	Lower	Upper
97	100		
99	77.4	43.1	83.1
61	37.6	26.9	66.9

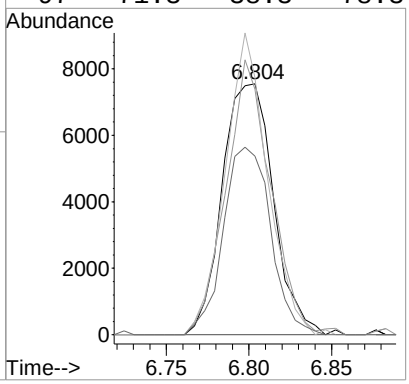


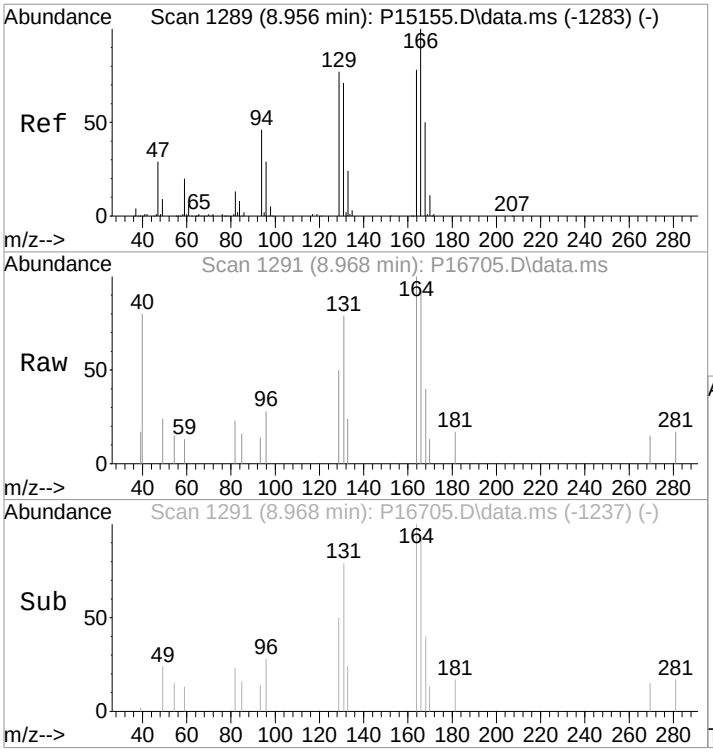


#54
Trichloroethene
Concen: 5.04 ppb
RT: 6.804 min Scan# 936
Delta R.T. 0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion:130 Resp: 16292

Ion	Ratio	Lower	Upper
130	100		
132	97.9	78.3	118.3
95	102.4	78.7	118.7
97	71.3	38.3	78.3

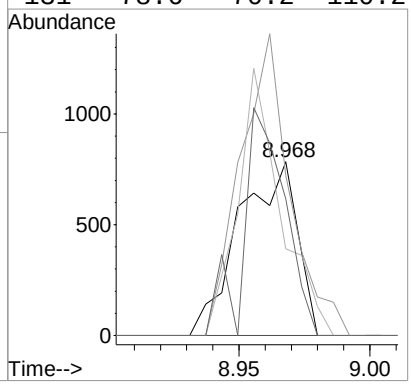




#72
Tetrachloroethene
Concen: 0.52 ppb m
RT: 8.968 min Scan# 1291
Delta R.T. -0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion:164 Resp: 1207

Ion	Ratio	Lower	Upper
164	100		
166	92.0	107.2	147.2#
129	49.9	77.5	117.5#
131	78.6	70.2	110.2



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16709.D
Acq On : 27 Mar 2018 4:32 pm
Operator : K.Ruest
Sample : R1802551-007|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 17:09:19 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

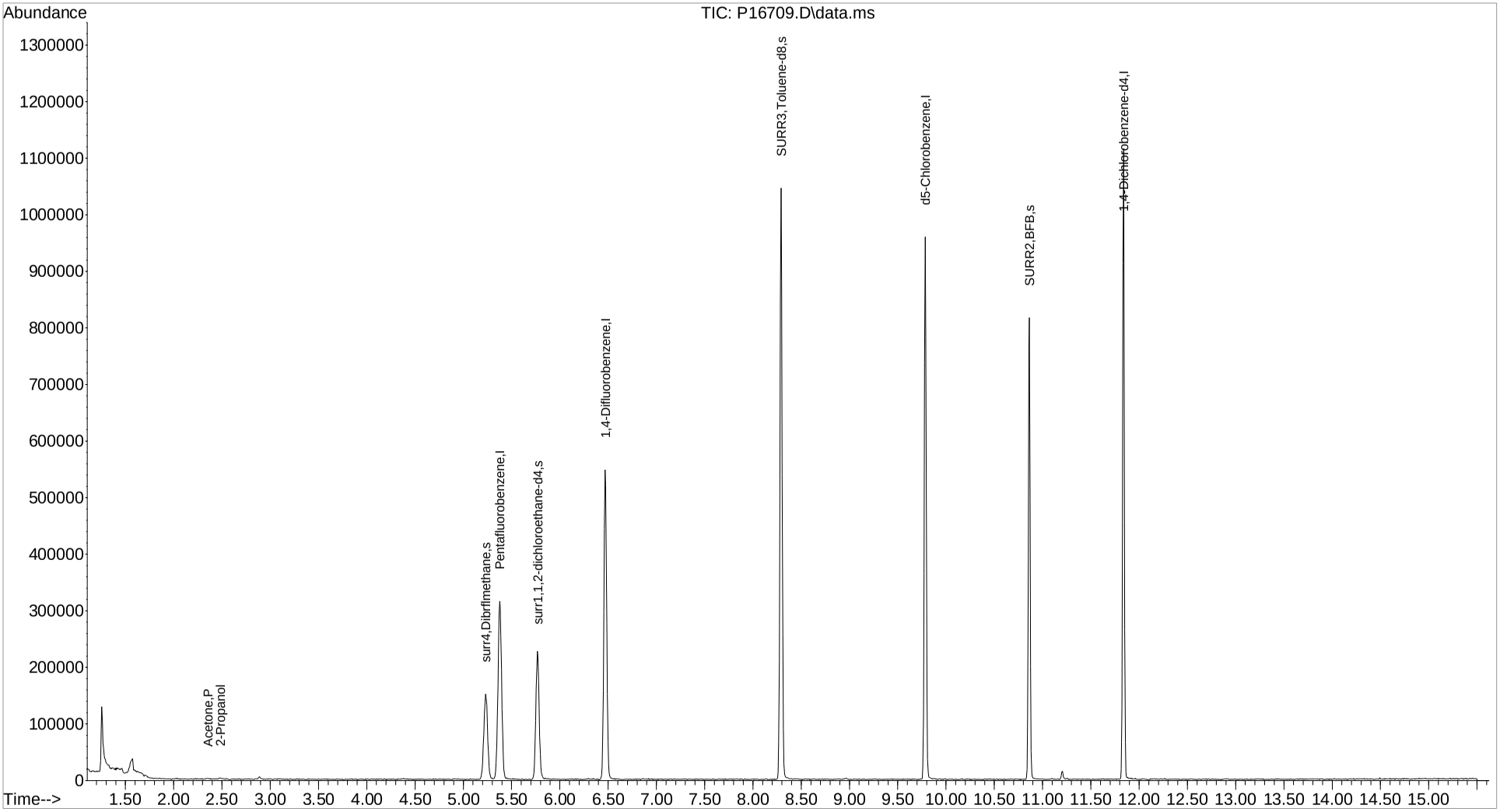
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	280405	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	474659	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	421343	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	210915	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	128412	45.56	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.12%			
48) surr1,1,2-dichloroetha...	5.773	65	191309	49.54	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.08%			
65) SURR3,Toluene-d8	8.291	98	627621	49.87	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.74%			
70) SURR2,BFB	10.864	95	228204	46.87	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.74%			
Target Compounds						Qvalue
15) Acetone	2.353	43	1957	1.14	ppb	83
16) 2-Propanol	2.481	45	2361	7.20	ppb	95

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

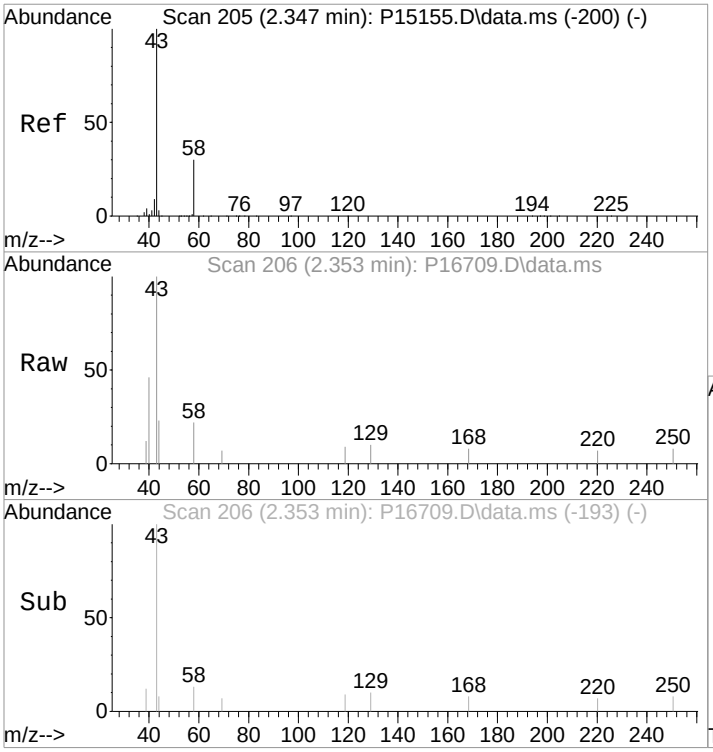
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16709.D
Acq On : 27 Mar 2018 4:32 pm
Operator : K.Ruest
Sample : R1802551-007|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 17:09:19 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



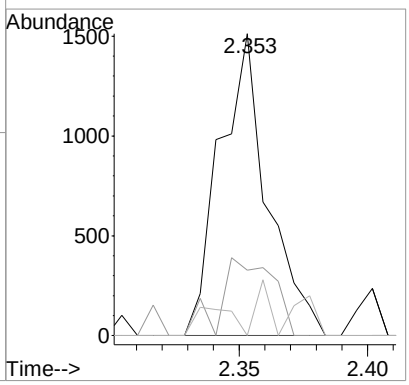
1st 03/27/18
2nd 03/29/18

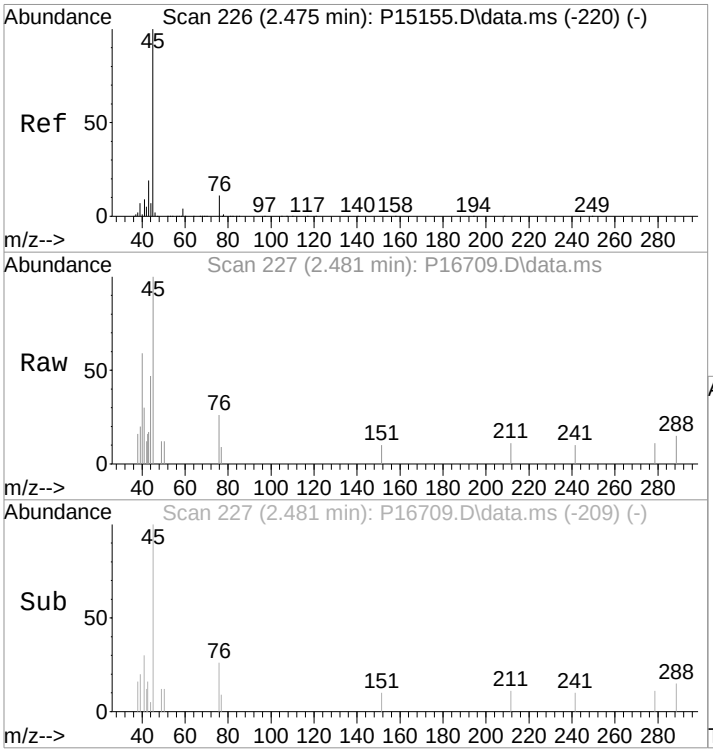


#15
Acetone
Concen: 1.14 ppb
RT: 2.353 min Scan# 206
Delta R.T. 0.006 min
Lab File: P16709.D
Acq: 27 Mar 2018 4:32 pm

Tgt Ion: 43 Resp: 1957

Ion	Ratio	Lower	Upper
43	100		
58	21.7	9.7	49.7
42	0.0	0.0	29.2

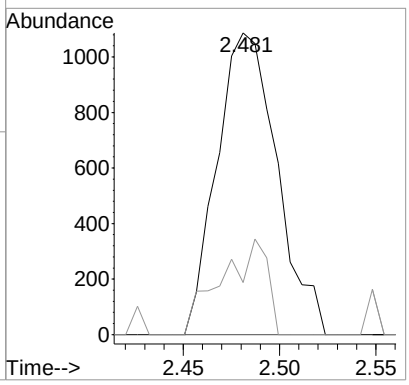




#16
2-Propanol
Concen: 7.20 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.000 min
Lab File: P16709.D
Acq: 27 Mar 2018 4:32 pm

Tgt Ion: 45 Resp: 2361

Ion	Ratio	Lower	Upper
45	100		
43	17.3	0.0	39.6

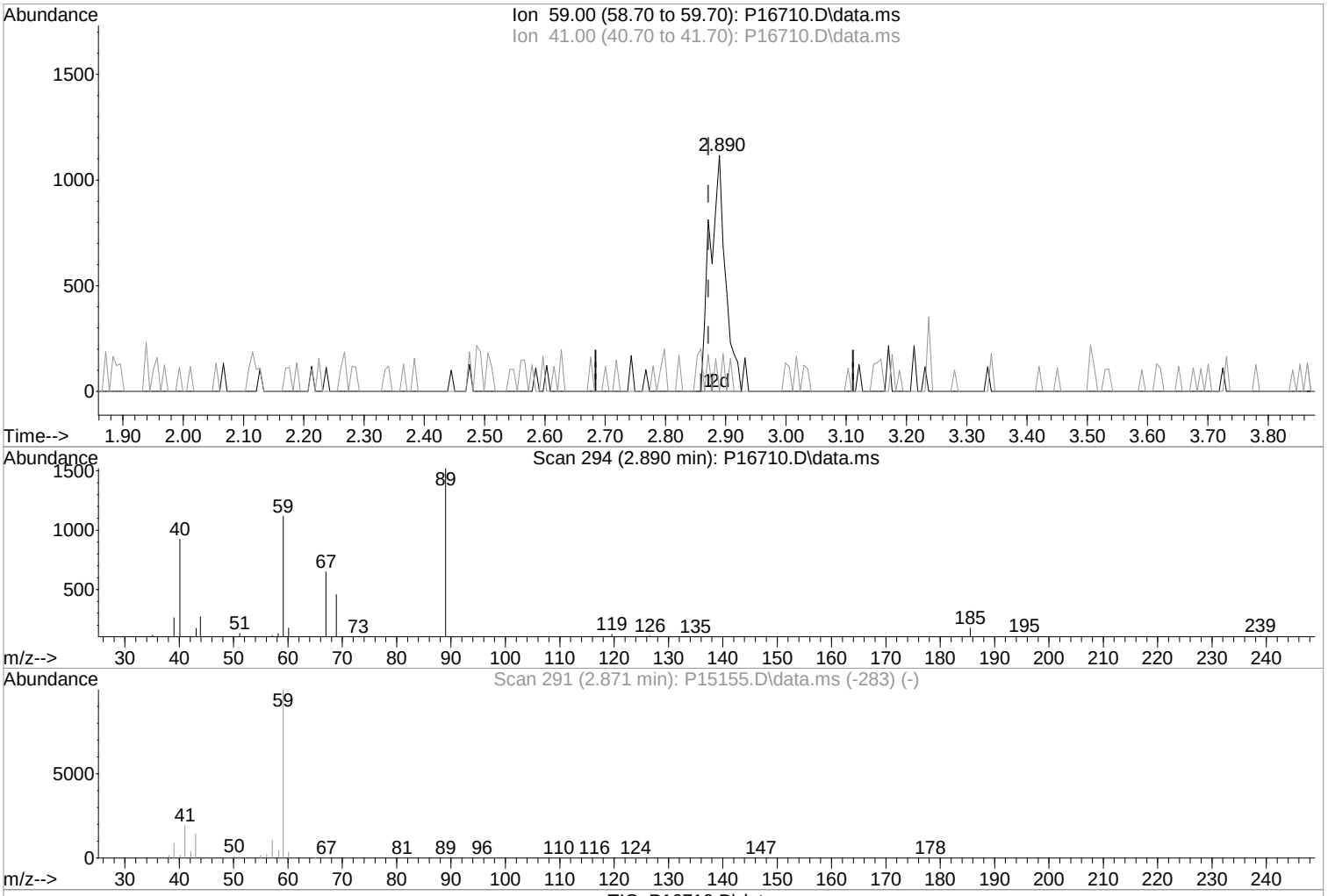


1st 03/27/18
2nd 03/29/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16710.D
Acq On : 27 Mar 2018 4:54 pm
Operator : K.Ruest
Sample : R1802551-008|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 27 17:10:30 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16710.D\data.ms

(23) TBA

2.890min (+0.018) 3.42 ppb m

response 1985

Ion	Exp%	Act%
59.00	100	100
41.00	19.40	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

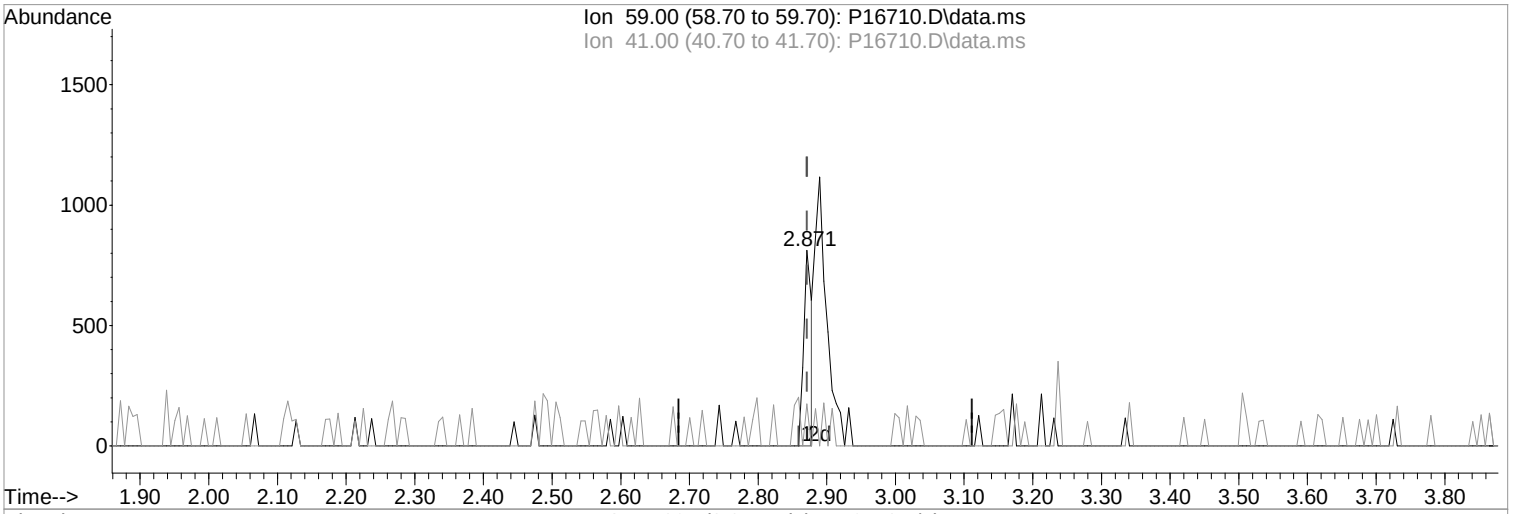
Split Peak

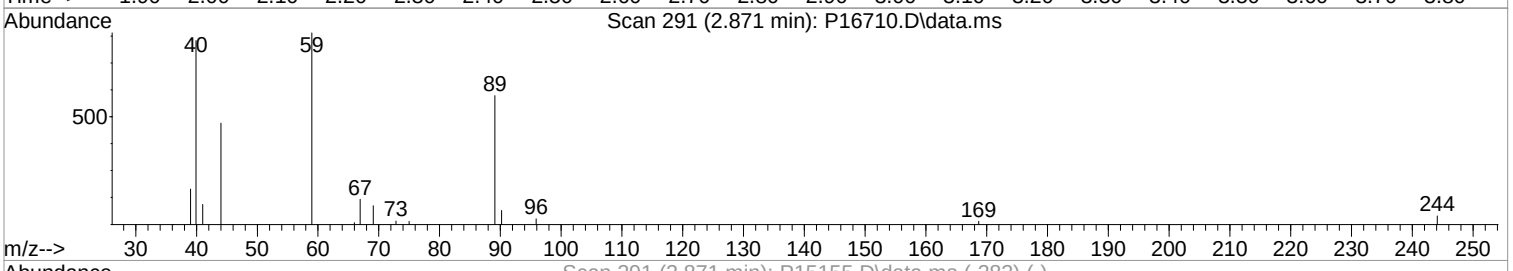
03/27/18

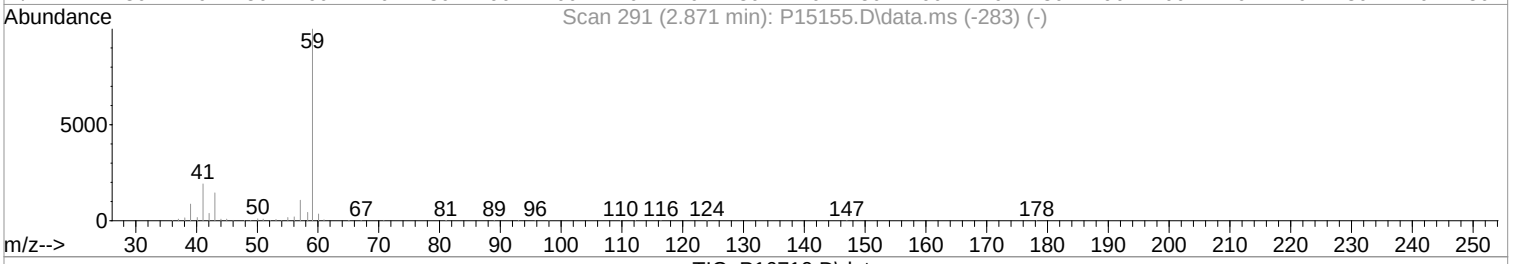
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16710.D
Acq On : 27 Mar 2018 4:54 pm
Operator : K.Ruest
Sample : R1802551-008|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 27 17:10:30 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16710.D\data.ms

(23) TBA

2.871min (-0.000) 1.09 ppb

response 636

Ion	Exp%	Act%
59.00	100	100
41.00	19.40	21.43
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16710.D
Acq On : 27 Mar 2018 4:54 pm
Operator : K.Ruest
Sample : R1802551-008|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 27 17:11:37 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

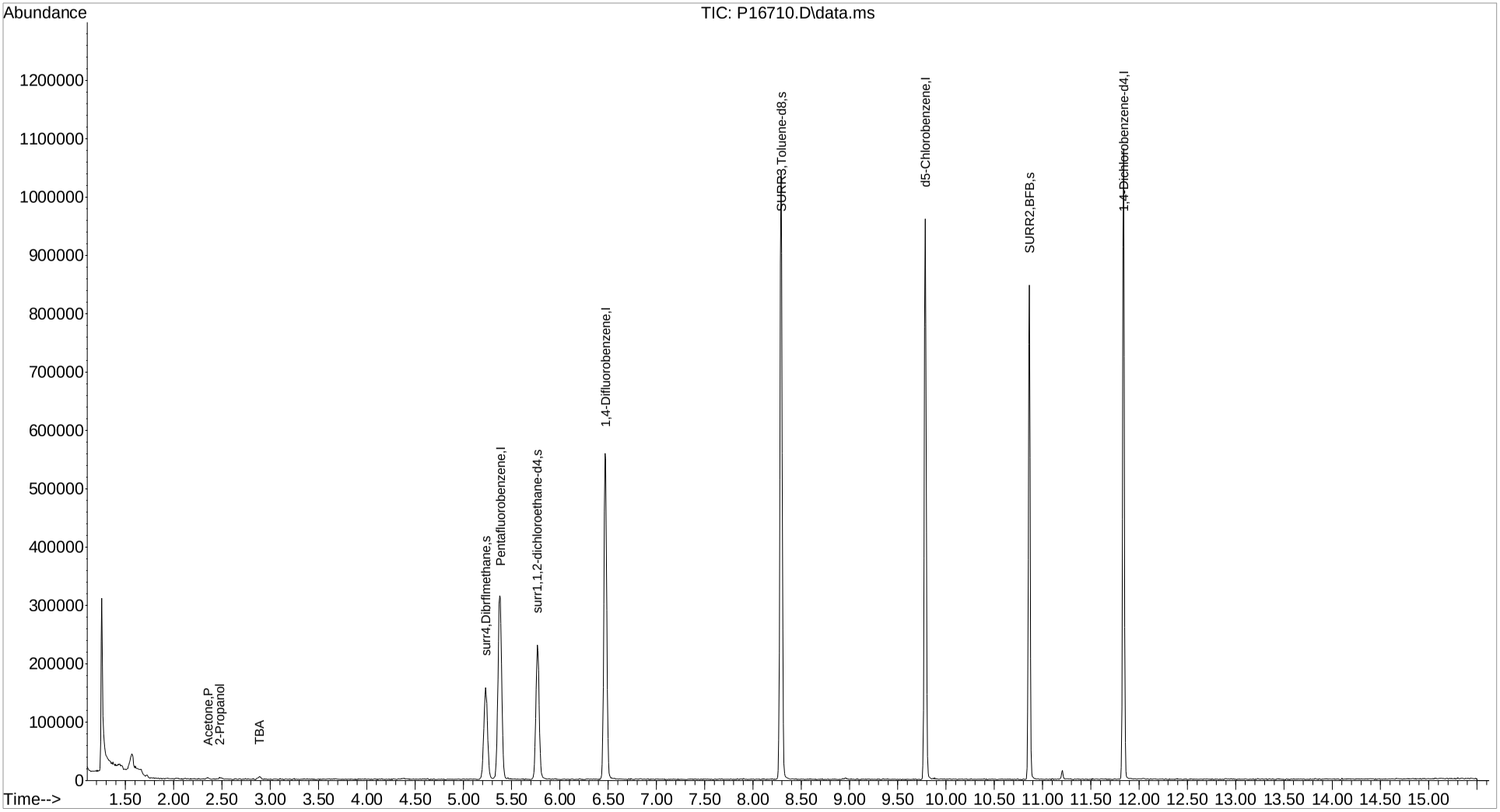
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.383	168	288147	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.474	114	487658	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	425042	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	208421	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	133691	46.17	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.34%			
48) surr1,1,2-dichloroetha...	5.767	65	196474	49.52	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.04%			
65) SURR3,Toluene-d8	8.291	98	646117	49.97	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.94%			
70) SURR2,BFB	10.864	95	234326	46.84	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.68%			
Target Compounds						Qvalue
15) Acetone	2.353	43	1897	1.08	ppb	84
16) 2-Propanol	2.475	45	2427	7.20	ppb	89
23) TBA	2.890	59	1985m	3.42	ppb	

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

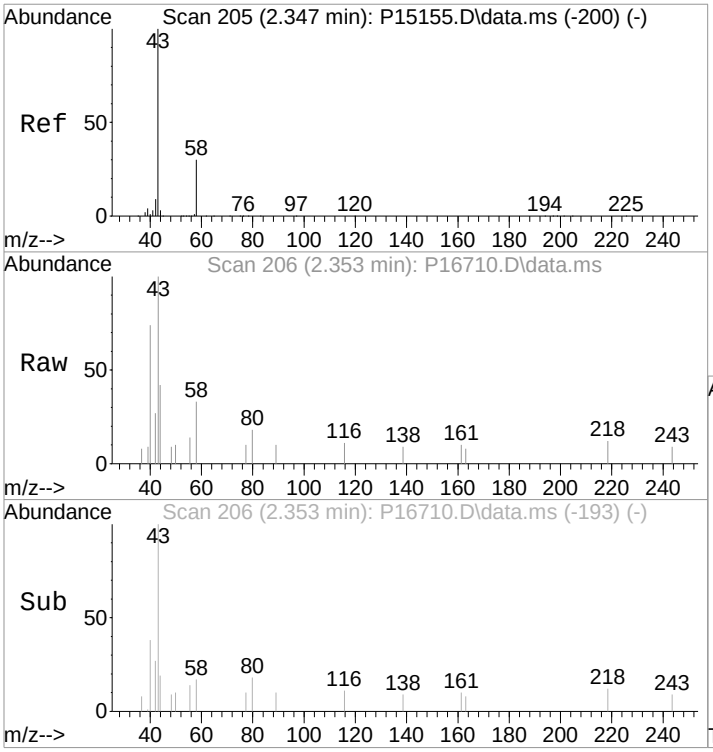
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16710.D
Acq On : 27 Mar 2018 4:54 pm
Operator : K.Ruest
Sample : R1802551-008|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 27 17:11:37 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



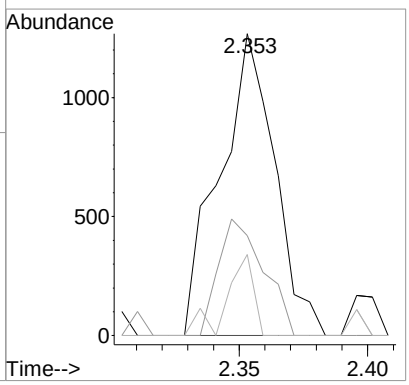
1st 03/27/18
2nd 03/29/18

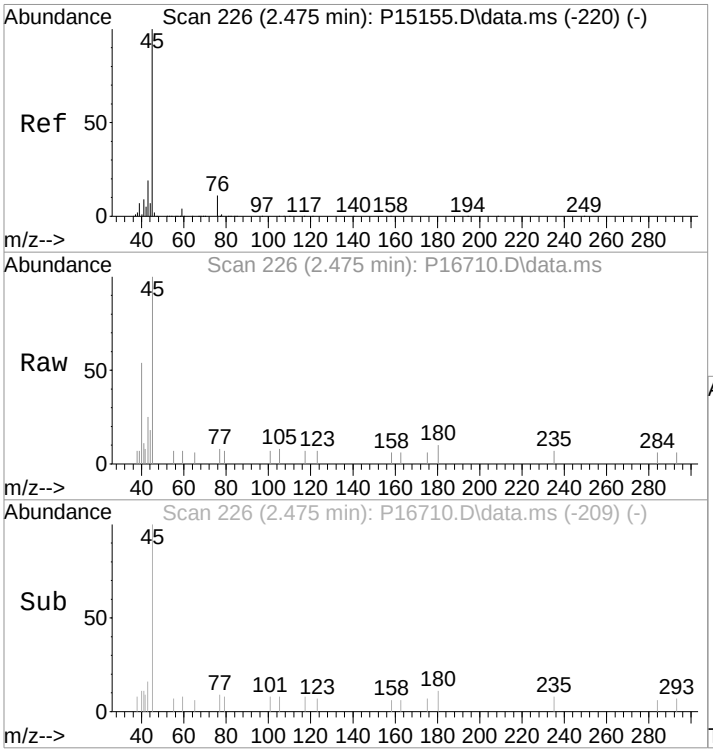


#15
Acetone
Concen: 1.08 ppb
RT: 2.353 min Scan# 206
Delta R.T. 0.006 min
Lab File: P16710.D
Acq: 27 Mar 2018 4:54 pm

Tgt Ion: 43 Resp: 1897

Ion	Ratio	Lower	Upper
43	100		
58	33.1	9.7	49.7
42	26.9	0.0	29.2

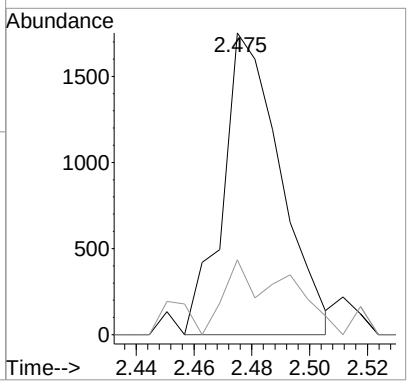


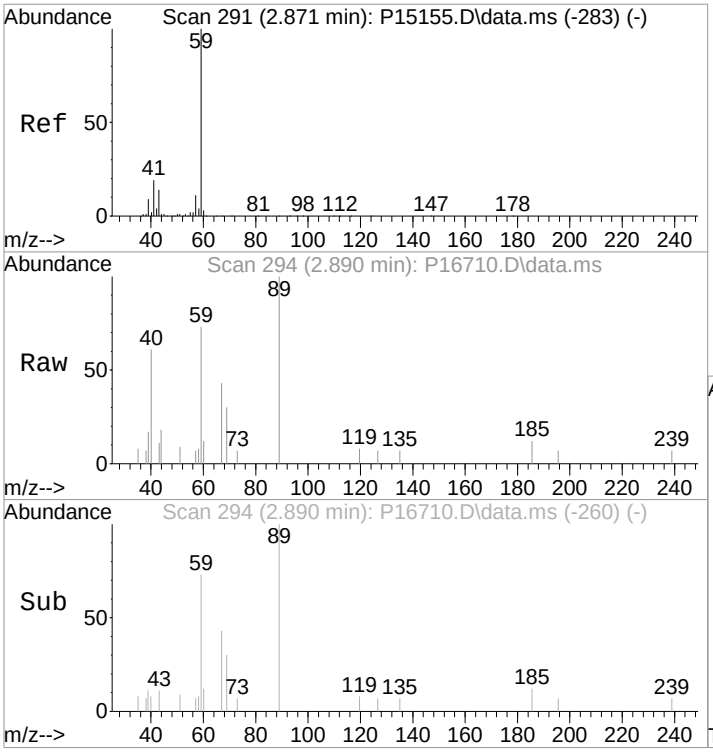


#16
2-Propanol
Concen: 7.20 ppb
RT: 2.475 min Scan# 226
Delta R.T. -0.006 min
Lab File: P16710.D
Acq: 27 Mar 2018 4:54 pm

Tgt Ion: 45 Resp: 2427

Ion	Ratio	Lower	Upper
45	100		
43	24.8	0.0	39.6

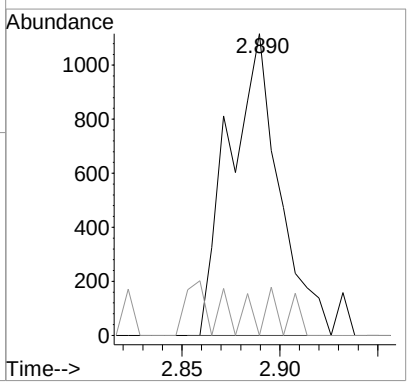




#23
TBA
Concen: 3.42 ppb m
RT: 2.890 min Scan# 294
Delta R.T. 0.018 min
Lab File: P16710.D
Acq: 27 Mar 2018 4:54 pm

Tgt Ion: 59 Resp: 1985

Ion	Ratio	Lower	Upper
59	100		
41	0.0	0.0	39.4



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16698.D
Acq On : 27 Mar 2018 12:22 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 14:17:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

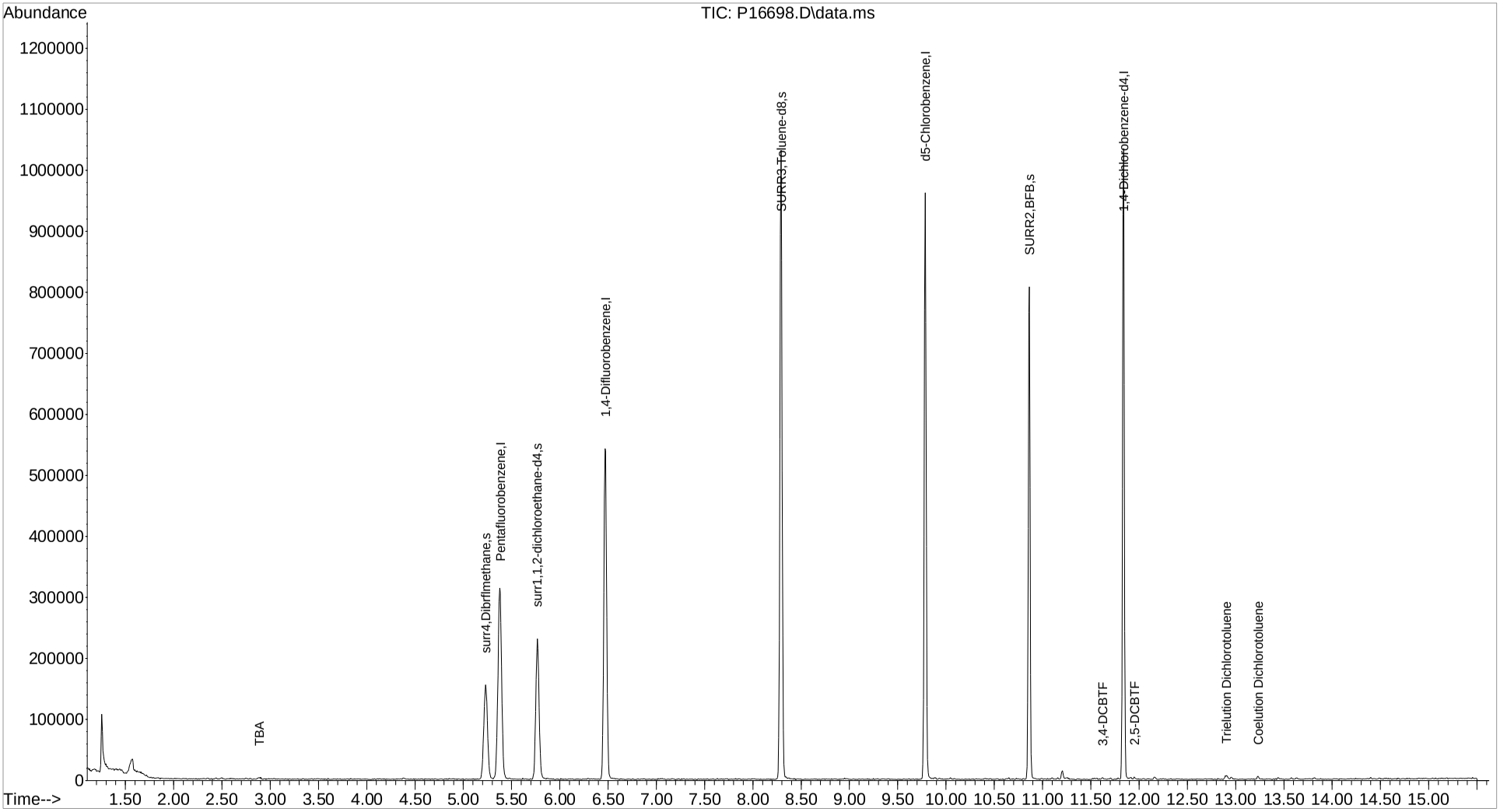
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.383	168	285373	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	478787	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	414857	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	202807	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	130735	45.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.98%				
48) surr1,1,2-dichloroetha...	5.767	65	191415	49.14	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.28%				
65) SURR3,Toluene-d8	8.291	98	627976	49.47	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.94%				
70) SURR2,BFB	10.864	95	223476	45.50	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.00%				
Target Compounds							Qvalue
23) TBA	2.884	59	1084	1.88	ppb		100
102) 3,4-DCBTF	11.620	214	668	0.21	ppb	#	61
108) 2,5-DCBTF	11.949	214	662	0.21	ppb	#	76
112) Trielution Dichlorotol...	12.906	125	2786	0.46	ppb	#	81
114) Coelution Dichlorotoluene	13.235	125	1667	0.26	ppb	#	89

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

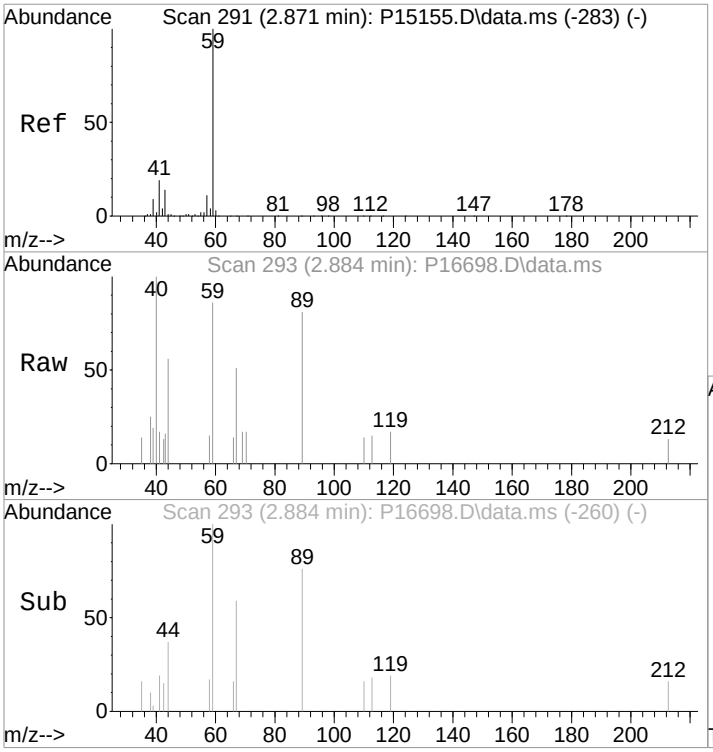
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16698.D
Acq On : 27 Mar 2018 12:22 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 14:17:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



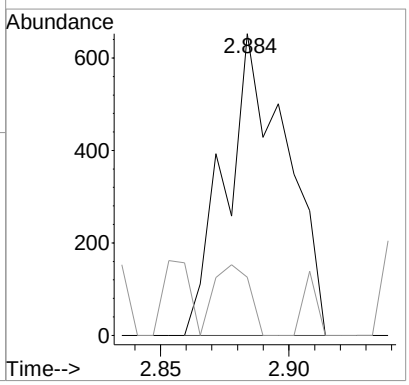
1st 03/27/18
2nd 03/29/18

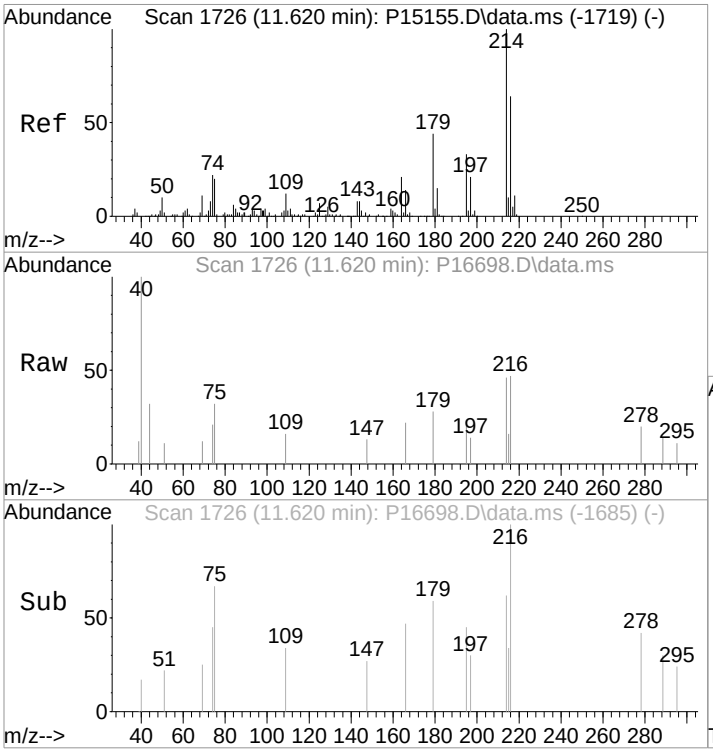


#23
TBA
Concen: 1.88 ppb
RT: 2.884 min Scan# 293
Delta R.T. 0.012 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion: 59 Resp: 1084

Ion	Ratio	Lower	Upper
59	100		
41	19.3	0.0	39.4

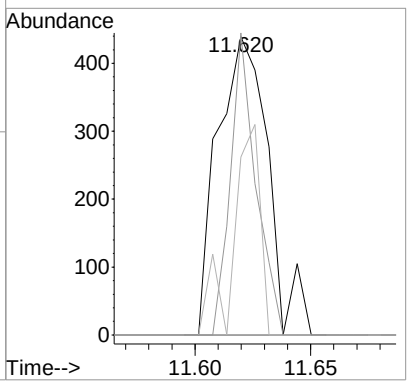


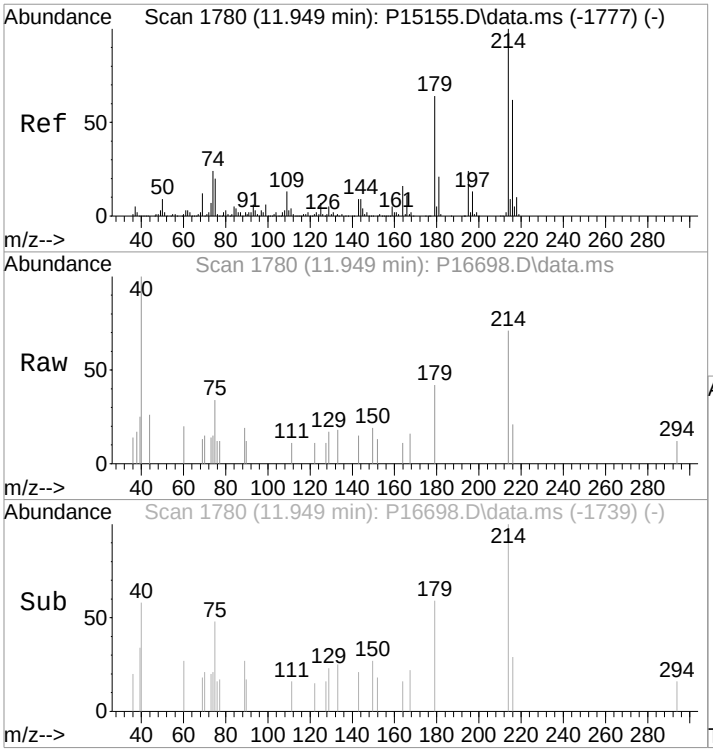


#102
3,4-DCBTF
Concen: 0.21 ppb
RT: 11.620 min Scan# 1726
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:214 Resp: 668

Ion	Ratio	Lower	Upper
214	100		
216	101.4	51.0	76.6#
179	59.7	34.9	52.3#

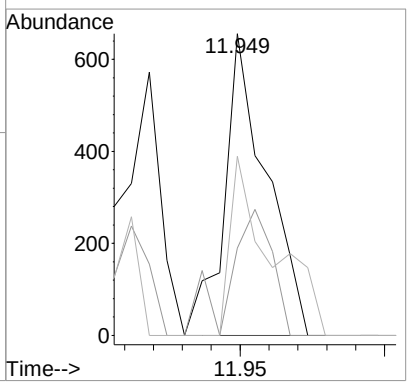


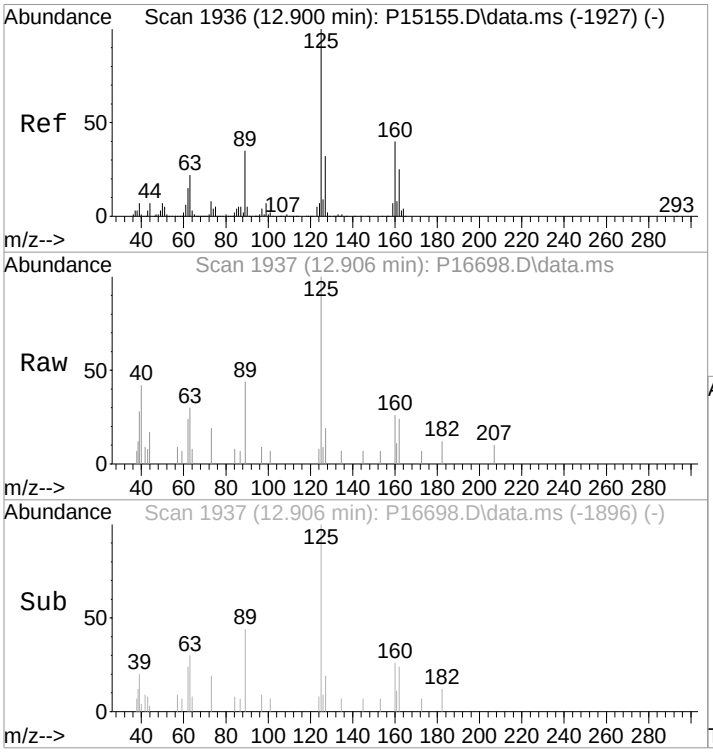


#108
2,5-DCBTF
Concen: 0.21 ppb
RT: 11.949 min Scan# 1780
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:214 Resp: 662

Ion	Ratio	Lower	Upper
214	100		
216	29.0	49.6	74.4#
179	59.3	51.6	77.4

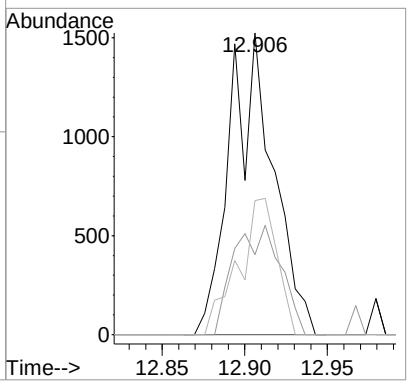


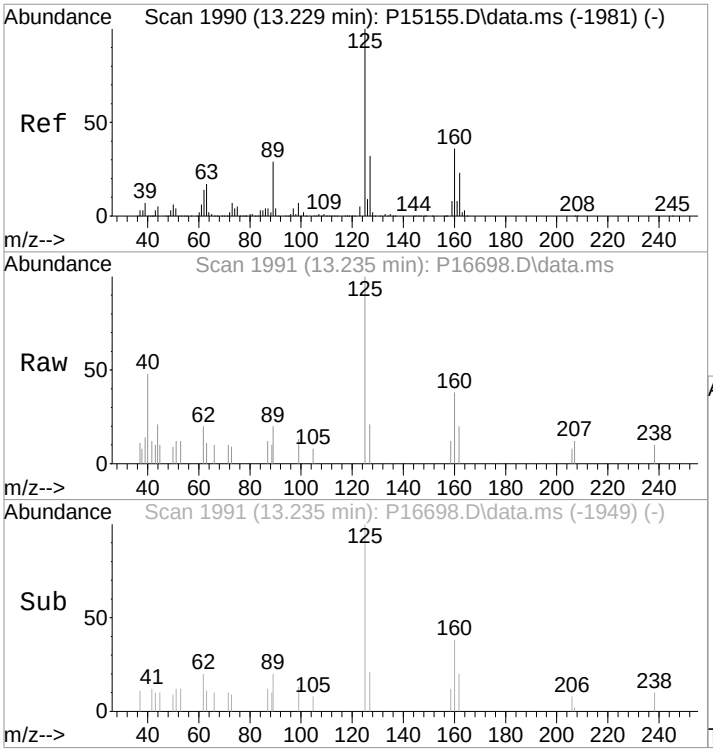


#112
Trielution Dichlorotoluene
Concen: 0.46 ppb
RT: 12.906 min Scan# 1937
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:125 Resp: 2786

Ion	Ratio	Lower	Upper
125	100		
160	26.5	32.2	48.2#
89	44.5	28.3	42.5#

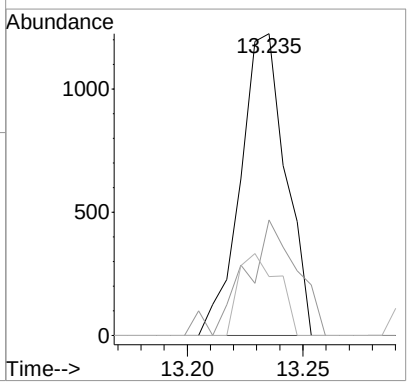




#114
Coelution Dichlorotoluene
Concen: 0.26 ppb
RT: 13.235 min Scan# 1991
Delta R.T. 0.006 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:125 Resp: 1667

Ion	Ratio	Lower	Upper
125	100		
160	38.3	28.4	42.6
89	19.5	23.2	34.8#

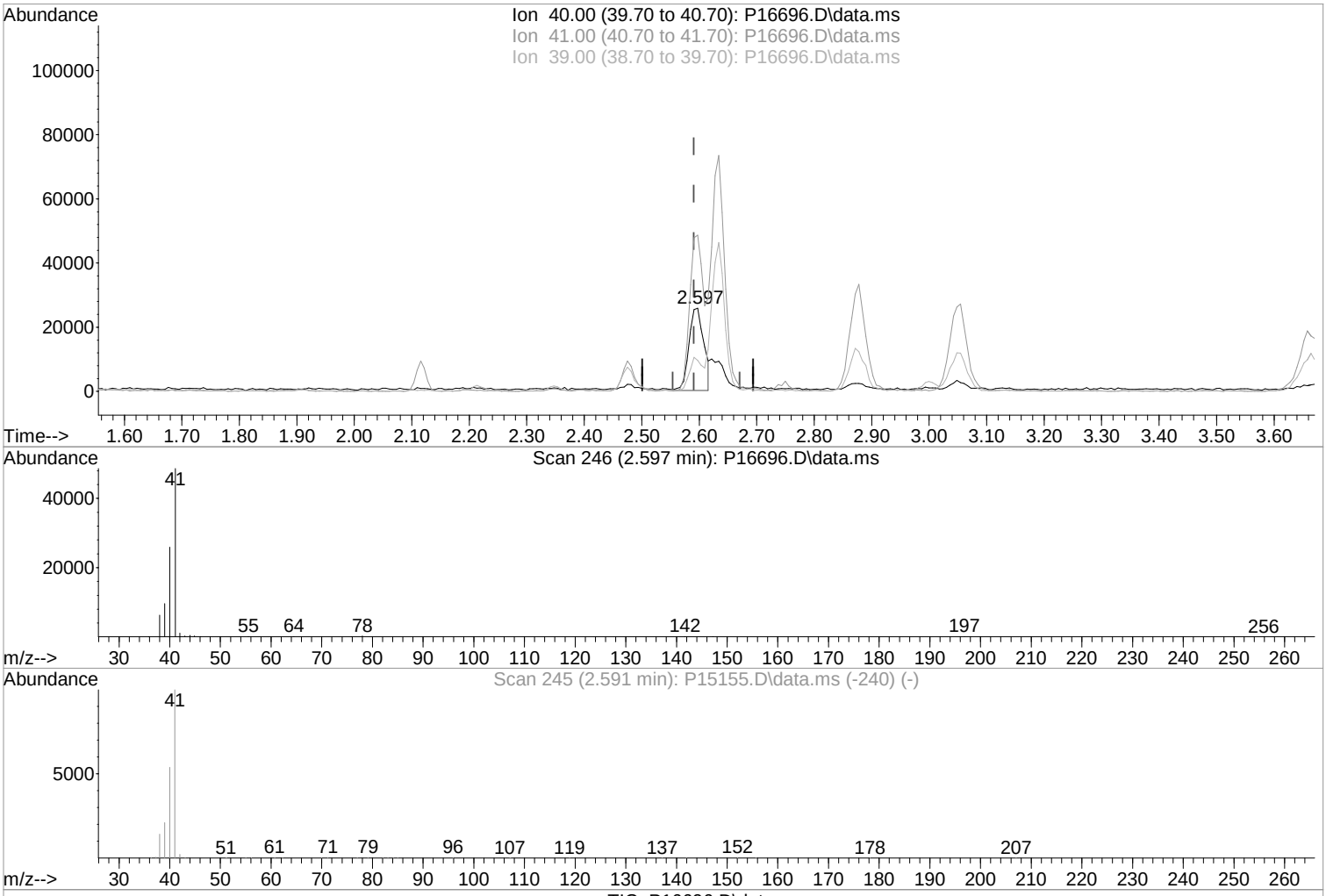


1st 03/27/18
2nd 03/29/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 145.74 ppb m

response 45873

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

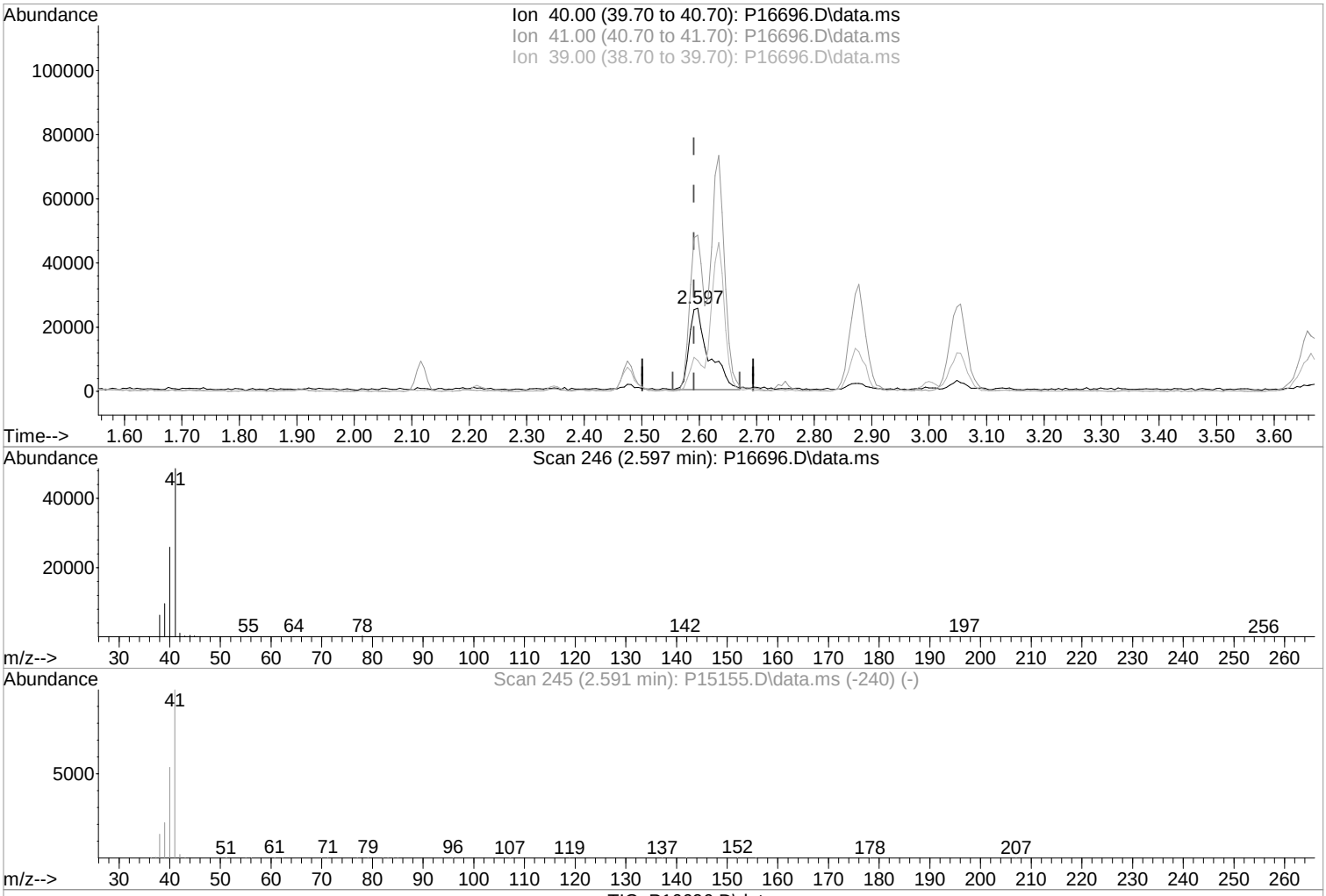
03/27/18

1st 03/27/18
2nd 03/29/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 192.49 ppb

response 60588

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	302355	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	517963	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	456652	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	225614	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	147394	47.93	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.86%				
48) surr1,1,2-dichloroetha...	5.767	65	203758	48.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 96.70%				
65) SURR3,Toluene-d8	8.291	98	680879	49.58	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.16%				
70) SURR2,BFB	10.864	95	250737	47.19	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.38%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	93570	25.44	ppb		98
3) Chloromethane	1.311	50	93421	20.32	ppb		97
4) Vinyl Chloride	1.384	62	96363	21.52	ppb		100
5) Bromomethane	1.610	94	40494	10.87	ppb		96
6) Chloroethane	1.689	64	56153	20.08	ppb		93
7) Freon 21	1.835	67	122560	21.20	ppb		98
8) Trichlorofluoromethane	1.884	101	87306	20.23	ppb		99
9) Diethyl Ether	2.116	59	78786	26.23	ppb		93
10) Freon 123a	2.116	67	82500	22.59	ppb		89
11) Freon 123	2.170	83	118901	28.14	ppb		97
12) Acrolein	2.219	56	34358	38.44	ppb		96
13) 1,1-Diclethene	2.305	96	59830	19.26	ppb		98
14) Freon 113	2.311	101	50554	17.23	ppb		98
15) Acetone	2.347	43	52193	28.31	ppb		96
16) 2-Propanol	2.475	45	172752	488.38	ppb		97
17) Iodomethane	2.433	142	71435	21.97	ppb		96
18) Carbon Disulfide	2.500	76	195126	21.54	ppb		97
19) Acetonitrile	2.597	40	45873m	145.74	ppb		
20) Allyl Chloride	2.634	76	36536	22.09	ppb	#	90
21) Methyl Acetate	2.658	43	86315	26.22	ppb		99
22) Methylene Chloride	2.750	84	77580	23.68	ppb		94
23) TBA	2.878	59	290482	476.41	ppb		91
24) Acrylonitrile	3.000	53	240626	135.97	ppb		100
25) Methyl-t-Butyl Ether	3.054	73	265325	23.83	ppb		97
26) trans-1,2-Dichloroethene	3.042	96	65556	20.66	ppb		90
28) 1,1-Diclethane	3.536	63	133024	22.85	ppb		98
29) Vinyl Acetate	3.627	86	20417	21.96	ppb		99
30) DIPE	3.664	45	277248	25.01	ppb		94
31) 2-Chloro-1,3-Butadiene	3.664	53	124595	22.13	ppb		100
32) ETBE	4.188	59	269012	24.06	ppb		98
33) 2,2-Dichloropropane	4.365	77	95167	18.38	ppb		99
34) cis-1,2-Dichloroethene	4.371	96	75813	20.99	ppb		97
35) 2-Butanone	4.408	43	58853	25.41	ppb		97
36) Propionitrile	4.493	54	97752	129.97	ppb		99
37) Bromochloromethane	4.761	130	45791	21.91	ppb		90
38) Methacrylonitrile	4.761	67	48712	27.30	ppb		90
39) Tetrahydrofuran	4.853	42	40156	29.71	ppb		92
40) Chloroform	4.944	83	118205	20.17	ppb		98
41) 1,1,1-Trichloroethane	5.237	97	85282	17.19	ppb		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	6.090	73	259480	23.78	ppb		96
44) Cyclohexane	5.334	41	70550	20.85	ppb		90
46) Carbontetrachloride	5.523	117	59737	15.36	ppb		91
47) 1,1-Dichloropropene	5.536	75	88834	19.47	ppb		97
49) Benzene	5.847	78	285890	21.13	ppb		99
50) 1,2-Dichloroethane	5.883	62	109177	21.97	ppb		96
51) Iso-Butyl Alcohol	5.859	43	126847	462.20	ppb		97
52) n-Heptane	6.340	43	93059	20.04	ppb		94
53) 1-Butanol	6.822	56	212197	1168.57	ppb		99
54) Trichloroethene	6.798	130	65337	18.83	ppb		93
55) Methylcyclohexane	7.041	55	101785	22.55	ppb		86
56) 1,2-Diclpropane	7.078	63	80438	22.29	ppb		98
57) Dibromomethane	7.218	93	46022	21.36	ppb		96
58) 1,4-Dioxane	7.279	88	36159	507.53	ppb		89
59) Methyl Methacrylate	7.304	69	75719	22.71	ppb		96
60) Bromodichloromethane	7.450	83	85102	18.73	ppb		98
61) 2-Nitropropane	7.730	41	42958	30.62	ppb		99
62) 2-Chloroethylvinyl Ether	7.858	63	48564	58.22	ppb		89
63) cis-1,3-Dichloropropene	7.992	75	121609	21.21	ppb		97
64) 4-Methyl-2-pentanone	8.200	43	104812	23.80	ppb		96
66) Toluene	8.364	91	291927	19.86	ppb		97
67) trans-1,3-Dichloropropene	8.633	75	108569	20.33	ppb		99
68) Ethyl Methacrylate	8.779	69	127736	23.43	ppb		99
69) 1,1,2-Trichloroethane	8.822	97	72042	21.58	ppb		97
72) Tetrachloroethene	8.956	164	43529	17.27	ppb		95
73) 2-Hexanone	9.114	43	77525	23.06	ppb		92
74) 1,3-Dichloropropane	8.992	76	137501	23.43	ppb		100
75) Dibromochloromethane	9.218	129	58891	19.23	ppb		99
76) N-Butyl Acetate	9.273	43	158618	25.07	ppb		94
77) 1,2-Dibromoethane	9.315	107	71145	21.87	ppb		92
78) Chlorobenzene	9.809	112	183970	20.56	ppb		96
79) 3-CBTF	9.828	180	100492	21.07	ppb		94
80) 4-CBTF	9.882	180	90890	20.85	ppb		98
81) 1,1,1,2-Tetrachloroethane	9.901	131	60134	18.91	ppb		97
82) Ethylbenzene	9.931	106	95321	19.30	ppb		98
83) (m+p)Xylene	10.047	106	233361	39.03	ppb		99
84) o-Xylene	10.401	106	117466	19.62	ppb		97
85) Styrene	10.419	104	202943	20.14	ppb		98
87) Bromoform	10.565	173	38206	19.41	ppb		97
88) 2-CBTF	10.651	180	94593	21.65	ppb		89
89) Isopropylbenzene	10.736	105	279655	18.87	ppb		99
90) Cyclohexanone	10.797	55	406229	360.25	ppb		99
91) trans-1,4-Dichloro-2-B...	11.047	53	28385	24.16	ppb		83
92) 1,1,2,2-Tetrachloroethane	10.998	83	109435	24.46	ppb		99
93) Bromobenzene	10.986	156	77089	21.23	ppb	#	87
94) 1,2,3-Trichloropropane	11.028	110	34313	23.61	ppb		94
95) n-Propylbenzene	11.096	91	337491	19.58	ppb		98
96) 2-Chlorotoluene	11.156	91	216766	20.28	ppb		97
97) 3-Chlorotoluene	11.211	91	249989	22.18	ppb		94
98) 4-Chlorotoluene	11.248	91	244667	19.82	ppb		99
99) 1,3,5-Trimethylbenzene	11.248	105	234435	18.91	ppb		99
100) tert-Butylbenzene	11.522	119	195781	18.29	ppb		98
101) 1,2,4-Trimethylbenzene	11.559	105	249111	20.06	ppb		99
102) 3,4-DCBTF	11.620	214	81298	23.43	ppb		98
103) sec-Butylbenzene	11.705	105	290893	18.47	ppb		98
104) p-Isopropyltoluene	11.827	119	245832	18.55	ppb		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	144467	20.93	ppb	97
106) 1,4-Dclbenz	11.858	146	145267	20.06	ppb	99
107) 2,4-DCBTF	11.912	214	73333	22.16	ppb	95
108) 2,5-DCBTF	11.955	214	83967	23.73	ppb	92
109) n-Butylbenzene	12.156	91	242955	19.65	ppb	99
110) 1,2-Dclbenz	12.162	146	146675	21.30	ppb	99
111) 1,2-Dibromo-3-chloropr...	12.784	157	21962	18.97	ppb	91
112) Trielution Dichlorotol...	12.906	125	458332	67.65	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	124523	23.22	ppb	97
114) Coelution Dichlorotoluene	13.229	125	338033	47.05	ppb	99
115) 1,2,4-Tcbenzene	13.437	180	116296	23.23	ppb	95
116) Hexachlorobt	13.577	225	39623	17.05	ppb	98
117) Naphthalen	13.626	128	357379	25.87	ppb	99
118) 1,2,3-Tclbenzene	13.821	180	117709	24.20	ppb	97
119) 2,4,5-Trichlorotolene	14.406	159	56947	19.17	ppb	95
120) 2,3,6-Trichlorotoluene	14.491	159	52609	18.81	ppb	94

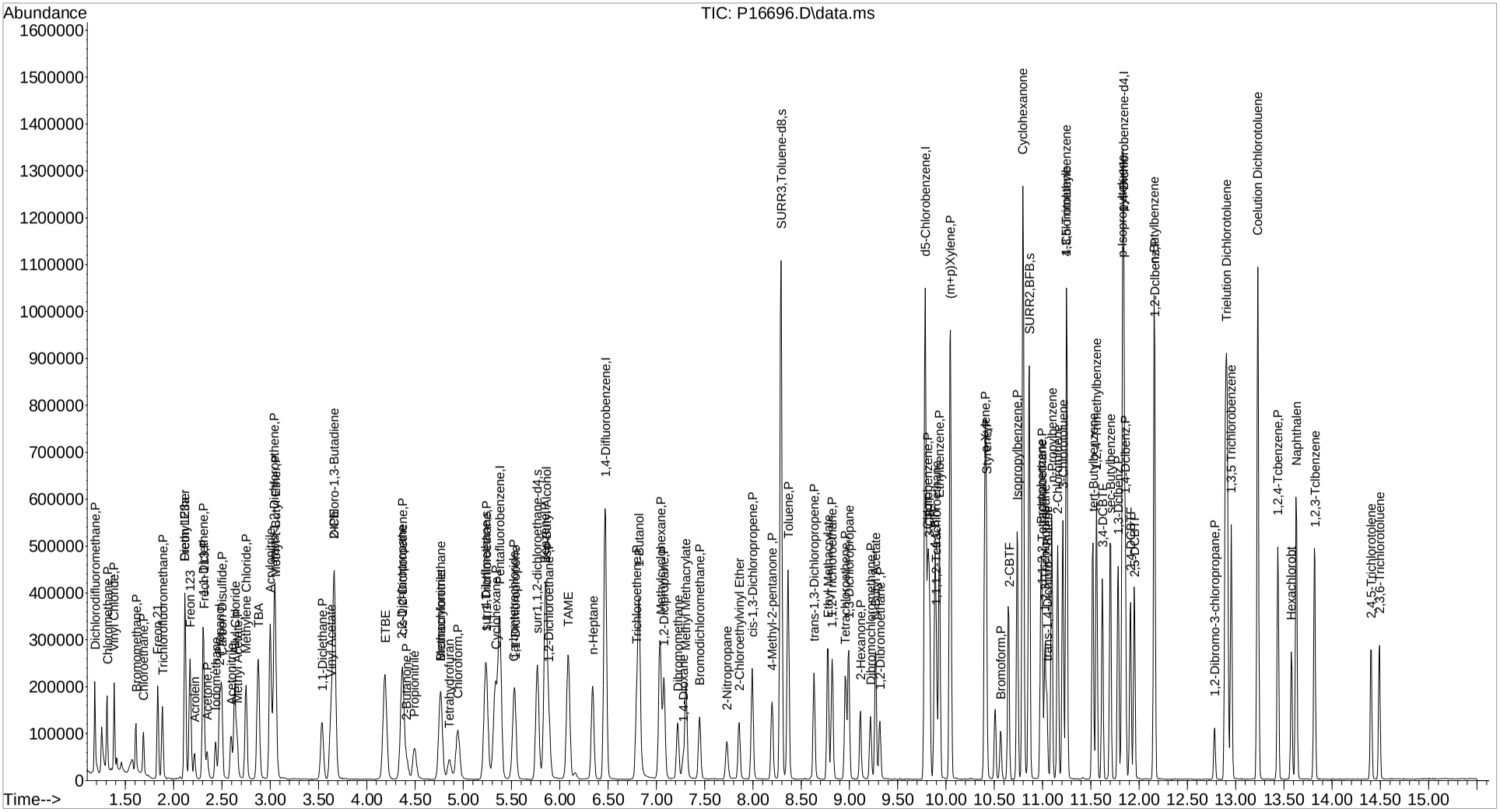
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1st 03/27/18 2nd 03/29/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16719.D
Acq On : 27 Mar 2018 8:11 pm
Operator : K.Ruest 2551
Sample : R1802550-002MS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 28 13:51:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	284362	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	472299	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	422527	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	215946	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	137775	49.13	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.26%				
48) surr1,1,2-dichloroetha...	5.767	65	194576	50.63	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 101.26%				
65) SURR3,Toluene-d8	8.291	98	640378	51.14	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.28%				
70) SURR2,BFB	10.864	95	234414	48.39	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.78%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	271871	78.59	ppb		98
3) Chloromethane	1.311	50	257152	59.48	ppb		99
4) Vinyl Chloride	1.384	62	267849	63.60	ppb		80
5) Bromomethane	1.603	94	92611	28.09	ppb		99
6) Chloroethane	1.683	64	149857	56.99	ppb		98
7) Freon 21	1.835	67	326155	59.99	ppb		98
8) Trichlorofluoromethane	1.884	101	256319	63.16	ppb		99
9) Diethyl Ether	2.116	59	184644	65.37	ppb		95
10) Freon 123a	2.116	67	223997	65.22	ppb		91
11) Freon 123	2.170	83	324499	81.66	ppb		98
12) Acrolein	2.213	56	65411	77.81	ppb		94
13) 1,1-Diclethene	2.305	96	168742	57.77	ppb		94
14) Freon 113	2.311	101	157332	57.00	ppb		98
15) Acetone	2.347	43	93733	54.06	ppb		94
16) 2-Propanol	2.475	45	462748	1390.98	ppb		99
17) Iodomethane	2.433	142	198468	55.33	ppb		95
18) Carbon Disulfide	2.494	76	490553	57.58	ppb		98
19) Acetonitrile	2.591	40	119590	403.97	ppb		99
20) Allyl Chloride	2.634	76	99415	63.90	ppb	#	88
21) Methyl Acetate	2.658	43	207082	66.88	ppb		99
22) Methylene Chloride	2.750	84	186333	60.48	ppb		89
23) TBA	2.878	59	773879	1349.53	ppb		93
24) Acrylonitrile	3.000	53	597665	359.08	ppb		96
25) Methyl-t-Butyl Ether	3.054	73	609995	58.26	ppb		99
26) trans-1,2-Dichloroethene	3.042	96	178445	59.81	ppb		90
28) 1,1-Diclethane	3.536	63	364250	66.53	ppb		97
29) Vinyl Acetate	3.627	86	50482	57.74	ppb	#	92
30) DIPE	3.664	45	690811	66.26	ppb		95
31) 2-Chloro-1,3-Butadiene	3.658	53	312799	59.07	ppb		92
32) ETBE	4.188	59	640800	60.95	ppb		97
33) 2,2-Dichloropropane	4.365	77	248067	50.95	ppb		98
34) cis-1,2-Dichloroethene	4.371	96	206660	60.84	ppb		100
35) 2-Butanone	4.414	43	148313	68.08	ppb		98
36) Propionitrile	4.493	54	246671	348.72	ppb		96
37) Bromochloromethane	4.761	130	108753	55.33	ppb	#	83
38) Methacrylonitrile	4.761	67	116265	69.29	ppb		94
39) Tetrahydrofuran	4.859	42	98379	77.41	ppb		97
40) Chloroform	4.944	83	304974	55.33	ppb		99
41) 1,1,1-Trichloroethane	5.243	97	250682	53.74	ppb		98

1st 03/28/18
2nd 03/29/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16719.D
Acq On : 27 Mar 2018 8:11 pm
Operator : K.Ruest
Sample : R1802550-002MS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 28 13:51:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	609378	59.37	ppb	98
44) Cyclohexane	5.328	41	188727	61.16	ppb	88
46) Carbontetrachloride	5.523	117	186009	52.47	ppb	98
47) 1,1-Dichloropropene	5.530	75	258655	62.17	ppb	99
49) Benzene	5.847	78	780756	63.29	ppb	98
50) 1,2-Dichloroethane	5.883	62	260247	57.42	ppb	98
51) Iso-Butyl Alcohol	5.859	43	349612	1397.08	ppb	98
52) n-Heptane	6.340	43	271871	64.20	ppb	94
53) 1-Butanol	6.822	56	577139	3485.61	ppb	96
54) Trichloroethene	6.798	130	192616	60.88	ppb	95
55) Methylcyclohexane	7.041	55	265571	64.53	ppb	93
56) 1,2-Diclpropane	7.078	63	210685	64.01	ppb	98
57) Dibromomethane	7.218	93	113096	57.56	ppb	98
58) 1,4-Dioxane	7.279	88	86725	1334.96	ppb	97
59) Methyl Methacrylate	7.310	69	185870	61.15	ppb	98
60) Bromodichloromethane	7.450	83	212352	51.26	ppb	96
61) 2-Nitropropane	7.730	41	120822	94.44	ppb	100
63) cis-1,3-Dichloropropene	7.992	75	303710	58.10	ppb	96
64) 4-Methyl-2-pentanone	8.200	43	279525	69.62	ppb	99
66) Toluene	8.364	91	808766	60.35	ppb	99
67) trans-1,3-Dichloropropene	8.633	75	264697	54.36	ppb	98
68) Ethyl Methacrylate	8.779	69	318252	64.02	ppb	99
69) 1,1,2-Trichloroethane	8.822	97	170079	55.87	ppb	95
72) Tetrachloroethene	8.962	164	133281	57.16	ppb	97
73) 2-Hexanone	9.114	43	206429	66.36	ppb	98
74) 1,3-Dichloropropane	8.992	76	325653	59.98	ppb	99
75) Dibromochloromethane	9.218	129	147175	51.94	ppb	95
76) N-Butyl Acetate	9.273	43	411105	70.21	ppb	97
77) 1,2-Dibromoethane	9.315	107	172194	57.20	ppb	99
78) Chlorobenzene	9.809	112	477556	57.69	ppb	96
79) 3-CBTF	9.834	180	257605	58.36	ppb	93
80) 4-CBTF	9.888	180	231885	57.49	ppb	94
81) 1,1,1,2-Tetrachloroethane	9.901	131	155464	52.83	ppb	98
82) Ethylbenzene	9.931	106	268995	58.86	ppb	95
83) (m+p)Xylene	10.047	106	651618	117.80	ppb	95
84) o-Xylene	10.401	106	326599	58.97	ppb	100
85) Styrene	10.419	104	535492	57.43	ppb	98
87) Bromoform	10.565	173	92806	49.27	ppb	100
88) 2-CBTF	10.650	180	253301	60.56	ppb	89
89) Isopropylbenzene	10.736	105	827477	58.32	ppb	100
90) Cyclohexanone	10.797	55	271807	251.83	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	70933	63.09	ppb	88
92) 1,1,2,2-Tetrachloroethane	10.998	83	278290	64.99	ppb	99
93) Bromobenzene	10.986	156	195527	56.27	ppb	94
94) 1,2,3-Trichloropropane	11.028	110	83536	60.06	ppb	92
95) n-Propylbenzene	11.095	91	998390	60.52	ppb	100
96) 2-Chlorotoluene	11.156	91	589936	57.68	ppb	97
97) 3-Chlorotoluene	11.211	91	629589	58.36	ppb	98
98) 4-Chlorotoluene	11.248	91	658611	55.73	ppb	98
99) 1,3,5-Trimethylbenzene	11.248	105	687269	57.92	ppb	99
100) tert-Butylbenzene	11.522	119	592895	57.88	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	695598	58.53	ppb	99
102) 3,4-DCBTF	11.620	214	205273	61.81	ppb	99
103) sec-Butylbenzene	11.705	105	890685	59.09	ppb	97
104) p-Isopropyltoluene	11.827	119	741742	58.47	ppb	98
105) 1,3-Dclbenz	11.784	146	364871	55.24	ppb	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16719.D
Acq On : 27 Mar 2018 8:11 pm
Operator : K.Ruest
Sample : R1802550-002MS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 28 13:51:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 1,4-Dclbenz	11.858	146	368042	53.10	ppb	99
107) 2,4-DCBTF	11.912	214	186864	59.00	ppb	97
108) 2,5-DCBTF	11.955	214	211654	62.49	ppb	93
109) n-Butylbenzene	12.156	91	720861	60.92	ppb	99
110) 1,2-Dclbenz	12.156	146	363414	55.13	ppb	99
111) 1,2-Dibromo-3-chloropr...	12.784	157	60328	54.43	ppb	93
112) Trielution Dichlorotol...	12.900	125	1153527	177.89	ppb	100
113) 1,3,5 Trichlorobenzene	12.955	180	305513	59.53	ppb	99
114) Coelution Dichlorotoluene	13.229	125	845795	122.98	ppb	99
115) 1,2,4-Tcbenzene	13.437	180	293912	61.34	ppb	97
116) Hexachlorobt	13.577	225	121394	54.57	ppb	96
117) Naphthalen	13.626	128	927673	70.16	ppb	98
118) 1,2,3-Tclbenzene	13.821	180	297846	63.99	ppb	99
119) 2,4,5-Trichlorotolene	14.406	159	209851	67.11	ppb	97
120) 2,3,6-Trichlorotoluene	14.491	159	184720	63.87	ppb	96

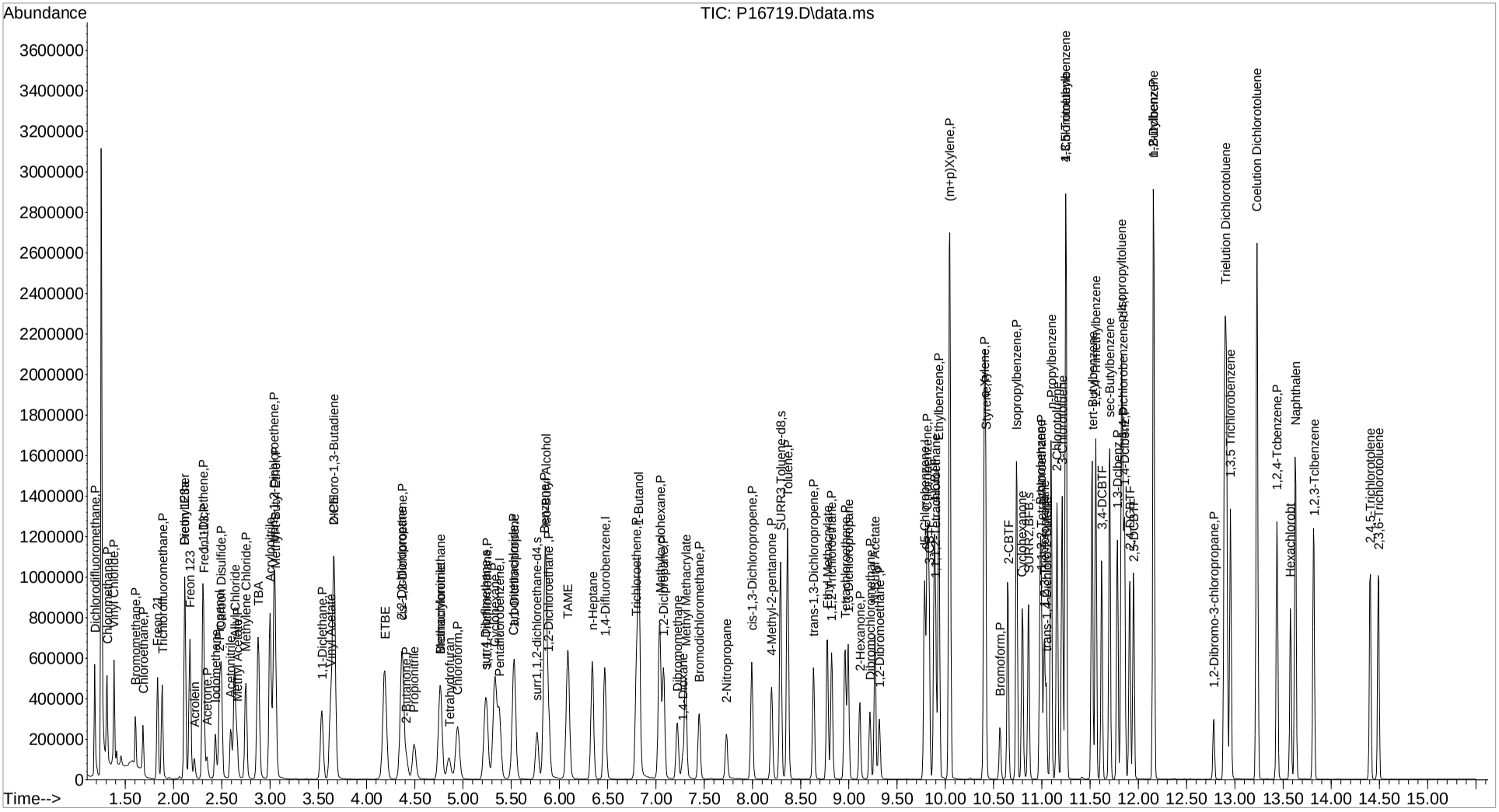
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1st 03/28/18
2nd 03/29/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16719.D
Acq On : 27 Mar 2018 8:11 pm
Operator : K.Ruest
Sample : R1802550-002MS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 28 13:51:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16720.D
Acq On : 27 Mar 2018 8:33 pm
Operator : K.Ruest 2551
Sample : R1802~~550~~-002DMS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 28 13:53:07 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	280872	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	471508	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	415628	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	210824	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	140040	50.02	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.04%				
48) surr1,1,2-dichloroetha...	5.767	65	191471	49.91	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.82%				
65) SURR3,Toluene-d8	8.291	98	627507	50.20	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.40%				
70) SURR2,BFB	10.864	95	233847	48.35	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	268796	78.67	ppb		97
3) Chloromethane	1.311	50	257105	60.21	ppb		99
4) Vinyl Chloride	1.384	62	273610	65.77	ppb		85
5) Bromomethane	1.603	94	99053	30.69	ppb		94
6) Chloroethane	1.683	64	154799	59.60	ppb		95
7) Freon 21	1.835	67	328110	61.10	ppb		99
8) Trichlorofluoromethane	1.884	101	252244	62.93	ppb		99
9) Diethyl Ether	2.115	59	194687	69.78	ppb		96
10) Freon 123a	2.115	67	226521	66.78	ppb		87
11) Freon 123	2.170	83	326407	83.16	ppb		98
12) Acrolein	2.213	56	67538	81.34	ppb		98
13) 1,1-Diclethene	2.304	96	166877	57.84	ppb		92
14) Freon 113	2.311	101	158305	58.07	ppb		97
15) Acetone	2.347	43	98728	57.65	ppb		93
16) 2-Propanol	2.475	45	483354	1470.98	ppb		99
17) Iodomethane	2.432	142	203445	57.23	ppb		98
18) Carbon Disulfide	2.493	76	488596	58.07	ppb		99
19) Acetonitrile	2.591	40	120744	412.94	ppb		99
20) Allyl Chloride	2.634	76	104656	68.11	ppb	#	89
21) Methyl Acetate	2.658	43	209915	68.63	ppb		97
22) Methylene Chloride	2.749	84	185574	60.98	ppb		88
23) TBA	2.878	59	803394	1418.40	ppb		95
24) Acrylonitrile	2.999	53	596706	362.96	ppb		98
25) Methyl-t-Butyl Ether	3.048	73	616096	59.57	ppb		97
26) trans-1,2-Dichloroethene	3.042	96	183246	62.18	ppb		92
28) 1,1-Diclethane	3.536	63	364915	67.48	ppb		97
29) Vinyl Acetate	3.633	86	50628	58.63	ppb	#	85
30) DIPE	3.664	45	705447	68.50	ppb		95
31) 2-Chloro-1,3-Butadiene	3.658	53	304736	58.27	ppb		92
32) ETBE	4.188	59	650310	62.62	ppb		97
33) 2,2-Dichloropropane	4.365	77	248840	51.75	ppb		98
34) cis-1,2-Dichloroethene	4.371	96	209054	62.31	ppb		92
35) 2-Butanone	4.414	43	145523	67.63	ppb		98
36) Propionitrile	4.493	54	248990	356.38	ppb		98
37) Bromochloromethane	4.761	130	113152	58.29	ppb		92
38) Methacrylonitrile	4.767	67	116737	70.43	ppb		97
39) Tetrahydrofuran	4.859	42	99830	79.52	ppb		90
40) Chloroform	4.944	83	305638	56.14	ppb		98
41) 1,1,1-Trichloroethane	5.243	97	250321	54.33	ppb		100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16720.D
Acq On : 27 Mar 2018 8:33 pm
Operator : K.Ruest
Sample : R1802550-002DMS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 28 13:53:07 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	617277	60.89	ppb	97
44) Cyclohexane	5.334	41	186955	60.69	ppb	86
46) Carbontetrachloride	5.523	117	188779	53.34	ppb	94
47) 1,1-Dichloropropene	5.529	75	258522	62.24	ppb	99
49) Benzene	5.846	78	783728	63.63	ppb	97
50) 1,2-Dichloroethane	5.889	62	263881	58.32	ppb	98
51) Iso-Butyl Alcohol	5.859	43	363157	1453.64	ppb	98
52) n-Heptane	6.340	43	271672	64.26	ppb	95
53) 1-Butanol	6.822	56	603864	3653.13	ppb	98
54) Trichloroethene	6.797	130	193757	61.34	ppb	94
55) Methylcyclohexane	7.041	55	263688	64.18	ppb	89
56) 1,2-Diclpropane	7.078	63	211336	64.32	ppb	98
57) Dibromomethane	7.218	93	113051	57.63	ppb	96
58) 1,4-Dioxane	7.279	88	85395	1316.69	ppb	90
59) Methyl Methacrylate	7.310	69	186204	61.36	ppb	98
60) Bromodichloromethane	7.450	83	219130	52.98	ppb	95
61) 2-Nitropropane	7.730	41	125868	98.55	ppb	92
63) cis-1,3-Dichloropropene	7.992	75	309256	59.26	ppb	96
64) 4-Methyl-2-pentanone	8.200	43	278790	69.55	ppb	97
66) Toluene	8.364	91	807961	60.39	ppb	98
67) trans-1,3-Dichloropropene	8.633	75	274092	56.38	ppb	97
68) Ethyl Methacrylate	8.773	69	322907	65.06	ppb	95
69) 1,1,2-Trichloroethane	8.821	97	172117	56.63	ppb	97
72) Tetrachloroethene	8.962	164	134246	58.53	ppb	99
73) 2-Hexanone	9.114	43	204154	66.72	ppb	95
74) 1,3-Dichloropropane	8.992	76	337045	63.11	ppb	98
75) Dibromochloromethane	9.218	129	149223	53.53	ppb	99
76) N-Butyl Acetate	9.267	43	415149	72.08	ppb	98
77) 1,2-Dibromoethane	9.315	107	170830	57.69	ppb	97
78) Chlorobenzene	9.809	112	477189	58.60	ppb	95
79) 3-CBTF	9.827	180	251421	57.91	ppb	98
80) 4-CBTF	9.888	180	227182	57.26	ppb	93
81) 1,1,1,2-Tetrachloroethane	9.901	131	161204	55.69	ppb	99
82) Ethylbenzene	9.931	106	265919	59.15	ppb	99
83) (m+p)Xylene	10.047	106	655498	120.46	ppb	94
84) o-Xylene	10.400	106	321712	59.05	ppb	100
85) Styrene	10.419	104	535715	58.41	ppb	97
87) Bromoform	10.565	173	93523	50.86	ppb	98
88) 2-CBTF	10.650	180	246961	60.48	ppb	92
89) Isopropylbenzene	10.736	105	821083	59.28	ppb	100
90) Cyclohexanone	10.797	55	281020	266.69	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	73266	66.74	ppb	91
92) 1,1,2,2-Tetrachloroethane	10.998	83	278503	66.62	ppb	96
93) Bromobenzene	10.986	156	195959	57.76	ppb	92
94) 1,2,3-Trichloropropane	11.028	110	83402	61.42	ppb	95
95) n-Propylbenzene	11.095	91	987104	61.29	ppb	99
96) 2-Chlorotoluene	11.156	91	592375	59.32	ppb	98
97) 3-Chlorotoluene	11.211	91	625298	59.37	ppb	98
98) 4-Chlorotoluene	11.248	91	660619	57.26	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	689472	59.51	ppb	98
100) tert-Butylbenzene	11.522	119	593815	59.38	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	697043	60.08	ppb	99
102) 3,4-DCBTF	11.620	214	204299	63.01	ppb	97
103) sec-Butylbenzene	11.705	105	888255	60.36	ppb	99
104) p-Isopropyltoluene	11.827	119	733302	59.21	ppb	98
105) 1,3-Dclbenz	11.784	146	371089	57.55	ppb	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16720.D
Acq On : 27 Mar 2018 8:33 pm
Operator : K.Ruest
Sample : R1802550-002DMS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 28 13:53:07 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 1,4-Dclbenz	11.857	146	368427	54.44	ppb	98
107) 2,4-DCBTF	11.912	214	187350	60.59	ppb	96
108) 2,5-DCBTF	11.949	214	209820	63.46	ppb	95
109) n-Butylbenzene	12.156	91	732099	63.38	ppb	99
110) 1,2-Dclbenz	12.156	146	360746	56.05	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.784	157	59988	55.44	ppb	93
112) Trielution Dichlorotol...	12.906	125	1146623	181.12	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	308892	61.65	ppb	99
114) Coelution Dichlorotoluene	13.229	125	851613	126.84	ppb	98
115) 1,2,4-Tcbenzene	13.436	180	297957	63.69	ppb	97
116) Hexachlorobt	13.577	225	124030	57.11	ppb	98
117) Naphthalen	13.632	128	938382	72.70	ppb	98
118) 1,2,3-Tclbenzene	13.814	180	305790	67.29	ppb	98
119) 2,4,5-Trichlorotolene	14.400	159	216562	70.55	ppb	95
120) 2,3,6-Trichlorotoluene	14.491	159	194624	68.51	ppb	95

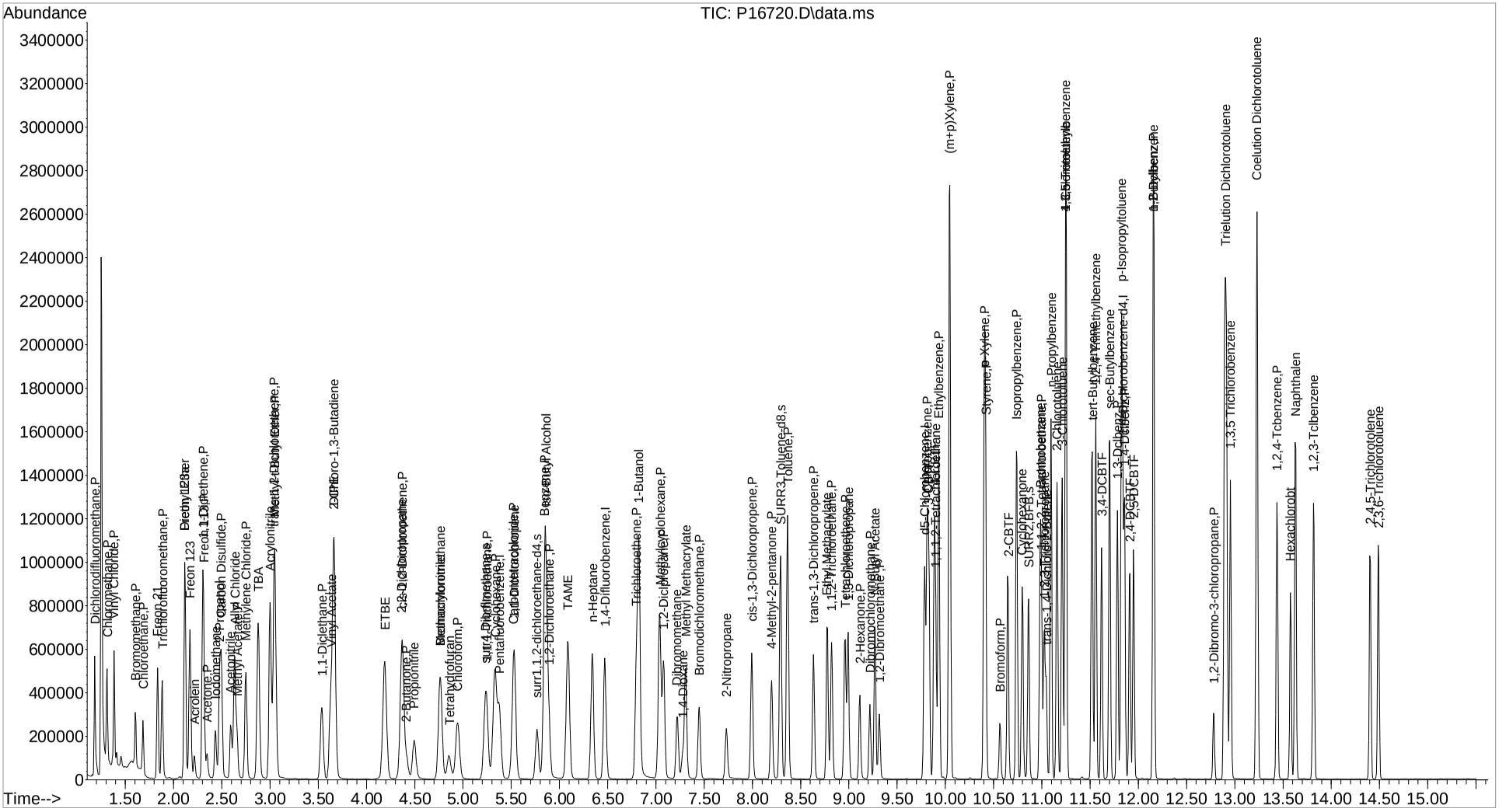
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1st 03/28/18
2nd 03/29/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16720.D
Acq On : 27 Mar 2018 8:33 pm
Operator : K.Ruest
Sample : R1802550-002DMS|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 28 13:53:07 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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	111	0.00
2	P	Dichlorodifluoromethane	0.6083	0.6226	-2.4	106	0.00
3	P	Chloromethane	0.7602	0.7017	7.7	106	0.00
4	P	Vinyl Chloride	0.7405	0.7573	-2.3	112	0.00
5	P	Bromomethane	0.5812	0.2966	49.3 ~~-49.0#~~	70	0.00
6	P	Chloroethane	0.4623	0.4754	-2.8	114	0.00
7		Freon 21	0.9560	1.1266	-17.8	129	0.00
8	P	Trichlorofluoromethane	0.7136	0.6744	5.5	105	0.00
9		Diethyl Ether	0.4967	0.5865	-18.1	138	0.00
10		Freon 123a	0.6039	0.7041	-16.6	131	0.00
11		Freon 123	0.6987	0.7902	-13.1	126	0.00
12		Acrolein	0.1478	0.1118	NT 24.4#	86	0.00
13	P	1,1-Diclethene	0.5136	0.4806	6.4	113	0.00
14	P	Freon 113	0.4853	0.4490	7.5	106	0.00
15	P	Acetone	0.3049	0.3539	-16.1	128	0.00
16		2-Propanol	0.0585	0.0700	-19.7	143	0.00
17		Iodomethane	0.5271	0.6078	2.4 ~~-15.3~~	105	0.00
18	P	Carbon Disulfide	1.4979	1.4889	0.6	109	0.00
19		Acetonitrile	0.0521	0.0706	NT -35.5#	162	0.00
20		Allyl Chloride	0.2735	0.3010	-10.1	128	0.00
21	P	Methyl Acetate	0.5445	0.7300	NT -34.1#	156	0.00
22	P	Methylene Chloride	0.5417	0.5900	-8.9	124	0.00
23		TBA	0.1008	0.1091	-8.2	128	0.00
24		Acrylonitrile	0.2927	0.3544	NT -21.1#	141	0.00
25	P	Methyl-t-Butyl Ether	1.8411	1.9998	-8.6	123	0.00
26	P	trans-1,2-Dichloroethene	0.5246	0.5226	0.4	113	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-4.00#
28	P	1,1-Diclethane	0.9627	1.0471	-8.8	122	0.00
29		Vinyl Acetate	0.1537	0.1397	9.1	104	0.00
30		DIPE	1.8333	2.1616	-17.9	134	0.00
31		2-Chloro-1,3-Butadiene	0.9310	0.9269	0.4	115	0.00
32		ETBE	1.8488	2.0821	-12.6	123	0.01
33		2,2-Dichloropropane	0.8561	0.7664	10.5	104	0.00
34	P	cis-1,2-Dichloroethene	0.5972	0.6142	-2.8	118	0.00
35	P	2-Butanone	0.3831	0.4559	-19.0	135	0.00
36		Propionitrile	0.1244	0.1442	-15.9	139	-0.01
37		Bromochloromethane	0.3456	0.3550	-2.7	121	0.02
38		Methacrylonitrile	0.2950	0.3537	-19.9	135	0.00
39		Tetrahydrofuran	0.2235	0.2833	NT -26.8#	143	0.00
40	P	Chloroform	0.9692	0.9229	4.8	115	0.00
41	P	1,1,1-Trichloroethane	0.8203	0.7055	14.0	103	0.01
42		TAME	1.8047	1.9352	-7.2	119	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	113	0.00
44	P	Cyclohexane	0.3267	0.3662	-12.1	132	0.00
45	s	surr4,Dibrflmethane	0.2969	0.2784	6.2	106	0.00
46	P	Carbontetrachloride	0.3753	0.3070	18.2	92	0.00
47		1,1-Dichloropropene	0.4404	0.4376	0.6	114	0.02
48	s	surr1,1,2-dichloroethane-d4	0.4068	0.3893	4.3	107	0.00
49	P	Benzene	1.3061	1.3628	-4.3	120	0.00
50	P	1,2-Dichloroethane	0.4798	0.4888	-1.9	117	0.00
51		Iso-Butyl Alcohol	0.0265	0.0296	-11.7	133	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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		n-Heptane	0.4483	0.4896		-9.2	125	0.02
53		1-Butanol	0.0175	0.0191		-9.1	124	-0.01
54	P	Trichloroethene	0.3350	0.3113		7.1	105	0.00
55	P	Methylcyclohexane	0.4357	0.5278	NT	-21.1#	134	0.00
56	P	1,2-Diclpropane	0.3484	0.3835		-10.1	128	0.01
57		Dibromomethane	0.2080	0.2074		0.3	115	0.00
58		1,4-Dioxane	0.0069	0.0074		-7.2	129	0.00
59		Methyl Methacrylate	0.3218	0.3431		-6.6	125	0.00
60	P	Bromodichloromethane	0.4386	0.4044		7.8	111	0.00
61		2-Nitropropane	0.1354	0.1046	NT	22.7#	90	0.00
62		2-Chloroethylvinyl Ether	0.0805	0.2341	NT	-190.8#	338#	0.00
63	P	cis-1,3-Dichloropropene	0.5534	0.5717		-3.3	114	0.00
64	P	4-Methyl-2-pentanone	0.4251	0.4858		-14.3	131	0.00
65	s	SURR3,Toluene-d8	1.3256	1.3097		1.2	111	0.00
66	P	Toluene	1.4187	1.4128		0.4	114	0.00
67	P	trans-1,3-Dichloropropene	0.5155	0.5178		-0.4	112	0.00
68		Ethyl Methacrylate	0.5263	0.5841		-11.0	124	0.00
69	P	1,1,2-Trichloroethane	0.3223	0.3203		0.6	121	0.00
70	s	SURR2,BFB	0.5129	0.4774		6.9	106	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000		0.0	110	0.00
72	P	Tetrachloroethene	0.2759	0.2621		5.0	109	0.00
73	P	2-Hexanone	0.3681	0.4174		-13.4	127	0.00
74		1,3-Dichloropropane	0.6425	0.7305		-13.7	127	0.00
75	P	Dibromochloromethane	0.3353	0.3239		3.4	105	0.00
76		N-Butyl Acetate	0.6929	0.9429	NT	-36.1#	143	0.00
77	P	1,2-Dibromoethane	0.3562	0.3703		-4.0	116	0.00
78	P	Chlorobenzene	0.9796	1.0262		-4.8	115	0.00
79		3-CBTF	0.5223	0.5377		-2.9	118	0.00
80		4-CBTF	0.4773	0.4858		-1.8	118	0.00
81		1,1,1,2-Tetrachloroethane	0.3482	0.3243		6.9	105	0.00
82	P	Ethylbenzene	0.5408	0.5310		1.8	110	0.00
83	P	(m+p)Xylene	0.6546	0.6676		-2.0	113	0.00
84	P	o-Xylene	0.6554	0.6701		-2.2	113	0.00
85	P	Styrene	1.1033	1.1507		-4.3	112	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000		0.0	111	0.00
87	P	Bromoform	0.4361	0.4079		6.5	104	0.00
88		2-CBTF	0.9684	1.0295		-6.3	118	0.00
89	P	Isopropylbenzene	3.2851	3.2097		2.3	107	0.00
90		Cyclohexanone	0.2499	0.2593		-3.8	118	0.00
91		trans-1,4-Dichloro-2-Butene	0.2603	0.2759		-6.0	120	0.00
92	P	1,1,2,2-Tetrachloroethane	0.9914	1.1151		-12.5	129	0.00
93		Bromobenzene	0.8046	0.8147		-1.3	114	0.00
94		1,2,3-Trichloropropane	0.3221	0.3363		-4.4	118	0.00
95		n-Propylbenzene	3.8197	3.8884		-1.8	109	0.00
96		2-Chlorotoluene	2.3682	2.3701		-0.1	112	0.00
97		3-Chlorotoluene	2.4978	2.5840		-3.5	113	0.00
98		4-Chlorotoluene	2.7362	2.7524		-0.6	111	0.00
99		1,3,5-Trimethylbenzene	2.7476	2.7124		1.3	107	0.00
100		tert-Butylbenzene	2.3716	2.3040		2.9	106	0.00
101		1,2,4-Trimethylbenzene	2.7517	2.7426		0.3	108	0.00

1st 03/27/18
2nd 03/29/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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		3,4-DCBTF	0.7689	0.8783	-14.2	123	0.00
103		sec-Butylbenzene	3.4901	3.4051	2.4	105	0.00
104		p-Isopropyltoluene	2.9371	2.8614	2.6	106	0.00
105	P	1,3-Dclbenz	1.5293	1.5581	-1.9	112	0.00
106	P	1,4-Dclbenz	1.6050	1.6208	-1.0	115	0.00
107		2,4-DCBTF	0.7333	0.7941	-8.3	120	0.00
108		2,5-DCBTF	0.7842	0.8992	-14.7	127	0.00
109		n-Butylbenzene	2.7396	2.7978	-2.1	108	0.00
110	P	1,2-Dclbenz	1.5264	1.5514	-1.6	112	0.00
111	P	1,2-Dibromo-3-chloropropane	0.2566	0.2348	8.5	111	0.00
112		Trielution Dichlorotoluene	1.5014	1.6143	-7.5	116	0.00
113		1,3,5 Trichlorobenzene	1.1884	1.3332	-12.2	121	0.00
114		Coelution Dichlorotoluene	1.5924	1.8072	-13.5	118	0.00
115	P	1,2,4-Tcbenzene	1.1095	1.2841	-15.7	122	0.00
116		Hexachlorobt	0.5150	0.4843	6.0	106	0.00
117		Naphthalen	3.0613	3.7736	NT -23.3#	125	0.00
118		1,2,3-Tclbenzene	1.0777	1.2786	-18.6	125	0.00
119		2,4,5-Trichlorotolene	0.6534	0.8015	-12.7 ~~-22.7#~~	112	0.00
120		2,3,6-Trichlorotoluene	0.5941	0.7515	-13.3 ~~-26.5#~~	114	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	315594	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	530528	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	459768	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	234637	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	147702	46.89	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.78%				
48) surr1,1,2-dichloroetha...	5.767	65	206540	47.85	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 95.70%				
65) SURR3,Toluene-d8	8.291	98	694846	49.40	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.80%				
70) SURR2,BFB	10.864	95	253255	46.54	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.08%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	196503	51.18	ppb		99
3) Chloromethane	1.311	50	221463	46.15	ppb		100
4) Vinyl Chloride	1.384	62	239014	51.13	ppb		98
5) Bromomethane	1.610	94	93601	25.34	ppb		95
6) Chloroethane	1.689	64	150039	51.41	ppb		98
7) Freon 21	1.835	67	355557	58.93	ppb		100
8) Trichlorofluoromethane	1.884	101	212824	47.25	ppb		97
9) Diethyl Ether	2.116	59	185093	59.04	ppb		97
10) Freon 123a	2.122	67	222202	58.30	ppb		89
11) Freon 123	2.170	83	249398	56.55	ppb		99
12) Acrolein	2.213	56	176426	189.09	ppb		100
13) 1,1-Diclethene	2.305	96	151659	46.78	ppb		94
14) Freon 113	2.311	101	141691	46.26	ppb		96
15) Acetone	2.347	43	111673	58.03	ppb		98
16) 2-Propanol	2.475	45	442099	1197.40	ppb		100
17) Iodomethane	2.433	142	191812	48.81	ppb		99
18) Carbon Disulfide	2.500	76	469885	49.70	ppb		99
19) Acetonitrile	2.591	40	111382	339.01	ppb		98
20) Allyl Chloride	2.634	76	94988	55.02	ppb	#	89
21) Methyl Acetate	2.658	43	230389	67.04	ppb		98
22) Methylene Chloride	2.750	84	186212	54.46	ppb		92
23) TBA	2.878	59	688496	1081.81	ppb		94
24) Acrylonitrile	3.000	53	559246	302.75	ppb		99
25) Methyl-t-Butyl Ether	3.054	73	631124	54.31	ppb		97
26) trans-1,2-Dichloroethene	3.042	96	164935	49.81	ppb		94
28) 1,1-Diclethane	3.536	63	330453	54.38	ppb		98
29) Vinyl Acetate	3.627	86	44077	45.43	ppb		97
30) DIPE	3.664	45	682201	58.95	ppb		91
31) 2-Chloro-1,3-Butadiene	3.664	53	292534	49.78	ppb		92
32) ETBE	4.188	59	657086	56.31	ppb		97
33) 2,2-Dichloropropane	4.365	77	241875	44.76	ppb		97
34) cis-1,2-Dichloroethene	4.371	96	193851	51.43	ppb		99
35) 2-Butanone	4.414	43	143870	59.50	ppb		98
36) Propionitrile	4.493	54	227508	289.80	ppb		94
37) Bromochloromethane	4.767	130	112034	51.36	ppb		93
38) Methacrylonitrile	4.767	67	111613	59.93	ppb		92
39) Tetrahydrofuran	4.853	42	89393	63.37	ppb		91
40) Chloroform	4.944	83	291259	47.61	ppb		99
41) 1,1,1-Trichloroethane	5.243	97	222639	43.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	610728	53.61	ppb	98
44) Cyclohexane	5.334	41	194295	56.06	ppb	89
46) Carbontetrachloride	5.517	117	162861	40.90	ppb	99
47) 1,1-Dichloropropene	5.536	75	232157	49.68	ppb	97
49) Benzene	5.847	78	722988	52.17	ppb	99
50) 1,2-Dichloroethane	5.889	62	259312	50.94	ppb	97
51) Iso-Butyl Alcohol	5.859	43	313673	1115.89	ppb	91
52) n-Heptane	6.340	43	259728	54.60	ppb	94
53) 1-Butanol	6.822	56	507629	2729.31	ppb	98
54) Trichloroethene	6.798	130	165149	46.47	ppb	99
55) Methylcyclohexane	7.035	55	280003	60.57	ppb	92
56) 1,2-Diclpropane	7.078	63	203449	55.03	ppb	98
57) Dibromomethane	7.218	93	110008	49.84	ppb	95
58) 1,4-Dioxane	7.279	88	78076	1069.92	ppb	96
59) Methyl Methacrylate	7.310	69	182040	53.31	ppb	96
60) Bromodichloromethane	7.450	83	214554	46.11	ppb	97
61) 2-Nitropropane	7.730	41	110992	77.23	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	124194	145.36	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	303300	51.66	ppb	98
64) 4-Methyl-2-pentanone	8.200	43	257737	57.14	ppb	99
66) Toluene	8.364	91	749549	49.79	ppb	98
67) trans-1,3-Dichloropropene	8.633	75	274700	50.22	ppb	99
68) Ethyl Methacrylate	8.779	69	309863	55.49	ppb	97
69) 1,1,2-Trichloroethane	8.822	97	169914	49.69	ppb	96
72) Tetrachloroethene	8.962	164	120500	47.49	ppb	97
73) 2-Hexanone	9.114	43	191909	56.69	ppb	95
74) 1,3-Dichloropropane	8.992	76	335854	56.85	ppb	99
75) Dibromochloromethane	9.218	129	148936	48.30	ppb	98
76) N-Butyl Acetate	9.273	43	433524	68.04	ppb	98
77) 1,2-Dibromoethane	9.315	107	170254	51.98	ppb	97
78) Chlorobenzene	9.809	112	471836	52.38	ppb	97
79) 3-CBTF	9.834	180	247218	51.47	ppb	93
80) 4-CBTF	9.888	180	223358	50.89	ppb	95
81) 1,1,1,2-Tetrachloroethane	9.901	131	149107	46.57	ppb	96
82) Ethylbenzene	9.931	106	244148	49.09	ppb	100
83) (m+p)Xylene	10.047	106	613901	101.99	ppb	95
84) o-Xylene	10.401	106	308098	51.12	ppb	96
85) Styrene	10.419	104	529056	52.15	ppb	97
87) Bromoform	10.565	173	95708	46.76	ppb	97
88) 2-CBTF	10.650	180	241567	53.16	ppb	91
89) Isopropylbenzene	10.736	105	753107	48.85	ppb	98
90) Cyclohexanone	10.797	55	1216948	1037.69	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	64744	52.99	ppb	89
92) 1,1,2,2-Tetrachloroethane	10.998	83	261639	56.24	ppb	96
93) Bromobenzene	10.986	156	191151	50.63	ppb	94
94) 1,2,3-Trichloropropane	11.028	110	78919	52.22	ppb	99
95) n-Propylbenzene	11.095	91	912368	50.90	ppb	98
96) 2-Chlorotoluene	11.156	91	556114	50.04	ppb	95
97) 3-Chlorotoluene	11.211	91	606309	51.73	ppb	98
98) 4-Chlorotoluene	11.248	91	645821	50.30	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	636428	49.36	ppb	98
100) tert-Butylbenzene	11.522	119	540603	48.57	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	643526	49.83	ppb	99
102) 3,4-DCBTF	11.620	214	206090	57.11	ppb	97
103) sec-Butylbenzene	11.705	105	798974	48.78	ppb	99
104) p-Isopropyltoluene	11.827	119	671384	48.71	ppb	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

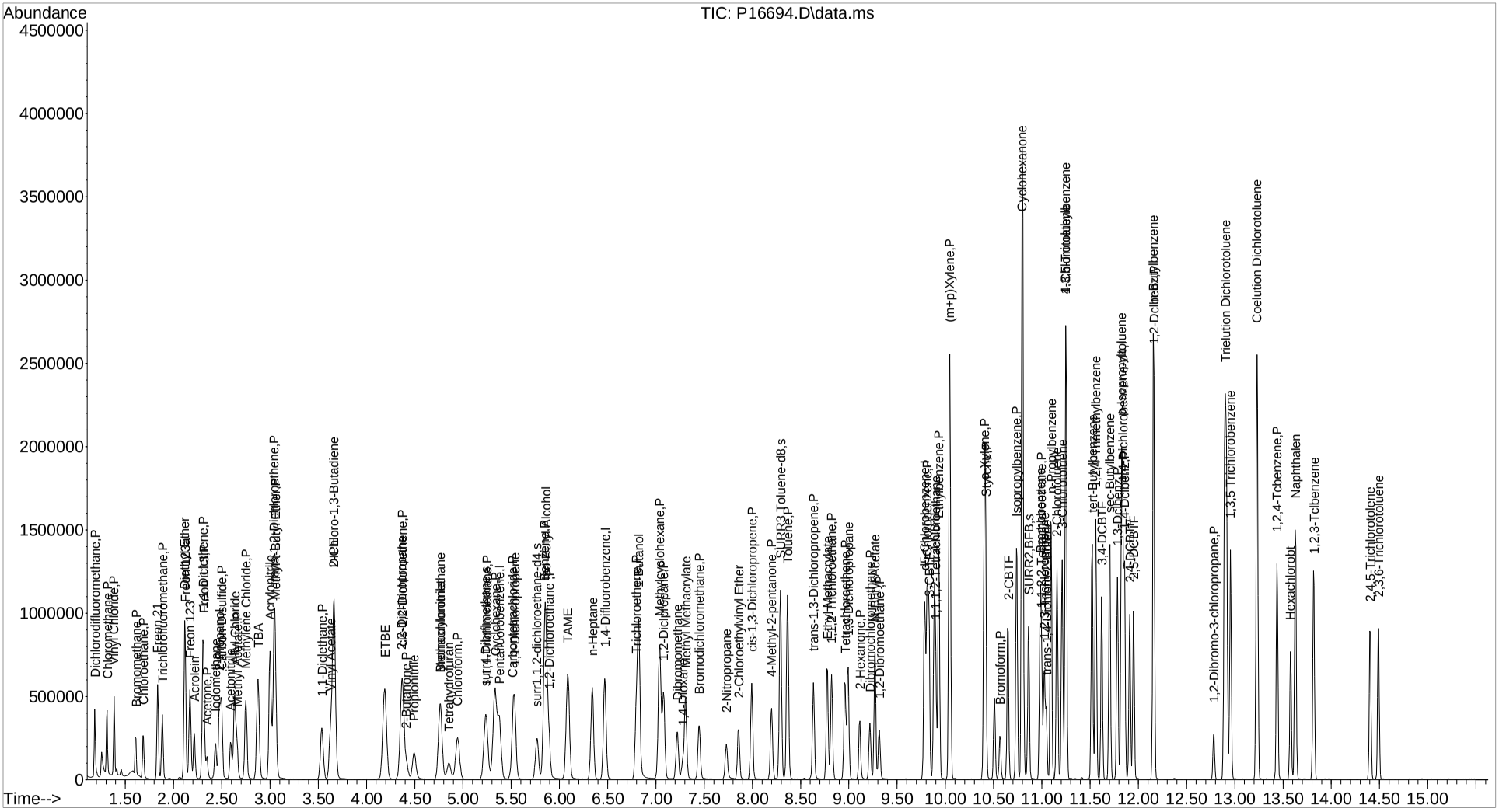
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	365587	50.94	ppb	98
106) 1,4-Dclbenz	11.858	146	380297	50.49	ppb	96
107) 2,4-DCBTF	11.912	214	186326	54.15	ppb	97
108) 2,5-DCBTF	11.949	214	210976	57.33	ppb	93
109) n-Butylbenzene	12.156	91	656463	51.06	ppb	100
110) 1,2-Dclbenz	12.162	146	364023	50.82	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.784	157	55088	45.75	ppb	90
112) Trielution Dichlorotol...	12.900	125	1136342	161.28	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	312818	56.09	ppb	97
114) Coelution Dichlorotoluene	13.229	125	848065	113.49	ppb	100
115) 1,2,4-Tcbenzene	13.437	180	301288	57.87	ppb	97
116) Hexachlorobt	13.577	225	113643	47.02	ppb	96
117) Naphthalen	13.626	128	885419	61.63	ppb	99
118) 1,2,3-Tclbenzene	13.821	180	300018	59.32	ppb	98
119) 2,4,5-Trichlorotolene	14.406	159	188060	56.36	ppb	96
120) 2,3,6-Trichlorotoluene	14.491	159	176322	56.66	ppb	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

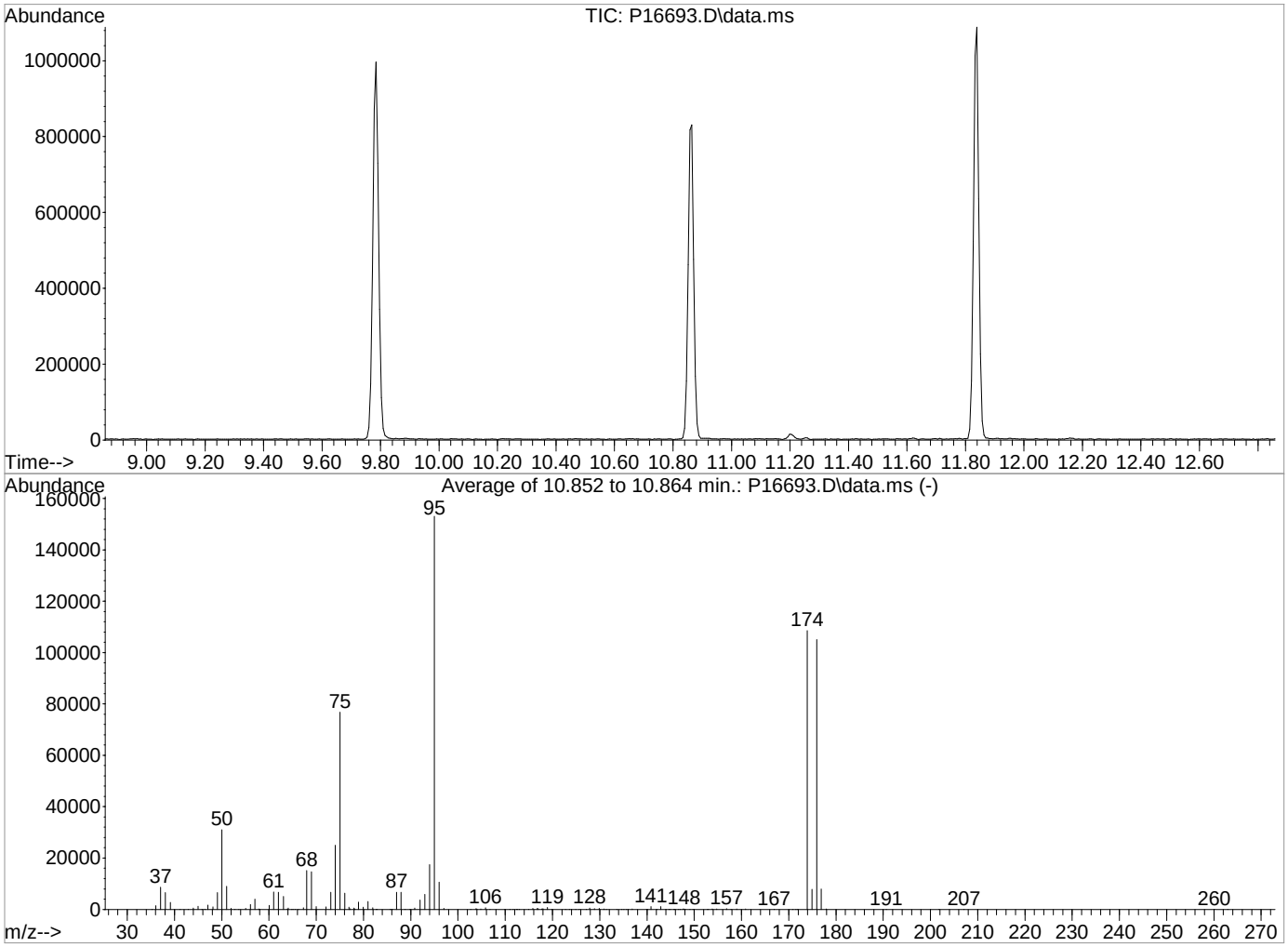


1st 03/27/18
2nd 03/29/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16693.D
Acq On : 27 Mar 2018 10:03 am
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: INTP90.P

Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Tue Jan 02 13:02:22 2018



AutoFind: Scans 1600, 1601, 1602; Background Corrected with Scan 1594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	30995	PASS
75	95	30	60	50.1	76771	PASS
95	95	100	100	100.0	153101	PASS
96	95	5	9	6.9	10555	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	70.9	108565	PASS
175	174	5	9	7.2	7848	PASS
176	174	95	101	96.8	105096	PASS
177	176	5	9	7.5	7909	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	287947	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	479951	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	424833	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	218758	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.225	113	141452	49.64	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.28%				
48) surr1,1,2-dichloroetha...	5.767	65	193466	49.54	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.08%				
65) SURR3,Toluene-d8	8.291	98	624876	49.11	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.22%				
70) SURR2,BFB	10.858	95	237241	48.19	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.38%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	134291	38.34	ppb		98
3) Chloromethane	1.305	50	190453	43.50	ppb		99
4) Vinyl Chloride	1.384	62	199400	46.76	ppb		99
5) Bromomethane	1.609	94	142716	45.39	ppb		97
6) Chloroethane	1.689	64	124204	46.65	ppb		97
7) Freon 21	1.835	67	285350	51.83	ppb		98
8) Trichlorofluoromethane	1.884	101	213052	51.84	ppb		96
9) Diethyl Ether	2.115	59	136922	47.87	ppb		98
10) Freon 123a	2.121	67	191670	55.12	ppb		99
11) Freon 123	2.170	83	210567	52.33	ppb		99
12) Acrolein	2.213	56	54829	64.41	ppb		94
13) 1,1-Diclethene	2.304	96	133150	45.02	ppb		99
14) Freon 113	2.310	101	130157	46.57	ppb		95
15) Acetone	2.347	43	85120	48.48	ppb		99
16) 2-Propanol	2.475	45	333226	989.18	ppb		100
17) Iodomethane	2.432	142	126267	36.58	ppb		96
18) Carbon Disulfide	2.499	76	396813	46.00	ppb		98
19) Acetonitrile	2.591	40	71030	236.95	ppb		100
20) Allyl Chloride	2.634	76	73512	46.67	ppb		92
21) Methyl Acetate	2.658	43	157488	50.23	ppb		99
22) Methylene Chloride	2.749	84	150486	48.24	ppb		99
23) TBA	2.877	59	560668	965.55	ppb		99
24) Acrylonitrile	2.999	53	402143	238.60	ppb		99
25) Methyl-t-Butyl Ether	3.048	73	507837	47.90	ppb		99
26) trans-1,2-Dichloroethene	3.042	96	144824	47.94	ppb		97
28) 1,1-Diclethane	3.536	63	274458	49.51	ppb		97
29) Vinyl Acetate	3.627	86	38188	43.14	ppb	#	92
30) DIPE	3.664	45	492688	46.67	ppb		97
31) 2-Chloro-1,3-Butadiene	3.658	53	243854	45.48	ppb		94
32) ETBE	4.188	59	513182	48.20	ppb		97
33) 2,2-Dichloropropane	4.365	77	227846	46.22	ppb		98
34) cis-1,2-Dichloroethene	4.371	96	164996	47.97	ppb		95
35) 2-Butanone	4.408	43	103585	46.96	ppb		98
36) Propionitrile	4.493	54	164268	229.34	ppb		95
37) Bromochloromethane	4.761	130	97230	48.85	ppb		96
38) Methacrylonitrile	4.761	67	88251	51.94	ppb		94
39) Tetrahydrofuran	4.853	42	65186	50.65	ppb		86
40) Chloroform	4.944	83	263420	47.20	ppb		98
41) 1,1,1-Trichloroethane	5.243	97	228157	48.30	ppb		98

1st 01/03/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	507580	48.84	ppb	98
44) Cyclohexane	5.334	41	144705	46.15	ppb	99
46) Carbontetrachloride	5.523	117	183593	50.96	ppb	96
47) 1,1-Dichloropropene	5.529	75	209652	49.59	ppb	98
49) Benzene	5.846	78	620472	49.49	ppb	100
50) 1,2-Dichloroethane	5.883	62	221444	48.08	ppb	98
51) Iso-Butyl Alcohol	5.859	43	240444	945.52	ppb	97
52) n-Heptane	6.340	43	193642	45.00	ppb	96
53) 1-Butanol	6.822	56	419687	2494.27	ppb	99
54) Trichloroethene	6.797	130	162270	50.47	ppb	96
55) Methylcyclohexane	7.035	55	205143	49.05	ppb	98
56) 1,2-Diclpropane	7.078	63	162105	48.47	ppb	96
57) Dibromomethane	7.218	93	95483	47.82	ppb	98
58) 1,4-Dioxane	7.279	88	64491	976.88	ppb	97
59) Methyl Methacrylate	7.303	69	149451	48.38	ppb	99
60) Bromodichloromethane	7.450	83	202525	48.11	ppb	95
61) 2-Nitropropane	7.724	41	120257	92.50	ppb	98
62) 2-Chloroethylvinyl Ether	7.852	63	38992	50.45	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	263518	49.61	ppb	97
64) 4-Methyl-2-pentanone	8.193	43	188470	46.19	ppb	95
66) Toluene	8.364	91	677037	49.72	ppb	98
67) trans-1,3-Dichloropropene	8.632	75	248645	50.25	ppb	98
68) Ethyl Methacrylate	8.773	69	261322	51.73	ppb	99
69) 1,1,2-Trichloroethane	8.821	97	145623	47.07	ppb	97
72) Tetrachloroethene	8.956	164	111631	47.62	ppb	97
73) 2-Hexanone	9.108	43	146355	46.79	ppb	94
74) 1,3-Dichloropropane	8.992	76	265741	48.68	ppb	98
75) Dibromochloromethane	9.218	129	143505	50.37	ppb	97
76) N-Butyl Acetate	9.266	43	315825	53.65	ppb	96
77) 1,2-Dibromoethane	9.315	107	147070	48.59	ppb	97
78) Chlorobenzene	9.809	112	427179	51.32	ppb	99
79) 3-CBTF	9.827	180	209132	47.12	ppb	95
80) 4-CBTF	9.882	180	186198	45.91	ppb	96
81) 1,1,1,2-Tetrachloroethane	9.894	131	146680	49.58	ppb	95
82) Ethylbenzene	9.931	106	228973	49.83	ppb	98
83) (m+p)Xylene	10.041	106	559632	100.62	ppb	100
84) o-Xylene	10.400	106	276930	49.73	ppb	100
85) Styrene	10.413	104	479273	51.13	ppb	98
87) Bromoform	10.565	173	95178	49.88	ppb	99
88) 2-CBTF	10.644	180	204322	48.23	ppb	94
89) Isopropylbenzene	10.736	105	711427	49.50	ppb	98
90) Cyclohexanone	10.797	55	836747	765.29	ppb	97
91) trans-1,4-Dichloro-2-B...	11.047	53	61025	53.58	ppb	99
92) 1,1,2,2-Tetrachloroethane	10.998	83	207141	47.76	ppb	96
93) Bromobenzene	10.979	156	172547	49.02	ppb	96
94) 1,2,3-Trichloropropane	11.022	110	69365	49.23	ppb	94
95) n-Propylbenzene	11.095	91	844300	50.52	ppb	100
96) 2-Chlorotoluene	11.156	91	532215	51.37	ppb	99
97) 3-Chlorotoluene	11.211	91	537133	49.15	ppb	97
98) 4-Chlorotoluene	11.248	91	589390	49.23	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	616952	51.32	ppb	98
100) tert-Butylbenzene	11.516	119	520317	50.14	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	626900	52.07	ppb	98
102) 3,4-DCBTF	11.620	214	161549	48.02	ppb	98
103) sec-Butylbenzene	11.699	105	776457	50.85	ppb	99
104) p-Isopropyltoluene	11.821	119	664383	51.70	ppb	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	336727	50.32	ppb	97
106) 1,4-Dclbenz	11.857	146	346237	49.31	ppb	99
107) 2,4-DCBTF	11.912	214	153233	47.76	ppb	97
108) 2,5-DCBTF	11.949	214	162889	47.48	ppb	98
109) n-Butylbenzene	12.156	91	633806	52.88	ppb	99
110) 1,2-Dclbenz	12.156	146	339670	50.86	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.784	157	53218	47.40	ppb	93
112) Trielution Dichlorotol...	12.900	125	973605	148.21	ppb	99
113) 1,3,5 Trichlorobenzene	12.955	180	261939	50.38	ppb	96
114) Coelution Dichlorotoluene	13.229	125	720830	103.46	ppb	100
115) 1,2,4-Tcbenzene	13.436	180	255427	52.62	ppb	96
116) Hexachlorobt	13.577	225	110049	48.84	ppb	98
117) Naphthalen	13.625	128	749449	55.96	ppb	99
118) 1,2,3-Tclbenzene	13.814	180	255017	54.08	ppb	98
119) 2,4,5-Trichlorotolene	14.400	159	167006	53.91	ppb	99
120) 2,3,6-Trichlorotoluene	14.485	159	158730	54.85	ppb	97

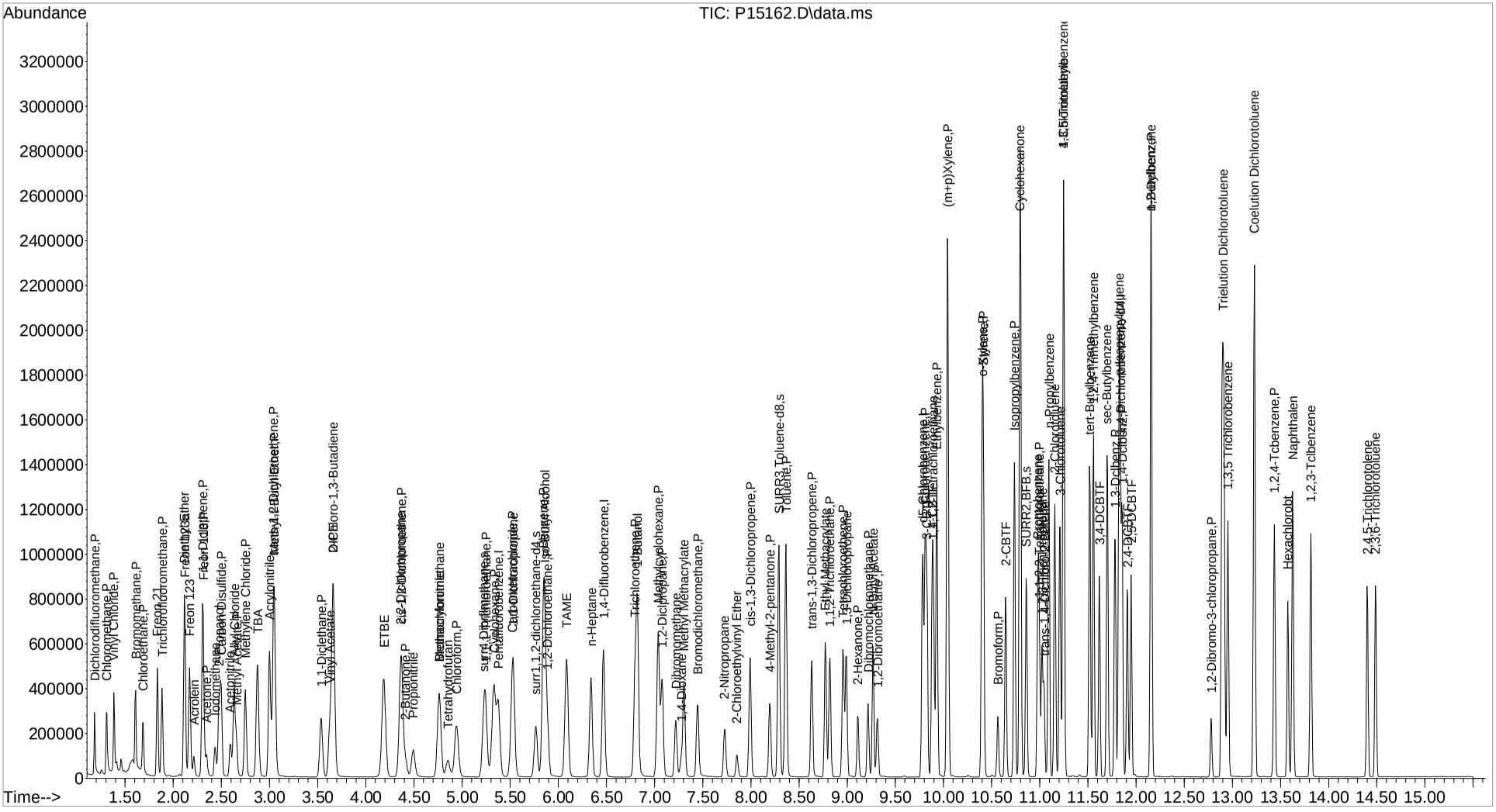
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

1st 01/03/18
2nd 01/04/18

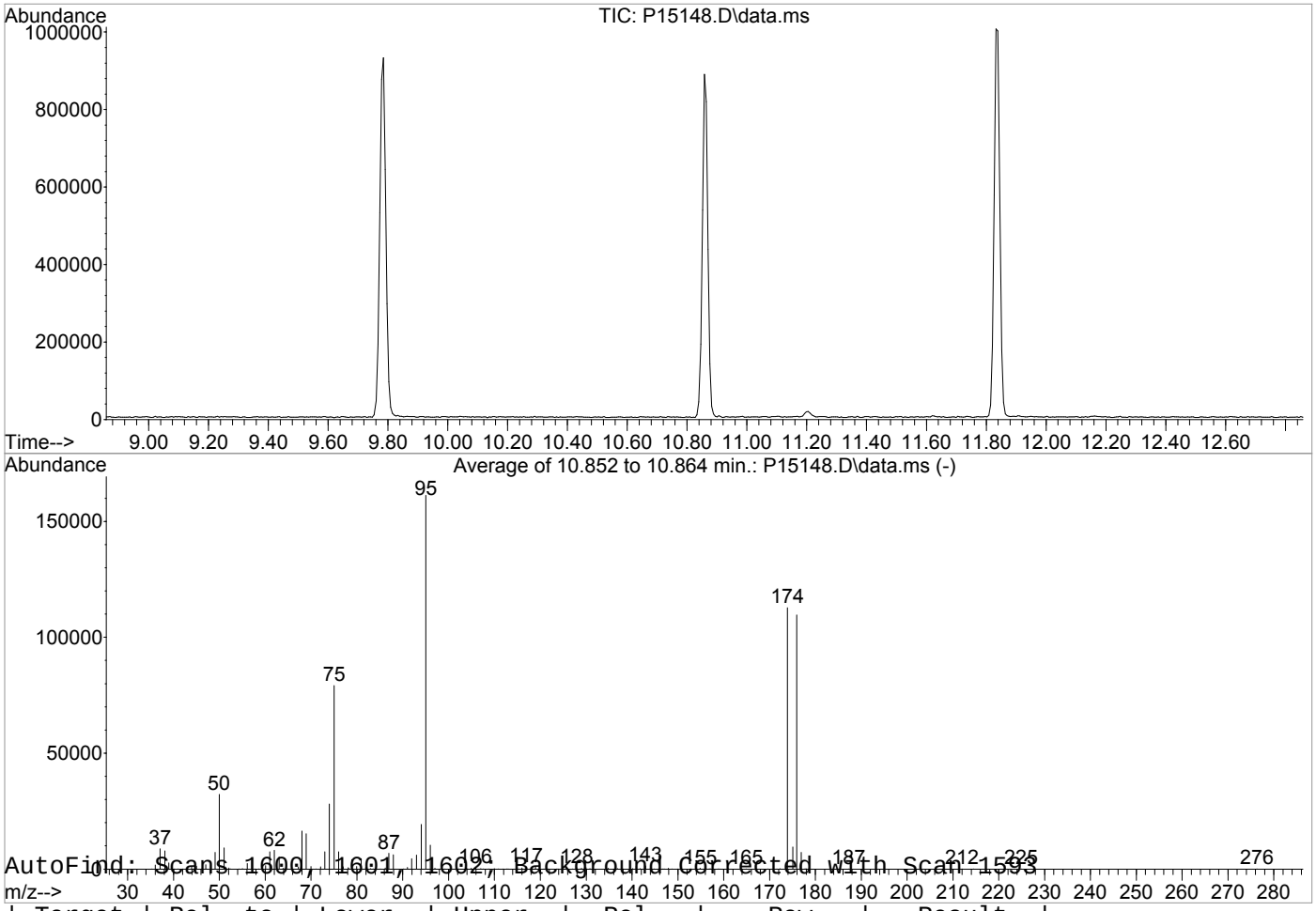


1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15148.D
Acq On : 29 Dec 2017 4:24 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP90.P

Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Fri Dec 29 09:19:07 2017



AutoFind: Scans 1600, 1601, 1602, Background corrected with Scan 1593

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	32261	PASS
75	95	30	60	49.1	79149	PASS
95	95	100	100	100.0	161277	PASS
96	95	5	9	6.4	10343	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	69.9	112739	PASS
175	174	5	9	8.5	9553	PASS
176	174	95	101	97.2	109600	PASS
177	176	5	9	6.5	7155	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15149.D
Acq On : 29 Dec 2017 5:01 pm
Operator : K.Ruest
Sample : IBLK Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 02 15:24:56 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

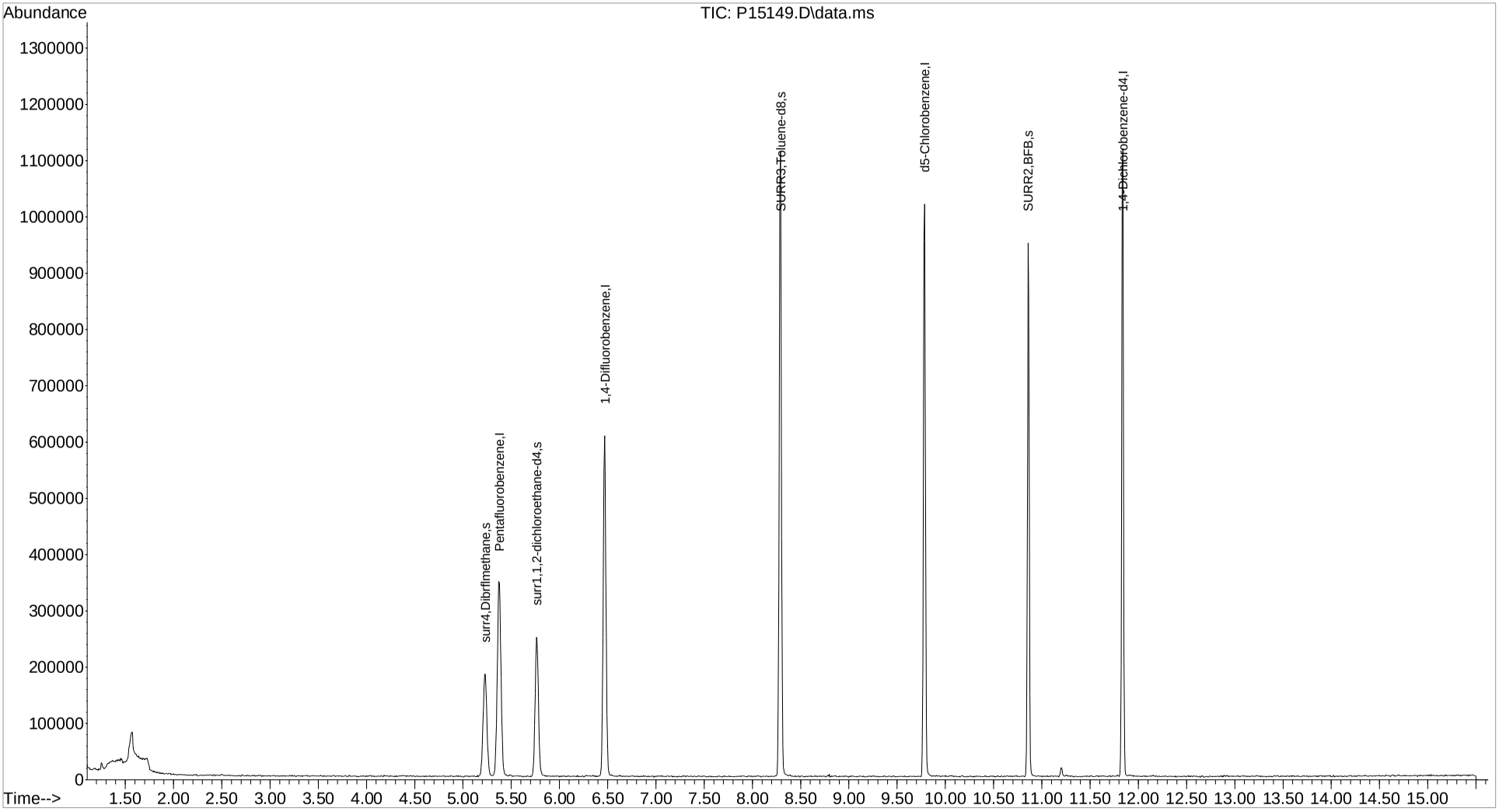
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	312401	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	516664	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	453641	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	224311	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	153044	49.89	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.78%			
48) surr1,1,2-dichloroetha...	5.761	65	209116	49.74	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.48%			
65) SURR3,Toluene-d8	8.291	98	677259	49.44	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.88%			
70) SURR2,BFB	10.858	95	255019	48.12	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.24%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15149.D
Acq On : 29 Dec 2017 5:01 pm
Operator : K.Ruest
Sample : IBLK Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 02 15:24:56 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



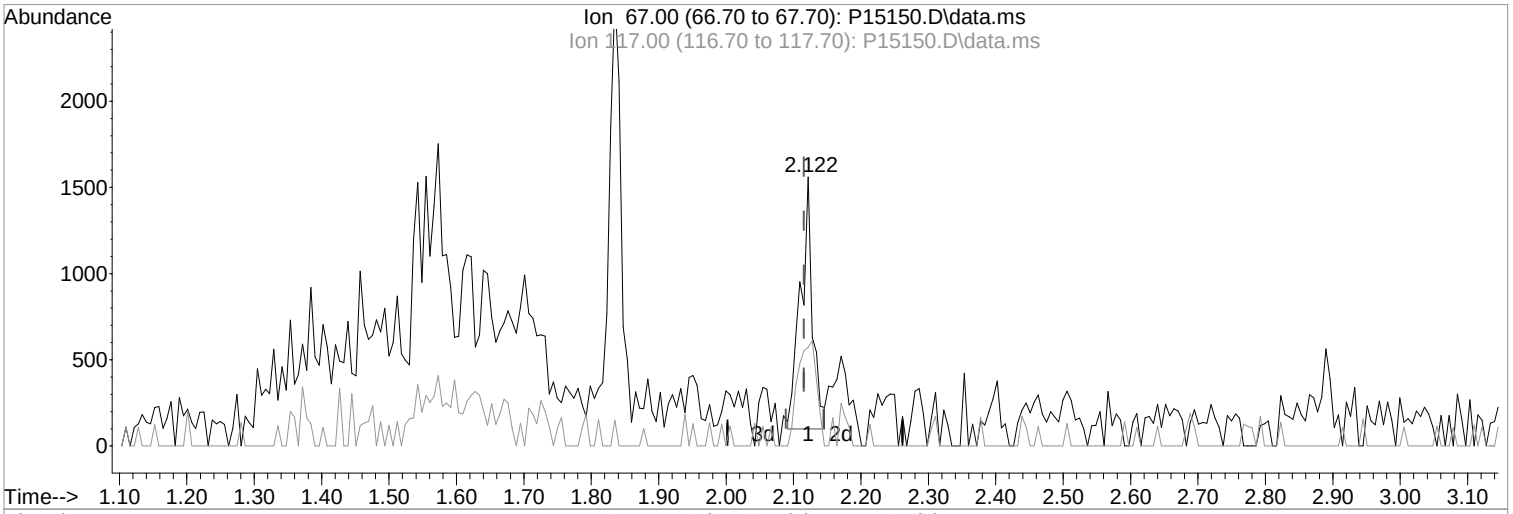
1st 01/02/18
2nd 01/04/18

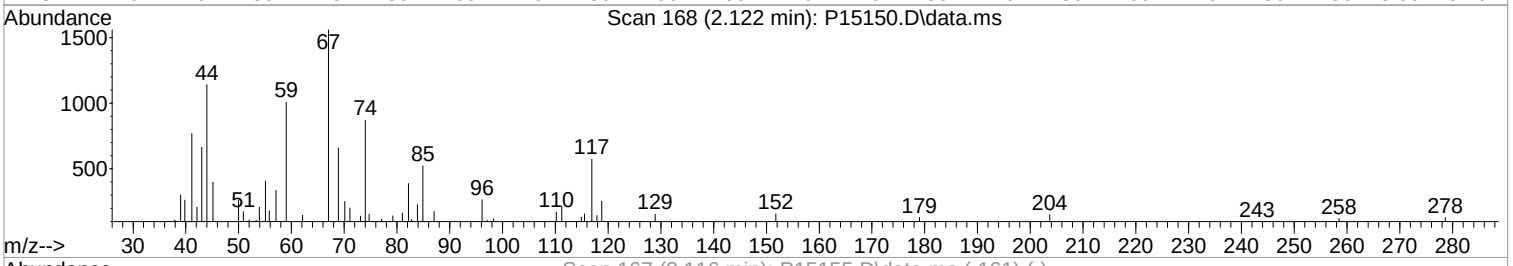
1st 01/02/18
2nd 01/04/18

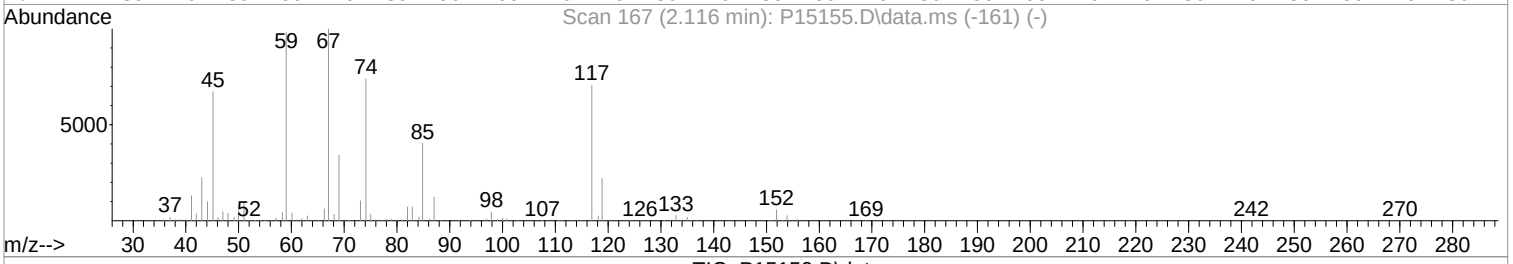
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(10) Freon 123a

2.122min (+0.006) 0.54 ppb m

response 1826

Ion	Exp%	Act%
67.00	100	100
117.00	70.30	36.73#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

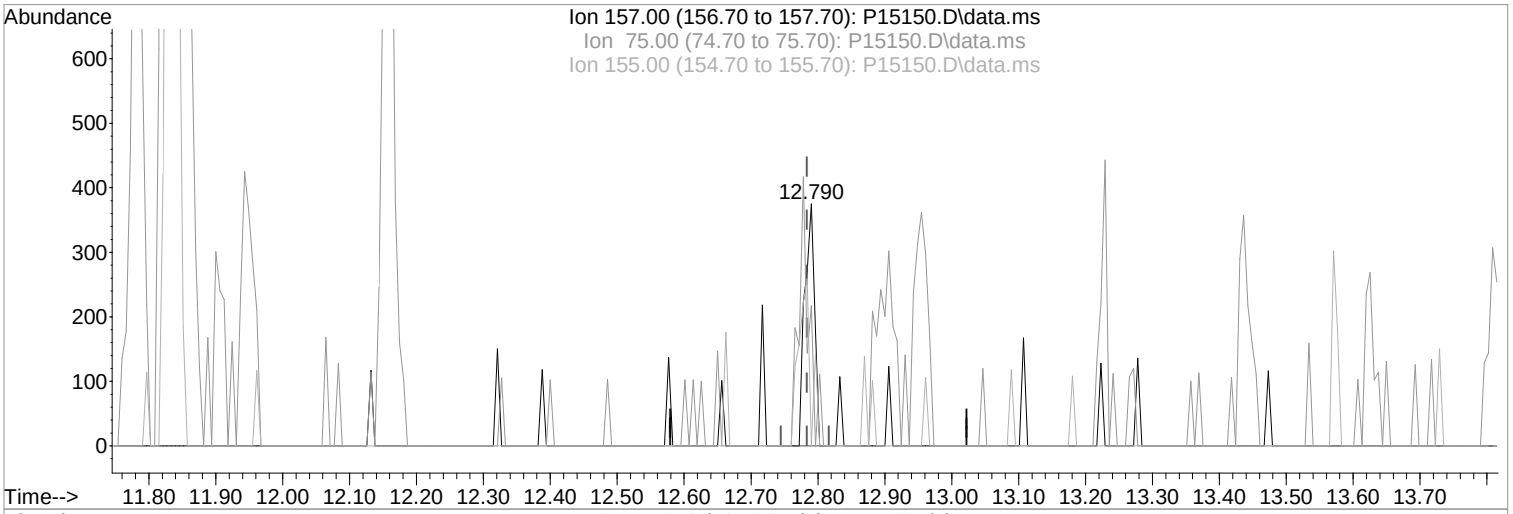
Poor integration.

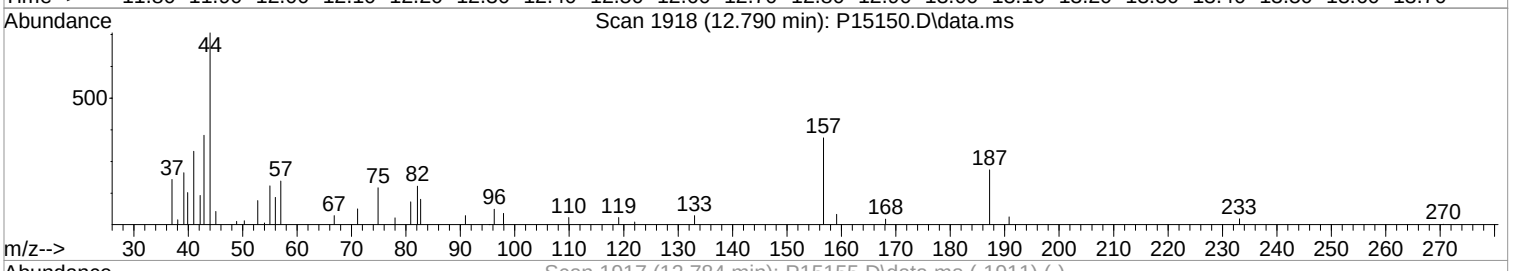
01/02/18

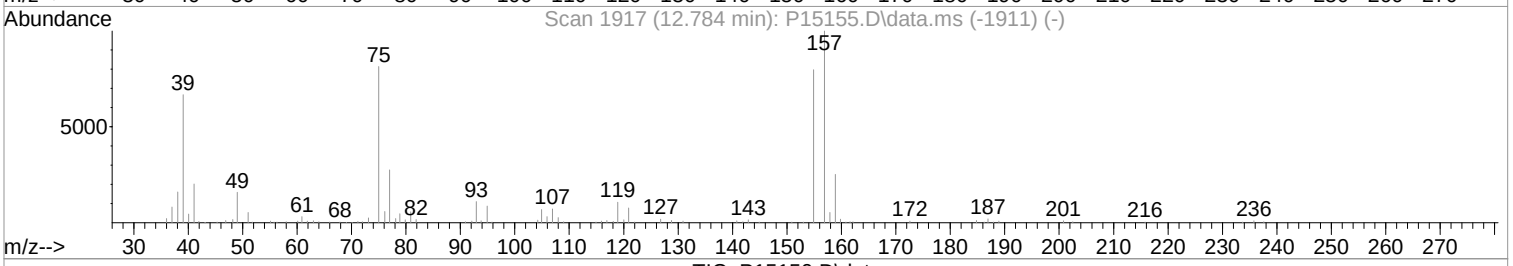
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(111) 1,2-Dibromo-3-chloropropane (P)

12.790min (+0.006) 0.39 ppb m

response 383

Ion	Exp%	Act%
157.00	100	100
75.00	81.40	57.87#
155.00	79.70	0.00#
0.00	0.00	0.00

Manual Integration:

After

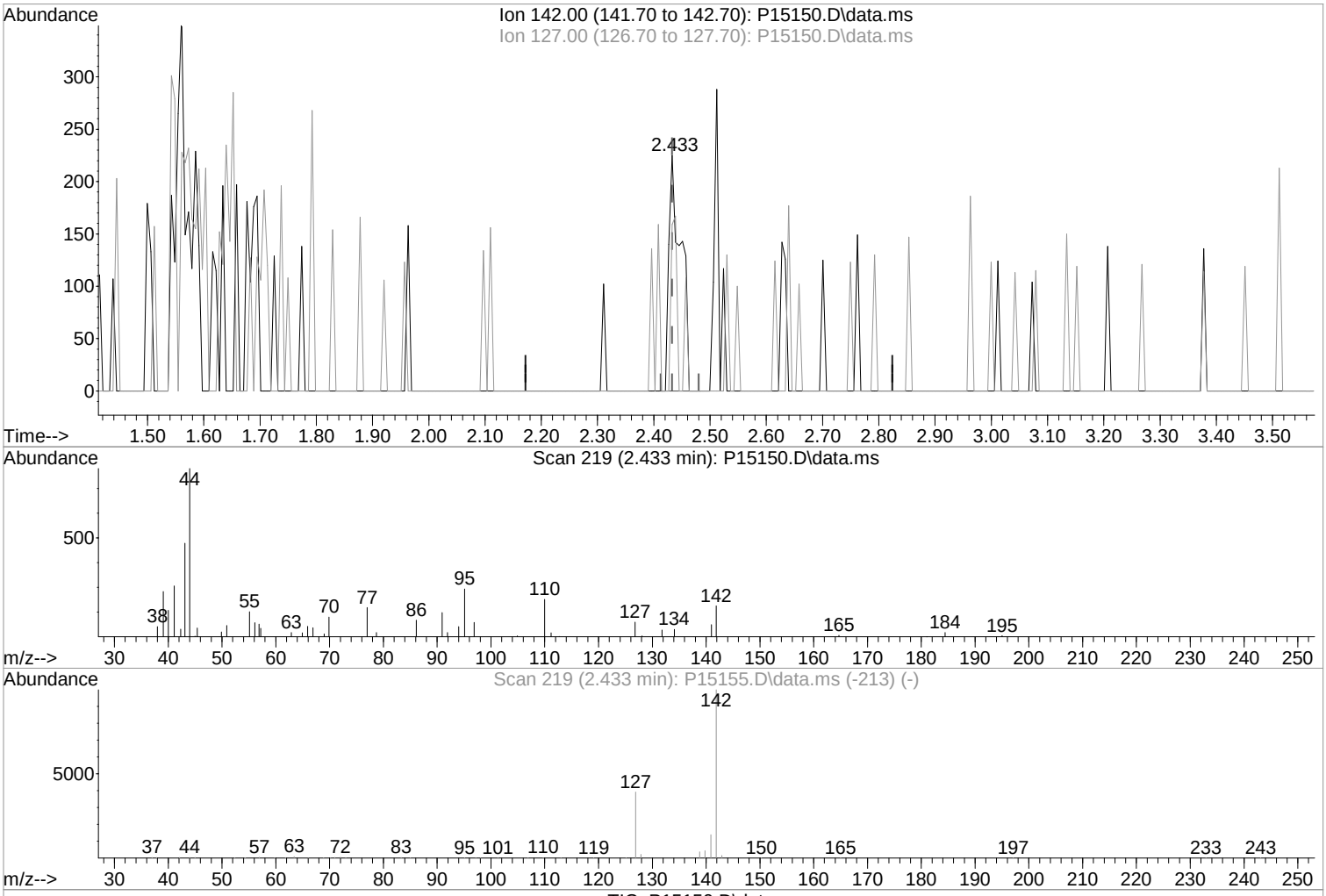
Poor integration.

01/02/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(17) Iodomethane

2.433min (+0.000) 0.13 ppb m

response 336

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	70.67#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

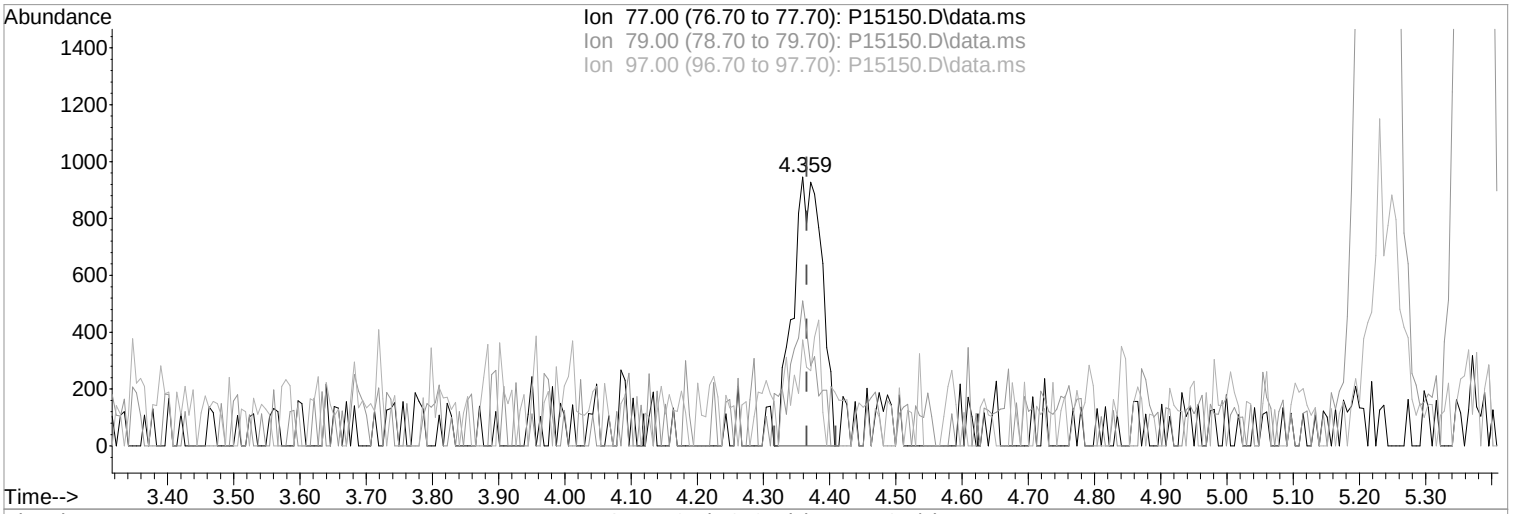
Poor integration.

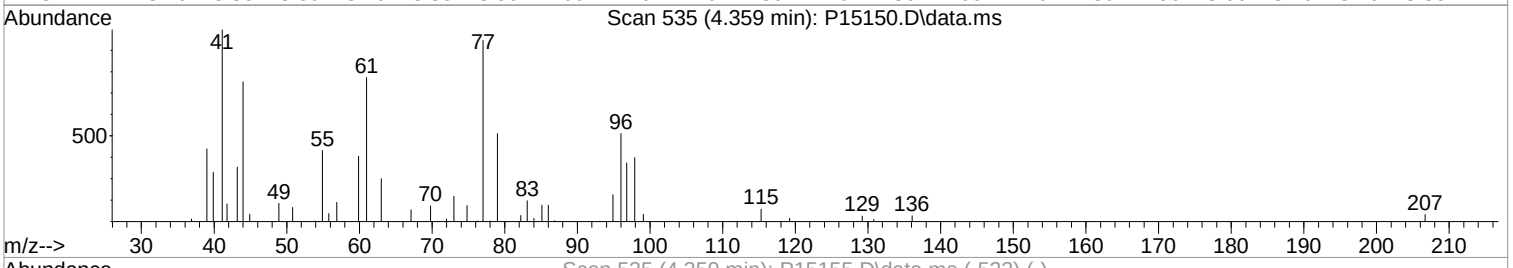
01/02/18

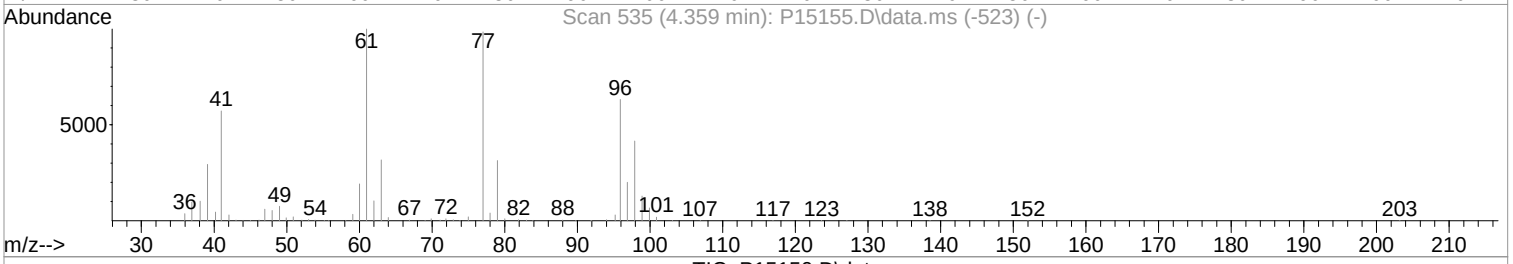
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(33) 2,2-Dichloropropane

4.359min (-0.006) 0.60 ppb m

response 2888

Ion	Exp%	Act%
77.00	100	100
79.00	32.10	53.91#
97.00	20.60	39.43
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

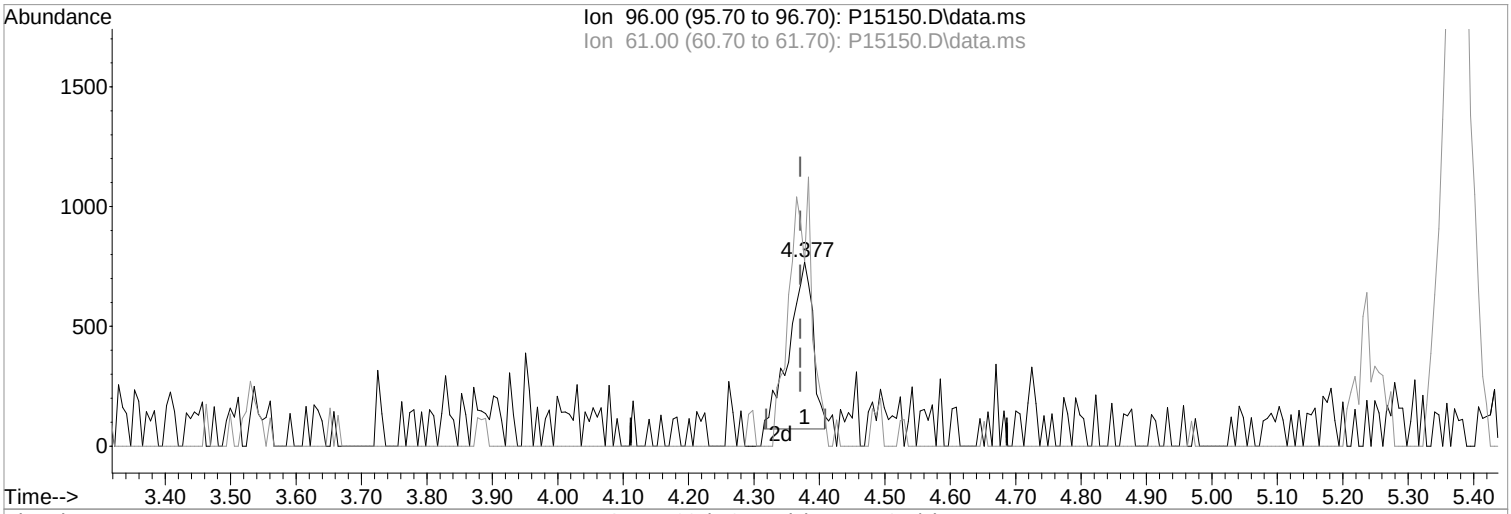
01/02/18

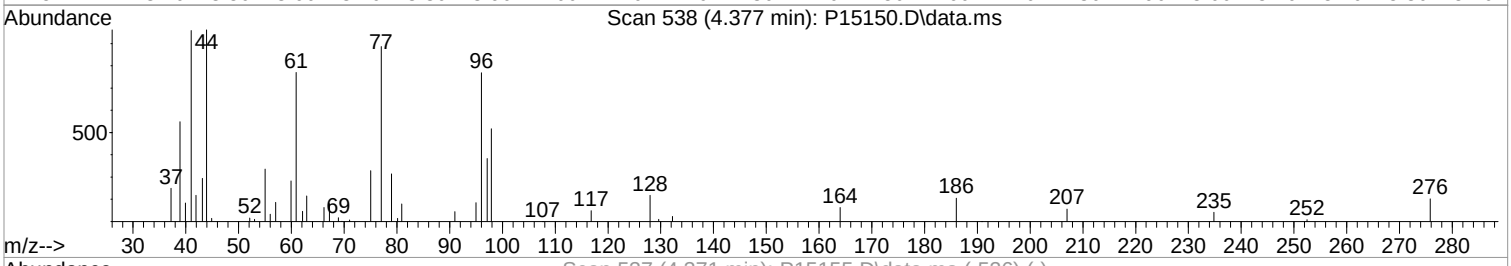
1st 01/02/18
2nd 01/04/18

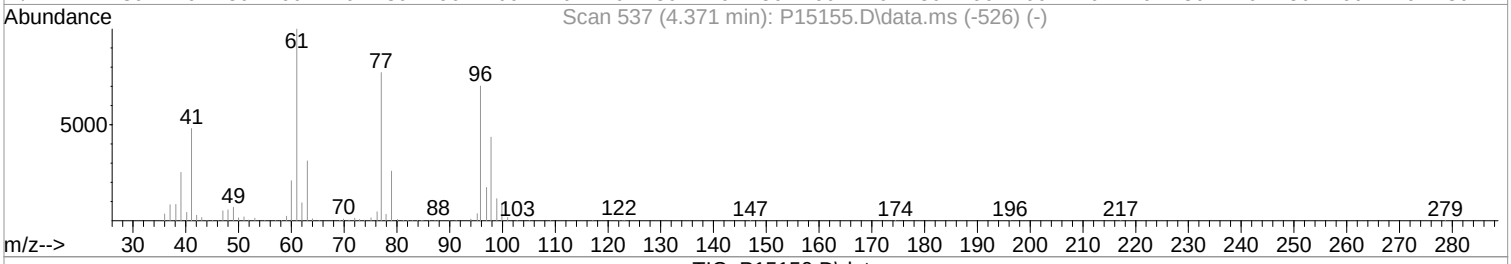
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

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

4.377min (+0.006) 0.49 ppb m

response 1739

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	100.26#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

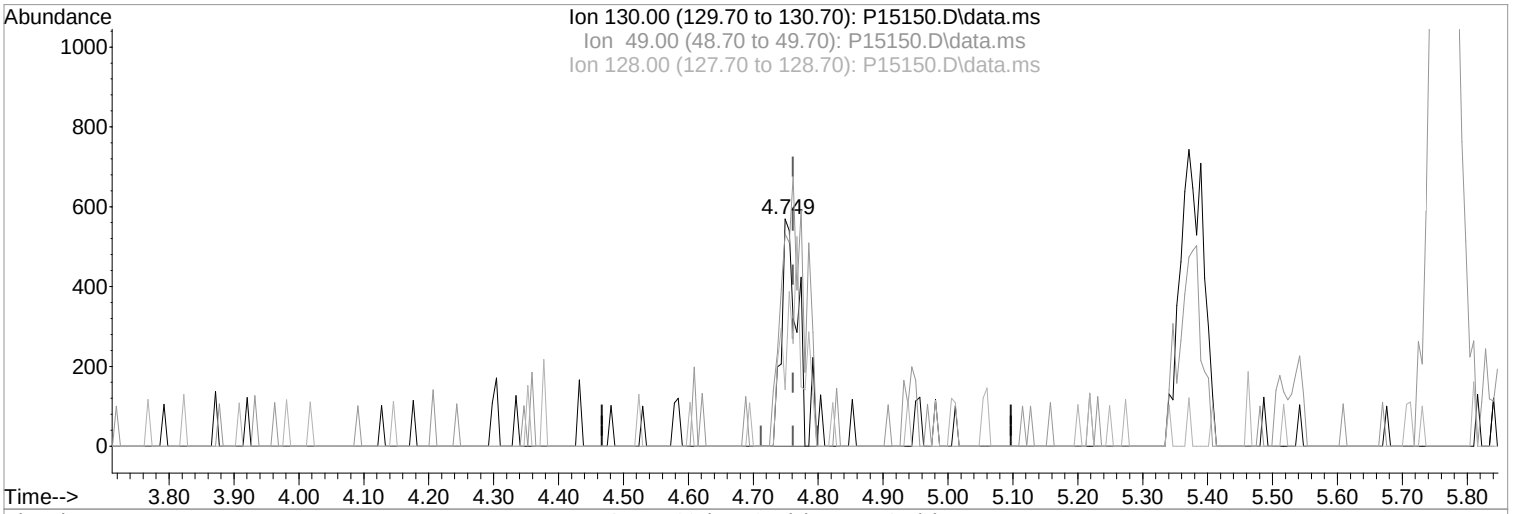
01/02/18

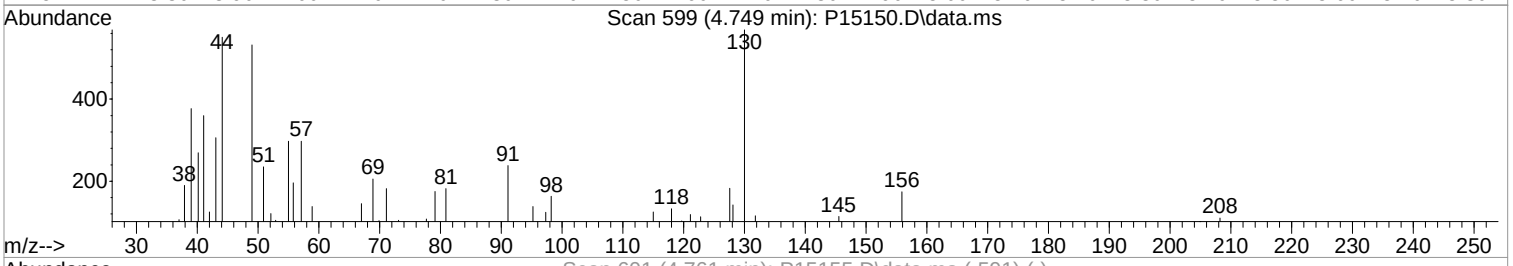
1st 01/02/18
2nd 01/04/18

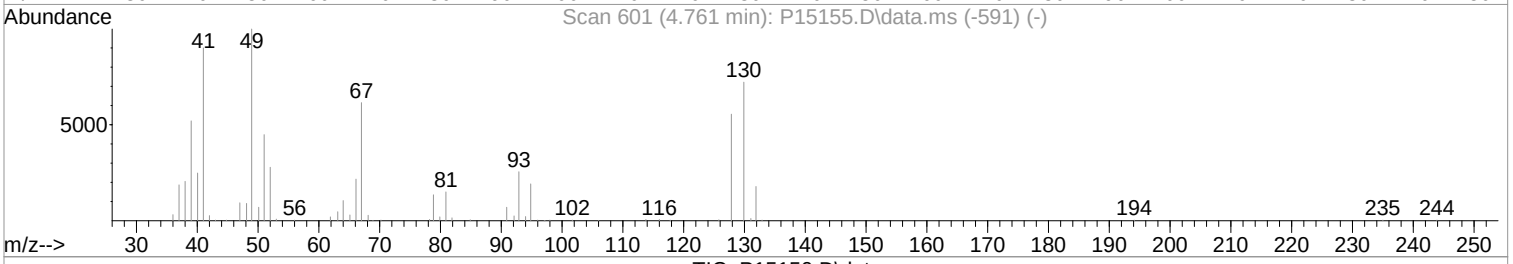
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(37) Bromochloromethane

4.749min (-0.012) 0.52 ppb m

response 1011

Ion	Exp%	Act%
130.00	100	100
49.00	139.00	93.50#
128.00	77.10	24.96#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

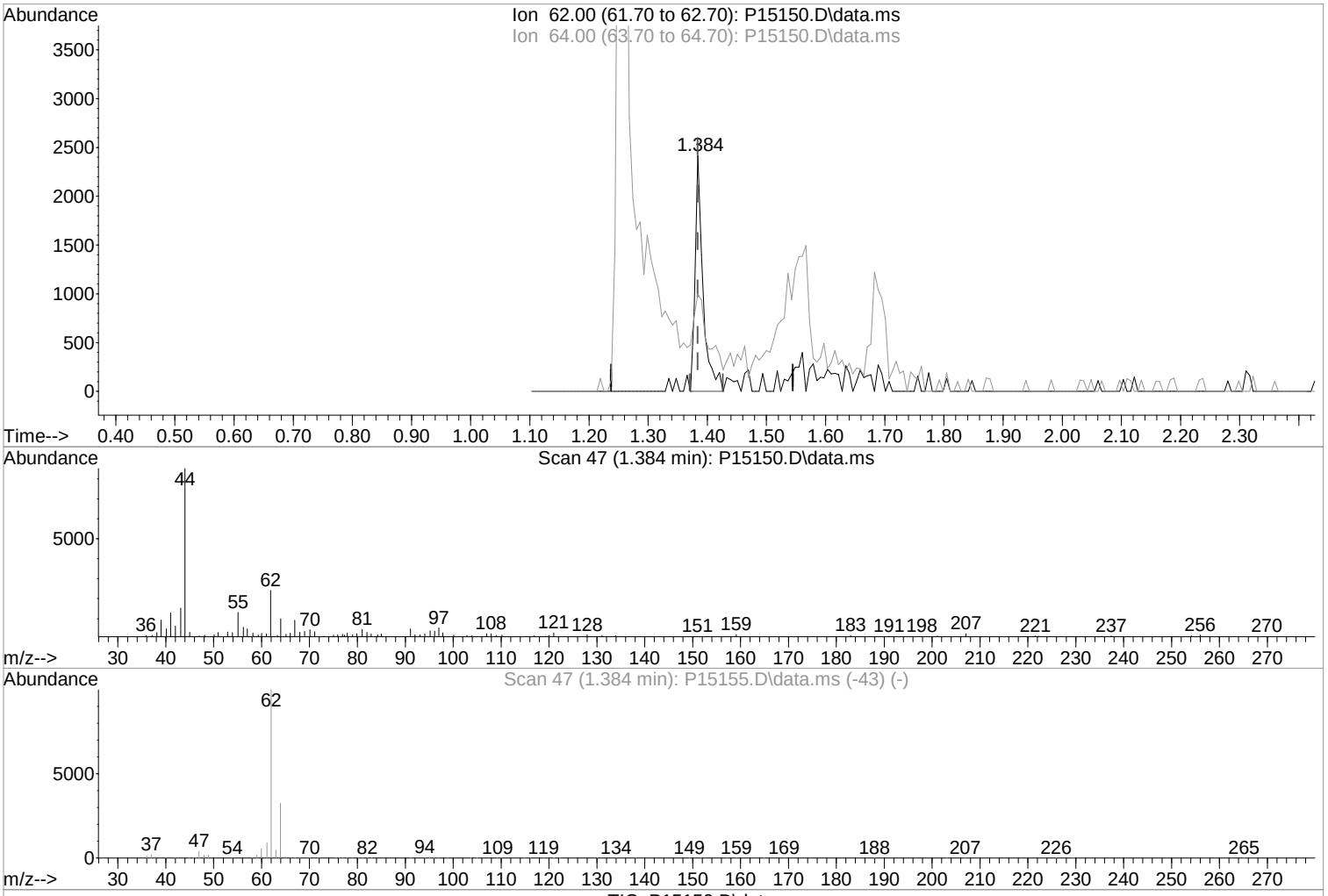
01/02/18

1st 01/02/18
2nd 01/04/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(4) Vinyl Chloride (P)

1.384min (+0.000) 0.53 ppb m

response 2220

Ion	Exp%	Act%
62.00	100	100
64.00	32.80	41.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

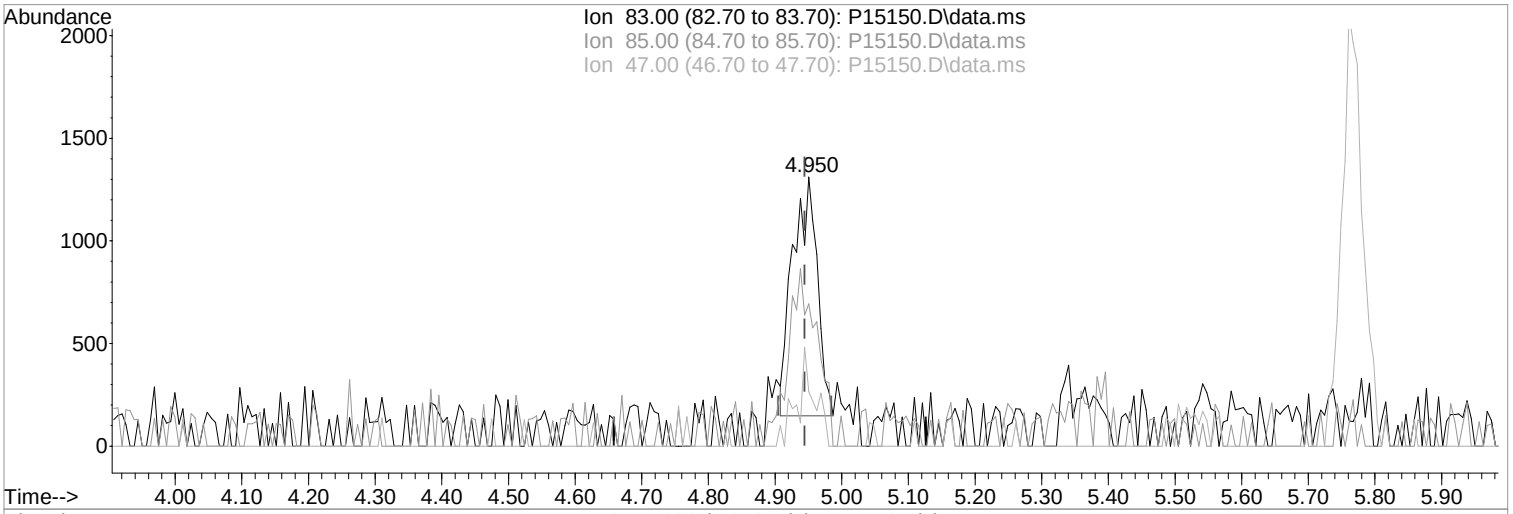
Poor integration.

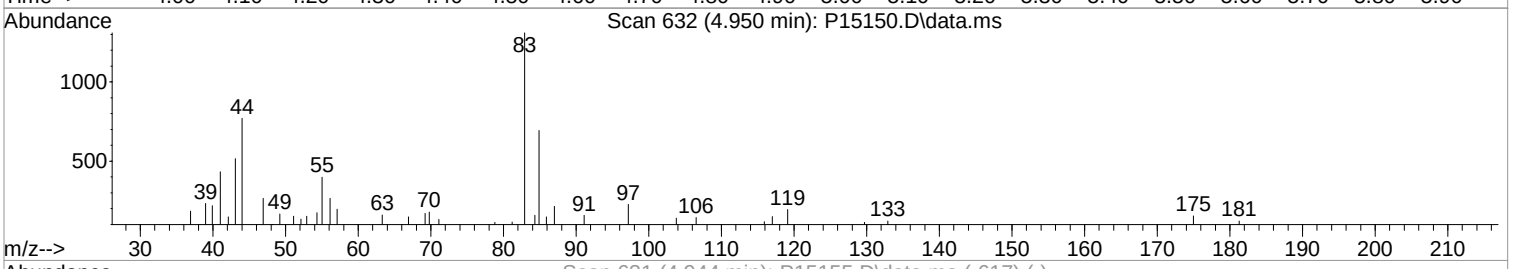
01/02/18

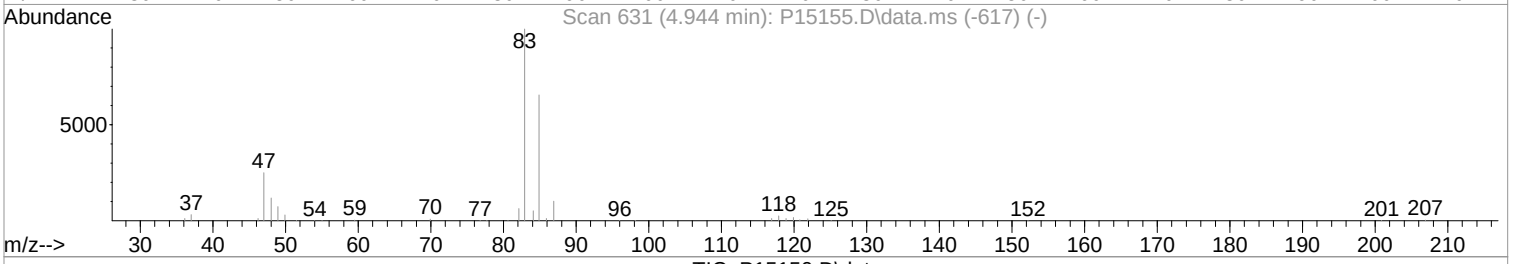
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(40) Chloroform (P)

4.950min (+0.006) 0.51 ppb m

response 2984

Ion	Exp%	Act%
83.00	100	100
85.00	65.60	52.86
47.00	24.90	20.21
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

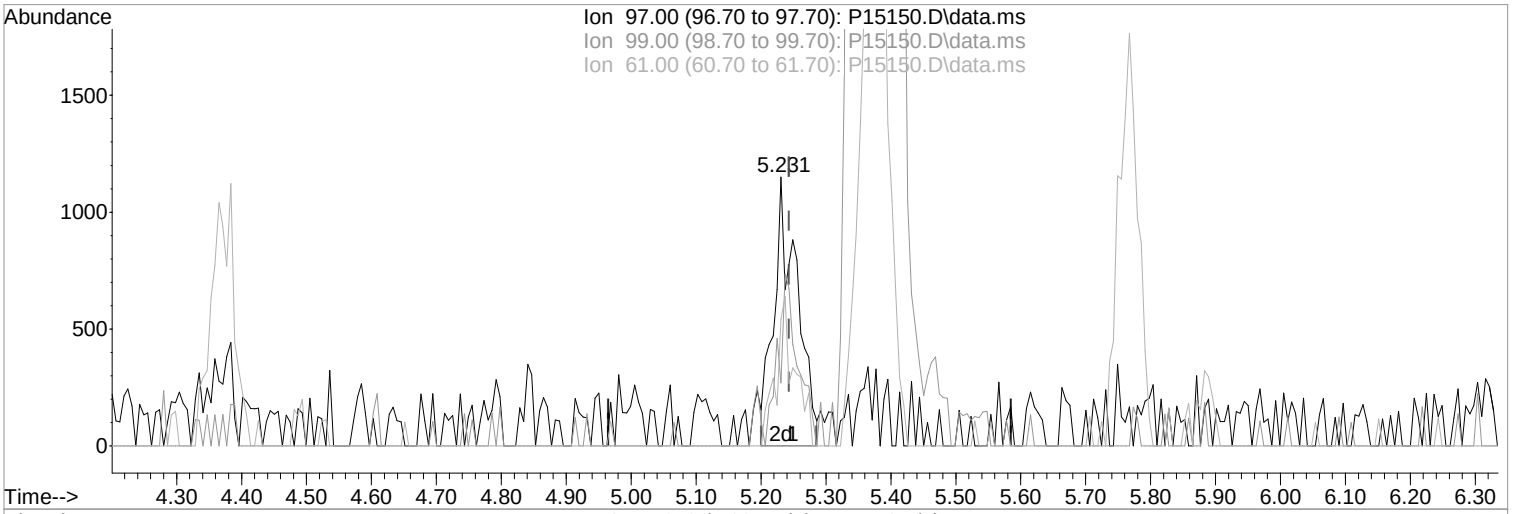
01/02/18

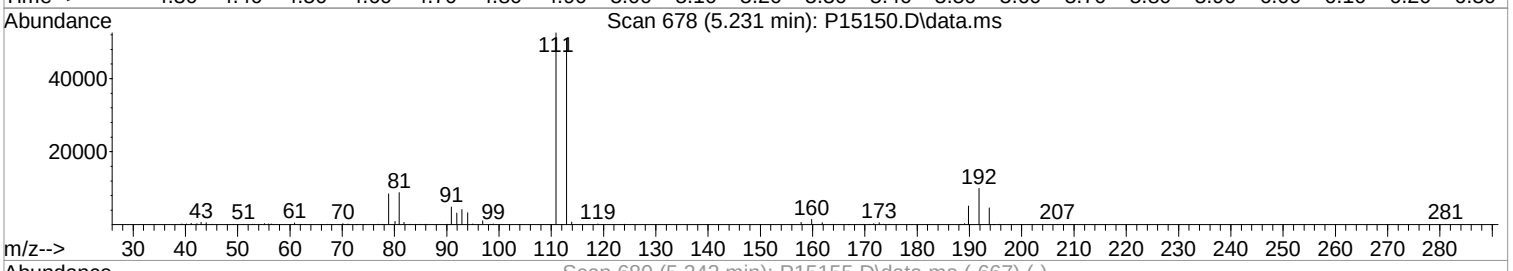
1st 01/02/18
2nd 01/04/18

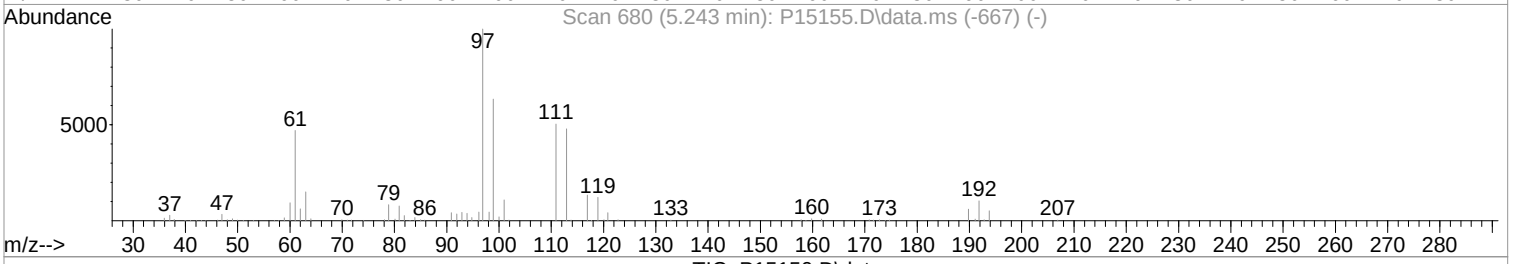
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.231min (-0.012) 0.61 ppb m

response 2844

Ion	Exp%	Act%
97.00	100	100
99.00	63.10	23.48#
61.00	46.90	47.13
0.00	0.00	0.00

Manual Integration:

After

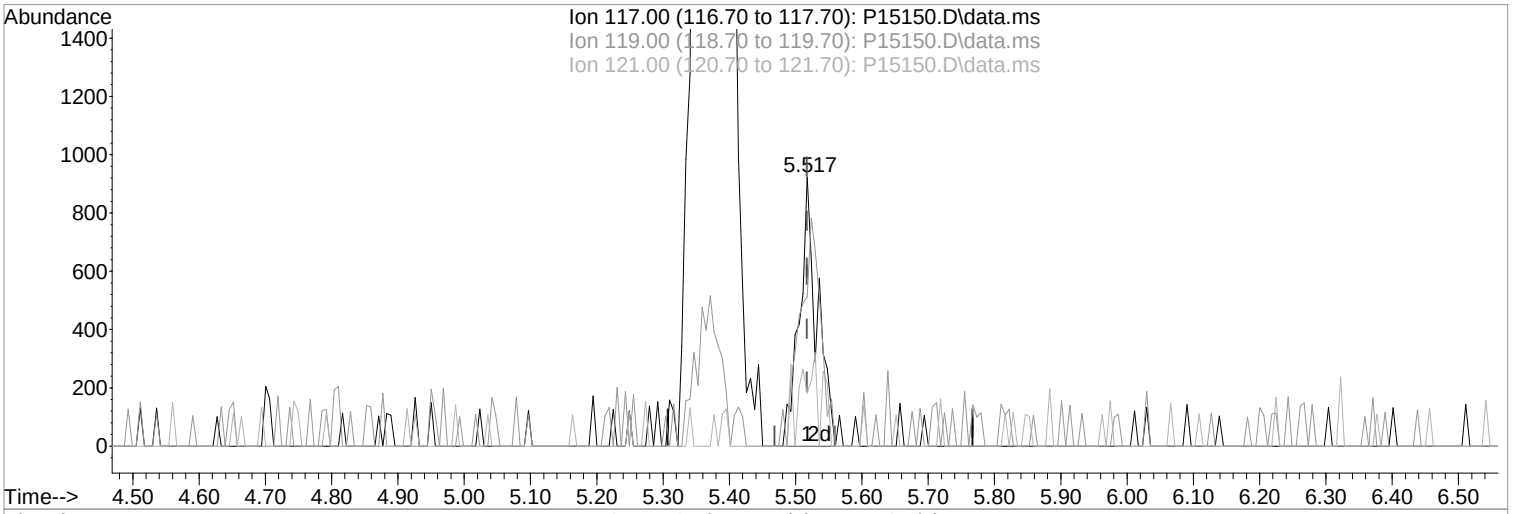
Poor integration.

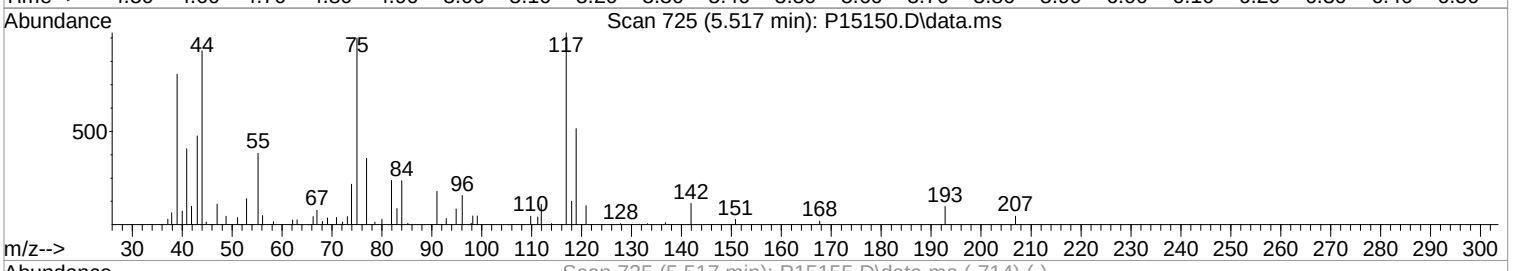
01/02/18

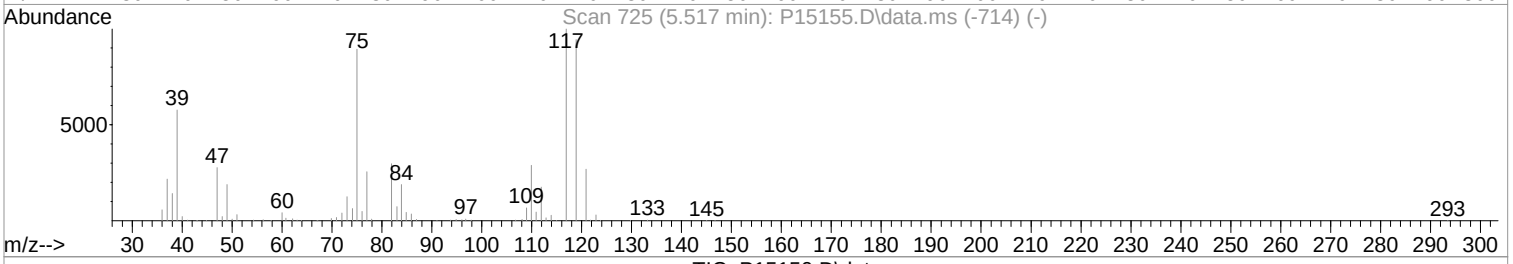
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(46) Carbontetrachloride (P)

5.517min (+0.000) 0.49 ppb m

response 1723

Ion	Exp%	Act%
117.00	100	100
119.00	94.40	55.47#
121.00	26.80	19.72
0.00	0.00	0.00

Manual Integration:

After

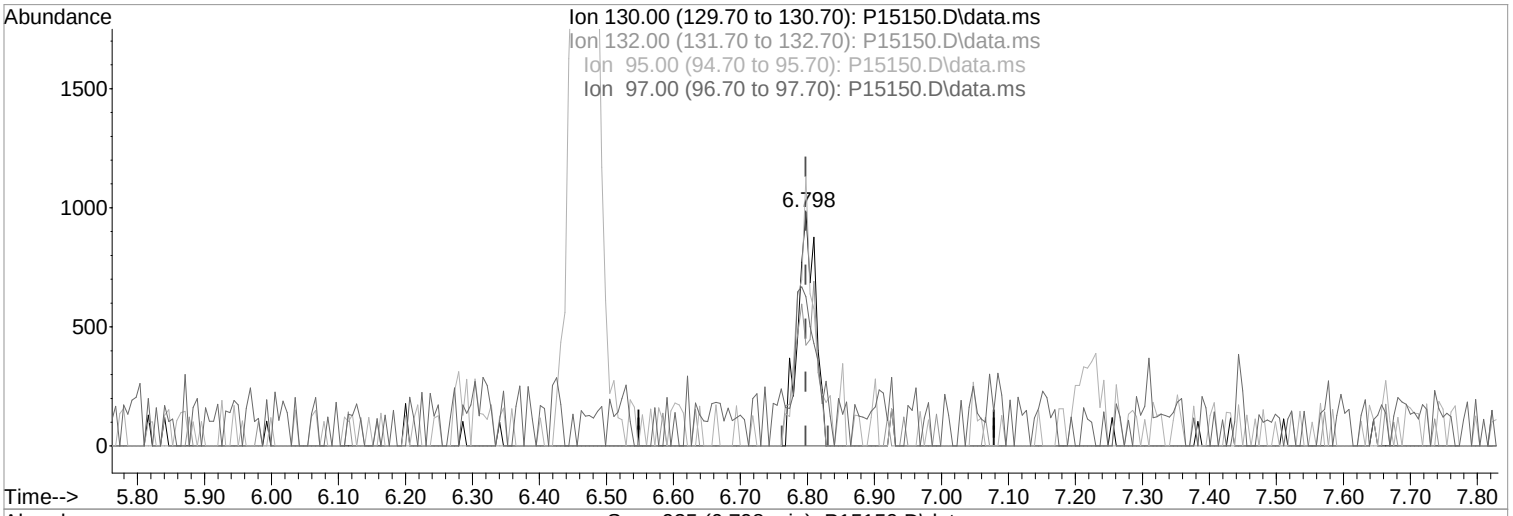
Poor integration.

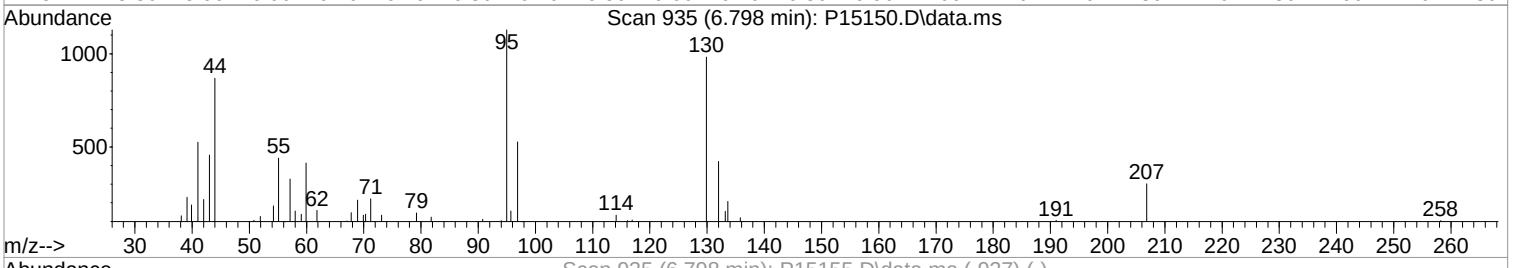
01/02/18

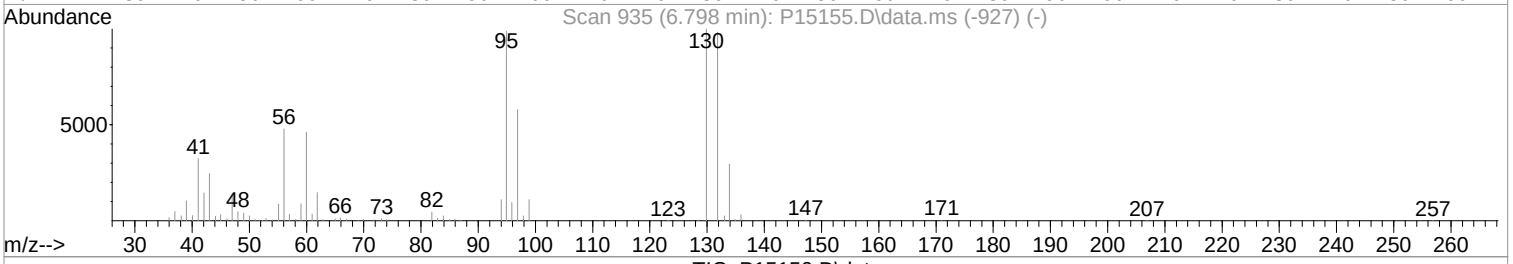
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(54) Trichloroethene (P)

6.798min (+0.000) 0.59 ppb m

response 1823

Ion	Exp%	Act%
130.00	100	100
132.00	98.30	43.03#
95.00	98.70	114.85
97.00	58.30	53.61

Manual Integration:

After

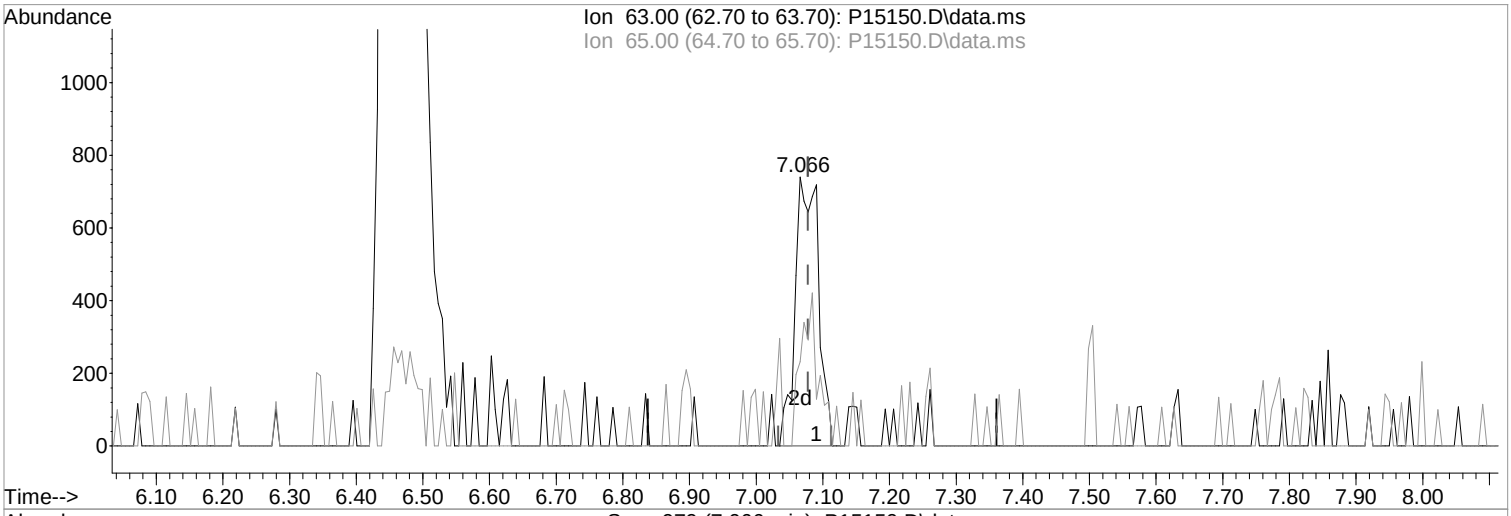
Poor integration.

01/02/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(56) 1,2-Diclpropane (P)

7.066min (-0.012) 0.55 ppb m

response 1790

Ion	Exp%	Act%
63.00	100	100
65.00	31.70	31.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

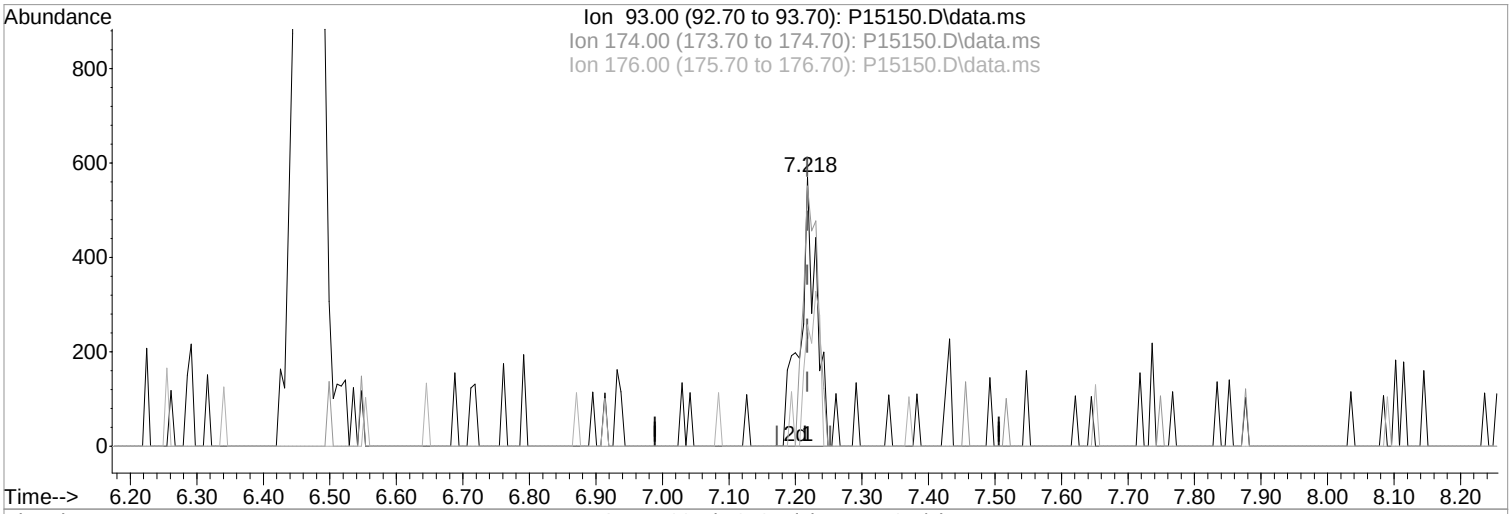
Poor integration.

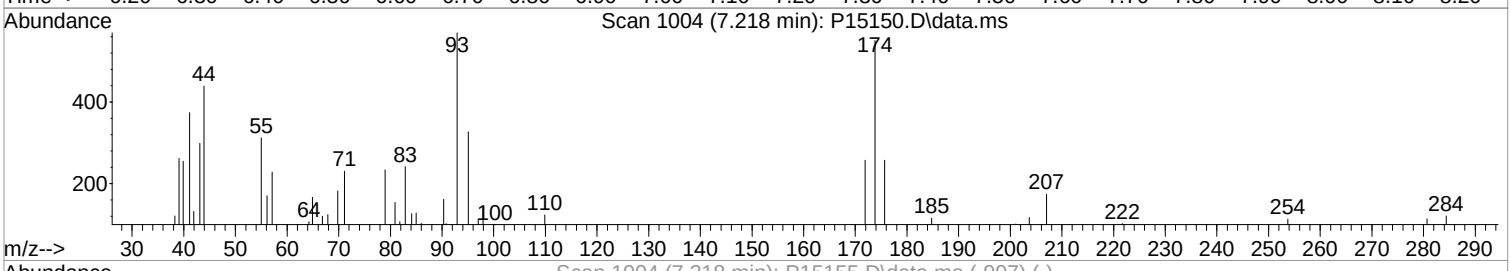
01/02/18

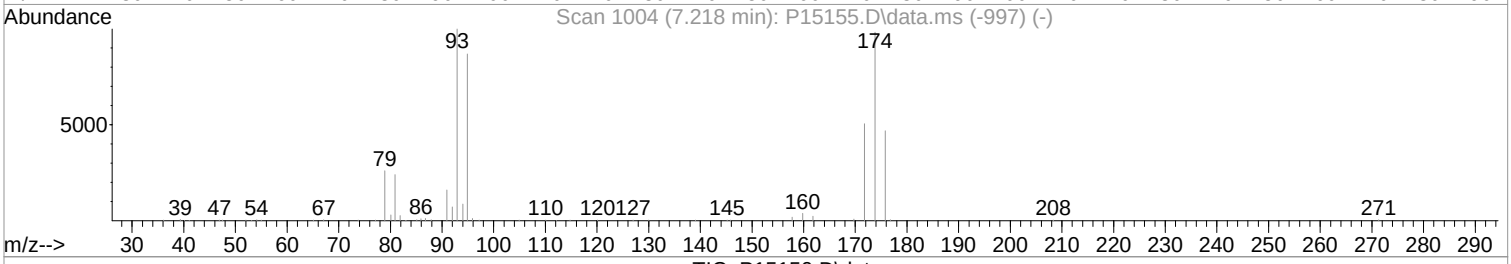
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(57) Dibromomethane

7.218min (+0.000) 0.50 ppb m

response 969

Ion	Exp%	Act%
93.00	100	100
174.00	98.30	96.67
176.00	46.90	45.09
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

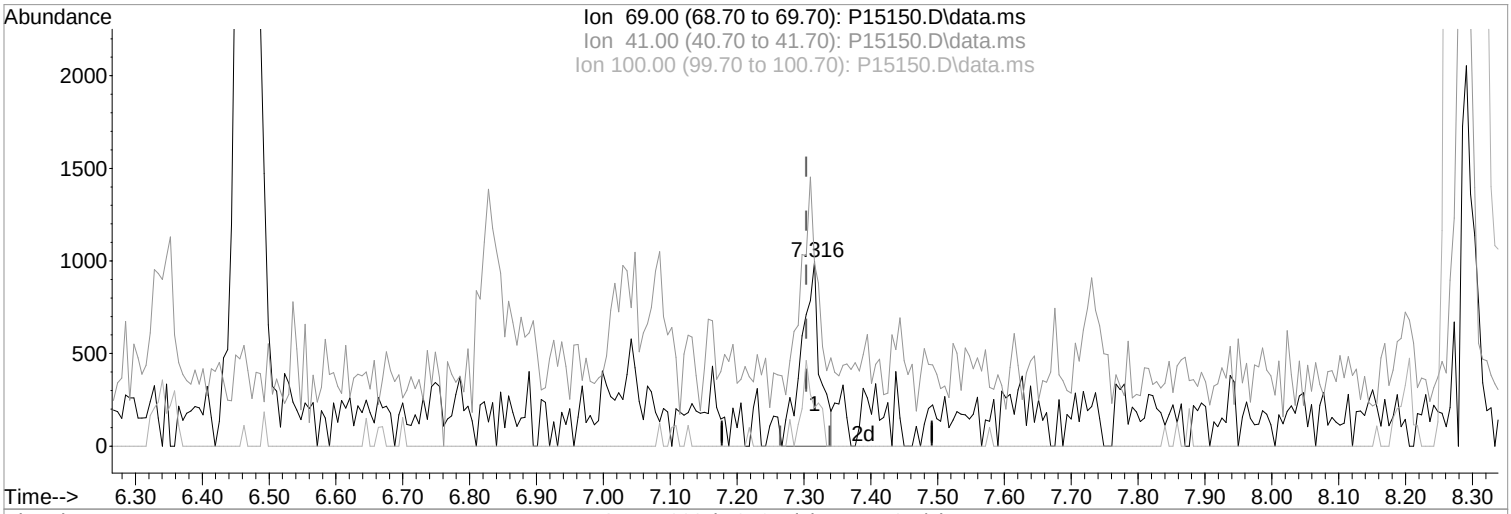
01/02/18

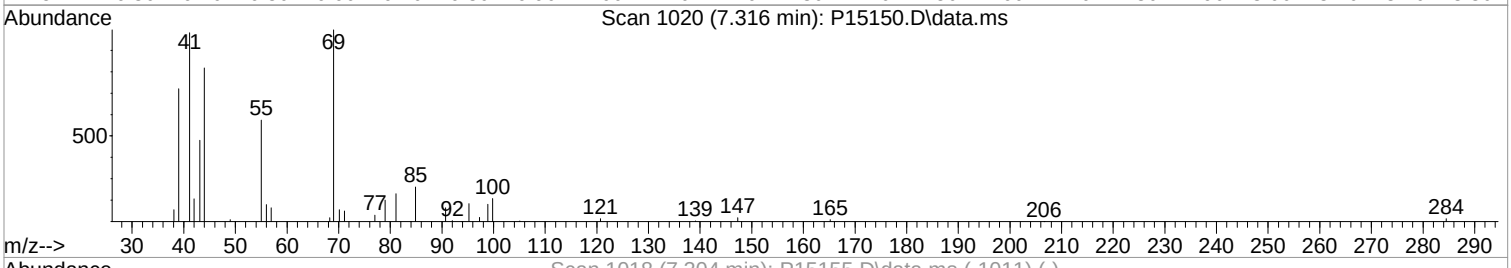
1st 01/02/18
2nd 01/04/18

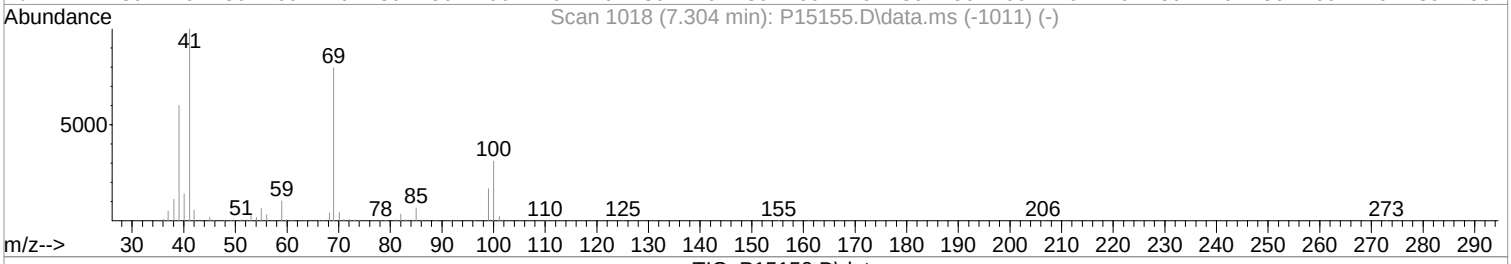
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(59) Methyl Methacrylate

7.316min (+0.012) 0.64 ppb m

response 1906

Ion	Exp%	Act%
69.00	100	100
41.00	126.30	98.60#
100.00	38.80	20.76
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

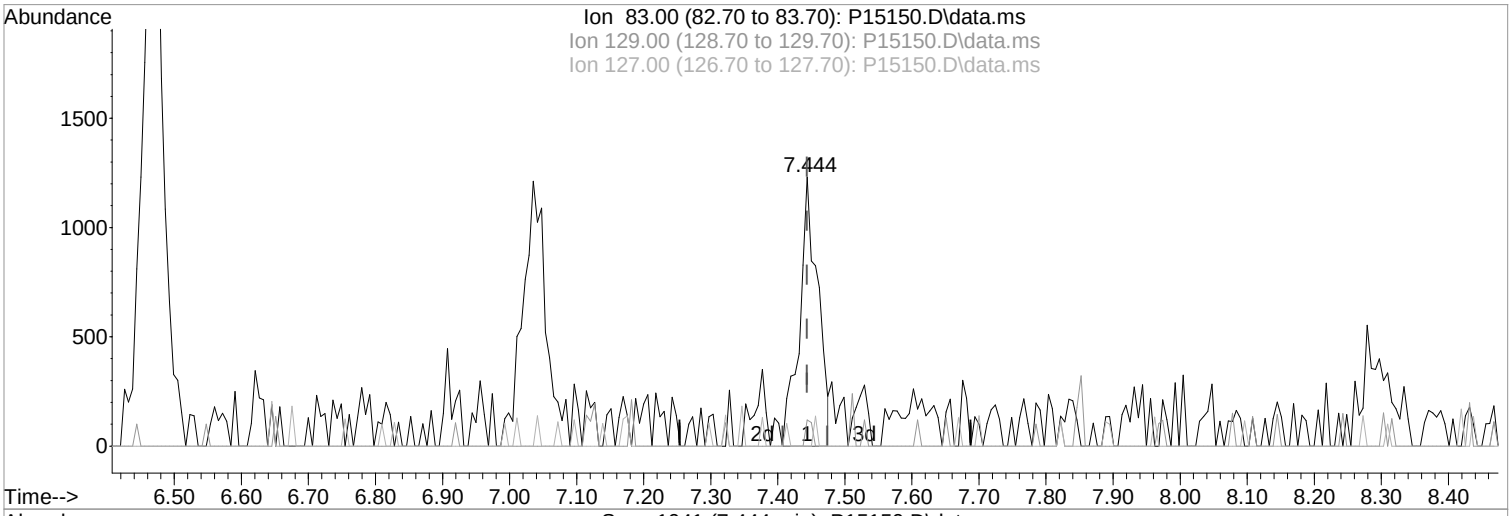
01/02/18

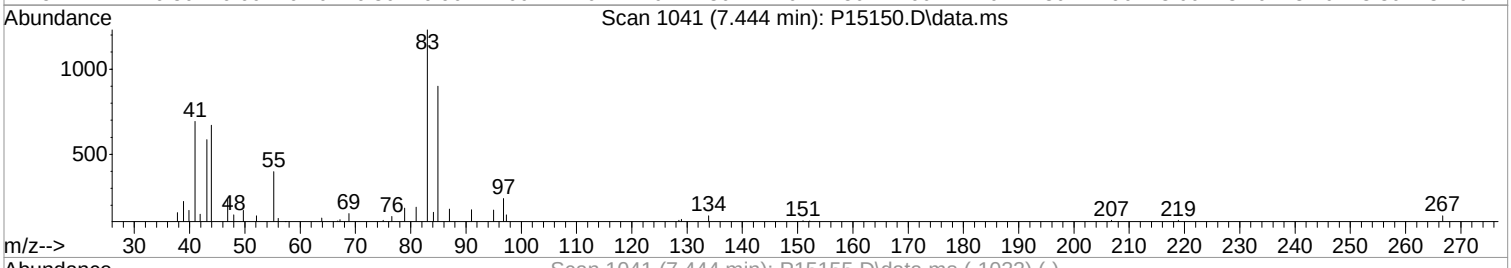
1st 01/02/18
2nd 01/04/18

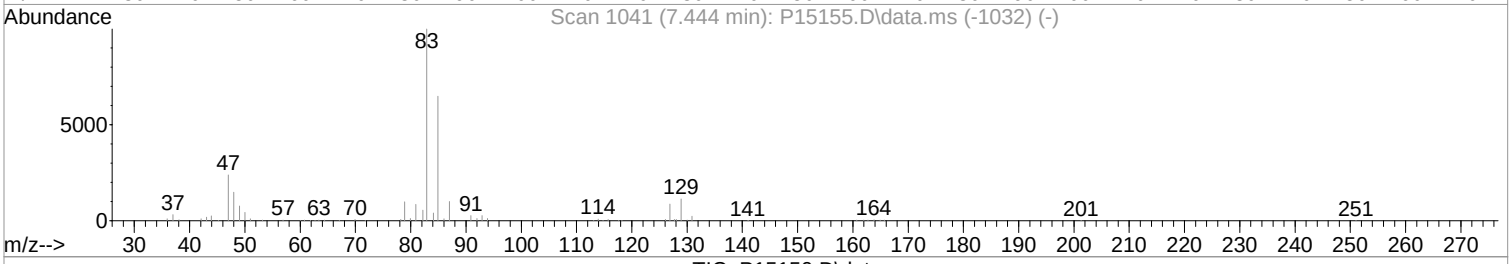
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(60) Bromodichloromethane (P)

7.444min (+0.000) 0.57 ppb m

response 2345

Ion	Exp%	Act%
83.00	100	100
129.00	11.20	9.67
127.00	9.20	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

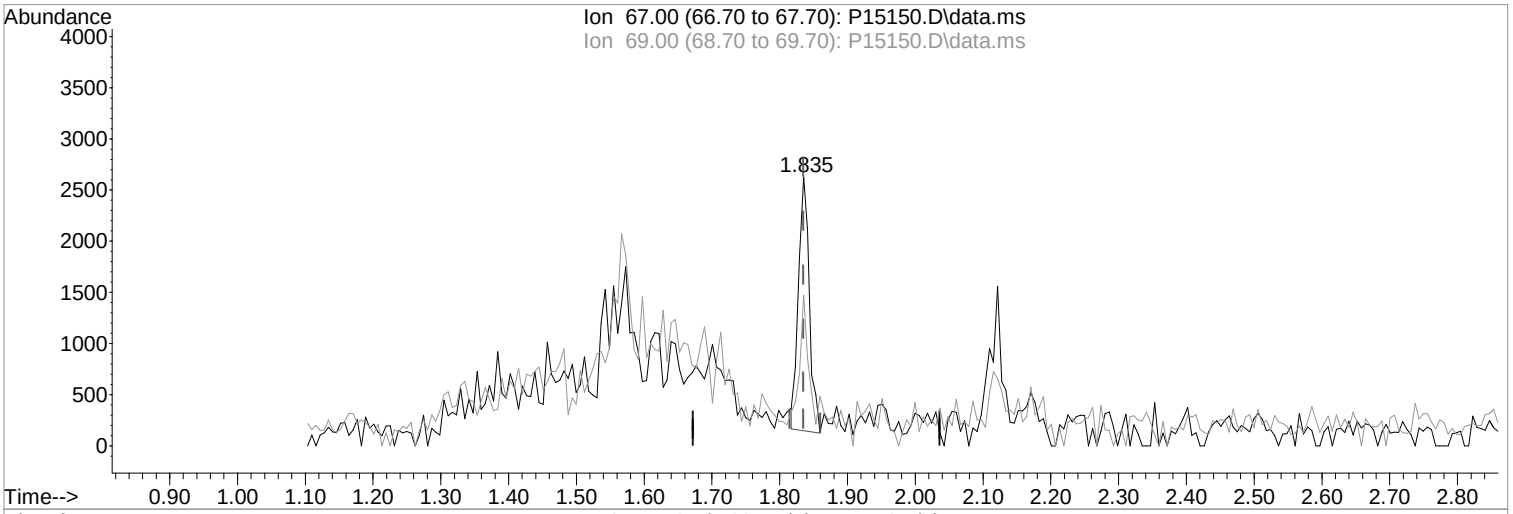
01/02/18

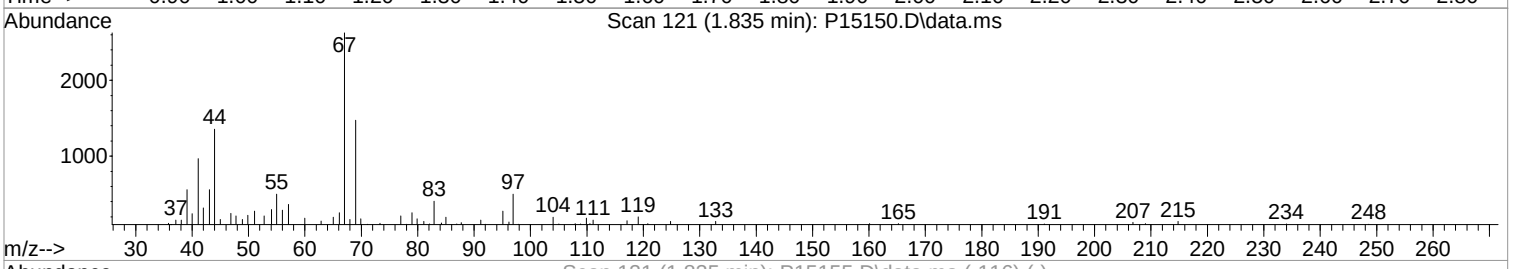
1st 01/02/18
2nd 01/04/18

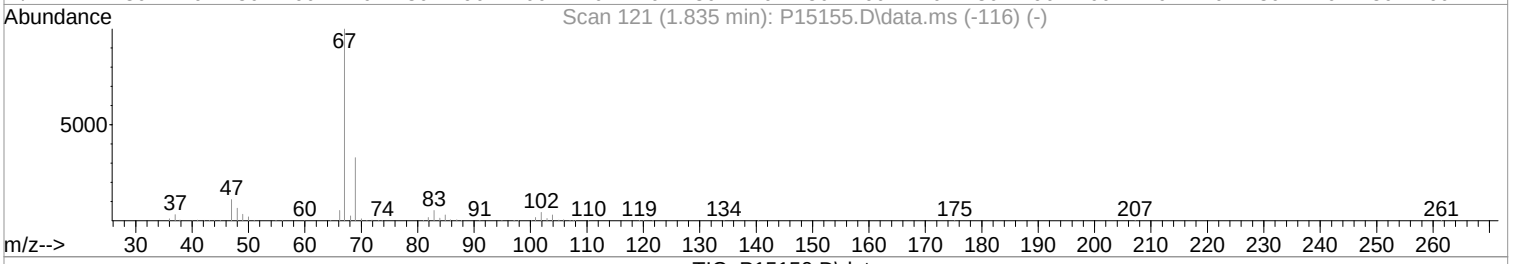
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(7) Freon 21

1.835min (+0.000) 0.52 ppb m

response 2803

Ion	Exp%	Act%
67.00	100	100
69.00	32.90	56.03#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

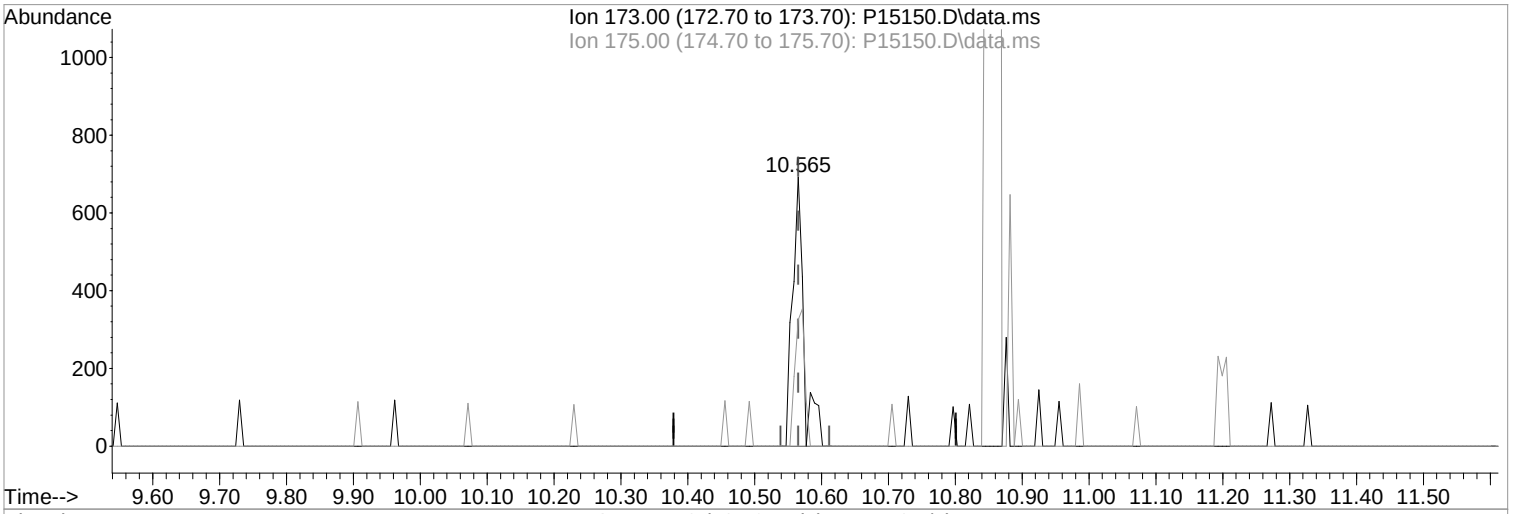
Poor integration.

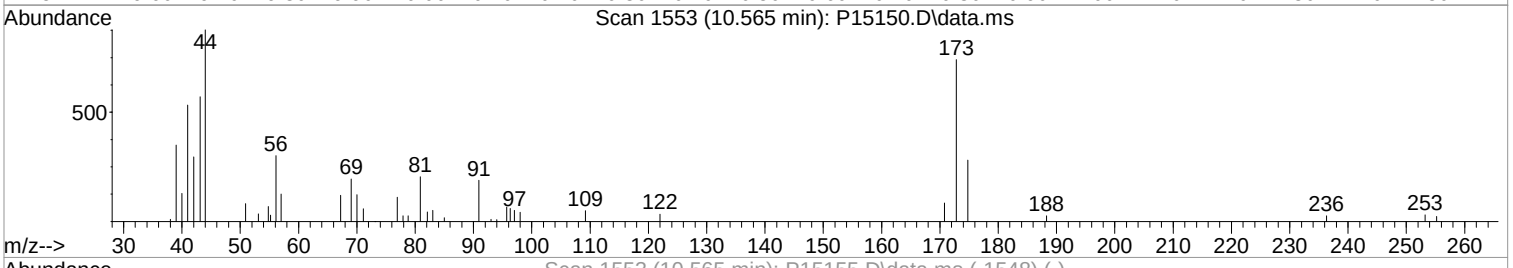
01/02/18

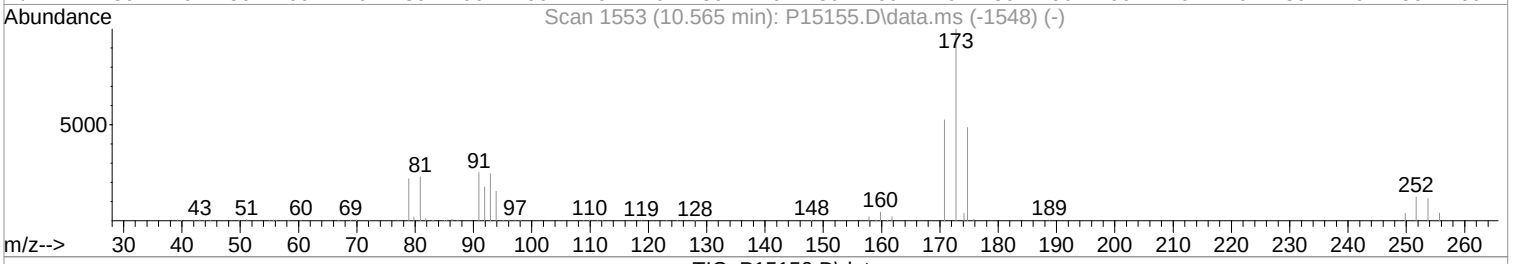
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15150.D\data.ms

(87) Bromoform (P)

10.565min (+0.000) 0.48 ppb m

response 813

Ion	Exp%	Act%
173.00	100	100
175.00	48.70	46.97
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

01/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	282050	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	464403	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	412009	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.833	152	195900	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	138045	50.06	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.12%				
48) surr1,1,2-dichloroetha...	5.767	65	187998	49.75	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.50%				
65) SURR3,Toluene-d8	8.291	98	605014	49.14	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.28%				
70) SURR2,BFB	10.858	95	229156	48.11	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.22%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	1810	0.52	ppb		89
3) Chloromethane	1.311	50	2458	0.57	ppb		83
4) Vinyl Chloride	1.384	62	2220m	0.53	ppb		
5) Bromomethane	1.616	94	2064	0.65	ppb		88
6) Chloroethane	1.683	64	1545	0.59	ppb	#	46
7) Freon 21	1.835	67	2803m	0.52	ppb		
8) Trichlorofluoromethane	1.884	101	2088	0.52	ppb		93
9) Diethyl Ether	2.122	59	1432	0.51	ppb	#	67
10) Freon 123a	2.122	67	1826m	0.54	ppb		
11) Freon 123	2.170	83	2327	0.59	ppb		87
12) Acrolein	2.219	56	2121	2.54	ppb		100
13) 1,1-Diclethene	2.305	96	1971	0.68	ppb	#	84
14) Freon 113	2.305	101	1528	0.56	ppb	#	54
16) 2-Propanol	2.481	45	3548	10.75	ppb	#	43
18) Carbon Disulfide	2.494	76	4735	0.56	ppb		97
20) Allyl Chloride	2.634	76	939	0.61	ppb	#	92
21) Methyl Acetate	2.658	43	1844	0.60	ppb		88
22) Methylene Chloride	2.750	84	1602	0.52	ppb		95
23) TBA	2.871	59	5850	10.29	ppb		67
24) Acrylonitrile	3.006	53	4397	2.66	ppb		89
25) Methyl-t-Butyl Ether	3.054	73	5166	0.50	ppb	#	59
26) trans-1,2-Dichloroethene	3.048	96	1580	0.52	ppb		97
28) 1,1-Diclethane	3.536	63	2884	0.53	ppb		83
29) Vinyl Acetate	3.621	86	647	0.73	ppb	#	1
30) DIPE	3.664	45	5558	0.54	ppb		94
31) 2-Chloro-1,3-Butadiene	3.670	53	3269	0.62	ppb		78
32) ETBE	4.176	59	5602	0.54	ppb		87
33) 2,2-Dichloropropane	4.359	77	2888m	0.60	ppb		
34) cis-1,2-Dichloroethene	4.377	96	1739m	0.49	ppb		
36) Propionitrile	4.505	54	1898	2.71	ppb	#	18
37) Bromochloromethane	4.749	130	1011m	0.52	ppb		
38) Methacrylonitrile	4.767	67	1026	0.56	ppb		98
40) Chloroform	4.950	83	2984m	0.51	ppb		
41) 1,1,1-Trichloroethane	5.231	97	2844m	0.61	ppb		
42) TAME	6.090	73	5239	0.51	ppb		98
46) Carbontetrachloride	5.517	117	1723m	0.49	ppb		
47) 1,1-Dichloropropene	5.517	75	2124	0.52	ppb		73
49) Benzene	5.847	78	6936	0.57	ppb		88
50) 1,2-Dichloroethane	5.883	62	2410	0.54	ppb		78

1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
51)	Iso-Butyl Alcohol	5.853	43	2000	8.13	ppb		99
52)	n-Heptane	6.322	43	2697	0.64	ppb	#	64
53)	1-Butanol	6.834	56	3870	23.77	ppb		75
54)	Trichloroethene	6.798	130	1823m	0.59	ppb		
55)	Methylcyclohexane	7.035	55	2009	0.50	ppb	#	78
56)	1,2-Diclpropane	7.066	63	1790m	0.55	ppb		
57)	Dibromomethane	7.218	93	969m	0.50	ppb		
58)	1,4-Dioxane	7.279	88	665	10.41	ppb	#	51
59)	Methyl Methacrylate	7.316	69	1906m	0.64	ppb		
60)	Bromodichloromethane	7.444	83	2345m	0.57	ppb		
61)	2-Nitropropane	7.730	41	1314	1.05	ppb	#	74
63)	cis-1,3-Dichloropropene	7.992	75	2789	0.54	ppb	#	77
66)	Toluene	8.364	91	7308	0.55	ppb		81
67)	trans-1,3-Dichloropropene	8.633	75	2247	0.47	ppb		83
68)	Ethyl Methacrylate	8.773	69	1834	0.38	ppb		96
69)	1,1,2-Trichloroethane	8.815	97	1894	0.63	ppb		83
72)	Tetrachloroethene	8.968	164	1266	0.56	ppb	#	36
74)	1,3-Dichloropropane	8.986	76	2746	0.52	ppb	#	68
75)	Dibromochloromethane	9.212	129	1244	0.45	ppb		93
76)	N-Butyl Acetate	9.279	43	2105	0.37	ppb		91
77)	1,2-Dibromoethane	9.315	107	1446	0.49	ppb		94
78)	Chlorobenzene	9.809	112	3984	0.49	ppb		88
79)	3-CBTF	9.827	180	2614	0.61	ppb	#	80
80)	4-CBTF	9.882	180	2335	0.59	ppb		92
81)	1,1,1,2-Tetrachloroethane	9.895	131	1547	0.54	ppb	#	77
82)	Ethylbenzene	9.931	106	2253	0.51	ppb	#	63
83)	(m+p)Xylene	10.041	106	5183	0.96	ppb	#	78
84)	o-Xylene	10.400	106	2802	0.52	ppb	#	69
85)	Styrene	10.413	104	4502	0.50	ppb		88
87)	Bromoform	10.565	173	813m	0.48	ppb		
88)	2-CBTF	10.644	180	2277	0.59	ppb		91
89)	Isopropylbenzene	10.736	105	7002	0.54	ppb		93
90)	Cyclohexanone	10.797	55	9162	9.36	ppb		88
91)	trans-1,4-Dichloro-2-B...	11.041	53	754	0.74	ppb		90
92)	1,1,2,2-Tetrachloroethane	10.998	83	2299	0.59	ppb	#	77
93)	Bromobenzene	10.986	156	1549	0.49	ppb		95
94)	1,2,3-Trichloropropane	11.022	110	607	0.48	ppb	#	70
95)	n-Propylbenzene	11.089	91	7874	0.53	ppb		86
96)	2-Chlorotoluene	11.156	91	5026	0.54	ppb		90
97)	3-Chlorotoluene	11.211	91	5127	0.52	ppb	#	94
98)	4-Chlorotoluene	11.248	91	5876	0.55	ppb		91
99)	1,3,5-Trimethylbenzene	11.248	105	5889	0.55	ppb		97
100)	tert-Butylbenzene	11.516	119	5013	0.54	ppb		87
101)	1,2,4-Trimethylbenzene	11.559	105	5745	0.53	ppb		76
102)	3,4-DCBTF	11.620	214	1903	0.61	ppb	#	85
103)	sec-Butylbenzene	11.699	105	7365	0.54	ppb		98
104)	p-Isopropyltoluene	11.821	119	6240	0.54	ppb		89
105)	1,3-Dclbenz	11.784	146	3286	0.55	ppb		85
106)	1,4-Dclbenz	11.858	146	3509	0.56	ppb		96
107)	2,4-DCBTF	11.906	214	1816	0.63	ppb	#	65
108)	2,5-DCBTF	11.949	214	1675	0.55	ppb	#	87
109)	n-Butylbenzene	12.156	91	5699	0.53	ppb	#	78
110)	1,2-Dclbenz	12.162	146	2831	0.47	ppb		86
111)	1,2-Dibromo-3-chloropr...	12.790	157	383m	0.39	ppb		
112)	Trielution Dichlorotol...	12.906	125	9592	1.63	ppb		94
113)	1,3,5 Trichlorobenzene	12.955	180	2514	0.54	ppb	#	88

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

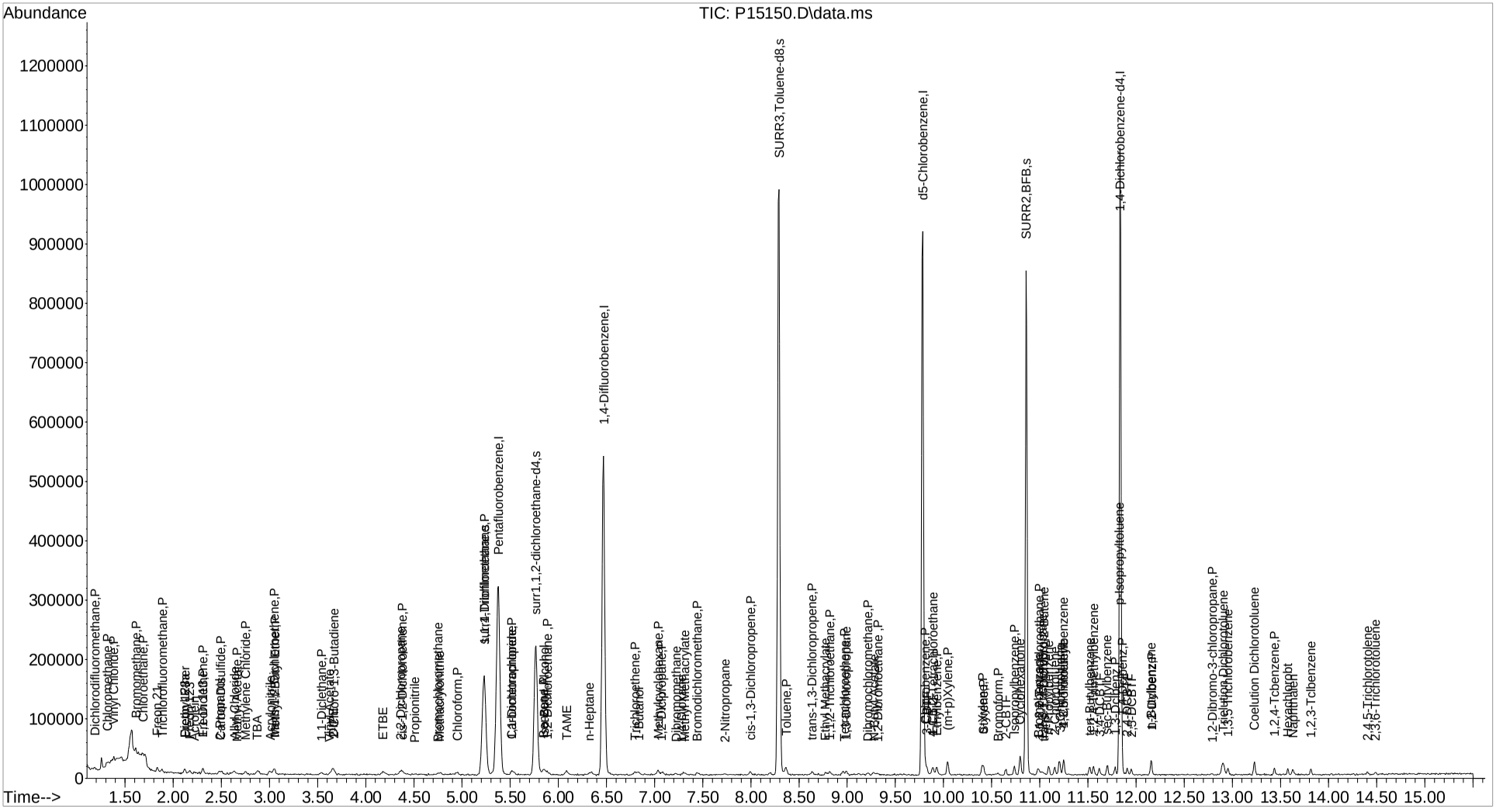
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
114) Coelution Dichlorotoluene	13.229	125	5958	0.95	ppb	#	87
115) 1,2,4-Tcbenzene	13.437	180	2068	0.48	ppb		82
116) Hexachlorobt	13.577	225	1216	0.60	ppb	#	86
117) Naphthalen	13.625	128	4879	0.41	ppb		95
118) 1,2,3-Tclbenzene	13.814	180	1962	0.46	ppb	#	74
119) 2,4,5-Trichlorotolene	14.400	159	747	0.29	ppb	#	82
120) 2,3,6-Trichlorotoluene	14.485	159	561	0.24	ppb	#	73

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

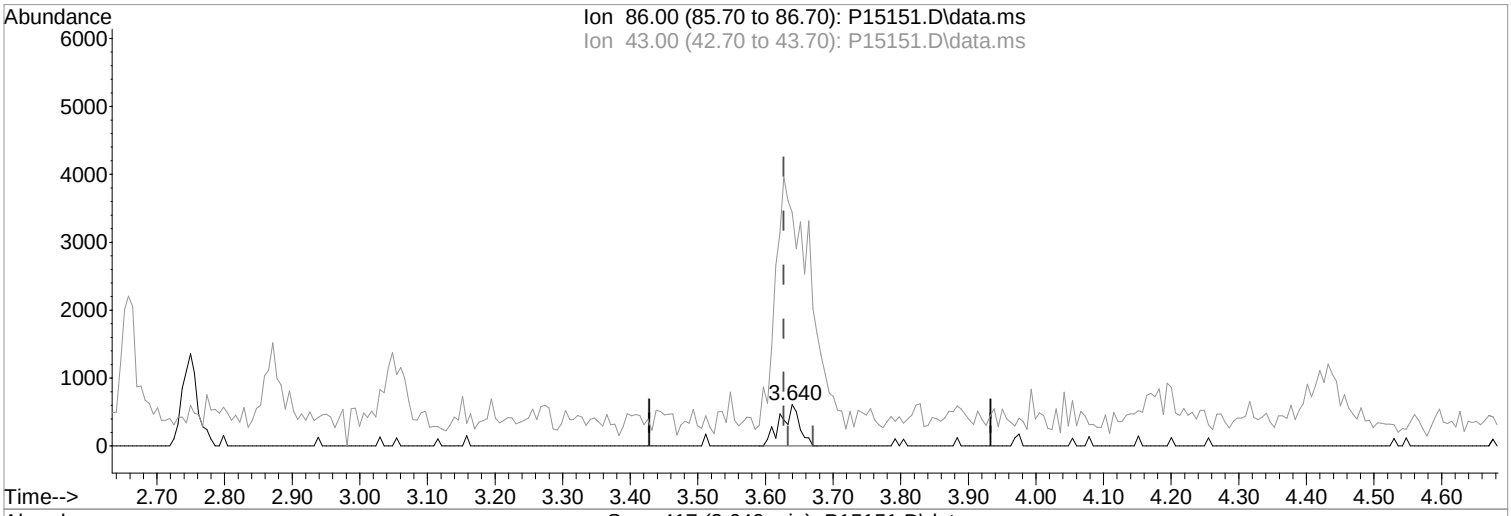


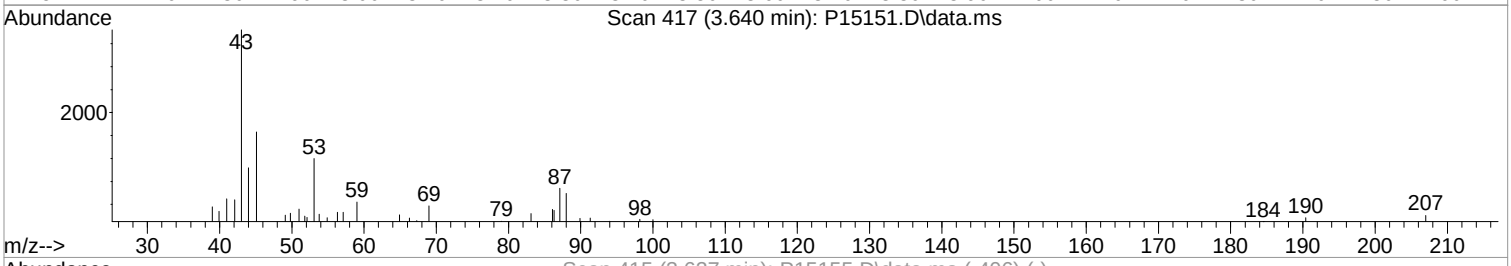
1st 01/02/18
2nd 01/04/18

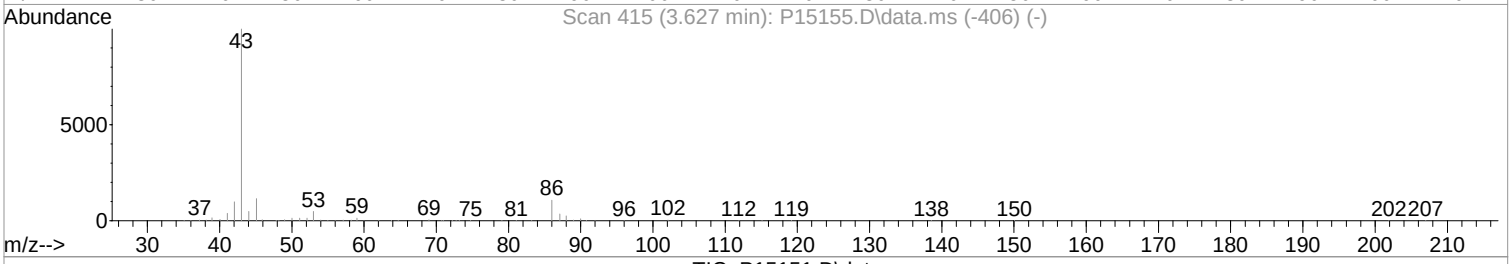
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(29) Vinyl Acetate

3.640min (+0.012) 1.32 ppb m

response 1198

Ion	Exp%	Act%
86.00	100	100
43.00	952.00	1096.50#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Split Peak

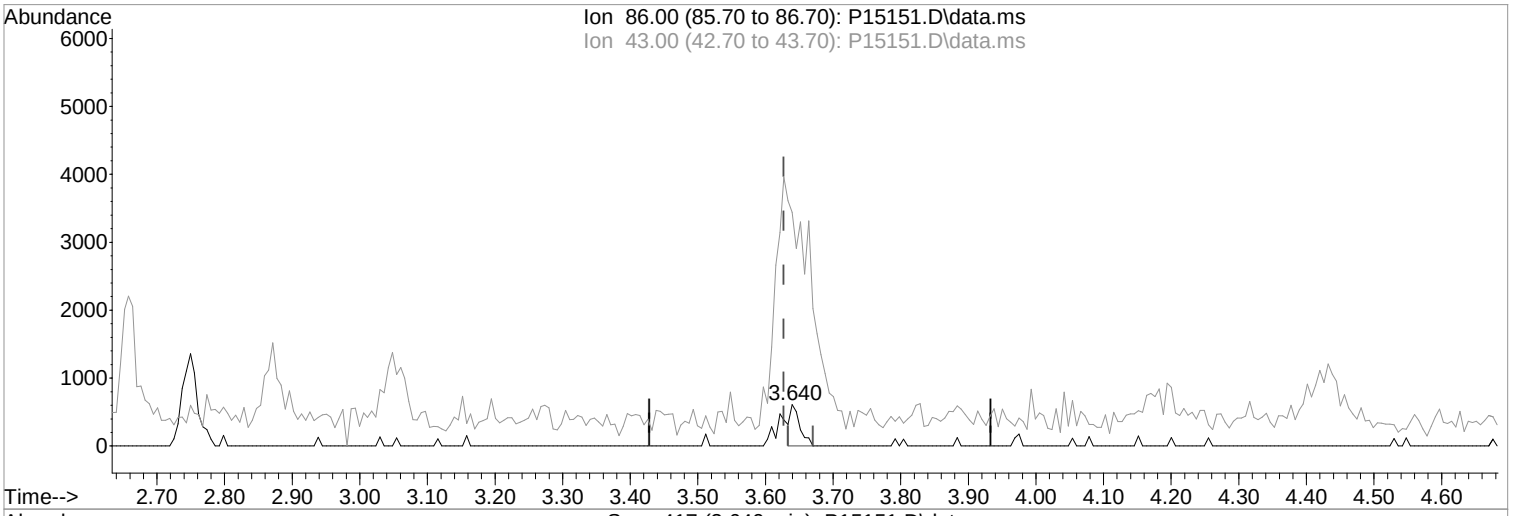
01/02/18

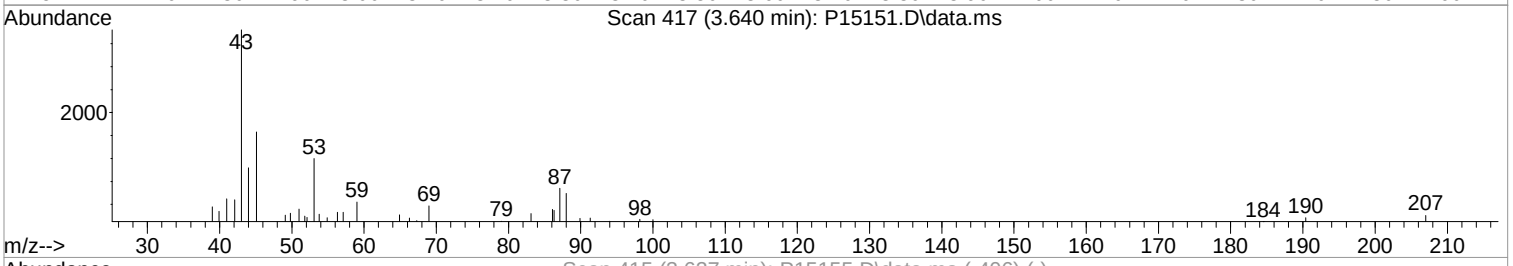
1st 01/02/18
2nd 01/04/18

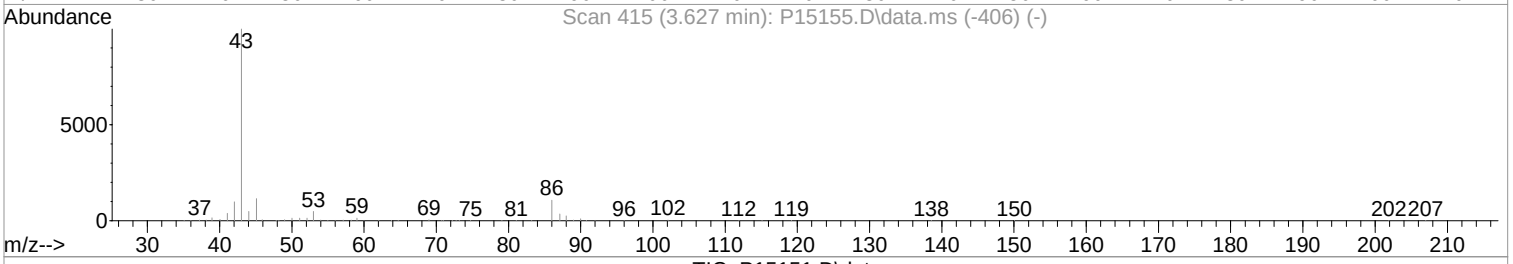
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(29) Vinyl Acetate

3.640min (+0.012) 0.65 ppb

response 586

Ion	Exp%	Act%
86.00	100	100
43.00	952.00	565.35#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

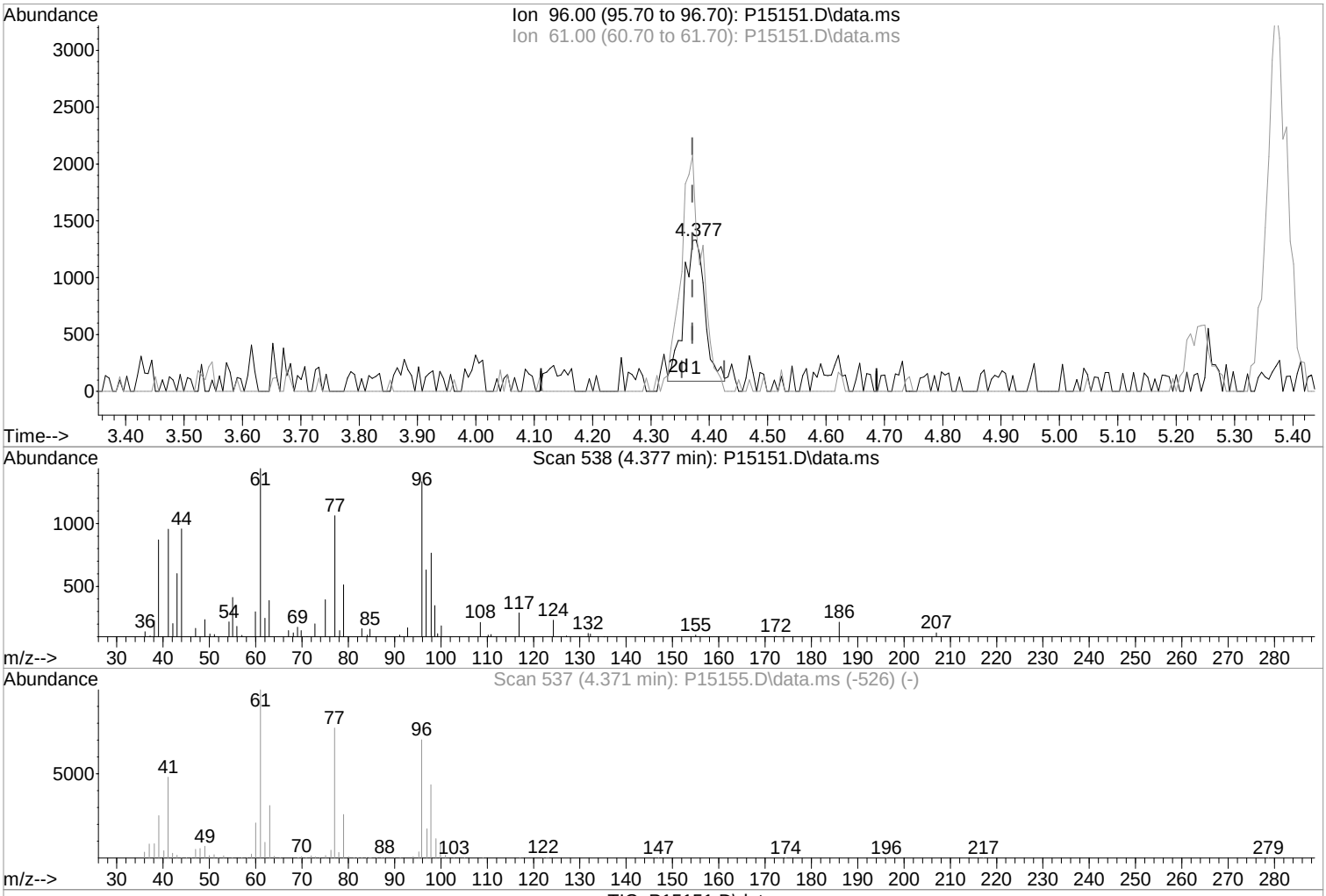
01/02/18

1st 01/02/18
2nd 01/04/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

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

4.377min (+0.006) 0.86 ppb m

response 3133

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	107.95#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

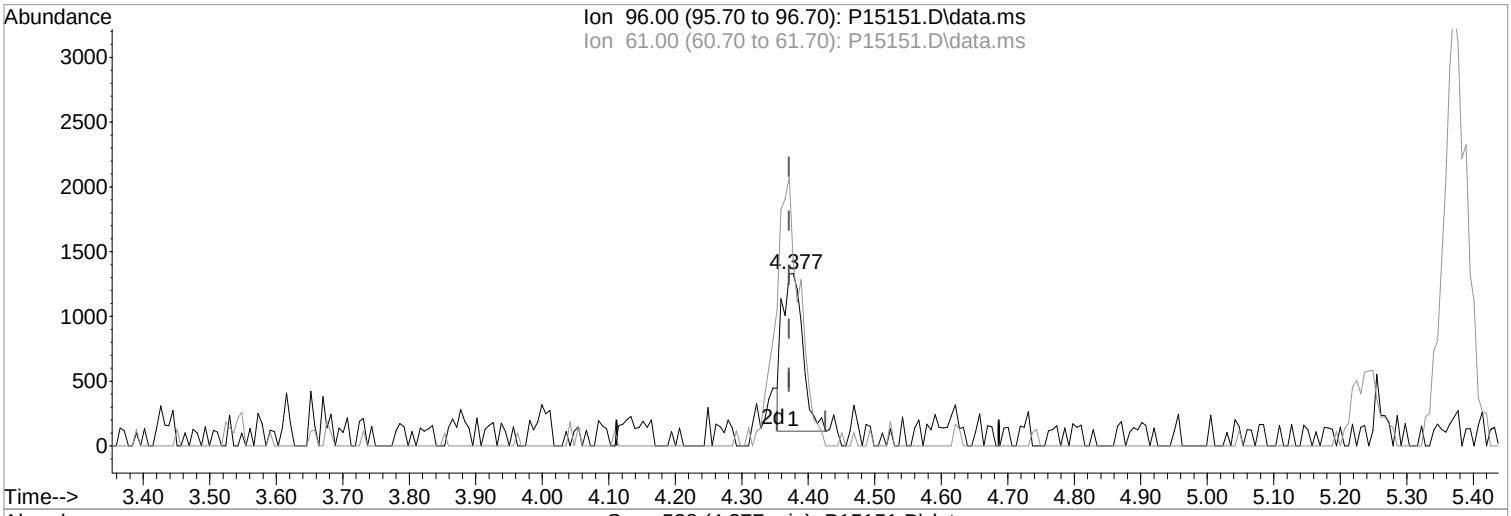
Split Peak

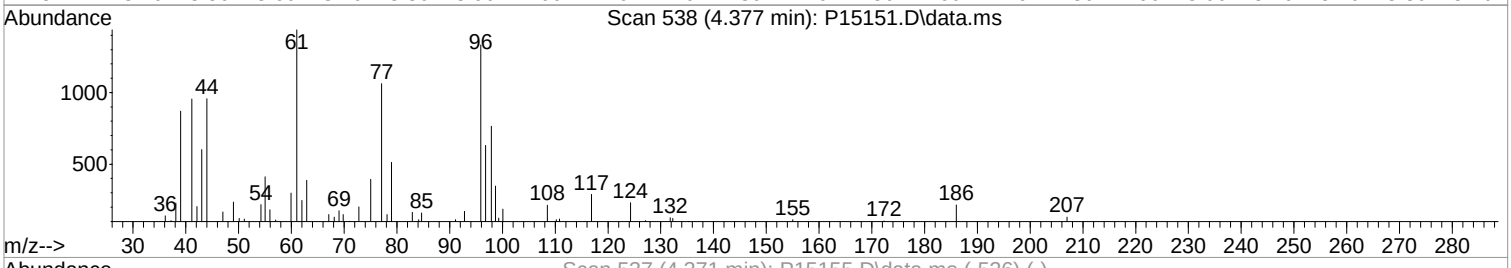
01/02/18

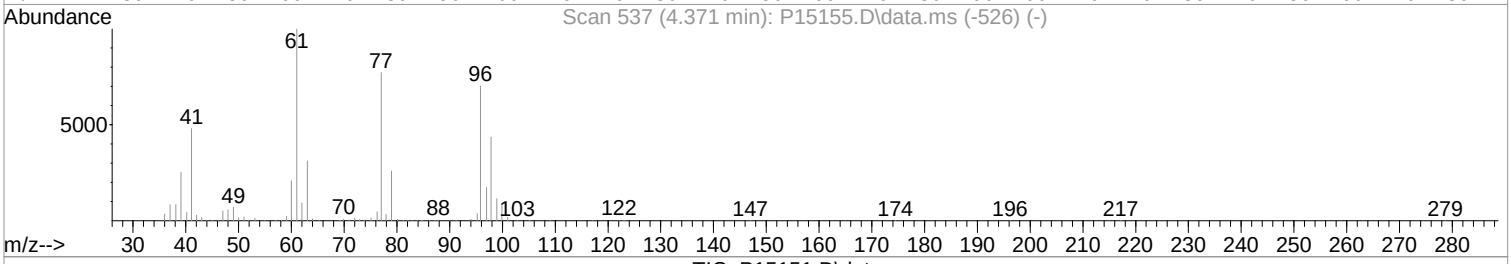
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

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

4.377min (+0.006) 0.72 ppb

response 2622

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	107.95#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

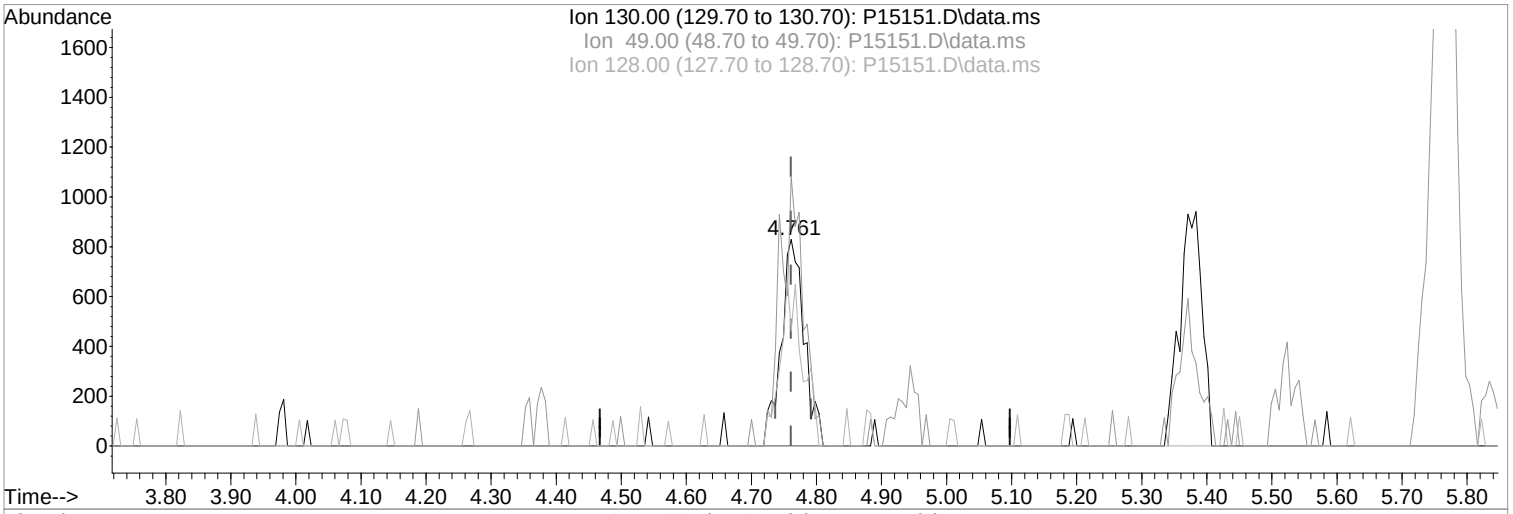
Before

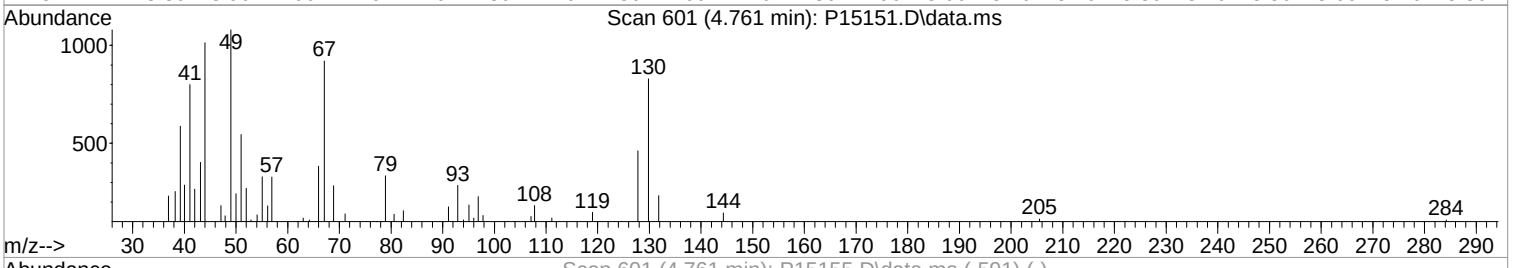
01/02/18

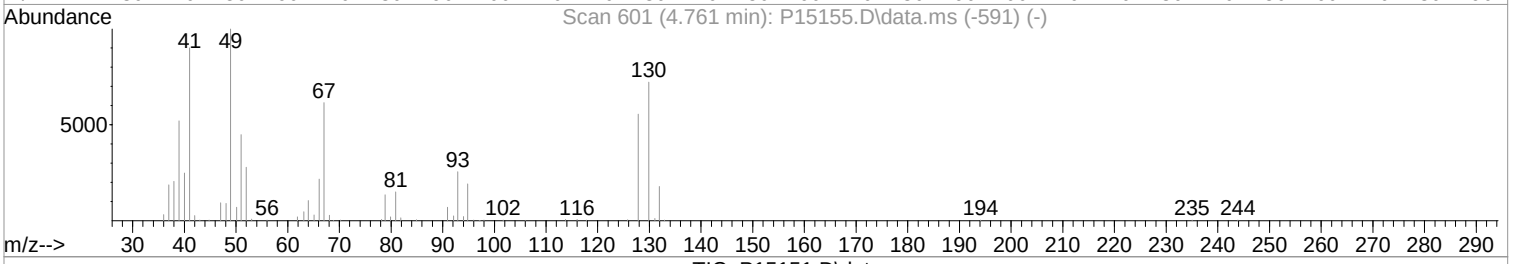
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(37) Bromochloromethane

4.761min (+0.000) 1.02 ppb m

response 2044

Ion	Exp%	Act%
130.00	100	100
49.00	139.00	130.28
128.00	77.10	55.73#
0.00	0.00	0.00

Manual Integration:

After

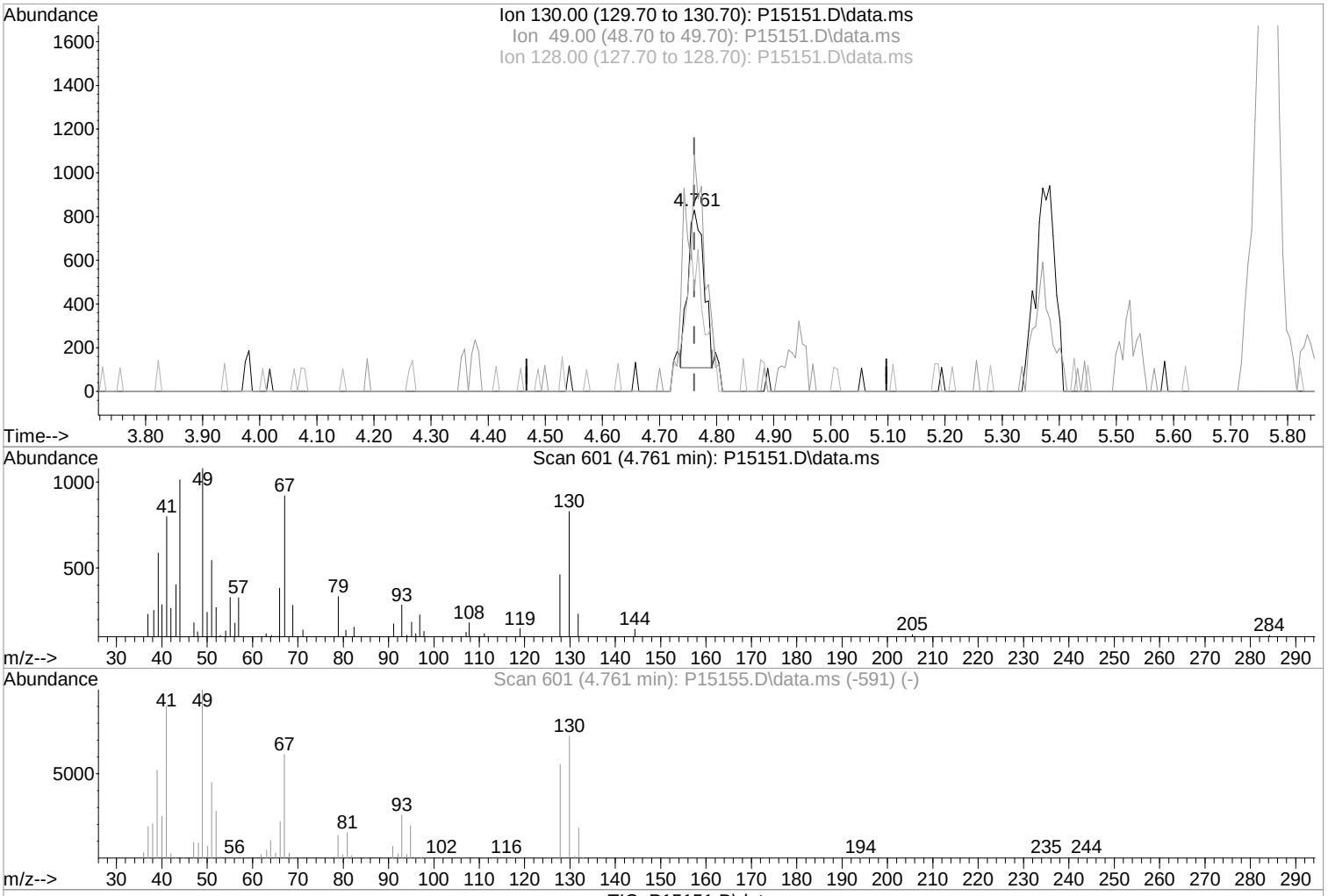
Split Peak

01/02/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(37) Bromochloromethane

4.761min (+0.000) 0.70 ppb

response 1394

Ion	Exp%	Act%
130.00	100	100
49.00	139.00	130.28
128.00	77.10	55.73#
0.00	0.00	0.00

Manual Integration:

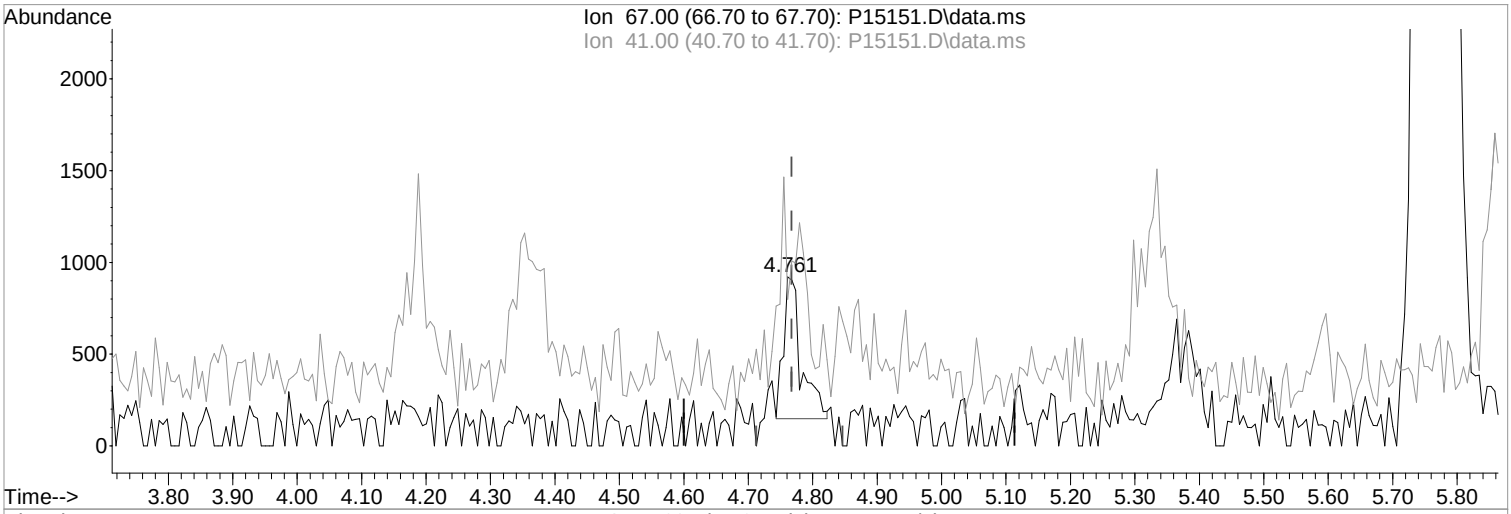
Before

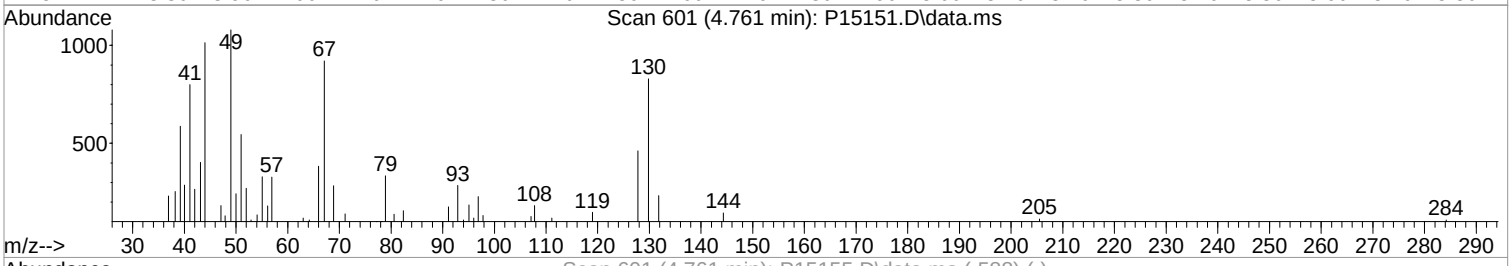
01/02/18

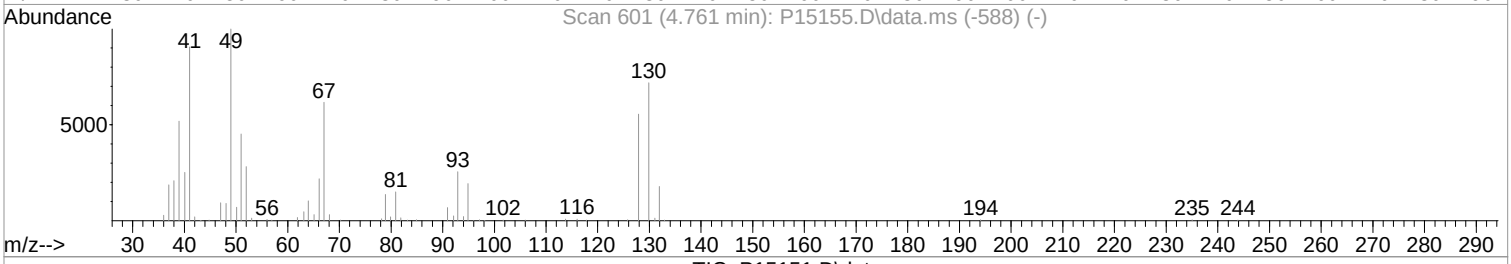
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(38) Methacrylonitrile

4.761min (-0.006) 0.80 ppb m

response 1485

Ion	Exp%	Act%
67.00	100	100
41.00	147.70	86.75#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

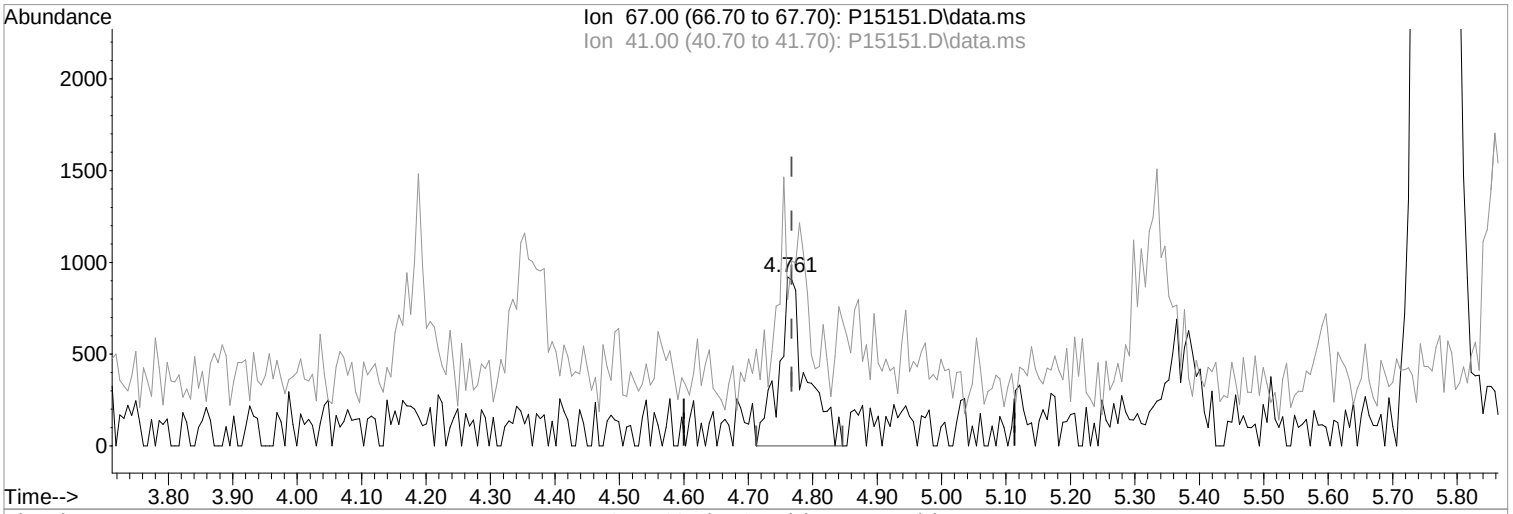
Poor integration.

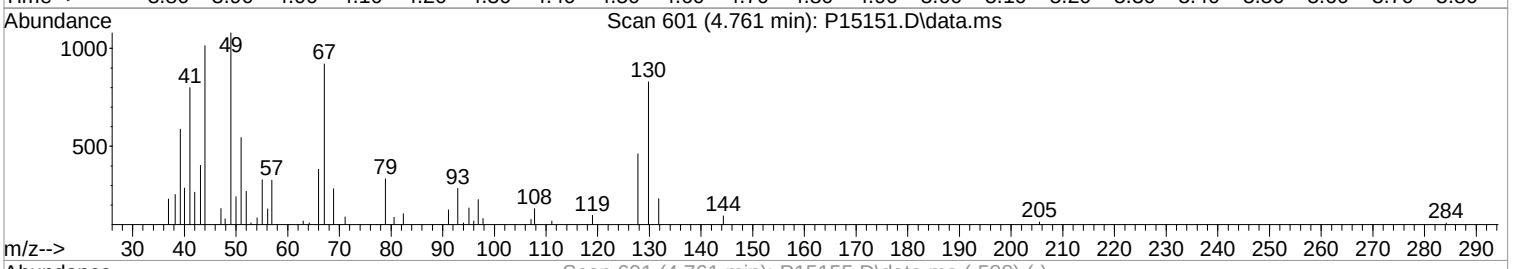
01/02/18

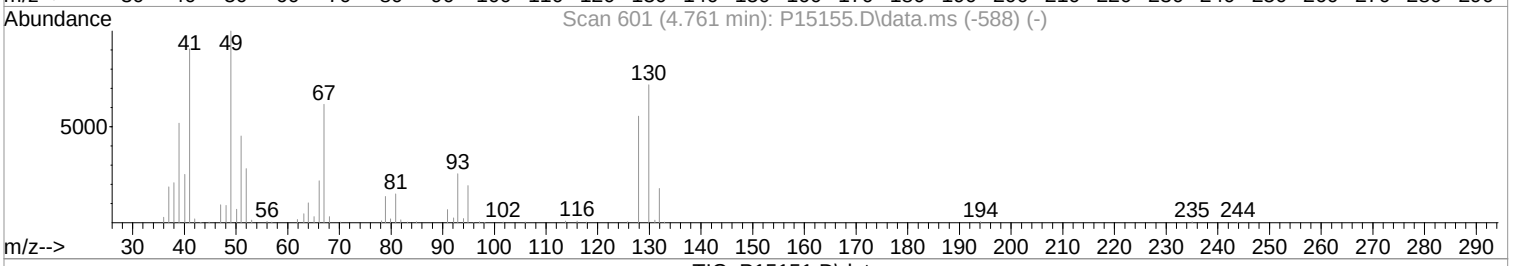
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(38) Methacrylonitrile

4.761min (-0.006) 1.48 ppb

response 2730

Ion	Exp%	Act%
67.00	100	100
41.00	147.70	86.75#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

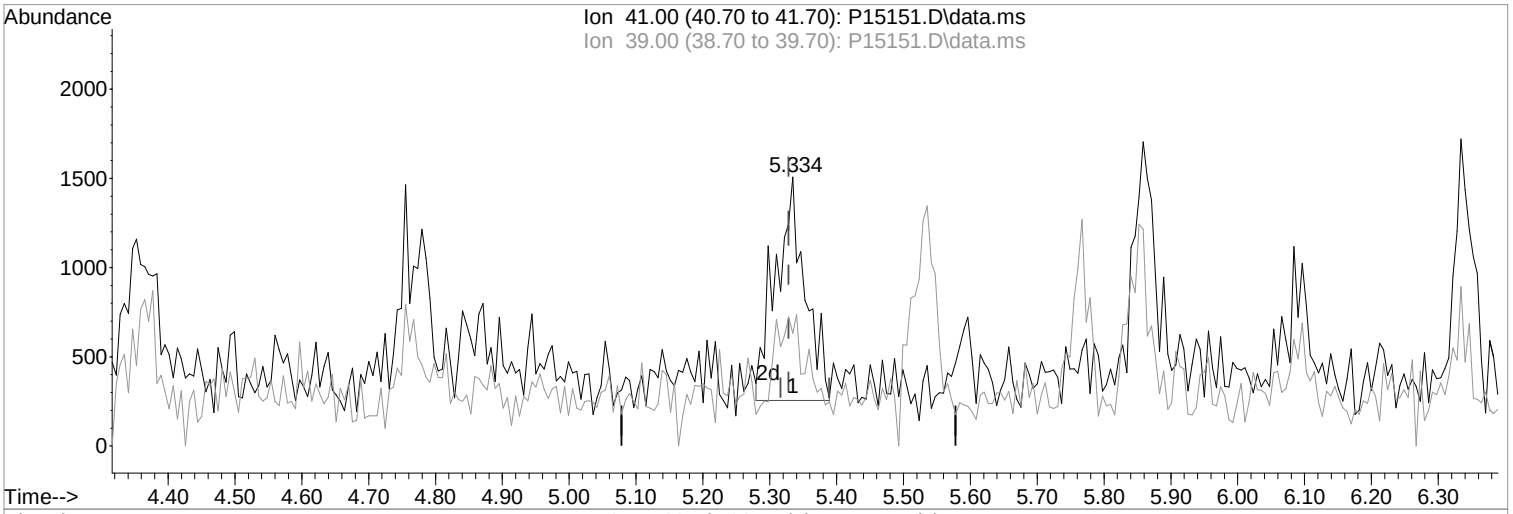
Before

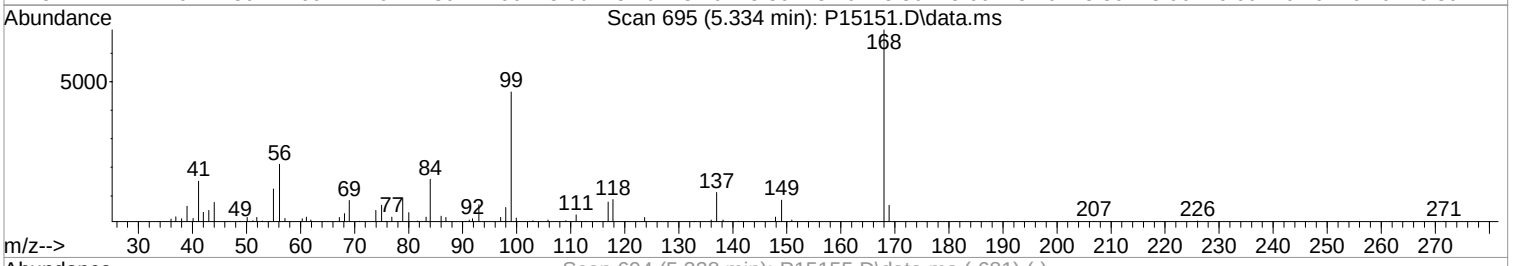
01/02/18

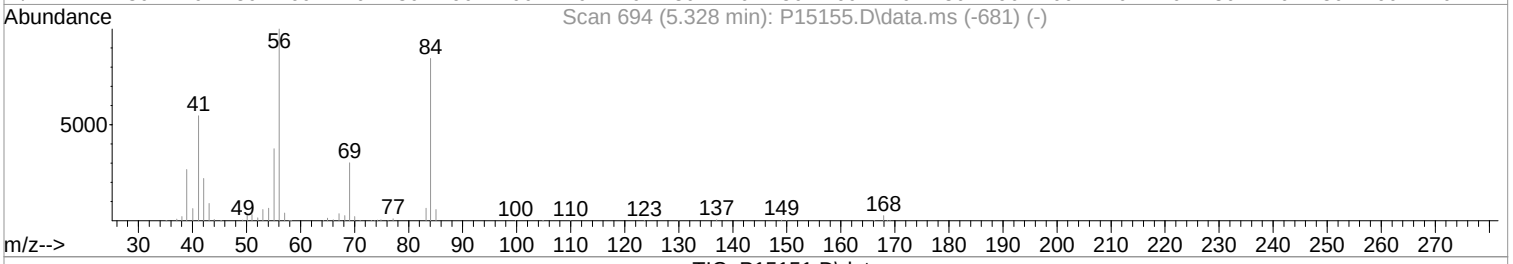
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(44) Cyclohexane (P)

5.334min (+0.006) 1.22 ppb m

response 3829

Ion	Exp%	Act%
41.00	100	100
39.00	49.10	41.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

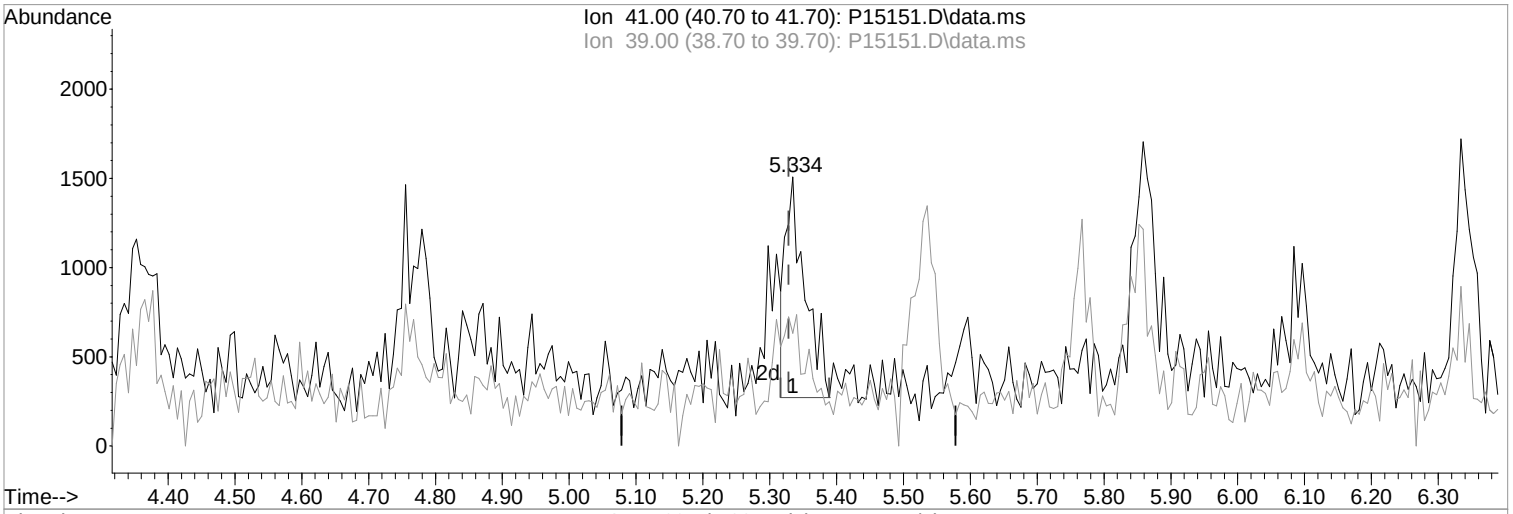
Split Peak

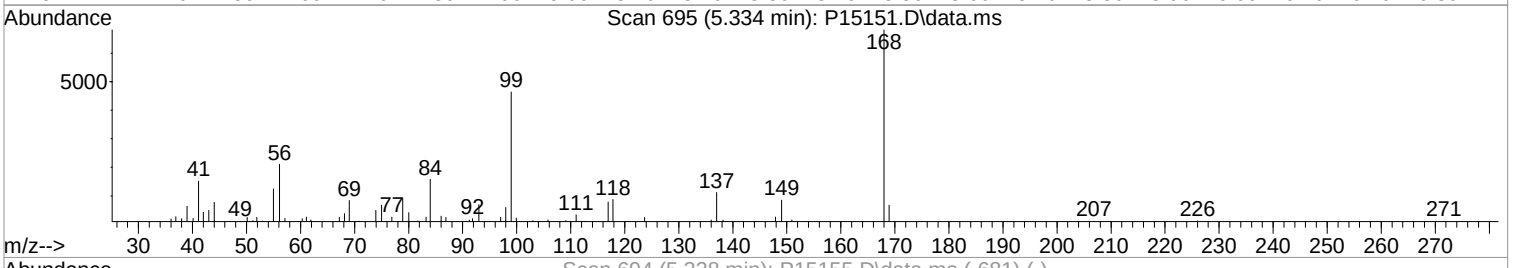
01/02/18

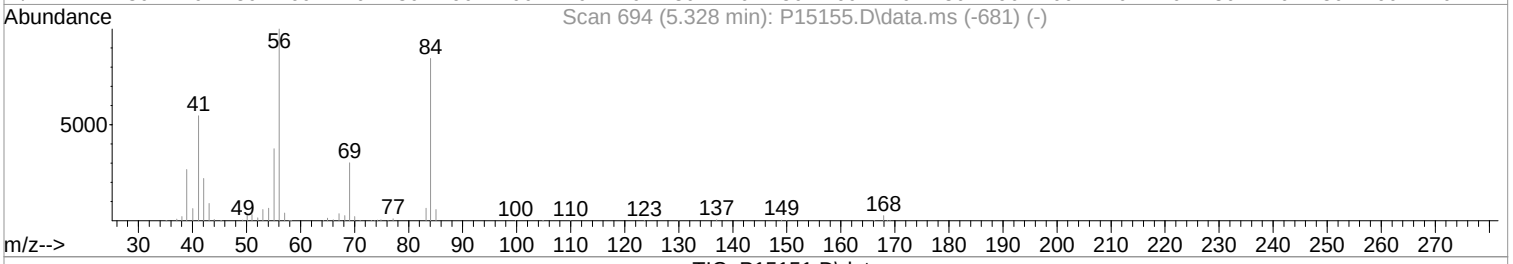
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(44) Cyclohexane (P)

5.334min (+0.006) 0.81 ppb

response 2539

Ion	Exp%	Act%
41.00	100	100
39.00	49.10	41.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

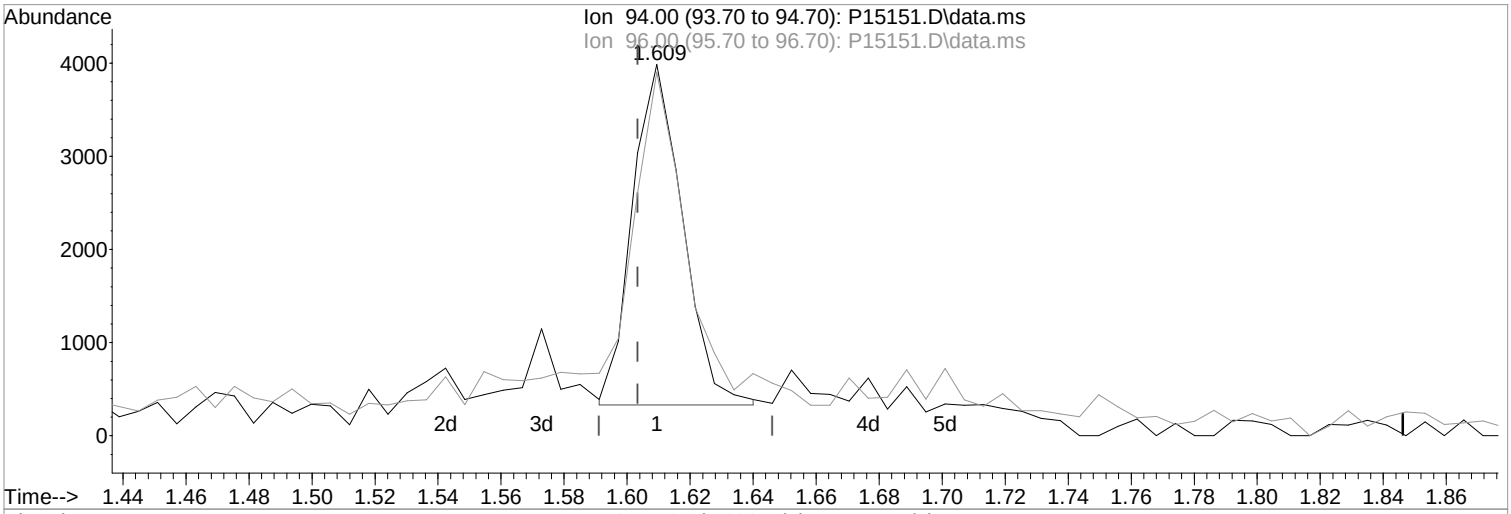
01/02/18

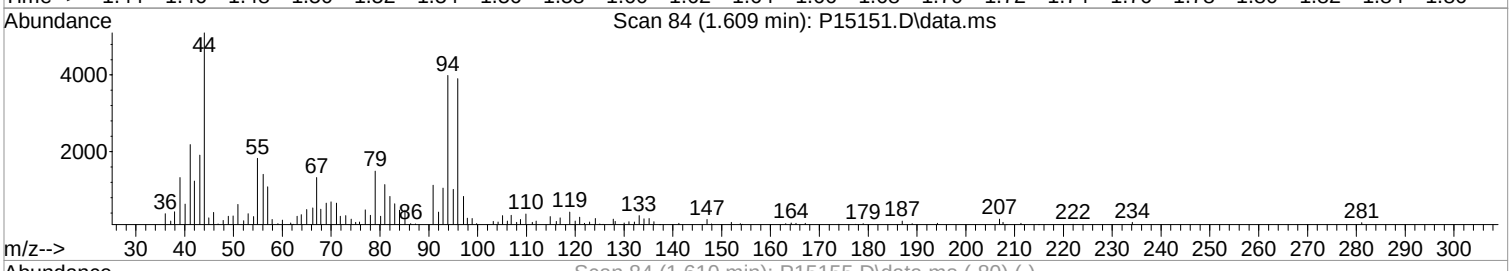
1st 01/02/18
2nd 01/04/18

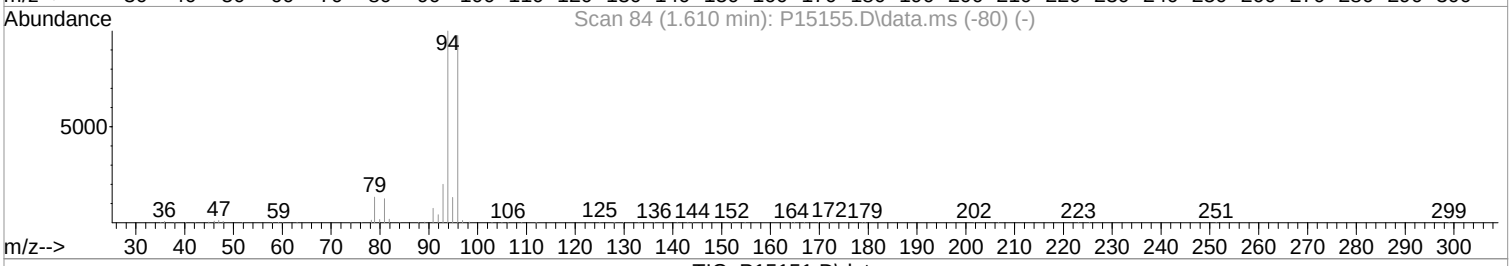
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(5) Bromomethane (P)

1.609min (+0.006) 1.25 ppb m

response 4038

Ion	Exp%	Act%
94.00	100	100
96.00	97.70	97.97
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

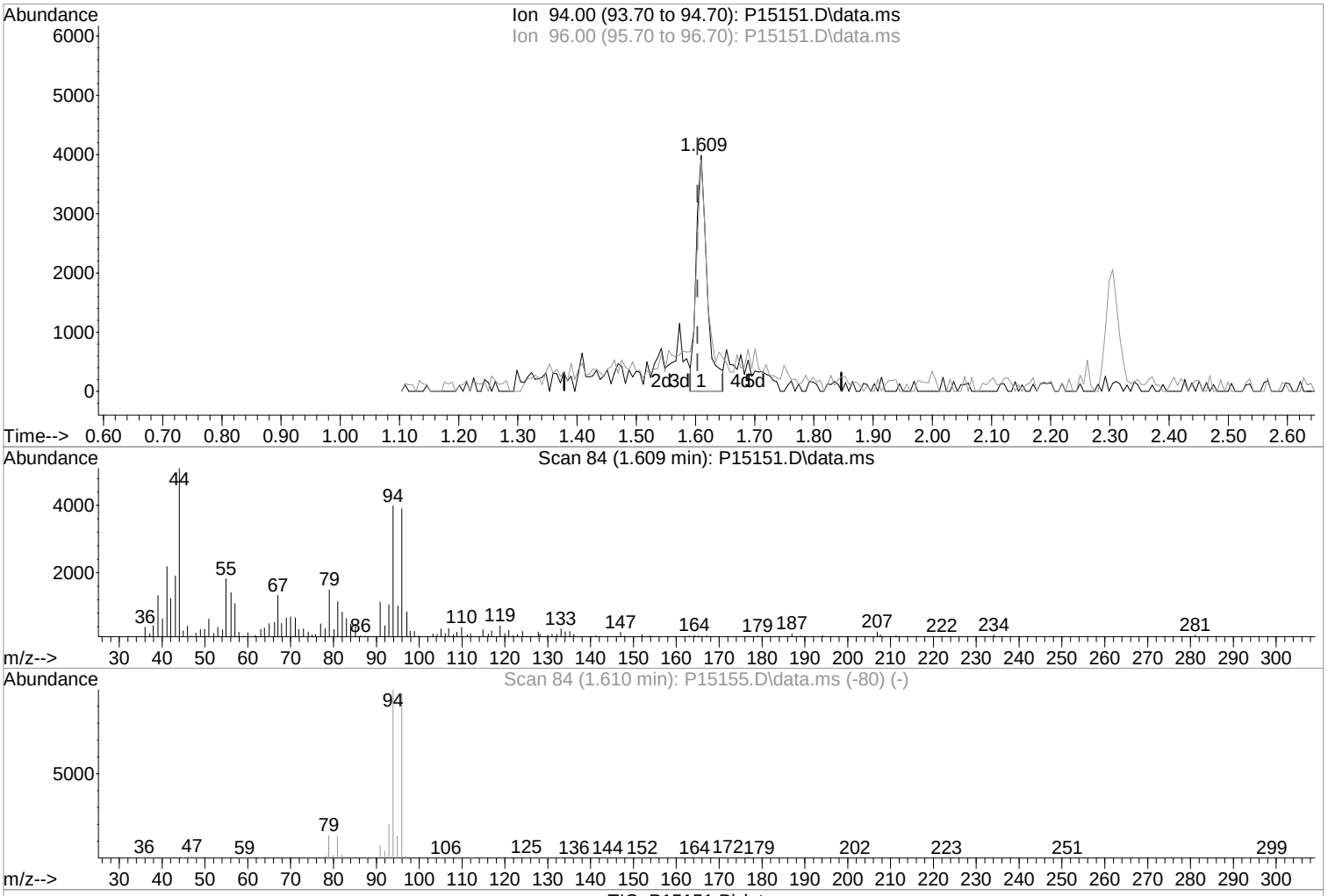
Poor integration.

01/02/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(5) Bromomethane (P)

1.609min (+0.006) 1.59 ppb

response 5131

Ion	Exp%	Act%
94.00	100	100
96.00	97.70	97.97
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

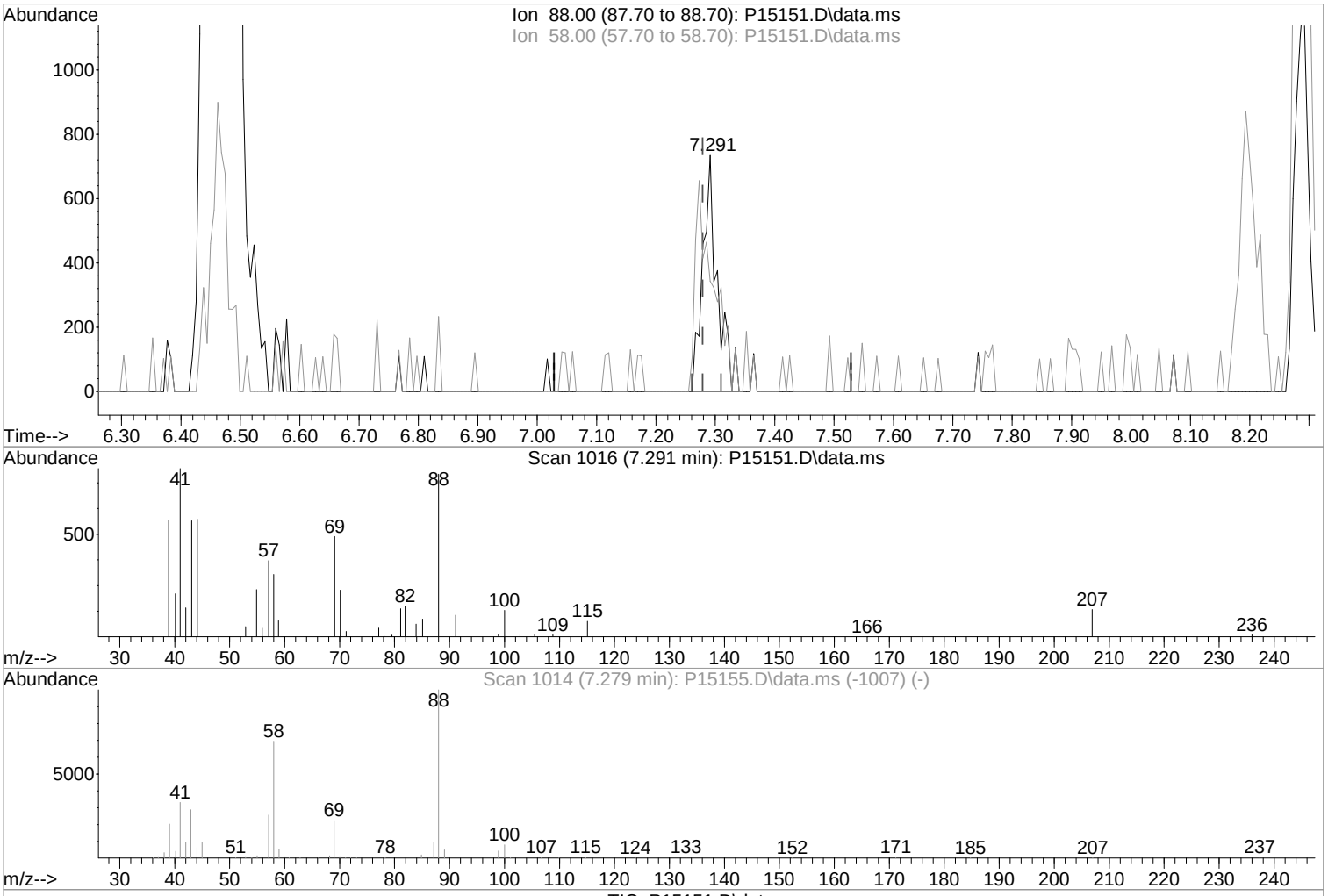
01/02/18

1st 01/02/18
2nd 01/04/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(58) 1,4-Dioxane

7.291min (+0.012) 19.01 ppb m

response 1262

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	46.73#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Split Peak

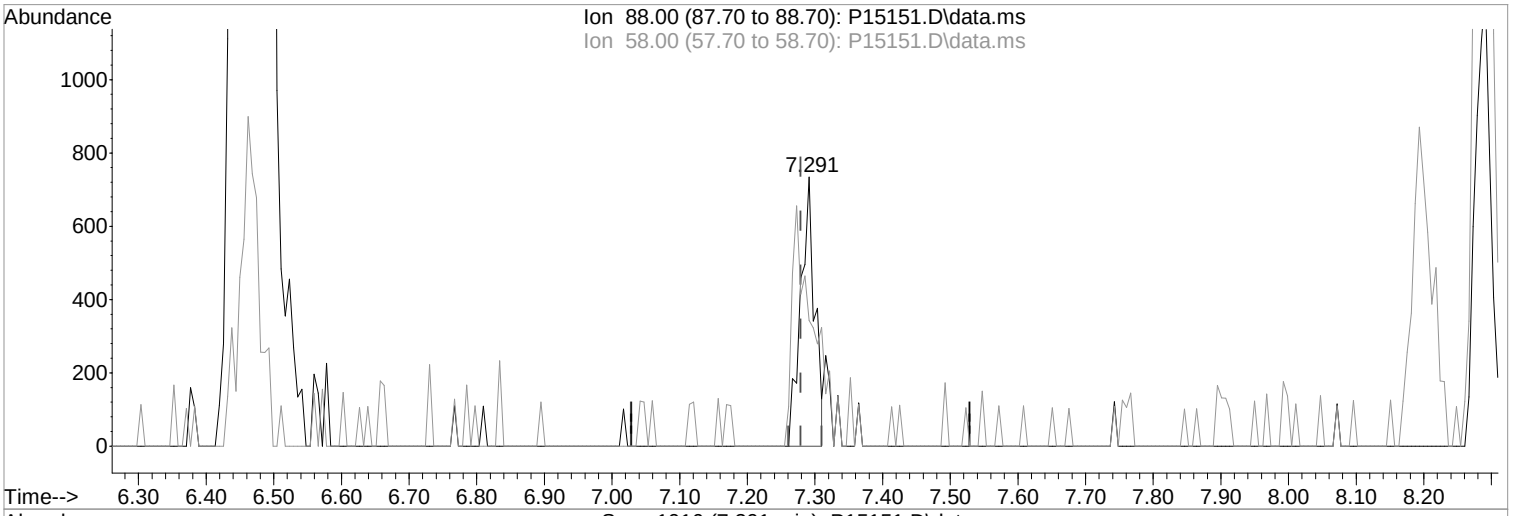
01/02/18

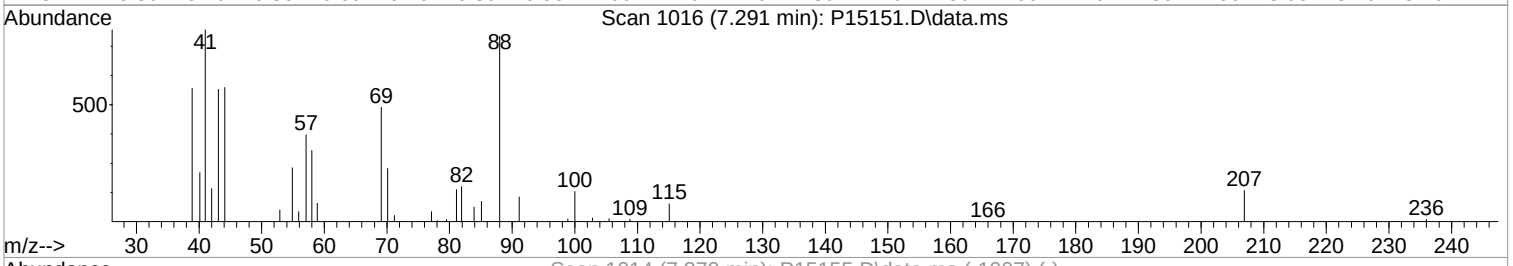
1st 01/02/18
2nd 01/04/18

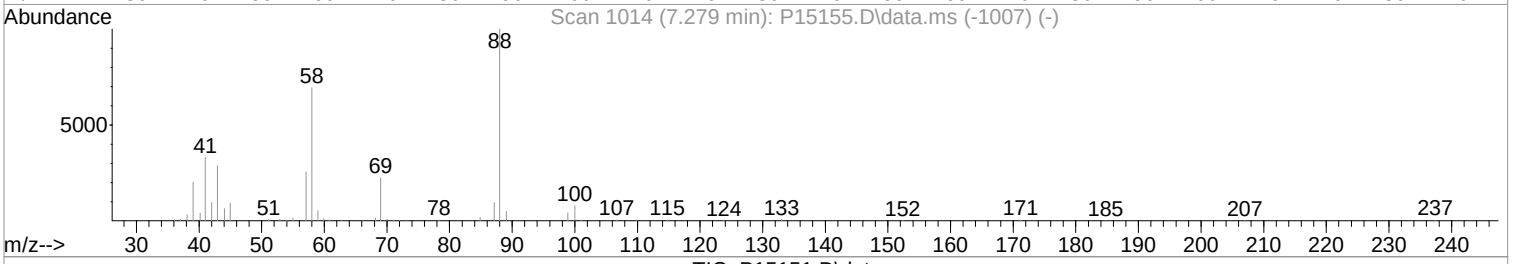
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(58) 1,4-Dioxane

7.291min (+0.012) 15.92 ppb

response 1057

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	46.73#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

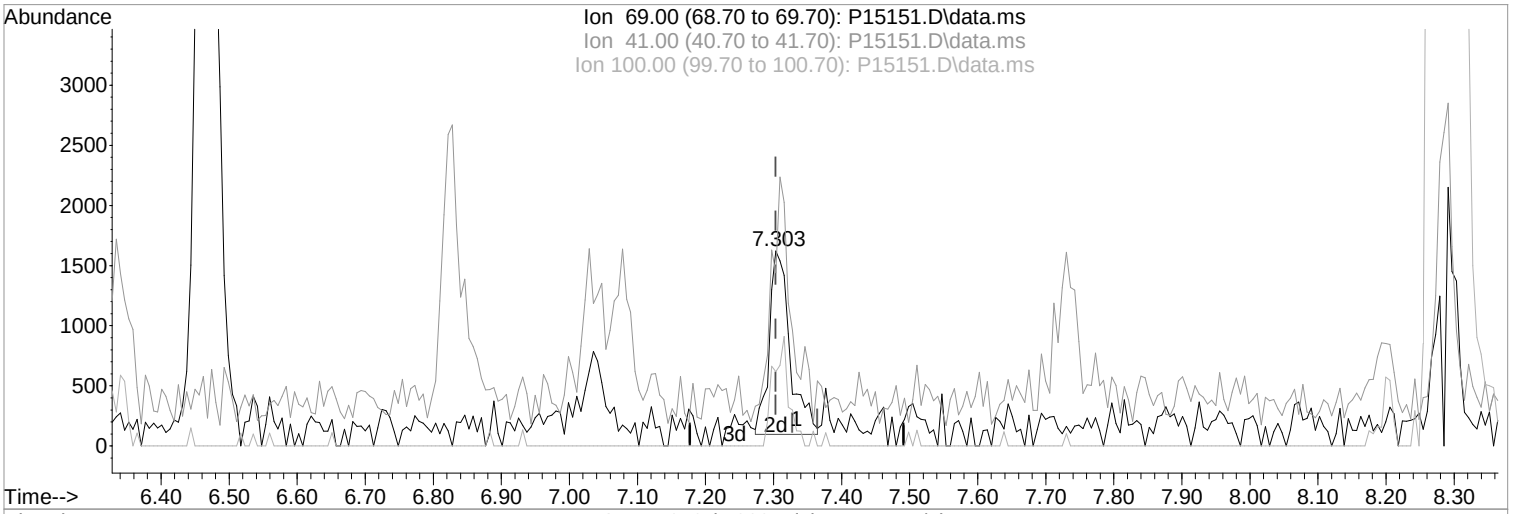
01/02/18

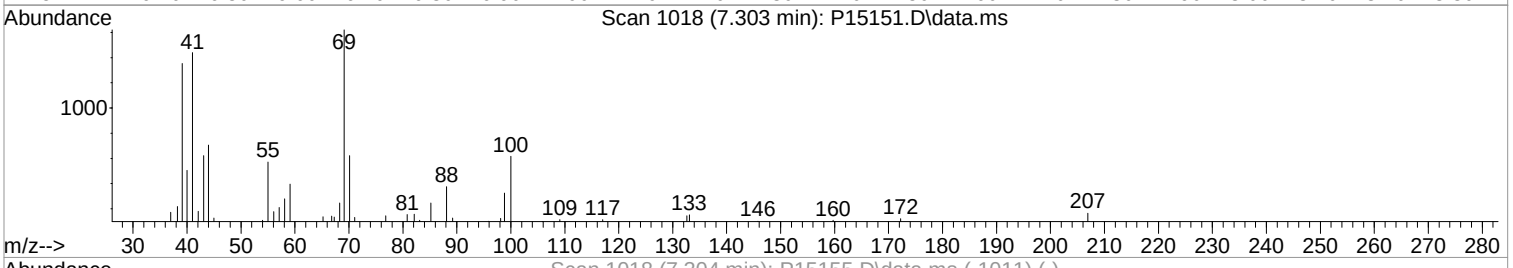
1st 01/02/18
2nd 01/04/18

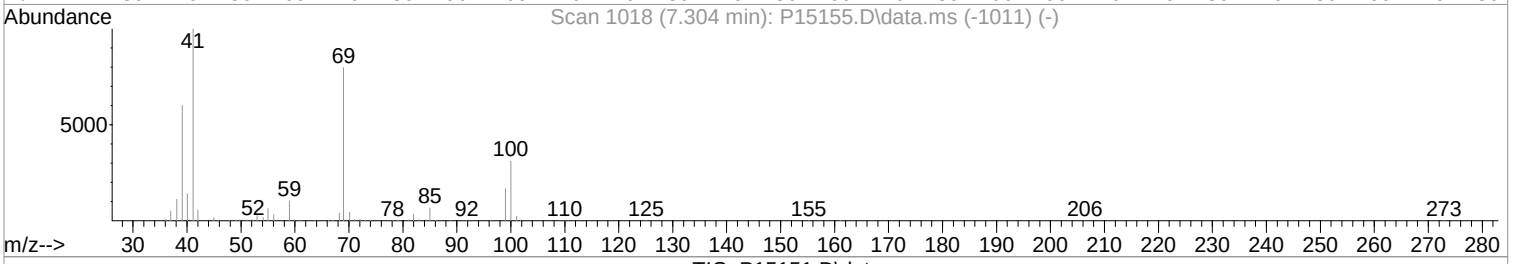
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(59) Methyl Methacrylate

7.303min (+0.000) 1.05 ppb m

response 3248

Ion	Exp%	Act%
69.00	100	100
41.00	126.30	88.77#
100.00	38.80	38.06
0.00	0.00	0.00

Manual Integration:

After

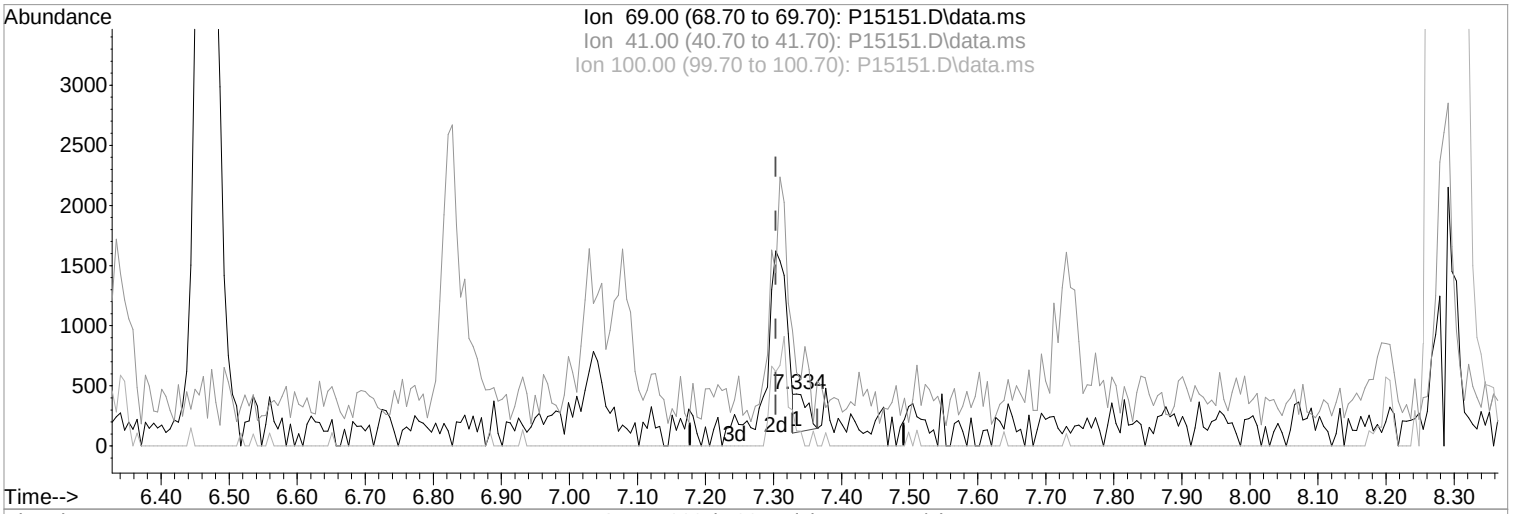
Split Peak

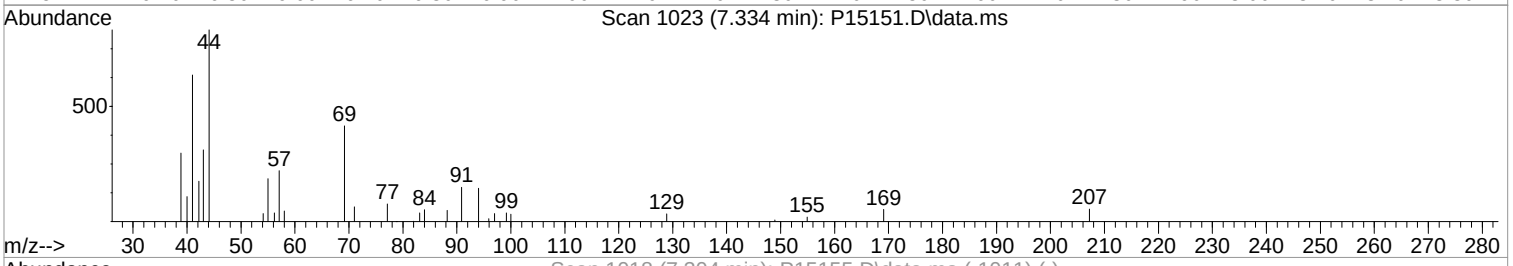
01/02/18

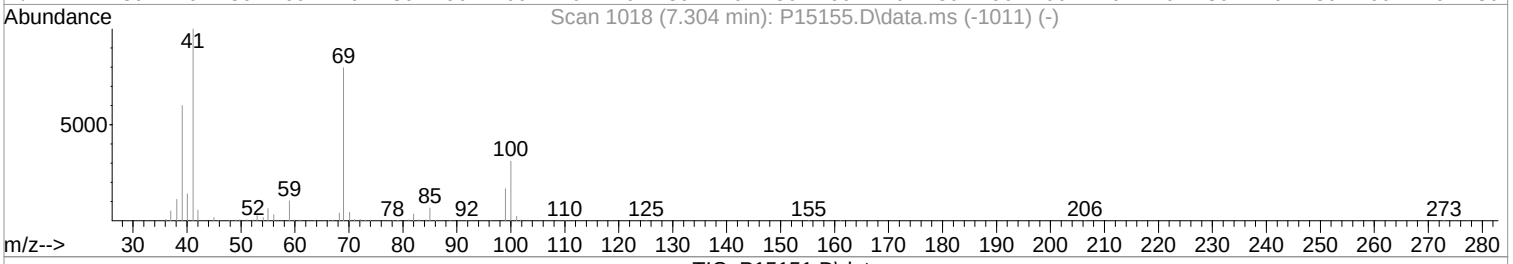
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(59) Methyl Methacrylate

7.334min (+0.031) 0.13 ppb

response 403

Ion	Exp%	Act%
69.00	100	100
41.00	126.30	140.97
100.00	38.80	28.94
0.00	0.00	0.00

Manual Integration:

Before

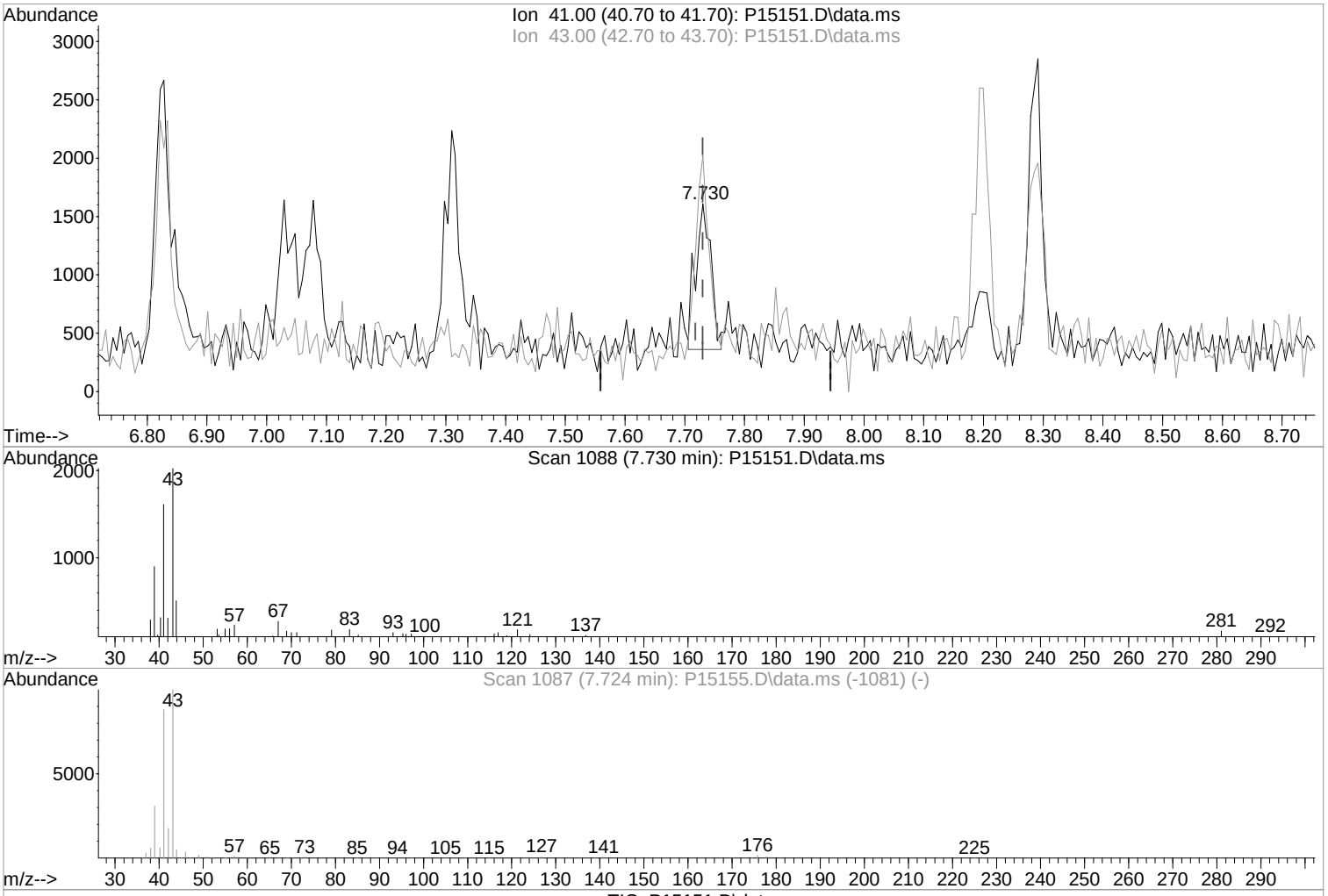
01/02/18

1st 01/02/18
2nd 01/04/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(61) 2-Nitropropane

7.730min (+0.000) 1.74 ppb m

response 2254

Ion	Exp%	Act%
41.00	100	100
43.00	113.70	125.71
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

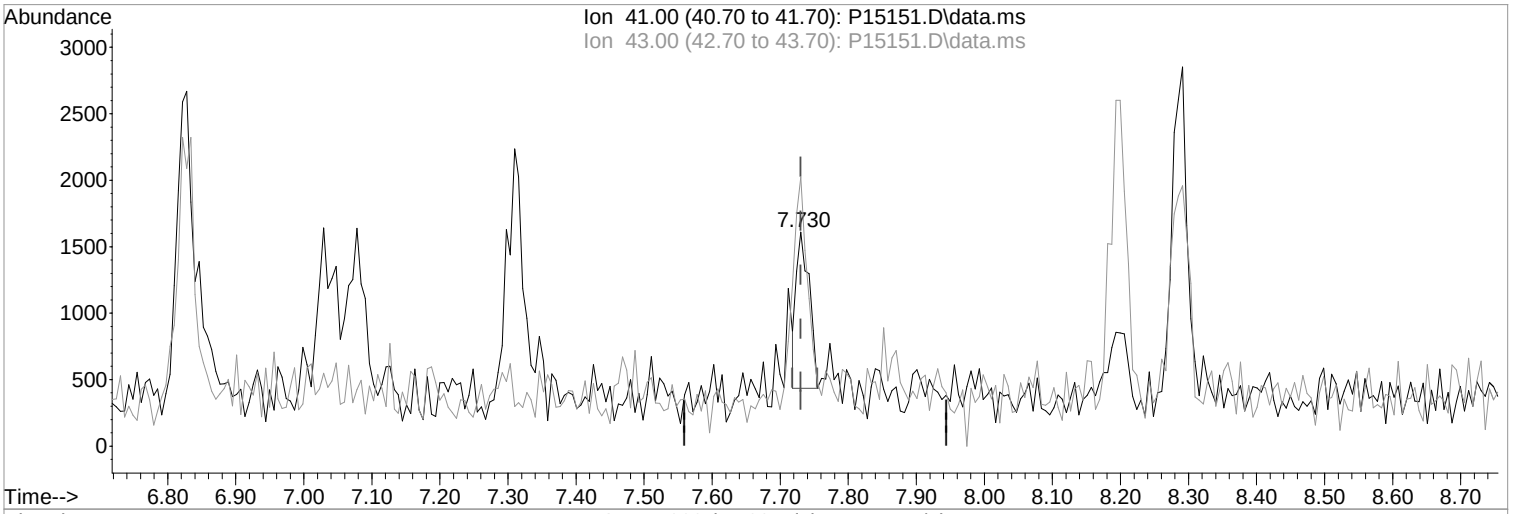
Split Peak

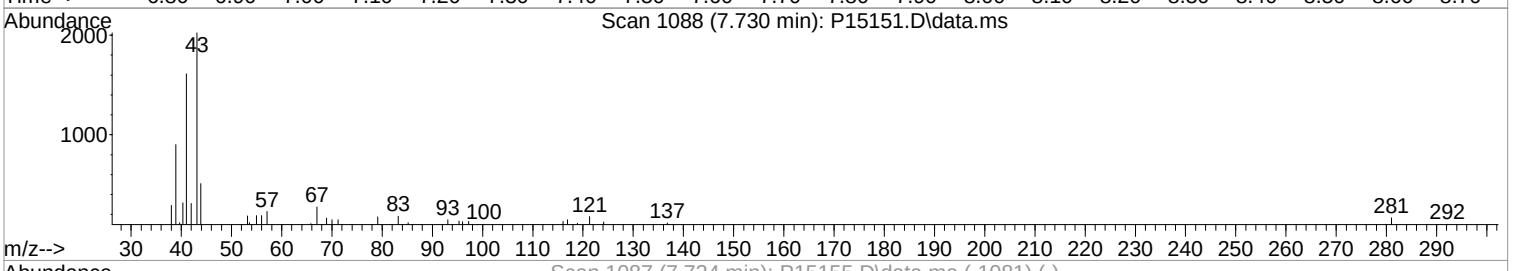
01/02/18

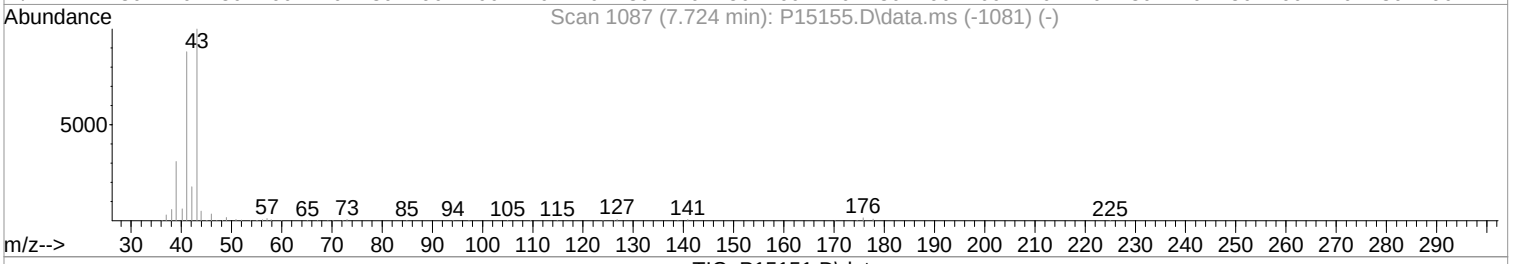
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(61) 2-Nitropropane

7.730min (+0.000) 1.19 ppb

response 1546

Ion	Exp%	Act%
41.00	100	100
43.00	113.70	125.71
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

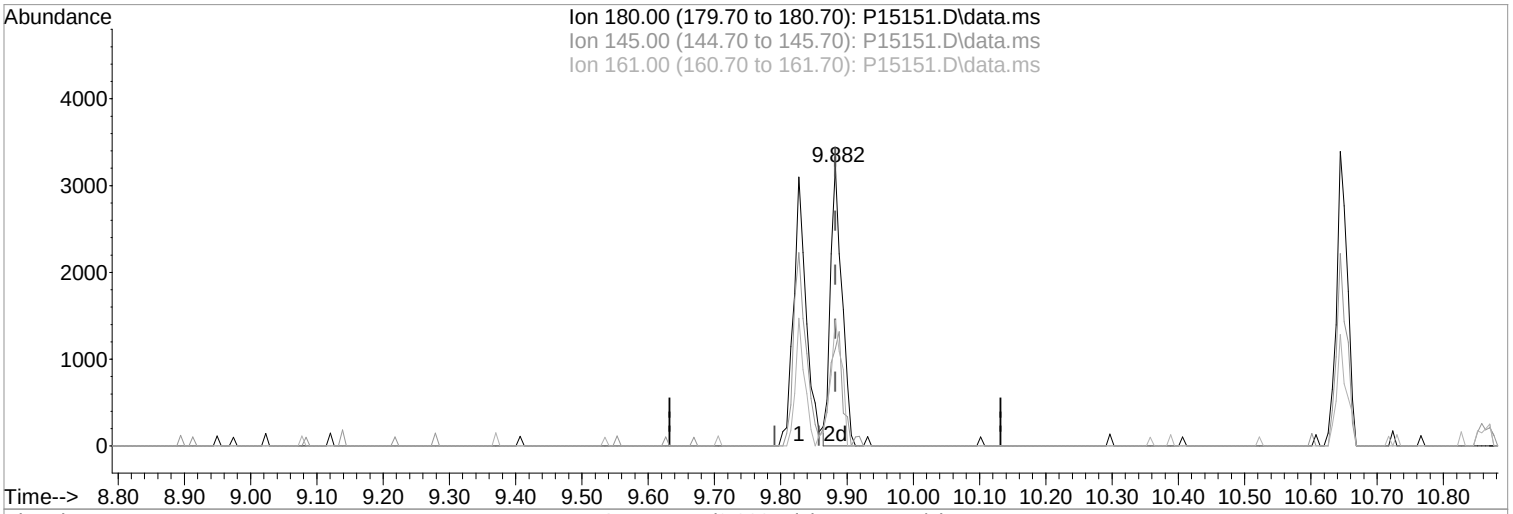
Before

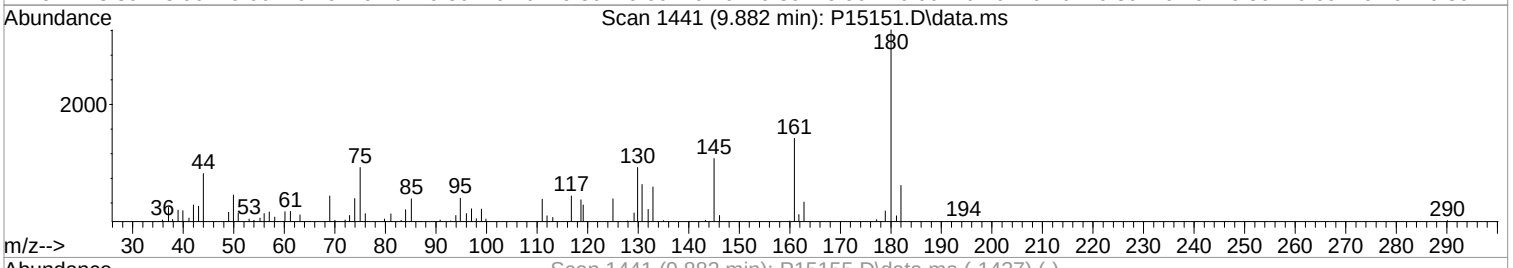
01/02/18

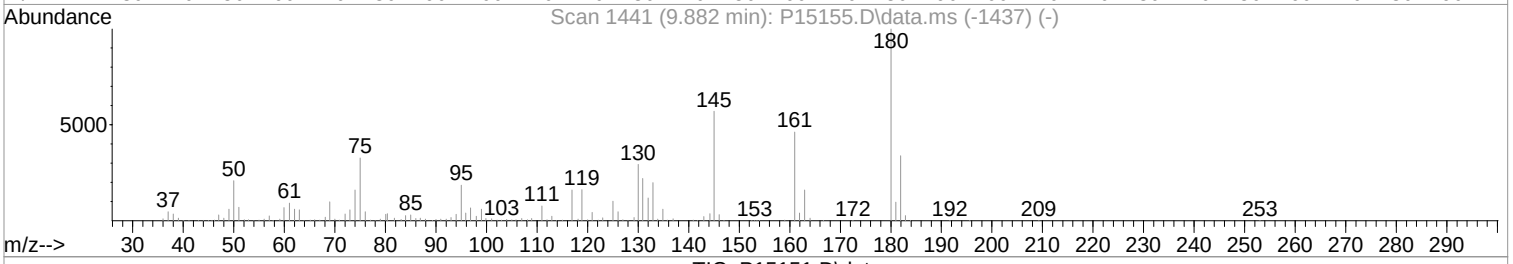
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(80) 4-CBTF

9.882min (+0.000) 0.96 ppb m

response 3872

Ion	Exp%	Act%
180.00	100	100
145.00	57.00	34.96#
161.00	46.00	45.10
0.00	0.00	0.00

Manual Integration:

After

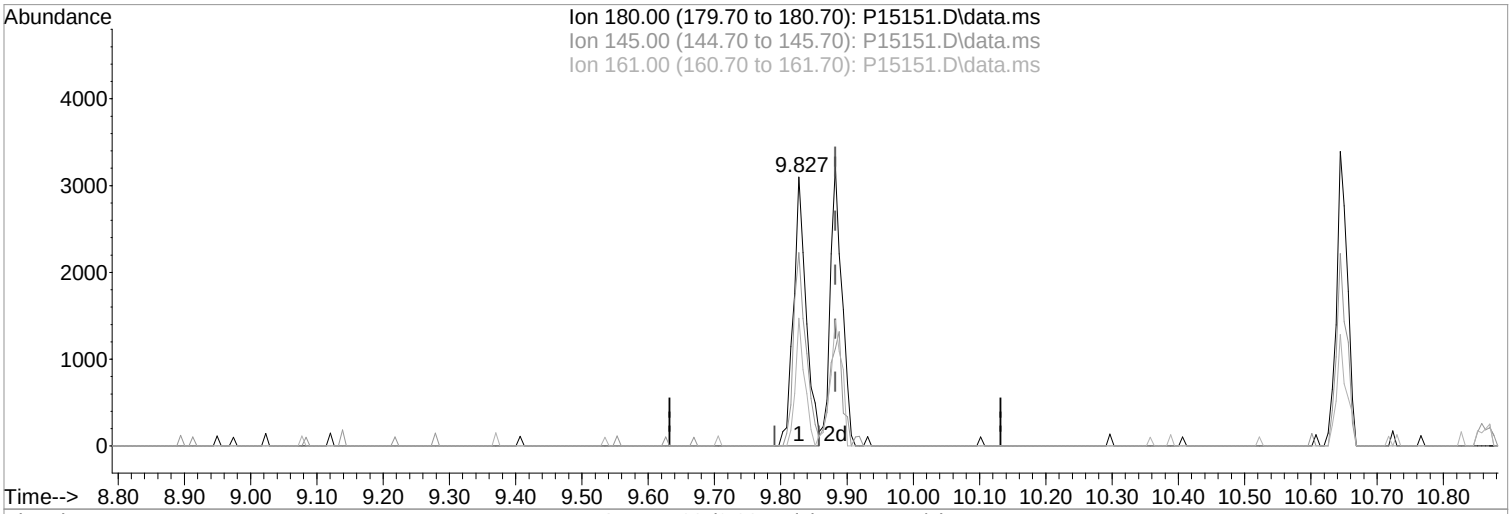
Wrong peak selected.

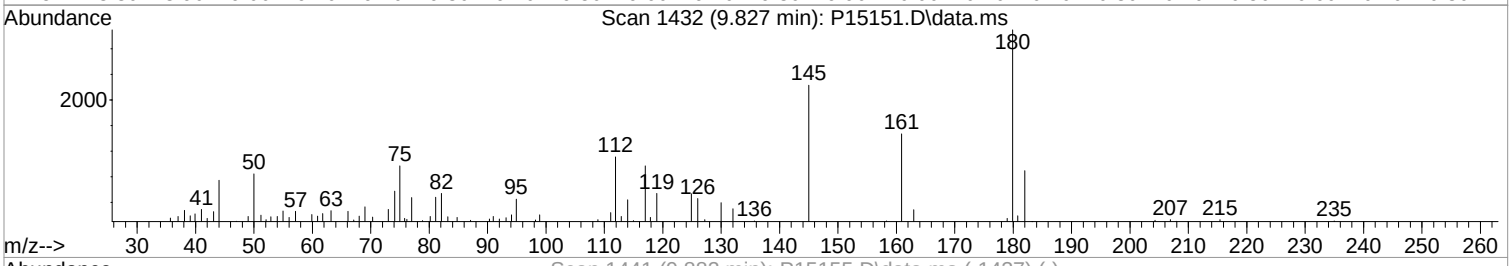
01/02/18

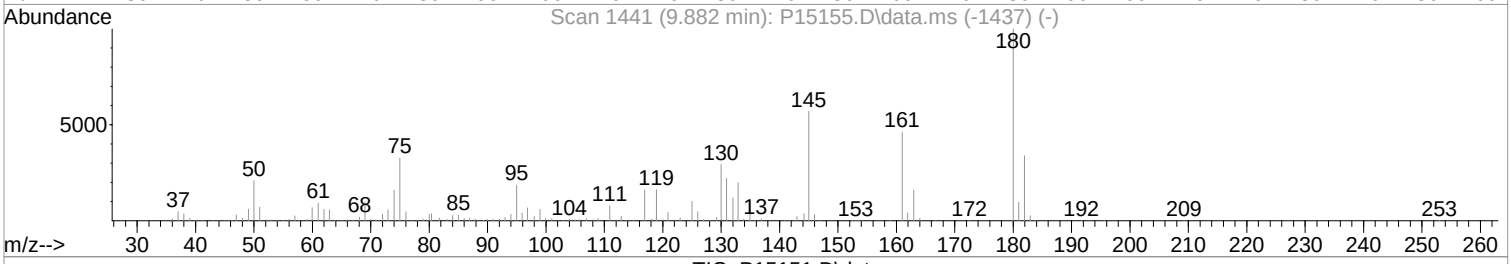
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15151.D\data.ms

(80) 4-CBTF

9.827min (-0.055) 1.03 ppb

response 4151

Ion	Exp%	Act%
180.00	100	100
145.00	57.00	71.93
161.00	46.00	47.47
0.00	0.00	0.00

Manual Integration:

Before

01/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:49:20 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	287174	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	482641	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	421648	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	206696	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	140301	48.96	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.92%				
48) surr1,1,2-dichloroetha...	5.767	65	197838	50.38	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.76%				
65) SURR3,Toluene-d8	8.291	98	626569	48.97	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.94%				
70) SURR2,BFB	10.858	95	234667	47.40	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	3092	0.87	ppb		89
3) Chloromethane	1.305	50	4661	1.07	ppb		93
4) Vinyl Chloride	1.384	62	3538	0.83	ppb	#	44
5) Bromomethane	1.609	94	4038m	1.25	ppb		
6) Chloroethane	1.689	64	1872	0.70	ppb	#	34
7) Freon 21	1.835	67	5264	0.95	ppb		97
8) Trichlorofluoromethane	1.884	101	3531	0.86	ppb		80
9) Diethyl Ether	2.115	59	2717	0.96	ppb	#	60
10) Freon 123a	2.115	67	3628	1.06	ppb		95
11) Freon 123	2.170	83	3539	0.88	ppb		90
12) Acrolein	2.219	56	4284	5.05	ppb		80
13) 1,1-Diclethene	2.304	96	3164	1.07	ppb	#	79
14) Freon 113	2.311	101	2912	1.04	ppb		100
15) Acetone	2.353	43	2644	1.52	ppb		91
16) 2-Propanol	2.475	45	6693	19.92	ppb		84
17) Iodomethane	2.439	142	607	0.23	ppb		92
18) Carbon Disulfide	2.500	76	7689	0.89	ppb		99
19) Acetonitrile	2.597	40	1502	5.08	ppb	#	89
20) Allyl Chloride	2.634	76	1334	0.85	ppb	#	54
21) Methyl Acetate	2.658	43	2880	0.92	ppb		95
22) Methylene Chloride	2.743	84	3120	1.00	ppb		90
23) TBA	2.871	59	11158	19.27	ppb		87
24) Acrylonitrile	3.006	53	8428	5.01	ppb		91
25) Methyl-t-Butyl Ether	3.048	73	10288	0.97	ppb		91
26) trans-1,2-Dichloroethene	3.036	96	2908	0.95	ppb		94
28) 1,1-Diclethane	3.536	63	5387	0.97	ppb		93
29) Vinyl Acetate	3.640	86	1198m	1.32	ppb		
30) DIPE	3.658	45	11357	1.08	ppb		95
31) 2-Chloro-1,3-Butadiene	3.664	53	5319	0.99	ppb		97
32) ETBE	4.176	59	9684	0.91	ppb		95
33) 2,2-Dichloropropane	4.353	77	4489	0.91	ppb		88
34) cis-1,2-Dichloroethene	4.377	96	3133m	0.86	ppb		
36) Propionitrile	4.511	54	4096	5.73	ppb		66
37) Bromochloromethane	4.761	130	2044m	1.02	ppb		
38) Methacrylonitrile	4.761	67	1485m	0.80	ppb		
40) Chloroform	4.944	83	5941	0.99	ppb		96
41) 1,1,1-Trichloroethane	5.231	97	4781	1.01	ppb	#	83
42) TAME	6.090	73	10018	0.97	ppb		87
44) Cyclohexane	5.334	41	3829m	1.22	ppb		

1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:49:20 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Carbontetrachloride	5.511	117	3082	0.85	ppb	#	81
47) 1,1-Dichloropropene	5.536	75	3874	0.91	ppb		83
49) Benzene	5.840	78	11319	0.90	ppb		86
50) 1,2-Dichloroethane	5.889	62	4380	0.95	ppb		91
51) Iso-Butyl Alcohol	5.846	43	5135	20.08	ppb		85
52) n-Heptane	6.334	43	4453	1.02	ppb		92
53) 1-Butanol	6.828	56	6937	41.00	ppb		85
54) Trichloroethene	6.797	130	3367	1.04	ppb		94
55) Methylcyclohexane	7.035	55	3617	0.86	ppb		88
56) 1,2-Diclpropane	7.072	63	3310	0.98	ppb		80
57) Dibromomethane	7.212	93	2049	1.02	ppb	#	70
58) 1,4-Dioxane	7.291	88	1262m	19.01	ppb		
59) Methyl Methacrylate	7.303	69	3248m	1.05	ppb		
60) Bromodichloromethane	7.444	83	4463	1.05	ppb		97
61) 2-Nitropropane	7.730	41	2254m	1.74	ppb		
63) cis-1,3-Dichloropropene	7.998	75	4467	0.84	ppb		80
64) 4-Methyl-2-pentanone	8.194	43	4242	1.03	ppb		86
66) Toluene	8.364	91	12447	0.91	ppb		94
67) trans-1,3-Dichloropropene	8.632	75	4602	0.92	ppb		93
68) Ethyl Methacrylate	8.773	69	5274	1.05	ppb		82
69) 1,1,2-Trichloroethane	8.815	97	3198	1.03	ppb		92
72) Tetrachloroethene	8.962	164	2460	1.06	ppb	#	79
73) 2-Hexanone	9.114	43	2578	0.83	ppb	#	69
74) 1,3-Dichloropropane	8.992	76	4841	0.89	ppb	#	80
75) Dibromochloromethane	9.218	129	2631	0.93	ppb		96
76) N-Butyl Acetate	9.273	43	4723	0.81	ppb		96
77) 1,2-Dibromoethane	9.315	107	2980	0.99	ppb		83
78) Chlorobenzene	9.809	112	7570	0.92	ppb		87
79) 3-CBTF	9.827	180	4151	0.94	ppb	#	91
80) 4-CBTF	9.882	180	3872m	0.96	ppb		
81) 1,1,1,2-Tetrachloroethane	9.894	131	2802	0.95	ppb		93
82) Ethylbenzene	9.931	106	4390	0.96	ppb	#	87
83) (m+p)Xylene	10.041	106	9803	1.78	ppb		92
84) o-Xylene	10.400	106	5138	0.93	ppb		98
85) Styrene	10.413	104	8086	0.87	ppb		88
87) Bromoform	10.565	173	1755	0.97	ppb		84
88) 2-CBTF	10.644	180	3906	0.95	ppb		90
89) Isopropylbenzene	10.736	105	13170	0.97	ppb		93
90) Cyclohexanone	10.797	55	20423	19.77	ppb		95
91) trans-1,4-Dichloro-2-B...	11.053	53	978	0.91	ppb	#	82
92) 1,1,2,2-Tetrachloroethane	10.992	83	4102	1.00	ppb		92
93) Bromobenzene	10.980	156	3547	1.07	ppb	#	71
94) 1,2,3-Trichloropropane	11.022	110	1416	1.06	ppb		93
95) n-Propylbenzene	11.095	91	15294	0.97	ppb		98
96) 2-Chlorotoluene	11.156	91	9992	1.02	ppb		95
97) 3-Chlorotoluene	11.211	91	9846	0.95	ppb		97
98) 4-Chlorotoluene	11.248	91	10775	0.95	ppb		97
99) 1,3,5-Trimethylbenzene	11.248	105	10889	0.96	ppb		89
100) tert-Butylbenzene	11.516	119	8854	0.90	ppb		90
101) 1,2,4-Trimethylbenzene	11.559	105	9946	0.87	ppb		92
102) 3,4-DCBTF	11.620	214	2773	0.85	ppb	#	93
103) sec-Butylbenzene	11.699	105	13514	0.94	ppb		98
104) p-Isopropyltoluene	11.821	119	10672	0.88	ppb		93
105) 1,3-Dclbenz	11.784	146	5907	0.93	ppb		86
106) 1,4-Dclbenz	11.857	146	6523	0.98	ppb		89
107) 2,4-DCBTF	11.912	214	3106	1.02	ppb	#	90

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:49:20 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) 2,5-DCBTF	11.949	214	2824	0.87	ppb	#	81
109) n-Butylbenzene	12.156	91	10165	0.90	ppb		96
110) 1,2-Dclbenz	12.156	146	5863	0.93	ppb		84
111) 1,2-Dibromo-3-chloropr...	12.778	157	1271	1.23	ppb		81
112) Trielution Dichlorotol...	12.900	125	16807	2.71	ppb		92
113) 1,3,5 Trichlorobenzene	12.955	180	4049	0.82	ppb	#	80
114) Coelution Dichlorotoluene	13.229	125	11563	1.76	ppb		97
115) 1,2,4-Tcbenzene	13.443	180	3678	0.80	ppb		87
116) Hexachlorobt	13.577	225	1668	0.78	ppb		91
117) Naphthalen	13.625	128	10607	0.84	ppb		96
118) 1,2,3-Tclbenzene	13.820	180	3810	0.86	ppb		90
119) 2,4,5-Trichlorotolene	14.394	159	1480	0.55	ppb	#	76
120) 2,3,6-Trichlorotoluene	14.491	159	1149	0.47	ppb	#	86

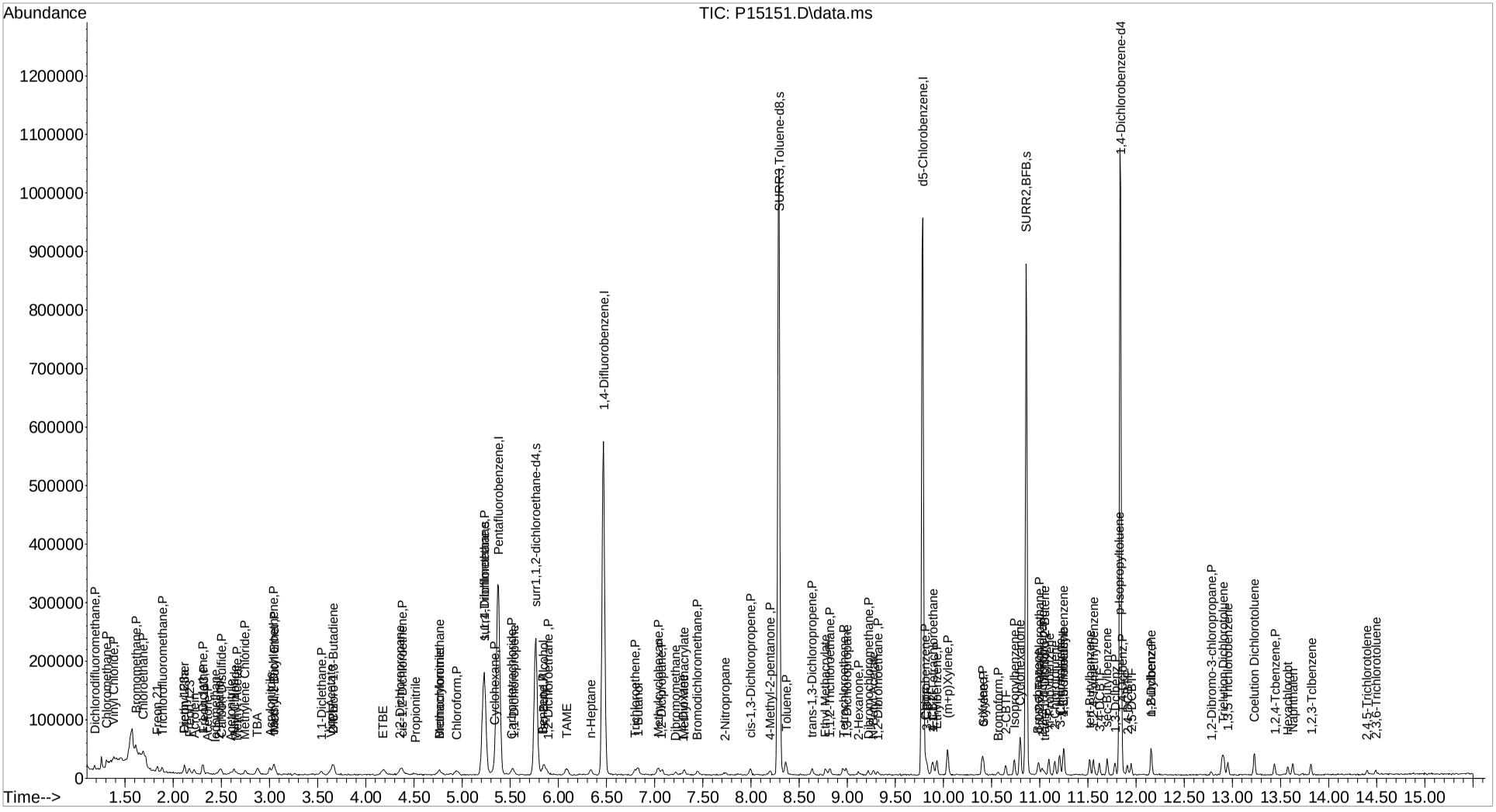
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 02 10:49:20 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

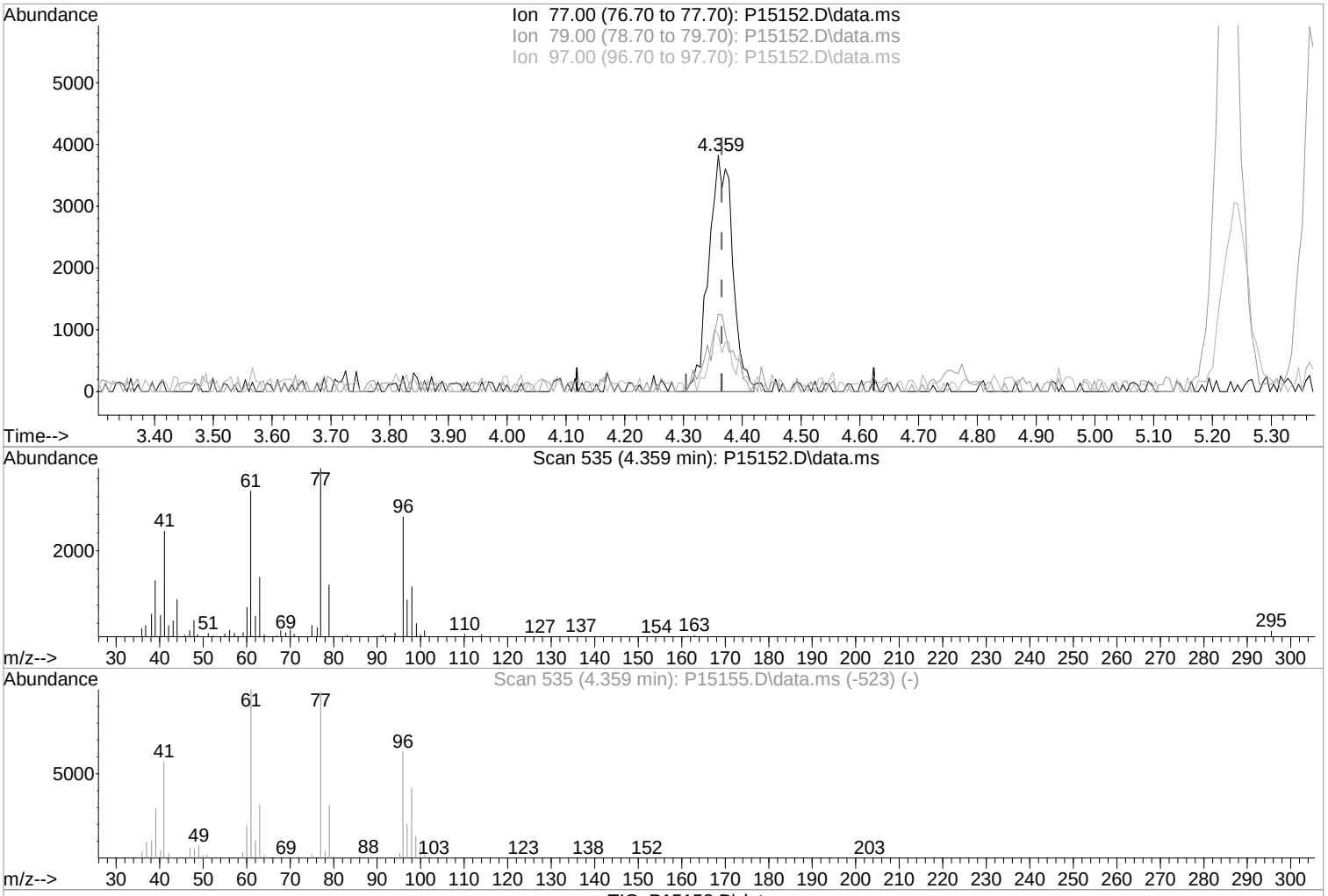
1st 01/02/18 2nd 01/04/18



Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(33) 2,2-Dichloropropane

4.359min (-0.006) 2.15 ppb m

response 10714

Ion	Exp%	Act%
77.00	100	100
79.00	32.10	32.71
97.00	20.60	23.93
0.00	0.00	0.00

Manual Integration:

After

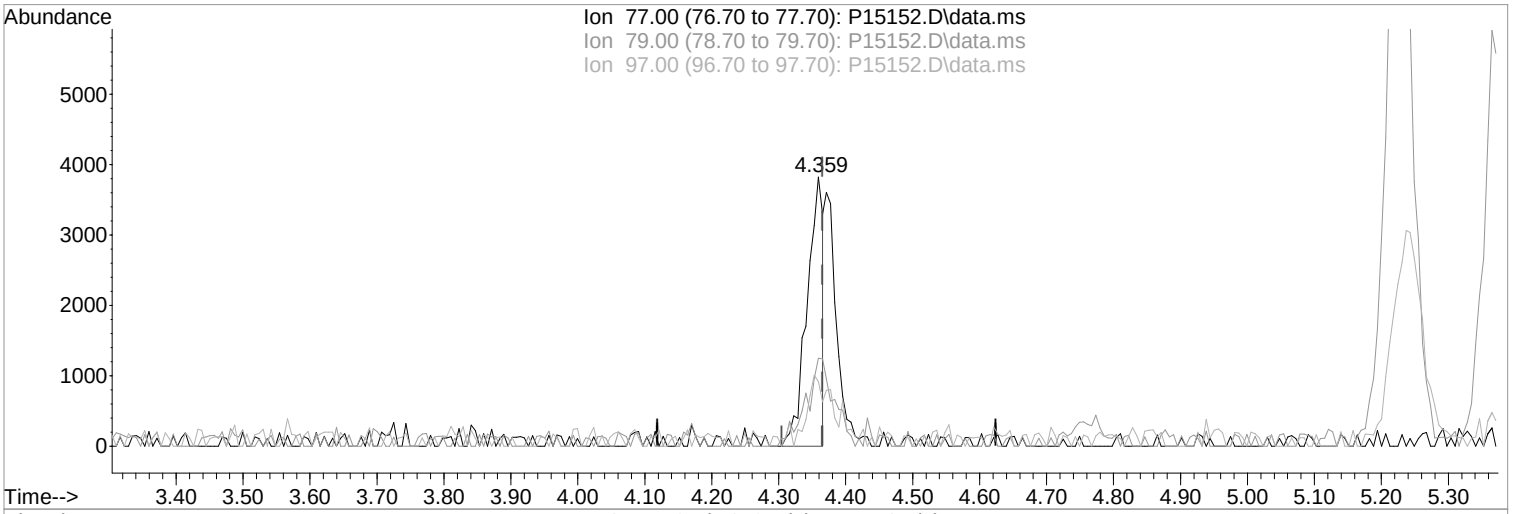
Split Peak

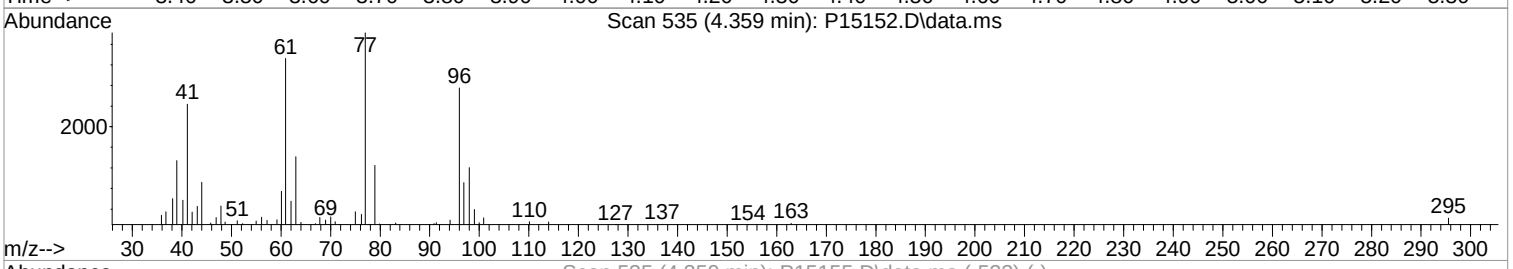
01/02/18

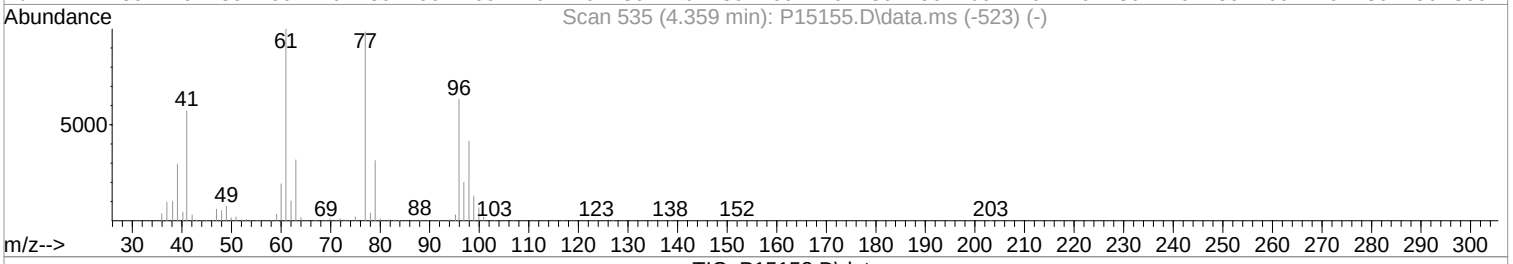
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(33) 2,2-Dichloropropane

4.359min (-0.006) 1.27 ppb

response 6313

Ion	Exp%	Act%
77.00	100	100
79.00	32.10	32.71
97.00	20.60	23.93
0.00	0.00	0.00

Manual Integration:

Before

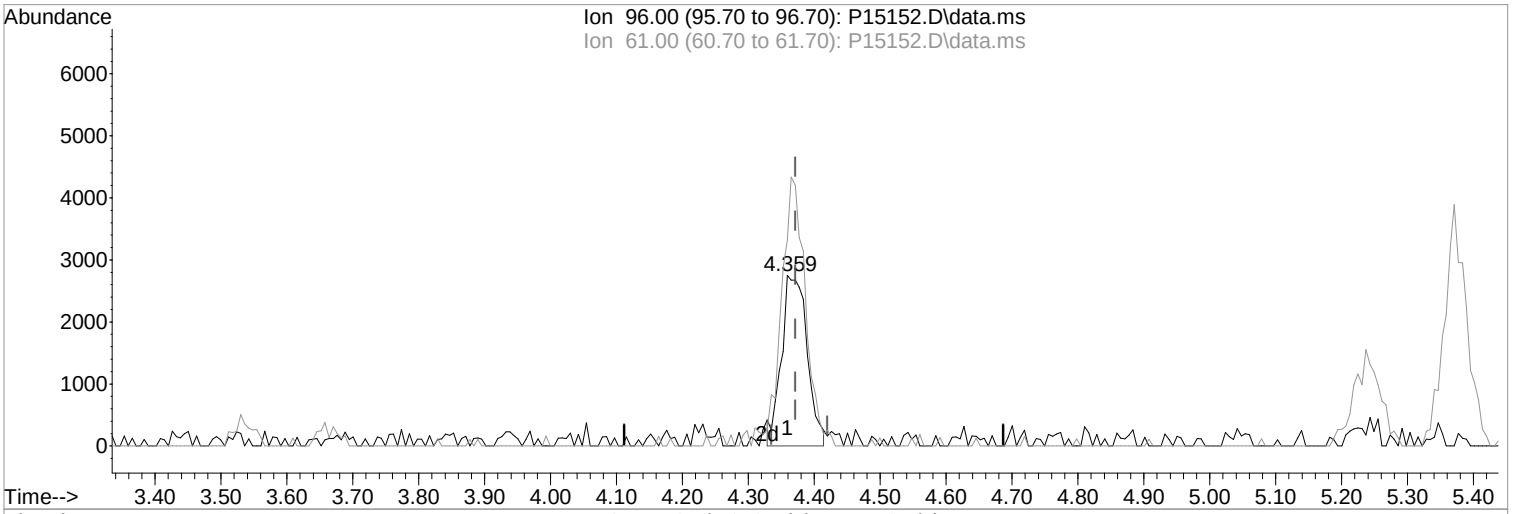
01/02/18

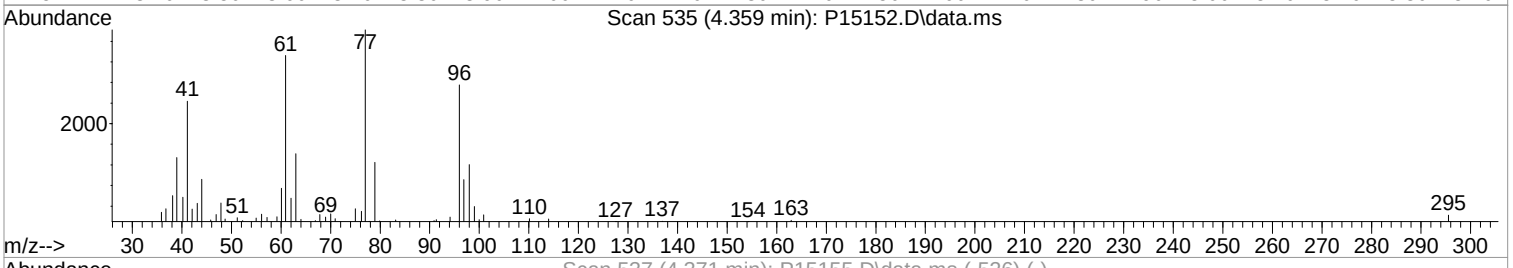
1st 01/02/18
2nd 01/04/18

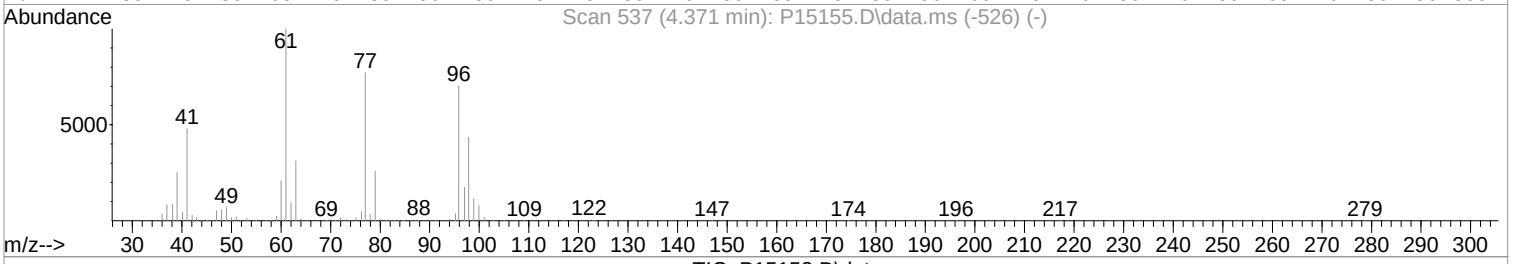
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

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

4.359min (-0.012) 2.01 ppb m

response 7407

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	120.72#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

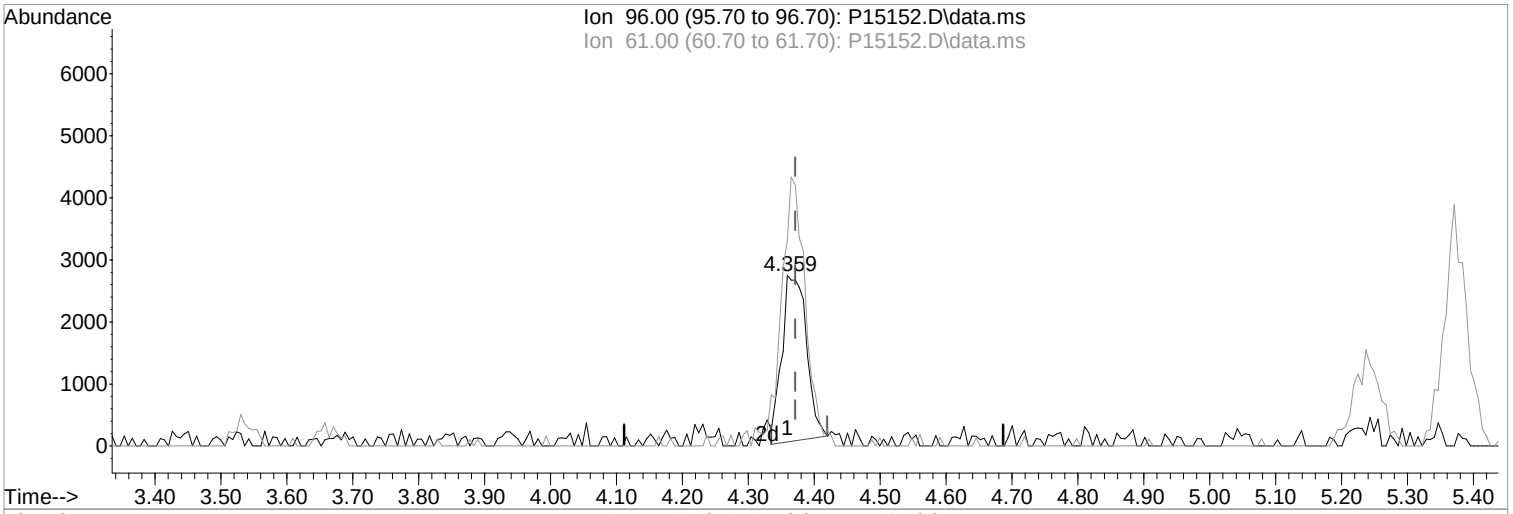
Poor integration.

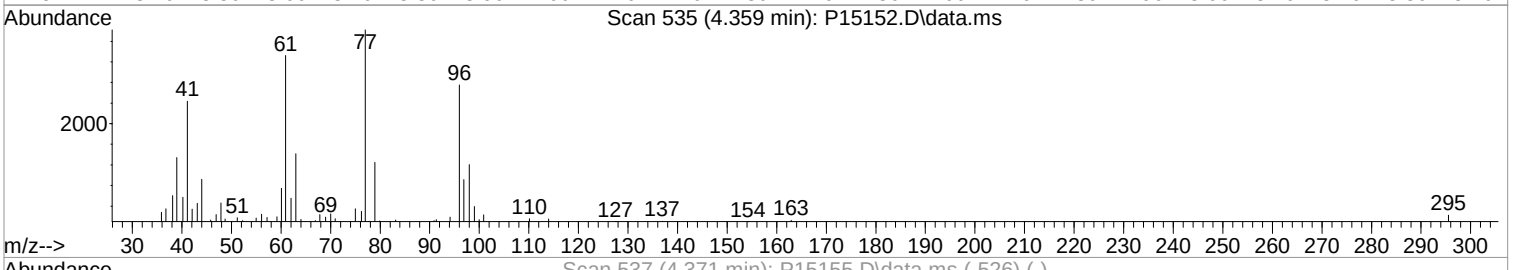
01/02/18

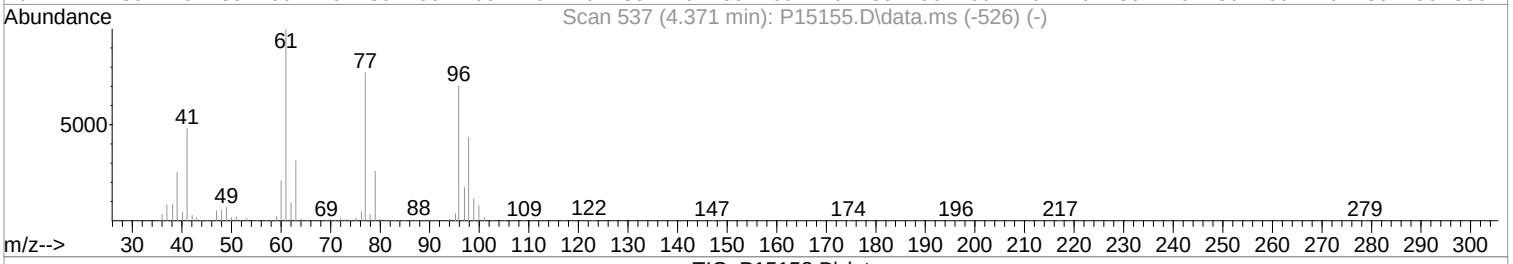
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

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

4.359min (-0.012) 1.87 ppb

response 6877

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	120.72#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

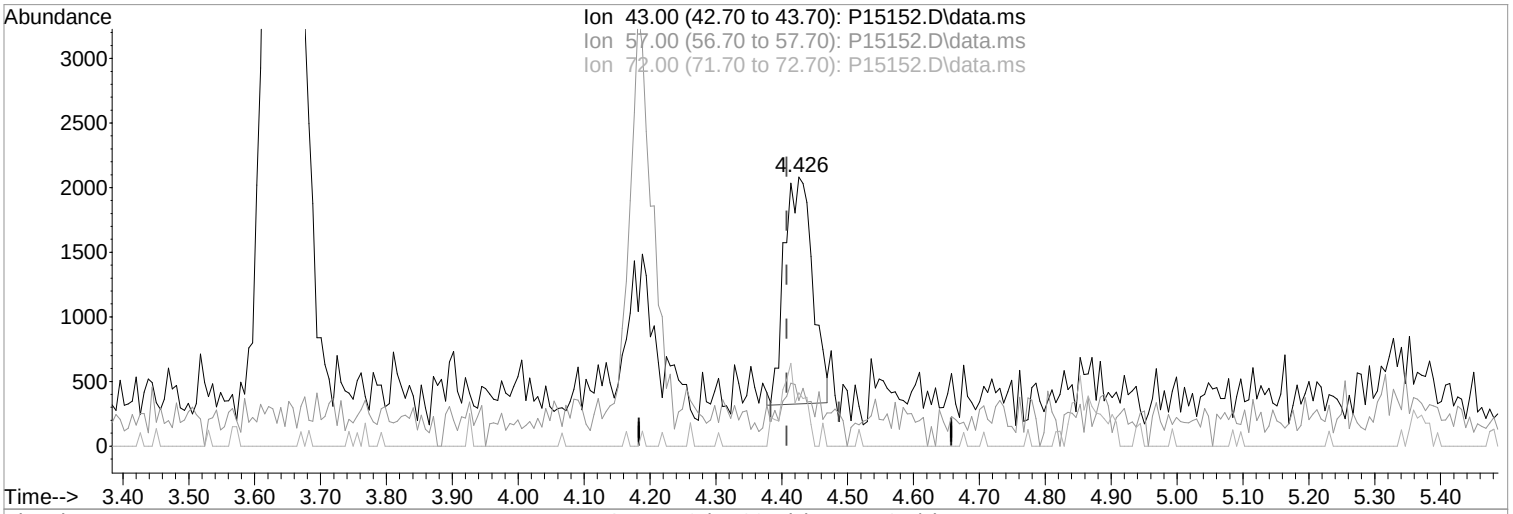
Before

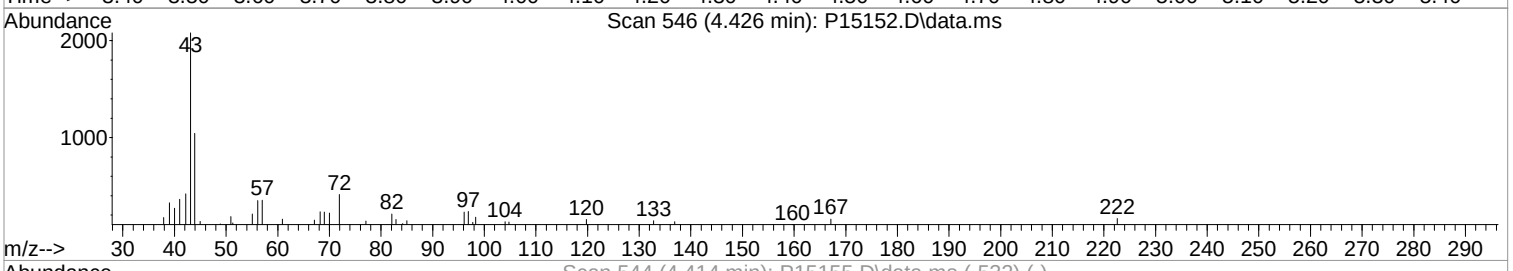
01/02/18

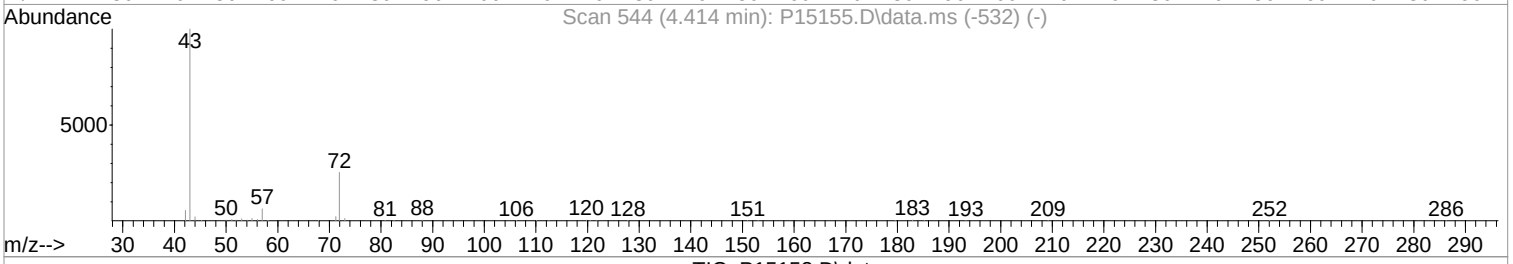
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(35) 2-Butanone (P)

4.426min (+0.018) 2.34 ppb m

response 5215

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	17.00
72.00	26.10	19.84
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

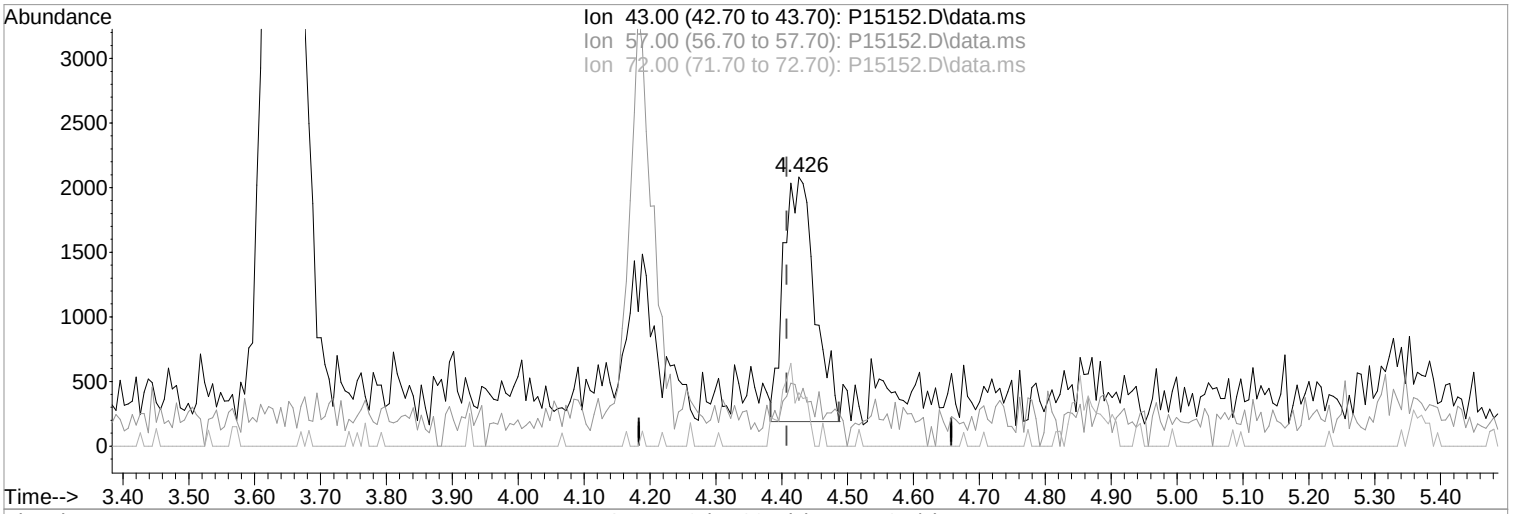
01/02/18

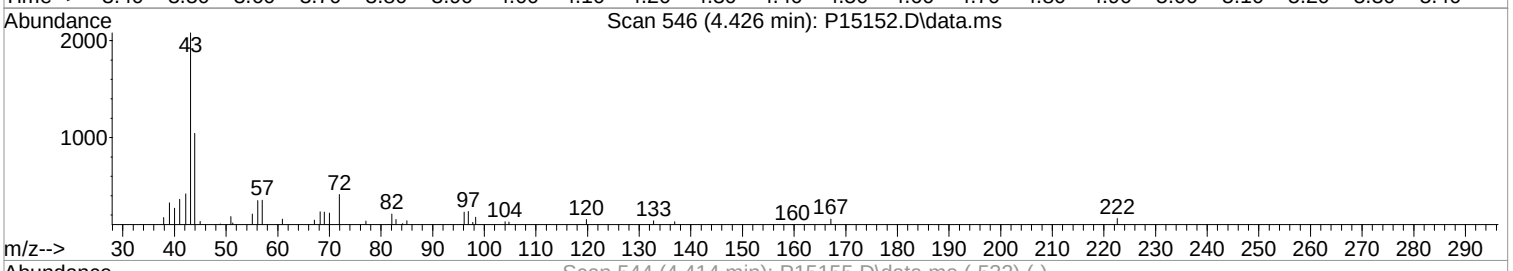
1st 01/02/18
2nd 01/04/18

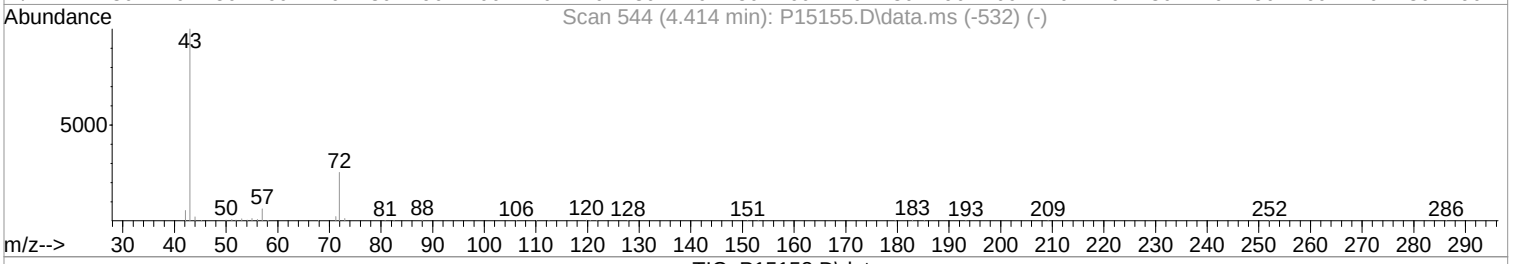
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(35) 2-Butanone (P)

4.426min (+0.018) 2.77 ppb

response 6181

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	17.00
72.00	26.10	19.84
0.00	0.00	0.00

Manual Integration:

Before

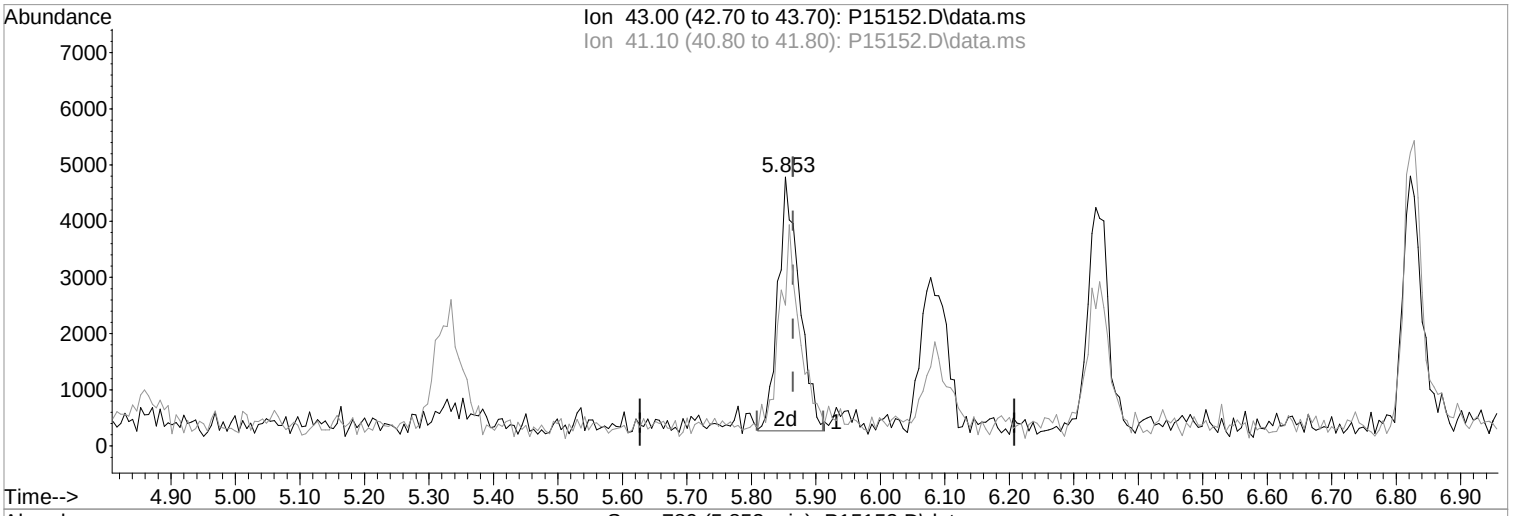
01/02/18

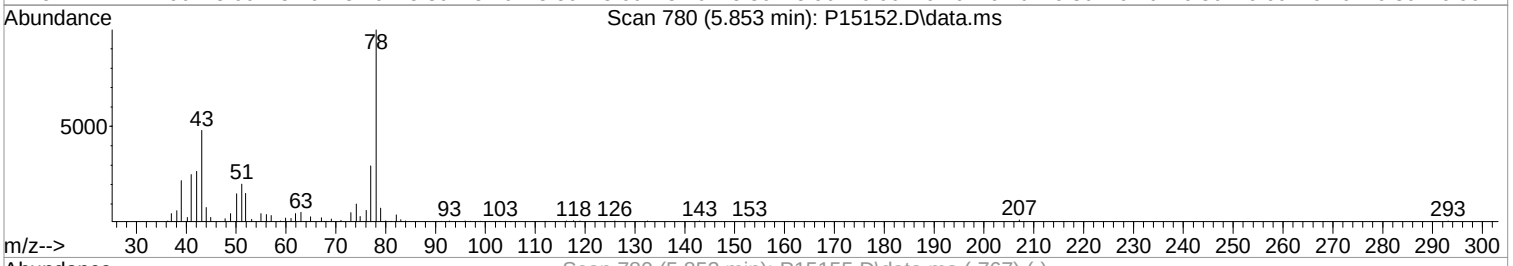
1st 01/02/18
2nd 01/04/18

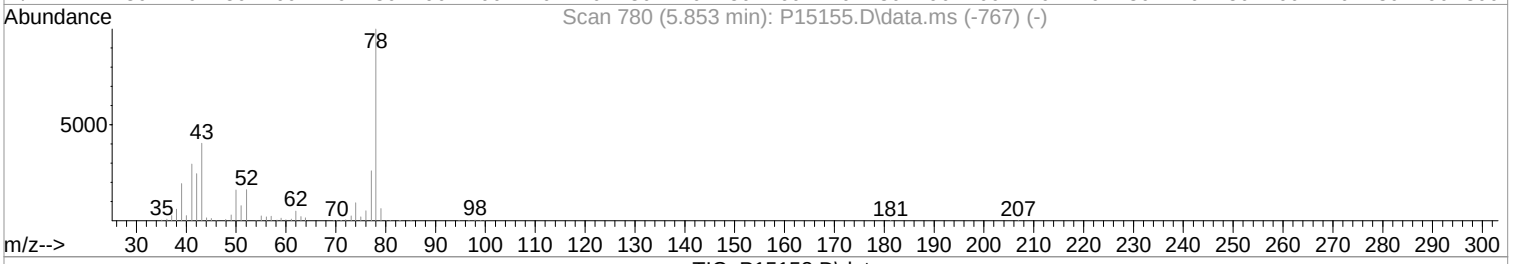
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(51) Iso-Butyl Alcohol

5.853min (-0.012) 41.65 ppb m

response 10416

Ion	Exp%	Act%
43.00	100	100
41.10	73.30	52.44#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

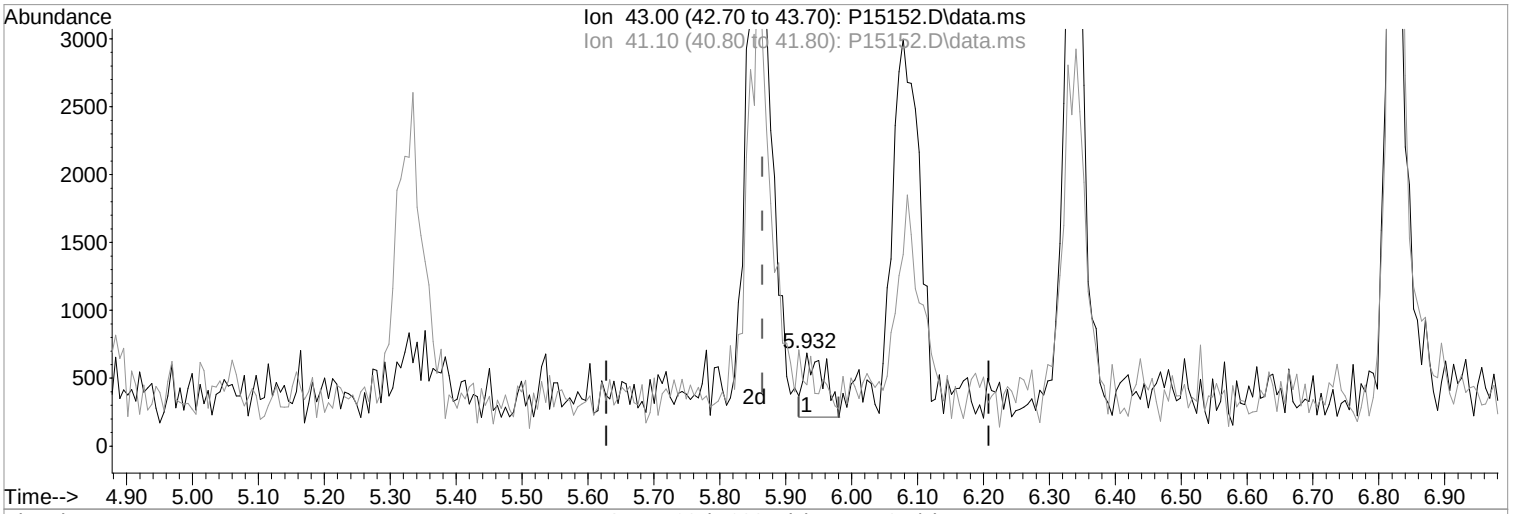
Peak not found.

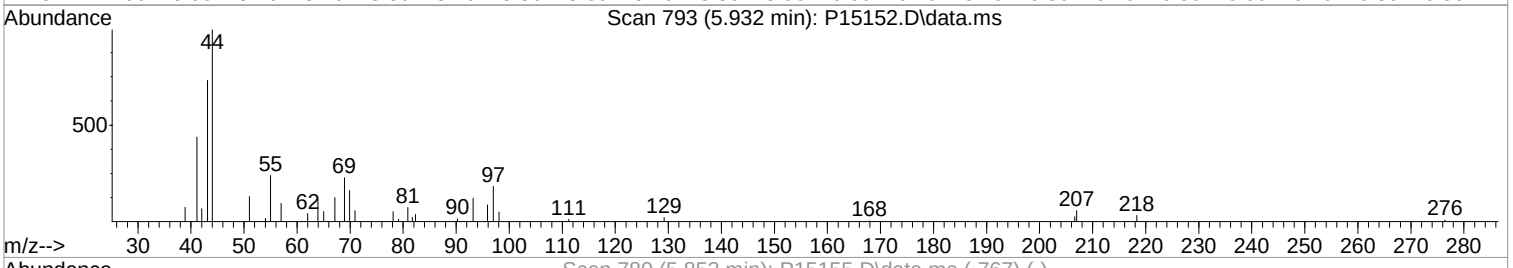
01/02/18

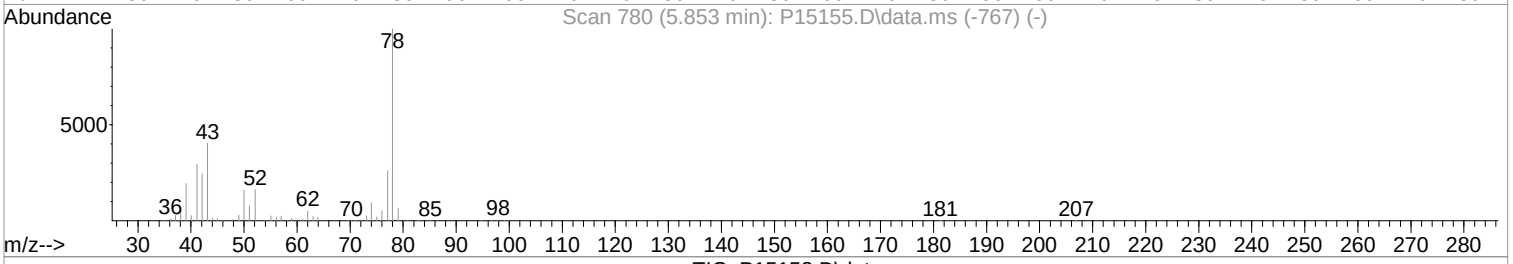
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(51) Iso-Butyl Alcohol

5.932min (+0.067) 4.12 ppb

response 1031

Ion	Exp%	Act%
43.00	100	100
41.10	73.30	65.84
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

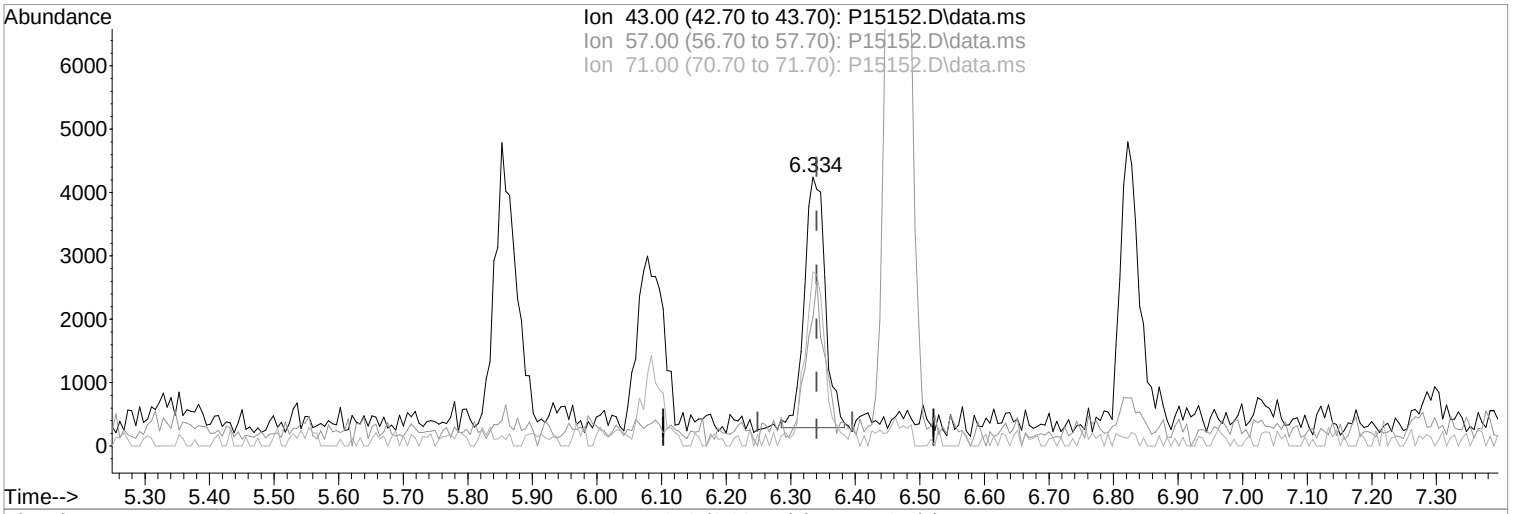
Before

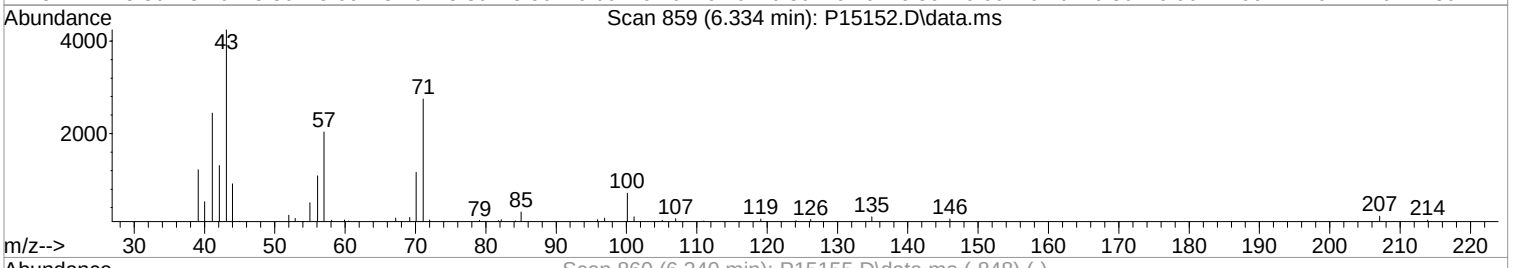
01/02/18

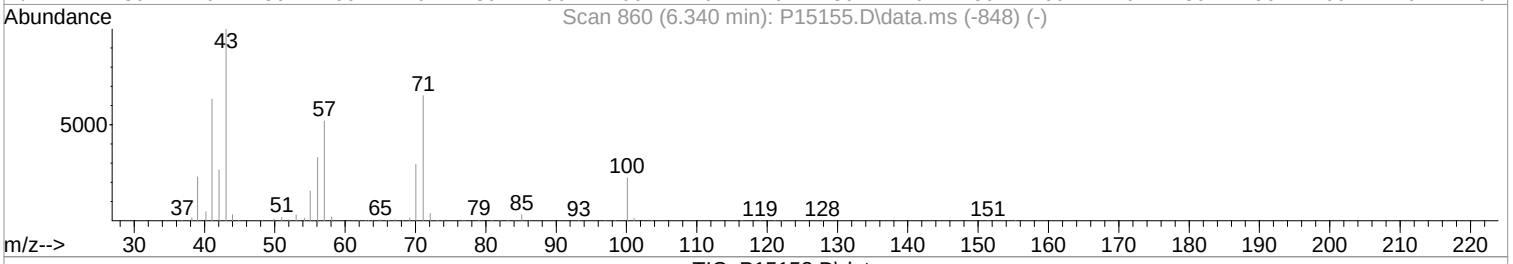
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(52) n-Heptane

6.334min (-0.006) 2.08 ppb m

response 8868

Ion	Exp%	Act%
43.00	100	100
57.00	52.10	47.87
71.00	65.30	64.81
0.00	0.00	0.00

Manual Integration:

After

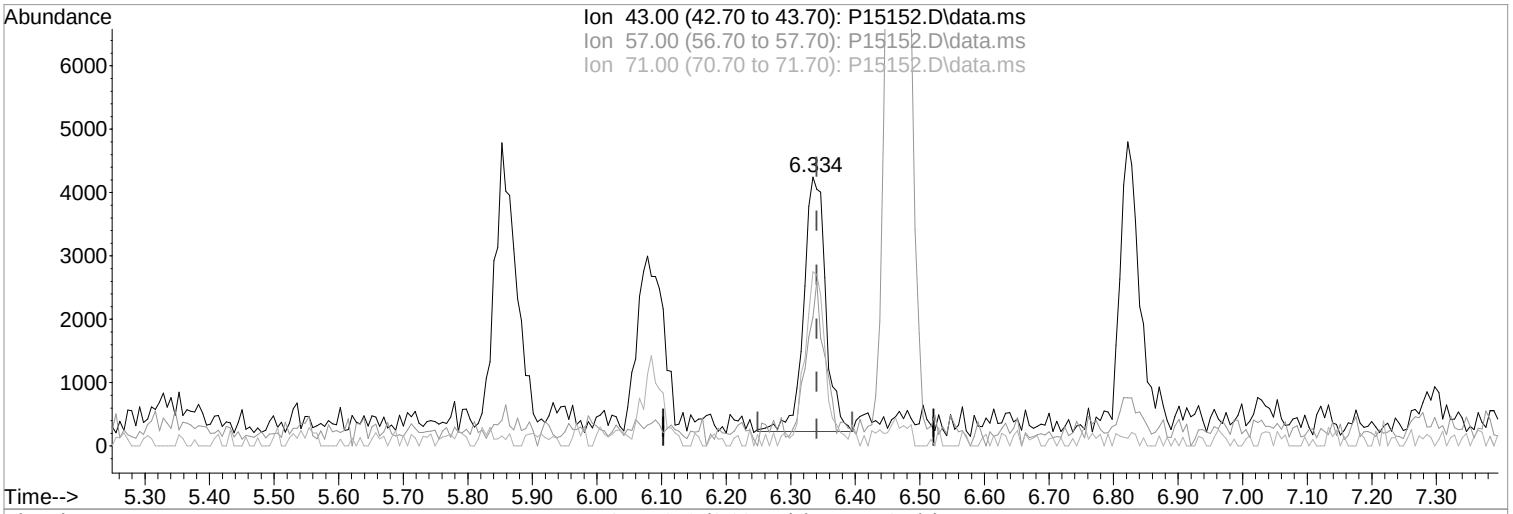
Poor integration.

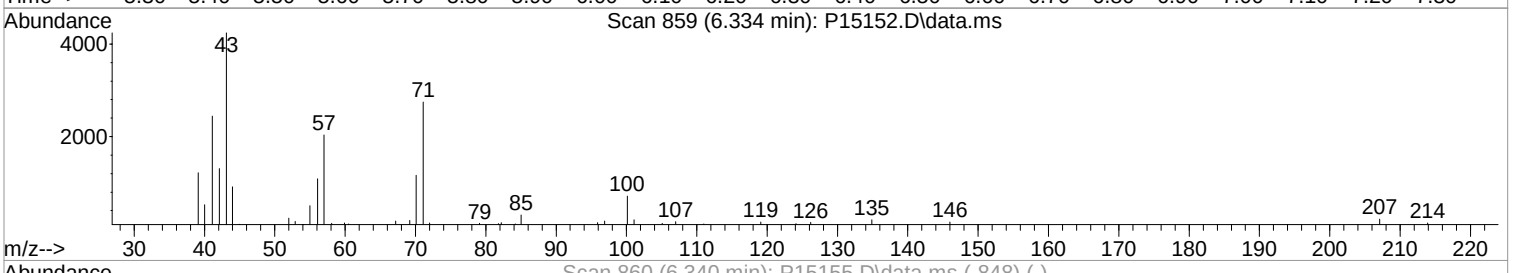
01/02/18

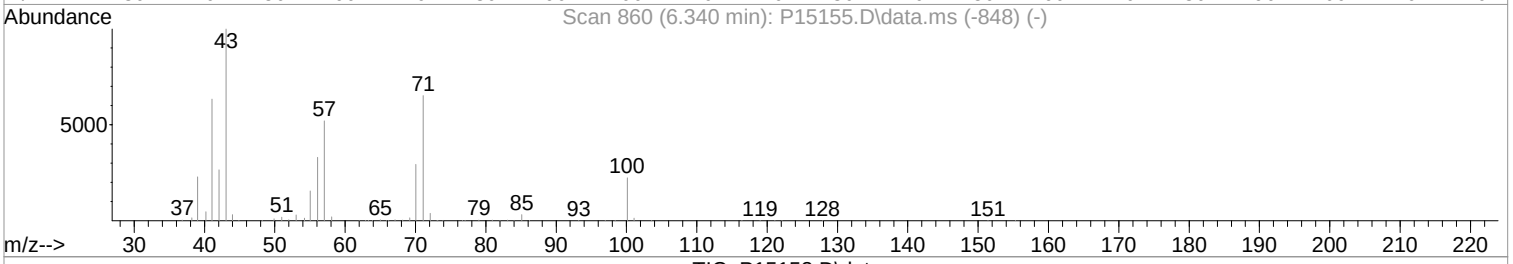
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15152.D\data.ms

(52) n-Heptane

6.334min (-0.006) 2.21 ppb

response 9450

Ion	Exp%	Act%
43.00	100	100
57.00	52.10	47.87
71.00	65.30	64.81
0.00	0.00	0.00

Manual Integration:

Before

01/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 11:27:18 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.371	168	290921	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	471936	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	416493	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	202842	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	140691	50.21	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.42%				
48) surr1,1,2-dichloroetha...	5.767	65	192694	50.18	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.36%				
65) SURR3,Toluene-d8	8.291	98	616679	49.29	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.58%				
70) SURR2,BFB	10.858	95	234627	48.47	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.94%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	6164	1.72	ppb		95
3) Chloromethane	1.305	50	9252	2.09	ppb		87
4) Vinyl Chloride	1.384	62	8466	1.96	ppb		76
5) Bromomethane	1.610	94	7983	2.44	ppb		92
6) Chloroethane	1.683	64	6348	2.36	ppb		81
7) Freon 21	1.835	67	10821	1.93	ppb		88
8) Trichlorofluoromethane	1.884	101	8938	2.15	ppb		92
9) Diethyl Ether	2.116	59	6309	2.19	ppb		90
10) Freon 123a	2.116	67	6930	1.99	ppb		92
11) Freon 123	2.170	83	7698	1.89	ppb		94
12) Acrolein	2.213	56	8734	10.15	ppb		78
13) 1,1-Diclethene	2.305	96	5689	1.90	ppb		94
14) Freon 113	2.311	101	5879	2.08	ppb		80
15) Acetone	2.347	43	4395	2.49	ppb		93
16) 2-Propanol	2.475	45	14316	42.06	ppb		97
17) Iodomethane	2.445	142	891	0.33	ppb		100
18) Carbon Disulfide	2.494	76	17215	1.98	ppb		99
19) Acetonitrile	2.603	40	2940	9.82	ppb		95
20) Allyl Chloride	2.634	76	3647	2.29	ppb	#	86
21) Methyl Acetate	2.658	43	6838	2.16	ppb		93
22) Methylene Chloride	2.743	84	6734	2.14	ppb		93
23) TBA	2.872	59	24620	41.97	ppb		96
24) Acrylonitrile	3.000	53	17097	10.04	ppb		96
25) Methyl-t-Butyl Ether	3.048	73	22969	2.14	ppb		96
26) trans-1,2-Dichloroethene	3.042	96	6244	2.00	ppb		99
28) 1,1-Diclethane	3.530	63	11380	2.03	ppb		96
29) Vinyl Acetate	3.627	86	1385	1.51	ppb	#	46
30) DIPE	3.664	45	21975	2.06	ppb		90
31) 2-Chloro-1,3-Butadiene	3.658	53	10830	2.00	ppb		90
32) ETBE	4.194	59	22402	2.08	ppb		100
33) 2,2-Dichloropropane	4.359	77	10714m	2.15	ppb		
34) cis-1,2-Dichloroethene	4.359	96	7407m	2.01	ppb		
35) 2-Butanone	4.426	43	5215m	2.34	ppb		
36) Propionitrile	4.493	54	7461	10.31	ppb		75
37) Bromochloromethane	4.767	130	4174	2.06	ppb		88
38) Methacrylonitrile	4.767	67	3561	1.90	ppb		97
39) Tetrahydrofuran	4.871	42	2476	1.90	ppb		69
40) Chloroform	4.938	83	12891	2.12	ppb		94
41) 1,1,1-Trichloroethane	5.237	97	9664	2.02	ppb		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 11:27:18 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	6.084	73	21979	2.09	ppb		94
44) Cyclohexane	5.334	41	6707	2.18	ppb		99
46) Carbontetrachloride	5.517	117	7282	2.06	ppb		83
47) 1,1-Dichloropropene	5.530	75	9048	2.18	ppb		85
49) Benzene	5.847	78	25719	2.09	ppb		98
50) 1,2-Dichloroethane	5.883	62	9372	2.07	ppb		96
51) Iso-Butyl Alcohol	5.853	43	10416m	41.65	ppb		
52) n-Heptane	6.334	43	8868m	2.08	ppb		
53) 1-Butanol	6.828	56	17334	104.77	ppb		94
54) Trichloroethene	6.798	130	5834	1.85	ppb	#	71
55) Methylcyclohexane	7.035	55	8960	2.18	ppb	#	80
56) 1,2-Diclpropane	7.072	63	7144	2.17	ppb		93
57) Dibromomethane	7.218	93	4230	2.15	ppb		98
58) 1,4-Dioxane	7.279	88	2348	36.17	ppb		91
59) Methyl Methacrylate	7.310	69	5422	1.79	ppb		94
60) Bromodichloromethane	7.444	83	8837	2.12	ppb		92
61) 2-Nitropropane	7.730	41	6265	4.94	ppb		92
62) 2-Chloroethylvinyl Ether	7.858	63	1336	1.79	ppb		74
63) cis-1,3-Dichloropropene	7.992	75	9647	1.85	ppb		96
64) 4-Methyl-2-pentanone	8.200	43	8444	2.10	ppb		87
66) Toluene	8.364	91	28677	2.14	ppb		97
67) trans-1,3-Dichloropropene	8.633	75	9847	2.02	ppb		93
68) Ethyl Methacrylate	8.773	69	9763	1.99	ppb		96
69) 1,1,2-Trichloroethane	8.815	97	6436	2.12	ppb		84
72) Tetrachloroethene	8.956	164	4879	2.12	ppb	#	88
73) 2-Hexanone	9.114	43	6125	2.00	ppb		100
74) 1,3-Dichloropropane	8.992	76	11726	2.19	ppb		99
75) Dibromochloromethane	9.218	129	5554	1.99	ppb		96
76) N-Butyl Acetate	9.267	43	11696	2.03	ppb		91
77) 1,2-Dibromoethane	9.315	107	5958	2.01	ppb		90
78) Chlorobenzene	9.809	112	16904	2.07	ppb		95
79) 3-CBTF	9.827	180	8895	2.04	ppb		96
80) 4-CBTF	9.882	180	8674	2.18	ppb		94
81) 1,1,1,2-Tetrachloroethane	9.895	131	5961	2.06	ppb		96
82) Ethylbenzene	9.931	106	9782	2.17	ppb		99
83) (m+p)Xylene	10.041	106	23814	4.37	ppb		91
84) o-Xylene	10.401	106	11433	2.09	ppb		96
85) Styrene	10.413	104	18180	1.98	ppb		96
87) Bromoform	10.565	173	3828	2.16	ppb		85
88) 2-CBTF	10.644	180	9285	2.31	ppb	#	94
89) Isopropylbenzene	10.736	105	28652	2.15	ppb		93
90) Cyclohexanone	10.797	55	45829	45.20	ppb		96
91) trans-1,4-Dichloro-2-B...	11.047	53	2048	1.94	ppb		84
92) 1,1,2,2-Tetrachloroethane	10.992	83	7917	1.97	ppb		89
93) Bromobenzene	10.980	156	7311	2.24	ppb		94
94) 1,2,3-Trichloropropane	11.022	110	2631	2.01	ppb	#	87
95) n-Propylbenzene	11.095	91	32706	2.11	ppb		95
96) 2-Chlorotoluene	11.156	91	20465	2.13	ppb		95
97) 3-Chlorotoluene	11.211	91	23266	2.30	ppb		97
98) 4-Chlorotoluene	11.248	91	24143	2.17	ppb		98
99) 1,3,5-Trimethylbenzene	11.248	105	23960	2.15	ppb		94
100) tert-Butylbenzene	11.516	119	21124	2.20	ppb		95
101) 1,2,4-Trimethylbenzene	11.559	105	25245	2.26	ppb		99
102) 3,4-DCBTF	11.620	214	7094	2.21	ppb		93
103) sec-Butylbenzene	11.705	105	29905	2.11	ppb		96
104) p-Isopropyltoluene	11.827	119	26248	2.20	ppb		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 11:27:18 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

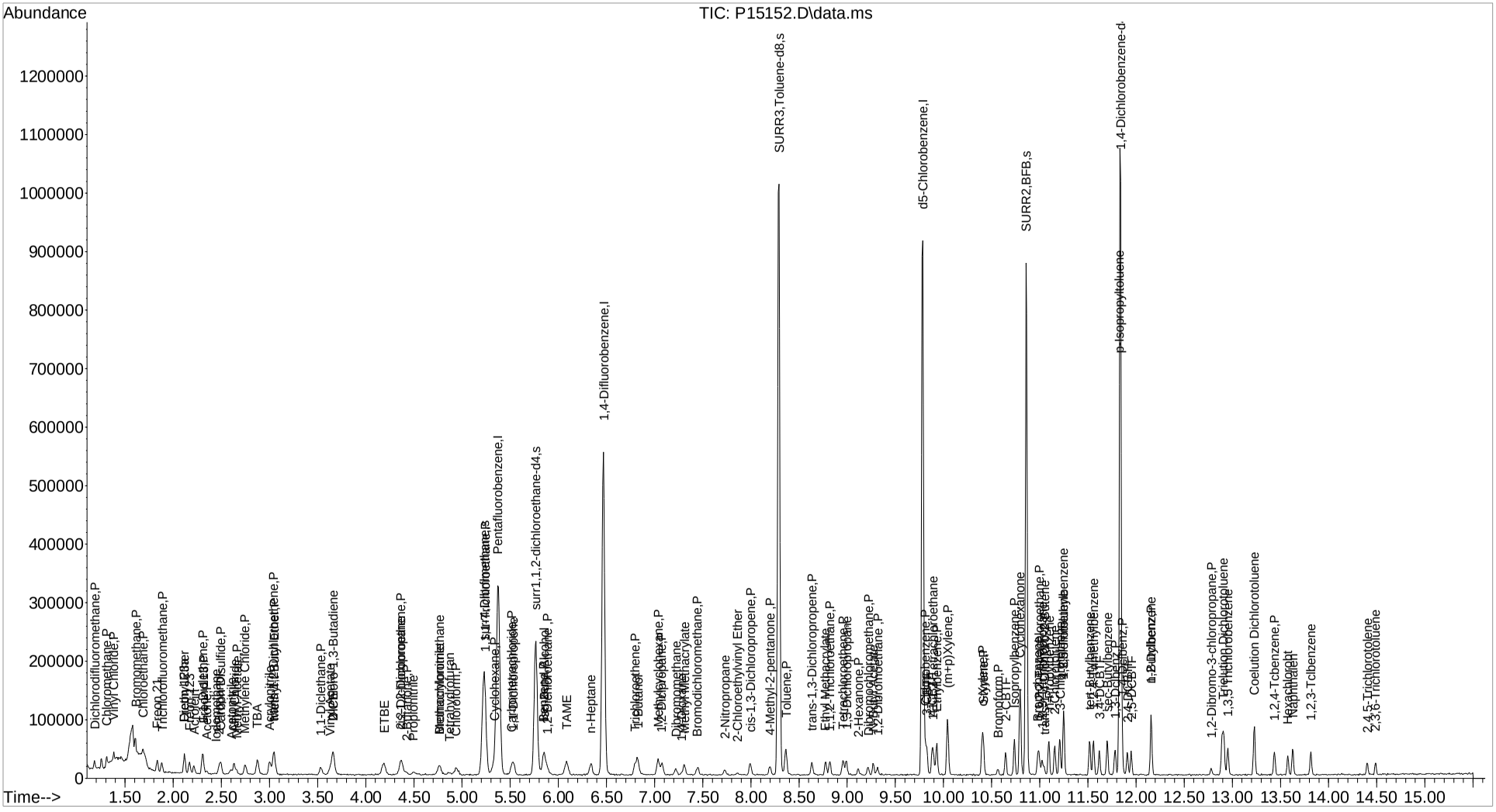
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	11.784	146	12674	2.04	ppb		98
106) 1,4-Dclbenz	11.858	146	13809	2.12	ppb		93
107) 2,4-DCBTF	11.912	214	6322	2.13	ppb	#	80
108) 2,5-DCBTF	11.949	214	7133	2.24	ppb		88
109) n-Butylbenzene	12.156	91	22604	2.03	ppb		98
110) 1,2-Dclbenz	12.156	146	12688	2.05	ppb		97
111) 1,2-Dibromo-3-chloropr...	12.784	157	2165	2.14	ppb		95
112) Trielution Dichlorotol...	12.906	125	37014	6.08	ppb		94
113) 1,3,5 Trichlorobenzene	12.955	180	10137	2.10	ppb		91
114) Coelution Dichlorotoluene	13.229	125	25573	3.96	ppb		96
115) 1,2,4-Tcbenzene	13.437	180	9011	2.00	ppb		99
116) Hexachlorobt	13.577	225	4926	2.36	ppb		88
117) Naphthalen	13.626	128	24217	1.95	ppb		98
118) 1,2,3-Tclbenzene	13.814	180	9296	2.13	ppb		90
119) 2,4,5-Trichlorotolene	14.406	159	3689	1.39	ppb	#	91
120) 2,3,6-Trichlorotoluene	14.485	159	3383	1.40	ppb	#	86

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 02 11:27:18 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

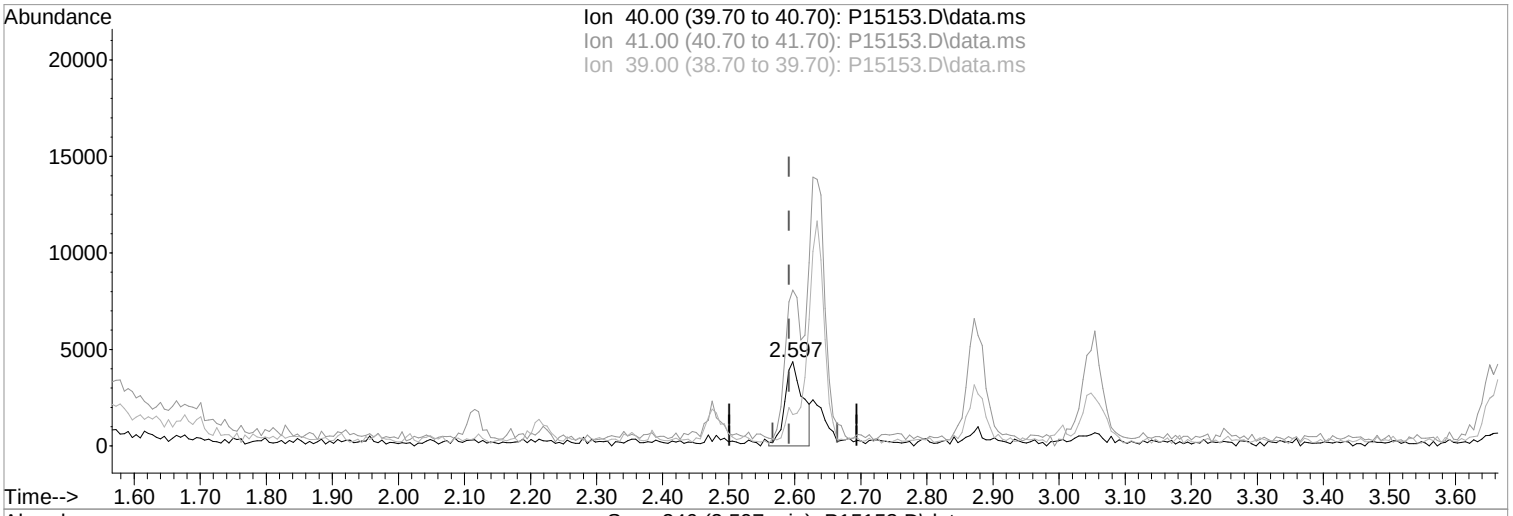


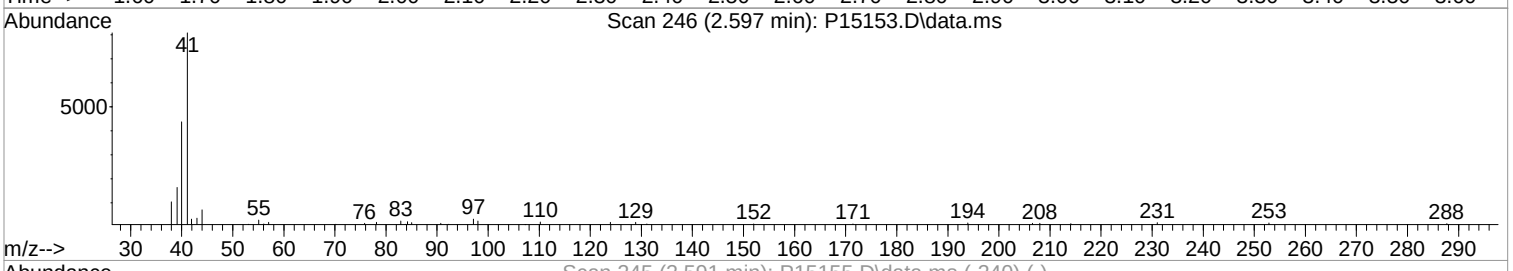
1st 01/02/18
2nd 01/04/18

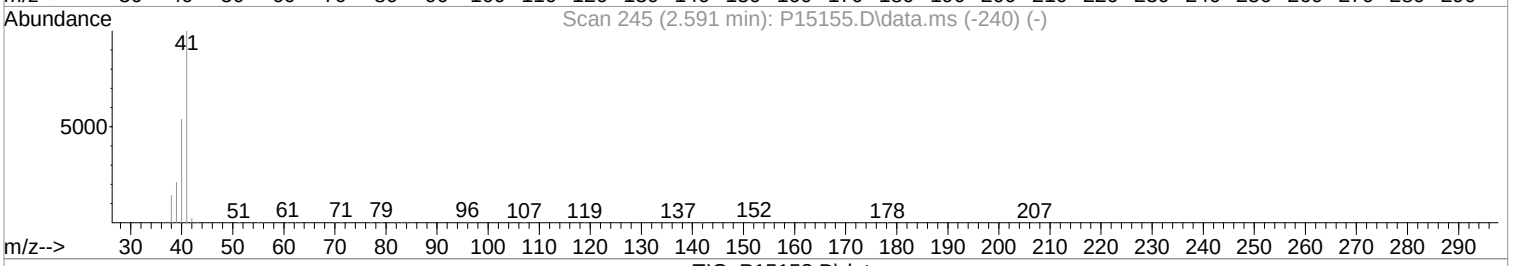
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15153.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 28.53 ppb m

response 8323

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	184.90
39.00	40.10	37.44
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

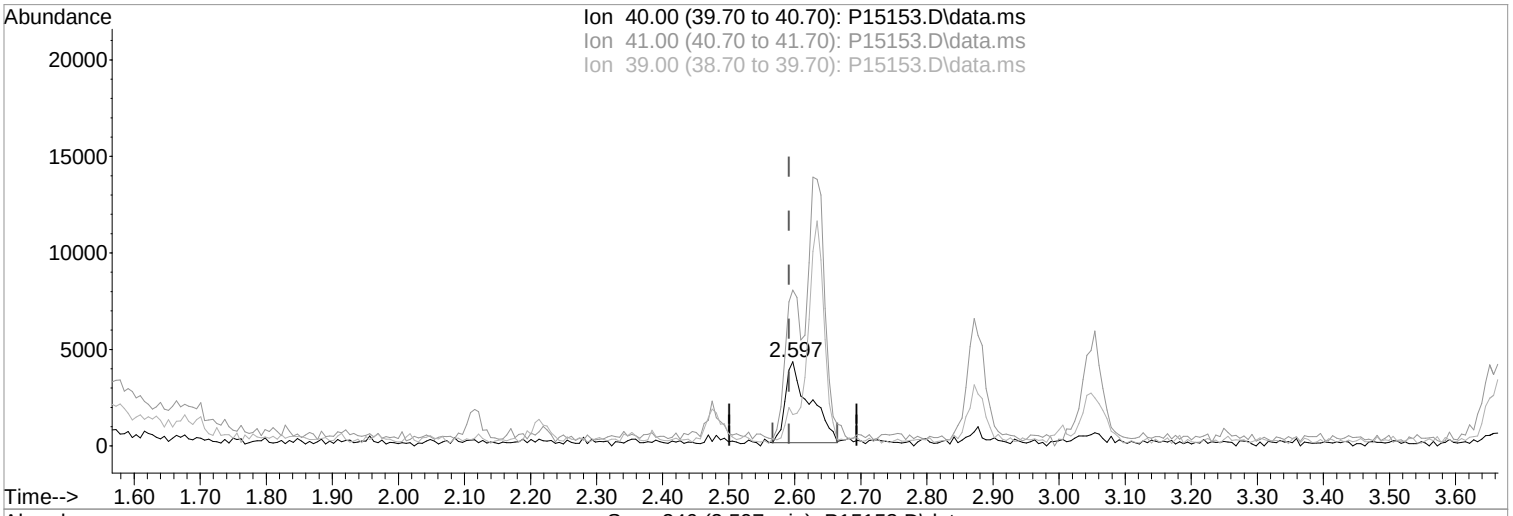
01/02/18

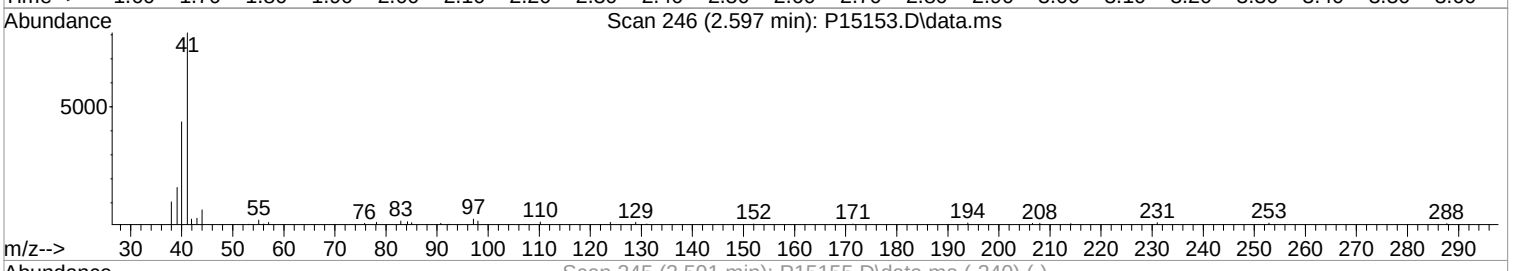
1st 01/02/18
2nd 01/04/18

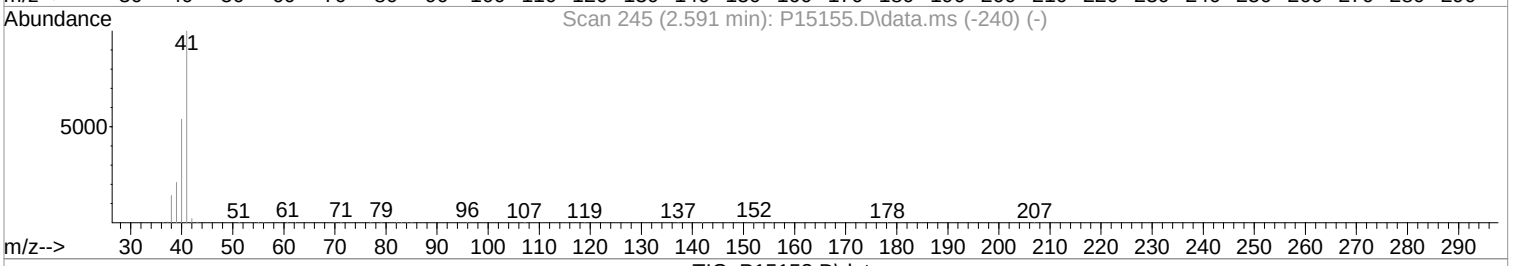
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15153.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 36.98 ppb

response 10787

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	184.90
39.00	40.10	37.44
0.00	0.00	0.00

Manual Integration:

Before

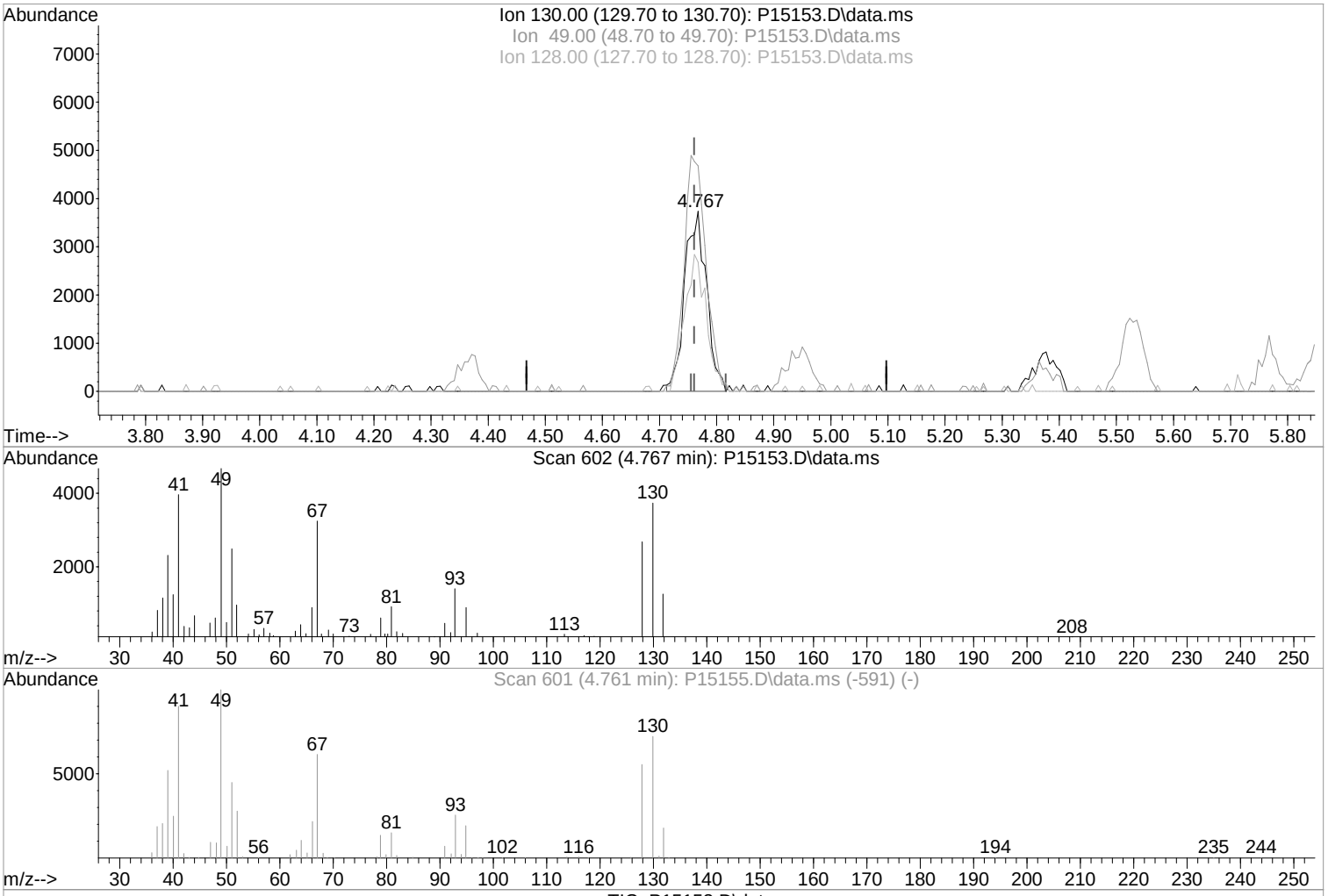
01/02/18

1st 01/02/18
2nd 01/04/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(37) Bromochloromethane

4.767min (+0.006) 5.02 ppb m

response 9891

Ion	Exp%	Act%
130.00	100	100
49.00	139.00	125.22
128.00	77.10	71.83
0.00	0.00	0.00

Manual Integration:

After

Split Peak

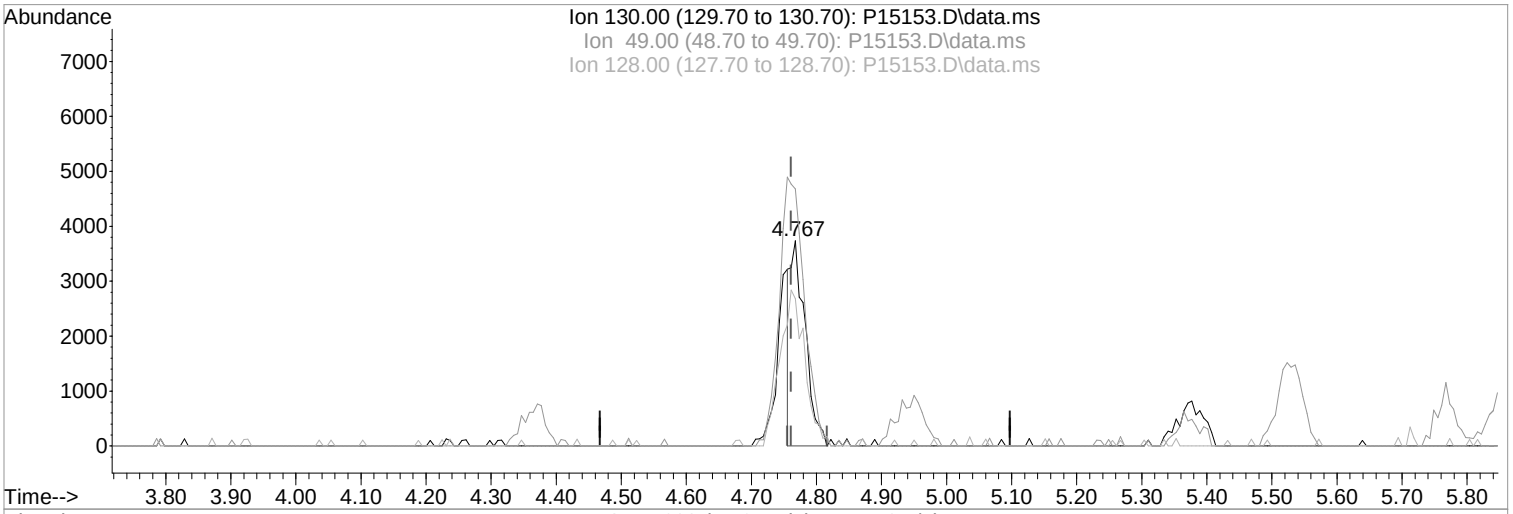
01/02/18

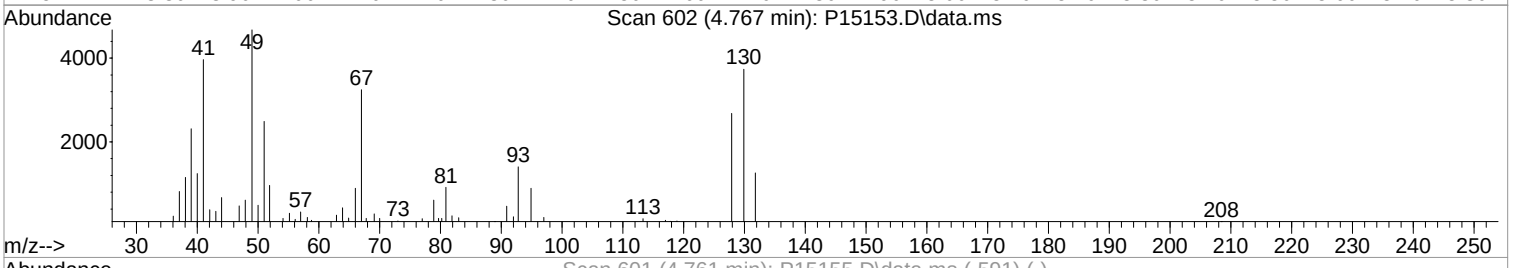
1st 01/02/18
2nd 01/04/18

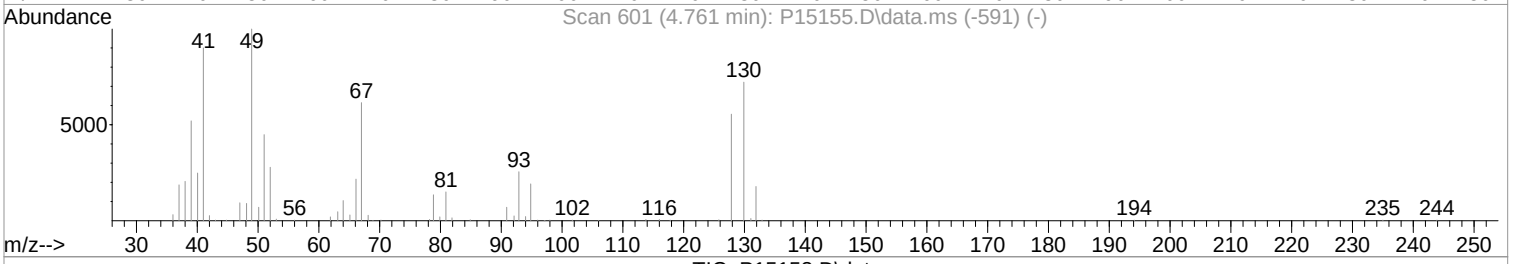
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15153.D\data.ms

(37) Bromochloromethane

4.767min (+0.006) 3.03 ppb

response 5965

Ion	Exp%	Act%
130.00	100	100
49.00	139.00	125.22
128.00	77.10	71.83
0.00	0.00	0.00

Manual Integration:

Before

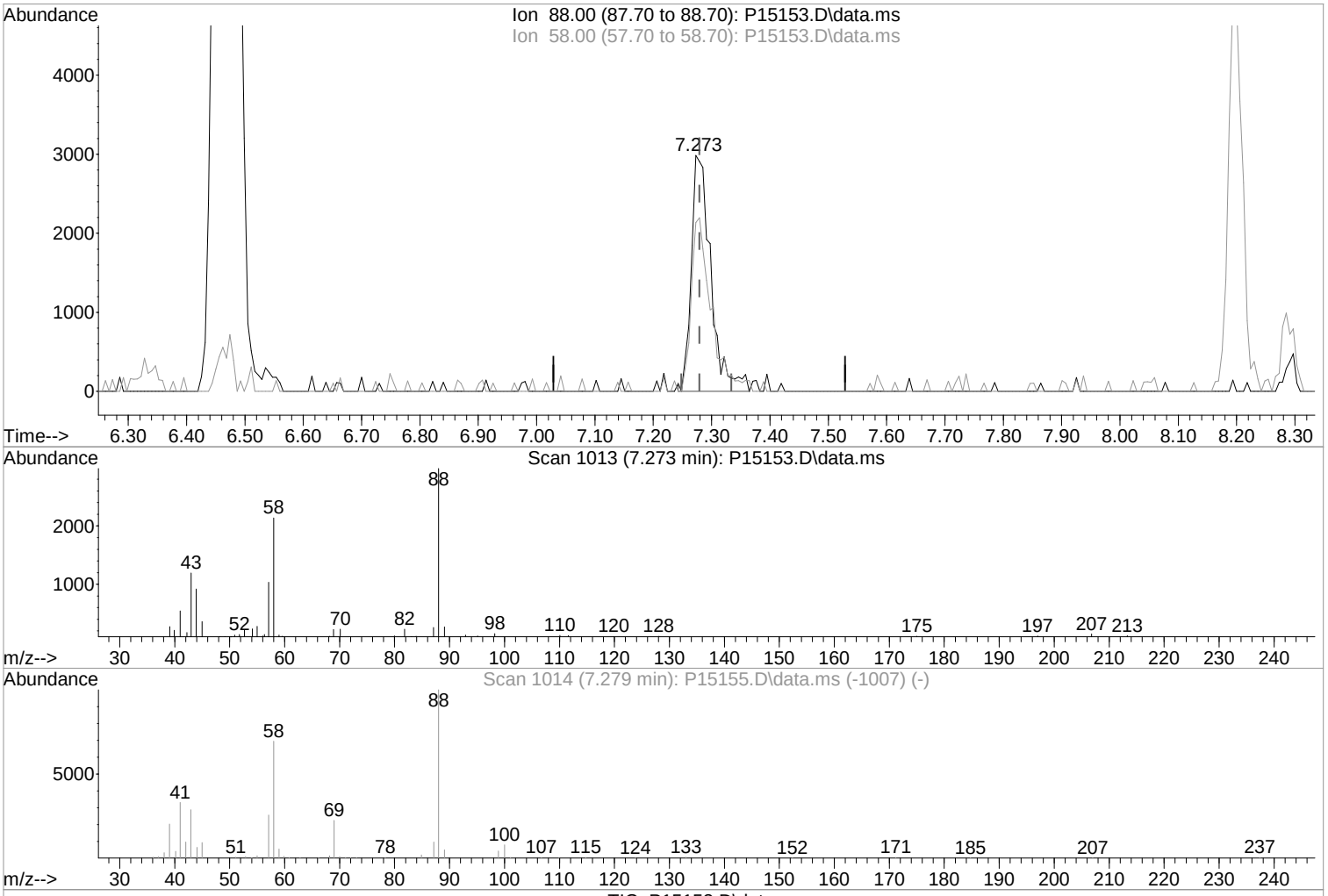
01/02/18

1st 01/02/18
2nd 01/04/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(58) 1,4-Dioxane

7.273min (-0.006) 108.11 ppb m

response 6912

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	71.57
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

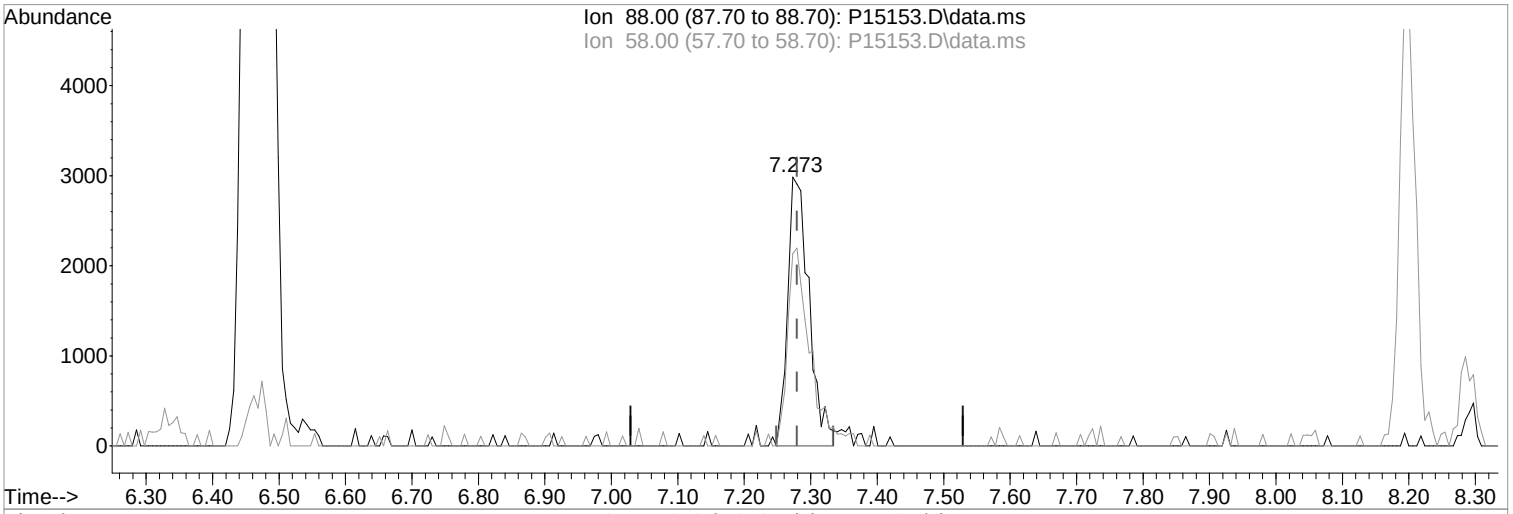
01/02/18

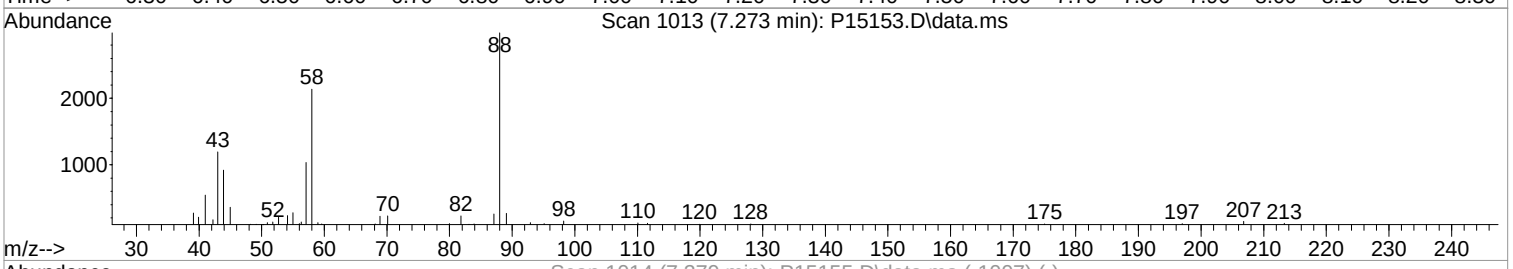
1st 01/02/18
2nd 01/04/18

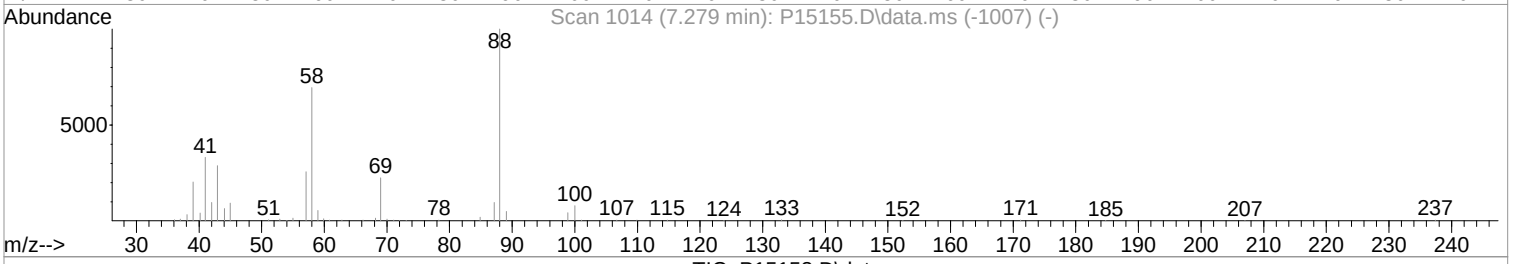
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15153.D\data.ms

(58) 1,4-Dioxane

7.273min (-0.006) 104.03 ppb

response 6651

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	71.57
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

01/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 11:30:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	283392	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	464816	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	405388	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	203033	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.225	113	31481	11.41	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.82%#				
48) surr1,1,2-dichloroetha...	5.767	65	43811	11.58	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 23.16%#				
65) SURR3,Toluene-d8	8.291	98	146183	11.86	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 23.72%#				
70) SURR2,BFB	10.858	95	55730	11.69	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 23.38%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	14887	4.26	ppb		96
3) Chloromethane	1.305	50	19472	4.52	ppb		97
4) Vinyl Chloride	1.384	62	21225	5.06	ppb		92
5) Bromomethane	1.609	94	19391	6.08	ppb		99
6) Chloroethane	1.689	64	13123	5.01	ppb		88
7) Freon 21	1.835	67	26792	4.91	ppb		95
8) Trichlorofluoromethane	1.884	101	20344	5.03	ppb		96
9) Diethyl Ether	2.115	59	14851	5.29	ppb		91
10) Freon 123a	2.122	67	17126	5.05	ppb		97
11) Freon 123	2.170	83	20299	5.12	ppb		96
12) Acrolein	2.219	56	21665	25.86	ppb		87
13) 1,1-Diclethene	2.304	96	14844	5.10	ppb		93
14) Freon 113	2.311	101	13449	4.89	ppb		93
15) Acetone	2.347	43	9058	5.26	ppb		96
16) 2-Propanol	2.475	45	32422	97.79	ppb		96
17) Iodomethane	2.445	142	2790	1.06	ppb		89
18) Carbon Disulfide	2.499	76	42597	5.02	ppb		99
19) Acetonitrile	2.597	40	8323m	28.53	ppb		
20) Allyl Chloride	2.634	76	8487	5.47	ppb		89
21) Methyl Acetate	2.658	43	15122	4.90	ppb		95
22) Methylene Chloride	2.749	84	15458	5.03	ppb	#	82
23) TBA	2.877	59	60237	105.40	ppb		100
24) Acrylonitrile	2.999	53	43295	26.10	ppb		96
25) Methyl-t-Butyl Ether	3.054	73	52999	5.08	ppb		98
26) trans-1,2-Dichloroethene	3.042	96	15100	4.98	ppb		98
28) 1,1-Diclethane	3.536	63	26838	4.92	ppb		96
29) Vinyl Acetate	3.627	86	4036	4.51	ppb	#	93
30) DIPE	3.658	45	52453	5.05	ppb		88
31) 2-Chloro-1,3-Butadiene	3.664	53	26425	5.01	ppb		83
32) ETBE	4.188	59	53172	5.07	ppb		98
33) 2,2-Dichloropropane	4.359	77	23967	4.94	ppb		98
34) cis-1,2-Dichloroethene	4.371	96	18079	5.03	ppb		98
35) 2-Butanone	4.420	43	11921	5.49	ppb		90
36) Propionitrile	4.493	54	18077	25.64	ppb		86
37) Bromochloromethane	4.767	130	9891m	5.02	ppb		
38) Methacrylonitrile	4.767	67	8723	4.78	ppb	#	80
39) Tetrahydrofuran	4.859	42	6134	4.84	ppb		98
40) Chloroform	4.950	83	29677	5.01	ppb		93
41) 1,1,1-Trichloroethane	5.243	97	23417	5.04	ppb		100

1st 01/09/18
2nd 01/05/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 11:30:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	6.084	73	52164	5.10	ppb		97
44) Cyclohexane	5.322	41	14483	4.79	ppb		92
46) Carbontetrachloride	5.523	117	18447	5.29	ppb		90
47) 1,1-Dichloropropene	5.529	75	21281	5.20	ppb		94
49) Benzene	5.846	78	61250	5.04	ppb		98
50) 1,2-Dichloroethane	5.883	62	22893	5.13	ppb		97
51) Iso-Butyl Alcohol	5.859	43	23860	96.86	ppb		91
52) n-Heptane	6.340	43	22156	5.27	ppb		96
53) 1-Butanol	6.822	56	40479	248.41	ppb		90
54) Trichloroethene	6.797	130	15019	4.82	ppb	#	88
55) Methylcyclohexane	7.035	55	21785	5.38	ppb		92
56) 1,2-Diclpropane	7.078	63	15535	4.80	ppb		100
57) Dibromomethane	7.218	93	9298	4.81	ppb		91
58) 1,4-Dioxane	7.273	88	6912m	108.11	ppb		
59) Methyl Methacrylate	7.303	69	14282	4.79	ppb		95
60) Bromodichloromethane	7.444	83	20116	4.90	ppb		96
61) 2-Nitropropane	7.730	41	12041	9.64	ppb		94
62) 2-Chloroethylvinyl Ether	7.858	63	3483	4.74	ppb		91
63) cis-1,3-Dichloropropene	7.992	75	26383	5.13	ppb		93
64) 4-Methyl-2-pentanone	8.200	43	20060	5.08	ppb		98
66) Toluene	8.364	91	68544	5.20	ppb		99
67) trans-1,3-Dichloropropene	8.632	75	23633	4.93	ppb		94
68) Ethyl Methacrylate	8.773	69	25902	5.36	ppb		96
69) 1,1,2-Trichloroethane	8.821	97	13951	4.66	ppb		91
72) Tetrachloroethene	8.956	164	11519	5.15	ppb		85
73) 2-Hexanone	9.114	43	15141	5.07	ppb		97
74) 1,3-Dichloropropane	8.992	76	27611	5.30	ppb		97
75) Dibromochloromethane	9.218	129	14239	5.24	ppb		99
76) N-Butyl Acetate	9.266	43	31060	5.53	ppb		97
77) 1,2-Dibromoethane	9.315	107	14526	5.03	ppb		91
78) Chlorobenzene	9.809	112	42337	5.33	ppb		95
79) 3-CBTF	9.827	180	22269	5.26	ppb	#	89
80) 4-CBTF	9.882	180	20165	5.21	ppb		97
81) 1,1,1,2-Tetrachloroethane	9.894	131	14163	5.02	ppb		95
82) Ethylbenzene	9.931	106	22757	5.19	ppb		99
83) (m+p)Xylene	10.041	106	56709	10.68	ppb		96
84) o-Xylene	10.400	106	27065	5.09	ppb		98
85) Styrene	10.413	104	45533	5.09	ppb		97
87) Bromoform	10.565	173	8444	4.77	ppb		96
88) 2-CBTF	10.644	180	21787	5.42	ppb		94
89) Isopropylbenzene	10.736	105	73755	5.53	ppb		95
90) Cyclohexanone	10.797	55	108884	107.30	ppb		97
91) trans-1,4-Dichloro-2-B...	11.047	53	5580	5.28	ppb		82
92) 1,1,2,2-Tetrachloroethane	10.992	83	19803	4.92	ppb		84
93) Bromobenzene	10.986	156	17774	5.44	ppb	#	90
94) 1,2,3-Trichloropropane	11.022	110	6876	5.26	ppb		97
95) n-Propylbenzene	11.095	91	84531	5.45	ppb		99
96) 2-Chlorotoluene	11.156	91	51609	5.37	ppb		95
97) 3-Chlorotoluene	11.211	91	53980	5.32	ppb		94
98) 4-Chlorotoluene	11.248	91	58405	5.26	ppb		95
99) 1,3,5-Trimethylbenzene	11.248	105	57897	5.19	ppb		92
100) tert-Butylbenzene	11.516	119	51279	5.32	ppb		97
101) 1,2,4-Trimethylbenzene	11.559	105	57468	5.14	ppb		98
102) 3,4-DCBTF	11.620	214	15851	4.93	ppb		96
103) sec-Butylbenzene	11.699	105	74838	5.28	ppb		100
104) p-Isopropyltoluene	11.821	119	62091	5.21	ppb		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 11:30:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

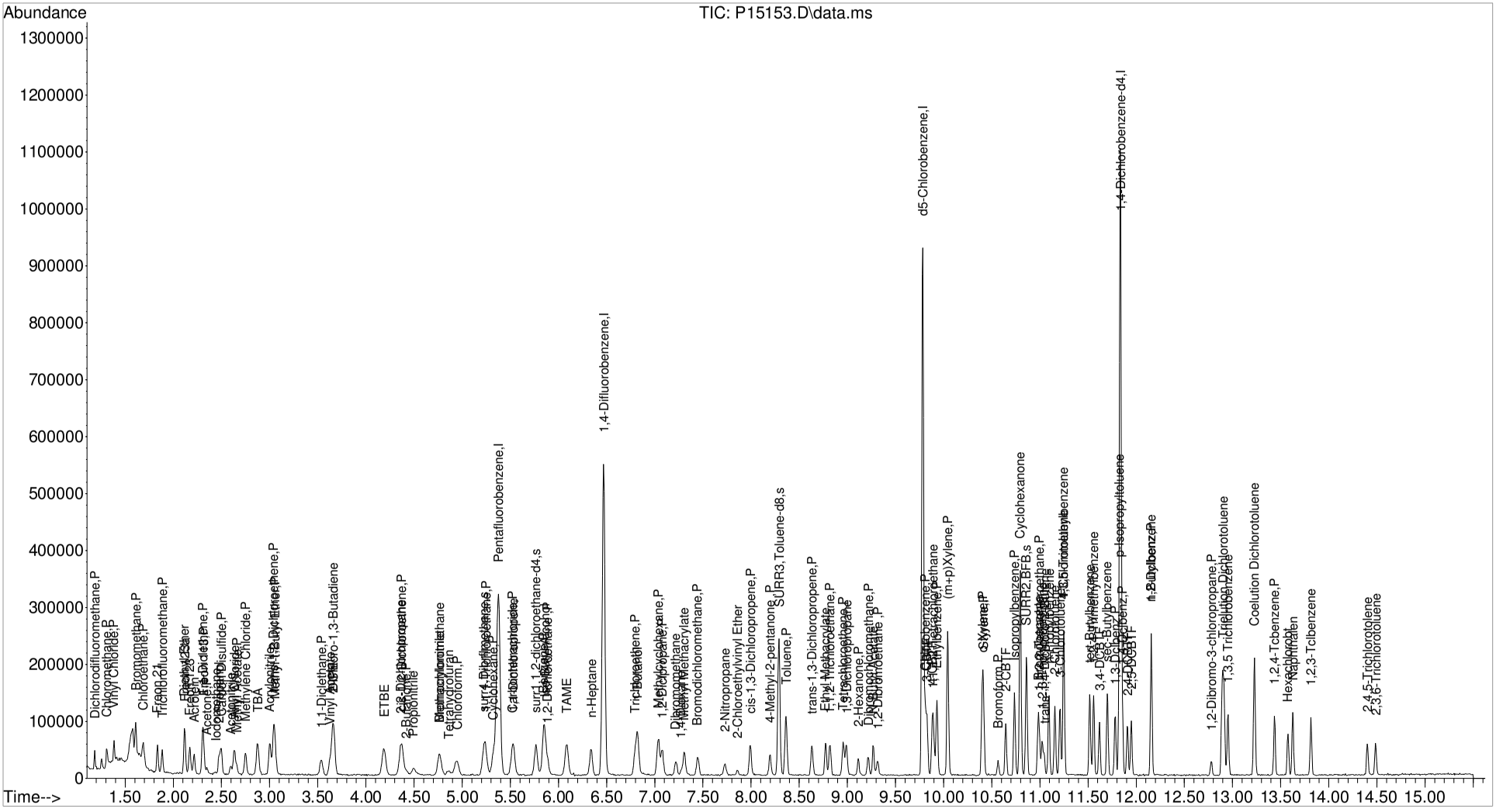
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	32275	5.20	ppb	97
106) 1,4-Dclbenz	11.857	146	34253	5.26	ppb	94
107) 2,4-DCBTF	11.912	214	15481	5.20	ppb	95
108) 2,5-DCBTF	11.949	214	15937	5.01	ppb	93
109) n-Butylbenzene	12.156	91	55352	4.98	ppb	98
110) 1,2-Dclbenz	12.156	146	33230	5.36	ppb	99
111) 1,2-Dibromo-3-chloropr...	12.784	157	5017	4.95	ppb	88
112) Trielution Dichlorotol...	12.900	125	92375	15.15	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	24138	5.00	ppb	92
114) Coelution Dichlorotoluene	13.229	125	66434	10.27	ppb	97
115) 1,2,4-Tcbenzene	13.436	180	22876	5.08	ppb	98
116) Hexachlorobt	13.577	225	10295	4.92	ppb	94
117) Naphthalen	13.625	128	62322	5.01	ppb	97
118) 1,2,3-Tclbenzene	13.814	180	20632	4.71	ppb	96
119) 2,4,5-Trichlorotolene	14.400	159	10252	3.86	ppb	91
120) 2,3,6-Trichlorotoluene	14.491	159	10012	4.15	ppb	88

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 11:30:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



1st 01/09/18
2nd 01/05/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15154.D
Acq On : 29 Dec 2017 6:49 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 02 10:04:51 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	291966	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	486988	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	432595	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.833	152	217884	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	52724	18.23	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 36.46%#				
48) surr1,1,2-dichloroetha...	5.767	65	72765	18.36	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 36.72%#				
65) SURR3,Toluene-d8	8.291	98	239896	18.58	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 37.16%#				
70) SURR2,BFB	10.858	95	88358	17.69	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 35.38%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	73723	20.50	ppb		97
3) Chloromethane	1.305	50	84655	19.07	ppb		97
4) Vinyl Chloride	1.384	62	87767	20.30	ppb		99
5) Bromomethane	1.616	94	65257	19.87	ppb		95
6) Chloroethane	1.689	64	52850	19.58	ppb		96
7) Freon 21	1.835	67	115862	20.59	ppb		99
8) Trichlorofluoromethane	1.884	101	82363	19.77	ppb		98
9) Diethyl Ether	2.116	59	56515	19.54	ppb		98
10) Freon 123a	2.122	67	67133	19.21	ppb		98
11) Freon 123	2.170	83	80114	19.63	ppb		95
12) Acrolein	2.213	56	91390	105.88	ppb		99
13) 1,1-Diclethene	2.305	96	53573	17.86	ppb		97
14) Freon 113	2.311	101	53019	18.71	ppb		94
15) Acetone	2.347	43	36137	20.38	ppb		98
16) 2-Propanol	2.475	45	134988	395.20	ppb		97
17) Iodomethane	2.439	142	48129	17.81	ppb		99
18) Carbon Disulfide	2.500	76	180345	20.62	ppb		98
19) Acetonitrile	2.591	40	28858	96.02	ppb		95
20) Allyl Chloride	2.634	76	31637	19.81	ppb		95
21) Methyl Acetate	2.652	43	66029	20.77	ppb		99
22) Methylene Chloride	2.750	84	60822	19.23	ppb		91
23) TBA	2.872	59	230923	392.21	ppb		99
24) Acrylonitrile	3.000	53	170824	99.96	ppb		99
25) Methyl-t-Butyl Ether	3.048	73	214622	19.96	ppb		99
26) trans-1,2-Dichloroethene	3.042	96	58955	18.86	ppb		97
28) 1,1-Diclethane	3.536	63	109240	19.43	ppb		99
29) Vinyl Acetate	3.621	86	19750	21.42	ppb	#	84
30) DIPE	3.658	45	210759	19.69	ppb		96
31) 2-Chloro-1,3-Butadiene	3.658	53	108371	19.93	ppb		94
32) ETBE	4.182	59	218829	20.27	ppb		96
33) 2,2-Dichloropropane	4.365	77	96726	19.35	ppb		96
34) cis-1,2-Dichloroethene	4.371	96	67570	18.26	ppb		96
35) 2-Butanone	4.408	43	45812	20.46	ppb		97
36) Propionitrile	4.487	54	67409	92.82	ppb		95
37) Bromochloromethane	4.767	130	39264	19.33	ppb		92
38) Methacrylonitrile	4.767	67	35031	18.62	ppb		98
39) Tetrahydrofuran	4.853	42	26454	20.27	ppb		94
40) Chloroform	4.938	83	103219	16.93	ppb		97
41) 1,1,1-Trichloroethane	5.243	97	88142	18.40	ppb		97

1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15154.D
Acq On : 29 Dec 2017 6:49 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 02 10:04:51 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	213627	20.27	ppb	98
44) Cyclohexane	5.328	41	59944	18.91	ppb	96
46) Carbontetrachloride	5.523	117	71449	19.55	ppb	93
47) 1,1-Dichloropropene	5.530	75	82271	19.18	ppb	98
49) Benzene	5.847	78	247133	19.43	ppb	98
50) 1,2-Dichloroethane	5.883	62	90128	19.29	ppb	95
51) Iso-Butyl Alcohol	5.853	43	97223	376.70	ppb	98
52) n-Heptane	6.334	43	83119	18.88	ppb	96
53) 1-Butanol	6.816	56	168954	989.61	ppb	99
54) Trichloroethene	6.798	130	61608	18.88	ppb	96
55) Methylcyclohexane	7.035	55	82601	19.46	ppb	98
56) 1,2-Diclpropane	7.078	63	65021	19.16	ppb	95
57) Dibromomethane	7.218	93	39938	19.71	ppb	97
58) 1,4-Dioxane	7.279	88	25673	383.26	ppb	97
59) Methyl Methacrylate	7.304	69	59811	19.16	ppb	96
60) Bromodichloromethane	7.450	83	79062	18.36	ppb	97
61) 2-Nitropropane	7.724	41	50922	38.91	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	13441	17.45	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	109564	20.33	ppb	98
64) 4-Methyl-2-pentanone	8.194	43	83525	20.18	ppb	99
66) Toluene	8.364	91	267628	19.37	ppb	97
67) trans-1,3-Dichloropropene	8.633	75	100595	20.04	ppb	99
68) Ethyl Methacrylate	8.773	69	106139	20.96	ppb	97
69) 1,1,2-Trichloroethane	8.822	97	58878	18.76	ppb	98
72) Tetrachloroethene	8.956	164	42833	17.94	ppb	95
73) 2-Hexanone	9.108	43	63596	19.97	ppb	88
74) 1,3-Dichloropropane	8.986	76	109832	19.76	ppb	99
75) Dibromochloromethane	9.218	129	56561	19.50	ppb	99
76) N-Butyl Acetate	9.267	43	128752	21.48	ppb	97
77) 1,2-Dibromoethane	9.315	107	63198	20.51	ppb	97
78) Chlorobenzene	9.809	112	167284	19.74	ppb	98
79) 3-CBTF	9.827	180	88226	19.52	ppb	99
80) 4-CBTF	9.882	180	80584	19.51	ppb	96
81) 1,1,1,2-Tetrachloroethane	9.895	131	56794	18.85	ppb	99
82) Ethylbenzene	9.931	106	87997	18.81	ppb	96
83) (m+p)Xylene	10.041	106	219646	38.78	ppb	100
84) o-Xylene	10.401	106	108435	19.12	ppb	94
85) Styrene	10.413	104	187928	19.69	ppb	97
87) Bromoform	10.565	173	38186	20.09	ppb	96
88) 2-CBTF	10.644	180	86163	19.97	ppb	98
89) Isopropylbenzene	10.736	105	282882	19.76	ppb	99
90) Cyclohexanone	10.797	55	429744	394.62	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	22558	19.88	ppb	95
92) 1,1,2,2-Tetrachloroethane	10.992	83	83898	19.42	ppb	98
93) Bromobenzene	10.980	156	67536	19.26	ppb	96
94) 1,2,3-Trichloropropane	11.022	110	29041	20.69	ppb	100
95) n-Propylbenzene	11.095	91	333066	20.01	ppb	100
96) 2-Chlorotoluene	11.156	91	200054	19.39	ppb	100
97) 3-Chlorotoluene	11.205	91	224096	20.59	ppb	92
98) 4-Chlorotoluene	11.248	91	230591	19.34	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	232544	19.42	ppb	97
100) tert-Butylbenzene	11.516	119	200065	19.36	ppb	98
101) 1,2,4-Trimethylbenzene	11.559	105	233419	19.47	ppb	98
102) 3,4-DCBTF	11.620	214	68300	19.80	ppb	99
103) sec-Butylbenzene	11.699	105	294650	19.37	ppb	99
104) p-Isopropyltoluene	11.821	119	240243	18.77	ppb	99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15154.D
Acq On : 29 Dec 2017 6:49 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 02 10:04:51 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	128325	19.26	ppb	99
106) 1,4-Dclbenz	11.858	146	132721	18.98	ppb	98
107) 2,4-DCBTF	11.906	214	63318	19.82	ppb	98
108) 2,5-DCBTF	11.949	214	68912	20.18	ppb	96
109) n-Butylbenzene	12.156	91	223403	18.71	ppb	97
110) 1,2-Dclbenz	12.156	146	132338	19.90	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.778	157	20568	18.89	ppb	88
112) Trielution Dichlorotol...	12.900	125	390759	59.72	ppb	99
113) 1,3,5 Trichlorobenzene	12.955	180	103199	19.93	ppb	99
114) Coelution Dichlorotoluene	13.229	125	280855	40.47	ppb	99
115) 1,2,4-Tcbenzene	13.437	180	92621	19.16	ppb	97
116) Hexachlorobt	13.577	225	40099	17.87	ppb	97
117) Naphthalen	13.626	128	274709	20.59	ppb	98
118) 1,2,3-Tclbenzene	13.814	180	90401	19.25	ppb	95
119) 2,4,5-Trichlorotolene	14.400	159	55914	19.64	ppb	96
120) 2,3,6-Trichlorotoluene	14.485	159	52554	20.31	ppb	86

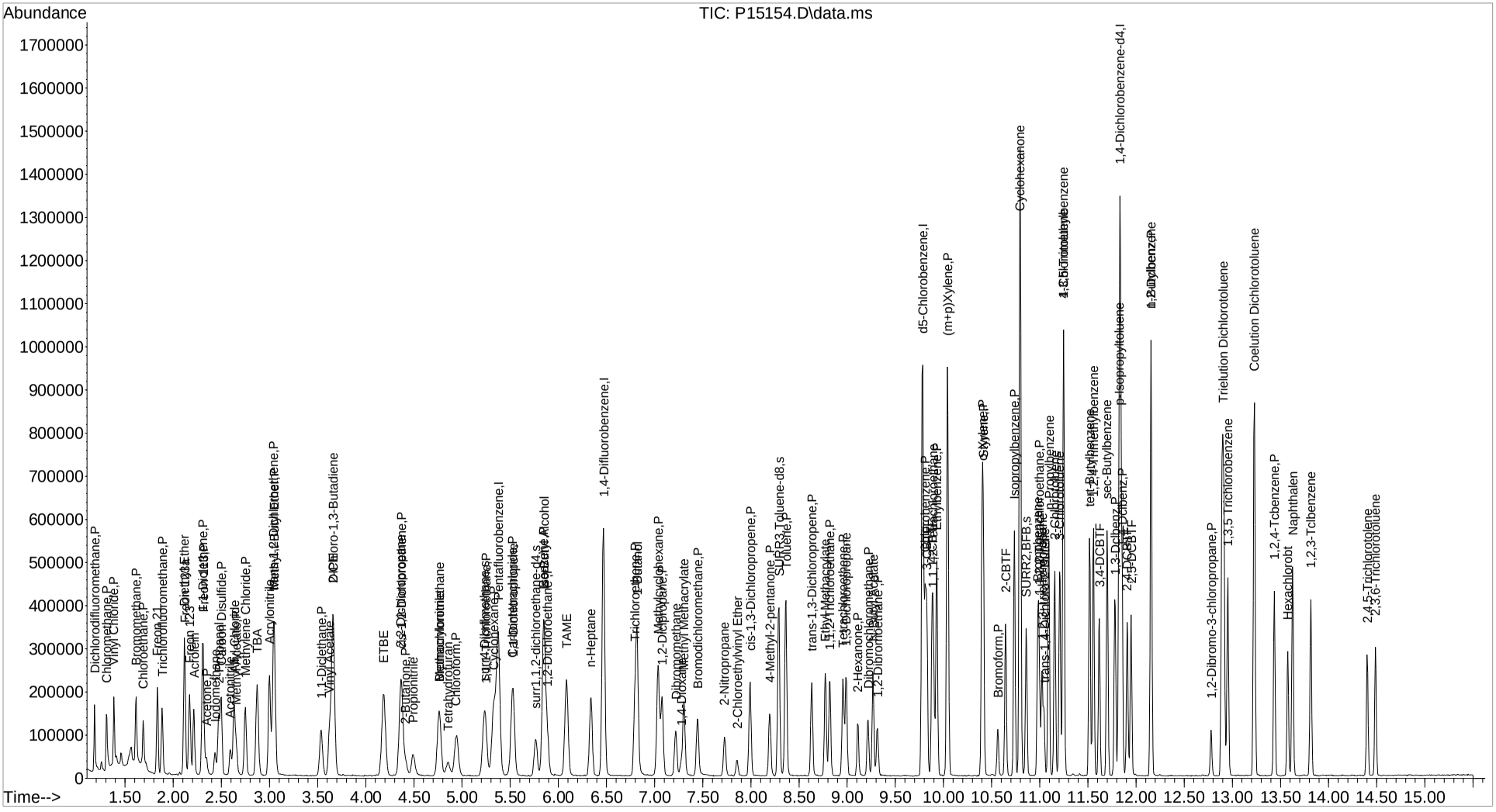
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15154.D
Acq On : 29 Dec 2017 6:49 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 02 10:04:51 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

1st 01/02/18
2nd 01/04/18



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15155.D
Acq On : 29 Dec 2017 7:11 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 02 10:04:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	285166	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	470666	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	417045	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	212180	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.225	113	139572	49.94	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.88%			
48) surr1,1,2-dichloroetha...	5.767	65	193216	50.45	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.90%			
65) SURR3,Toluene-d8	8.291	98	626059	50.17	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.34%			
70) SURR2,BFB	10.858	95	238144	49.33	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	185458	52.80	ppb	100
3) Chloromethane	1.305	50	209194	48.25	ppb	100
4) Vinyl Chloride	1.384	62	213326	50.51	ppb	100
5) Bromomethane	1.610	94	132984	41.46	ppb	100
6) Chloroethane	1.689	64	132064	50.08	ppb	100
7) Freon 21	1.835	67	274910	50.02	ppb	100
8) Trichlorofluoromethane	1.884	101	202491	49.75	ppb	100
9) Diethyl Ether	2.116	59	133898	47.40	ppb	100
10) Freon 123a	2.116	67	169452	49.64	ppb	100
11) Freon 123	2.170	83	197460	49.54	ppb	100
12) Acrolein	2.213	56	205270	243.48	ppb	100
13) 1,1-Diclethene	2.305	96	133942	45.73	ppb	100
14) Freon 113	2.311	101	133342	48.17	ppb	100
15) Acetone	2.347	43	87260	50.38	ppb	100
16) 2-Propanol	2.475	45	309128	926.59	ppb	100
17) Iodomethane	2.433	142	183051	69.36	ppb	100
18) Carbon Disulfide	2.500	76	431946	50.56	ppb	100
19) Acetonitrile	2.591	40	68723	234.11	ppb	100
20) Allyl Chloride	2.634	76	74459	47.73	ppb	100
21) Methyl Acetate	2.652	43	147727	47.57	ppb	100
22) Methylene Chloride	2.750	84	149710	48.46	ppb	100
23) TBA	2.871	59	538425	936.28	ppb	100
24) Acrylonitrile	3.000	53	395382	236.88	ppb	100
25) Methyl-t-Butyl Ether	3.048	73	511794	48.74	ppb	100
26) trans-1,2-Dichloroethene	3.042	96	146262	47.90	ppb	100
28) 1,1-Diclethane	3.536	63	269876	49.15	ppb	100
29) Vinyl Acetate	3.627	86	42409	47.10	ppb	100
30) DIPE	3.658	45	509501	48.73	ppb	100
31) 2-Chloro-1,3-Butadiene	3.658	53	254374	47.89	ppb	100
32) ETBE	4.188	59	532219	50.48	ppb	100
33) 2,2-Dichloropropane	4.359	77	233299	47.78	ppb	100
34) cis-1,2-Dichloroethene	4.371	96	164684	45.56	ppb	100
35) 2-Butanone	4.414	43	106486	48.70	ppb	100
36) Propionitrile	4.493	54	163133	229.97	ppb	100
37) Bromochloromethane	4.761	130	92520	46.64	ppb	100
38) Methacrylonitrile	4.761	67	82633	44.98	ppb	100
39) Tetrahydrofuran	4.853	42	62628	49.14	ppb	100
40) Chloroform	4.944	83	253260	42.52	ppb	100
41) 1,1,1-Trichloroethane	5.243	97	216329	46.24	ppb	100

1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15155.D
Acq On : 29 Dec 2017 7:11 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 02 10:04:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	512669	49.81	ppb	100
44) Cyclohexane	5.328	41	146746	47.90	ppb	100
46) Carbontetrachloride	5.517	117	177487	50.24	ppb	100
47) 1,1-Dichloropropene	5.529	75	204387	49.30	ppb	100
49) Benzene	5.847	78	603170	49.06	ppb	100
50) 1,2-Dichloroethane	5.883	62	221777	49.10	ppb	100
51) Iso-Butyl Alcohol	5.853	43	235620	944.60	ppb	100
52) n-Heptane	6.340	43	207731	48.81	ppb	100
53) 1-Butanol	6.822	56	408921	2478.23	ppb	100
54) Trichloroethene	6.798	130	157782	50.04	ppb	100
55) Methylcyclohexane	7.035	55	209380	51.03	ppb	100
56) 1,2-Diclpropane	7.078	63	159102	48.51	ppb	100
57) Dibromomethane	7.218	93	95701	48.87	ppb	100
58) 1,4-Dioxane	7.279	88	60464	933.95	ppb	100
59) Methyl Methacrylate	7.304	69	145402	48.19	ppb	100
60) Bromodichloromethane	7.444	83	192925	46.36	ppb	100
61) 2-Nitropropane	7.724	41	123250	97.43	ppb	100
62) 2-Chloroethylvinyl Ether	7.858	63	36696	49.29	ppb	100
63) cis-1,3-Dichloropropene	7.992	75	265008	50.88	ppb	100
64) 4-Methyl-2-pentanone	8.194	43	197235	49.30	ppb	100
66) Toluene	8.364	91	660262	49.44	ppb	100
67) trans-1,3-Dichloropropene	8.633	75	246121	50.72	ppb	100
68) Ethyl Methacrylate	8.773	69	250836	51.26	ppb	100
69) 1,1,2-Trichloroethane	8.822	97	140459	46.30	ppb	100
72) Tetrachloroethene	8.956	164	110238	47.90	ppb	100
73) 2-Hexanone	9.108	43	151603	49.37	ppb	100
74) 1,3-Dichloropropane	8.986	76	264897	49.43	ppb	100
75) Dibromochloromethane	9.218	129	141283	50.51	ppb	100
76) N-Butyl Acetate	9.267	43	304141	52.63	ppb	100
77) 1,2-Dibromoethane	9.315	107	147371	49.60	ppb	100
78) Chlorobenzene	9.809	112	409247	50.09	ppb	100
79) 3-CBTF	9.827	180	209587	48.11	ppb	100
80) 4-CBTF	9.882	180	188719	47.40	ppb	100
81) 1,1,1,2-Tetrachloroethane	9.895	131	142685	49.13	ppb	100
82) Ethylbenzene	9.931	106	221739	49.16	ppb	100
83) (m+p)Xylene	10.041	106	544255	99.68	ppb	100
84) o-Xylene	10.400	106	273570	50.04	ppb	100
85) Styrene	10.413	104	473047	51.40	ppb	100
87) Bromoform	10.565	173	91728	49.56	ppb	100
88) 2-CBTF	10.644	180	204437	48.67	ppb	100
89) Isopropylbenzene	10.736	105	703200	50.44	ppb	100
90) Cyclohexanone	10.797	55	1032485	973.58	ppb	100
91) trans-1,4-Dichloro-2-B...	11.047	53	54132	48.99	ppb	100
92) 1,1,2,2-Tetrachloroethane	10.998	83	202168	48.05	ppb	100
93) Bromobenzene	10.980	156	167317	49.01	ppb	100
94) 1,2,3-Trichloropropane	11.022	110	67110	49.10	ppb	100
95) n-Propylbenzene	11.095	91	837261	51.65	ppb	100
96) 2-Chlorotoluene	11.156	91	496293	49.38	ppb	100
97) 3-Chlorotoluene	11.211	91	535859	50.55	ppb	100
98) 4-Chlorotoluene	11.248	91	583666	50.27	ppb	100
99) 1,3,5-Trimethylbenzene	11.248	105	592259	50.79	ppb	100
100) tert-Butylbenzene	11.516	119	510291	50.70	ppb	100
101) 1,2,4-Trimethylbenzene	11.559	105	598582	51.26	ppb	100
102) 3,4-DCBTF	11.620	214	168206	50.08	ppb	100
103) sec-Butylbenzene	11.699	105	758675	51.23	ppb	100
104) p-Isopropyltoluene	11.821	119	636264	51.05	ppb	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15155.D
Acq On : 29 Dec 2017 7:11 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 02 10:04:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	327576	50.47	ppb	100
106) 1,4-Dclbenz	11.858	146	330531	48.53	ppb	100
107) 2,4-DCBTF	11.912	214	155261	49.89	ppb	100
108) 2,5-DCBTF	11.949	214	166686	50.13	ppb	100
109) n-Butylbenzene	12.156	91	606320	52.15	ppb	100
110) 1,2-Dclbenz	12.156	146	326328	50.38	ppb	100
111) 1,2-Dibromo-3-chloropr...	12.784	157	49528	46.72	ppb	100
112) Trielution Dichlorotol...	12.900	125	979295	153.70	ppb	100
113) 1,3,5 Trichlorobenzene	12.955	180	258128	51.19	ppb	100
114) Coelution Dichlorotoluene	13.229	125	718040	106.26	ppb	100
115) 1,2,4-Tcbenzene	13.437	180	247574	52.58	ppb	100
116) Hexachlorobt	13.577	225	107495	49.18	ppb	100
117) Naphthalen	13.625	128	706889	54.41	ppb	100
118) 1,2,3-Tclbenzene	13.814	180	240331	52.55	ppb	100
119) 2,4,5-Trichlorotolene	14.400	159	168073	60.62	ppb	100
120) 2,3,6-Trichlorotoluene	14.485	159	154183	61.18	ppb	100

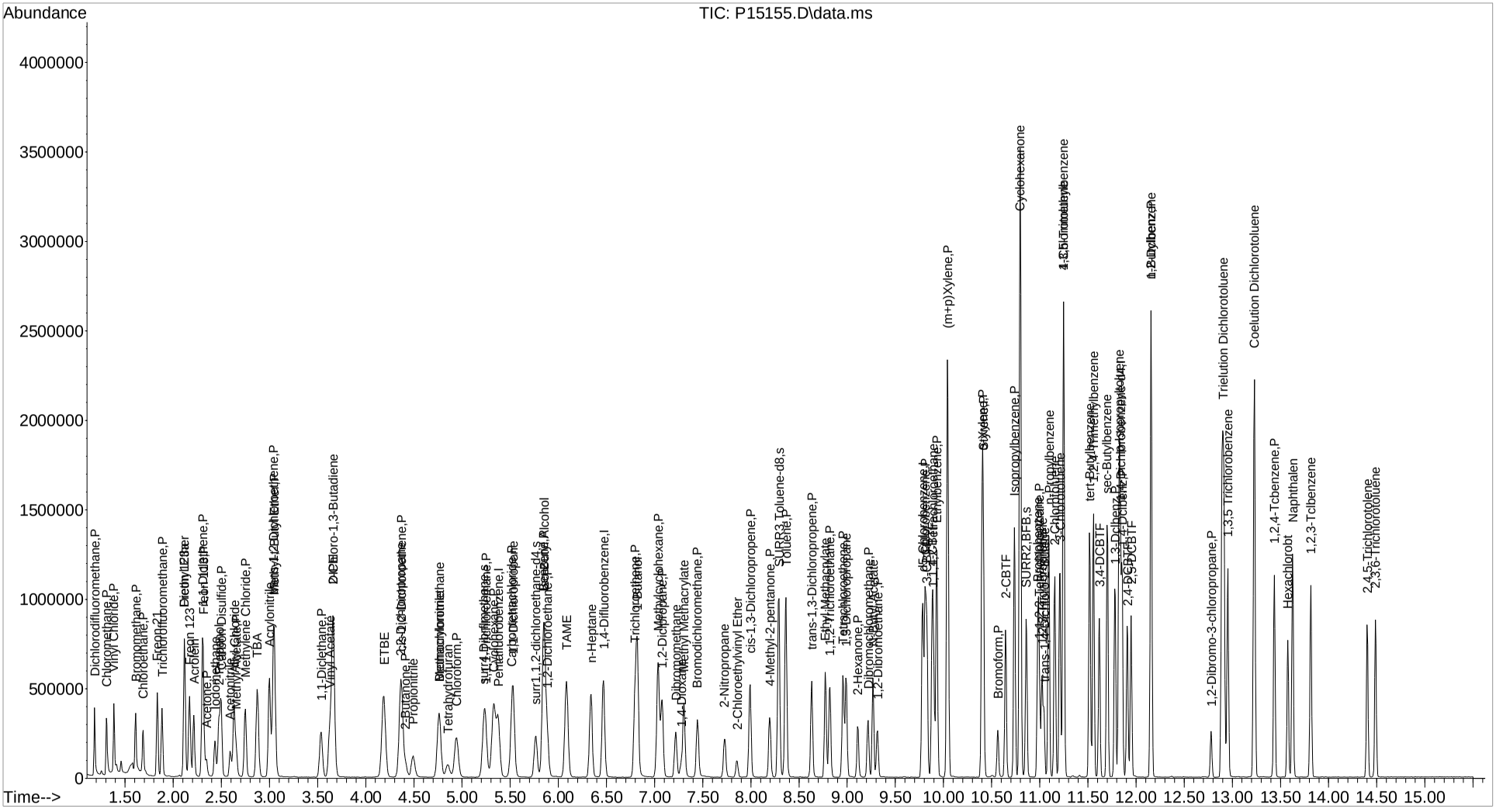
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15155.D
Acq On : 29 Dec 2017 7:11 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 02 10:04:54 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

1st 01/02/18
2nd 01/04/18



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15156.D
Acq On : 29 Dec 2017 7:32 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 02 10:04:57 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	291479	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	485941	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	437945	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	232083	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	291015	100.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 201.72%#				
48) surr1,1,2-dichloroetha...	5.767	65	393053	99.41	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 198.82%#				
65) SURR3,Toluene-d8	8.291	98	1270821	98.64	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 197.28%#				
70) SURR2,BFB	10.858	95	503121	100.94	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 201.88%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	406406	113.20	ppb		97
3) Chloromethane	1.305	50	457343	103.19	ppb		100
4) Vinyl Chloride	1.384	62	471329	109.18	ppb		98
5) Bromomethane	1.603	94	267383	81.55	ppb		98
6) Chloroethane	1.683	64	281603	104.48	ppb		98
7) Freon 21	1.835	67	570720	101.59	ppb		100
8) Trichlorofluoromethane	1.878	101	450983	108.41	ppb		99
9) Diethyl Ether	2.115	59	296654	102.75	ppb		97
10) Freon 123a	2.115	67	352884	101.14	ppb		98
11) Freon 123	2.170	83	416503	102.22	ppb		98
12) Acrolein	2.213	56	420814	488.34	ppb		99
13) 1,1-Diclethene	2.304	96	295926	98.84	ppb		96
14) Freon 113	2.310	101	295983	104.62	ppb		99
15) Acetone	2.347	43	173977	98.27	ppb		98
16) 2-Propanol	2.481	45	687919	2017.34	ppb		99
17) Iodomethane	2.432	142	397156	147.24	ppb		96
18) Carbon Disulfide	2.493	76	869002	99.52	ppb		99
19) Acetonitrile	2.591	40	152773	509.17	ppb		99
20) Allyl Chloride	2.634	76	159380	99.95	ppb		98
21) Methyl Acetate	2.652	43	314450	99.07	ppb		99
22) Methylene Chloride	2.749	84	327410	103.68	ppb		98
23) TBA	2.877	59	1208755	2056.41	ppb		99
24) Acrylonitrile	2.999	53	871837	511.02	ppb		98
25) Methyl-t-Butyl Ether	3.048	73	1106707	103.11	ppb		100
26) trans-1,2-Dichloroethene	3.042	96	321201	102.90	ppb		96
28) 1,1-Diclethane	3.536	63	596191	106.24	ppb		99
29) Vinyl Acetate	3.621	86	91108	99.00	ppb	#	88
30) DIPE	3.658	45	1041698	97.47	ppb		98
31) 2-Chloro-1,3-Butadiene	3.658	53	512752	94.45	ppb		95
32) ETBE	4.188	59	1081591	100.36	ppb		98
33) 2,2-Dichloropropane	4.365	77	515652	103.33	ppb		98
34) cis-1,2-Dichloroethene	4.371	96	362470	98.11	ppb		99
35) 2-Butanone	4.408	43	216443	96.85	ppb		96
36) Propionitrile	4.493	54	359375	495.65	ppb		98
37) Bromochloromethane	4.761	130	207820	102.50	ppb		97
38) Methacrylonitrile	4.761	67	181165	96.47	ppb		98
39) Tetrahydrofuran	4.853	42	140292	107.69	ppb		92
40) Chloroform	4.944	83	552967	90.83	ppb		99
41) 1,1,1-Trichloroethane	5.237	97	489285	102.31	ppb		98

1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15156.D
Acq On : 29 Dec 2017 7:32 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 02 10:04:57 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	6.084	73	1052920	100.08	ppb		99
44) Cyclohexane	5.328	41	308776	97.62	ppb		97
46) Carbontetrachloride	5.517	117	401975	110.20	ppb		97
47) 1,1-Dichloropropene	5.529	75	450211	105.18	ppb		93
49) Benzene	5.846	78	1326681	104.52	ppb		99
50) 1,2-Dichloroethane	5.883	62	481513	103.26	ppb		98
51) Iso-Butyl Alcohol	5.859	43	537047	2085.33	ppb		98
52) n-Heptane	6.334	43	458826	104.42	ppb		97
53) 1-Butanol	6.828	56	896835	5264.34	ppb		99
54) Trichloroethene	6.797	130	342516	105.22	ppb		97
55) Methylcyclohexane	7.035	55	436058	102.94	ppb		95
56) 1,2-Diclpropane	7.078	63	349111	103.09	ppb		100
57) Dibromomethane	7.218	93	210104	103.93	ppb		99
58) 1,4-Dioxane	7.279	88	141678	2119.63	ppb		97
59) Methyl Methacrylate	7.303	69	317131	101.80	ppb		96
60) Bromodichloromethane	7.444	83	432910	100.77	ppb		96
61) 2-Nitropropane	7.730	41	273028	209.06	ppb		97
62) 2-Chloroethylvinyl Ether	7.852	63	89516	116.45	ppb		97
63) cis-1,3-Dichloropropene	7.992	75	584323	108.65	ppb		97
64) 4-Methyl-2-pentanone	8.193	43	408070	98.80	ppb		100
66) Toluene	8.364	91	1433672	103.98	ppb		99
67) trans-1,3-Dichloropropene	8.632	75	545723	108.92	ppb		100
68) Ethyl Methacrylate	8.773	69	557135	110.26	ppb		100
69) 1,1,2-Trichloroethane	8.821	97	312299	99.70	ppb		98
72) Tetrachloroethene	8.956	164	246661	102.06	ppb		99
73) 2-Hexanone	9.108	43	318266	98.71	ppb		98
74) 1,3-Dichloropropane	8.992	76	577284	102.58	ppb		97
75) Dibromochloromethane	9.218	129	318785	108.54	ppb		99
76) N-Butyl Acetate	9.266	43	649156	106.97	ppb		98
77) 1,2-Dibromoethane	9.315	107	323633	103.73	ppb		96
78) Chlorobenzene	9.809	112	904858	105.46	ppb		99
79) 3-CBTF	9.827	180	437770	95.69	ppb		96
80) 4-CBTF	9.882	180	397310	95.03	ppb		97
81) 1,1,1,2-Tetrachloroethane	9.894	131	315863	103.56	ppb		99
82) Ethylbenzene	9.931	106	493080	104.09	ppb		96
83) (m+p)Xylene	10.047	106	1229191	214.38	ppb		91
84) o-Xylene	10.400	106	604232	105.25	ppb		100
85) Styrene	10.413	104	1053244	108.99	ppb		99
87) Bromoform	10.565	173	216146	106.77	ppb		98
88) 2-CBTF	10.644	180	430768	93.75	ppb		95
89) Isopropylbenzene	10.736	105	1573603	103.20	ppb		100
90) Cyclohexanone	10.797	55	2355466	2030.61	ppb		97
91) trans-1,4-Dichloro-2-B...	11.047	53	127881	105.82	ppb		97
92) 1,1,2,2-Tetrachloroethane	10.998	83	463179	100.65	ppb		100
93) Bromobenzene	10.986	156	379408	101.60	ppb	#	85
94) 1,2,3-Trichloropropane	11.022	110	150724	100.82	ppb		96
95) n-Propylbenzene	11.095	91	1857463	104.76	ppb		99
96) 2-Chlorotoluene	11.156	91	1134081	103.17	ppb		99
97) 3-Chlorotoluene	11.211	91	1133645	97.76	ppb		98
98) 4-Chlorotoluene	11.248	91	1309812	103.13	ppb		98
99) 1,3,5-Trimethylbenzene	11.248	105	1335384	104.71	ppb		97
100) tert-Butylbenzene	11.522	119	1156415	105.05	ppb		99
101) 1,2,4-Trimethylbenzene	11.559	105	1356626	106.21	ppb		99
102) 3,4-DCBTF	11.620	214	364062	99.10	ppb		99
103) sec-Butylbenzene	11.699	105	1721017	106.24	ppb		100
104) p-Isopropyltoluene	11.827	119	1462620	107.29	ppb		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15156.D
Acq On : 29 Dec 2017 7:32 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 02 10:04:57 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

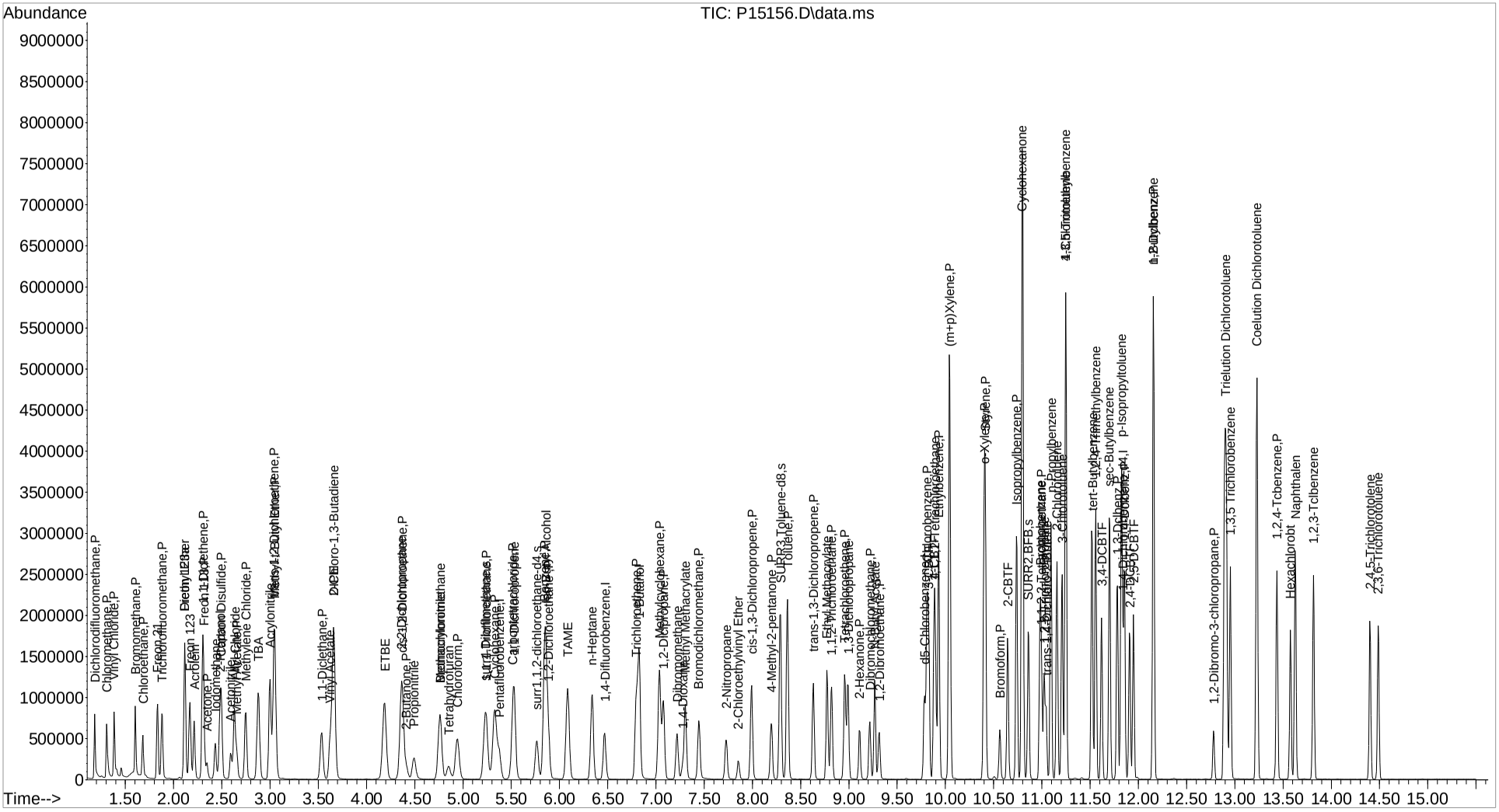
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	745361	105.00	ppb	99
106) 1,4-Dclbenz	11.857	146	759898	102.00	ppb	100
107) 2,4-DCBTF	11.912	214	342135	100.52	ppb	98
108) 2,5-DCBTF	11.949	214	375116	103.14	ppb	96
109) n-Butylbenzene	12.156	91	1412911	111.11	ppb	99
110) 1,2-Dclbenz	12.156	146	757996	106.99	ppb	99
111) 1,2-Dibromo-3-chloropr...	12.784	157	121453	104.74	ppb	97
112) Trielution Dichlorotol...	12.900	125	2132804	306.04	ppb	99
113) 1,3,5 Trichlorobenzene	12.955	180	566591	102.72	ppb	99
114) Coelution Dichlorotoluene	13.229	125	1564602	211.68	ppb	98
115) 1,2,4-Tcbenzene	13.436	180	573904	111.44	ppb	97
116) Hexachlorobt	13.577	225	253403	106.00	ppb	97
117) Naphthalen	13.625	128	1624030	114.29	ppb	100
118) 1,2,3-Tclbenzene	13.814	180	562316	112.41	ppb	98
119) 2,4,5-Trichlorotolene	14.400	159	389200	128.33	ppb	96
120) 2,3,6-Trichlorotoluene	14.485	159	350481	127.14	ppb	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15156.D
Acq On : 29 Dec 2017 7:32 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 02 10:04:57 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

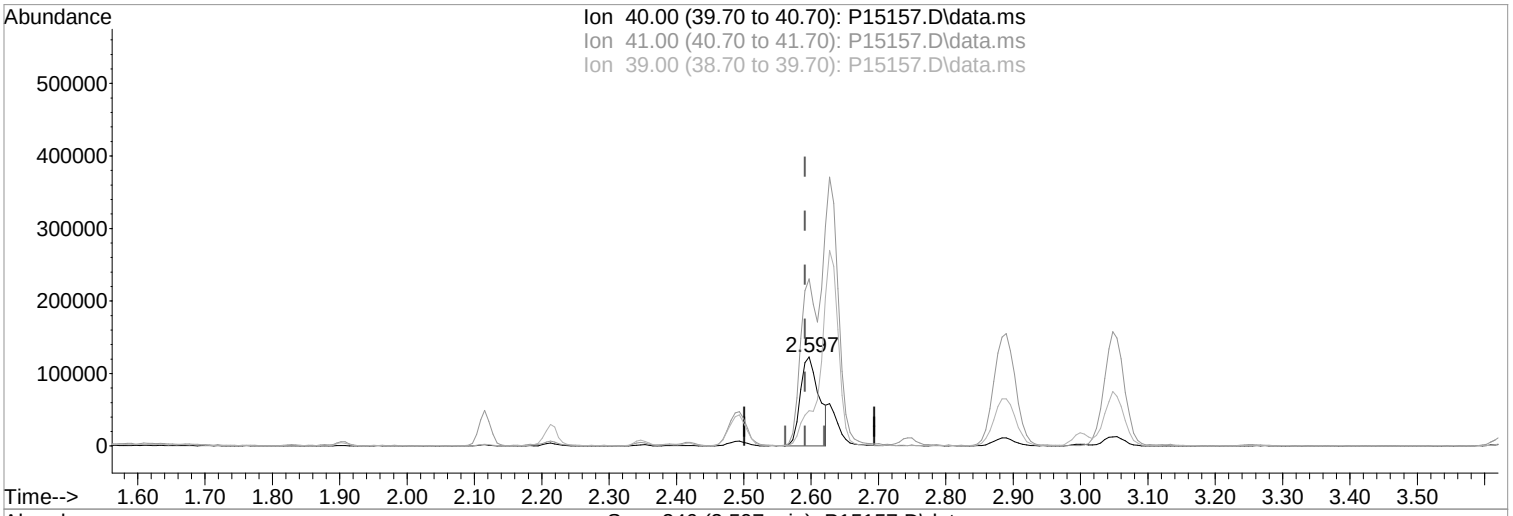


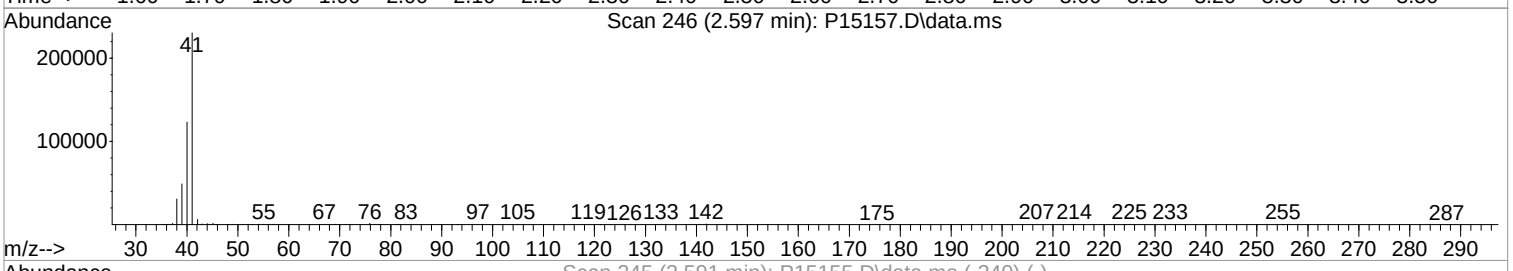
1st 01/02/18
2nd 01/04/18

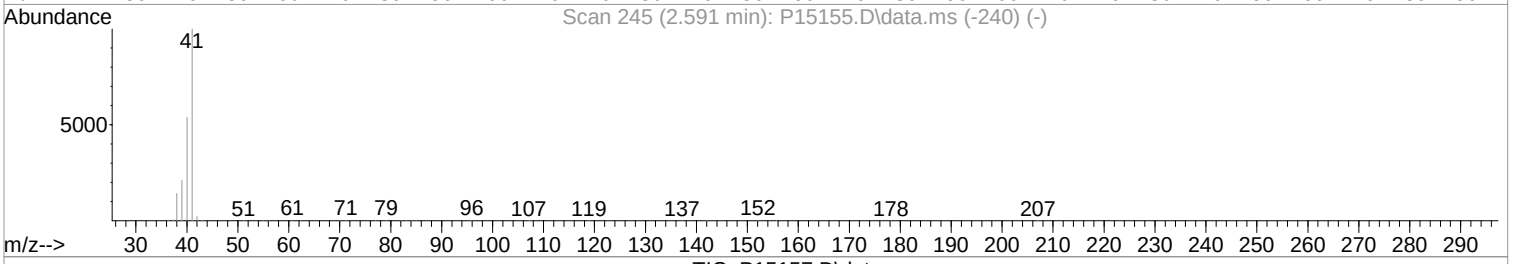
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 02 10:05:00 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15157.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 790.36 ppb m

response 238029

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.65
39.00	40.10	39.75
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

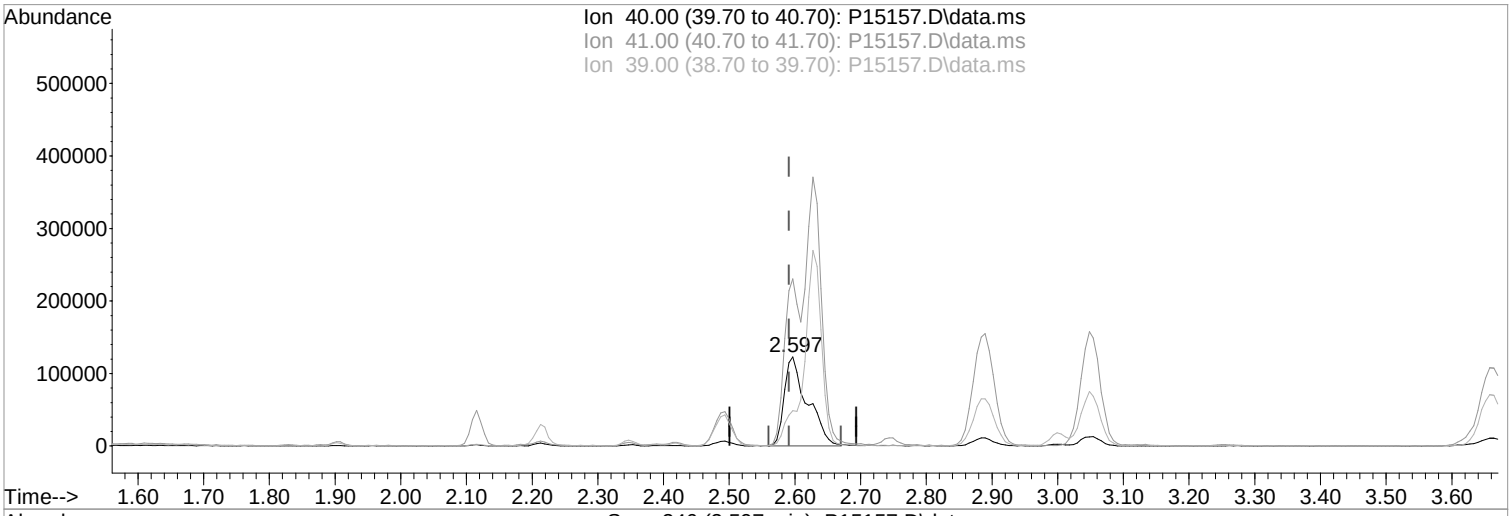
01/02/18

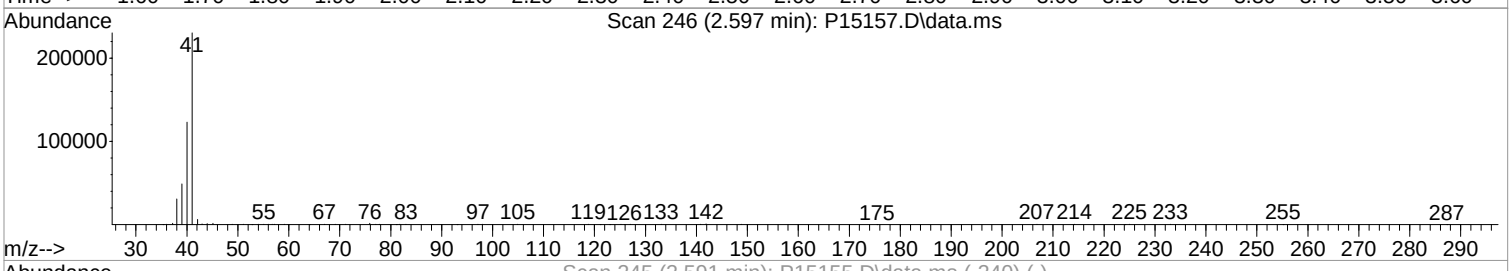
1st 01/02/18
2nd 01/04/18

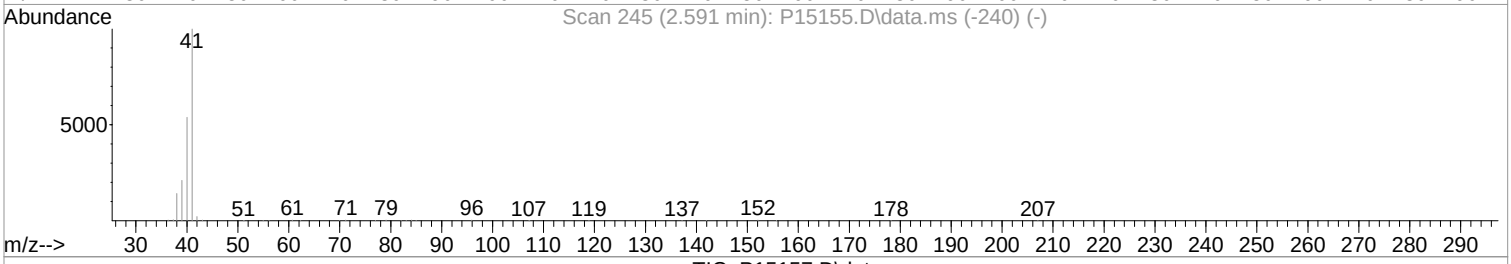
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 02 10:05:00 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration







TIC: P15157.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 989.46 ppb

response 297991

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.65
39.00	40.10	39.75
0.00	0.00	0.00

Manual Integration:

Before

01/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 02 11:37:06 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	292569	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	490455	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	434110	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	247756	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	547527	188.02	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 376.04%#				
48) surr1,1,2-dichloroetha...	5.761	65	734391	184.03	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 368.06%#				
65) SURR3,Toluene-d8	8.291	98	2327638	179.00	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 358.00%#				
70) SURR2,BFB	10.858	95	956833	190.21	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 380.42%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	539738	149.77	ppb		99
3) Chloromethane	1.305	50	622907	140.03	ppb		100
4) Vinyl Chloride	1.384	62	641459	148.03	ppb		98
5) Bromomethane	1.603	94	316635	96.21	ppb		96
6) Chloroethane	1.670	64	374393	138.39	ppb		97
7) Freon 21	1.829	67	814269	144.40	ppb		100
8) Trichlorofluoromethane	1.878	101	602038	144.19	ppb		99
9) Diethyl Ether	2.115	59	416000	143.54	ppb		99
10) Freon 123a	2.115	67	513832	146.71	ppb		99
11) Freon 123	2.170	83	600366	146.80	ppb		100
12) Acrolein	2.213	56	615460	711.56	ppb		99
13) 1,1-Diclethene	2.298	96	397720	132.35	ppb		99
14) Freon 113	2.304	101	392173	138.10	ppb		99
15) Acetone	2.347	43	258006	145.20	ppb		99
16) 2-Propanol	2.493	45	1065868	3114.04	ppb		97
17) Iodomethane	2.432	142	556437	205.52	ppb		98
18) Carbon Disulfide	2.493	76	1268697	144.75	ppb		99
19) Acetonitrile	2.597	40	238029m	790.36	ppb		
20) Allyl Chloride	2.627	76	201357	125.80	ppb		90
21) Methyl Acetate	2.652	43	462488	145.17	ppb		98
22) Methylene Chloride	2.743	84	445429	140.53	ppb		94
23) TBA	2.890	59	1786989	3028.82	ppb		100
24) Acrylonitrile	2.999	53	1218100	711.32	ppb		98
25) Methyl-t-Butyl Ether	3.048	73	1557430	144.57	ppb		99
26) trans-1,2-Dichloroethene	3.036	96	440239	140.51	ppb		96
28) 1,1-Diclethane	3.536	63	815707	144.81	ppb		99
29) Vinyl Acetate	3.627	86	122751	132.88	ppb	#	85
30) DIPE	3.658	45	1499391	139.77	ppb		99
31) 2-Chloro-1,3-Butadiene	3.658	53	749401	137.52	ppb		98
32) ETBE	4.182	59	1553259	143.58	ppb		99
33) 2,2-Dichloropropane	4.359	77	693672	138.48	ppb		99
34) cis-1,2-Dichloroethene	4.365	96	506031	136.46	ppb		99
35) 2-Butanone	4.414	43	320247	142.76	ppb		95
36) Propionitrile	4.493	54	514127	706.44	ppb		100
37) Bromochloromethane	4.761	130	288792	141.90	ppb		99
38) Methacrylonitrile	4.761	67	256359	136.00	ppb		97
39) Tetrahydrofuran	4.853	42	194913	149.06	ppb		95
40) Chloroform	4.944	83	758817	124.18	ppb		99
41) 1,1,1-Trichloroethane	5.237	97	663489	138.22	ppb		99

1st 01/02/18
2nd 01/04/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 02 11:37:06 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	6.084	73	1515937	143.56	ppb		99
44) Cyclohexane	5.328	41	445198	139.45	ppb		99
46) Carbontetrachloride	5.517	117	544735	147.96	ppb		96
47) 1,1-Dichloropropene	5.529	75	612237	141.71	ppb		96
49) Benzene	5.846	78	1818984	141.98	ppb		99
50) 1,2-Dichloroethane	5.883	62	682917	145.10	ppb		99
51) Iso-Butyl Alcohol	5.871	43	821240	3159.49	ppb		98
52) n-Heptane	6.334	43	595523	134.29	ppb		98
53) 1-Butanol	6.834	56	1390226	8085.40	ppb		99
54) Trichloroethene	6.797	130	462521	140.77	ppb		97
55) Methylcyclohexane	7.035	55	614887	143.82	ppb		99
56) 1,2-Diclpropane	7.078	63	480907	140.71	ppb		99
57) Dibromomethane	7.218	93	294803	144.48	ppb		100
58) 1,4-Dioxane	7.279	88	212207	3145.58	ppb		99
59) Methyl Methacrylate	7.303	69	446487	142.01	ppb		98
60) Bromodichloromethane	7.444	83	595001	137.22	ppb		97
61) 2-Nitropropane	7.730	41	391518	297.02	ppb		95
62) 2-Chloroethylvinyl Ether	7.852	63	144721	186.53	ppb		96
63) cis-1,3-Dichloropropene	7.992	75	810061	149.24	ppb		99
64) 4-Methyl-2-pentanone	8.200	43	602146	144.44	ppb		97
66) Toluene	8.364	91	1934015	138.98	ppb		100
67) trans-1,3-Dichloropropene	8.632	75	759648	150.23	ppb		99
68) Ethyl Methacrylate	8.773	69	783521	153.64	ppb		98
69) 1,1,2-Trichloroethane	8.821	97	437457	138.37	ppb		97
72) Tetrachloroethene	8.955	164	332311	138.72	ppb		98
73) 2-Hexanone	9.114	43	484165	151.49	ppb		96
74) 1,3-Dichloropropane	8.992	76	791974	141.97	ppb		98
75) Dibromochloromethane	9.218	129	445592	153.05	ppb		99
76) N-Butyl Acetate	9.266	43	968879	161.06	ppb		98
77) 1,2-Dibromoethane	9.315	107	451565	146.01	ppb		100
78) Chlorobenzene	9.809	112	1238808	145.66	ppb		98
79) 3-CBTF	9.827	180	622531	137.28	ppb		99
80) 4-CBTF	9.882	180	562205	135.66	ppb		96
81) 1,1,1,2-Tetrachloroethane	9.900	131	443581	146.72	ppb		97
82) Ethylbenzene	9.931	106	673420	143.42	ppb	#	91
83) (m+p)Xylene	10.047	106	1644308	289.32	ppb		91
84) o-Xylene	10.400	106	825179	145.01	ppb		99
85) Styrene	10.413	104	1451842	151.56	ppb		98
87) Bromoform	10.565	173	317619	146.97	ppb		99
88) 2-CBTF	10.644	180	618636	126.12	ppb		97
89) Isopropylbenzene	10.742	105	2092787	128.56	ppb		97
90) Cyclohexanone	10.803	55	3524297	2846.05	ppb		97
91) trans-1,4-Dichloro-2-B...	11.047	53	197069	152.75	ppb		96
92) 1,1,2,2-Tetrachloroethane	10.998	83	711154	144.76	ppb		97
93) Bromobenzene	10.986	156	525400	131.79	ppb	#	87
94) 1,2,3-Trichloropropane	11.028	110	229053	143.53	ppb		92
95) n-Propylbenzene	11.095	91	2472471	130.63	ppb		98
96) 2-Chlorotoluene	11.156	91	1540580	131.28	ppb		99
97) 3-Chlorotoluene	11.211	91	1619765	130.85	ppb		98
98) 4-Chlorotoluene	11.248	91	1816544	133.98	ppb		99
99) 1,3,5-Trimethylbenzene	11.248	105	1806839	132.71	ppb		96
100) tert-Butylbenzene	11.522	119	1573501	133.89	ppb		99
101) 1,2,4-Trimethylbenzene	11.559	105	1867526	136.96	ppb		98
102) 3,4-DCBTF	11.620	214	534041	136.18	ppb		98
103) sec-Butylbenzene	11.705	105	2330647	134.77	ppb		97
104) p-Isopropyltoluene	11.827	119	2002602	137.60	ppb		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 02 11:37:06 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	1067793	140.91	ppb	97
106) 1,4-Dclbenz	11.857	146	1100174	138.34	ppb	100
107) 2,4-DCBTF	11.912	214	504051	138.72	ppb	96
108) 2,5-DCBTF	11.949	214	565452	145.64	ppb	98
109) n-Butylbenzene	12.156	91	1957468	144.19	ppb	97
110) 1,2-Dclbenz	12.156	146	1119097	147.96	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.778	157	188568	152.33	ppb	89
112) Trielution Dichlorotol...	12.906	125	3274890	440.19	ppb	95
113) 1,3,5 Trichlorobenzene	12.955	180	873495	148.34	ppb	99
114) Coelution Dichlorotoluene	13.229	125	2410195	305.46	ppb	98
115) 1,2,4-Tcbenzene	13.436	180	872721	158.74	ppb	96
116) Hexachlorobt	13.577	225	365403	143.18	ppb	99
117) Naphthalen	13.625	128	2437047	160.66	ppb	99
118) 1,2,3-Tclbenzene	13.814	180	838162	156.95	ppb	99
119) 2,4,5-Trichlorotolene	14.400	159	607215	187.55	ppb	99
120) 2,3,6-Trichlorotoluene	14.485	159	543243	184.61	ppb	97

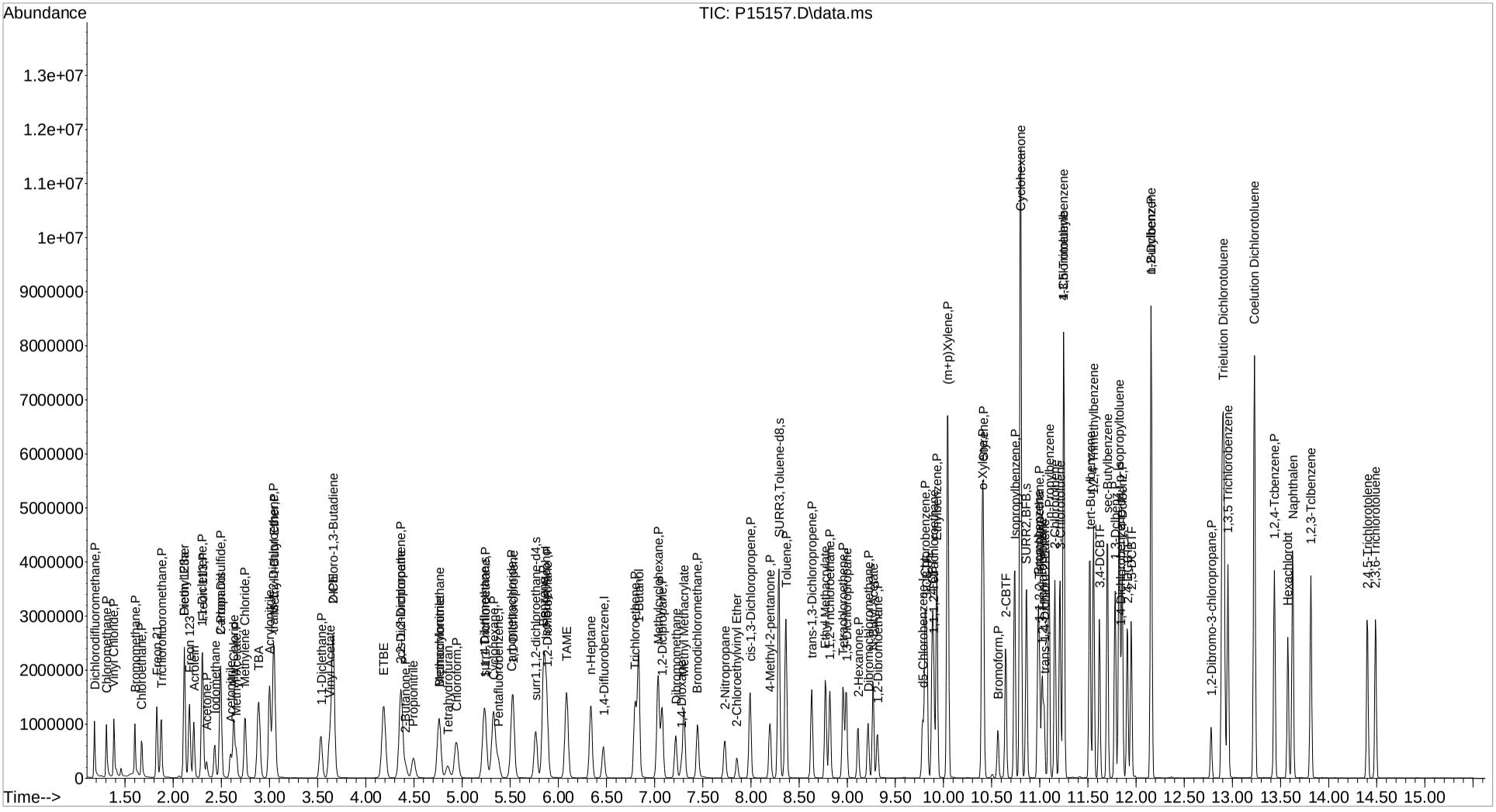
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 02 11:37:06 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

1st 01/02/18
2nd 01/04/18



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15158.D
Acq On : 29 Dec 2017 8:16 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 02 10:05:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	290912	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	487367	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	437596	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	247869	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.225	113	144272	49.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.72%				
48) surr1,1,2-dichloroetha...	5.767	65	197998	49.93	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.86%				
65) SURR3,Toluene-d8	8.291	98	644017	49.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%				
70) SURR2,BFB	10.858	95	257652	51.54	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.08%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	751240	209.65	ppb		98
3) Chloromethane	1.305	50	842475	190.47	ppb		99
4) Vinyl Chloride	1.384	62	868455	201.56	ppb		100
5) Bromomethane	1.603	94	461003	140.87	ppb		96
6) Chloroethane	1.683	64	527822	196.21	ppb		97
7) Freon 21	1.835	67	1111626	198.26	ppb		100
8) Trichlorofluoromethane	1.878	101	821925	197.97	ppb		99
9) Diethyl Ether	2.115	59	566315	196.52	ppb		99
10) Freon 123a	2.115	67	693482	199.14	ppb		98
11) Freon 123	2.170	83	806074	198.22	ppb		99
12) Acrolein	2.213	56	845277	982.83	ppb		98
13) 1,1-Diclethene	2.304	96	547719	183.30	ppb		96
14) Freon 113	2.311	101	538979	190.88	ppb		98
15) Acetone	2.347	43	351188	198.76	ppb		98
16) 2-Propanol	2.481	45	1373962	4037.03	ppb		100
17) Iodomethane	2.432	142	808369	300.27	ppb		100
18) Carbon Disulfide	2.493	76	1729359	198.43	ppb		99
19) Acetonitrile	2.591	40	294271	982.67	ppb		99
20) Allyl Chloride	2.634	76	289745	182.05	ppb		98
21) Methyl Acetate	2.652	43	628591	198.43	ppb		98
22) Methylene Chloride	2.749	84	610961	193.85	ppb		98
23) TBA	2.884	59	2296991	3915.41	ppb		100
24) Acrylonitrile	2.999	53	1645062	966.12	ppb		100
25) Methyl-t-Butyl Ether	3.048	73	2091958	195.29	ppb		98
26) trans-1,2-Dichloroethene	3.042	96	599623	192.48	ppb		98
28) 1,1-Diclethane	3.536	63	1099476	196.30	ppb		100
29) Vinyl Acetate	3.627	86	169659	184.71	ppb	#	86
30) DIPE	3.664	45	2008391	188.29	ppb		96
31) 2-Chloro-1,3-Butadiene	3.658	53	1021309	188.49	ppb		98
32) ETBE	4.188	59	2094666	194.73	ppb		99
33) 2,2-Dichloropropane	4.365	77	944252	189.58	ppb		98
34) cis-1,2-Dichloroethene	4.371	96	679606	184.32	ppb		99
35) 2-Butanone	4.408	43	437404	196.10	ppb		99
36) Propionitrile	4.493	54	675244	933.11	ppb		99
37) Bromochloromethane	4.761	130	397989	196.67	ppb		95
38) Methacrylonitrile	4.767	67	343737	183.40	ppb		95
39) Tetrahydrofuran	4.853	42	263268	202.48	ppb		95
40) Chloroform	4.944	83	1035776	170.47	ppb		99
41) 1,1,1-Trichloroethane	5.243	97	903387	189.27	ppb		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15158.D
Acq On : 29 Dec 2017 8:16 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 02 10:05:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	TAME	6.084	73	2037262	194.02	ppb		99
44)	Cyclohexane	5.328	41	604103	190.42	ppb		95
46)	Carbontetrachloride	5.517	117	735485	201.04	ppb		97
47)	1,1-Dichloropropene	5.529	75	842599	196.27	ppb		97
49)	Benzene	5.846	78	2449784	192.43	ppb		99
50)	1,2-Dichloroethane	5.883	62	902735	193.02	ppb		98
51)	Iso-Butyl Alcohol	5.865	43	1039787	4025.64	ppb		100
52)	n-Heptane	6.340	43	845487	191.86	ppb		97
53)	1-Butanol	6.834	56	1754566	10269.01	ppb		99
54)	Trichloroethene	6.797	130	629327	192.75	ppb		96
55)	Methylcyclohexane	7.035	55	841747	198.13	ppb		99
56)	1,2-Diclpropane	7.078	63	656968	193.44	ppb		99
57)	Dibromomethane	7.218	93	394147	194.39	ppb		99
58)	1,4-Dioxane	7.279	88	271954	4056.76	ppb		99
59)	Methyl Methacrylate	7.303	69	602614	192.88	ppb		99
60)	Bromodichloromethane	7.444	83	805927	187.04	ppb		97
61)	2-Nitropropane	7.730	41	530882	405.30	ppb		96
62)	2-Chloroethylvinyl Ether	7.852	63	197975	256.79	ppb		99
63)	cis-1,3-Dichloropropene	7.992	75	1093652	202.76	ppb		98
64)	4-Methyl-2-pentanone	8.200	43	818222	197.52	ppb		98
66)	Toluene	8.364	91	2622312	189.63	ppb		99
67)	trans-1,3-Dichloropropene	8.632	75	1036667	206.31	ppb		99
68)	Ethyl Methacrylate	8.773	69	1047414	206.69	ppb		100
69)	1,1,2-Trichloroethane	8.821	97	587034	186.86	ppb		98
72)	Tetrachloroethene	8.956	164	452798	187.50	ppb		98
73)	2-Hexanone	9.114	43	645998	200.51	ppb		95
74)	1,3-Dichloropropane	8.992	76	1085040	192.96	ppb		96
75)	Dibromochloromethane	9.218	129	608537	207.35	ppb		100
76)	N-Butyl Acetate	9.266	43	1292182	213.09	ppb		98
77)	1,2-Dibromoethane	9.315	107	614032	196.96	ppb		97
78)	Chlorobenzene	9.809	112	1680665	196.04	ppb		97
79)	3-CBTF	9.827	180	876297	191.70	ppb		97
80)	4-CBTF	9.882	180	784651	187.83	ppb		97
81)	1,1,1,2-Tetrachloroethane	9.900	131	608273	199.59	ppb		97
82)	Ethylbenzene	9.931	106	929718	196.43	ppb	#	89
83)	(m+p)Xylene	10.047	106	2264539	395.27	ppb	#	84
84)	o-Xylene	10.400	106	1136660	198.16	ppb		96
85)	Styrene	10.413	104	1971122	204.13	ppb		97
87)	Bromoform	10.565	173	430898	199.29	ppb		99
88)	2-CBTF	10.644	180	864752	176.21	ppb		98
89)	Isopropylbenzene	10.742	105	2851948	175.12	ppb		96
90)	Cyclohexanone	10.803	55	4382480	3537.46	ppb		93
91)	trans-1,4-Dichloro-2-B...	11.047	53	262051	203.03	ppb		97
92)	1,1,2,2-Tetrachloroethane	10.998	83	927526	188.72	ppb		97
93)	Bromobenzene	10.986	156	721898	180.99	ppb	#	87
94)	1,2,3-Trichloropropane	11.028	110	298297	186.83	ppb	#	90
95)	n-Propylbenzene	11.095	91	3339751	176.37	ppb		96
96)	2-Chlorotoluene	11.156	91	2098787	178.77	ppb		99
97)	3-Chlorotoluene	11.211	91	2217961	179.09	ppb		99
98)	4-Chlorotoluene	11.248	91	2483738	183.11	ppb		97
99)	1,3,5-Trimethylbenzene	11.248	105	2494924	183.17	ppb		95
100)	tert-Butylbenzene	11.522	119	2187207	186.03	ppb		98
101)	1,2,4-Trimethylbenzene	11.559	105	2528724	185.37	ppb		96
102)	3,4-DCBTF	11.620	214	739979	188.61	ppb		98
103)	sec-Butylbenzene	11.705	105	3183145	183.98	ppb		95
104)	p-Isopropyltoluene	11.827	119	2749131	188.81	ppb		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15158.D
Acq On : 29 Dec 2017 8:16 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 02 10:05:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

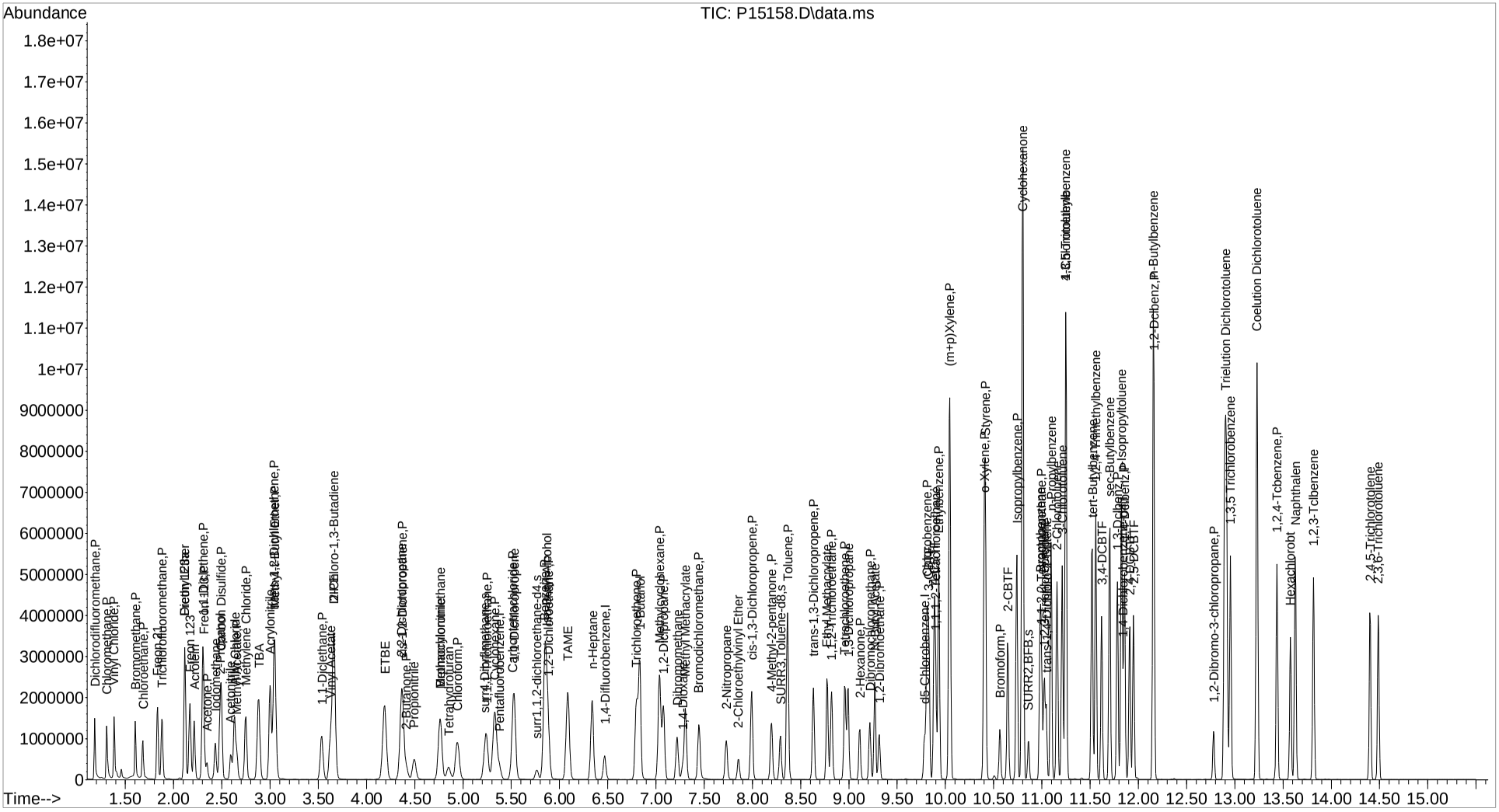
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	1435051	189.28	ppb	97
106) 1,4-Dclbenz	11.857	146	1475977	185.51	ppb	98
107) 2,4-DCBTF	11.912	214	693879	190.88	ppb	98
108) 2,5-DCBTF	11.949	214	774579	199.41	ppb	97
109) n-Butylbenzene	12.156	91	2655114	195.50	ppb	96
110) 1,2-Dclbenz	12.162	146	1466109	193.75	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.784	157	244588	197.50	ppb	99
112) Trielution Dichlorotol...	12.900	125	4327505	581.41	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	1187560	201.58	ppb	99
114) Coelution Dichlorotoluene	13.229	125	3153338	399.46	ppb	96
115) 1,2,4-Tcbenzene	13.436	180	1152706	209.58	ppb	98
116) Hexachlorobt	13.577	225	488363	191.28	ppb	98
117) Naphthalen	13.625	128	3152851	207.75	ppb	99
118) 1,2,3-Tclbenzene	13.814	180	1096108	205.16	ppb	98
119) 2,4,5-Trichlorotolene	14.400	159	813315	251.10	ppb	99
120) 2,3,6-Trichlorotoluene	14.485	159	743055	252.39	ppb	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15158.D
Acq On : 29 Dec 2017 8:16 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 02 10:05:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.0000	50.0000	0.0	101	0.00
2	P	Dichlorodifluoromethane	50.0000	38.3364	23.3#	72	0.00
3	P	Chloromethane	50.0000	43.5025	13.0	91	0.00
4	P	Vinyl Chloride	50.0000	46.7558	6.5	93	0.00
5	P	Bromomethane	50.0000	45.3858	9.2	107	0.00
6	P	Chloroethane	50.0000	46.6469	6.7	94	0.00
7		Freon 21	50.0000	51.8310	-3.7	104	0.00
8	P	Trichlorofluoromethane	50.0000	51.8442	-3.7	105	0.00
9		Diethyl Ether	50.0000	47.8708	4.3	102	0.00
10		Freon 123a	50.0000	55.1162	-10.2	113	0.00
11		Freon 123	50.0000	52.3280	-4.7	107	0.00
12		Acrolein	250.0000	64.4076	74.2#	27	0.00
13	P	1,1-Diclethene	50.0000	45.0181	10.0	99	0.00
14	P	Freon 113	50.0000	46.5695	6.9	98	0.00
15	P	Acetone	50.0000	48.4806	3.0	98	0.00
16		2-Propanol	1000.0000	989.1796	1.1	108	0.00
17		Iodomethane	50.0000	36.5844	26.8#	69	0.00
18	P	Carbon Disulfide	50.0000	45.9999	8.0	92	0.00
19		Acetonitrile	250.0000	236.9515	5.2	103	0.00
20		Allyl Chloride	50.0000	46.6651	6.7	99	0.00
21	P	Methyl Acetate	50.0000	50.2279	-0.5	107	0.00
22	P	Methylene Chloride	50.0000	48.2385	3.5	101	0.00
23		TBA	1000.0000	965.5453	3.4	104	0.00
24		Acrylonitrile	250.0000	238.6045	4.6	102	0.00
25	P	Methyl-t-Butyl Ether	50.0000	47.8966	4.2	99	0.00
26	P	trans-1,2-Dichloroethene	50.0000	47.9361	4.1	99	0.00
27		Halothane	-1.0000	0.0000	0.0	0	-4.00#
28	P	1,1-Diclethane	50.0000	49.5055	1.0	102	0.00
29		Vinyl Acetate	50.0000	43.1364	13.7	90	0.00
30		DIPE	50.0000	46.6654	6.7	97	0.00
31		2-Chloro-1,3-Butadiene	50.0000	45.4804	9.0	96	-0.01
32		ETBE	50.0000	48.2001	3.6	96	0.01
33		2,2-Dichloropropane	50.0000	46.2159	7.6	98	0.00
34	P	cis-1,2-Dichloroethene	50.0000	47.9734	4.1	100	0.00
35	P	2-Butanone	50.0000	46.9551	6.1	97	0.00
36		Propionitrile	250.0000	229.3379	8.3	101	-0.01
37		Bromochloromethane	50.0000	48.8549	2.3	105	0.01
38		Methacrylonitrile	50.0000	51.9388	-3.9	107	0.00
39		Tetrahydrofuran	50.0000	50.6503	-1.3	104	0.00
40	P	Chloroform	50.0000	47.1963	5.6	104	0.00
41	P	1,1,1-Trichloroethane	50.0000	48.2984	3.4	105	0.01
42		TAME	50.0000	48.8381	2.3	99	0.00
43	I	1,4-Difluorobenzene	50.0000	50.0000	0.0	102	0.00
44	P	Cyclohexane	50.0000	46.1498	7.7	99	0.00
45	s	surr4,Dibrflmethane	50.0000	49.6375	0.7	101	0.00
46	P	Carbontetrachloride	50.0000	50.9593	-1.9	103	0.00
47		1,1-Dichloropropene	50.0000	49.5886	0.8	103	0.01
48	s	surr1,1,2-dichloroethane-d4	50.0000	49.5422	0.9	100	0.00
49	P	Benzene	50.0000	49.4920	1.0	103	0.00
50	P	1,2-Dichloroethane	50.0000	48.0812	3.8	100	0.00
51		Iso-Butyl Alcohol	1000.0000	945.5165	5.4	102	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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	Amount	Calc.	%Dev	Area%	Dev(min)
52		n-Heptane	50.0000	44.9998	10.0	93	0.02
53		1-Butanol	2500.0000	2494.2713	0.2	103	-0.01
54	P	Trichloroethene	50.0000	50.4687	-0.9	103	0.00
55	P	Methylcyclohexane	50.0000	49.0548	1.9	98	0.00
56	P	1,2-Diclpropane	50.0000	48.4676	3.1	102	0.01
57		Dibromomethane	50.0000	47.8199	4.4	100	0.00
58		1,4-Dioxane	1000.0000	976.8829	2.3	107	0.00
59		Methyl Methacrylate	50.0000	48.3817	3.2	103	-0.01
60	P	Bromodichloromethane	50.0000	48.1066	3.8	105	0.00
61		2-Nitropropane	100.0000	92.4985	7.5	98	0.00
62		2-Chloroethylvinyl Ether	50.0000	50.4464	-0.9	106	0.00
63	P	cis-1,3-Dichloropropene	50.0000	49.6107	0.8	99	0.00
64	P	4-Methyl-2-pentanone	50.0000	46.1898	7.6	96	0.00
65	s	SURR3,Toluene-d8	50.0000	49.1066	1.8	100	0.00
66	P	Toluene	50.0000	49.7158	0.6	103	0.00
67	P	trans-1,3-Dichloropropene	50.0000	50.2479	-0.5	101	0.00
68		Ethyl Methacrylate	50.0000	51.7282	-3.5	104	0.00
69	P	1,1,2-Trichloroethane	50.0000	47.0703	5.9	104	0.00
70	s	SURR2,BFB	50.0000	48.1879	3.6	100	0.00
71	I	d5-Chlorobenzene	50.0000	50.0000	0.0	102	0.00
72	P	Tetrachloroethene	50.0000	47.6152	4.8	101	-0.01
73	P	2-Hexanone	50.0000	46.7916	6.4	97	0.00
74		1,3-Dichloropropane	50.0000	48.6785	2.6	100	0.00
75	P	Dibromochloromethane	50.0000	50.3673	-0.7	102	0.00
76		N-Butyl Acetate	50.0000	53.6467	-7.3	104	-0.01
77	P	1,2-Dibromoethane	50.0000	48.5922	2.8	100	0.00
78	P	Chlorobenzene	50.0000	51.3244	-2.6	104	0.00
79		3-CBTF	50.0000	47.1241	5.8	100	0.00
80		4-CBTF	50.0000	45.9124	8.2	99	0.00
81		1,1,1,2-Tetrachloroethane	50.0000	49.5753	0.8	103	0.00
82	P	Ethylbenzene	50.0000	49.8294	0.3	103	0.00
83	P	(m+p)Xylene	100.0000	100.6183	-0.6	103	0.00
84	P	o-Xylene	50.0000	49.7286	0.5	101	0.00
85	P	Styrene	50.0000	51.1258	-2.3	101	0.00
86	I	1,4-Dichlorobenzene-d4	50.0000	50.0000	0.0	103	0.00
87	P	Bromoform	50.0000	49.8785	0.2	104	0.00
88		2-CBTF	50.0000	48.2256	3.5	100	0.00
89	P	Isopropylbenzene	50.0000	49.4973	1.0	101	0.00
90		Cyclohexanone	1000.0000	765.2859	23.5#	81	0.00
91		trans-1,4-Dichloro-2-Butene	50.0000	53.5761	-7.2	113	0.00
92	P	1,1,2,2-Tetrachloroethane	50.0000	47.7556	4.5	102	0.00
93		Bromobenzene	50.0000	49.0177	2.0	103	0.00
94		1,2,3-Trichloropropane	50.0000	49.2272	1.5	103	0.00
95		n-Propylbenzene	50.0000	50.5206	-1.0	101	0.00
96		2-Chlorotoluene	50.0000	51.3652	-2.7	107	0.00
97		3-Chlorotoluene	50.0000	49.1502	1.7	100	0.00
98		4-Chlorotoluene	50.0000	49.2336	1.5	101	0.00
99		1,3,5-Trimethylbenzene	50.0000	51.3216	-2.6	104	0.00
100		tert-Butylbenzene	50.0000	50.1446	-0.3	102	0.00
101		1,2,4-Trimethylbenzene	50.0000	52.0713	-4.1	105	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15162.D
Acq On : 29 Dec 2017 9:43 pm
Operator : K.Ruest
Sample : ICV 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 02 15:22:52 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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	Amount	Calc.	%Dev	Area%	Dev(min)
102		3,4-DCBTF	50.0000	48.0202	4.0	96	0.00
103		sec-Butylbenzene	50.0000	50.8496	-1.7	102	0.00
104		p-Isopropyltoluene	50.0000	51.7027	-3.4	104	0.00
105	P	1,3-Dclbenz	50.0000	50.3245	-0.6	103	0.00
106	P	1,4-Dclbenz	50.0000	49.3074	1.4	105	0.00
107		2,4-DCBTF	50.0000	47.7617	4.5	99	0.00
108		2,5-DCBTF	50.0000	47.4753	5.0	98	0.00
109		n-Butylbenzene	50.0000	52.8775	-5.8	105	0.00
110	P	1,2-Dclbenz	50.0000	50.8620	-1.7	104	0.00
111	P	1,2-Dibromo-3-chloropropane	50.0000	47.4017	5.2	107	0.00
112		Trielution Dichlorotoluene	150.0000	148.2131	1.2	99	0.00
113		1,3,5 Trichlorobenzene	50.0000	50.3797	-0.8	101	0.00
114		Coelution Dichlorotoluene	100.0000	103.4644	-3.5	100	0.00
115	P	1,2,4-Tcbenzene	50.0000	52.6198	-5.2	103	0.00
116		Hexachlorobt	50.0000	48.8387	2.3	102	0.00
117		Naphthalen	50.0000	55.9552	-11.9	106	0.00
118		1,2,3-Tclbenzene	50.0000	54.0830	-8.2	106	0.00
119		2,4,5-Trichlorotolene	50.0000	53.9078	-7.8	99	0.00
120		2,3,6-Trichlorotoluene	50.0000	54.8488	-9.7	103	0.00

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

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1800001-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\122917\P15150.D	12/29/2017 17:22
02	RC1800001-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15151.D	12/29/2017 17:44
03	RC1800001-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15152.D	12/29/2017 18:06
04	RC1800001-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15153.D	12/29/2017 18:28
05	RC1800001-05	20ppb	I:\ACQUDATA\msvoa12\Data\122917\P15154.D	12/29/2017 18:49
06	RC1800001-06	50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15155.D	12/29/2017 19:11
07	RC1800001-07	100ppb	I:\ACQUDATA\msvoa12\Data\122917\P15156.D	12/29/2017 19:32
08	RC1800001-08	150ppb	I:\ACQUDATA\msvoa12\Data\122917\P15157.D	12/29/2017 19:54
09	RC1800001-09	200ppb	I:\ACQUDATA\msvoa12\Data\122917\P15158.D	12/29/2017 20:16

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.008	02	1.000	0.8324	03	2.000	0.8305	04	5.000	0.8263
05	20.000	0.7547	06	50.000	0.7586	07	100.000	0.8393	08	150.000	0.7559
09	200.000	0.7763									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.023	02	1.000	0.9379	03	2.000	0.9779	04	5.000	0.947
05	20.000	0.9354	06	50.000	0.9464	07	100.000	1.023	08	150.000	0.9294
09	200.000	0.9449									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6988	02	1.000	0.5509	03	2.000	0.4889	04	5.000	0.5238
05	20.000	0.4587	06	50.000	0.4697	07	100.000	0.5076	08	150.000	0.4531
09	200.000	0.4707									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.5995	05	20.000	0.4536	06	50.000	0.506	07	100.000	0.5177
08	200.000	0.4877									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.3386	05	20.000	0.2707	06	50.000	0.2965	07	100.000	0.2994
08	200.000	0.2791									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3073	02	1.000	0.2917	03	2.000	0.2929	04	5.000	0.2841
05	20.000	0.2475	06	50.000	0.2643	07	100.000	0.2816	08	150.000	0.2552
09	200.000	0.2587									

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

Analyte

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.572	05	20.000	1.232	06	50.000	1.33	07	100.000	1.308
08	200.000	1.186									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3925	02	1.000	0.3488	03	2.000	0.309	04	5.000	0.3231
05	20.000	0.3163	06	50.000	0.3352	07	100.000	0.3524	08	150.000	0.3143
09	200.000	0.3228									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7871	02	1.000	0.616	03	2.000	0.7275	04	5.000	0.749
05	20.000	0.7515	06	50.000	0.7481	07	100.000	0.8085	08	150.000	0.7308
09	200.000	0.7463									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6166	02	1.000	0.5455	03	2.000	0.6365	04	5.000	0.638
05	20.000	0.5786	06	50.000	0.5775	07	100.000	0.6218	08	150.000	0.5765
09	200.000	0.584									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5602	02	1.000	0.5063	03	2.000	0.5366	04	5.000	0.5328
05	20.000	0.5048	06	50.000	0.5129	07	100.000	0.551	08	150.000	0.5016
09	200.000	0.5153									

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

		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	9.7	≤20	0.8203	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.8	≤20	0.9627	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	14.9	≤20	0.5136	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	10.6	≤20	0.5129	
Dibromofluoromethane	SURR	Average RF	% RSD	8.8	≤20	0.2969	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.3	≤20	0.2759	0.200
Toluene-d8	SURR	Average RF	% RSD	11.3	≤20	1.326	
Trichloroethene (TCE)	TRG	Average RF	% RSD	7.9	≤20	0.335	0.200
Vinyl Chloride	TRG	Average RF	% RSD	7.2	≤20	0.7405	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	5.4	≤20	0.5972	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	4.1	≤20	0.5246	0.100

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

#	Lab Code	Sample Name	File Location	Acquisition Date
11	RC1800001-11	ICV/LCS	I:\ACQUDATA\msvoa12\Data\010318\P15169.D	01/03/2018 11:34
10	RC1800001-10	ICV 50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15162.D	12/29/2017 21:43

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	48.3	8.203E-1	7.924E-1	-3.403	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	49.5	9.627E-1	9.532E-1	-0.989	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.0	5.136E-1	4.624E-1	-9.964	±30	Average RF
Tetrachloroethene (PCE)	50.0	47.6	2.759E-1	2.628E-1	-4.770	±30	Average RF
Trichloroethene (TCE)	50.0	50.5	3.35E-1	3.381E-1	0.937	±30	Average RF
Vinyl Chloride	50.0	46.8	7.405E-1	6.925E-1	-6.488	±30	Average RF
cis-1,2-Dichloroethene	50.0	48.0	5.972E-1	5.73E-1	-4.053	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.9	5.246E-1	5.03E-1	-4.128	±30	Average RF
4-Bromofluorobenzene	50.0	48.2	5.129E-1	4.943E-1	-3.624	±30	Average RF
Dibromofluoromethane	50.0	49.6	2.969E-1	2.947E-1	-0.725	±30	Average RF
Toluene-d8	50.0	49.1	1.326E0	1.302E0	-1.787	±30	Average RF

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:32

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Signal ID: 1

Calibration Date: 12/29/2017
Calibration ID: RC1800001
Analysis Lot: 585036
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	43.0	0.8203	0.7055	-14.0	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	54.4	0.9627	1.0471	8.8	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.8	0.5136	0.4806	-6.4	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	47.5	0.2759	0.2621	-5.0	NA	±20	Average RF
Trichloroethene (TCE)	50.0	46.5	0.335	0.3113	-7.1	NA	±20	Average RF
Vinyl Chloride	50.0	51.1	0.7405	0.7573	2.3	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	51.4	0.5972	0.6142	2.9	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	49.8	0.5246	0.5226	-0.4	NA	±20	Average RF
4-Bromofluorobenzene	50.0	46.5	0.5129	0.4774	-6.9	NA	±20	Average RF
Dibromofluoromethane	50.0	46.9	0.2969	0.2784	-6.2	NA	±20	Average RF
Toluene-d8	50.0	49.4	1.3256	1.3097	-1.2	NA	±20	Average RF

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718\P16693.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	10:03:00	
I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	Continuing Calibration Verification	RQ1802745-02	3/27/2018	10:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	Lab Control Sample	RQ1802745-03	3/27/2018	11:30:00	
I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	Method Blank	RQ1802745-04	3/27/2018	12:22:00	
I:\ACQUDATA\msvoa12\Data\032718\P16699.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	12:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	13:15:00	
I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	13:37:00	
I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	13:59:00	
I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	14:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	14:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	MW-10	R1802551-002	3/27/2018	15:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16706.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	15:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	Trip Blank	R1802551-001	3/27/2018	16:10:00	
I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	EB-032018	R1802551-007	3/27/2018	16:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	EB-032218	R1802551-008	3/27/2018	16:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16711.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	17:16:00	
I:\ACQUDATA\msvoa12\Data\032718\P16712.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	17:38:00	
I:\ACQUDATA\msvoa12\Data\032718\P16713.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	18:00:00	
I:\ACQUDATA\msvoa12\Data\032718\P16714.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	18:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16715.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	18:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16716.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	19:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16717.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	19:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16718.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	19:49:00	

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718 \P16719.D\	MW-10 MS	RQ1802745-05	3/27/2018	20:11:00	
I:\ACQUDATA\msvoa12\Data\032718 \P16720.D\	MW-10 DMS	RQ1802745-06	3/27/2018	20:33:00	

Analysis: 8260 Waters	Analyst: K. Ruest	pH strips: 206717	Tune Method: W122917
Date: 3/27/18	Balance ID: N/A	ResCl strips: N/A	Run Method: ↓
Instr. 12	50 mL Class A used for dilution FV	Syringes: 177416	LIMS Run#: 5485036

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK							P166691		↑ EMV
2	↓							P166692		
3	TUNE		RQ1802745-01					P166693	YY	(auto) 10:03
1	CCV		02					P166694	YC	
1	LCS		—					P166695	(N)	not - RT shift
1	LCS		03					P166696	YQ	
1	VBLK		—					P166697	(N)	not c/o
2	↓		↓ 04					P166698	YB	
1	R1802550-002	1.0		66446	4	2	(22)	P166699	Y	
2	R1802551-003	1.0		7979	↓	1	8	P166700	Y	
3	004	1.0		↓		1	8	P166701	Y	
4	005	1.0				1	8	P166702	Y	
5	006	1.0				1	8	P166703	Y	
6	009	1.0		↓		1	8	P166704	Y	
7	↓ 002	1.0		66446		1	(22)	P166705	Y	
8	~~BLK (HP)~~ 021	10	5/50mls R1802550	7979	↓	2	6	P166706	Y	
9	BLK					—	—	P166707	—	
10	R1802551-001	1.0		66446	4	1	22	P166708	Y	
11	↓ 007	1.0		↓	↓	1	22	P166709	Y	
12	↓ 008	1.0				1	22	P166710	Y	
13	R1802550-024	1.0				1	22	P166711	Y	
14	007	1.0				1	22	P166712	Y	
15	018	1.0				1	22	P166713	Y	
16	022	1.0				1	22	P166714	Y	
17	003	1.0				1	22	P166715	Y	
18	010	1.0				1	22	P166716	Y	
19	004	1.0				1	22	P166717	Y	
20	↓ 011	1.0				1	22	P166718	Y	
21	~~(MB)~~ MS 002	1.0	RQ1802745-05 (2551) (LL)			2	22	P166719	YQ	
22	↓ MSD 002	1.0	↓ 06	↓	↓	3	22	P166720	YQ	
23	BLK					—	—	P166721	—	

All samples = 5 mL + 5 uL combined IS/Surr. 5 mL purged

Combined IS/Surr :

500 Primary CCC+ : 1885712
Primary RT+ : 1886685
Primary TB : 1885993
Primary HSL : 1885586
Primary :

5uL → 5mls = CCV

200 Secondary RT+ : 1885541 - 5uL
500 Secondary CCC+ : 1885751
Secondary HSL : 1885309 2uL
Secondary TB : 1885869
Secondary :

50mls = LCS / 4.2uL

-10.6uL

Surrogate 50 : 1886052
Internal Std 50 : 1886051
Reagents:

4.2uL vial = MS/D

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 09:45
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	R1802551-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.53 J**	1.0	0.36	1	03/27/18 13:15	
1,1-Dichloroethane (1,1-DCA)	**2.8**	1.0	0.20	1	03/27/18 13:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:15	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:15	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 13:15	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:15	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 13:15	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:15	
Dibromofluoromethane	91	89 - 119	03/27/18 13:15	
Toluene-d8	100	87 - 121	03/27/18 13:15	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 10:35
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1802551-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**1.9**		1.0	0.36	1	03/27/18 13:37	
1,1-Dichloroethane (1,1-DCA)	**2.2**		1.0	0.20	1	03/27/18 13:37	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.57	1	03/27/18 13:37	
Tetrachloroethene (PCE)	1.0	U	1.0	0.30	1	03/27/18 13:37	
Trichloroethene (TCE)	**50**		1.0	0.22	1	03/27/18 13:37	
Vinyl Chloride	1.0	U	1.0	0.32	1	03/27/18 13:37	
cis-1,2-Dichloroethene	**67**		1.0	0.30	1	03/27/18 13:37	
trans-1,2-Dichloroethene	**0.33**	**J**	1.0	0.33	1	03/27/18 13:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:37	
Dibromofluoromethane	92	89 - 119	03/27/18 13:37	
Toluene-d8	100	87 - 121	03/27/18 13:37	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 11:25
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	R1802551-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**2.8**	1.0	0.36	1	03/27/18 13:59	
1,1-Dichloroethane (1,1-DCA)	**7.7**	1.0	0.20	1	03/27/18 13:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:59	
Trichloroethene (TCE)	**2.4**	1.0	0.22	1	03/27/18 13:59	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:59	
cis-1,2-Dichloroethene	**15**	1.0	0.30	1	03/27/18 13:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 13:59	
Dibromofluoromethane	92	89 - 119	03/27/18 13:59	
Toluene-d8	100	87 - 121	03/27/18 13:59	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18 12:25
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1802551-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 14:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 14:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:21	
Trichloroethene (TCE)	**5.9**	1.0	0.22	1	03/27/18 14:21	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 14:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	03/27/18 14:21	
Dibromofluoromethane	90	89 - 119	03/27/18 14:21	
Toluene-d8	100	87 - 121	03/27/18 14:21	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Collected:**	03/22/18
Sample Matrix:	Water	**Date Received:**	03/23/18 09:40
Sample Name:	DUP-032218	**Units:**	ug/L
Lab Code:	R1802551-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**2.5**	1.0	0.36	1	03/27/18 14:43	
1,1-Dichloroethane (1,1-DCA)	**7.3**	1.0	0.20	1	03/27/18 14:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:43	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:43	
Trichloroethene (TCE)	**2.3**	1.0	0.22	1	03/27/18 14:43	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:43	
cis-1,2-Dichloroethene	**14**	1.0	0.30	1	03/27/18 14:43	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:43	

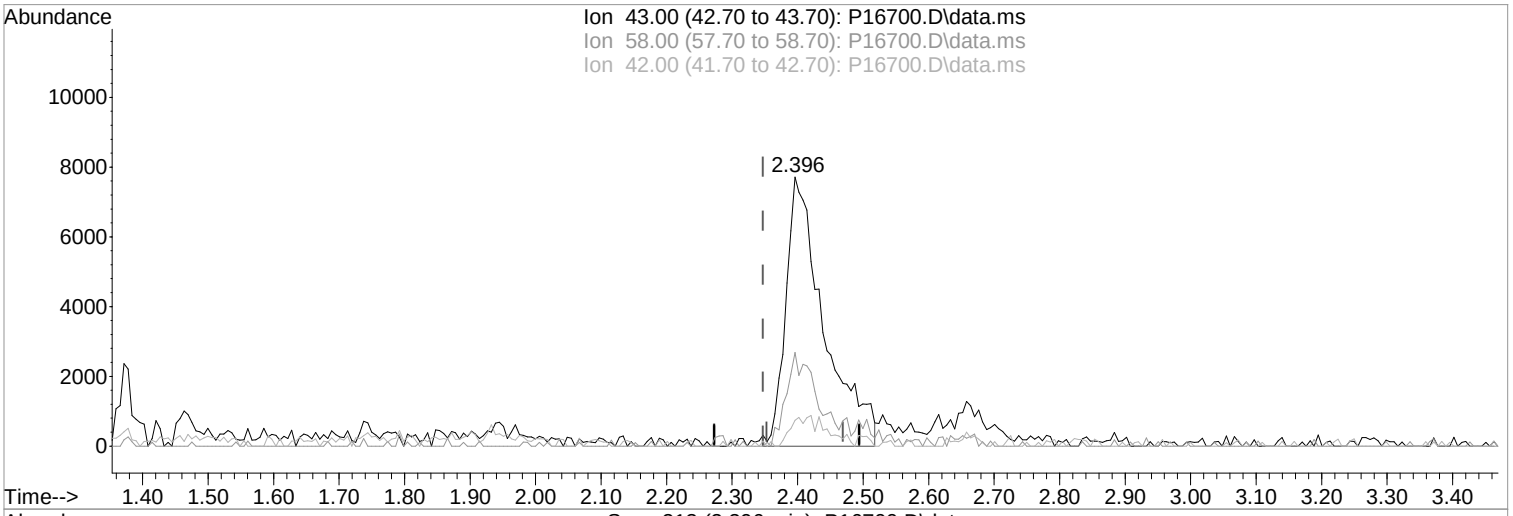
Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 14:43	
Dibromofluoromethane	92	89 - 119	03/27/18 14:43	
Toluene-d8	99	87 - 121	03/27/18 14:43	

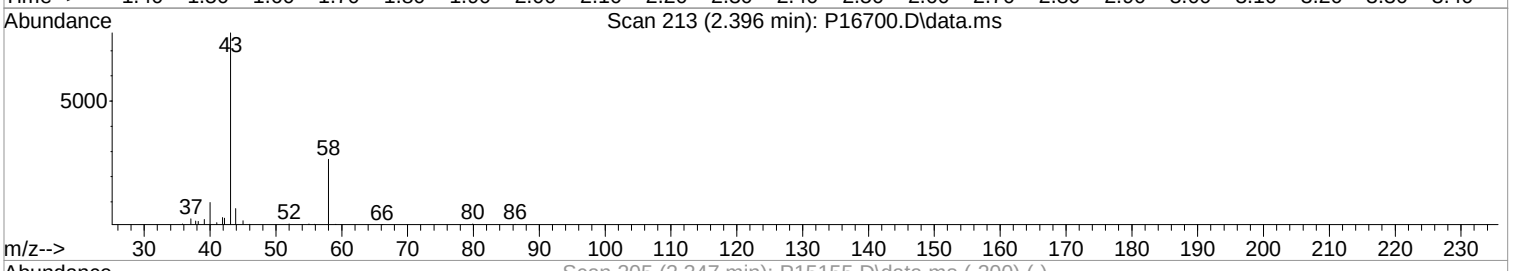
1st 03/27/18
2nd 03/29/18

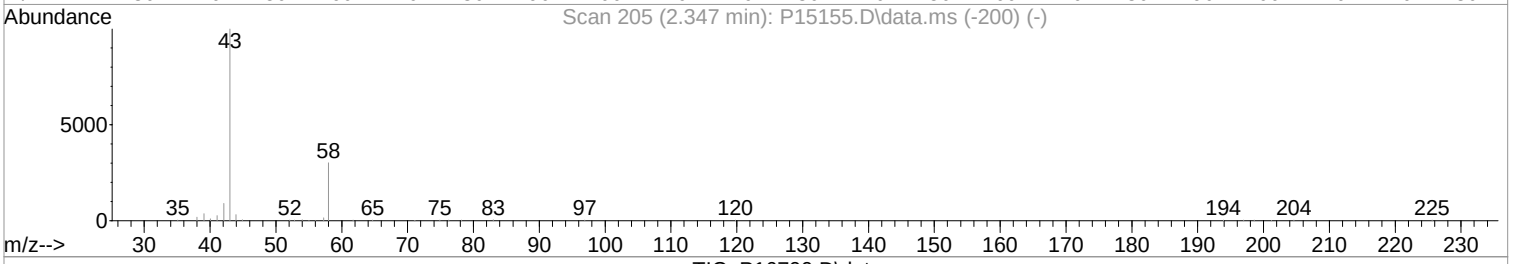
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16700.D\data.ms

(15) Acetone (P)

2.396min (+0.049) 15.64 ppb m

response 31109

Ion	Exp%	Act%
43.00	100	100
58.00	29.70	34.78
42.00	9.20	4.94
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

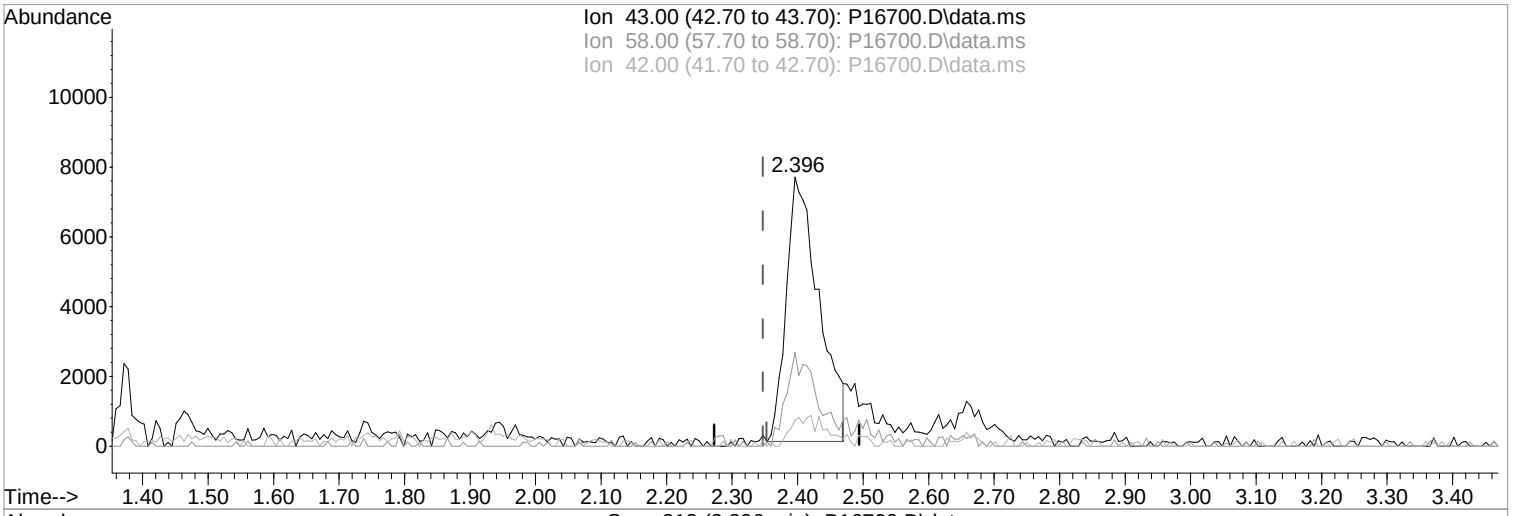
03/27/18

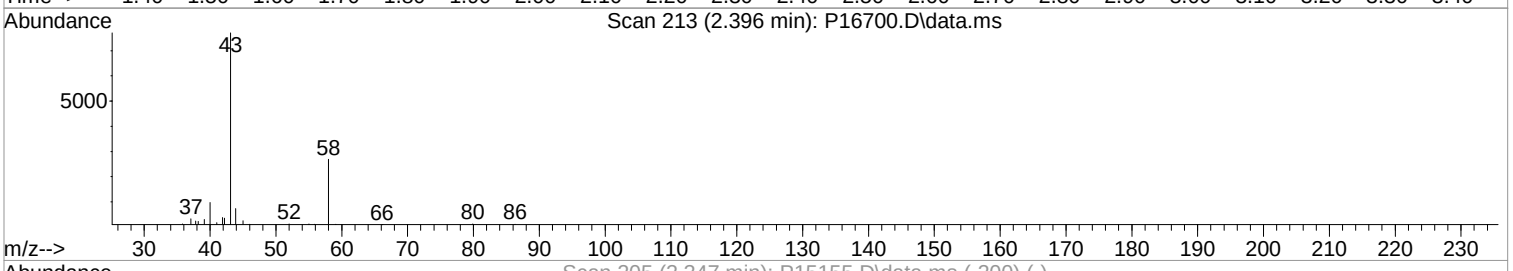
1st 03/27/18
2nd 03/29/18

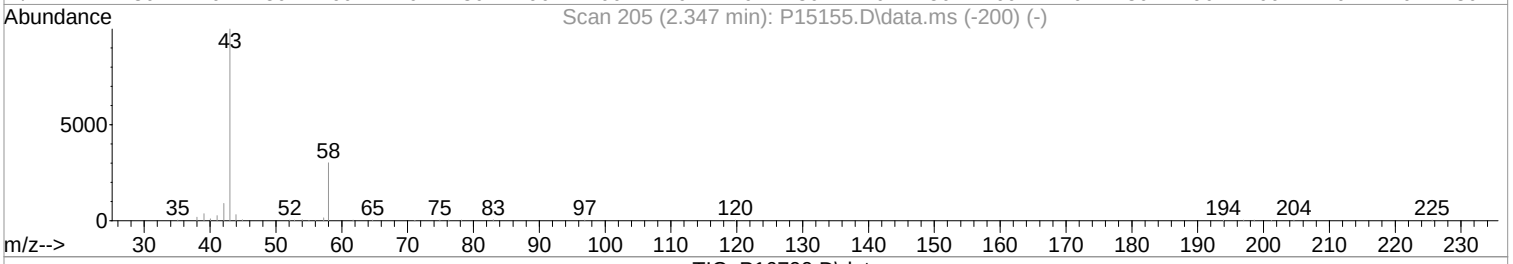
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16700.D\data.ms

(15) Acetone (P)

2.396min (+0.049) 13.22 ppb

response 26298

Ion	Exp%	Act%
43.00	100	100
58.00	29.70	34.78
42.00	9.20	9.57
0.00	0.00	0.00

Manual Integration:

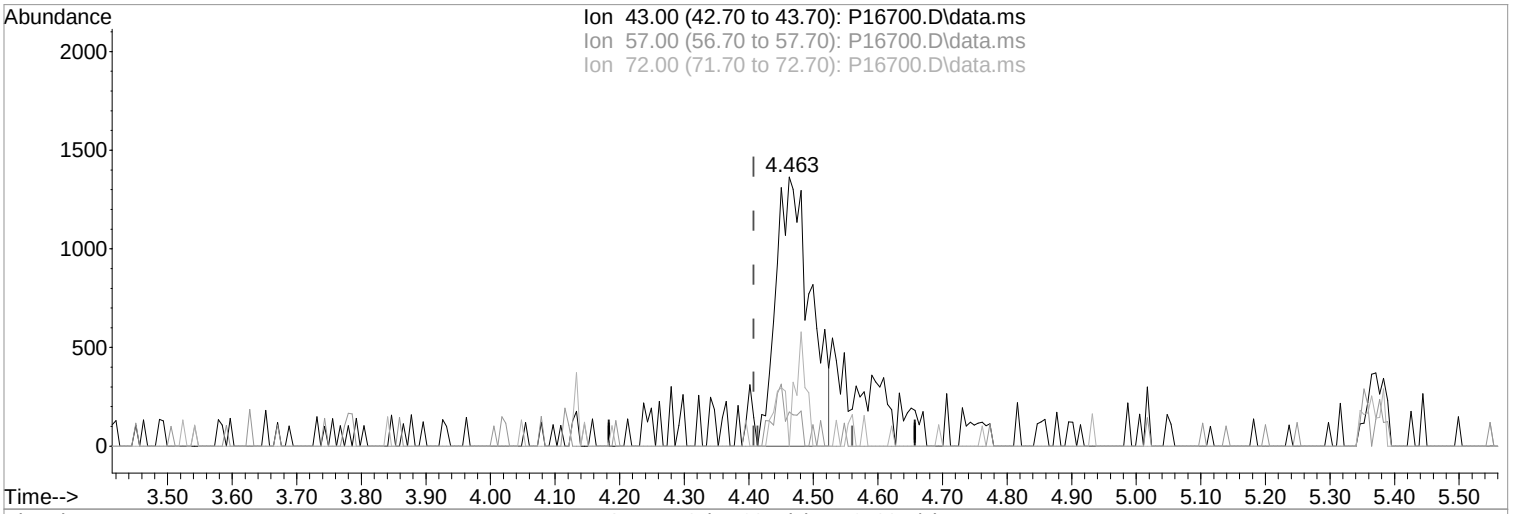
Before

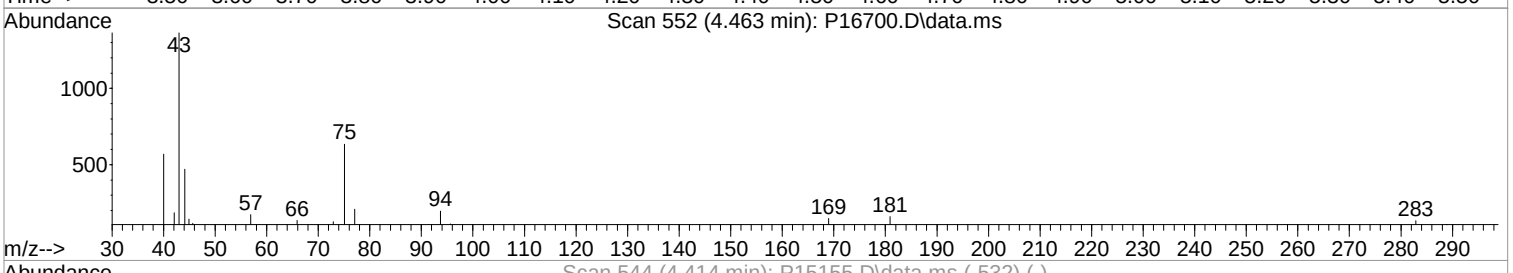
03/27/18

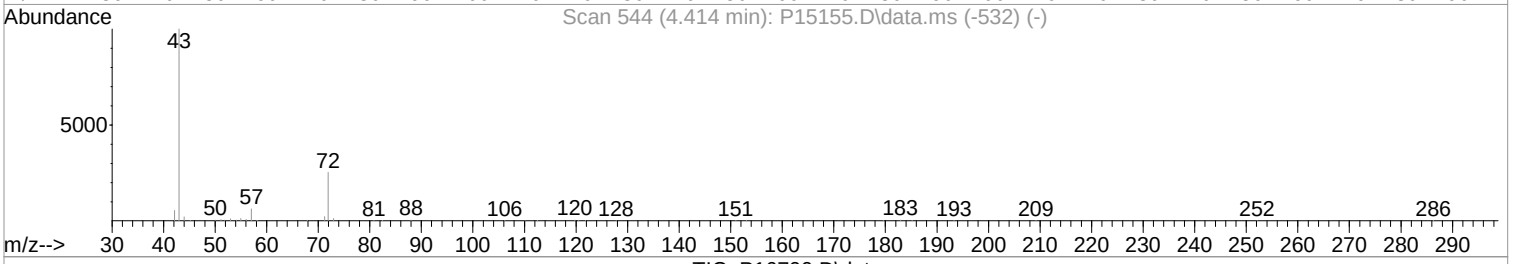
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16700.D\data.ms

(35) 2-Butanone (P)

4.463min (+0.055) 2.04 ppb m

response 5102

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	12.68
72.00	26.10	0.00#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

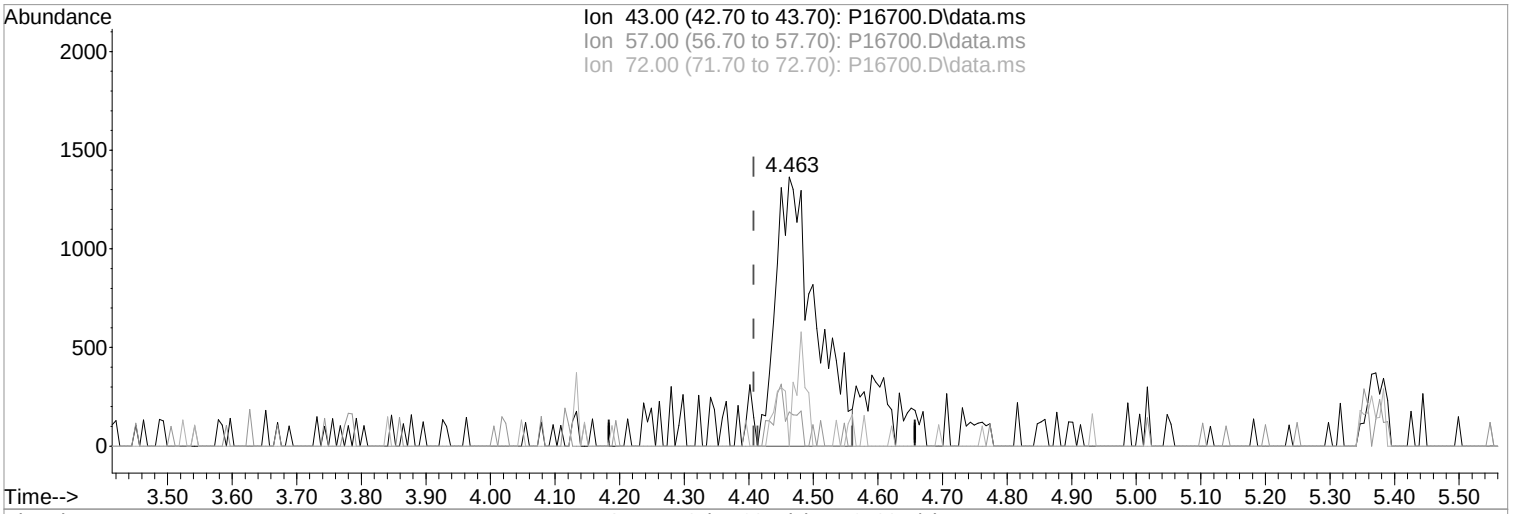
03/27/18

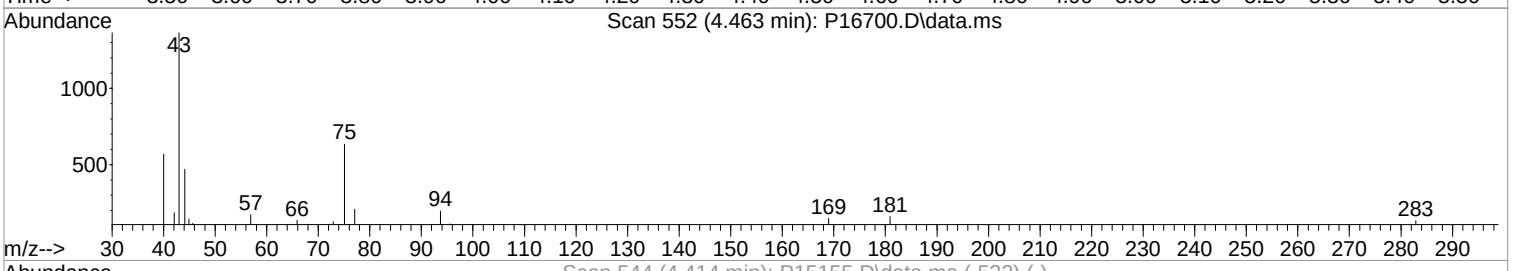
1st 03/27/18
2nd 03/29/18

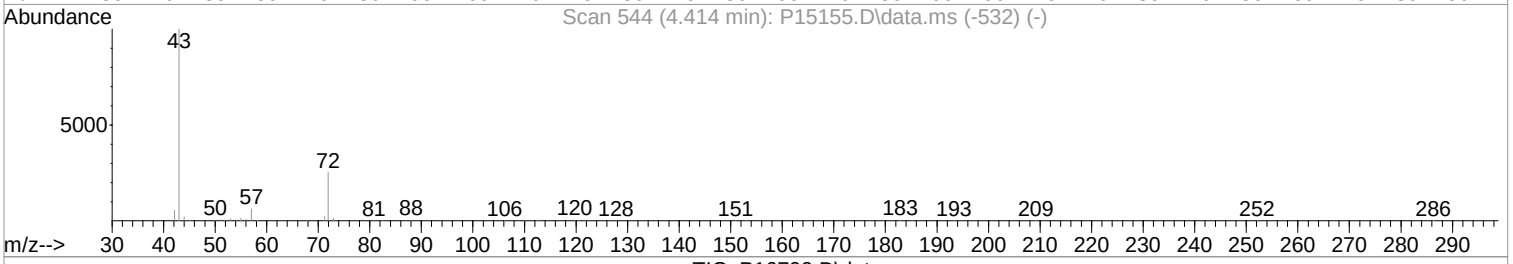
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16700.D\data.ms

(35) 2-Butanone (P)

4.463min (+0.055) 2.35 ppb

response 5864

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	12.68
72.00	26.10	0.00#
0.00	0.00	0.00

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 16:53:22 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

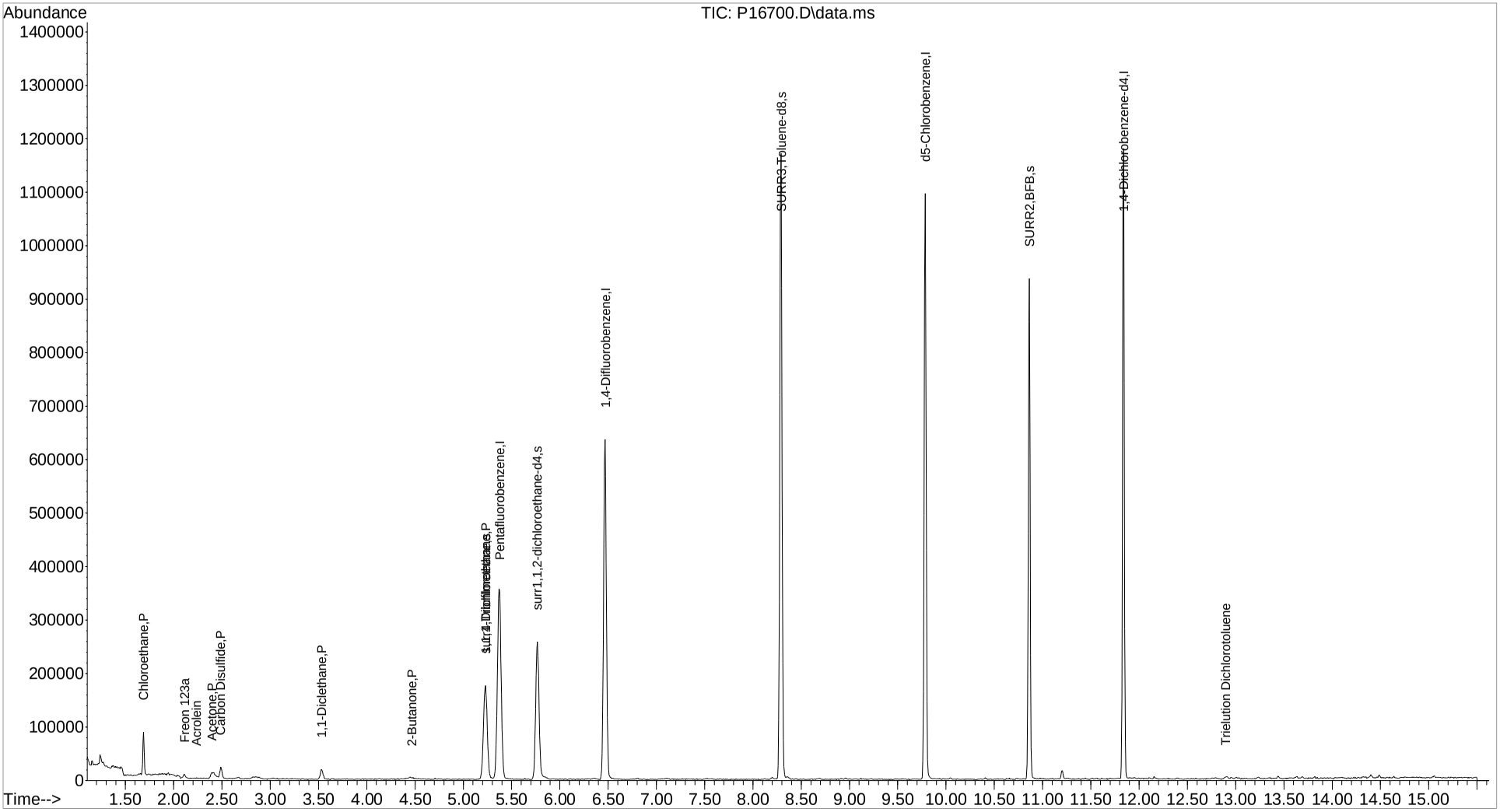
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	326286	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	554963	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	484861	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	236506	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	149424	45.35	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 90.70%				
48) surr1,1,2-dichloroetha...	5.767	65	222605	49.30	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.60%				
65) SURR3,Toluene-d8	8.291	98	732224	49.76	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.52%				
70) SURR2,BFB	10.864	95	263187	46.23	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.46%				
Target Compounds							Qvalue
6) Chloroethane	1.689	64	44718	14.82	ppb		97
10) Freon 123a	2.109	67	3347	0.85	ppb		86
12) Acrolein	2.237	56	1073	1.11	ppb		87
15) Acetone	2.396	43	31109m	15.64	ppb		
18) Carbon Disulfide	2.487	76	22321	2.28	ppb		95
28) 1,1-Diclethane	3.530	63	17304	2.75	ppb		97
35) 2-Butanone	4.463	43	5102m	2.04	ppb		
41) 1,1,1-Trichloroethane	5.231	97	2849	0.53	ppb	#	79
112) Trielution Dichlorotol...	12.894	125	1712	0.24	ppb		95

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

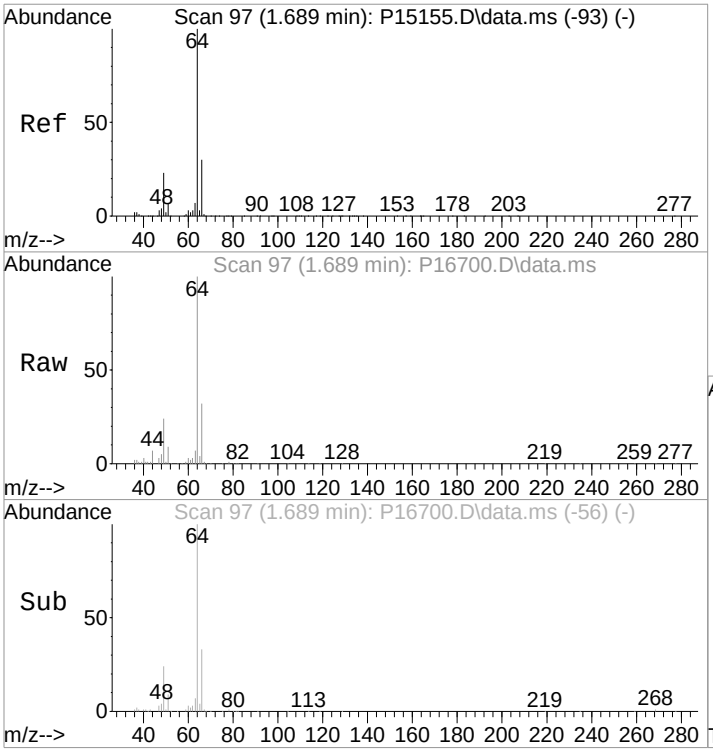
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 16:53:22 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



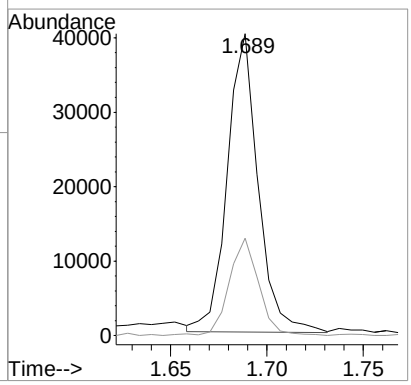
1st 03/27/18
2nd 03/29/18

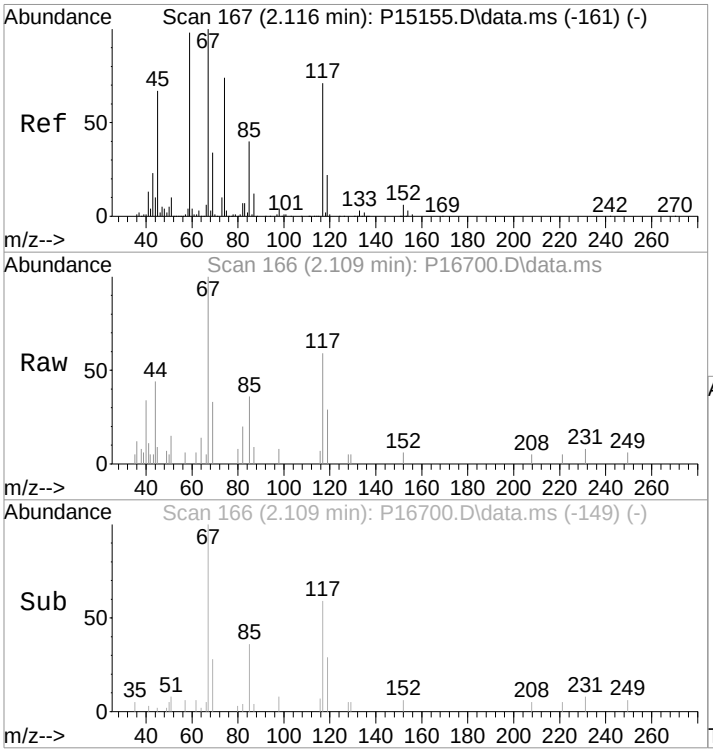


#6
Chloroethane
Concen: 14.82 ppb
RT: 1.689 min Scan# 97
Delta R.T. 0.006 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 64 Resp: 44718

Ion	Ratio	Lower	Upper
64	100		
66	32.2	10.4	50.4

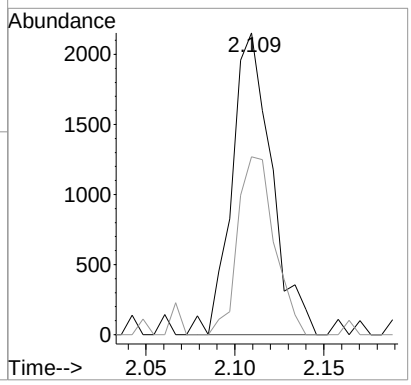


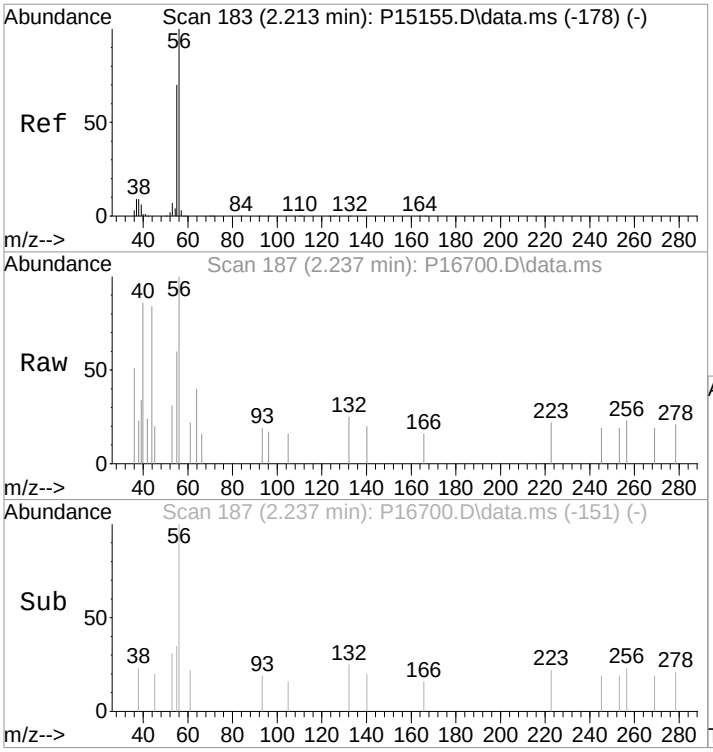


#10
Freon 123a
Concen: 0.85 ppb
RT: 2.109 min Scan# 166
Delta R.T. -0.012 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 67 Resp: 3347

Ion	Ratio	Lower	Upper
67	100		
117	59.0	50.3	90.3

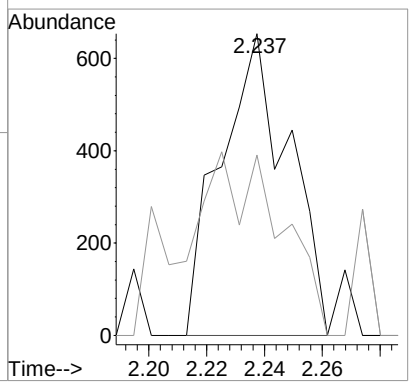


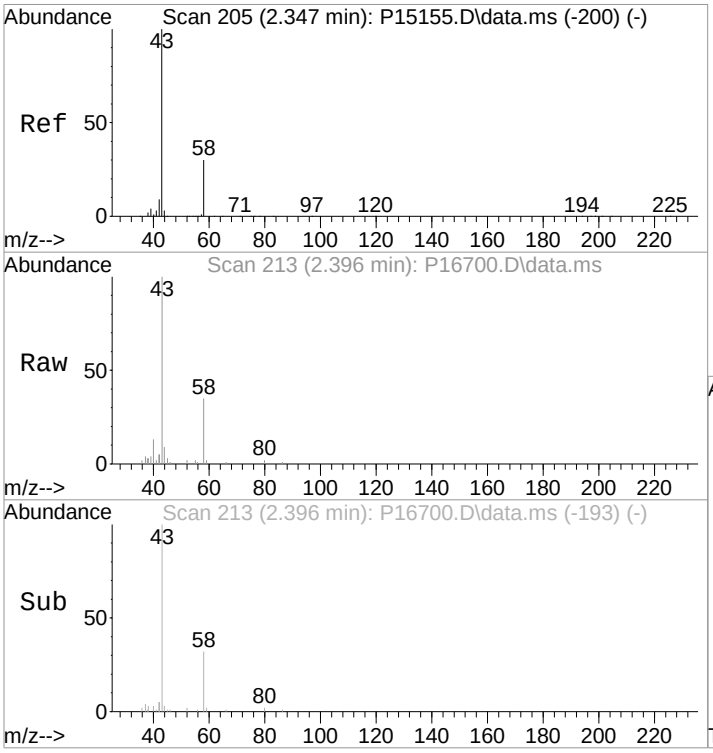


#12
Acrolein
Concen: 1.11 ppb
RT: 2.237 min Scan# 187
Delta R.T. 0.018 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 56 Resp: 1073

Ion	Ratio	Lower	Upper
56	100		
55	59.8	50.5	90.5

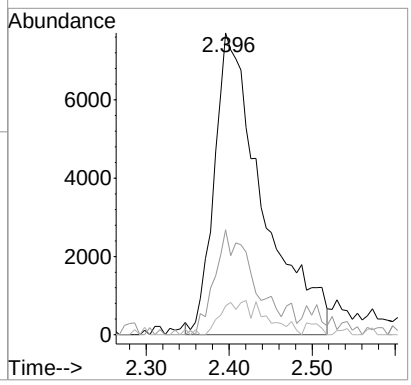


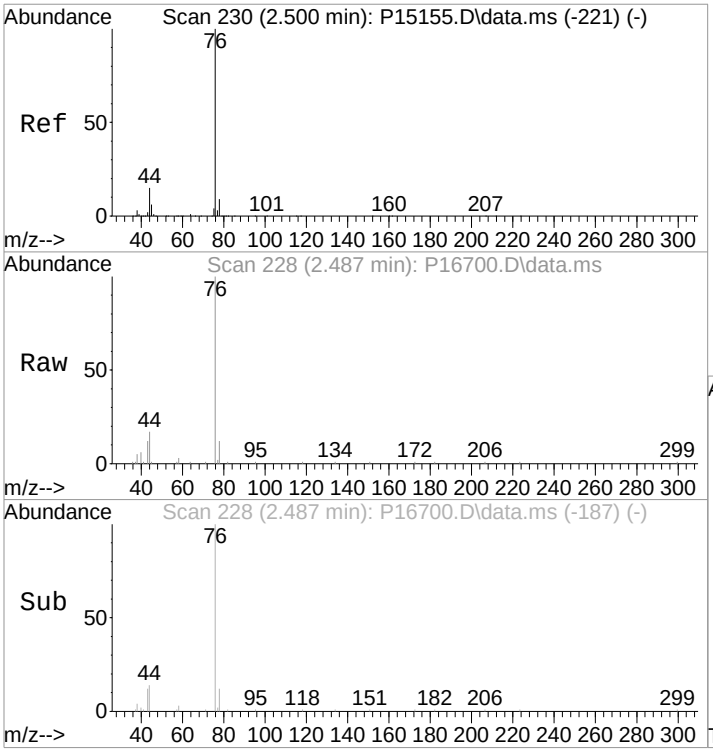


#15
Acetone
Concen: 15.64 ppb m
RT: 2.396 min Scan# 213
Delta R.T. 0.049 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 43 Resp: 31109

Ion	Ratio	Lower	Upper
43	100		
58	34.8	9.7	49.7
42	4.9	0.0	29.2

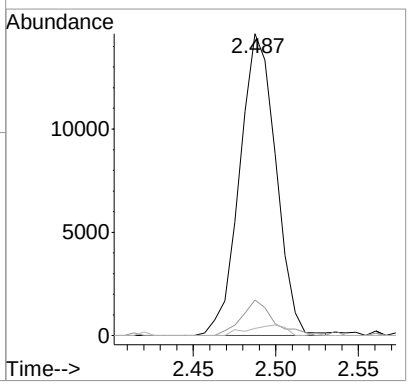


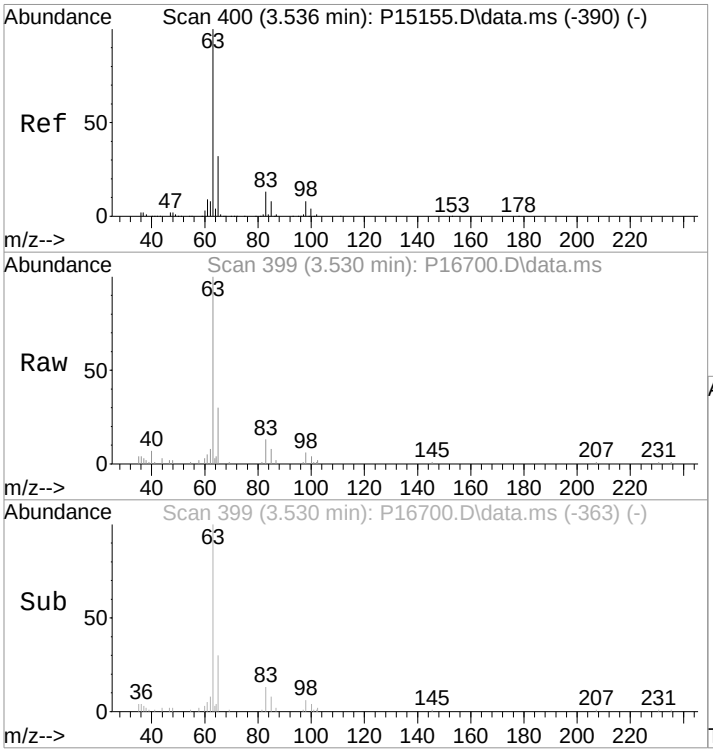


#18
Carbon Disulfide
Concen: 2.28 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 76 Resp: 22321

Ion	Ratio	Lower	Upper
76	100		
78	11.8	0.0	29.5
77	2.4	0.0	23.1

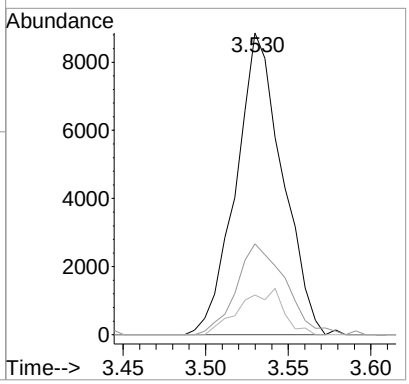


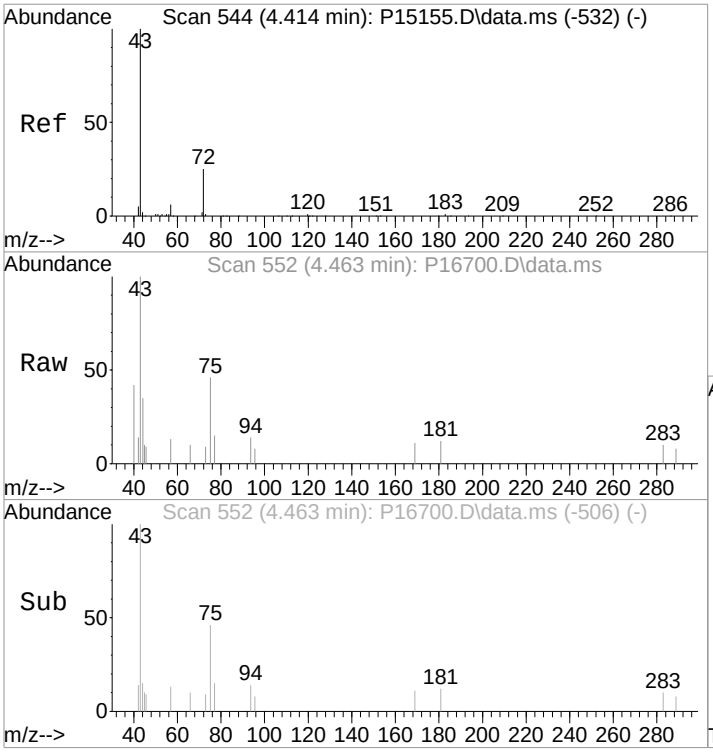


#28
1,1-Diclethane
Concen: 2.75 ppb
RT: 3.530 min Scan# 399
Delta R.T. -0.006 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 63 Resp: 17304

Ion	Ratio	Lower	Upper
63	100		
65	30.1	12.3	52.3
83	13.1	0.0	33.4

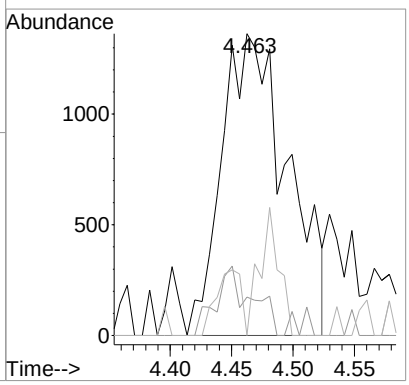


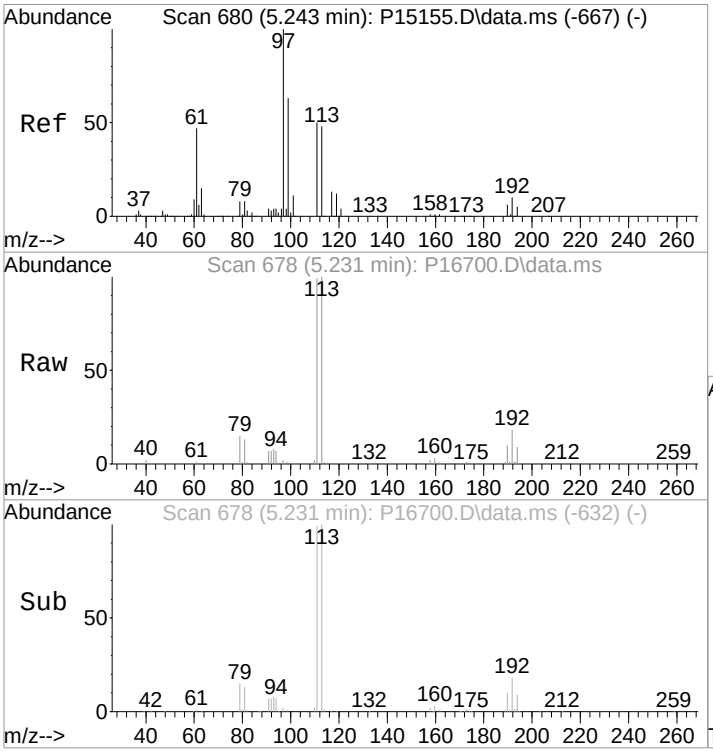


#35
2-Butanone
Concen: 2.04 ppb m
RT: 4.463 min Scan# 552
Delta R.T. 0.055 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 43 Resp: 5102

Ion	Ratio	Lower	Upper
43	100		
57	12.7	0.0	26.7
72	0.0	6.1	46.1#

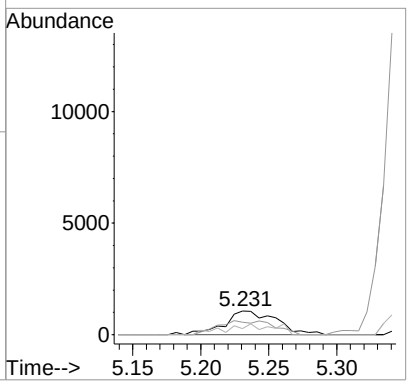


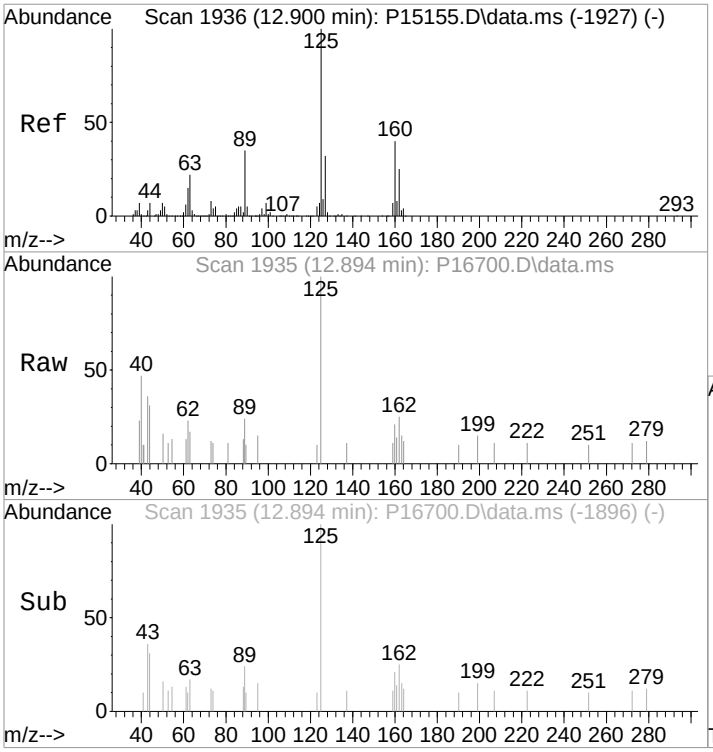


#41
1,1,1-Trichloroethane
Concen: 0.53 ppb
RT: 5.231 min Scan# 678
Delta R.T. -0.000 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion: 97 Resp: 2849

Ion	Ratio	Lower	Upper
97	100		
99	52.5	43.1	83.1
61	26.5	26.9	66.9#

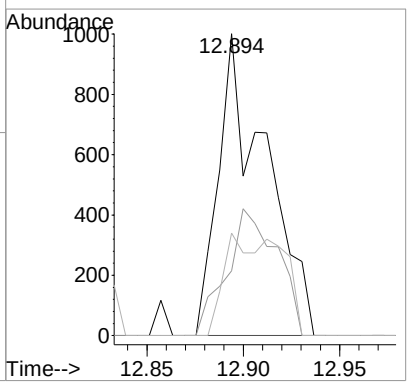




#112
Trielution Dichlorotoluene
Concen: 0.24 ppb
RT: 12.894 min Scan# 1935
Delta R.T. -0.012 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion:125 Resp: 1712

Ion	Ratio	Lower	Upper
125	100		
160	35.8	32.2	48.2
89	33.9	28.3	42.5

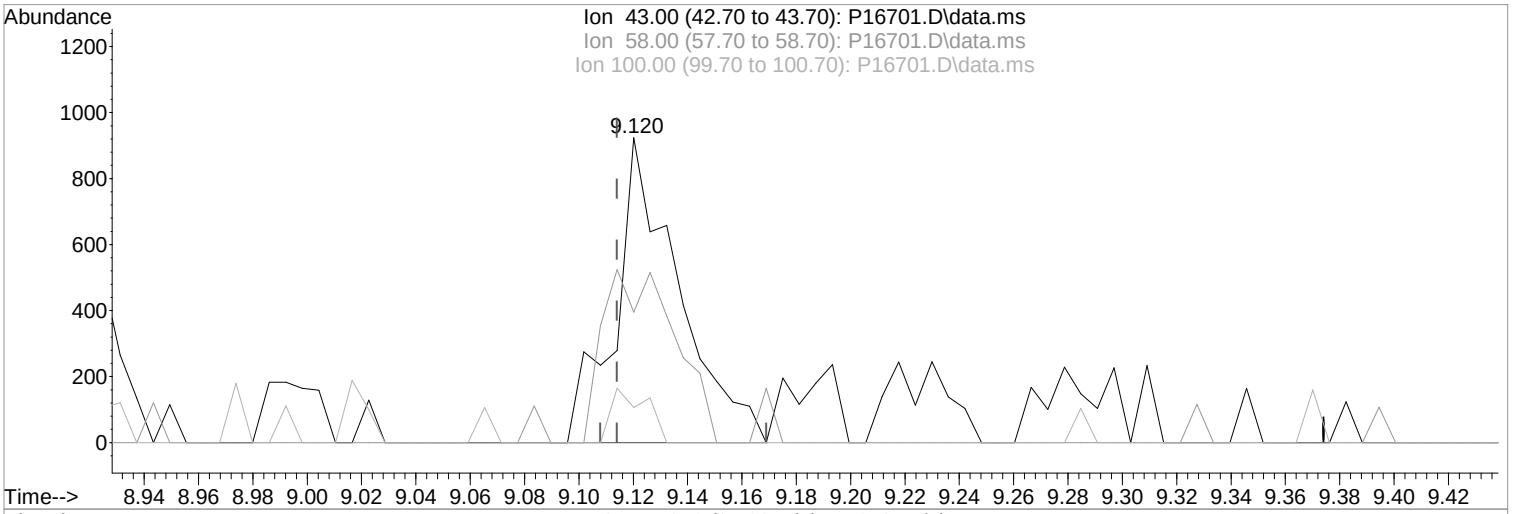


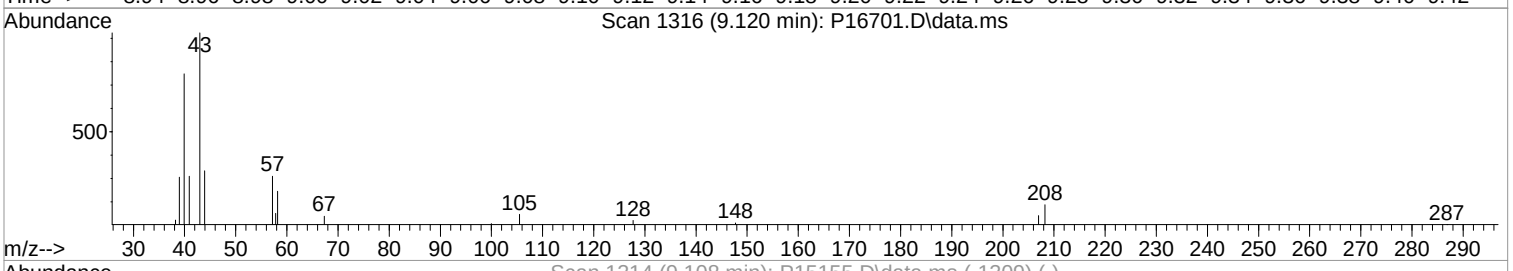
1st 03/27/18
2nd 03/29/18

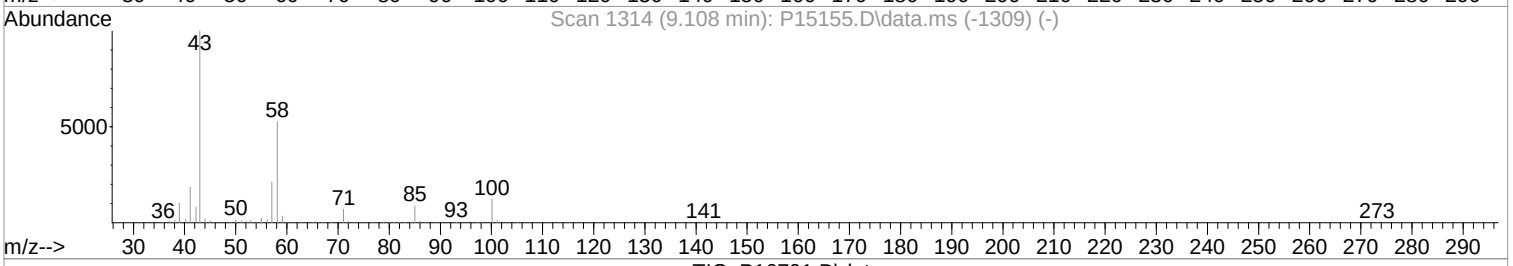
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 14:16:21 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16701.D\data.ms

(73) 2-Hexanone (P)

9.120min (+0.006) 0.47 ppb m

response 1499

Ion	Exp%	Act%
43.00	100	100
58.00	52.50	26.52#
100.00	12.00	11.47
0.00	0.00	0.00

Manual Integration:

After

Split Peak

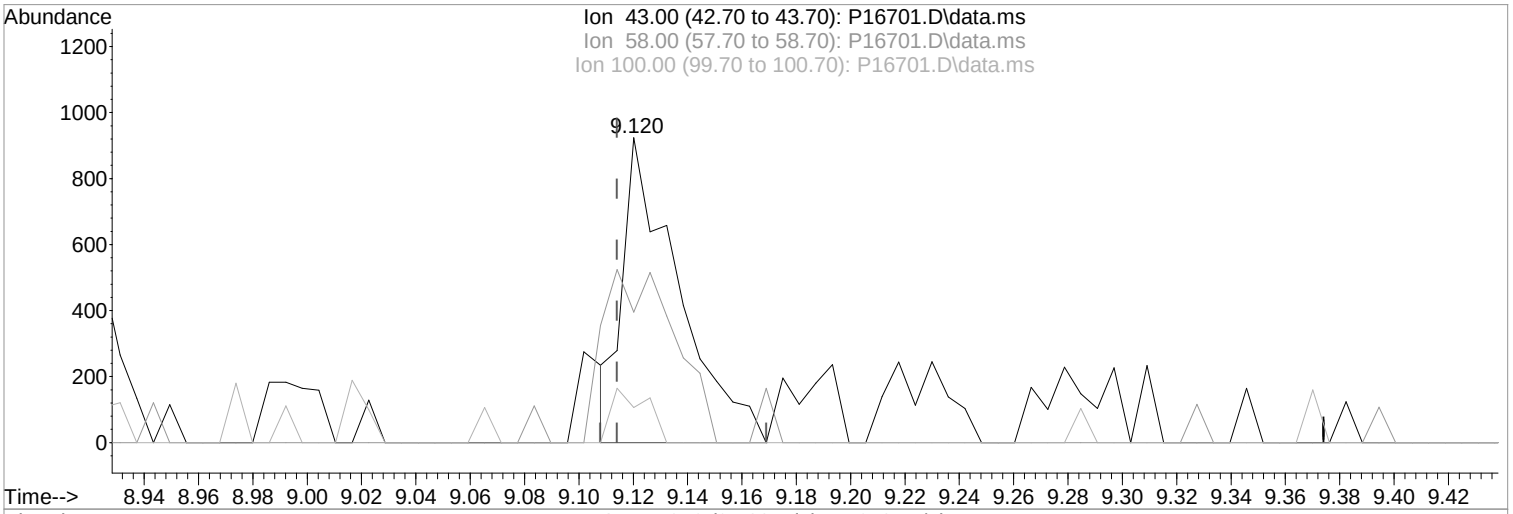
03/27/18

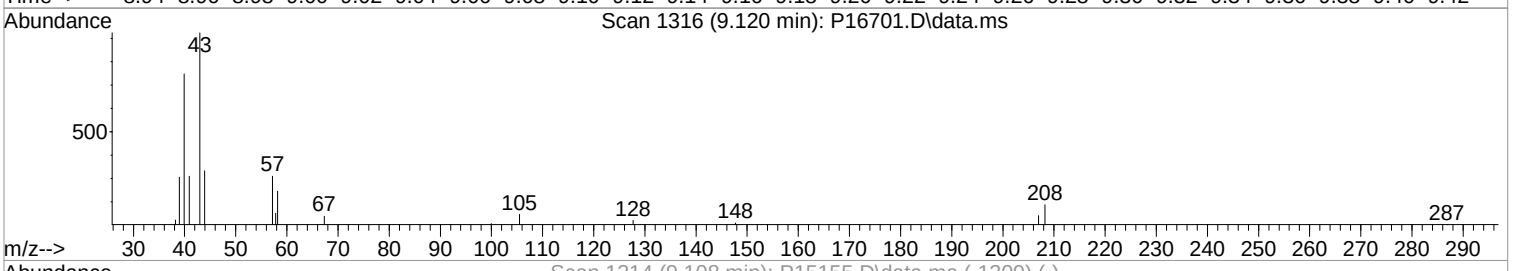
1st 03/27/18
2nd 03/29/18

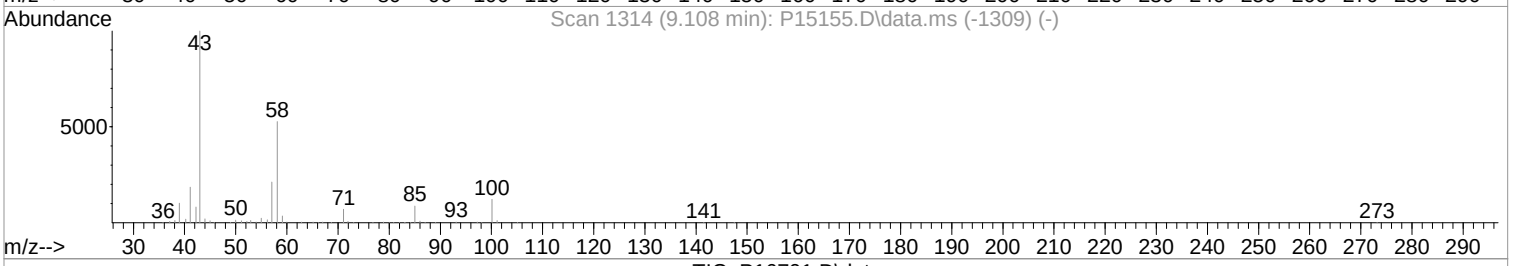
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 14:16:21 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration







TIC: P16701.D\data.ms

(73) 2-Hexanone (P)

9.120min (+0.006) 0.42 ppb

response 1313

Ion	Exp%	Act%
43.00	100	100
58.00	52.50	42.75
100.00	12.00	11.47
0.00	0.00	0.00

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 16:55:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

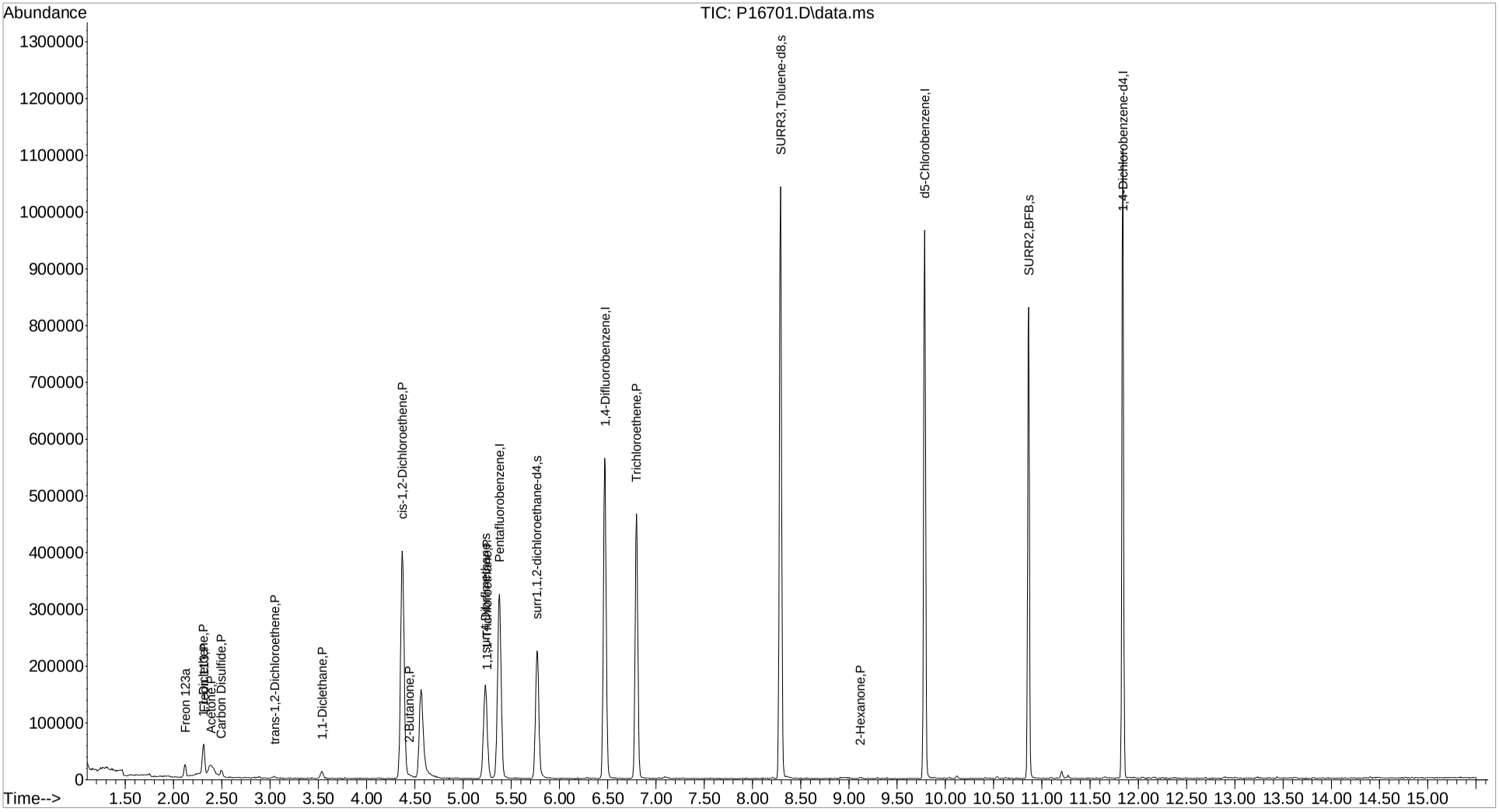
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	289539	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	486905	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	428671	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	207194	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	132407	45.80	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.60%				
48) surr1,1,2-dichloroetha...	5.767	65	197709	49.91	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.82%				
65) SURR3,Toluene-d8	8.291	98	642366	49.76	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.52%				
70) SURR2,BFB	10.864	95	229806	46.01	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.02%				
Target Compounds							Qvalue
10) Freon 123a	2.122	67	9536	2.73	ppb		95
13) 1,1-Diclethene	2.304	96	918	0.31	ppb	#	63
14) Freon 113	2.311	101	19327	6.88	ppb		94
15) Acetone	2.384	43	39012	22.10	ppb		96
18) Carbon Disulfide	2.493	76	12765	1.47	ppb		98
26) trans-1,2-Dichloroethene	3.048	96	1011	0.33	ppb		89
28) 1,1-Diclethane	3.536	63	12298	2.21	ppb		100
34) cis-1,2-Dichloroethene	4.371	96	232453	67.22	ppb		98
35) 2-Butanone	4.444	43	6914	3.12	ppb		90
41) 1,1,1-Trichloroethane	5.243	97	9142	1.92	ppb		88
54) Trichloroethene	6.797	130	164305	50.37	ppb		94
73) 2-Hexanone	9.120	43	1499m	0.47	ppb		

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

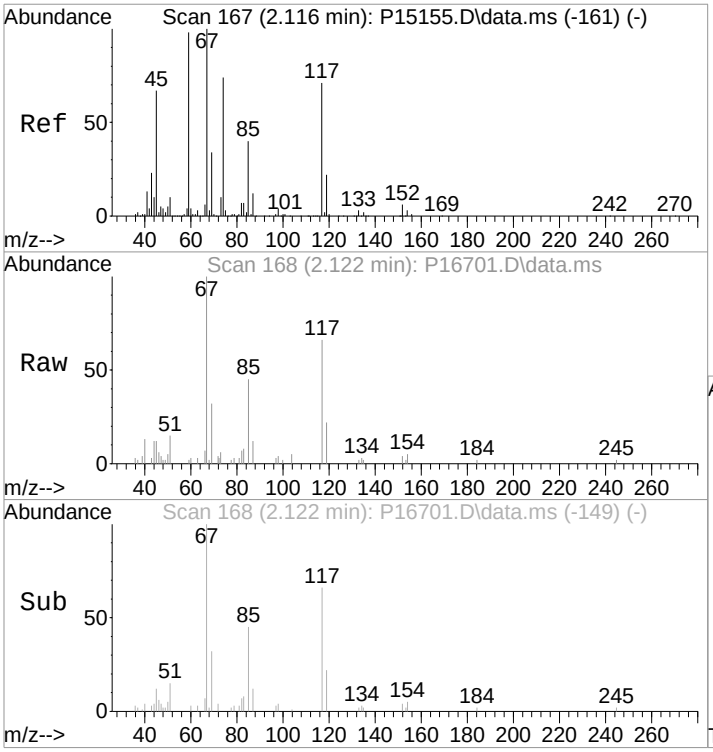
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 16:55:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



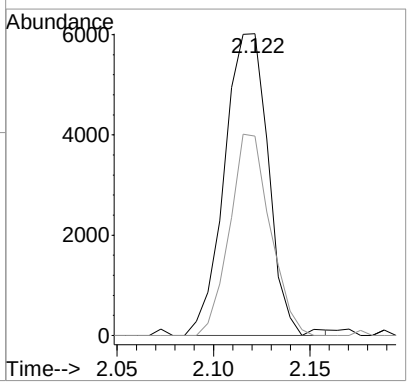
1st 03/27/18
2nd 03/29/18

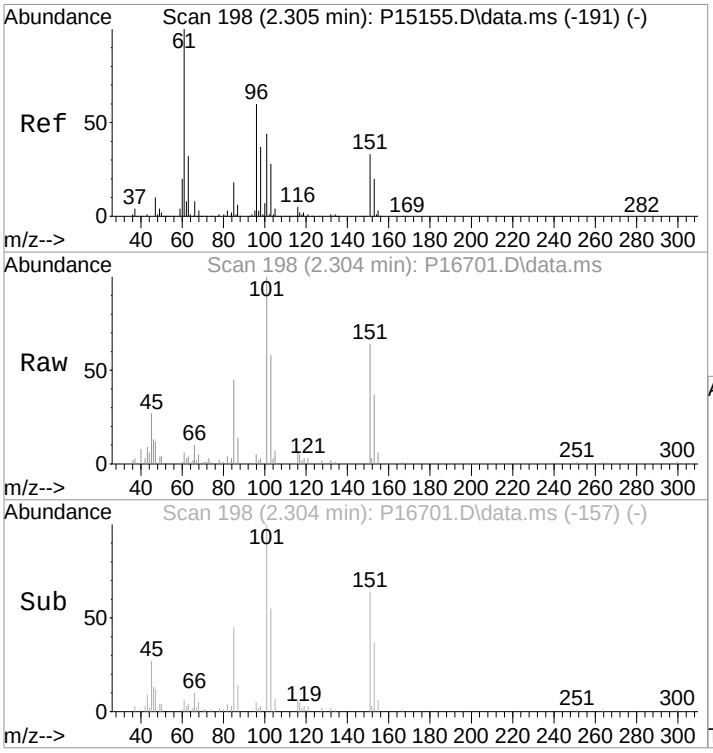


#10
Freon 123a
Concen: 2.73 ppb
RT: 2.122 min Scan# 168
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 67 Resp: 9536

Ion	Ratio	Lower	Upper
67	100		
117	66.0	50.3	90.3

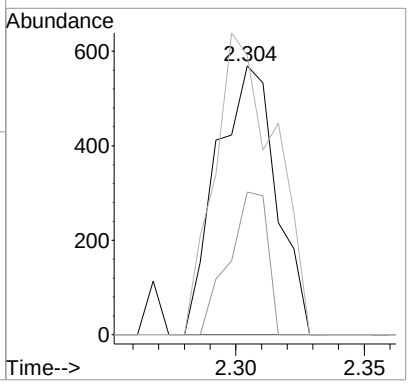


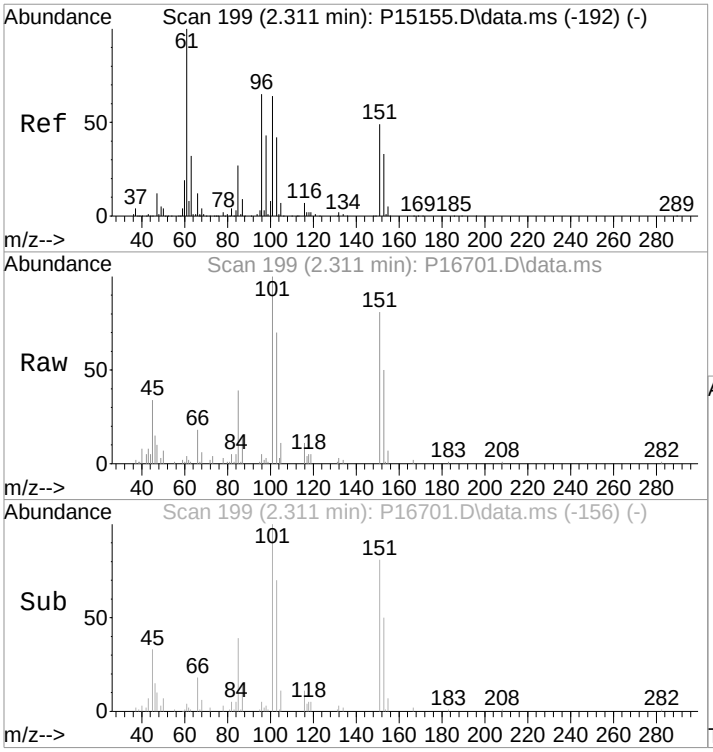


#13
1,1-Diclethene
Concen: 0.31 ppb
RT: 2.304 min Scan# 198
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 96 Resp: 918

Ion	Ratio	Lower	Upper
96	100		
98	53.1	42.0	82.0
61	103.9	146.0	186.0#

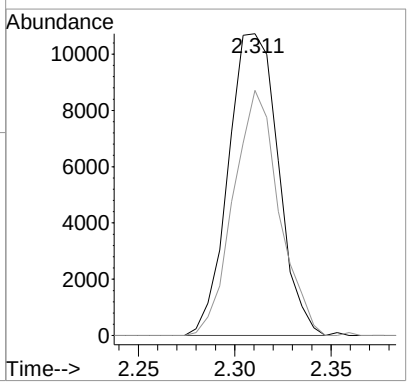


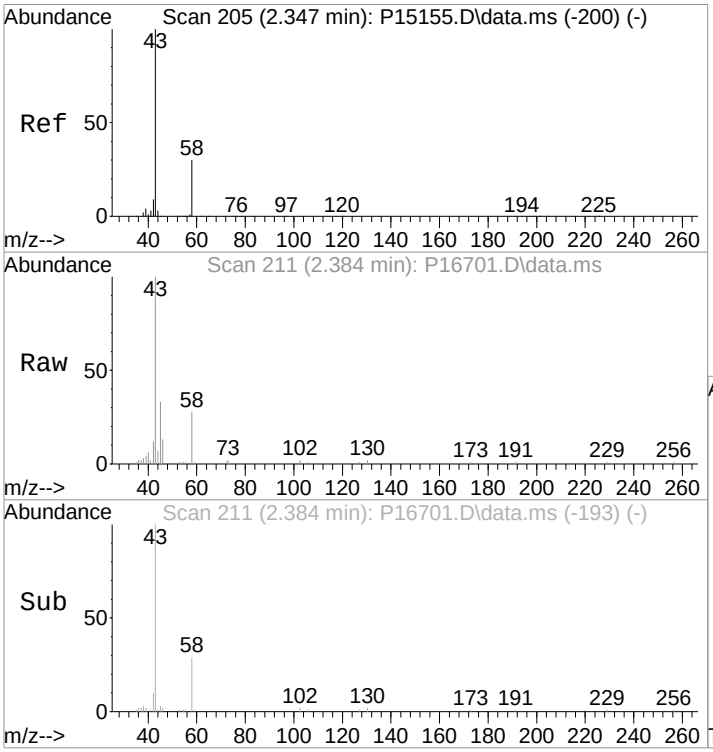


#14
Freon 113
Concen: 6.88 ppb
RT: 2.311 min Scan# 199
Delta R.T. 0.006 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion:101 Resp: 19327

Ion	Ratio	Lower	Upper
101	100		
151	81.2	56.3	96.3

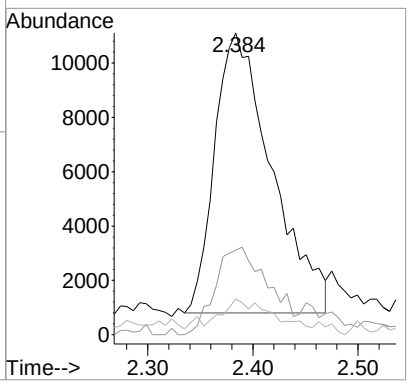


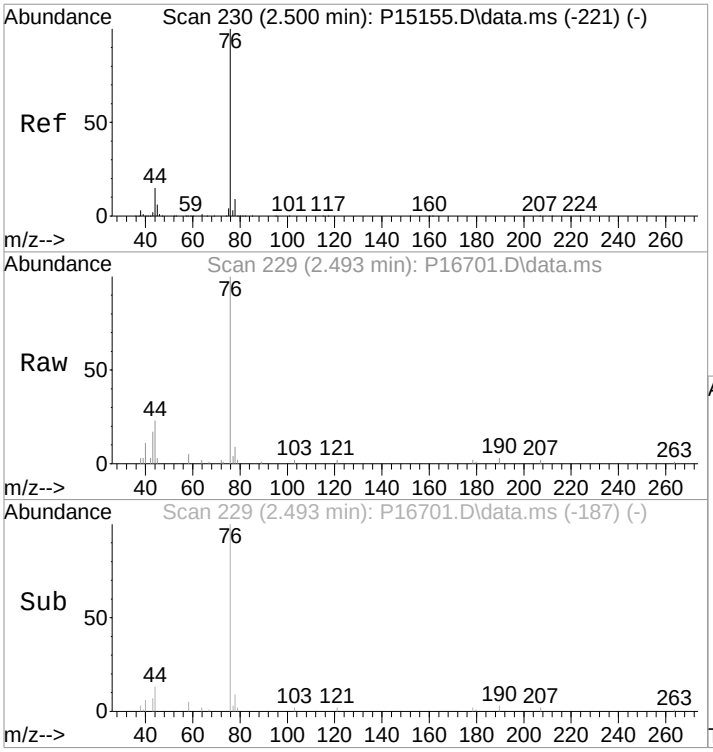


#15
Acetone
Concen: 22.10 ppb
RT: 2.384 min Scan# 211
Delta R.T. 0.037 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 43 Resp: 39012

Ion	Ratio	Lower	Upper
43	100		
58	27.9	9.7	49.7
42	11.9	0.0	29.2

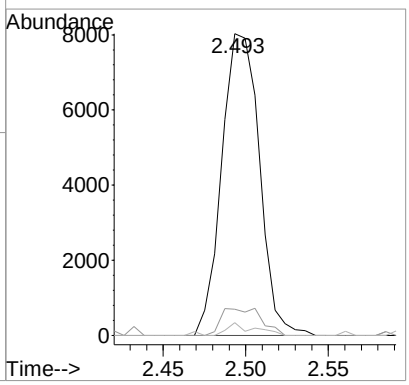


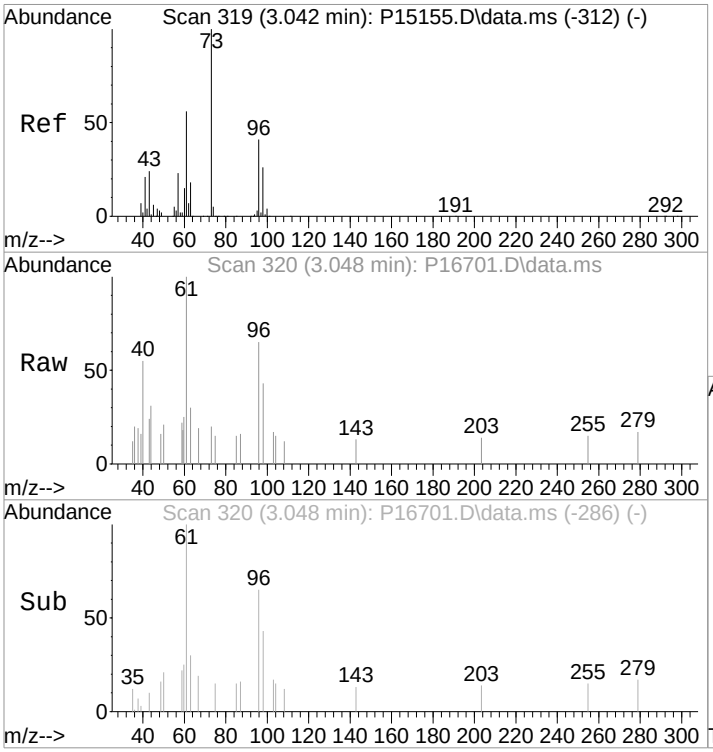


#18
Carbon Disulfide
Concen: 1.47 ppb
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 76 Resp: 12765

Ion	Ratio	Lower	Upper
76	100		
78	8.7	0.0	29.5
77	4.3	0.0	23.1

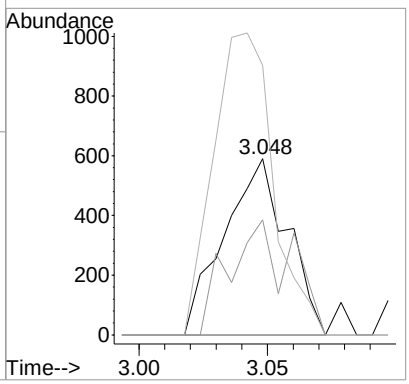


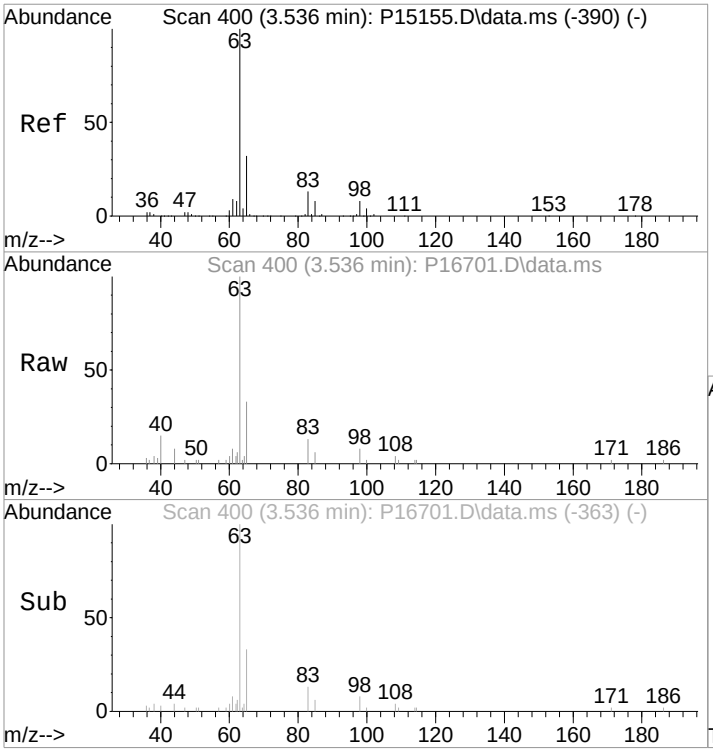


#26
trans-1,2-Dichloroethene
Concen: 0.33 ppb
RT: 3.048 min Scan# 320
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 96 Resp: 1011

Ion	Ratio	Lower	Upper
96	100		
98	65.3	42.7	82.7
61	153.1	116.4	156.4

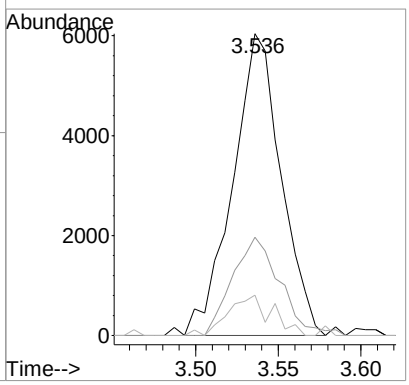


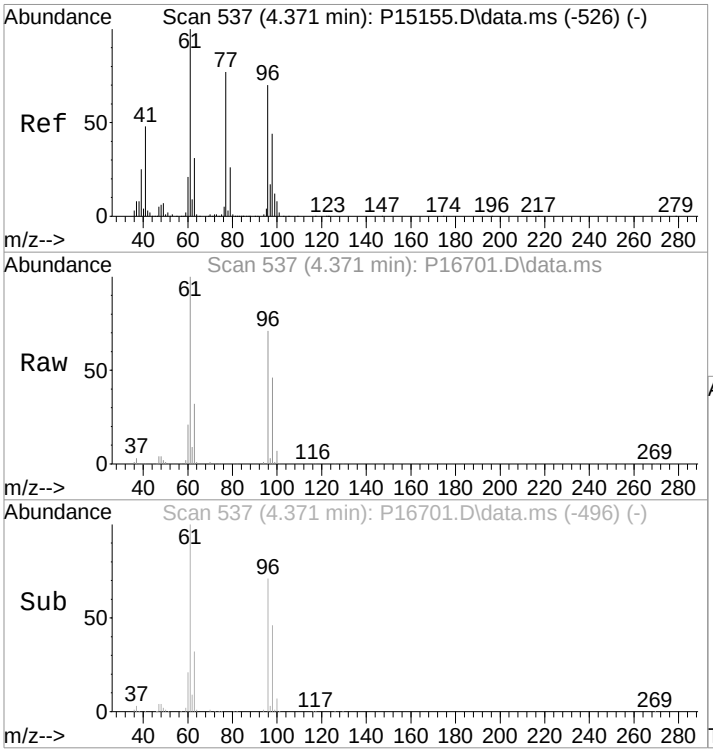


#28
1,1-Diclethane
Concen: 2.21 ppb
RT: 3.536 min Scan# 400
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 63 Resp: 12298

Ion	Ratio	Lower	Upper
63	100		
65	32.5	12.3	52.3
83	13.4	0.0	33.4

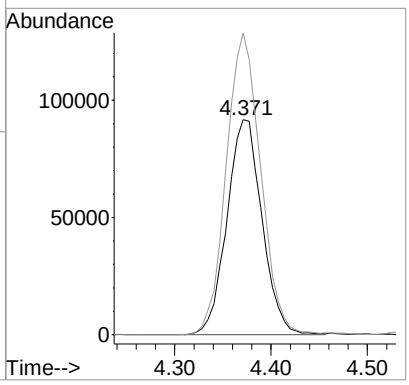


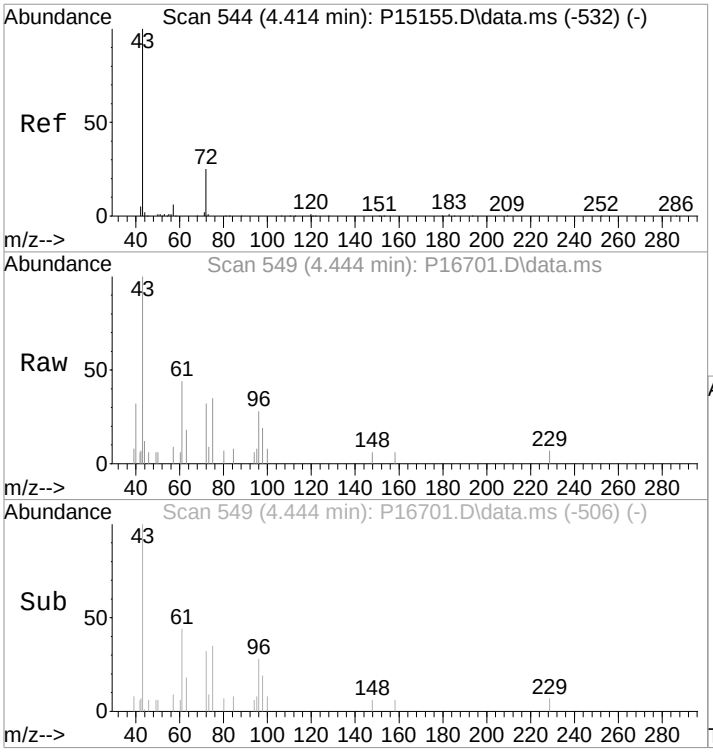


#34
cis-1,2-Dichloroethene
Concen: 67.22 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 96 Resp: 232453

Ion	Ratio	Lower	Upper
96	100		
61	140.3	122.8	162.8

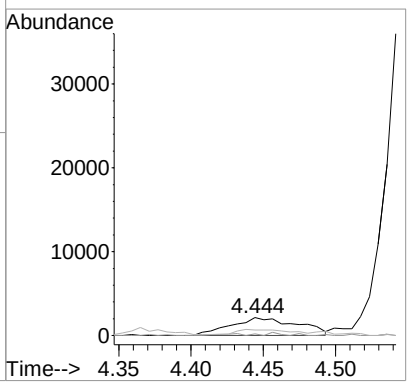


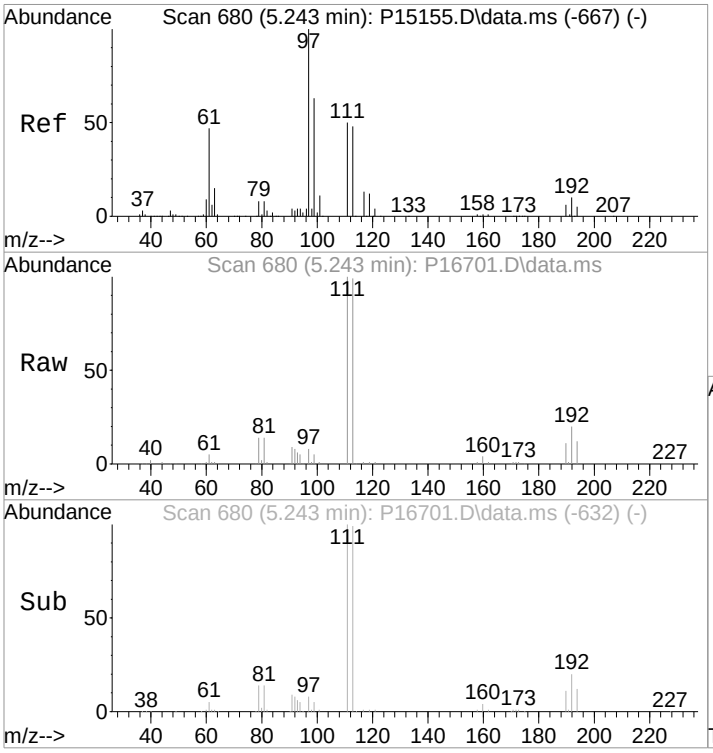


#35
2-Butanone
Concen: 3.12 ppb
RT: 4.444 min Scan# 549
Delta R.T. 0.037 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 43 Resp: 6914

Ion	Ratio	Lower	Upper
43	100		
57	8.9	0.0	26.7
72	31.7	6.1	46.1

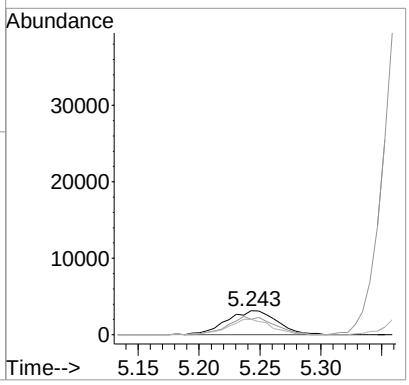


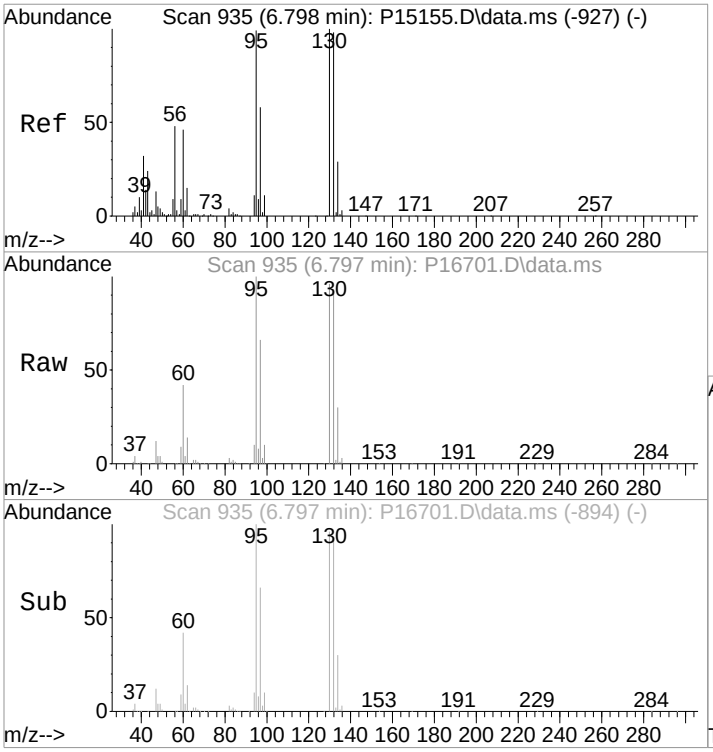


#41
1,1,1-Trichloroethane
Concen: 1.92 ppb
RT: 5.243 min Scan# 680
Delta R.T. 0.012 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 97 Resp: 9142

Ion	Ratio	Lower	Upper
97	100		
99	64.2	43.1	83.1
61	63.9	26.9	66.9

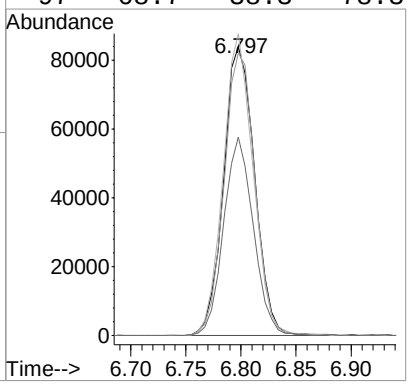


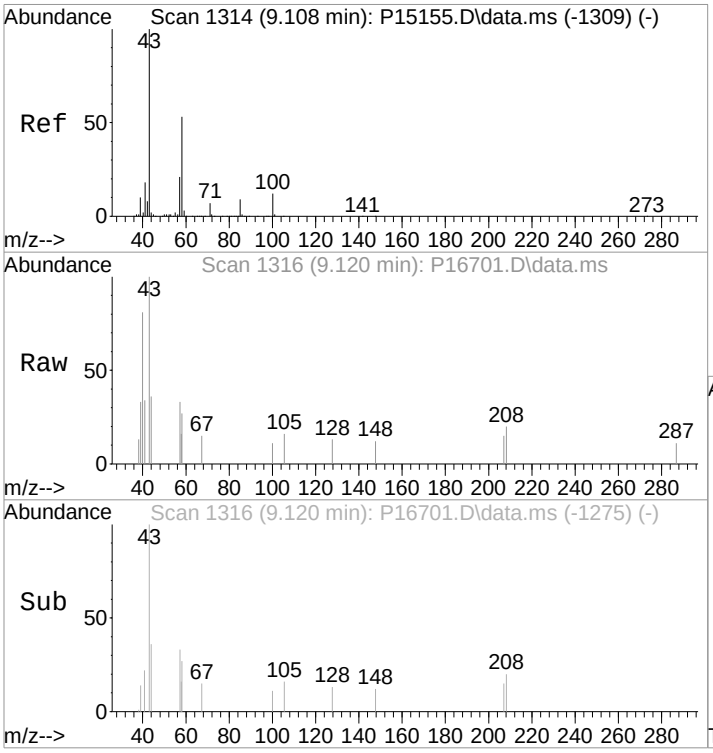


#54
Trichloroethene
Concen: 50.37 ppb
RT: 6.797 min Scan# 935
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion:130 Resp: 164305

Ion	Ratio	Lower	Upper
130	100		
132	97.7	78.3	118.3
95	104.6	78.7	118.7
97	68.7	38.3	78.3

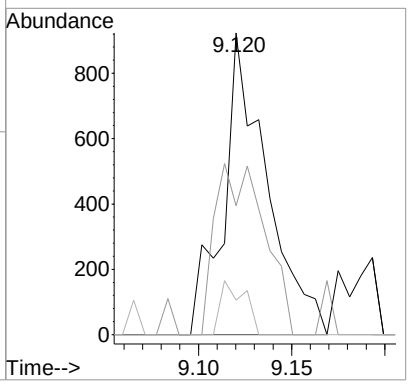




#73
2-Hexanone
Concen: 0.47 ppb m
RT: 9.120 min Scan# 1316
Delta R.T. 0.006 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 43 Resp: 1499

Ion	Ratio	Lower	Upper
43	100		
58	26.5	32.5	72.5#
100	11.5	0.0	32.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16702.D
Acq On : 27 Mar 2018 1:59 pm
Operator : K.Ruest
Sample : R1802551-005|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 16:57:05 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

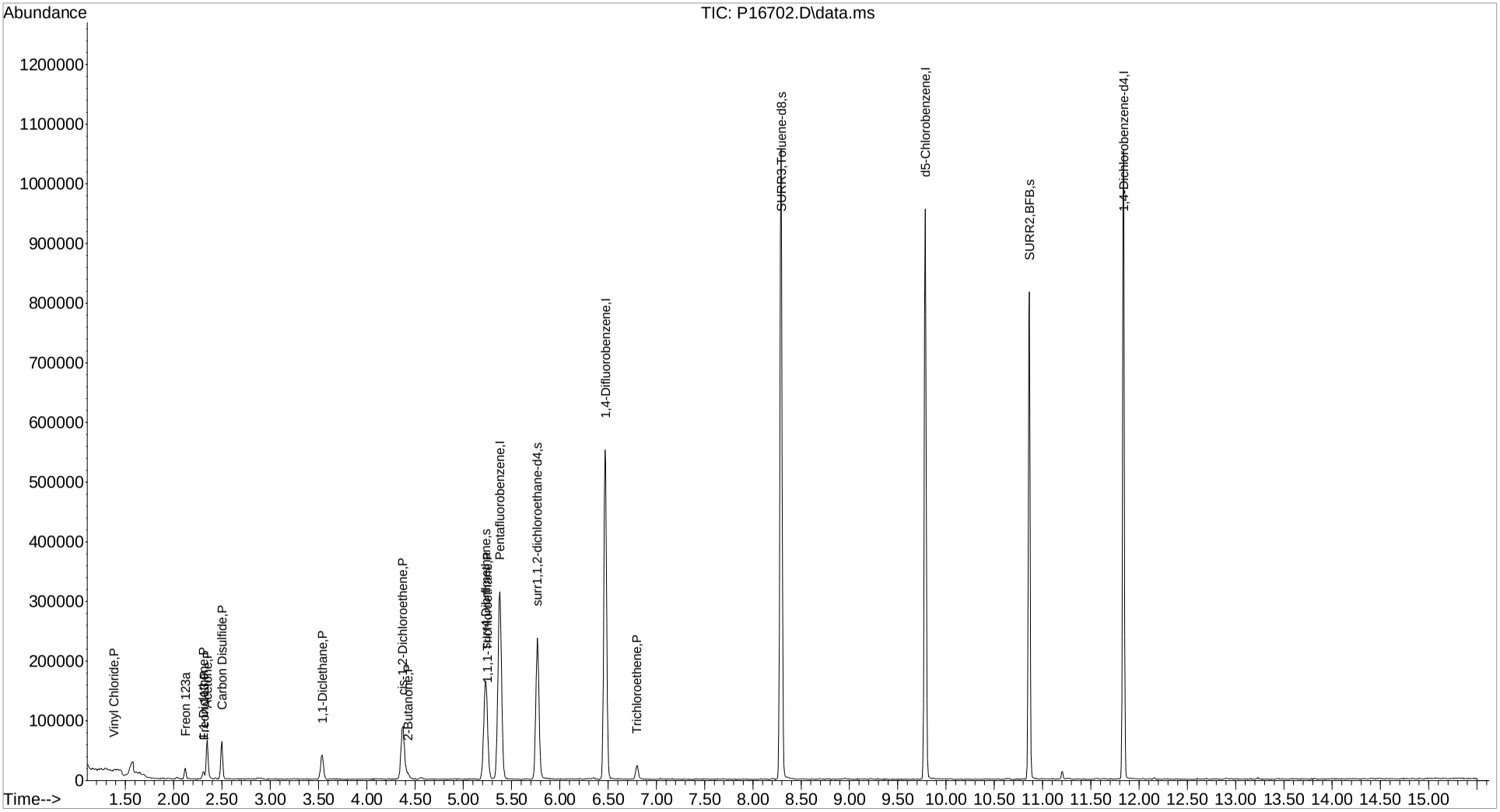
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	285139	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	484154	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	423298	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	206108	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	132245	46.00	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.00%				
48) surr1,1,2-dichloroetha...	5.767	65	196954	50.00	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.00%				
65) SURR3,Toluene-d8	8.291	98	640069	49.86	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.72%				
70) SURR2,BFB	10.864	95	230961	46.51	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.02%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.384	62	1123	0.27	ppb	#	1
10) Freon 123a	2.122	67	7173	2.08	ppb		92
13) 1,1-Diclethene	2.305	96	865	0.30	ppb	#	81
14) Freon 113	2.311	101	3930	1.42	ppb		89
15) Acetone	2.347	43	58374	33.57	ppb		97
18) Carbon Disulfide	2.500	76	66256	7.76	ppb		98
28) 1,1-Diclethane	3.536	63	42276	7.70	ppb		94
34) cis-1,2-Dichloroethene	4.371	96	49698	14.59	ppb	#	78
35) 2-Butanone	4.426	43	17544	8.03	ppb		99
41) 1,1,1-Trichloroethane	5.249	97	13087	2.80	ppb		95
54) Trichloroethene	6.798	130	7889	2.43	ppb	#	90

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

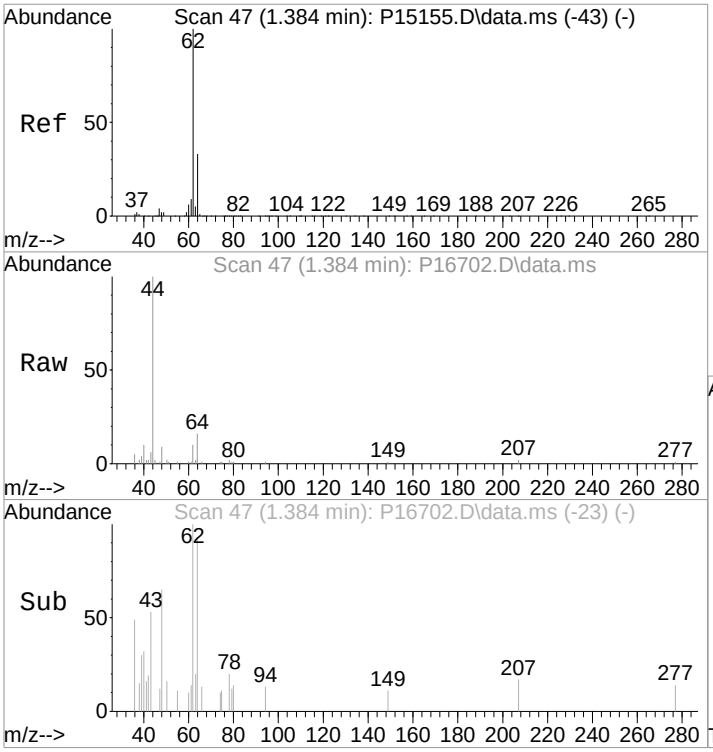
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16702.D
Acq On : 27 Mar 2018 1:59 pm
Operator : K.Ruest
Sample : R1802551-005|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 16:57:05 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



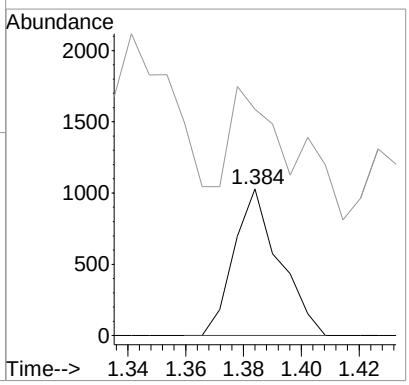
1st 03/27/18
2nd 03/29/18

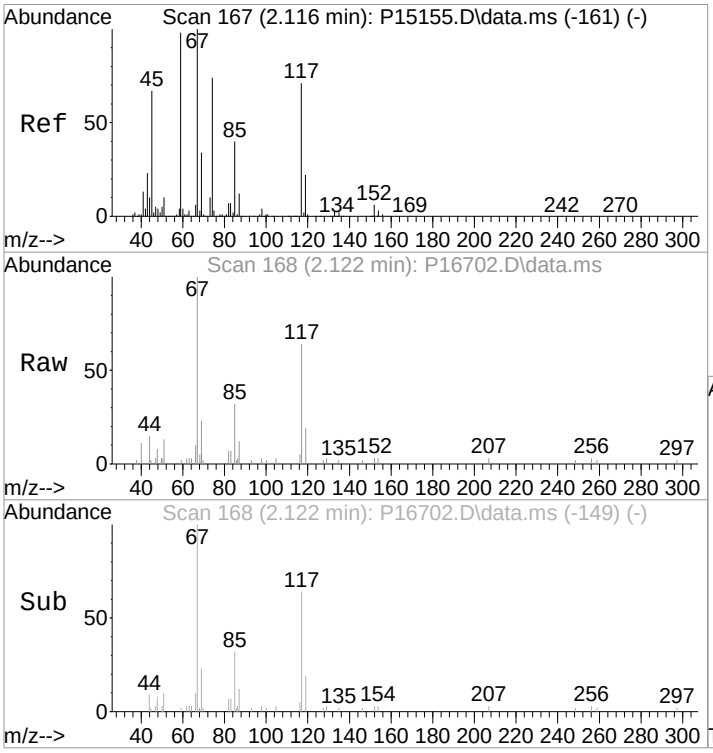


#4
Vinyl Chloride
Concen: 0.27 ppb
RT: 1.384 min Scan# 47
Delta R.T. 0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 62 Resp: 1123

Ion	Ratio	Lower	Upper
62	100		
64	154.2	12.8	52.8#

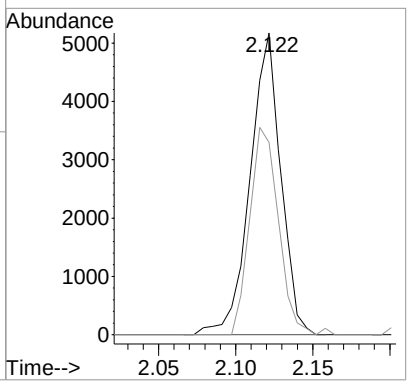


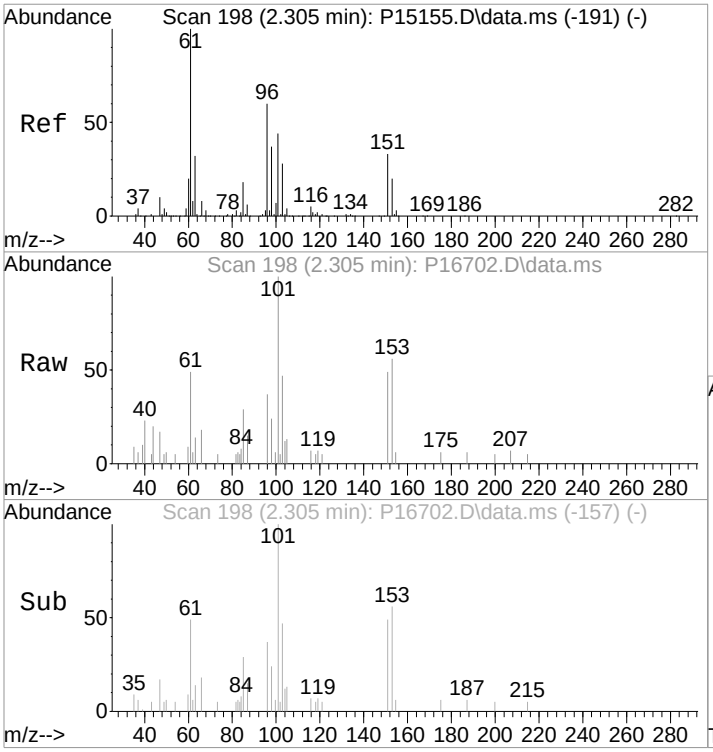


#10
Freon 123a
Concen: 2.08 ppb
RT: 2.122 min Scan# 168
Delta R.T. -0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 67 Resp: 7173

Ion	Ratio	Lower	Upper
67	100		
117	63.7	50.3	90.3

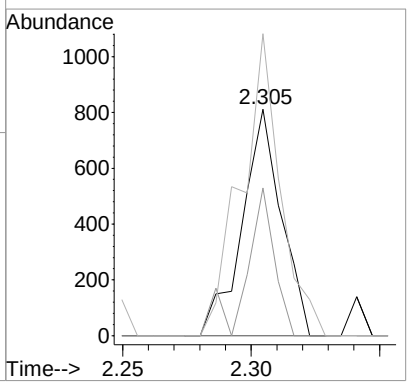


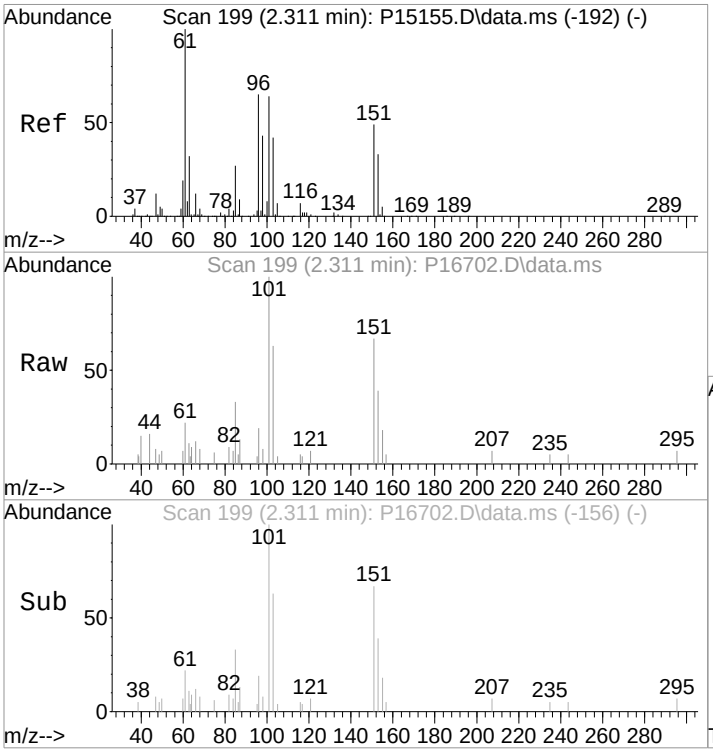


#13
1,1-Diclethene
Concen: 0.30 ppb
RT: 2.305 min Scan# 198
Delta R.T. -0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 96 Resp: 865

Ion	Ratio	Lower	Upper
96	100		
98	65.1	42.0	82.0
61	133.4	146.0	186.0#

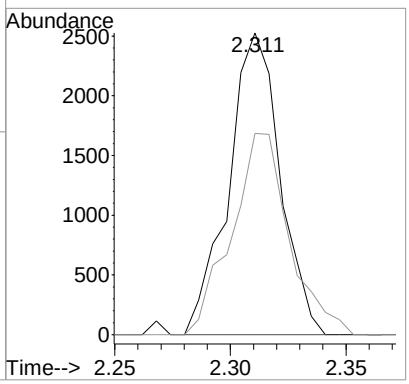


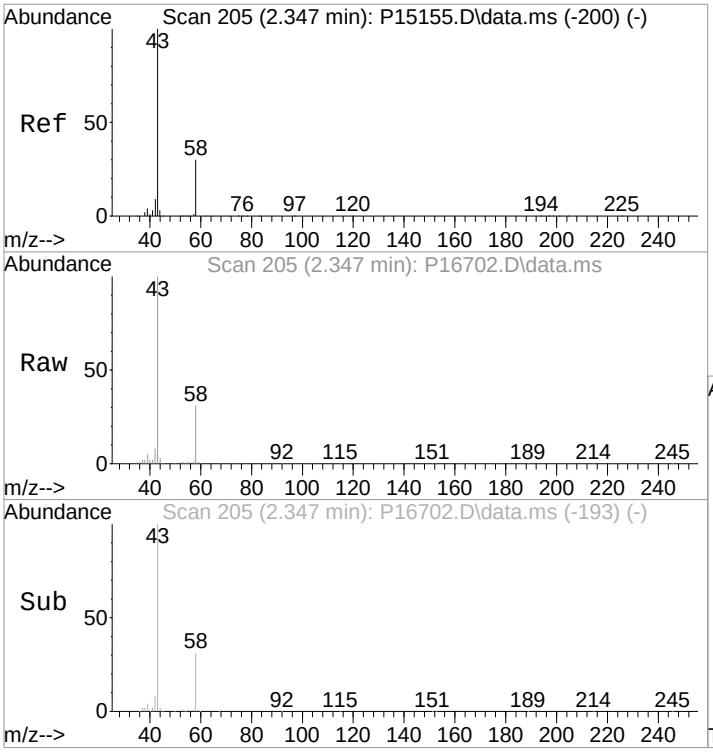


#14
Freon 113
Concen: 1.42 ppb
RT: 2.311 min Scan# 199
Delta R.T. 0.006 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion:101 Resp: 3930

Ion	Ratio	Lower	Upper
101	100		
151	66.7	56.3	96.3

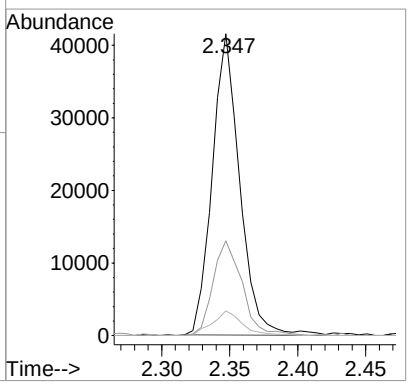


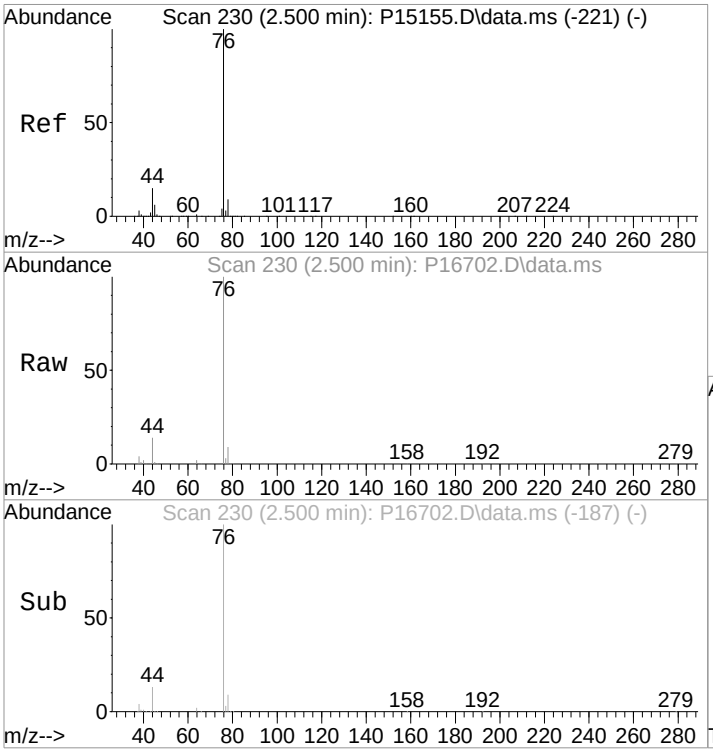


#15
Acetone
Concen: 33.57 ppb
RT: 2.347 min Scan# 205
Delta R.T. 0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 43 Resp: 58374

Ion	Ratio	Lower	Upper
43	100		
58	31.4	9.7	49.7
42	8.2	0.0	29.2

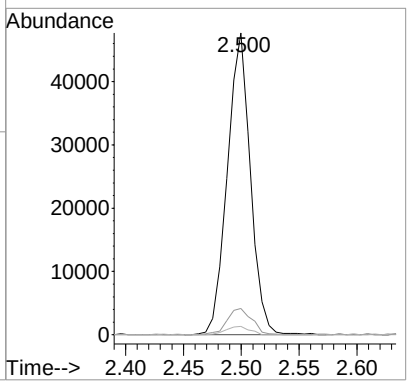


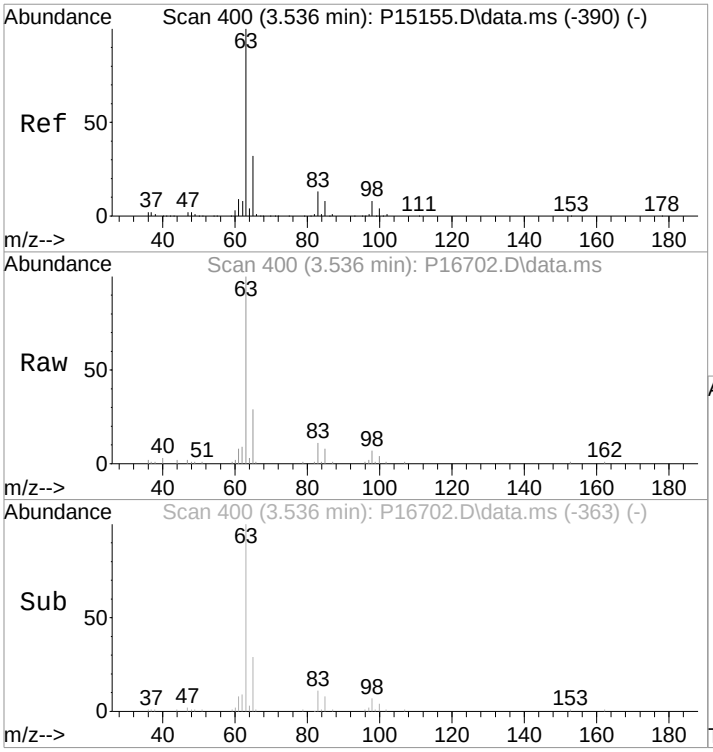


#18
Carbon Disulfide
Concen: 7.76 ppb
RT: 2.500 min Scan# 230
Delta R.T. 0.006 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 76 Resp: 66256

Ion	Ratio	Lower	Upper
76	100		
78	8.7	0.0	29.5
77	2.8	0.0	23.1

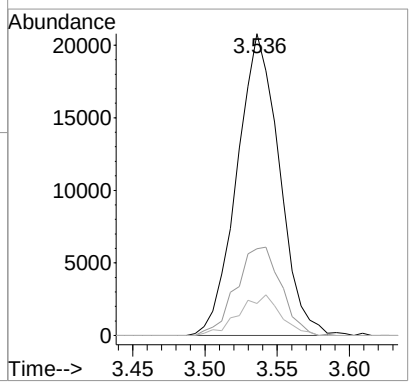


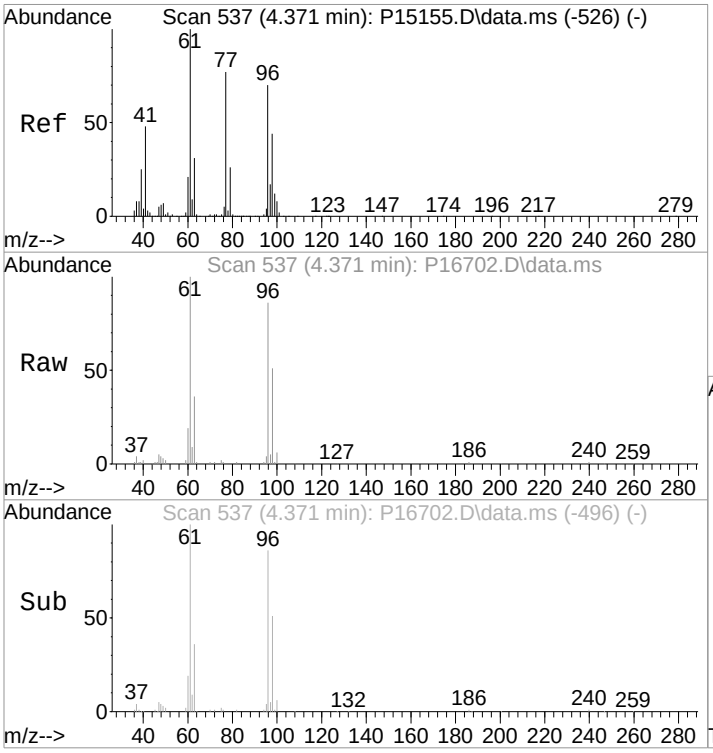


#28
1,1-Diclethane
Concen: 7.70 ppb
RT: 3.536 min Scan# 400
Delta R.T. -0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 63 Resp: 42276

Ion	Ratio	Lower	Upper
63	100		
65	28.8	12.3	52.3
83	10.6	0.0	33.4

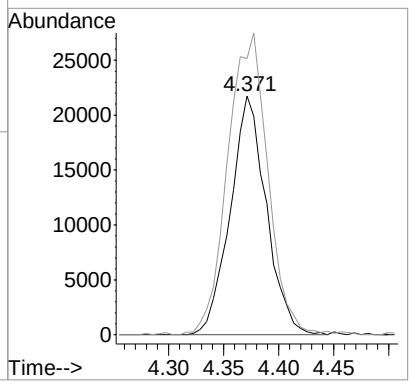


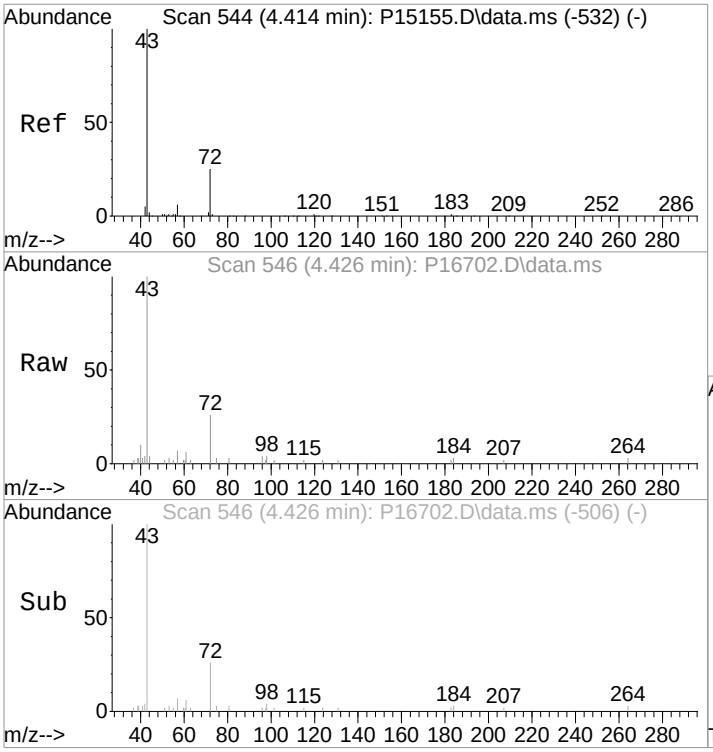


#34
cis-1,2-Dichloroethene
Concen: 14.59 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 96 Resp: 49698

Ion	Ratio	Lower	Upper
96	100		
61	115.7	122.8	162.8#

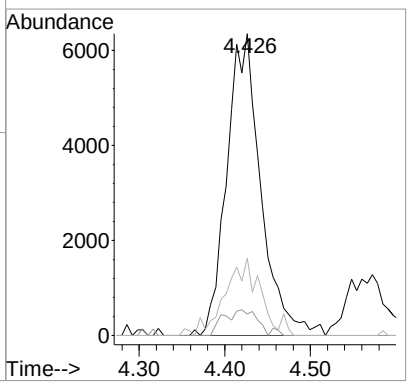


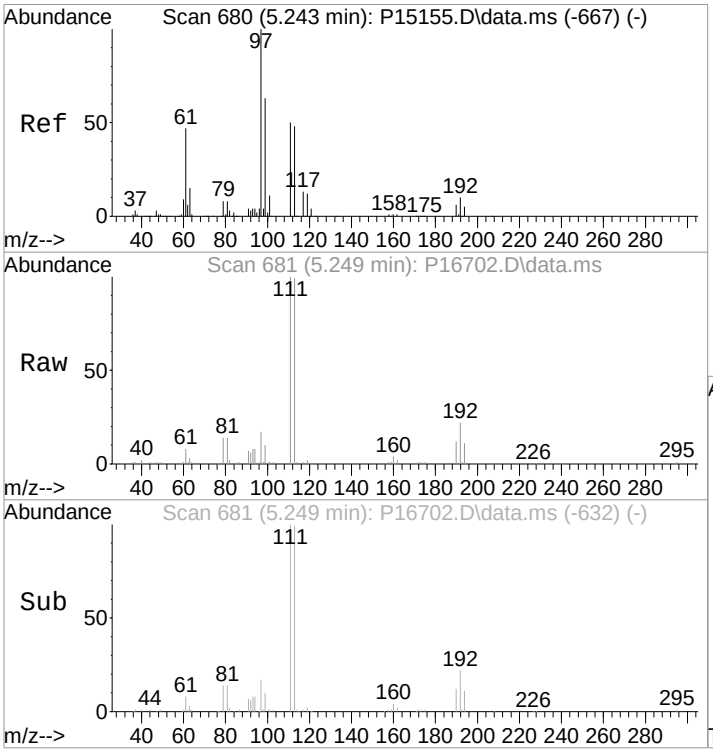


#35
2-Butanone
Concen: 8.03 ppb
RT: 4.426 min Scan# 546
Delta R.T. 0.018 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 43 Resp: 17544

Ion	Ratio	Lower	Upper
43	100		
57	7.1	0.0	26.7
72	25.7	6.1	46.1

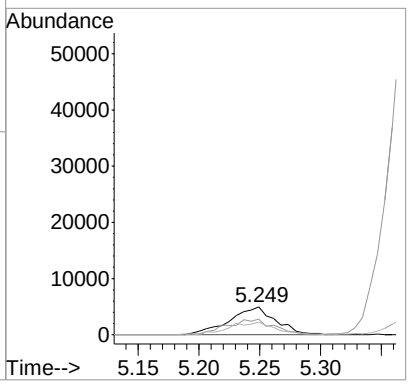


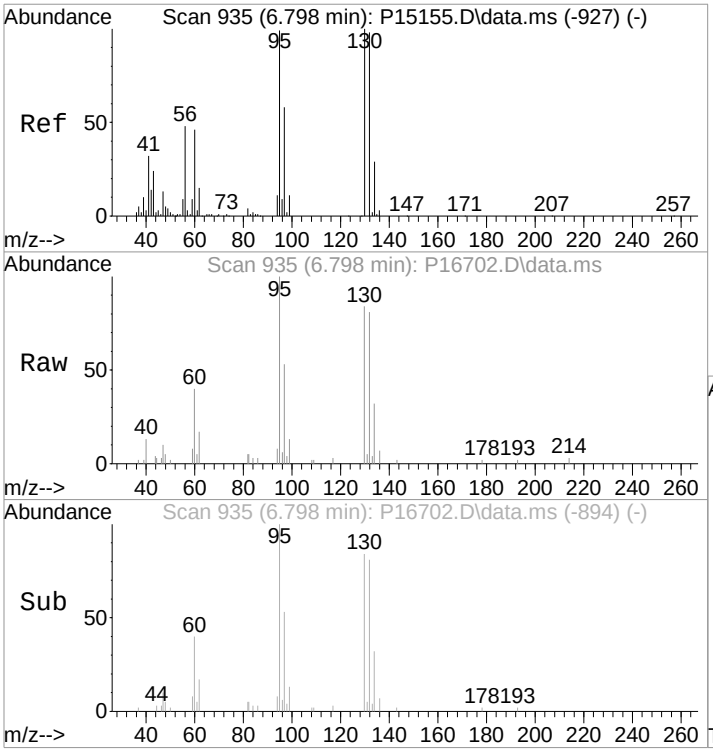


#41
1,1,1-Trichloroethane
Concen: 2.80 ppb
RT: 5.249 min Scan# 681
Delta R.T. 0.018 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 97 Resp: 13087

Ion	Ratio	Lower	Upper
97	100		
99	57.0	43.1	83.1
61	45.5	26.9	66.9

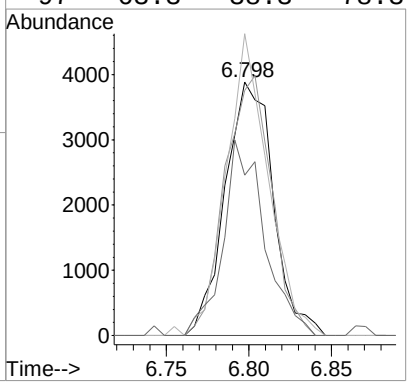




#54
Trichloroethene
Concen: 2.43 ppb
RT: 6.798 min Scan# 935
Delta R.T. -0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion:130 Resp: 7889

Ion	Ratio	Lower	Upper
130	100		
132	96.8	78.3	118.3
95	119.2	78.7	118.7#
97	63.3	38.3	78.3



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16703.D
Acq On : 27 Mar 2018 2:21 pm
Operator : K.Ruest
Sample : R1802551-006|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 16:59:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

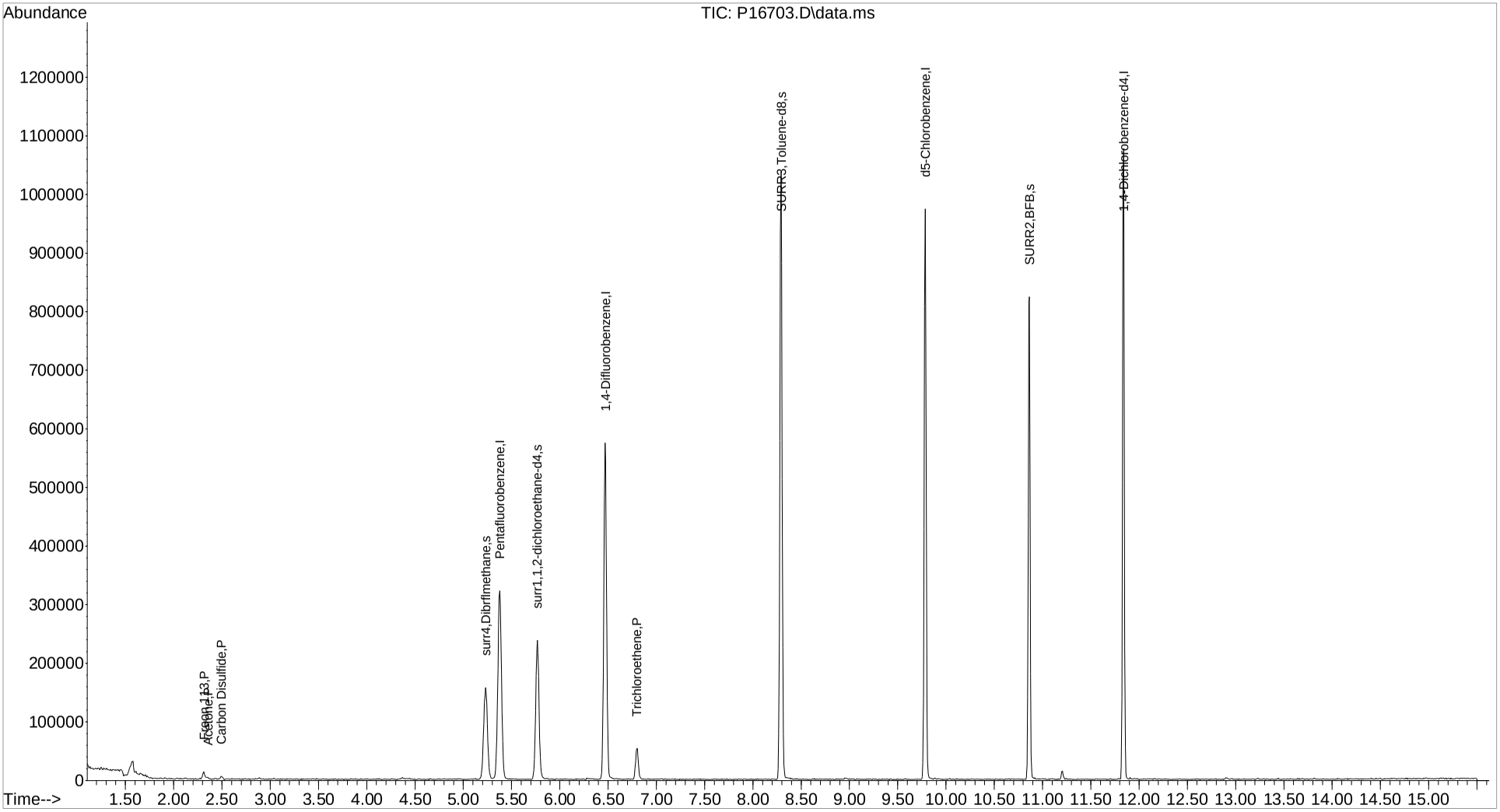
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	289167	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	488979	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	427171	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	213624	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	130572	44.97	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 89.94%			
48) surr1,1,2-dichloroetha...	5.767	65	200864	50.49	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.98%			
65) SURR3,Toluene-d8	8.291	98	645909	49.82	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.64%			
70) SURR2,BFB	10.864	95	238265	47.50	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.00%			
Target Compounds						Qvalue
14) Freon 113	2.311	101	3716	1.32	ppb	# 68
15) Acetone	2.353	43	3015	1.71	ppb	80
18) Carbon Disulfide	2.494	76	4924	0.57	ppb	95
54) Trichloroethene	6.798	130	19251	5.88	ppb	93

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

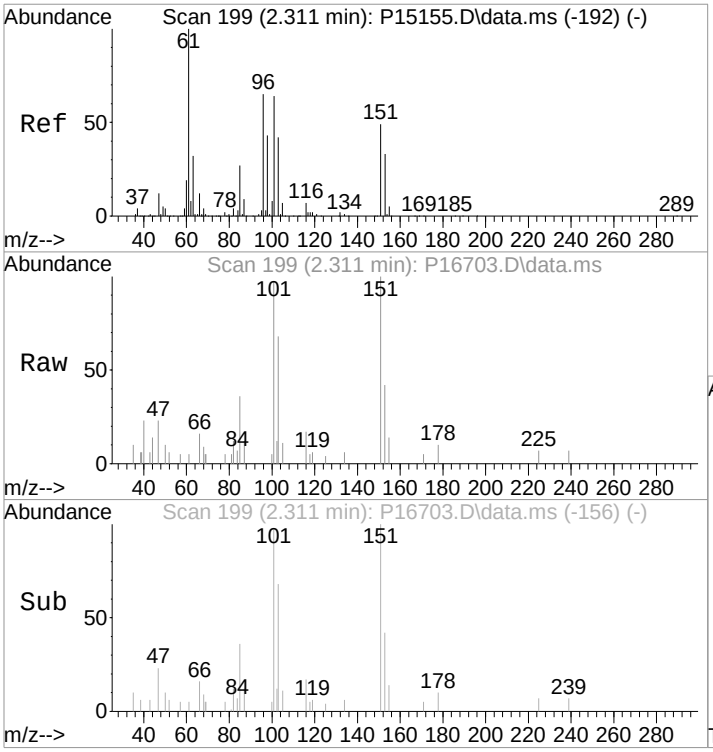
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16703.D
Acq On : 27 Mar 2018 2:21 pm
Operator : K.Ruest
Sample : R1802551-006|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 16:59:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



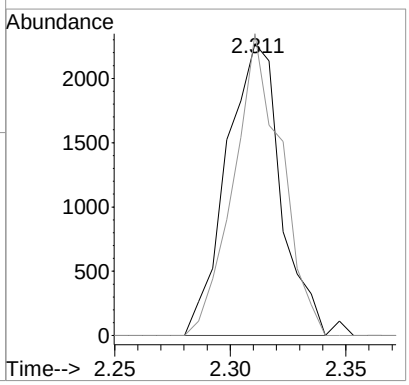
1st 03/27/18
2nd 03/29/18

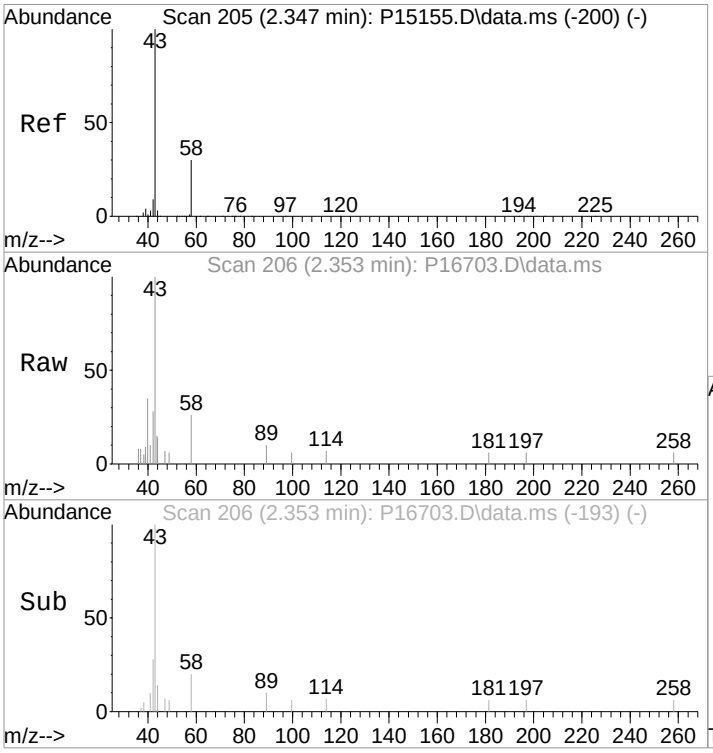


#14
Freon 113
Concen: 1.32 ppb
RT: 2.311 min Scan# 199
Delta R.T. 0.006 min
Lab File: P16703.D
Acq: 27 Mar 2018 2:21 pm

Tgt Ion:101 Resp: 3716

Ion	Ratio	Lower	Upper
101	100		
151	103.5	56.3	96.3#

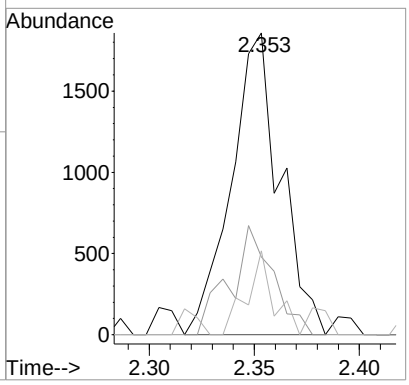


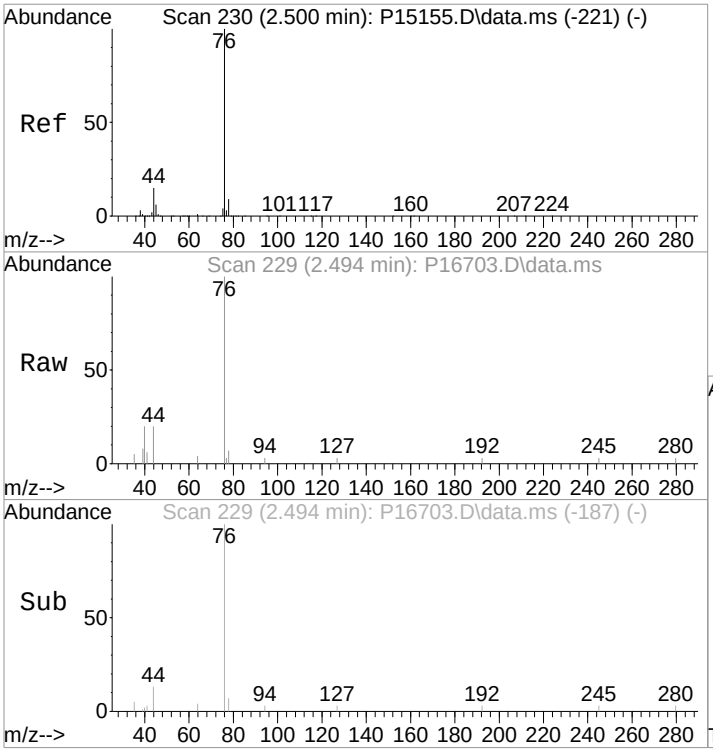


#15
Acetone
Concen: 1.71 ppb
RT: 2.353 min Scan# 206
Delta R.T. 0.006 min
Lab File: P16703.D
Acq: 27 Mar 2018 2:21 pm

Tgt Ion: 43 Resp: 3015

Ion	Ratio	Lower	Upper
43	100		
58	22.3	9.7	49.7
42	24.1	0.0	29.2

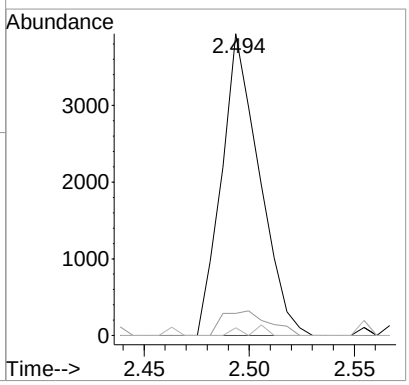


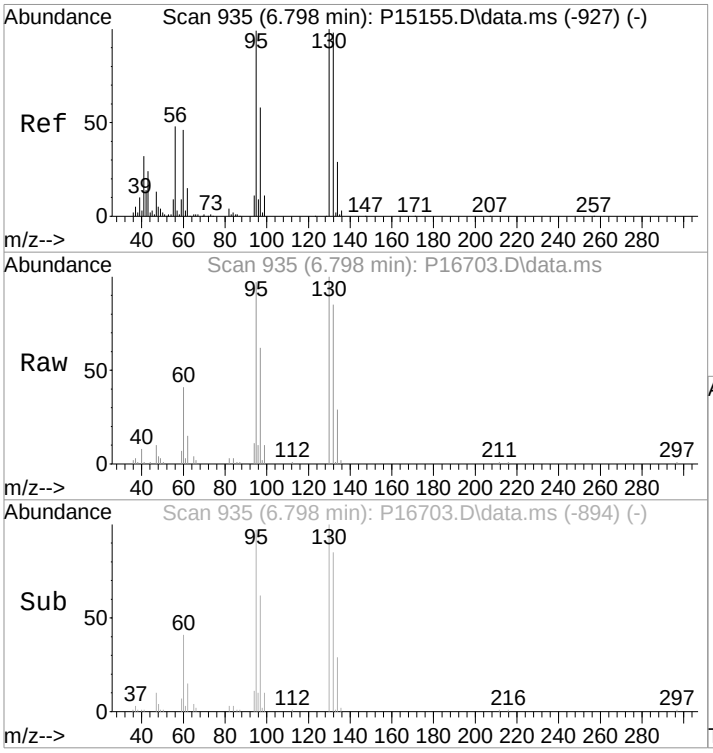


#18
Carbon Disulfide
Concen: 0.57 ppb
RT: 2.494 min Scan# 229
Delta R.T. 0.000 min
Lab File: P16703.D
Acq: 27 Mar 2018 2:21 pm

Tgt Ion: 76 Resp: 4924

Ion	Ratio	Lower	Upper
76	100		
78	7.3	0.0	29.5
77	2.6	0.0	23.1

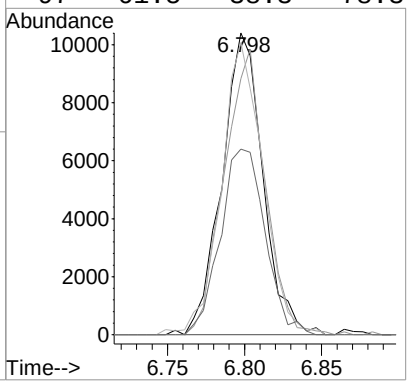




#54
Trichloroethene
Concen: 5.88 ppb
RT: 6.798 min Scan# 935
Delta R.T. 0.000 min
Lab File: P16703.D
Acq: 27 Mar 2018 2:21 pm

Tgt Ion:130 Resp: 19251

Ion	Ratio	Lower	Upper
130	100		
132	84.8	78.3	118.3
95	96.7	78.7	118.7
97	61.5	38.3	78.3



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16704.D
Acq On : 27 Mar 2018 2:43 pm
Operator : K.Ruest
Sample : R1802551-009|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 17:01:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

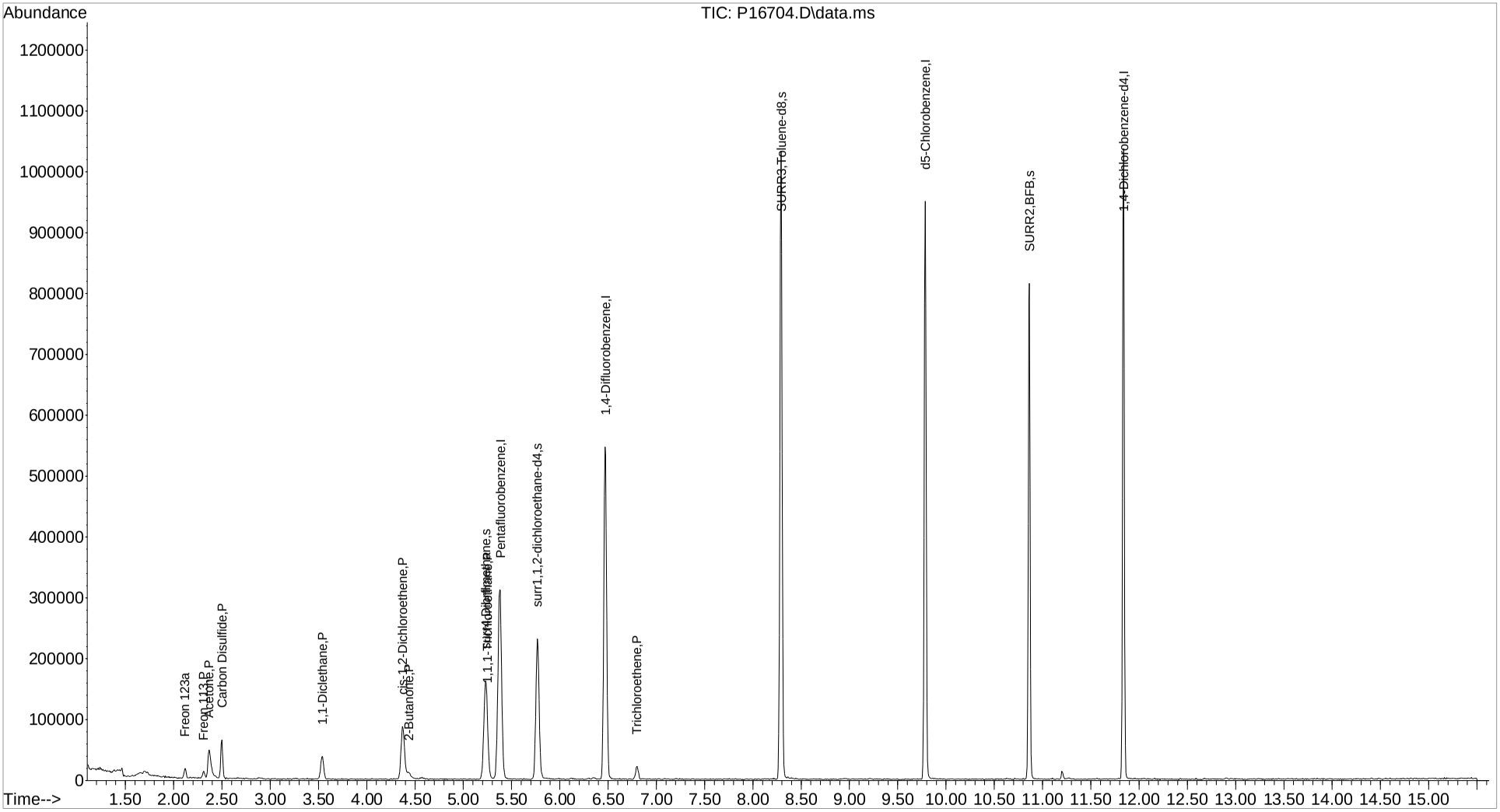
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.383	168	282631	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	479735	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	422035	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	201775	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	130485	45.81	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.62%			
48) surr1,1,2-dichloroetha...	5.767	65	194853	49.92	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.84%			
65) SURR3,Toluene-d8	8.291	98	630816	49.60	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.20%			
70) SURR2,BFB	10.864	95	228907	46.52	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.04%			
Target Compounds						Qvalue
10) Freon 123a	2.116	67	6480	1.90	ppb	# 72
14) Freon 113	2.305	101	4007	1.46	ppb	# 73
15) Acetone	2.366	43	71348	41.40	ppb	97
18) Carbon Disulfide	2.500	76	69896	8.25	ppb	98
28) 1,1-Diclethane	3.536	63	39537	7.27	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	48207	14.28	ppb	98
35) 2-Butanone	4.432	43	19116	8.83	ppb	84
41) 1,1,1-Trichloroethane	5.249	97	11540	2.49	ppb	94
54) Trichloroethene	6.798	130	7462	2.32	ppb	93

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

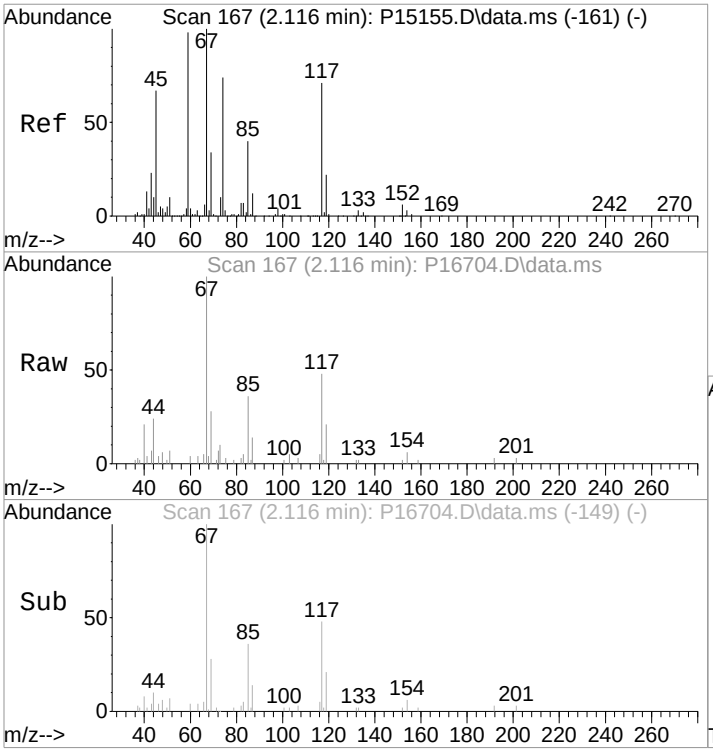
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16704.D
Acq On : 27 Mar 2018 2:43 pm
Operator : K.Ruest
Sample : R1802551-009|1.0 Inst : MSVOA-12
Misc : VERINA 8260 T4
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 17:01:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



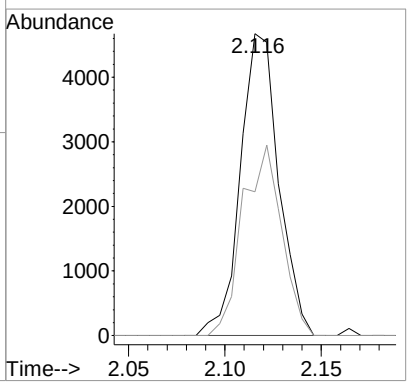
1st 03/27/18
2nd 03/29/18

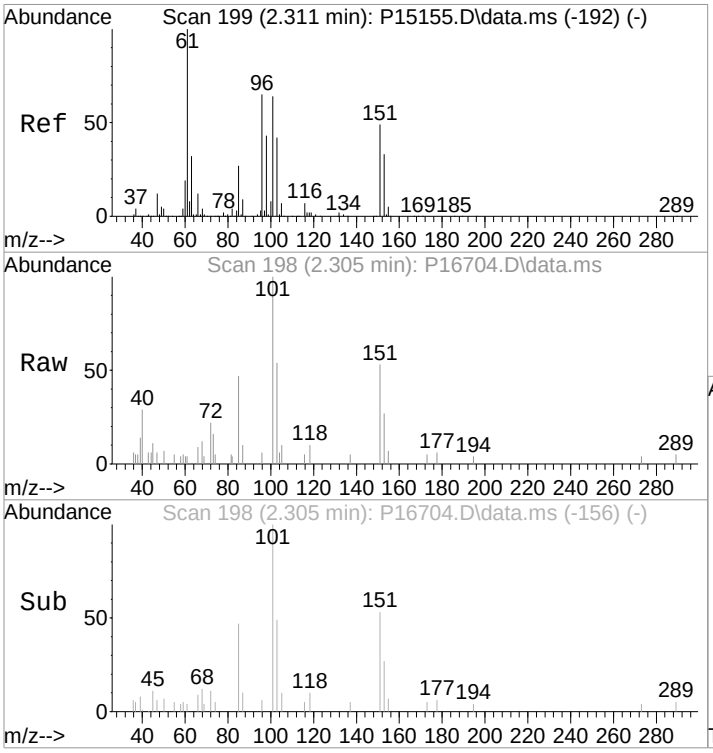


#10
Freon 123a
Concen: 1.90 ppb
RT: 2.116 min Scan# 167
Delta R.T. -0.006 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 67 Resp: 6480

Ion	Ratio	Lower	Upper
67	100		
117	47.6	50.3	90.3#

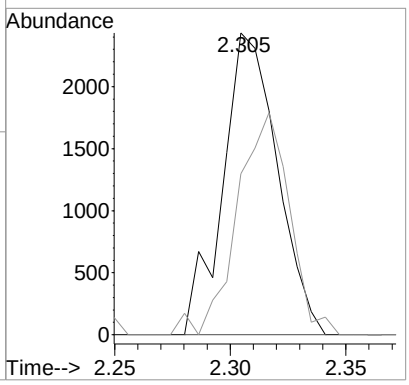


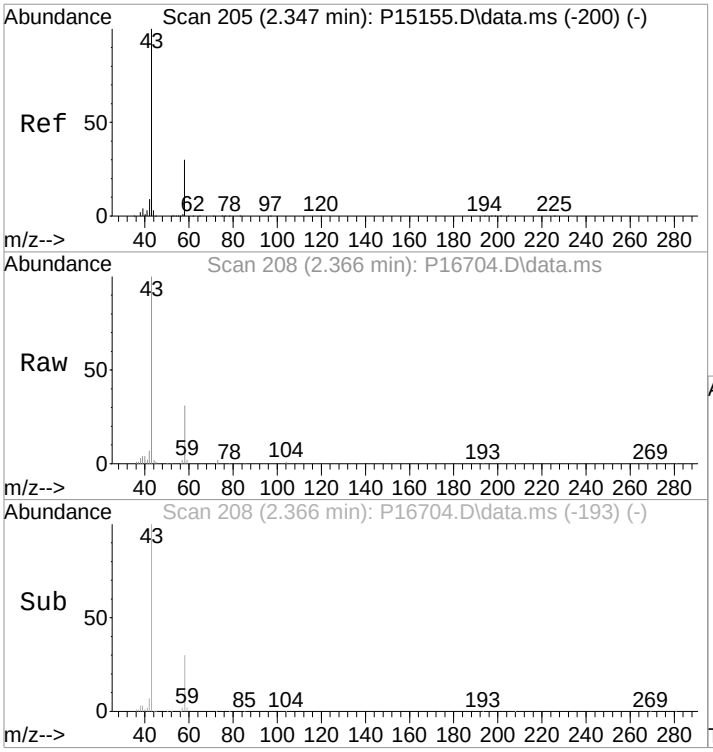


#14
Freon 113
Concen: 1.46 ppb
RT: 2.305 min Scan# 198
Delta R.T. 0.000 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion:101 Resp: 4007

Ion	Ratio	Lower	Upper
101	100		
151	53.4	56.3	96.3#

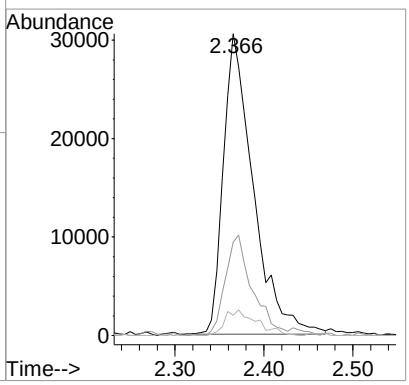


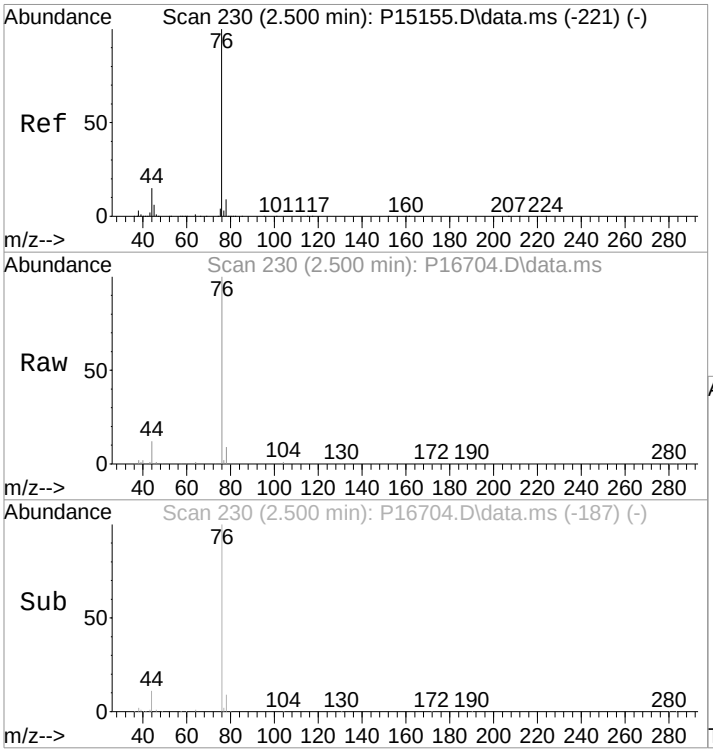


#15
Acetone
Concen: 41.40 ppb
RT: 2.366 min Scan# 208
Delta R.T. 0.018 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 43 Resp: 71348

Ion	Ratio	Lower	Upper
43	100		
58	31.0	9.7	49.7
42	6.7	0.0	29.2

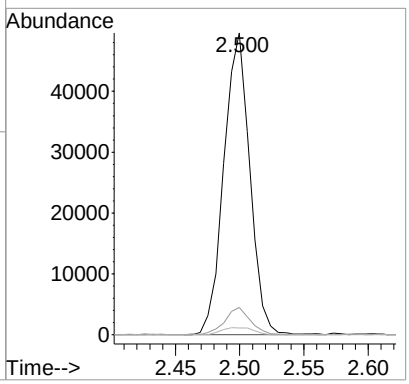


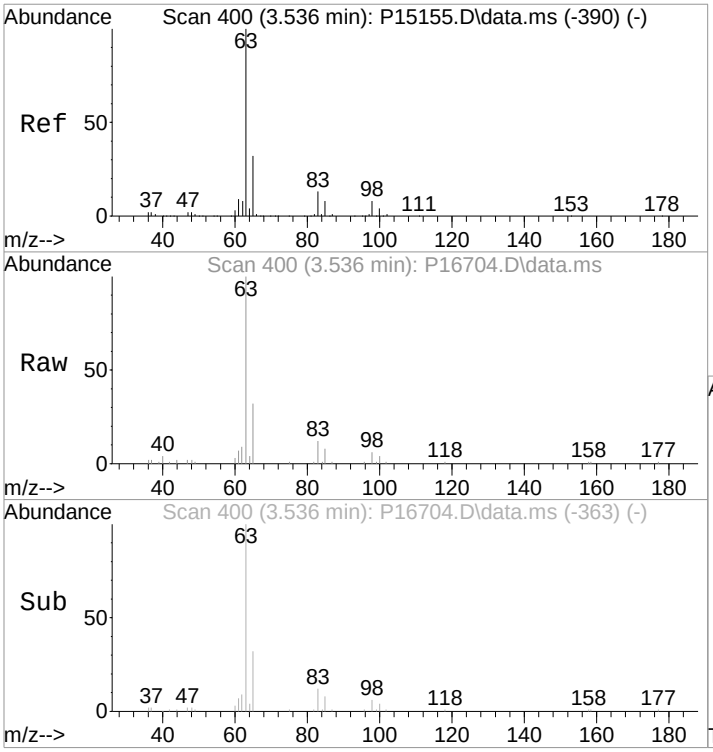


#18
Carbon Disulfide
Concen: 8.25 ppb
RT: 2.500 min Scan# 230
Delta R.T. 0.006 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 76 Resp: 69896

Ion	Ratio	Lower	Upper
76	100		
78	9.0	0.0	29.5
77	2.2	0.0	23.1

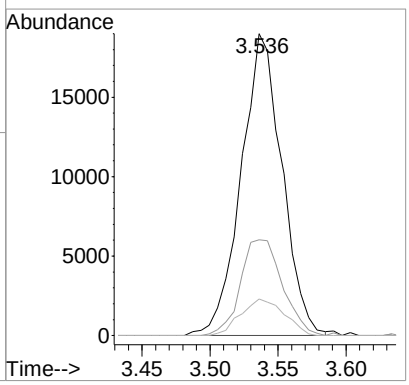


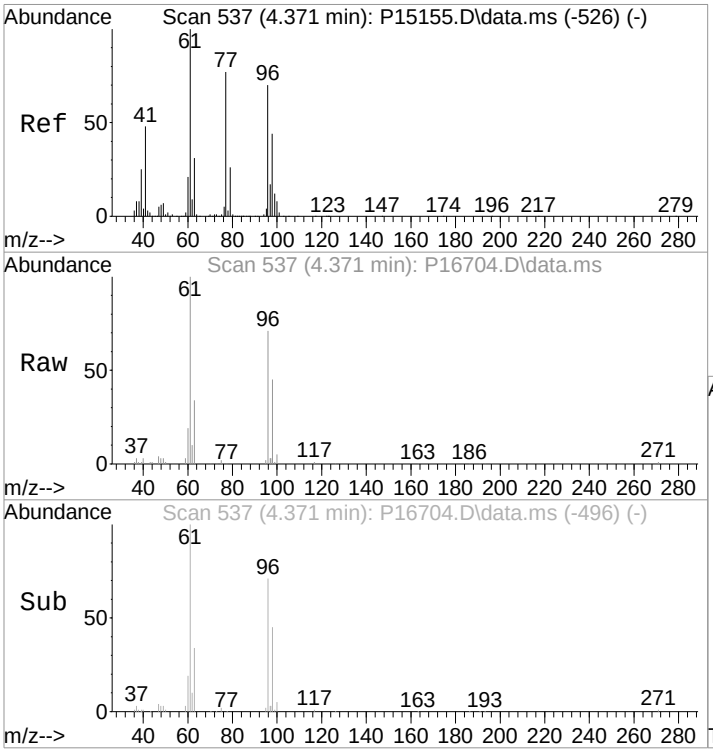


#28
1,1-Diclethane
Concen: 7.27 ppb
RT: 3.536 min Scan# 400
Delta R.T. 0.000 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 63 Resp: 39537

Ion	Ratio	Lower	Upper
63	100		
65	31.7	12.3	52.3
83	12.1	0.0	33.4

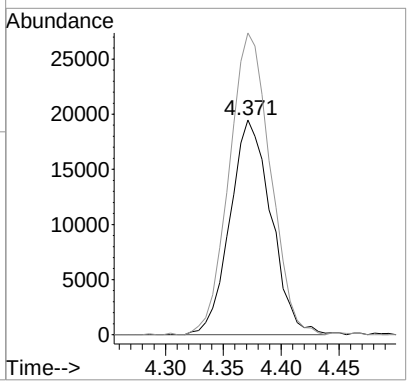


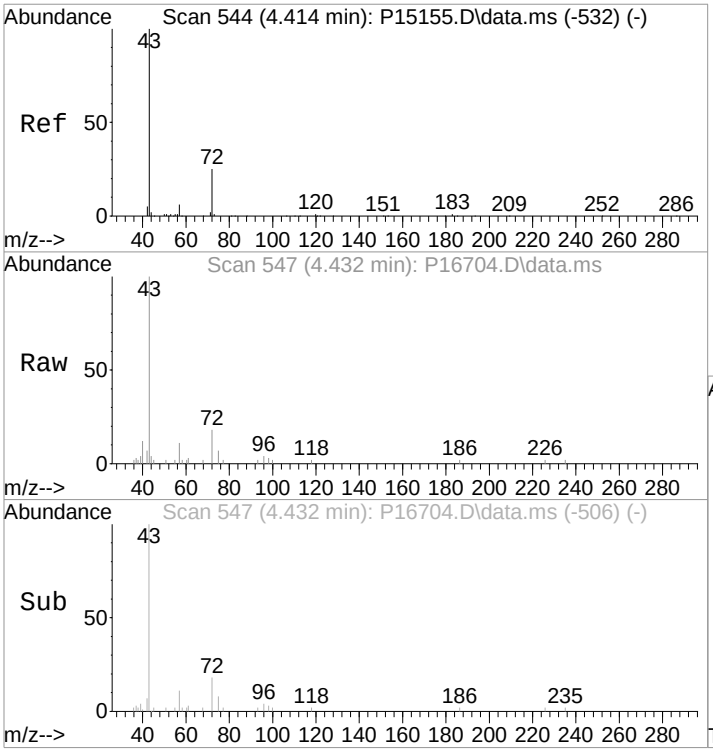


#34
cis-1,2-Dichloroethene
Concen: 14.28 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 96 Resp: 48207

Ion	Ratio	Lower	Upper
96	100		
61	140.6	122.8	162.8

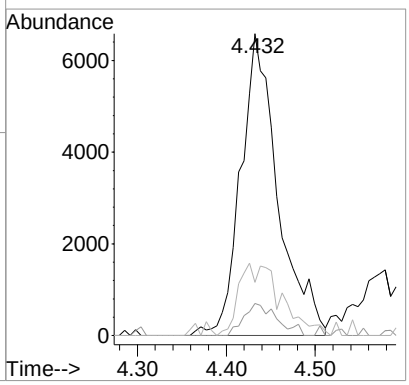


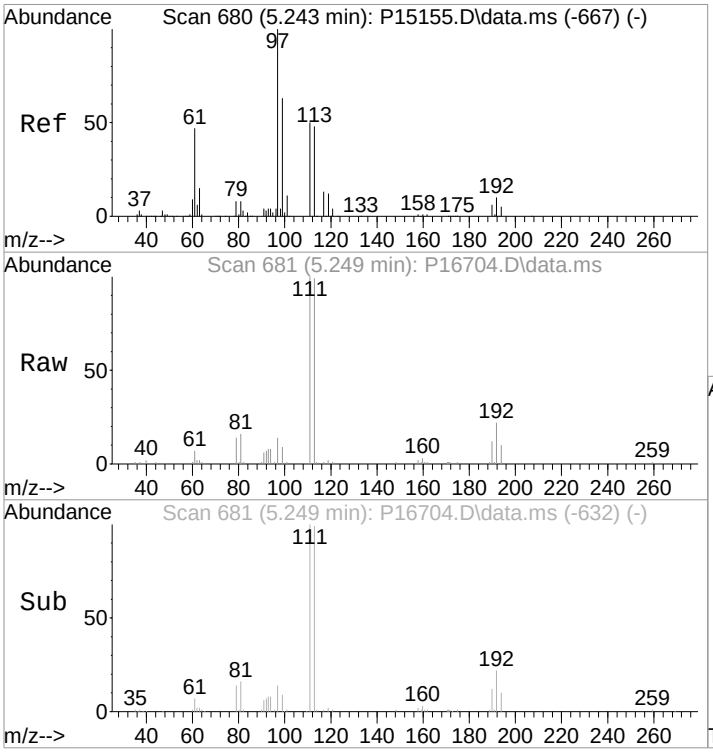


#35
2-Butanone
Concen: 8.83 ppb
RT: 4.432 min Scan# 547
Delta R.T. 0.025 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 43 Resp: 19116

Ion	Ratio	Lower	Upper
43	100		
57	10.6	0.0	26.7
72	17.6	6.1	46.1

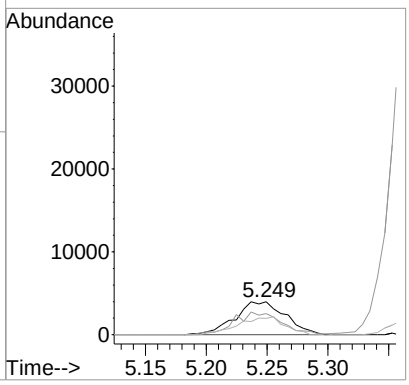


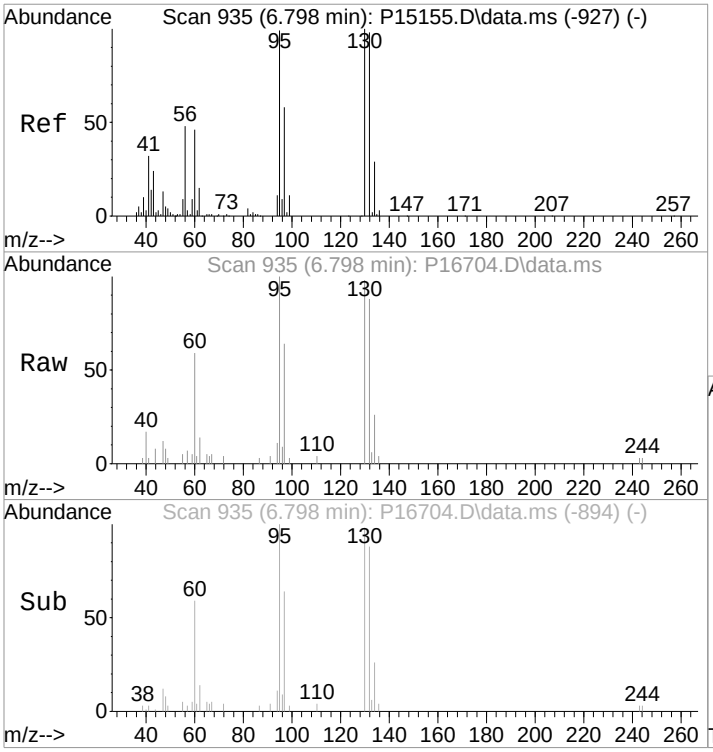


#41
1,1,1-Trichloroethane
Concen: 2.49 ppb
RT: 5.249 min Scan# 681
Delta R.T. 0.018 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion: 97 Resp: 11540

Ion	Ratio	Lower	Upper
97	100		
99	67.8	43.1	83.1
61	50.2	26.9	66.9

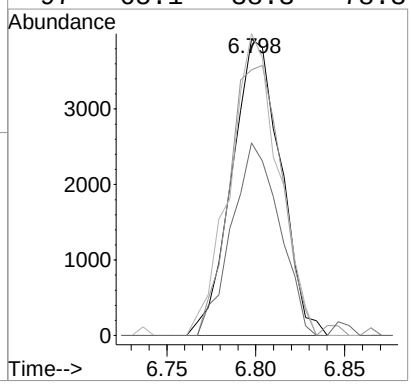




#54
Trichloroethene
Concen: 2.32 ppb
RT: 6.798 min Scan# 935
Delta R.T. 0.000 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion:130 Resp: 7462

Ion	Ratio	Lower	Upper
130	100		
132	89.7	78.3	118.3
95	101.9	78.7	118.7
97	65.1	38.3	78.3



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16698.D
Acq On : 27 Mar 2018 12:22 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 14:17:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

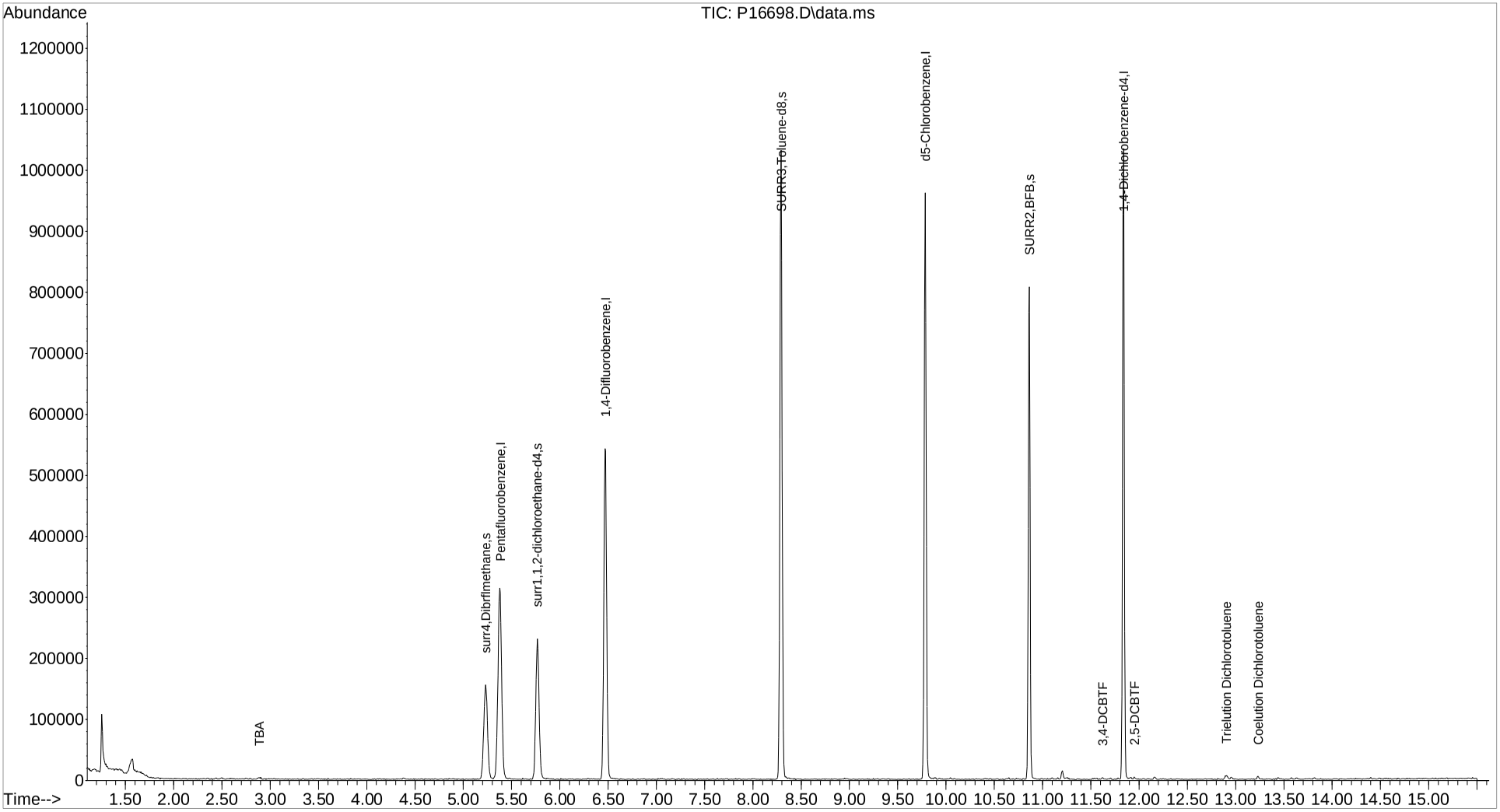
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.383	168	285373	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	478787	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	414857	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	202807	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	130735	45.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.98%				
48) surr1,1,2-dichloroetha...	5.767	65	191415	49.14	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.28%				
65) SURR3,Toluene-d8	8.291	98	627976	49.47	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.94%				
70) SURR2,BFB	10.864	95	223476	45.50	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.00%				
Target Compounds							Qvalue
23) TBA	2.884	59	1084	1.88	ppb		100
102) 3,4-DCBTF	11.620	214	668	0.21	ppb	#	61
108) 2,5-DCBTF	11.949	214	662	0.21	ppb	#	76
112) Trielution Dichlorotol...	12.906	125	2786	0.46	ppb	#	81
114) Coelution Dichlorotoluene	13.235	125	1667	0.26	ppb	#	89

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

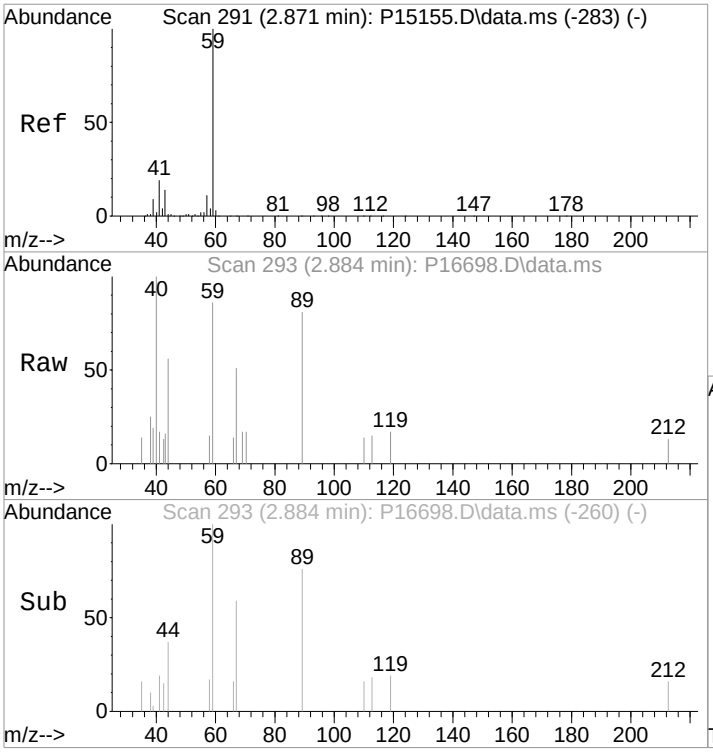
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16698.D
Acq On : 27 Mar 2018 12:22 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 14:17:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



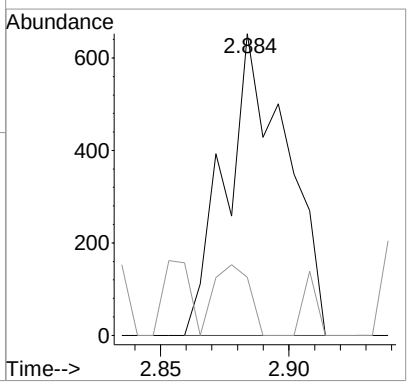
1st 03/27/18
2nd 03/29/18

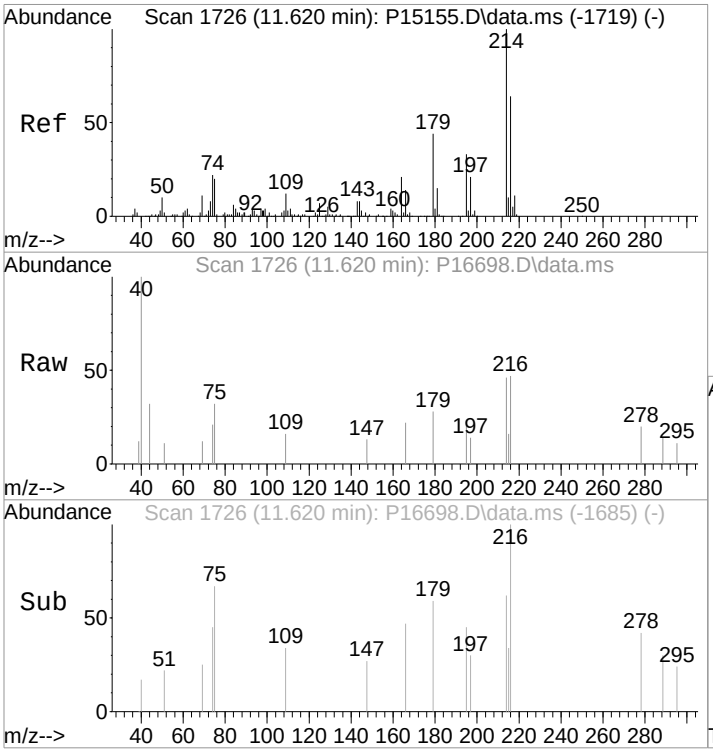


#23
TBA
Concen: 1.88 ppb
RT: 2.884 min Scan# 293
Delta R.T. 0.012 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion: 59 Resp: 1084

Ion	Ratio	Lower	Upper
59	100		
41	19.3	0.0	39.4

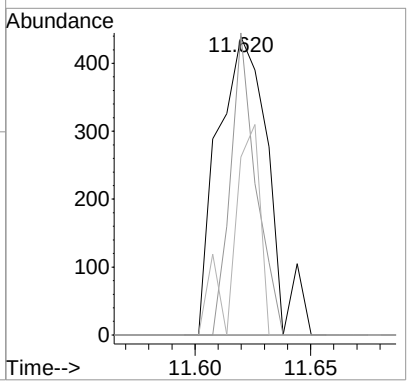


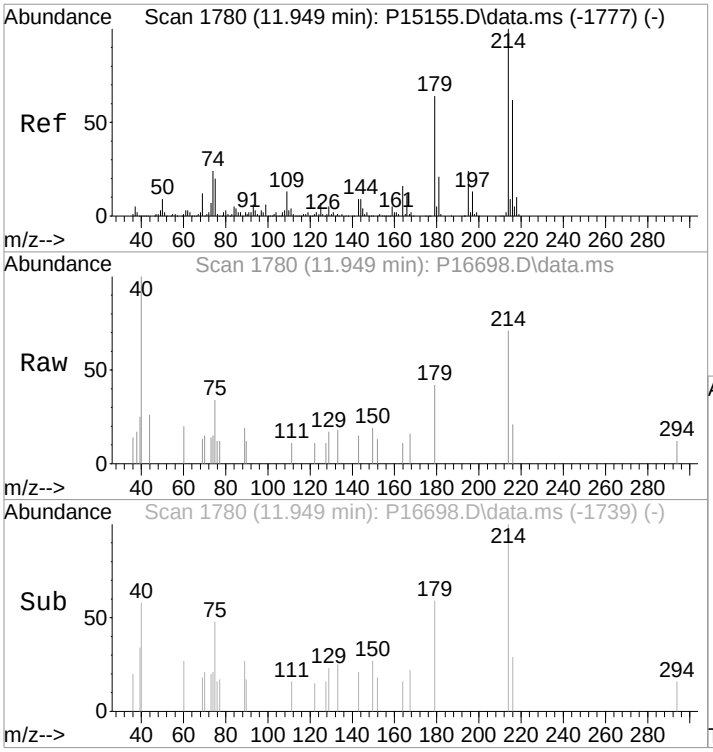


#102
3,4-DCBTF
Concen: 0.21 ppb
RT: 11.620 min Scan# 1726
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:214 Resp: 668

Ion	Ratio	Lower	Upper
214	100		
216	101.4	51.0	76.6#
179	59.7	34.9	52.3#

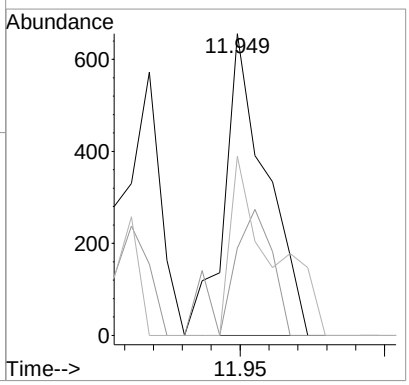


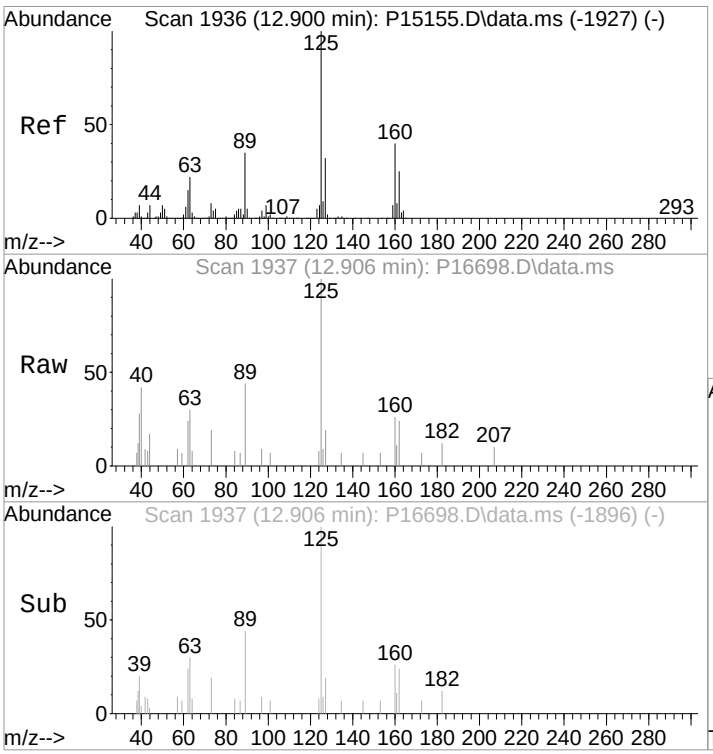


#108
2,5-DCBTF
Concen: 0.21 ppb
RT: 11.949 min Scan# 1780
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:214 Resp: 662

Ion	Ratio	Lower	Upper
214	100		
216	29.0	49.6	74.4#
179	59.3	51.6	77.4

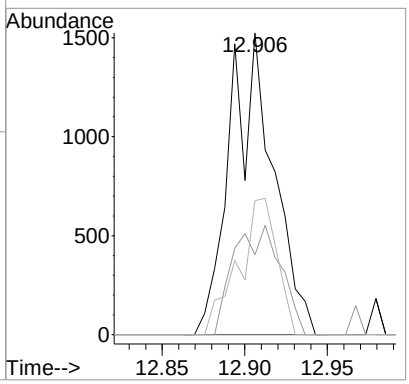


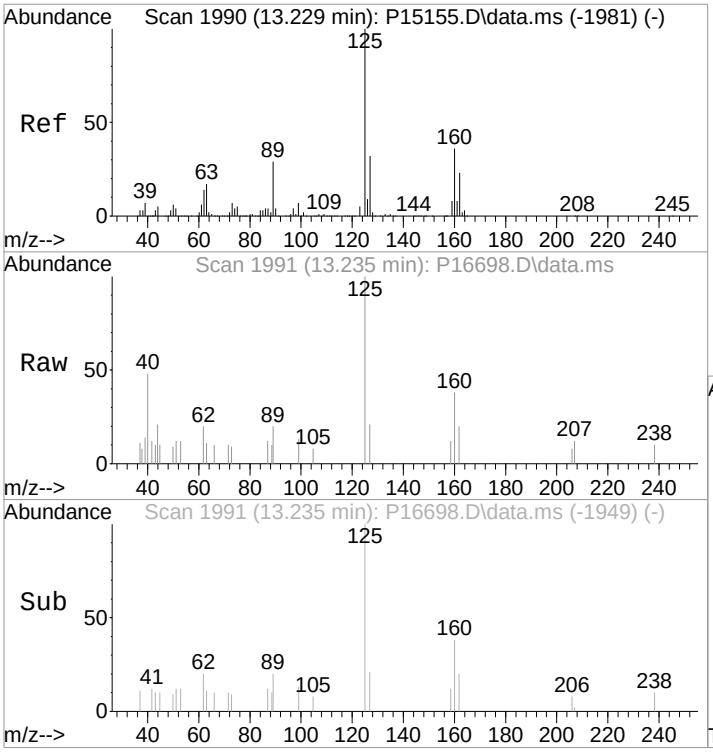


#112
Trielution Dichlorotoluene
Concen: 0.46 ppb
RT: 12.906 min Scan# 1937
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:125 Resp: 2786

Ion	Ratio	Lower	Upper
125	100		
160	26.5	32.2	48.2#
89	44.5	28.3	42.5#

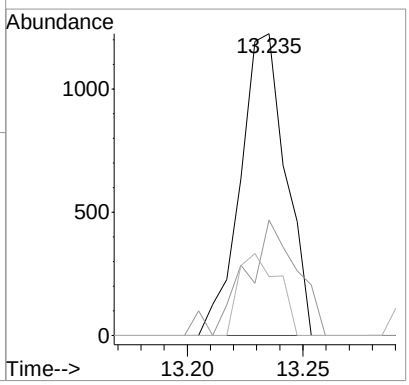




#114
Coelution Dichlorotoluene
Concen: 0.26 ppb
RT: 13.235 min Scan# 1991
Delta R.T. 0.006 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion:125 Resp: 1667

Ion	Ratio	Lower	Upper
125	100		
160	38.3	28.4	42.6
89	19.5	23.2	34.8#

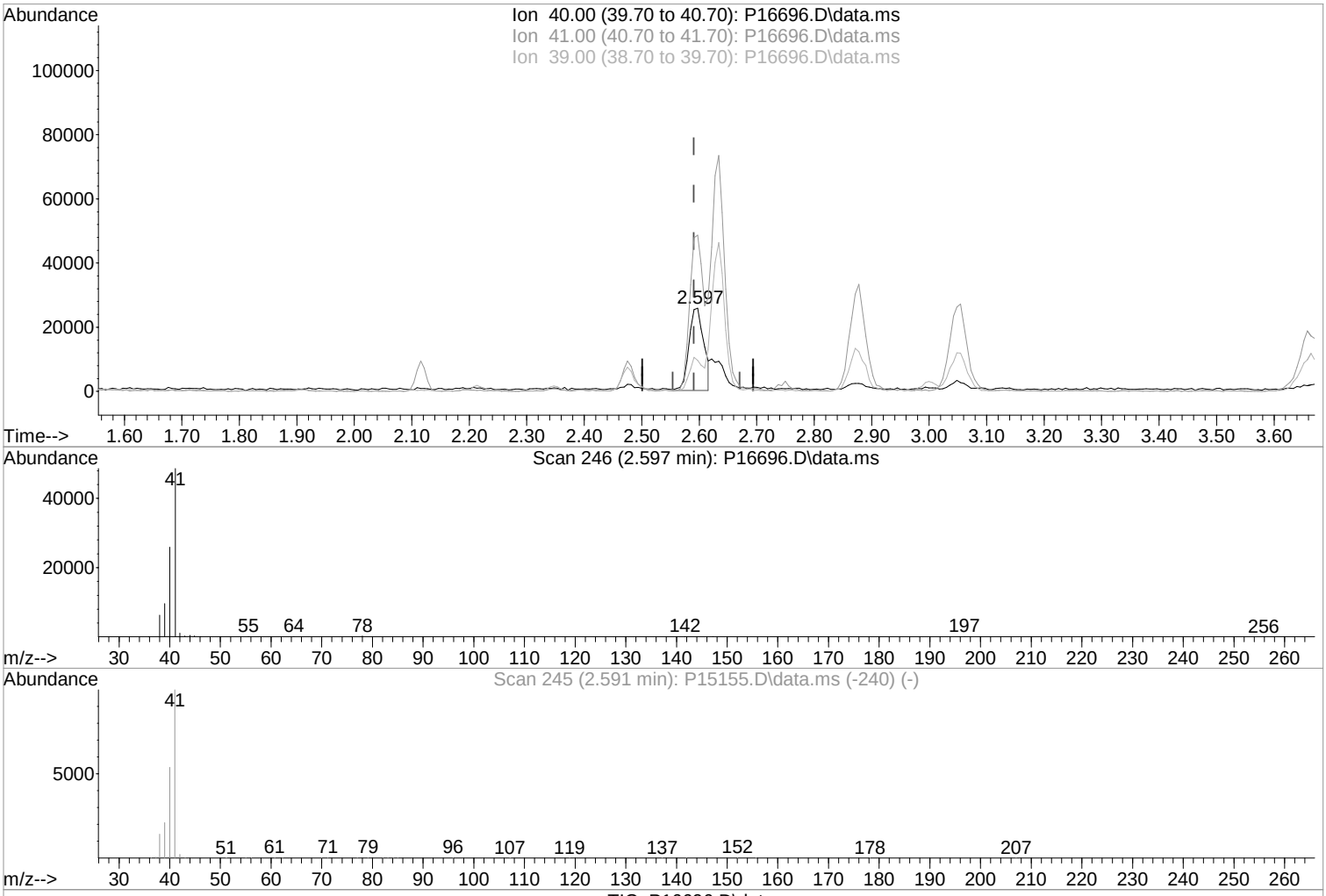


1st 03/27/18
2nd 03/29/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 145.74 ppb m

response 45873

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

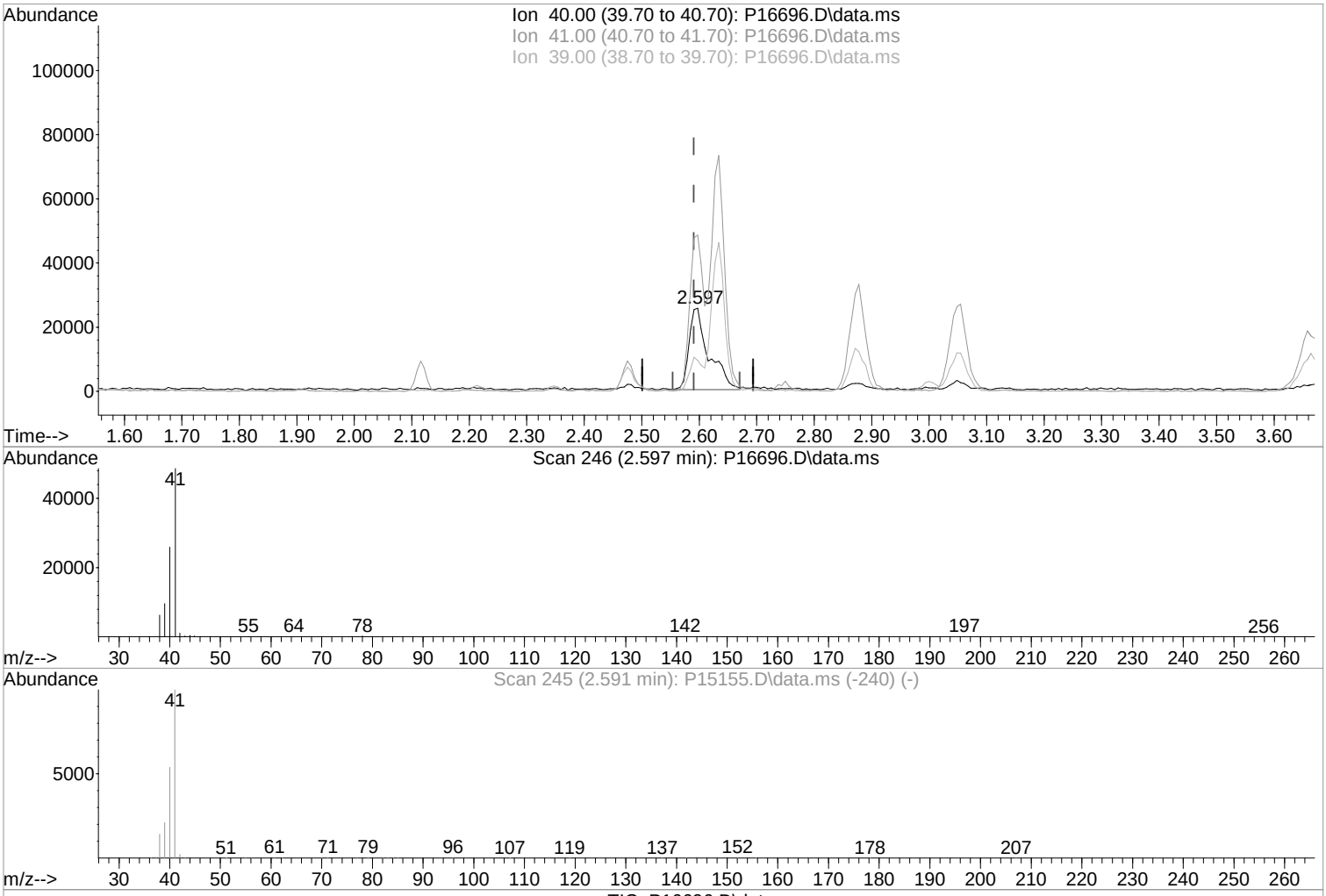
03/27/18

1st 03/27/18
2nd 03/29/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 192.49 ppb

response 60588

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

Manual Integration:

Before

03/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	302355	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	517963	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	456652	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	225614	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	147394	47.93	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.86%				
48) surr1,1,2-dichloroetha...	5.767	65	203758	48.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 96.70%				
65) SURR3,Toluene-d8	8.291	98	680879	49.58	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.16%				
70) SURR2,BFB	10.864	95	250737	47.19	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.38%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	93570	25.44	ppb		98
3) Chloromethane	1.311	50	93421	20.32	ppb		97
4) Vinyl Chloride	1.384	62	96363	21.52	ppb		100
5) Bromomethane	1.610	94	40494	10.87	ppb		96
6) Chloroethane	1.689	64	56153	20.08	ppb		93
7) Freon 21	1.835	67	122560	21.20	ppb		98
8) Trichlorofluoromethane	1.884	101	87306	20.23	ppb		99
9) Diethyl Ether	2.116	59	78786	26.23	ppb		93
10) Freon 123a	2.116	67	82500	22.59	ppb		89
11) Freon 123	2.170	83	118901	28.14	ppb		97
12) Acrolein	2.219	56	34358	38.44	ppb		96
13) 1,1-Diclethene	2.305	96	59830	19.26	ppb		98
14) Freon 113	2.311	101	50554	17.23	ppb		98
15) Acetone	2.347	43	52193	28.31	ppb		96
16) 2-Propanol	2.475	45	172752	488.38	ppb		97
17) Iodomethane	2.433	142	71435	21.97	ppb		96
18) Carbon Disulfide	2.500	76	195126	21.54	ppb		97
19) Acetonitrile	2.597	40	45873m	145.74	ppb		
20) Allyl Chloride	2.634	76	36536	22.09	ppb	#	90
21) Methyl Acetate	2.658	43	86315	26.22	ppb		99
22) Methylene Chloride	2.750	84	77580	23.68	ppb		94
23) TBA	2.878	59	290482	476.41	ppb		91
24) Acrylonitrile	3.000	53	240626	135.97	ppb		100
25) Methyl-t-Butyl Ether	3.054	73	265325	23.83	ppb		97
26) trans-1,2-Dichloroethene	3.042	96	65556	20.66	ppb		90
28) 1,1-Diclethane	3.536	63	133024	22.85	ppb		98
29) Vinyl Acetate	3.627	86	20417	21.96	ppb		99
30) DIPE	3.664	45	277248	25.01	ppb		94
31) 2-Chloro-1,3-Butadiene	3.664	53	124595	22.13	ppb		100
32) ETBE	4.188	59	269012	24.06	ppb		98
33) 2,2-Dichloropropane	4.365	77	95167	18.38	ppb		99
34) cis-1,2-Dichloroethene	4.371	96	75813	20.99	ppb		97
35) 2-Butanone	4.408	43	58853	25.41	ppb		97
36) Propionitrile	4.493	54	97752	129.97	ppb		99
37) Bromochloromethane	4.761	130	45791	21.91	ppb		90
38) Methacrylonitrile	4.761	67	48712	27.30	ppb		90
39) Tetrahydrofuran	4.853	42	40156	29.71	ppb		92
40) Chloroform	4.944	83	118205	20.17	ppb		98
41) 1,1,1-Trichloroethane	5.237	97	85282	17.19	ppb		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	6.090	73	259480	23.78	ppb		96
44) Cyclohexane	5.334	41	70550	20.85	ppb		90
46) Carbontetrachloride	5.523	117	59737	15.36	ppb		91
47) 1,1-Dichloropropene	5.536	75	88834	19.47	ppb		97
49) Benzene	5.847	78	285890	21.13	ppb		99
50) 1,2-Dichloroethane	5.883	62	109177	21.97	ppb		96
51) Iso-Butyl Alcohol	5.859	43	126847	462.20	ppb		97
52) n-Heptane	6.340	43	93059	20.04	ppb		94
53) 1-Butanol	6.822	56	212197	1168.57	ppb		99
54) Trichloroethene	6.798	130	65337	18.83	ppb		93
55) Methylcyclohexane	7.041	55	101785	22.55	ppb		86
56) 1,2-Diclpropane	7.078	63	80438	22.29	ppb		98
57) Dibromomethane	7.218	93	46022	21.36	ppb		96
58) 1,4-Dioxane	7.279	88	36159	507.53	ppb		89
59) Methyl Methacrylate	7.304	69	75719	22.71	ppb		96
60) Bromodichloromethane	7.450	83	85102	18.73	ppb		98
61) 2-Nitropropane	7.730	41	42958	30.62	ppb		99
62) 2-Chloroethylvinyl Ether	7.858	63	48564	58.22	ppb		89
63) cis-1,3-Dichloropropene	7.992	75	121609	21.21	ppb		97
64) 4-Methyl-2-pentanone	8.200	43	104812	23.80	ppb		96
66) Toluene	8.364	91	291927	19.86	ppb		97
67) trans-1,3-Dichloropropene	8.633	75	108569	20.33	ppb		99
68) Ethyl Methacrylate	8.779	69	127736	23.43	ppb		99
69) 1,1,2-Trichloroethane	8.822	97	72042	21.58	ppb		97
72) Tetrachloroethene	8.956	164	43529	17.27	ppb		95
73) 2-Hexanone	9.114	43	77525	23.06	ppb		92
74) 1,3-Dichloropropane	8.992	76	137501	23.43	ppb		100
75) Dibromochloromethane	9.218	129	58891	19.23	ppb		99
76) N-Butyl Acetate	9.273	43	158618	25.07	ppb		94
77) 1,2-Dibromoethane	9.315	107	71145	21.87	ppb		92
78) Chlorobenzene	9.809	112	183970	20.56	ppb		96
79) 3-CBTF	9.828	180	100492	21.07	ppb		94
80) 4-CBTF	9.882	180	90890	20.85	ppb		98
81) 1,1,1,2-Tetrachloroethane	9.901	131	60134	18.91	ppb		97
82) Ethylbenzene	9.931	106	95321	19.30	ppb		98
83) (m+p)Xylene	10.047	106	233361	39.03	ppb		99
84) o-Xylene	10.401	106	117466	19.62	ppb		97
85) Styrene	10.419	104	202943	20.14	ppb		98
87) Bromoform	10.565	173	38206	19.41	ppb		97
88) 2-CBTF	10.651	180	94593	21.65	ppb		89
89) Isopropylbenzene	10.736	105	279655	18.87	ppb		99
90) Cyclohexanone	10.797	55	406229	360.25	ppb		99
91) trans-1,4-Dichloro-2-B...	11.047	53	28385	24.16	ppb		83
92) 1,1,2,2-Tetrachloroethane	10.998	83	109435	24.46	ppb		99
93) Bromobenzene	10.986	156	77089	21.23	ppb	#	87
94) 1,2,3-Trichloropropane	11.028	110	34313	23.61	ppb		94
95) n-Propylbenzene	11.096	91	337491	19.58	ppb		98
96) 2-Chlorotoluene	11.156	91	216766	20.28	ppb		97
97) 3-Chlorotoluene	11.211	91	249989	22.18	ppb		94
98) 4-Chlorotoluene	11.248	91	244667	19.82	ppb		99
99) 1,3,5-Trimethylbenzene	11.248	105	234435	18.91	ppb		99
100) tert-Butylbenzene	11.522	119	195781	18.29	ppb		98
101) 1,2,4-Trimethylbenzene	11.559	105	249111	20.06	ppb		99
102) 3,4-DCBTF	11.620	214	81298	23.43	ppb		98
103) sec-Butylbenzene	11.705	105	290893	18.47	ppb		98
104) p-Isopropyltoluene	11.827	119	245832	18.55	ppb		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	144467	20.93	ppb	97
106) 1,4-Dclbenz	11.858	146	145267	20.06	ppb	99
107) 2,4-DCBTF	11.912	214	73333	22.16	ppb	95
108) 2,5-DCBTF	11.955	214	83967	23.73	ppb	92
109) n-Butylbenzene	12.156	91	242955	19.65	ppb	99
110) 1,2-Dclbenz	12.162	146	146675	21.30	ppb	99
111) 1,2-Dibromo-3-chloropr...	12.784	157	21962	18.97	ppb	91
112) Trielution Dichlorotol...	12.906	125	458332	67.65	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	124523	23.22	ppb	97
114) Coelution Dichlorotoluene	13.229	125	338033	47.05	ppb	99
115) 1,2,4-Tcbenzene	13.437	180	116296	23.23	ppb	95
116) Hexachlorobt	13.577	225	39623	17.05	ppb	98
117) Naphthalen	13.626	128	357379	25.87	ppb	99
118) 1,2,3-Tclbenzene	13.821	180	117709	24.20	ppb	97
119) 2,4,5-Trichlorotolene	14.406	159	56947	19.17	ppb	95
120) 2,3,6-Trichlorotoluene	14.491	159	52609	18.81	ppb	94

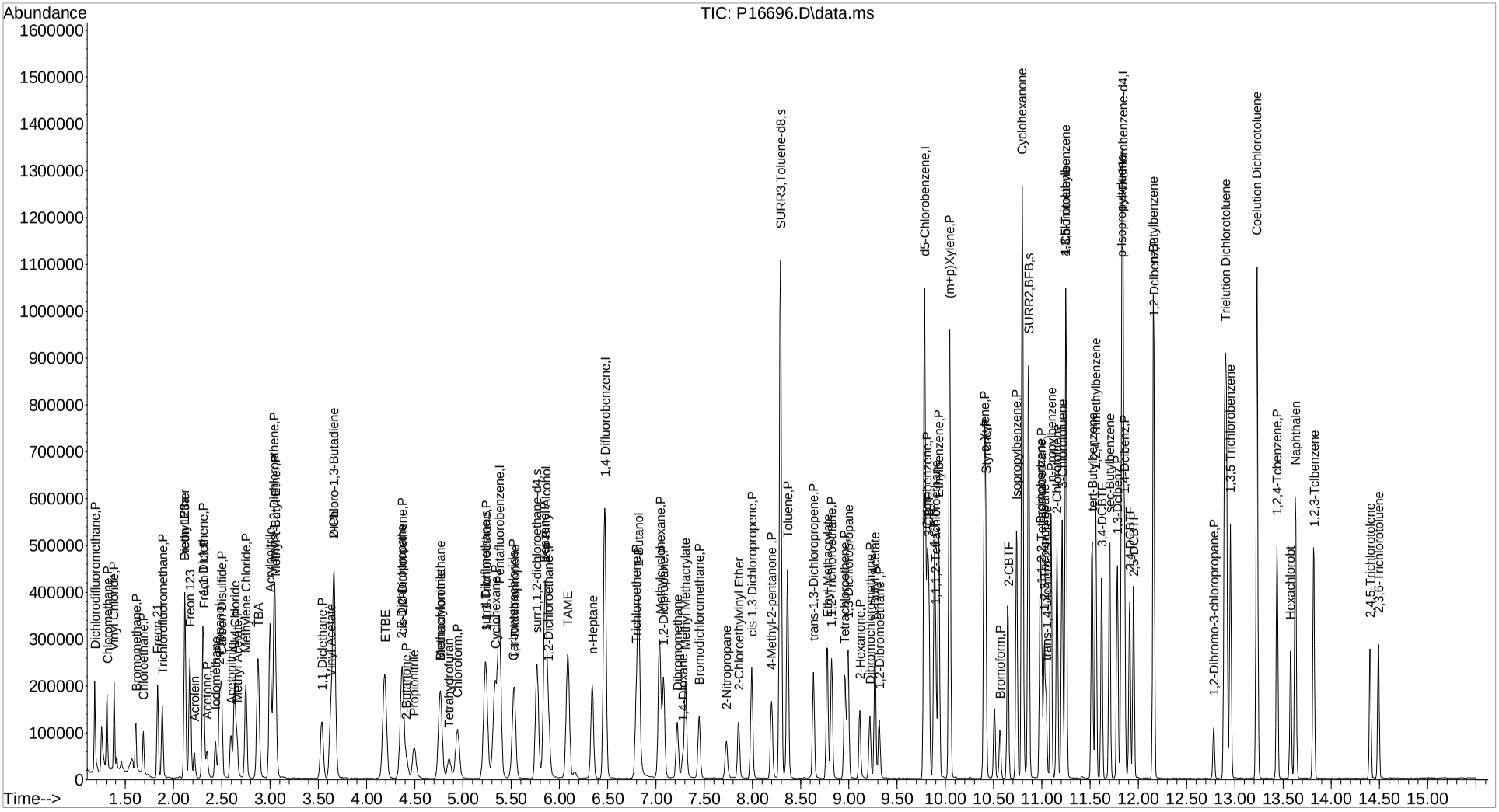
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1st 03/27/18 2nd 03/29/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



1st 03/27/18
2nd 03/29/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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	111	0.00
2	P	Dichlorodifluoromethane	0.6083	0.6226	-2.4	106	0.00
3	P	Chloromethane	0.7602	0.7017	7.7	106	0.00
4	P	Vinyl Chloride	0.7405	0.7573	-2.3	112	0.00
5	P	Bromomethane	0.5812	0.2966	49.3 ~~-49.0#~~	70	0.00
6	P	Chloroethane	0.4623	0.4754	-2.8	114	0.00
7		Freon 21	0.9560	1.1266	-17.8	129	0.00
8	P	Trichlorofluoromethane	0.7136	0.6744	5.5	105	0.00
9		Diethyl Ether	0.4967	0.5865	-18.1	138	0.00
10		Freon 123a	0.6039	0.7041	-16.6	131	0.00
11		Freon 123	0.6987	0.7902	-13.1	126	0.00
12		Acrolein	0.1478	0.1118	NT 24.4#	86	0.00
13	P	1,1-Diclethene	0.5136	0.4806	6.4	113	0.00
14	P	Freon 113	0.4853	0.4490	7.5	106	0.00
15	P	Acetone	0.3049	0.3539	-16.1	128	0.00
16		2-Propanol	0.0585	0.0700	-19.7	143	0.00
17		Iodomethane	0.5271	0.6078	2.4 ~~-15.3~~	105	0.00
18	P	Carbon Disulfide	1.4979	1.4889	0.6	109	0.00
19		Acetonitrile	0.0521	0.0706	NT -35.5#	162	0.00
20		Allyl Chloride	0.2735	0.3010	-10.1	128	0.00
21	P	Methyl Acetate	0.5445	0.7300	NT -34.1#	156	0.00
22	P	Methylene Chloride	0.5417	0.5900	-8.9	124	0.00
23		TBA	0.1008	0.1091	-8.2	128	0.00
24		Acrylonitrile	0.2927	0.3544	NT -21.1#	141	0.00
25	P	Methyl-t-Butyl Ether	1.8411	1.9998	-8.6	123	0.00
26	P	trans-1,2-Dichloroethene	0.5246	0.5226	0.4	113	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-4.00#
28	P	1,1-Diclethane	0.9627	1.0471	-8.8	122	0.00
29		Vinyl Acetate	0.1537	0.1397	9.1	104	0.00
30		DIPE	1.8333	2.1616	-17.9	134	0.00
31		2-Chloro-1,3-Butadiene	0.9310	0.9269	0.4	115	0.00
32		ETBE	1.8488	2.0821	-12.6	123	0.01
33		2,2-Dichloropropane	0.8561	0.7664	10.5	104	0.00
34	P	cis-1,2-Dichloroethene	0.5972	0.6142	-2.8	118	0.00
35	P	2-Butanone	0.3831	0.4559	-19.0	135	0.00
36		Propionitrile	0.1244	0.1442	-15.9	139	-0.01
37		Bromochloromethane	0.3456	0.3550	-2.7	121	0.02
38		Methacrylonitrile	0.2950	0.3537	-19.9	135	0.00
39		Tetrahydrofuran	0.2235	0.2833	NT -26.8#	143	0.00
40	P	Chloroform	0.9692	0.9229	4.8	115	0.00
41	P	1,1,1-Trichloroethane	0.8203	0.7055	14.0	103	0.01
42		TAME	1.8047	1.9352	-7.2	119	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	113	0.00
44	P	Cyclohexane	0.3267	0.3662	-12.1	132	0.00
45	s	surr4,Dibrflmethane	0.2969	0.2784	6.2	106	0.00
46	P	Carbontetrachloride	0.3753	0.3070	18.2	92	0.00
47		1,1-Dichloropropene	0.4404	0.4376	0.6	114	0.02
48	s	surr1,1,2-dichloroethane-d4	0.4068	0.3893	4.3	107	0.00
49	P	Benzene	1.3061	1.3628	-4.3	120	0.00
50	P	1,2-Dichloroethane	0.4798	0.4888	-1.9	117	0.00
51		Iso-Butyl Alcohol	0.0265	0.0296	-11.7	133	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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		n-Heptane	0.4483	0.4896		-9.2	125	0.02
53		1-Butanol	0.0175	0.0191		-9.1	124	-0.01
54	P	Trichloroethene	0.3350	0.3113		7.1	105	0.00
55	P	Methylcyclohexane	0.4357	0.5278	NT	-21.1#	134	0.00
56	P	1,2-Diclpropane	0.3484	0.3835		-10.1	128	0.01
57		Dibromomethane	0.2080	0.2074		0.3	115	0.00
58		1,4-Dioxane	0.0069	0.0074		-7.2	129	0.00
59		Methyl Methacrylate	0.3218	0.3431		-6.6	125	0.00
60	P	Bromodichloromethane	0.4386	0.4044		7.8	111	0.00
61		2-Nitropropane	0.1354	0.1046	NT	22.7#	90	0.00
62		2-Chloroethylvinyl Ether	0.0805	0.2341	NT	-190.8#	338#	0.00
63	P	cis-1,3-Dichloropropene	0.5534	0.5717		-3.3	114	0.00
64	P	4-Methyl-2-pentanone	0.4251	0.4858		-14.3	131	0.00
65	s	SURR3,Toluene-d8	1.3256	1.3097		1.2	111	0.00
66	P	Toluene	1.4187	1.4128		0.4	114	0.00
67	P	trans-1,3-Dichloropropene	0.5155	0.5178		-0.4	112	0.00
68		Ethyl Methacrylate	0.5263	0.5841		-11.0	124	0.00
69	P	1,1,2-Trichloroethane	0.3223	0.3203		0.6	121	0.00
70	s	SURR2,BFB	0.5129	0.4774		6.9	106	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000		0.0	110	0.00
72	P	Tetrachloroethene	0.2759	0.2621		5.0	109	0.00
73	P	2-Hexanone	0.3681	0.4174		-13.4	127	0.00
74		1,3-Dichloropropane	0.6425	0.7305		-13.7	127	0.00
75	P	Dibromochloromethane	0.3353	0.3239		3.4	105	0.00
76		N-Butyl Acetate	0.6929	0.9429	NT	-36.1#	143	0.00
77	P	1,2-Dibromoethane	0.3562	0.3703		-4.0	116	0.00
78	P	Chlorobenzene	0.9796	1.0262		-4.8	115	0.00
79		3-CBTF	0.5223	0.5377		-2.9	118	0.00
80		4-CBTF	0.4773	0.4858		-1.8	118	0.00
81		1,1,1,2-Tetrachloroethane	0.3482	0.3243		6.9	105	0.00
82	P	Ethylbenzene	0.5408	0.5310		1.8	110	0.00
83	P	(m+p)Xylene	0.6546	0.6676		-2.0	113	0.00
84	P	o-Xylene	0.6554	0.6701		-2.2	113	0.00
85	P	Styrene	1.1033	1.1507		-4.3	112	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000		0.0	111	0.00
87	P	Bromoform	0.4361	0.4079		6.5	104	0.00
88		2-CBTF	0.9684	1.0295		-6.3	118	0.00
89	P	Isopropylbenzene	3.2851	3.2097		2.3	107	0.00
90		Cyclohexanone	0.2499	0.2593		-3.8	118	0.00
91		trans-1,4-Dichloro-2-Butene	0.2603	0.2759		-6.0	120	0.00
92	P	1,1,2,2-Tetrachloroethane	0.9914	1.1151		-12.5	129	0.00
93		Bromobenzene	0.8046	0.8147		-1.3	114	0.00
94		1,2,3-Trichloropropane	0.3221	0.3363		-4.4	118	0.00
95		n-Propylbenzene	3.8197	3.8884		-1.8	109	0.00
96		2-Chlorotoluene	2.3682	2.3701		-0.1	112	0.00
97		3-Chlorotoluene	2.4978	2.5840		-3.5	113	0.00
98		4-Chlorotoluene	2.7362	2.7524		-0.6	111	0.00
99		1,3,5-Trimethylbenzene	2.7476	2.7124		1.3	107	0.00
100		tert-Butylbenzene	2.3716	2.3040		2.9	106	0.00
101		1,2,4-Trimethylbenzene	2.7517	2.7426		0.3	108	0.00

1st 03/27/18
2nd 03/29/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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		3,4-DCBTF	0.7689	0.8783	-14.2	123	0.00
103		sec-Butylbenzene	3.4901	3.4051	2.4	105	0.00
104		p-Isopropyltoluene	2.9371	2.8614	2.6	106	0.00
105	P	1,3-Dclbenz	1.5293	1.5581	-1.9	112	0.00
106	P	1,4-Dclbenz	1.6050	1.6208	-1.0	115	0.00
107		2,4-DCBTF	0.7333	0.7941	-8.3	120	0.00
108		2,5-DCBTF	0.7842	0.8992	-14.7	127	0.00
109		n-Butylbenzene	2.7396	2.7978	-2.1	108	0.00
110	P	1,2-Dclbenz	1.5264	1.5514	-1.6	112	0.00
111	P	1,2-Dibromo-3-chloropropane	0.2566	0.2348	8.5	111	0.00
112		Trielution Dichlorotoluene	1.5014	1.6143	-7.5	116	0.00
113		1,3,5 Trichlorobenzene	1.1884	1.3332	-12.2	121	0.00
114		Coelution Dichlorotoluene	1.5924	1.8072	-13.5	118	0.00
115	P	1,2,4-Tcbenzene	1.1095	1.2841	-15.7	122	0.00
116		Hexachlorobt	0.5150	0.4843	6.0	106	0.00
117		Naphthalen	3.0613	3.7736	NT -23.3#	125	0.00
118		1,2,3-Tclbenzene	1.0777	1.2786	-18.6	125	0.00
119		2,4,5-Trichlorotolene	0.6534	0.8015	-12.7 ~~-22.7#~~	112	0.00
120		2,3,6-Trichlorotoluene	0.5941	0.7515	-13.3 ~~-26.5#~~	114	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.377	168	315594	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.468	114	530528	50.00	ppb		0.00
71) d5-Chlorobenzene	9.785	117	459768	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	234637	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.231	113	147702	46.89	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.78%				
48) surr1,1,2-dichloroetha...	5.767	65	206540	47.85	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 95.70%				
65) SURR3,Toluene-d8	8.291	98	694846	49.40	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.80%				
70) SURR2,BFB	10.864	95	253255	46.54	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.08%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.183	85	196503	51.18	ppb		99
3) Chloromethane	1.311	50	221463	46.15	ppb		100
4) Vinyl Chloride	1.384	62	239014	51.13	ppb		98
5) Bromomethane	1.610	94	93601	25.34	ppb		95
6) Chloroethane	1.689	64	150039	51.41	ppb		98
7) Freon 21	1.835	67	355557	58.93	ppb		100
8) Trichlorofluoromethane	1.884	101	212824	47.25	ppb		97
9) Diethyl Ether	2.116	59	185093	59.04	ppb		97
10) Freon 123a	2.122	67	222202	58.30	ppb		89
11) Freon 123	2.170	83	249398	56.55	ppb		99
12) Acrolein	2.213	56	176426	189.09	ppb		100
13) 1,1-Diclethene	2.305	96	151659	46.78	ppb		94
14) Freon 113	2.311	101	141691	46.26	ppb		96
15) Acetone	2.347	43	111673	58.03	ppb		98
16) 2-Propanol	2.475	45	442099	1197.40	ppb		100
17) Iodomethane	2.433	142	191812	48.81	ppb		99
18) Carbon Disulfide	2.500	76	469885	49.70	ppb		99
19) Acetonitrile	2.591	40	111382	339.01	ppb		98
20) Allyl Chloride	2.634	76	94988	55.02	ppb	#	89
21) Methyl Acetate	2.658	43	230389	67.04	ppb		98
22) Methylene Chloride	2.750	84	186212	54.46	ppb		92
23) TBA	2.878	59	688496	1081.81	ppb		94
24) Acrylonitrile	3.000	53	559246	302.75	ppb		99
25) Methyl-t-Butyl Ether	3.054	73	631124	54.31	ppb		97
26) trans-1,2-Dichloroethene	3.042	96	164935	49.81	ppb		94
28) 1,1-Diclethane	3.536	63	330453	54.38	ppb		98
29) Vinyl Acetate	3.627	86	44077	45.43	ppb		97
30) DIPE	3.664	45	682201	58.95	ppb		91
31) 2-Chloro-1,3-Butadiene	3.664	53	292534	49.78	ppb		92
32) ETBE	4.188	59	657086	56.31	ppb		97
33) 2,2-Dichloropropane	4.365	77	241875	44.76	ppb		97
34) cis-1,2-Dichloroethene	4.371	96	193851	51.43	ppb		99
35) 2-Butanone	4.414	43	143870	59.50	ppb		98
36) Propionitrile	4.493	54	227508	289.80	ppb		94
37) Bromochloromethane	4.767	130	112034	51.36	ppb		93
38) Methacrylonitrile	4.767	67	111613	59.93	ppb		92
39) Tetrahydrofuran	4.853	42	89393	63.37	ppb		91
40) Chloroform	4.944	83	291259	47.61	ppb		99
41) 1,1,1-Trichloroethane	5.243	97	222639	43.00	ppb		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) TAME	6.084	73	610728	53.61	ppb	98
44) Cyclohexane	5.334	41	194295	56.06	ppb	89
46) Carbontetrachloride	5.517	117	162861	40.90	ppb	99
47) 1,1-Dichloropropene	5.536	75	232157	49.68	ppb	97
49) Benzene	5.847	78	722988	52.17	ppb	99
50) 1,2-Dichloroethane	5.889	62	259312	50.94	ppb	97
51) Iso-Butyl Alcohol	5.859	43	313673	1115.89	ppb	91
52) n-Heptane	6.340	43	259728	54.60	ppb	94
53) 1-Butanol	6.822	56	507629	2729.31	ppb	98
54) Trichloroethene	6.798	130	165149	46.47	ppb	99
55) Methylcyclohexane	7.035	55	280003	60.57	ppb	92
56) 1,2-Diclpropane	7.078	63	203449	55.03	ppb	98
57) Dibromomethane	7.218	93	110008	49.84	ppb	95
58) 1,4-Dioxane	7.279	88	78076	1069.92	ppb	96
59) Methyl Methacrylate	7.310	69	182040	53.31	ppb	96
60) Bromodichloromethane	7.450	83	214554	46.11	ppb	97
61) 2-Nitropropane	7.730	41	110992	77.23	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	124194	145.36	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	303300	51.66	ppb	98
64) 4-Methyl-2-pentanone	8.200	43	257737	57.14	ppb	99
66) Toluene	8.364	91	749549	49.79	ppb	98
67) trans-1,3-Dichloropropene	8.633	75	274700	50.22	ppb	99
68) Ethyl Methacrylate	8.779	69	309863	55.49	ppb	97
69) 1,1,2-Trichloroethane	8.822	97	169914	49.69	ppb	96
72) Tetrachloroethene	8.962	164	120500	47.49	ppb	97
73) 2-Hexanone	9.114	43	191909	56.69	ppb	95
74) 1,3-Dichloropropane	8.992	76	335854	56.85	ppb	99
75) Dibromochloromethane	9.218	129	148936	48.30	ppb	98
76) N-Butyl Acetate	9.273	43	433524	68.04	ppb	98
77) 1,2-Dibromoethane	9.315	107	170254	51.98	ppb	97
78) Chlorobenzene	9.809	112	471836	52.38	ppb	97
79) 3-CBTF	9.834	180	247218	51.47	ppb	93
80) 4-CBTF	9.888	180	223358	50.89	ppb	95
81) 1,1,1,2-Tetrachloroethane	9.901	131	149107	46.57	ppb	96
82) Ethylbenzene	9.931	106	244148	49.09	ppb	100
83) (m+p)Xylene	10.047	106	613901	101.99	ppb	95
84) o-Xylene	10.401	106	308098	51.12	ppb	96
85) Styrene	10.419	104	529056	52.15	ppb	97
87) Bromoform	10.565	173	95708	46.76	ppb	97
88) 2-CBTF	10.650	180	241567	53.16	ppb	91
89) Isopropylbenzene	10.736	105	753107	48.85	ppb	98
90) Cyclohexanone	10.797	55	1216948	1037.69	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	64744	52.99	ppb	89
92) 1,1,2,2-Tetrachloroethane	10.998	83	261639	56.24	ppb	96
93) Bromobenzene	10.986	156	191151	50.63	ppb	94
94) 1,2,3-Trichloropropane	11.028	110	78919	52.22	ppb	99
95) n-Propylbenzene	11.095	91	912368	50.90	ppb	98
96) 2-Chlorotoluene	11.156	91	556114	50.04	ppb	95
97) 3-Chlorotoluene	11.211	91	606309	51.73	ppb	98
98) 4-Chlorotoluene	11.248	91	645821	50.30	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	636428	49.36	ppb	98
100) tert-Butylbenzene	11.522	119	540603	48.57	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	643526	49.83	ppb	99
102) 3,4-DCBTF	11.620	214	206090	57.11	ppb	97
103) sec-Butylbenzene	11.705	105	798974	48.78	ppb	99
104) p-Isopropyltoluene	11.827	119	671384	48.71	ppb	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.784	146	365587	50.94	ppb	98
106) 1,4-Dclbenz	11.858	146	380297	50.49	ppb	96
107) 2,4-DCBTF	11.912	214	186326	54.15	ppb	97
108) 2,5-DCBTF	11.949	214	210976	57.33	ppb	93
109) n-Butylbenzene	12.156	91	656463	51.06	ppb	100
110) 1,2-Dclbenz	12.162	146	364023	50.82	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.784	157	55088	45.75	ppb	90
112) Trielution Dichlorotol...	12.900	125	1136342	161.28	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	312818	56.09	ppb	97
114) Coelution Dichlorotoluene	13.229	125	848065	113.49	ppb	100
115) 1,2,4-Tcbenzene	13.437	180	301288	57.87	ppb	97
116) Hexachlorobt	13.577	225	113643	47.02	ppb	96
117) Naphthalen	13.626	128	885419	61.63	ppb	99
118) 1,2,3-Tclbenzene	13.821	180	300018	59.32	ppb	98
119) 2,4,5-Trichlorotolene	14.406	159	188060	56.36	ppb	96
120) 2,3,6-Trichlorotoluene	14.491	159	176322	56.66	ppb	98

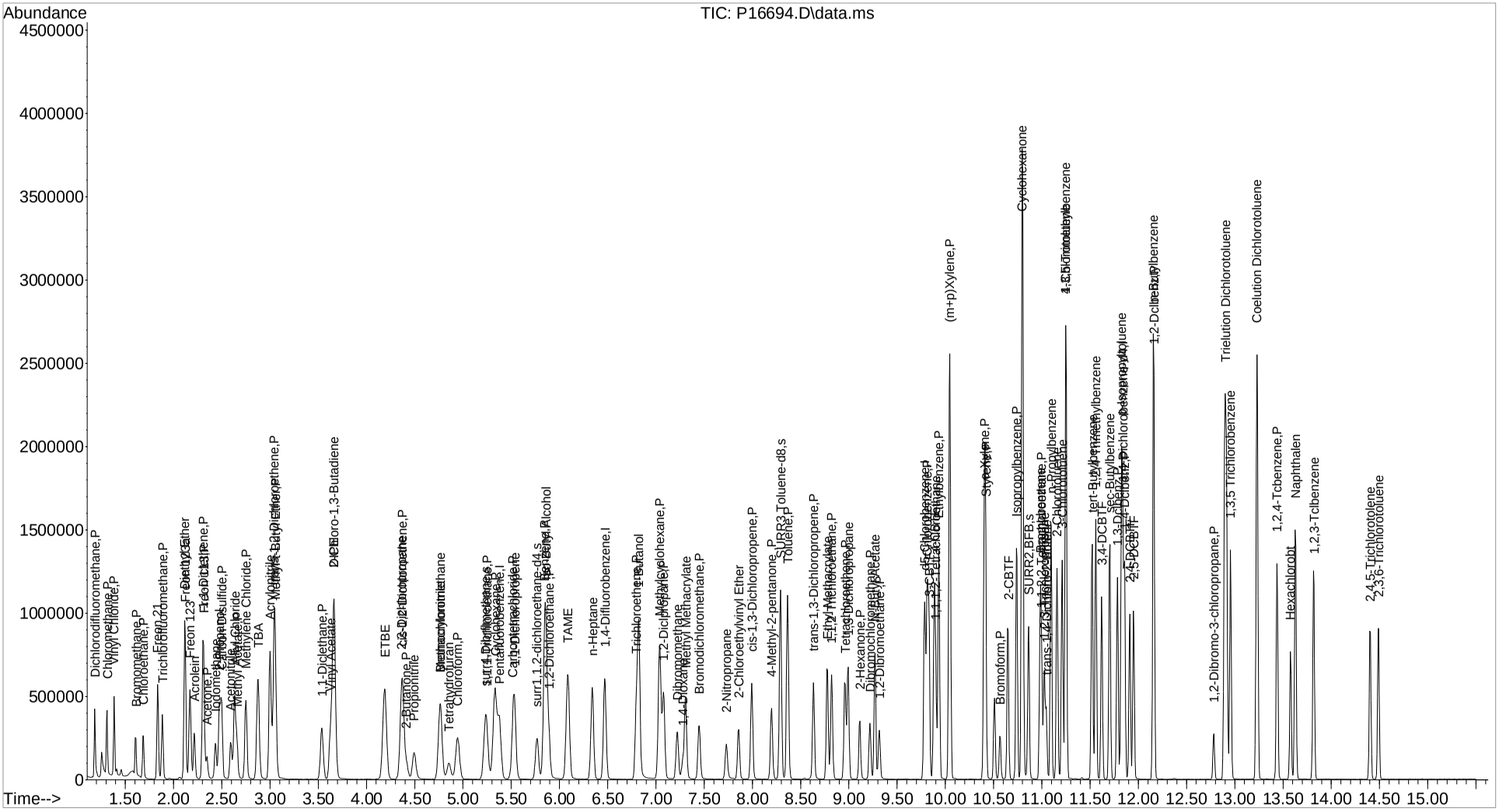
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1st 03/27/18 2nd 03/29/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16694.D
Acq On : 27 Mar 2018 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

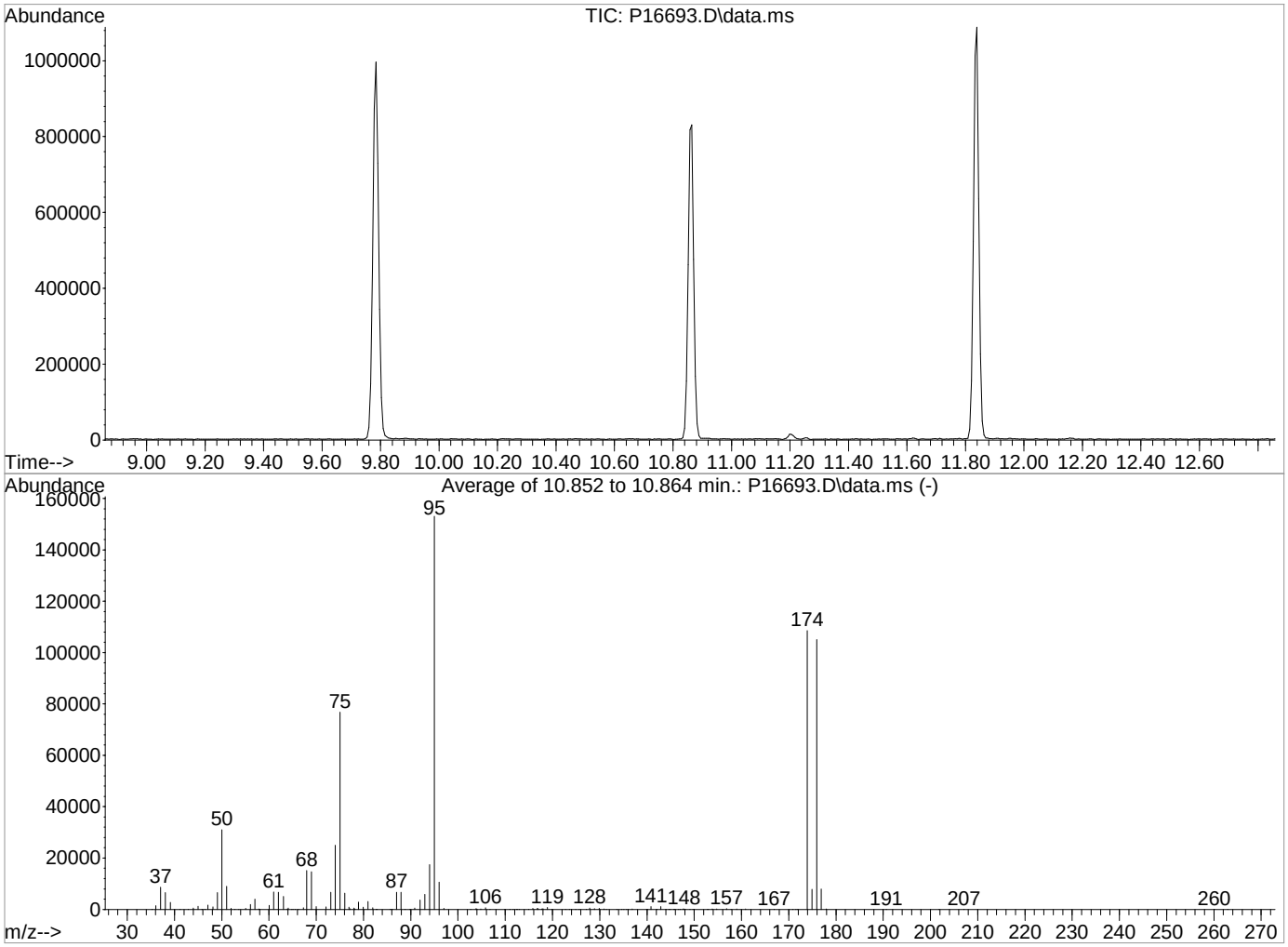


1st 03/27/18
2nd 03/29/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16693.D
Acq On : 27 Mar 2018 10:03 am
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: INTP90.P

Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Tue Jan 02 13:02:22 2018



AutoFind: Scans 1600, 1601, 1602; Background Corrected with Scan 1594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	30995	PASS
75	95	30	60	50.1	76771	PASS
95	95	100	100	100.0	153101	PASS
96	95	5	9	6.9	10555	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	70.9	108565	PASS
175	174	5	9	7.2	7848	PASS
176	174	95	101	96.8	105096	PASS
177	176	5	9	7.5	7909	PASS

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1800001-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\122917\P15150.D	12/29/2017 17:22
02	RC1800001-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15151.D	12/29/2017 17:44
03	RC1800001-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15152.D	12/29/2017 18:06
04	RC1800001-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15153.D	12/29/2017 18:28
05	RC1800001-05	20ppb	I:\ACQUDATA\msvoa12\Data\122917\P15154.D	12/29/2017 18:49
06	RC1800001-06	50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15155.D	12/29/2017 19:11
07	RC1800001-07	100ppb	I:\ACQUDATA\msvoa12\Data\122917\P15156.D	12/29/2017 19:32
08	RC1800001-08	150ppb	I:\ACQUDATA\msvoa12\Data\122917\P15157.D	12/29/2017 19:54
09	RC1800001-09	200ppb	I:\ACQUDATA\msvoa12\Data\122917\P15158.D	12/29/2017 20:16

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.008	02	1.000	0.8324	03	2.000	0.8305	04	5.000	0.8263
05	20.000	0.7547	06	50.000	0.7586	07	100.000	0.8393	08	150.000	0.7559
09	200.000	0.7763									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.023	02	1.000	0.9379	03	2.000	0.9779	04	5.000	0.947
05	20.000	0.9354	06	50.000	0.9464	07	100.000	1.023	08	150.000	0.9294
09	200.000	0.9449									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6988	02	1.000	0.5509	03	2.000	0.4889	04	5.000	0.5238
05	20.000	0.4587	06	50.000	0.4697	07	100.000	0.5076	08	150.000	0.4531
09	200.000	0.4707									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.5995	05	20.000	0.4536	06	50.000	0.506	07	100.000	0.5177
08	200.000	0.4877									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.3386	05	20.000	0.2707	06	50.000	0.2965	07	100.000	0.2994
08	200.000	0.2791									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3073	02	1.000	0.2917	03	2.000	0.2929	04	5.000	0.2841
05	20.000	0.2475	06	50.000	0.2643	07	100.000	0.2816	08	150.000	0.2552
09	200.000	0.2587									

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

Analyte

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.572	05	20.000	1.232	06	50.000	1.33	07	100.000	1.308
08	200.000	1.186									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3925	02	1.000	0.3488	03	2.000	0.309	04	5.000	0.3231
05	20.000	0.3163	06	50.000	0.3352	07	100.000	0.3524	08	150.000	0.3143
09	200.000	0.3228									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7871	02	1.000	0.616	03	2.000	0.7275	04	5.000	0.749
05	20.000	0.7515	06	50.000	0.7481	07	100.000	0.8085	08	150.000	0.7308
09	200.000	0.7463									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6166	02	1.000	0.5455	03	2.000	0.6365	04	5.000	0.638
05	20.000	0.5786	06	50.000	0.5775	07	100.000	0.6218	08	150.000	0.5765
09	200.000	0.584									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5602	02	1.000	0.5063	03	2.000	0.5366	04	5.000	0.5328
05	20.000	0.5048	06	50.000	0.5129	07	100.000	0.551	08	150.000	0.5016
09	200.000	0.5153									

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

		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	9.7	≤20	0.8203	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.8	≤20	0.9627	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	14.9	≤20	0.5136	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	10.6	≤20	0.5129	
Dibromofluoromethane	SURR	Average RF	% RSD	8.8	≤20	0.2969	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.3	≤20	0.2759	0.200
Toluene-d8	SURR	Average RF	% RSD	11.3	≤20	1.326	
Trichloroethene (TCE)	TRG	Average RF	% RSD	7.9	≤20	0.335	0.200
Vinyl Chloride	TRG	Average RF	% RSD	7.2	≤20	0.7405	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	5.4	≤20	0.5972	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	4.1	≤20	0.5246	0.100

Client: Verina Consulting Group, LLC **Service Request:** R1802551
Project: Dover-Binghamton **Calibration Date:** 12/29/2017

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001 **Signal ID:** 1
Instrument ID: R-MS-12

#	Lab Code	Sample Name	File Location	Acquisition Date
11	RC1800001-11	ICV/LCS	I:\ACQUDATA\msvoa12\Data\010318\P15169.D	01/03/2018 11:34
10	RC1800001-10	ICV 50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15162.D	12/29/2017 21:43

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	48.3	8.203E-1	7.924E-1	-3.403	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	49.5	9.627E-1	9.532E-1	-0.989	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.0	5.136E-1	4.624E-1	-9.964	±30	Average RF
Tetrachloroethene (PCE)	50.0	47.6	2.759E-1	2.628E-1	-4.770	±30	Average RF
Trichloroethene (TCE)	50.0	50.5	3.35E-1	3.381E-1	0.937	±30	Average RF
Vinyl Chloride	50.0	46.8	7.405E-1	6.925E-1	-6.488	±30	Average RF
cis-1,2-Dichloroethene	50.0	48.0	5.972E-1	5.73E-1	-4.053	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.9	5.246E-1	5.03E-1	-4.128	±30	Average RF
4-Bromofluorobenzene	50.0	48.2	5.129E-1	4.943E-1	-3.624	±30	Average RF
Dibromofluoromethane	50.0	49.6	2.969E-1	2.947E-1	-0.725	±30	Average RF
Toluene-d8	50.0	49.1	1.326E0	1.302E0	-1.787	±30	Average RF

Client:	Verina Consulting Group, LLC	**Service Request:**	R1802551
Project:	Dover-Binghamton/5101.0003	**Date Analyzed:**	03/27/18 10:32

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:	8260C	**Calibration Date:**	12/29/2017
File ID:	I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	**Calibration ID:**	RC1800001
Signal ID:	1	**Analysis Lot:**	585036
		Units:	ppb

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	43.0	0.8203	0.7055	-14.0	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	54.4	0.9627	1.0471	8.8	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.8	0.5136	0.4806	-6.4	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	47.5	0.2759	0.2621	-5.0	NA	±20	Average RF
Trichloroethene (TCE)	50.0	46.5	0.335	0.3113	-7.1	NA	±20	Average RF
Vinyl Chloride	50.0	51.1	0.7405	0.7573	2.3	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	51.4	0.5972	0.6142	2.9	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	49.8	0.5246	0.5226	-0.4	NA	±20	Average RF
4-Bromofluorobenzene	50.0	46.5	0.5129	0.4774	-6.9	NA	±20	Average RF
Dibromofluoromethane	50.0	46.9	0.2969	0.2784	-6.2	NA	±20	Average RF
Toluene-d8	50.0	49.4	1.3256	1.3097	-1.2	NA	±20	Average RF

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: **Analysis Lot:**585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718\P16693.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	10:03:00	
I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	Continuing Calibration Verification	RQ1802745-02	3/27/2018	10:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	Lab Control Sample	RQ1802745-03	3/27/2018	11:30:00	
I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	Method Blank	RQ1802745-04	3/27/2018	12:22:00	
I:\ACQUDATA\msvoa12\Data\032718\P16699.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	12:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	MW-17	R1802551-003	3/27/2018	13:15:00	
I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	MW-8	R1802551-004	3/27/2018	13:37:00	
I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	MW-16	R1802551-005	3/27/2018	13:59:00	
I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	MW-9	R1802551-006	3/27/2018	14:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	DUP-032218	R1802551-009	3/27/2018	14:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	15:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16706.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	15:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	16:10:00	
I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	16:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	16:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16711.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	17:16:00	
I:\ACQUDATA\msvoa12\Data\032718\P16712.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	17:38:00	
I:\ACQUDATA\msvoa12\Data\032718\P16713.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	18:00:00	
I:\ACQUDATA\msvoa12\Data\032718\P16714.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	18:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16715.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	18:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16716.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	19:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16717.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	19:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16718.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	19:49:00	

Client: Verina Consulting Group, LLC **Service Request:**R1802551
Project: Dover-Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: **Analysis Lot:**585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718 \P16719.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	20:11:00	
I:\ACQUDATA\msvoa12\Data\032718 \P16720.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	20:33:00	

Analysis: 8260 waters | Analyst: K. Rust | pH strips: 206717 | Tune Method: W122917

Date: 3/27/18 | Balance ID: N/A | ResCl strips: n/A | Run Method: ✓

Instr. 12 | 50 mL Class A used for dilution FV | Syringes: 177416 | LIMS Run#: 585036

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK							P16691		↑ EMV
2	↓							P16692		
3	TUNE		RQ1802745 -01					P16693	YT	(auto) 10:23
1	CCV		02					P16694	YC	
1	LCS		—					P16695	(N)	RT - RT shift
1	LCS		03					P16696	YQ	
1	VBLK		—					P16697	(N)	not c/o
2	↓		↓ 04					P16698	YB	
1	R1802550·002	1.0		6646	4	2	(22)	P16699	Y	
2	R1802551·003	1.0		7979		1	8	P16700	Y	
3	004	1.0				1	8	P16701	Y	
4	005	1.0				1	8	P16702	Y	
5	006	1.0				1	8	P16703	Y	
6	009	1.0		↓		1	8	P16704	Y	
7	↓ 002	1.0		6646		1	(22)	P16705	Y	
8	~~BLK~~ (KR) 021	10	5/50mls R1802550	7979	↓	2	6	P16706	Y	
9	BLK					—	—	P16707	—	
10	R1802551·001	1.0		6646	4	1	22	P16708	Y	
11	007	1.0				1	22	P16709	Y	
12	↓ 008	1.0		↓		1	22	P16710	Y	
13	R1802550·024	1.0				1	22	P16711	Y	
14	007	1.0				1	22	P16712	Y	
15	018	1.0				1	22	P16713	Y	
16	022	1.0				1	22	P16714	Y	
17	003	1.0				1	22	P16715	Y	
18	006	1.0				1	22	P16716	Y	
19	004	1.0				1	22	P16717	Y	
20	↓ 011	1.0				1	22	P16718	Y	
21	(KR) MS 002	1.0	RQ1802745·05 (2551)(KR)			2	22	P16719	YQ	
22	MSD 002	1.0	06 ↓	↓	↓	3	22	P16720	YQ	
23	BLK					—	—	P16721	—	

All samples = 5 mL + 5 uL combined IS/Surr. 5 mL purged

500 Primary OCC+ : 1888712
Primary Fr+ : 1886685 5ul → 50mls
Primary T6 : 1885593 = CCV
Primary HSL : 1885586
Primary :

200 Secondary Fr+ : 1888541 - 5ul
500 Secondary OCC+ : 1888751
Secondary HSL : 1888309 2ul
Secondary T6 : 1888869
Secondary :

50mls = LCS / 4.2uL -10.6uL
40ml vial = MS/D

Combined IS/Surr :
Surrogate 50 : 1888652
Internal Std 50 : 1888651
Reagents:

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Runlog-MSVOAr4 1/17/17

October 03, 2018 Service Request No:R1809120

Ms. Sarah MacCarter
Verina Consulting Group, LLC
1011 US Highway 22, Suite 302
Bridgewater, NJ 08807

Laboratory Results for: Dover - Binghamton

Dear Ms.MacCarter,

Enclosed are the results of the sample(s) submitted to our laboratory September 21, 2018
For your reference, these analyses have been assigned our service request number **R1809120.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, 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) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

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

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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: Verina Consulting Group, LLC
Project: Dover - Binghamton
Sample Matrix: Water

Service Request: R1809120
Date Received: 09/21/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Twelve water samples were received for analysis at ALS Environmental on 09/21/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by _____ Date 10/03/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-10			Lab ID: R1809120-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	1.3		0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	0.79	J	0.20	1.0	ug/L	8260C
Tetrachloroethene (PCE)	0.87	J	0.28	1.0	ug/L	8260C
Trichloroethene (TCE)	10		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	2.6		0.26	1.0	ug/L	8260C

CLIENT ID: MW-17			Lab ID: R1809120-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	1.5		0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.1		0.20	1.0	ug/L	8260C

CLIENT ID: MW-16			Lab ID: R1809120-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Tetrachloroethene (PCE)	160		0.28	1.0	ug/L	8260C
Trichloroethene (TCE)	1.6		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	1.5		0.26	1.0	ug/L	8260C

CLIENT ID: MW-9			Lab ID: R1809120-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	0.42	J	0.25	1.0	ug/L	8260C
Trichloroethene (TCE)	17		0.20	1.0	ug/L	8260C

CLIENT ID: MW-8			Lab ID: R1809120-009			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	0.62	J	0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.1		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	8.7		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	11		0.26	1.0	ug/L	8260C

CLIENT ID: DUP-092018			Lab ID: R1809120-012			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1,1,1-Trichloroethane (TCA)	0.51	J	0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.0		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	9.7		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	15		0.26	1.0	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: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1809120-001	Trip Blank - 092018	9/20/2018	
R1809120-002	MW-10	9/20/2018	1115
R1809120-003	MW-13	9/20/2018	1115
R1809120-004	DMW-3	9/20/2018	1120
R1809120-005	MW-17	9/20/2018	1214
R1809120-006	MW-16	9/20/2018	1223
R1809120-007	TMP-A	9/20/2018	1245
R1809120-008	MW-9	9/20/2018	1518
R1809120-009	MW-8	9/20/2018	1530
R1809120-010	MW-11	9/20/2018	1535
R1809120-011	FB-092018	9/20/2018	1630
R1809120-012	DUP-092018	9/20/2018	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 53417

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: Dover - Binghamton	Project Number: 5101.0003
Project Manager: Sarah Maccarter	Report CC:
Company/Address: 1011 US Highway, Suite 302, Bridgewater, NJ 08807-2550	
Phone #: 908 864 4400	Email: smaccarter@vcg-llc.com
Sampler's Signature:	Sampler's Printed Name: Rita De Almeida

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

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)
PCE
TCE
CIS-1,2-DCE
TRANS-1,2-DCE
1,1-DCE
1,1-DCA
1,1,1-TCA
REMARKS/ ALTERNATE DESCRIPTION

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	#	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank-092018		09/20/18	—	Blank	3	HCl preservative
MW-10			11:15	GW	3	HCl
MW-13			11:15	GW	3	HCl
DNW-3			11:20	GW	3	HCl
MW-17, MS, MSD			12:14	GW	9	$NaHSO_4$
MW-16			12:23	GW	3	$NaHSO_4$
TMP-A			12:45	GW	3	HCl
MW-9			15:15	GW	3	$NaHSO_4$
MW-8			1530	GW	3	$NaHSO_4$
MW-11			1535	GW	3	$NaHSO_4$
FB-092018			1630	Blank	3	HCl

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

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

REPORT REQUIREMENTS
X I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
Edata ___Yes ___No

INVOICE INFORMATION
PO # 5101.003
BILL TO: Verna Consulting Grap

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Rita De Almeida	Printed Name	Printed Name	Printed Name	Printed Name	
Firm: Verna Consulting	Firm	Firm	Firm	Firm	
Date/Time: 09/20/18 1703	Date/Time: 9/21/18 0950	Date/Time	Date/Time	Date/Time	

R1809120 5
Verna Consulting Group, LLC
Dover - Binghamton

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

ALS Group

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 53416

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: PASA - Binghamton	Project Number: 5101.0003
Project Manager: Sarah MacCarter	Report CC:
Company/Address: 1011 US Highway 1, Suite 302, Bridgewater, NJ 08807-2980	
Phone #: 908 864 4400	Email: smaccarter@vcg-llc.com
Sampler's Signature:	Sampler's Printed Name: Rita DeAlmeida

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

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)	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	1,1-DCA	1,1,1-TCA	NaHSO4
DUP-092018		09/20/18	—	GW	3							X	X	X	X	X	X	X	X	NaHSO4

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 _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

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

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

INVOICE INFORMATION
PO # 5101.003
BILL TO: Verina Consulting Grap

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Rita DeAlmeida	Printed Name	Printed Name	Printed Name	Printed Name	
Firm: Verina Consulting	Firm	Firm	Firm	Firm	
Date/Time: 09/20/18 1700	Date/Time: 9/21/18 0450	Date/Time	Date/Time	Date/Time	

R1809120 5
Verina Consulting Group, LLC
Dover - Binghamton

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

Cooler Receipt and Preservation Check Form

R1809120 5
Verina Consulting Group, LLC
Dover - Binghamton

Project/Client Verina Folder Number

Cooler received on 9/21/18 by: @

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: 9/21/18 Time: 0957 ID: IR#7 (IR#10) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	2.9						
Correction Factor (°C)	+0.4						
Corrected Temp (°C)	3.3						
Temp from:Type of bottle	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 @ on 9/21/18 at 1000
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 9/21/18 Time: 1605 by: JW

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	-	-						
		HCl	**	**	417090	04/19				

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-039-001, 8-039-004

Explain all Discrepancies/ Other Comments:

No discrepancies all.

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

Labels secondary reviewed by: JL

PC Secondary Review: JMM 9/24/18 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1809120-001.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-001.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-001.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-002.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-002.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-002.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-003.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-003.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-003.03					
		9/21/2018	1609	SMO / GLAFORCE	

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-004.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-004.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-004.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-005.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1055	In Lab / DLIPANI	
		9/24/2018	1911	R-001-S10 / DLIPANI	
R1809120-005.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-005.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-005.04					
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.05					
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.06					
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.07					

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.08					
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.09					
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-006.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-006.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-006.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-007.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-007.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-007.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-008.01					
		9/21/2018	1609	SMO / GLAFORCE	

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-008.02					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/25/2018	1202	In Lab / DLIPANI	
		9/25/2018	1801	R-001-S10 / DLIPANI	
R1809120-008.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-009.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-009.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-009.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-010.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-010.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-010.03					
		9/21/2018	1609	SMO / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-011.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-011.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-011.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-012.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-012.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-012.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	

Miscellaneous Forms

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

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: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003

Sample Name: Trip Blank - 092018 **Date Collected:** 09/20/18
Lab Code: R1809120-001 **Date Received:** 09/21/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-10 **Date Collected:** 09/20/18
Lab Code: R1809120-002 **Date Received:** 09/21/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-13 **Date Collected:** 09/20/18
Lab Code: R1809120-003 **Date Received:** 09/21/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: DMW-3 **Date Collected:** 09/20/18
Lab Code: R1809120-004 **Date Received:** 09/21/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-17 **Date Collected:** 09/20/18
Lab Code: R1809120-005 **Date Received:** 09/21/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003		

Sample Name:	MW-16	**Date Collected:**	09/20/18
Lab Code:	R1809120-006	**Date Received:**	09/21/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	TMP-A	**Date Collected:**	09/20/18
Lab Code:	R1809120-007	**Date Received:**	09/21/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	MW-9	**Date Collected:**	09/20/18
Lab Code:	R1809120-008	**Date Received:**	09/21/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	MW-8	**Date Collected:**	09/20/18
Lab Code:	R1809120-009	**Date Received:**	09/21/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	MW-11	**Date Collected:**	09/20/18
Lab Code:	R1809120-010	**Date Received:**	09/21/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003		

Sample Name:	FB-092018	**Date Collected:**	09/20/18
Lab Code:	R1809120-011	**Date Received:**	09/21/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	DUP-092018	**Date Collected:**	09/20/18
Lab Code:	R1809120-012	**Date Received:**	09/21/18
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

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

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	Trip Blank - 092018	**Units:**	ug/L
Lab Code:	R1809120-001	**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)	1.0 U	1.0	0.25	1	09/28/18 11:34	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:34	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:34	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:34	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/28/18 11:34	
Dibromofluoromethane	96	89 - 119	09/28/18 11:34	
Toluene-d8	94	87 - 121	09/28/18 11:34	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 11:15
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1809120-002	**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)	**1.3**		1.0	0.25	1	09/28/18 12:18	
1,1-Dichloroethane (1,1-DCA)	**0.79**	**J**	1.0	0.20	1	09/28/18 12:18	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/28/18 12:18	
Tetrachloroethene (PCE)	**0.87**	**J**	1.0	0.28	1	09/28/18 12:18	
Trichloroethene (TCE)	**10**		1.0	0.20	1	09/28/18 12:18	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/28/18 12:18	
cis-1,2-Dichloroethene	**2.6**		1.0	0.26	1	09/28/18 12:18	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/28/18 12:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	09/28/18 12:18	
Dibromofluoromethane	97	89 - 119	09/28/18 12:18	
Toluene-d8	95	87 - 121	09/28/18 12:18	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 11:15
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-13	**Units:**	ug/L
Lab Code:	R1809120-003	**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)	1.0 U	1.0	0.25	1	09/28/18 12:40	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 12:40	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 12:40	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 12:40	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 12:40	
Dibromofluoromethane	101	89 - 119	09/28/18 12:40	
Toluene-d8	104	87 - 121	09/28/18 12:40	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 11:20
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	DMW-3	**Units:**	ug/L
Lab Code:	R1809120-004	**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)	1.0 U	1.0	0.25	1	09/28/18 13:01	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:01	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:01	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:01	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 13:01	
Dibromofluoromethane	100	89 - 119	09/28/18 13:01	
Toluene-d8	102	87 - 121	09/28/18 13:01	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 12:45
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	TMP-A	**Units:**	ug/L
Lab Code:	R1809120-007	**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)	1.0 U	1.0	0.25	1	09/28/18 13:23	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:23	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:23	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:23	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	09/28/18 13:23	
Dibromofluoromethane	101	89 - 119	09/28/18 13:23	
Toluene-d8	103	87 - 121	09/28/18 13:23	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 16:30
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	FB-092018	**Units:**	ug/L
Lab Code:	R1809120-011	**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)	1.0 U	1.0	0.25	1	09/28/18 11:56	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:56	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:56	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:56	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	09/28/18 11:56	
Dibromofluoromethane	99	89 - 119	09/28/18 11:56	
Toluene-d8	98	87 - 121	09/28/18 11:56	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 12:14
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	R1809120-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**1.5**	1.0	0.25	1	09/24/18 17:38	
1,1-Dichloroethane (1,1-DCA)	**7.1**	1.0	0.20	1	09/24/18 17:38	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 17:38	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 17:38	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 17:38	
Dibromofluoromethane	97	89 - 119	09/24/18 17:38	
Toluene-d8	99	87 - 121	09/24/18 17:38	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 12:23
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	R1809120-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 18:00	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 18:00	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 18:00	
Tetrachloroethene (PCE)	**160**	1.0	0.28	1	09/24/18 18:00	
Trichloroethene (TCE)	**1.6**	1.0	0.20	1	09/24/18 18:00	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 18:00	
cis-1,2-Dichloroethene	**1.5**	1.0	0.26	1	09/24/18 18:00	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 18:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	09/24/18 18:00	
Dibromofluoromethane	93	89 - 119	09/24/18 18:00	
Toluene-d8	95	87 - 121	09/24/18 18:00	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 15:18
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1809120-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.42**	**J**	1.0	0.25	1	09/25/18 12:53	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	0.20	1	09/25/18 12:53	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/25/18 12:53	
Tetrachloroethene (PCE)	1.0	U	1.0	0.28	1	09/25/18 12:53	
Trichloroethene (TCE)	**17**		1.0	0.20	1	09/25/18 12:53	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/25/18 12:53	
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/25/18 12:53	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/25/18 12:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/25/18 12:53	
Dibromofluoromethane	95	89 - 119	09/25/18 12:53	
Toluene-d8	96	87 - 121	09/25/18 12:53	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 15:30
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1809120-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.62**	**J**	1.0	0.25	1	09/24/18 18:44	
1,1-Dichloroethane (1,1-DCA)	**2.1**		1.0	0.20	1	09/24/18 18:44	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/24/18 18:44	
Tetrachloroethene (PCE)	1.0	U	1.0	0.28	1	09/24/18 18:44	
Trichloroethene (TCE)	**8.7**		1.0	0.20	1	09/24/18 18:44	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/24/18 18:44	
cis-1,2-Dichloroethene	**11**		1.0	0.26	1	09/24/18 18:44	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/24/18 18:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 18:44	
Dibromofluoromethane	98	89 - 119	09/24/18 18:44	
Toluene-d8	99	87 - 121	09/24/18 18:44	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 15:35
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	R1809120-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 19:30	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 19:30	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 19:30	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 19:30	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	09/24/18 19:30	
Dibromofluoromethane	92	89 - 119	09/24/18 19:30	
Toluene-d8	97	87 - 121	09/24/18 19:30	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	DUP-092018	**Units:**	ug/L
Lab Code:	R1809120-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.51**	**J**	1.0	0.25	1	09/24/18 19:08	
1,1-Dichloroethane (1,1-DCA)	**2.0**		1.0	0.20	1	09/24/18 19:08	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/24/18 19:08	
Tetrachloroethene (PCE)	1.0	U	1.0	0.28	1	09/24/18 19:08	
Trichloroethene (TCE)	**9.7**		1.0	0.20	1	09/24/18 19:08	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/24/18 19:08	
cis-1,2-Dichloroethene	**15**		1.0	0.26	1	09/24/18 19:08	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/24/18 19:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/24/18 19:08	
Dibromofluoromethane	102	89 - 119	09/24/18 19:08	
Toluene-d8	102	87 - 121	09/24/18 19:08	

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003
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
Trip Blank - 092018	R1809120-001	89	96	94
MW-10	R1809120-002	90	97	95
MW-13	R1809120-003	95	101	104
DMW-3	R1809120-004	95	100	102
TMP-A	R1809120-007	97	101	103
FB-092018	R1809120-011	92	99	98
Method Blank	RQ1810434-04	89	95	93
Lab Control Sample	RQ1810434-03	92	97	95
MW-10 MS	RQ1810434-05	98	98	97
MW-10 DMS	RQ1810434-06	95	99	97

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18
Sample Matrix:	Water	**Date Received:**	09/21/18
		Date Analyzed:	09/28/18
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1809120-002	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1810434-05			Duplicate Matrix Spike RQ1810434-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	1.3	52.6	50.0	103	52.5	50.0	102	74-127	<1	30
1,1-Dichloroethane (1,1-DCA)	0.79 J	56.0	50.0	110	57.9	50.0	114	74-132	3	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	51.1	50.0	102	49.6	50.0	99	71-118	3	30
Tetrachloroethene (PCE)	0.87 J	48.6	50.0	95	51.3	50.0	101	72-125	6	30
Trichloroethene (TCE)	10	56.5	50.0	93	58.7	50.0	97	74-122	4	30
Vinyl Chloride	1.0 U	47.9	50.0	96	49.4	50.0	99	74-159	3	30
cis-1,2-Dichloroethene	2.6	53.3	50.0	101	54.5	50.0	104	77-127	2	30
trans-1,2-Dichloroethene	1.0 U	52.3	50.0	105	53.3	50.0	107	73-118	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:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Analyzed:**	09/28/18 11:05
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: RQ1810434-04 **File ID:** I:\ACQUDATA\msvoa10\data\092818\D6244.D\

Analysis Method: 8260C **Analysis Lot:** 608727

Prep Method: EPA 5030C

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1810434-03	I:\ACQUDATA\msvoa10\data\092818\D6242.D\	09/28/18 10:13
Trip Blank - 092018	R1809120-001	I:\ACQUDATA\msvoa10\data\092818\D6245.D\	09/28/18 11:34
FB-092018	R1809120-011	I:\ACQUDATA\msvoa10\data\092818\D6246.D\	09/28/18 11:56
MW-10	R1809120-002	I:\ACQUDATA\msvoa10\data\092818\D6247.D\	09/28/18 12:18
MW-13	R1809120-003	I:\ACQUDATA\msvoa10\data\092818\D6248.D\	09/28/18 12:40
DMW-3	R1809120-004	I:\ACQUDATA\msvoa10\data\092818\D6249.D\	09/28/18 13:01
TMP-A	R1809120-007	I:\ACQUDATA\msvoa10\data\092818\D6250.D\	09/28/18 13:23
MW-10MS	RQ1810434-05	I:\ACQUDATA\msvoa10\data\092818\D6266.D\	09/28/18 20:18
MW-10DMS	RQ1810434-06	I:\ACQUDATA\msvoa10\data\092818\D6267.D\	09/28/18 20:39

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1810434-04	**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)	1.0 U	1.0	0.25	1	09/28/18 11:05	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:05	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:05	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:05	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:05	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:05	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:05	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/28/18 11:05	
Dibromofluoromethane	95	89 - 119	09/28/18 11:05	
Toluene-d8	93	87 - 121	09/28/18 11:05	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Analyzed:**	09/28/18 10:13
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1810434-03
Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092818\D6242.D\

Analysis Method: 8260C
Prep Method: EPA 5030C
Analysis Lot: 608727

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1810434-04	I:\ACQUDATA\msvoa10\data\092818\D6244.D\	09/28/18 11:05
Trip Blank - 092018	R1809120-001	I:\ACQUDATA\msvoa10\data\092818\D6245.D\	09/28/18 11:34
FB-092018	R1809120-011	I:\ACQUDATA\msvoa10\data\092818\D6246.D\	09/28/18 11:56
MW-10	R1809120-002	I:\ACQUDATA\msvoa10\data\092818\D6247.D\	09/28/18 12:18
MW-13	R1809120-003	I:\ACQUDATA\msvoa10\data\092818\D6248.D\	09/28/18 12:40
DMW-3	R1809120-004	I:\ACQUDATA\msvoa10\data\092818\D6249.D\	09/28/18 13:01
TMP-A	R1809120-007	I:\ACQUDATA\msvoa10\data\092818\D6250.D\	09/28/18 13:23
MW-10MS	RQ1810434-05	I:\ACQUDATA\msvoa10\data\092818\D6266.D\	09/28/18 20:18
MW-10DMS	RQ1810434-06	I:\ACQUDATA\msvoa10\data\092818\D6267.D\	09/28/18 20:39

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/28/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1810434-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.0	20.0	100	75-125
1,1-Dichloroethane (1,1-DCA)	8260C	22.4	20.0	112	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.8	20.0	104	71-118
Tetrachloroethene (PCE)	8260C	18.9	20.0	95	72-125
Trichloroethene (TCE)	8260C	19.7	20.0	98	74-122
Vinyl Chloride	8260C	20.0	20.0	100	74-159
cis-1,2-Dichloroethene	8260C	20.4	20.0	102	80-121
trans-1,2-Dichloroethene	8260C	21.7	20.0	108	73-118

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/28/18 08:46

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\092818\D6240.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 608727

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	24.87	17532	Pass
75	95	30	60	55.43	39074	Pass
95	95	100	100	100.00	70496	Pass
96	95	5	9	6.75	4758	Pass
173	174	0	2	1.11	655	Pass
174	95	50	120	83.59	58931	Pass
175	174	5	9	8.55	5041	Pass
176	174	95	101	95.62	56347	Pass
177	176	5	9	6.24	3517	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1810434-02	I:\ACQUDATA\msvoa10\data\092818\D6241.D\	09/28/18 09:24	
Lab Control Sample	RQ1810434-03	I:\ACQUDATA\msvoa10\data\092818\D6242.D\	09/28/18 10:13	
Method Blank	RQ1810434-04	I:\ACQUDATA\msvoa10\data\092818\D6244.D\	09/28/18 11:05	
Trip Blank - 092018	R1809120-001	I:\ACQUDATA\msvoa10\data\092818\D6245.D\	09/28/18 11:34	
FB-092018	R1809120-011	I:\ACQUDATA\msvoa10\data\092818\D6246.D\	09/28/18 11:56	
MW-10	R1809120-002	I:\ACQUDATA\msvoa10\data\092818\D6247.D\	09/28/18 12:18	
MW-13	R1809120-003	I:\ACQUDATA\msvoa10\data\092818\D6248.D\	09/28/18 12:40	
DMW-3	R1809120-004	I:\ACQUDATA\msvoa10\data\092818\D6249.D\	09/28/18 13:01	
TMP-A	R1809120-007	I:\ACQUDATA\msvoa10\data\092818\D6250.D\	09/28/18 13:23	
MW-10	RQ1810434-05	I:\ACQUDATA\msvoa10\data\092818\D6266.D\	09/28/18 20:18	
MW-10	RQ1810434-06	I:\ACQUDATA\msvoa10\data\092818\D6267.D\	09/28/18 20:39	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/28/18 09:24

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

File ID: I:\ACQUDATA\msvoa10\data\092818\D6241.D\ **Lab Code:**RQ1810434-02
Instrument ID: R-MS-10 **Analysis Lot:**608727
Analysis Method: 8260C **Signal ID:**1

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	161,881	11.85	328,097	6.49	291,551	9.80
	Upper Limit ==>	323,762	12.35	656,194	6.99	583,102	10.30
	Lower Limit ==>	80,941	11.35	164,049	5.99	145,776	9.30
Associated Analyses							
Lab Control Sample	RQ1810434-03	146987	11.85	327087	6.49	288286	9.80
Method Blank	RQ1810434-04	132919	11.85	297924	6.49	264725	9.80
Trip Blank - 092018	R1809120-001	116308	11.85	266012	6.49	227275	9.80
FB-092018	R1809120-011	131866	11.85	304410	6.49	262112	9.80
MW-10	R1809120-002	130928	11.85	300384	6.49	268036	9.80
MW-13	R1809120-003	132150	11.85	297921	6.49	263979	9.80
DMW-3	R1809120-004	130009	11.85	292035	6.49	257763	9.80
TMP-A	R1809120-007	131180	11.85	280932	6.49	248941	9.80
MW-10MS	RQ1810434-05	159718	11.85	323940	6.49	289190	9.80
MW-10DMS	RQ1810434-06	167459	11.85	330867	6.49	295512	9.80

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/28/18 09:24

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

File ID: I:\ACQUDATA\msvoa10\data\092818\D6241.D\ **Lab Code:**RQ1810434-02
Instrument ID: R-MS-10 **Analysis Lot:**608727
Analysis Method: 8260C **Signal ID:**1

		Pentafluorobenzene	
		Area	**RT**
	Result ==>	210,430	5.40
	Upper Limit ==>	420,860	5.90
	Lower Limit ==>	105,215	4.90
Associated Analyses			
Lab Control Sample	RQ1810434-03	209448	5.39
Method Blank	RQ1810434-04	189784	5.39
Trip Blank - 092018	R1809120-001	175507	5.40
FB-092018	R1809120-011	192548	5.39
MW-10	R1809120-002	190786	5.39
MW-13	R1809120-003	190419	5.39
DMW-3	R1809120-004	184974	5.39
TMP-A	R1809120-007	177736	5.39
MW-10MS	RQ1810434-05	206967	5.39
MW-10DMS	RQ1810434-06	218885	5.39

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Dibromofluoromethane 89-119	Toluene-d8 87-121
MW-17	R1809120-005	91	97	99
MW-16	R1809120-006	86	93	95
MW-9	R1809120-008	89	95	96
MW-8	R1809120-009	91	98	99
MW-11	R1809120-010	88	92	97
DUP-092018	R1809120-012	96	102	102
Method Blank	RQ1810325-04	91	93	96
Method Blank	RQ1810327-05	92	99	100
Lab Control Sample	RQ1810325-08	97	96	99
Lab Control Sample	RQ1810327-04	93	96	96
MW-17 MS	RQ1810325-05	99	97	97
MW-17 DMS	RQ1810325-06	92	93	93

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18
Sample Matrix:	Water	**Date Received:**	09/21/18
		Date Analyzed:	09/24/18
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	R1809120-005	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1810325-05			Duplicate Matrix Spike RQ1810325-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	1.5	49.6	50.0	96	48.8	50.0	94	74-127	2	30
1,1-Dichloroethane (1,1-DCA)	7.1	60.2	50.0	106	59.8	50.0	105	74-132	<1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	48.2	50.0	96	47.1	50.0	94	71-118	2	30
Tetrachloroethene (PCE)	1.0 U	47.4	50.0	95	47.2	50.0	94	72-125	<1	30
Trichloroethene (TCE)	1.0 U	48.9	50.0	98	48.4	50.0	97	74-122	1	30
Vinyl Chloride	1.0 U	46.3	50.0	93	45.5	50.0	91	74-159	2	30
cis-1,2-Dichloroethene	1.0 U	50.3	50.0	101	48.2	50.0	96	77-127	4	30
trans-1,2-Dichloroethene	1.0 U	50.7	50.0	101	50.5	50.0	101	73-118	<1	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:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Analyzed:**	09/24/18 11:21
Sample Matrix:	Water	**Date Extracted:**	

Method Blank Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Method Blank
Lab Code: RQ1810325-04
Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092418\D6064.D\

Analysis Method: 8260C
Prep Method: EPA 5030C
Analysis Lot: 607883

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1810325-08	I:\ACQUDATA\msvoa10\data\092418\D6062.D\	09/24/18 10:35
MW-17	R1809120-005	I:\ACQUDATA\msvoa10\data\092418\D6080.D\	09/24/18 17:38
MW-16	R1809120-006	I:\ACQUDATA\msvoa10\data\092418\D6081.D\	09/24/18 18:00
MW-8	R1809120-009	I:\ACQUDATA\msvoa10\data\092418\D6083.D\	09/24/18 18:44
DUP-092018	R1809120-012	I:\ACQUDATA\msvoa10\data\092418\D6084.D\	09/24/18 19:08
MW-11	R1809120-010	I:\ACQUDATA\msvoa10\data\092418\D6085.D\	09/24/18 19:30
MW-17MS	RQ1810325-05	I:\ACQUDATA\msvoa10\data\092418\D6088.D\	09/24/18 20:36
MW-17DMS	RQ1810325-06	I:\ACQUDATA\msvoa10\data\092418\D6089.D\	09/24/18 20:57

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Analyzed:**	09/25/18 12:32
Sample Matrix:	Water	**Date Extracted:**	

Method Blank Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	Method Blank	**Instrument ID:**	R-MS-10
Lab Code:	RQ1810327-05	**File ID:**	I:\ACQUDATA\msvoa10\data\092518\D6103.D\
Analysis Method:	8260C	**Analysis Lot:**	608092
Prep Method:	EPA 5030C		

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1810327-04	I:\ACQUDATA\msvoa10\data\092518\D6101.D\	09/25/18 11:48
MW-9	R1809120-008	I:\ACQUDATA\msvoa10\data\092518\D6104.D\	09/25/18 12:53

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1810325-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 11:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 11:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 11:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 11:21	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 11:21	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 11:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 11:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 11:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 11:21	
Dibromofluoromethane	93	89 - 119	09/24/18 11:21	
Toluene-d8	96	87 - 121	09/24/18 11:21	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1810327-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/25/18 12:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/25/18 12:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/25/18 12:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/25/18 12:32	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/25/18 12:32	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/25/18 12:32	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:32	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	09/25/18 12:32	
Dibromofluoromethane	99	89 - 119	09/25/18 12:32	
Toluene-d8	100	87 - 121	09/25/18 12:32	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Analyzed:**	09/24/18 10:35
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	Lab Control Sample	**Instrument ID:**	R-MS-10
Lab Code:	RQ1810325-08	**File ID:**	I:\ACQUDATA\msvoa10\data\092418\D6062.D\
Analysis Method:	8260C	**Analysis Lot:**	607883
Prep Method:	EPA 5030C		

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1810325-04	I:\ACQUDATA\msvoa10\data\092418\D6064.D\	09/24/18 11:21
MW-17	R1809120-005	I:\ACQUDATA\msvoa10\data\092418\D6080.D\	09/24/18 17:38
MW-16	R1809120-006	I:\ACQUDATA\msvoa10\data\092418\D6081.D\	09/24/18 18:00
MW-8	R1809120-009	I:\ACQUDATA\msvoa10\data\092418\D6083.D\	09/24/18 18:44
DUP-092018	R1809120-012	I:\ACQUDATA\msvoa10\data\092418\D6084.D\	09/24/18 19:08
MW-11	R1809120-010	I:\ACQUDATA\msvoa10\data\092418\D6085.D\	09/24/18 19:30
MW-17MS	RQ1810325-05	I:\ACQUDATA\msvoa10\data\092418\D6088.D\	09/24/18 20:36
MW-17DMS	RQ1810325-06	I:\ACQUDATA\msvoa10\data\092418\D6089.D\	09/24/18 20:57

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Analyzed:**	09/25/18 11:48
Sample Matrix:	Water	**Date Extracted:**	

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	Lab Control Sample	**Instrument ID:**	R-MS-10
Lab Code:	RQ1810327-04	**File ID:**	I:\ACQUDATA\msvoa10\data\092518\D6101.D\
Analysis Method:	8260C	**Analysis Lot:**	608092
Prep Method:	EPA 5030C		

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1810327-05	I:\ACQUDATA\msvoa10\data\092518\D6103.D\	09/25/18 12:32
MW-9	R1809120-008	I:\ACQUDATA\msvoa10\data\092518\D6104.D\	09/25/18 12:53

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/24/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ1810325-08

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-Dichloroethane (1,1-DCA)	8260C	20.9	20.0	105	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.6	20.0	98	71-118
Tetrachloroethene (PCE)	8260C	18.7	20.0	93	72-125
Trichloroethene (TCE)	8260C	18.8	20.0	94	74-122
Vinyl Chloride	8260C	18.1	20.0	91	74-159
cis-1,2-Dichloroethene	8260C	19.6	20.0	98	80-121
trans-1,2-Dichloroethene	8260C	18.8	20.0	94	73-118

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/25/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ1810327-04

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-Dichloroethane (1,1-DCA)	8260C	21.4	20.0	107	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.7	20.0	99	71-118
Tetrachloroethene (PCE)	8260C	20.3	20.0	102	72-125
Trichloroethene (TCE)	8260C	19.5	20.0	97	74-122
Vinyl Chloride	8260C	18.5	20.0	93	74-159
cis-1,2-Dichloroethene	8260C	19.9	20.0	100	80-121
trans-1,2-Dichloroethene	8260C	20.1	20.0	100	73-118

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/24/18 09:03

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa10\data\092418\D6059.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 607883

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	25.10	29029	Pass
75	95	30	60	55.90	64645	Pass
95	95	100	100	100.00	115651	Pass
96	95	5	9	6.67	7717	Pass
173	174	0	2	0.98	963	Pass
174	95	50	120	85.22	98552	Pass
175	174	5	9	7.56	7447	Pass
176	174	95	101	95.13	93752	Pass
177	176	5	9	6.87	6439	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1810325-02	I:\ACQUDATA\msvoa10\data\092418\D6060.D\	09/24/18 09:41	
Lab Control Sample	RQ1810325-08	I:\ACQUDATA\msvoa10\data\092418\D6062.D\	09/24/18 10:35	
Method Blank	RQ1810325-04	I:\ACQUDATA\msvoa10\data\092418\D6064.D\	09/24/18 11:21	
MW-17	R1809120-005	I:\ACQUDATA\msvoa10\data\092418\D6080.D\	09/24/18 17:38	
MW-16	R1809120-006	I:\ACQUDATA\msvoa10\data\092418\D6081.D\	09/24/18 18:00	
MW-8	R1809120-009	I:\ACQUDATA\msvoa10\data\092418\D6083.D\	09/24/18 18:44	
DUP-092018	R1809120-012	I:\ACQUDATA\msvoa10\data\092418\D6084.D\	09/24/18 19:08	
MW-11	R1809120-010	I:\ACQUDATA\msvoa10\data\092418\D6085.D\	09/24/18 19:30	
MW-17	RQ1810325-05	I:\ACQUDATA\msvoa10\data\092418\D6088.D\	09/24/18 20:36	
MW-17	RQ1810325-06	I:\ACQUDATA\msvoa10\data\092418\D6089.D\	09/24/18 20:57	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/25/18 10:01

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa10\data\092518\D6098.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 608092

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	24.96	16952	Pass
75	95	30	60	56.76	38552	Pass
95	95	100	100	100.00	67923	Pass
96	95	5	9	6.83	4637	Pass
173	174	0	2	1.97	1150	Pass
174	95	50	120	85.79	58274	Pass
175	174	5	9	7.92	4613	Pass
176	174	95	101	96.14	56026	Pass
177	176	5	9	6.27	3513	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1810327-02	I:\ACQUDATA\msvoa10\data\092518\D6099.D\	09/25/18 10:36	
Lab Control Sample	RQ1810327-04	I:\ACQUDATA\msvoa10\data\092518\D6101.D\	09/25/18 11:48	
Method Blank	RQ1810327-05	I:\ACQUDATA\msvoa10\data\092518\D6103.D\	09/25/18 12:32	
MW-9	R1809120-008	I:\ACQUDATA\msvoa10\data\092518\D6104.D\	09/25/18 12:53	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/24/18 09:41

Internal Standard Area and RT SUMMARY

Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa10\data\092418\D6060.D\ **Lab Code:**RQ1810325-02
Instrument ID: R-MS-10 **Analysis Lot:**607883
Analysis Method: 8260C **Signal ID:**1

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	184,693	11.85	348,015	6.49	314,261	9.80
	Upper Limit ==>	369,386	12.35	696,030	6.99	628,522	10.30
	Lower Limit ==>	92,347	11.35	174,008	5.99	157,131	9.30
Associated Analyses							
Lab Control Sample	RQ1810325-08	175141	11.85	352269	6.49	313024	9.80
Method Blank	RQ1810325-04	150721	11.85	335947	6.49	297745	9.80
MW-17	R1809120-005	135896	11.85	314860	6.49	269323	9.80
MW-16	R1809120-006	141137	11.85	325767	6.49	276091	9.80
MW-8	R1809120-009	138001	11.85	310169	6.49	268335	9.80
DUP-092018	R1809120-012	128777	11.85	294696	6.49	259037	9.80
MW-11	R1809120-010	140451	11.85	326046	6.49	280530	9.80
MW-17MS	RQ1810325-05	170846	11.85	338596	6.49	300725	9.80
MW-17DMS	RQ1810325-06	173814	11.85	360184	6.49	314193	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/24/18 09:41

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

File ID: I:\ACQUDATA\msvoa10\data\092418\D6060.D\ **Lab Code:**RQ1810325-02
Instrument ID: R-MS-10 **Analysis Lot:**607883
Analysis Method: 8260C **Signal ID:**1

		Pentafluorobenzene	
		Area	**RT**
	Result ==>	229,317	5.39
	Upper Limit ==>	458,634	5.89
	Lower Limit ==>	114,659	4.89
Associated Analyses			
Lab Control Sample	RQ1810325-08	231000	5.39
Method Blank	RQ1810325-04	222881	5.39
MW-17	R1809120-005	196977	5.39
MW-16	R1809120-006	204753	5.39
MW-8	R1809120-009	201911	5.39
DUP-092018	R1809120-012	188218	5.40
MW-11	R1809120-010	207507	5.39
MW-17MS	RQ1810325-05	222379	5.39
MW-17DMS	RQ1810325-06	237391	5.39

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/25/18 10:36

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

File ID: I:\ACQUDATA\msvoa10\data\092518\D6099.D\ **Lab Code:**RQ1810327-02
Instrument ID: R-MS-10 **Analysis Lot:**608092
Analysis Method: 8260C **Signal ID:**1

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Result ==>	171,125	11.85	329,483	6.49	291,886	9.80
	Upper Limit ==>	342,250	12.35	658,966	6.99	583,772	10.30
	Lower Limit ==>	85,563	11.35	164,742	5.99	145,943	9.30
Associated Analyses							
Lab Control Sample	RQ1810327-04	161335	11.85	339718	6.49	296166	9.80
Method Blank	RQ1810327-05	137102	11.85	314548	6.49	277877	9.80
MW-9	R1809120-008	141508	11.85	325199	6.49	282716	9.80

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003 **Date Analyzed:**09/25/18 10:36

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

File ID: I:\ACQUDATA\msvoa10\data\092518\D6099.D\ **Lab Code:**RQ1810327-02
Instrument ID: R-MS-10 **Analysis Lot:**608092
Analysis Method: 8260C **Signal ID:**1

		Pentafluorobenzene	
		Area	**RT**
	Result ==>	214,177	5.39
	Upper Limit ==>	428,354	5.89
	Lower Limit ==>	107,089	4.89
Associated Analyses			
Lab Control Sample	RQ1810327-04	224537	5.39
Method Blank	RQ1810327-05	199456	5.39
MW-9	R1809120-008	208301	5.39

Raw Data

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

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	Trip Blank - 092018	**Units:**	ug/L
Lab Code:	R1809120-001	**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)	1.0 U	1.0	0.25	1	09/28/18 11:34	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:34	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:34	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:34	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/28/18 11:34	
Dibromofluoromethane	96	89 - 119	09/28/18 11:34	
Toluene-d8	94	87 - 121	09/28/18 11:34	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 11:15
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1809120-002	**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)	**1.3**		1.0	0.25	1	09/28/18 12:18	
1,1-Dichloroethane (1,1-DCA)	**0.79**	**J**	1.0	0.20	1	09/28/18 12:18	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/28/18 12:18	
Tetrachloroethene (PCE)	**0.87**	**J**	1.0	0.28	1	09/28/18 12:18	
Trichloroethene (TCE)	**10**		1.0	0.20	1	09/28/18 12:18	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/28/18 12:18	
cis-1,2-Dichloroethene	**2.6**		1.0	0.26	1	09/28/18 12:18	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/28/18 12:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	09/28/18 12:18	
Dibromofluoromethane	97	89 - 119	09/28/18 12:18	
Toluene-d8	95	87 - 121	09/28/18 12:18	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 11:15
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-13	**Units:**	ug/L
Lab Code:	R1809120-003	**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)	1.0 U	1.0	0.25	1	09/28/18 12:40	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 12:40	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 12:40	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 12:40	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 12:40	
Dibromofluoromethane	101	89 - 119	09/28/18 12:40	
Toluene-d8	104	87 - 121	09/28/18 12:40	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 11:20
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	DMW-3	**Units:**	ug/L
Lab Code:	R1809120-004	**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)	1.0 U	1.0	0.25	1	09/28/18 13:01	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:01	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:01	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:01	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 13:01	
Dibromofluoromethane	100	89 - 119	09/28/18 13:01	
Toluene-d8	102	87 - 121	09/28/18 13:01	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 12:45
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	TMP-A	**Units:**	ug/L
Lab Code:	R1809120-007	**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)	1.0 U	1.0	0.25	1	09/28/18 13:23	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:23	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:23	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:23	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	09/28/18 13:23	
Dibromofluoromethane	101	89 - 119	09/28/18 13:23	
Toluene-d8	103	87 - 121	09/28/18 13:23	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 16:30
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	FB-092018	**Units:**	ug/L
Lab Code:	R1809120-011	**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)	1.0 U	1.0	0.25	1	09/28/18 11:56	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:56	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:56	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:56	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	09/28/18 11:56	
Dibromofluoromethane	99	89 - 119	09/28/18 11:56	
Toluene-d8	98	87 - 121	09/28/18 11:56	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6245.D
Acq On : 28 Sep 2018 11:34 am
Operator : D.LIPANI
Sample : R1809120-001|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 01 14:54:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

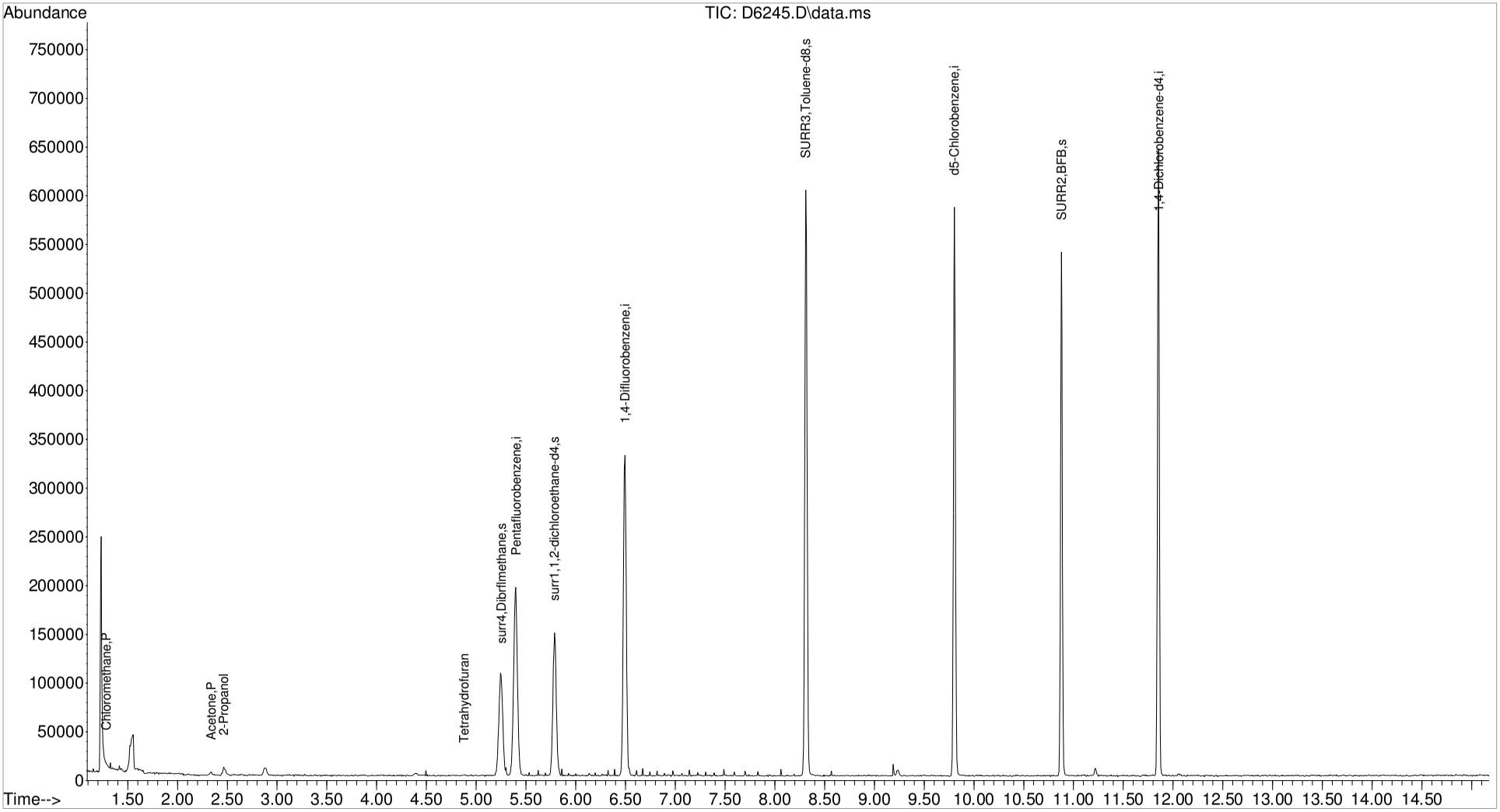
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.397	168	175507	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	266012	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	227275	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	116308	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.251	113	86215	48.09	ug/L	0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.18%			
46) surr1,1,2-dichloroetha...	5.787	65	122152	51.81	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.62%			
64) SURR3,Toluene-d8	8.311	98	341627	47.00	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.00%			
69) SURR2,BFB	10.878	95	124648	44.62	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.24%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	685	0.27	ug/L	85
15) Acetone	2.337	43	3213	3.11	ug/L	94
16) 2-Propanol	2.465	45	8729	43.72	ug/L	74
38) Tetrahydrofuran	4.879	42	450	0.52	ug/L	74

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

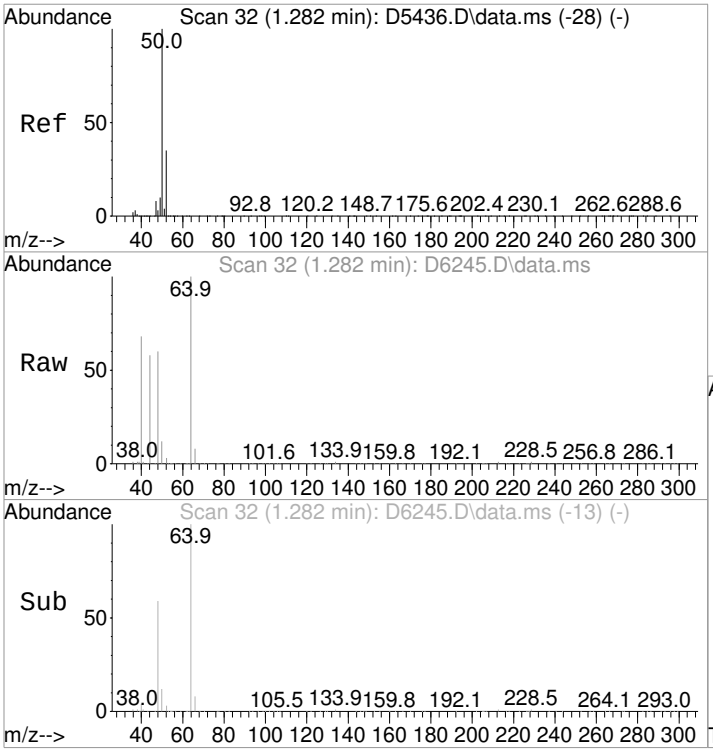
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6245.D
Acq On : 28 Sep 2018 11:34 am
Operator : D.LIPANI
Sample : R1809120-001|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 01 14:54:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



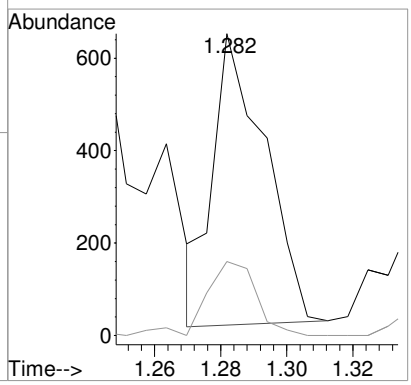
1st DL 10/01/18
2nd FJ 10/02/18

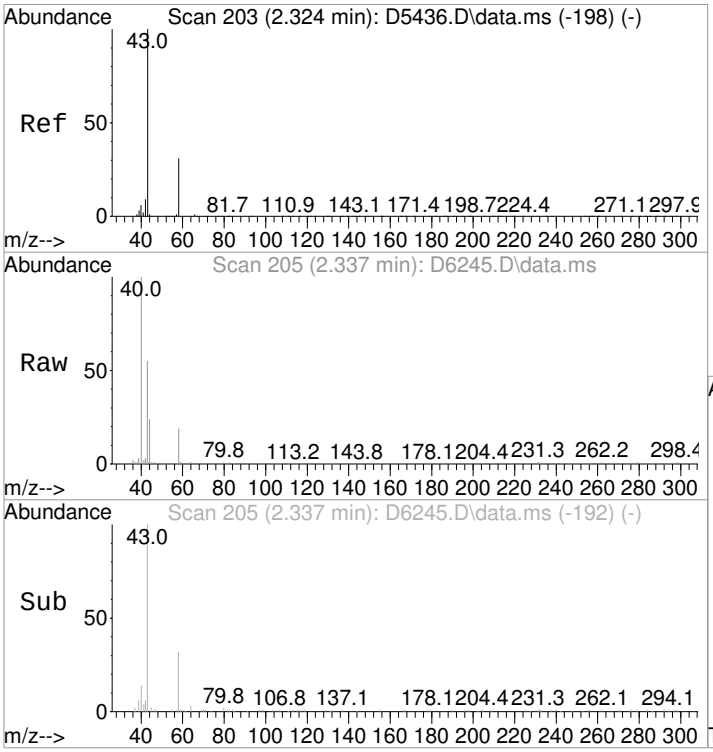


#3
Chloromethane
Concen: 0.27 ug/L
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: D6245.D
Acq: 28 Sep 2018 11:34 am

Tgt Ion: 50 Resp: 685

Ion	Ratio	Lower	Upper
50	100		
52	26.0	15.0	55.0

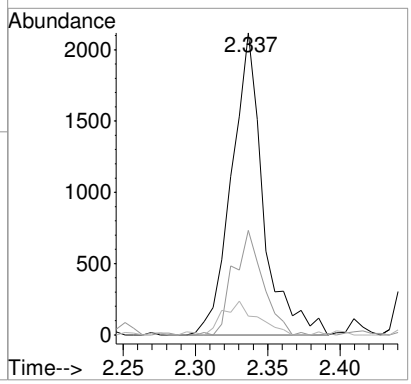


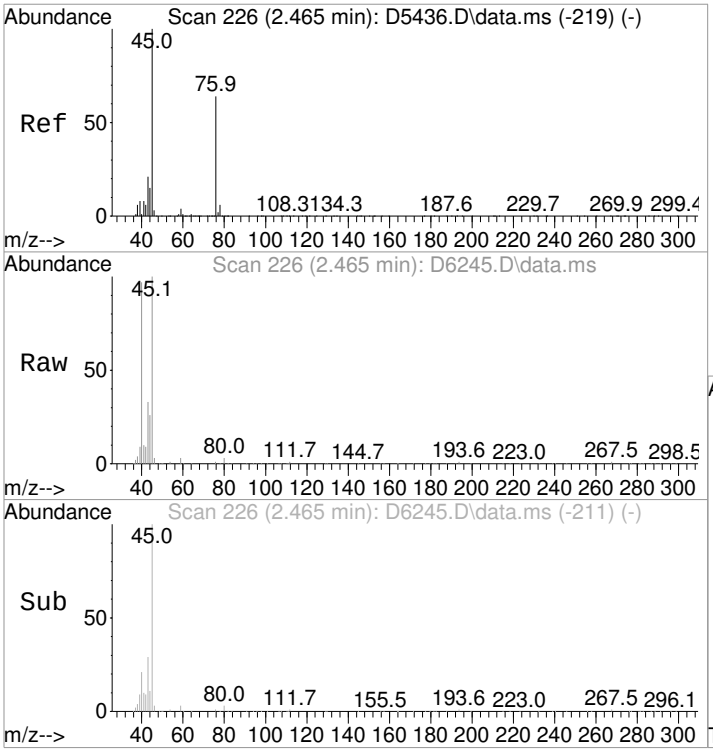


#15
Acetone
Concen: 3.11 ug/L
RT: 2.337 min Scan# 205
Delta R.T. 0.006 min
Lab File: D6245.D
Acq: 28 Sep 2018 11:34 am

Tgt Ion: 43 Resp: 3213

Ion	Ratio	Lower	Upper
43	100		
58	34.7	11.2	51.2
42	6.2	0.0	28.6

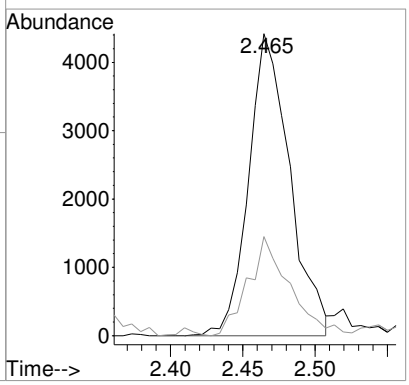


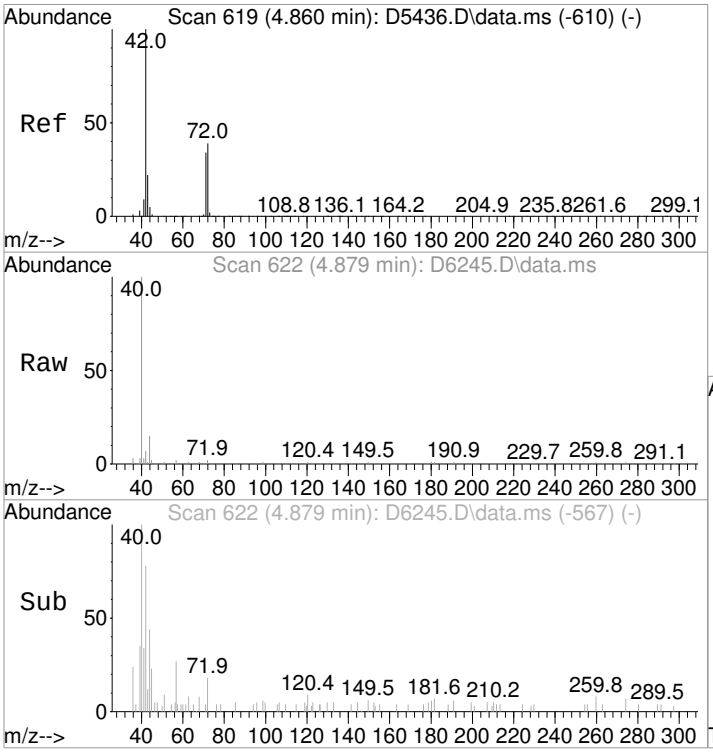


#16
2-Propanol
Concen: 43.72 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.018 min
Lab File: D6245.D
Acq: 28 Sep 2018 11:34 am

Tgt Ion: 45 Resp: 8729

Ion	Ratio	Lower	Upper
45	100		
43	32.8	0.8	40.8

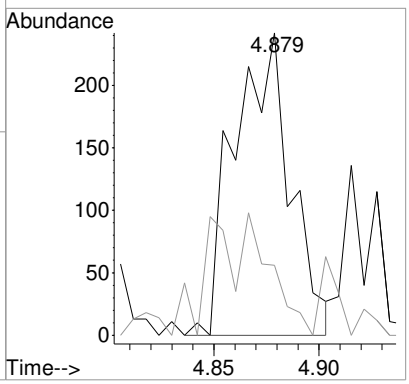




#38
Tetrahydrofuran
Concen: 0.52 ug/L
RT: 4.879 min Scan# 622
Delta R.T. 0.018 min
Lab File: D6245.D
Acq: 28 Sep 2018 11:34 am

Tgt Ion: 42 Resp: 450

Ion	Ratio	Lower	Upper
42	100		
72	23.1	18.8	58.8

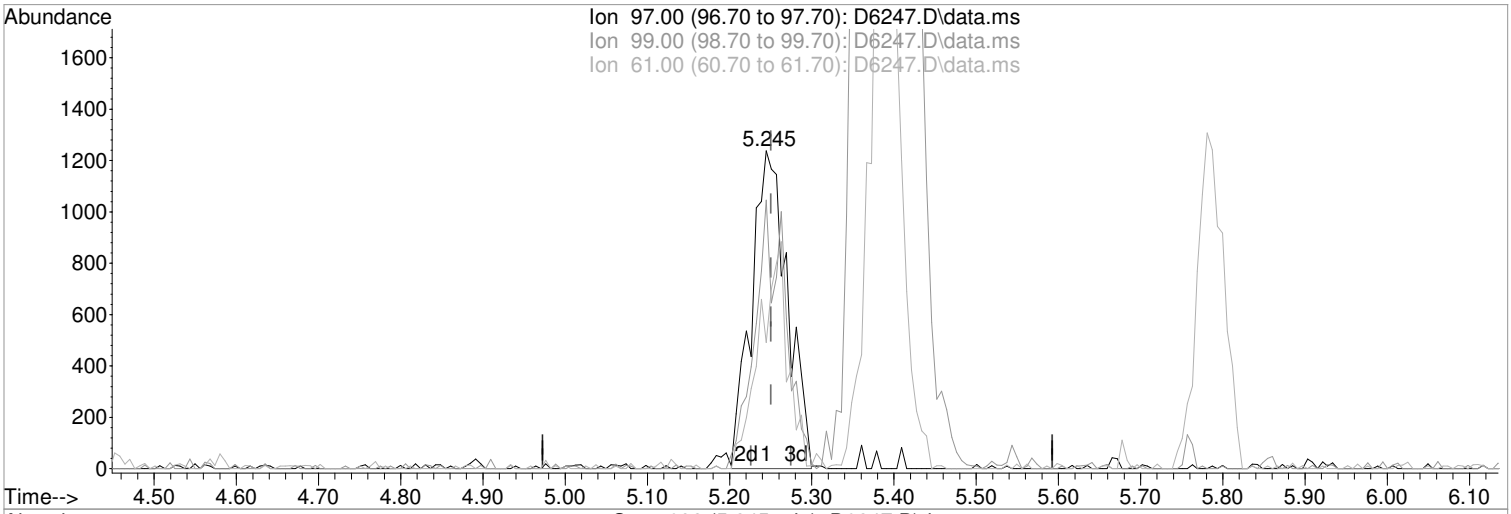


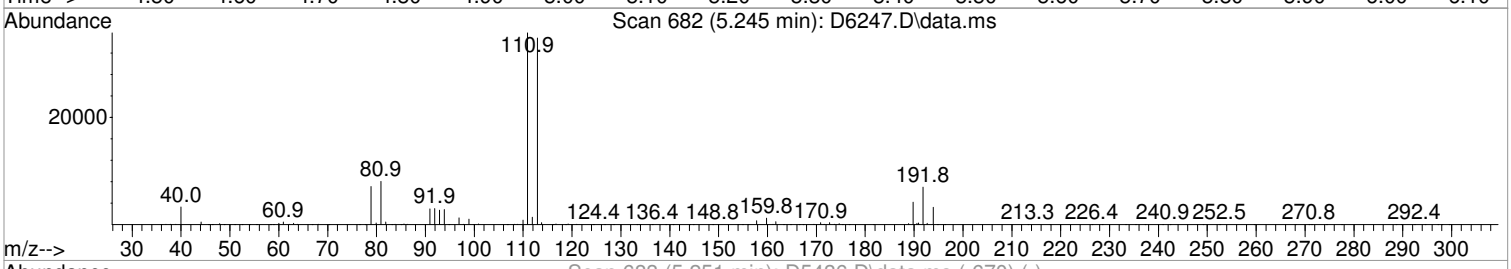
1st DL 10/01/18
2nd FJ 10/02/18

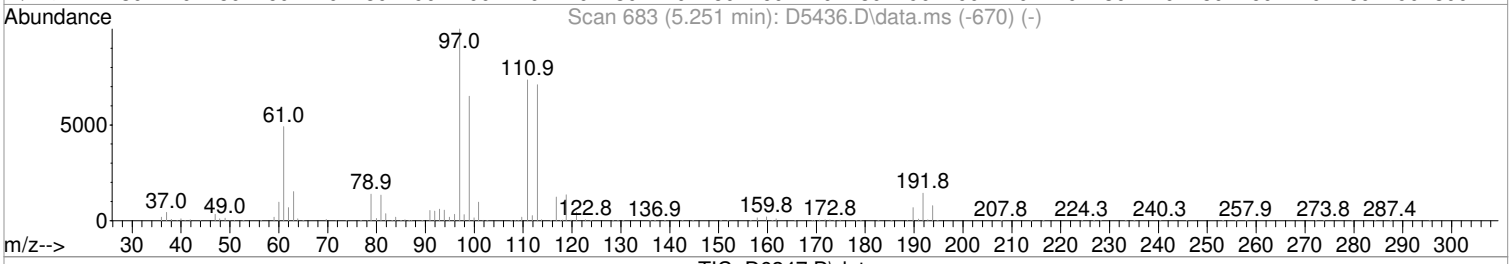
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6247.D
Acq On : 28 Sep 2018 12:18 pm
Operator : D.LIPANI
Sample : R1809120-002|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 28 12:32:59 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6247.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.006) 1.32 ug/L m

response 3760

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	84.56
61.00	49.10	39.69
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

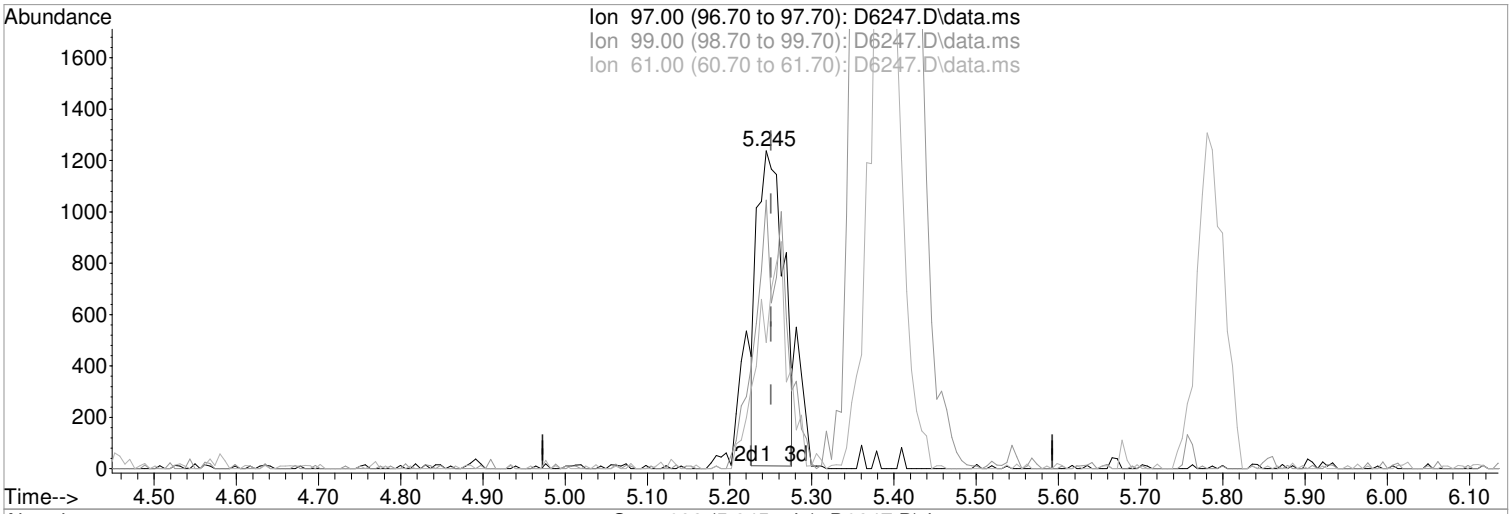
10/01/18

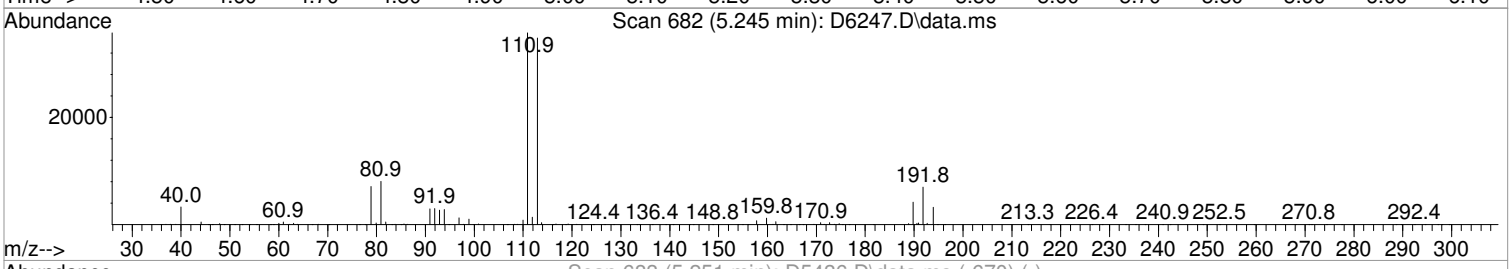
1st DL 10/01/18
2nd FW 10/02/18

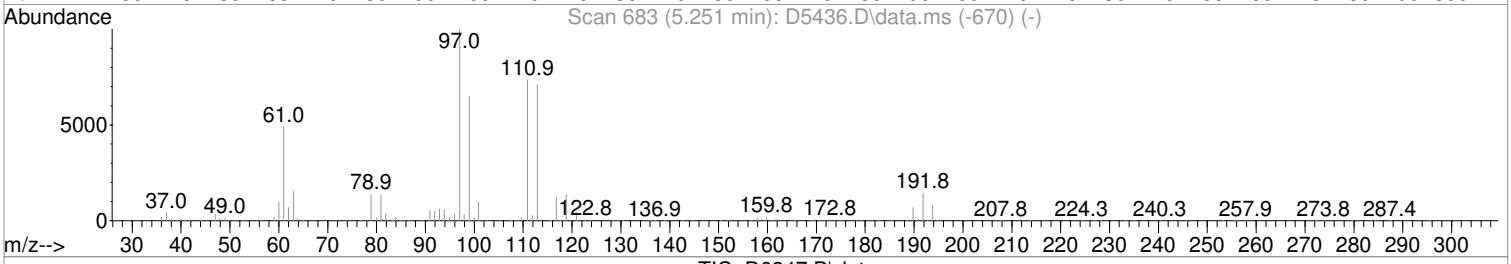
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6247.D
Acq On : 28 Sep 2018 12:18 pm
Operator : D.LIPANI
Sample : R1809120-002|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 28 12:32:59 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6247.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.006) 0.96 ug/L

response 2731

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	84.56
61.00	49.10	39.69
0.00	0.00	0.00

Manual Integration:

Before

10/01/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6247.D
Acq On : 28 Sep 2018 12:18 pm
Operator : D.LIPANI
Sample : R1809120-002|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 01 15:05:32 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

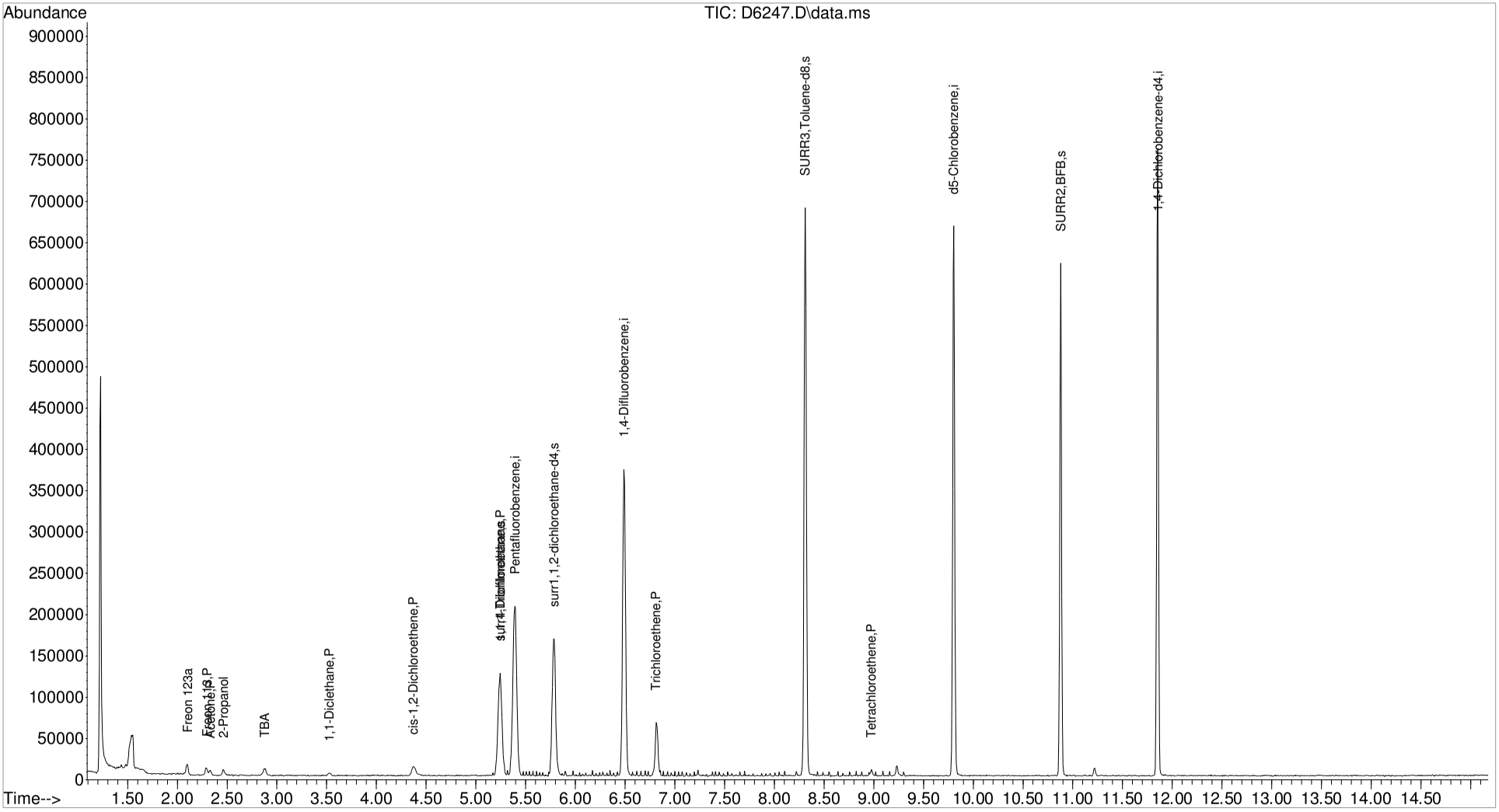
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	190786	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	300384	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	268036	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	130928	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	98528	48.67	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.34%			
46) surr1,1,2-dichloroetha...	5.781	65	141142	53.02	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.04%			
64) SURR3,Toluene-d8	8.311	98	391263	47.67	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 95.34%			
69) SURR2,BFB	10.878	95	142152	45.07	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.14%			
Target Compounds						Qvalue
5) Bromomethane	1.587	94	438	Below Cal		87
10) Freon 123a	2.099	67	5144	2.12	ug/L	94
14) Freon 113	2.294	101	3044	1.74	ug/L	86
15) Acetone	2.331	43	6304	5.62	ug/L	92
16) 2-Propanol	2.465	45	7400	34.10	ug/L	92
23) TBA	2.879	59	5052	15.54	ug/L	70
27) 1,1-Diclethane	3.525	63	2899	0.79	ug/L	78
33) cis-1,2-Dichloroethene	4.373	96	5456	2.60	ug/L #	83
40) 1,1,1-Trichloroethane	5.245	97	3760m	1.32	ug/L	
53) Trichloroethene	6.811	130	20921	10.01	ug/L	85
71) Tetrachloroethene	8.976	164	1454	0.87	ug/L #	76

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

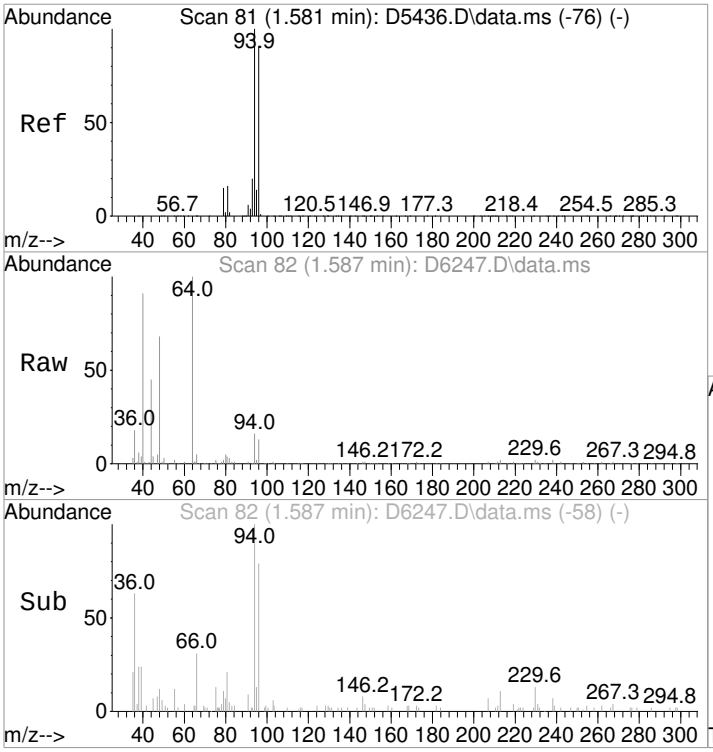
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6247.D
Acq On : 28 Sep 2018 12:18 pm
Operator : D.LIPANI
Sample : R1809120-002|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 01 15:05:32 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



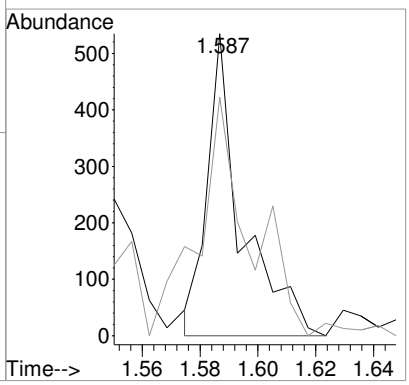
1st DL 10/01/18
2nd FJ 10/02/18

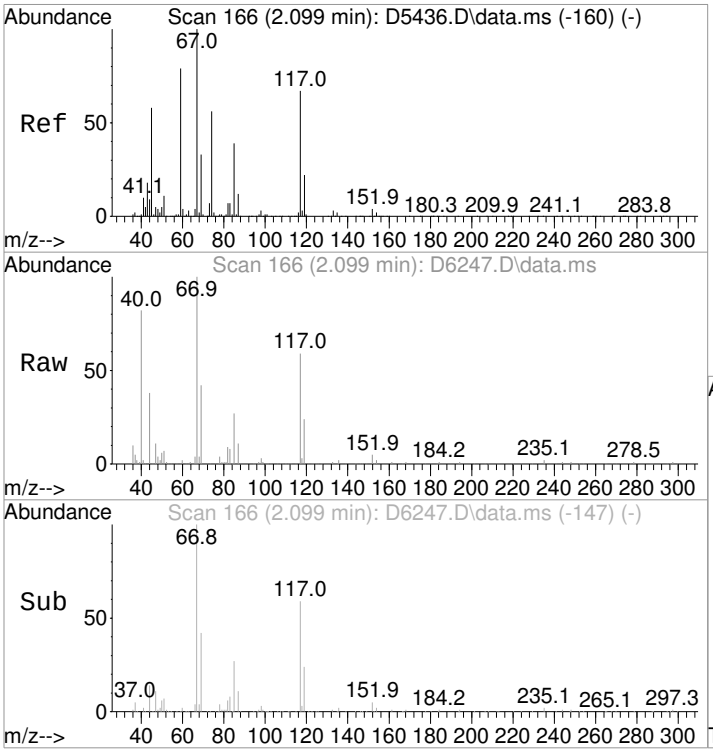


#5
Bromomethane
Concen: Below Cal
RT: 1.587 min Scan# 82
Delta R.T. 0.006 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 94 Resp: 438

Ion	Ratio	Lower	Upper
94	100		
96	79.1	71.1	111.1

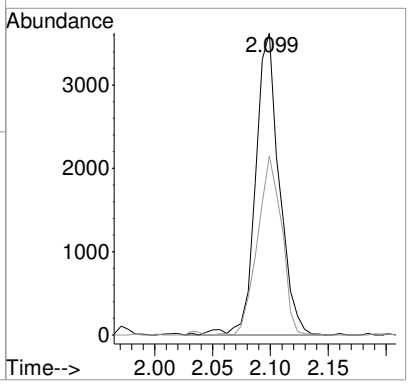


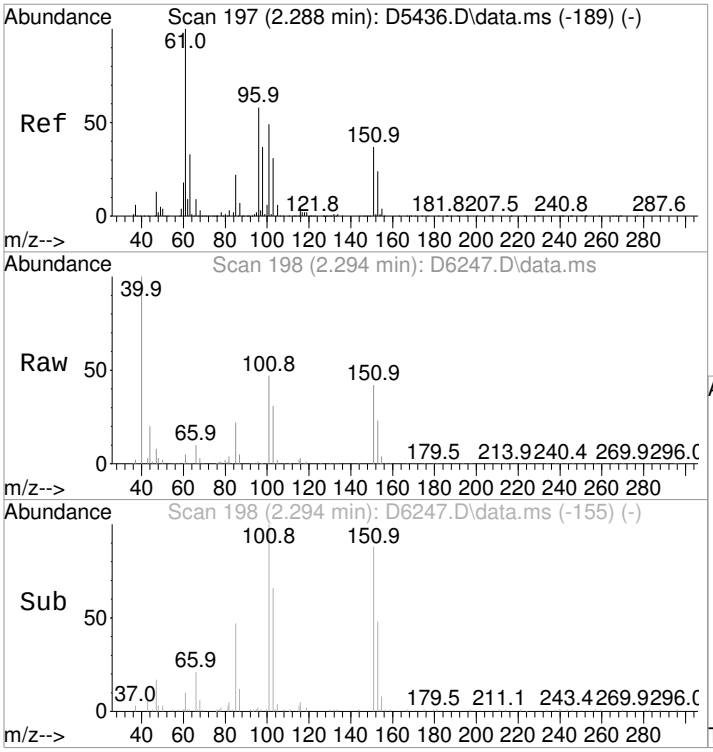


#10
Freon 123a
Concen: 2.12 ug/L
RT: 2.099 min Scan# 166
Delta R.T. 0.000 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 67 Resp: 5144

Ion	Ratio	Lower	Upper
67	100		
117	62.3	47.5	87.5

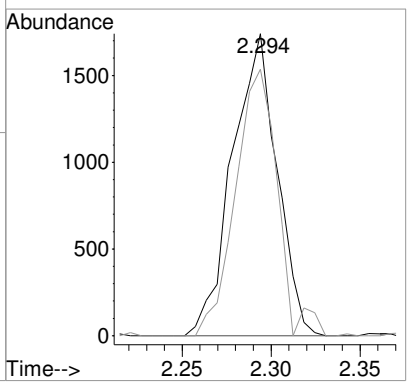


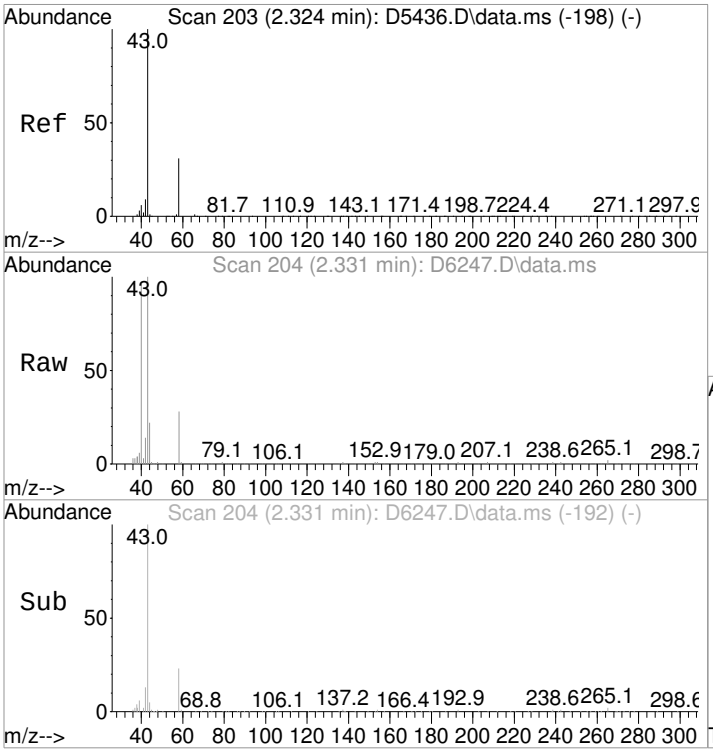


#14
Freon 113
Concen: 1.74 ug/L
RT: 2.294 min Scan# 198
Delta R.T. 0.006 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion:101 Resp: 3044

Ion	Ratio	Lower	Upper
101	100		
151	88.3	56.1	96.1

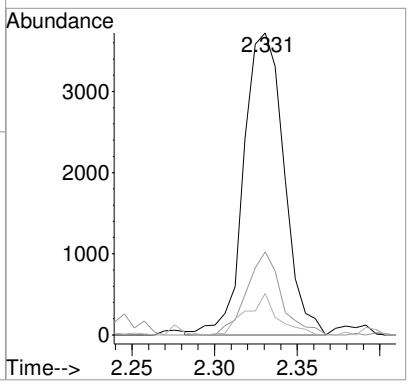


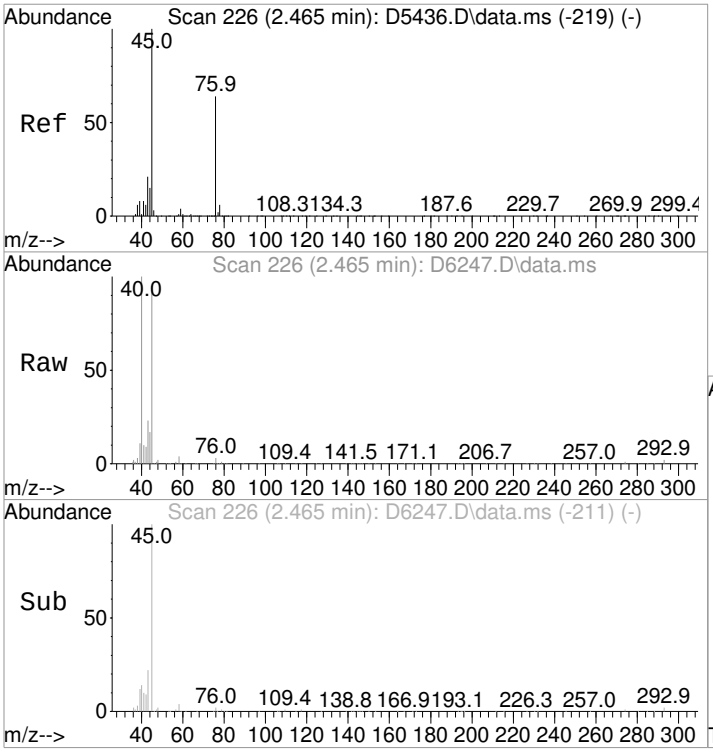


#15
Acetone
Concen: 5.62 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.000 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 43 Resp: 6304

Ion	Ratio	Lower	Upper
43	100		
58	27.6	11.2	51.2
42	13.7	0.0	28.6

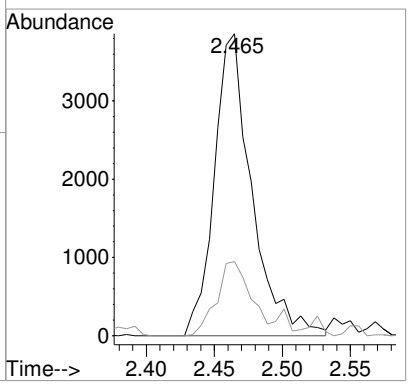


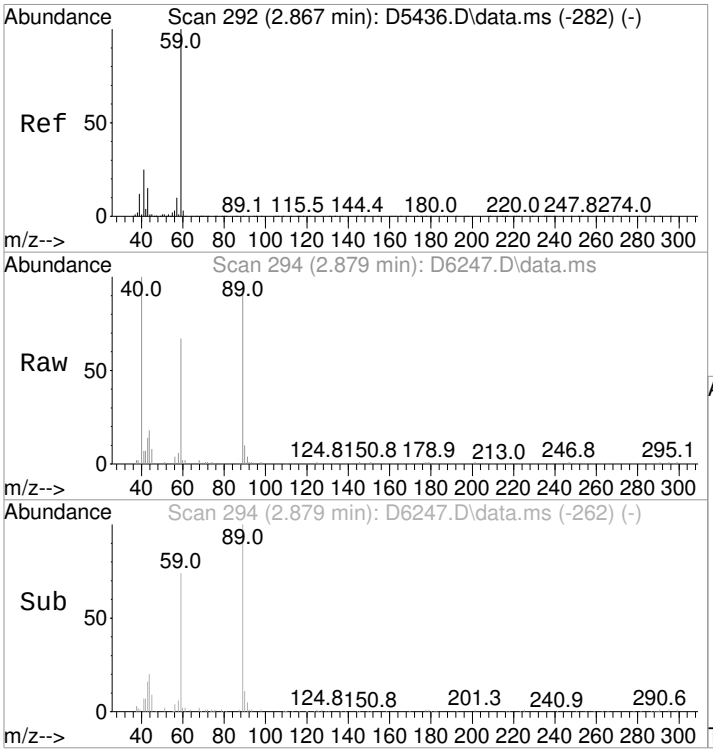


#16
2-Propanol
Concen: 34.10 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.018 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 45 Resp: 7400

Ion	Ratio	Lower	Upper
45	100		
43	24.5	0.8	40.8

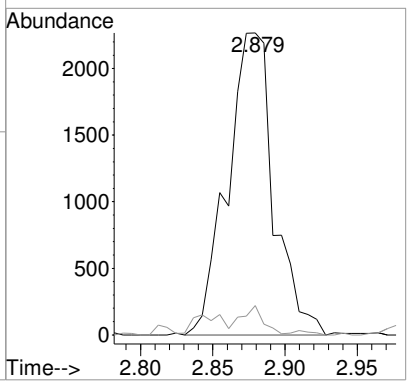


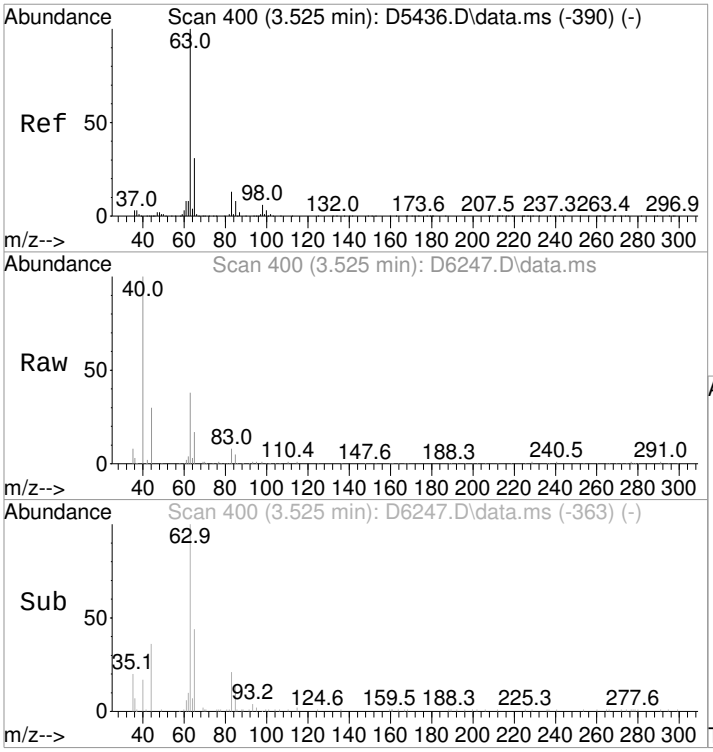


#23
TBA
Concen: 15.54 ug/L
RT: 2.879 min Scan# 294
Delta R.T. 0.006 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 59 Resp: 5052

Ion	Ratio	Lower	Upper
59	100		
41	9.7	4.8	44.8

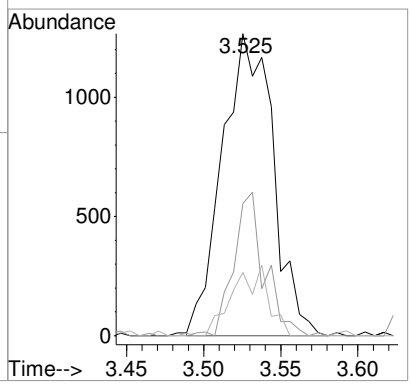


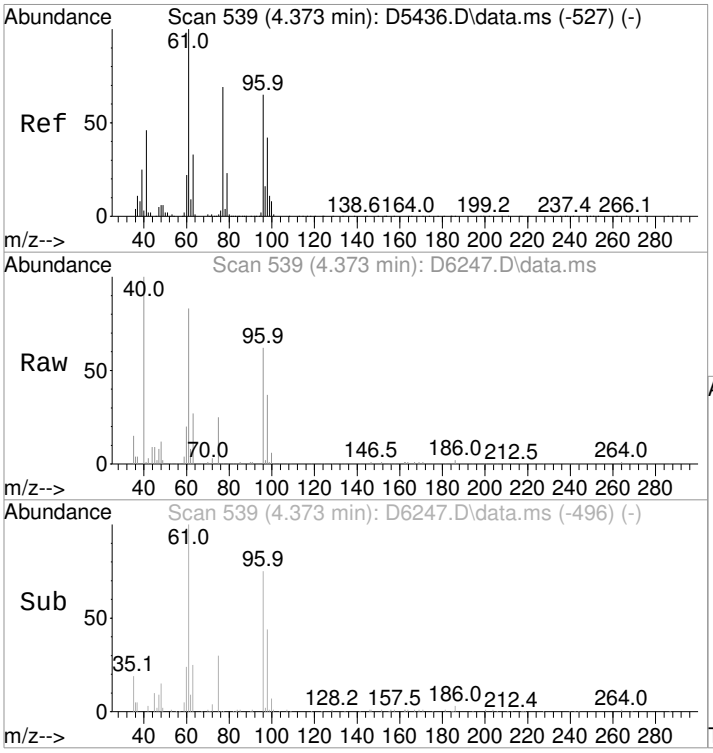


#27
1,1-Diclethane
Concen: 0.79 ug/L
RT: 3.525 min Scan# 400
Delta R.T. 0.000 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 63 Resp: 2899

Ion	Ratio	Lower	Upper
63	100		
65	43.7	11.4	51.4
83	21.0	0.0	32.6

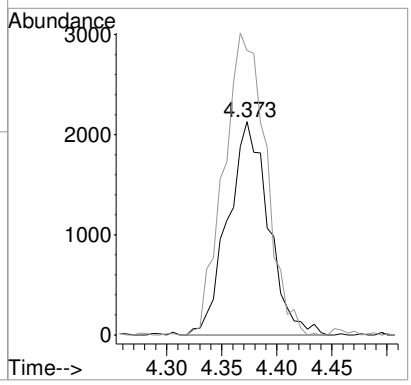


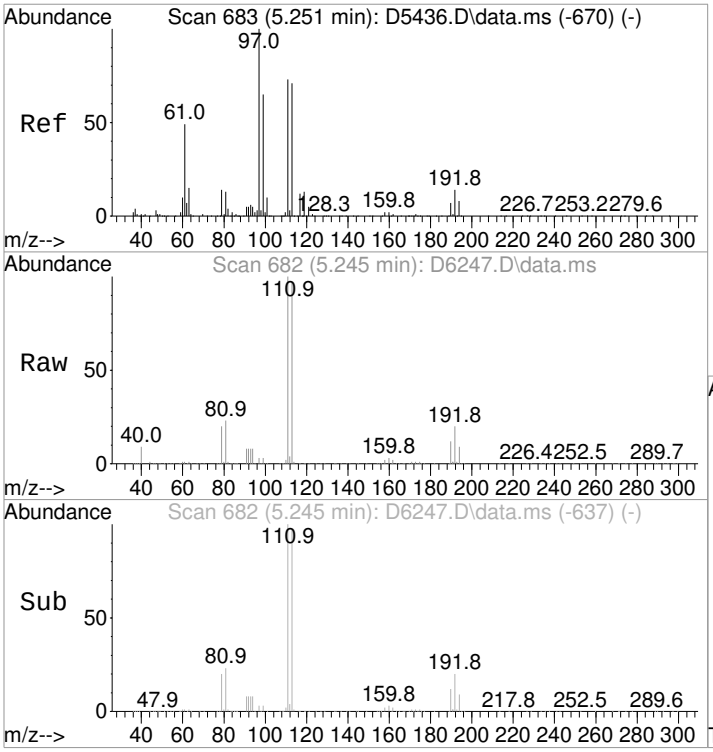


#33
cis-1,2-Dichloroethene
Concen: 2.60 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.000 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 96 Resp: 5456

Ion	Ratio	Lower	Upper
96	100		
61	133.3	134.7	174.7#

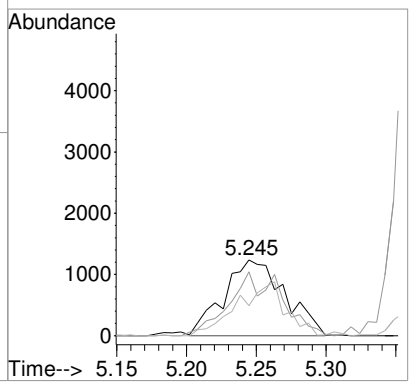


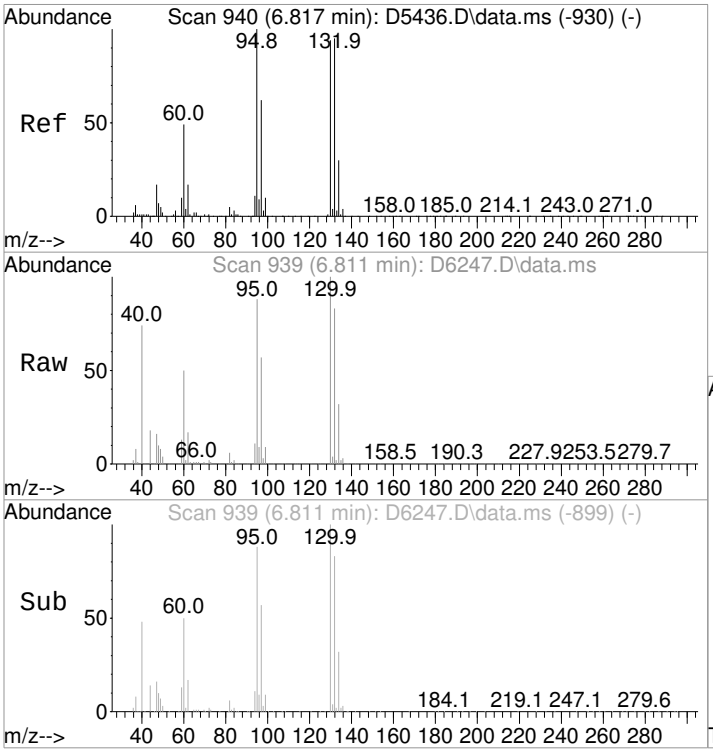


#40
1,1,1-Trichloroethane
Concen: 1.32 ug/L m
RT: 5.245 min Scan# 682
Delta R.T. -0.006 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 97 Resp: 3760

Ion	Ratio	Lower	Upper
97	100		
99	84.6	45.0	85.0
61	39.7	29.1	69.1

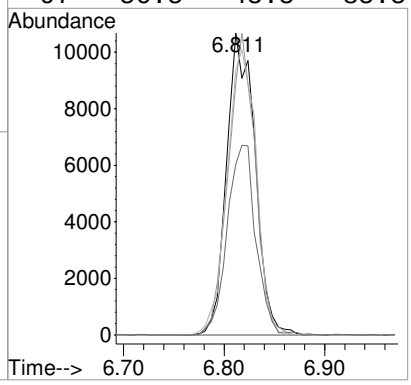


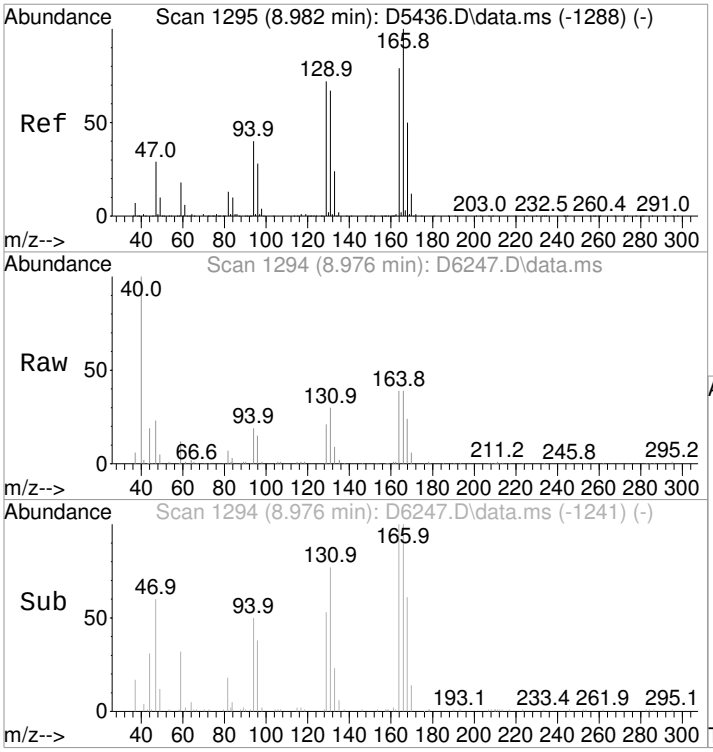


#53
Trichloroethene
Concen: 10.01 ug/L
RT: 6.811 min Scan# 939
Delta R.T. -0.006 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion:130 Resp: 20921

Ion	Ratio	Lower	Upper
130	100		
132	85.8	80.7	120.7
95	87.8	86.1	126.1
97	56.5	45.5	85.5

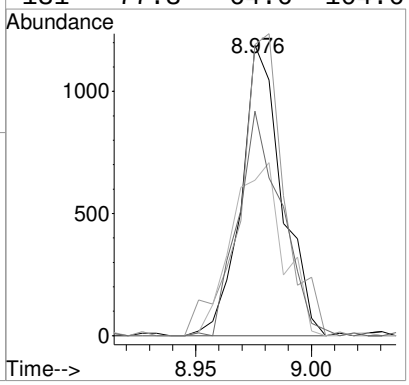




#71
Tetrachloroethene
Concen: 0.87 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.006 min
Lab File: D6247.D
Acq: 28 Sep 2018 12:18 pm

Tgt Ion:164 Resp: 1454

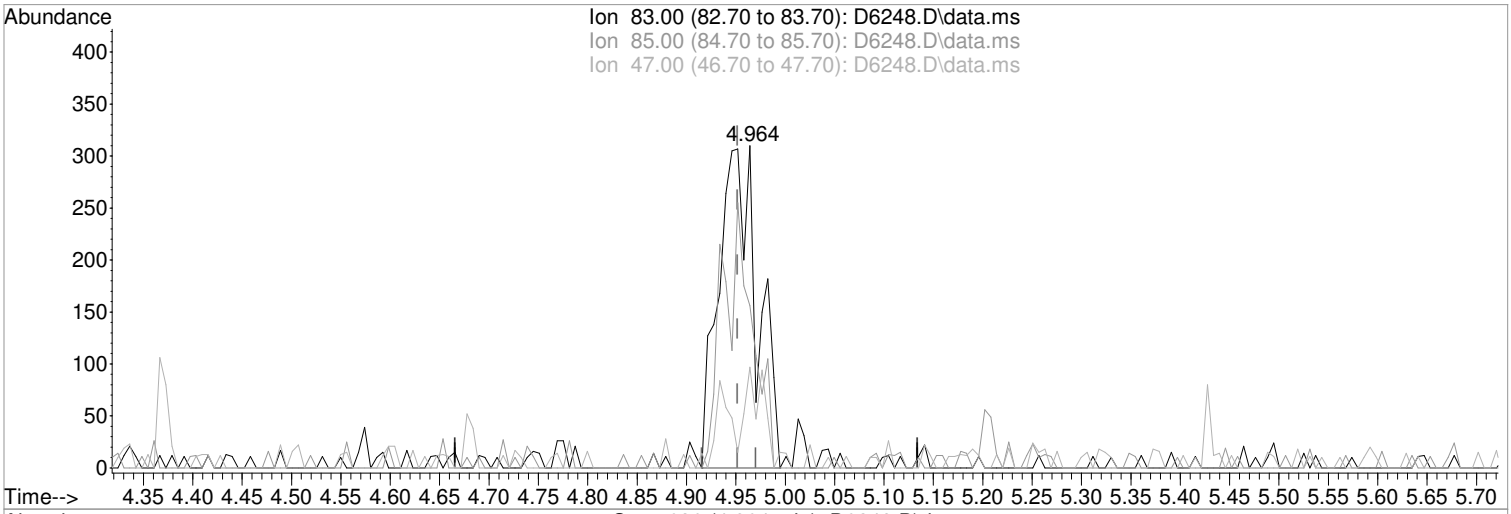
Ion	Ratio	Lower	Upper
164	100		
166	100.2	106.8	146.8#
129	53.5	71.9	111.9#
131	77.3	64.6	104.6

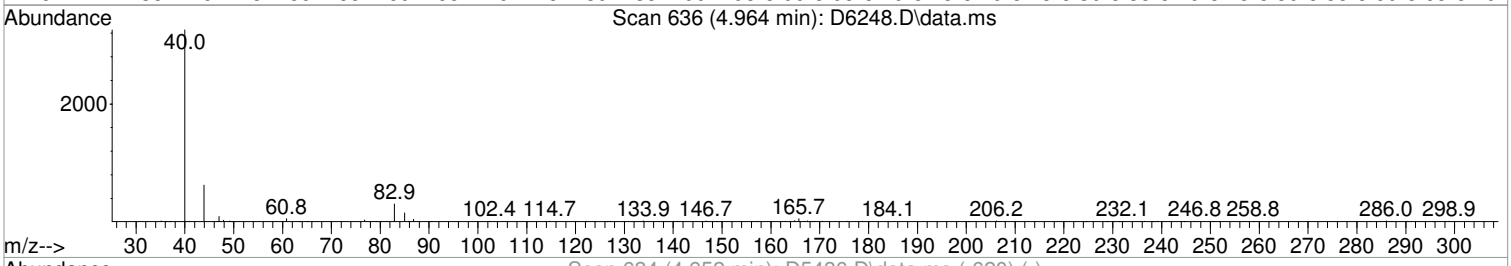


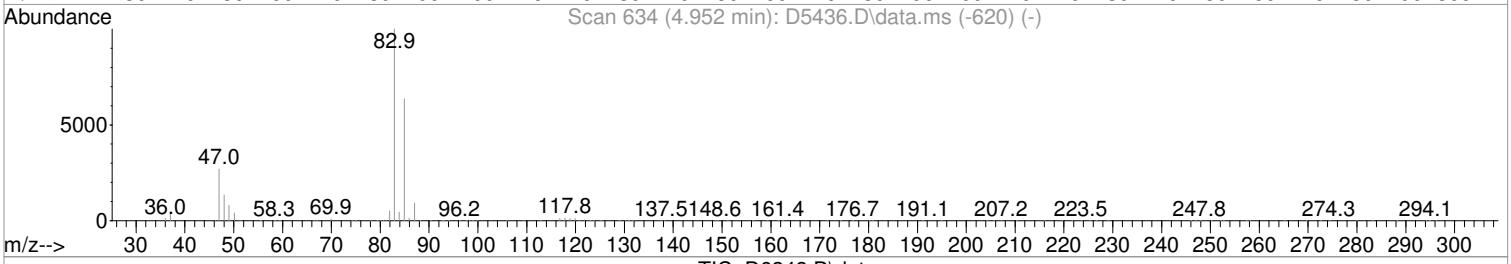
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6248.D
Acq On : 28 Sep 2018 12:40 pm
Operator : D.LIPANI
Sample : R1809120-003|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 28 12:54:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6248.D\data.ms

(39) Chloroform (P)

4.964min (+0.012) 0.25 ug/L m

response 842

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	50.32
47.00	26.90	31.29
0.00	0.00	0.00

Manual Integration:

After

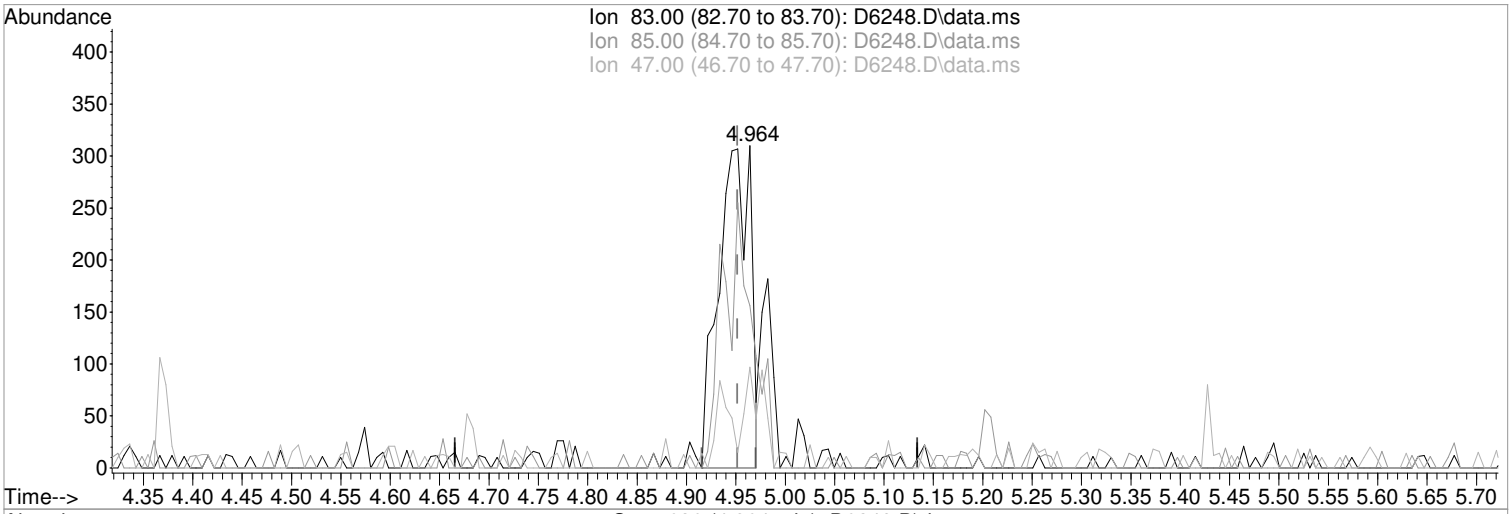
Poor integration.

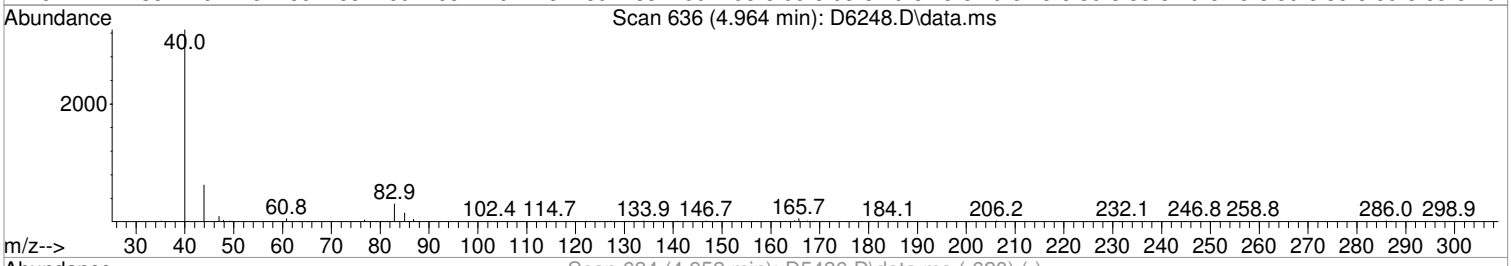
10/01/18

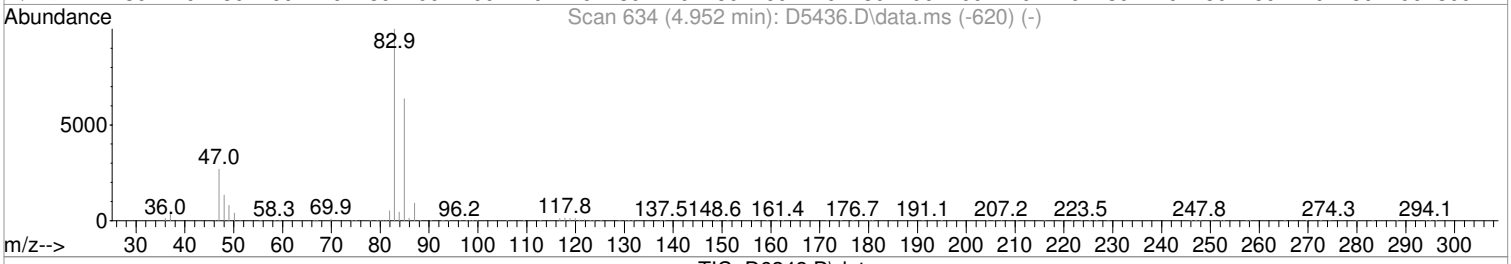
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6248.D
Acq On : 28 Sep 2018 12:40 pm
Operator : D.LIPANI
Sample : R1809120-003|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 28 12:54:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6248.D\data.ms

(39) Chloroform (P)

4.964min (+0.012) 0.20 ug/L

response 688

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	50.32
47.00	26.90	31.29
0.00	0.00	0.00

Manual Integration:

Before

10/01/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6248.D
Acq On : 28 Sep 2018 12:40 pm
Operator : D.LIPANI
Sample : R1809120-003|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 01 15:08:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

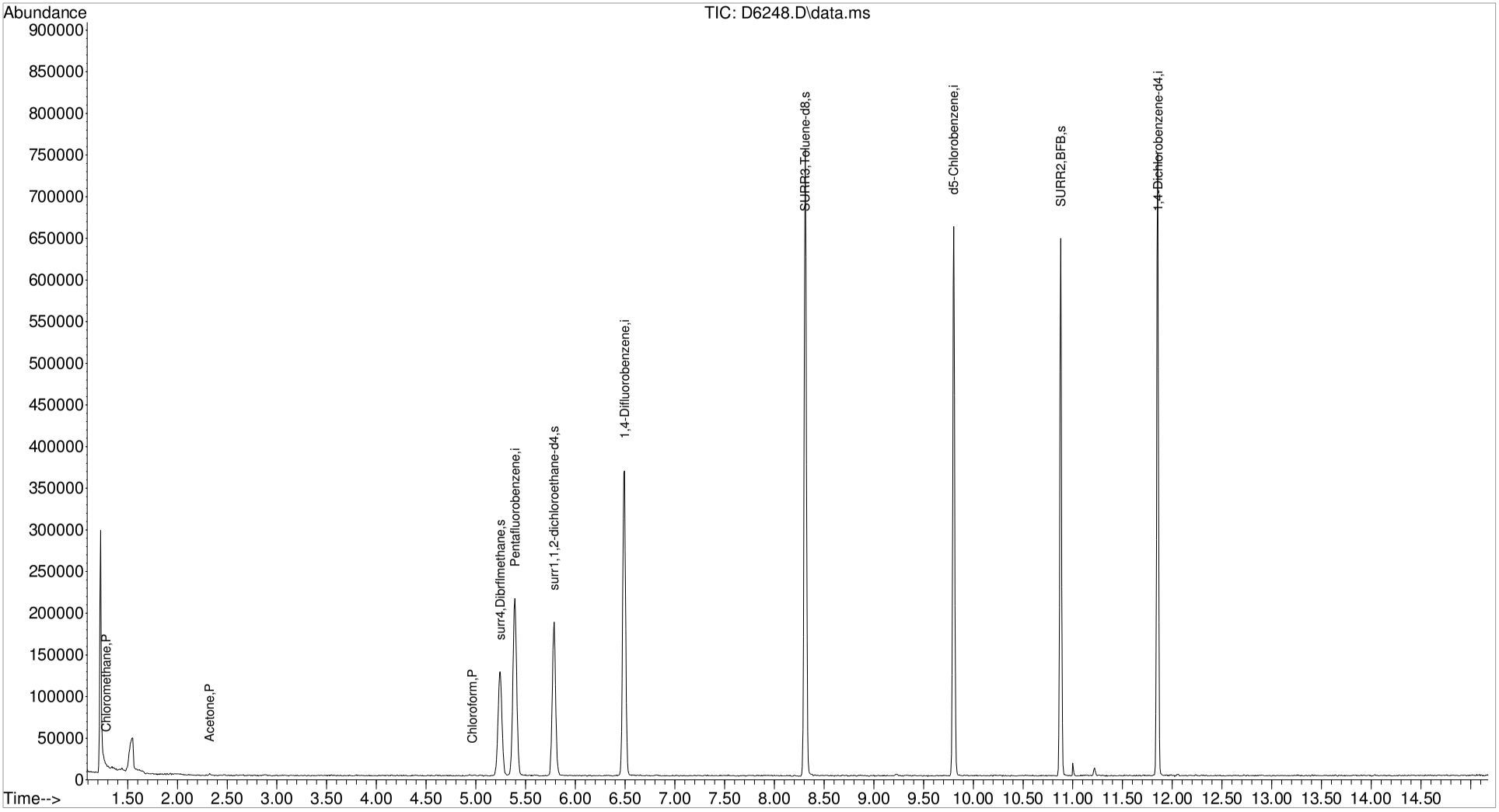
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	190419	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	297921	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	263979	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132150	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	100985	50.30	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.60%			
46) surr1,1,2-dichloroetha...	5.787	65	149451	56.60	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 113.20%			
64) SURR3,Toluene-d8	8.311	98	421427	51.77	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.54%			
69) SURR2,BFB	10.878	95	148646	47.52	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.04%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	642	0.23	ug/L	84
5) Bromomethane	1.599	94	684	Below Cal	#	27
15) Acetone	2.325	43	1988	1.77	ug/L	74
39) Chloroform	4.964	83	842m	0.25	ug/L	

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

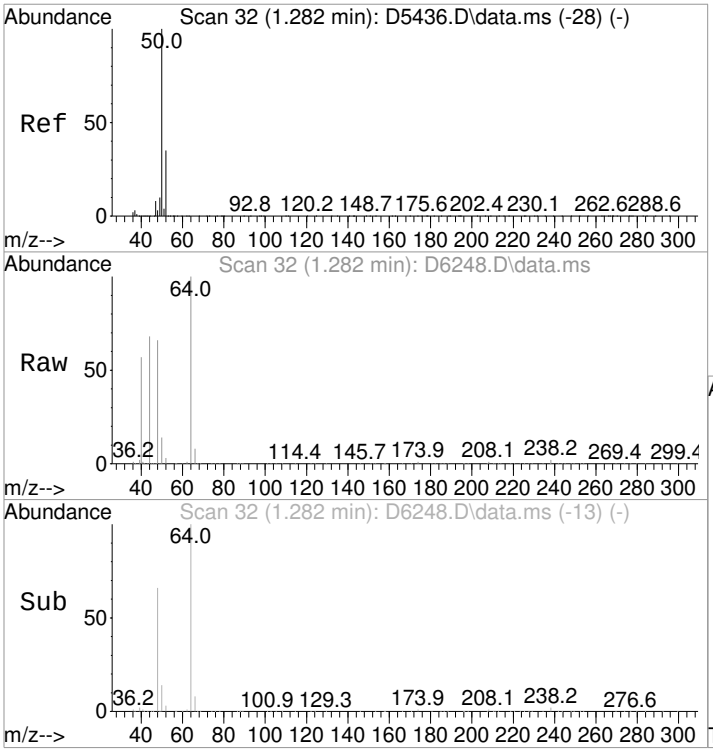
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6248.D
Acq On : 28 Sep 2018 12:40 pm
Operator : D.LIPANI
Sample : R1809120-003|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 01 15:08:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



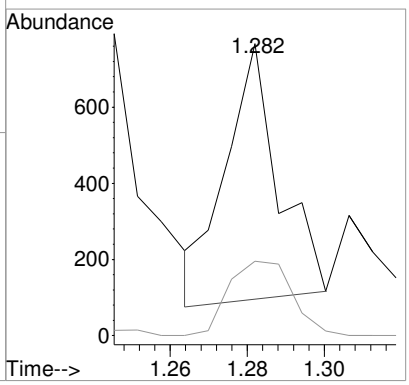
1st DL 10/01/18
2nd FJ 10/02/18

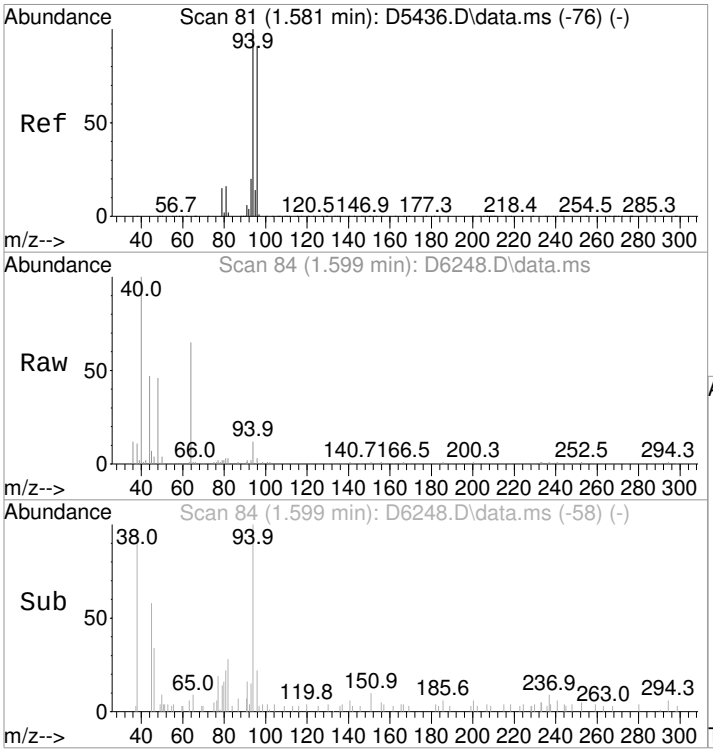


#3
Chloromethane
Concen: 0.23 ug/L
RT: 1.282 min Scan# 32
Delta R.T. 0.000 min
Lab File: D6248.D
Acq: 28 Sep 2018 12:40 pm

Tgt Ion: 50 Resp: 642

Ion	Ratio	Lower	Upper
50	100		
52	25.4	15.0	55.0

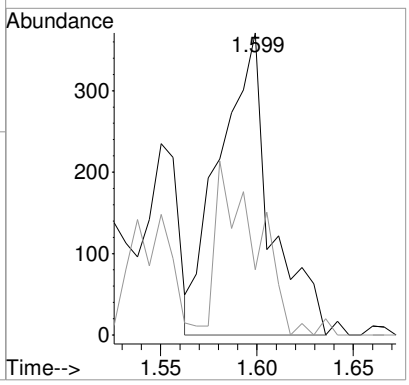


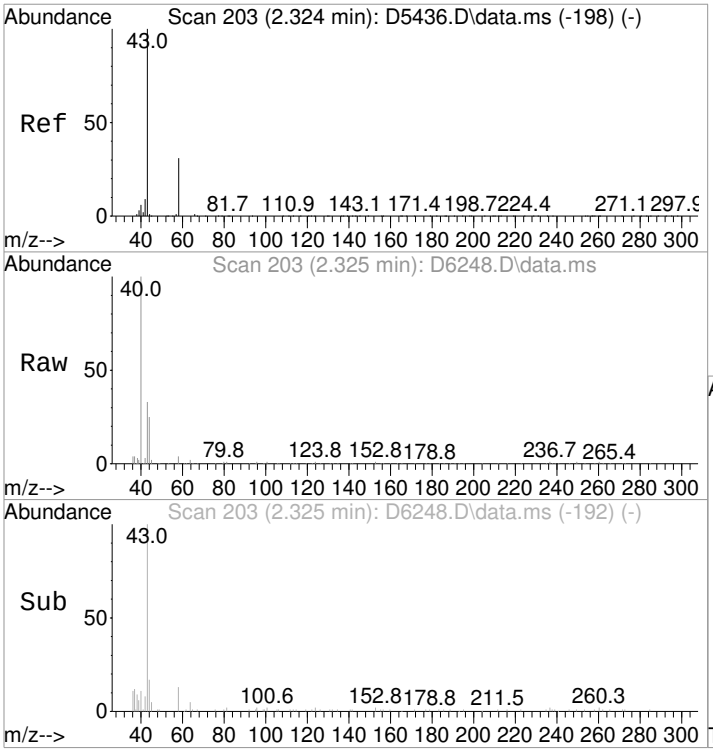


#5
Bromomethane
Concen: Below Cal
RT: 1.599 min Scan# 84
Delta R.T. 0.018 min
Lab File: D6248.D
Acq: 28 Sep 2018 12:40 pm

Tgt Ion: 94 Resp: 684

Ion	Ratio	Lower	Upper
94	100		
96	21.6	71.1	111.1#

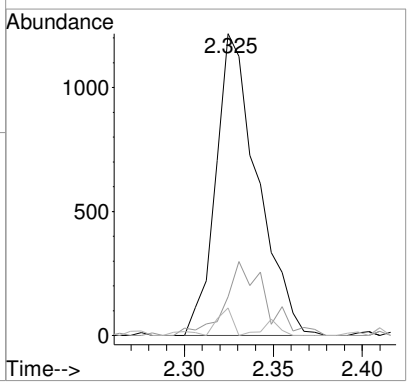


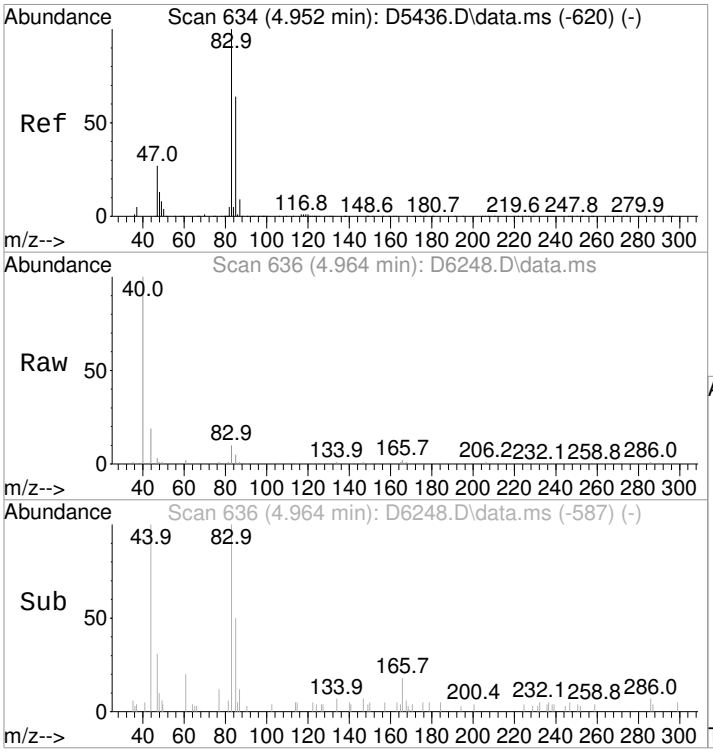


#15
Acetone
Concen: 1.77 ug/L
RT: 2.325 min Scan# 203
Delta R.T. -0.006 min
Lab File: D6248.D
Acq: 28 Sep 2018 12:40 pm

Tgt Ion: 43 Resp: 1988

Ion	Ratio	Lower	Upper
43	100		
58	12.9	11.2	51.2
42	9.1	0.0	28.6

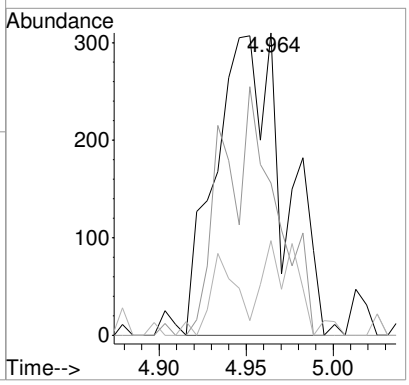




#39
Chloroform
Concen: 0.25 ug/L m
RT: 4.964 min Scan# 636
Delta R.T. 0.012 min
Lab File: D6248.D
Acq: 28 Sep 2018 12:40 pm

Tgt Ion: 83 Resp: 842

Ion	Ratio	Lower	Upper
83	100		
85	50.3	43.7	83.7
47	31.3	6.9	46.9



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6249.D
Acq On : 28 Sep 2018 1:01 pm
Operator : D.LIPANI
Sample : R1809120-004|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 01 15:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

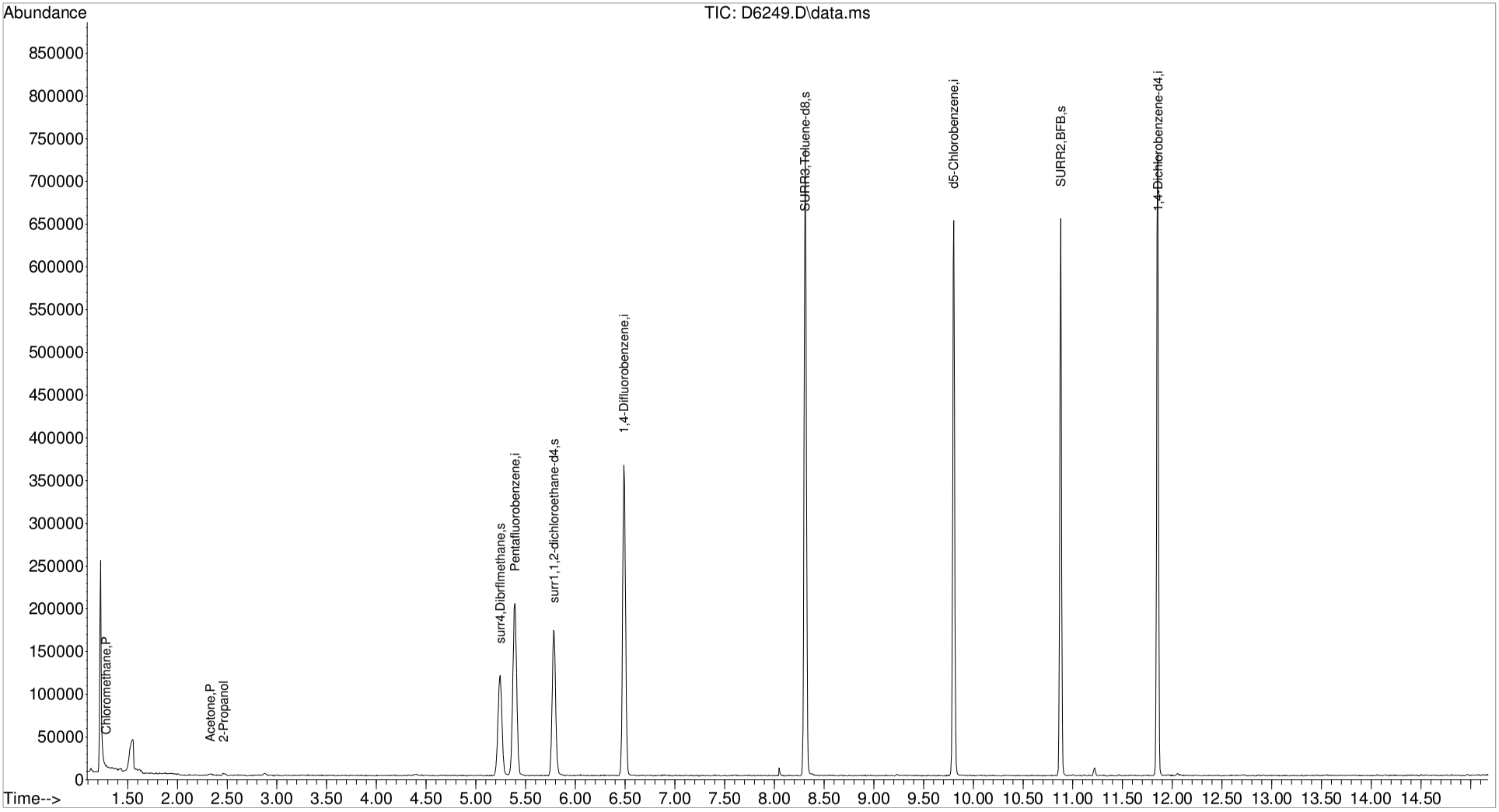
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	184974	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	292035	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	257763	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	130009	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	98387	49.99	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.98%			
46) surr1,1,2-dichloroetha...	5.787	65	145523	56.23	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 112.46%			
64) SURR3,Toluene-d8	8.311	98	407661	51.09	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.18%			
69) SURR2,BFB	10.878	95	144904	47.25	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.50%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	584	0.22	ug/L	72
15) Acetone	2.331	43	2079	1.91	ug/L	81
16) 2-Propanol	2.465	45	2342	11.13	ug/L	93

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

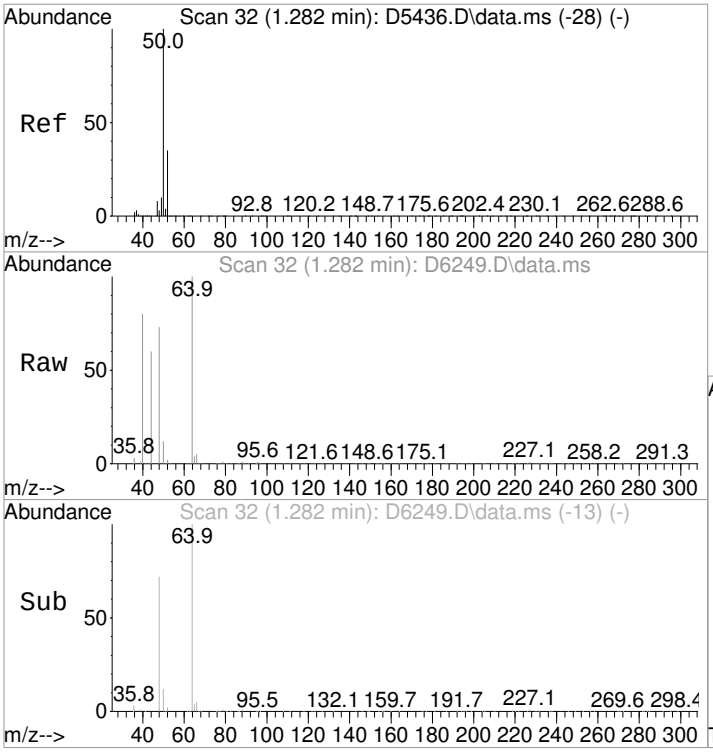
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6249.D
Acq On : 28 Sep 2018 1:01 pm
Operator : D.LIPANI
Sample : R1809120-004|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 01 15:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



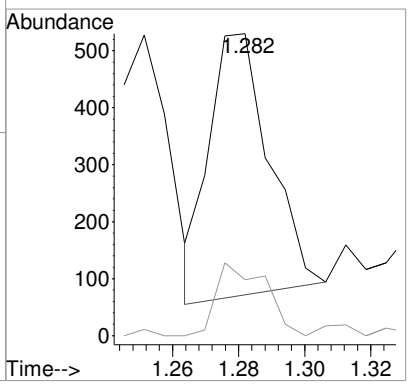
1st DL 10/01/18
2nd FJ 10/02/18

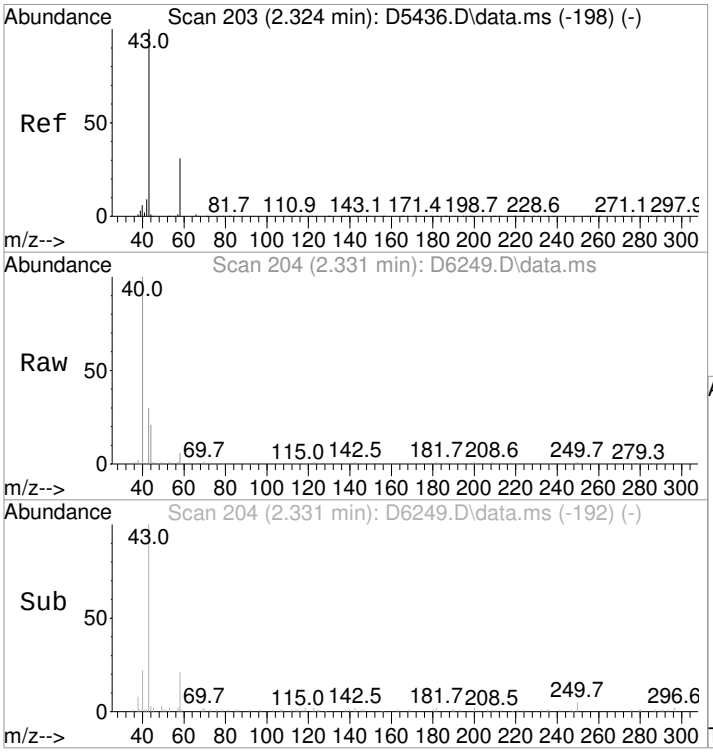


#3
Chloromethane
Concen: 0.22 ug/L
RT: 1.282 min Scan# 32
Delta R.T. 0.000 min
Lab File: D6249.D
Acq: 28 Sep 2018 1:01 pm

Tgt Ion: 50 Resp: 584

Ion	Ratio	Lower	Upper
50	100		
52	18.5	15.0	55.0

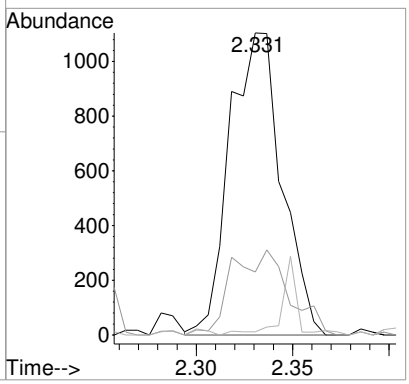


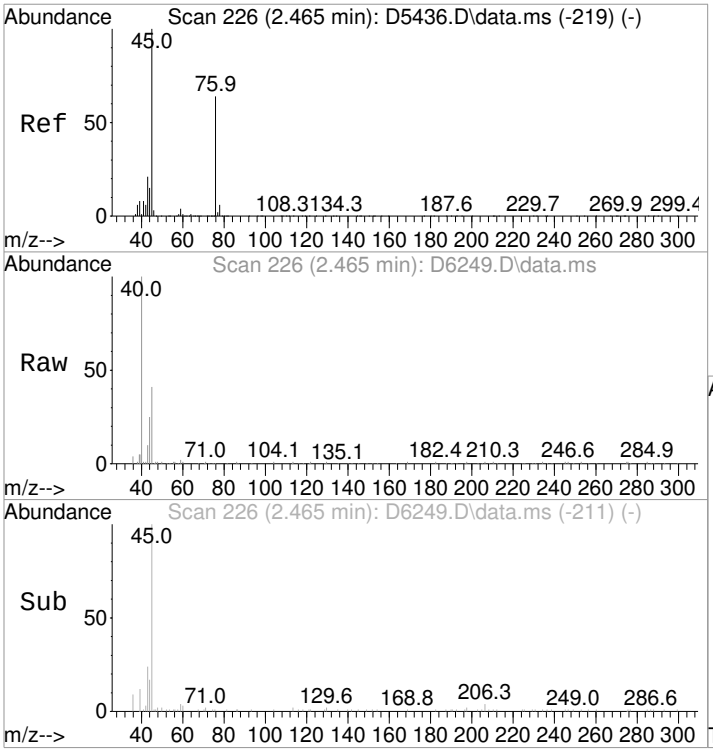


#15
Acetone
Concen: 1.91 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.000 min
Lab File: D6249.D
Acq: 28 Sep 2018 1:01 pm

Tgt Ion: 43 Resp: 2079

Ion	Ratio	Lower	Upper
43	100		
58	20.8	11.2	51.2
42	1.1	0.0	28.6

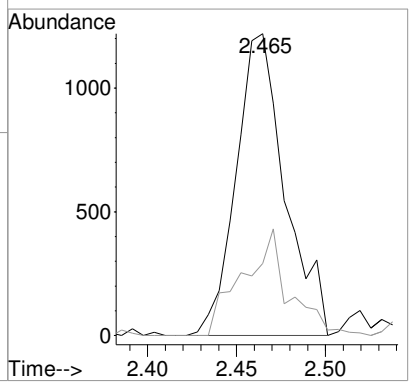




#16
2-Propanol
Concen: 11.13 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.018 min
Lab File: D6249.D
Acq: 28 Sep 2018 1:01 pm

Tgt Ion: 45 Resp: 2342

Ion	Ratio	Lower	Upper
45	100		
43	23.9	0.8	40.8



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6250.D
Acq On : 28 Sep 2018 1:23 pm
Operator : D.LIPANI
Sample : R1809120-007|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 01 15:30:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

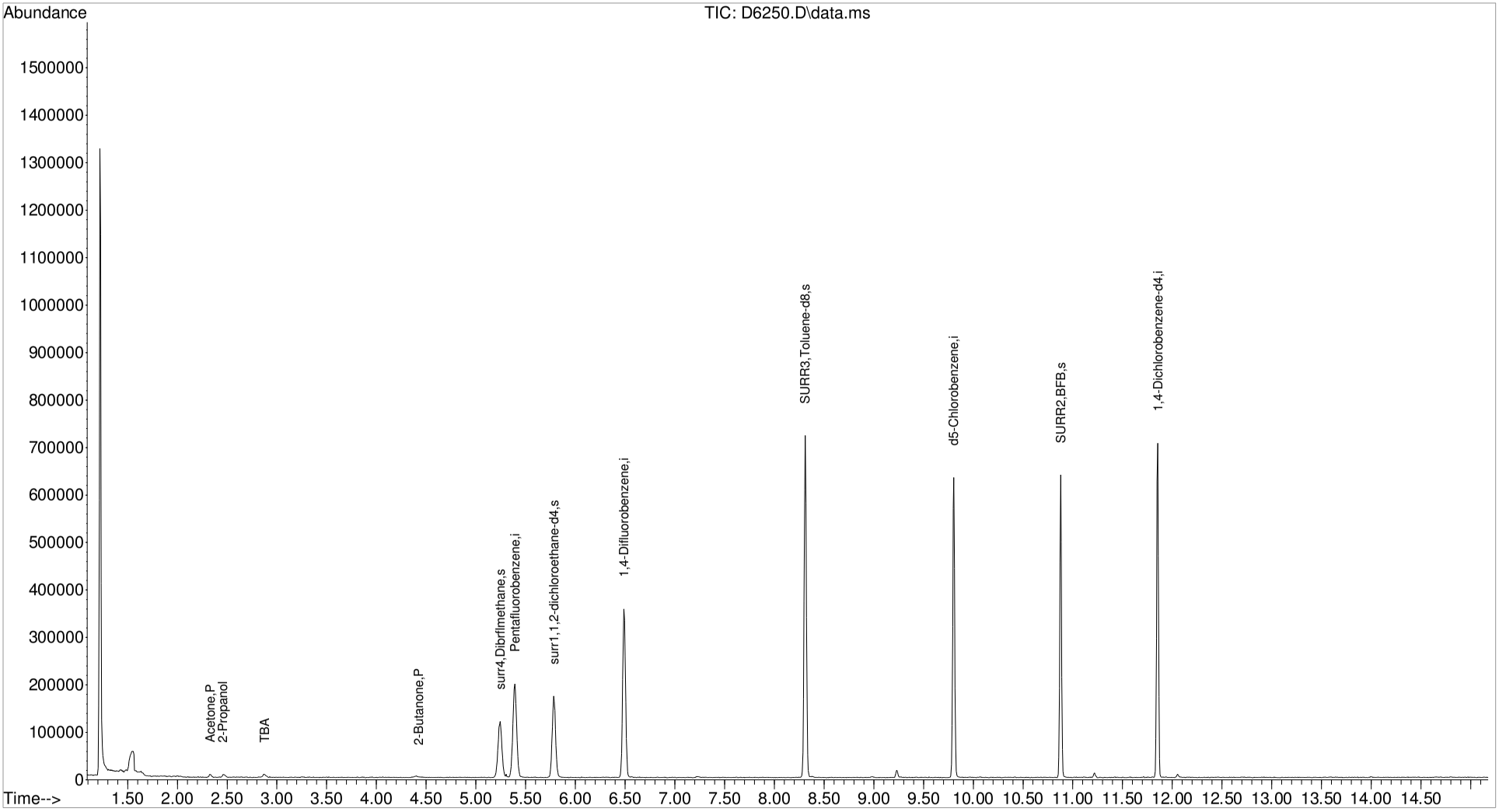
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	177736	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	280932	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	248941	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131180	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	95581	50.49	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.98%			
46) surr1,1,2-dichloroetha...	5.781	65	141569	56.86	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 113.72%			
64) SURR3,Toluene-d8	8.311	98	394936	51.45	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.90%			
69) SURR2,BFB	10.878	95	142462	48.29	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.58%			
Target Compounds						Qvalue
15) Acetone	2.330	43	6097	5.83	ug/L	95
16) 2-Propanol	2.458	45	7443	36.82	ug/L	96
23) TBA	2.879	59	4048	13.37	ug/L	64
34) 2-Butanone	4.428	43	1570	1.11	ug/L	80

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

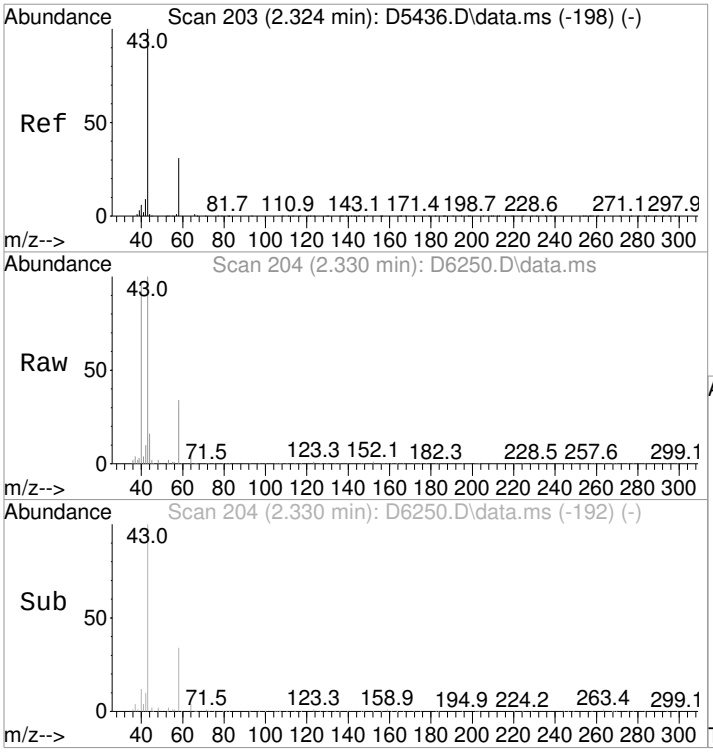
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6250.D
Acq On : 28 Sep 2018 1:23 pm
Operator : D.LIPANI
Sample : R1809120-007|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 01 15:30:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



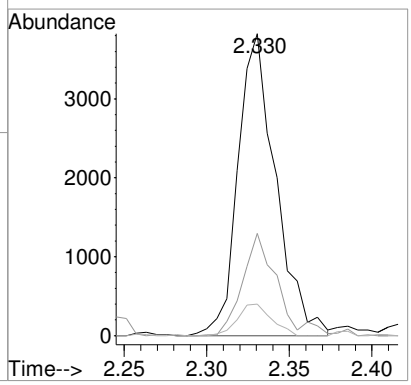
1st DL 10/01/18
2nd FJ 10/02/18

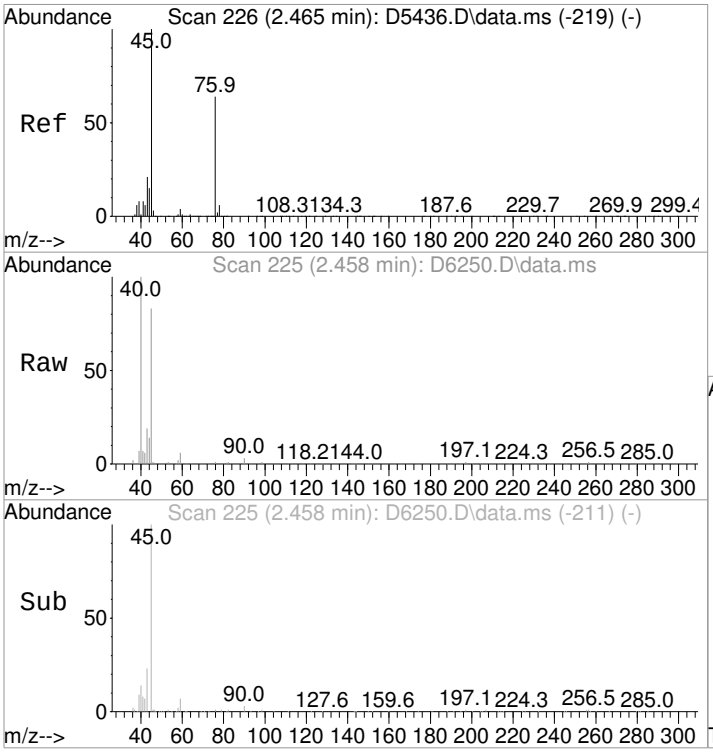


#15
Acetone
Concen: 5.83 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: D6250.D
Acq: 28 Sep 2018 1:23 pm

Tgt Ion: 43 Resp: 6097

Ion	Ratio	Lower	Upper
43	100		
58	33.9	11.2	51.2
42	10.5	0.0	28.6

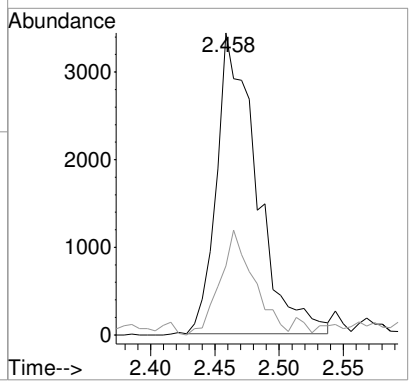


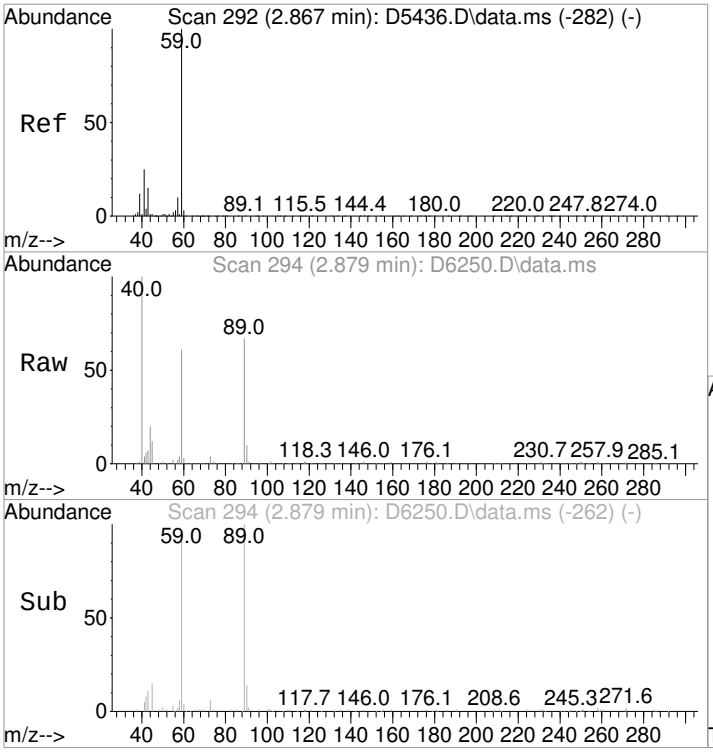


#16
2-Propanol
Concen: 36.82 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.024 min
Lab File: D6250.D
Acq: 28 Sep 2018 1:23 pm

Tgt Ion: 45 Resp: 7443

Ion	Ratio	Lower	Upper
45	100		
43	22.9	0.8	40.8

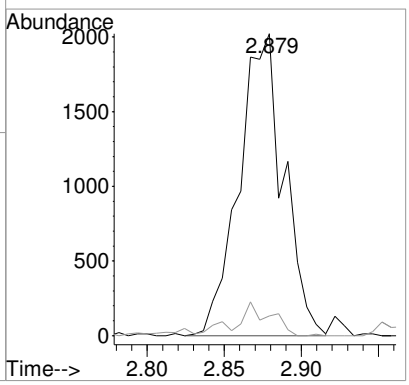


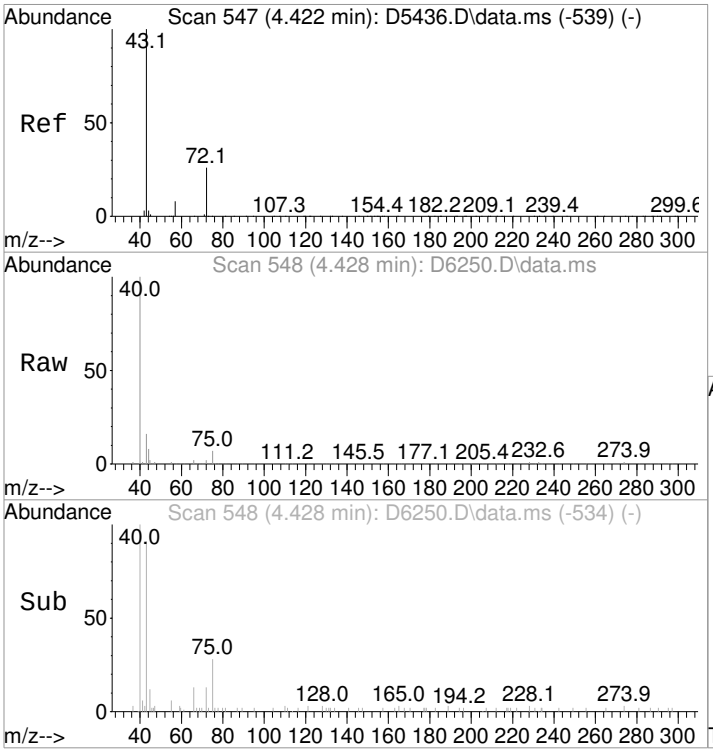


#23
TBA
Concen: 13.37 ug/L
RT: 2.879 min Scan# 294
Delta R.T. 0.006 min
Lab File: D6250.D
Acq: 28 Sep 2018 1:23 pm

Tgt Ion: 59 Resp: 4048

Ion	Ratio	Lower	Upper
59	100		
41	6.6	4.8	44.8

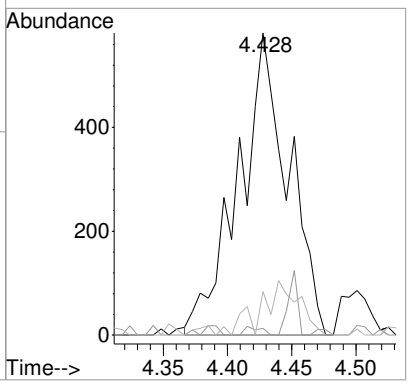




#34
2-Butanone
Concen: 1.11 ug/L
RT: 4.428 min Scan# 548
Delta R.T. 0.012 min
Lab File: D6250.D
Acq: 28 Sep 2018 1:23 pm

Tgt Ion: 43 Resp: 1570

Ion	Ratio	Lower	Upper
43	100		
57	2.2	0.0	27.8
72	14.4	5.1	45.1

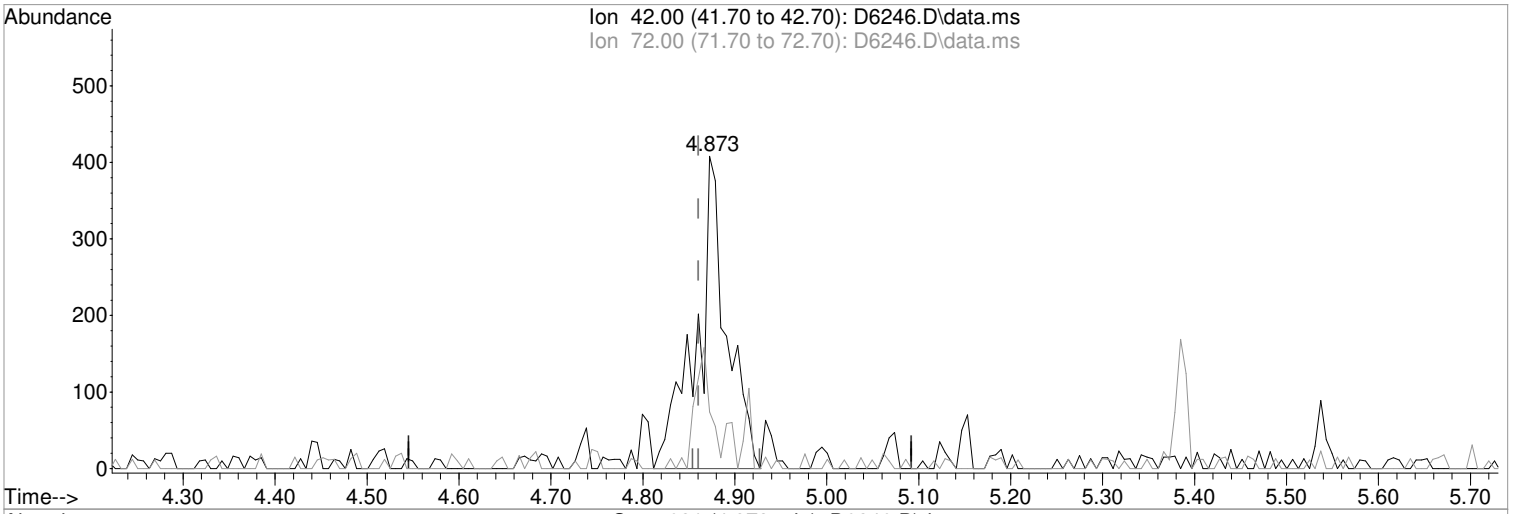


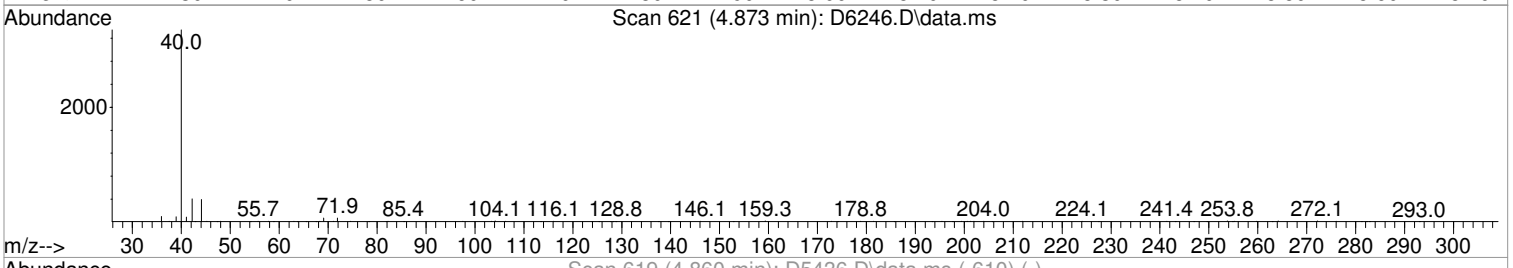
1st DL 10/01/18
2nd FJ 10/02/18

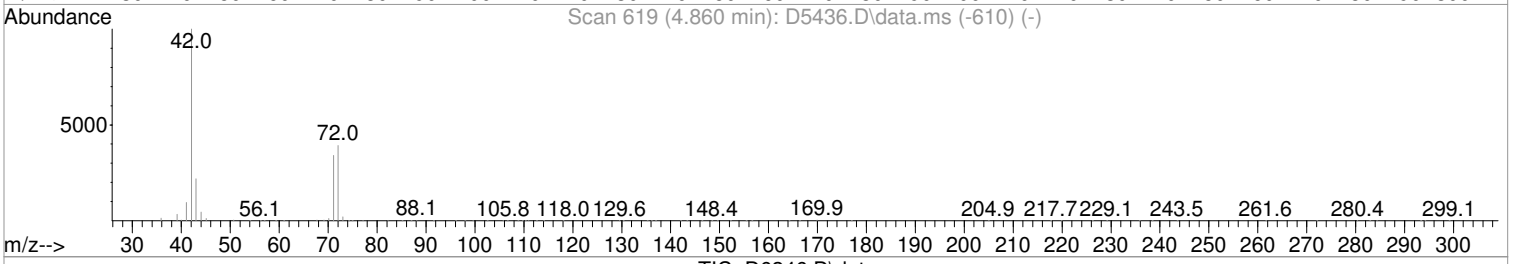
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6246.D
Acq On : 28 Sep 2018 11:56 am
Operator : D.LIPANI
Sample : R1809120-011|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 28 12:11:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6246.D\data.ms

(38) Tetrahydrofuran

4.873min (+0.012) 0.98 ug/L m

response 927

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	18.14#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

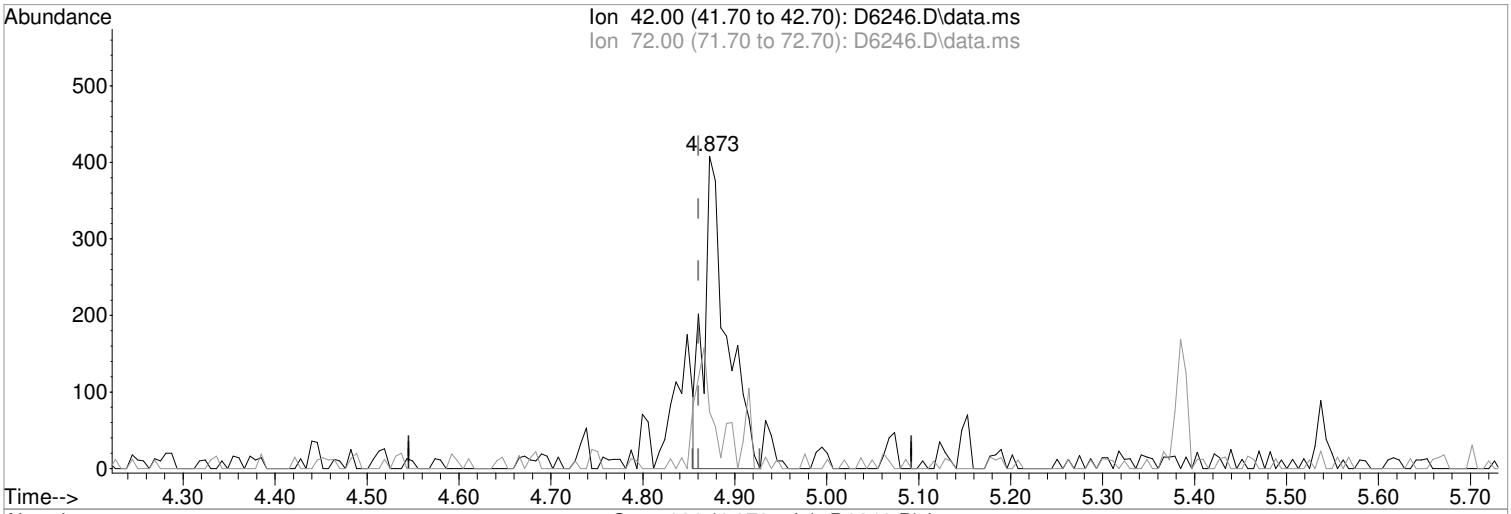
10/01/18

1st DL 10/01/18
2nd FW 10/02/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6246.D
Acq On : 28 Sep 2018 11:56 am
Operator : D.LIPANI
Sample : R1809120-011|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 28 12:11:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6246.D\data.ms

(38) Tetrahydrofuran

4.873min (+0.012) 0.74 ug/L

response 699

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	18.14#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

10/01/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6246.D
Acq On : 28 Sep 2018 11:56 am
Operator : D.LIPANI
Sample : R1809120-011|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 01 14:58:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

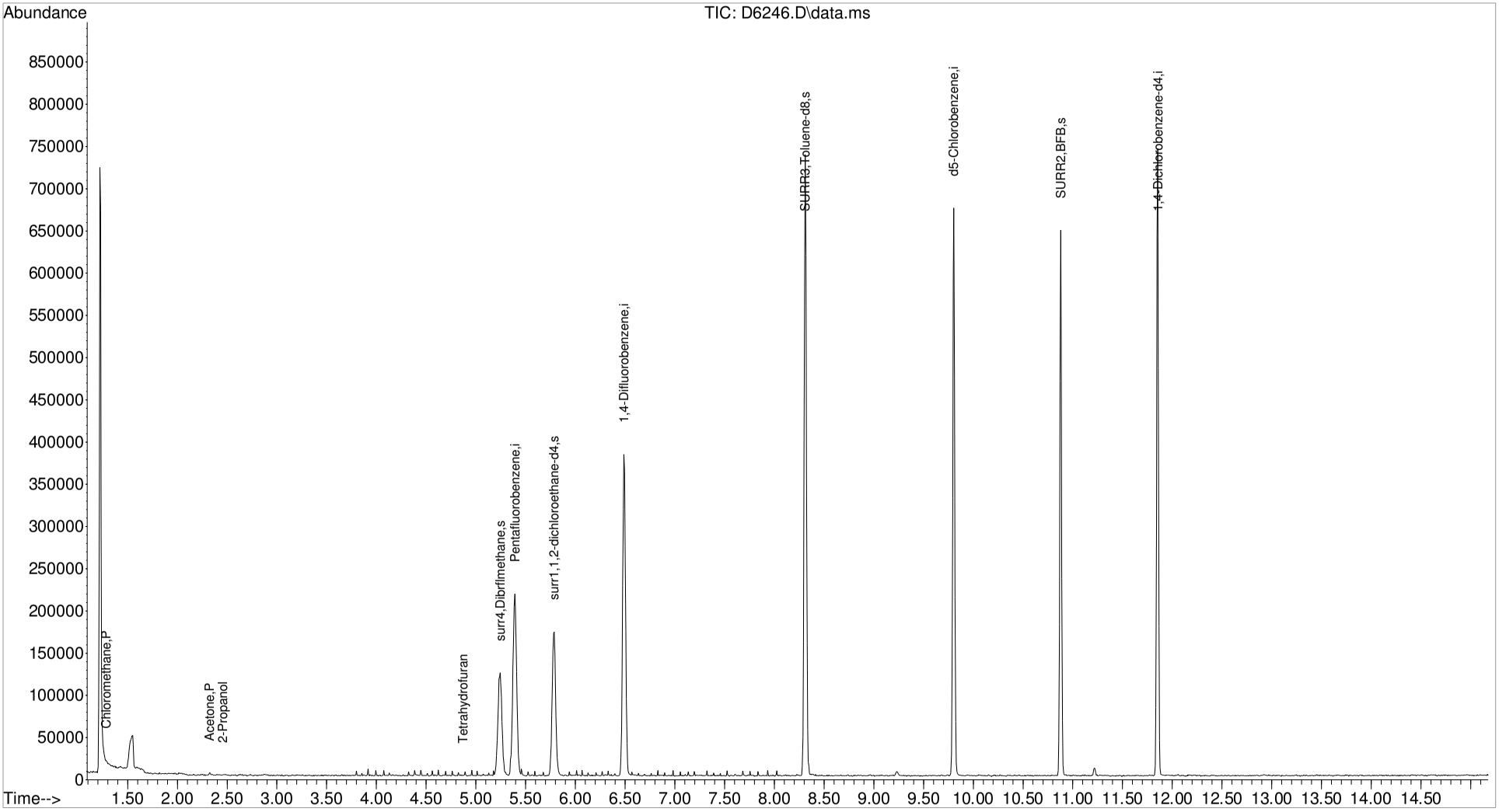
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	192548	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	304410	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	262112	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131866	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	101368	49.41	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.82%			
46) surr1,1,2-dichloroetha...	5.787	65	147442	54.65	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.30%			
64) SURR3,Toluene-d8	8.311	98	408714	49.14	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.28%			
69) SURR2,BFB	10.878	95	147074	46.01	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.02%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	600	0.21	ug/L #	52
5) Bromomethane	1.593	94	315	Below Cal		95
15) Acetone	2.324	43	2619	2.31	ug/L	80
16) 2-Propanol	2.458	45	1348	6.15	ug/L	83
38) Tetrahydrofuran	4.873	42	927m	0.98	ug/L	

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

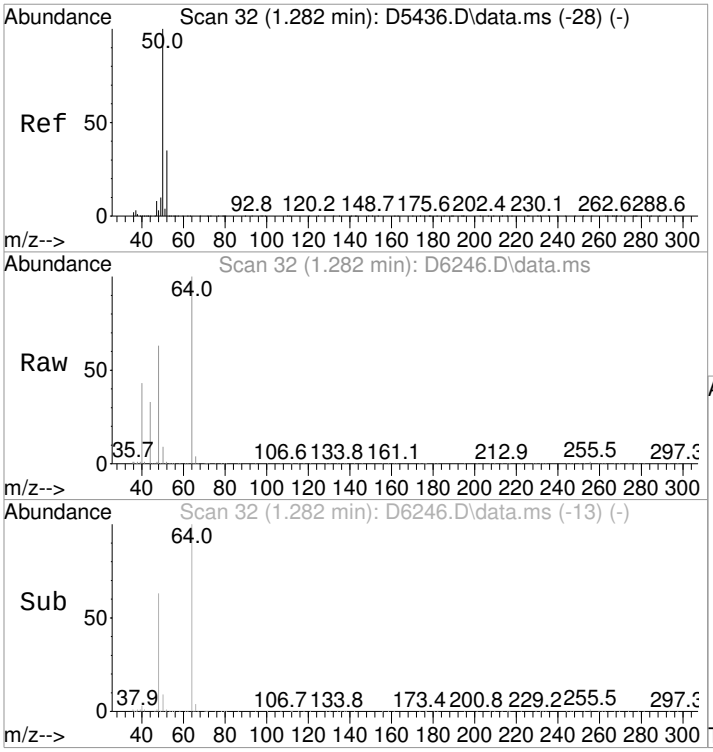
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6246.D
Acq On : 28 Sep 2018 11:56 am
Operator : D.LIPANI
Sample : R1809120-011|1.0 Inst : MSVOA10
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 01 14:58:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



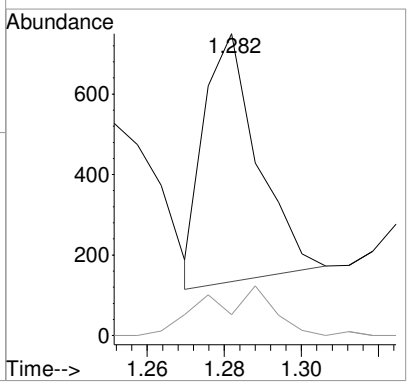
1st DL 10/01/18
2nd FJ 10/02/18

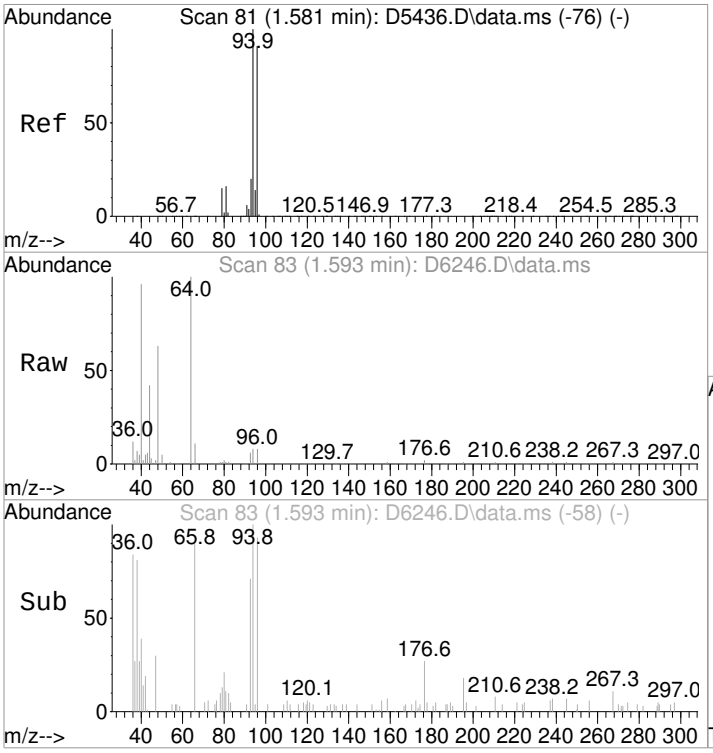


#3
Chloromethane
Concen: 0.21 ug/L
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: D6246.D
Acq: 28 Sep 2018 11:56 am

Tgt Ion: 50 Resp: 600

Ion	Ratio	Lower	Upper
50	100		
52	6.9	15.0	55.0#

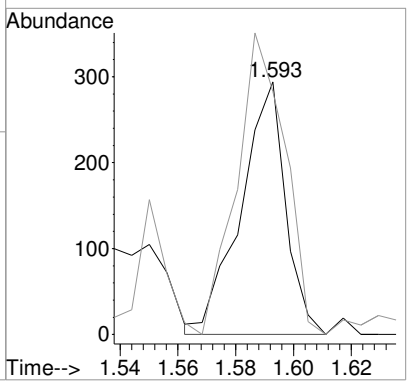


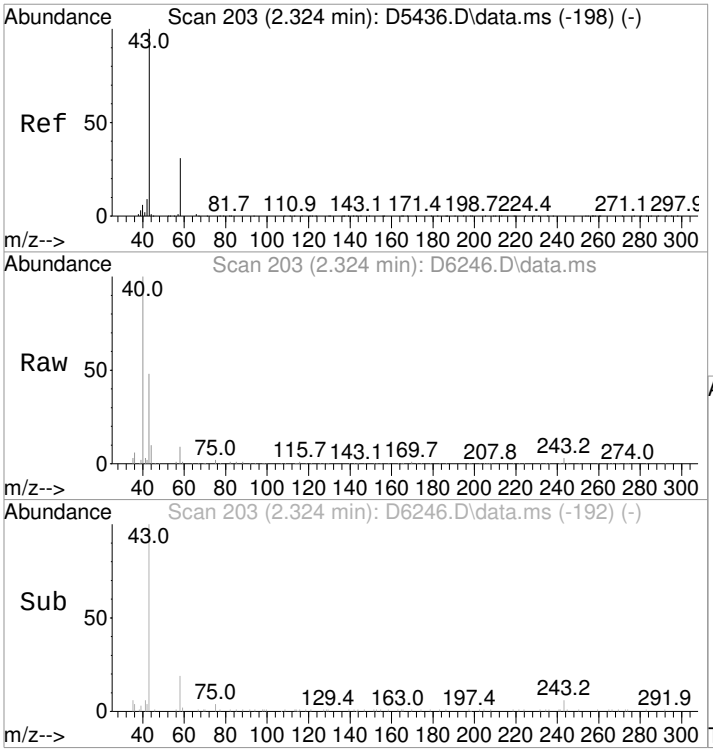


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6246.D
Acq: 28 Sep 2018 11:56 am

Tgt Ion: 94 Resp: 315

Ion	Ratio	Lower	Upper
94	100		
96	96.3	71.1	111.1

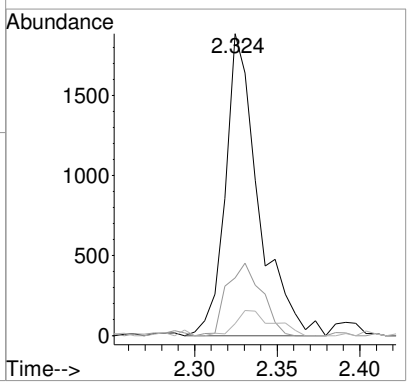


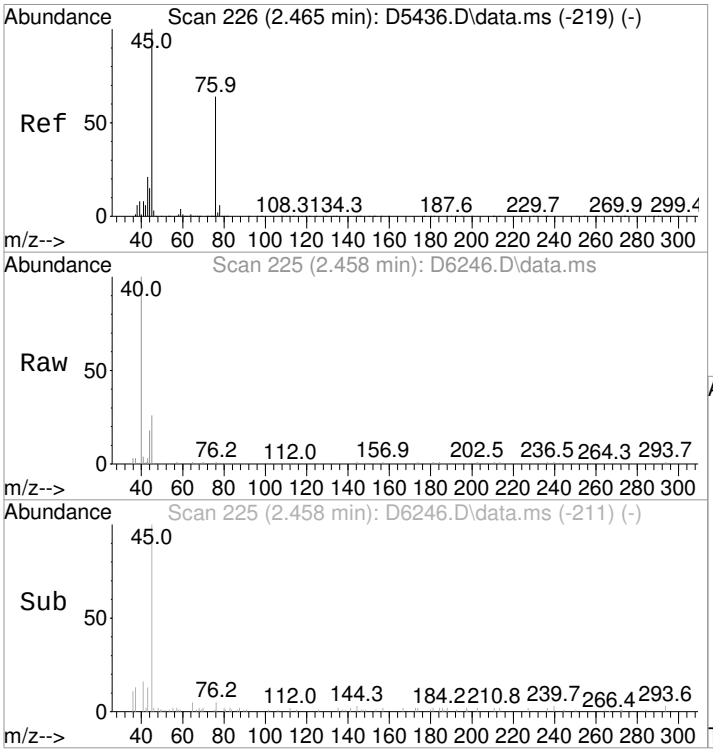


#15
Acetone
Concen: 2.31 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: D6246.D
Acq: 28 Sep 2018 11:56 am

Tgt Ion: 43 Resp: 2619

Ion	Ratio	Lower	Upper
43	100		
58	19.1	11.2	51.2
42	4.0	0.0	28.6

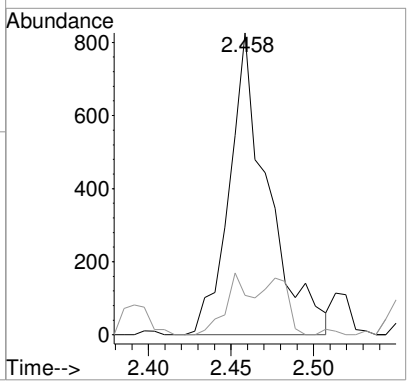


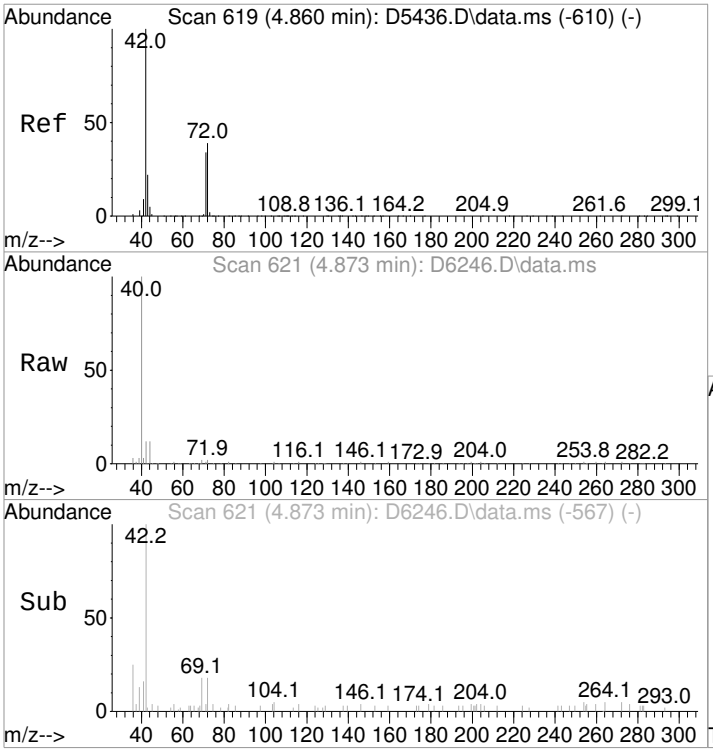


#16
2-Propanol
Concen: 6.15 ug/L
RT: 2.458 min Scan# 225
Delta R.T. -0.024 min
Lab File: D6246.D
Acq: 28 Sep 2018 11:56 am

Tgt Ion: 45 Resp: 1348

Ion	Ratio	Lower	Upper
45	100		
43	13.1	0.8	40.8

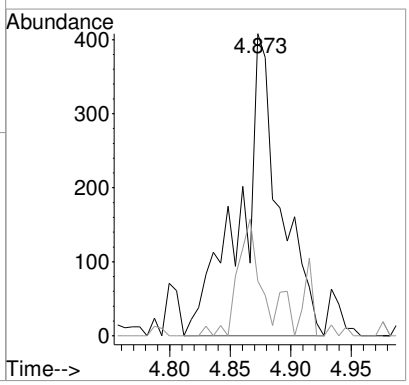




#38
Tetrahydrofuran
Concen: 0.98 ug/L m
RT: 4.873 min Scan# 621
Delta R.T. 0.012 min
Lab File: D6246.D
Acq: 28 Sep 2018 11:56 am

Tgt Ion: 42 Resp: 927

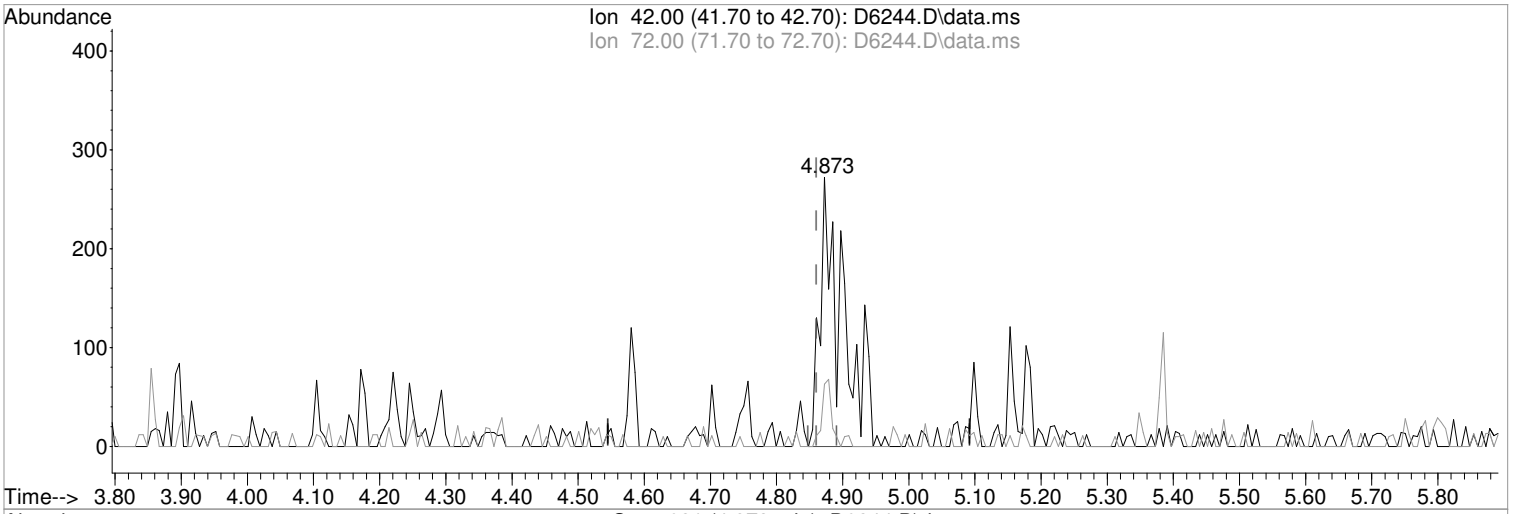
Ion	Ratio	Lower	Upper
42	100		
72	18.1	18.8	58.8#

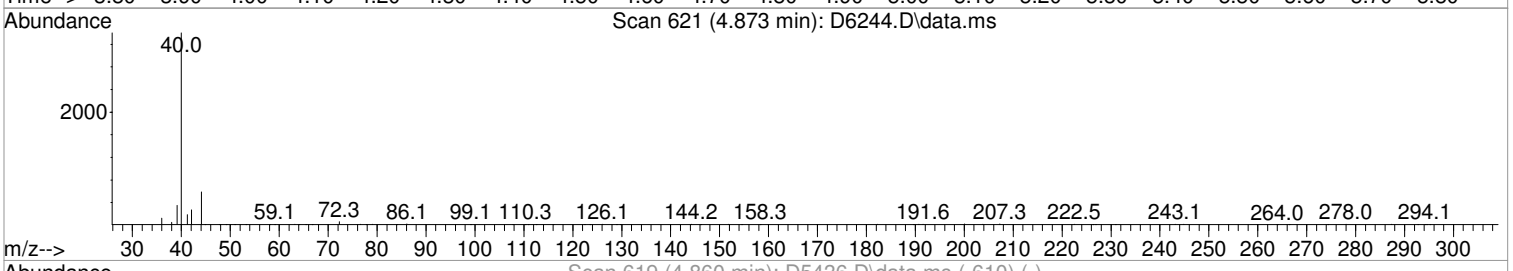


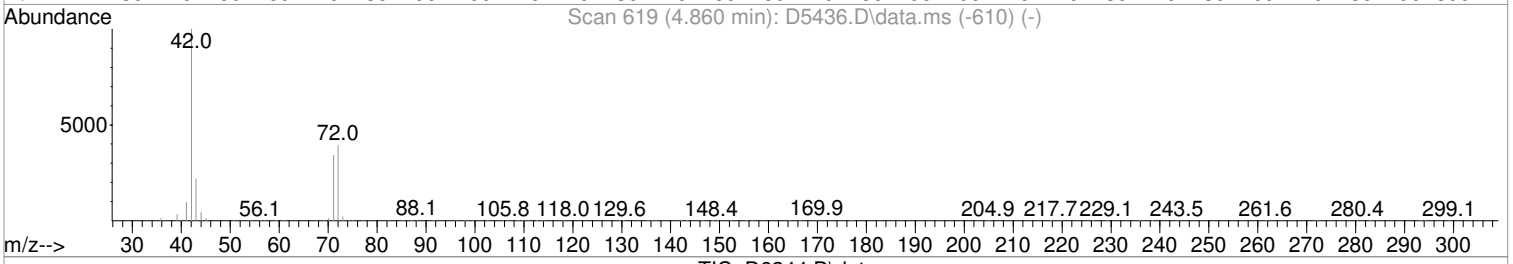
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6244.D
Acq On : 28 Sep 2018 11:05 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 28 11:19:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6244.D\data.ms

(38) Tetrahydrofuran

4.873min (+0.012) 0.70 ug/L m

response 654

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	23.16
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

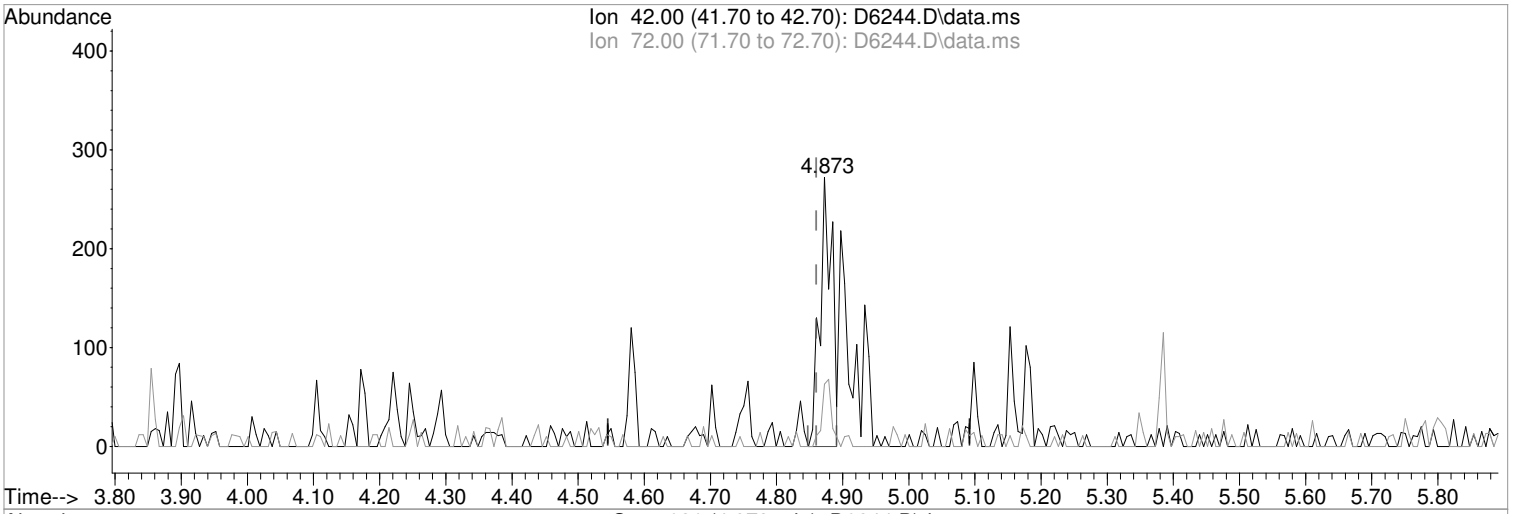
Poor integration.

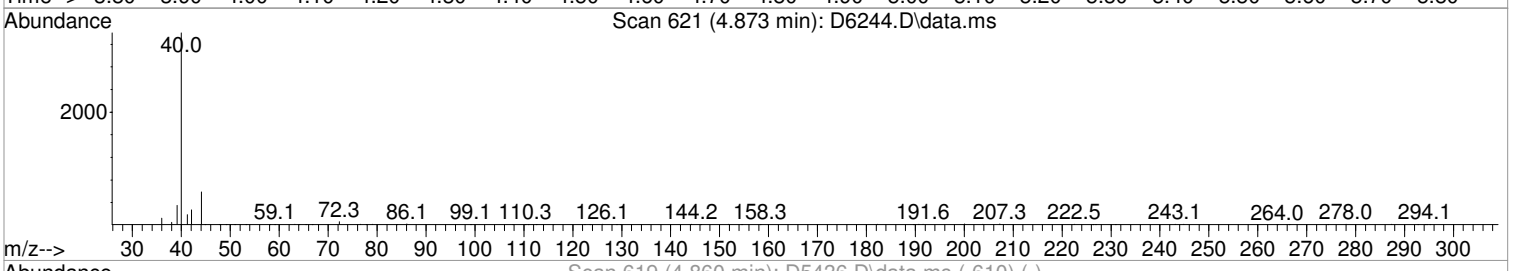
10/01/18

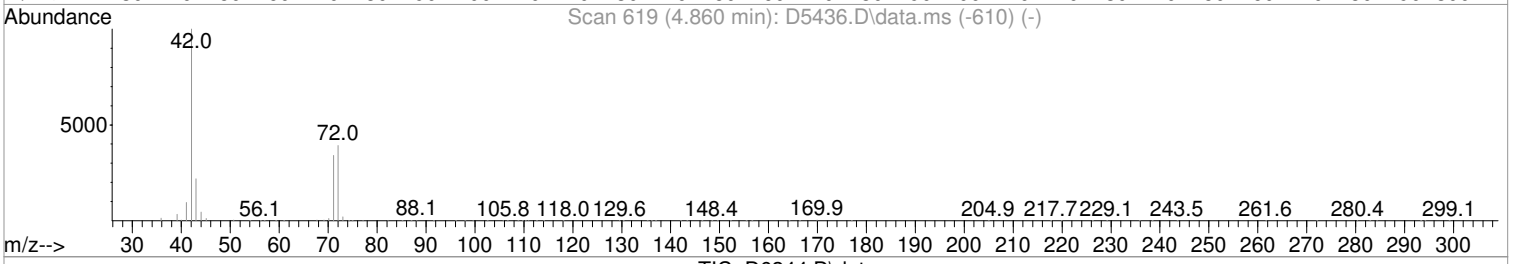
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6244.D
Acq On : 28 Sep 2018 11:05 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 28 11:19:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6244.D\data.ms

(38) Tetrahydrofuran

4.873min (+0.012) 0.37 ug/L

response 346

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	23.16
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

10/01/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6244.D
Acq On : 28 Sep 2018 11:05 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 01 14:08:45 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

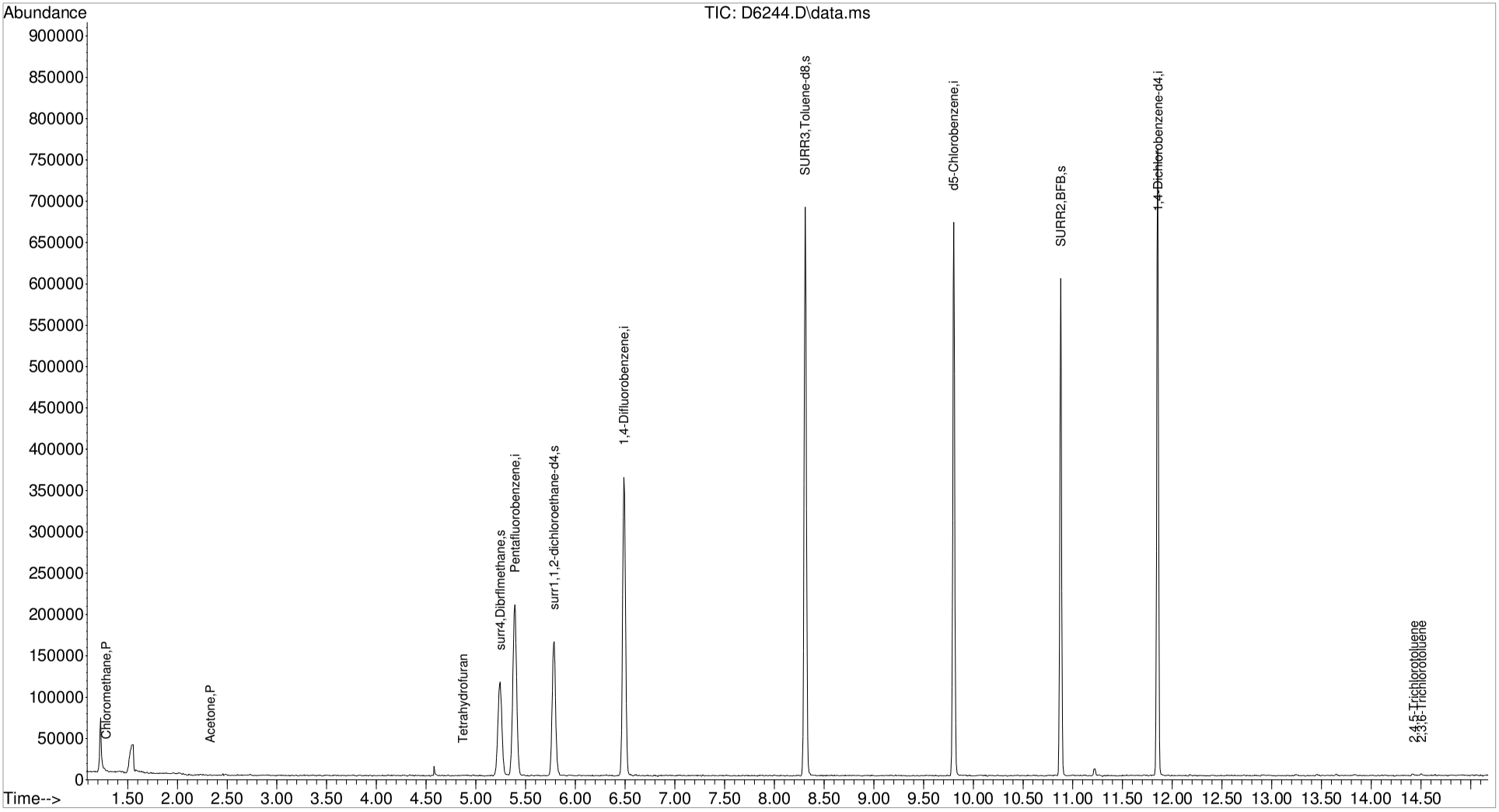
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	189784	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	297924	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	264725	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132919	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	95385	47.51	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.02%			
46) surr1,1,2-dichloroetha...	5.787	65	137549	52.10	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.20%			
64) SURR3,Toluene-d8	8.311	98	379986	46.68	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 93.36%			
69) SURR2,BFB	10.878	95	138467	44.26	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 88.52%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	693	0.25	ug/L #	45
5) Bromomethane	1.593	94	378	Below Cal	#	59
15) Acetone	2.330	43	614	0.55	ug/L #	69
38) Tetrahydrofuran	4.873	42	654m	0.70	ug/L	
118) 2,4,5-Trichlorotoluene	14.426	159	548	0.30	ug/L #	72
119) 2,3,6-Trichlorotoluene	14.505	159	592	0.34	ug/L #	66

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

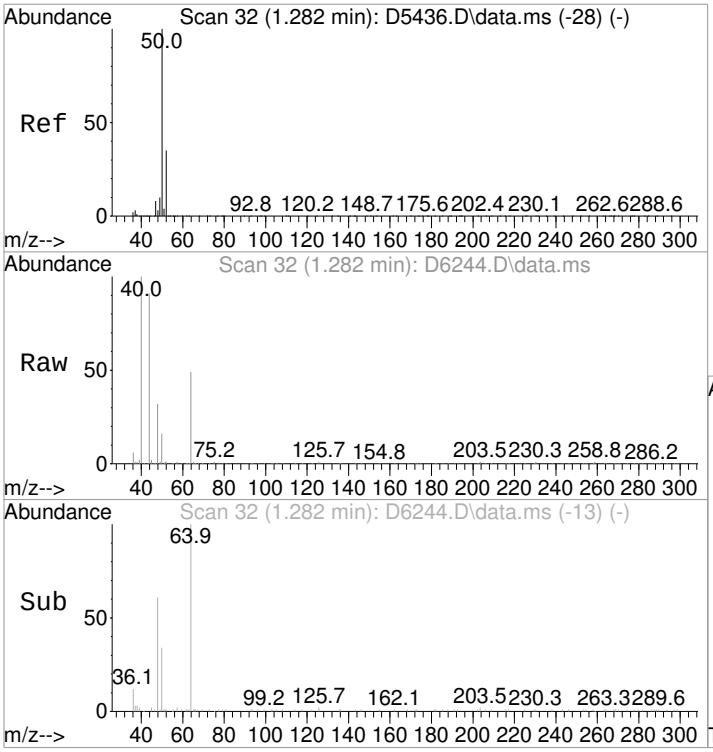
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6244.D
Acq On : 28 Sep 2018 11:05 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 01 14:08:45 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



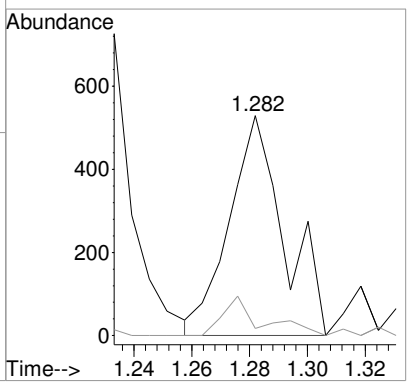
1st DL 10/01/18
2nd FJ 10/02/18

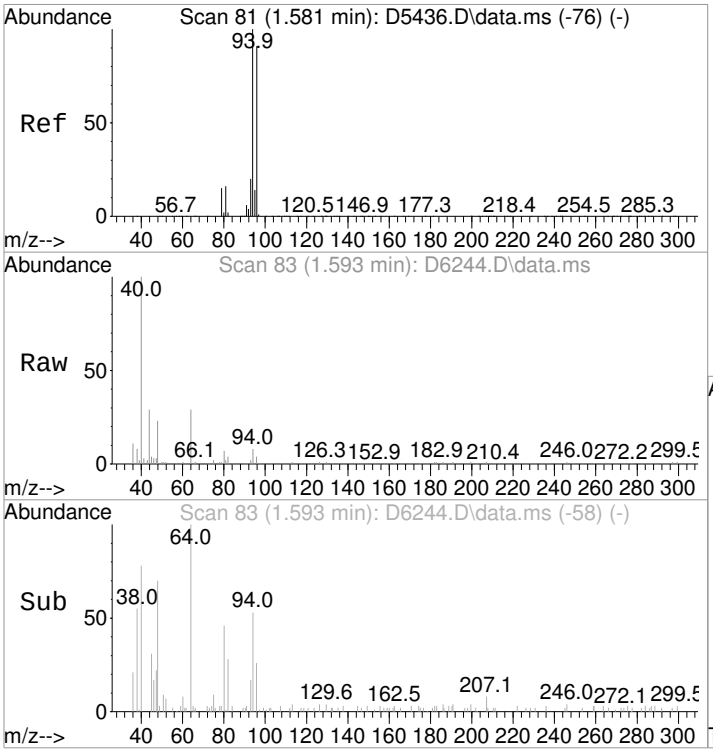


#3
Chloromethane
Concen: 0.25 ug/L
RT: 1.282 min Scan# 32
Delta R.T. 0.000 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

Tgt Ion: 50 Resp: 693

Ion	Ratio	Lower	Upper
50	100		
52	3.2	15.0	55.0#

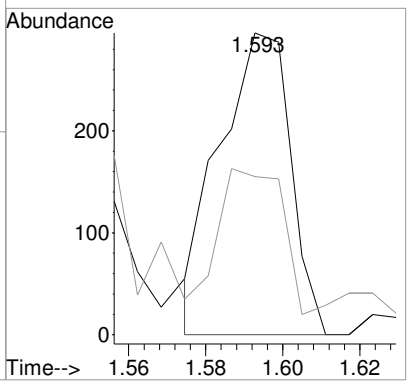


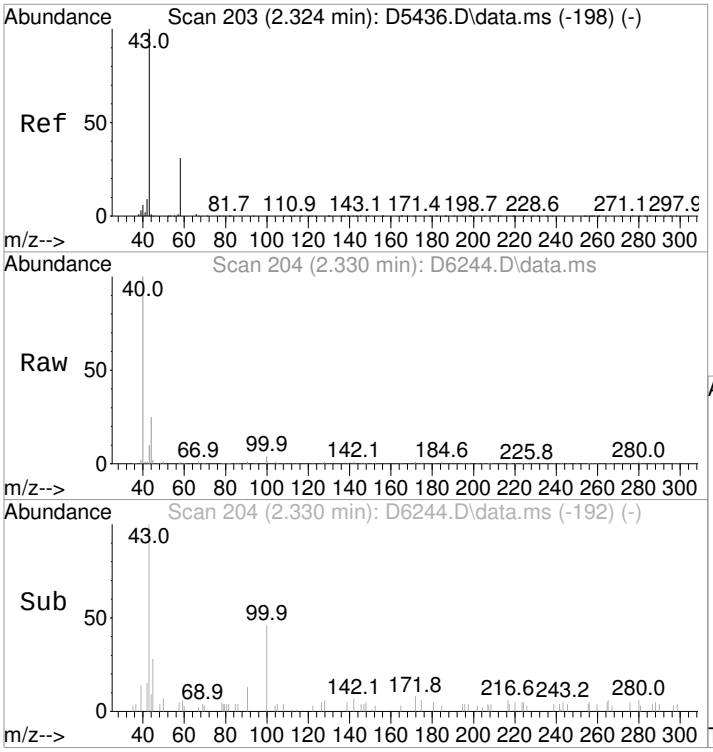


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

Tgt Ion: 94 Resp: 378

Ion	Ratio	Lower	Upper
94	100		
96	52.4	71.1	111.1#

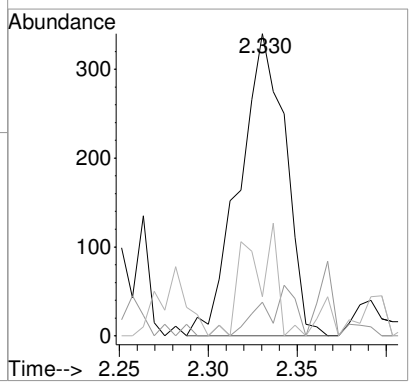


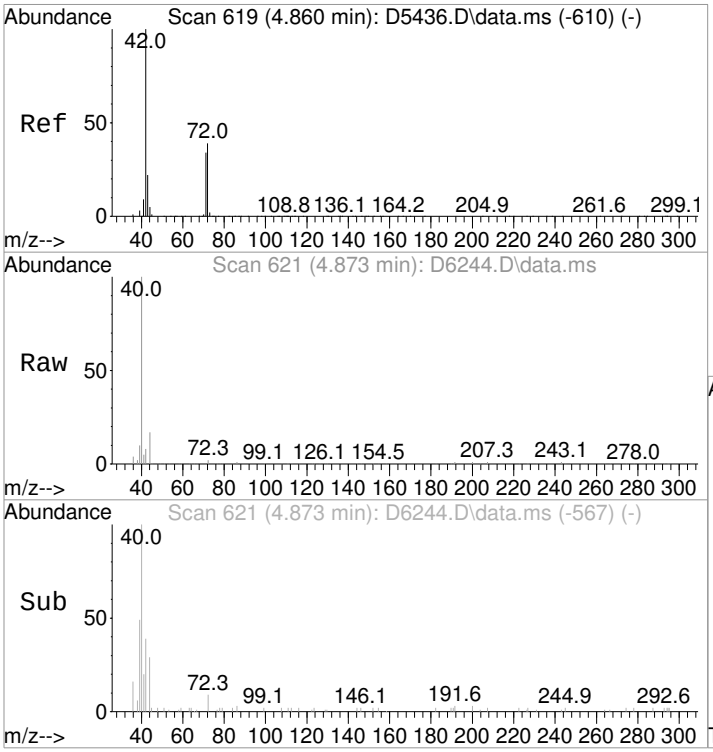


#15
Acetone
Concen: 0.55 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.000 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

Tgt Ion: 43 Resp: 614

Ion	Ratio	Lower	Upper
43	100		
58	11.2	11.2	51.2#
42	12.9	0.0	28.6

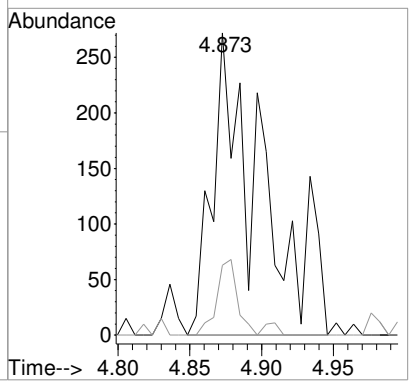


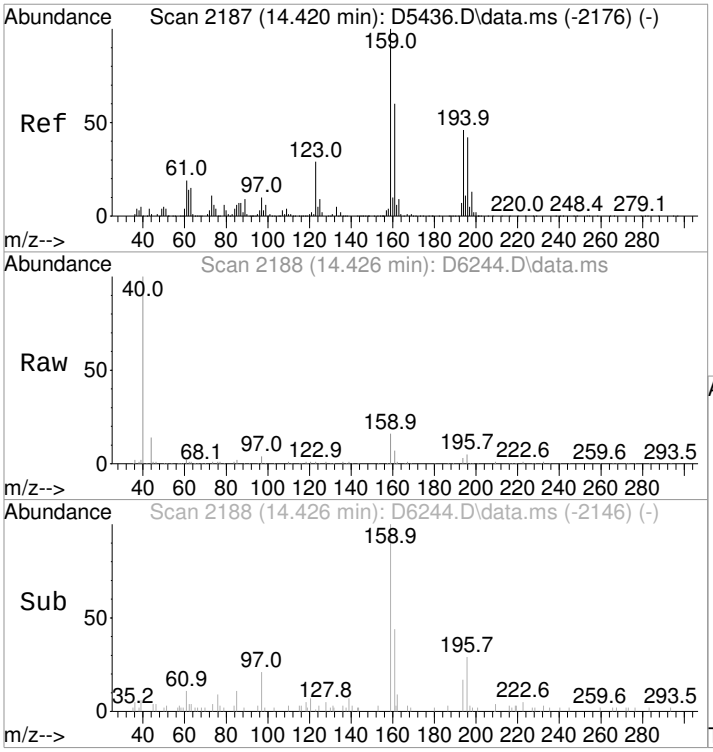


#38
Tetrahydrofuran
Concen: 0.70 ug/L m
RT: 4.873 min Scan# 621
Delta R.T. 0.012 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

Tgt Ion: 42 Resp: 654

Ion	Ratio	Lower	Upper
42	100		
72	23.2	18.8	58.8

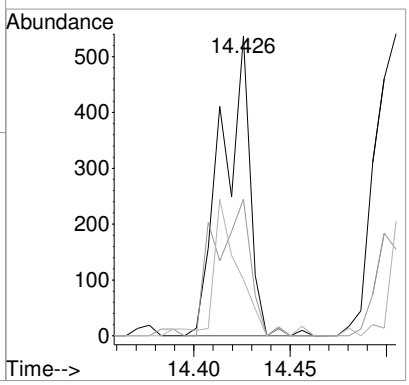


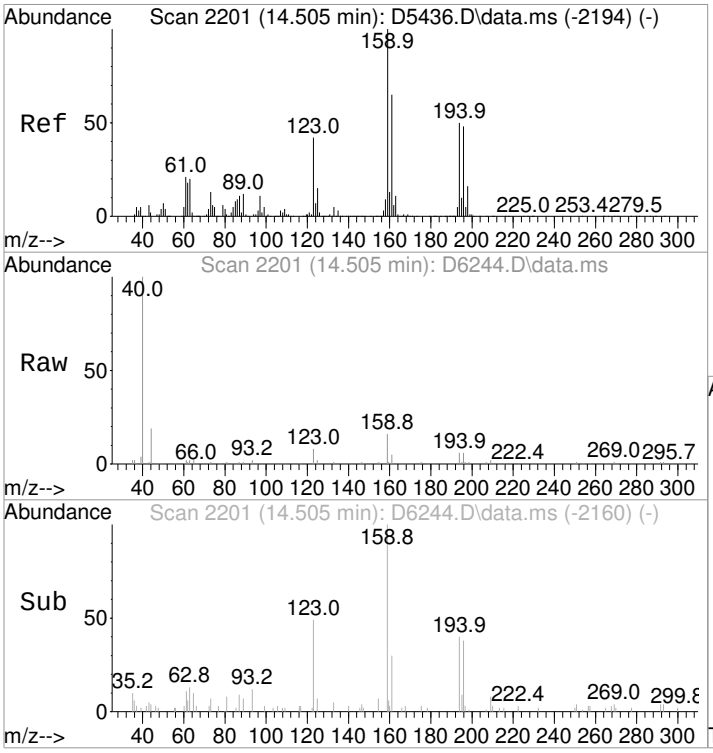


#118
2,4,5-Trichlorotoluene
Concen: 0.30 ug/L
RT: 14.426 min Scan# 2188
Delta R.T. 0.006 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

Tgt Ion:159 Resp: 548

Ion	Ratio	Lower	Upper
159	100		
161	45.6	39.9	79.9
194	18.8	25.6	65.6#

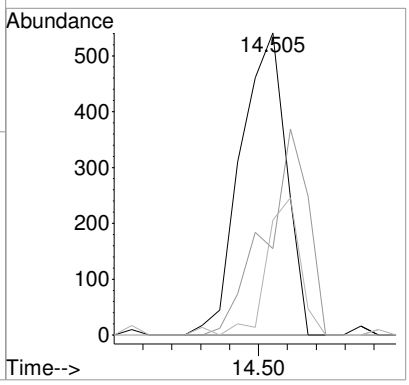




#119
2,3,6-Trichlorotoluene
Concen: 0.34 ug/L
RT: 14.505 min Scan# 2201
Delta R.T. 0.000 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

Tgt Ion:159 Resp: 592

Ion	Ratio	Lower	Upper
159	100		
161	28.7	45.1	85.1#
194	38.1	30.2	70.2



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	209448	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	327087	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	288286	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	146987	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	106676	48.40	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.80%			
46) surr1,1,2-dichloroetha...	5.787	65	149361	51.53	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.06%			
64) SURR3,Toluene-d8	8.311	98	424564	47.51	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 95.02%			
69) SURR2,BFB	10.878	95	157994	46.00	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	67285	24.06	ug/L	98
3) Chloromethane	1.282	50	66055	21.63	ug/L	93
4) Vinyl Chloride	1.361	62	60647	20.00	ug/L	100
5) Bromomethane	1.587	94	33457	14.37	ug/L	97
6) Chloroethane	1.666	64	32931	17.38	ug/L	94
7) Freon 21	1.812	67	85907	18.55	ug/L	100
8) Trichlorofluoromethane	1.861	101	69012	20.25	ug/L	98
9) Diethyl Ether	2.093	59	43133	22.36	ug/L	93
10) Freon 123a	2.099	67	54101	20.35	ug/L	97
11) Freon 123	2.148	83	79881	27.07	ug/L	99
12) Acrolein	2.196	56	24375	39.15	ug/L	85
13) 1,1-Diclethene	2.288	96	40158	20.80	ug/L	97
14) Freon 113	2.288	101	42471	22.08	ug/L	94
15) Acetone	2.330	43	28875	23.43	ug/L	87
16) 2-Propanol	2.458	45	101531	426.16	ug/L	87
17) Iodomethane	2.416	142	52952	23.24	ug/L	98
18) Carbon Disulfide	2.477	76	115596	21.96	ug/L	99
19) Acetonitrile	2.580	41	53421	119.27	ug/L	82
20) Allyl Chloride	2.617	76	22827	24.25	ug/L #	82
21) Methyl Acetate	2.641	43	60108	24.48	ug/L	95
22) Methylene Chloride	2.733	84	46458	20.63	ug/L	93
23) TBA	2.867	59	140778	394.46	ug/L	92
24) Acrylonitrile	2.989	53	139370	114.42	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	145974	20.38	ug/L	96
26) trans-1,2-Dichloroethene	3.032	96	44780	21.69	ug/L	95
27) 1,1-Diclethane	3.531	63	90771	22.43	ug/L	99
28) Vinyl Acetate	3.623	86	9942	21.34	ug/L #	51
29) DIPE	3.653	45	189346	25.27	ug/L	93
30) 2-Chloro-1,3-Butadiene	3.653	53	81500	23.43	ug/L	93
31) ETBE	4.184	59	135610	19.99	ug/L	97
32) 2,2-Dichloropropane	4.367	77	56281	18.25	ug/L	93
33) cis-1,2-Dichloroethene	4.367	96	46841	20.36	ug/L	93
34) 2-Butanone	4.415	43	38232	22.95	ug/L	81
35) Propionitrile	4.495	54	54884	111.21	ug/L	99
36) Bromochloromethane	4.775	130	27746	19.51	ug/L	85
37) Methacrylonitrile	4.769	67	24783	20.87	ug/L #	74
38) Tetrahydrofuran	4.860	42	26884	26.06	ug/L	94
39) Chloroform	4.952	83	78209	21.11	ug/L	95
40) 1,1,1-Trichloroethane	5.245	97	62648	20.02	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.342	41	58318	24.28	ug/L		91
44) Carbontetrachloride	5.531	117	45715	18.94	ug/L		99
45) 1,1-Dichloropropene	5.549	75	61412	20.09	ug/L		95
47) Benzene	5.866	78	181300	20.79	ug/L		92
48) 1,2-Dichloroethane	5.897	62	74652	21.52	ug/L		95
49) Iso-Butyl Alcohol	5.879	43	68677	422.45	ug/L		99
50) TAME	6.104	73	126572	19.75	ug/L		95
51) n-Heptane	6.354	43	78770	26.70	ug/L		94
52) 1-Butanol	6.854	56	87761	1079.49	ug/L		95
53) Trichloroethene	6.817	130	44755	19.66	ug/L		91
54) Methylcyclohexane	7.055	55	64493	22.24	ug/L		93
55) 1,2-Diclpropane	7.098	63	52672	21.72	ug/L		96
56) Dibromomethane	7.238	93	30497	21.14	ug/L		83
57) 1,4-Dioxane	7.305	88	15631	372.55	ug/L		92
58) Methyl Methacrylate	7.330	69	38508	20.27	ug/L		95
59) Bromodichloromethane	7.470	83	55208	20.54	ug/L		98
60) 2-Nitropropane	7.756	41	21843	47.98	ug/L		96
61) 2-Chloroethylvinyl Ether	7.878	63	849	0.65	ug/L		97
62) cis-1,3-Dichloropropene	8.012	75	67521	20.49	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	71750	22.69	ug/L		92
65) Toluene	8.384	91	189452	20.22	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	56669	18.98	ug/L		97
67) Ethyl Methacrylate	8.793	69	65385	21.04	ug/L		89
68) 1,1,2-Trichloroethane	8.841	97	40905	19.73	ug/L		97
71) Tetrachloroethene	8.976	164	33953	18.94	ug/L		96
72) 2-Hexanone	9.134	43	52244	21.48	ug/L		93
73) 1,3-Dichloropropane	9.012	76	77791	21.17	ug/L		89
74) Dibromochloromethane	9.238	129	35472	18.54	ug/L		99
75) N-Butyl Acetate	9.293	43	103065	22.36	ug/L		92
76) 1,2-Dibromoethane	9.335	107	42019	19.86	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	61525	19.03	ug/L		99
78) Chlorobenzene	9.829	112	116233	19.08	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	54850	19.06	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.920	131	35863	18.98	ug/L		99
81) Ethylbenzene	9.951	106	62447	19.57	ug/L	#	88
82) (m+p)Xylene	10.061	106	156631	39.50	ug/L		99
83) o-Xylene	10.420	106	74441	18.87	ug/L		99
84) Styrene	10.433	104	127674	20.12	ug/L		93
85) Bromoform	10.585	173	22308	19.93	ug/L		90
86) 2-Chlorobenzotrifluoride	10.664	180	60013	19.24	ug/L		95
87) Isopropylbenzene	10.756	105	195473	19.52	ug/L		99
88) Cyclohexanone	10.817	55	53836	112.16	ug/L		92
89) trans-1,4-Dichloro-2-B...	11.060	53	14971	22.41	ug/L		80
91) 1,1,2,2-Tetrachloroethane	11.012	83	62949	22.54	ug/L		97
92) Bromobenzene	11.000	156	50230	20.43	ug/L		90
93) 1,2,3-Trichloropropane	11.042	110	17567	20.40	ug/L	#	88
94) n-Propylbenzene	11.109	91	245414	22.64	ug/L		97
95) 2-Chlorotoluene	11.176	91	140434	21.48	ug/L		98
96) 3-Chlorotoluene	11.225	91	131371	20.34	ug/L		93
97) 4-Chlorotoluene	11.268	91	164232	21.06	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	167287	22.21	ug/L		97
99) tert-Butylbenzene	11.536	119	140271	21.23	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	164903	21.99	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	51215	21.26	ug/L		88
102) sec-Butylbenzene	11.719	105	216270	22.64	ug/L		96
103) p-Isopropyltoluene	11.841	119	169846	20.83	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

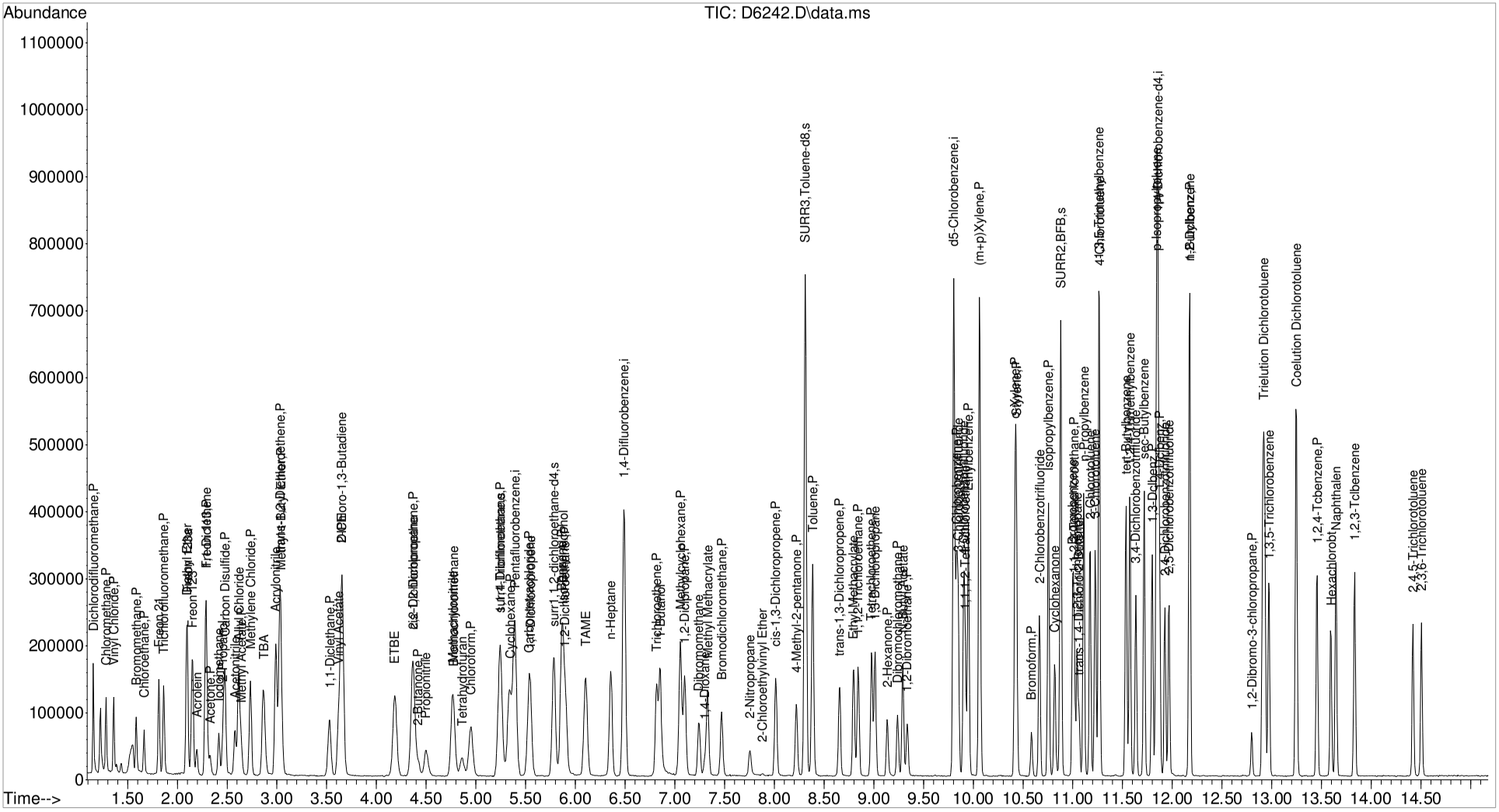
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	93987	20.79	ug/L	100
105) 1,4-Dclbenz	11.871	146	93168	19.51	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	44272	20.61	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	50127	20.20	ug/L	98
108) n-Butylbenzene	12.176	91	174130	22.34	ug/L	97
109) 1,2-Dclbenz	12.176	146	91487	19.94	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.804	157	10445	18.26	ug/L	89
111) Trielution Dichlorotol...	12.920	125	231680	61.86	ug/L	98
112) 1,3,5-Trichlorobenzene	12.975	180	67181	20.20	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	163961	39.65	ug/L	96
114) 1,2,4-Tcbenzene	13.456	180	68868	21.12	ug/L	98
115) Hexachlorobt	13.597	225	31951	22.42	ug/L	99
116) Naphthalen	13.645	128	175261	20.73	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	66041	20.60	ug/L	96
118) 2,4,5-Trichlorotoluene	14.420	159	40790	20.04	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	39199	20.45	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS-Acid Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



1st DL 10/01/18
2nd FJ 10/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	209448	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	327087	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	288286	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	146987	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	106676	48.40	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.80%				
46) surr1,1,2-dichloroetha...	5.787	65	149361	51.53	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.06%				
64) SURR3,Toluene-d8	8.311	98	424564	47.51	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 95.02%				
69) SURR2,BFB	10.878	95	157994	46.00	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	67285	24.06	ug/L		98
3) Chloromethane	1.282	50	66055	21.63	ug/L		93
4) Vinyl Chloride	1.361	62	60647	20.00	ug/L		100
5) Bromomethane	1.587	94	33457	14.37	ug/L		97
6) Chloroethane	1.666	64	32931	17.38	ug/L		94
7) Freon 21	1.812	67	85907	18.55	ug/L		100
8) Trichlorofluoromethane	1.861	101	69012	20.25	ug/L		98
9) Diethyl Ether	2.093	59	43133	22.36	ug/L		93
10) Freon 123a	2.099	67	54101	20.35	ug/L		97
11) Freon 123	2.148	83	79881	27.07	ug/L		99
12) Acrolein	2.196	56	24375	39.15	ug/L		85
13) 1,1-Diclethene	2.288	96	40158	20.80	ug/L		97
14) Freon 113	2.288	101	42471	22.08	ug/L		94
15) Acetone	2.330	43	28875	23.43	ug/L		87
16) 2-Propanol	2.458	45	101531	426.16	ug/L		87
17) Iodomethane	2.416	142	52952	23.24	ug/L		98
18) Carbon Disulfide	2.477	76	115596	21.96	ug/L		99
19) Acetonitrile	2.580	41	53421	119.27	ug/L		82
20) Allyl Chloride	2.617	76	22827	24.25	ug/L	#	82
21) Methyl Acetate	2.641	43	60108	24.48	ug/L		95
22) Methylene Chloride	2.733	84	46458	20.63	ug/L		93
23) TBA	2.867	59	140778	394.46	ug/L		92
24) Acrylonitrile	2.989	53	139370	114.42	ug/L		99
25) Methyl-t-Butyl Ether	3.038	73	145974	20.38	ug/L		96
26) trans-1,2-Dichloroethene	3.032	96	44780	21.69	ug/L		95
27) 1,1-Diclethane	3.531	63	90771	22.43	ug/L		99
28) Vinyl Acetate	3.623	86	9942	21.34	ug/L	#	51
29) DIPE	3.653	45	189346	25.27	ug/L		93
30) 2-Chloro-1,3-Butadiene	3.653	53	81500	23.43	ug/L		93
31) ETBE	4.184	59	135610	19.99	ug/L		97
32) 2,2-Dichloropropane	4.367	77	56281	18.25	ug/L		93
33) cis-1,2-Dichloroethene	4.367	96	46841	20.36	ug/L		93
34) 2-Butanone	4.415	43	38232	22.95	ug/L		81
35) Propionitrile	4.495	54	54884	111.21	ug/L		99
36) Bromochloromethane	4.775	130	27746	19.51	ug/L		85
37) Methacrylonitrile	4.769	67	24783	20.87	ug/L	#	74
38) Tetrahydrofuran	4.860	42	26884	26.06	ug/L		94
39) Chloroform	4.952	83	78209	21.11	ug/L		95
40) 1,1,1-Trichloroethane	5.245	97	62648	20.02	ug/L		97

1st DL 10/01/18
2nd FJ 10/02/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.342	41	58318	24.28	ug/L		91
44) Carbontetrachloride	5.531	117	45715	18.94	ug/L		99
45) 1,1-Dichloropropene	5.549	75	61412	20.09	ug/L		95
47) Benzene	5.866	78	181300	20.79	ug/L		92
48) 1,2-Dichloroethane	5.897	62	74652	21.52	ug/L		95
49) Iso-Butyl Alcohol	5.879	43	68677	422.45	ug/L		99
50) TAME	6.104	73	126572	19.75	ug/L		95
51) n-Heptane	6.354	43	78770	26.70	ug/L		94
52) 1-Butanol	6.854	56	87761	1079.49	ug/L		95
53) Trichloroethene	6.817	130	44755	19.66	ug/L		91
54) Methylcyclohexane	7.055	55	64493	22.24	ug/L		93
55) 1,2-Diclpropane	7.098	63	52672	21.72	ug/L		96
56) Dibromomethane	7.238	93	30497	21.14	ug/L		83
57) 1,4-Dioxane	7.305	88	15631	372.55	ug/L		92
58) Methyl Methacrylate	7.330	69	38508	20.27	ug/L		95
59) Bromodichloromethane	7.470	83	55208	20.54	ug/L		98
60) 2-Nitropropane	7.756	41	21843	47.98	ug/L		96
61) 2-Chloroethylvinyl Ether	7.878	63	849	0.65	ug/L		97
62) cis-1,3-Dichloropropene	8.012	75	67521	20.49	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	71750	22.69	ug/L		92
65) Toluene	8.384	91	189452	20.22	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	56669	18.98	ug/L		97
67) Ethyl Methacrylate	8.793	69	65385	21.04	ug/L		89
68) 1,1,2-Trichloroethane	8.841	97	40905	19.73	ug/L		97
71) Tetrachloroethene	8.976	164	33953	18.94	ug/L		96
72) 2-Hexanone	9.134	43	52244	21.48	ug/L		93
73) 1,3-Dichloropropane	9.012	76	77791	21.17	ug/L		89
74) Dibromochloromethane	9.238	129	35472	18.54	ug/L		99
75) N-Butyl Acetate	9.293	43	103065	22.36	ug/L		92
76) 1,2-Dibromoethane	9.335	107	42019	19.86	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	61525	19.03	ug/L		99
78) Chlorobenzene	9.829	112	116233	19.08	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	54850	19.06	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.920	131	35863	18.98	ug/L		99
81) Ethylbenzene	9.951	106	62447	19.57	ug/L	#	88
82) (m+p)Xylene	10.061	106	156631	39.50	ug/L		99
83) o-Xylene	10.420	106	74441	18.87	ug/L		99
84) Styrene	10.433	104	127674	20.12	ug/L		93
85) Bromoform	10.585	173	22308	19.93	ug/L		90
86) 2-Chlorobenzotrifluoride	10.664	180	60013	19.24	ug/L		95
87) Isopropylbenzene	10.756	105	195473	19.52	ug/L		99
88) Cyclohexanone	10.817	55	53836	112.16	ug/L		92
89) trans-1,4-Dichloro-2-B...	11.060	53	14971	22.41	ug/L		80
91) 1,1,2,2-Tetrachloroethane	11.012	83	62949	22.54	ug/L		97
92) Bromobenzene	11.000	156	50230	20.43	ug/L		90
93) 1,2,3-Trichloropropane	11.042	110	17567	20.40	ug/L	#	88
94) n-Propylbenzene	11.109	91	245414	22.64	ug/L		97
95) 2-Chlorotoluene	11.176	91	140434	21.48	ug/L		98
96) 3-Chlorotoluene	11.225	91	131371	20.34	ug/L		93
97) 4-Chlorotoluene	11.268	91	164232	21.06	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	167287	22.21	ug/L		97
99) tert-Butylbenzene	11.536	119	140271	21.23	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	164903	21.99	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	51215	21.26	ug/L		88
102) sec-Butylbenzene	11.719	105	216270	22.64	ug/L		96
103) p-Isopropyltoluene	11.841	119	169846	20.83	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

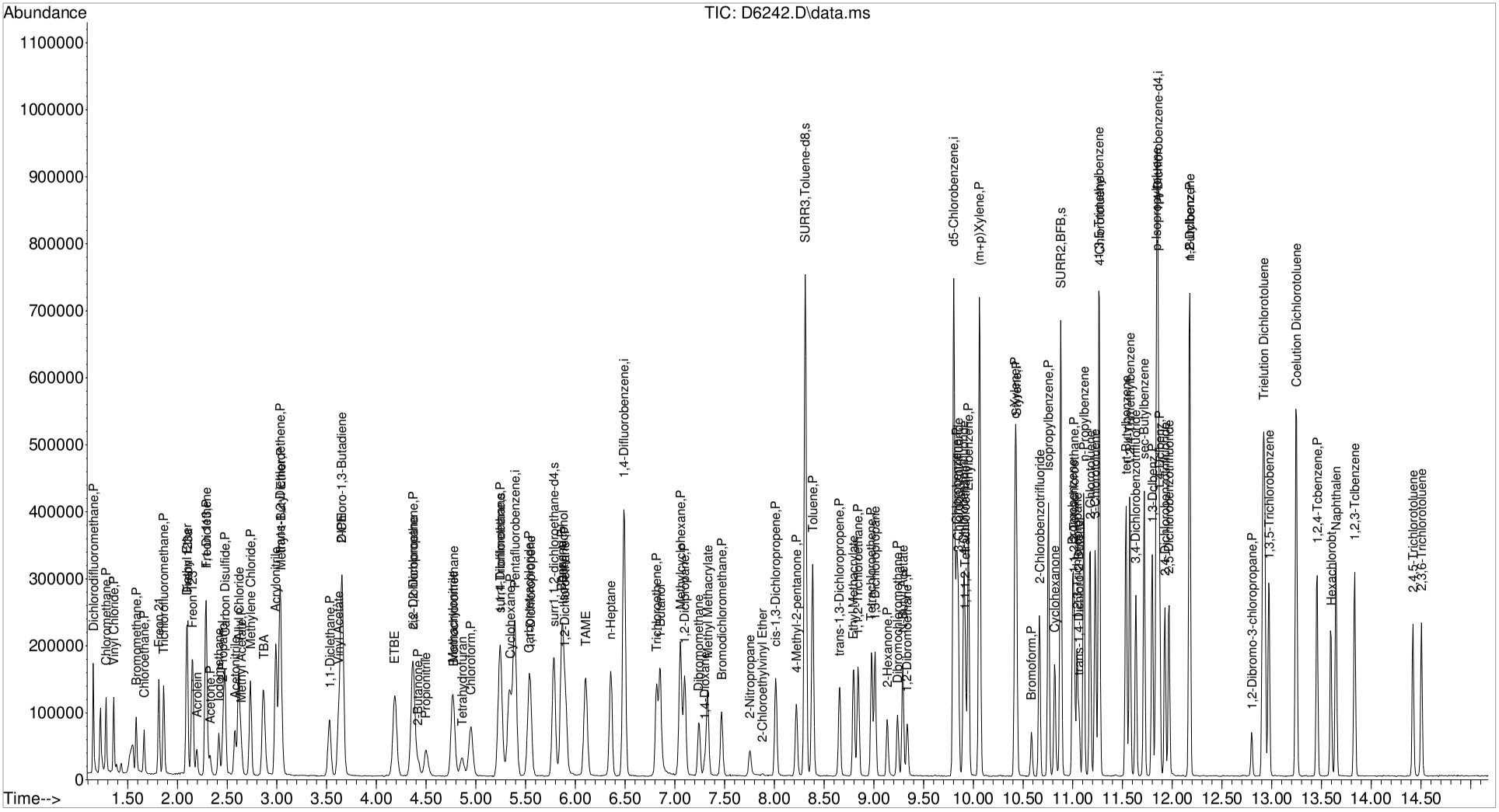
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	93987	20.79	ug/L	100
105) 1,4-Dclbenz	11.871	146	93168	19.51	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	44272	20.61	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	50127	20.20	ug/L	98
108) n-Butylbenzene	12.176	91	174130	22.34	ug/L	97
109) 1,2-Dclbenz	12.176	146	91487	19.94	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.804	157	10445	18.26	ug/L	89
111) Trielution Dichlorotol...	12.920	125	231680	61.86	ug/L	98
112) 1,3,5-Trichlorobenzene	12.975	180	67181	20.20	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	163961	39.65	ug/L	96
114) 1,2,4-Tcbenzene	13.456	180	68868	21.12	ug/L	98
115) Hexachlorobt	13.597	225	31951	22.42	ug/L	99
116) Naphthalen	13.645	128	175261	20.73	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	66041	20.60	ug/L	96
118) 2,4,5-Trichlorotoluene	14.420	159	40790	20.04	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	39199	20.45	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



1st DL 10/01/18
2nd FJ 10/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6266.D
Acq On : 28 Sep 2018 8:18 pm
Operator : D.LIPANI
Sample : R1809120-002MS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 28 20:32:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	206967	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	323940	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	289190	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	159718	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	106901	48.97	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.94%				
46) surr1,1,2-dichloroetha...	5.787	65	148988	51.90	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.80%				
64) SURR3,Toluene-d8	8.311	98	431441	48.74	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.48%				
69) SURR2,BFB	10.878	95	165875	48.76	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.52%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	153582	55.57	ug/L		99
3) Chloromethane	1.282	50	140076	46.41	ug/L		95
4) Vinyl Chloride	1.361	62	143543	47.91	ug/L		87
5) Bromomethane	1.581	94	46799	20.14	ug/L		95
6) Chloroethane	1.660	64	90933	48.56	ug/L		97
7) Freon 21	1.812	67	217253	47.46	ug/L		98
8) Trichlorofluoromethane	1.861	101	167089	49.61	ug/L		97
9) Diethyl Ether	2.093	59	105975	55.58	ug/L		90
10) Freon 123a	2.099	67	149438	56.87	ug/L		92
11) Freon 123	2.148	83	200883	68.88	ug/L		96
12) Acrolein	2.196	56	54632	88.80	ug/L		93
13) 1,1-Diclethene	2.282	96	97390	51.05	ug/L		97
14) Freon 113	2.294	101	103552	54.49	ug/L		100
15) Acetone	2.324	43	63439	52.10	ug/L		91
16) 2-Propanol	2.465	45	259943	1104.15	ug/L		92
17) Iodomethane	2.416	142	129129	51.53	ug/L		100
18) Carbon Disulfide	2.477	76	305183	58.67	ug/L		99
19) Acetonitrile	2.580	41	131703	297.57	ug/L		93
20) Allyl Chloride	2.617	76	56413	60.66	ug/L	#	71
21) Methyl Acetate	2.641	43	141821	58.45	ug/L		94
22) Methylene Chloride	2.733	84	109911	49.38	ug/L	#	87
23) TBA	2.867	59	357608	1014.04	ug/L		89
24) Acrylonitrile	2.989	53	335957	279.12	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	357664	50.54	ug/L		100
26) trans-1,2-Dichloroethene	3.032	96	106667	52.28	ug/L		100
27) 1,1-Diclethane	3.525	63	223802	55.97	ug/L		100
28) Vinyl Acetate	3.617	86	23868	51.85	ug/L	#	43
29) DIPE	3.653	45	483255	65.27	ug/L		91
30) 2-Chloro-1,3-Butadiene	3.653	53	206093	59.96	ug/L		90
31) ETBE	4.184	59	333532	49.75	ug/L		95
32) 2,2-Dichloropropane	4.367	77	134913	44.26	ug/L		98
33) cis-1,2-Dichloroethene	4.367	96	121276	53.34	ug/L		95
34) 2-Butanone	4.415	43	97847	59.44	ug/L		90
35) Propionitrile	4.501	54	136484	279.87	ug/L		99
36) Bromochloromethane	4.769	130	69010	49.12	ug/L	#	82
37) Methacrylonitrile	4.769	67	60861	51.87	ug/L	#	84
38) Tetrahydrofuran	4.860	42	64541	63.30	ug/L		90
39) Chloroform	4.946	83	197066	53.82	ug/L		97
40) 1,1,1-Trichloroethane	5.251	97	162623	52.60	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6266.D
Acq On : 28 Sep 2018 8:18 pm
Operator : D.LIPANI
Sample : R1809120-002MS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 28 20:32:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	151136	63.53	ug/L	94
44) Carbontetrachloride	5.531	117	119367	49.92	ug/L	97
45) 1,1-Dichloropropene	5.543	75	155375	51.31	ug/L	98
47) Benzene	5.866	78	455741	52.78	ug/L	92
48) 1,2-Dichloroethane	5.903	62	184367	53.67	ug/L	98
49) Iso-Butyl Alcohol	5.885	43	188218	1169.02	ug/L	99
50) TAME	6.104	73	326449	51.43	ug/L	94
51) n-Heptane	6.354	43	188620	64.56	ug/L	92
52) 1-Butanol	6.854	56	243159	2734.35	ug/L	99
53) Trichloroethene	6.817	130	127309	56.46	ug/L	98
54) Methylcyclohexane	7.055	55	173833	60.51	ug/L	90
55) 1,2-Diclpropane	7.098	63	130539	54.35	ug/L	99
56) Dibromomethane	7.244	93	72410	50.69	ug/L	98
57) 1,4-Dioxane	7.299	88	39837	958.70	ug/L	95
58) Methyl Methacrylate	7.330	69	98323	52.26	ug/L	90
59) Bromodichloromethane	7.470	83	137571	51.68	ug/L	98
60) 2-Nitropropane	7.756	41	61639	136.72	ug/L	94
62) cis-1,3-Dichloropropene	8.012	75	177297	54.31	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	193205	61.70	ug/L	91
65) Toluene	8.384	91	483841	52.13	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	151455	51.23	ug/L	98
67) Ethyl Methacrylate	8.799	69	175933	57.17	ug/L	92
68) 1,1,2-Trichloroethane	8.841	97	103038	50.19	ug/L	97
71) Tetrachloroethene	8.982	164	87358	48.57	ug/L	96
72) 2-Hexanone	9.134	43	142513	58.42	ug/L	95
73) 1,3-Dichloropropane	9.012	76	191975	52.07	ug/L	91
74) Dibromochloromethane	9.238	129	96226	50.14	ug/L	96
75) N-Butyl Acetate	9.286	43	295268	63.85	ug/L	90
76) 1,2-Dibromoethane	9.335	107	106928	50.38	ug/L	100
77) 3-Chlorobenzotrifluoride	9.847	180	160318	49.42	ug/L	99
78) Chlorobenzene	9.829	112	299085	48.94	ug/L	96
79) 4-Chlorobenzotrifluoride	9.902	180	146120	50.62	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	96384	50.85	ug/L	98
81) Ethylbenzene	9.951	106	166374	51.98	ug/L	94
82) (m+p)Xylene	10.061	106	409581	102.95	ug/L	95
83) o-Xylene	10.420	106	198684	50.21	ug/L	97
84) Styrene	10.433	104	337245	52.97	ug/L	99
85) Bromoform	10.585	173	63611	50.36	ug/L	96
86) 2-Chlorobenzotrifluoride	10.664	180	161283	51.56	ug/L	97
87) Isopropylbenzene	10.756	105	514475	51.22	ug/L	99
88) Cyclohexanone	10.817	55	146807	304.89	ug/L	96
89) trans-1,4-Dichloro-2-B...	11.060	53	41889	57.58	ug/L	82
91) 1,1,2,2-Tetrachloroethane	11.012	83	166582	54.89	ug/L	99
92) Bromobenzene	11.000	156	130357	48.79	ug/L	93
93) 1,2,3-Trichloropropane	11.042	110	48417	51.75	ug/L	93
94) n-Propylbenzene	11.109	91	633817	53.81	ug/L	98
95) 2-Chlorotoluene	11.170	91	364865	51.36	ug/L	96
96) 3-Chlorotoluene	11.225	91	361973	51.58	ug/L	98
97) 4-Chlorotoluene	11.268	91	423272	49.96	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	429507	52.49	ug/L	99
99) tert-Butylbenzene	11.536	119	362499	50.48	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	425956	52.27	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.634	214	132317	50.55	ug/L	96
102) sec-Butylbenzene	11.719	105	551571	53.13	ug/L	99
103) p-Isopropyltoluene	11.841	119	459645	51.88	ug/L	98
104) 1,3-Dclbenz	11.798	146	240689	48.99	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6266.D
Acq On : 28 Sep 2018 8:18 pm
Operator : D.LIPANI
Sample : R1809120-002MS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 28 20:32:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

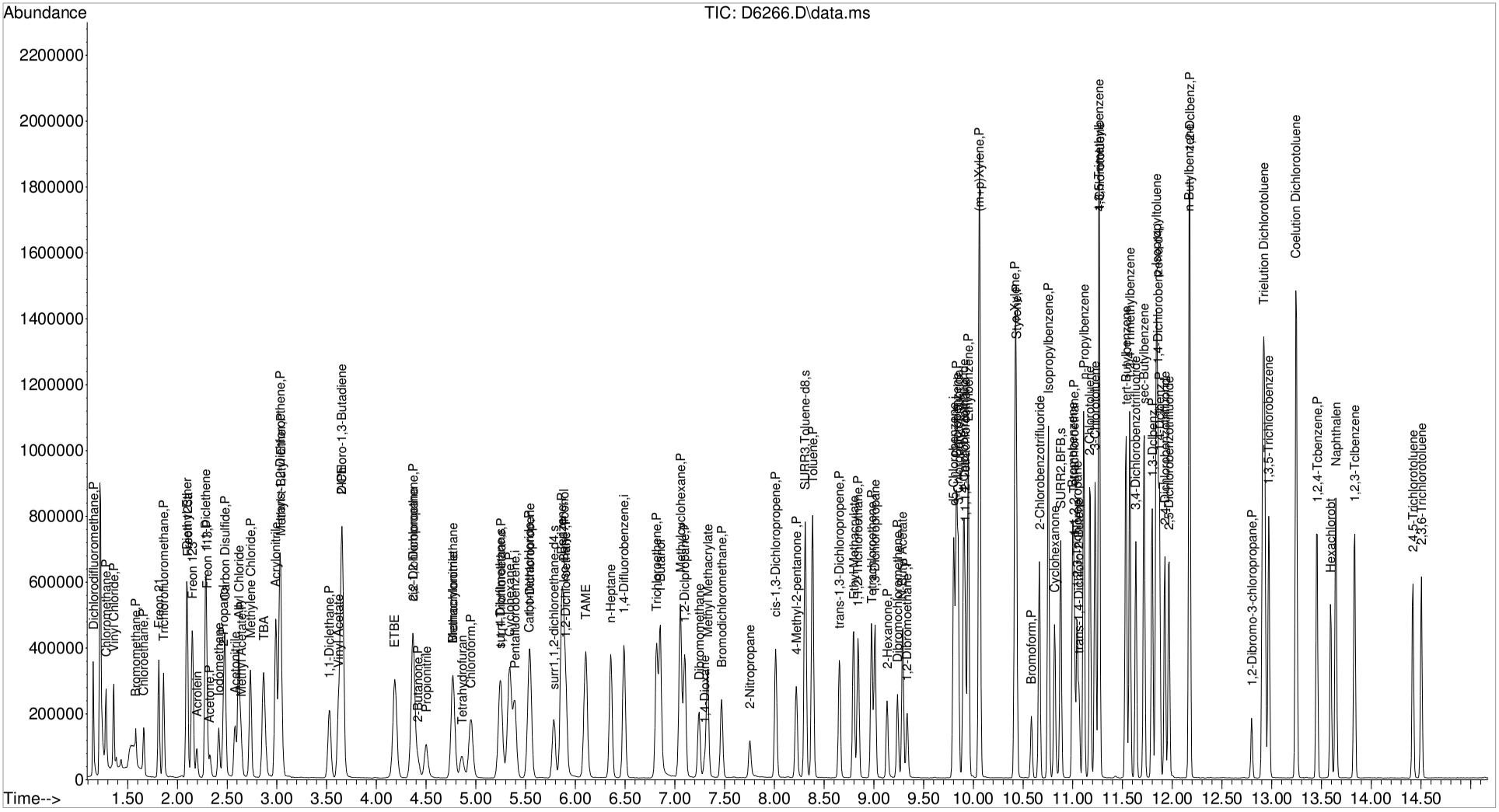
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	243091	46.86	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	122331	52.41	ug/L	98
107) 2,5-Dichlorobenzotrifl...	11.969	214	136196	50.51	ug/L	99
108) n-Butylbenzene	12.170	91	450827	53.22	ug/L	100
109) 1,2-Dclbenz	12.176	146	232475	46.64	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	29844	48.02	ug/L	96
111) Trielution Dichlorotol...	12.920	125	613494	150.74	ug/L	97
112) 1,3,5-Trichlorobenzene	12.969	180	179723	49.74	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	447045	99.48	ug/L	93
114) 1,2,4-Tcbenzene	13.456	180	178269	50.32	ug/L	96
115) Hexachlorobt	13.590	225	74587	48.16	ug/L	98
116) Naphthalen	13.645	128	481896	52.46	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	170437	48.92	ug/L	96
118) 2,4,5-Trichlorotoluene	14.420	159	108835	49.21	ug/L	96
119) 2,3,6-Trichlorotoluene	14.505	159	106555	51.17	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6266.D
Acq On : 28 Sep 2018 8:18 pm
Operator : D.LIPANI
Sample : R1809120-002MS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 28 20:32:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



1st DL 10/01/18
2nd FJ 10/02/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6267.D
Acq On : 28 Sep 2018 8:39 pm
Operator : D.LIPANI
Sample : R1809120-002DMS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 01 17:01:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	218885	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	330867	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	295512	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	167459	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	110044	49.35	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.70%				
46) surr1,1,2-dichloroetha...	5.781	65	152299	51.94	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.88%				
64) SURR3,Toluene-d8	8.311	98	437568	48.40	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.80%				
69) SURR2,BFB	10.878	95	164973	47.48	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.96%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	165678	56.69	ug/L		99
3) Chloromethane	1.282	50	155599	48.74	ug/L		95
4) Vinyl Chloride	1.361	62	156352	49.35	ug/L		89
5) Bromomethane	1.581	94	48254	19.66	ug/L		95
6) Chloroethane	1.660	64	102559	51.79	ug/L		96
7) Freon 21	1.812	67	229767	47.46	ug/L		99
8) Trichlorofluoromethane	1.861	101	174795	49.08	ug/L		98
9) Diethyl Ether	2.093	59	106139	52.64	ug/L		96
10) Freon 123a	2.099	67	147229	52.98	ug/L		94
11) Freon 123	2.148	83	209909	68.06	ug/L		99
12) Acrolein	2.196	56	56368	86.63	ug/L		100
13) 1,1-Diclethene	2.282	96	100086	49.61	ug/L		96
14) Freon 113	2.288	101	110988	55.22	ug/L		99
15) Acetone	2.324	43	68821	53.45	ug/L		93
16) 2-Propanol	2.465	45	297618	1195.35	ug/L		97
17) Iodomethane	2.416	142	150186	55.98	ug/L		100
18) Carbon Disulfide	2.477	76	326795	59.40	ug/L		100
19) Acetonitrile	2.574	41	144964	309.70	ug/L		93
20) Allyl Chloride	2.617	76	61262	62.28	ug/L	#	72
21) Methyl Acetate	2.641	43	153400	59.78	ug/L		96
22) Methylene Chloride	2.733	84	114257	48.54	ug/L	#	87
23) TBA	2.867	59	408486	1095.24	ug/L		93
24) Acrylonitrile	2.989	53	364506	286.35	ug/L		100
25) Methyl-t-Butyl Ether	3.038	73	392332	52.42	ug/L		98
26) trans-1,2-Dichloroethene	3.032	96	114943	53.27	ug/L		95
27) 1,1-Diclethane	3.531	63	244735	57.87	ug/L		98
28) Vinyl Acetate	3.617	86	26012	53.43	ug/L	#	53
29) DIPE	3.653	45	515475	65.83	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.653	53	224419	61.74	ug/L		93
31) ETBE	4.184	59	361519	50.99	ug/L		98
32) 2,2-Dichloropropane	4.361	77	156097	48.42	ug/L		99
33) cis-1,2-Dichloroethene	4.373	96	130916	54.45	ug/L		90
34) 2-Butanone	4.415	43	106808	61.36	ug/L		89
35) Propionitrile	4.495	54	144194	279.58	ug/L		97
36) Bromochloromethane	4.769	130	75839	51.04	ug/L		86
37) Methacrylonitrile	4.769	67	68000	54.80	ug/L	#	70
38) Tetrahydrofuran	4.854	42	71800	66.59	ug/L		86
39) Chloroform	4.952	83	212670	54.92	ug/L		99
40) 1,1,1-Trichloroethane	5.251	97	171562	52.47	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6267.D
Acq On : 28 Sep 2018 8:39 pm
Operator : D.LIPANI
Sample : R1809120-002DMS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 01 17:01:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	Cyclohexane	5.336	41	155500	64.00	ug/L		97
44)	Carbontetrachloride	5.531	117	130158	53.30	ug/L		97
45)	1,1-Dichloropropene	5.543	75	168275	54.41	ug/L		94
47)	Benzene	5.860	78	487568	55.28	ug/L		94
48)	1,2-Dichloroethane	5.903	62	197805	56.38	ug/L		97
49)	Iso-Butyl Alcohol	5.885	43	208528	1268.05	ug/L		99
50)	TAME	6.104	73	345544	53.30	ug/L		92
51)	n-Heptane	6.354	43	195080	65.38	ug/L		94
52)	1-Butanol	6.854	56	269770	2937.28	ug/L		96
53)	Trichloroethene	6.817	130	135067	58.65	ug/L		96
54)	Methylcyclohexane	7.055	55	181528	61.87	ug/L		86
55)	1,2-Diclpropane	7.098	63	138036	56.26	ug/L		91
56)	Dibromomethane	7.244	93	78374	53.72	ug/L		98
57)	1,4-Dioxane	7.305	88	41741	983.49	ug/L		99
58)	Methyl Methacrylate	7.330	69	107839	56.12	ug/L		89
59)	Bromodichloromethane	7.470	83	150629	55.40	ug/L		98
60)	2-Nitropropane	7.756	41	69254	150.39	ug/L		94
62)	cis-1,3-Dichloropropene	8.012	75	189346	56.79	ug/L		97
63)	4-Methyl-2-pentanone	8.220	43	203610	63.66	ug/L		96
65)	Toluene	8.384	91	515735	54.40	ug/L		99
66)	trans-1,3-Dichloropropene	8.652	75	164752	54.56	ug/L		98
67)	Ethyl Methacrylate	8.793	69	188797	60.07	ug/L		87
68)	1,1,2-Trichloroethane	8.841	97	108410	51.70	ug/L		95
71)	Tetrachloroethene	8.976	164	94356	51.34	ug/L		98
72)	2-Hexanone	9.134	43	152367	61.12	ug/L		91
73)	1,3-Dichloropropane	9.012	76	205291	54.49	ug/L		91
74)	Dibromochloromethane	9.238	129	105886	54.00	ug/L		97
75)	N-Butyl Acetate	9.286	43	308664	65.32	ug/L		93
76)	1,2-Dibromoethane	9.335	107	113478	52.33	ug/L		99
77)	3-Chlorobenzotrifluoride	9.847	180	173139	52.23	ug/L		98
78)	Chlorobenzene	9.829	112	309294	49.52	ug/L		94
79)	4-Chlorobenzotrifluoride	9.902	180	150592	51.05	ug/L		97
80)	1,1,1,2-Tetrachloroethane	9.914	131	108069	55.80	ug/L		93
81)	Ethylbenzene	9.951	106	172344	52.70	ug/L	#	89
82)	(m+p)Xylene	10.061	106	432138	106.30	ug/L		96
83)	o-Xylene	10.420	106	206213	51.00	ug/L		96
84)	Styrene	10.433	104	353348	54.32	ug/L		98
85)	Bromoform	10.585	173	68384	52.57	ug/L		98
86)	2-Chlorobenzotrifluoride	10.664	180	170788	53.43	ug/L		97
87)	Isopropylbenzene	10.756	105	540724	52.68	ug/L		99
88)	Cyclohexanone	10.817	55	158745	322.63	ug/L		97
89)	trans-1,4-Dichloro-2-B...	11.061	53	44312	59.39	ug/L		86
91)	1,1,2,2-Tetrachloroethane	11.012	83	178783	56.19	ug/L		98
92)	Bromobenzene	11.000	156	140664	50.22	ug/L		96
93)	1,2,3-Trichloropropane	11.042	110	48903	49.85	ug/L	#	85
94)	n-Propylbenzene	11.109	91	669061	54.18	ug/L		99
95)	2-Chlorotoluene	11.170	91	382110	51.31	ug/L		99
96)	3-Chlorotoluene	11.225	91	379885	51.63	ug/L		97
97)	4-Chlorotoluene	11.268	91	449102	50.56	ug/L		98
98)	1,3,5-Trimethylbenzene	11.262	105	452101	52.69	ug/L		99
99)	tert-Butylbenzene	11.536	119	389021	51.67	ug/L		98
100)	1,2,4-Trimethylbenzene	11.573	105	448990	52.55	ug/L		99
101)	3,4-Dichlorobenzotrifl...	11.634	214	144099	52.50	ug/L		98
102)	sec-Butylbenzene	11.719	105	590257	54.23	ug/L		99
103)	p-Isopropyltoluene	11.841	119	487917	52.53	ug/L		99
104)	1,3-Dclbenz	11.798	146	256017	49.70	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6267.D
Acq On : 28 Sep 2018 8:39 pm
Operator : D.LIPANI
Sample : R1809120-002DMS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 01 17:01:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	261362	48.05	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	128940	52.68	ug/L	99
107) 2,5-Dichlorobenzotrifl...	11.969	214	144847	51.23	ug/L	97
108) n-Butylbenzene	12.170	91	482543	54.33	ug/L	99
109) 1,2-Dclbenz	12.176	146	249807	47.80	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.798	157	30910	47.43	ug/L	87
111) Trielution Dichlorotol...	12.920	125	651998	152.80	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	193055	50.96	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	468280	99.39	ug/L	95
114) 1,2,4-Tcbenzene	13.456	180	186956	50.33	ug/L	97
115) Hexachlorobt	13.591	225	80698	49.69	ug/L	97
116) Naphthalen	13.645	128	515451	53.52	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	184543	50.52	ug/L	94
118) 2,4,5-Trichlorotoluene	14.420	159	120901	52.14	ug/L	99
119) 2,3,6-Trichlorotoluene	14.505	159	110675	50.69	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6267.D
Acq On : 28 Sep 2018 8:39 pm
Operator : D.LIPANI
Sample : R1809120-002DMS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 01 17:01:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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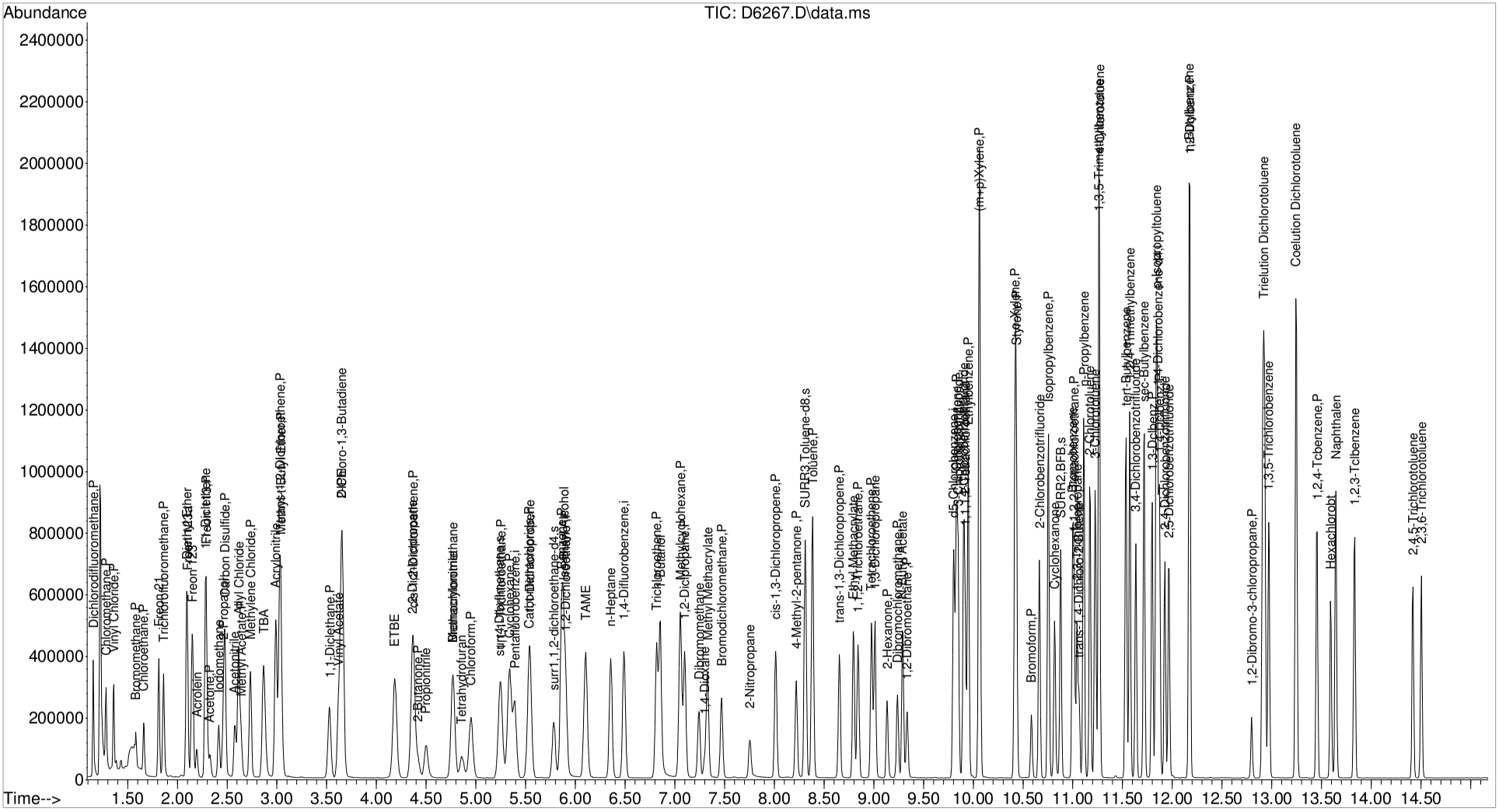


1st 10/01/18
2nd 10/02/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	97	0.00	
2	P	Dichlorodifluoromethane	0.6676	0.7478	-12.0	110	0.00	
3	P	Chloromethane	0.7292	0.8133	-11.5	112	0.00	
4	P	Vinyl Chloride	0.7238	0.7454	-3.0	104	0.00	
5	P	Bromomethane	0.6792	0.4253	-27.5 ~~37.4#~~	84	0.00	(1)
6	P	Chloroethane	0.4524	0.4720	-4.3	103	0.00	
7		Freon 21	1.1058	1.1314	-2.3	108	0.00	
8	P	Trichlorofluoromethane	0.8136	0.8059	0.9	102	0.00	
9		Diethyl Ether	0.4606	0.5421	-17.7	116	0.00	
10		Freon 123a	0.6348	0.7060	-11.2	121	0.00	
11		Freon 123	0.7045	0.7422	-5.4	115	0.00	
12		Acrolein	0.1486	0.1567	-5.5	105	0.00	
13		1,1-Diclethene	0.4609	0.4964	-7.7	108	0.00	
14	P	Freon 113	0.4591	0.4990	-8.7	111	0.00	
15	P	Acetone	0.2941	0.3677	-25.0#	129	0.00	(2)
16		2-Propanol	0.0569	0.0593	-4.2	108	-0.02	
17		Iodomethane	0.5454	0.7399	+19.5 ~~35.7#~~	107	0.00	
18	P	Carbon Disulfide	1.2567	1.4575	-16.0	111	0.00	
19		Acetonitrile	0.1069	0.1283	-20.0#	126	0.00	
20		Allyl Chloride	0.2247	0.2419	-7.7	108	0.00	
21	P	Methyl Acetate	0.5862	0.7167	-22.3#	126	0.00	NT
22	P	Methylene Chloride	0.5377	0.5529	-2.8	107	0.00	
23		TBA	0.0852	0.0860	-0.9	102	0.00	
24		Acrylonitrile	0.2908	0.3437	-18.2	119	0.00	
25	P	Methyl-t-Butyl Ether	1.7095	1.8155	-6.2	106	0.00	
26	P	trans-1,2-Dichloroethene	0.4929	0.5253	-6.6	104	0.00	
27	P	1,1-Diclethane	0.9660	1.0924	-13.1	113	0.00	
28		Vinyl Acetate	0.1112	0.1164	-4.7	105	0.00	
29		DIPE	1.7888	2.4004	-34.2#	136	0.00	NT
30		2-Chloro-1,3-Butadiene	0.8303	1.0268	-23.7#	124	0.00	NT
31		ETBE	1.6197	1.8205	-12.4	114	0.00	
32		2,2-Dichloropropane	0.7364	0.6942	5.7	91	0.00	
33	P	cis-1,2-Dichloroethene	0.5493	0.5757	-4.8	103	0.00	
34	P	2-Butanone	0.3977	0.4905	-23.3#	131	0.00	(3)
35		Propionitrile	0.1178	0.1325	-12.5	116	0.00	
36		Bromochloromethane	0.3394	0.3382	0.4	100	0.00	
37		Methacrylonitrile	0.2835	0.3047	-7.5	109	0.00	
38		Tetrahydrofuran	0.2463	0.2890	-17.3	120	0.00	
39	P	Chloroform	0.8846	0.9501	-7.4	106	0.00	
40	P	1,1,1-Trichloroethane	0.7469	0.7590	-1.6	101	0.00	
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	99	0.00	
42	P	Cyclohexane	0.3672	0.4634	-26.2#	139	0.00	NT
43	s	surr4,Dibrflmethane	0.3369	0.3178	5.7	88	0.00	
44	P	Carbontetrachloride	0.3690	0.3639	1.4	96	0.00	
45		1,1-Dichloropropene	0.4674	0.4982	-6.6	107	0.00	
46	s	surr1,1,2-dichloroethane-d4	0.4431	0.4458	-0.6	95	0.00	
47	P	Benzene	1.3327	1.4147	-6.2	107	0.00	
48	P	1,2-Dichloroethane	0.5302	0.5775	-8.9	114	0.00	
49		Iso-Butyl Alcohol	0.0249	0.0283	-13.7	118	-0.01	
50		TAME	0.9798	1.0521	-7.4	108	0.00	
51		n-Heptane	0.4509	0.6209	-37.7#	137	0.00	NT

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	0.0136	0.0152	-11.8	112	-0.01	
53	P	Trichloroethene	0.3480	0.3371	3.1	101	0.00	
54	P	Methylcyclohexane	0.4434	0.5487	-23.7#	132	0.00	NT
55	P	1,2-Diclpropane	0.3707	0.4172	-12.5	112	0.00	
56		Dibromomethane	0.2205	0.2297	-4.2	104	0.00	
57		1,4-Dioxane	0.0064	0.0063	1.6	102	0.00	
58		Methyl Methacrylate	0.2904	0.3090	-6.4	107	0.00	
59	P	Bromodichloromethane	0.4109	0.4406	-7.2	105	0.00	
60		2-Nitropropane	0.0696	0.0913	-31.2#	132	0.00	NT
61		2-Chloroethylvinyl Ether	0.2002	0.1954	2.4	95	0.00	
62	P	cis-1,3-Dichloropropene	0.5039	0.5665	-12.4	103	0.00	
63	P	4-Methyl-2-pentanone	0.4833	0.5824	-20.5#	122	0.00	
64	s	SURR3,Toluene-d8	1.3662	1.2873	5.8	89	0.00	
65	P	Toluene	1.4326	1.5248	-6.4	106	0.00	
66	P	trans-1,3-Dichloropropene	0.4563	0.4847	-6.2	98	0.00	
67		Ethyl Methacrylate	0.4749	0.5483	-15.5	112	0.00	
68	P	1,1,2-Trichloroethane	0.3169	0.3256	-2.7	104	0.00	
69	s	SURR2,BFB	0.5250	0.5080	3.2	90	0.00	
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00	
71	P	Tetrachloroethene	0.3110	0.3088	0.7	106	0.00	
72	P	2-Hexanone	0.4218	0.5013	-18.8	124	0.00	
73		1,3-Dichloropropane	0.6375	0.6999	-9.8	109	0.00	
74	P	Dibromochloromethane	0.3318	0.3436	-3.6	100	0.00	
75		N-Butyl Acetate	0.7995	1.0075	-26.0#	126	0.00	NT
76	P	1,2-Dibromoethane	0.3669	0.3817	-4.0	104	0.00	
77		3-Chlorobenzotrifluoride	0.5609	0.6163	-9.9	124	0.00	
78	P	Chlorobenzene	1.0567	1.0800	-2.2	104	0.00	
79		4-Chlorobenzotrifluoride	0.4991	0.5483	-9.9	123	0.00	
80		1,1,1,2-Tetrachloroethane	0.3277	0.3337	-1.8	98	0.00	
81	P	Ethylbenzene	0.5533	0.5767	-4.2	104	0.00	
82	P	(m+p)Xylene	0.6878	0.7213	-4.9	105	0.00	
83	P	o-Xylene	0.6841	0.7041	-2.9	104	0.00	
84	P	Styrene	1.1007	1.1922	-8.3	102	0.00	
85	P	Bromoform	0.2127	0.2261	+3.1 ~~-6.3~~	98	0.00	
86		2-Chlorobenzotrifluoride	0.5409	0.6046	-11.8	120	0.00	
87	P	Isopropylbenzene	1.7367	1.8677	-7.5	105	0.00	
88		Cyclohexanone	0.0833	0.1072	-28.7#	123	0.00	NT
89		trans-1,4-Dichloro-2-Butene	0.1183	0.1351	+8.2 ~~-14.2~~	105	0.00	
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	96	0.00	
91	P	1,1,2,2-Tetrachloroethane	0.9501	1.0277	-8.2	107	0.00	
92		Bromobenzene	0.8364	0.8496	-1.6	101	0.00	
93		1,2,3-Trichloropropane	0.2929	0.2967	-1.3	98	0.00	
94		n-Propylbenzene	3.6871	4.1312	-12.0	107	0.00	
95		2-Chlorotoluene	2.2238	2.3551	-5.9	105	0.00	
96		3-Chlorotoluene	2.1968	2.4721	-12.5	118	0.00	
97		4-Chlorotoluene	2.6522	2.7566	-3.9	102	0.00	
98		1,3,5-Trimethylbenzene	2.5618	2.7857	-8.7	103	0.00	
99		tert-Butylbenzene	2.2480	2.3618	-5.1	102	0.00	
100		1,2,4-Trimethylbenzene	2.5509	2.7738	-8.7	104	0.00	
101		3,4-Dichlorobenzotrifluorid	0.8195	0.9338	-13.9	118	0.00	

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	3.2497	3.6131	-11.2	106	0.00
103		p-Isopropyltoluene	2.7735	3.0400	-9.6	106	0.00
104	P	1,3-Dclbenz	1.5381	1.5774	-2.6	101	0.00
105	P	1,4-Dclbenz	1.6241	1.6040	1.2	100	0.00
106		2,4-Dichlorobenzotrifluorid	0.7307	0.8501	-16.3	119	0.00
107		2,5-Dichlorobenzotrifluorid	0.8442	0.9606	-13.8	120	0.00
108		n-Butylbenzene	2.6519	2.9266	-10.4	106	0.00
109	P	1,2-Dclbenz	1.5604	1.5562	0.3	101	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1946	0.1800	7.5	89	0.00
111		Trielution Dichlorotoluene	1.2741	1.3939	-9.4	111	0.00
112		1,3,5-Trichlorobenzene	1.1311	1.2345	-9.1	113	0.00
113		Coelution Dichlorotoluene	1.4068	1.5069	-7.1	107	0.00
114	P	1,2,4-Tcbenzene	1.1092	1.1631	-4.9	101	0.00
115		Hexachlorobt	0.4849	0.5288	-9.1	104	0.00
116		Naphthalen	2.8757	3.0018	-4.4	96	0.00
117		1,2,3-Tclbenzene	1.0907	1.1056	-1.4	100	0.00
118		2,4,5-Trichlorotoluene	0.6924	0.8072	-16.6	107	0.00
119		2,3,6-Trichlorotoluene	0.6519	0.7173	-10.0	108	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.397	168	210430	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	328097	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	291551	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	161881	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	104270	47.16	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 94.32%			
46) surr1,1,2-dichloroetha...	5.781	65	146273	50.31	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.62%			
64) SURR3,Toluene-d8	8.311	98	422374	47.12	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.24%			
69) SURR2,BFB	10.877	95	166667	48.38	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.76%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	157356	56.00	ug/L	98
3) Chloromethane	1.282	50	171141	55.77	ug/L	96
4) Vinyl Chloride	1.361	62	156849	51.49	ug/L	99
5) Bromomethane	1.587	94	89500	36.23	ug/L	95
6) Chloroethane	1.666	64	99318	52.16	ug/L	97
7) Freon 21	1.812	67	238076	51.16	ug/L	98
8) Trichlorofluoromethane	1.861	101	169587	49.53	ug/L	99
9) Diethyl Ether	2.093	59	114082	58.85	ug/L	91
10) Freon 123a	2.099	67	148555	55.61	ug/L	95
11) Freon 123	2.147	83	156190	52.68	ug/L	98
12) Acrolein	2.196	56	164856	263.55	ug/L	96
13) 1,1-Diclethene	2.282	96	104460	53.86	ug/L	99
14) Freon 113	2.288	101	105003	54.34	ug/L	98
15) Acetone	2.324	43	77385	62.51	ug/L	93
16) 2-Propanol	2.464	45	249594	1042.75	ug/L	94
17) Iodomethane	2.416	142	155699	59.76	ug/L	99
18) Carbon Disulfide	2.477	76	306711	57.99	ug/L	100
19) Acetonitrile	2.580	41	135033	300.07	ug/L	92
20) Allyl Chloride	2.617	76	50909	53.84	ug/L #	83
21) Methyl Acetate	2.641	43	150823	61.13	ug/L	95
22) Methylene Chloride	2.733	84	116338	51.41	ug/L	90
23) TBA	2.867	59	361977	1009.53	ug/L	93
24) Acrylonitrile	2.989	53	361656	295.53	ug/L	97
25) Methyl-t-Butyl Ether	3.038	73	382046	53.10	ug/L	97
26) trans-1,2-Dichloroethene	3.031	96	110541	53.29	ug/L	96
27) 1,1-Diclethane	3.525	63	229880	56.54	ug/L	99
28) Vinyl Acetate	3.623	86	24492	52.33	ug/L #	31
29) DIPE	3.653	45	505126	67.10	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	216068	61.83	ug/L	91
31) ETBE	4.184	59	383092	56.20	ug/L	97
32) 2,2-Dichloropropane	4.367	77	146079	47.14	ug/L	98
33) cis-1,2-Dichloroethene	4.373	96	121141	52.40	ug/L	95
34) 2-Butanone	4.415	43	103210	61.67	ug/L	93
35) Propionitrile	4.501	54	139401	281.15	ug/L	95
36) Bromochloromethane	4.769	130	71162	49.82	ug/L #	86
37) Methacrylonitrile	4.769	67	64118	53.75	ug/L #	74
38) Tetrahydrofuran	4.860	42	60814	58.67	ug/L	87
39) Chloroform	4.952	83	199924	53.70	ug/L	95
40) 1,1,1-Trichloroethane	5.251	97	159710	50.81	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	152040	63.10	ug/L		99
44) Carbontetrachloride	5.531	117	119384	49.30	ug/L		96
45) 1,1-Dichloropropene	5.549	75	163472	53.30	ug/L		97
47) Benzene	5.866	78	464171	53.08	ug/L		94
48) 1,2-Dichloroethane	5.903	62	189479	54.46	ug/L		98
49) Iso-Butyl Alcohol	5.885	43	185454	1137.26	ug/L		99
50) TAME	6.104	73	345205	53.69	ug/L		94
51) n-Heptane	6.360	43	203726	68.85	ug/L		92
52) 1-Butanol	6.854	56	249925	2769.47	ug/L		94
53) Trichloroethene	6.817	130	110589	48.43	ug/L		96
54) Methylcyclohexane	7.055	55	180021	61.87	ug/L		94
55) 1,2-Diclpropane	7.098	63	136883	56.27	ug/L		99
56) Dibromomethane	7.238	93	75353	52.08	ug/L		85
57) 1,4-Dioxane	7.305	88	41498	986.02	ug/L		95
58) Methyl Methacrylate	7.329	69	101384	53.20	ug/L		90
59) Bromodichloromethane	7.470	83	144570	53.62	ug/L		96
60) 2-Nitropropane	7.750	41	59903	131.18	ug/L		98
61) 2-Chloroethylvinyl Ether	7.878	63	64104	48.80	ug/L		90
62) cis-1,3-Dichloropropene	8.012	75	185852	56.21	ug/L		98
63) 4-Methyl-2-pentanone	8.219	43	191069	60.24	ug/L		93
65) Toluene	8.384	91	500296	53.22	ug/L		98
66) trans-1,3-Dichloropropene	8.652	75	159026	53.11	ug/L		99
67) Ethyl Methacrylate	8.799	69	179884	57.72	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	106816	51.37	ug/L		94
71) Tetrachloroethene	8.975	164	90037	49.66	ug/L		98
72) 2-Hexanone	9.134	43	146156	59.43	ug/L		96
73) 1,3-Dichloropropane	9.012	76	204066	54.90	ug/L		92
74) Dibromochloromethane	9.238	129	100173	51.78	ug/L		98
75) N-Butyl Acetate	9.292	43	293749	63.01	ug/L		92
76) 1,2-Dibromoethane	9.335	107	111288	52.01	ug/L		98
77) 3-Chlorobenzotrifluoride	9.847	180	179691	54.94	ug/L		98
78) Chlorobenzene	9.829	112	314889	51.11	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	159851	54.92	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.920	131	97293	50.92	ug/L		98
81) Ethylbenzene	9.951	106	168150	52.11	ug/L		94
82) (m+p)Xylene	10.061	106	420612	104.87	ug/L		96
83) o-Xylene	10.420	106	205271	51.46	ug/L		98
84) Styrene	10.432	104	347586	54.16	ug/L		96
85) Bromoform	10.585	173	65919	51.55	ug/L		94
86) 2-Chlorobenzotrifluoride	10.664	180	176261	55.89	ug/L		98
87) Isopropylbenzene	10.756	105	544521	53.77	ug/L		99
88) Cyclohexanone	10.817	55	624965	1287.43	ug/L		94
89) trans-1,4-Dichloro-2-B...	11.066	53	39398	54.11	ug/L		93
91) 1,1,2,2-Tetrachloroethane	11.018	83	166365	54.08	ug/L		99
92) Bromobenzene	10.999	156	137537	50.79	ug/L		94
93) 1,2,3-Trichloropropane	11.042	110	48022	50.64	ug/L	#	90
94) n-Propylbenzene	11.109	91	668757	56.02	ug/L		98
95) 2-Chlorotoluene	11.176	91	381254	52.95	ug/L		100
96) 3-Chlorotoluene	11.225	91	400192	56.27	ug/L		98
97) 4-Chlorotoluene	11.268	91	446242	51.97	ug/L		98
98) 1,3,5-Trimethylbenzene	11.262	105	450959	54.37	ug/L		99
99) tert-Butylbenzene	11.536	119	382324	52.53	ug/L		98
100) 1,2,4-Trimethylbenzene	11.572	105	449026	54.37	ug/L		100
101) 3,4-Dichlorobenzotrifl...	11.633	214	151157	56.97	ug/L		96
102) sec-Butylbenzene	11.719	105	584888	55.59	ug/L		97
103) p-Isopropyltoluene	11.841	119	492114	54.80	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

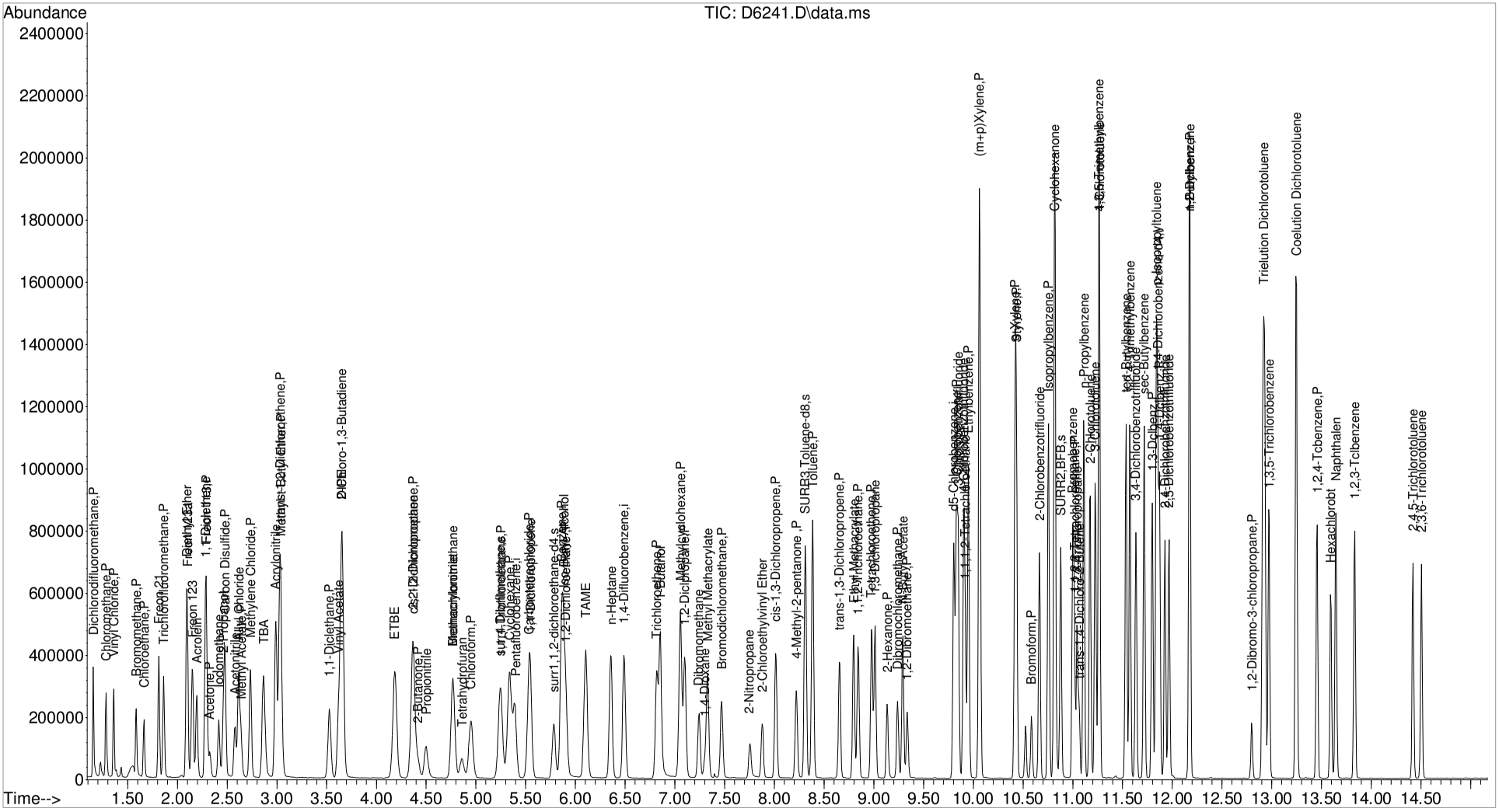
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	255343	51.27	ug/L	99
105) 1,4-Dclbenz	11.871	146	259655	49.38	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	137608	58.16	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.969	214	155499	56.89	ug/L	97
108) n-Butylbenzene	12.176	91	473768	55.18	ug/L	97
109) 1,2-Dclbenz	12.176	146	251916	49.86	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.798	157	29138	46.25	ug/L	95
111) Trielution Dichlorotol...	12.920	125	676957	164.11	ug/L	99
112) 1,3,5-Trichlorobenzene	12.975	180	199845	54.57	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	487870	107.12	ug/L	95
114) 1,2,4-Tcbenzene	13.456	180	188281	52.43	ug/L	98
115) Hexachlorobt	13.590	225	85601	54.53	ug/L	98
116) Naphthalen	13.645	128	485929	52.19	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	178971	50.68	ug/L	98
118) 2,4,5-Trichlorotoluene	14.419	159	130667	58.29	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	116113	55.02	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



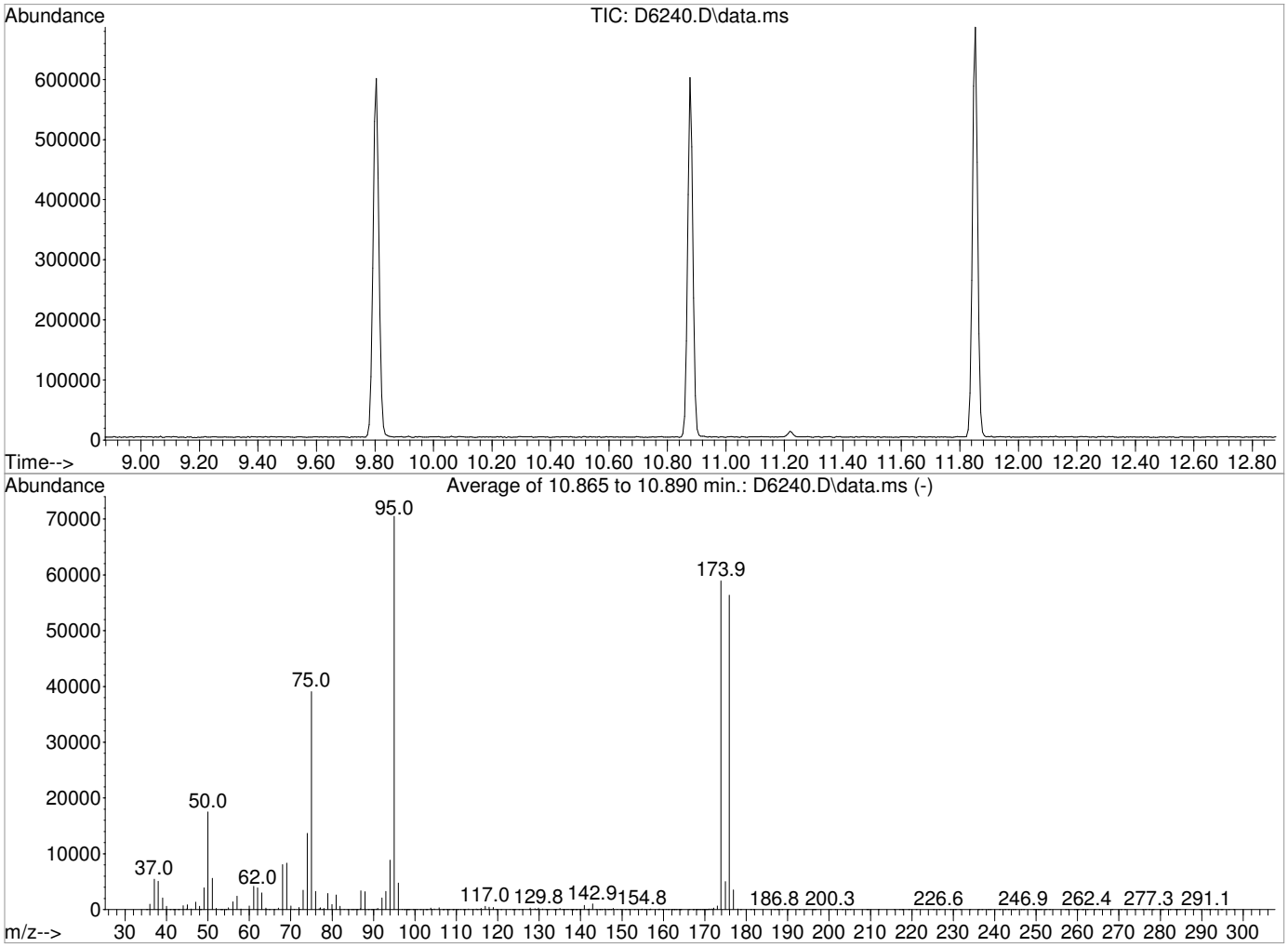
1st DL 10/01/18
2nd FJ 10/02/18

1st DL 10/01/18
2nd FJ 10/02/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6240.D
Acq On : 28 Sep 2018 8:46 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\W082118.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Aug 22 12:58:20 2018



Spectrum Information: Average of 10.865 to 10.890 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.9	17532	PASS
75	95	30	60	55.4	39074	PASS
95	95	100	100	100.0	70496	PASS
96	95	5	9	6.7	4758	PASS
173	174	0.00	2	1.1	655	PASS
174	95	50	120	83.6	58931	PASS
175	174	5	9	8.6	5041	PASS
176	174	95	101	95.6	56347	PASS
177	176	5	9	6.2	3517	PASS

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Acquisition Date
09	RC1800095-09	STD #1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\082118\D5431.D	08/21/2018 14:58
08	RC1800095-08	STD #2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5432.D	08/21/2018 15:20
07	RC1800095-07	STD #3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5433.D	08/21/2018 15:42
06	RC1800095-06	STD #4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5434.D	08/21/2018 16:03
05	RC1800095-05	STD #5 - 20 PPB	I:\ACQUDATA\msvoa10\data\082118\D5435.D	08/21/2018 16:25
04	RC1800095-04	STD #6 - 50 PPB	I:\ACQUDATA\msvoa10\data\082118\D5436.D	08/21/2018 16:47
03	RC1800095-03	STD #7 - 100 PPB	I:\ACQUDATA\msvoa10\data\082118\D5437.D	08/21/2018 17:09
02	RC1800095-02	STD #8 - 150 PPB	I:\ACQUDATA\msvoa10\data\082118\D5438.D	08/21/2018 17:31
01	RC1800095-01	STD #9 - 200 PPB	I:\ACQUDATA\msvoa10\data\082118\D5439.D	08/21/2018 17:53

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.8757	08	1.000	0.7331	07	2.000	0.7119	06	5.000	0.7032
05	20.000	0.7316	04	50.000	0.728	03	100.000	0.751	02	150.000	0.746
01	200.000	0.7416									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.046	08	1.000	0.985	07	2.000	0.9764	06	5.000	0.943
05	20.000	0.9708	04	50.000	0.9369	03	100.000	0.9651	02	150.000	0.9414
01	200.000	0.9299									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5024	08	1.000	0.437	07	2.000	0.4419	06	5.000	0.4712
05	20.000	0.4629	04	50.000	0.4463	03	100.000	0.4632	02	150.000	0.4637
01	200.000	0.4592									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.5925	05	20.000	0.4991	04	50.000	0.5551	03	100.000	0.4954
02	200.000	0.483									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.3863	05	20.000	0.3219	04	50.000	0.3561	03	100.000	0.3143
02	200.000	0.3062									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3572	08	1.000	0.3121	07	2.000	0.3045	06	5.000	0.279
05	20.000	0.301	04	50.000	0.2871	03	100.000	0.309	02	150.000	0.3241
01	200.000	0.3245									

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.643	05	20.000	1.284	04	50.000	1.427	03	100.000	1.269
02	200.000	1.207									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3826	08	1.000	0.3369	07	2.000	0.3521	06	5.000	0.3404
05	20.000	0.3566	04	50.000	0.3304	03	100.000	0.3431	02	150.000	0.3452
01	200.000	0.3448									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.7256	08	1.000	0.7718	07	2.000	0.7174	06	5.000	0.7172
05	20.000	0.7297	04	50.000	0.6977	03	100.000	0.7117	02	150.000	0.7269
01	200.000	0.716									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5299	08	1.000	0.5929	07	2.000	0.5369	06	5.000	0.5306
05	20.000	0.5602	04	50.000	0.5423	03	100.000	0.5614	02	150.000	0.5452
01	200.000	0.544									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5259	08	1.000	0.4833	07	2.000	0.4621	06	5.000	0.4805
05	20.000	0.5014	04	50.000	0.4907	03	100.000	0.5051	02	150.000	0.4941
01	200.000	0.4929									

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095 **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	6.8	≤20	0.7469	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.7	≤20	0.966	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	4.2	≤20	0.4609	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	8.9	≤20	0.525	
Dibromofluoromethane	SURR	Average RF	% RSD	9.9	≤20	0.3369	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.4	≤20	0.311	0.200
Toluene-d8	SURR	Average RF	% RSD	12.8	≤20	1.366	
Trichloroethene (TCE)	TRG	Average RF	% RSD	4.3	≤20	0.348	0.200
Vinyl Chloride	TRG	Average RF	% RSD	2.8	≤20	0.7238	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.5493	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.4929	0.100

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Acquisition Date
10	RC1800095-10	ICV 50	I:\ACQUDATA\msvoa10\data\082118\D5444.D	08/21/2018 19:42
11	RC1800095-11	ICV	I:\ACQUDATA\msvoa10\data\082218\D5449.D	08/22/2018 10:27

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	46.8	7.469E-1	6.992E-1	-6.384	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	47.9	9.66E-1	9.252E-1	-4.230	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.3	4.609E-1	4.177E-1	-9.370	±30	Average RF
Tetrachloroethene (PCE)	50.0	46.5	3.11E-1	2.889E-1	-7.081	±30	Average RF
Trichloroethene (TCE)	50.0	47.8	3.48E-1	3.326E-1	-4.434	±30	Average RF
Vinyl Chloride	50.0	45.0	7.238E-1	6.516E-1	-9.969	±30	Average RF
cis-1,2-Dichloroethene	50.0	47.2	5.493E-1	5.185E-1	-5.601	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.5	4.929E-1	4.686E-1	-4.932	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	52.8	5.25E-1	5.542E-1	5.55	±30	Average RF
Dibromofluoromethane	50.0	52.4	3.369E-1	3.53E-1	4.76	±30	Average RF
Toluene-d8	50.0	53.0	1.366E0	1.449E0	6.03	±30	Average RF

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/28/18 09:24

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\092818\D6241.D\
Signal ID: 1

Calibration Date: 8/21/2018
Calibration ID: RC1800095
Analysis Lot: 608727
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	50.8	0.7469	0.759	1.6	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	56.5	0.966	1.0924	13.1	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	53.9	0.4609	0.4964	7.7	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	49.7	0.311	0.3088	-0.7	NA	±20	Average RF
Trichloroethene (TCE)	50.0	48.4	0.348	0.3371	-3.1	NA	±20	Average RF
Vinyl Chloride	50.0	51.5	0.7238	0.7454	3.0	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	52.4	0.5493	0.5757	4.8	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	53.3	0.4929	0.5253	6.6	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	48.4	0.525	0.508	-3.2	NA	±20	Average RF
Dibromofluoromethane	50.0	47.2	0.3369	0.3178	-5.7	NA	±20	Average RF
Toluene-d8	50.0	47.1	1.3662	1.2873	-5.8	NA	±20	Average RF

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**608727
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092818\D6240.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	08:46:00	
I:\ACQUDATA\msvoa10\data\092818\D6241.D\	Continuing Calibration Verification	RQ1810434-02	9/28/2018	09:24:00	
I:\ACQUDATA\msvoa10\data\092818\D6242.D\	Lab Control Sample	RQ1810434-03	9/28/2018	10:13:00	
I:\ACQUDATA\msvoa10\data\092818\D6244.D\	Method Blank	RQ1810434-04	9/28/2018	11:05:00	
I:\ACQUDATA\msvoa10\data\092818\D6245.D\	Trip Blank - 092018	R1809120-001	9/28/2018	11:34:00	
I:\ACQUDATA\msvoa10\data\092818\D6246.D\	FB-092018	R1809120-011	9/28/2018	11:56:00	
I:\ACQUDATA\msvoa10\data\092818\D6247.D\	MW-10	R1809120-002	9/28/2018	12:18:00	
I:\ACQUDATA\msvoa10\data\092818\D6248.D\	MW-13	R1809120-003	9/28/2018	12:40:00	
I:\ACQUDATA\msvoa10\data\092818\D6249.D\	DMW-3	R1809120-004	9/28/2018	13:01:00	
I:\ACQUDATA\msvoa10\data\092818\D6250.D\	TMP-A	R1809120-007	9/28/2018	13:23:00	
I:\ACQUDATA\msvoa10\data\092818\D6251.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	13:45:00	
I:\ACQUDATA\msvoa10\data\092818\D6252.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	14:07:00	
I:\ACQUDATA\msvoa10\data\092818\D6254.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	14:51:00	
I:\ACQUDATA\msvoa10\data\092818\D6255.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	15:12:00	
I:\ACQUDATA\msvoa10\data\092818\D6256.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	16:32:00	
I:\ACQUDATA\msvoa10\data\092818\D6257.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	16:59:00	
I:\ACQUDATA\msvoa10\data\092818\D6258.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	17:23:00	
I:\ACQUDATA\msvoa10\data\092818\D6260.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	18:07:00	
I:\ACQUDATA\msvoa10\data\092818\D6261.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	18:29:00	
I:\ACQUDATA\msvoa10\data\092818\D6262.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	18:50:00	
I:\ACQUDATA\msvoa10\data\092818\D6264.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	19:34:00	
I:\ACQUDATA\msvoa10\data\092818\D6265.D\	ZZZZZZZ	ZZZZZZZ	9/28/2018	19:56:00	
I:\ACQUDATA\msvoa10\data\092818\D6266.D\	MW-10 MS	RQ1810434-05	9/28/2018	20:18:00	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**608727
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092818 \D6267.D\	MW-10 DMS	RQ1810434-06	9/28/2018	20:39:00	

Analysis: 8260C | Analyst: D. Nguyen | pH strips: Hyd 204018 | Tune Method: W082118.M

Date: 9/28/18 | Balance ID: — | ResCl strips: — | Run Method: ↓

Instr. MS#10 | 50 mL Class A used for dilution FV | Syringes: 181117 | LIMS Run#: 608727

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	Tune Check		(Run as a Blk)					D6240	Y	
2	CCV							41	Y	Acetone↑ MEK↑
3	LCS-Acid							42	Y	
4	Blk							43	N	
5	Met Blk							44	Y	
6	R1809120-001	1.0		6646	IV	1	<2	45	Y	
7	-011	1.0				1	<2	46	Y	
8	-002	1.0				1	<2	47	Y	
9	-003	1.0				1	<2	48	Y	
10	-004	1.0				1	<2	49	Y	
11	-007	1.0				1	<2	D6250	Y	
12	R1809119-002	1.0		13429	II	1	<2	51	(Y)	rpt 1/5 VC, MeCl2, cis, TCE all↑
13	-004	2.0	25mL/50mL			T	<2	52	Y	
14	Blk			—	—	—	—	53	O.K.	
15	R1809119-001	2.5	20mL/50mL	13429	II	1	<2	54	(Y)	rpt 1/10 VC, MeCl2, TCE↑
16	-003	250	1.0mL/250mL			1	<2	55	(Y)	rpt 1/500 cis↑
17	-003	500	1.0mL/100mL; 10mL/50mL			2	<2	56	Y	= DL
18	-002	5.0	10mL/50mL			2	<2	57	Y	= DL slight weak
19	-001	10	5.0mL/50mL			2	<2	58	Y	= DL
20	Blk			—	—	—	—	59	O.K.	
21	R1809051-003	1.0		14733	II	1	<2	D6260	Y	
22	-001	1.0				1	<2	61	Y	
23	-002	2.0	25mL/50mL			1	<2	62	Y	
24	-002	5.0	10mL/50mL			2	<2	63	O.K.	- not needed
25	R1809052-001	2.0	25mL/50mL			1	<2	64	(Y)	- rpt 1/10 VC, Tol., CB, 2-CT↑ rpt 1/10
26	-001	10	5.0mL/50mL			2	<2	65	Y	= DL
27	R1809120-002MS	1.0		13429	II	2	<2	66	Y	
28	-002DMS	1.0				3	<2	67	Y	
29	Blk			—	—	—	—	68	O.K.	
30	High Gases			—	—	—	—	69	Y	
31-43	Blks			—	—	—	—	D6270-82	(Y)	
	EOD		DL 90 28-18							

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Combined IS/Surr — : —

Surrogate 50 : 193101

Internal Std 50 : 193099

Reagents:

Primary TG : 193538 5.0µl

Primary HSL : 193469

Primary OCC : 193366

Primary Frt : 193220

Primary : —

50mL DI CCV.

Secondary TG : 193547 2.0µl → 4.2µl

Secondary HSL : 193388

Secondary OCC : 191355 → 10.6µl

Secondary Frt : 193559 5.0µl → 50mL LCS

Secondary : —

42mL vial samp. = MS/DMS

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Runlog-MSVOAr4 1/17/17

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 12:14
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-17	**Units:**	ug/L
Lab Code:	R1809120-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**1.5**	1.0	0.25	1	09/24/18 17:38	
1,1-Dichloroethane (1,1-DCA)	**7.1**	1.0	0.20	1	09/24/18 17:38	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 17:38	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 17:38	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 17:38	
Dibromofluoromethane	97	89 - 119	09/24/18 17:38	
Toluene-d8	99	87 - 121	09/24/18 17:38	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 12:23
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-16	**Units:**	ug/L
Lab Code:	R1809120-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 18:00	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 18:00	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 18:00	
Tetrachloroethene (PCE)	**160**	1.0	0.28	1	09/24/18 18:00	
Trichloroethene (TCE)	**1.6**	1.0	0.20	1	09/24/18 18:00	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 18:00	
cis-1,2-Dichloroethene	**1.5**	1.0	0.26	1	09/24/18 18:00	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 18:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	09/24/18 18:00	
Dibromofluoromethane	93	89 - 119	09/24/18 18:00	
Toluene-d8	95	87 - 121	09/24/18 18:00	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 15:18
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1809120-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.42**	**J**	1.0	0.25	1	09/25/18 12:53	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	0.20	1	09/25/18 12:53	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/25/18 12:53	
Tetrachloroethene (PCE)	1.0	U	1.0	0.28	1	09/25/18 12:53	
Trichloroethene (TCE)	**17**		1.0	0.20	1	09/25/18 12:53	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/25/18 12:53	
cis-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/25/18 12:53	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/25/18 12:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/25/18 12:53	
Dibromofluoromethane	95	89 - 119	09/25/18 12:53	
Toluene-d8	96	87 - 121	09/25/18 12:53	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 15:30
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1809120-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.62**	**J**	1.0	0.25	1	09/24/18 18:44	
1,1-Dichloroethane (1,1-DCA)	**2.1**		1.0	0.20	1	09/24/18 18:44	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/24/18 18:44	
Tetrachloroethene (PCE)	1.0	U	1.0	0.28	1	09/24/18 18:44	
Trichloroethene (TCE)	**8.7**		1.0	0.20	1	09/24/18 18:44	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/24/18 18:44	
cis-1,2-Dichloroethene	**11**		1.0	0.26	1	09/24/18 18:44	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/24/18 18:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 18:44	
Dibromofluoromethane	98	89 - 119	09/24/18 18:44	
Toluene-d8	99	87 - 121	09/24/18 18:44	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18 15:35
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	R1809120-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 19:30	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 19:30	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 19:30	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 19:30	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	09/24/18 19:30	
Dibromofluoromethane	92	89 - 119	09/24/18 19:30	
Toluene-d8	97	87 - 121	09/24/18 19:30	

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1809120
Project:	Dover - Binghamton/5101.0003	**Date Collected:**	09/20/18
Sample Matrix:	Water	**Date Received:**	09/21/18 09:50
Sample Name:	DUP-092018	**Units:**	ug/L
Lab Code:	R1809120-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

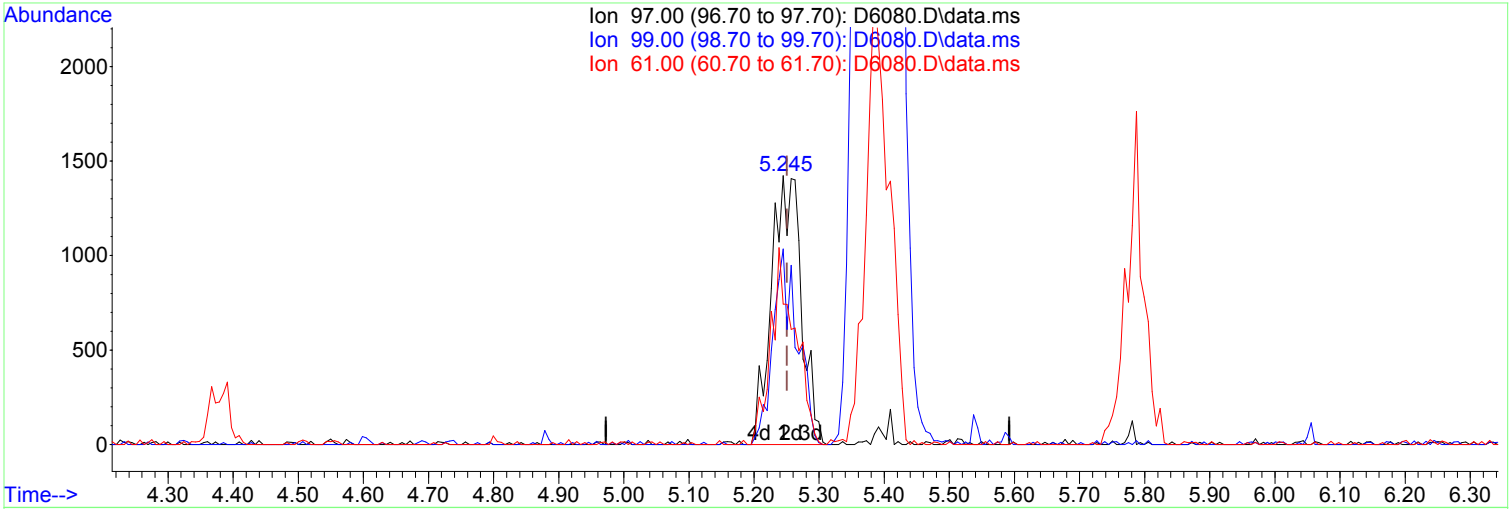
Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	**0.51**	**J**	1.0	0.25	1	09/24/18 19:08	
1,1-Dichloroethane (1,1-DCA)	**2.0**		1.0	0.20	1	09/24/18 19:08	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	0.28	1	09/24/18 19:08	
Tetrachloroethene (PCE)	1.0	U	1.0	0.28	1	09/24/18 19:08	
Trichloroethene (TCE)	**9.7**		1.0	0.20	1	09/24/18 19:08	
Vinyl Chloride	1.0	U	1.0	0.22	1	09/24/18 19:08	
cis-1,2-Dichloroethene	**15**		1.0	0.26	1	09/24/18 19:08	
trans-1,2-Dichloroethene	1.0	U	1.0	0.26	1	09/24/18 19:08	

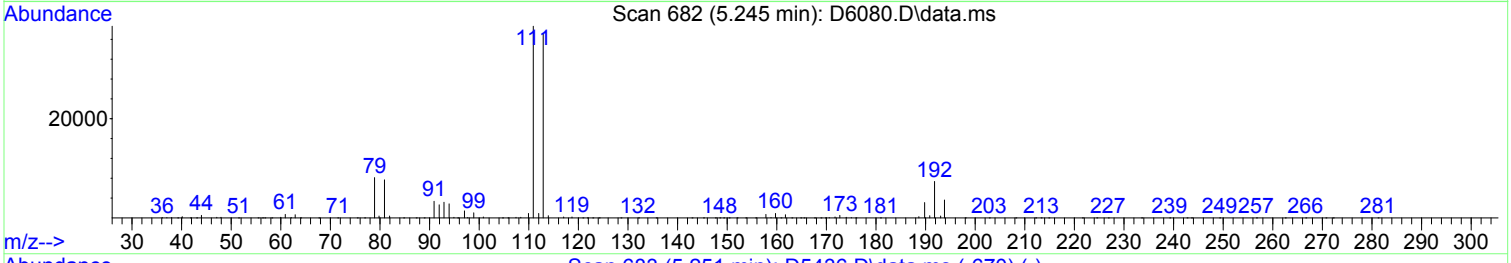
Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/24/18 19:08	
Dibromofluoromethane	102	89 - 119	09/24/18 19:08	
Toluene-d8	102	87 - 121	09/24/18 19:08	

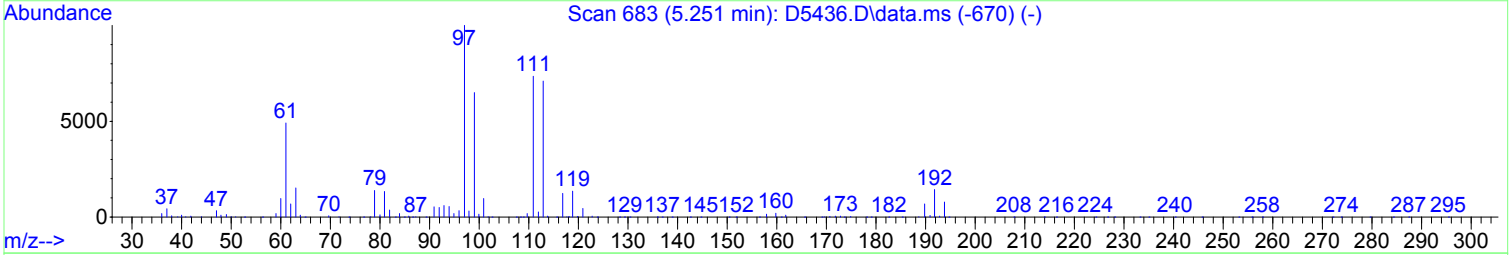
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6080.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.006) 1.54 ug/L m

response 4542

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	72.73
61.00	49.10	52.28
0.00	0.00	0.00

Manual Integration:

After

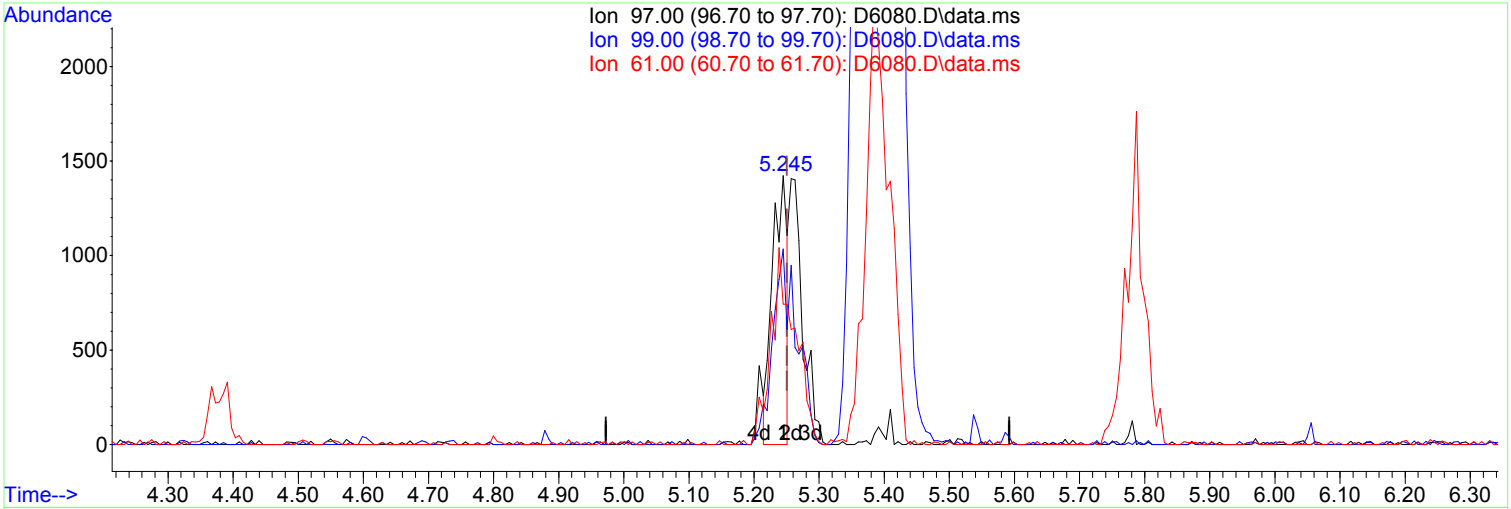
Poor integration.

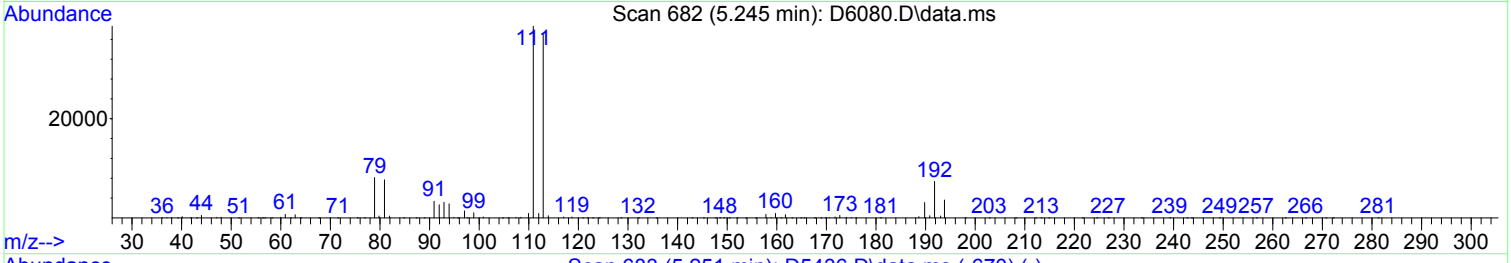
09/27/18

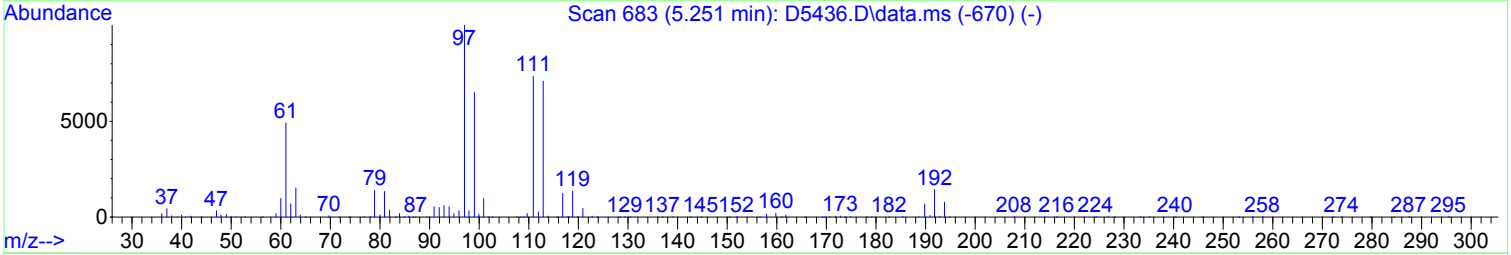
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6080.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.006) 0.76 ug/L

response 2250

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	69.65
61.00	49.10	50.07
0.00	0.00	0.00

Manual Integration:

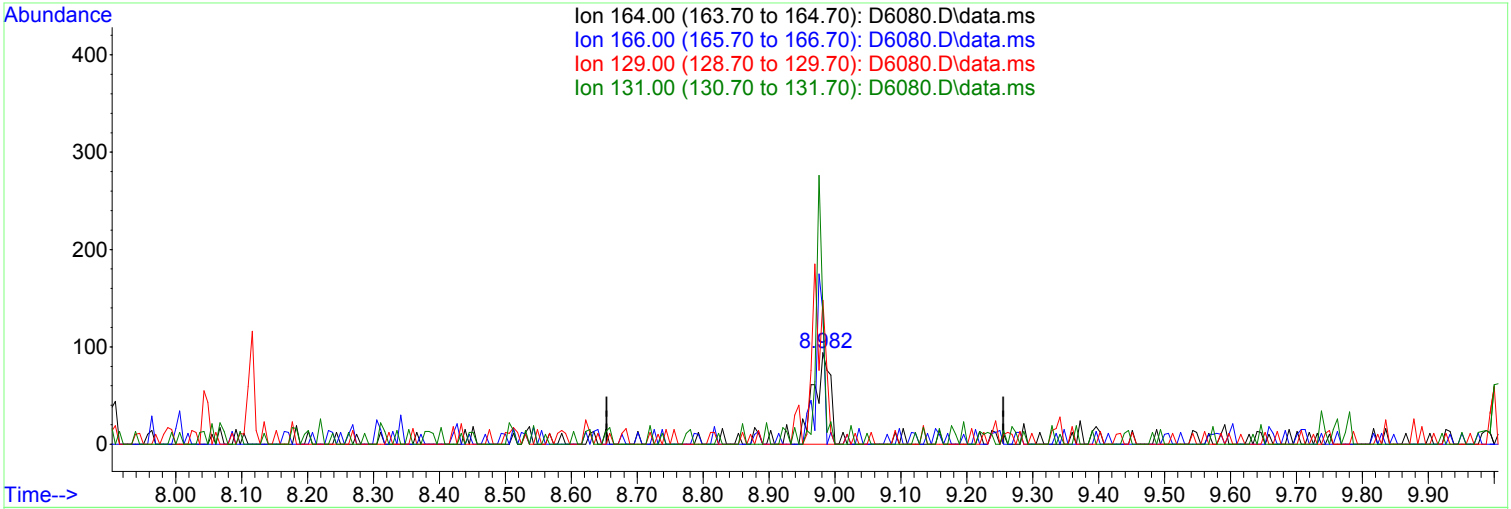
Before

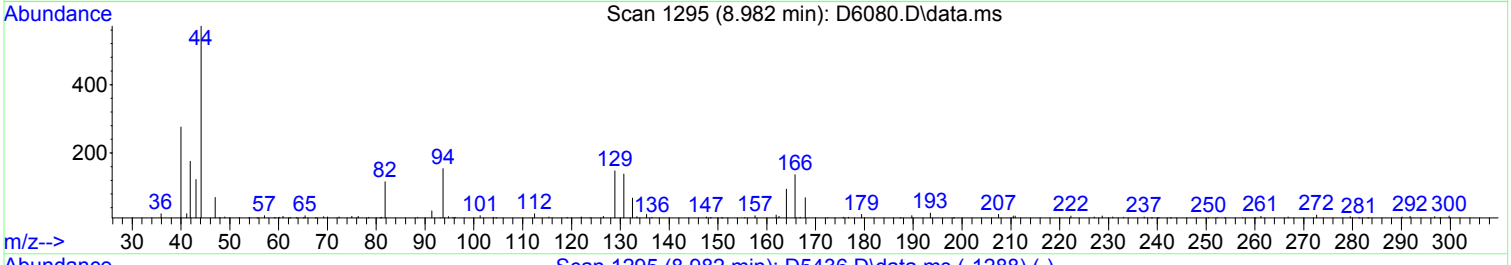
09/27/18

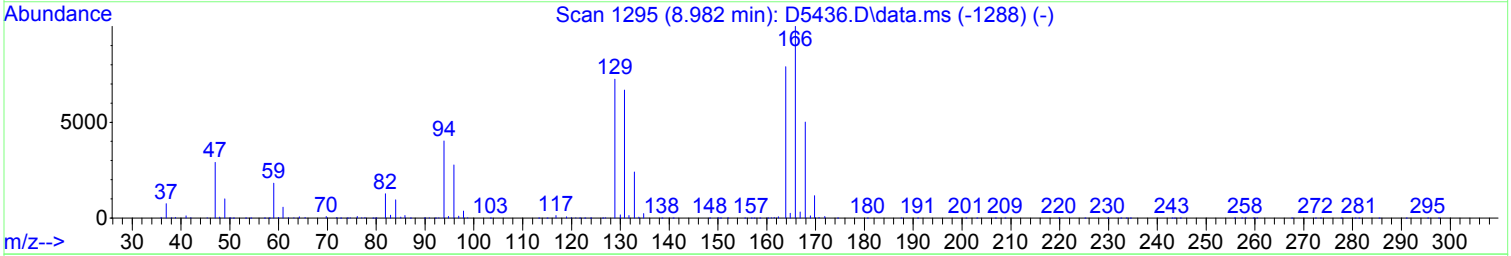
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6080.D\data.ms

(71) Tetrachloroethene (P)

8.982min (+0.000) 0.10 ug/L m

response 163

Ion	Exp%	Act%
164.00	100	100
166.00	126.80	144.68
129.00	91.90	157.45#
131.00	84.60	146.81#

Manual Integration:

After

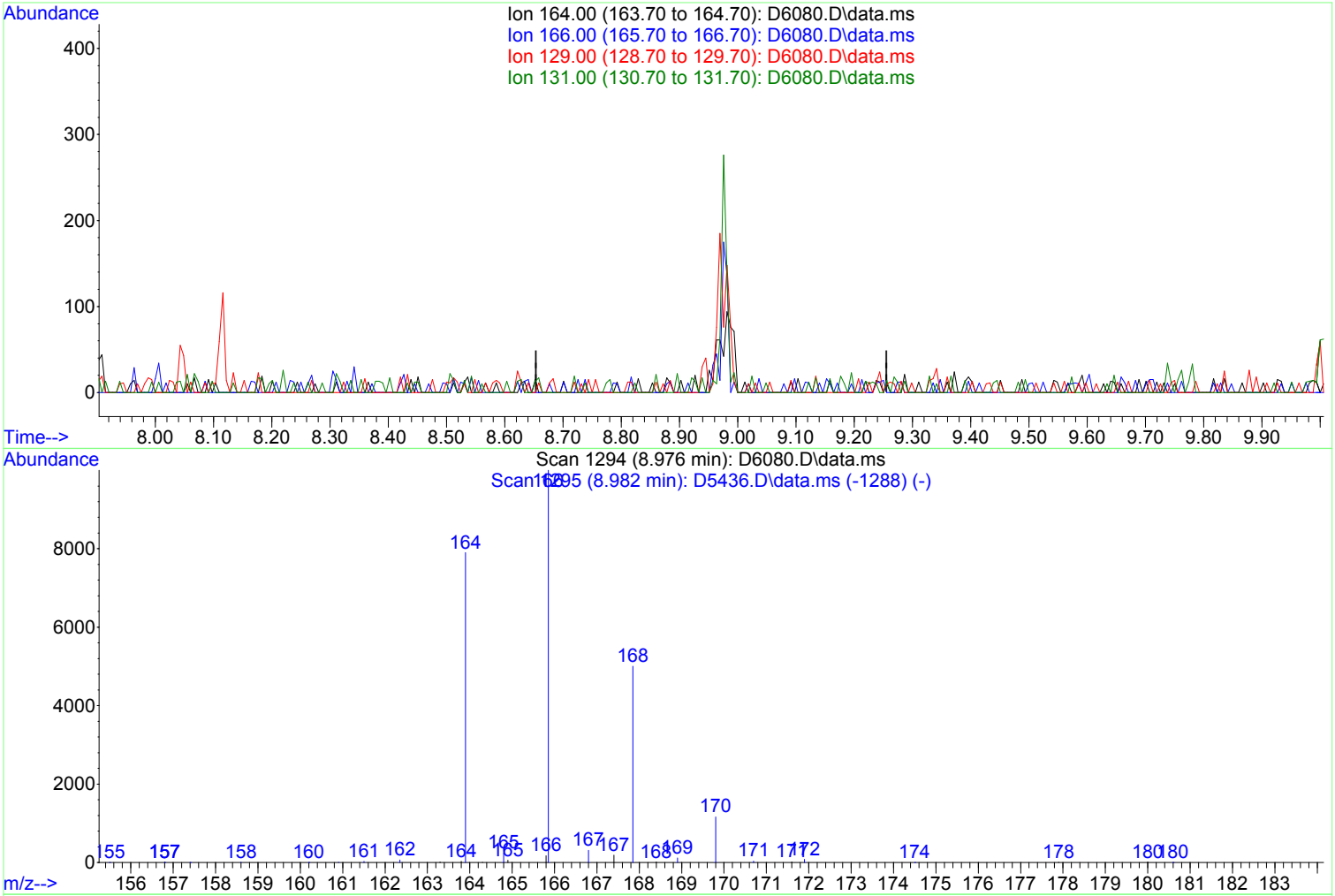
Poor integration.

09/27/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6080.D\data.ms

(71) Tetrachloroethene (P)

8.982min (-8.982) 0.00 ug/L

response 0

Ion	Exp%	Act%
164.00	100	0.00
166.00	126.80	0.00#
129.00	91.90	0.00#
131.00	84.60	0.00#

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 27 15:06:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

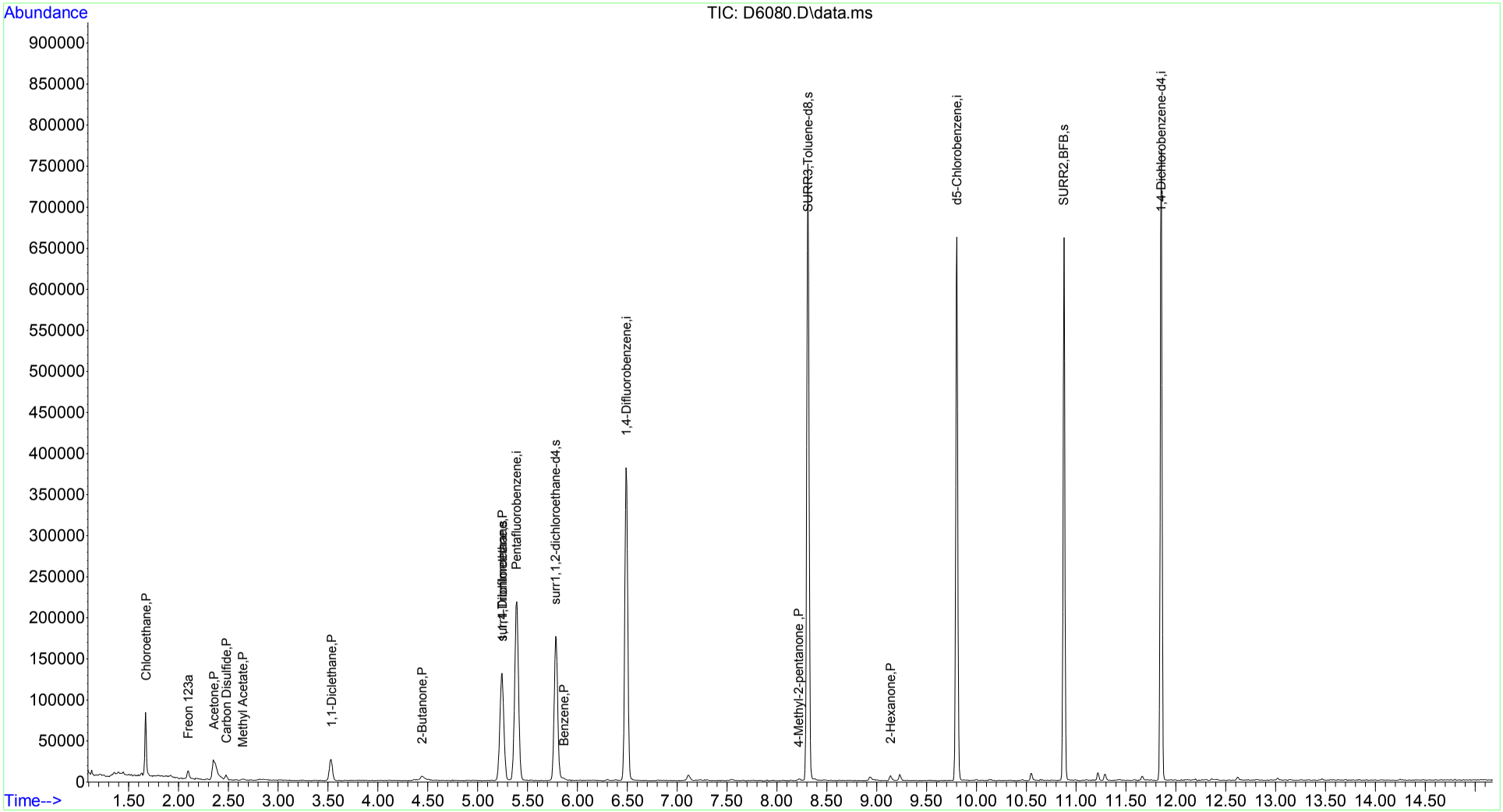
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	196977	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	314860	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	269323	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	135896	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	103348	48.71	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.42%			
46) surr1,1,2-dichloroetha...	5.781	65	148663	53.28	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.56%			
64) SURR3,Toluene-d8	8.311	98	425369	49.44	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.88%			
69) SURR2,BFB	10.878	95	150251	45.45	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.90%			
Target Compounds						Qvalue
6) Chloroethane	1.672	64	44390	24.91	ug/L	94
10) Freon 123a	2.099	67	3956	1.58	ug/L	97
15) Acetone	2.355	43	54216	46.79	ug/L	88
18) Carbon Disulfide	2.477	76	5530	1.12	ug/L	98
21) Methyl Acetate	2.648	43	1231	0.53	ug/L	84
27) 1,1-Diclethane	3.531	63	27202	7.15	ug/L	96
34) 2-Butanone	4.440	43	12387	7.91	ug/L	88
40) 1,1,1-Trichloroethane	5.245	97	4542m	1.54	ug/L	
47) Benzene	5.860	78	2567	0.31	ug/L #	56
63) 4-Methyl-2-pentanone	8.220	43	1443	0.47	ug/L	80
72) 2-Hexanone	9.140	43	3950	1.74	ug/L	95

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

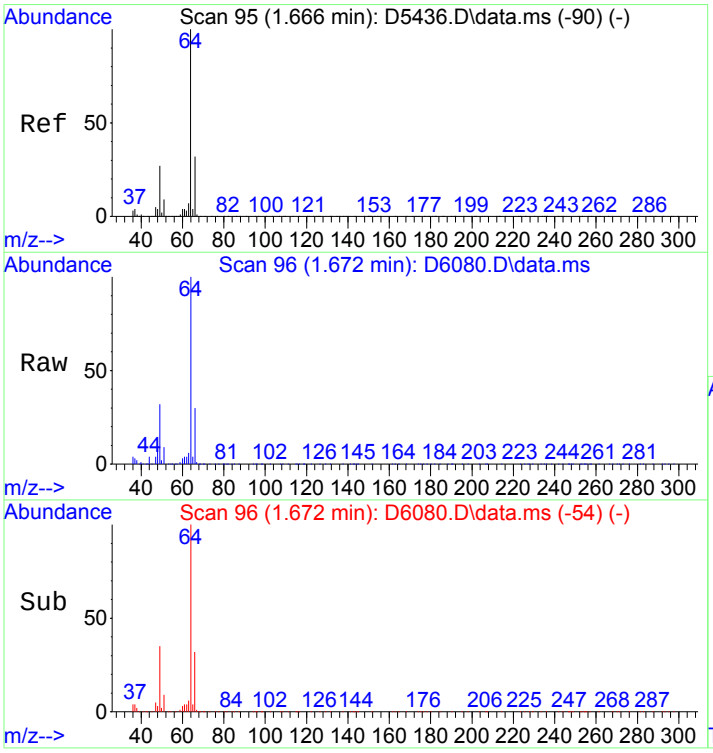
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 27 15:06:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



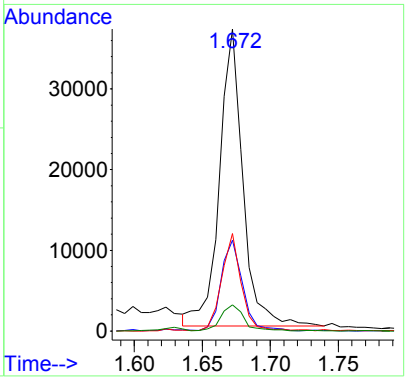
1st BA 09/27/18
2nd DL 09/27/18

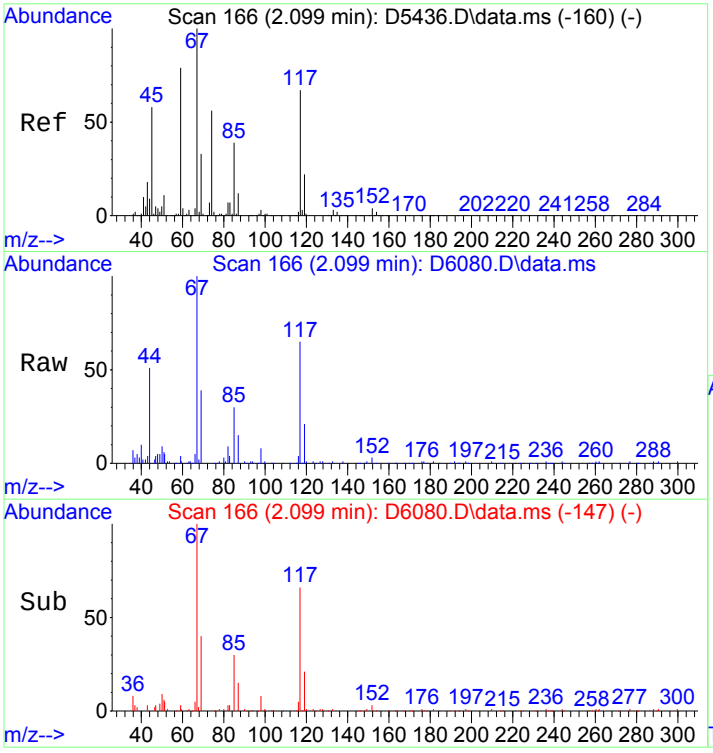


#6
Chloroethane
Concen: 24.91 ug/L
RT: 1.672 min Scan# 96
Delta R.T. 0.012 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 64 Resp: 44390

Ion	Ratio	Lower	Upper
64	100		
66	30.1	12.1	52.1
49	32.3	6.6	46.6
51	8.7	0.0	28.8

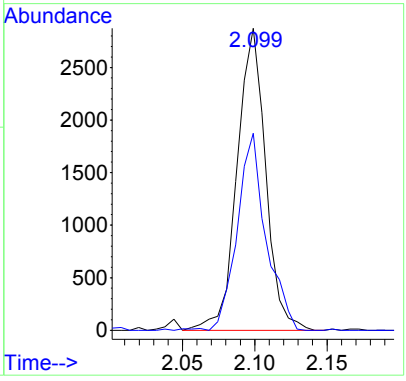


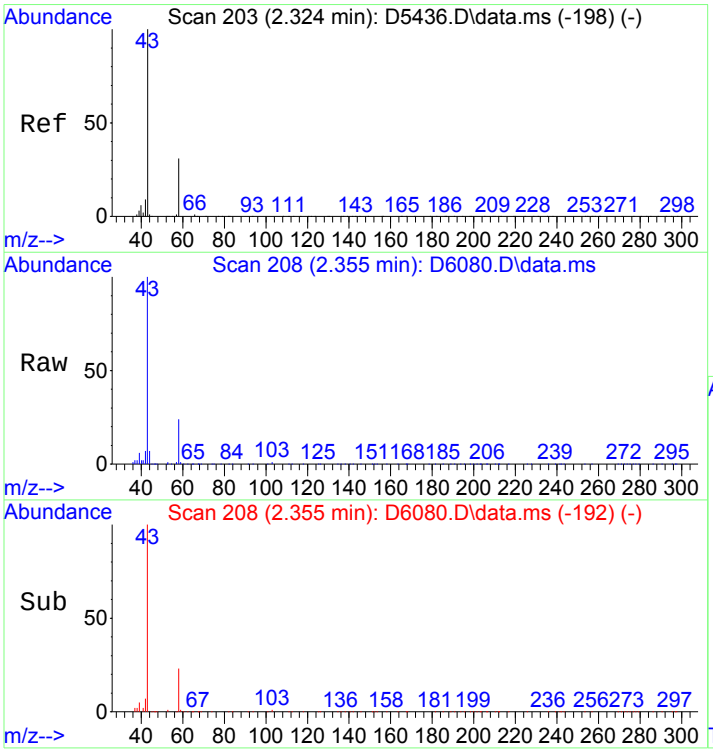


#10
Freon 123a
Concen: 1.58 ug/L
RT: 2.099 min Scan# 166
Delta R.T. 0.000 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 67 Resp: 3956

Ion	Ratio	Lower	Upper
67	100		
117	65.3	47.5	87.5

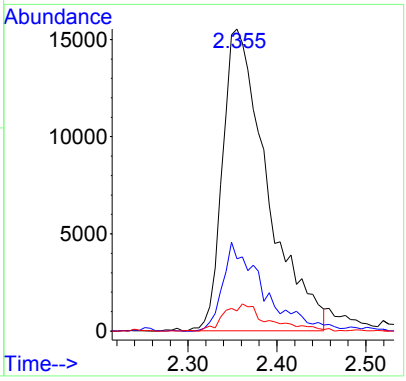


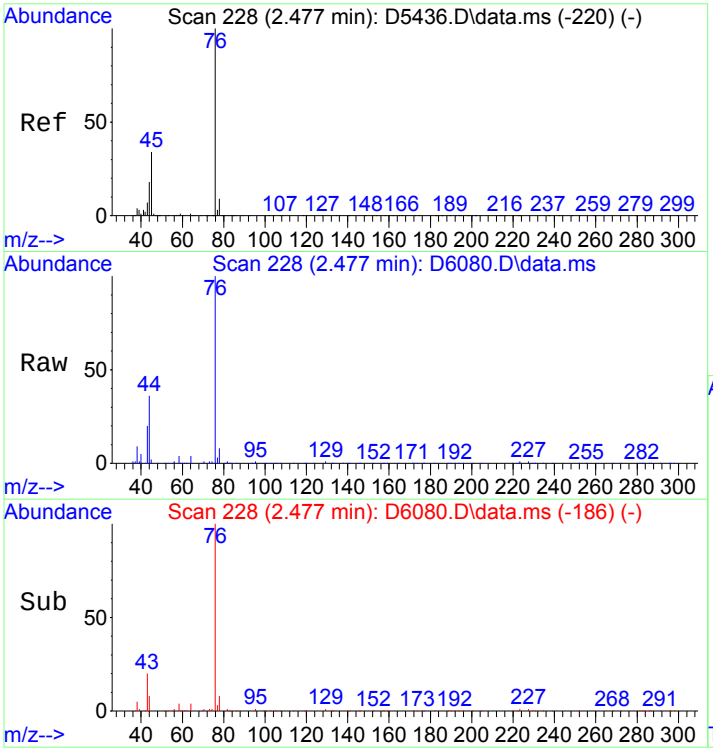


#15
Acetone
Concen: 46.79 ug/L
RT: 2.355 min Scan# 208
Delta R.T. 0.024 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 43 Resp: 54216

Ion	Ratio	Lower	Upper
43	100		
58	23.9	11.2	51.2
42	6.6	0.0	28.6

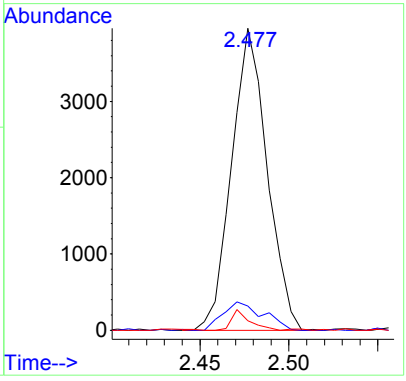


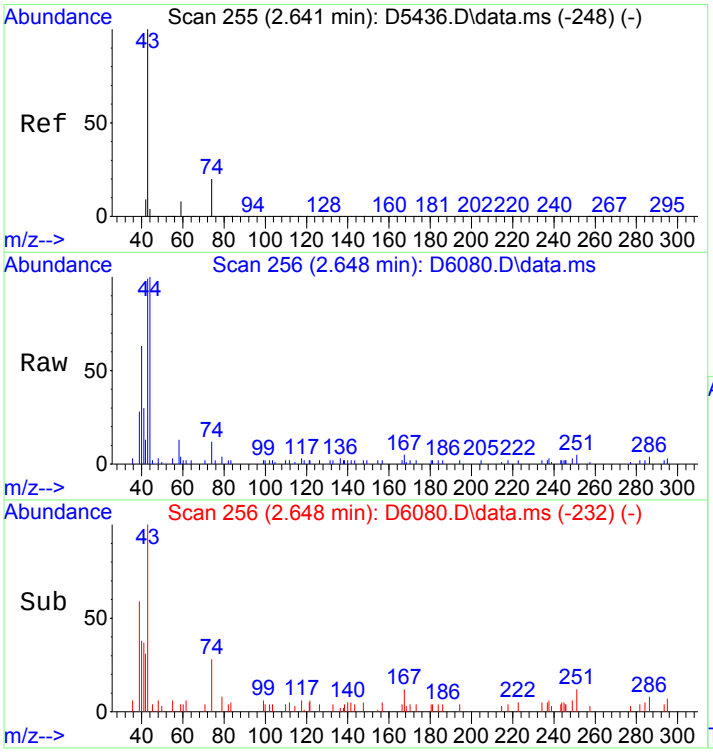


#18
Carbon Disulfide
Concen: 1.12 ug/L
RT: 2.477 min Scan# 228
Delta R.T. 0.000 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 76 Resp: 5530

Ion	Ratio	Lower	Upper
76	100		
78	8.0	0.0	28.8
77	3.2	0.0	22.9

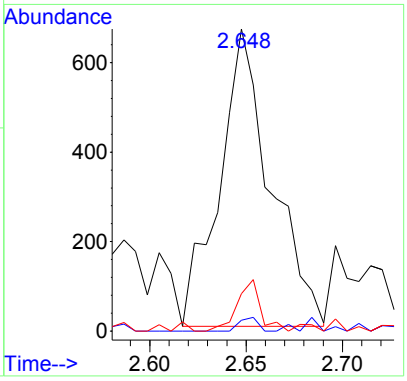


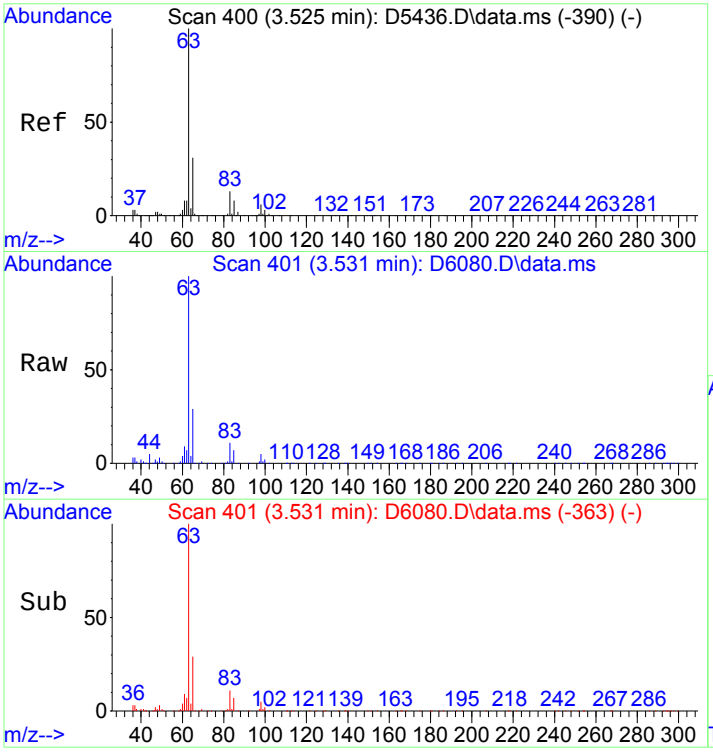


#21
Methyl Acetate
Concen: 0.53 ug/L
RT: 2.648 min Scan# 256
Delta R.T. 0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 43 Resp: 1231

Ion	Ratio	Lower	Upper
43	100		
59	3.6	0.0	28.1
74	12.4	0.2	40.2

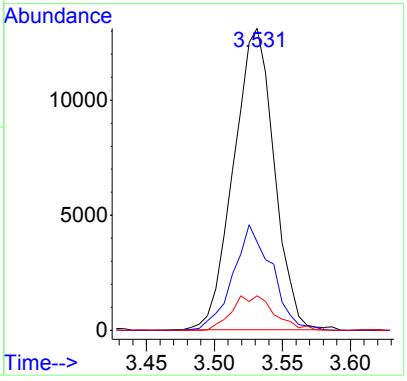


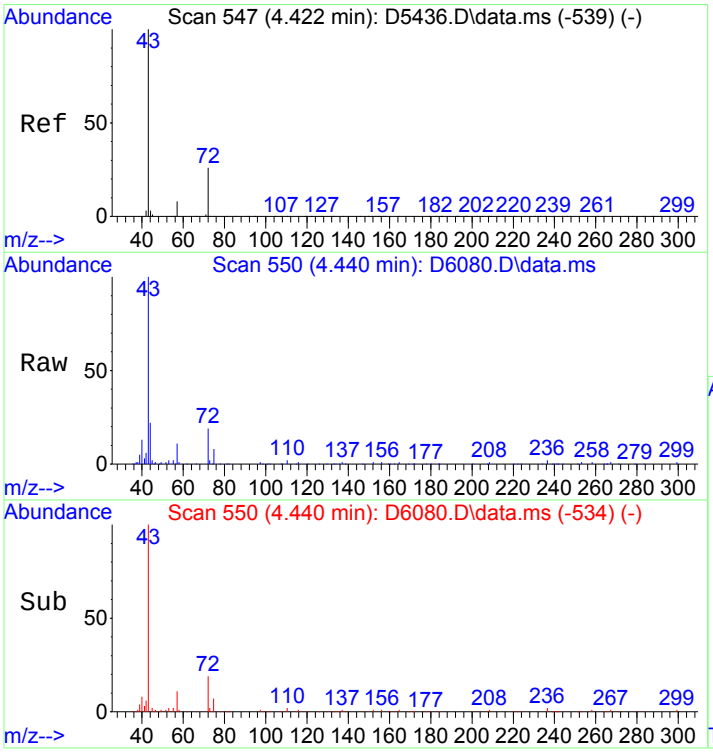


#27
1,1-Diclethane
Concen: 7.15 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 63 Resp: 27202

Ion	Ratio	Lower	Upper
63	100		
65	29.2	11.4	51.4
83	11.4	0.0	32.6

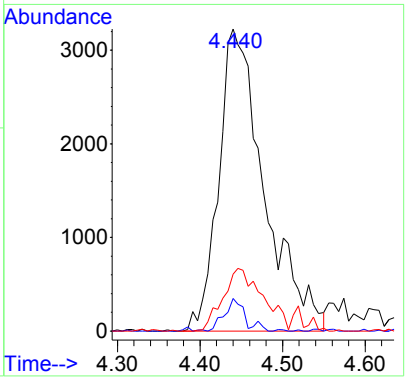


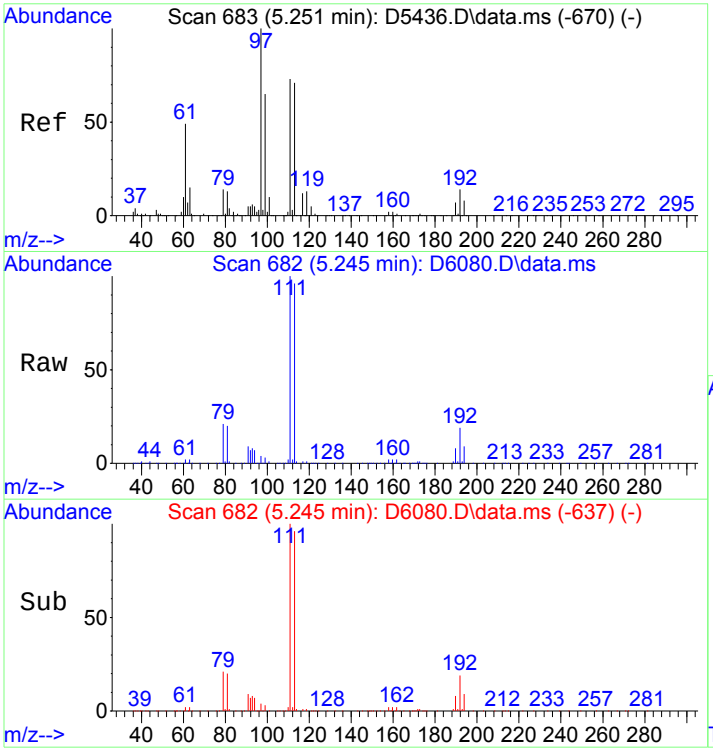


#34
2-Butanone
Concen: 7.91 ug/L
RT: 4.440 min Scan# 550
Delta R.T. 0.024 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 43 Resp: 12387

Ion	Ratio	Lower	Upper
43	100		
57	10.8	0.0	27.8
72	18.8	5.1	45.1

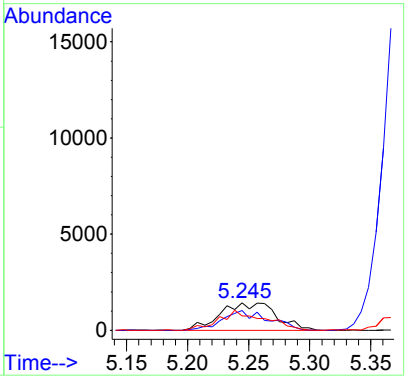


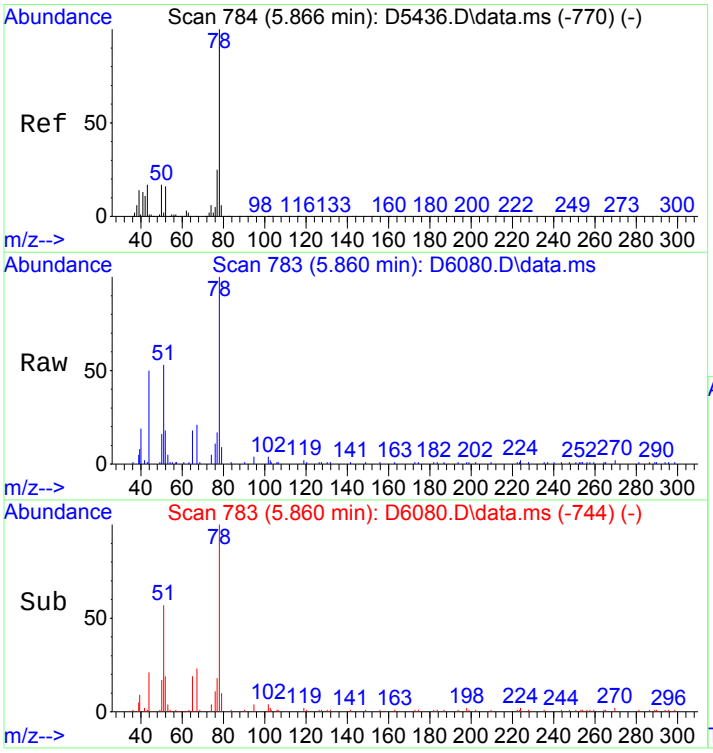


#40
1,1,1-Trichloroethane
Concen: 1.54 ug/L m
RT: 5.245 min Scan# 682
Delta R.T. -0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 97 Resp: 4542

Ion	Ratio	Lower	Upper
97	100		
99	72.7	45.0	85.0
61	52.3	29.1	69.1

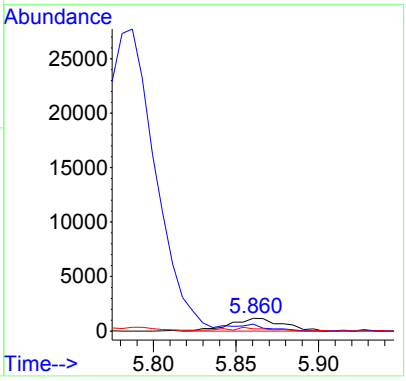


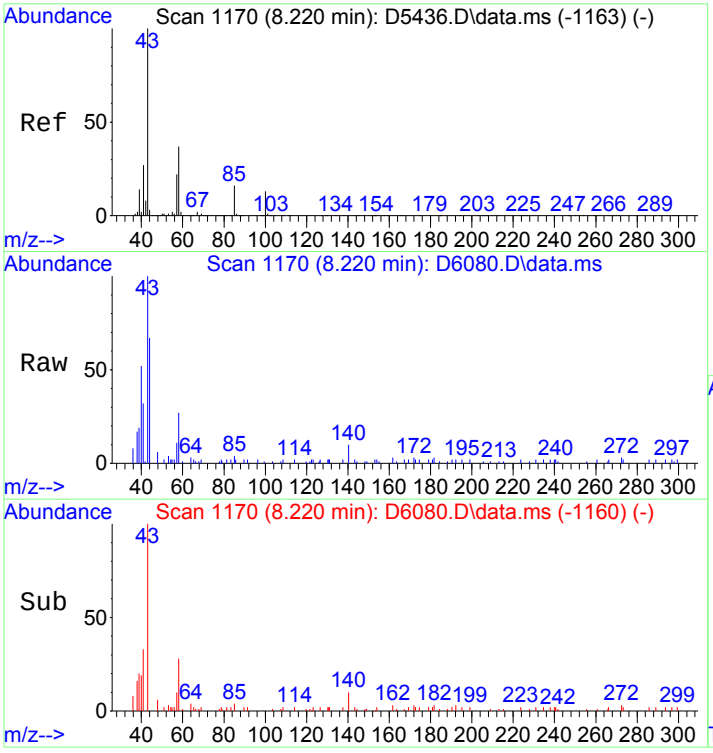


#47
Benzene
Concen: 0.31 ug/L
RT: 5.860 min Scan# 783
Delta R.T. -0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 78 Resp: 2567

Ion	Ratio	Lower	Upper
78	100		
51	53.4	0.0	37.5#
52	17.8	0.0	36.3

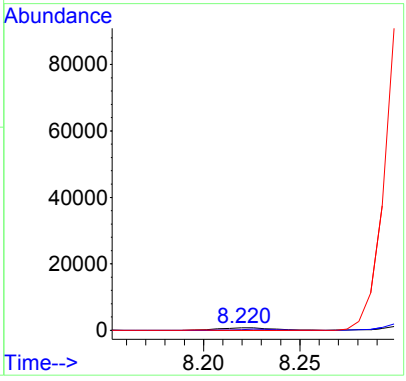


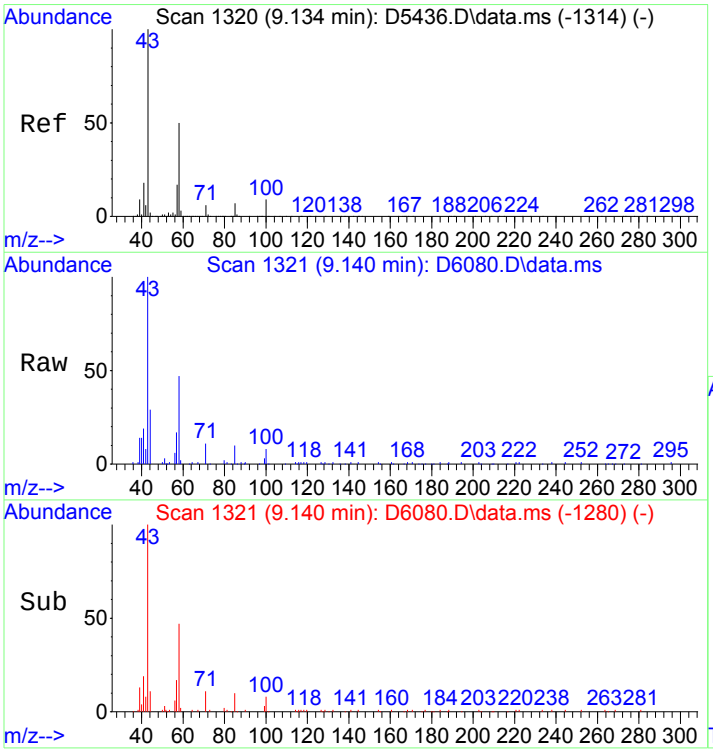


#63
4-Methyl-2-pentanone
Concen: 0.47 ug/L
RT: 8.220 min Scan# 1170
Delta R.T. 0.000 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 43 Resp: 1443

Ion	Ratio	Lower	Upper
43	100		
58	27.4	16.6	56.6
100	0.0	0.0	32.7

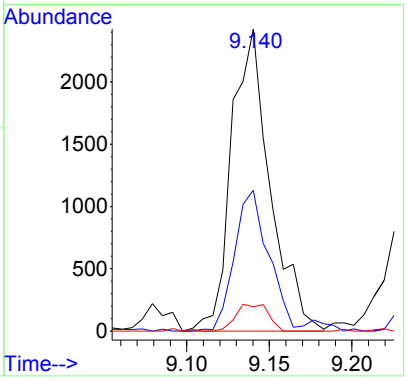




#72
2-Hexanone
Concen: 1.74 ug/L
RT: 9.140 min Scan# 1321
Delta R.T. 0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 43 Resp: 3950

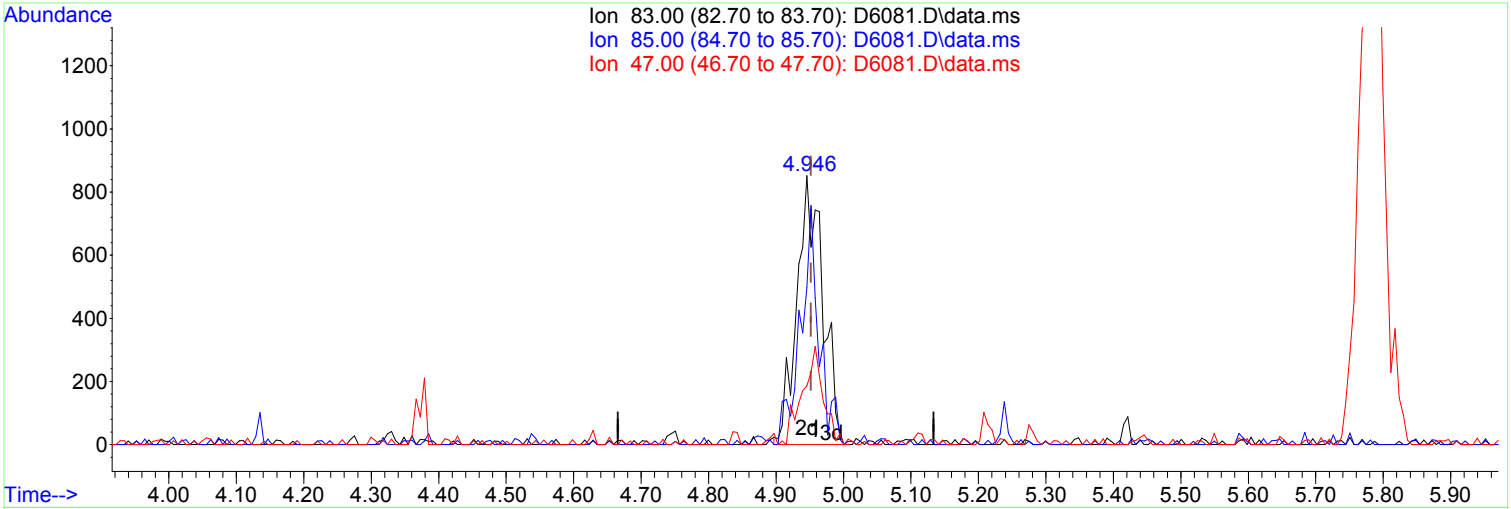
Ion	Ratio	Lower	Upper
43	100		
58	46.6	30.1	70.1
100	8.0	0.0	28.6

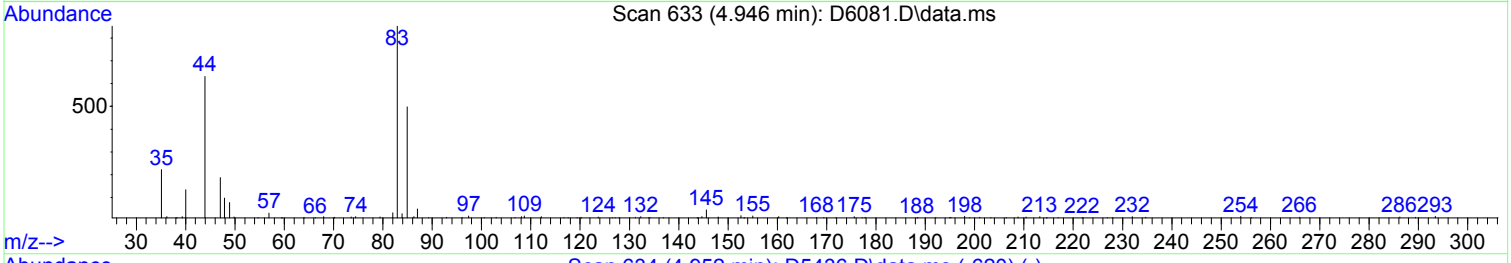


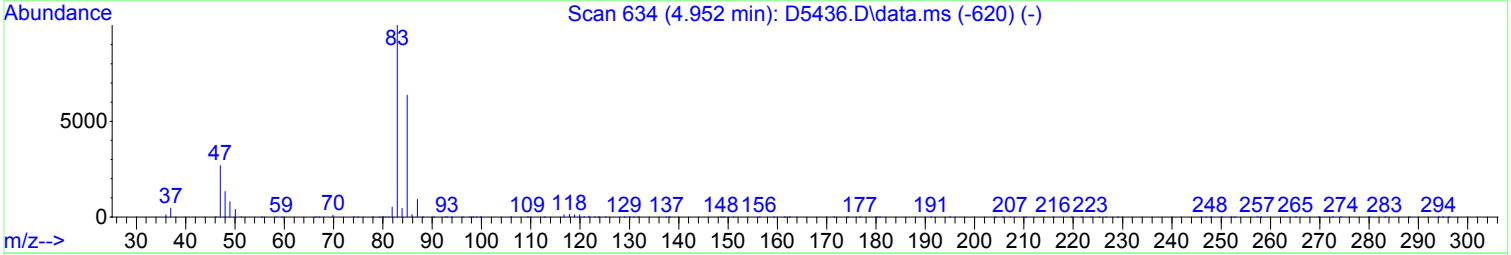
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 24 18:14:48 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6081.D\data.ms

(39) Chloroform (P)

4.946min (-0.006) 0.63 ug/L m

response 2269

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	58.45
47.00	26.90	21.95
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

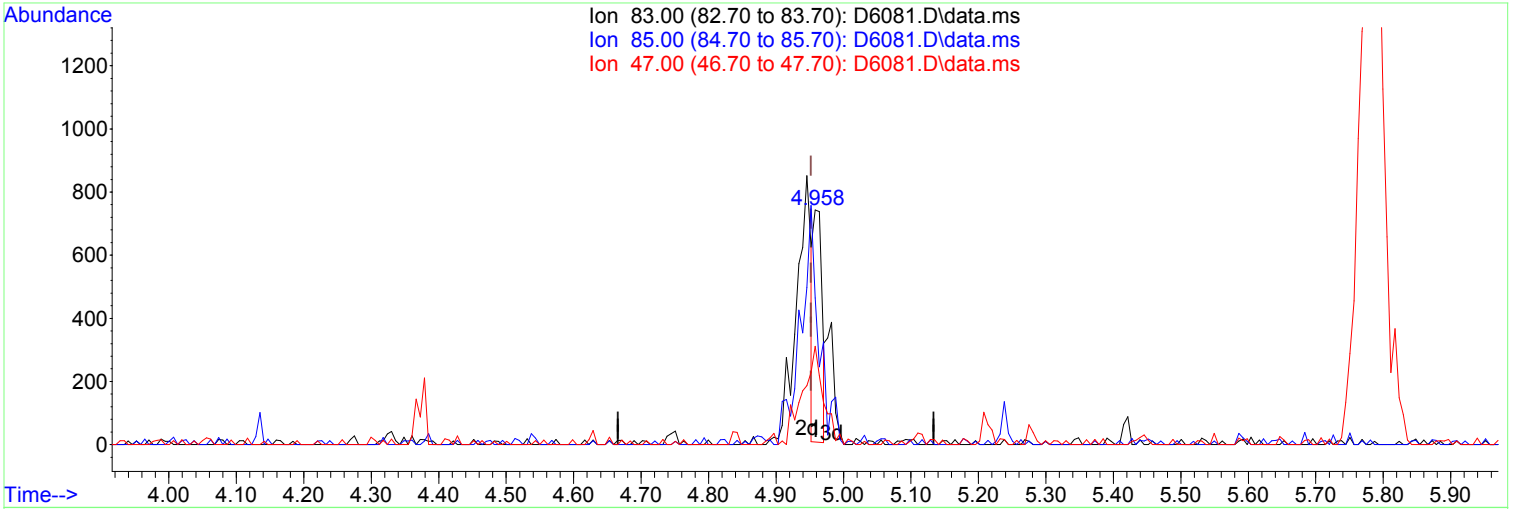
09/27/18

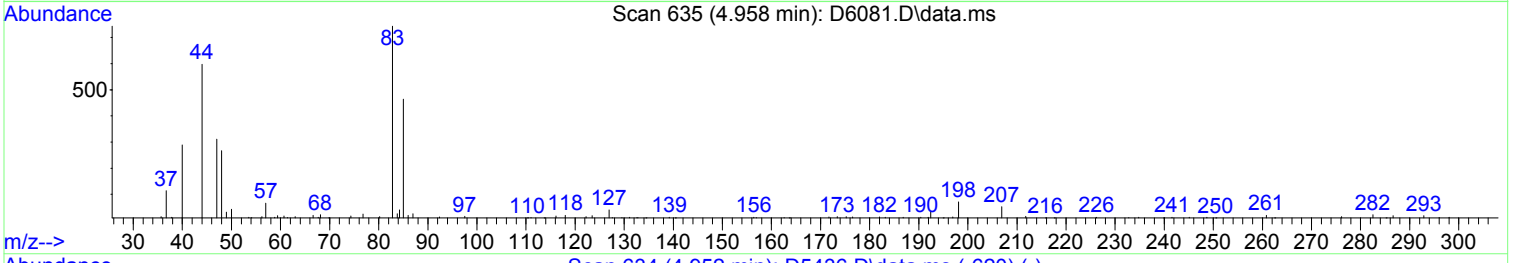
1st BA 09/27/18
2nd DL 09/27/18

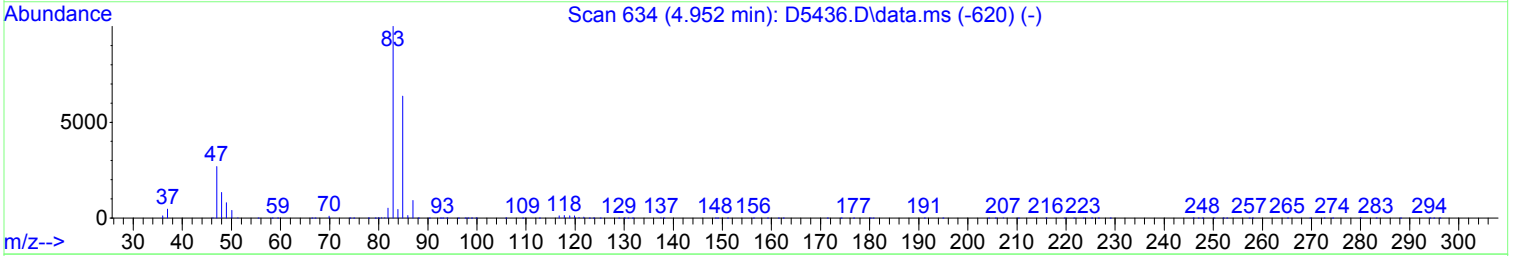
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 24 18:14:48 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6081.D\data.ms

(39) Chloroform (P)

4.958min (+0.006) 0.18 ug/L

response 651

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	62.45
47.00	26.90	41.86
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:07:54 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

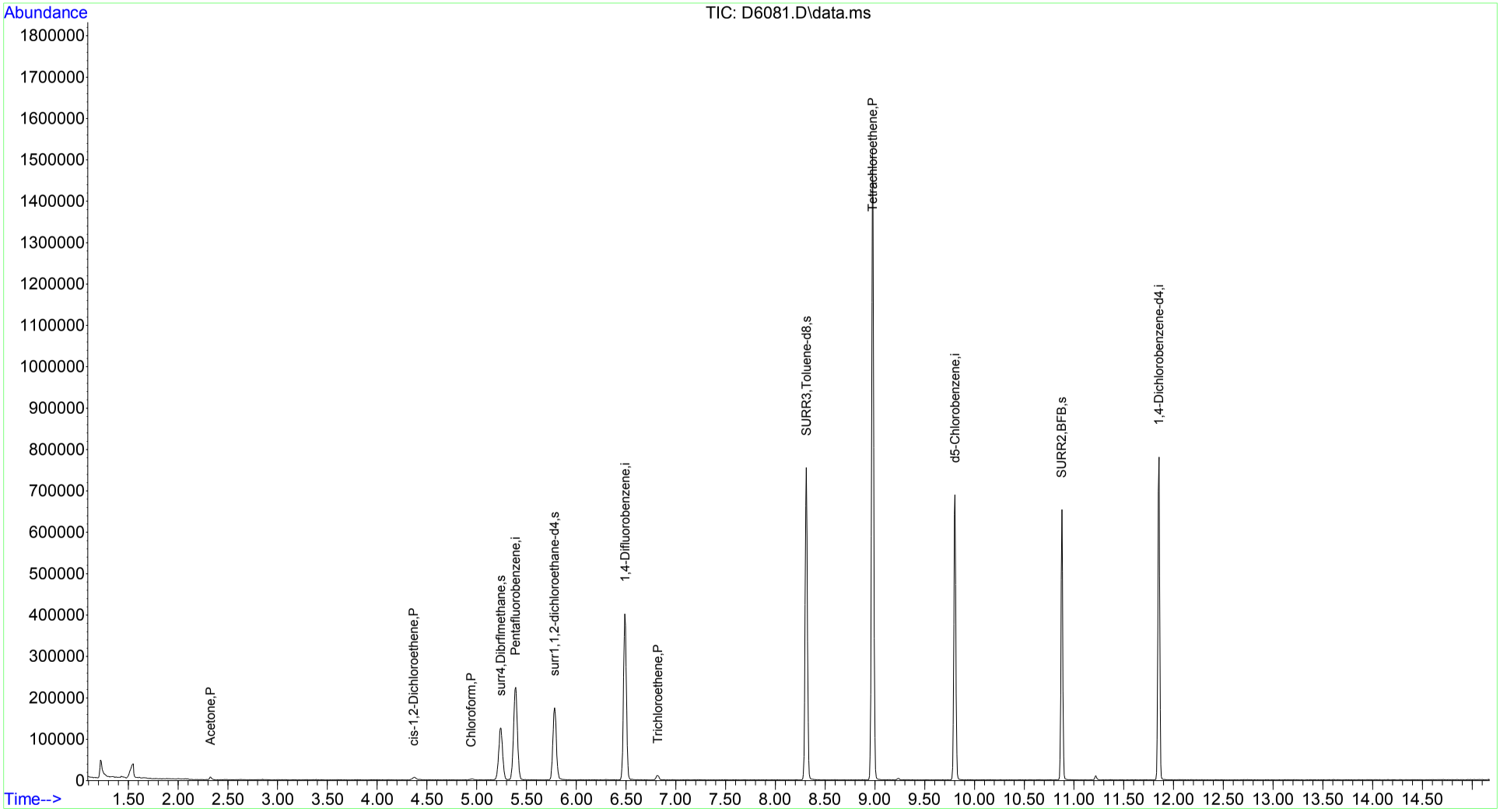
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	204753	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	325767	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	276091	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	141137	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	102017	46.47	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.94%				
46) surr1,1,2-dichloroetha...	5.781	65	148682	51.50	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.00%				
64) SURR3,Toluene-d8	8.311	98	421843	47.39	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.78%				
69) SURR2,BFB	10.878	95	147610	43.15	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 86.30%				
Target Compounds							Qvalue
5) Bromomethane	1.593	94	274	Below Cal		#	44
15) Acetone	2.324	43	6063	5.03	ug/L		98
33) cis-1,2-Dichloroethene	4.361	96	3341	1.49	ug/L	#	48
39) Chloroform	4.946	83	2269m	0.63	ug/L		
53) Trichloroethene	6.817	130	3561	1.57	ug/L	#	81
71) Tetrachloroethene	8.976	164	279143	162.57	ug/L		97

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

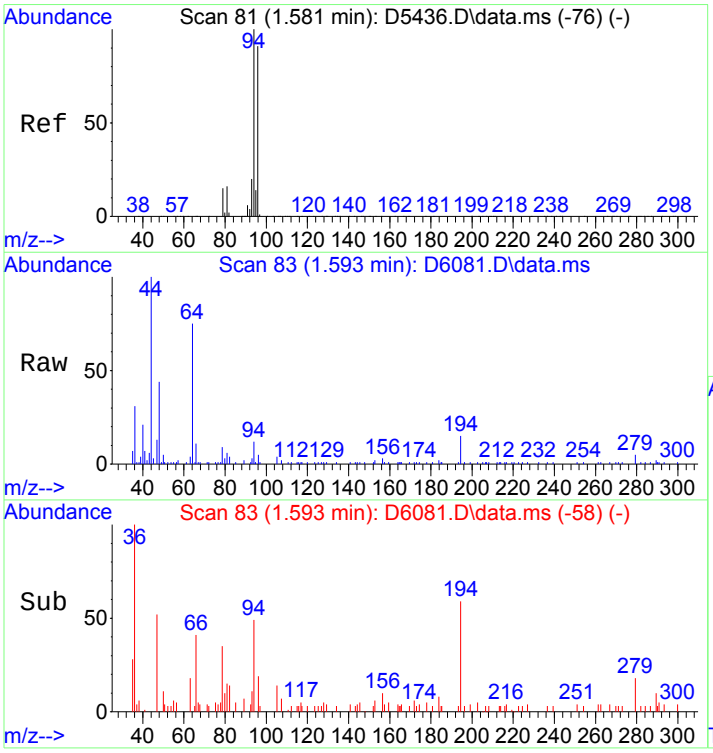
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:07:54 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



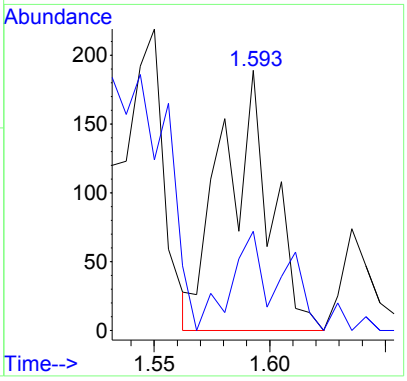
1st BA 09/27/18
2nd DL 09/27/18

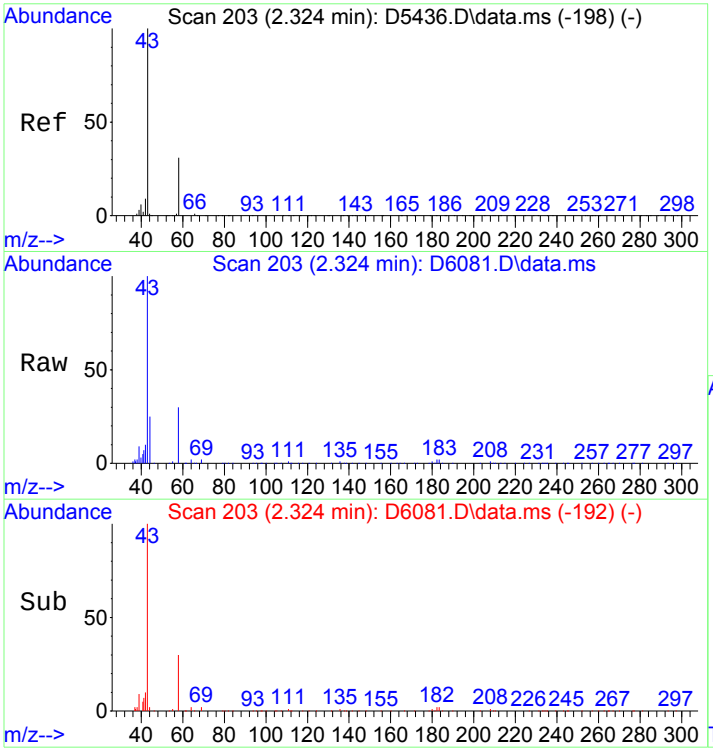


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion: 94 Resp: 274

Ion	Ratio	Lower	Upper
94	100		
96	38.1	71.1	111.1#

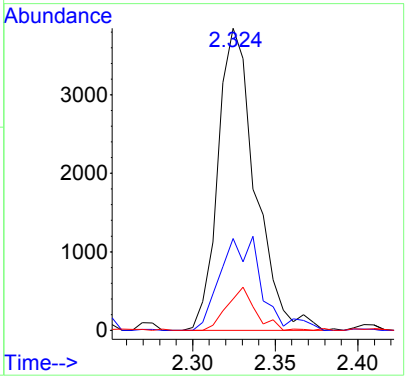


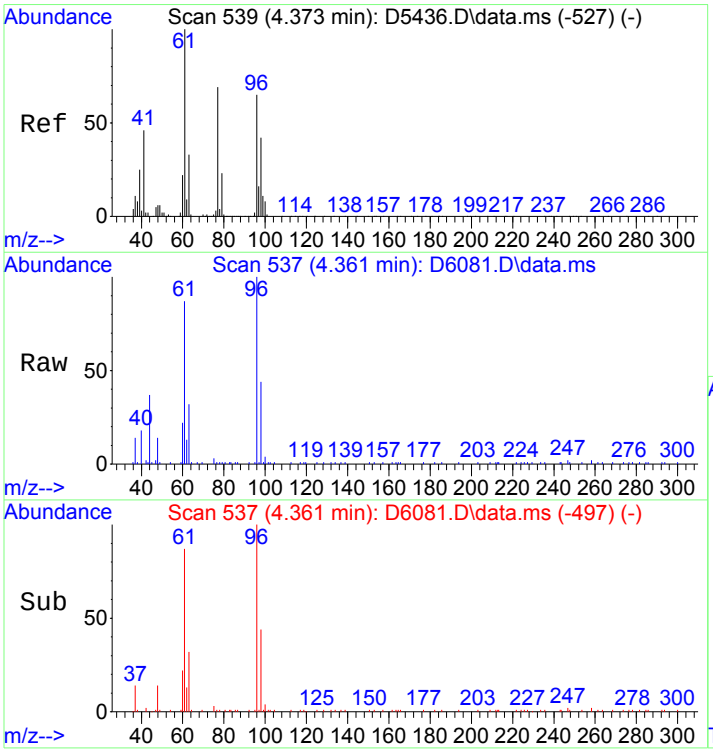


#15
Acetone
Concen: 5.03 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion: 43 Resp: 6063

Ion	Ratio	Lower	Upper
43	100		
58	30.4	11.2	51.2
42	10.4	0.0	28.6

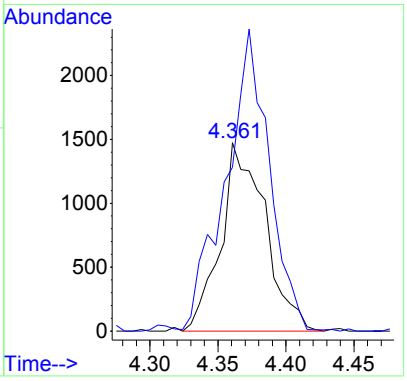


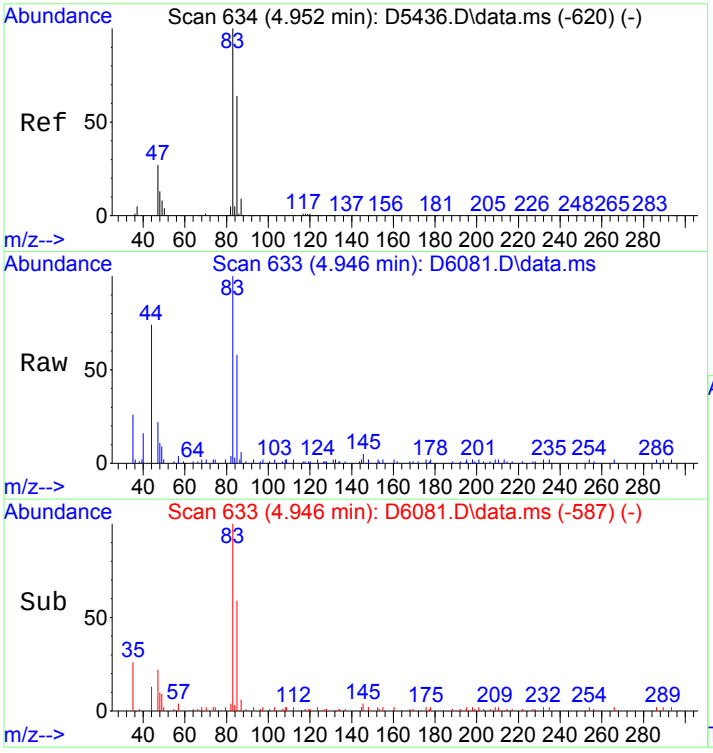


#33
cis-1,2-Dichloroethene
Concen: 1.49 ug/L
RT: 4.361 min Scan# 537
Delta R.T. -0.012 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion: 96 Resp: 3341

Ion	Ratio	Lower	Upper
96	100		
61	86.9	134.7	174.7#

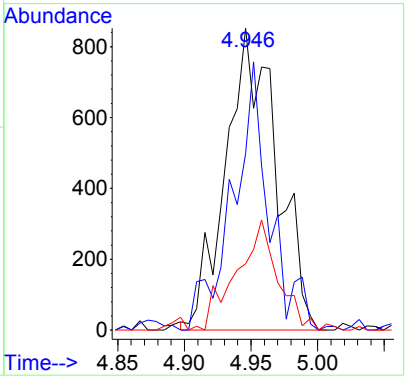


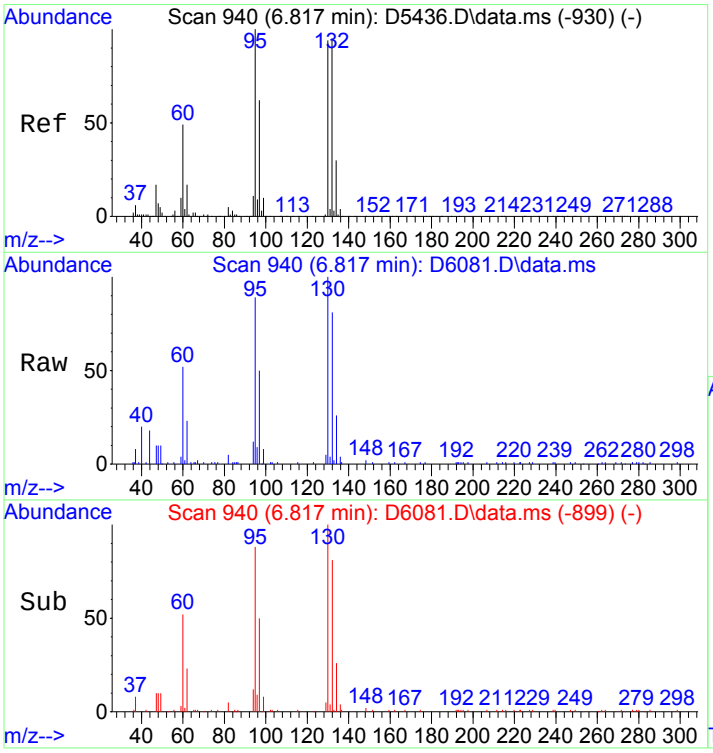


#39
Chloroform
Concen: 0.63 ug/L m
RT: 4.946 min Scan# 633
Delta R.T. -0.006 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion: 83 Resp: 2269

Ion	Ratio	Lower	Upper
83	100		
85	58.5	43.7	83.7
47	21.9	6.9	46.9

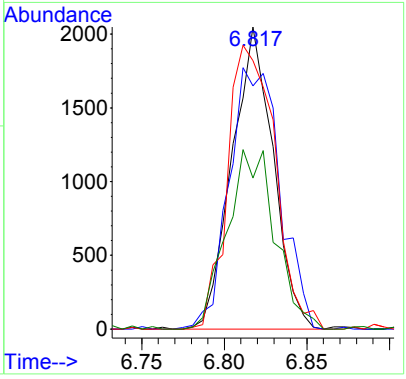


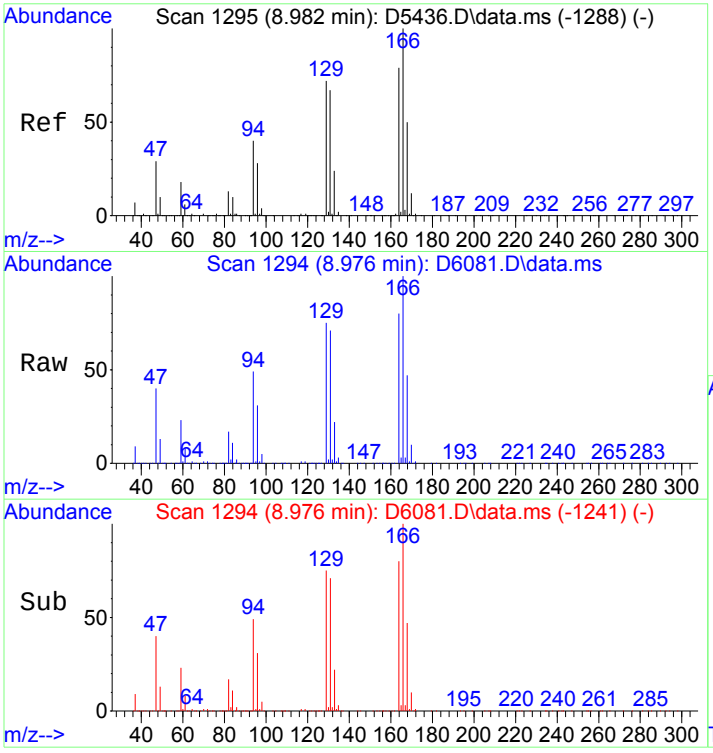


#53
Trichloroethene
Concen: 1.57 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion:130 Resp: 3561

Ion	Ratio	Lower	Upper
130	100		
132	80.5	80.7	120.7#
95	88.9	86.1	126.1
97	50.0	45.5	85.5

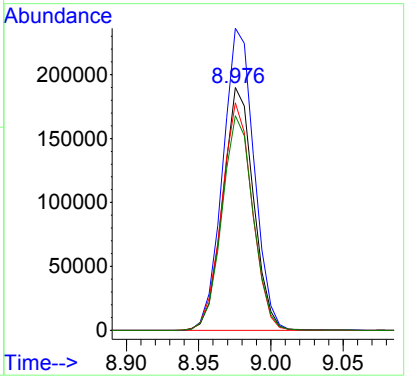




#71
Tetrachloroethene
Concen: 162.57 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.006 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion:164 Resp: 279143

Ion	Ratio	Lower	Upper
164	100		
166	124.4	106.8	146.8
129	93.8	71.9	111.9
131	88.5	64.6	104.6

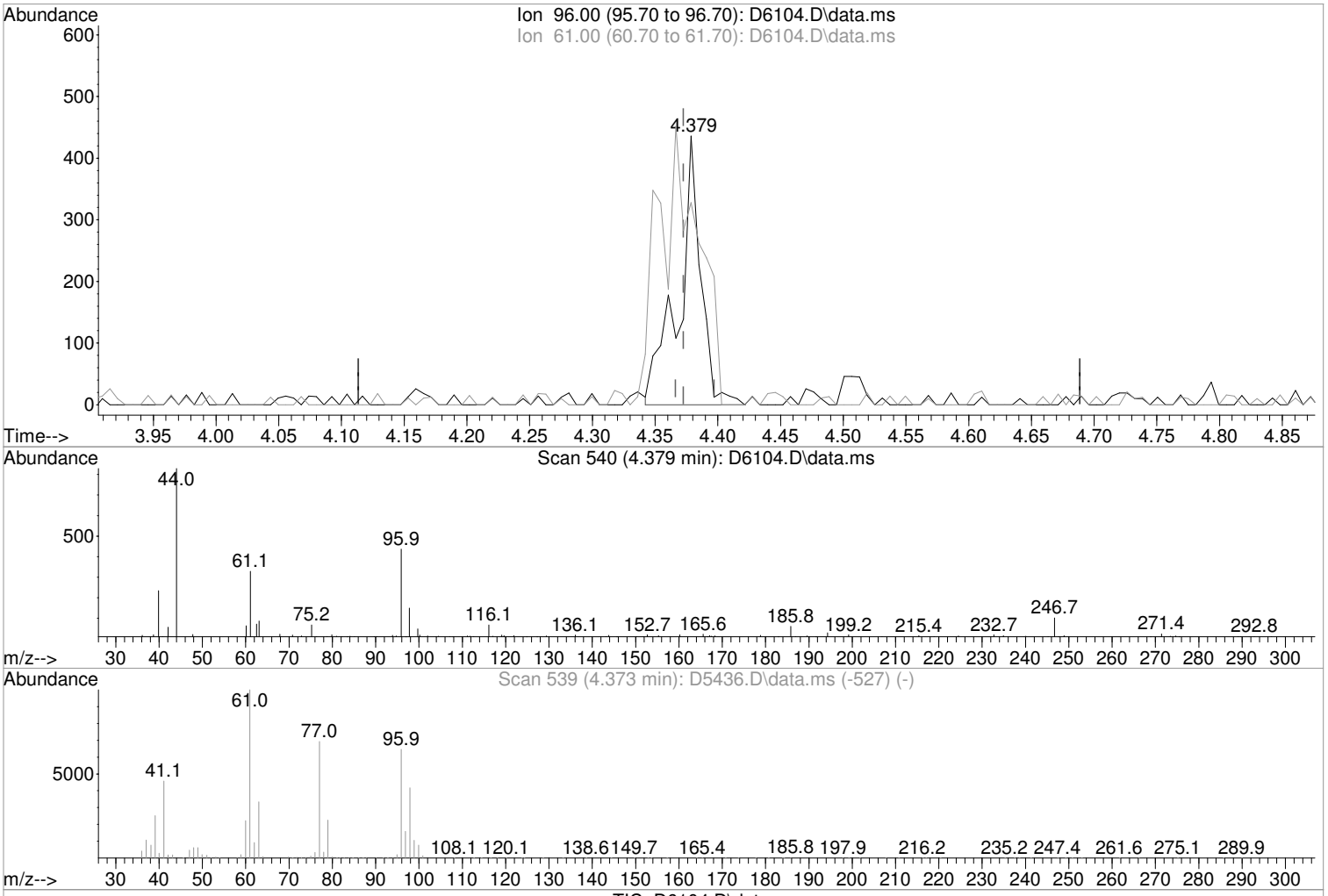


1st DL 09/27/18
2nd FW 09/28/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6104.D\data.ms

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

4.379min (+0.006) 0.23 ug/L m

response 533

Ion	Exp%	Act%
96.00	100	100
61.00	154.70	75.23#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

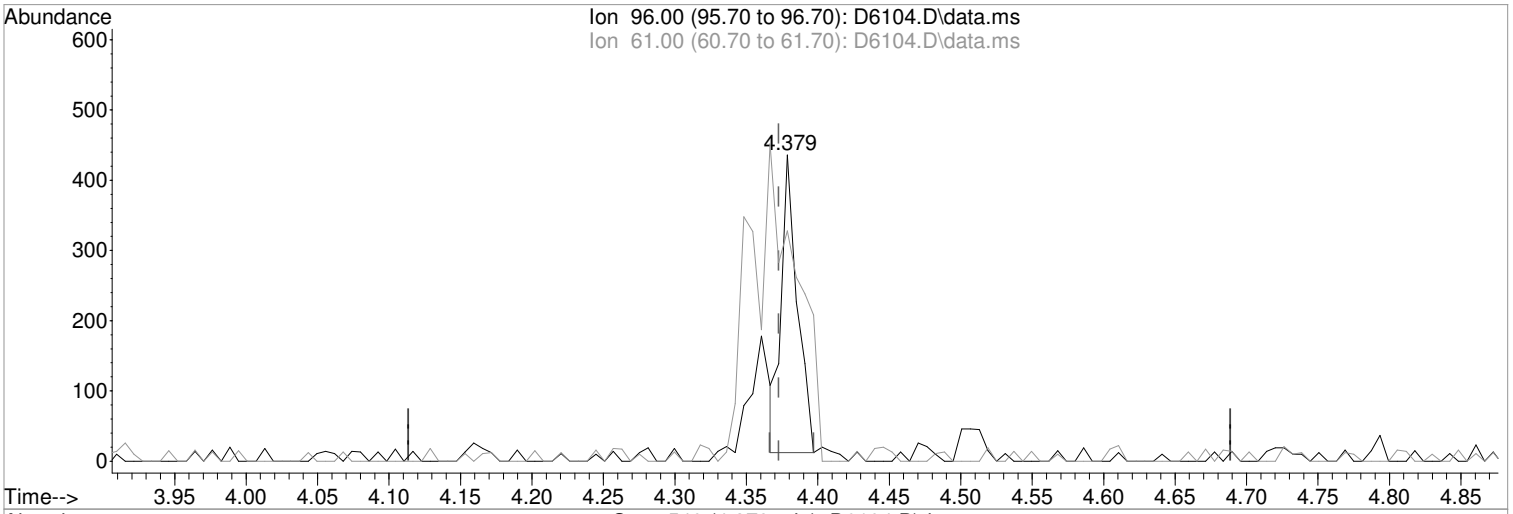
09/27/18

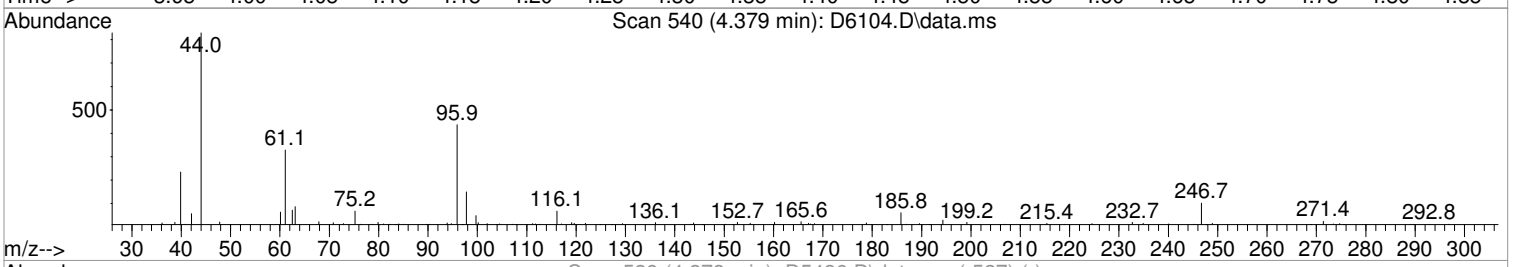
1st DL 09/27/18
2nd FW 09/28/18

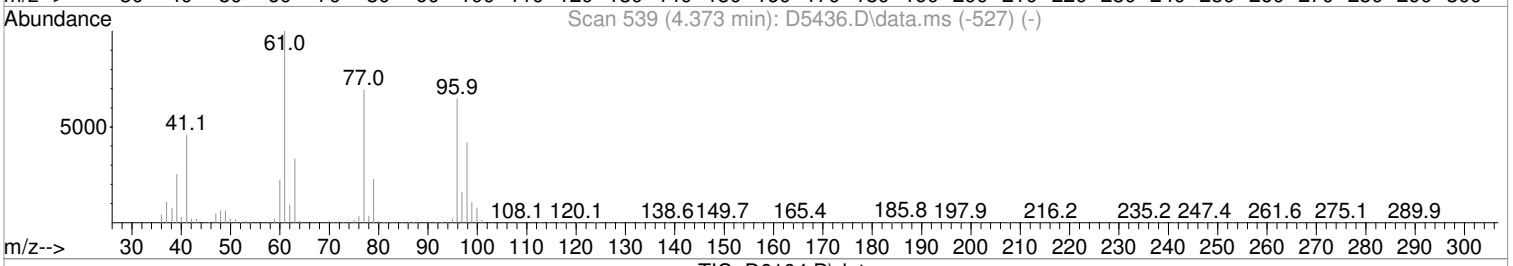
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6104.D\data.ms

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

4.379min (+0.006) 0.14 ug/L

response 327

Ion	Exp%	Act%
96.00	100	100
61.00	154.70	75.23#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

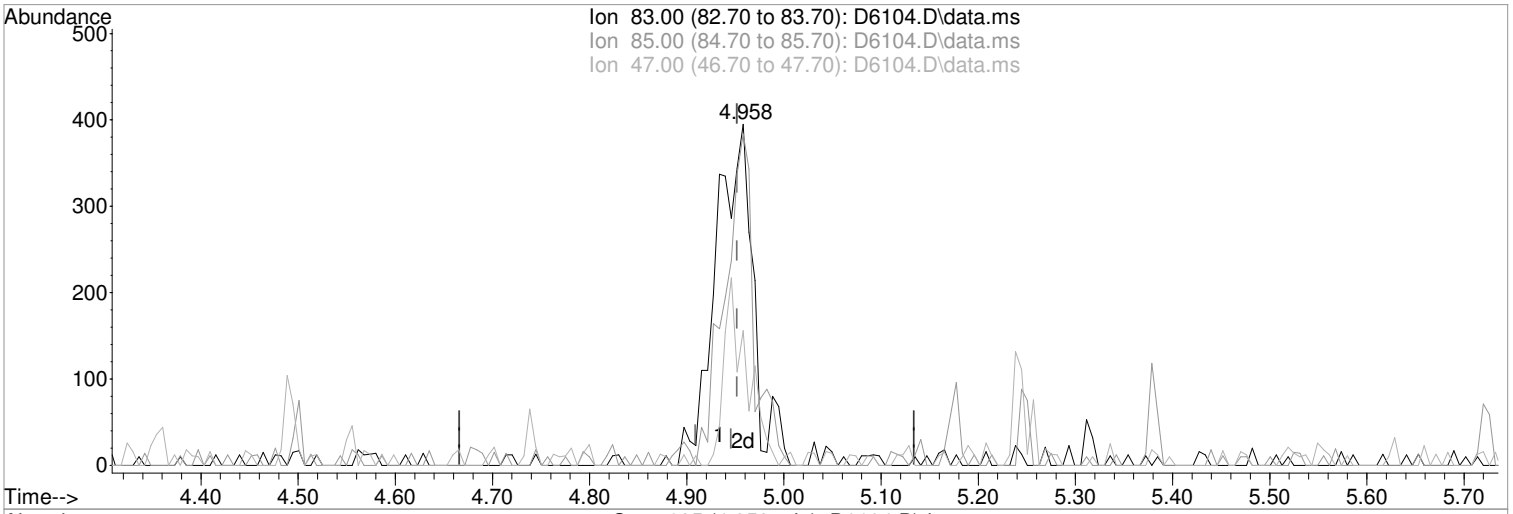
09/27/18

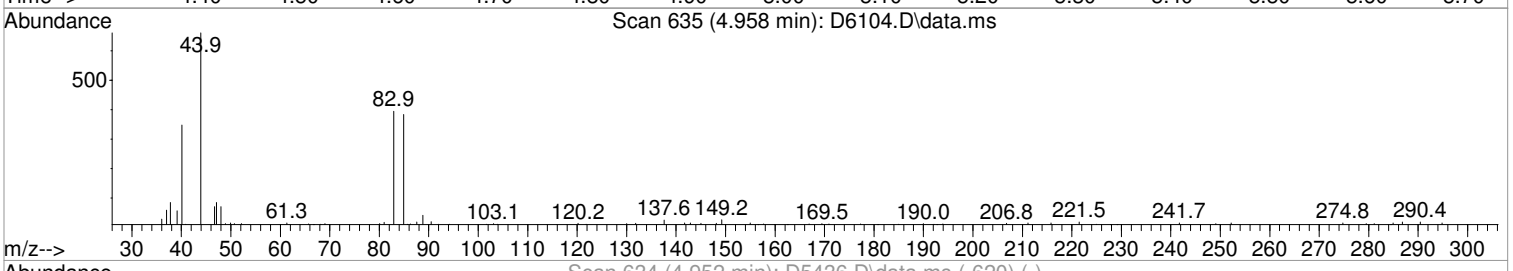
1st DL 09/27/18
2nd FW 09/28/18

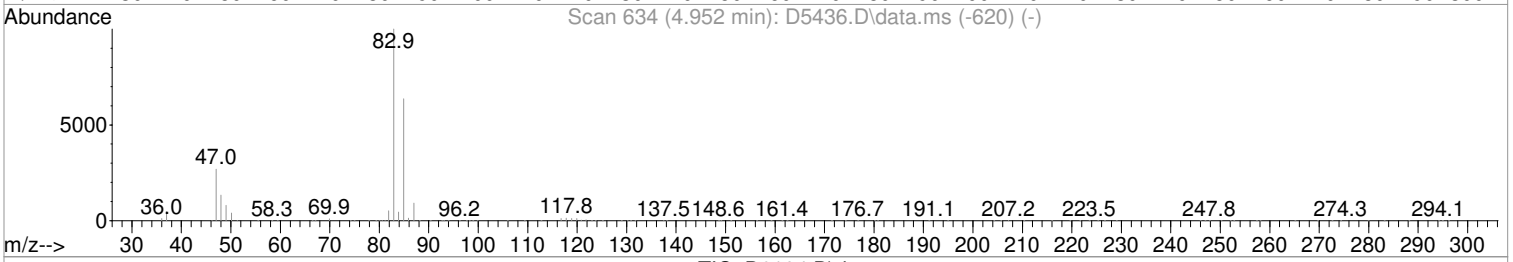
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6104.D\data.ms

(39) Chloroform (P)

4.958min (+0.006) 0.29 ug/L m

response 1058

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	97.22#
47.00	26.90	21.52
0.00	0.00	0.00

Manual Integration:

After

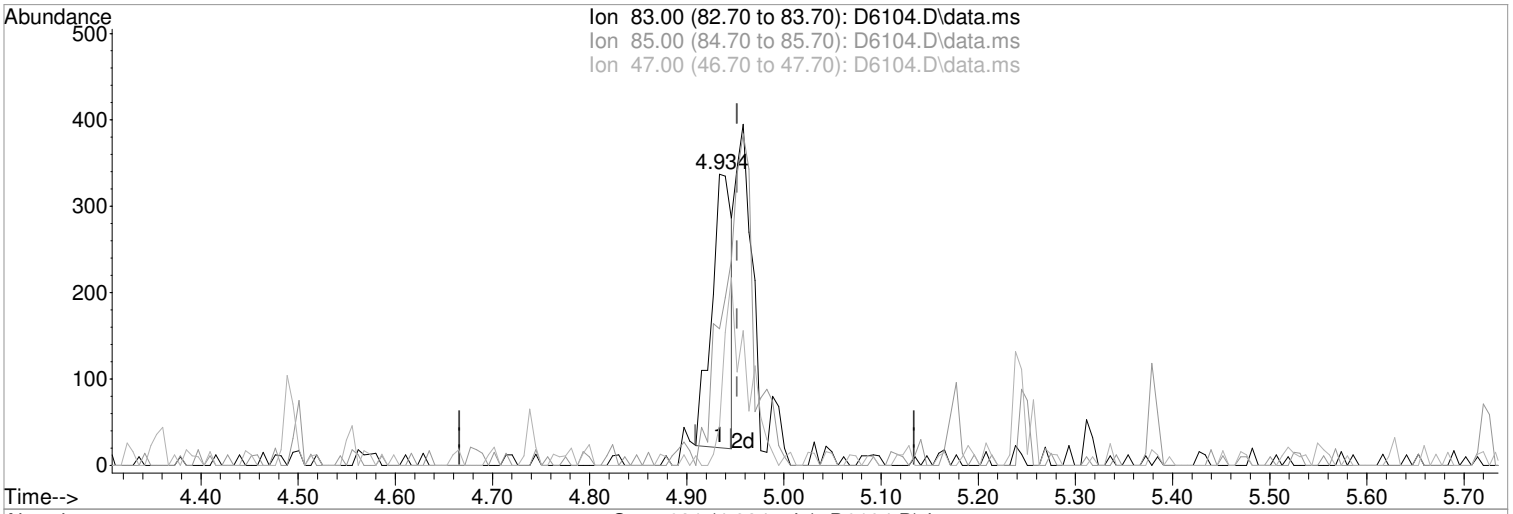
Poor integration.

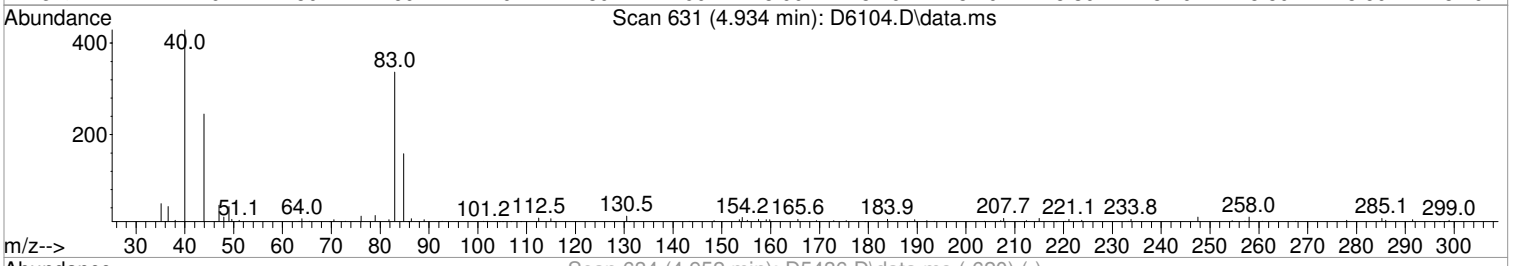
09/27/18

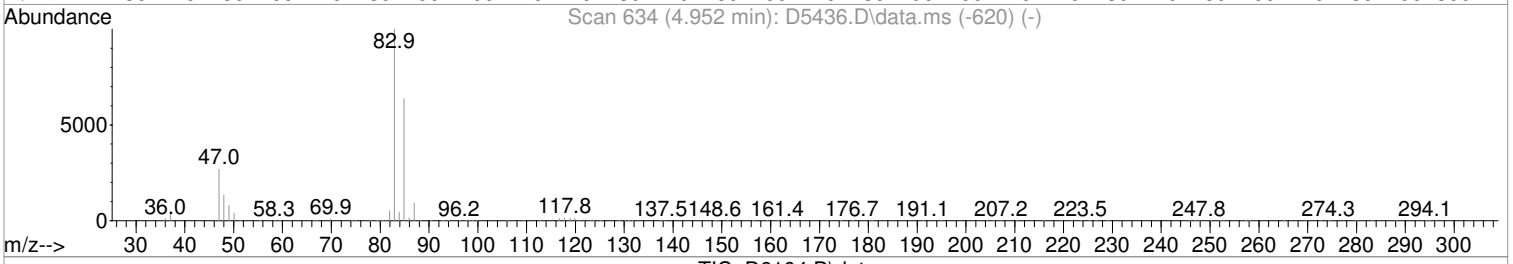
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6104.D\data.ms

(39) Chloroform (P)

4.934min (-0.018) 0.12 ug/L

response 457

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	46.88
47.00	26.90	13.65
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 15:19:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

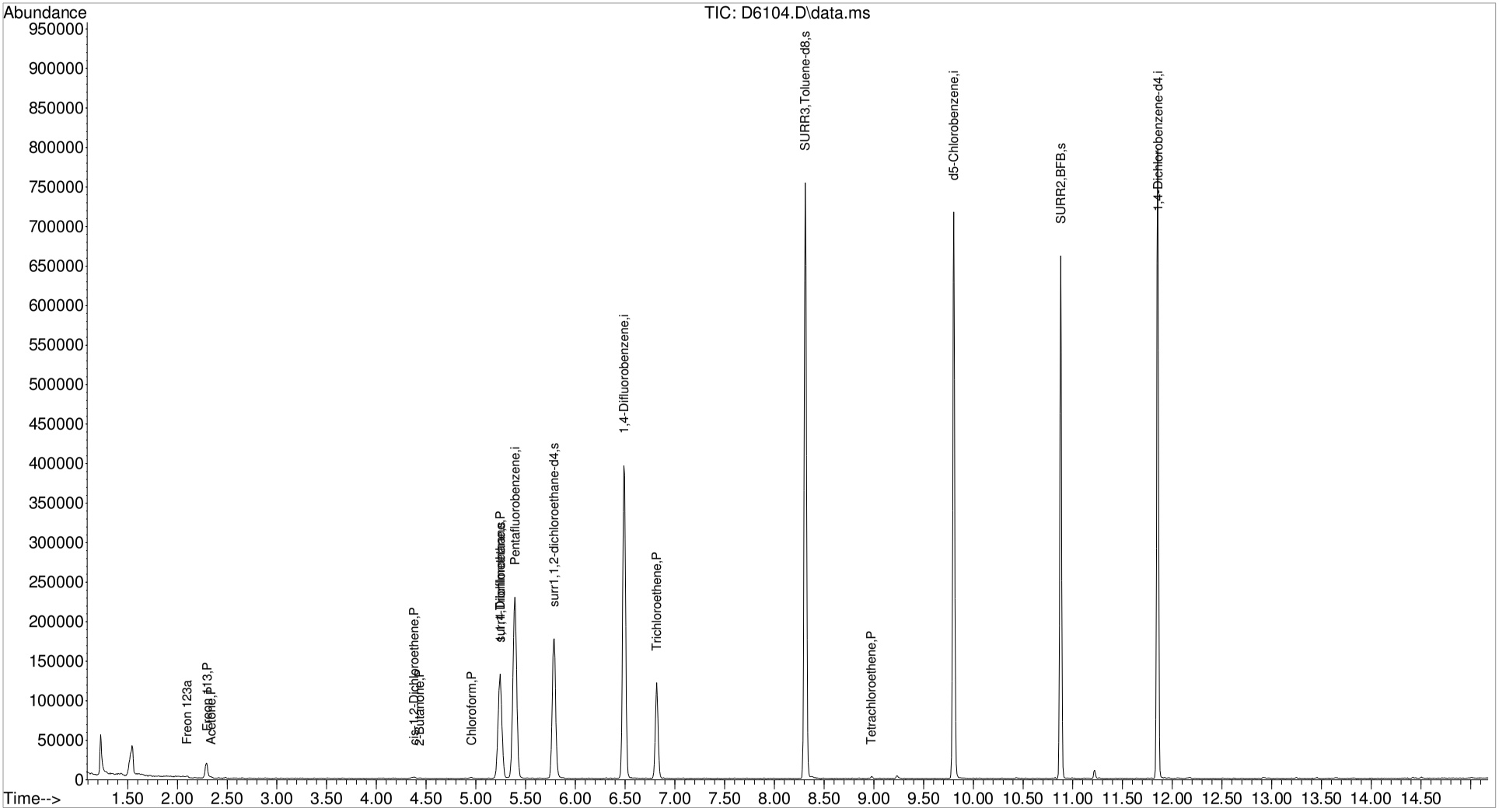
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	208301	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	325199	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	282716	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	141508	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	104197	47.55	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.10%			
46) surr1,1,2-dichloroetha...	5.787	65	151710	52.64	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.28%			
64) SURR3,Toluene-d8	8.311	98	427368	48.10	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.20%			
69) SURR2,BFB	10.878	95	152191	44.57	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.14%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	433	Below Cal		89
10) Freon 123a	2.093	67	930	0.35	ug/L	97
14) Freon 113	2.294	101	6613	3.46	ug/L	99
15) Acetone	2.336	43	2177	1.78	ug/L #	63
33) cis-1,2-Dichloroethene	4.379	96	533m	0.23	ug/L	
34) 2-Butanone	4.434	43	832	0.50	ug/L #	65
39) Chloroform	4.958	83	1058m	0.29	ug/L	
40) 1,1,1-Trichloroethane	5.244	97	1297	0.42	ug/L #	78
53) Trichloroethene	6.817	130	37355	16.50	ug/L	92
71) Tetrachloroethene	8.975	164	391	0.22	ug/L #	70

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

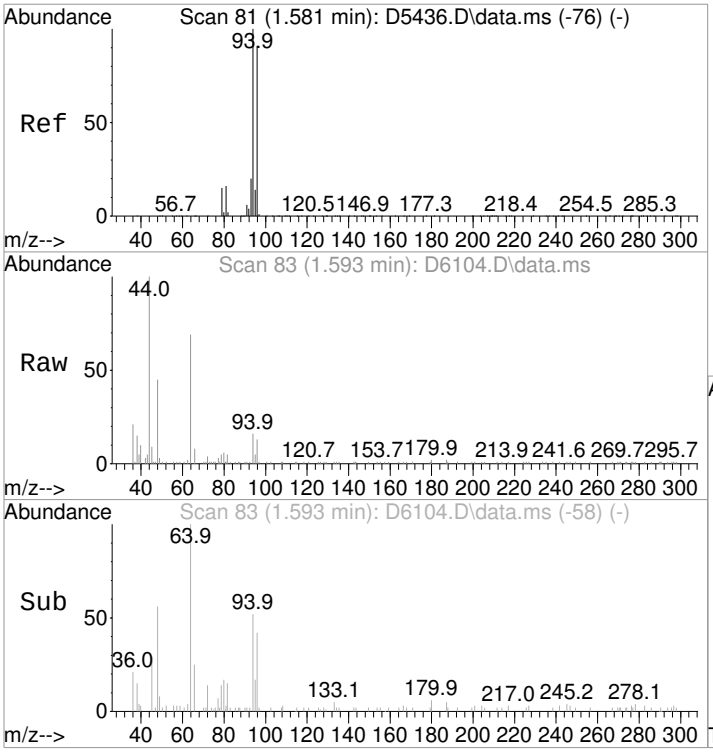
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 15:19:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



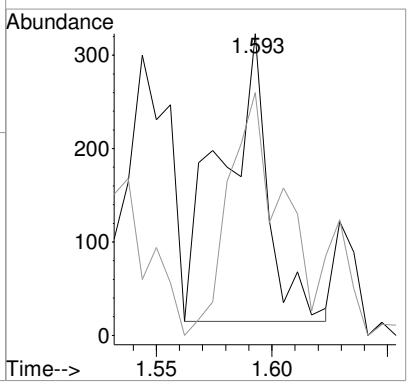
1st DL 09/27/18
2nd FJ 09/28/18

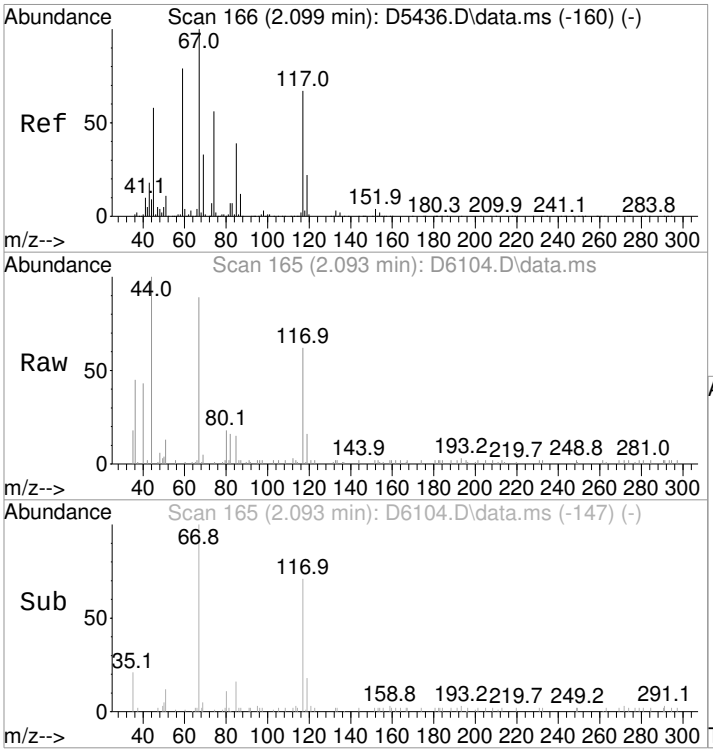


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 94 Resp: 433

Ion	Ratio	Lower	Upper
94	100		
96	80.5	71.1	111.1

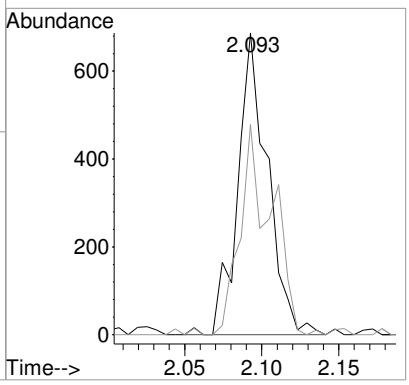


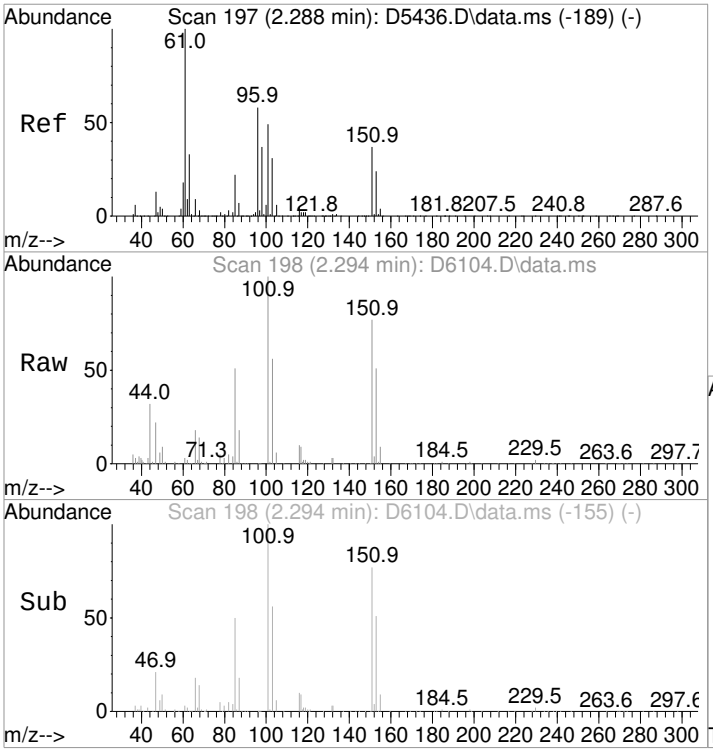


#10
Freon 123a
Concen: 0.35 ug/L
RT: 2.093 min Scan# 165
Delta R.T. -0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 67 Resp: 930

Ion	Ratio	Lower	Upper
67	100		
117	69.7	47.5	87.5

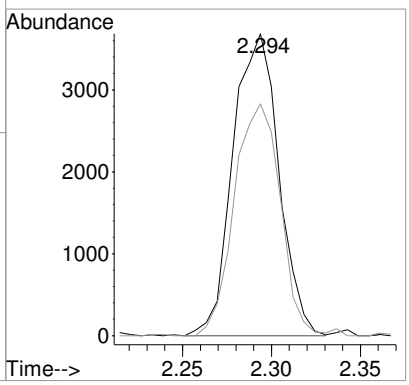


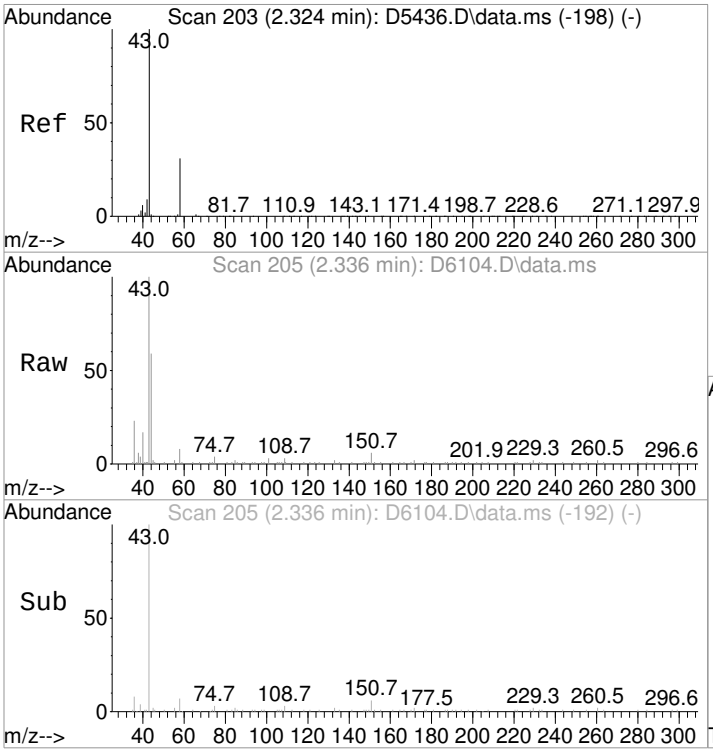


#14
Freon 113
Concen: 3.46 ug/L
RT: 2.294 min Scan# 198
Delta R.T. 0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion:101 Resp: 6613

Ion	Ratio	Lower	Upper
101	100		
151	76.8	56.1	96.1

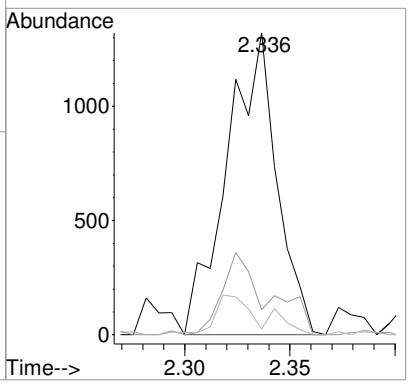


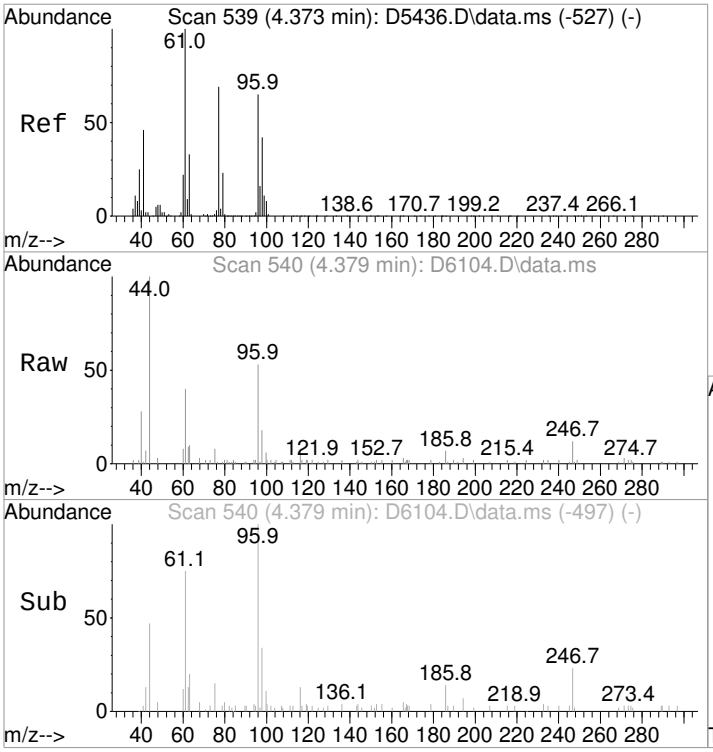


#15
Acetone
Concen: 1.78 ug/L
RT: 2.336 min Scan# 205
Delta R.T. 0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 43 Resp: 2177

Ion	Ratio	Lower	Upper
43	100		
58	8.3	11.2	51.2#
42	2.0	0.0	28.6

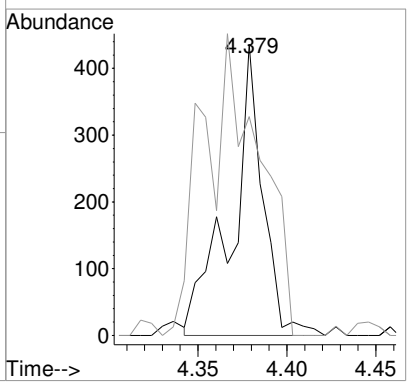


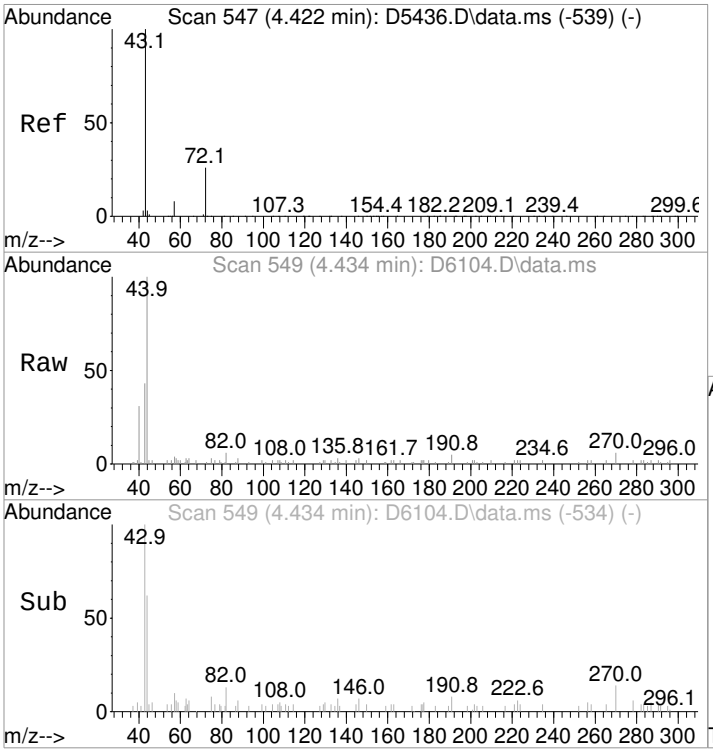


#33
cis-1,2-Dichloroethene
Concen: 0.23 ug/L m
RT: 4.379 min Scan# 540
Delta R.T. 0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 96 Resp: 533

Ion	Ratio	Lower	Upper
96	100		
61	75.2	134.7	174.7#

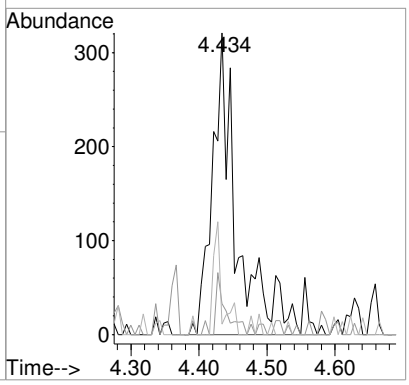


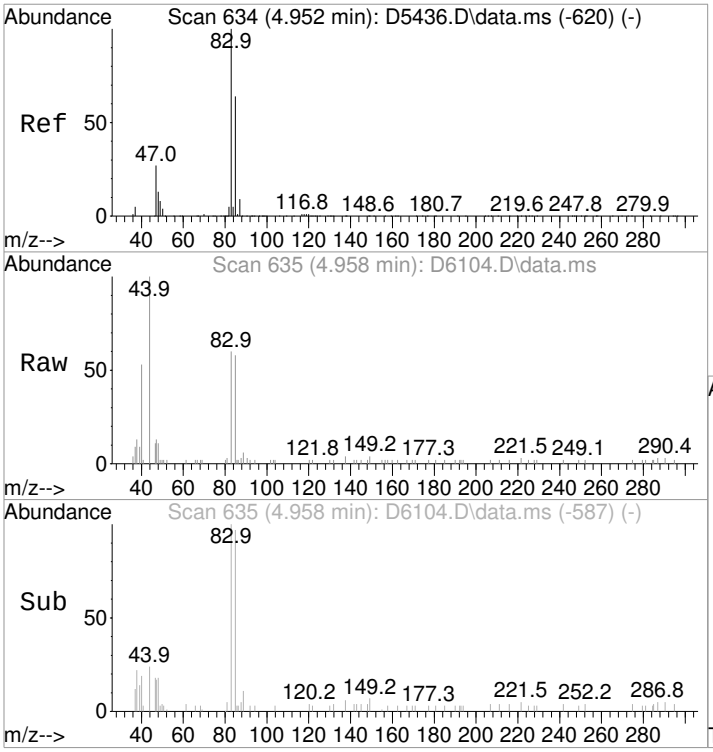


#34
2-Butanone
Concen: 0.50 ug/L
RT: 4.434 min Scan# 549
Delta R.T. 0.018 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 43 Resp: 832

Ion	Ratio	Lower	Upper
43	100		
57	10.3	0.0	27.8
72	3.4	5.1	45.1#

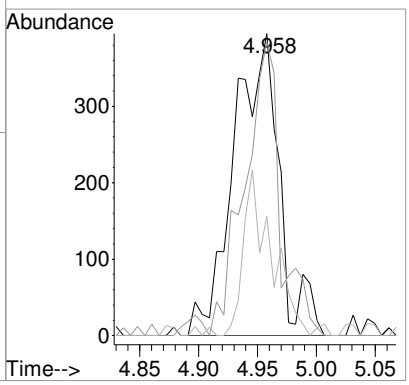


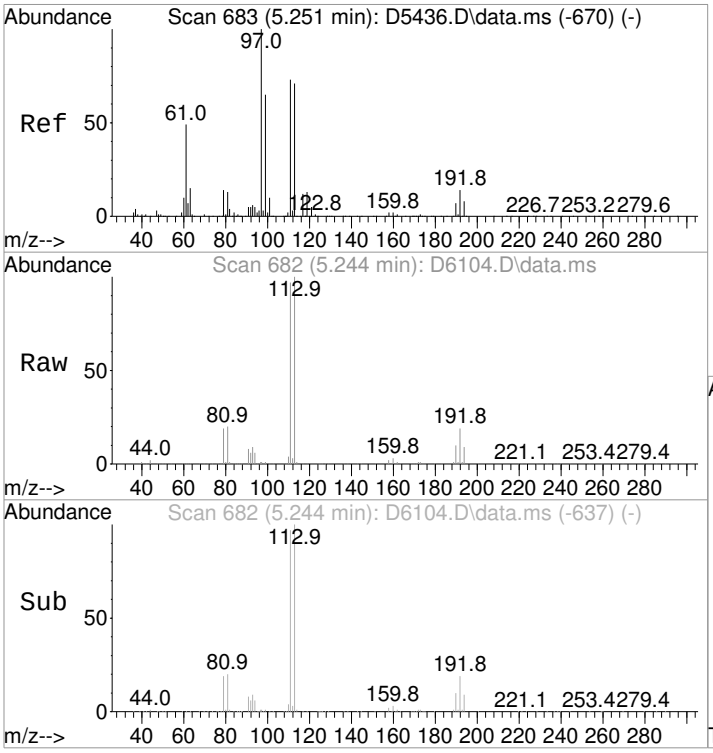


#39
Chloroform
Concen: 0.29 ug/L m
RT: 4.958 min Scan# 635
Delta R.T. 0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 83 Resp: 1058

Ion	Ratio	Lower	Upper
83	100		
85	97.2	43.7	83.7#
47	21.5	6.9	46.9

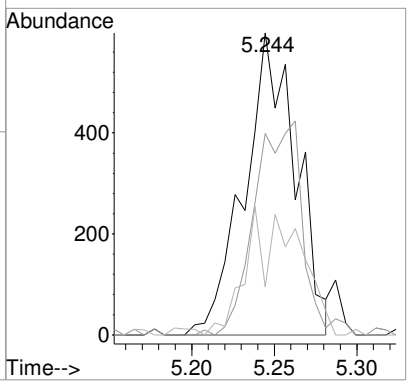


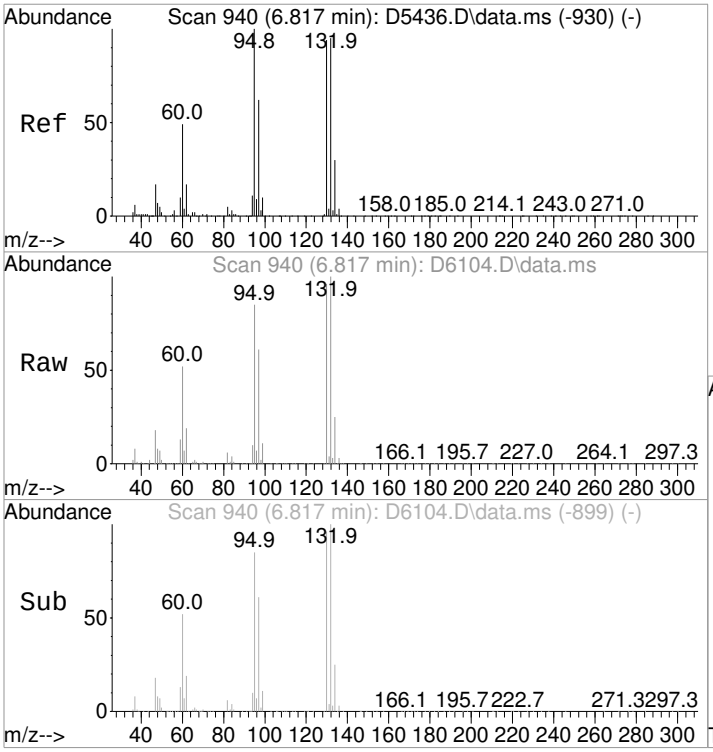


#40
1,1,1-Trichloroethane
Concen: 0.42 ug/L
RT: 5.244 min Scan# 682
Delta R.T. -0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion: 97 Resp: 1297

Ion	Ratio	Lower	Upper
97	100		
99	66.7	45.0	85.0
61	15.9	29.1	69.1#

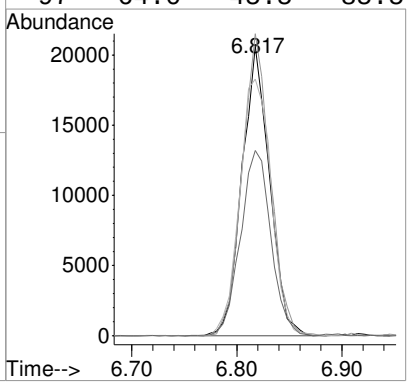


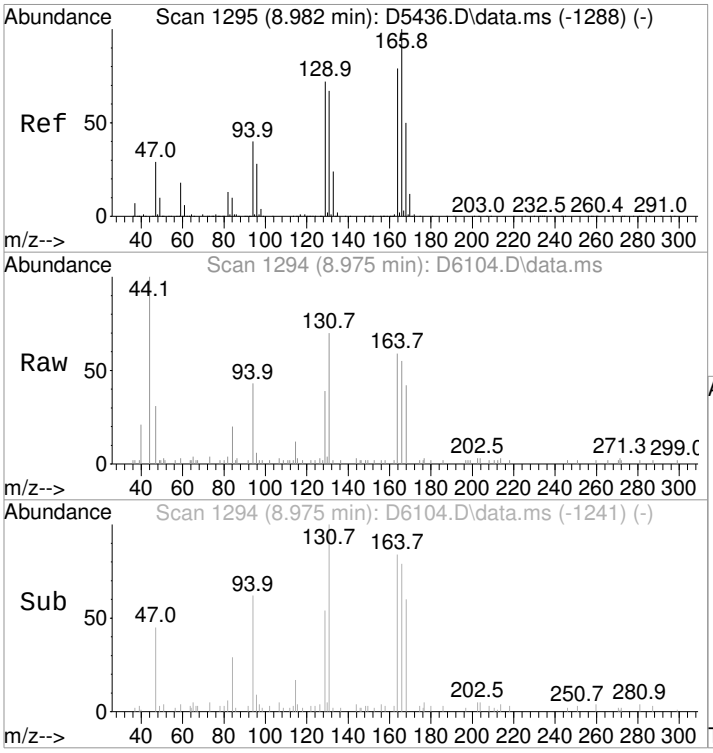


#53
Trichloroethene
Concen: 16.50 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion:130 Resp: 37355

Ion	Ratio	Lower	Upper
130	100		
132	104.3	80.7	120.7
95	88.6	86.1	126.1
97	64.0	45.5	85.5

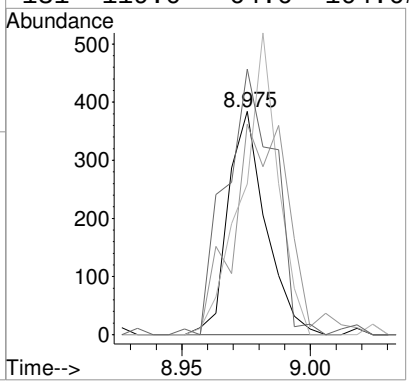




#71
Tetrachloroethene
Concen: 0.22 ug/L
RT: 8.975 min Scan# 1294
Delta R.T. -0.006 min
Lab File: D6104.D
Acq: 25 Sep 2018 12:53 pm

Tgt Ion:164 Resp: 391

Ion	Ratio	Lower	Upper
164	100		
166	94.3	106.8	146.8#
129	67.4	71.9	111.9#
131	119.0	64.6	104.6#

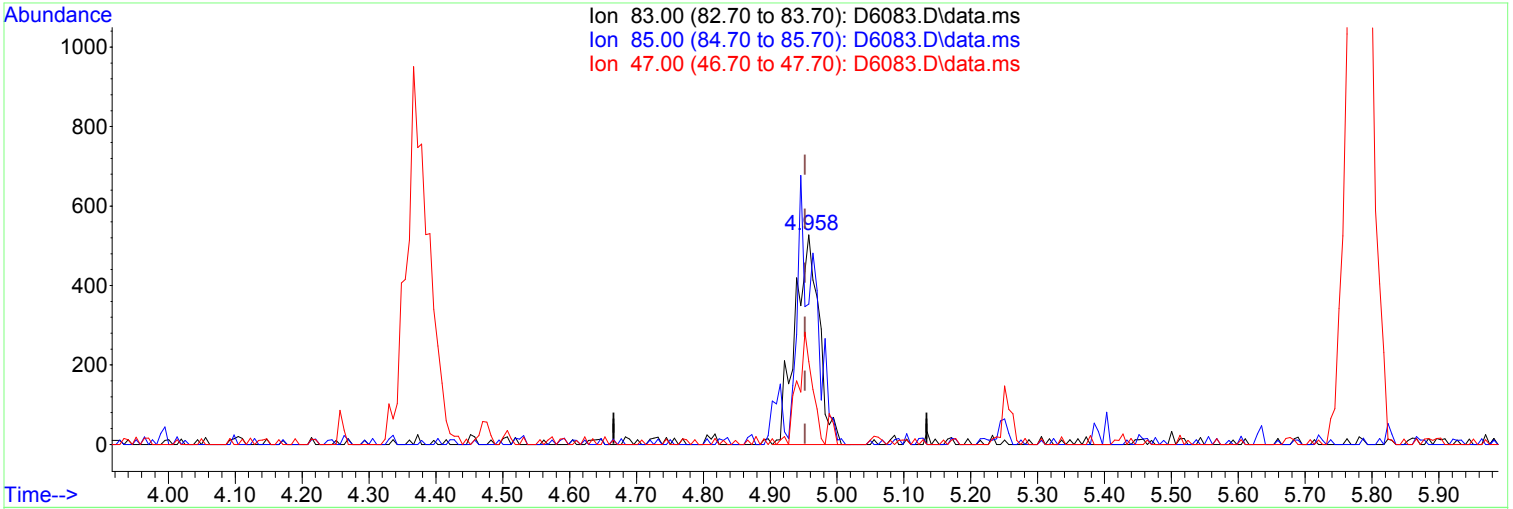


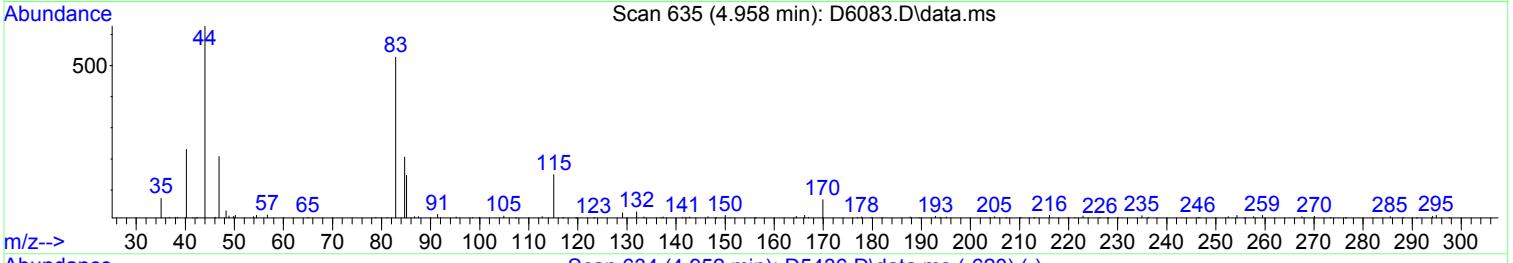
1st BA 09/27/18
2nd DL 09/27/18

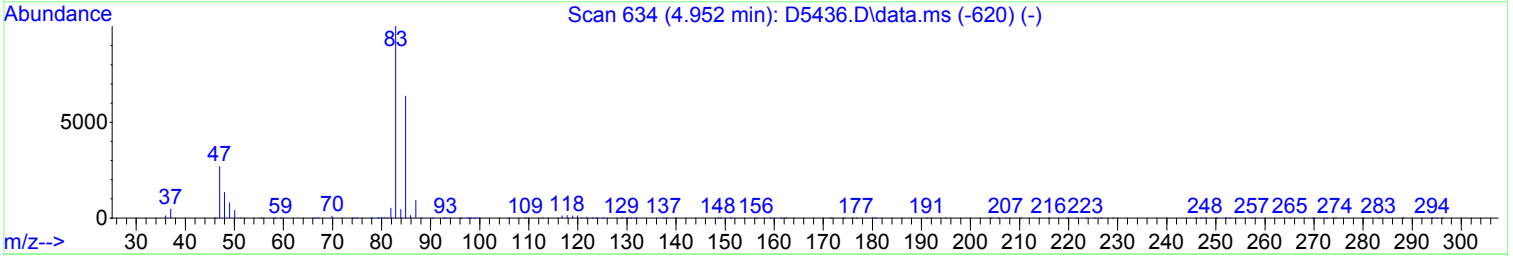
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6083.D\data.ms

(39) Chloroform (P)

4.958min (+0.006) 0.37 ug/L m

response 1319

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	39.09#
47.00	26.90	39.47
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

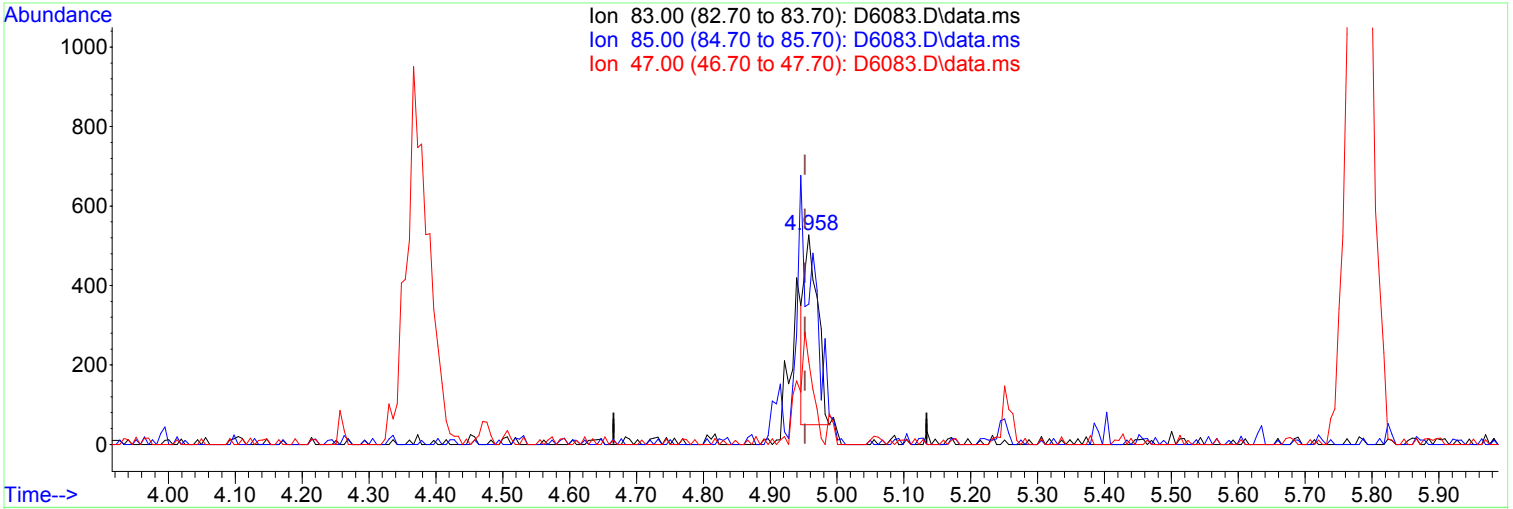
09/27/18

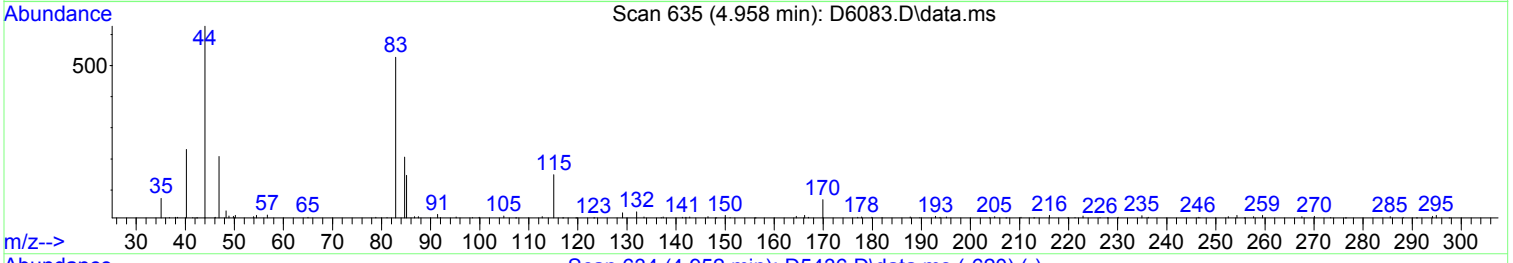
1st BA 09/27/18
2nd DL 09/27/18

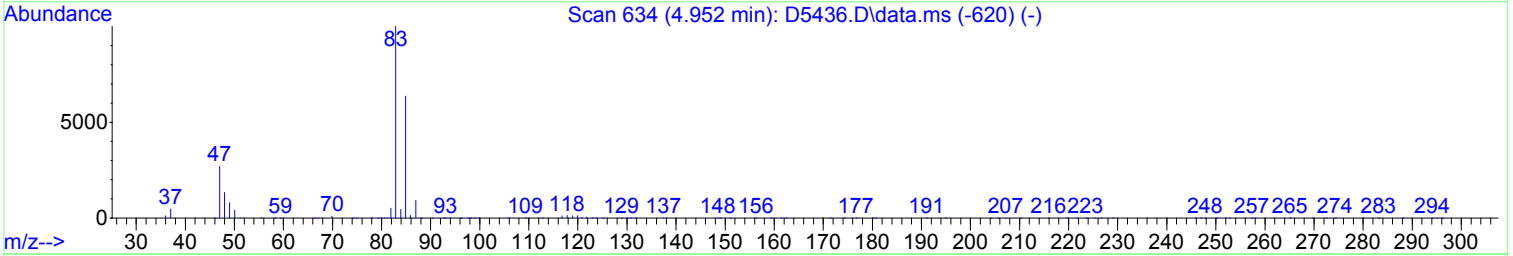
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6083.D\data.ms

(39) Chloroform (P)

4.958min (+0.006) 0.19 ug/L

response 664

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	66.98
47.00	26.90	39.47
0.00	0.00	0.00

Manual Integration:

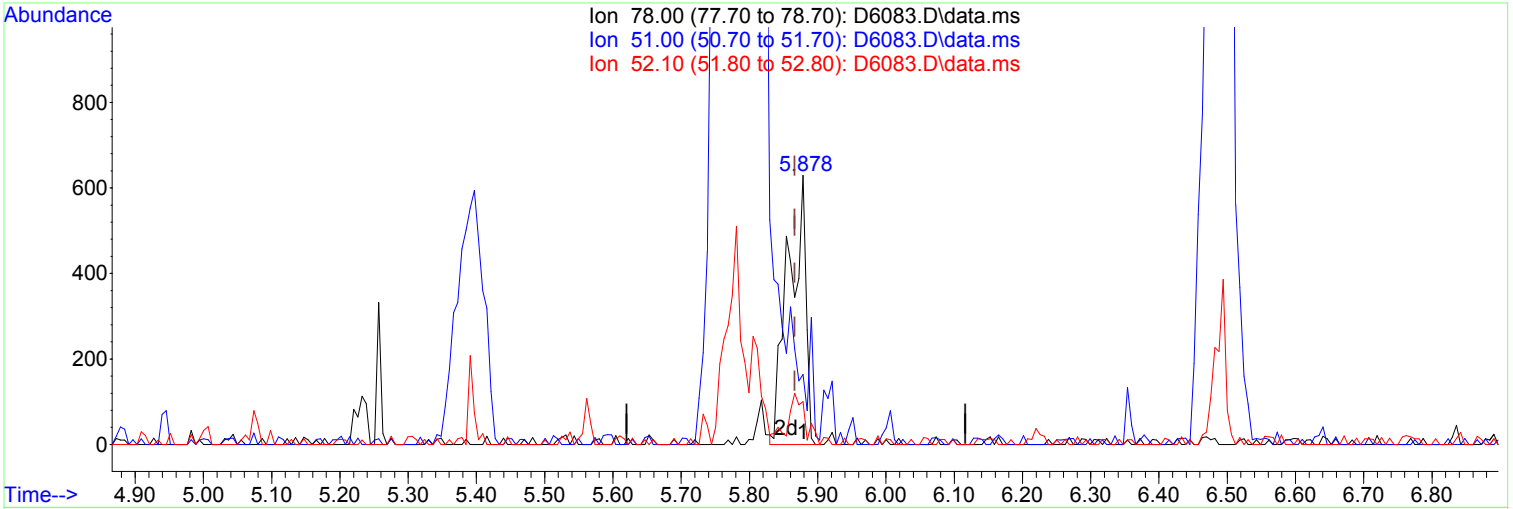
Before

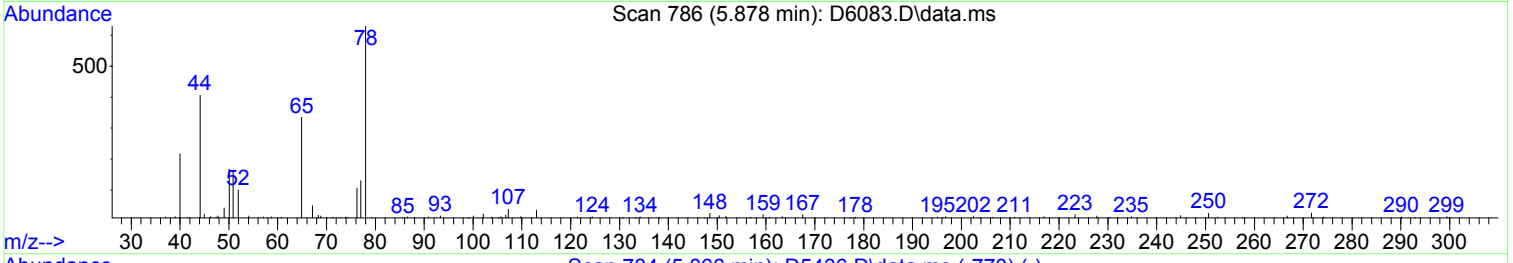
09/27/18

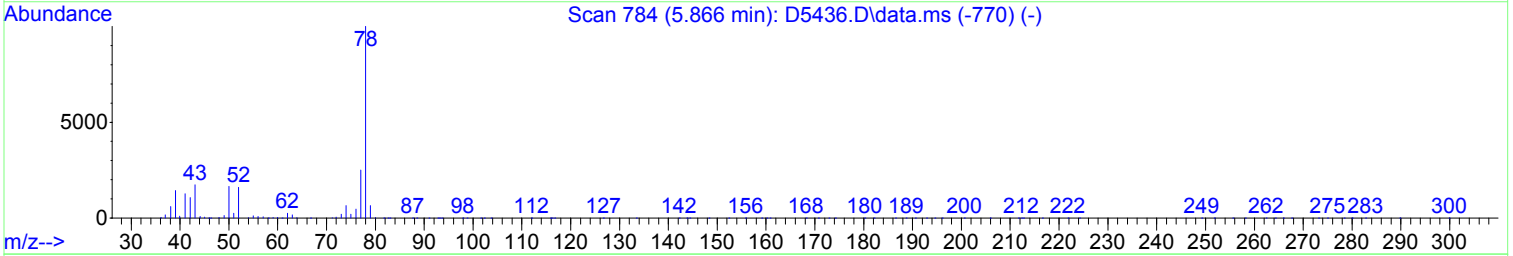
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6083.D\data.ms

(47) Benzene (P)

5.878min (+0.012) 0.13 ug/L m

response 1116

Ion	Exp%	Act%
78.00	100	100
51.00	17.50	26.07
52.10	16.30	15.90
0.00	0.00	0.00

Manual Integration:

After

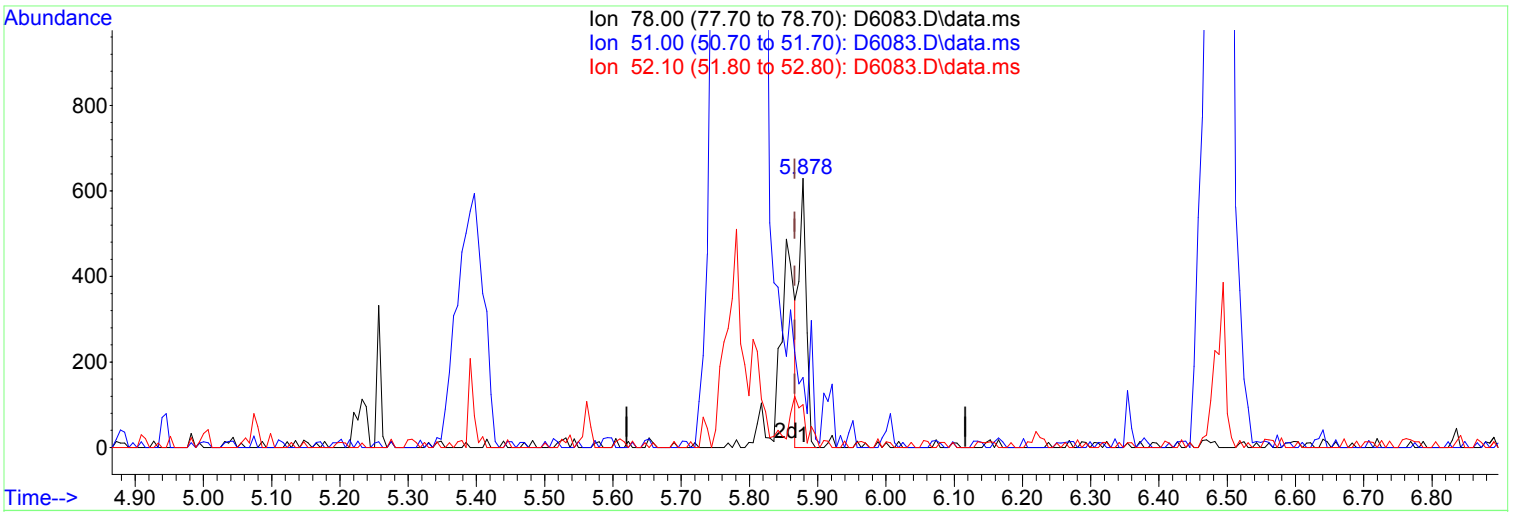
Poor integration.

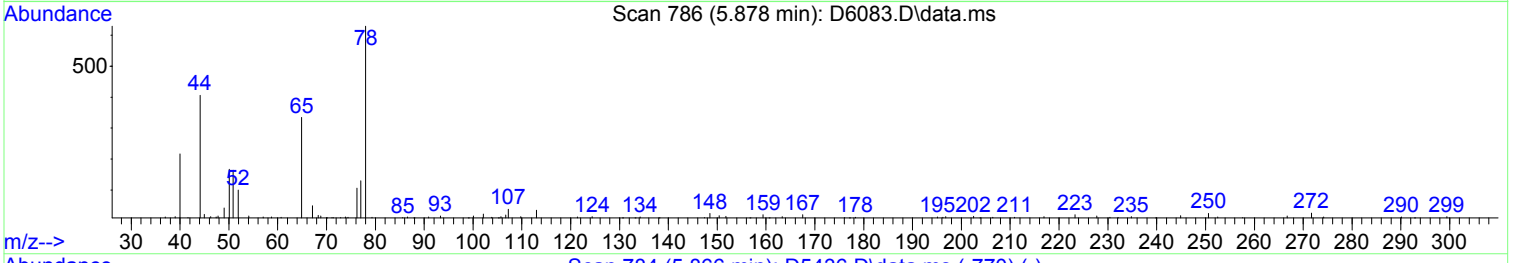
09/27/18

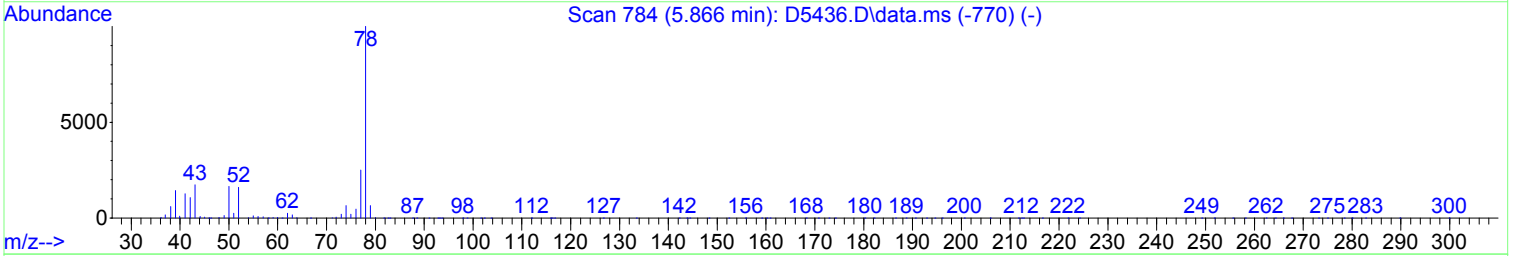
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6083.D\data.ms

(47) Benzene (P)

5.878min (+0.012) 0.06 ug/L

response 476

Ion	Exp%	Act%
78.00	100	100
51.00	17.50	26.07
52.10	16.30	15.90
0.00	0.00	0.00

Manual Integration:

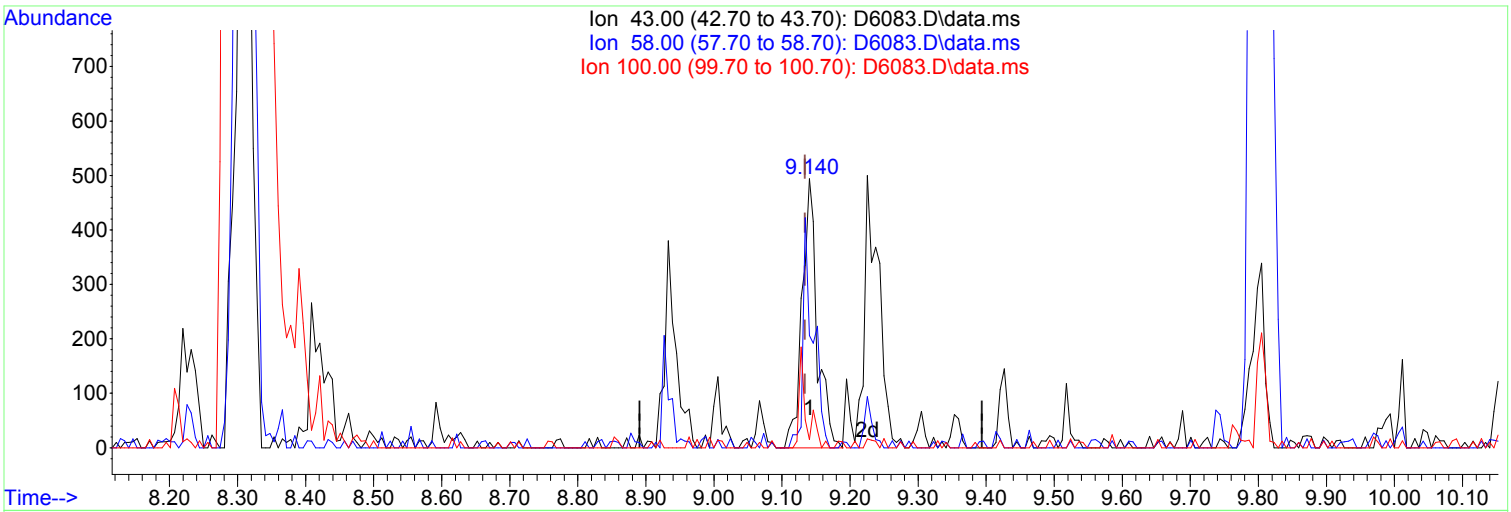
Before

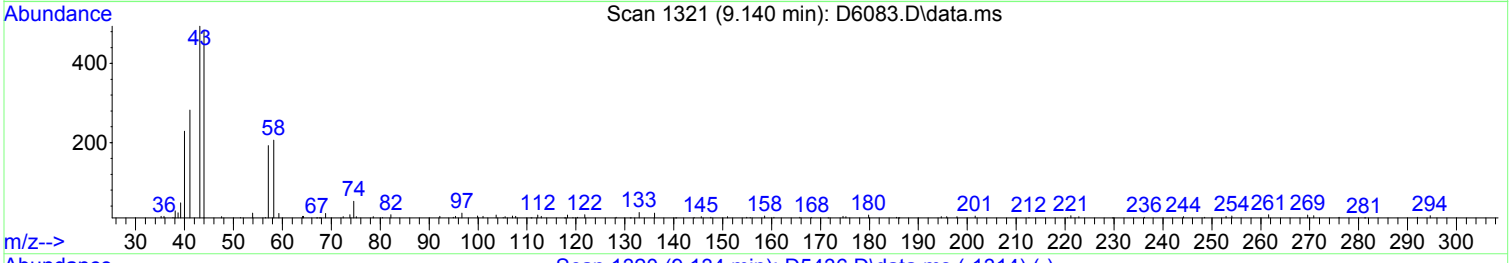
09/27/18

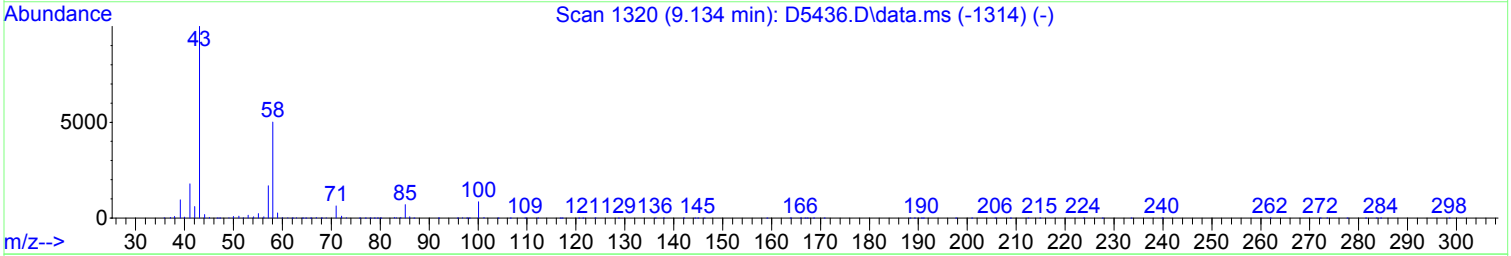
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6083.D\data.ms

(72) 2-Hexanone (P)

9.140min (+0.006) 0.34 ug/L m

response 774

Ion	Exp%	Act%
43.00	100	100
58.00	50.10	41.70
100.00	8.60	3.04
0.00	0.00	0.00

Manual Integration:

After

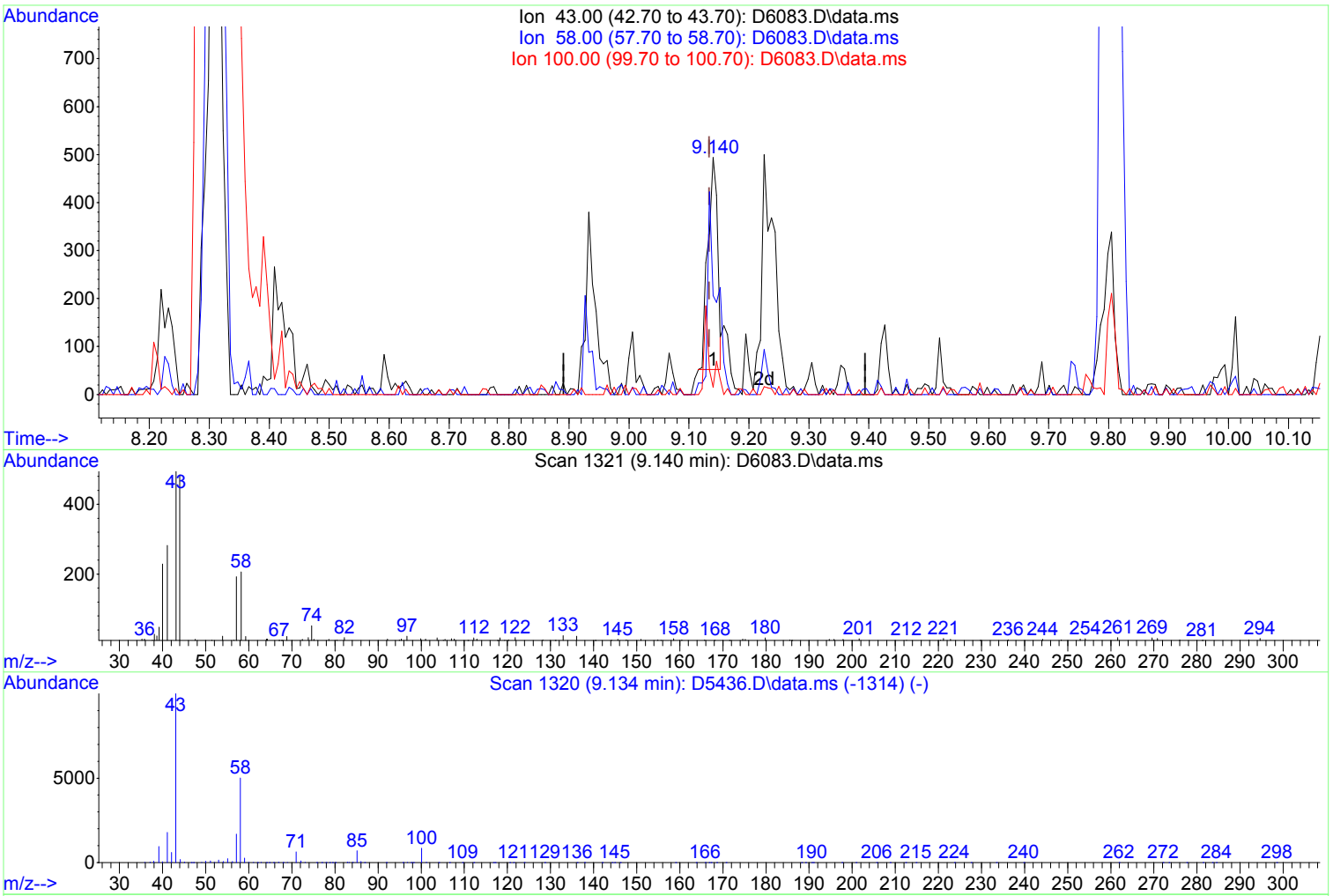
Poor integration.

09/27/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6083.D\data.ms

(72) 2-Hexanone (P)

9.140min (+0.006) 0.22 ug/L

response 506

Ion	Exp%	Act%
43.00	100	100
58.00	50.10	41.70
100.00	8.60	3.04
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 27 15:13:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

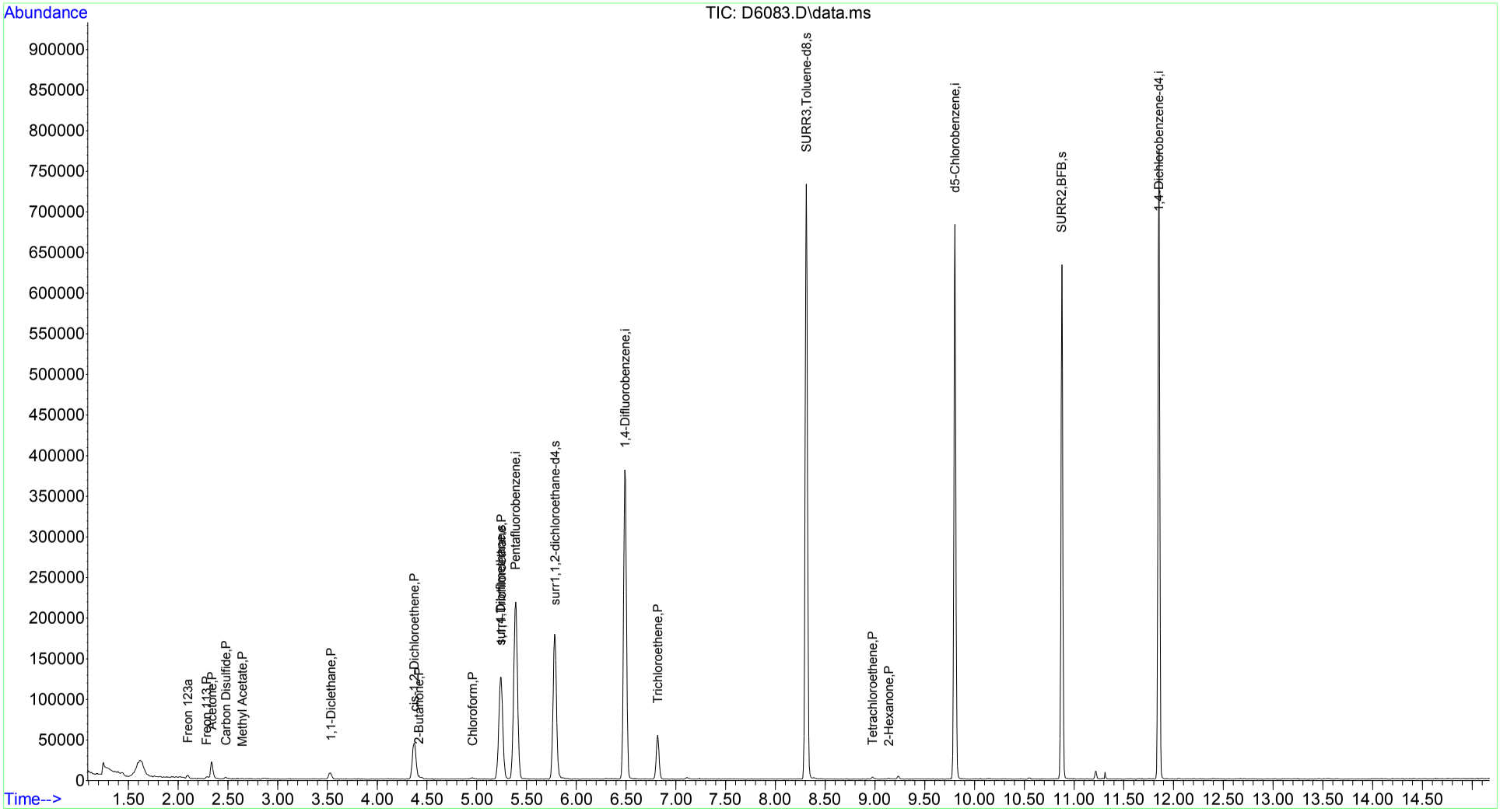
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	201911	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	310169	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	268335	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	138001	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	102535	49.05	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.10%			
46) surr1,1,2-dichloroetha...	5.787	65	148680	54.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.18%			
64) SURR3,Toluene-d8	8.311	98	418886	49.43	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.86%			
69) SURR2,BFB	10.877	95	147617	45.32	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.64%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	638	Below Cal	#	61
10) Freon 123a	2.099	67	2011	0.78	ug/L	81
14) Freon 113	2.288	101	1060	0.57	ug/L	82
15) Acetone	2.336	43	23419	19.72	ug/L	91
18) Carbon Disulfide	2.477	76	1781	0.35	ug/L	96
21) Methyl Acetate	2.641	43	571	0.24	ug/L #	67
27) 1,1-Diclethane	3.531	63	8340	2.14	ug/L	80
33) cis-1,2-Dichloroethene	4.373	96	23485	10.59	ug/L	99
34) 2-Butanone	4.421	43	4308	2.68	ug/L	94
39) Chloroform	4.958	83	1319m	0.37	ug/L	
40) 1,1,1-Trichloroethane	5.244	97	1858	0.62	ug/L #	76
53) Trichloroethene	6.817	130	18784	8.70	ug/L	89
71) Tetrachloroethene	8.975	164	395	0.24	ug/L #	41
72) 2-Hexanone	9.140	43	774m	0.34	ug/L	

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

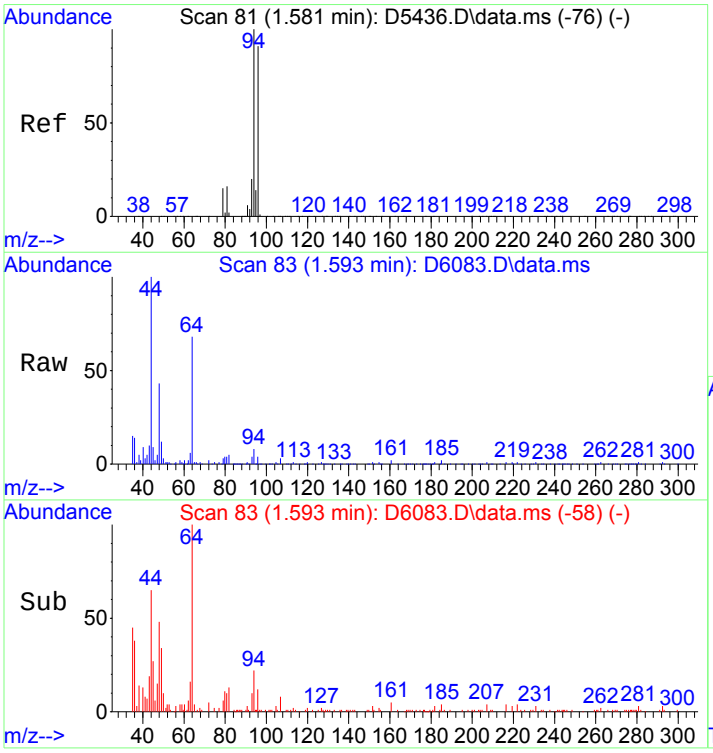
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 27 15:13:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



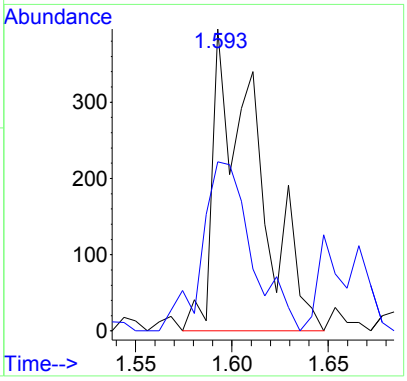
1st BA 09/27/18
2nd DL 09/27/18

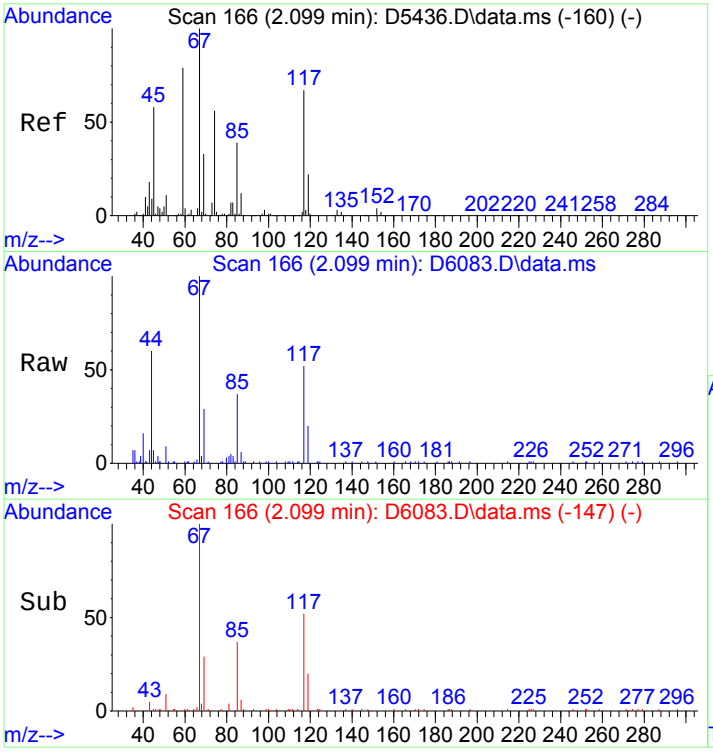


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 94 Resp: 638

Ion	Ratio	Lower	Upper
94	100		
96	54.5	71.1	111.1#

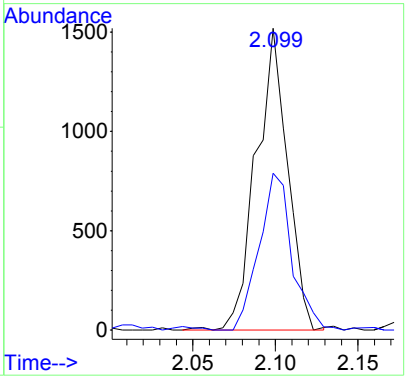


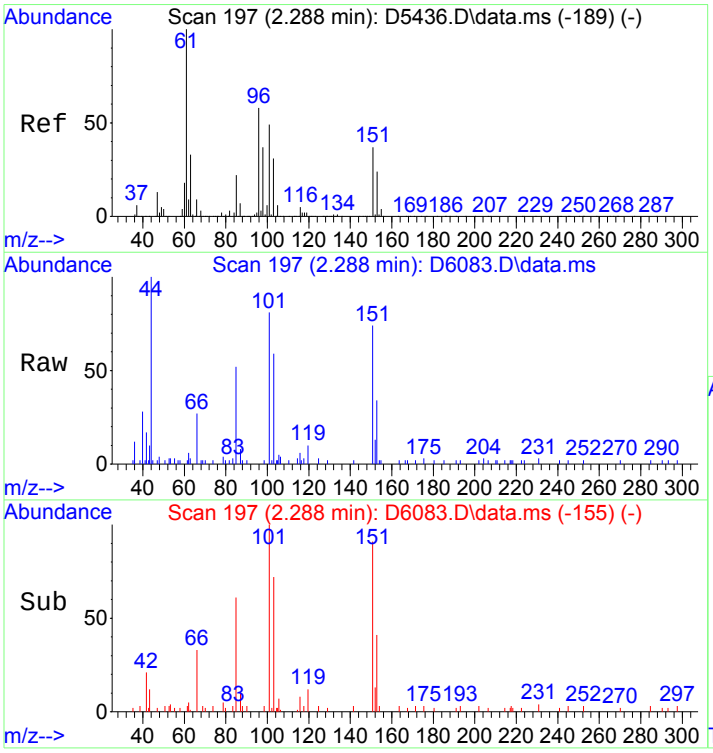


#10
Freon 123a
Concen: 0.78 ug/L
RT: 2.099 min Scan# 166
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 67 Resp: 2011

Ion	Ratio	Lower	Upper
67	100		
117	52.0	47.5	87.5

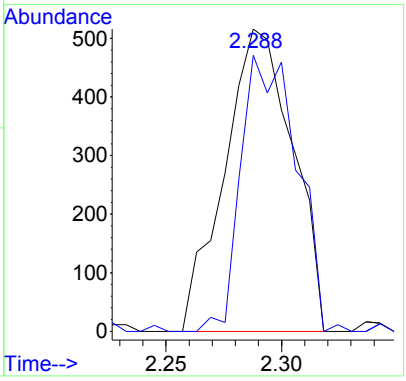


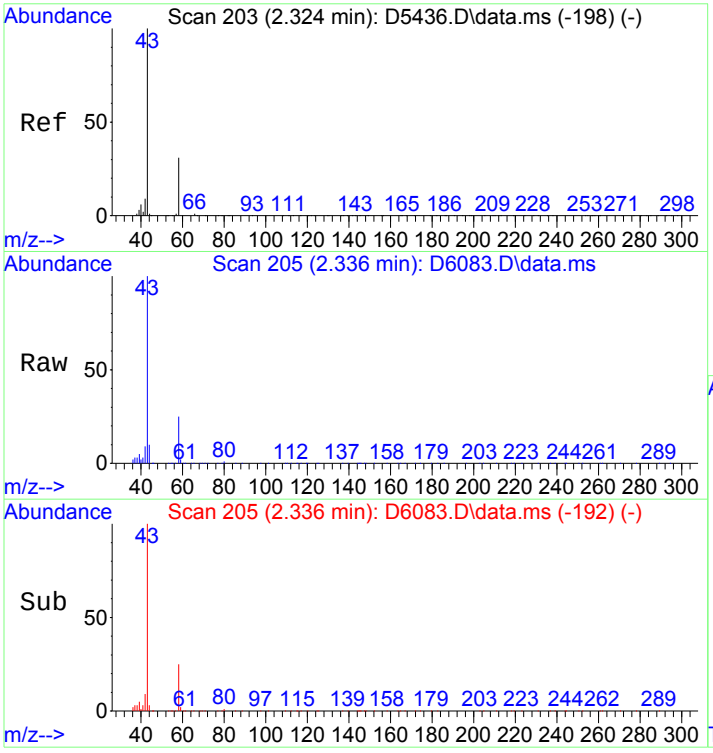


#14
Freon 113
Concen: 0.57 ug/L
RT: 2.288 min Scan# 197
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion:101 Resp: 1060

Ion	Ratio	Lower	Upper
101	100		
151	91.3	56.1	96.1

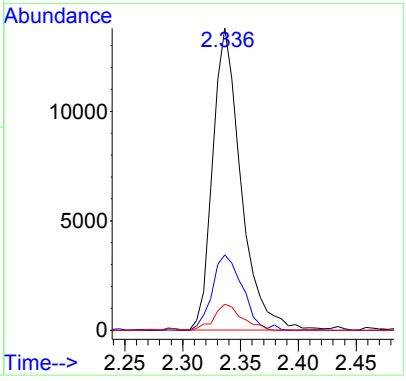


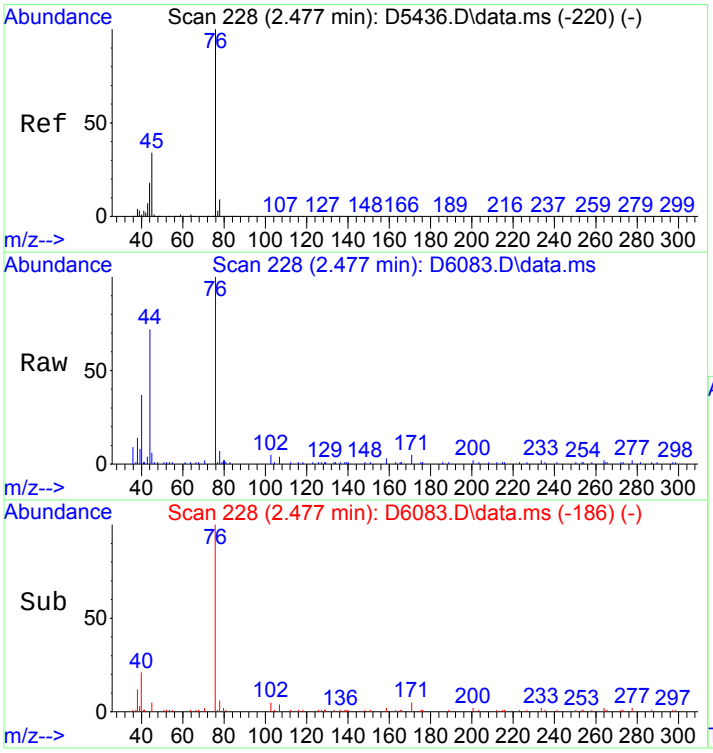


#15
Acetone
Concen: 19.72 ug/L
RT: 2.336 min Scan# 205
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 43 Resp: 23419

Ion	Ratio	Lower	Upper
43	100		
58	25.0	11.2	51.2
42	8.6	0.0	28.6

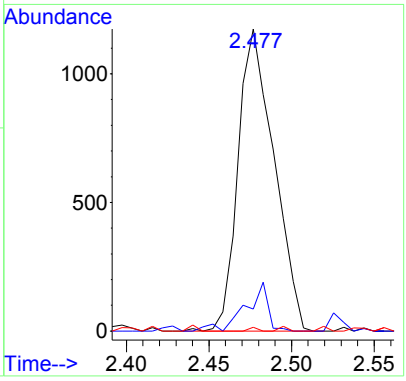


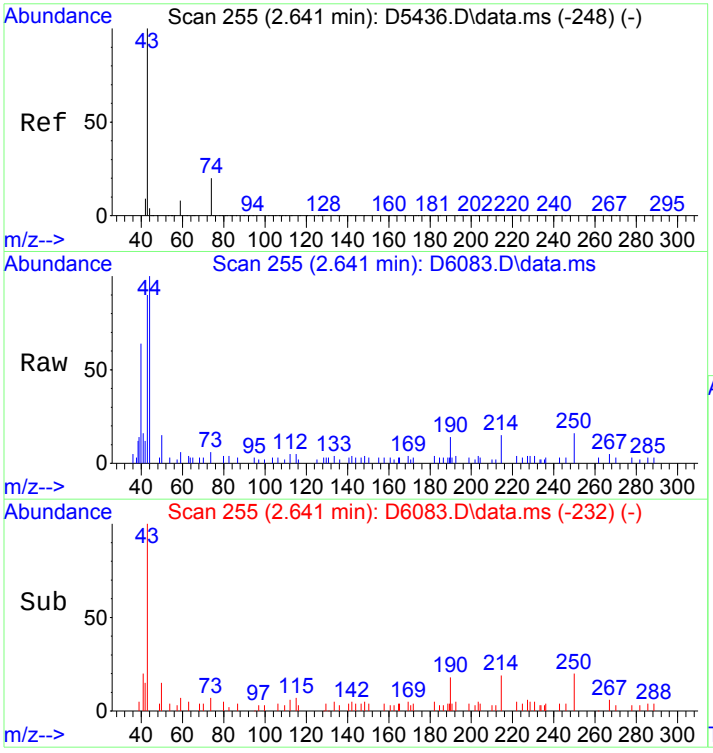


#18
Carbon Disulfide
Concen: 0.35 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 76 Resp: 1781

Ion	Ratio	Lower	Upper
76	100		
78	7.3	0.0	28.8
77	1.3	0.0	22.9

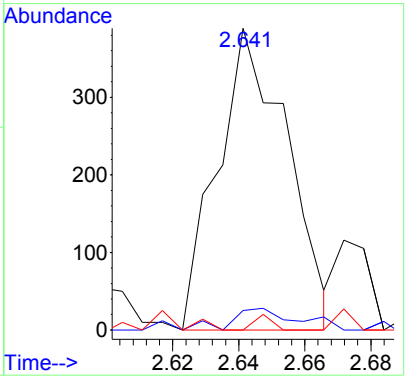


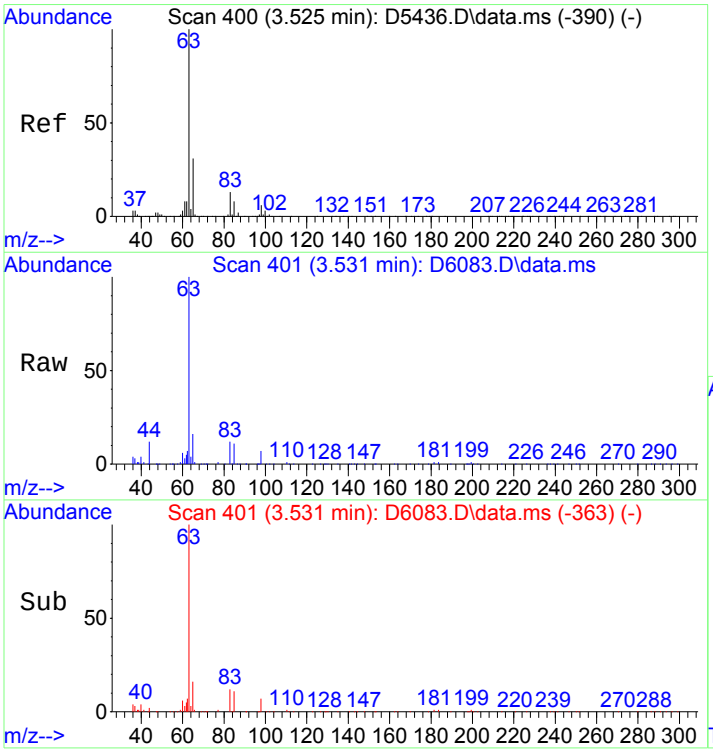


#21
Methyl Acetate
Concen: 0.24 ug/L
RT: 2.641 min Scan# 255
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 43 Resp: 571

Ion	Ratio	Lower	Upper
43	100		
59	6.4	0.0	28.1
74	0.0	0.2	40.2#

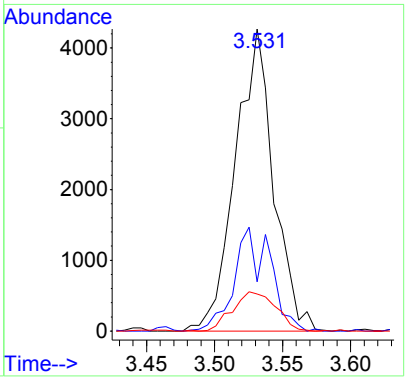


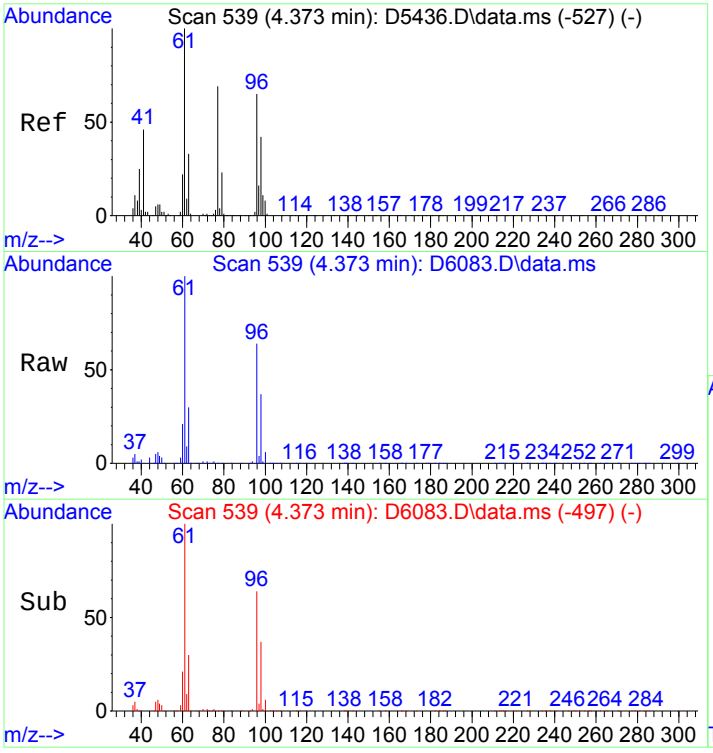


#27
1,1-Diclethane
Concen: 2.14 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 63 Resp: 8340

Ion	Ratio	Lower	Upper
63	100		
65	16.2	11.4	51.4
83	12.7	0.0	32.6

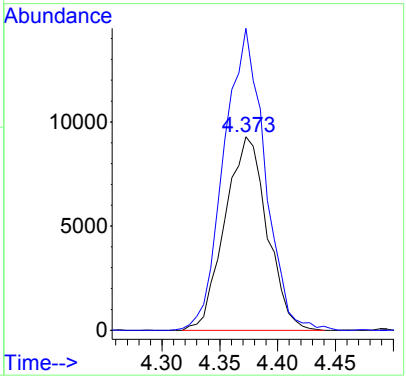


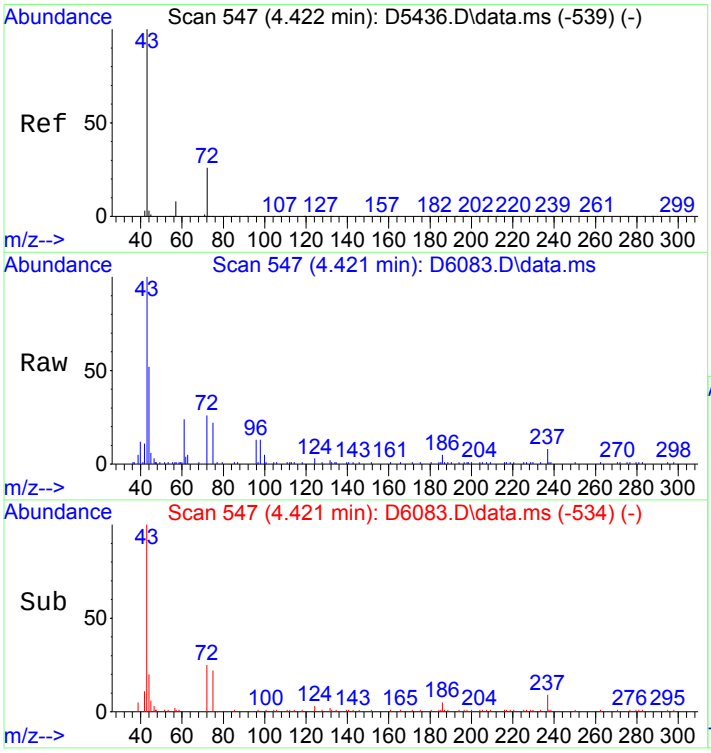


#33
cis-1,2-Dichloroethene
Concen: 10.59 ug/L
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 96 Resp: 23485

Ion	Ratio	Lower	Upper
96	100		
61	156.0	134.7	174.7

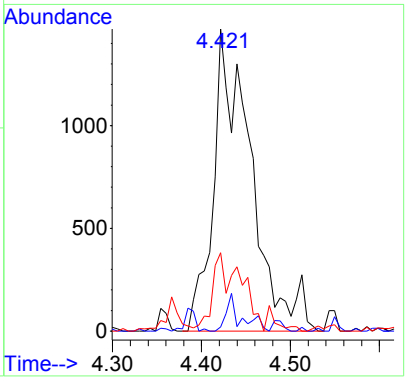


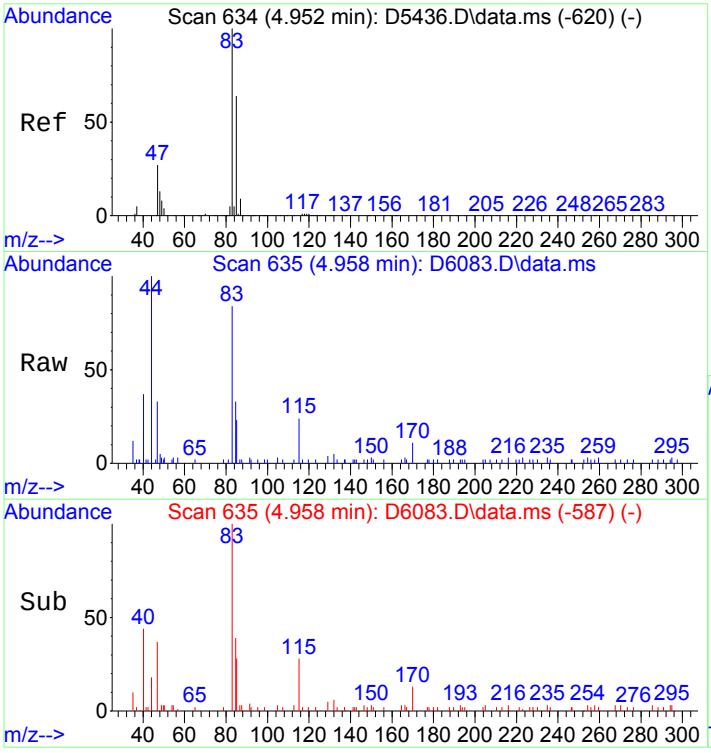


#34
2-Butanone
Concen: 2.68 ug/L
RT: 4.421 min Scan# 547
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 43 Resp: 4308

Ion	Ratio	Lower	Upper
43	100		
57	1.4	0.0	27.8
72	26.0	5.1	45.1

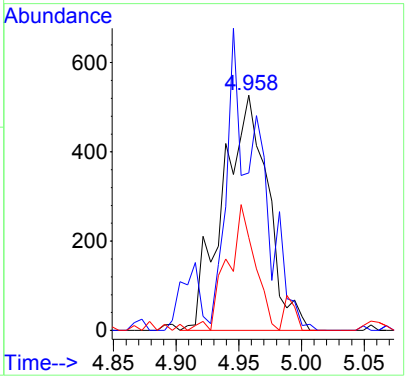


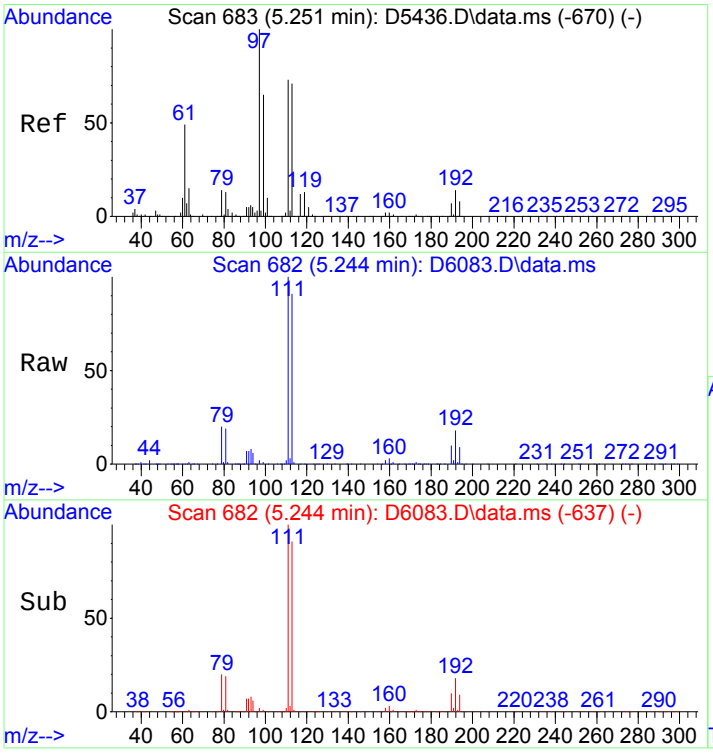


#39
Chloroform
Concen: 0.37 ug/L m
RT: 4.958 min Scan# 635
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 83 Resp: 1319

Ion	Ratio	Lower	Upper
83	100		
85	39.1	43.7	83.7#
47	39.5	6.9	46.9

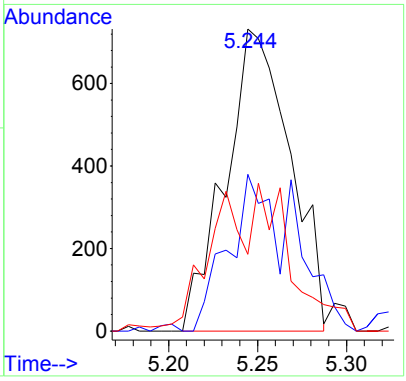


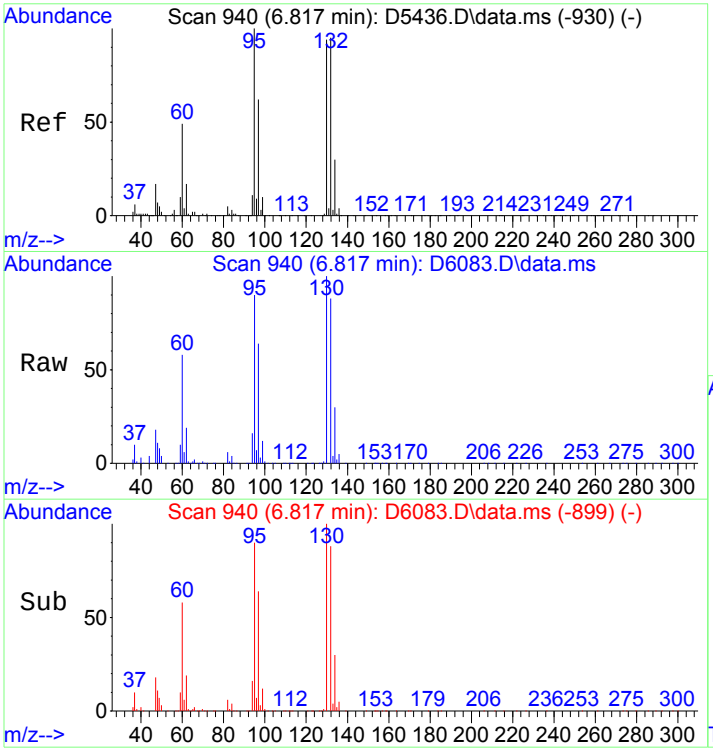


#40
1,1,1-Trichloroethane
Concen: 0.62 ug/L
RT: 5.244 min Scan# 682
Delta R.T. -0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 97 Resp: 1858

Ion	Ratio	Lower	Upper
97	100		
99	51.9	45.0	85.0
61	25.4	29.1	69.1#

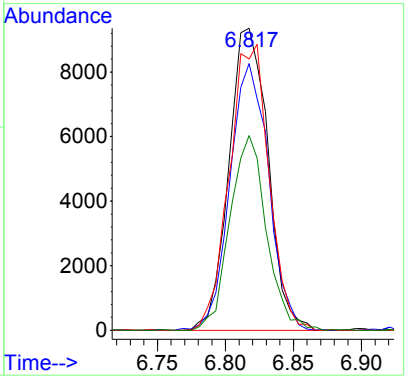


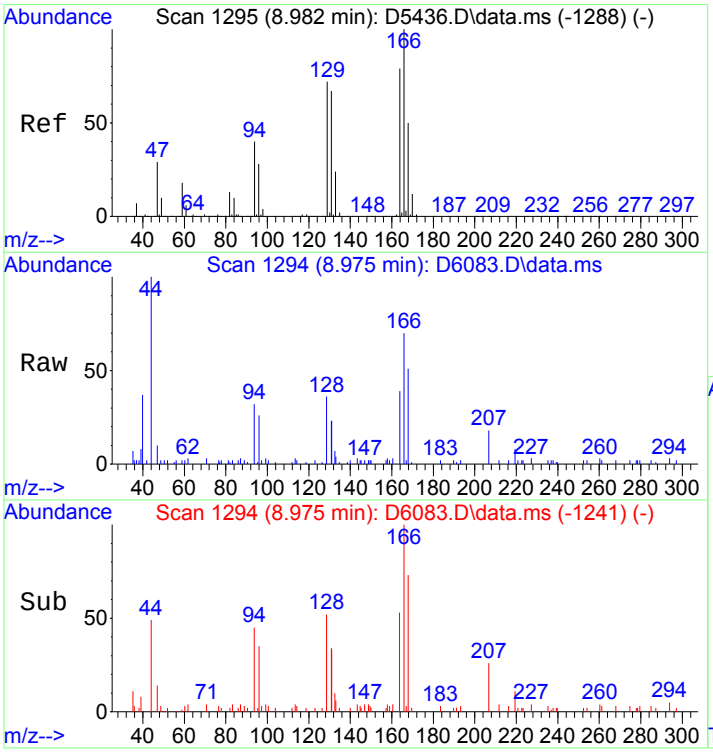


#53
Trichloroethene
Concen: 8.70 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion:130 Resp: 18784

Ion	Ratio	Lower	Upper
130	100		
132	88.3	80.7	120.7
95	89.8	86.1	126.1
97	64.5	45.5	85.5

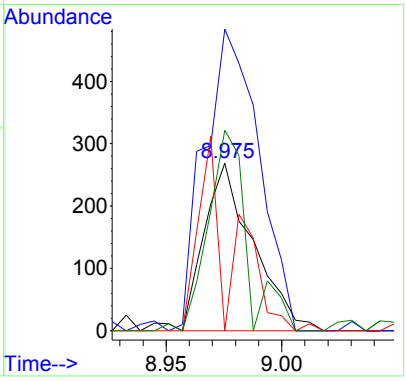


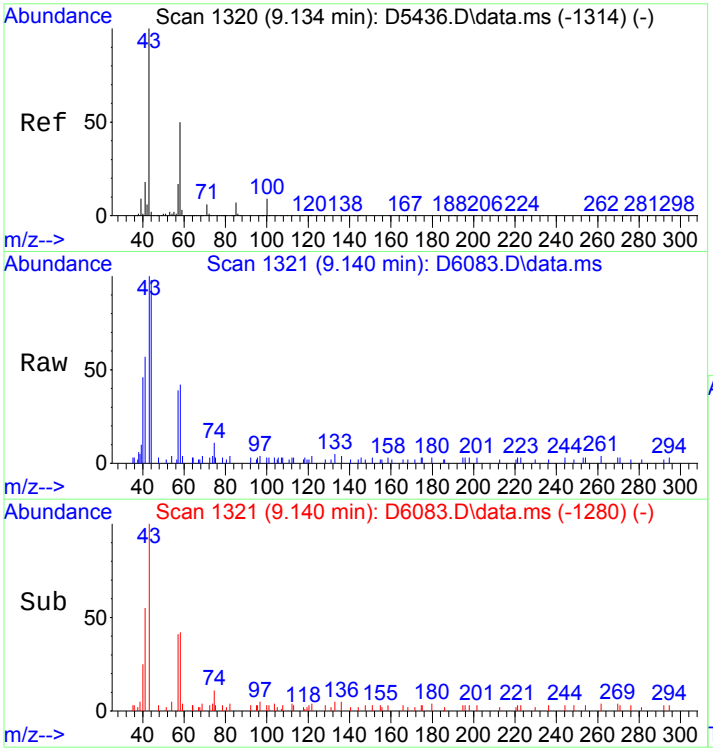


#71
Tetrachloroethene
Concen: 0.24 ug/L
RT: 8.975 min Scan# 1294
Delta R.T. -0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion:164 Resp: 395

Ion	Ratio	Lower	Upper
164	100		
166	179.9	106.8	146.8#
129	0.0	71.9	111.9#
131	119.7	64.6	104.6#

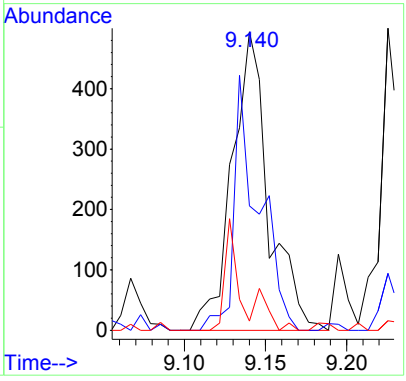




#72
2-Hexanone
Concen: 0.34 ug/L m
RT: 9.140 min Scan# 1321
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion: 43 Resp: 774

Ion	Ratio	Lower	Upper
43	100		
58	41.7	30.1	70.1
100	3.0	0.0	28.6

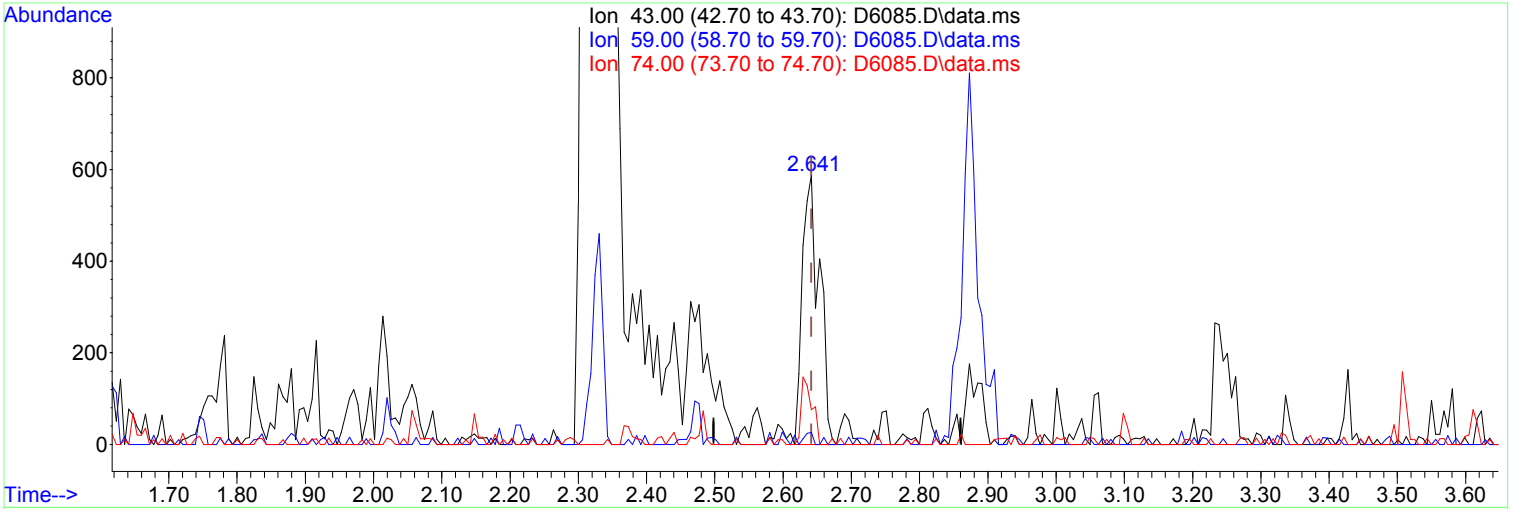


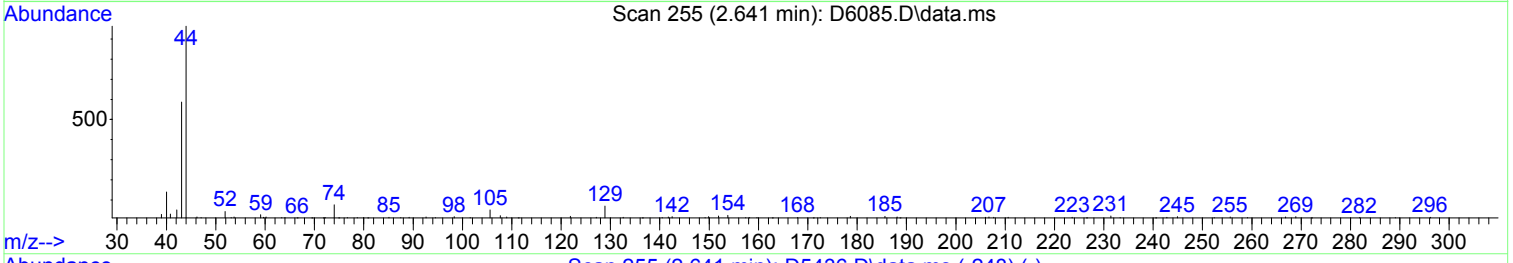
1st BA 09/27/18
2nd DL 09/27/18

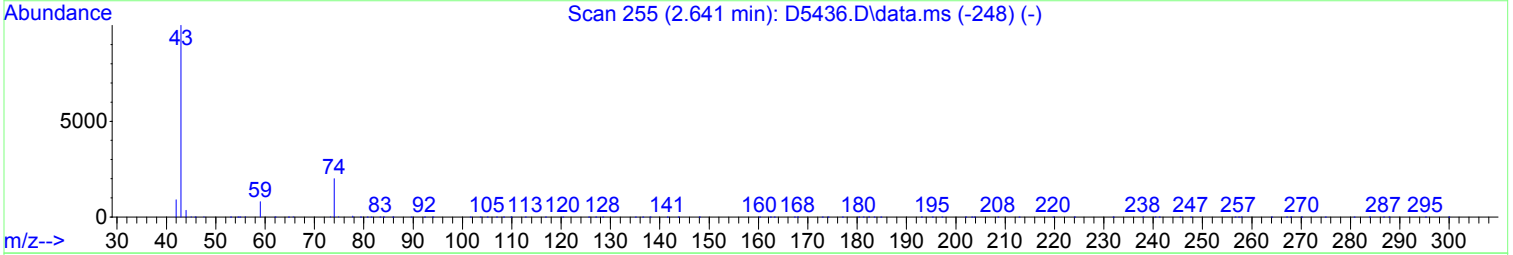
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6085.D\data.ms

(21) Methyl Acetate (P)

2.641min (-0.000) 0.42 ug/L m

response 1028

Ion	Exp%	Act%
43.00	100	100
59.00	8.10	4.43
74.00	20.20	12.95
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

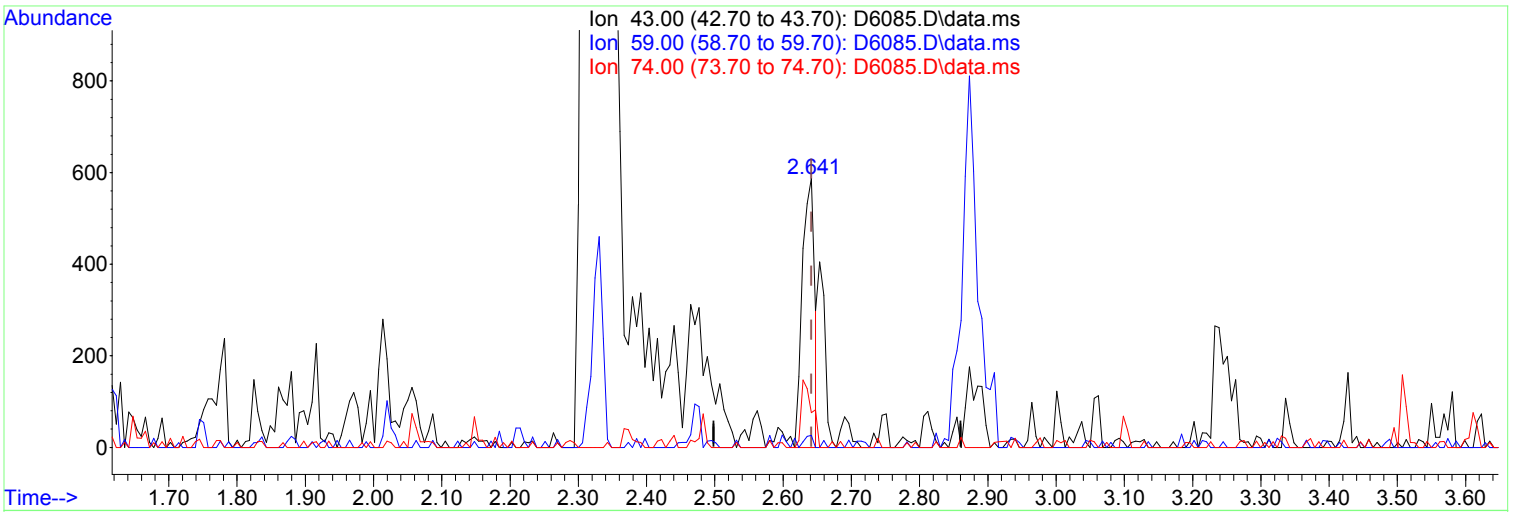
09/27/18

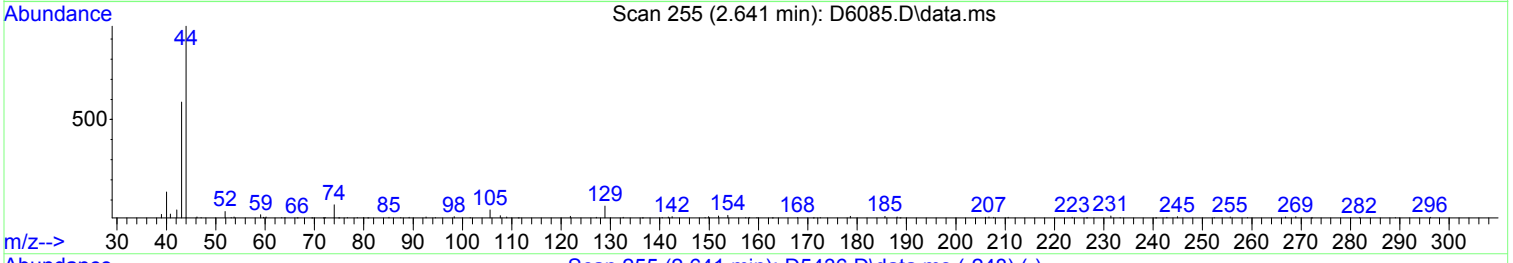
1st BA 09/27/18
2nd DL 09/27/18

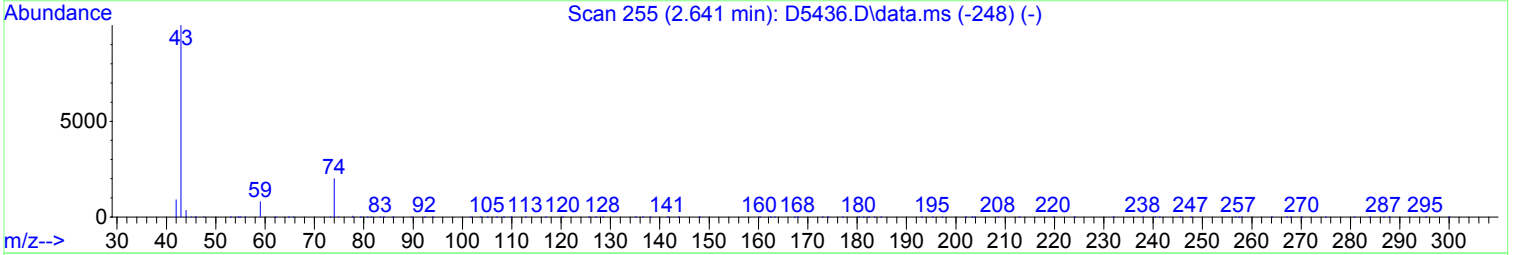
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6085.D\data.ms

(21) Methyl Acetate (P)

2.641min (-0.000) 0.30 ug/L

response 733

Ion	Exp%	Act%
43.00	100	100
59.00	8.10	6.64
74.00	20.20	12.95
0.00	0.00	0.00

Manual Integration:

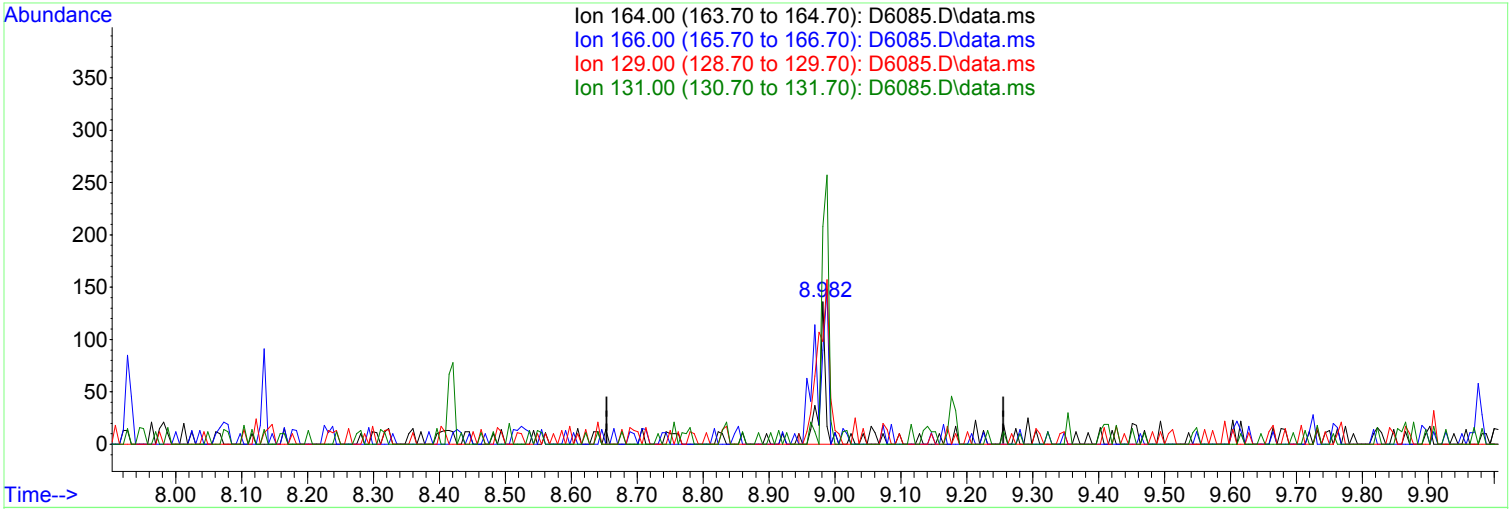
Before

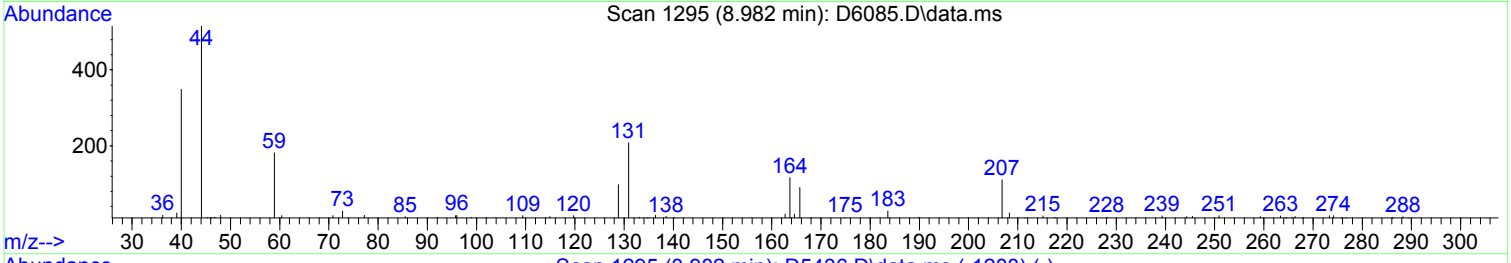
09/27/18

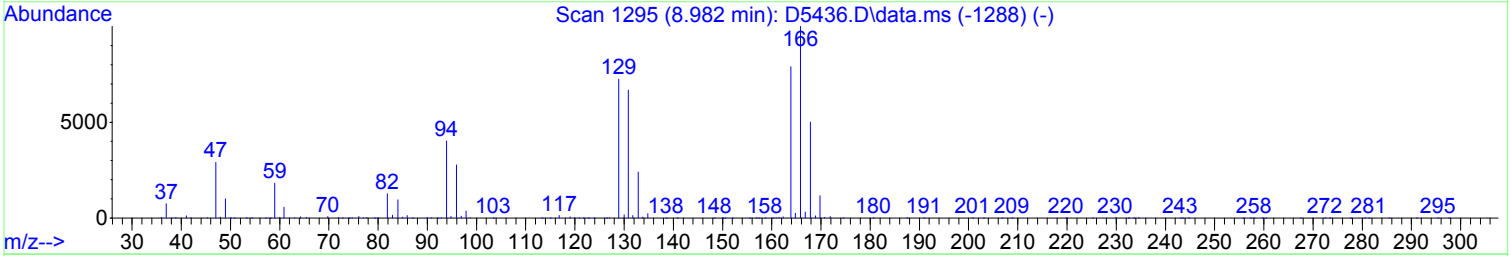
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6085.D\data.ms

(71) Tetrachloroethene (P)

8.982min (-0.000) 0.05 ug/L m

response 85

Ion	Exp%	Act%
164.00	100	100
166.00	126.80	77.59#
129.00	91.90	84.48
131.00	84.60	179.31#

Manual Integration:

After

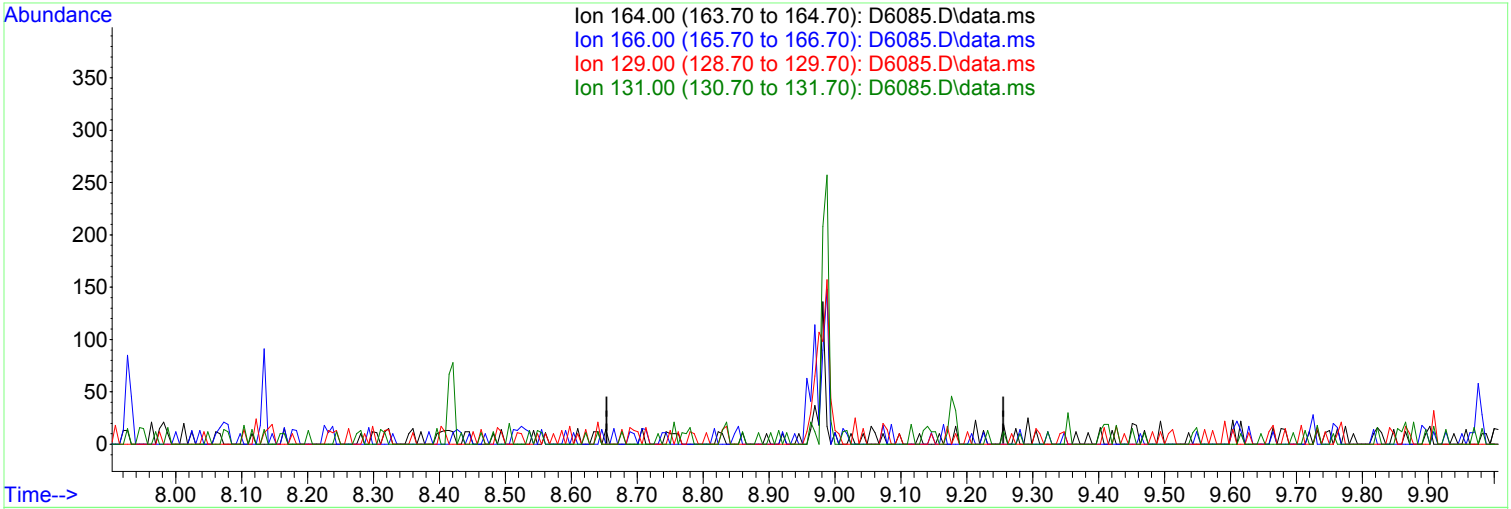
Poor integration.

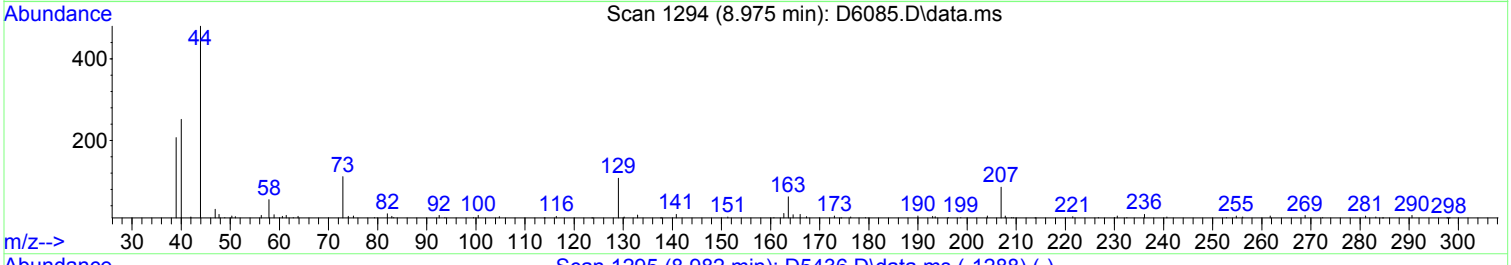
09/27/18

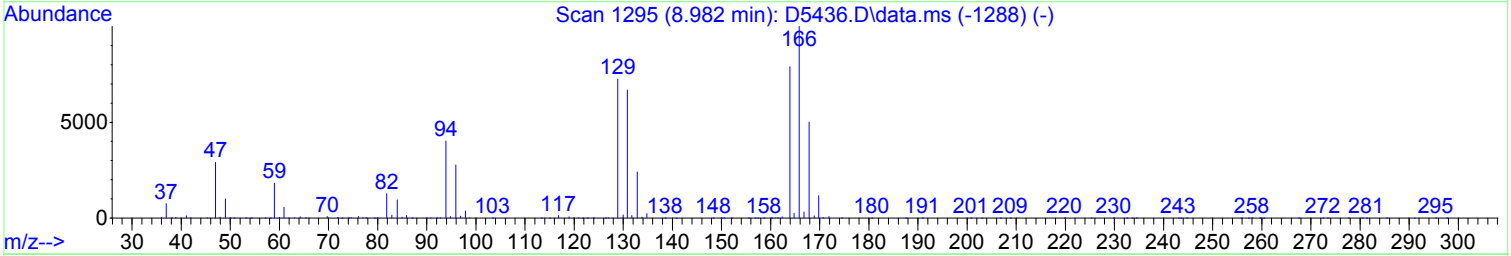
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6085.D\data.ms

(71) Tetrachloroethene (P)

8.982min (-8.982) 0.00 ug/L

response 0

Ion	Exp%	Act%
164.00	100	0.00
166.00	126.80	0.00#
129.00	91.90	0.00#
131.00	84.60	0.00#

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 27 15:19:11 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

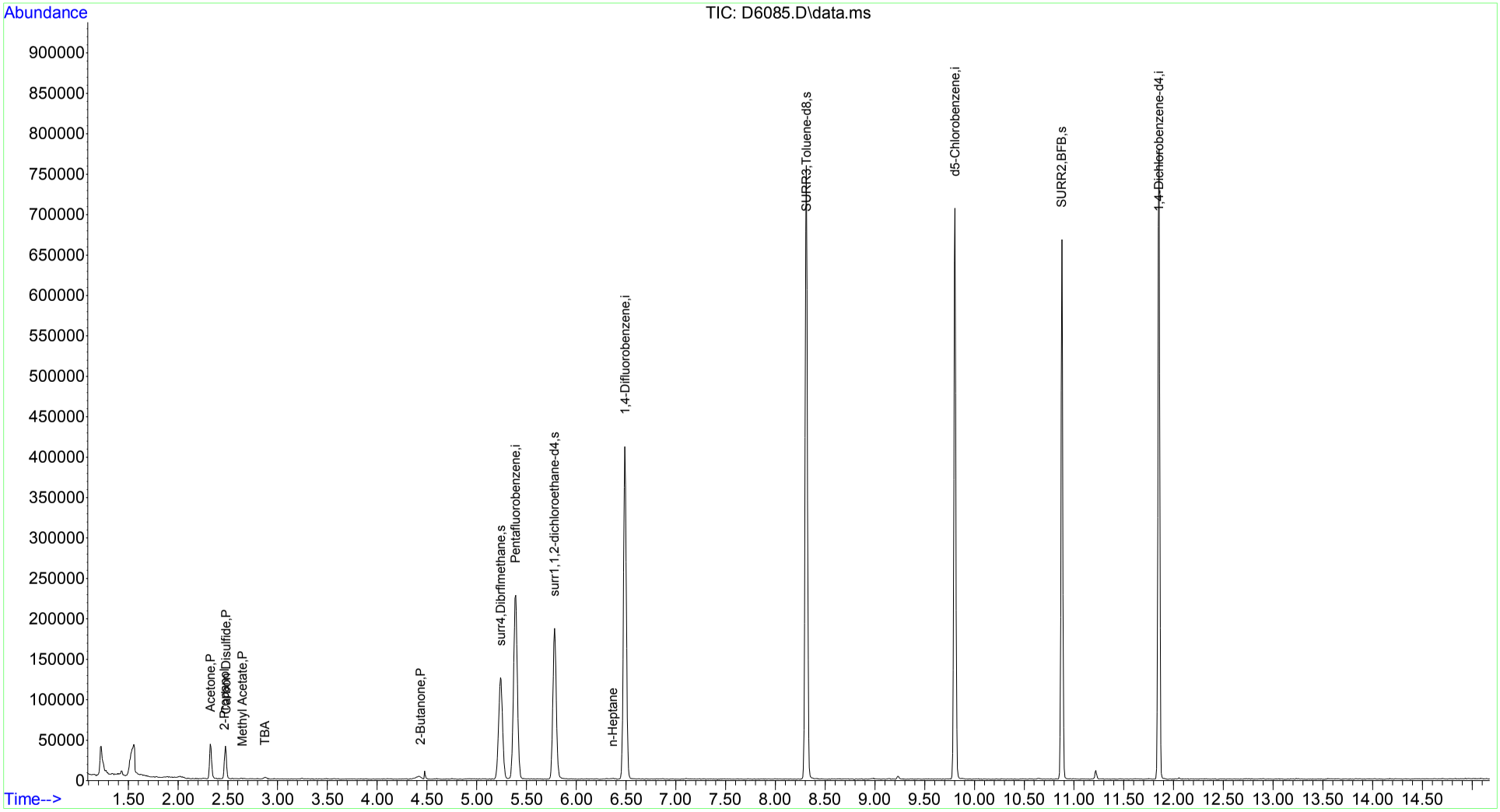
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	207507	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	326046	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	280530	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	140451	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	101205	46.06	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.12%				
46) surr1,1,2-dichloroetha...	5.781	65	153045	52.97	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.94%				
64) SURR3,Toluene-d8	8.311	98	430764	48.35	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.70%				
69) SURR2,BFB	10.878	95	150409	43.93	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 87.86%				
Target Compounds							Qvalue
5) Bromomethane	1.581	94	933	Below Cal		#	74
15) Acetone	2.324	43	41479	33.98	ug/L		92
16) 2-Propanol	2.465	45	1063	4.50	ug/L	#	2
18) Carbon Disulfide	2.477	76	40149	7.70	ug/L		97
21) Methyl Acetate	2.641	43	1028m	0.42	ug/L		
23) TBA	2.873	59	1234	3.49	ug/L	#	54
34) 2-Butanone	4.434	43	5650	3.42	ug/L		81
51) n-Heptane	6.366	43	1331	0.45	ug/L	#	29

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

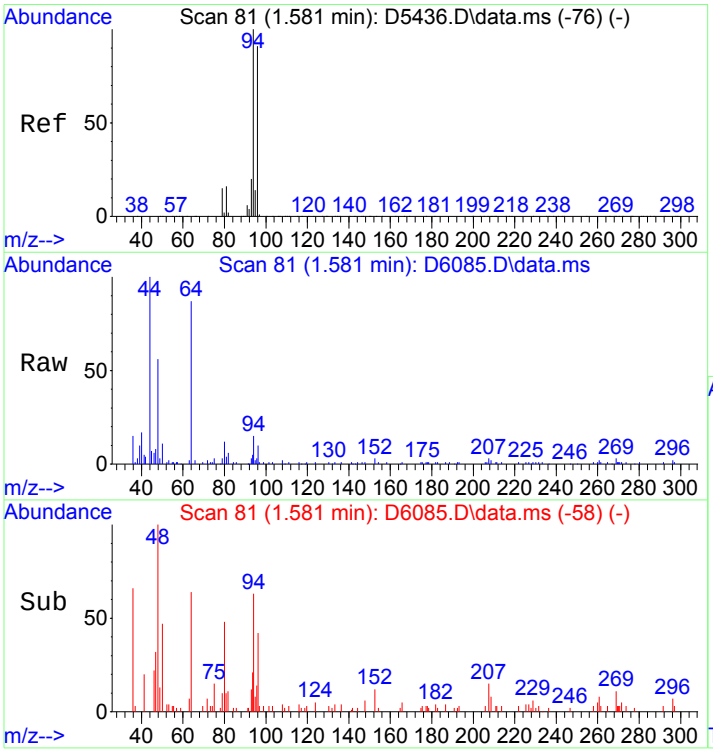
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 27 15:19:11 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



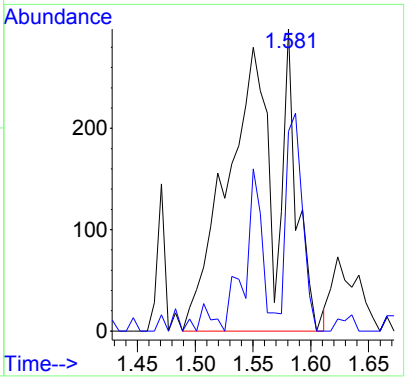
1st BA 09/27/18
2nd DL 09/27/18

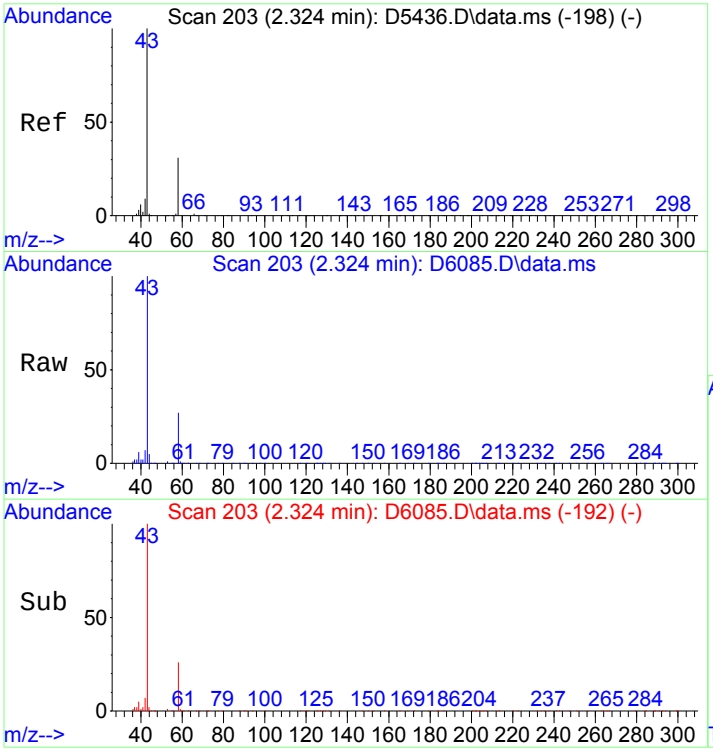


#5
Bromomethane
Concen: Below Cal
RT: 1.581 min Scan# 81
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 94 Resp: 933

Ion	Ratio	Lower	Upper
94	100		
96	66.1	71.1	111.1#

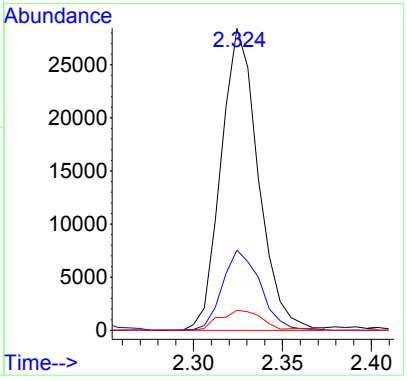


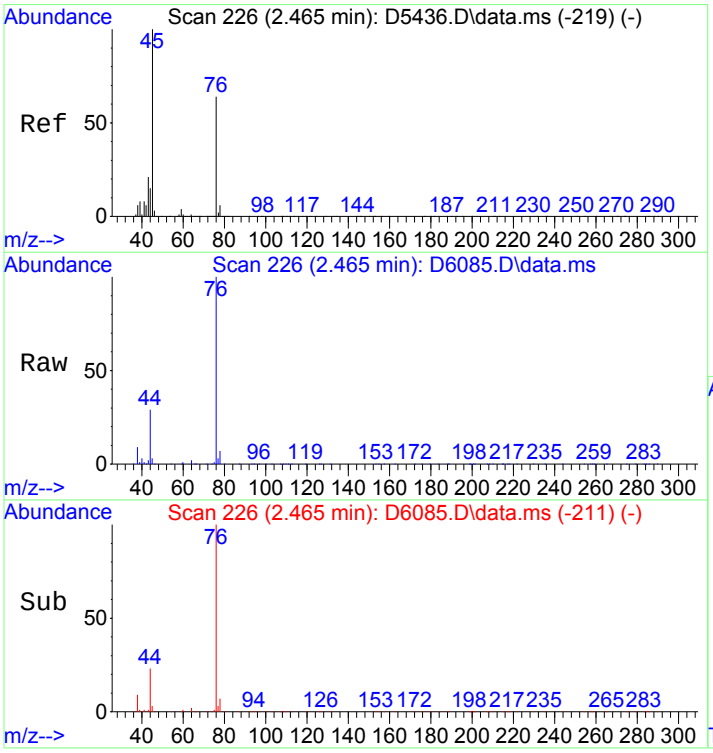


#15
Acetone
Concen: 33.98 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 43 Resp: 41479

Ion	Ratio	Lower	Upper
43	100		
58	26.6	11.2	51.2
42	6.7	0.0	28.6

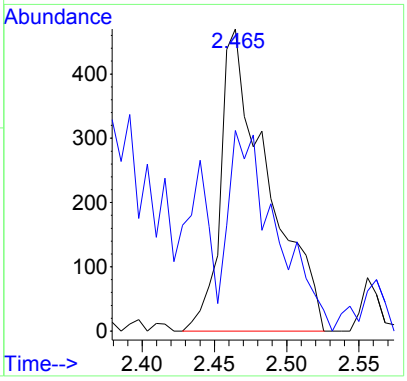


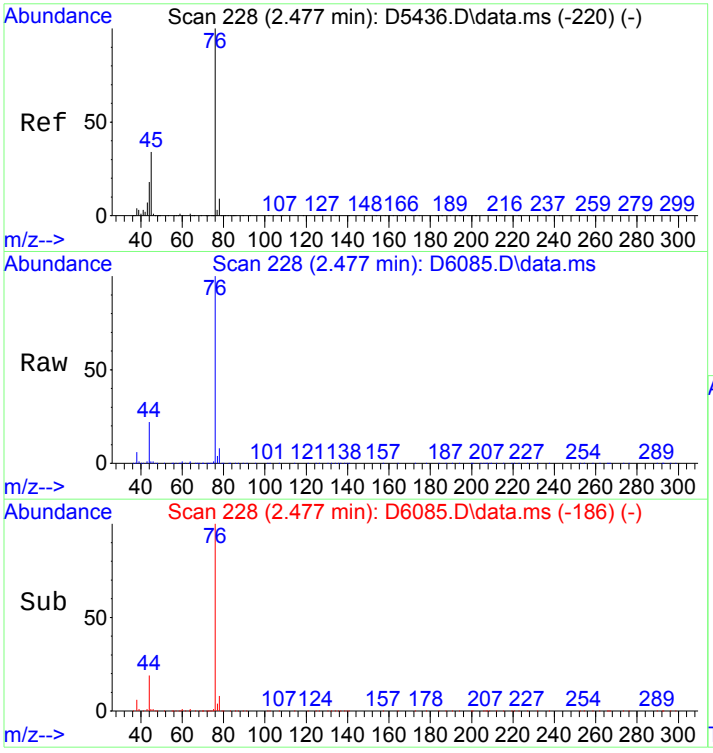


#16
2-Propanol
Concen: 4.50 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.018 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 45 Resp: 1063

Ion	Ratio	Lower	Upper
45	100		
43	66.4	0.8	40.8#

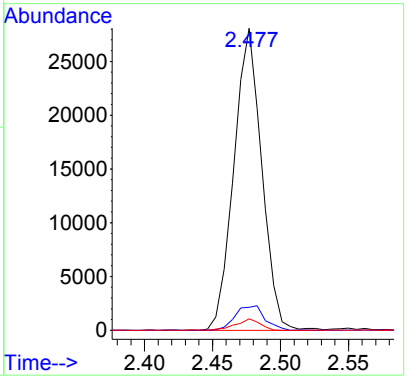


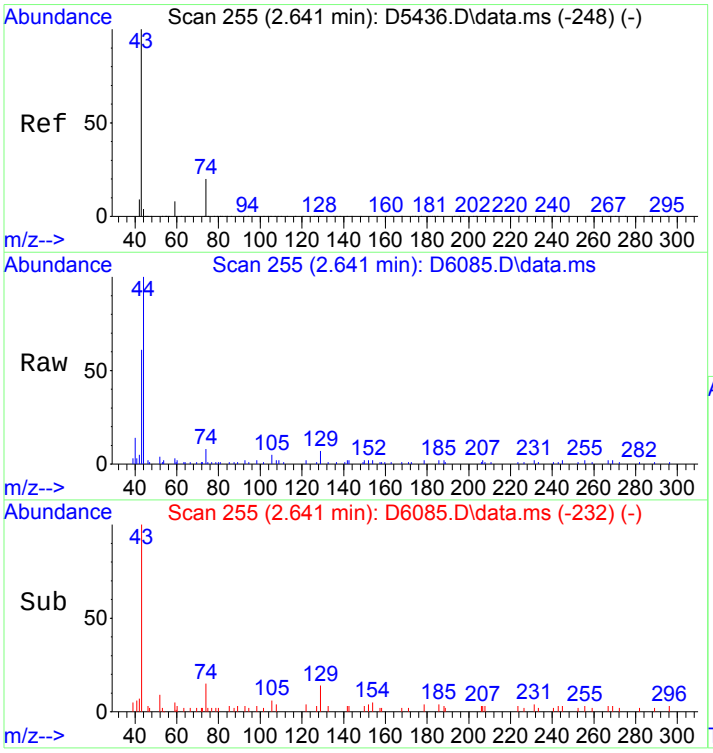


#18
Carbon Disulfide
Concen: 7.70 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 76 Resp: 40149

Ion	Ratio	Lower	Upper
76	100		
78	7.6	0.0	28.8
77	3.8	0.0	22.9

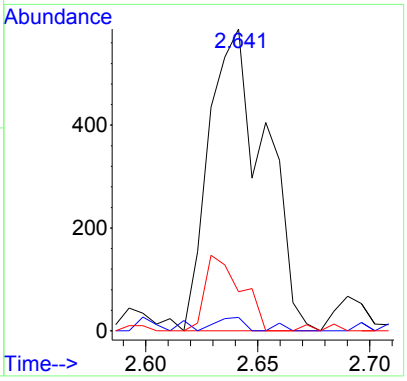


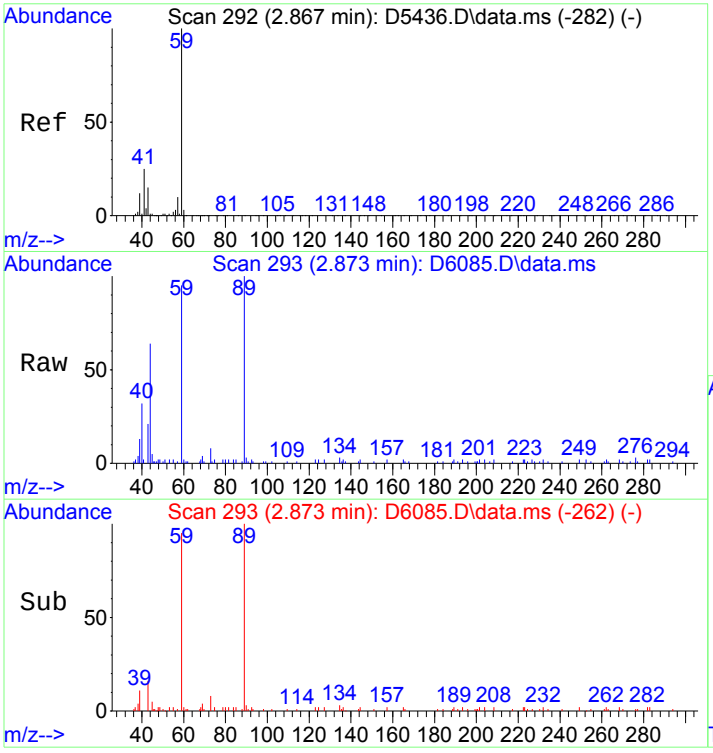


#21
Methyl Acetate
Concen: 0.42 ug/L m
RT: 2.641 min Scan# 255
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 43 Resp: 1028

Ion	Ratio	Lower	Upper
43	100		
59	4.4	0.0	28.1
74	12.9	0.2	40.2

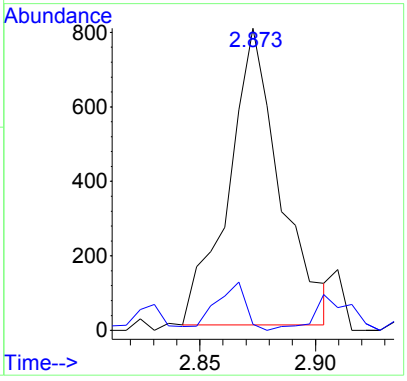


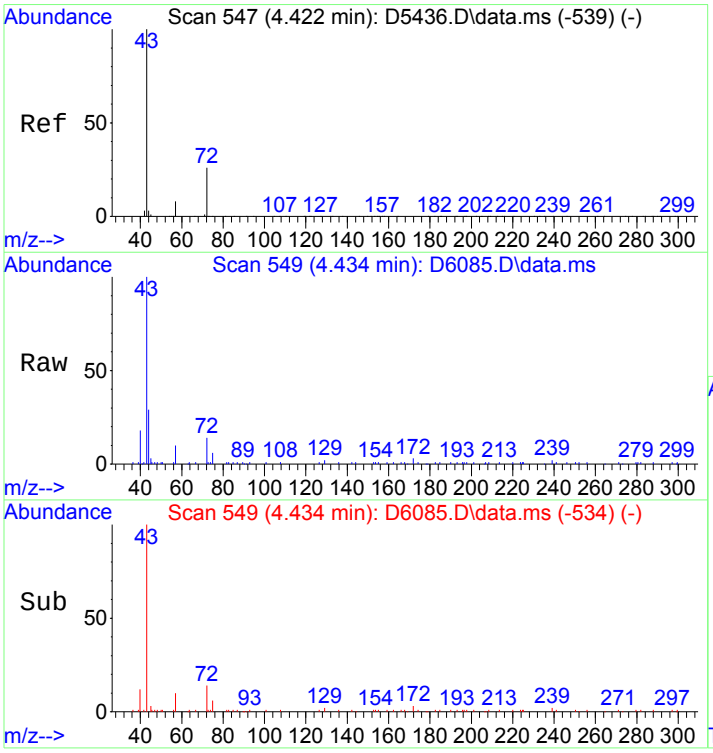


#23
TBA
Concen: 3.49 ug/L
RT: 2.873 min Scan# 293
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 59 Resp: 1234

Ion	Ratio	Lower	Upper
59	100		
41	2.0	4.8	44.8#

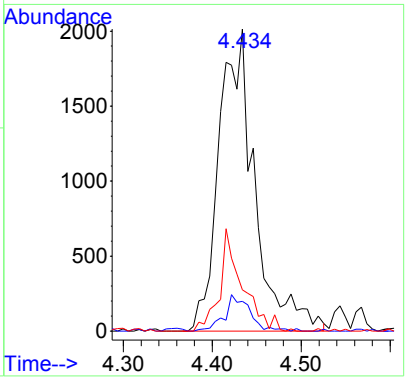


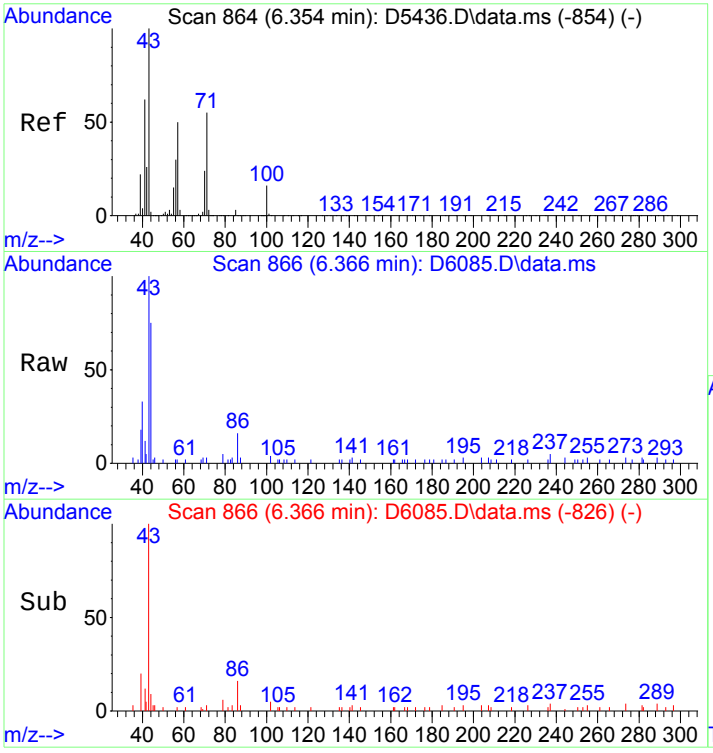


#34
2-Butanone
Concen: 3.42 ug/L
RT: 4.434 min Scan# 549
Delta R.T. 0.018 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 43 Resp: 5650

Ion	Ratio	Lower	Upper
43	100		
57	9.9	0.0	27.8
72	13.7	5.1	45.1

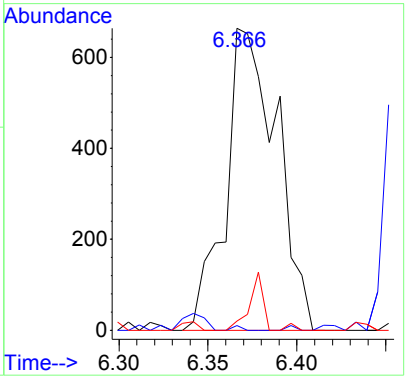




#51
n-Heptane
Concen: 0.45 ug/L
RT: 6.366 min Scan# 866
Delta R.T. 0.006 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 43 Resp: 1331

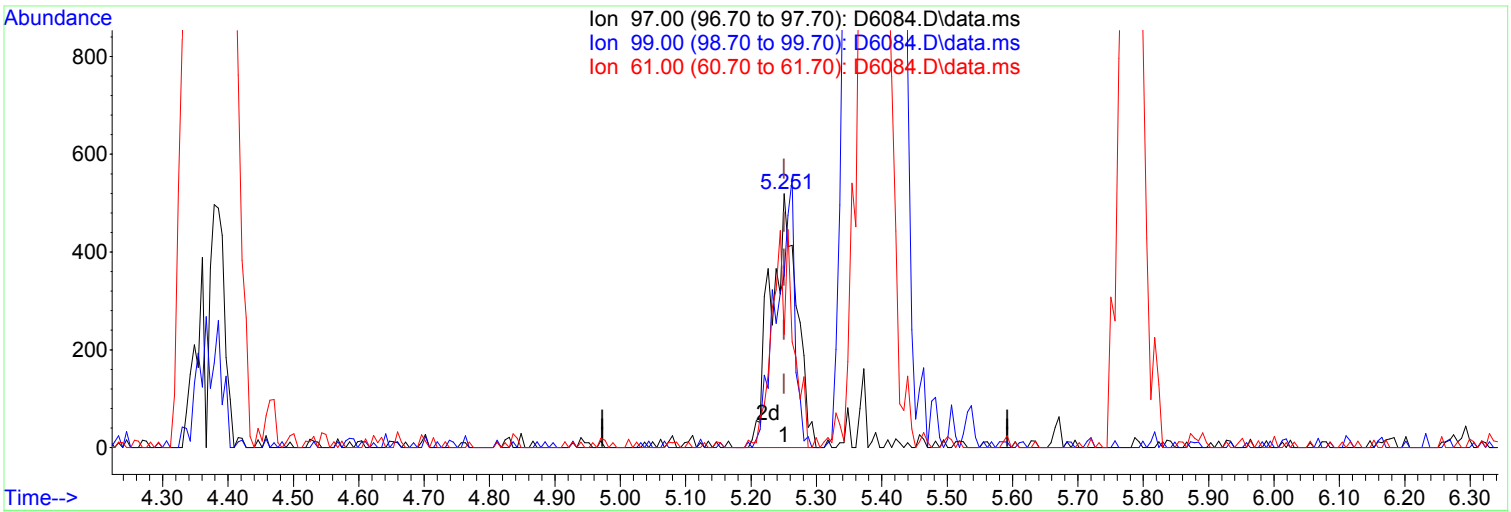
Ion	Ratio	Lower	Upper
43	100		
57	1.5	30.0	70.0#
71	3.0	35.1	75.1#

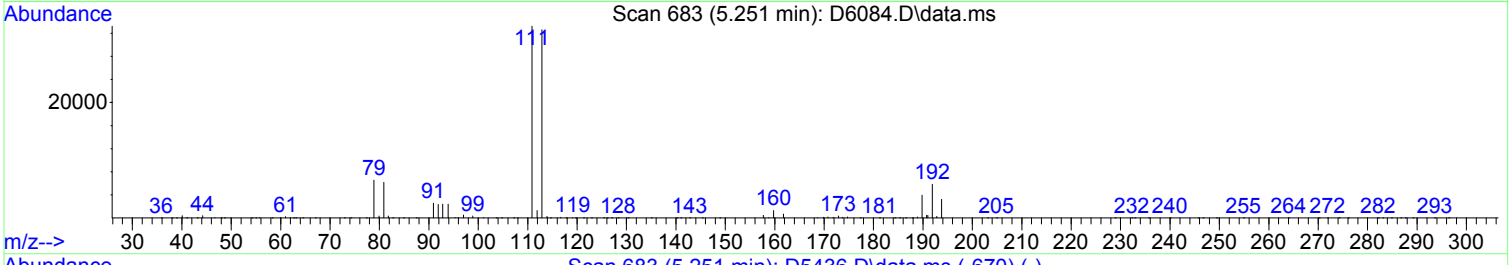


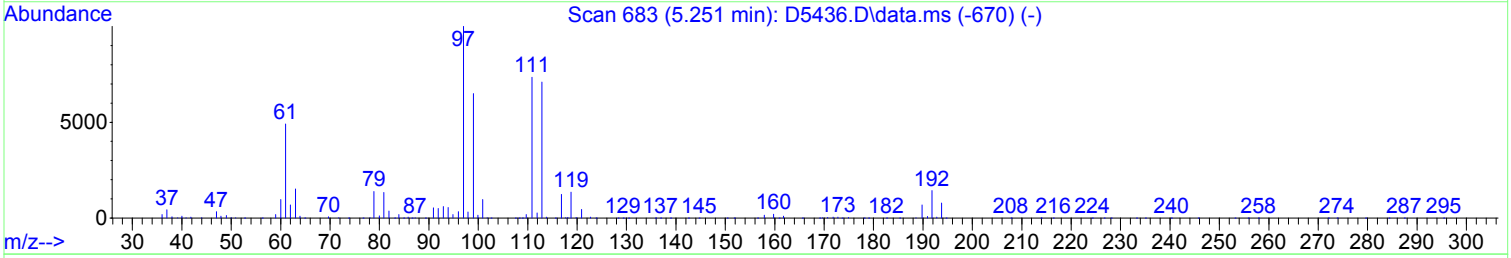
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 24 19:23:13 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6084.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.251min (-0.000) 0.51 ug/L m

response 1426

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	67.82
61.00	49.10	44.70
0.00	0.00	0.00

Manual Integration:

After

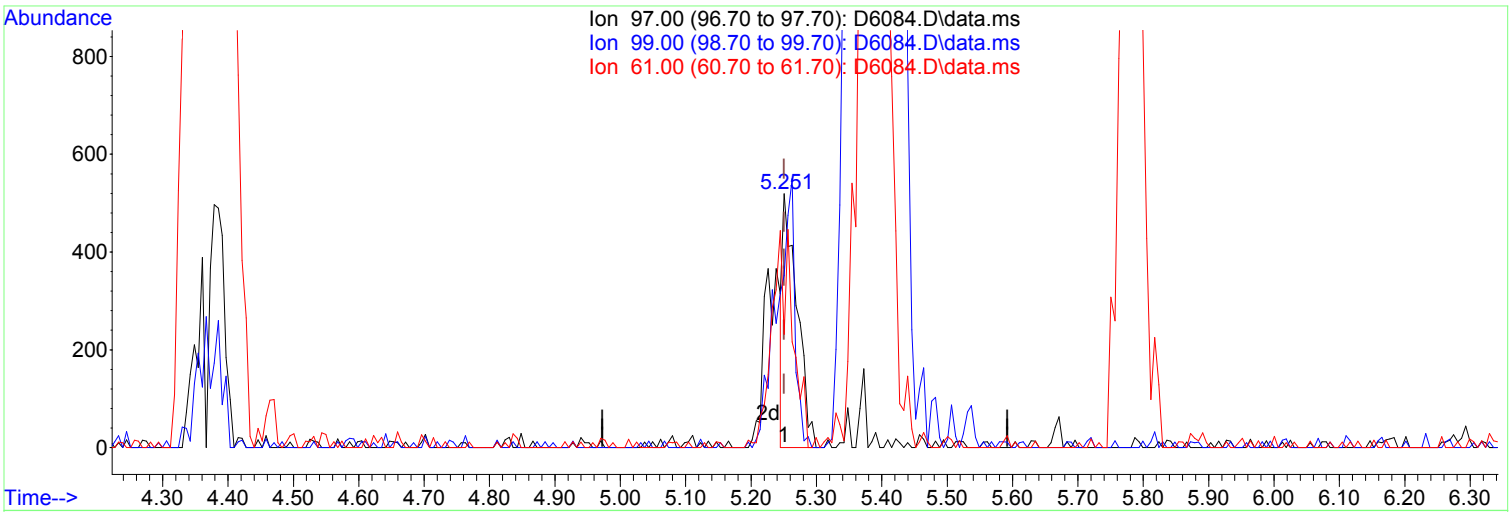
Poor integration.

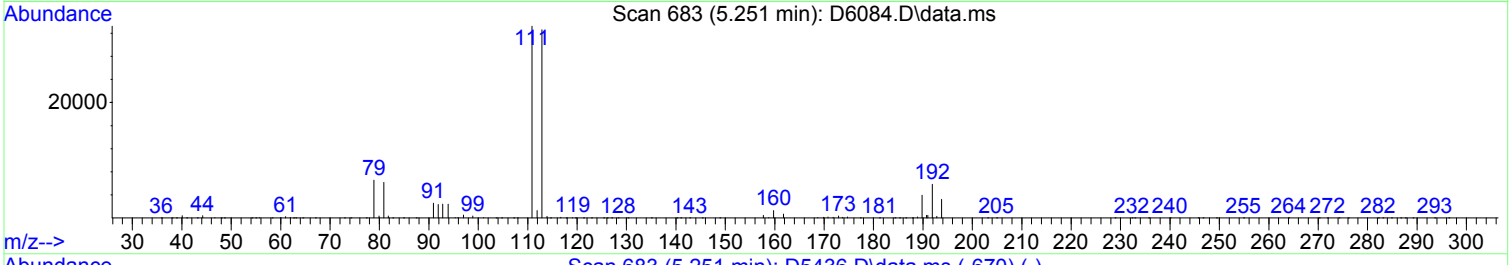
09/27/18

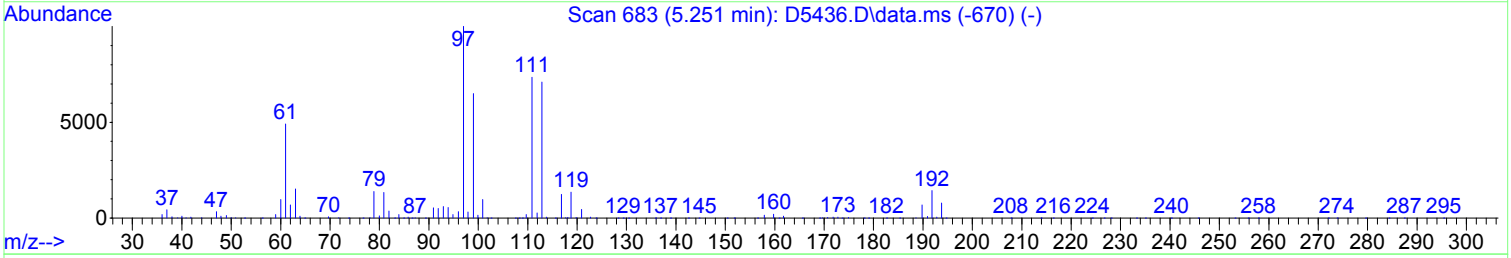
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 24 19:23:13 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6084.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.251min (-0.000) 0.28 ug/L

response 794

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	67.82
61.00	49.10	44.70
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 27 15:15:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

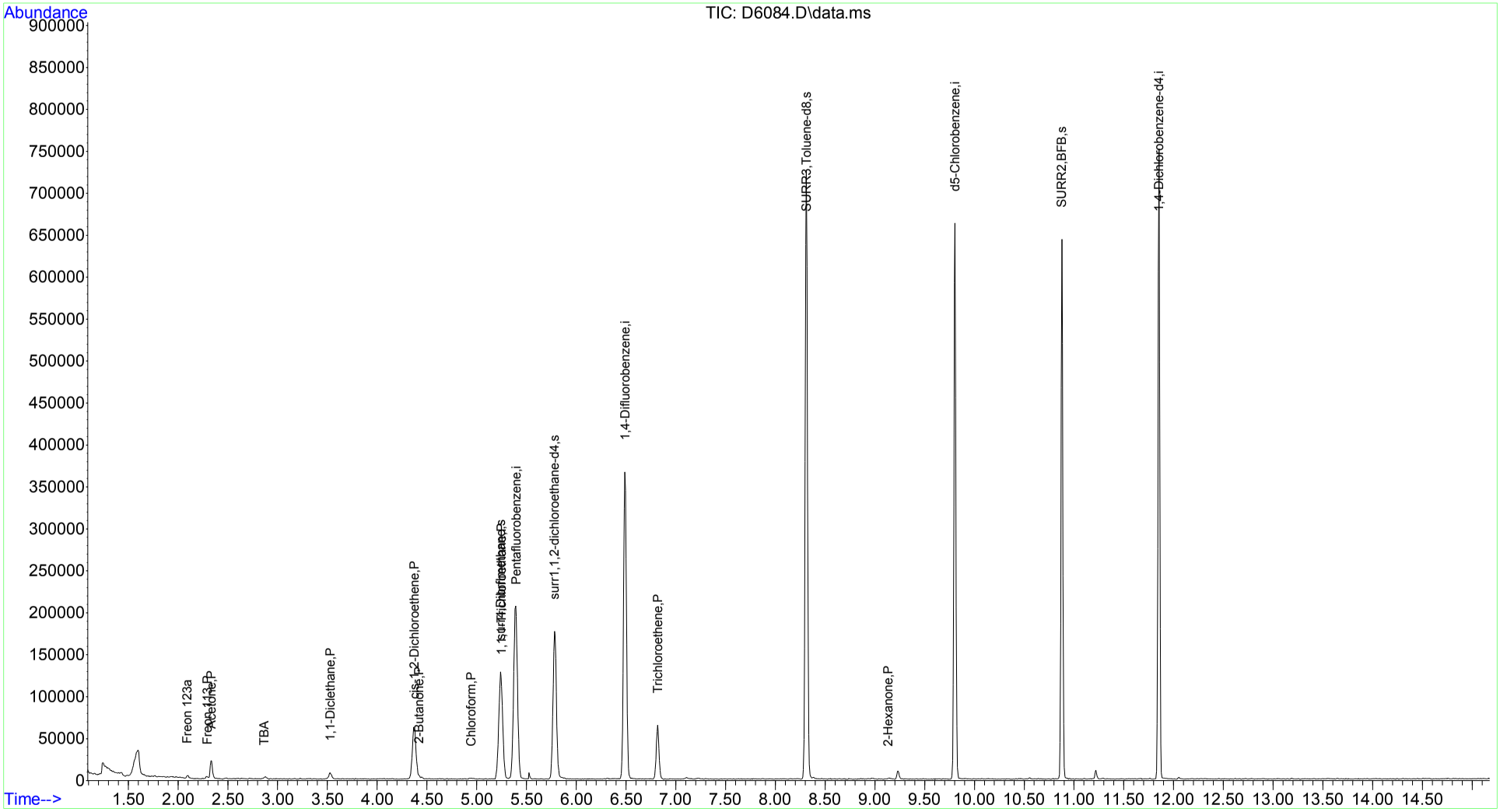
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.397	168	188218	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	294696	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	259037	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128777	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	101472	51.10	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.20%				
46) surr1,1,2-dichloroetha...	5.781	65	147446	56.46	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 112.92%				
64) SURR3,Toluene-d8	8.311	98	411459	51.10	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.20%				
69) SURR2,BFB	10.878	95	148070	47.85	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.70%				
Target Compounds							Qvalue
5) Bromomethane	1.593	94	702	Below Cal		#	73
10) Freon 123a	2.093	67	1477	0.62	ug/L	#	47
14) Freon 113	2.294	101	849	0.49	ug/L		77
15) Acetone	2.330	43	22769	20.56	ug/L		92
23) TBA	2.867	59	1365	4.26	ug/L	#	58
27) 1,1-Diclethane	3.525	63	7305	2.01	ug/L		84
33) cis-1,2-Dichloroethene	4.373	96	31201	15.09	ug/L		93
34) 2-Butanone	4.421	43	4847	3.24	ug/L		95
39) Chloroform	4.946	83	1181	0.35	ug/L		73
40) 1,1,1-Trichloroethane	5.251	97	1426m	0.51	ug/L		
53) Trichloroethene	6.817	130	19894	9.70	ug/L		93
72) 2-Hexanone	9.134	43	840	0.38	ug/L	#	47

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

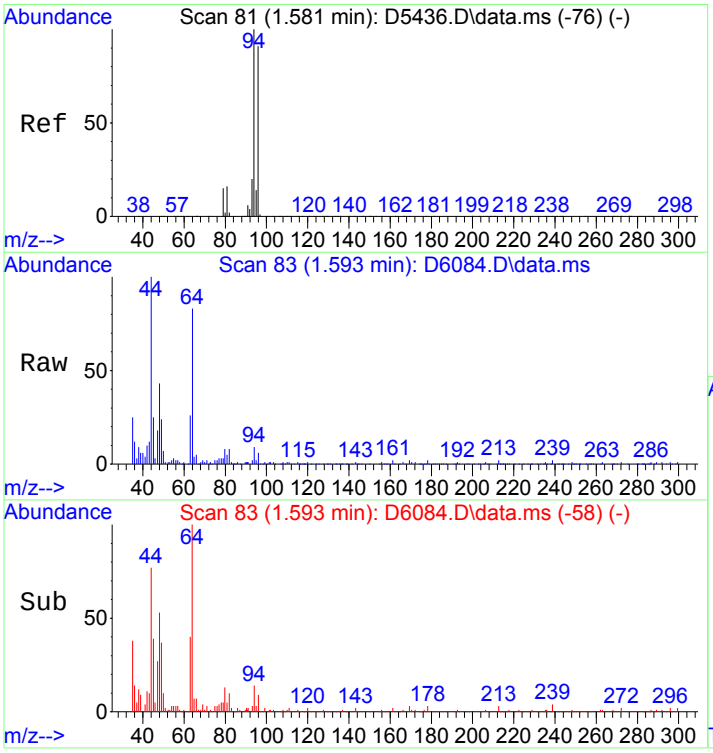
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 27 15:15:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



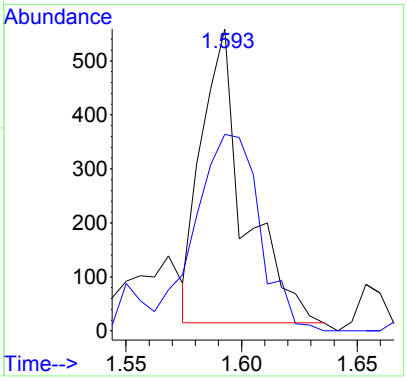
1st BA 09/27/18
2nd DL 09/27/18

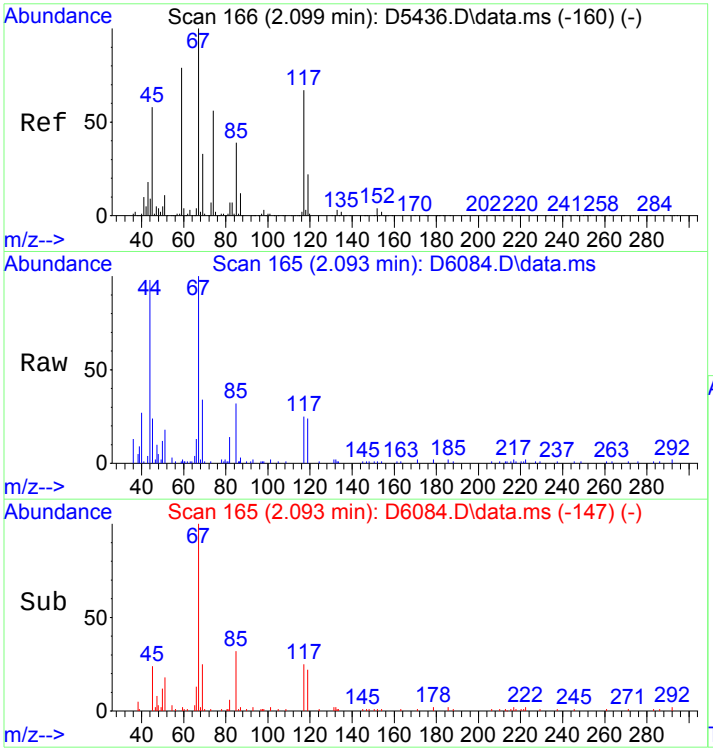


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 94 Resp: 702

Ion	Ratio	Lower	Upper
94	100		
96	65.1	71.1	111.1#

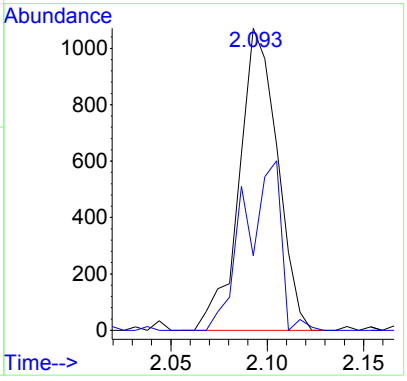


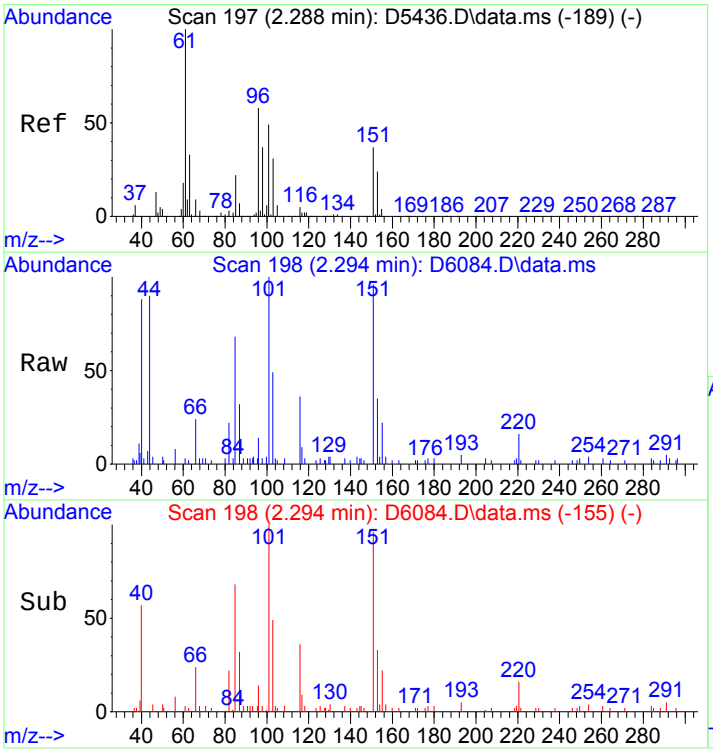


#10
Freon 123a
Concen: 0.62 ug/L
RT: 2.093 min Scan# 165
Delta R.T. -0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 67 Resp: 1477

Ion	Ratio	Lower	Upper
67	100		
117	24.6	47.5	87.5#

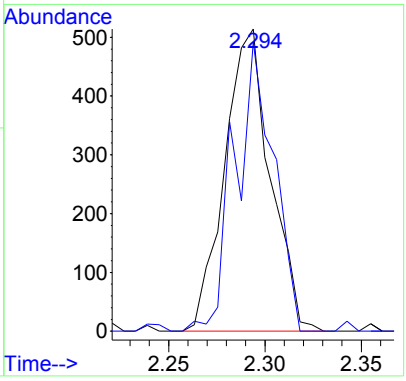


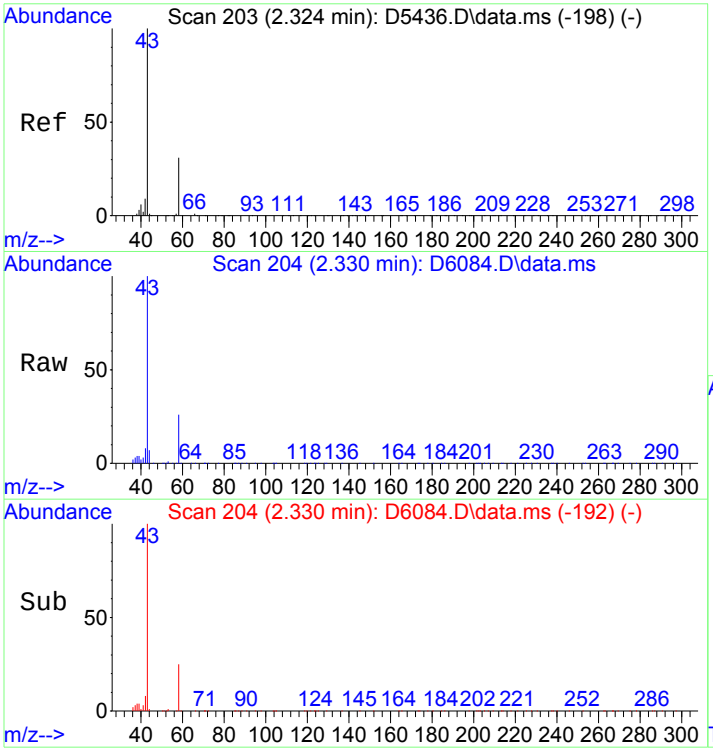


#14
Freon 113
Concen: 0.49 ug/L
RT: 2.294 min Scan# 198
Delta R.T. 0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion:101 Resp: 849

Ion	Ratio	Lower	Upper
101	100		
151	95.7	56.1	96.1

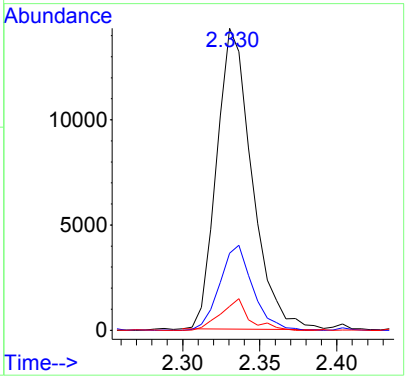


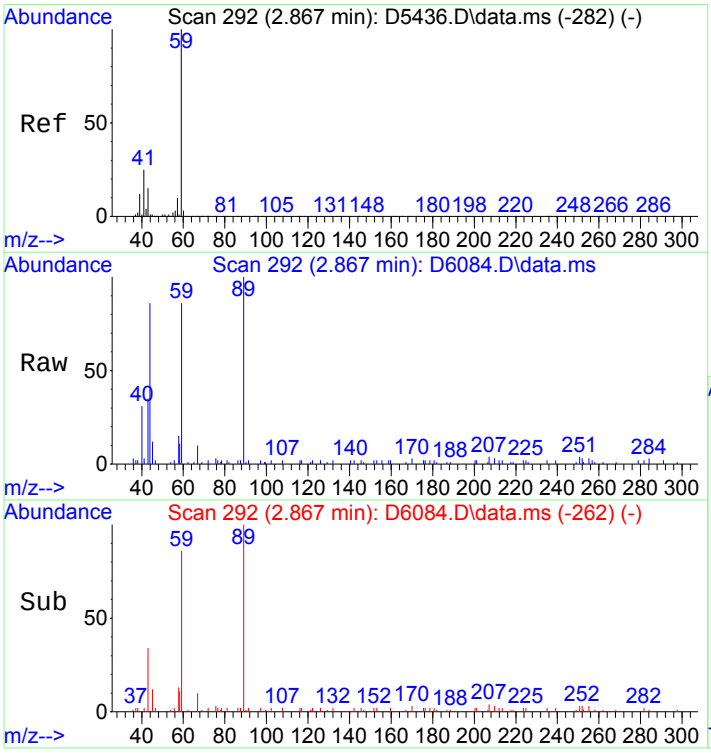


#15
Acetone
Concen: 20.56 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 43 Resp: 22769

Ion	Ratio	Lower	Upper
43	100		
58	25.5	11.2	51.2
42	7.9	0.0	28.6

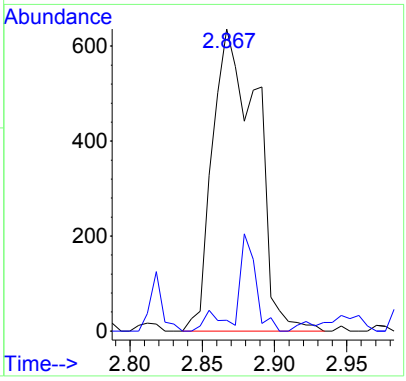


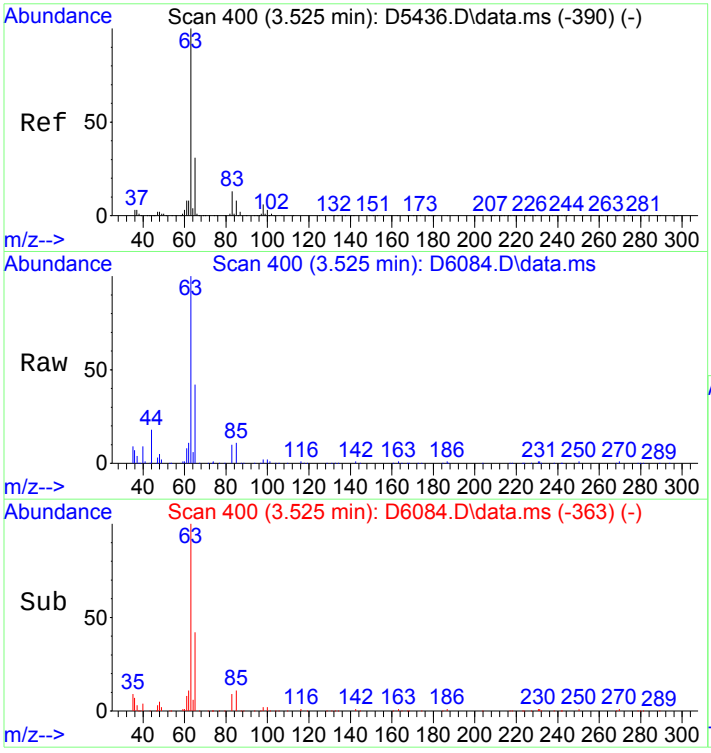


#23
TBA
Concen: 4.26 ug/L
RT: 2.867 min Scan# 292
Delta R.T. -0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 59 Resp: 1365

Ion	Ratio	Lower	Upper
59	100		
41	3.6	4.8	44.8#

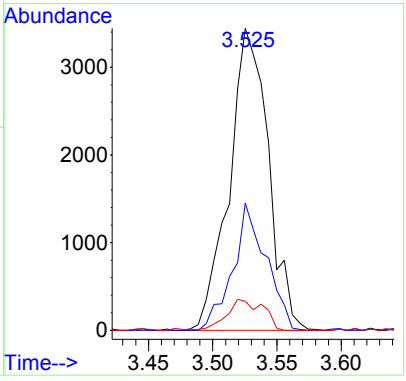


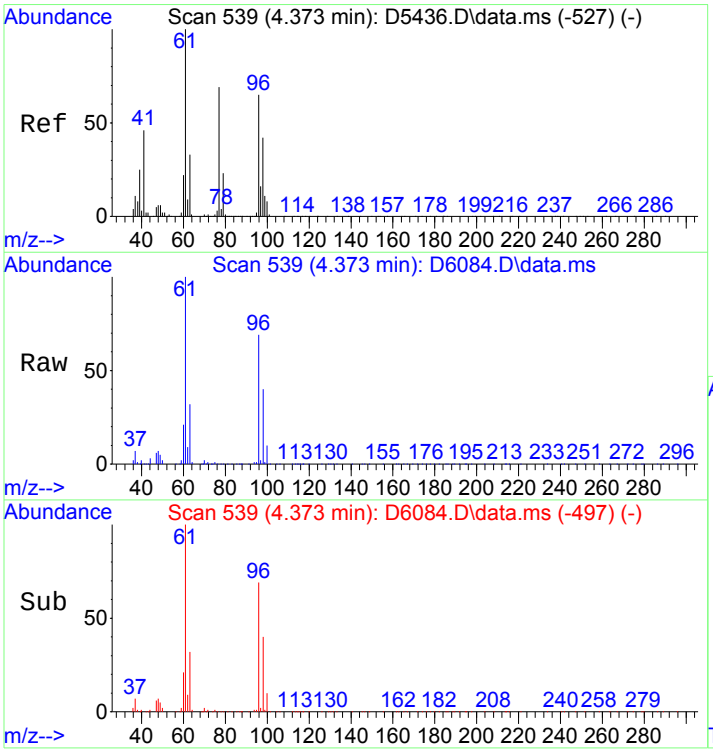


#27
1,1-Diclethane
Concen: 2.01 ug/L
RT: 3.525 min Scan# 400
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 63 Resp: 7305

Ion	Ratio	Lower	Upper
63	100		
65	42.1	11.4	51.4
83	9.7	0.0	32.6

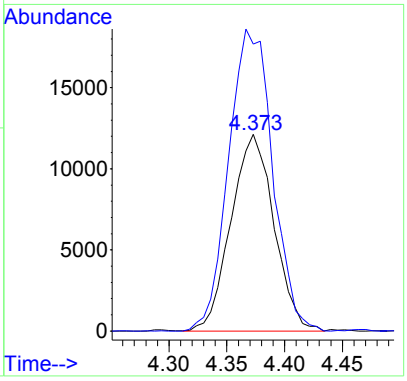


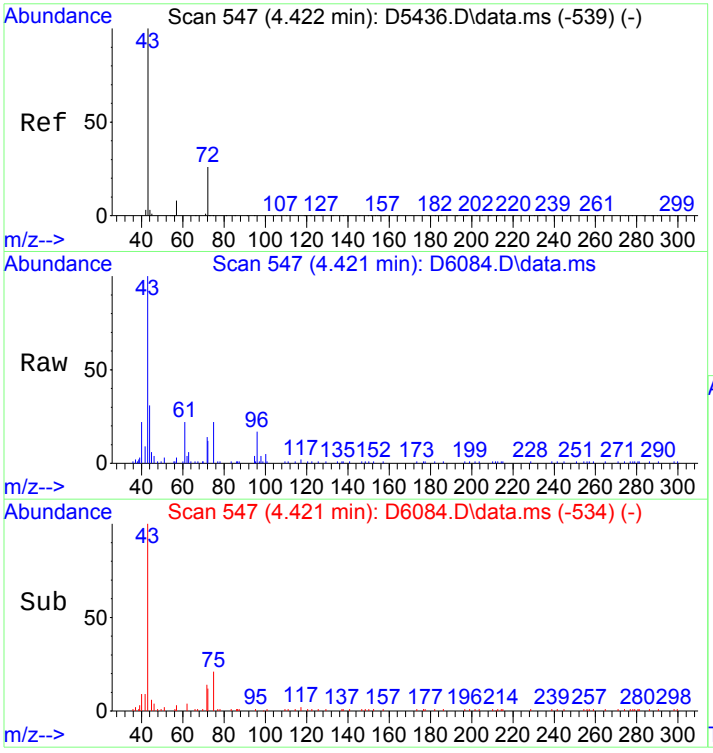


#33
cis-1,2-Dichloroethene
Concen: 15.09 ug/L
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 96 Resp: 31201

Ion	Ratio	Lower	Upper
96	100		
61	146.0	134.7	174.7

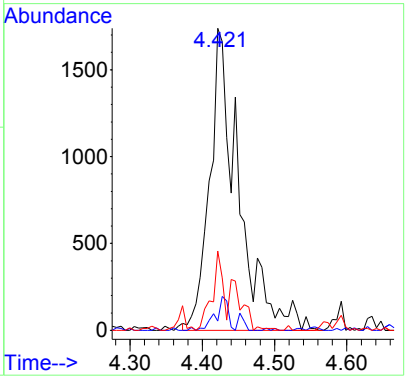


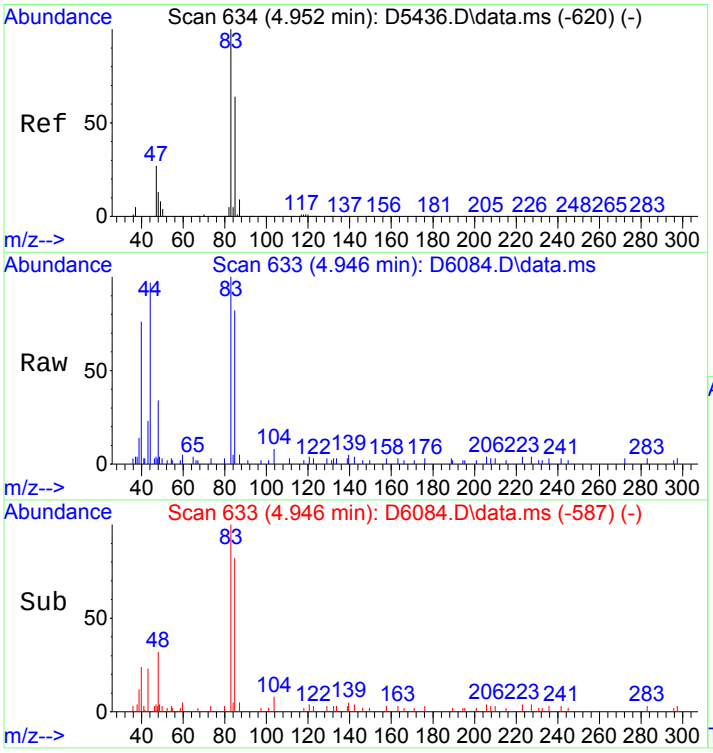


#34
2-Butanone
Concen: 3.24 ug/L
RT: 4.421 min Scan# 547
Delta R.T. 0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 43 Resp: 4847

Ion	Ratio	Lower	Upper
43	100		
57	3.0	0.0	27.8
72	26.3	5.1	45.1

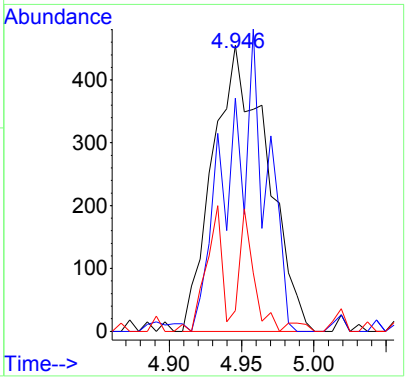


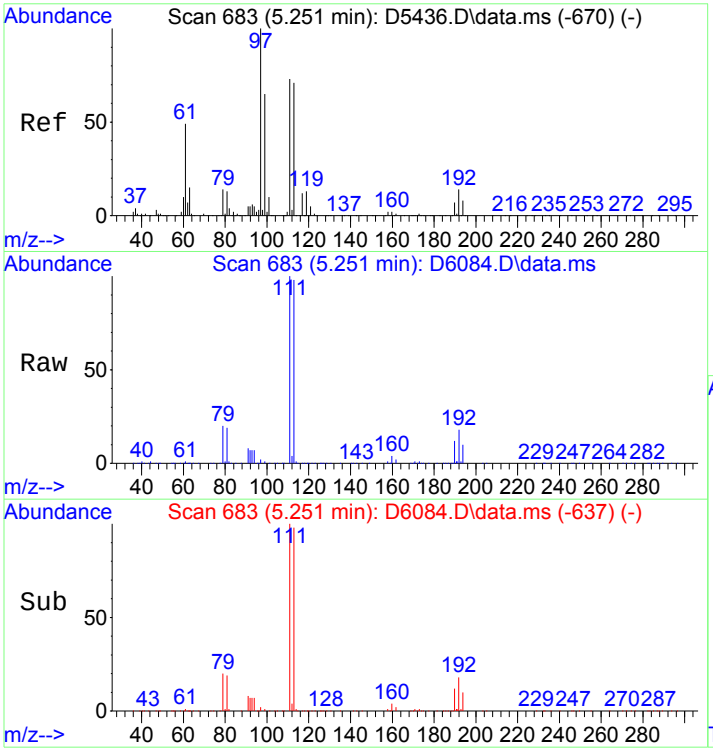


#39
Chloroform
Concen: 0.35 ug/L
RT: 4.946 min Scan# 633
Delta R.T. -0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 83 Resp: 1181

Ion	Ratio	Lower	Upper
83	100		
85	81.5	43.7	83.7
47	7.3	6.9	46.9

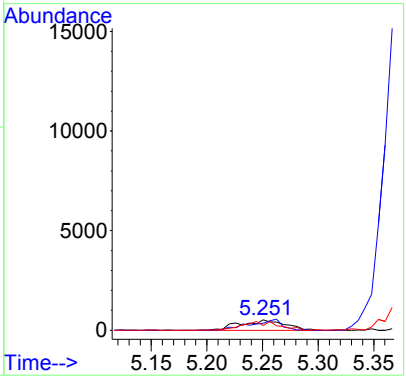


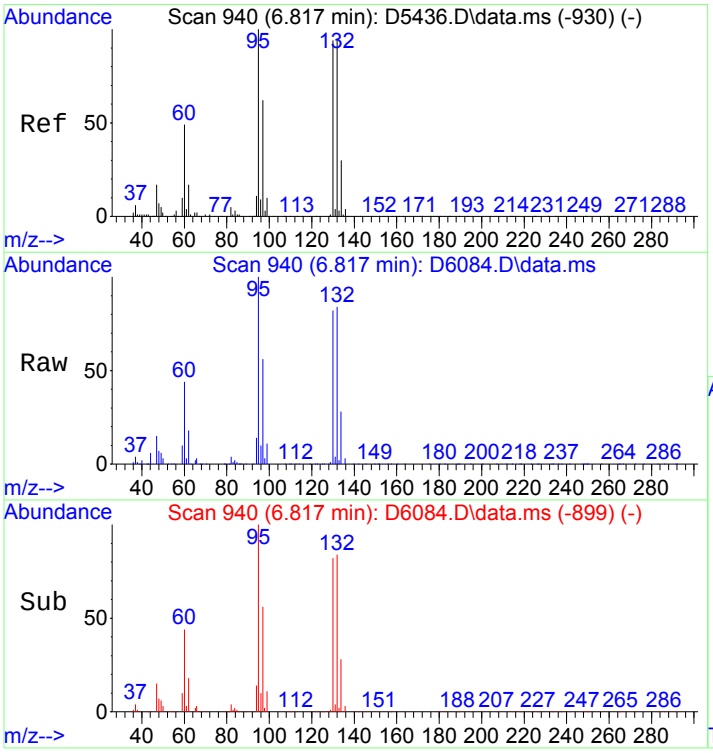


#40
1,1,1-Trichloroethane
Concen: 0.51 ug/L m
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 97 Resp: 1426

Ion	Ratio	Lower	Upper
97	100		
99	67.8	45.0	85.0
61	44.7	29.1	69.1

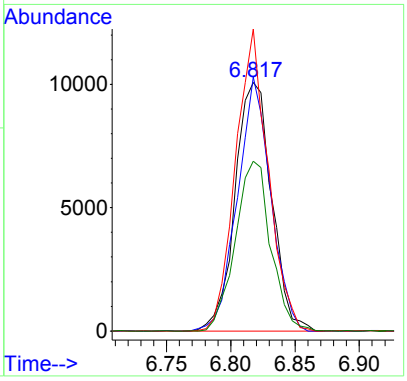


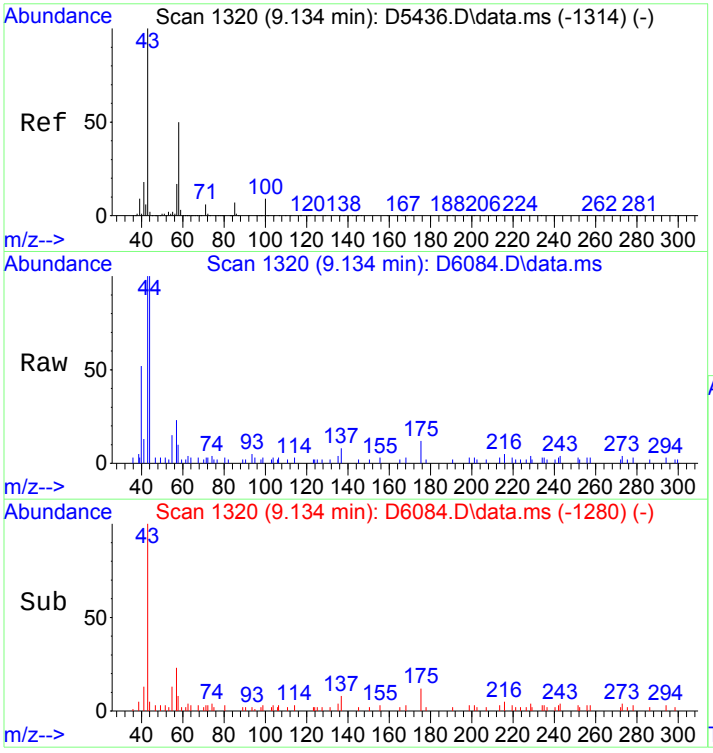


#53
Trichloroethene
Concen: 9.70 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion:130 Resp: 19894

Ion	Ratio	Lower	Upper
130	100		
132	102.2	80.7	120.7
95	121.5	86.1	126.1
97	68.4	45.5	85.5

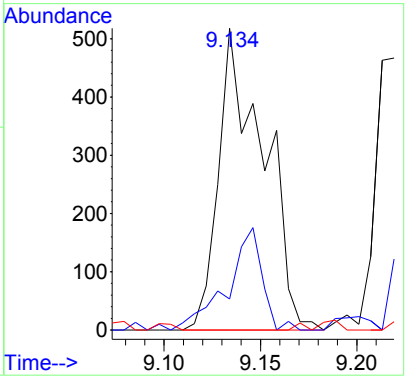




#72
2-Hexanone
Concen: 0.38 ug/L
RT: 9.134 min Scan# 1320
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 43 Resp: 840

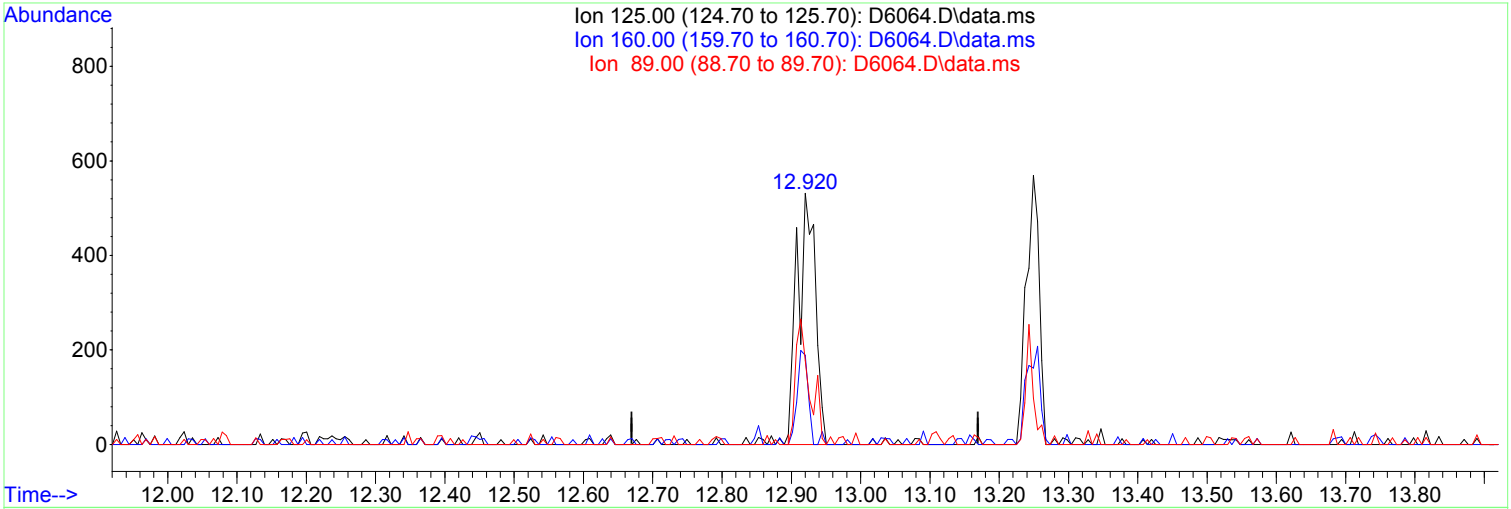
Ion	Ratio	Lower	Upper
43	100		
58	10.2	30.1	70.1#
100	0.0	0.0	28.6

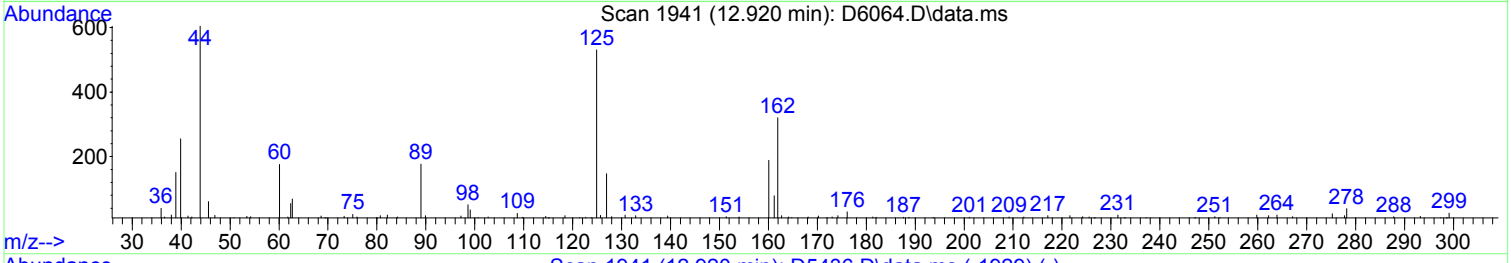


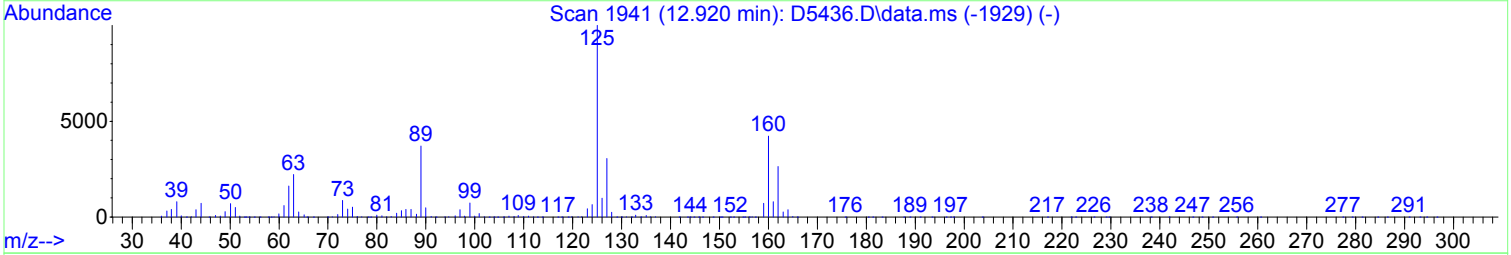
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 24 11:35:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6064.D\data.ms

(111) Trielution Dichlorotoluene

12.920min (+0.000) 0.25 ug/L m

response 955

Ion	Exp%	Act%
125.00	100	100
160.00	42.30	35.59
89.00	37.10	33.33
0.00	0.00	0.00

Manual Integration:

After

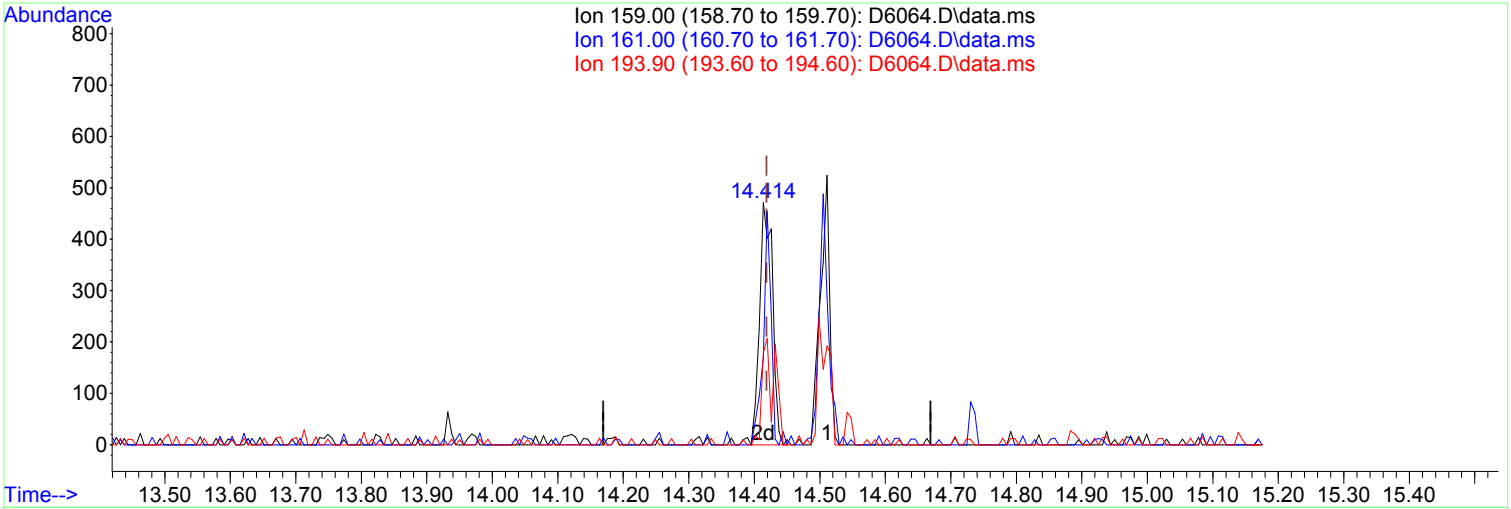
Poor integration.

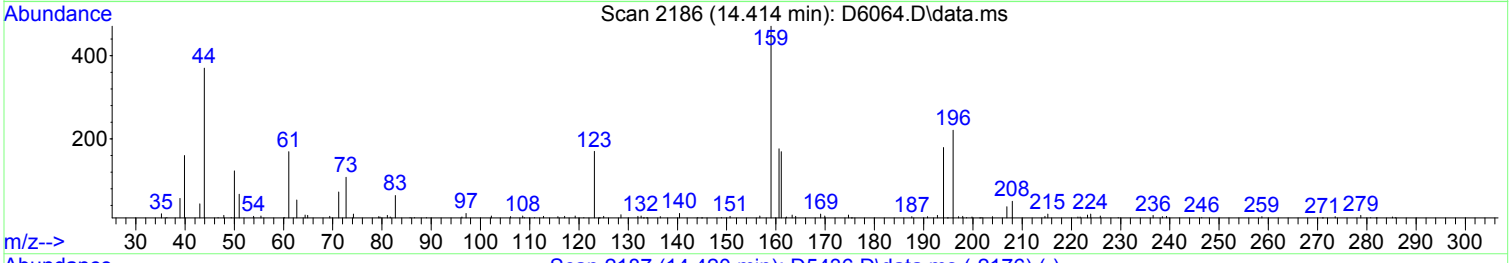
09/27/18

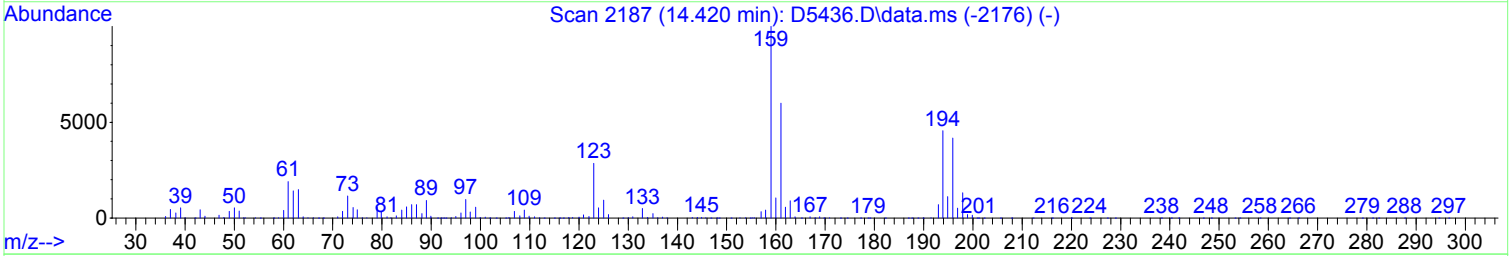
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 24 11:35:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6064.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.414min (-0.006) 0.31 ug/L m

response 647

Ion	Exp%	Act%
159.00	100	100
161.00	59.90	35.88#
193.90	45.60	38.00
0.00	0.00	0.00

Manual Integration:

After

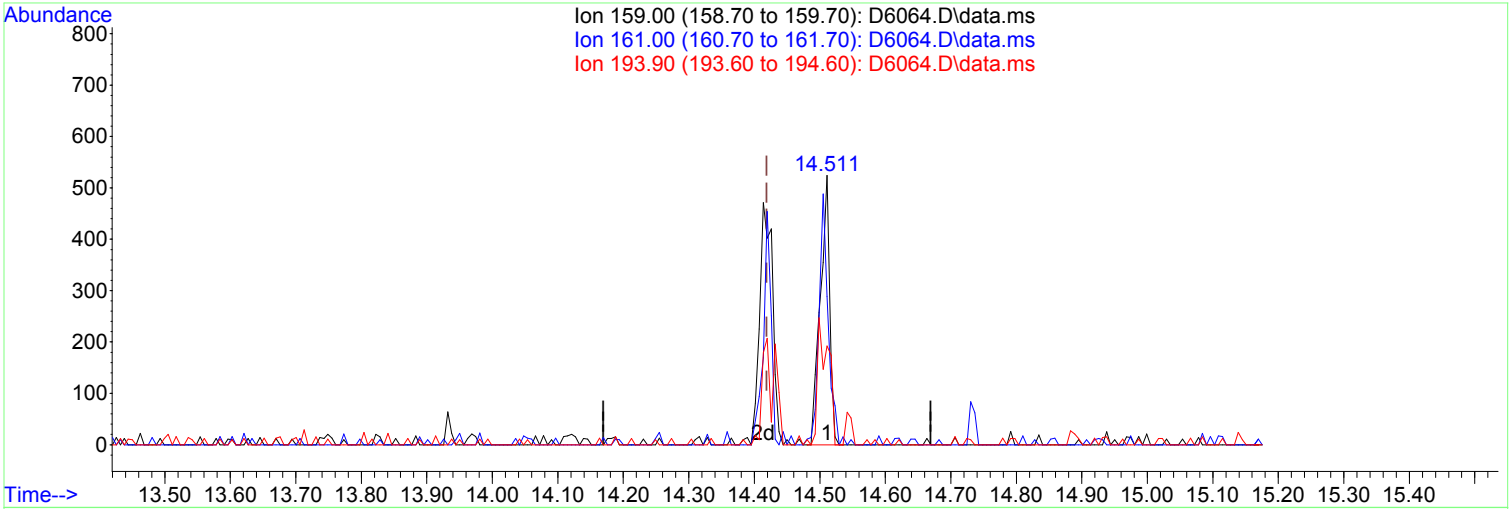
Poor integration.

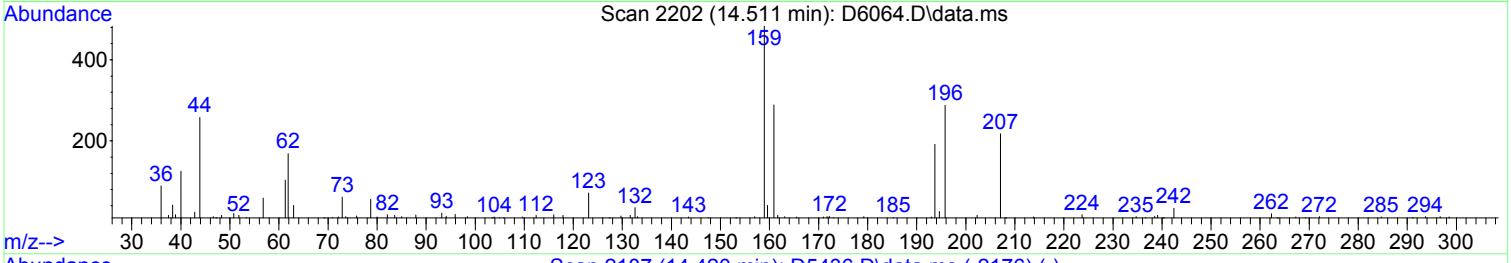
09/27/18

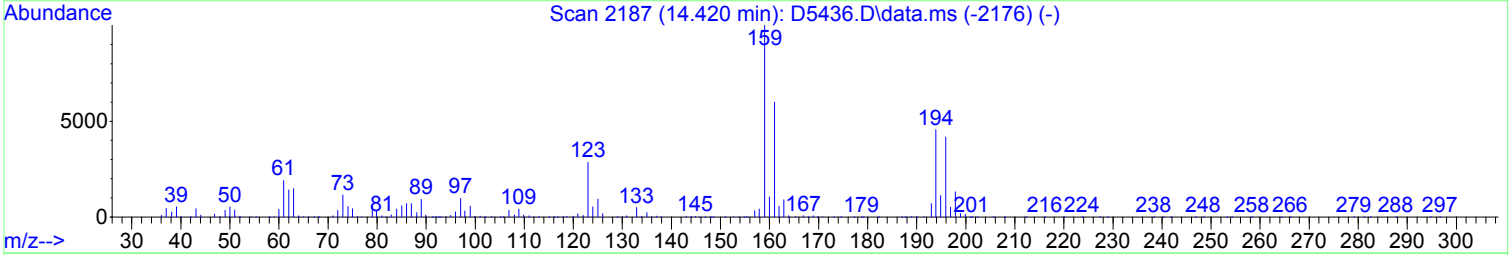
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 24 11:35:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6064.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.511min (+0.092) 0.25 ug/L

response 529

Ion	Exp%	Act%
159.00	100	100
161.00	59.90	58.21
193.90	45.60	41.60
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 14:26:58 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

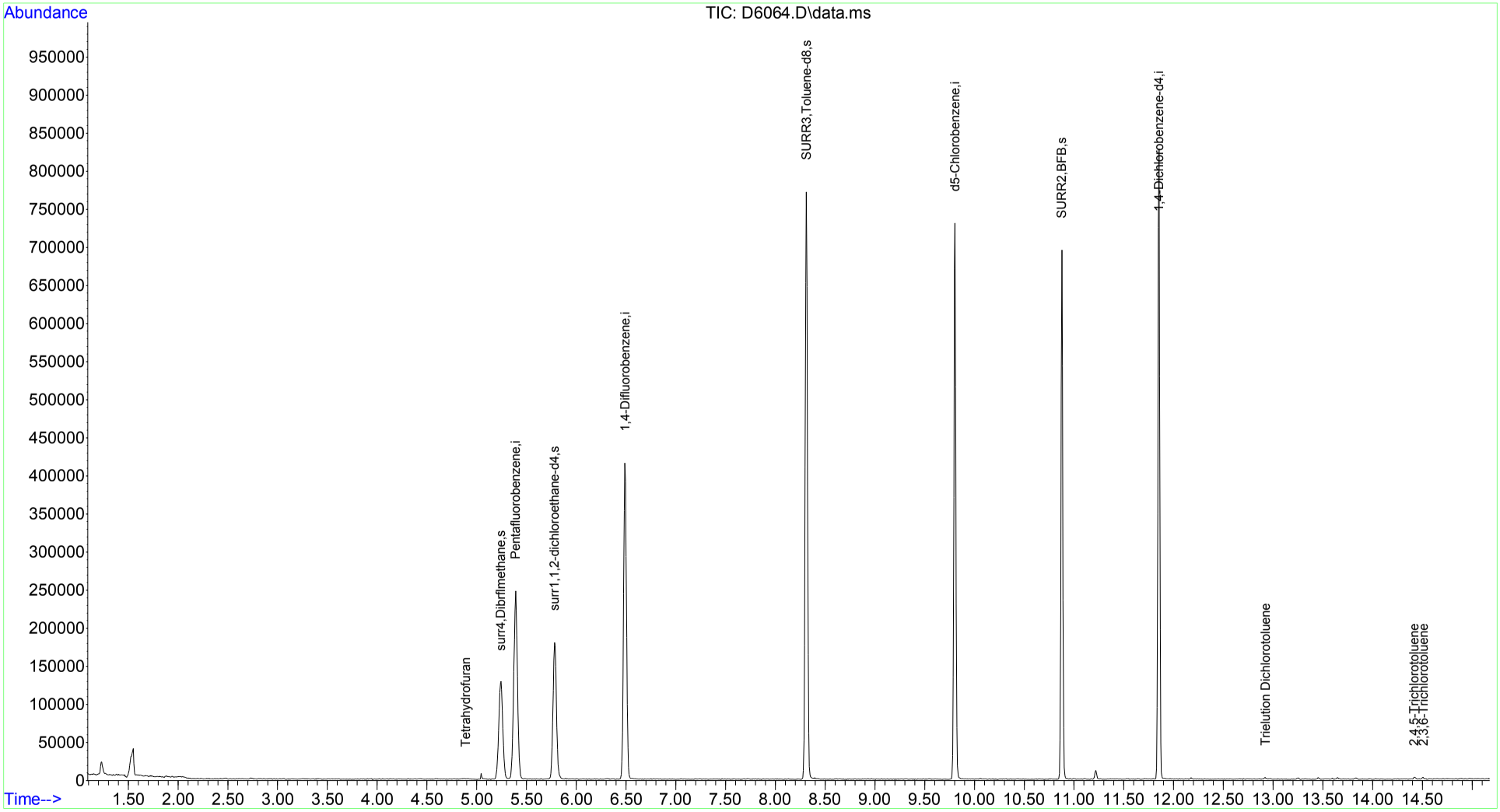
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	222881	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	335947	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	297745	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	150721	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	105031	46.39	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.78%			
46) surr1,1,2-dichloroetha...	5.781	65	151321	50.83	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 101.66%			
64) SURR3,Toluene-d8	8.311	98	440320	47.97	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 95.94%			
69) SURR2,BFB	10.878	95	159874	45.32	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.64%			
Target Compounds						Qvalue
5) Bromomethane	1.538	94	698	Below Cal	#	26
38) Tetrahydrofuran	4.885	42	755	0.69	ug/L #	53
111) Trielution Dichlorotol...	12.920	125	955m	0.25	ug/L	
118) 2,4,5-Trichlorotoluene	14.414	159	647m	0.31	ug/L	
119) 2,3,6-Trichlorotoluene	14.511	159	529	0.27	ug/L	90

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

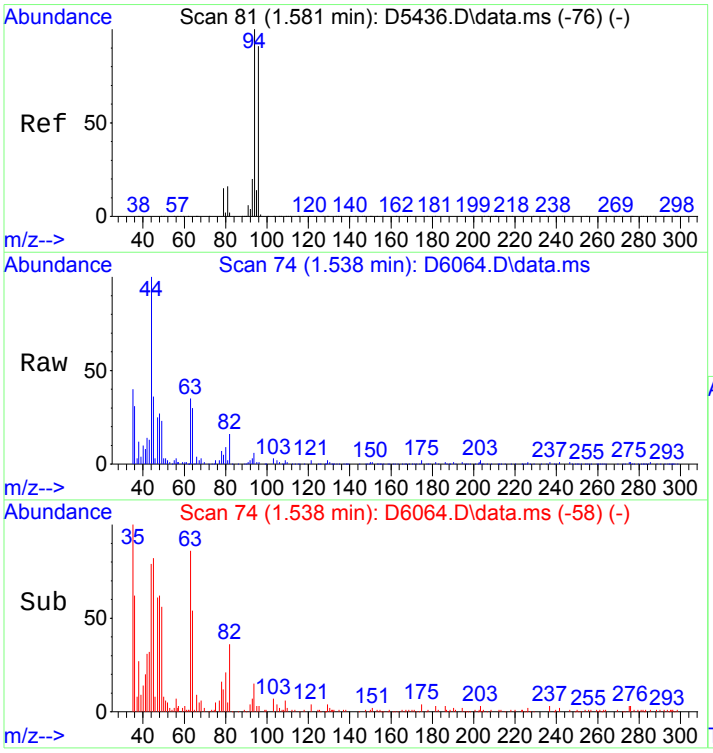
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 14:26:58 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



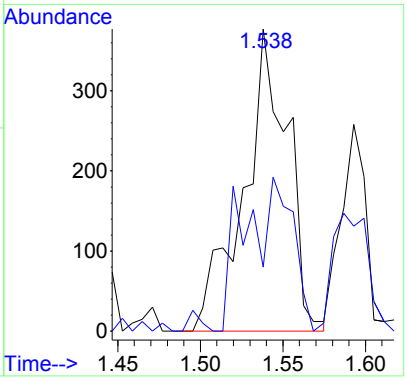
1st BA 09/27/18
2nd DL 09/27/18

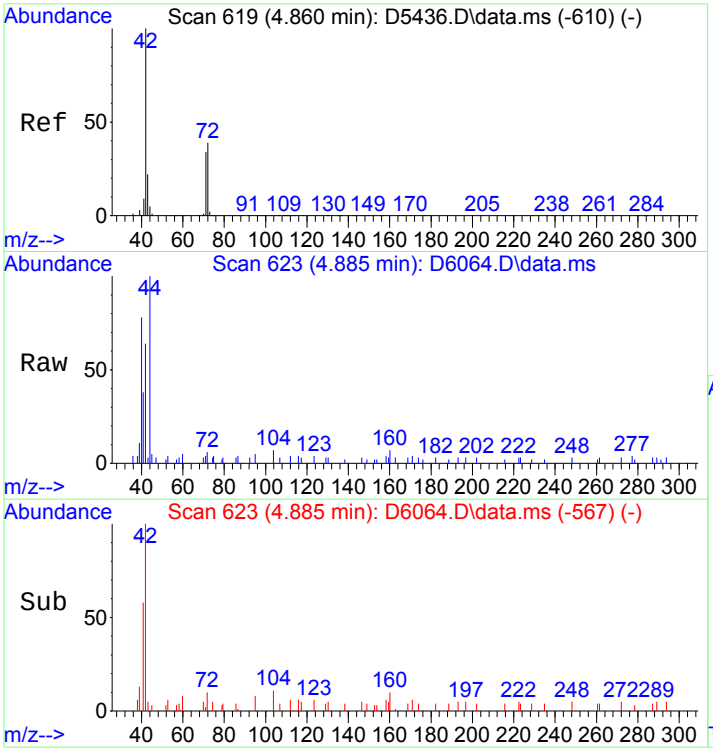


#5
Bromomethane
Concen: Below Cal
RT: 1.538 min Scan# 74
Delta R.T. -0.043 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

Tgt Ion: 94 Resp: 698

Ion	Ratio	Lower	Upper
94	100		
96	21.2	71.1	111.1#

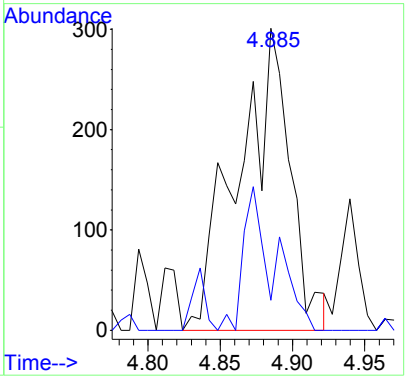


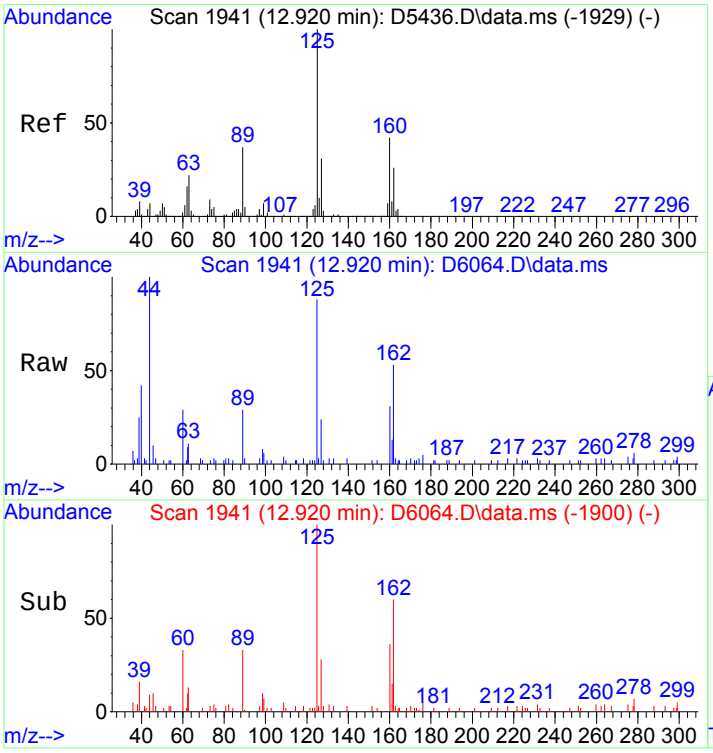


#38
Tetrahydrofuran
Concen: 0.69 ug/L
RT: 4.885 min Scan# 623
Delta R.T. 0.024 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

Tgt Ion: 42 Resp: 755

Ion	Ratio	Lower	Upper
42	100		
72	10.0	18.8	58.8#

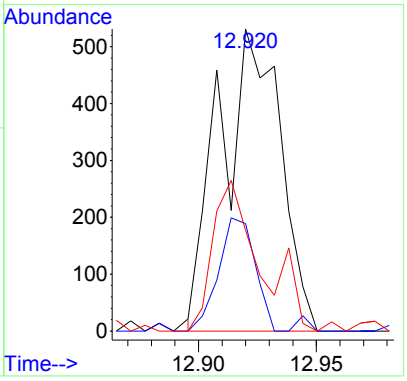


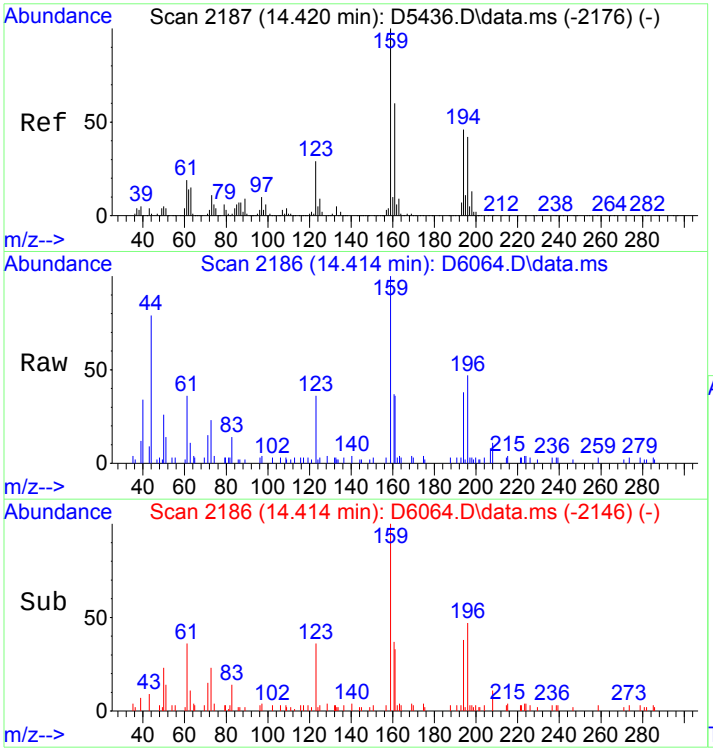


#111
Trielution Dichlorotoluene
Concen: 0.25 ug/L m
RT: 12.920 min Scan# 1941
Delta R.T. 0.000 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

Tgt Ion:125 Resp: 955

Ion	Ratio	Lower	Upper
125	100		
160	35.6	22.3	62.3
89	33.3	17.1	57.1

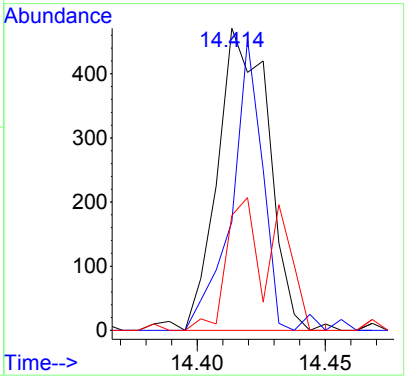


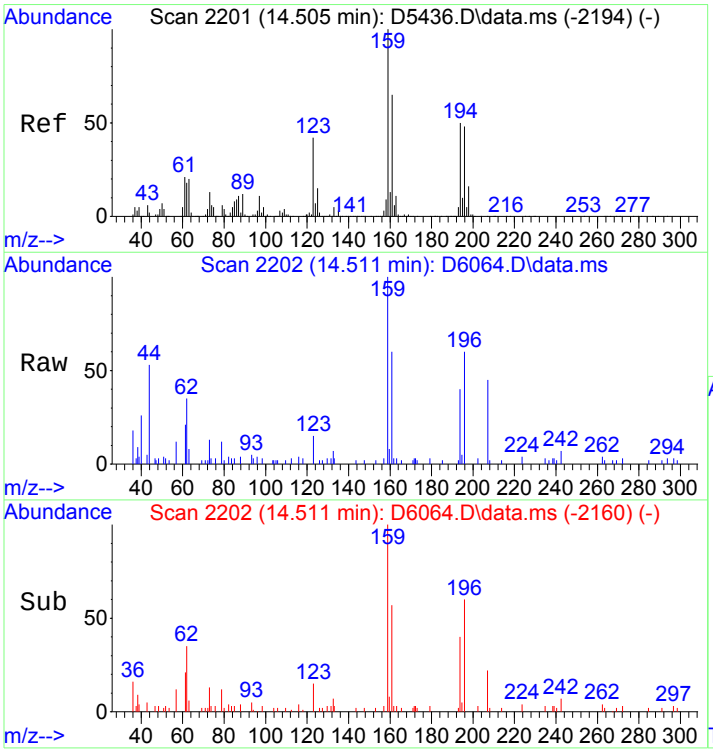


#118
2,4,5-Trichlorotoluene
Concen: 0.31 ug/L m
RT: 14.414 min Scan# 2186
Delta R.T. -0.006 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

Tgt Ion:159 Resp: 647

Ion	Ratio	Lower	Upper
159	100		
161	35.9	39.9	79.9#
194	38.0	25.6	65.6

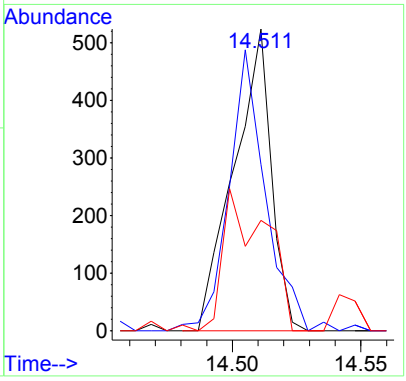




#119
2,3,6-Trichlorotoluene
Concen: 0.27 ug/L
RT: 14.511 min Scan# 2202
Delta R.T. 0.006 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

Tgt Ion:159 Resp: 529

Ion	Ratio	Lower	Upper
159	100		
161	58.2	45.1	85.1
194	41.6	30.2	70.2

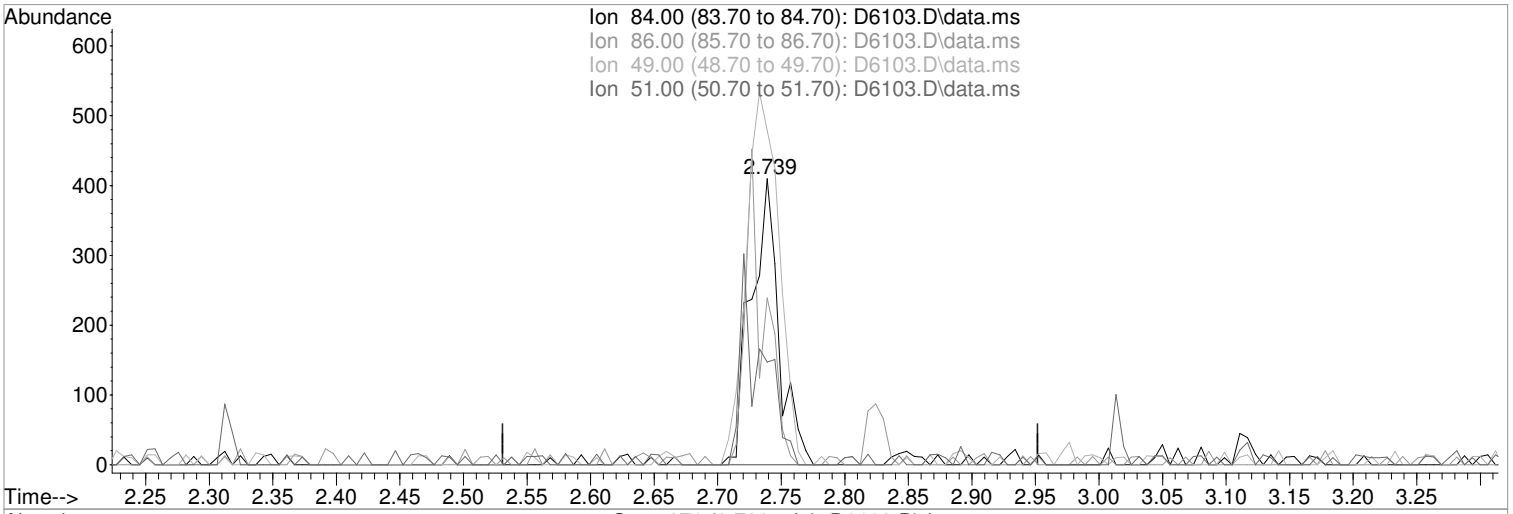


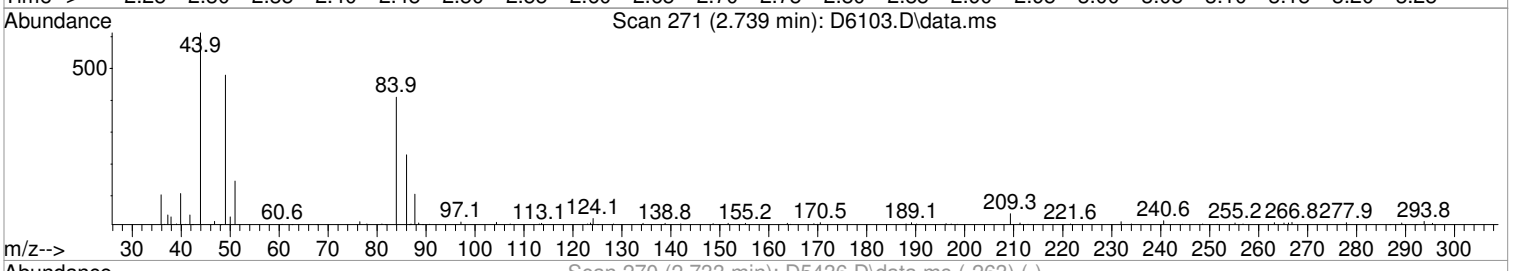
1st DL 09/27/18
2nd FJ 09/28/18

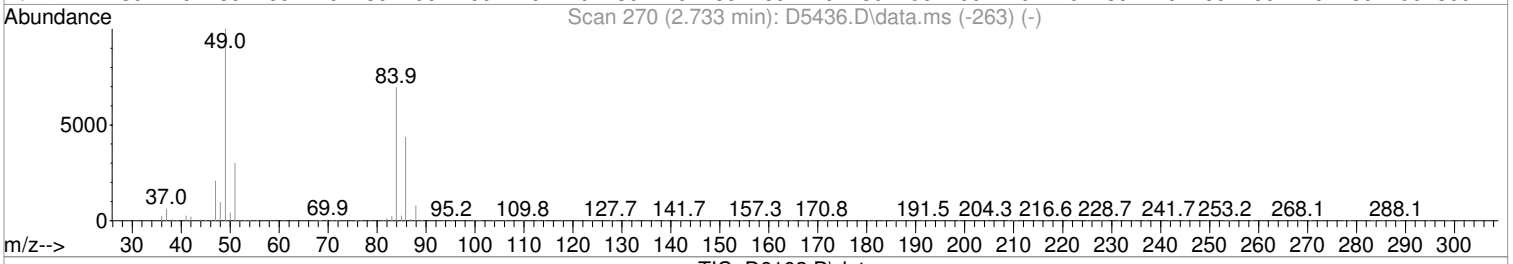
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 25 12:46:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6103.D\data.ms

(22) Methylene Chloride (P)

2.739min (+0.006) 0.29 ug/L m

response 629

Ion	Exp%	Act%
84.00	100	100
86.00	62.80	55.85
49.00	143.90	116.83#
51.00	43.20	35.85

Manual Integration:

After

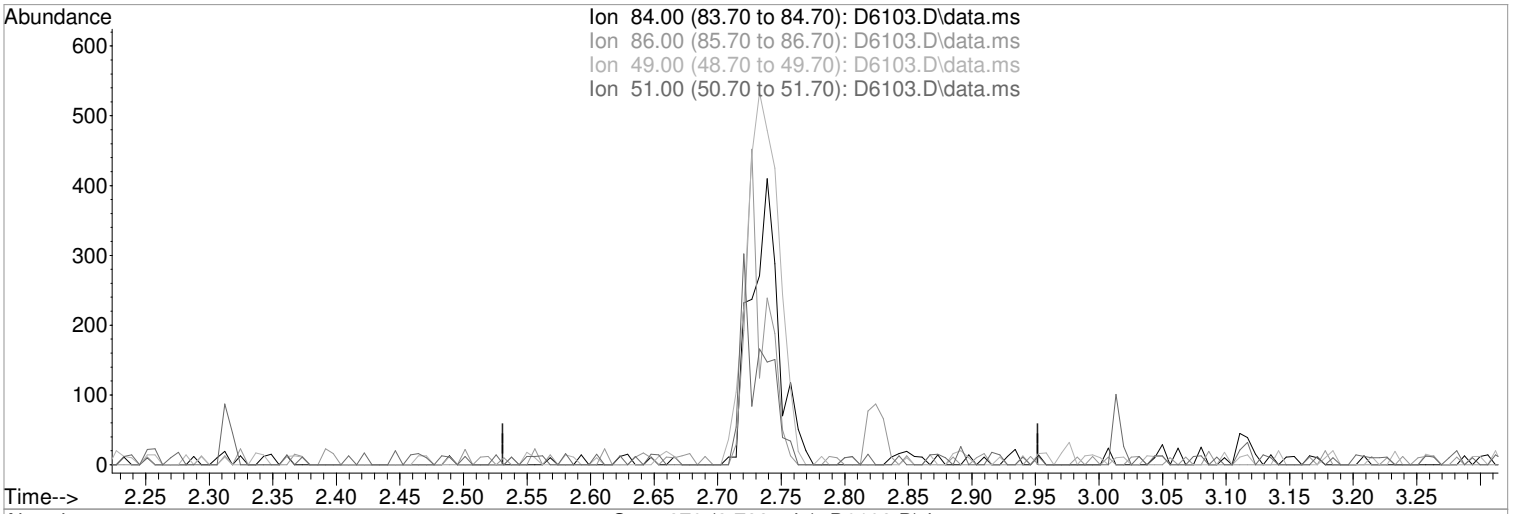
Peak not found.

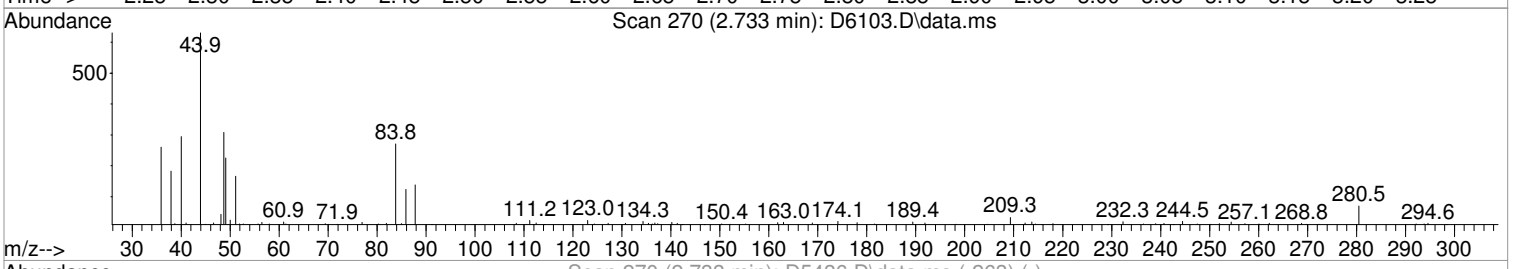
09/27/18

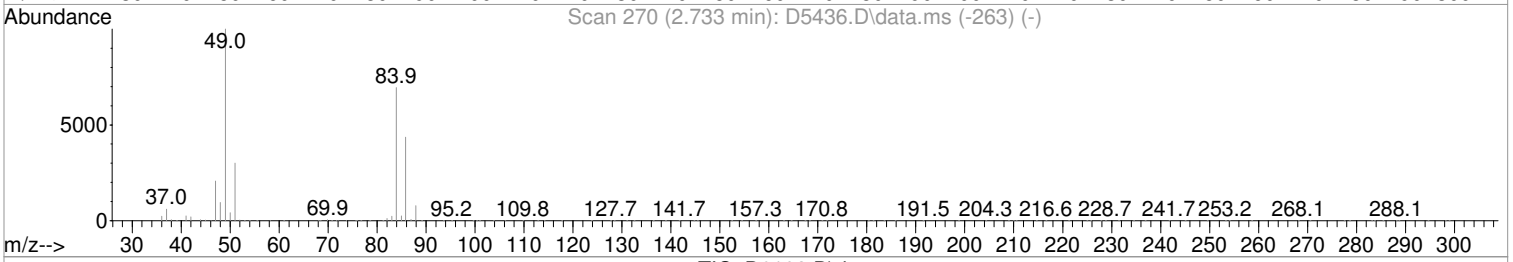
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 25 12:46:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6103.D\data.ms

(22) Methylene Chloride (P)

2.733min (-2.733) 0.00 ug/L

response 0

Ion	Exp%	Act%
84.00	100	0.00
86.00	62.80	0.00#
49.00	143.90	0.00#
51.00	43.20	0.00#

Manual Integration:

Before

09/27/18

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 15:12:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

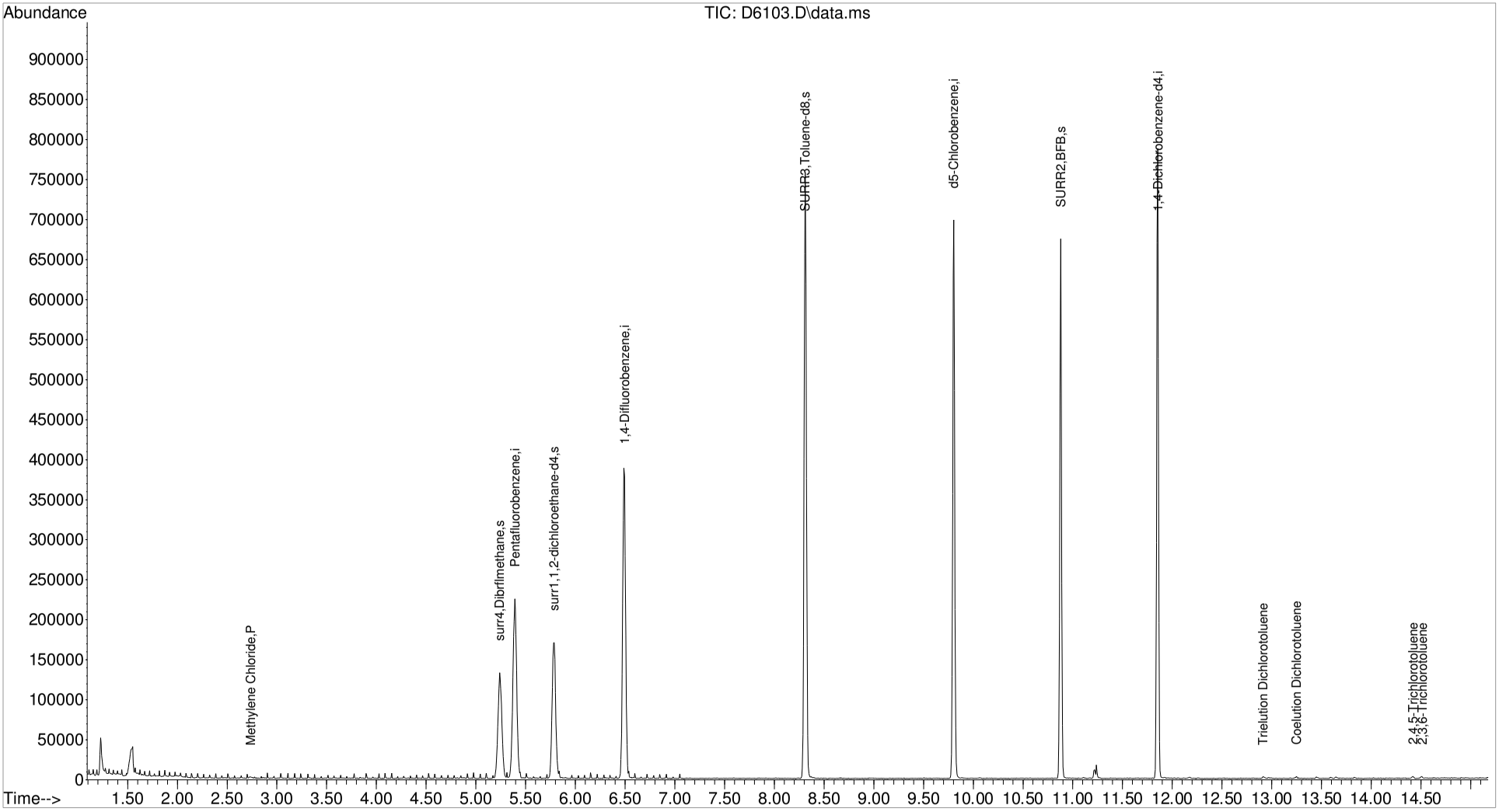
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	199456	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	314548	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	277877	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	137102	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	104897	49.49	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.98%			
46) surr1,1,2-dichloroetha...	5.781	65	149565	53.65	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.30%			
64) SURR3,Toluene-d8	8.311	98	431104	50.16	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.32%			
69) SURR2,BFB	10.878	95	151603	45.90	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.80%			
Target Compounds						Qvalue
22) Methylene Chloride	2.739	84	629m	0.29	ug/L	
111) Trielution Dichlorotol...	12.908	125	926	0.27	ug/L	88
113) Coelution Dichlorotoluene	13.249	125	807	0.21	ug/L	85
118) 2,4,5-Trichlorotoluene	14.420	159	736	0.39	ug/L	77
119) 2,3,6-Trichlorotoluene	14.511	159	414	0.23	ug/L #	61

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

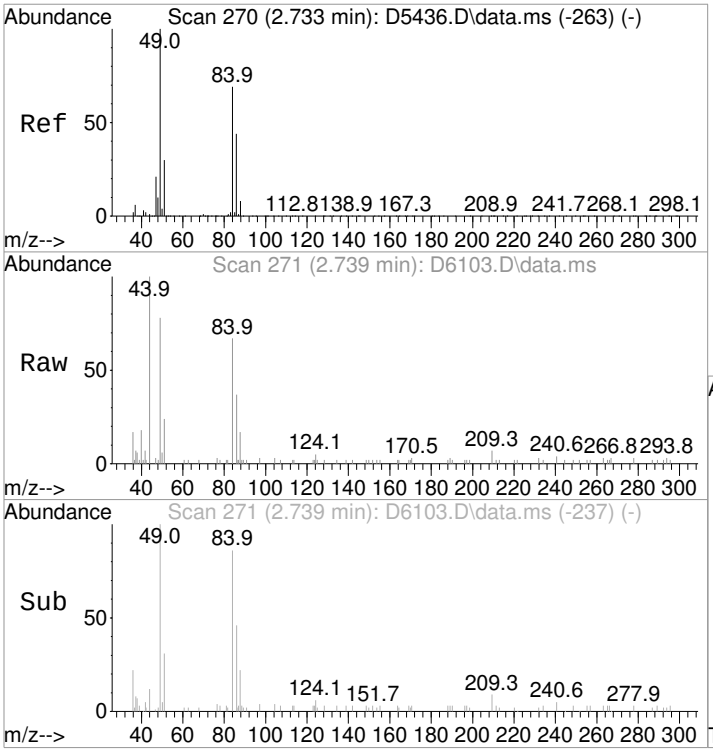
Quantitation Report (QT/LSC Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 15:12:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



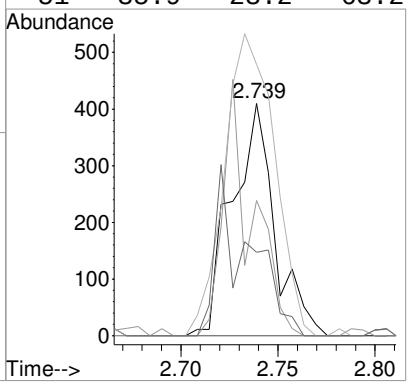
1st DL 09/27/18
2nd FJ 09/28/18

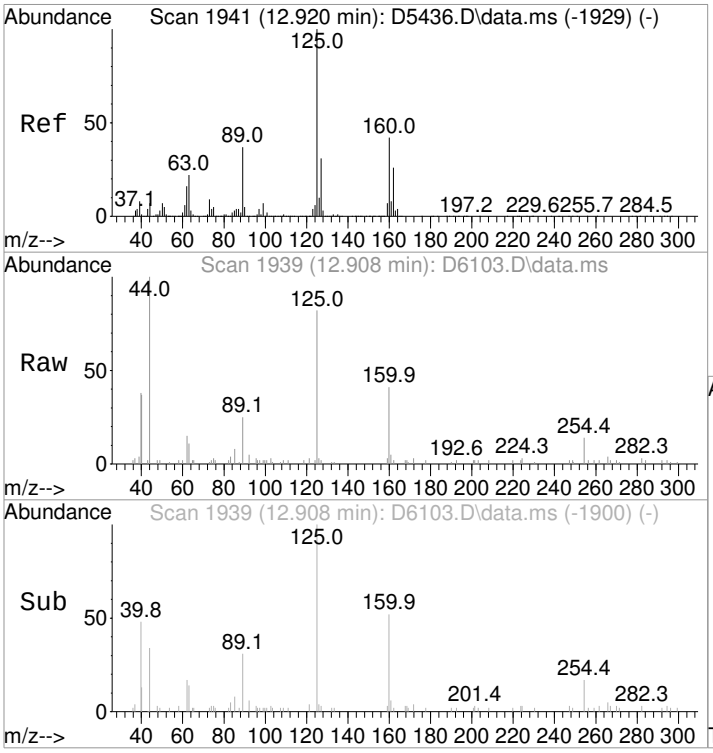


#22
Methylene Chloride
Concen: 0.29 ug/L m
RT: 2.739 min Scan# 271
Delta R.T. 0.006 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

Tgt Ion: 84 Resp: 629

Ion	Ratio	Lower	Upper
84	100		
86	55.9	42.8	82.8
49	116.8	123.9	163.9#
51	35.9	23.2	63.2

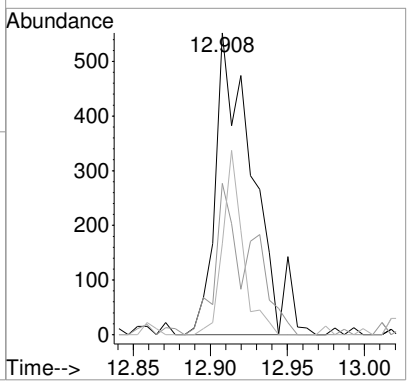


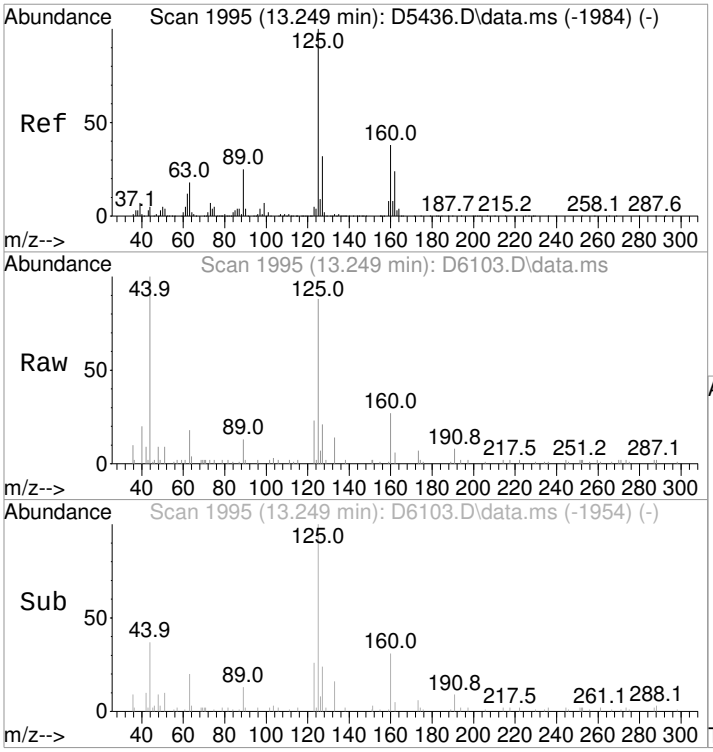


#111
Trielution Dichlorotoluene
Concen: 0.27 ug/L
RT: 12.908 min Scan# 1939
Delta R.T. -0.012 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

Tgt Ion:125 Resp: 926

Ion	Ratio	Lower	Upper
125	100		
160	50.2	22.3	62.3
89	30.1	17.1	57.1

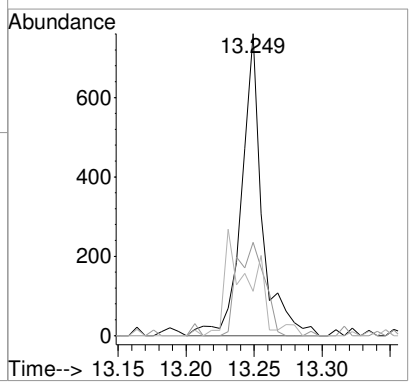


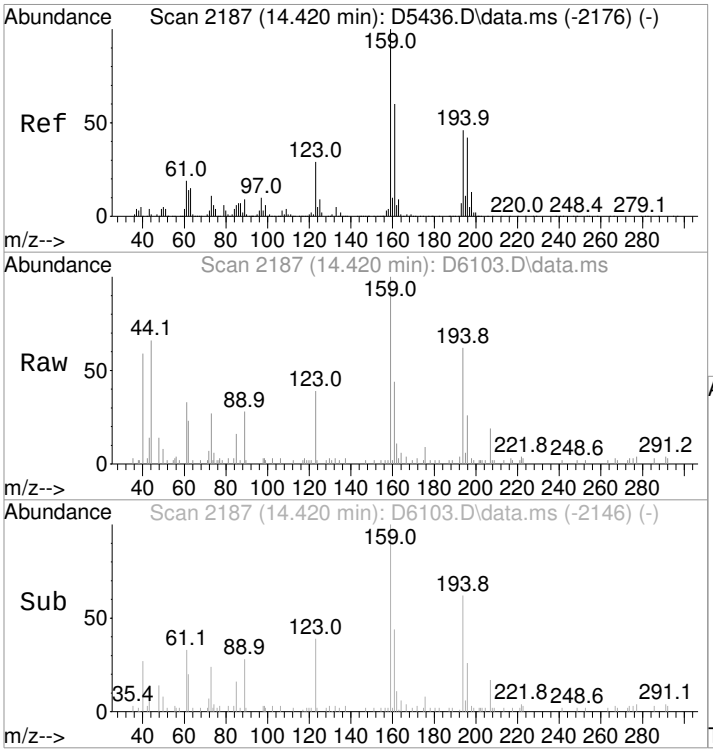


#113
Coelution Dichlorotoluene
Concen: 0.21 ug/L
RT: 13.249 min Scan# 1995
Delta R.T. 0.000 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

Tgt Ion:125 Resp: 807

Ion	Ratio	Lower	Upper
125	100		
160	30.9	17.8	57.8
89	14.7	5.2	45.2

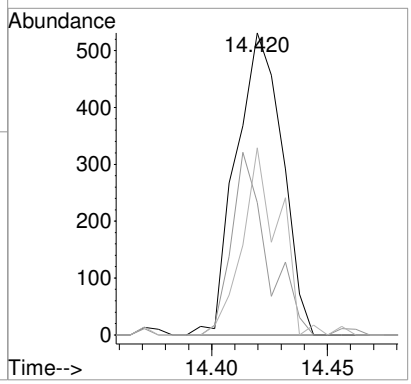


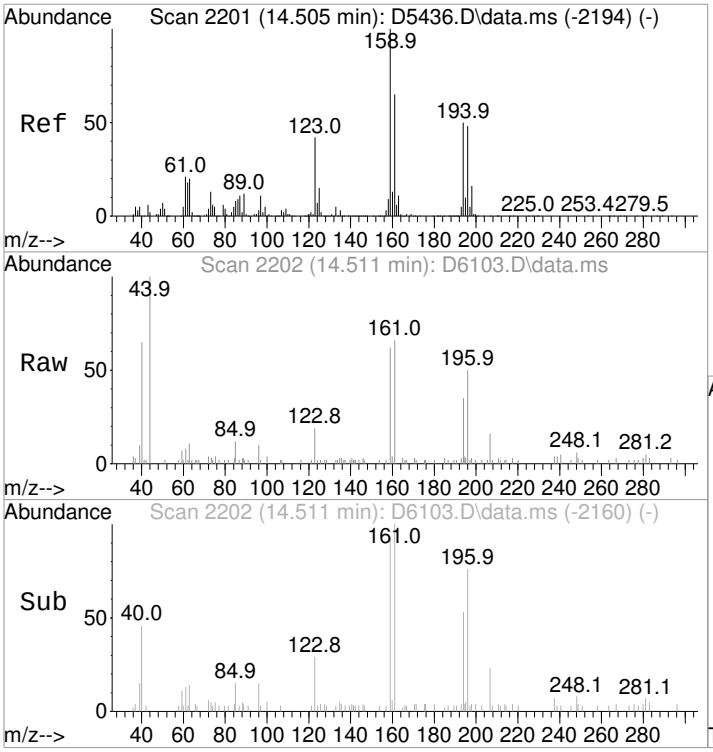


#118
2,4,5-Trichlorotoluene
Concen: 0.39 ug/L
RT: 14.420 min Scan# 2187
Delta R.T. 0.000 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

Tgt Ion:159 Resp: 736

Ion	Ratio	Lower	Upper
159	100		
161	43.9	39.9	79.9
194	62.0	25.6	65.6

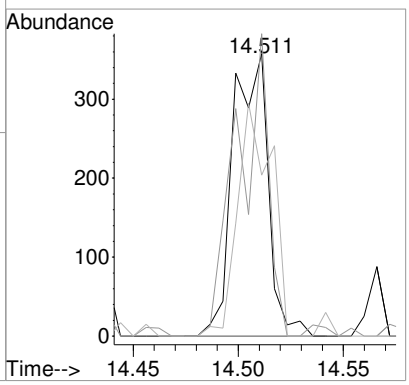




#119
2,3,6-Trichlorotoluene
Concen: 0.23 ug/L
RT: 14.511 min Scan# 2202
Delta R.T. 0.006 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

Tgt Ion:159 Resp: 414

Ion	Ratio	Lower	Upper
159	100		
161	107.0	45.1	85.1#
194	64.0	30.2	70.2



1st DL 09/27/18
2nd FJ 09/28/18

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 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\W082118.M
Title : MS#10 - 8260B WATERS 5.0mL Purge

Signal : TIC: D6103.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.227	20	23	30	rBV	46397	67074	5.57%	1.073%
2	1.538	65	74	75	rBV3	33321	66669	5.54%	1.067%
3	5.238	671	681	692	rBV3	131447	352471	29.29%	5.639%
4	5.391	695	706	718	rVB	224015	590251	49.05%	9.443%
5	5.781	760	770	778	rBV	169624	420324	34.93%	6.724%
6	6.488	875	886	896	rBV	387789	787275	65.42%	12.595%
7	8.311	1177	1185	1193	rBV	757547	1203419	100.00%	19.252%
8	9.805	1422	1430	1440	rBV	697881	964622	80.16%	15.432%
9	10.878	1600	1606	1612	rBV	674269	826073	68.64%	13.216%
10	11.219	1657	1662	1664	rBV2	10802	13779	1.14%	0.220%
11	11.853	1760	1766	1775	rBV	787024	958808	79.67%	15.339%

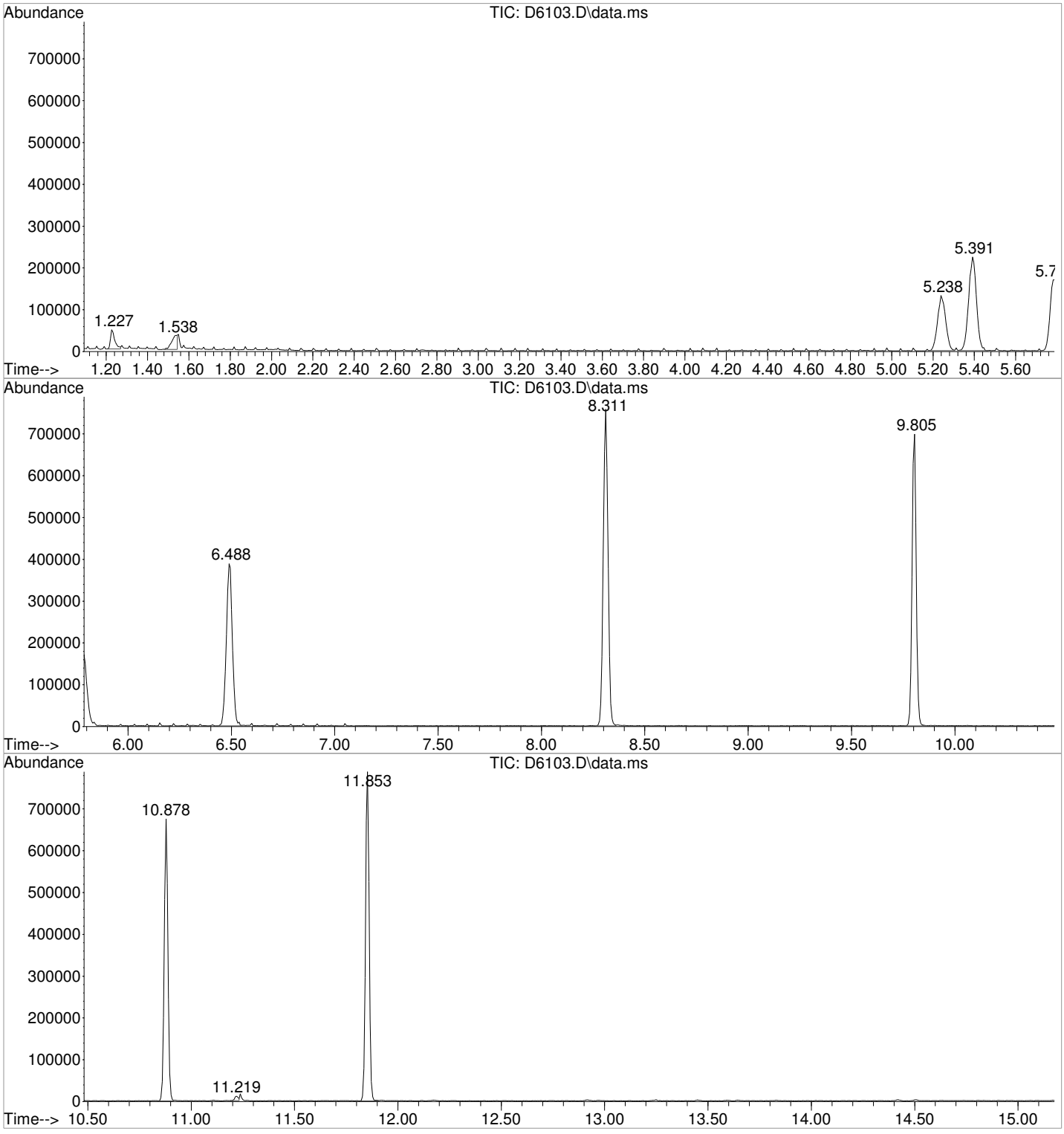
Sum of corrected areas: 6250765

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

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



Library Search Compound Report

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

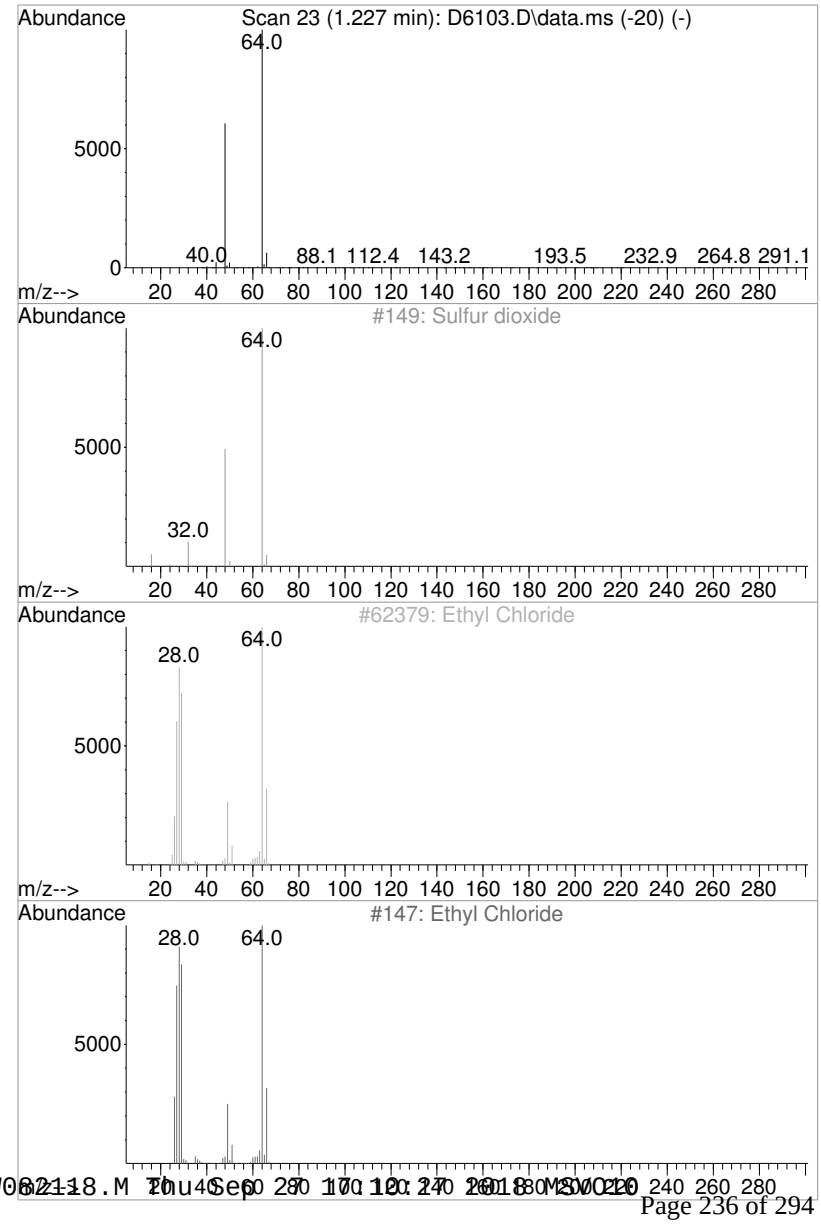
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

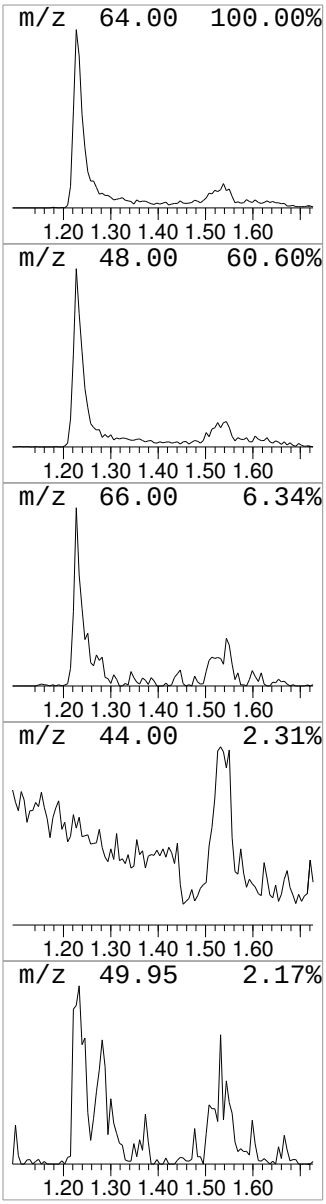
****

Peak Number 1 Sulfur dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.227	5.68 ug/L	67074	Pentafluorobenzene	5.391

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Sulfur dioxide	64	O2S	007446-09-5	90
2	Ethyl Chloride	64	C2H5Cl	000075-00-3	3
3	Ethyl Chloride	64	C2H5Cl	000075-00-3	3
4	Ethene, 1,2-difluoro-	64	C2H2F2	001691-13-0	3
5	Ethene, 1,1-difluoro-	64	C2H2F2	000075-38-7	3





Library Search Compound Report

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

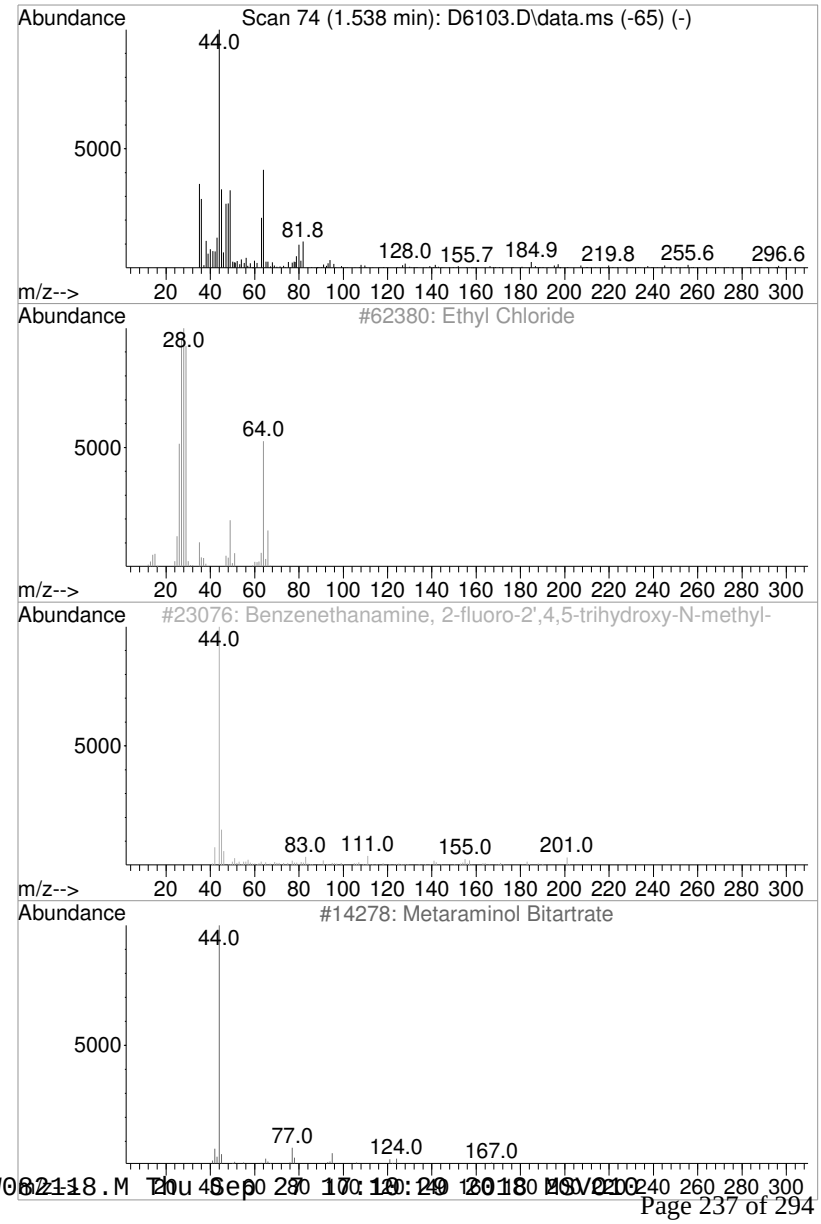
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

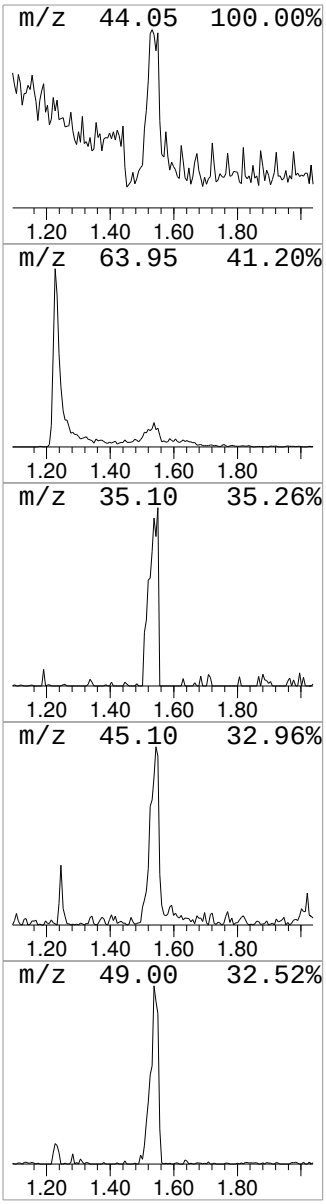
****

Peak Number 2 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.538	5.65 ug/L	66669	Pentafluorobenzene	5.391

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyl Chloride	64	C2H5Cl	000075-00-3	32
2	Benzenethanamine, 2-fluoro-2',4,...	201	C9H12FNO3	000000-00-0	9
3	Metaraminol Bitartrate	167	C9H13NO2	033402-03-8	9
4	Benzenethanamine,4-methoxy-.alph...	165	C10H15NO	023239-32-9	9
5	Phenylpropanolamine	151	C9H13NO	000492-41-1	9





Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

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

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Sulfur dioxide	1.227	5.7	ug/L	67074	1	5.391	590251	50.0
unknown	1.538	5.7	ug/L	66669	1	5.391	590251	50.0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6062.D
Acq On : 24 Sep 2018 10:35 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 24 10:50:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	231000	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	352269	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	313024	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	175141	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	113757	47.92	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.84%			
46) surr1,1,2-dichloroetha...	5.781	65	159305	51.03	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.06%			
64) SURR3,Toluene-d8	8.311	98	477516	49.61	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.22%			
69) SURR2,BFB	10.878	95	178876	48.36	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.72%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	56383	18.28	ug/L	98
3) Chloromethane	1.282	50	65680	19.50	ug/L	96
4) Vinyl Chloride	1.361	62	60663	18.14	ug/L	99
5) Bromomethane	1.587	94	41135	15.99	ug/L	97
6) Chloroethane	1.666	64	34319	16.42	ug/L	94
7) Freon 21	1.812	67	81479	15.95	ug/L	97
8) Trichlorofluoromethane	1.861	101	70811	18.84	ug/L	98
9) Diethyl Ether	2.093	59	46218	21.72	ug/L	93
10) Freon 123a	2.099	67	51698	17.63	ug/L	93
11) Freon 123	2.148	83	73177	22.48	ug/L	99
12) Acrolein	2.196	56	26429	38.49	ug/L	94
13) 1,1-Diclethene	2.282	96	41772	19.62	ug/L	95
14) Freon 113	2.294	101	39169	18.47	ug/L	100
15) Acetone	2.324	43	29731	21.88	ug/L	93
16) 2-Propanol	2.459	45	104419	397.39	ug/L	99
17) Iodomethane	2.416	142	57332	22.86	ug/L	99
18) Carbon Disulfide	2.477	76	120944	20.83	ug/L	98
19) Acetonitrile	2.581	41	66280	134.17	ug/L	97
20) Allyl Chloride	2.617	76	24920	24.01	ug/L #	85
21) Methyl Acetate	2.641	43	61445	22.69	ug/L	94
22) Methylene Chloride	2.733	84	48391	19.48	ug/L	93
23) TBA	2.867	59	152489	387.41	ug/L	89
24) Acrylonitrile	2.989	53	153005	113.89	ug/L	100
25) Methyl-t-Butyl Ether	3.038	73	155818	19.73	ug/L	100
26) trans-1,2-Dichloroethene	3.026	96	42796	18.79	ug/L	91
27) 1,1-Diclethane	3.525	63	93360	20.92	ug/L	99
28) Vinyl Acetate	3.623	86	10491	20.42	ug/L #	49
29) DIPE	3.660	45	190033	23.00	ug/L	97
30) 2-Chloro-1,3-Butadiene	3.653	53	81038	21.12	ug/L	93
31) ETBE	4.184	59	137256	18.34	ug/L	96
32) 2,2-Dichloropropane	4.367	77	57284	16.84	ug/L	95
33) cis-1,2-Dichloroethene	4.373	96	49835	19.64	ug/L	97
34) 2-Butanone	4.416	43	43920	23.91	ug/L	85
35) Propionitrile	4.495	54	59898	110.05	ug/L	93
36) Bromochloromethane	4.763	130	29720	18.95	ug/L #	83
37) Methacrylonitrile	4.769	67	26752	20.43	ug/L	92
38) Tetrahydrofuran	4.867	42	25542	22.45	ug/L	99
39) Chloroform	4.946	83	84381	20.65	ug/L	98
40) 1,1,1-Trichloroethane	5.251	97	64342	18.65	ug/L	97

1st BA 09/27/18
2nd DL 09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6062.D
Acq On : 24 Sep 2018 10:35 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 24 10:50:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	51445	19.89	ug/L		98
44) Carbontetrachloride	5.531	117	48268	18.56	ug/L		87
45) 1,1-Dichloropropene	5.543	75	66141	20.09	ug/L		96
47) Benzene	5.860	78	195486	20.82	ug/L		99
48) 1,2-Dichloroethane	5.903	62	78517	21.02	ug/L		95
49) Iso-Butyl Alcohol	5.885	43	72397	413.50	ug/L		94
50) TAME	6.104	73	135480	19.63	ug/L		94
51) n-Heptane	6.354	43	72906	22.95	ug/L		90
52) 1-Butanol	6.854	56	94064	1074.67	ug/L		96
53) Trichloroethene	6.817	130	45999	18.76	ug/L		95
54) Methylcyclohexane	7.055	55	59857	19.16	ug/L		91
55) 1,2-Diclpropane	7.098	63	53464	20.47	ug/L		98
56) Dibromomethane	7.244	93	32350	20.82	ug/L		96
57) 1,4-Dioxane	7.305	88	19434	430.08	ug/L		96
58) Methyl Methacrylate	7.330	69	42175	20.61	ug/L		92
59) Bromodichloromethane	7.470	83	59123	20.43	ug/L		98
60) 2-Nitropropane	7.756	41	25309	51.62	ug/L		99
61) 2-Chloroethylvinyl Ether	7.878	63	29589	20.98	ug/L		89
62) cis-1,3-Dichloropropene	8.012	75	72124	20.32	ug/L		96
63) 4-Methyl-2-pentanone	8.220	43	79998	23.49	ug/L		97
65) Toluene	8.384	91	205865	20.40	ug/L		98
66) trans-1,3-Dichloropropene	8.653	75	62549	19.46	ug/L		99
67) Ethyl Methacrylate	8.799	69	70450	21.05	ug/L		94
68) 1,1,2-Trichloroethane	8.841	97	44042	19.73	ug/L		94
71) Tetrachloroethene	8.976	164	36378	18.69	ug/L		94
72) 2-Hexanone	9.134	43	57291	21.70	ug/L		94
73) 1,3-Dichloropropane	9.012	76	80769	20.24	ug/L		94
74) Dibromochloromethane	9.238	129	40298	19.40	ug/L		95
75) N-Butyl Acetate	9.293	43	105377	21.05	ug/L		95
76) 1,2-Dibromoethane	9.335	107	46035	20.04	ug/L		100
77) 3-Chlorobenzotrifluoride	9.847	180	61933	17.64	ug/L		96
78) Chlorobenzene	9.829	112	125150	18.92	ug/L		93
79) 4-Chlorobenzotrifluoride	9.902	180	55862	17.88	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	40108	19.55	ug/L		97
81) Ethylbenzene	9.951	106	67684	19.54	ug/L	#	88
82) (m+p)Xylene	10.061	106	168405	39.11	ug/L		97
83) o-Xylene	10.420	106	83538	19.50	ug/L		93
84) Styrene	10.433	104	139593	20.26	ug/L		97
85) Bromoform	10.585	173	25850	21.16	ug/L		97
86) 2-Chlorobenzotrifluoride	10.664	180	62887	18.57	ug/L		93
87) Isopropylbenzene	10.756	105	211716	19.47	ug/L		99
88) Cyclohexanone	10.817	55	99056	190.06	ug/L		95
89) trans-1,4-Dichloro-2-B...	11.061	53	13100	18.29	ug/L		86
91) 1,1,2,2-Tetrachloroethane	11.012	83	69646	20.93	ug/L		97
92) Bromobenzene	11.000	156	53912	18.40	ug/L	#	81
93) 1,2,3-Trichloropropane	11.042	110	20439	19.92	ug/L		98
94) n-Propylbenzene	11.109	91	256185	19.84	ug/L		99
95) 2-Chlorotoluene	11.170	91	150644	19.34	ug/L		96
96) 3-Chlorotoluene	11.225	91	138455	17.99	ug/L		96
97) 4-Chlorotoluene	11.268	91	175383	18.88	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	180873	20.16	ug/L		99
99) tert-Butylbenzene	11.536	119	152903	19.42	ug/L		100
100) 1,2,4-Trimethylbenzene	11.573	105	181001	20.26	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.634	214	50931	17.74	ug/L		90
102) sec-Butylbenzene	11.719	105	225497	19.81	ug/L		98
103) p-Isopropyltoluene	11.841	119	194488	20.02	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6062.D
Acq On : 24 Sep 2018 10:35 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 24 10:50:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

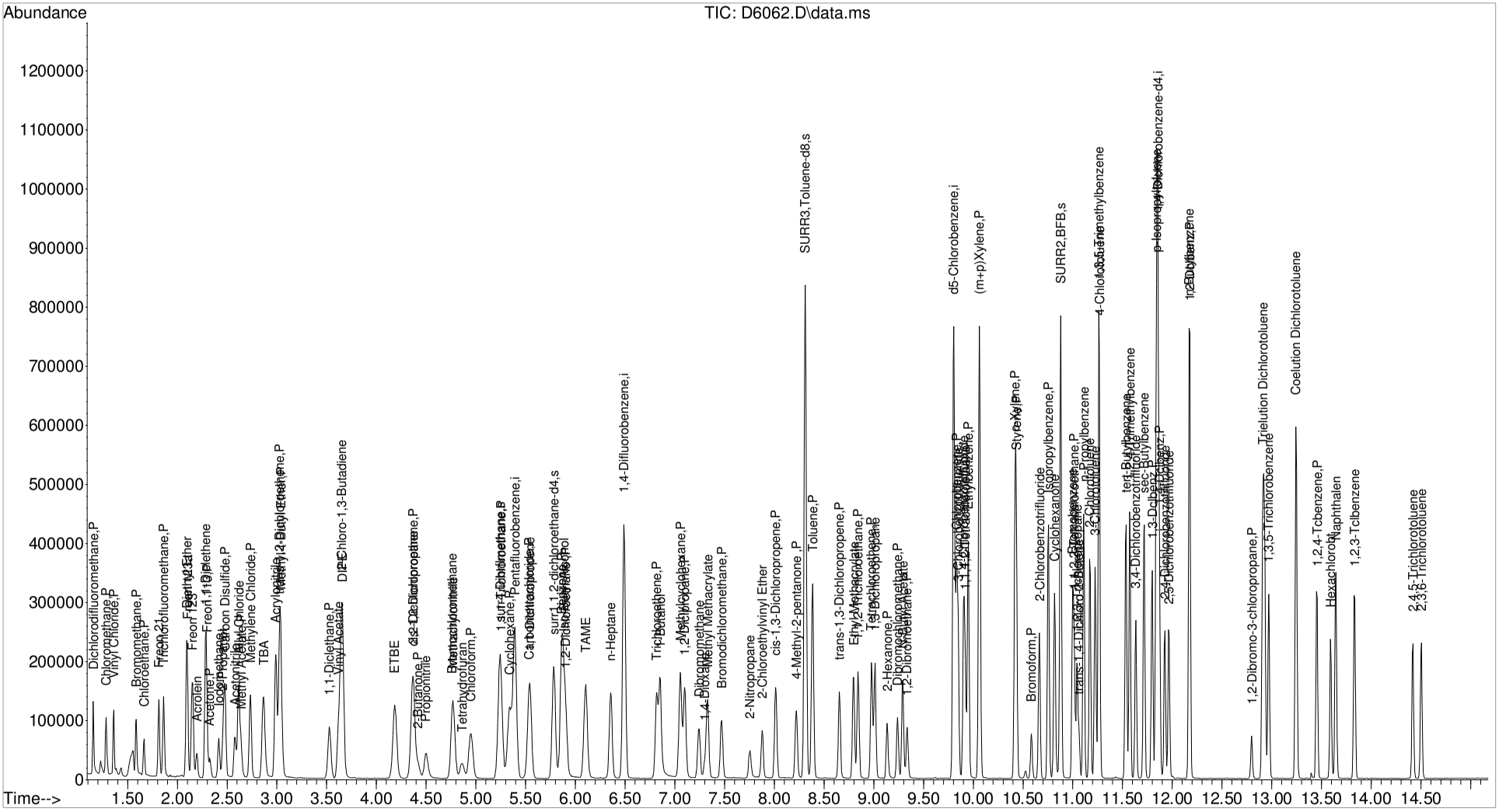
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	101878	18.91	ug/L	99
105) 1,4-Dclbenz	11.871	146	104745	18.41	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	46667	18.23	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.969	214	52867	17.88	ug/L	97
108) n-Butylbenzene	12.170	91	190418	20.50	ug/L	98
109) 1,2-Dclbenz	12.176	146	102537	18.76	ug/L	100
110) 1,2-Dibromo-3-chloropr...	12.798	157	10953	16.07	ug/L	83
111) Trielution Dichlorotol...	12.914	125	234845	52.62	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	70403	17.77	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	174388	35.39	ug/L	94
114) 1,2,4-Tcbenzene	13.456	180	73414	18.90	ug/L	98
115) Hexachlorobt	13.591	225	33764	19.88	ug/L	99
116) Naphthalen	13.645	128	203292	20.18	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	72258	18.91	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	45491	18.76	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	42201	18.48	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6062.D
Acq On : 24 Sep 2018 10:35 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 24 10:50:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



1st BA 09/27/18
2nd DL 09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6101.D
Acq On : 25 Sep 2018 11:48 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 12:02:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	224537	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	339718	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	296166	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	161335	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	109638	47.89	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.78%				
46) surr1,1,2-dichloroetha...	5.781	65	157745	52.39	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.78%				
64) SURR3,Toluene-d8	8.311	98	443475	47.78	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 95.56%				
69) SURR2,BFB	10.878	95	166246	46.60	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.20%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	56943	18.99	ug/L		99
3) Chloromethane	1.282	50	66765	20.39	ug/L		96
4) Vinyl Chloride	1.361	62	60210	18.52	ug/L		98
5) Bromomethane	1.587	94	35691	14.30	ug/L		93
6) Chloroethane	1.666	64	34373	16.92	ug/L		97
7) Freon 21	1.812	67	83641	16.84	ug/L		99
8) Trichlorofluoromethane	1.861	101	69606	19.05	ug/L		100
9) Diethyl Ether	2.093	59	44355	21.44	ug/L		97
10) Freon 123a	2.099	67	53982	18.94	ug/L		91
11) Freon 123	2.148	83	75859	23.98	ug/L		92
12) Acrolein	2.196	56	24885	37.28	ug/L		95
13) 1,1-Diclethene	2.288	96	40819	19.72	ug/L		93
14) Freon 113	2.288	101	39758	19.28	ug/L		96
15) Acetone	2.330	43	30779	23.30	ug/L		93
16) 2-Propanol	2.458	45	103387	404.79	ug/L		91
17) Iodomethane	2.416	142	50449	20.95	ug/L		97
18) Carbon Disulfide	2.477	76	115684	20.50	ug/L		97
19) Acetonitrile	2.574	41	58231	121.27	ug/L		95
20) Allyl Chloride	2.617	76	24297	24.08	ug/L	#	90
21) Methyl Acetate	2.641	43	61273	23.28	ug/L		99
22) Methylene Chloride	2.733	84	48389	20.04	ug/L	#	87
23) TBA	2.861	59	147391	385.24	ug/L		93
24) Acrylonitrile	2.989	53	149300	114.34	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	148527	19.35	ug/L		99
26) trans-1,2-Dichloroethene	3.031	96	44441	20.08	ug/L		95
27) 1,1-Diclethane	3.525	63	92927	21.42	ug/L		99
28) Vinyl Acetate	3.617	86	9935	19.89	ug/L	#	61
29) DIPE	3.659	45	196072	24.41	ug/L		95
30) 2-Chloro-1,3-Butadiene	3.653	53	78286	20.99	ug/L		96
31) ETBE	4.184	59	141618	19.47	ug/L		97
32) 2,2-Dichloropropane	4.360	77	55223	16.70	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	49152	19.93	ug/L		96
34) 2-Butanone	4.415	43	40923	22.92	ug/L		86
35) Propionitrile	4.501	54	57296	108.30	ug/L		99
36) Bromochloromethane	4.769	130	28368	18.61	ug/L	#	80
37) Methacrylonitrile	4.769	67	25809	20.27	ug/L	#	82
38) Tetrahydrofuran	4.866	42	25920	23.43	ug/L		86
39) Chloroform	4.946	83	83918	21.13	ug/L		97
40) 1,1,1-Trichloroethane	5.251	97	65675	19.58	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6101.D
Acq On : 25 Sep 2018 11:48 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 12:02:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	57780	23.16	ug/L		98
44) Carbontetrachloride	5.531	117	47480	18.94	ug/L		95
45) 1,1-Dichloropropene	5.549	75	64757	20.39	ug/L		96
47) Benzene	5.866	78	190581	21.05	ug/L		93
48) 1,2-Dichloroethane	5.903	62	77157	21.42	ug/L		94
49) Iso-Butyl Alcohol	5.885	43	74134	439.06	ug/L		95
50) TAME	6.104	73	133709	20.09	ug/L		92
51) n-Heptane	6.360	43	80736	26.35	ug/L		85
52) 1-Butanol	6.854	56	89546	1061.79	ug/L		97
53) Trichloroethene	6.817	130	45999	19.45	ug/L		94
54) Methylcyclohexane	7.055	55	63732	21.16	ug/L		93
55) 1,2-Diclpropane	7.098	63	53118	21.09	ug/L		98
56) Dibromomethane	7.238	93	31569	21.07	ug/L		86
57) 1,4-Dioxane	7.305	88	17793	408.31	ug/L		100
58) Methyl Methacrylate	7.329	69	41358	20.96	ug/L		89
59) Bromodichloromethane	7.470	83	56796	20.35	ug/L		98
60) 2-Nitropropane	7.750	41	24692	52.22	ug/L		93
61) 2-Chloroethylvinyl Ether	7.878	63	28704	21.10	ug/L		91
62) cis-1,3-Dichloropropene	8.012	75	69714	20.36	ug/L		97
63) 4-Methyl-2-pentanone	8.219	43	77109	23.48	ug/L		89
65) Toluene	8.384	91	198318	20.37	ug/L		96
66) trans-1,3-Dichloropropene	8.652	75	58002	18.71	ug/L		94
67) Ethyl Methacrylate	8.799	69	70266	21.77	ug/L		96
68) 1,1,2-Trichloroethane	8.841	97	41819	19.43	ug/L		98
71) Tetrachloroethene	8.975	164	37438	20.33	ug/L		99
72) 2-Hexanone	9.134	43	53979	21.61	ug/L		92
73) 1,3-Dichloropropane	9.012	76	82425	21.83	ug/L		95
74) Dibromochloromethane	9.238	129	38264	19.47	ug/L		93
75) N-Butyl Acetate	9.292	43	105647	22.31	ug/L		95
76) 1,2-Dibromoethane	9.335	107	43562	20.04	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	66929	20.15	ug/L		98
78) Chlorobenzene	9.829	112	122486	19.57	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	59203	20.03	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	37962	19.56	ug/L		92
81) Ethylbenzene	9.951	106	66305	20.23	ug/L		91
82) (m+p)Xylene	10.061	106	164597	40.40	ug/L		97
83) o-Xylene	10.420	106	80180	19.79	ug/L		100
84) Styrene	10.432	104	135144	20.73	ug/L		93
85) Bromoform	10.585	173	24807	21.44	ug/L		86
86) 2-Chlorobenzotrifluoride	10.664	180	62591	19.54	ug/L		93
87) Isopropylbenzene	10.756	105	206291	20.05	ug/L		98
88) Cyclohexanone	10.817	55	122095	247.60	ug/L		97
89) trans-1,4-Dichloro-2-B...	11.060	53	12210	18.04	ug/L	#	70
91) 1,1,2,2-Tetrachloroethane	11.012	83	65072	21.23	ug/L		98
92) Bromobenzene	10.999	156	53866	19.96	ug/L	#	89
93) 1,2,3-Trichloropropane	11.042	110	19539	20.68	ug/L		93
94) n-Propylbenzene	11.109	91	263927	22.18	ug/L		96
95) 2-Chlorotoluene	11.170	91	148934	20.76	ug/L		97
96) 3-Chlorotoluene	11.225	91	147935	20.87	ug/L		97
97) 4-Chlorotoluene	11.268	91	174563	20.40	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	172385	20.85	ug/L		96
99) tert-Butylbenzene	11.536	119	151400	20.87	ug/L		100
100) 1,2,4-Trimethylbenzene	11.573	105	178757	21.72	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.633	214	55148	20.86	ug/L		93
102) sec-Butylbenzene	11.719	105	229841	21.92	ug/L		99
103) p-Isopropyltoluene	11.841	119	192883	21.55	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6101.D
Acq On : 25 Sep 2018 11:48 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 12:02:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

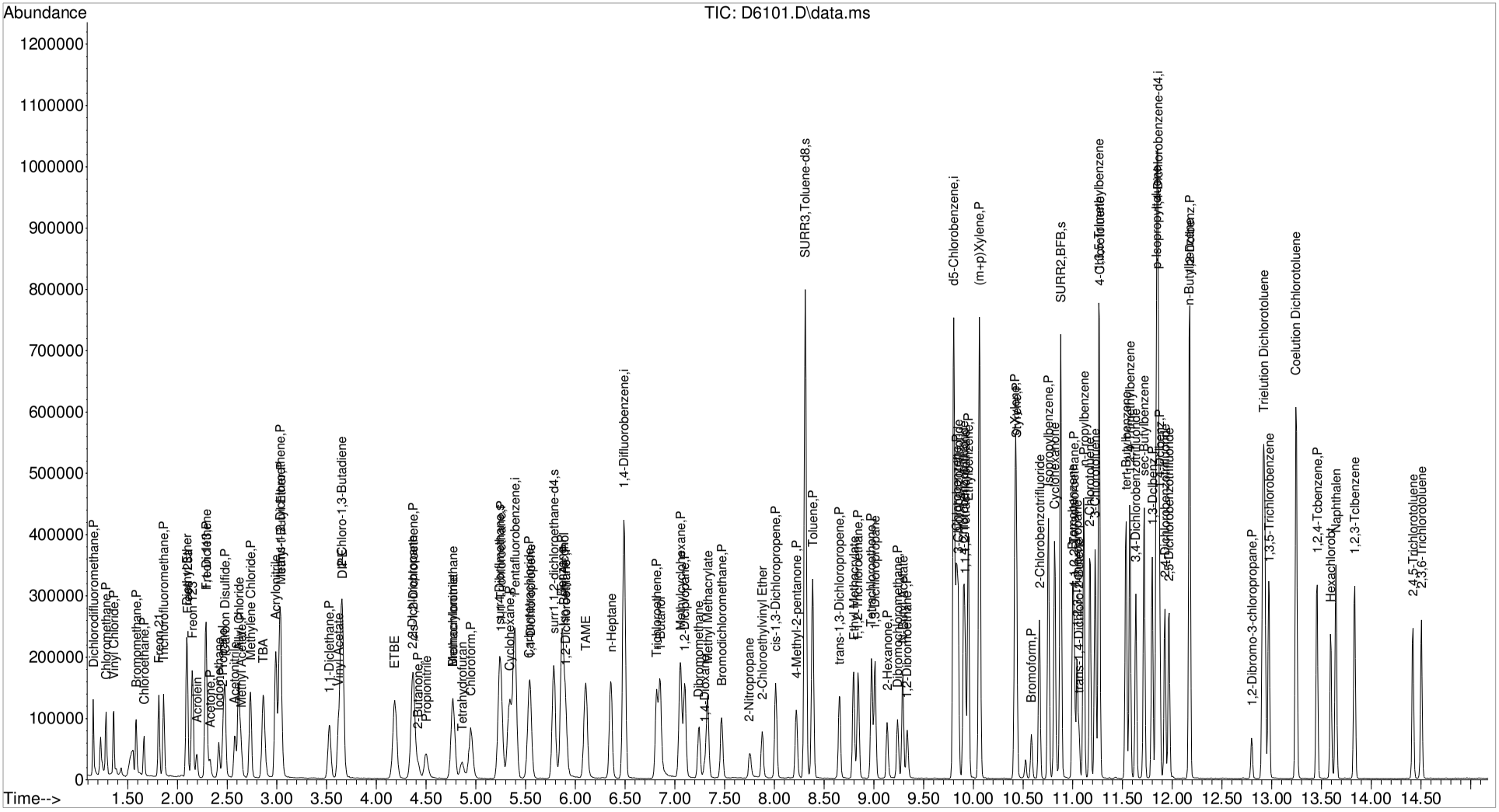
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	98594	19.87	ug/L	97
105) 1,4-Dclbenz	11.871	146	102962	19.65	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	50576	21.45	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	56432	20.72	ug/L	98
108) n-Butylbenzene	12.170	91	189506	22.15	ug/L	96
109) 1,2-Dclbenz	12.176	146	95136	18.89	ug/L	96
110) 1,2-Dibromo-3-chloropr...	12.798	157	10882	17.33	ug/L	95
111) Trielution Dichlorotol...	12.920	125	250124	60.84	ug/L	98
112) 1,3,5-Trichlorobenzene	12.975	180	72830	19.95	ug/L	94
113) Coelution Dichlorotoluene	13.243	125	179212	39.48	ug/L	94
114) 1,2,4-Tcbenzene	13.456	180	73468	20.53	ug/L	93
115) Hexachlorobt	13.590	225	31776	20.31	ug/L	94
116) Naphthalen	13.645	128	194335	20.94	ug/L	98
117) 1,2,3-Tclbenzene	13.834	180	70747	20.10	ug/L	99
118) 2,4,5-Trichlorotoluene	14.419	159	45776	20.49	ug/L	99
119) 2,3,6-Trichlorotoluene	14.505	159	43774	20.81	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6101.D
Acq On : 25 Sep 2018 11:48 am
Operator : D.LIPANI
Sample : LCS-Unp. Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 12:02:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

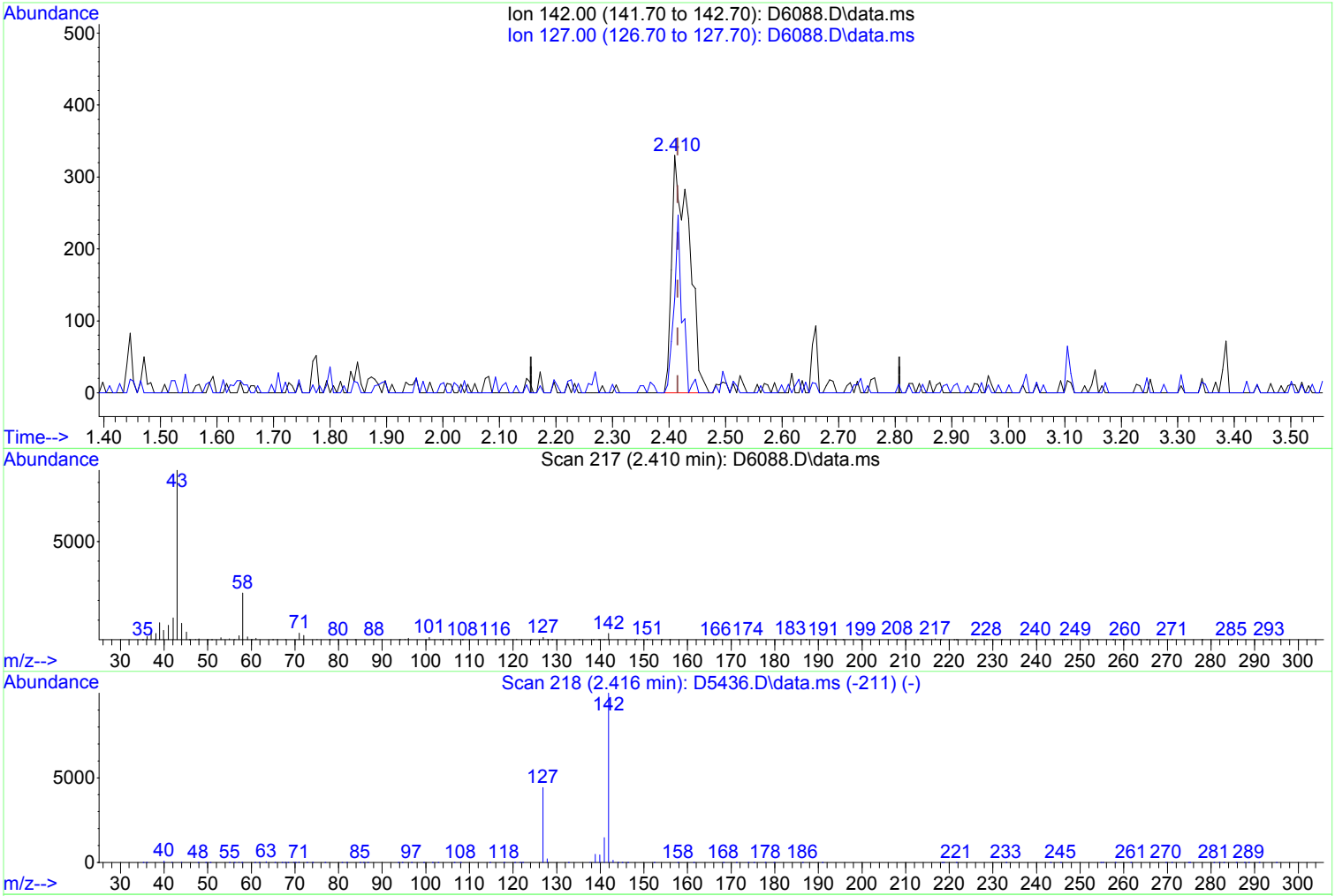


1st DL 09/27/18
2nd FJ 09/28/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6088.D\data.ms

(17) Iodomethane

2.410min (-0.006) 2.04 ug/L m

response 705

Ion	Exp%	Act%
142.00	100	100
127.00	44.30	39.70
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

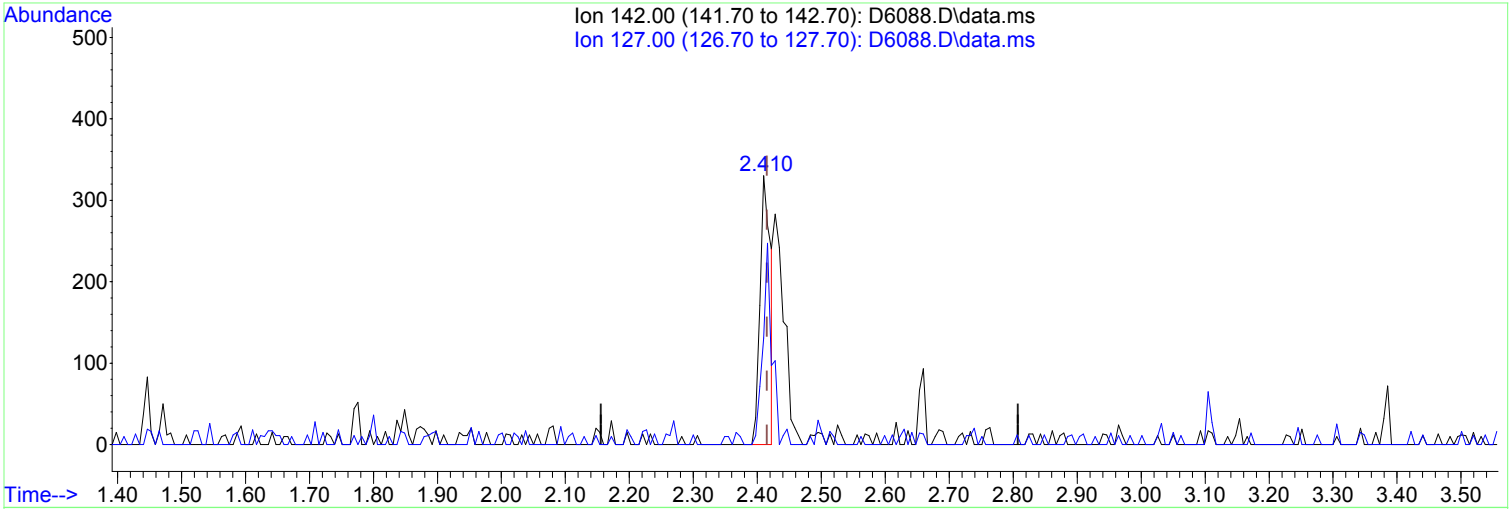
Poor integration.

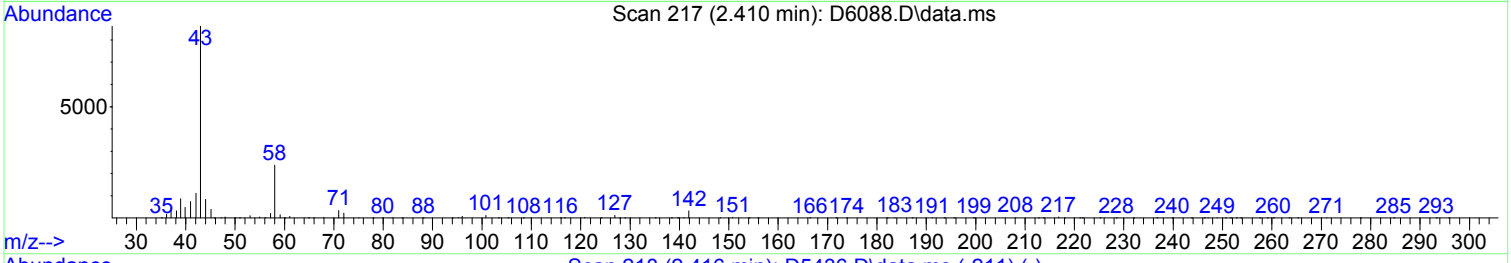
09/27/18

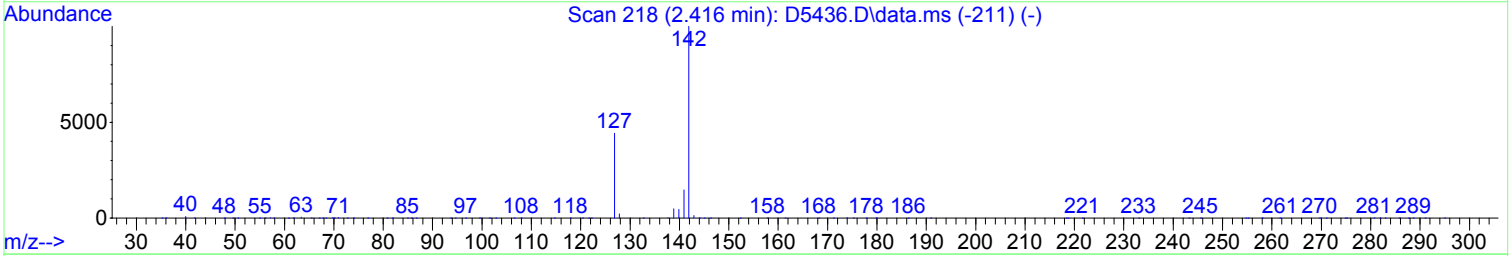
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6088.D\data.ms

(17) Iodomethane

2.410min (-0.006) 1.91 ug/L

response 382

Ion	Exp%	Act%
142.00	100	100
127.00	44.30	39.70
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

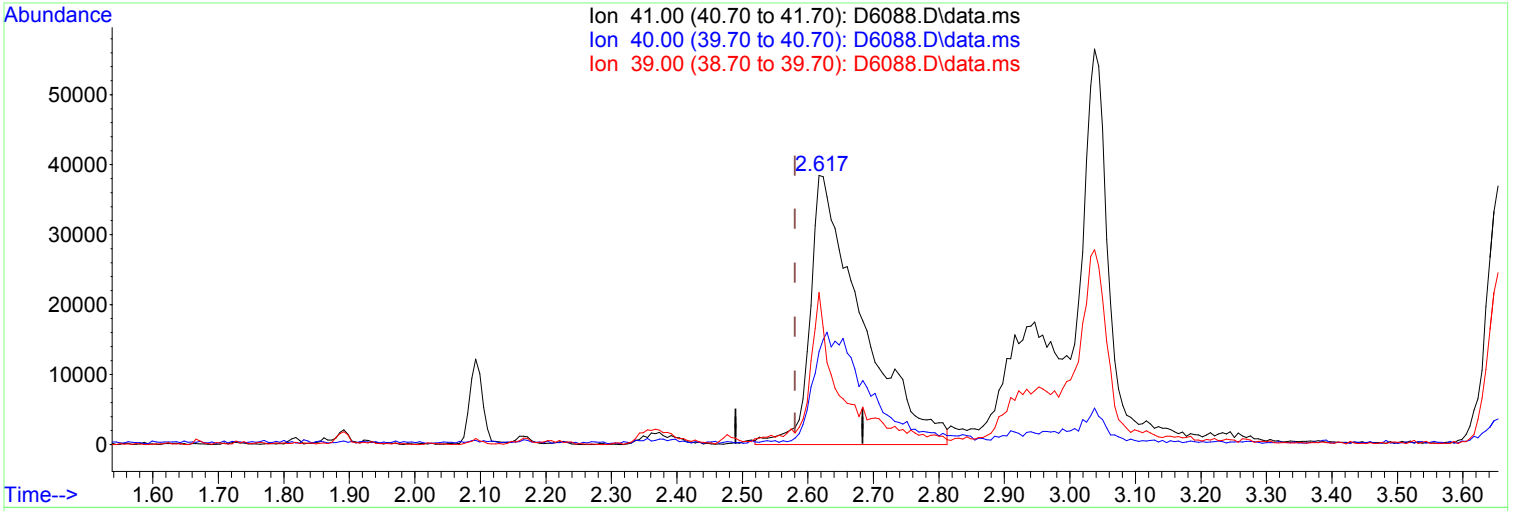
09/27/18

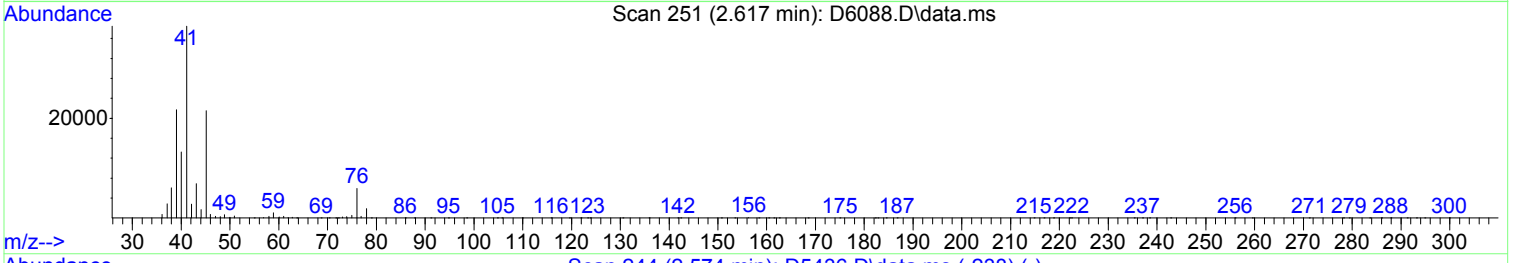
1st BA 09/27/18
2nd DL 09/27/18

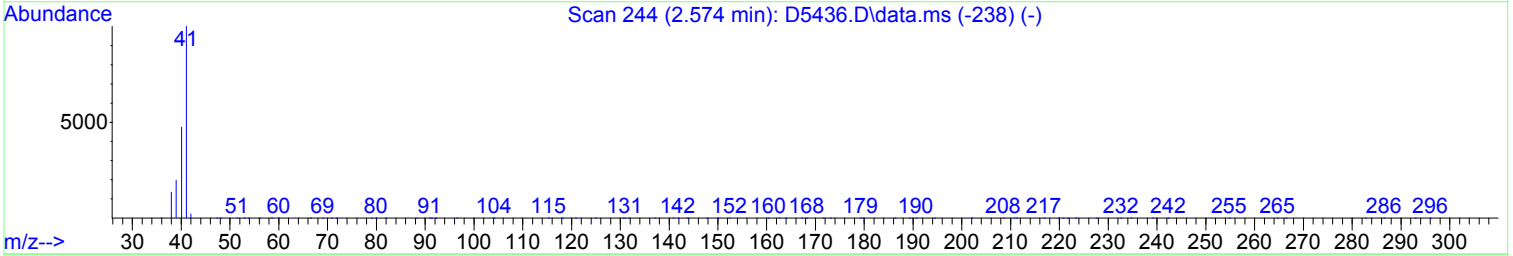
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6088.D\data.ms

(19) Acetonitrile

2.617min (+0.037) 444.01 ug/L m

response 211149

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	34.49
39.00	20.20	56.45#
0.00	0.00	0.00

Manual Integration:

After

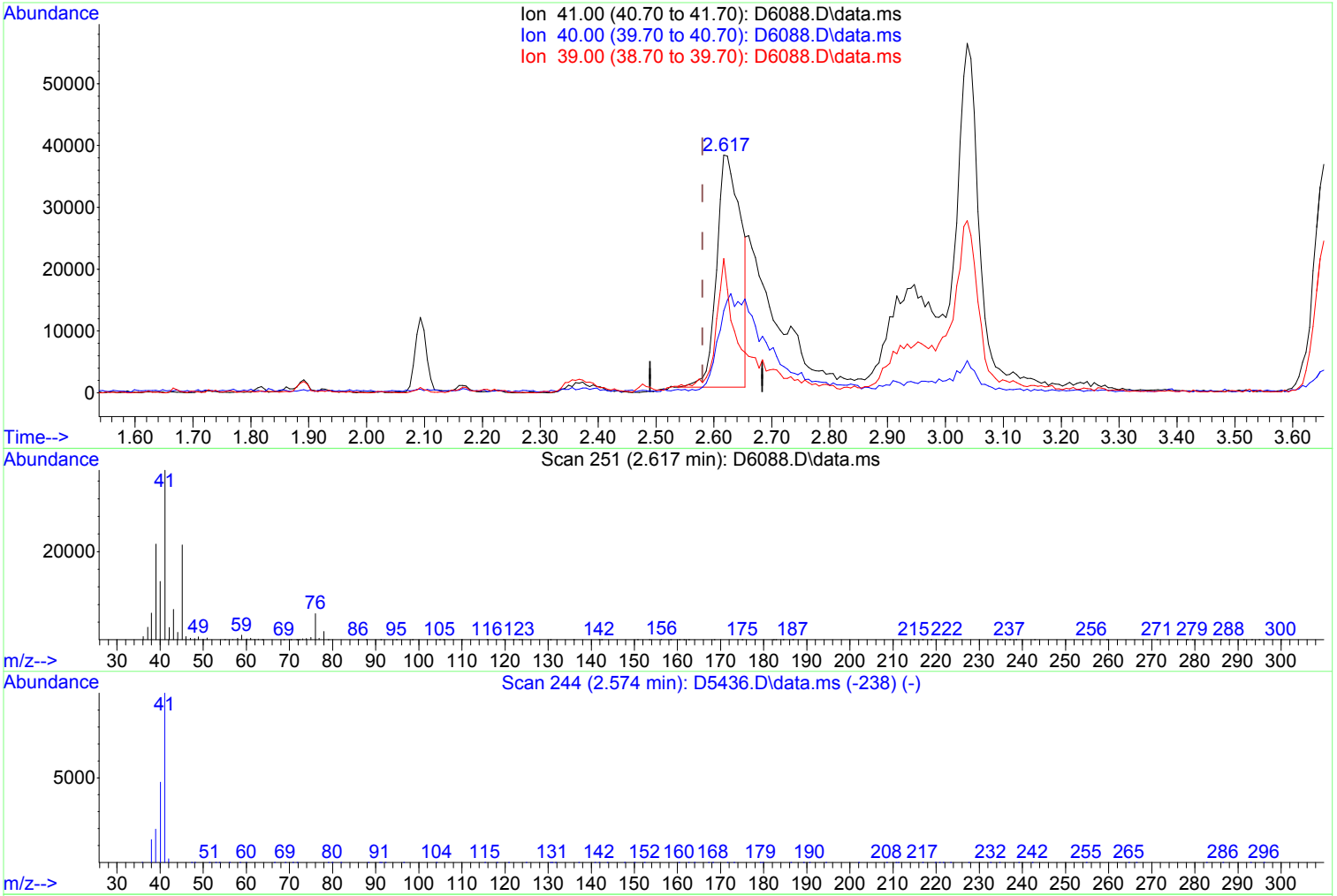
Poor integration.

09/27/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6088.D\data.ms

(19) Acetonitrile

2.617min (+0.037) 227.96 ug/L

response 108407

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	34.49
39.00	20.20	56.45#
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:36:50 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	222379	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	338596	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	300725	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	170846	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	111200	48.73	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.46%				
46) surr1,1,2-dichloroetha...	5.781	65	157397	52.45	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.90%				
64) SURR3,Toluene-d8	8.311	98	450536	48.70	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.40%				
69) SURR2,BFB	10.878	95	175722	49.42	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.84%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	140476	47.31	ug/L		97
3) Chloromethane	1.282	50	105464	32.52	ug/L		94
4) Vinyl Chloride	1.361	62	149159	46.34	ug/L		85
5) Bromomethane	1.605	94	1166	Below Cal		#	58
6) Chloroethane	1.672	64	136873	68.03	ug/L		99
7) Freon 21	1.812	67	277773	56.48	ug/L		99
8) Trichlorofluoromethane	1.861	101	212562	58.74	ug/L		99
9) Diethyl Ether	2.093	59	113666	55.49	ug/L		95
10) Freon 123a	2.099	67	150826	53.42	ug/L		94
11) Freon 123	2.148	83	203419	64.92	ug/L		99
12) Acrolein	2.203	56	8893	13.45	ug/L		98
13) 1,1-Diclethene	2.282	96	98734	48.17	ug/L		96
14) Freon 113	2.288	101	98296	48.14	ug/L		99
15) Acetone	2.355	43	134157	102.55	ug/L		91
17) Iodomethane	2.410	142	705m	2.04	ug/L		
18) Carbon Disulfide	2.477	76	310397	55.53	ug/L		99
19) Acetonitrile	2.617	41	211149m	444.01	ug/L		
20) Allyl Chloride	2.617	76	9056	9.06	ug/L	#	1
21) Methyl Acetate	2.648	43	162274	62.24	ug/L		96
22) Methylene Chloride	2.733	84	113942	47.65	ug/L	#	87
23) TBA	2.952	59	391623	1033.53	ug/L		91
24) Acrylonitrile	3.001	53	382083	295.44	ug/L		99
25) Methyl-t-Butyl Ether	3.038	73	392811	51.66	ug/L		98
26) trans-1,2-Dichloroethene	3.032	96	111050	50.66	ug/L		93
27) 1,1-Diclethane	3.525	63	258723	60.22	ug/L		100
28) Vinyl Acetate	3.623	86	26294	53.16	ug/L	#	31
29) DIPE	3.660	45	508694	63.94	ug/L		95
30) 2-Chloro-1,3-Butadiene	3.653	53	188818	51.13	ug/L		89
31) ETBE	4.190	59	351772	48.83	ug/L		96
32) 2,2-Dichloropropane	4.367	77	135904	41.50	ug/L		97
33) cis-1,2-Dichloroethene	4.373	96	122914	50.31	ug/L		90
35) Propionitrile	4.531	54	150947	288.08	ug/L		95
36) Bromochloromethane	4.769	130	72503	48.03	ug/L	#	84
37) Methacrylonitrile	4.781	67	71613	56.80	ug/L	#	81
38) Tetrahydrofuran	4.879	42	66035	60.28	ug/L		92
39) Chloroform	4.946	83	207293	52.69	ug/L		97
40) 1,1,1-Trichloroethane	5.251	97	164846	49.62	ug/L		97
42) Cyclohexane	5.336	41	152127	61.18	ug/L		97
44) Carbontetrachloride	5.537	117	121305	48.54	ug/L		99

1st BA 09/27/18
2nd DL 09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:36:50 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,1-Dichloropropene	5.543	75	166893	52.73	ug/L		97
47) Benzene	5.866	78	484074	53.64	ug/L		93
48) 1,2-Dichloroethane	5.903	62	195161	54.35	ug/L		97
49) Iso-Butyl Alcohol	5.933	43	201752	1198.84	ug/L		94
50) TAME	6.104	73	344971	51.99	ug/L		90
51) n-Heptane	6.354	43	176813	57.90	ug/L		89
52) 1-Butanol	6.909	56	263802	2824.12	ug/L		94
53) Trichloroethene	6.817	130	115200	48.88	ug/L		93
54) Methylcyclohexane	7.055	55	184311	61.38	ug/L		89
55) 1,2-Diclpropane	7.098	63	140136	55.82	ug/L		95
56) Dibromomethane	7.244	93	79180	53.03	ug/L		96
57) 1,4-Dioxane	7.391	88	39233	903.30	ug/L		92
58) Methyl Methacrylate	7.330	69	115584	58.77	ug/L		92
59) Bromodichloromethane	7.470	83	145633	52.34	ug/L		98
60) 2-Nitropropane	7.756	41	65988	140.03	ug/L		97
61) 2-Chloroethylvinyl Ether	7.878	63	89273	65.85	ug/L		87
63) 4-Methyl-2-pentanone	8.220	43	233856	71.45	ug/L		91
65) Toluene	8.384	91	512260	52.80	ug/L		98
66) trans-1,3-Dichloropropene	8.652	75	6235	2.02	ug/L		91
67) Ethyl Methacrylate	8.799	69	195495	60.78	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	110448	51.47	ug/L		96
71) Tetrachloroethene	8.976	164	88675	47.41	ug/L		97
72) 2-Hexanone	9.134	43	180907	71.31	ug/L		94
73) 1,3-Dichloropropane	9.012	76	203052	52.96	ug/L		92
74) Dibromochloromethane	9.238	129	98089	49.15	ug/L		98
75) N-Butyl Acetate	9.293	43	331221	68.88	ug/L		95
76) 1,2-Dibromoethane	9.335	107	108487	49.16	ug/L		95
77) 3-Chlorobenzotrifluoride	9.847	180	171775	50.92	ug/L		100
78) Chlorobenzene	9.829	112	309628	48.72	ug/L		95
79) 4-Chlorobenzotrifluoride	9.902	180	153448	51.12	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.921	131	100302	50.89	ug/L		93
81) Ethylbenzene	9.951	106	171070	51.40	ug/L		91
82) (m+p)Xylene	10.061	106	424212	102.54	ug/L		97
83) o-Xylene	10.420	106	205184	49.87	ug/L		97
84) Styrene	10.433	104	347808	52.54	ug/L		98
85) Bromoform	10.585	173	67201	51.04	ug/L		91
86) 2-Chlorobenzotrifluoride	10.664	180	171726	52.79	ug/L		97
87) Isopropylbenzene	10.756	105	530861	50.82	ug/L		100
88) Cyclohexanone	10.829	55	690326	1378.69	ug/L		96
89) trans-1,4-Dichloro-2-B...	11.109	53	3938	6.15	ug/L	#	1
91) 1,1,2,2-Tetrachloroethane	11.012	83	180801	55.69	ug/L		95
92) Bromobenzene	11.000	156	138682	48.53	ug/L		92
93) 1,2,3-Trichloropropane	11.042	110	53721	53.68	ug/L		92
94) n-Propylbenzene	11.109	91	644506	51.16	ug/L		98
95) 2-Chlorotoluene	11.170	91	381100	50.16	ug/L		97
96) 3-Chlorotoluene	11.225	91	386706	51.52	ug/L		99
97) 4-Chlorotoluene	11.268	91	447651	49.40	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	442539	50.56	ug/L		99
99) tert-Butylbenzene	11.536	119	373402	48.61	ug/L		96
100) 1,2,4-Trimethylbenzene	11.573	105	444402	50.99	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.634	214	143096	51.11	ug/L		93
102) sec-Butylbenzene	11.719	105	548760	49.42	ug/L		100
103) p-Isopropyltoluene	11.841	119	457852	48.31	ug/L		99
104) 1,3-Dclbenz	11.798	146	252022	47.95	ug/L		98
105) 1,4-Dclbenz	11.871	146	257228	46.35	ug/L		99
106) 2,4-Dichlorobenzotrifl...	11.926	214	131261	52.57	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:36:50 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

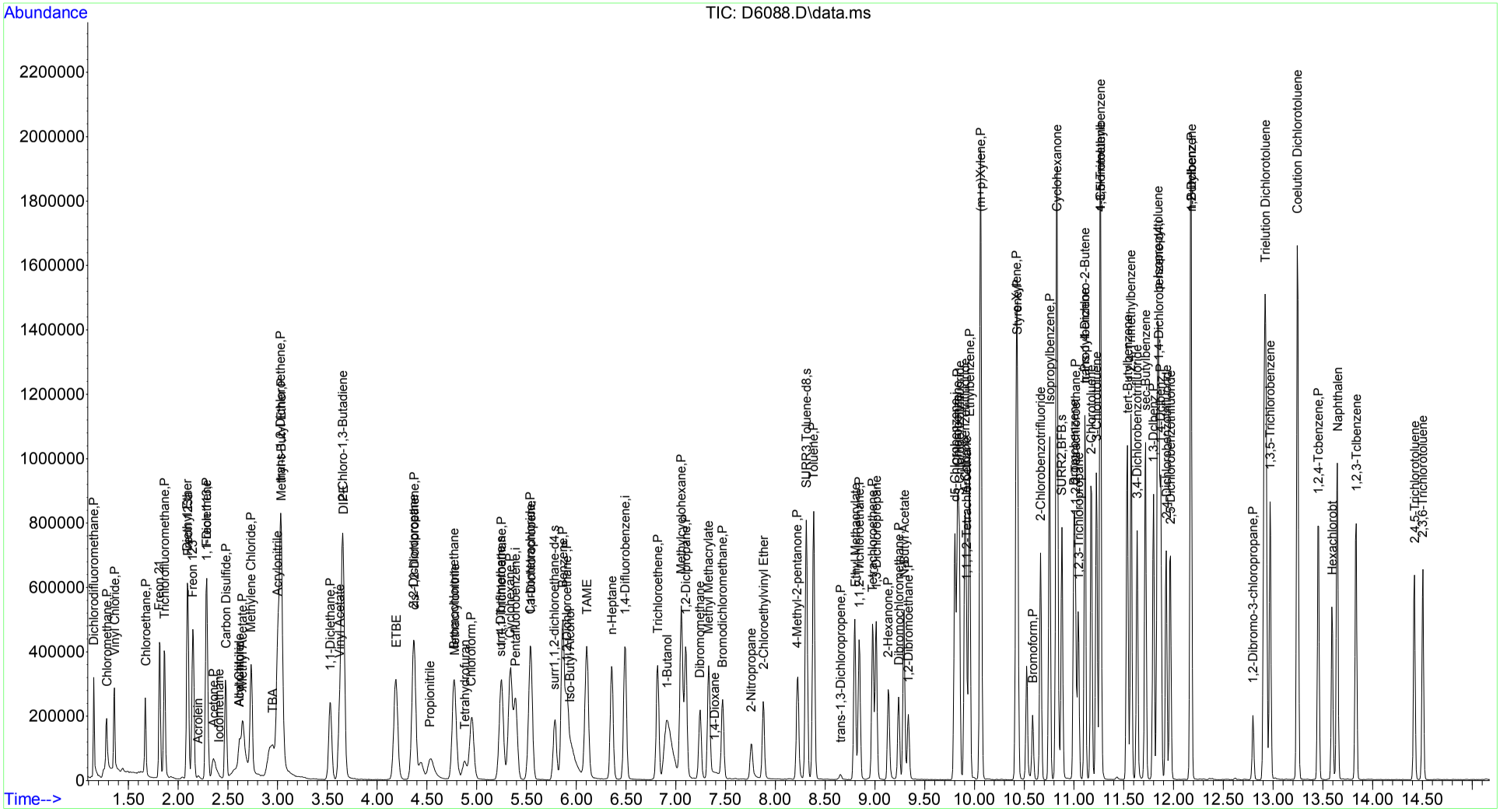
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 2,5-Dichlorobenzotrifl...	11.969	214	148369	51.44	ug/L	97
108) n-Butylbenzene	12.176	91	445665	49.18	ug/L	97
109) 1,2-Dclbenz	12.176	146	251317	47.14	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	32227	48.47	ug/L	94
111) Trielution Dichlorotol...	12.920	125	671555	154.26	ug/L	97
112) 1,3,5-Trichlorobenzene	12.969	180	195028	50.46	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	483501	100.59	ug/L	95
114) 1,2,4-Tcbenzene	13.456	180	184871	48.78	ug/L	99
115) Hexachlorobt	13.591	225	75092	45.32	ug/L	95
116) Naphthalen	13.645	128	559499	56.94	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	184359	49.47	ug/L	95
118) 2,4,5-Trichlorotoluene	14.420	159	122782	51.90	ug/L	100
119) 2,3,6-Trichlorotoluene	14.505	159	112952	50.71	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:36:50 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



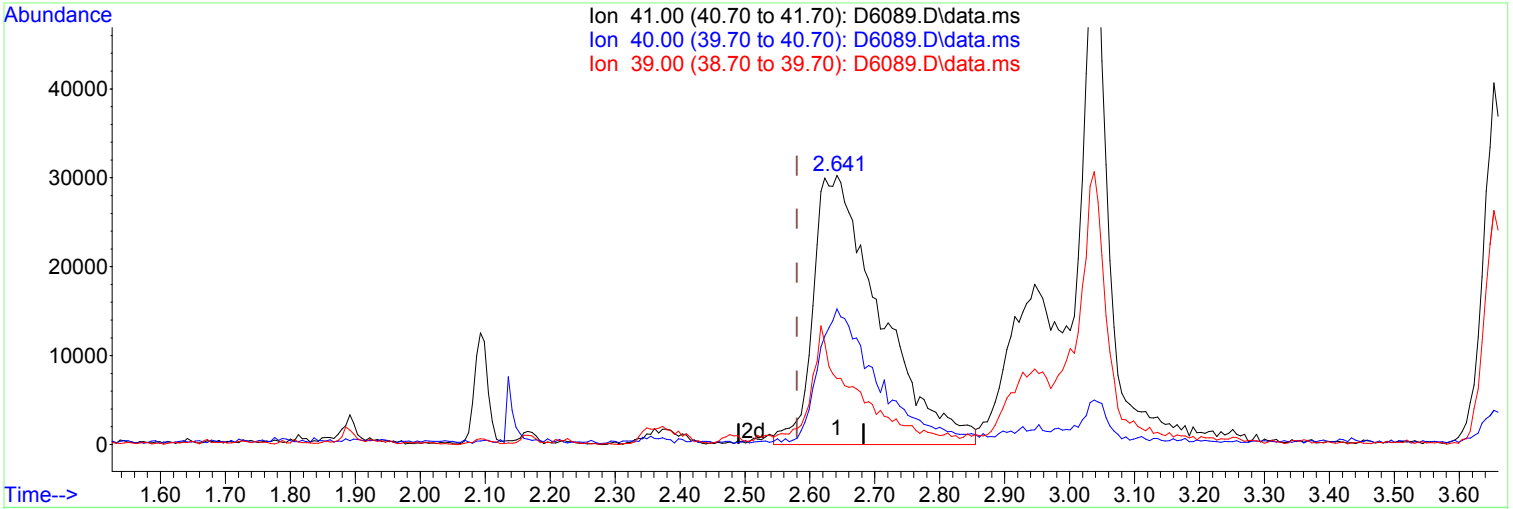
1st BA 09/27/18
2nd DL 09/27/18

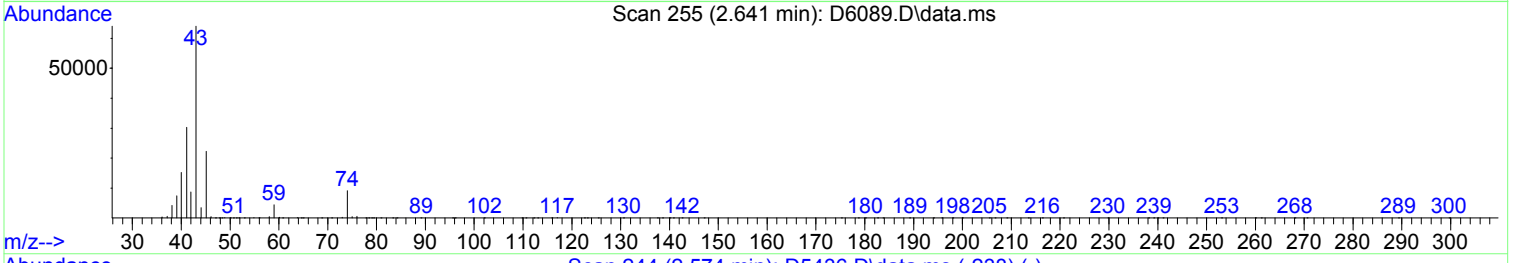
1st BA 09/27/18
2nd DL 09/27/18

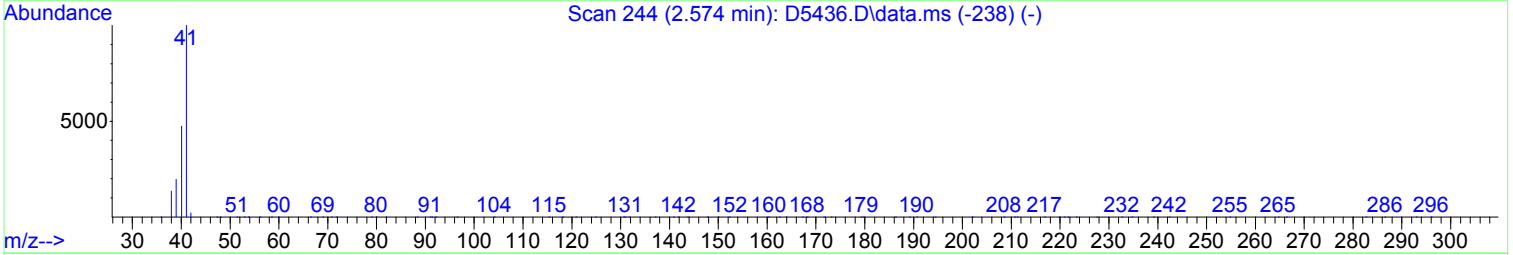
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 24 21:12:44 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6089.D\data.ms

(19) Acetonitrile

2.641min (+0.061) 426.11 ug/L m

response 216318

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	50.38
39.00	20.20	24.45
0.00	0.00	0.00

Manual Integration:

After

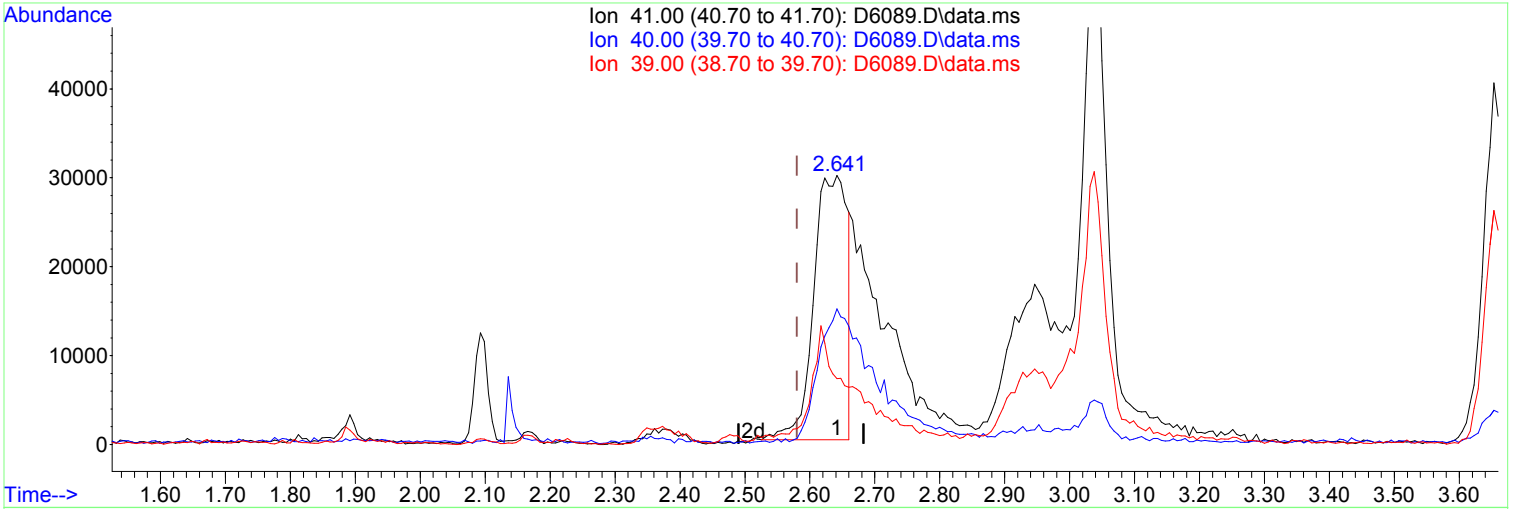
Poor integration.

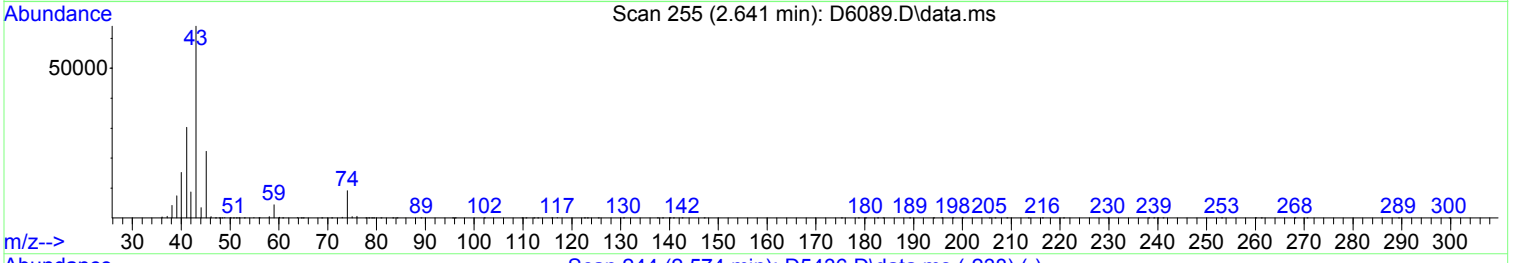
09/27/18

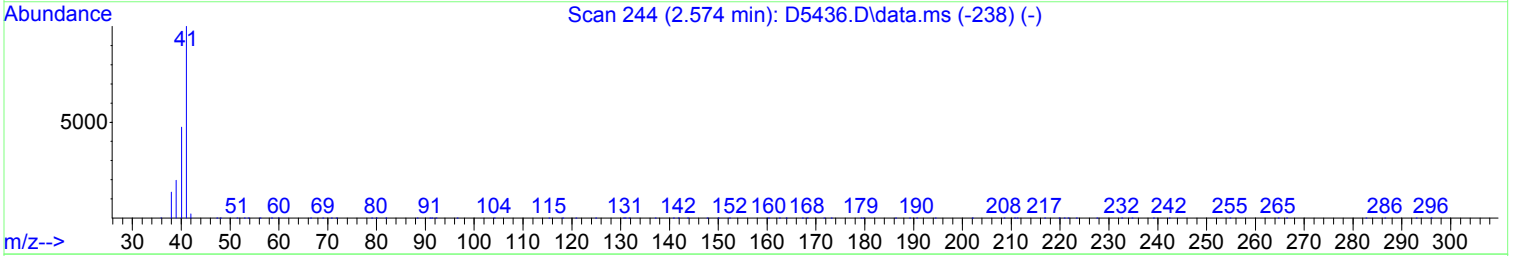
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 24 21:12:44 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6089.D\data.ms

(19) Acetonitrile

2.641min (+0.061) 208.89 ug/L

response 106042

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	50.38
39.00	20.20	24.45
0.00	0.00	0.00

Manual Integration:

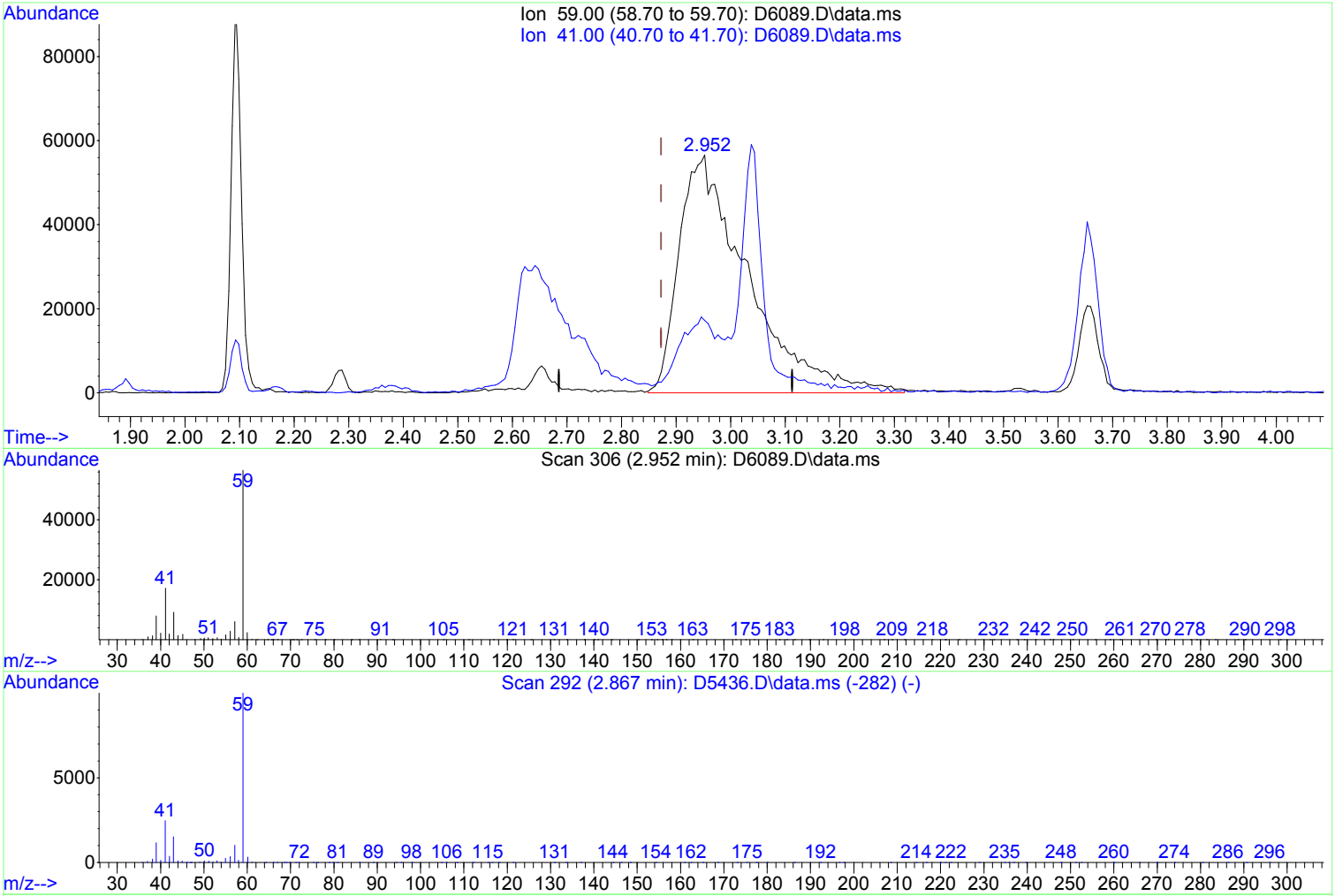
Before

09/27/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 24 21:12:44 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6089.D\data.ms

(23) TBA

2.952min (+0.079) 1218.68 ug/L m

response 492955

Ion	Exp%	Act%
59.00	100	100
41.00	24.80	30.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

09/27/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 27 15:42:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	237391	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	360184	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	314193	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	173814	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	112504	46.35	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.70%				
46) surr1,1,2-dichloroetha...	5.781	65	160174	50.18	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.36%				
64) SURR3,Toluene-d8	8.311	98	455160	46.25	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 92.50%				
69) SURR2,BFB	10.878	95	173928	45.99	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	147430	46.51	ug/L		98
3) Chloromethane	1.282	50	99000	28.60	ug/L		93
4) Vinyl Chloride	1.361	62	156440	45.53	ug/L		90
5) Bromomethane	1.599	94	960	Below Cal		#	72
6) Chloroethane	1.672	64	133167	62.00	ug/L		98
7) Freon 21	1.812	67	276429	52.65	ug/L		99
8) Trichlorofluoromethane	1.861	101	219471	56.82	ug/L		98
9) Diethyl Ether	2.093	59	119008	54.42	ug/L		93
10) Freon 123a	2.099	67	155309	51.53	ug/L		94
11) Freon 123	2.148	83	208646	62.38	ug/L		95
12) Acrolein	2.202	56	8310	11.78	ug/L		80
13) 1,1-Diclethene	2.282	96	102970	47.06	ug/L		99
14) Freon 113	2.288	101	101452	46.54	ug/L		95
15) Acetone	2.355	43	143051	102.43	ug/L		93
16) 2-Propanol	2.404	45	659	2.44	ug/L	#	1
17) Iodomethane	2.422	142	450	1.93	ug/L		99
18) Carbon Disulfide	2.477	76	334488	56.06	ug/L		99
19) Acetonitrile	2.641	41	216318m	426.11	ug/L		
20) Allyl Chloride	2.617	76	4207	3.94	ug/L	#	1
21) Methyl Acetate	2.648	43	171222	61.52	ug/L		93
22) Methylene Chloride	2.733	84	119061	46.64	ug/L	#	89
23) TBA	2.952	59	492955m	1218.68	ug/L		
24) Acrylonitrile	3.001	53	396782	287.41	ug/L		96
25) Methyl-t-Butyl Ether	3.038	73	403481	49.71	ug/L		95
26) trans-1,2-Dichloroethene	3.032	96	118087	50.46	ug/L		97
27) 1,1-Diclethane	3.525	63	274276	59.80	ug/L		99
28) Vinyl Acetate	3.623	86	27656	52.38	ug/L	#	36
29) DIPE	3.660	45	524857	61.80	ug/L		95
30) 2-Chloro-1,3-Butadiene	3.653	53	195695	49.64	ug/L		96
31) ETBE	4.184	59	370003	48.11	ug/L		97
32) 2,2-Dichloropropane	4.361	77	145335	41.57	ug/L		99
33) cis-1,2-Dichloroethene	4.373	96	125773	48.23	ug/L		86
34) 2-Butanone	4.440	43	128483	68.05	ug/L		90
35) Propionitrile	4.537	54	158196	282.82	ug/L		98
36) Bromochloromethane	4.769	130	73707	45.74	ug/L	#	85
37) Methacrylonitrile	4.781	67	73778	54.82	ug/L	#	79
38) Tetrahydrofuran	4.879	42	69475	59.41	ug/L		86
39) Chloroform	4.952	83	213992	50.95	ug/L		95
40) 1,1,1-Trichloroethane	5.251	97	172968	48.78	ug/L		94

1st BA 09/27/18
2nd DL 09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 27 15:42:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.342	41	162807	61.55	ug/L		95
44) Carbontetrachloride	5.531	117	129584	48.74	ug/L		99
45) 1,1-Dichloropropene	5.549	75	172205	51.15	ug/L		94
47) Benzene	5.866	78	497571	51.83	ug/L		96
48) 1,2-Dichloroethane	5.903	62	201507	52.76	ug/L		97
49) Iso-Butyl Alcohol	5.933	43	224475	1253.91	ug/L		97
50) TAME	6.104	73	364048	51.58	ug/L		93
51) n-Heptane	6.354	43	199219	61.33	ug/L		95
52) 1-Butanol	6.921	56	291027	2914.43	ug/L		99
53) Trichloroethene	6.817	130	121223	48.35	ug/L		96
54) Methylcyclohexane	7.055	55	190225	59.56	ug/L		92
55) 1,2-Diclpropane	7.098	63	141109	52.84	ug/L		97
56) Dibromomethane	7.244	93	78052	49.14	ug/L		99
57) 1,4-Dioxane	7.397	88	37685	815.65	ug/L		88
58) Methyl Methacrylate	7.330	69	119631	57.19	ug/L		90
59) Bromodichloromethane	7.470	83	151480	51.18	ug/L		98
60) 2-Nitropropane	7.762	41	70185	140.01	ug/L		97
61) 2-Chloroethylvinyl Ether	7.878	63	93668	64.96	ug/L		90
63) 4-Methyl-2-pentanone	8.226	43	237619	68.24	ug/L		97
65) Toluene	8.384	91	523542	50.73	ug/L		98
66) trans-1,3-Dichloropropene	8.659	75	2184	0.66	ug/L		85
67) Ethyl Methacrylate	8.799	69	200106	58.49	ug/L		89
68) 1,1,2-Trichloroethane	8.841	97	112700	49.38	ug/L		98
71) Tetrachloroethene	8.982	164	92181	47.17	ug/L		97
72) 2-Hexanone	9.134	43	191284	72.17	ug/L		95
73) 1,3-Dichloropropane	9.012	76	213585	53.32	ug/L		91
74) Dibromochloromethane	9.238	129	101266	48.57	ug/L		99
75) N-Butyl Acetate	9.293	43	346192	68.91	ug/L		94
76) 1,2-Dibromoethane	9.335	107	108707	47.15	ug/L		95
77) 3-Chlorobenzotrifluoride	9.847	180	177908	50.48	ug/L		95
78) Chlorobenzene	9.829	112	321073	48.35	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	158425	50.51	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	103168	50.10	ug/L		94
81) Ethylbenzene	9.951	106	173852	50.00	ug/L	#	90
82) (m+p)Xylene	10.061	106	435068	100.66	ug/L		99
83) o-Xylene	10.420	106	213016	49.55	ug/L		97
84) Styrene	10.433	104	359492	51.98	ug/L		97
85) Bromoform	10.585	173	70154	51.01	ug/L		96
86) 2-Chlorobenzotrifluoride	10.664	180	175891	51.75	ug/L		99
87) Isopropylbenzene	10.756	105	548398	50.25	ug/L		99
88) Cyclohexanone	10.829	55	734577	1404.18	ug/L		93
89) trans-1,4-Dichloro-2-B...	11.109	53	3655	5.52	ug/L	#	1
91) 1,1,2,2-Tetrachloroethane	11.012	83	181339	54.91	ug/L		99
92) Bromobenzene	11.000	156	144168	49.59	ug/L		94
93) 1,2,3-Trichloropropane	11.042	110	53815	52.86	ug/L		97
94) n-Propylbenzene	11.109	91	673716	52.56	ug/L		99
95) 2-Chlorotoluene	11.170	91	392902	50.83	ug/L		98
96) 3-Chlorotoluene	11.225	91	386396	50.60	ug/L		97
97) 4-Chlorotoluene	11.268	91	454957	49.35	ug/L		95
98) 1,3,5-Trimethylbenzene	11.262	105	465573	52.28	ug/L		99
99) tert-Butylbenzene	11.536	119	398225	50.96	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	460924	51.98	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	144441	50.70	ug/L		97
102) sec-Butylbenzene	11.719	105	594148	52.59	ug/L		98
103) p-Isopropyltoluene	11.841	119	493876	51.22	ug/L		99
104) 1,3-Dclbenz	11.798	146	260881	48.79	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 27 15:42:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

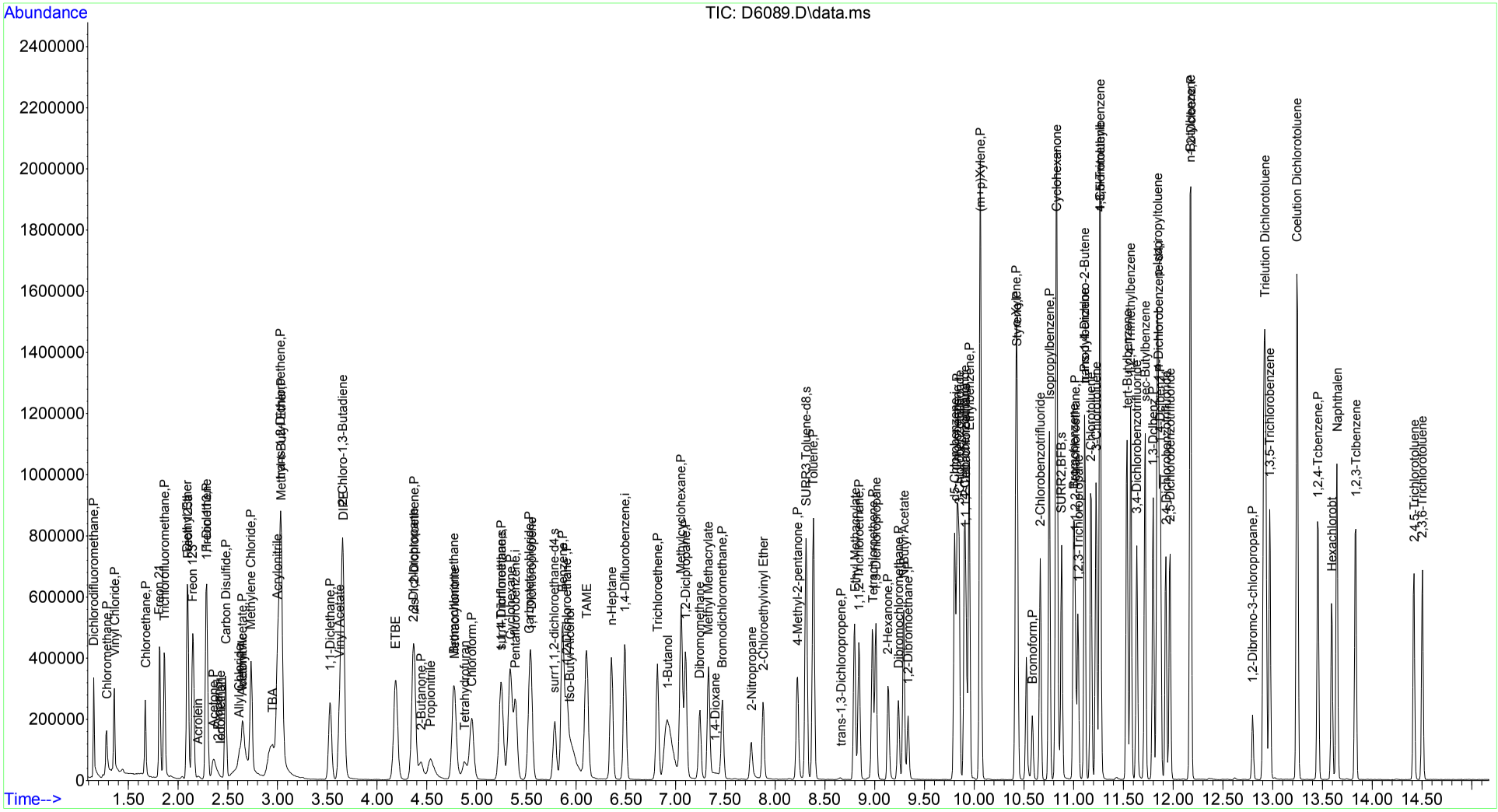
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	263782	46.72	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	133985	52.74	ug/L	98
107) 2,5-Dichlorobenzotrifl...	11.969	214	154721	52.72	ug/L	98
108) n-Butylbenzene	12.170	91	477252	51.77	ug/L	98
109) 1,2-Dclbenz	12.176	146	252752	46.59	ug/L	97
110) 1,2-Dibromo-3-chloropr...	12.798	157	33750	49.90	ug/L	96
111) Trielution Dichlorotol...	12.920	125	672801	151.91	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	198868	50.58	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	491302	100.47	ug/L	94
114) 1,2,4-Tcbenzene	13.456	180	200515	52.00	ug/L	98
115) Hexachlorobt	13.591	225	80044	47.49	ug/L	97
116) Naphthalen	13.645	128	582007	58.22	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	195923	51.67	ug/L	97
118) 2,4,5-Trichlorotoluene	14.420	159	127551	52.99	ug/L	95
119) 2,3,6-Trichlorotoluene	14.505	159	120597	53.22	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 27 15:42:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



1st BA 09/27/18
2nd DL 09/27/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	106	0.00
2	P	Dichlorodifluoromethane	0.6676	0.5892	11.7	95	0.00
3	P	Chloromethane	0.7292	0.7434	-1.9	112	0.00
4	P	Vinyl Chloride	0.7238	0.6773	6.4	103	0.00
5	P	Bromomethane	0.6792	0.4887	28.0#	106	0.00
6	P	Chloroethane	0.4524	0.4477	1.0	107	0.00
7		Freon 21	1.1058	1.0732	2.9	112	0.00
8	P	Trichlorofluoromethane	0.8136	0.7576	6.9	105	0.00
9		Diethyl Ether	0.4606	0.4859	-5.5	113	0.00
10		Freon 123a	0.6348	0.6329	0.3	118	0.00
11		Freon 123	0.7045	0.7111	-0.9	120	0.00
12		Acrolein	0.1486	0.1229	17.3	89	0.00
13		1,1-Diclethene	0.4609	0.4540	1.5	108	0.00
14	P	Freon 113	0.4591	0.4581	0.2	111	0.00
15	P	Acetone	0.2941	0.3411	-16.0	130	0.00
16		2-Propanol	0.0569	0.0525	7.7	105	-0.02
17		Iodomethane	0.5454	0.6138	-12.5	96	0.00
18	P	Carbon Disulfide	1.2567	1.3406	-6.7	111	0.00
19		Acetonitrile	0.1069	0.1144	-7.0	122	0.00
20		Allyl Chloride	0.2247	0.2265	-0.8	110	0.00
21	P	Methyl Acetate	0.5862	0.6420	-9.5	123	0.00
22	P	Methylene Chloride	0.5377	0.5175	3.8	110	0.00
23		TBA	0.0852	0.0740	13.1	96	0.00
24		Acrylonitrile	0.2908	0.3128	-7.6	118	0.00
25	P	Methyl-t-Butyl Ether	1.7095	1.6946	0.9	108	0.00
26	P	trans-1,2-Dichloroethene	0.4929	0.5077	-3.0	109	0.00
27	P	1,1-Diclethane	0.9660	1.0254	-6.1	116	0.00
28		Vinyl Acetate	0.1112	0.1106	0.5	109	0.00
29		DIPE	1.7888	2.1470	-20.0#	132	0.00
30		2-Chloro-1,3-Butadiene	0.8303	0.9286	-11.8	122	0.00
31		ETBE	1.6197	1.6341	-0.9	111	0.00
32		2,2-Dichloropropane	0.7364	0.6375	13.4	91	0.00
33	P	cis-1,2-Dichloroethene	0.5493	0.5593	-1.8	109	0.00
34	P	2-Butanone	0.3977	0.4559	-14.6	133	0.00
35		Propionitrile	0.1178	0.1194	-1.4	114	0.00
36		Bromochloromethane	0.3394	0.3361	1.0	108	0.00
37		Methacrylonitrile	0.2835	0.2806	1.0	109	0.00
38		Tetrahydrofuran	0.2463	0.2689	-9.2	122	0.00
39	P	Chloroform	0.8846	0.9191	-3.9	111	0.00
40	P	1,1,1-Trichloroethane	0.7469	0.7358	1.5	107	0.00
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	105	0.00
42	P	Cyclohexane	0.3672	0.4350	-18.5	138	0.00
43	s	surr4,Dibrflmethane	0.3369	0.3398	-0.9	100	0.00
44	P	Carbontetrachloride	0.3690	0.3722	-0.9	105	0.00
45		1,1-Dichloropropene	0.4674	0.4957	-6.1	113	0.00
46	s	surr1,1,2-dichloroethane-d4	0.4431	0.4704	-6.2	107	0.00
47	P	Benzene	1.3327	1.4077	-5.6	113	0.00
48	P	1,2-Dichloroethane	0.5302	0.5579	-5.2	116	0.00
49		Iso-Butyl Alcohol	0.0249	0.0250	-0.4	110	-0.01
50		TAME	0.9798	0.9898	-1.0	108	0.00
51		n-Heptane	0.4509	0.5959	-32.2#	139	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	0.0136	0.0140	-2.9	109	-0.01
53	P	Trichloroethene	0.3480	0.3343	3.9	106	0.00
54	P	Methylcyclohexane	0.4434	0.5120	-15.5	131	0.00
55	P	1,2-Diclpropane	0.3707	0.4045	-9.1	115	0.00
56		Dibromomethane	0.2205	0.2275	-3.2	110	0.00
57		1,4-Dioxane	0.0064	0.0059	7.8	100	0.00
58		Methyl Methacrylate	0.2904	0.2979	-2.6	109	0.00
59	P	Bromodichloromethane	0.4109	0.4371	-6.4	111	0.00
60		2-Nitropropane	0.0696	0.1020	-46.6#	157	0.00
61		2-Chloroethylvinyl Ether	0.2002	0.2006	-0.2	104	0.00
62	P	cis-1,3-Dichloropropene	0.5039	0.5510	-9.3	106	0.00
63	P	4-Methyl-2-pentanone	0.4833	0.5322	-10.1	119	0.00
64	s	SURR3,Toluene-d8	1.3662	1.4369	-5.2	105	0.00
65	P	Toluene	1.4326	1.4958	-4.4	111	0.00
66	P	trans-1,3-Dichloropropene	0.4563	0.4728	-3.6	101	0.00
67		Ethyl Methacrylate	0.4749	0.5124	-7.9	111	0.00
68	P	1,1,2-Trichloroethane	0.3169	0.3222	-1.7	109	0.00
69	s	SURR2,BFB	0.5250	0.5744	-9.4	108	0.00
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	106	0.00
71	P	Tetrachloroethene	0.3110	0.3063	1.5	113	0.00
72	P	2-Hexanone	0.4218	0.4524	-7.3	120	0.00
73		1,3-Dichloropropane	0.6375	0.6518	-2.2	109	0.00
74	P	Dibromochloromethane	0.3318	0.3501	-5.5	109	0.00
75		N-Butyl Acetate	0.7995	0.8837	-10.5	119	0.00
76	P	1,2-Dibromoethane	0.3669	0.3764	-2.6	111	0.00
77		3-Chlorobenzotrifluoride	0.5609	0.5539	1.2	120	0.00
78	P	Chlorobenzene	1.0567	1.0421	1.4	108	0.00
79		4-Chlorobenzotrifluoride	0.4991	0.4899	1.8	118	0.00
80		1,1,1,2-Tetrachloroethane	0.3277	0.3350	-2.2	106	0.00
81	P	Ethylbenzene	0.5533	0.5513	0.4	108	0.00
82	P	(m+p)Xylene	0.6878	0.7081	-3.0	111	0.00
83	P	o-Xylene	0.6841	0.6812	0.4	108	0.00
84	P	Styrene	1.1007	1.1685	-6.2	108	0.00
85	P	Bromoform	0.2127	0.2358	-10.9	110	0.00
86		2-Chlorobenzotrifluoride	0.5409	0.5358	0.9	115	0.00
87	P	Isopropylbenzene	1.7367	1.8112	-4.3	109	0.00
88		Cyclohexanone	0.0833	0.0898	-7.8	111	0.00
89		trans-1,4-Dichloro-2-Butene	0.1183	0.1231	-4.1	103	0.00
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	109	0.00
91	P	1,1,2,2-Tetrachloroethane	0.9501	0.9306	2.1	110	0.00
92		Bromobenzene	0.8364	0.7909	5.4	108	0.00
93		1,2,3-Trichloropropane	0.2929	0.2694	8.0	102	0.00
94		n-Propylbenzene	3.6871	3.8244	-3.7	113	0.00
95		2-Chlorotoluene	2.2238	2.1497	3.3	109	0.00
96		3-Chlorotoluene	2.1968	2.0447	6.9	111	0.00
97		4-Chlorotoluene	2.6522	2.5656	3.3	108	0.00
98		1,3,5-Trimethylbenzene	2.5618	2.5815	-0.8	109	0.00
99		tert-Butylbenzene	2.2480	2.2296	0.8	110	0.00
100		1,2,4-Trimethylbenzene	2.5509	2.5767	-1.0	110	0.00
101		3,4-Dichlorobenzotrifluorid	0.8195	0.8116	1.0	117	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	3.2497	3.3425	-2.9	112	0.00
103		p-Isopropyltoluene	2.7735	2.8138	-1.5	112	0.00
104	P	1,3-Dclbenz	1.5381	1.4890	3.2	109	0.00
105	P	1,4-Dclbenz	1.6241	1.5461	4.8	109	0.00
106		2,4-Dichlorobenzotrifluorid	0.7307	0.7567	-3.6	121	0.00
107		2,5-Dichlorobenzotrifluorid	0.8442	0.8088	4.2	115	0.00
108		n-Butylbenzene	2.6519	2.7418	-3.4	114	0.00
109	P	1,2-Dclbenz	1.5604	1.4623	6.3	108	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1946	0.1669	14.2	95	0.00
111		Trielution Dichlorotoluene	1.2741	1.2092	5.1	110	0.00
112		1,3,5-Trichlorobenzene	1.1311	1.0886	3.8	113	0.00
113		Coelution Dichlorotoluene	1.4068	1.3423	4.6	108	0.00
114	P	1,2,4-Tcbenzene	1.1092	1.1300	-1.9	112	0.00
115		Hexachlorobt	0.4849	0.5041	-4.0	113	0.00
116		Naphthalen	2.8757	2.8030	2.5	102	0.00
117		1,2,3-Tclbenzene	1.0907	1.0512	3.6	109	0.00
118		2,4,5-Trichlorotoluene	0.6924	0.6882	0.6	105	0.00
119		2,3,6-Trichlorotoluene	0.6519	0.6197	4.9	106	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	229317	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	348015	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.804	117	314261	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	184693	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	118244	50.42	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.84%				
46) surr1,1,2-dichloroetha...	5.781	65	163705	53.08	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.16%				
64) SURR3,Toluene-d8	8.311	98	500065	52.59	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.18%				
69) SURR2,BFB	10.877	95	199896	54.70	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	135113	44.13	ug/L		99
3) Chloromethane	1.282	50	170481	50.98	ug/L		95
4) Vinyl Chloride	1.361	62	155308	46.79	ug/L		98
5) Bromomethane	1.587	94	112060	41.02	ug/L		100
6) Chloroethane	1.666	64	102661	49.48	ug/L		96
7) Freon 21	1.812	67	246108	48.53	ug/L		99
8) Trichlorofluoromethane	1.861	101	173737	46.56	ug/L		98
9) Diethyl Ether	2.092	59	111415	52.74	ug/L		95
10) Freon 123a	2.099	67	145139	49.85	ug/L		97
11) Freon 123	2.147	83	163073	50.47	ug/L		99
12) Acrolein	2.190	56	140945	206.76	ug/L		97
13) 1,1-Diclethene	2.281	96	104110	49.25	ug/L		95
14) Freon 113	2.288	101	105044	49.89	ug/L		99
15) Acetone	2.324	43	78220	57.98	ug/L		99
16) 2-Propanol	2.464	45	240875	923.44	ug/L		93
17) Iodomethane	2.416	142	140754	50.80	ug/L		98
18) Carbon Disulfide	2.477	76	307412	53.34	ug/L		99
19) Acetonitrile	2.580	41	131203	267.55	ug/L		94
20) Allyl Chloride	2.617	76	51934	50.40	ug/L	#	73
21) Methyl Acetate	2.641	43	147230	54.76	ug/L		95
22) Methylene Chloride	2.733	84	118679	48.13	ug/L	#	88
23) TBA	2.867	59	339588	869.09	ug/L		92
24) Acrylonitrile	2.989	53	358658	268.94	ug/L		99
25) Methyl-t-Butyl Ether	3.037	73	388607	49.56	ug/L		99
26) trans-1,2-Dichloroethene	3.031	96	116423	51.50	ug/L		98
27) 1,1-Diclethane	3.525	63	235149	53.07	ug/L		98
28) Vinyl Acetate	3.623	86	25361	49.73	ug/L	#	83
29) DIPE	3.653	45	492352	60.01	ug/L		93
30) 2-Chloro-1,3-Butadiene	3.653	53	212938	55.92	ug/L		90
31) ETBE	4.184	59	374738	50.45	ug/L		98
32) 2,2-Dichloropropane	4.366	77	146194	43.29	ug/L		99
33) cis-1,2-Dichloroethene	4.373	96	128253	50.91	ug/L		93
34) 2-Butanone	4.415	43	104553	57.33	ug/L		91
35) Propionitrile	4.501	54	136872	253.31	ug/L		96
36) Bromochloromethane	4.769	130	77076	49.51	ug/L		90
37) Methacrylonitrile	4.769	67	64338	49.49	ug/L	#	81
38) Tetrahydrofuran	4.860	42	61671	54.59	ug/L		93
39) Chloroform	4.946	83	210768	51.95	ug/L		98
40) 1,1,1-Trichloroethane	5.250	97	168730	49.26	ug/L		98

1st BA 09/27/18
2nd DL 09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	151378	59.23	ug/L		96
44) Carbontetrachloride	5.531	117	129548	50.43	ug/L		94
45) 1,1-Dichloropropene	5.543	75	172521	53.03	ug/L		96
47) Benzene	5.860	78	489911	52.81	ug/L		94
48) 1,2-Dichloroethane	5.903	62	194166	52.61	ug/L		96
49) Iso-Butyl Alcohol	5.884	43	173777	1004.66	ug/L		99
50) TAME	6.104	73	344460	50.51	ug/L		92
51) n-Heptane	6.354	43	207376	66.07	ug/L		92
52) 1-Butanol	6.854	56	242962	2566.87	ug/L		100
53) Trichloroethene	6.817	130	116330	48.03	ug/L		95
54) Methylcyclohexane	7.055	55	178190	57.74	ug/L		95
55) 1,2-Diclpropane	7.098	63	140764	54.55	ug/L		94
56) Dibromomethane	7.244	93	79167	51.59	ug/L		99
57) 1,4-Dioxane	7.299	88	40985	918.10	ug/L		99
58) Methyl Methacrylate	7.329	69	103685	51.30	ug/L		93
59) Bromodichloromethane	7.470	83	152104	53.19	ug/L		98
60) 2-Nitropropane	7.756	41	70983	146.55	ug/L		98
61) 2-Chloroethylvinyl Ether	7.878	63	69828	50.12	ug/L		95
62) cis-1,3-Dichloropropene	8.012	75	191754	54.68	ug/L		100
63) 4-Methyl-2-pentanone	8.219	43	185220	55.06	ug/L		95
65) Toluene	8.384	91	520560	52.21	ug/L		100
66) trans-1,3-Dichloropropene	8.652	75	164545	51.81	ug/L		99
67) Ethyl Methacrylate	8.799	69	178317	53.94	ug/L		91
68) 1,1,2-Trichloroethane	8.841	97	112141	50.85	ug/L		97
71) Tetrachloroethene	8.975	164	96243	49.24	ug/L		94
72) 2-Hexanone	9.134	43	142162	53.63	ug/L		97
73) 1,3-Dichloropropane	9.012	76	204847	51.13	ug/L		92
74) Dibromochloromethane	9.237	129	110017	52.76	ug/L		100
75) N-Butyl Acetate	9.292	43	277714	55.27	ug/L		94
76) 1,2-Dibromoethane	9.335	107	118293	51.29	ug/L		98
77) 3-Chlorobenzotrifluoride	9.847	180	174064	49.38	ug/L		98
78) Chlorobenzene	9.829	112	327484	49.31	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	153944	49.07	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.920	131	105279	51.11	ug/L		97
81) Ethylbenzene	9.951	106	173263	49.82	ug/L	#	89
82) (m+p)Xylene	10.067	106	445047	102.94	ug/L		94
83) o-Xylene	10.420	106	214084	49.79	ug/L		98
84) Styrene	10.432	104	367205	53.08	ug/L		97
85) Bromoform	10.585	173	74099	53.41	ug/L		92
86) 2-Chlorobenzotrifluoride	10.664	180	168369	49.53	ug/L		97
87) Isopropylbenzene	10.755	105	569183	52.14	ug/L		100
88) Cyclohexanone	10.816	55	564634	1079.09	ug/L		95
89) trans-1,4-Dichloro-2-B...	11.066	53	38679	49.74	ug/L		90
91) 1,1,2,2-Tetrachloroethane	11.018	83	171878	48.98	ug/L		97
92) Bromobenzene	10.999	156	146074	47.28	ug/L		95
93) 1,2,3-Trichloropropane	11.042	110	49757	45.99	ug/L	#	85
94) n-Propylbenzene	11.109	91	706348	51.86	ug/L		99
95) 2-Chlorotoluene	11.176	91	397038	48.34	ug/L		99
96) 3-Chlorotoluene	11.225	91	377635	46.54	ug/L		97
97) 4-Chlorotoluene	11.268	91	473850	48.37	ug/L		98
98) 1,3,5-Trimethylbenzene	11.261	105	476794	50.38	ug/L		99
99) tert-Butylbenzene	11.536	119	411796	49.59	ug/L		99
100) 1,2,4-Trimethylbenzene	11.572	105	475891	50.51	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.633	214	149888	49.52	ug/L		94
102) sec-Butylbenzene	11.719	105	617335	51.43	ug/L		98
103) p-Isopropyltoluene	11.841	119	519687	50.73	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

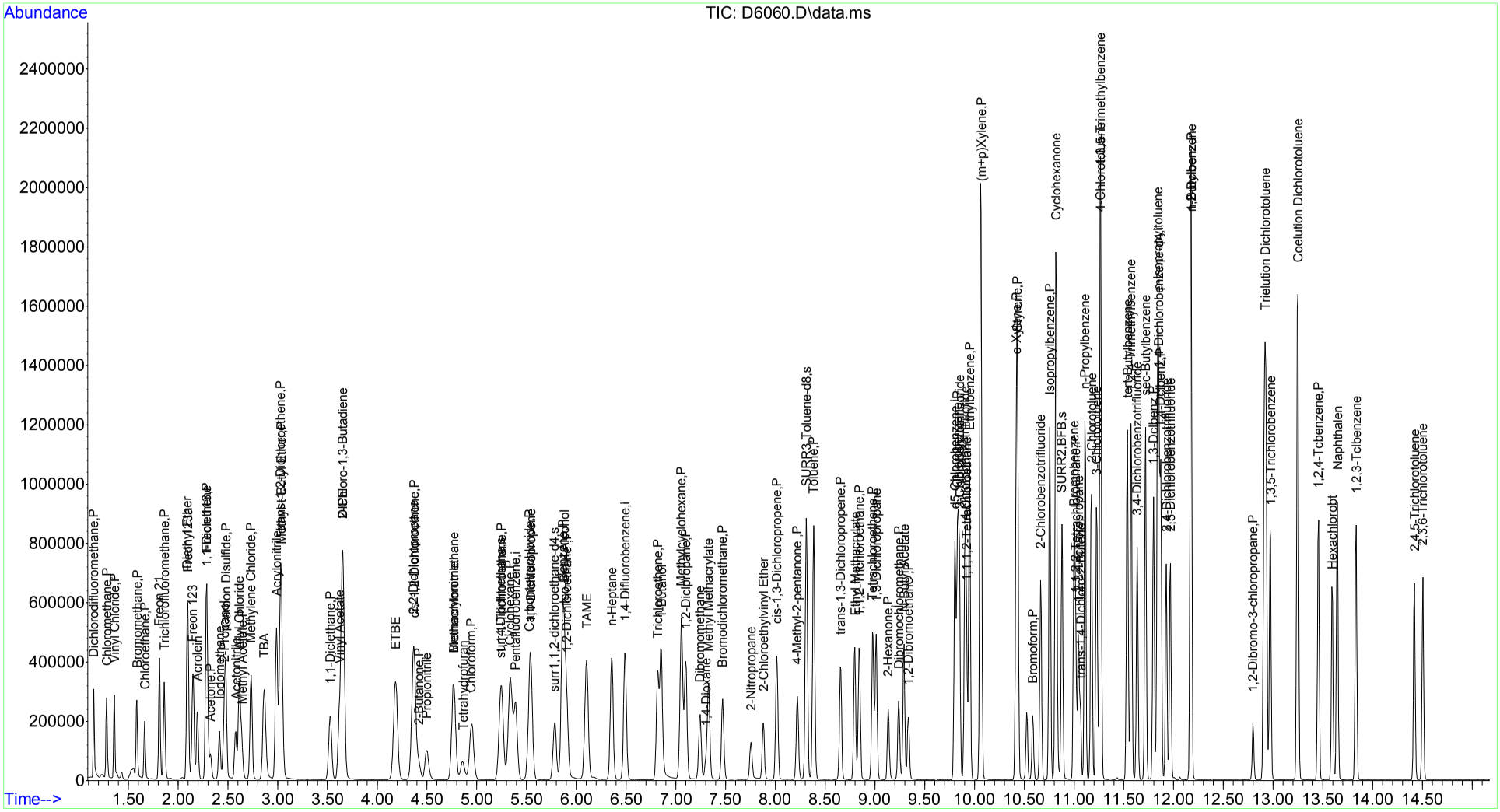
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	275017	48.40	ug/L	97
105) 1,4-Dclbenz	11.871	146	285557	47.60	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	139764	51.78	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.969	214	149382	47.90	ug/L	95
108) n-Butylbenzene	12.176	91	506396	51.70	ug/L	98
109) 1,2-Dclbenz	12.176	146	270080	46.86	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.798	157	30824	42.89	ug/L	93
111) Trielution Dichlorotol...	12.920	125	670012	142.37	ug/L	96
112) 1,3,5-Trichlorobenzene	12.975	180	201057	48.12	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	495812	95.42	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	208704	50.94	ug/L	97
115) Hexachlorobt	13.596	225	93109	51.98	ug/L	94
116) Naphthalen	13.645	128	517686	48.73	ug/L	98
117) 1,2,3-Tclbenzene	13.834	180	194148	48.19	ug/L	97
118) 2,4,5-Trichlorotoluene	14.419	159	127098	49.69	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	114452	47.53	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



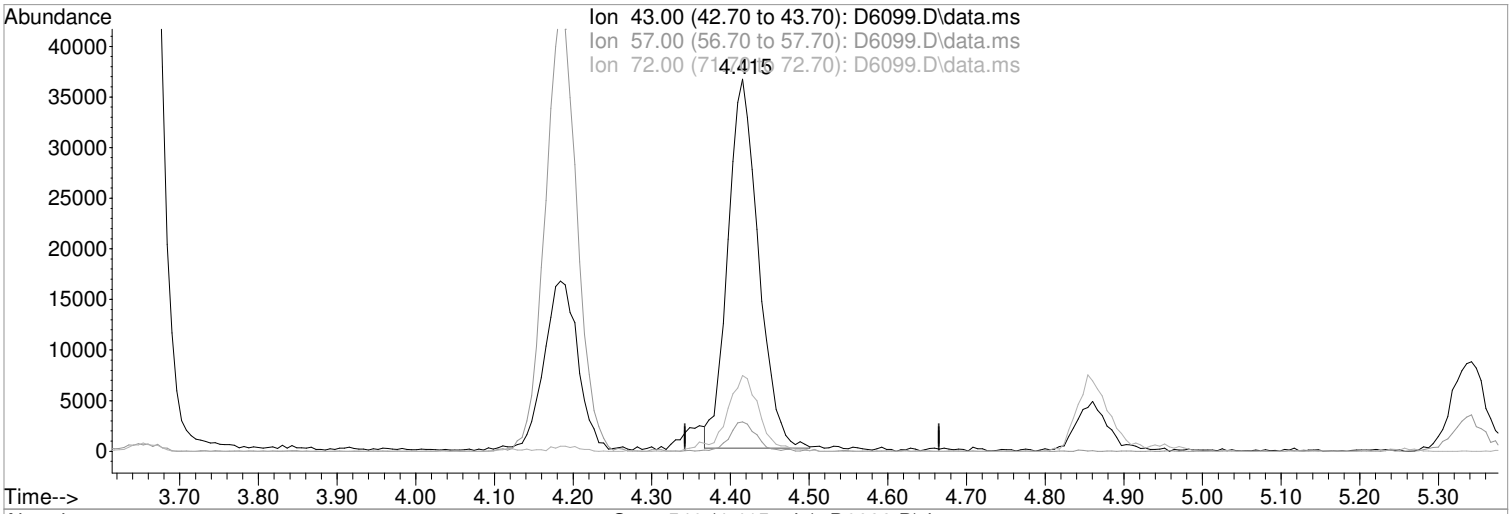
1st BA 09/27/18
2nd DL 09/27/18

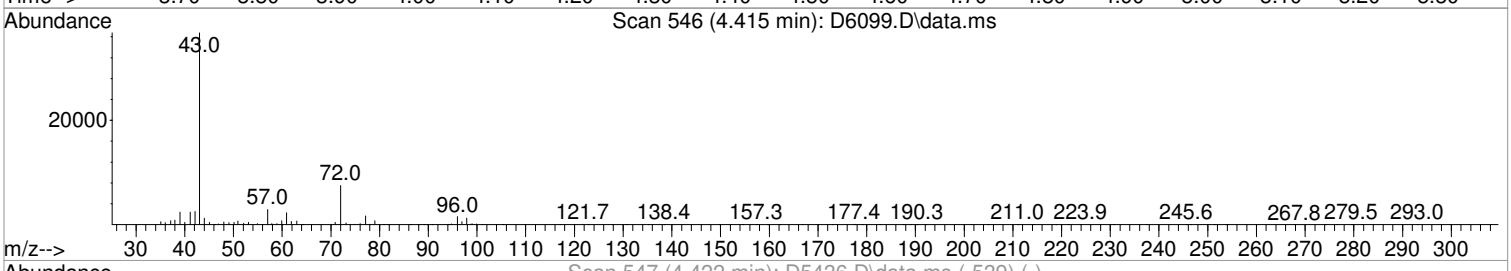
1st DL 09/27/18
2nd FJ 09/28/18

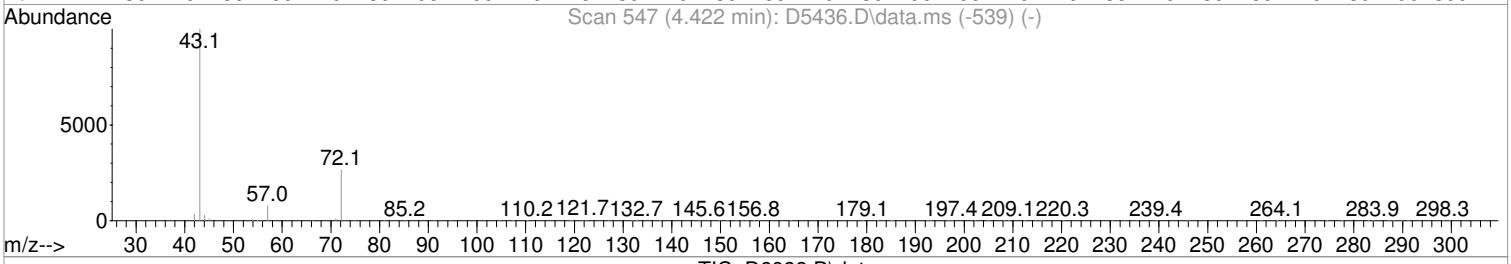
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:51:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6099.D\data.ms

(34) 2-Butanone (P)

4.415min (+0.000) 57.89 ug/L m

response 98613

Ion	Exp%	Act%
43.00	100	100
57.00	7.80	7.92
72.00	25.10	20.40
0.00	0.00	0.00

Manual Integration:

After

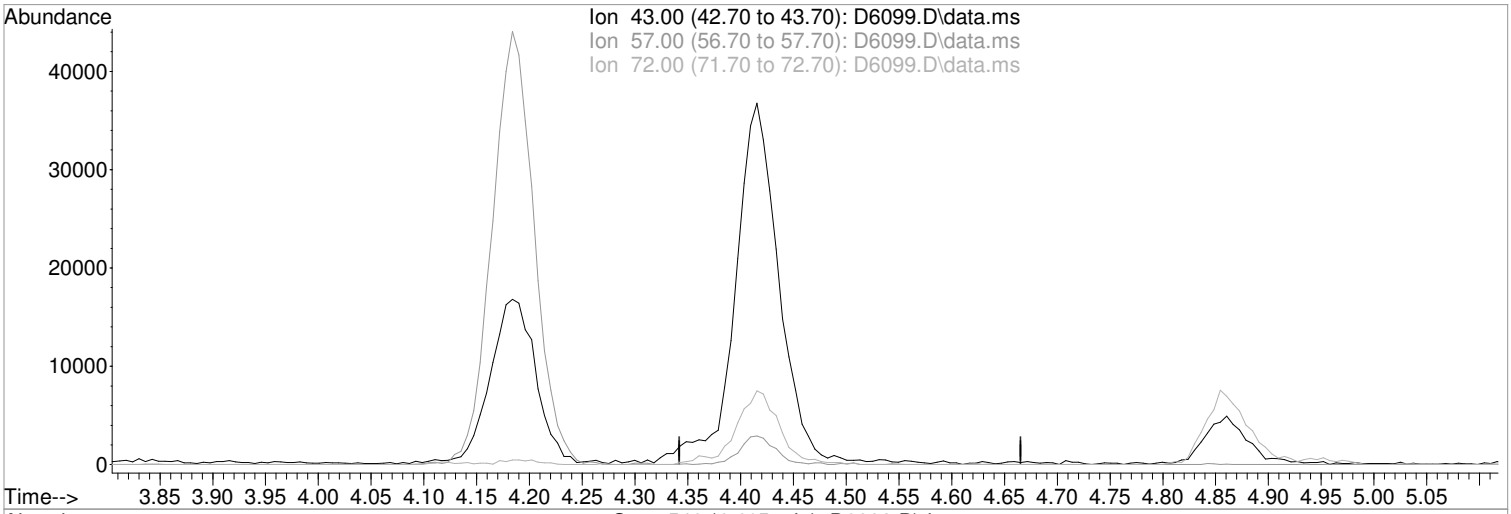
Peak not found.

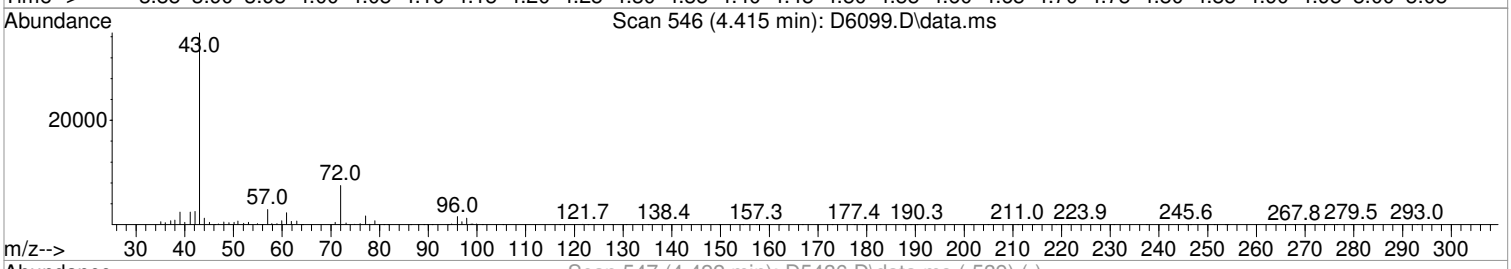
09/25/18

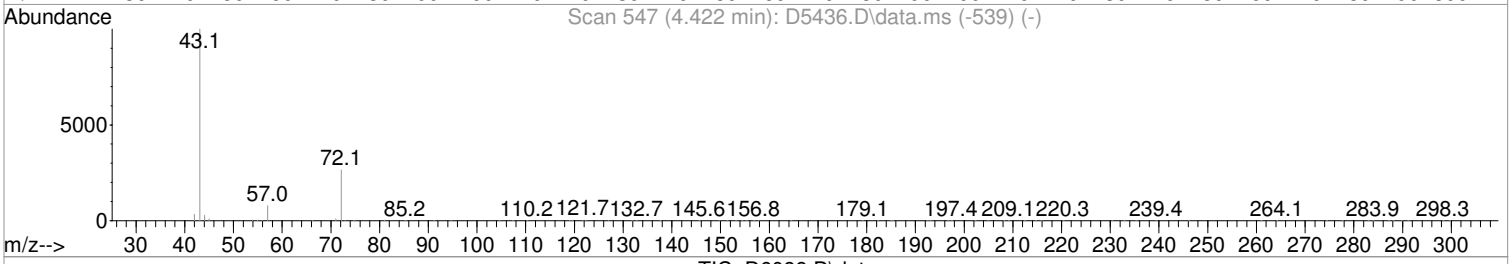
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:51:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration







TIC: D6099.D\data.ms

(34) 2-Butanone (P)

4.415min (-4.415) 0.00 ug/L

response 0

Ion	Exp%	Act%
43.00	100	0.00
57.00	7.80	0.00
72.00	25.10	0.00#
0.00	0.00	0.00

Manual Integration:

Before

09/25/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	99	0.00	
2	P	Dichlorodifluoromethane	0.6676	0.6096	8.7	92	0.00	
3	P	Chloromethane	0.7292	0.8033	-10.2	113	0.00	
4	P	Vinyl Chloride	0.7238	0.7201	0.5	102	0.00	
5	P	Bromomethane	0.6792	0.5060	-15.4 ~~25.5#~~	102	0.00	
6	P	Chloroethane	0.4524	0.4418	2.3	98	0.00	
7		Freon 21	1.1058	1.0826	2.1	106	0.00	
8	P	Trichlorofluoromethane	0.8136	0.7922	2.6	103	0.00	
9		Diethyl Ether	0.4606	0.5108	-10.9	111	0.00	
10		Freon 123a	0.6348	0.6769	-6.6	118	0.00	
11		Freon 123	0.7045	0.7040	0.1	111	0.00	
12		Acrolein	0.1486	0.1633	-9.9	111	0.00	
13		1,1-Diclethene	0.4609	0.4744	-2.9	105	0.00	
14	P	Freon 113	0.4591	0.4835	-5.3	109	0.00	
15	P	Acetone	0.2941	0.3517	-19.6	125	0.00	
16		2-Propanol	0.0569	0.0542	4.7	101	-0.02	
17		Iodomethane	0.5454	0.6048	+0.3 ~~-10.9~~	89	0.00	
18	P	Carbon Disulfide	1.2567	1.4454	-15.0	112	0.00	
19		Acetonitrile	0.1069	0.1257	-17.6	125	0.00	
20		Allyl Chloride	0.2247	0.2193	2.4	100	0.00	
21	P	Methyl Acetate	0.5862	0.6717	-14.6	121	0.00	
22	P	Methylene Chloride	0.5377	0.5612	-4.4	111	0.00	
23		TBA	0.0852	0.0792	7.0	95	0.00	
24		Acrylonitrile	0.2908	0.3340	-14.9	117	0.00	
25	P	Methyl-t-Butyl Ether	1.7095	1.7817	-4.2	106	0.00	
26	P	trans-1,2-Dichloroethene	0.4929	0.5336	-8.3	107	0.00	
27	P	1,1-Diclethane	0.9660	1.0740	-11.2	113	0.00	
28		Vinyl Acetate	0.1112	0.1144	-2.9	106	0.00	
29		DIPE	1.7888	2.3365	-30.6#	134	0.00	NT
30		2-Chloro-1,3-Butadiene	0.8303	1.0295	-24.0#	126	0.00	(1)
31		ETBE	1.6197	1.7486	-8.0	111	0.00	
32		2,2-Dichloropropane	0.7364	0.6615	10.2	88	0.00	
33	P	cis-1,2-Dichloroethene	0.5493	0.5820	-6.0	106	0.00	
34	P	2-Butanone	0.3977	0.4604	-15.8	125	0.00	
35		Propionitrile	0.1178	0.1320	-12.1	117	0.00	
36		Bromochloromethane	0.3394	0.3531	-4.0	106	0.00	
37		Methacrylonitrile	0.2835	0.2974	-4.9	108	0.00	
38		Tetrahydrofuran	0.2463	0.2941	-19.4	124	0.00	
39	P	Chloroform	0.8846	0.9686	-9.5	110	0.00	
40	P	1,1,1-Trichloroethane	0.7469	0.7500	-0.4	102	0.00	
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	99	0.00	
42	P	Cyclohexane	0.3672	0.4379	-19.3	132	0.00	
43	s	surr4,Dibrflmethane	0.3369	0.3240	3.8	90	0.00	
44	P	Carbontetrachloride	0.3690	0.3806	-3.1	101	0.00	
45		1,1-Dichloropropene	0.4674	0.5097	-9.1	110	0.00	
46	s	surr1,1,2-dichloroethane-d4	0.4431	0.4472	-0.9	96	0.00	
47	P	Benzene	1.3327	1.4479	-8.6	110	0.00	
48	P	1,2-Dichloroethane	0.5302	0.5938	-12.0	117	0.00	
49		Iso-Butyl Alcohol	0.0249	0.0269	-8.0	113	-0.01	
50		TAME	0.9798	1.0332	-5.5	107	0.00	
51		n-Heptane	0.4509	0.6295	-39.6#	139	0.00	NT

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	0.0136	0.0149	-9.6	110	-0.01	
53	P	Trichloroethene	0.3480	0.3448	0.9	103	0.00	
54	P	Methylcyclohexane	0.4434	0.5143	-16.0	124	0.00	
55	P	1,2-Diclpropane	0.3707	0.4075	-9.9	110	0.00	
56		Dibromomethane	0.2205	0.2381	-8.0	109	0.00	
57		1,4-Dioxane	0.0064	0.0061	4.7	99	0.00	
58		Methyl Methacrylate	0.2904	0.3084	-6.2	107	0.00	
59	P	Bromodichloromethane	0.4109	0.4538	-10.4	109	0.00	
60		2-Nitropropane	0.0696	0.0966	-38.8#	141	0.00	NT
61		2-Chloroethylvinyl Ether	0.2002	0.2050	-2.4	100	0.00	
62	P	cis-1,3-Dichloropropene	0.5039	0.5743	-14.0	105	0.00	
63	P	4-Methyl-2-pentanone	0.4833	0.5688	-17.7	120	0.00	
64	s	SURR3,Toluene-d8	1.3662	1.3265	2.9	92	0.00	
65	P	Toluene	1.4326	1.5567	-8.7	109	0.00	
66	P	trans-1,3-Dichloropropene	0.4563	0.4801	-5.2	97	0.00	
67		Ethyl Methacrylate	0.4749	0.5291	-11.4	108	0.00	
68	P	1,1,2-Trichloroethane	0.3169	0.3246	-2.4	104	0.00	
69	s	SURR2,BFB	0.5250	0.5309	-1.1	95	0.00	
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00	
71	P	Tetrachloroethene	0.3110	0.3139	-0.9	108	0.00	
72	P	2-Hexanone	0.4218	0.4670	-10.7	115	0.00	
73		1,3-Dichloropropane	0.6375	0.6903	-8.3	107	0.00	
74	P	Dibromochloromethane	0.3318	0.3539	-6.7	103	0.00	
75		N-Butyl Acetate	0.7995	0.9313	-16.5	117	0.00	
76	P	1,2-Dibromoethane	0.3669	0.3807	-3.8	104	0.00	
77		3-Chlorobenzotrifluoride	0.5609	0.6155	-9.7	124	0.00	
78	P	Chlorobenzene	1.0567	1.0950	-3.6	105	0.00	
79		4-Chlorobenzotrifluoride	0.4991	0.5585	-11.9	125	0.00	
80		1,1,1,2-Tetrachloroethane	0.3277	0.3513	-7.2	103	0.00	
81	P	Ethylbenzene	0.5533	0.5867	-6.0	106	0.00	
82	P	(m+p)Xylene	0.6878	0.7486	-8.8	109	0.00	
83	P	o-Xylene	0.6841	0.7178	-4.9	106	0.00	
84	P	Styrene	1.1007	1.2476	-13.3	107	0.00	
85	P	Bromoform	0.2127	0.2398	+8.3 ~~-12.7~~	104	0.00	
86		2-Chlorobenzotrifluoride	0.5409	0.5893	-8.9	118	0.00	
87	P	Isopropylbenzene	1.7367	1.9161	-10.3	107	0.00	
88		Cyclohexanone	0.0833	0.0954	-14.5	110	0.00	
89		trans-1,4-Dichloro-2-Butene	0.1183	0.1330	+6.7 ~~-12.4~~	104	0.00	
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	101	0.00	
91	P	1,1,2,2-Tetrachloroethane	0.9501	1.0052	-5.8	110	0.00	
92		Bromobenzene	0.8364	0.8344	0.2	105	0.00	
93		1,2,3-Trichloropropane	0.2929	0.2867	2.1	100	0.00	
94		n-Propylbenzene	3.6871	4.1053	-11.3	112	0.00	
95		2-Chlorotoluene	2.2238	2.2954	-3.2	108	0.00	
96		3-Chlorotoluene	2.1968	2.2896	-4.2	116	0.00	
97		4-Chlorotoluene	2.6522	2.8303	-6.7	111	0.00	
98		1,3,5-Trimethylbenzene	2.5618	2.7739	-8.3	108	0.00	
99		tert-Butylbenzene	2.2480	2.3674	-5.3	109	0.00	
100		1,2,4-Trimethylbenzene	2.5509	2.7159	-6.5	108	0.00	
101		3,4-Dichlorobenzotrifluorid	0.8195	0.9011	-10.0	121	0.00	

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
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	3.2497	3.5853	-10.3	111	0.00
103		p-Isopropyltoluene	2.7735	2.9858	-7.7	110	0.00
104	P	1,3-Dclbenz	1.5381	1.5831	-2.9	107	0.00
105	P	1,4-Dclbenz	1.6241	1.6159	0.5	106	0.00
106		2,4-Dichlorobenzotrifluorid	0.7307	0.8157	-11.6	121	0.00
107		2,5-Dichlorobenzotrifluorid	0.8442	0.9149	-8.4	121	0.00
108		n-Butylbenzene	2.6519	2.9501	-11.2	113	0.00
109	P	1,2-Dclbenz	1.5604	1.5172	2.8	104	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1946	0.1715	11.9	90	0.00
111		Trielution Dichlorotoluene	1.2741	1.3465	-5.7	113	0.00
112		1,3,5-Trichlorobenzene	1.1311	1.2013	-6.2	116	0.00
113		Coelution Dichlorotoluene	1.4068	1.4725	-4.7	110	0.00
114	P	1,2,4-Tcbenzene	1.1092	1.1833	-6.7	109	0.00
115		Hexachlorobt	0.4849	0.5409	-11.5	112	0.00
116		Naphthalen	2.8757	3.0313	-5.4	102	0.00
117		1,2,3-Tclbenzene	1.0907	1.1130	-2.0	106	0.00
118		2,4,5-Trichlorotoluene	0.6924	0.7666	-10.7	108	0.00
119		2,3,6-Trichlorotoluene	0.6519	0.7099	-8.9	113	0.00

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	214177	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	329483	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	291886	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	171125	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	106739	48.07	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.14%			
46) surr1,1,2-dichloroetha...	5.787	65	147360	50.47	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.94%			
64) SURR3,Toluene-d8	8.311	98	437069	48.55	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.10%			
69) SURR2,BFB	10.878	95	174931	50.56	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	130566	45.66	ug/L	98
3) Chloromethane	1.282	50	172042	55.08	ug/L	93
4) Vinyl Chloride	1.361	62	154236	49.75	ug/L	97
5) Bromomethane	1.587	94	108382	42.30	ug/L	99
6) Chloroethane	1.666	64	94632	48.83	ug/L	94
7) Freon 21	1.812	67	231863	48.95	ug/L	99
8) Trichlorofluoromethane	1.861	101	169669	48.68	ug/L	100
9) Diethyl Ether	2.093	59	109400	55.45	ug/L	93
10) Freon 123a	2.099	67	144972	53.32	ug/L	94
11) Freon 123	2.148	83	150780	49.96	ug/L	99
12) Acrolein	2.196	56	174923	274.75	ug/L	97
13) 1,1-Diclethene	2.282	96	101605	51.47	ug/L	91
14) Freon 113	2.294	101	103559	52.66	ug/L	97
15) Acetone	2.324	43	75331	59.79	ug/L	91
16) 2-Propanol	2.465	45	232117	952.77	ug/L	96
17) Iodomethane	2.416	142	129543	50.16	ug/L	97
18) Carbon Disulfide	2.477	76	309578	57.51	ug/L	97
19) Acetonitrile	2.574	41	134634	293.95	ug/L	95
20) Allyl Chloride	2.617	76	46970	48.80	ug/L #	69
21) Methyl Acetate	2.635	43	143857	57.29	ug/L	96
22) Methylene Chloride	2.733	84	120204	52.19	ug/L	92
23) TBA	2.867	59	339358	929.89	ug/L	91
24) Acrylonitrile	2.989	53	357709	287.19	ug/L	98
25) Methyl-t-Butyl Ether	3.038	73	381592	52.11	ug/L	97
26) trans-1,2-Dichloroethene	3.032	96	114287	54.13	ug/L	97
27) 1,1-Diclethane	3.531	63	230024	55.59	ug/L	98
28) Vinyl Acetate	3.623	86	24506	51.45	ug/L #	36
29) DIPE	3.653	45	500428	65.31	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	220490	61.99	ug/L	93
31) ETBE	4.184	59	374503	53.98	ug/L	97
32) 2,2-Dichloropropane	4.367	77	141669	44.91	ug/L	98
33) cis-1,2-Dichloroethene	4.367	96	124655	52.98	ug/L	92
34) 2-Butanone	4.415	43	98613m	57.89	ug/L	
35) Propionitrile	4.501	54	141405	280.20	ug/L	95
36) Bromochloromethane	4.769	130	75619	52.01	ug/L	86
37) Methacrylonitrile	4.769	67	63690	52.45	ug/L #	79
38) Tetrahydrofuran	4.861	42	62983	59.70	ug/L	91
39) Chloroform	4.952	83	207454	54.75	ug/L	93
40) 1,1,1-Trichloroethane	5.257	97	160642	50.21	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	144276	59.63	ug/L		98
44) Carbontetrachloride	5.531	117	125388	51.56	ug/L		94
45) 1,1-Dichloropropene	5.543	75	167928	54.52	ug/L		95
47) Benzene	5.860	78	477073	54.32	ug/L		94
48) 1,2-Dichloroethane	5.903	62	195633	55.99	ug/L		96
49) Iso-Butyl Alcohol	5.885	43	177196	1082.04	ug/L		100
50) TAME	6.104	73	340417	52.73	ug/L		93
51) n-Heptane	6.354	43	207407	69.80	ug/L		94
52) 1-Butanol	6.854	56	245150	2713.48	ug/L		99
53) Trichloroethene	6.817	130	113597	49.53	ug/L		98
54) Methylcyclohexane	7.055	55	169452	58.00	ug/L		92
55) 1,2-Diclpropane	7.104	63	134255	54.95	ug/L		96
56) Dibromomethane	7.244	93	78458	54.00	ug/L		93
57) 1,4-Dioxane	7.299	88	40404	955.99	ug/L		85
58) Methyl Methacrylate	7.330	69	101619	53.10	ug/L		93
59) Bromodichloromethane	7.470	83	149509	55.22	ug/L		99
60) 2-Nitropropane	7.756	41	63644	138.79	ug/L		94
61) 2-Chloroethylvinyl Ether	7.878	63	67557	51.21	ug/L		92
62) cis-1,3-Dichloropropene	8.012	75	189211	56.99	ug/L		98
63) 4-Methyl-2-pentanone	8.220	43	187422	58.84	ug/L		94
65) Toluene	8.384	91	512918	54.33	ug/L		96
66) trans-1,3-Dichloropropene	8.652	75	158188	52.61	ug/L		96
67) Ethyl Methacrylate	8.799	69	174317	55.70	ug/L		94
68) 1,1,2-Trichloroethane	8.841	97	106964	51.23	ug/L		93
71) Tetrachloroethene	8.982	164	91622	50.47	ug/L		96
72) 2-Hexanone	9.134	43	136317	55.36	ug/L		95
73) 1,3-Dichloropropane	9.012	76	201487	54.14	ug/L		90
74) Dibromochloromethane	9.238	129	103305	53.34	ug/L		99
75) N-Butyl Acetate	9.293	43	271842	58.24	ug/L		94
76) 1,2-Dibromoethane	9.335	107	111120	51.88	ug/L		100
77) 3-Chlorobenzotrifluoride	9.847	180	179644	54.87	ug/L		98
78) Chlorobenzene	9.829	112	319614	51.81	ug/L		94
79) 4-Chlorobenzotrifluoride	9.902	180	163004	55.94	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	102539	53.60	ug/L		94
81) Ethylbenzene	9.951	106	171240	53.01	ug/L		93
82) (m+p)Xylene	10.061	106	436998	108.83	ug/L		100
83) o-Xylene	10.420	106	209512	52.46	ug/L		97
84) Styrene	10.433	104	364169	56.68	ug/L		99
85) Bromoform	10.585	173	69994	54.17	ug/L		96
86) 2-Chlorobenzotrifluoride	10.664	180	172013	54.48	ug/L		98
87) Isopropylbenzene	10.756	105	559283	55.17	ug/L		99
88) Cyclohexanone	10.817	55	556952	1146.01	ug/L		95
89) trans-1,4-Dichloro-2-B...	11.061	53	38830	53.35	ug/L		84
91) 1,1,2,2-Tetrachloroethane	11.018	83	172013	52.90	ug/L		97
92) Bromobenzene	11.000	156	142781	49.88	ug/L		90
93) 1,2,3-Trichloropropane	11.042	110	49055	48.94	ug/L	#	86
94) n-Propylbenzene	11.109	91	702511	55.67	ug/L		98
95) 2-Chlorotoluene	11.176	91	392803	51.61	ug/L		99
96) 3-Chlorotoluene	11.225	91	391800	52.11	ug/L		97
97) 4-Chlorotoluene	11.268	91	484341	53.36	ug/L		96
98) 1,3,5-Trimethylbenzene	11.262	105	474684	54.14	ug/L		98
99) tert-Butylbenzene	11.536	119	405116	52.66	ug/L		100
100) 1,2,4-Trimethylbenzene	11.573	105	464766	53.24	ug/L		100
101) 3,4-Dichlorobenzotrifl...	11.634	214	154208	54.98	ug/L		97
102) sec-Butylbenzene	11.719	105	613528	55.16	ug/L		99
103) p-Isopropyltoluene	11.841	119	510943	53.83	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

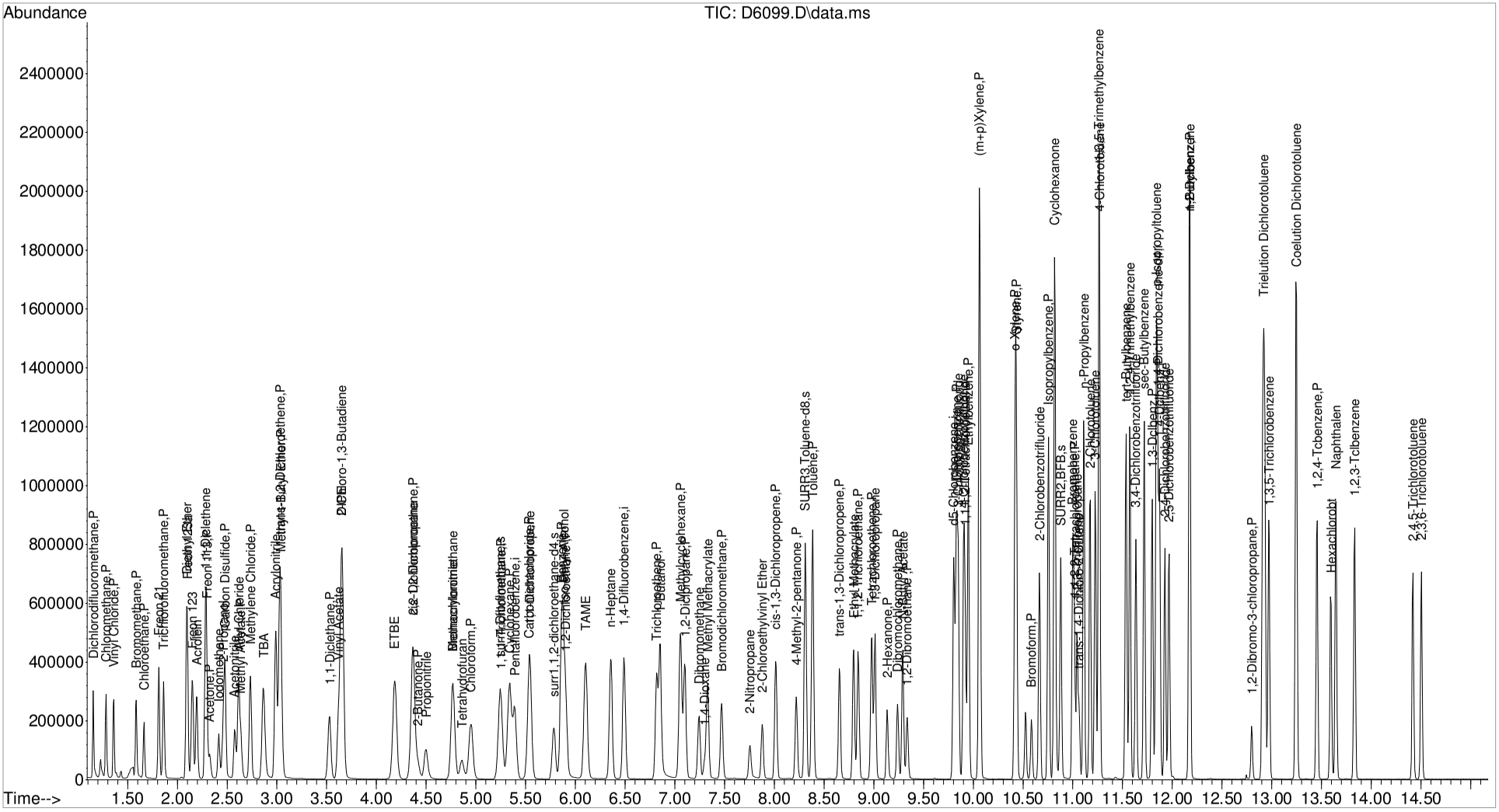
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	270905	51.46	ug/L	100
105) 1,4-Dclbenz	11.871	146	276517	49.75	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	139591	55.81	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	156564	54.19	ug/L	99
108) n-Butylbenzene	12.176	91	504832	55.62	ug/L	98
109) 1,2-Dclbenz	12.176	146	259624	48.61	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	29350	44.07	ug/L	88
111) Trielution Dichlorotol...	12.920	125	691273	158.53	ug/L	95
112) 1,3,5-Trichlorobenzene	12.975	180	205565	53.10	ug/L	94
113) Coelution Dichlorotoluene	13.249	125	503953	104.67	ug/L	96
114) 1,2,4-Tcbenzene	13.456	180	202485	53.34	ug/L	99
115) Hexachlorobt	13.597	225	92553	55.77	ug/L	98
116) Naphthalen	13.645	128	518732	52.70	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	190457	51.02	ug/L	98
118) 2,4,5-Trichlorotoluene	14.420	159	131192	55.36	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	121476	54.45	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



1st 09/27/18
2nd 09/28/18

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6059.D
Acq On : 24 Sep 2018 9:03 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 24 09:18:01 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

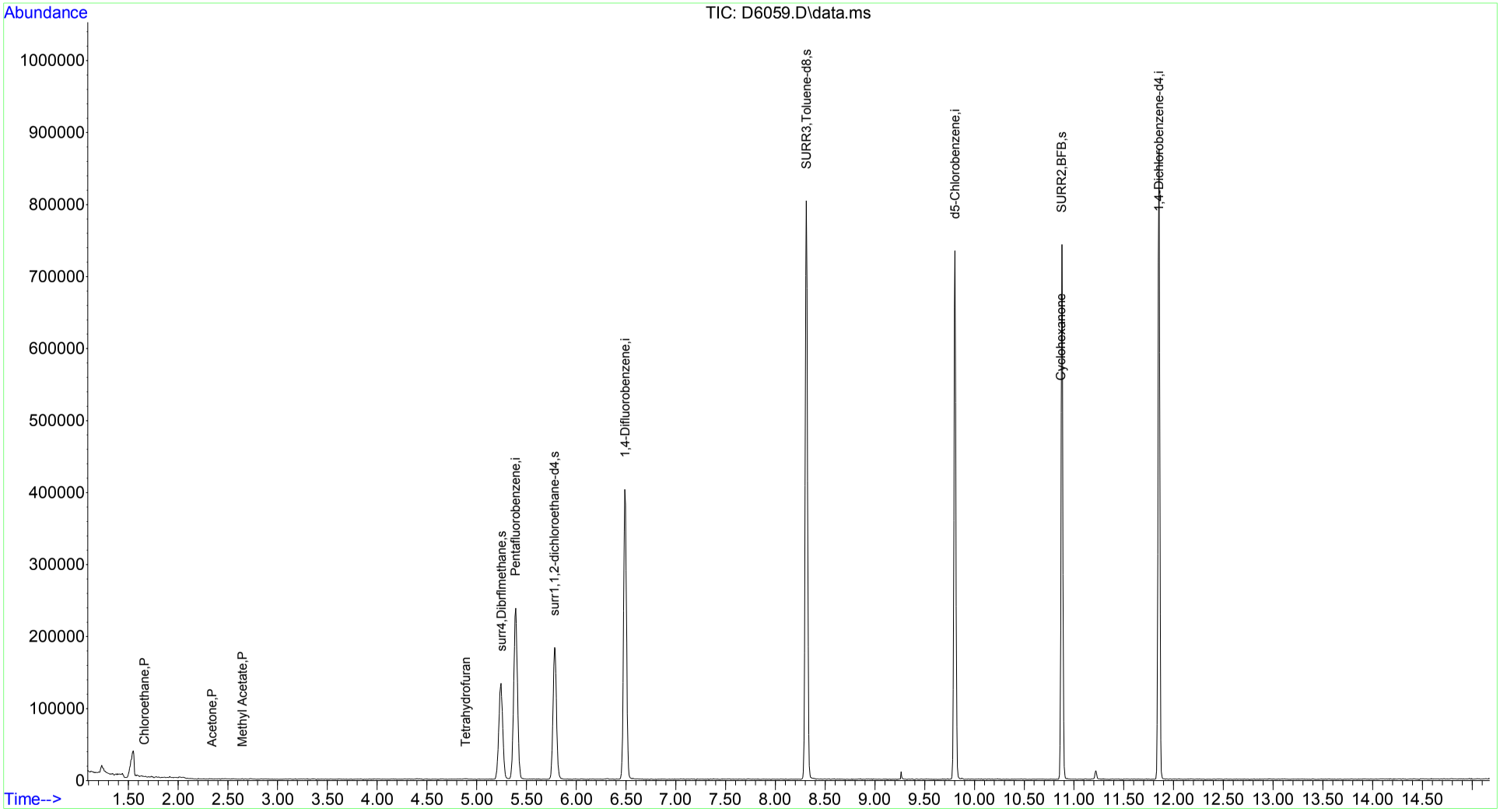
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	214932	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	330891	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	293339	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	155064	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	108724	48.76	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.52%			
46) surr1,1,2-dichloroetha...	5.781	65	156588	53.40	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.80%			
64) SURR3,Toluene-d8	8.311	98	458969	50.77	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.54%			
69) SURR2,BFB	10.878	95	169601	48.81	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.62%			
Target Compounds						Qvalue
5) Bromomethane	1.587	94	361	Below Cal	#	36
6) Chloroethane	1.660	64	698	0.36	ug/L #	52
15) Acetone	2.337	43	468	0.37	ug/L #	50
21) Methyl Acetate	2.641	43	546	0.22	ug/L #	51
38) Tetrahydrofuran	4.891	42	479	0.45	ug/L #	51
88) Cyclohexanone	10.871	55	627	1.28	ug/L #	14

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

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6059.D
Acq On : 24 Sep 2018 9:03 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 24 09:18:01 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



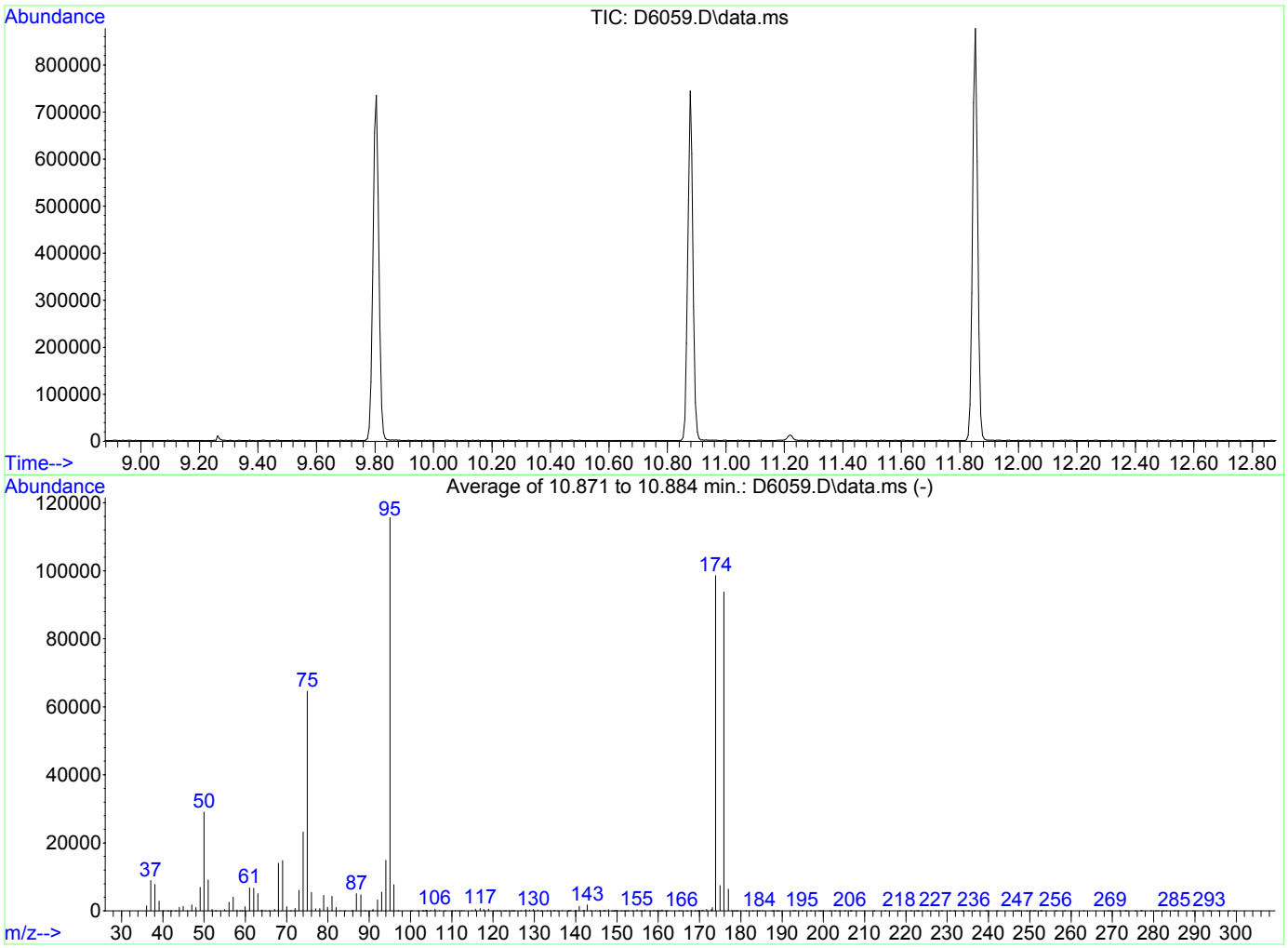
1st BA 09/27/18
2nd DL 09/27/18

1st BA 09/27/18
2nd DL 09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6059.D
Acq On : 24 Sep 2018 9:03 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\W082118.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Aug 22 12:58:20 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

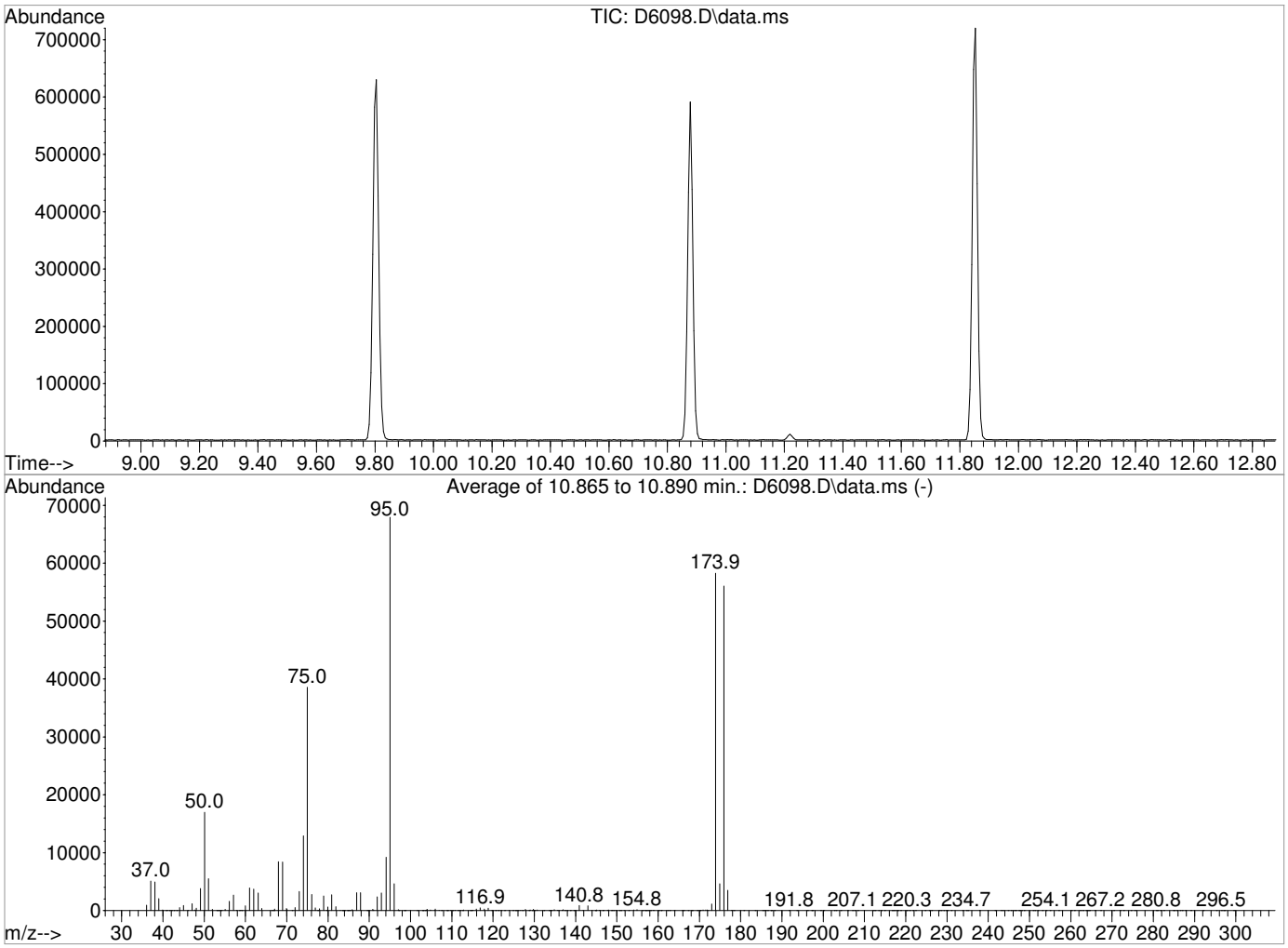
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.1	29029	PASS
75	95	30	60	55.9	64645	PASS
95	95	100	100	100.0	115651	PASS
96	95	5	9	6.7	7717	PASS
173	174	0.00	2	1.0	963	PASS
174	95	50	120	85.2	98552	PASS
175	174	5	9	7.6	7447	PASS
176	174	95	101	95.1	93752	PASS
177	176	5	9	6.9	6439	PASS

1st DL 09/27/18
2nd FJ 09/28/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6098.D
Acq On : 25 Sep 2018 10:01 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Aug 22 12:58:20 2018



Spectrum Information: Average of 10.865 to 10.890 min. Sub. Scan = 1600

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.0	16952	PASS
75	95	30	60	56.8	38552	PASS
95	95	100	100	100.0	67923	PASS
96	95	5	9	6.8	4637	PASS
173	174	0.00	2	2.0	1150	PASS
174	95	50	120	85.8	58274	PASS
175	174	5	9	7.9	4613	PASS
176	174	95	101	96.1	56026	PASS
177	176	5	9	6.3	3513	PASS

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Acquisition Date
09	RC1800095-09	STD #1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\082118\D5431.D	08/21/2018 14:58
08	RC1800095-08	STD #2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5432.D	08/21/2018 15:20
07	RC1800095-07	STD #3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5433.D	08/21/2018 15:42
06	RC1800095-06	STD #4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5434.D	08/21/2018 16:03
05	RC1800095-05	STD #5 - 20 PPB	I:\ACQUDATA\msvoa10\data\082118\D5435.D	08/21/2018 16:25
04	RC1800095-04	STD #6 - 50 PPB	I:\ACQUDATA\msvoa10\data\082118\D5436.D	08/21/2018 16:47
03	RC1800095-03	STD #7 - 100 PPB	I:\ACQUDATA\msvoa10\data\082118\D5437.D	08/21/2018 17:09
02	RC1800095-02	STD #8 - 150 PPB	I:\ACQUDATA\msvoa10\data\082118\D5438.D	08/21/2018 17:31
01	RC1800095-01	STD #9 - 200 PPB	I:\ACQUDATA\msvoa10\data\082118\D5439.D	08/21/2018 17:53

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.8757	08	1.000	0.7331	07	2.000	0.7119	06	5.000	0.7032
05	20.000	0.7316	04	50.000	0.728	03	100.000	0.751	02	150.000	0.746
01	200.000	0.7416									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.046	08	1.000	0.985	07	2.000	0.9764	06	5.000	0.943
05	20.000	0.9708	04	50.000	0.9369	03	100.000	0.9651	02	150.000	0.9414
01	200.000	0.9299									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5024	08	1.000	0.437	07	2.000	0.4419	06	5.000	0.4712
05	20.000	0.4629	04	50.000	0.4463	03	100.000	0.4632	02	150.000	0.4637
01	200.000	0.4592									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.5925	05	20.000	0.4991	04	50.000	0.5551	03	100.000	0.4954
02	200.000	0.483									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.3863	05	20.000	0.3219	04	50.000	0.3561	03	100.000	0.3143
02	200.000	0.3062									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3572	08	1.000	0.3121	07	2.000	0.3045	06	5.000	0.279
05	20.000	0.301	04	50.000	0.2871	03	100.000	0.309	02	150.000	0.3241
01	200.000	0.3245									

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.643	05	20.000	1.284	04	50.000	1.427	03	100.000	1.269
02	200.000	1.207									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3826	08	1.000	0.3369	07	2.000	0.3521	06	5.000	0.3404
05	20.000	0.3566	04	50.000	0.3304	03	100.000	0.3431	02	150.000	0.3452
01	200.000	0.3448									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.7256	08	1.000	0.7718	07	2.000	0.7174	06	5.000	0.7172
05	20.000	0.7297	04	50.000	0.6977	03	100.000	0.7117	02	150.000	0.7269
01	200.000	0.716									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5299	08	1.000	0.5929	07	2.000	0.5369	06	5.000	0.5306
05	20.000	0.5602	04	50.000	0.5423	03	100.000	0.5614	02	150.000	0.5452
01	200.000	0.544									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5259	08	1.000	0.4833	07	2.000	0.4621	06	5.000	0.4805
05	20.000	0.5014	04	50.000	0.4907	03	100.000	0.5051	02	150.000	0.4941
01	200.000	0.4929									

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095 **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	6.8	≤20	0.7469	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.7	≤20	0.966	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	4.2	≤20	0.4609	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	8.9	≤20	0.525	
Dibromofluoromethane	SURR	Average RF	% RSD	9.9	≤20	0.3369	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.4	≤20	0.311	0.200
Toluene-d8	SURR	Average RF	% RSD	12.8	≤20	1.366	
Trichloroethene (TCE)	TRG	Average RF	% RSD	4.3	≤20	0.348	0.200
Vinyl Chloride	TRG	Average RF	% RSD	2.8	≤20	0.7238	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.5493	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.4929	0.100

Client: Verina Consulting Group, LLC **Service Request:** R1809120
Project: Dover - Binghamton **Calibration Date:** 8/21/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Acquisition Date
10	RC1800095-10	ICV 50	I:\ACQUDATA\msvoa10\data\082118\D5444.D	08/21/2018 19:42
11	RC1800095-11	ICV	I:\ACQUDATA\msvoa10\data\082218\D5449.D	08/22/2018 10:27

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	46.8	7.469E-1	6.992E-1	-6.384	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	47.9	9.66E-1	9.252E-1	-4.230	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.3	4.609E-1	4.177E-1	-9.370	±30	Average RF
Tetrachloroethene (PCE)	50.0	46.5	3.11E-1	2.889E-1	-7.081	±30	Average RF
Trichloroethene (TCE)	50.0	47.8	3.48E-1	3.326E-1	-4.434	±30	Average RF
Vinyl Chloride	50.0	45.0	7.238E-1	6.516E-1	-9.969	±30	Average RF
cis-1,2-Dichloroethene	50.0	47.2	5.493E-1	5.185E-1	-5.601	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.5	4.929E-1	4.686E-1	-4.932	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	52.8	5.25E-1	5.542E-1	5.55	±30	Average RF
Dibromofluoromethane	50.0	52.4	3.369E-1	3.53E-1	4.76	±30	Average RF
Toluene-d8	50.0	53.0	1.366E0	1.449E0	6.03	±30	Average RF

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/24/18 09:41

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\092418\D6060.D\
Signal ID: 1

Calibration Date: 8/21/2018
Calibration ID: RC1800095
Analysis Lot: 607883
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	0.7469	0.7358	-1.5	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	53.1	0.966	1.0254	6.1	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	49.3	0.4609	0.454	-1.5	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	49.2	0.311	0.3063	-1.5	NA	±20	Average RF
Trichloroethene (TCE)	50.0	48.0	0.348	0.3343	-3.9	NA	±20	Average RF
Vinyl Chloride	50.0	46.8	0.7238	0.6773	-6.4	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	50.9	0.5493	0.5593	1.8	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	51.5	0.4929	0.5077	3.0	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	54.7	0.525	0.5744	9.4	NA	±20	Average RF
Dibromofluoromethane	50.0	50.4	0.3369	0.3398	0.8	NA	±20	Average RF
Toluene-d8	50.0	52.6	1.3662	1.4369	5.2	NA	±20	Average RF

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/25/18 10:36

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\092518\D6099.D\
Signal ID: 1

Calibration Date: 8/21/2018
Calibration ID: RC1800095
Analysis Lot: 608092
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	50.2	0.7469	0.75	0.4	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	55.6	0.966	1.074	11.2	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	51.5	0.4609	0.4744	2.9	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	50.5	0.311	0.3139	0.9	NA	±20	Average RF
Trichloroethene (TCE)	50.0	49.5	0.348	0.3448	-0.9	NA	±20	Average RF
Vinyl Chloride	50.0	49.8	0.7238	0.7201	-0.5	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	53.0	0.5493	0.582	6.0	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	54.1	0.4929	0.5336	8.3	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	50.6	0.525	0.5309	1.1	NA	±20	Average RF
Dibromofluoromethane	50.0	48.1	0.3369	0.324	-3.9	NA	±20	Average RF
Toluene-d8	50.0	48.6	1.3662	1.3265	-2.9	NA	±20	Average RF

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: **Analysis Lot:**607883
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092418\D6059.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	09:03:00	
I:\ACQUDATA\msvoa10\data\092418\D6060.D\	Continuing Calibration Verification	RQ1810325-02	9/24/2018	09:41:00	
I:\ACQUDATA\msvoa10\data\092418\D6061.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	10:13:00	
I:\ACQUDATA\msvoa10\data\092418\D6062.D\	Lab Control Sample	RQ1810325-08	9/24/2018	10:35:00	
I:\ACQUDATA\msvoa10\data\092418\D6064.D\	Method Blank	RQ1810325-04	9/24/2018	11:21:00	
I:\ACQUDATA\msvoa10\data\092418\D6065.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	11:52:00	
I:\ACQUDATA\msvoa10\data\092418\D6066.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	12:14:00	
I:\ACQUDATA\msvoa10\data\092418\D6067.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	12:36:00	
I:\ACQUDATA\msvoa10\data\092418\D6068.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	12:58:00	
I:\ACQUDATA\msvoa10\data\092418\D6069.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	13:19:00	
I:\ACQUDATA\msvoa10\data\092418\D6070.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	13:45:00	
I:\ACQUDATA\msvoa10\data\092418\D6071.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	14:12:00	
I:\ACQUDATA\msvoa10\data\092418\D6073.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	14:56:00	
I:\ACQUDATA\msvoa10\data\092418\D6074.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	15:27:00	
I:\ACQUDATA\msvoa10\data\092418\D6078.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	16:55:00	
I:\ACQUDATA\msvoa10\data\092418\D6079.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	17:16:00	
I:\ACQUDATA\msvoa10\data\092418\D6080.D\	MW-17	R1809120-005	9/24/2018	17:38:00	
I:\ACQUDATA\msvoa10\data\092418\D6081.D\	MW-16	R1809120-006	9/24/2018	18:00:00	
I:\ACQUDATA\msvoa10\data\092418\D6083.D\	MW-8	R1809120-009	9/24/2018	18:44:00	
I:\ACQUDATA\msvoa10\data\092418\D6084.D\	DUP-092018	R1809120-012	9/24/2018	19:08:00	
I:\ACQUDATA\msvoa10\data\092418\D6085.D\	MW-11	R1809120-010	9/24/2018	19:30:00	
I:\ACQUDATA\msvoa10\data\092418\D6086.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	19:52:00	
I:\ACQUDATA\msvoa10\data\092418\D6087.D\	ZZZZZZZ	ZZZZZZZ	9/24/2018	20:14:00	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: **Analysis Lot:**607883
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092418 \D6088.D\	MW-17 MS	RQ1810325-05	9/24/2018	20:36:00	
I:\ACQUDATA\msvoa10\data\092418 \D6089.D\	MW-17 DMS	RQ1810325-06	9/24/2018	20:57:00	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: **Analysis Lot:**608092
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092518\D6098.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	10:01:00	
I:\ACQUDATA\msvoa10\data\092518\D6099.D\	Continuing Calibration Verification	RQ1810327-02	9/25/2018	10:36:00	
I:\ACQUDATA\msvoa10\data\092518\D6100.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	11:24:00	
I:\ACQUDATA\msvoa10\data\092518\D6101.D\	Lab Control Sample	RQ1810327-04	9/25/2018	11:48:00	
I:\ACQUDATA\msvoa10\data\092518\D6103.D\	Method Blank	RQ1810327-05	9/25/2018	12:32:00	
I:\ACQUDATA\msvoa10\data\092518\D6104.D\	MW-9	R1809120-008	9/25/2018	12:53:00	
I:\ACQUDATA\msvoa10\data\092518\D6105.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	13:17:00	
I:\ACQUDATA\msvoa10\data\092518\D6107.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	14:01:00	
I:\ACQUDATA\msvoa10\data\092518\D6108.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	14:23:00	
I:\ACQUDATA\msvoa10\data\092518\D6109.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	14:45:00	
I:\ACQUDATA\msvoa10\data\092518\D6110.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	15:06:00	
I:\ACQUDATA\msvoa10\data\092518\D6111.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	15:28:00	
I:\ACQUDATA\msvoa10\data\092518\D6112.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	15:50:00	
I:\ACQUDATA\msvoa10\data\092518\D6113.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	16:12:00	
I:\ACQUDATA\msvoa10\data\092518\D6114.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	16:34:00	
I:\ACQUDATA\msvoa10\data\092518\D6115.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	16:55:00	
I:\ACQUDATA\msvoa10\data\092518\D6116.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	17:17:00	
I:\ACQUDATA\msvoa10\data\092518\D6117.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	17:39:00	
I:\ACQUDATA\msvoa10\data\092518\D6119.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	18:23:00	
I:\ACQUDATA\msvoa10\data\092518\D6120.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	18:44:00	
I:\ACQUDATA\msvoa10\data\092518\D6121.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	19:06:00	
I:\ACQUDATA\msvoa10\data\092518\D6122.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	19:28:00	
I:\ACQUDATA\msvoa10\data\092518\D6123.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	19:50:00	

Client: Verina Consulting Group, LLC **Service Request:**R1809120
Project: Dover - Binghamton/5101.0003

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: **Analysis Lot:**608092
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092518 \D6124.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	20:12:00	
I:\ACQUDATA\msvoa10\data\092518 \D6125.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	20:33:00	

Analysis: 8260C
Date: 09/24/18
Instr. MS#10
Analyst: D. Lipani
Balance ID: —
50 mL Class A used for dilution FV
pH strips: Hyd. 204018
ResCl strips: —
Syringes: 181117
Tune Method: W082118.M
Run Method: ↓
LIMS Run# : 607883
Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	Blk							D6057	O.K.	
2	Blk							58	Y	
3	Tune Check		(Run as a Blk)					59	Y	
4	CCV							D6060	Y	
5	LCS-Acid							61	Y	
6	LCS-Unp.							62	Y	
7	Blk							63	N	x-over
8	Met Blk							64	Y	
9	R1808818-003	1.0	T.B.	14733	II	2	<2	65	Y	
10	↓ -001	1.0		↓	↓	2	<2	66	Y	
11	R1808968-032	1.0		6646	IV	1	<2	67	Y	
12	-015	5.0	10mL/50mL	7979		2	7	68	Y	Diluted for matrix effect
13	-019	5.0	10mL/50mL			2	7	69	Y	↓
14	-029	5.0	10mL/50mL			1	8	D6070	Y	↓
15	-017	25	2.0mL/50mL			1	7	71	Y	= DL
16	-031	2.0	25mL/50mL			1	7	72	(N)	weak-could go 1/1
17	-030	1.0				1	7	73	(Y)	rpt 1/2.5
18	↓ -030	2.5	20mL/50mL	↓	↓	2	7	74	Y	= DL
19-21	Blks			—	—	—	—	D6075-77	Y	
22	R1808968-027	1.0	T.B.	6646	IV	1	<2	78	Y	
23	↓ -031	1.0		7979		2	7	79	Y	
24	R1809120-005	1.0				1	7	D6080	Y	
25	-006	1.0				1	7	81	Y	wasn't expecting PCE
26	-008	1.0				1	7	82	(N)	likely PCE x-over rpt 1.0
27	-009	1.0				1	7	83	Y	
28	-012	1.0				1	7	84	Y	
29	↓ -010	1.0		↓	↓	1	7	85	Y	
30	R1808819-001	2.0	25mL/50mL	14733	II	1	<2	86	(Y)	rpt 1/10.
31	↓ -001	10	5.0mL/50mL	↓	↓	2	<2	87	Y	= DL
32	R1809120-005MS	1.0		7979	IV	2	7	88	Y	
33	↓ -005DMS	1.0		↓	↓	3	7	89	Y	
34-46)	High Gases + Blks							D6090-D6102	Y	(not all blks run-network crash

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 193033 5.0µl
Primary HSL : 192928
Primary 4CC : 193366
Primary Fr+ : 193220
Primary :

50mL DI = CCV

Secondary TG : 192785 2.0µl
Secondary HSL : 193388
Secondary 4CC : 191355
Secondary Fr+ : 192808 5.0µl
Secondary :

50mL → LCS
4.2µl 10.6µl 42mL vials samp. = MS/DMS

Combined IS/Surr — : —
Surrogate 50 : 193101
Internal Std 50 : 193099
Reagents:

O-996 Page 21

Runlog-MSVOAr4 1/17/17

Analysis: 8260C/624.1 Analyst: D. Lipan pH strips: Hyd. 204018 Tune Method: W082118.M

Date: 09/25/18 Run#1 Balance ID: — ResCl strips: HF 100517F Run Method: ↓

Instr. MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: 608092

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1-2	Blks							D6094-95	Y	
3	High Gases Std							D6096	Y	
4	Blk							97	Y	
5	Tune Check		(Run as a Blk)					98	Y	
6	CCV							↓ 99	Y	
7	LCS-Acid							D6100	Y	
8	LCS-Unp.							01	Y	
9	Blk							02	N	x-over
10	Met Blk							03	Y	
11	R1809120-008	1.0		7979	IV	2	7	04	Y	
12	R1809111-002	1.0		8974	IV	1	<2	05	Y	
13	↓ -001	10	5.0mL/50mL	↓	↓	1	<2	06	N	weak-not very foamy-rpt 1.0
14	R1809062-001	1.0		6656	III	1	<2	07	Y	
15	↓ -002	1.0		↓	↓	1	<2	08	Y	
16	R1809107-019	1.0	T.B.	6675	II	1	<2	↓ 09	Y	
17	R1809111-001	1.0		8974	IV	2	<2	D6110	Y	
18	R1809107-003	1.0		6675	II	1	<2	11	Y	
19	-017	1.0				1	<2	12	Y	
20	-004	1.0				1	<2	13	Y	
21	-005	1.0				1	<2	14	Y	
22	-001	1.0				1	<2	15	Y	
23	-006	1.0	Residual Chlorine			1	<2	16	Y	
24	↓ -002	1.0		↓	↓	1	<2	17	Y	
25	R1809121-001	1.0	(624.1) (composited)	17464	II	C-1	7	↓ 18	(N)	? TCE "J" x-over? rpt 1.0
26	↓ -002	1.0	"	↓	↓	1	7	19	Y	
27	R1809107-007	1.0	(8260C)	6675	II	1	<2	D6120	Y	
28	R1809104-006	1.0	(624.1)	11868	II	1	7	21	Y	
29	↓ -003	2.5	20mL/50mL	↓	↓	C-1	7	22	Y	
30	R1808968-028	1.0	(8260C)	6646	IV	1	<2	23	Y	
31	R1809062-001MS	1.0		6656	III	2	<2	24	Y	
31	↓ -001DMS	1.0		↓	↓	2	<2	25	Y	
32-33	High Gases+Blk			—	—	—	—	↓ 26-27		

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Combined IS/Surr — : —

Surrogate 50 : 193101

Internal Std 50 : 193099

Reagents:

Primary TG : 193033 ~~TG~~ 5.0µl

Primary HSL : 193469 (HL)

Primary OCC : 193366

Primary Frt : 193220

Primary : —

50mL DI = CCV.

Secondary TG : 192785 2.0µl → 4.2µl

Secondary HSL : 193388 ↓

Secondary OCC : 191355 ↓ → 10.6µl

Secondary Frt : 192808 5.0µl

Secondary : —

50mL → LCS

42mL vials sample = MS/DMS

O-996 Page 22

Runlog-MSVOAr4 1/17/17

Analysis: 8260C/624.1 Analyst: D. Lipsman pH strips: Hyd. 204018 Tune Method: W082118.M

Date: 09/25/18 Run#1 Balance ID: — ResCl strips: HF 100517F Run Method: ↓

Instr. MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: 608092

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./		RL	Tier	Vial	pH	File#	OK?	Comments
1-2	Blks								D6094-95	Y	
3	High Gases Std								D6096	Y	
4	Blk								97	Y	
5	Tune Check		(Run as a Blk)						98	Y	
6	CCV								99	Y	
7	LCS-Acid								D6100	Y	
8	LCS-Unp.								01	Y	
9	Blk								02	N	x-over
10	Met Blk								03	Y	
11	R1809120-008	1.0			7979	IV	2	7	04	Y	
12	R1809111-002	1.0			8974	IV	1	<2	05	Y	
13	↓ -001	10	5.0mL/50mL		↓	↓	1	<2	06	N	weak-not very foamy-rpt 1.0
14	R1809062-001	1.0			6656	III	1	<2	07	Y	
15	↓ -002	1.0			↓	↓	1	<2	08	Y	
16	R1809107-019	1.0	T.B.		6675	II	1	<2	↓ 09	Y	
17	R1809111-001	1.0			8974	IV	2	<2	D6110	Y	
18	R1809107-003	1.0			6675	II	1	<2	11	Y	
19	-017	1.0					1	<2	12	Y	
20	-004	1.0					1	<2	13	Y	
21	-005	1.0					1	<2	14	Y	
22	-001	1.0					1	<2	15	Y	
23	-006	1.0		Residual			1	<2	16	Y	
24	↓ -002	1.0		Chlorine	↓	↓	1	<2	17	Y	
25	R1809121-001	1.0	(624.1) (composited)	neg	17464	II	C-1	7	↓ 18	(N)	? TCE "J" x-over? rpt 1.0
26	↓ -002	1.0	"	neg	↓	↓	1	7	19	Y	
27	R1809107-007	1.0	(8260C)	—	6675	II	1	<2	D6120	Y	
28	R1809104-006	1.0	(624.1)	neg	11868	II	1	7	21	Y	
29	↓ -003	2.5	20mL/50mL	neg	↓	↓	C-1	7	22	Y	
30	R1808968-028	1.0	(8260C)	—	6646	IV	1	<2	23	Y	
31	R1809062-001MS	1.0		—	6656	III	2	<2	24	Y	
31	↓ -001DMS	1.0		—	↓	↓	2	<2	25	Y	
32-33	High Gases+Blk			—	—	—	—	—	↓ 26-27		

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 193033 5.0µl
Primary HSL : 193469
Primary OCC : 193366
Primary Frt : 193220
Primary :

50mL DI = CCV.

Secondary TG : 192785 2.0µl → 4.2µl → 10.6µl
Secondary HSL : 193388
Secondary OCC : 191355
Secondary Frt : 192808 5.0µl
Secondary :

50mL → LCS
42mL vials sample = MS/DMS

Combined IS/Surr — : —
Surrogate 50 : 193101
Internal Std 50 : 193099
Reagents:

Runlog-MSVOAr4 1/17/17

Appendix C

VERINA Consulting Group, LLC

ACTIVE SUB-SLAB DEPRESSURIZATION (ASD) INSPECTION LOG
Former Dover Electronics Site, Binghamton, NY (5101.0003)

Date	Time	System On? (Y/N)	E-1	E-2	E-3	E-4	Comments
			Vacuum	Vacuum	Vacuum	Vacuum	
1/10/2017	10:00	Y	3.50	3.00	0.13	2.75	
2/23/2017	8:00	Y	3.12	3.00	0.13	2.88	
3/22/2017	9:40	Y	3.25	3.00	0.13	2.75	
4/13/2017	8:00	Y	3.50	3.13	0.13	3.13	
5/11/2017	8:00	Y	3.25	3.13	0.13	2.88	
6/21/2017	8:20	Y	3.25	3.13	0.25	3.13	
7/13/2017	7:50	Y	3.33	3.13	0.25	3.00	
8/25/2017	8:00	Y	3.50	3.25	0.25	3.00	
9/15/2017	8:00	Y	3.33	3.25	0.25	2.88	
11/17/2017	8:00	Y	3.50	3.13	0.13	3.13	
12/13/2017	9:00	N	--	--	--	--	System off, Fan may have been damaged during power outage week prior
1/17/2018	9:00	Y	4.50	4.00	0.13	3.75	ASD system back on after fan replacement
2/22/2018	8:35	Y	4.50	4.00	0.13	3.75	
3/21/2018	16:20	Y	4.50	3.75	0.25	3.75	IA sampling prior to inspection, ASD system on
4/11/2018	7:45	Y	4.00	3.75	0.13	3.75	
5/23/2018	10:00	Y	3.88	3.75	0.25	3.50	
6/20/2018	8:20	Y	4.00	3.13	0.50	3.63	
7/11/2018	8:20	Y	4.25	3.57	0.38	3.50	
8/15/2018	8:40	Y	4.13	4.00	0.25	3.75	
9/21/2018	10:15	Y	4.13	3.88	0.25	3.75	
10/10/2018	12:45	Y	4.13	3.75	1.13	3.50	
11/15/2018	9:35	Y	2.50	2.25	1.00	1.75	
12/20/2018	9:30	Y	2.39	2.00	0.88	1.39	

Appendix D

VERINA Consulting Group, LLC

INDOOR/AMBIENT AIR SAMPLING LOG

Former Binghamton Plastics Site, Binghamton, NY

VERINA Job No. 5101.0003

Date: 3/21/2018

Personnel: BSN, MWG

Weather: 20's, Cold, Cloudy

Canister Type: 6.0L Stainless Summa

Sample ID	Start Time	Start Canister Pressure	End Time	End Canister Pressure	Temperature (F)	Air Speed (mph)	Indoor/ Outdoor	Canister ID	Canister Size (L)	Flow Control ID	Sample Height (ft)
IA-8	8:04	27	15:58	4	69	NA	Indoor	AC02061	6L	FCS00068	6
IA-9	8:08	28	16:00	6	69	NA	Indoor	AC01887	6L	FCS00006	5
IA-2	8:10	30	16:01	5	69	NA	Indoor	AS00925	6L	FCS00111	4
IA-5	8:16	26	16:03	22	69	NA	Indoor	AC02261	6L	FCA00313	4
IA-3	8:19	26	16:05	1	69	NA	Indoor	AC00716	6L	FCA01014	4
AA-1	8:30	27	16:15	5	26	~10	Outdoor	AC00982	6L	FCA00093	3

Comments:

Appendix E

2655 Park Center Dr., Suite A
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F: +1 805 526 7270
www.alsglobal.com

LABORATORY REPORT

April 10, 2018

Sarah MacCarter
Verina Consulting Group, LLC
1011 US Highway 22, Suite 302
Bridgewater, NJ 08807

RE: Dover-Binghamton / 5101.0003

Dear Sarah:

Enclosed are the results of the samples submitted to our laboratory on March 27, 2018. For your reference, these analyses have been assigned our service request number P1801538.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Kate Kaneko
By Kate Kaneko at 11:08 am, 04/10/18

Kate Kaneko
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton / 5101.0003

Service Request No: P1801538
NJ Certification ID: CA009

CASE NARRATIVE

The samples were received intact under chain of custody on March 27, 2018 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The lower control criterion was exceeded for chloromethane in the Continuing Calibration Verification (CCV) analyzed on April 2, 2018. However, the reported sample results associated with this CCV were for the dilutions of acetone and 1,2,4-trimethylbenzene only, therefore, the results were not affected. No corrective action was necessary.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1347317
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-005
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-17-8
Utah DOH (NELAP)	http://health.utah.gov/lab/environmental-lab-certification/	CA016272017-8
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Verina Consulting Group, LLC
Project ID: Dover-Binghamton / 5101.0003
Service Request: P1801538

Date Received: 3/27/2018
Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
IA-8	P1801538-001	Air	3/21/2018	15:58	AC02061	-2.54	3.76	X
IA-9	P1801538-002	Air	3/21/2018	16:00	AC01887	-2.31	3.67	X
IA-2	P1801538-003	Air	3/21/2018	16:01	AS00925	-2.62	3.74	X
IA-5	P1801538-004	Air	3/21/2018	16:03	AC02261	-4.98	3.77	X
IA-3	P1801538-005	Air	3/21/2018	16:05	AC00716	-0.06	3.70	X
AA-1	P1801538-006	Air	3/21/2018	16:15	AC00982	-2.17	3.79	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard

ALS Project No P1901538

Company Name & Address (Reporting Information): Verina Consulting Group, LLC.

Project Name: Dover - Binghamton

Project Number: 5101.0003

ALS Contact: Kate Kaneko

Project Manager: Sarah MacCarter

P.O. # / Billing Information: 5101.0002 invoice Verina

Phone: 908-864-4400 Fax: 908-864-4401

Email Address for Result Reporting: smaccarter@vcg-llc.com

Sampler (Print & Sign): Matthew Gandy

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method: TO-15		Comments e.g. Actual Preservative or specific instructions
IA-8	1	3/21/18	8:04-15:58	AC02061	FCS00068	-27	-4	6L	X		
IA-9	2		8:08-16:00	AC01887	FCS00006	-28	-6	6L	X		
IA-2	3		8:10-16:01	AS00925	FCS00111	-30	-5	6L	X		
IA-5	4		8:16-16:03	AC02261	FCA00313	-26	-22	6L	X		
IA-3	5		8:19-16:05	AC00716	FCA01014	-26	-1	6L	X		
AA-1	6		8:30-16:15	AC00982	FCA00093	-27	-5	6L	X		

5 of 37

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____
Tier II (Results + QC Summaries X
Tier III (Results + QC & Calibration Summaries) ____
Tier IV (Date Validation Package) 10% Surcharge ____

EDD required (YES) / No
Type: NY State Units: ____

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Matthew Gandy	3/22/18				
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
				3-27-18	0930

Cooler / Blank Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: Verina Consulting Group, LLC Work order: P1801538

Project: Dover-Binghamton / 5101.0003

Sample(s) received on: 3/27/18 Date opened: 3/27/18 by: E.PEREZ

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☐	☒	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☐	☒	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1801538-001.01	6.0 L Ambient Can					
P1801538-002.01	6.0 L Ambient Can					
P1801538-003.01	6.0 L Silonite Can					
P1801538-004.01	6.0 L Ambient Can					
P1801538-005.01	6.0 L Ambient Can					
P1801538-006.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

All Samples are Missing Tags

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-8** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-001

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC02061

Initial Pressure (psig): -2.54 Final Pressure (psig): 3.76

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	0.76	**0.49**	0.15	
74-87-3	Chloromethane	ND	0.76	ND	0.37	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.76	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.76	ND	0.30	
106-99-0	1,3-Butadiene	ND	0.76	ND	0.34	
74-83-9	Bromomethane	ND	0.76	ND	0.20	
75-00-3	Chloroethane	ND	0.76	ND	0.29	
64-17-5	Ethanol	**230**	7.6	**120**	4.0	
75-05-8	Acetonitrile	ND	0.76	ND	0.45	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	**920**	76	**390**	32	**D**
75-69-4	Trichlorofluoromethane (CFC 11)	**2.0**	0.76	**0.35**	0.14	
67-63-0	2-Propanol (Isopropyl Alcohol)	**11**	7.6	**4.4**	3.1	
107-13-1	Acrylonitrile	ND	0.76	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.76	ND	0.19	
75-09-2	Methylene Chloride	**99**	0.76	**29**	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.76	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.76	ND	0.099	
75-15-0	Carbon Disulfide	ND	7.6	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.76	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.76	ND	0.19	
1634-04-4	Methyl tert-Butyl Ether	ND	0.76	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.6	ND	2.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-8** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-001

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC02061

Initial Pressure (psig): -2.54 Final Pressure (psig): 3.76

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.6	ND	2.6	
156-59-2	cis-1,2-Dichloroethene	ND	0.76	ND	0.19	
110-54-3	n-Hexane	**8.4**	0.76	**2.4**	0.22	
67-66-3	Chloroform	ND	0.76	ND	0.16	
107-06-2	1,2-Dichloroethane	ND	0.76	ND	0.19	
71-55-6	1,1,1-Trichloroethane	ND	0.76	ND	0.14	
71-43-2	Benzene	**1.0**	0.76	**0.32**	0.24	
56-23-5	Carbon Tetrachloride	**0.41**	0.15	**0.066**	0.024	
78-87-5	1,2-Dichloropropane	ND	0.76	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.76	ND	0.11	
79-01-6	Trichloroethene	**4.5**	0.15	**0.83**	0.028	
123-91-1	1,4-Dioxane	ND	0.76	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.76	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.76	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.76	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.76	ND	0.14	
108-88-3	Toluene	**9.7**	0.76	**2.6**	0.20	
591-78-6	2-Hexanone	ND	0.76	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.76	ND	0.089	
106-93-4	1,2-Dibromoethane	ND	0.76	ND	0.099	
123-86-4	n-Butyl Acetate	**11**	0.76	**2.4**	0.16	
127-18-4	Tetrachloroethene	**17**	0.76	**2.5**	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-8** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-001

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC02061

Initial Pressure (psig): -2.54 Final Pressure (psig): 3.76

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.76	ND	0.17	
100-41-4	Ethylbenzene	**1.8**	0.76	**0.42**	0.18	
179601-23-1	m,p-Xylenes	**7.5**	1.5	**1.7**	0.35	
75-25-2	Bromoform	ND	0.76	ND	0.074	
100-42-5	Styrene	ND	0.76	ND	0.18	
95-47-6	o-Xylene	**11**	0.76	**2.5**	0.18	
111-84-2	n-Nonane	**66**	0.76	**13**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.76	ND	0.11	
98-82-8	Cumene	**20**	0.76	**4.2**	0.15	
80-56-8	alpha-Pinene	**10**	0.76	**1.8**	0.14	
622-96-8	4-Ethyltoluene	**130**	0.76	**26**	0.15	
108-67-8	1,3,5-Trimethylbenzene	**120**	0.76	**25**	0.15	
95-63-6	1,2,4-Trimethylbenzene	**230**	7.6	**48**	1.5	**D**
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	0.76	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.76	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.76	ND	0.13	
5989-27-5	d-Limonene	**59**	0.76	**11**	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.76	ND	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	0.76	ND	0.10	
91-20-3	Naphthalene	ND	0.76	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.76	ND	0.071	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-9** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-002

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC01887

Initial Pressure (psig): -2.31 Final Pressure (psig): 3.67

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.2**	0.74	**0.44**	0.15	
74-87-3	Chloromethane	ND	0.74	ND	0.36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.74	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.74	ND	0.29	
106-99-0	1,3-Butadiene	ND	0.74	ND	0.33	
74-83-9	Bromomethane	ND	0.74	ND	0.19	
75-00-3	Chloroethane	ND	0.74	ND	0.28	
64-17-5	Ethanol	**200**	7.4	**110**	3.9	
75-05-8	Acetonitrile	ND	0.74	ND	0.44	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	**1,000**	74	**420**	31	**D**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.9**	0.74	**0.35**	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	**11**	7.4	**4.5**	3.0	
107-13-1	Acrylonitrile	ND	0.74	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.74	ND	0.19	
75-09-2	Methylene Chloride	**100**	0.74	**29**	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.74	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.78**	0.74	**0.10**	0.097	
75-15-0	Carbon Disulfide	ND	7.4	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.74	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.74	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.74	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.4	ND	2.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-9** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-002

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC01887

Initial Pressure (psig): -2.31 Final Pressure (psig): 3.67

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.4	ND	2.5	
156-59-2	cis-1,2-Dichloroethene	ND	0.74	ND	0.19	
110-54-3	n-Hexane	**11**	0.74	**3.1**	0.21	
67-66-3	Chloroform	ND	0.74	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	0.74	ND	0.18	
71-55-6	1,1,1-Trichloroethane	**0.77**	0.74	**0.14**	0.14	
71-43-2	Benzene	**1.1**	0.74	**0.33**	0.23	
56-23-5	Carbon Tetrachloride	**0.43**	0.15	**0.068**	0.024	
78-87-5	1,2-Dichloropropane	ND	0.74	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.74	ND	0.11	
79-01-6	Trichloroethene	**3.8**	0.15	**0.70**	0.028	
123-91-1	1,4-Dioxane	ND	0.74	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.74	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.74	ND	0.14	
108-88-3	Toluene	**18**	0.74	**4.7**	0.20	
591-78-6	2-Hexanone	ND	0.74	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.74	ND	0.087	
106-93-4	1,2-Dibromoethane	ND	0.74	ND	0.096	
123-86-4	n-Butyl Acetate	**12**	0.74	**2.6**	0.16	
127-18-4	Tetrachloroethene	**13**	0.74	**2.0**	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-9** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-002

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC01887

Initial Pressure (psig): -2.31 Final Pressure (psig): 3.67

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.74	ND	0.16	
100-41-4	Ethylbenzene	**3.0**	0.74	**0.69**	0.17	
179601-23-1	m,p-Xylenes	**11**	1.5	**2.5**	0.34	
75-25-2	Bromoform	ND	0.74	ND	0.072	
100-42-5	Styrene	**2.6**	0.74	**0.61**	0.17	
95-47-6	o-Xylene	**12**	0.74	**2.9**	0.17	
111-84-2	n-Nonane	**64**	0.74	**12**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.74	ND	0.11	
98-82-8	Cumene	**21**	0.74	**4.4**	0.15	
80-56-8	alpha-Pinene	**8.9**	0.74	**1.6**	0.13	
622-96-8	4-Ethyltoluene	**130**	0.74	**27**	0.15	
108-67-8	1,3,5-Trimethylbenzene	**130**	0.74	**26**	0.15	
95-63-6	1,2,4-Trimethylbenzene	**240**	7.4	**50**	1.5	**D**
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	0.74	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.74	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.74	ND	0.12	
5989-27-5	d-Limonene	**66**	0.74	**12**	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.74	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.74	ND	0.10	
91-20-3	Naphthalene	ND	0.74	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.74	ND	0.069	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-2** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-003

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AS00925

Initial Pressure (psig): -2.62 Final Pressure (psig): 3.74

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.1**	0.77	**0.42**	0.15	
74-87-3	Chloromethane	ND	0.77	ND	0.37	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.77	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.77	ND	0.30	
106-99-0	1,3-Butadiene	ND	0.77	ND	0.35	
74-83-9	Bromomethane	ND	0.77	ND	0.20	
75-00-3	Chloroethane	ND	0.77	ND	0.29	
64-17-5	Ethanol	**190**	7.7	**100**	4.1	
75-05-8	Acetonitrile	ND	0.77	ND	0.46	
107-02-8	Acrolein	ND	3.1	ND	1.3	
67-64-1	Acetone	**1,100**	77	**480**	32	**D**
75-69-4	Trichlorofluoromethane (CFC 11)	**2.2**	0.77	**0.39**	0.14	
67-63-0	2-Propanol (Isopropyl Alcohol)	**9.3**	7.7	**3.8**	3.1	
107-13-1	Acrylonitrile	ND	0.77	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.77	ND	0.19	
75-09-2	Methylene Chloride	**120**	0.77	**33**	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.77	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.82**	0.77	**0.11**	0.10	
75-15-0	Carbon Disulfide	ND	7.7	ND	2.5	
156-60-5	trans-1,2-Dichloroethene	ND	0.77	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.77	ND	0.19	
1634-04-4	Methyl tert-Butyl Ether	ND	0.77	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.7	ND	2.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-2** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-003

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AS00925

Initial Pressure (psig): -2.62 Final Pressure (psig): 3.74

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.7	ND	2.6	
156-59-2	cis-1,2-Dichloroethene	ND	0.77	ND	0.19	
110-54-3	n-Hexane	**9.7**	0.77	**2.8**	0.22	
67-66-3	Chloroform	ND	0.77	ND	0.16	
107-06-2	1,2-Dichloroethane	ND	0.77	ND	0.19	
71-55-6	1,1,1-Trichloroethane	**0.84**	0.77	**0.15**	0.14	
71-43-2	Benzene	**0.89**	0.77	**0.28**	0.24	
56-23-5	Carbon Tetrachloride	**0.45**	0.15	**0.072**	0.024	
78-87-5	1,2-Dichloropropane	ND	0.77	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.77	ND	0.11	
79-01-6	Trichloroethene	**3.8**	0.15	**0.71**	0.028	
123-91-1	1,4-Dioxane	ND	0.77	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.77	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.77	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.77	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.77	ND	0.14	
108-88-3	Toluene	**11**	0.77	**3.0**	0.20	
591-78-6	2-Hexanone	ND	0.77	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.77	ND	0.090	
106-93-4	1,2-Dibromoethane	ND	0.77	ND	0.10	
123-86-4	n-Butyl Acetate	**12**	0.77	**2.5**	0.16	
127-18-4	Tetrachloroethene	**17**	0.77	**2.4**	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-2** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-003

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AS00925

Initial Pressure (psig): -2.62 Final Pressure (psig): 3.74

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.77	ND	0.17	
100-41-4	Ethylbenzene	**2.2**	0.77	**0.51**	0.18	
179601-23-1	m,p-Xylenes	**8.9**	1.5	**2.1**	0.35	
75-25-2	Bromoform	ND	0.77	ND	0.074	
100-42-5	Styrene	ND	0.77	ND	0.18	
95-47-6	o-Xylene	**13**	0.77	**3.1**	0.18	
111-84-2	n-Nonane	**77**	0.77	**15**	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.77	ND	0.11	
98-82-8	Cumene	**26**	0.77	**5.4**	0.16	
80-56-8	alpha-Pinene	**8.4**	0.77	**1.5**	0.14	
622-96-8	4-Ethyltoluene	**150**	0.77	**31**	0.16	
108-67-8	1,3,5-Trimethylbenzene	**160**	0.77	**32**	0.16	
95-63-6	1,2,4-Trimethylbenzene	**310**	7.7	**62**	1.6	**D**
100-44-7	Benzyl Chloride	ND	1.5	ND	0.30	
541-73-1	1,3-Dichlorobenzene	ND	0.77	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.77	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.77	ND	0.13	
5989-27-5	d-Limonene	**76**	0.77	**14**	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.77	ND	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	0.77	ND	0.10	
91-20-3	Naphthalene	ND	0.77	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.77	ND	0.072	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-5** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-004

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC02261

Initial Pressure (psig): -4.98 Final Pressure (psig): 3.77

Container Dilution Factor: 1.90

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.1**	0.95	**0.43**	0.19	
74-87-3	Chloromethane	ND	0.95	ND	0.46	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.95	ND	0.14	
75-01-4	Vinyl Chloride	ND	0.95	ND	0.37	
106-99-0	1,3-Butadiene	ND	0.95	ND	0.43	
74-83-9	Bromomethane	ND	0.95	ND	0.24	
75-00-3	Chloroethane	ND	0.95	ND	0.36	
64-17-5	Ethanol	**180**	9.5	**94**	5.0	
75-05-8	Acetonitrile	ND	0.95	ND	0.57	
107-02-8	Acrolein	ND	3.8	ND	1.7	
67-64-1	Acetone	**910**	9.5	**380**	4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.0**	0.95	**0.35**	0.17	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.5	ND	3.9	
107-13-1	Acrylonitrile	ND	0.95	ND	0.44	
75-35-4	1,1-Dichloroethene	ND	0.95	ND	0.24	
75-09-2	Methylene Chloride	**100**	0.95	**30**	0.27	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.95	ND	0.30	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.95	ND	0.12	
75-15-0	Carbon Disulfide	ND	9.5	ND	3.1	
156-60-5	trans-1,2-Dichloroethene	ND	0.95	ND	0.24	
75-34-3	1,1-Dichloroethane	ND	0.95	ND	0.23	
1634-04-4	Methyl tert-Butyl Ether	ND	0.95	ND	0.26	
108-05-4	Vinyl Acetate	ND	9.5	ND	2.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-5** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-004

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC02261

Initial Pressure (psig): -4.98 Final Pressure (psig): 3.77

Container Dilution Factor: 1.90

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	9.5	ND	3.2	
156-59-2	cis-1,2-Dichloroethene	ND	0.95	ND	0.24	
110-54-3	n-Hexane	**9.2**	0.95	**2.6**	0.27	
67-66-3	Chloroform	ND	0.95	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.95	ND	0.23	
71-55-6	1,1,1-Trichloroethane	ND	0.95	ND	0.17	
71-43-2	Benzene	**1.1**	0.95	**0.35**	0.30	
56-23-5	Carbon Tetrachloride	ND	0.19	ND	0.030	
78-87-5	1,2-Dichloropropane	ND	0.95	ND	0.21	
75-27-4	Bromodichloromethane	ND	0.95	ND	0.14	
79-01-6	Trichloroethene	**3.8**	0.19	**0.70**	0.035	
123-91-1	1,4-Dioxane	ND	0.95	ND	0.26	
10061-01-5	cis-1,3-Dichloropropene	ND	0.95	ND	0.21	
108-10-1	4-Methyl-2-pentanone	ND	0.95	ND	0.23	
10061-02-6	trans-1,3-Dichloropropene	ND	0.95	ND	0.21	
79-00-5	1,1,2-Trichloroethane	ND	0.95	ND	0.17	
108-88-3	Toluene	**14**	0.95	**3.8**	0.25	
591-78-6	2-Hexanone	ND	0.95	ND	0.23	
124-48-1	Dibromochloromethane	ND	0.95	ND	0.11	
106-93-4	1,2-Dibromoethane	ND	0.95	ND	0.12	
123-86-4	n-Butyl Acetate	**9.9**	0.95	**2.1**	0.20	
127-18-4	Tetrachloroethene	**15**	0.95	**2.2**	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-5** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-004

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC02261

Initial Pressure (psig): -4.98 Final Pressure (psig): 3.77

Container Dilution Factor: 1.90

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.95	ND	0.21	
100-41-4	Ethylbenzene	**2.4**	0.95	**0.56**	0.22	
179601-23-1	m,p-Xylenes	**8.9**	1.9	**2.1**	0.44	
75-25-2	Bromoform	ND	0.95	ND	0.092	
100-42-5	Styrene	ND	0.95	ND	0.22	
95-47-6	o-Xylene	**12**	0.95	**2.8**	0.22	
111-84-2	n-Nonane	**68**	0.95	**13**	0.18	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.95	ND	0.14	
98-82-8	Cumene	**23**	0.95	**4.7**	0.19	
80-56-8	alpha-Pinene	**8.9**	0.95	**1.6**	0.17	
622-96-8	4-Ethyltoluene	**140**	0.95	**28**	0.19	
108-67-8	1,3,5-Trimethylbenzene	**130**	0.95	**27**	0.19	
95-63-6	1,2,4-Trimethylbenzene	**260**	9.5	**53**	1.9	**D**
100-44-7	Benzyl Chloride	ND	1.9	ND	0.37	
541-73-1	1,3-Dichlorobenzene	ND	0.95	ND	0.16	
106-46-7	1,4-Dichlorobenzene	ND	0.95	ND	0.16	
95-50-1	1,2-Dichlorobenzene	ND	0.95	ND	0.16	
5989-27-5	d-Limonene	**68**	0.95	**12**	0.17	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.95	ND	0.098	
120-82-1	1,2,4-Trichlorobenzene	ND	0.95	ND	0.13	
91-20-3	Naphthalene	ND	0.95	ND	0.18	
87-68-3	Hexachlorobutadiene	ND	0.95	ND	0.089	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-3** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-005

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC00716

Initial Pressure (psig): -0.06 Final Pressure (psig): 3.70

Container Dilution Factor: 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.2**	0.63	**0.45**	0.13	
74-87-3	Chloromethane	ND	0.63	ND	0.31	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.63	ND	0.090	
75-01-4	Vinyl Chloride	ND	0.63	ND	0.25	
106-99-0	1,3-Butadiene	ND	0.63	ND	0.28	
74-83-9	Bromomethane	ND	0.63	ND	0.16	
75-00-3	Chloroethane	ND	0.63	ND	0.24	
64-17-5	Ethanol	**200**	6.3	**100**	3.3	
75-05-8	Acetonitrile	ND	0.63	ND	0.38	
107-02-8	Acrolein	ND	2.5	ND	1.1	
67-64-1	Acetone	**370**	6.3	**160**	2.7	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.0**	0.63	**0.36**	0.11	
67-63-0	2-Propanol (Isopropyl Alcohol)	**10**	6.3	**4.2**	2.6	
107-13-1	Acrylonitrile	ND	0.63	ND	0.29	
75-35-4	1,1-Dichloroethene	ND	0.63	ND	0.16	
75-09-2	Methylene Chloride	**100**	0.63	**29**	0.18	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.63	ND	0.20	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**1.0**	0.63	**0.13**	0.082	
75-15-0	Carbon Disulfide	ND	6.3	ND	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	0.63	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.63	ND	0.16	
1634-04-4	Methyl tert-Butyl Ether	ND	0.63	ND	0.17	
108-05-4	Vinyl Acetate	ND	6.3	ND	1.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-3** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-005

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC00716

Initial Pressure (psig): -0.06 Final Pressure (psig): 3.70

Container Dilution Factor: 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	6.3	ND	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	0.63	ND	0.16	
110-54-3	n-Hexane	**4.0**	0.63	**1.1**	0.18	
67-66-3	Chloroform	ND	0.63	ND	0.13	
107-06-2	1,2-Dichloroethane	ND	0.63	ND	0.16	
71-55-6	1,1,1-Trichloroethane	**1.3**	0.63	**0.24**	0.12	
71-43-2	Benzene	**0.81**	0.63	**0.25**	0.20	
56-23-5	Carbon Tetrachloride	**0.40**	0.13	**0.063**	0.020	
78-87-5	1,2-Dichloropropane	ND	0.63	ND	0.14	
75-27-4	Bromodichloromethane	ND	0.63	ND	0.094	
79-01-6	Trichloroethene	**4.5**	0.13	**0.85**	0.023	
123-91-1	1,4-Dioxane	ND	0.63	ND	0.17	
10061-01-5	cis-1,3-Dichloropropene	ND	0.63	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.63	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.63	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.63	ND	0.12	
108-88-3	Toluene	**14**	0.63	**3.8**	0.17	
591-78-6	2-Hexanone	ND	0.63	ND	0.15	
124-48-1	Dibromochloromethane	ND	0.63	ND	0.074	
106-93-4	1,2-Dibromoethane	ND	0.63	ND	0.082	
123-86-4	n-Butyl Acetate	**18**	0.63	**3.8**	0.13	
127-18-4	Tetrachloroethene	**12**	0.63	**1.8**	0.093	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **IA-3** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-005

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18 & 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AC00716

Initial Pressure (psig): -0.06 Final Pressure (psig): 3.70

Container Dilution Factor: 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.63	ND	0.14	
100-41-4	Ethylbenzene	**2.9**	0.63	**0.66**	0.15	
179601-23-1	m,p-Xylenes	**11**	1.3	**2.5**	0.29	
75-25-2	Bromoform	ND	0.63	ND	0.061	
100-42-5	Styrene	ND	0.63	ND	0.15	
95-47-6	o-Xylene	**11**	0.63	**2.6**	0.15	
111-84-2	n-Nonane	**57**	0.63	**11**	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.63	ND	0.092	
98-82-8	Cumene	**21**	0.63	**4.2**	0.13	
80-56-8	alpha-Pinene	**4.5**	0.63	**0.80**	0.11	
622-96-8	4-Ethyltoluene	**120**	0.63	**24**	0.13	
108-67-8	1,3,5-Trimethylbenzene	**120**	0.63	**25**	0.13	
95-63-6	1,2,4-Trimethylbenzene	**240**	6.3	**49**	1.3	**D**
100-44-7	Benzyl Chloride	ND	1.3	ND	0.24	
541-73-1	1,3-Dichlorobenzene	ND	0.63	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.63	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.63	ND	0.10	
5989-27-5	d-Limonene	**61**	0.63	**11**	0.11	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.63	ND	0.065	
120-82-1	1,2,4-Trichlorobenzene	ND	0.63	ND	0.085	
91-20-3	Naphthalene	ND	0.63	ND	0.12	
87-68-3	Hexachlorobutadiene	ND	0.63	ND	0.059	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **AA-1** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-006

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00982

Initial Pressure (psig): -2.17 Final Pressure (psig): 3.79

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**1.6**	0.74	**0.33**	0.15	
74-87-3	Chloromethane	ND	0.74	ND	0.36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.74	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.74	ND	0.29	
106-99-0	1,3-Butadiene	ND	0.74	ND	0.33	
74-83-9	Bromomethane	ND	0.74	ND	0.19	
75-00-3	Chloroethane	ND	0.74	ND	0.28	
64-17-5	Ethanol	ND	7.4	ND	3.9	
75-05-8	Acetonitrile	ND	0.74	ND	0.44	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	ND	7.4	ND	3.1	
75-69-4	Trichlorofluoromethane (CFC 11)	**0.95**	0.74	**0.17**	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	7.4	ND	3.0	
107-13-1	Acrylonitrile	ND	0.74	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.74	ND	0.19	
75-09-2	Methylene Chloride	ND	0.74	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.74	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.74	ND	0.097	
75-15-0	Carbon Disulfide	ND	7.4	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.74	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.74	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.74	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.4	ND	2.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **AA-1** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-006

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00982

Initial Pressure (psig): -2.17 Final Pressure (psig): 3.79

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.4	ND	2.5	
156-59-2	cis-1,2-Dichloroethene	ND	0.74	ND	0.19	
110-54-3	n-Hexane	ND	0.74	ND	0.21	
67-66-3	Chloroform	ND	0.74	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	0.74	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.74	ND	0.14	
71-43-2	Benzene	ND	0.74	ND	0.23	
56-23-5	Carbon Tetrachloride	**0.34**	0.15	**0.055**	0.024	
78-87-5	1,2-Dichloropropane	ND	0.74	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.74	ND	0.11	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.74	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.74	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.74	ND	0.14	
108-88-3	Toluene	**1.7**	0.74	**0.45**	0.20	
591-78-6	2-Hexanone	ND	0.74	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.74	ND	0.087	
106-93-4	1,2-Dibromoethane	ND	0.74	ND	0.096	
123-86-4	n-Butyl Acetate	ND	0.74	ND	0.16	
127-18-4	Tetrachloroethene	ND	0.74	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **AA-1** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P1801538-006

Test Code: EPA TO-15 Date Collected: 3/21/18
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/27/18
Analyst: Simon Cao Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00982

Initial Pressure (psig): -2.17 Final Pressure (psig): 3.79

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.74	ND	0.16	
100-41-4	Ethylbenzene	ND	0.74	ND	0.17	
179601-23-1	m,p-Xylenes	ND	1.5	ND	0.34	
75-25-2	Bromoform	ND	0.74	ND	0.072	
100-42-5	Styrene	ND	0.74	ND	0.17	
95-47-6	o-Xylene	ND	0.74	ND	0.17	
111-84-2	n-Nonane	ND	0.74	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.74	ND	0.11	
98-82-8	Cumene	ND	0.74	ND	0.15	
80-56-8	alpha-Pinene	ND	0.74	ND	0.13	
622-96-8	4-Ethyltoluene	ND	0.74	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.74	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.74	ND	0.15	
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	0.74	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.74	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.74	ND	0.12	
5989-27-5	d-Limonene	ND	0.74	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.74	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.74	ND	0.10	
91-20-3	Naphthalene	ND	0.74	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.74	ND	0.069	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180330-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Method Blank** ALS Project ID: P1801538

Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180330-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Wida Ang Date Analyzed: 3/30/18

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Method Blank** ALS Project ID: P1801538

Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180330-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Wida Ang Date Analyzed: 3/30/18

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180402-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Method Blank** ALS Project ID: P1801538

Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180402-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Simon Cao Date Analyzed: 4/2/18

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Method Blank** ALS Project ID: P1801538

Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180402-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Simon Cao Date Analyzed: 4/2/18

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **Verina Consulting Group, LLC**
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Project ID: P1801538

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date(s) Collected: 3/21/18
Analyst: Simon Cao/Wida Ang Date(s) Received: 3/27/18
Sample Type: 6.0 L Summa Canister(s) Date(s) Analyzed: 3/30 - 4/2/18
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P180330-MB	**102**	**99**	**94**	70-130	
Method Blank	P180402-MB	**94**	**102**	**100**	70-130	
Lab Control Sample	P180330-LCS	**103**	**98**	**96**	70-130	
Lab Control Sample	P180402-LCS	**93**	**100**	**101**	70-130	
IA-8	P1801538-001	**103**	**97**	**99**	70-130	
IA-9	P1801538-002	**94**	**99**	**101**	70-130	
IA-2	P1801538-003	**90**	**100**	**102**	70-130	
IA-5	P1801538-004	**89**	**101**	**103**	70-130	
IA-3	P1801538-005	**87**	**101**	**104**	70-130	
AA-1	P1801538-006	**88**	**101**	**104**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180330-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	213	**187**	**88**	64-115	
74-87-3	Chloromethane	210	**203**	**97**	47-140	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	**189**	**90**	60-112	
75-01-4	Vinyl Chloride	211	**193**	**91**	63-127	
106-99-0	1,3-Butadiene	210	**208**	**99**	57-149	
74-83-9	Bromomethane	210	**191**	**91**	63-132	
75-00-3	Chloroethane	210	**205**	**98**	68-129	
64-17-5	Ethanol	1,040	**1060**	**102**	62-131	
75-05-8	Acetonitrile	210	**214**	**102**	56-136	
107-02-8	Acrolein	209	**200**	**96**	60-132	
67-64-1	Acetone	1,050	**1060**	**101**	63-124	
75-69-4	Trichlorofluoromethane (CFC 11)	208	**187**	**90**	65-113	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**420**	**100**	62-135	
107-13-1	Acrylonitrile	212	**216**	**102**	68-138	
75-35-4	1,1-Dichloroethene	213	**196**	**92**	72-118	
75-09-2	Methylene Chloride	213	**189**	**89**	67-116	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	212	**215**	**101**	61-143	
76-13-1	Trichlorotrifluoroethane (CFC 113)	214	**188**	**88**	68-113	
75-15-0	Carbon Disulfide	214	**207**	**97**	68-120	
156-60-5	trans-1,2-Dichloroethene	214	**211**	**99**	71-125	
75-34-3	1,1-Dichloroethane	212	**194**	**92**	68-118	
1634-04-4	Methyl tert-Butyl Ether	213	**202**	**95**	60-123	
108-05-4	Vinyl Acetate	1,060	**1230**	**116**	73-135	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180330-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
78-93-3	2-Butanone (MEK)	212	**204**	**96**	70-129	
156-59-2	cis-1,2-Dichloroethene	212	**204**	**96**	69-121	
110-54-3	n-Hexane	213	**208**	**98**	61-124	
67-66-3	Chloroform	212	**191**	**90**	69-113	
107-06-2	1,2-Dichloroethane	212	**190**	**90**	62-120	
71-55-6	1,1,1-Trichloroethane	212	**193**	**91**	65-116	
71-43-2	Benzene	213	**185**	**87**	66-111	
56-23-5	Carbon Tetrachloride	214	**193**	**90**	64-122	
78-87-5	1,2-Dichloropropane	212	**202**	**95**	69-121	
75-27-4	Bromodichloromethane	214	**209**	**98**	69-123	
79-01-6	Trichloroethene	212	**179**	**84**	69-112	
123-91-1	1,4-Dioxane	213	**205**	**96**	74-123	
10061-01-5	cis-1,3-Dichloropropene	208	**207**	**100**	74-129	
108-10-1	4-Methyl-2-pentanone	213	**223**	**105**	66-138	
10061-02-6	trans-1,3-Dichloropropene	213	**208**	**98**	75-130	
79-00-5	1,1,2-Trichloroethane	212	**198**	**93**	73-117	
108-88-3	Toluene	211	**183**	**87**	66-114	
591-78-6	2-Hexanone	211	**204**	**97**	58-146	
124-48-1	Dibromochloromethane	212	**197**	**93**	67-130	
106-93-4	1,2-Dibromoethane	211	**185**	**88**	70-127	
123-86-4	n-Butyl Acetate	215	**212**	**99**	62-140	
127-18-4	Tetrachloroethene	212	**182**	**86**	62-119	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180330-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/30/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	212	**178**	**84**	66-115	
100-41-4	Ethylbenzene	212	**189**	**89**	69-117	
179601-23-1	m,p-Xylenes	424	**386**	**91**	67-117	
75-25-2	Bromoform	212	**191**	**90**	67-135	
100-42-5	Styrene	211	**192**	**91**	70-128	
95-47-6	o-Xylene	211	**194**	**92**	67-118	
111-84-2	n-Nonane	212	**204**	**96**	61-127	
79-34-5	1,1,2,2-Tetrachloroethane	212	**208**	**98**	70-125	
98-82-8	Cumene	212	**190**	**90**	68-116	
80-56-8	alpha-Pinene	213	**204**	**96**	69-122	
622-96-8	4-Ethyltoluene	211	**199**	**94**	69-124	
108-67-8	1,3,5-Trimethylbenzene	212	**194**	**92**	65-117	
95-63-6	1,2,4-Trimethylbenzene	212	**197**	**93**	67-124	
100-44-7	Benzyl Chloride	212	**203**	**96**	75-142	
541-73-1	1,3-Dichlorobenzene	212	**179**	**84**	70-124	
106-46-7	1,4-Dichlorobenzene	214	**173**	**81**	63-124	
95-50-1	1,2-Dichlorobenzene	214	**186**	**87**	66-125	
5989-27-5	d-Limonene	213	**213**	**100**	64-135	
96-12-8	1,2-Dibromo-3-chloropropane	210	**197**	**94**	73-136	
120-82-1	1,2,4-Trichlorobenzene	218	**176**	**81**	70-141	
91-20-3	Naphthalene	209	**158**	**76**	71-146	
87-68-3	Hexachlorobutadiene	212	**188**	**89**	63-126	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180402-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	213	**165**	**77**	64-115	
74-87-3	Chloromethane	210	**166**	**79**	47-140	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	**189**	**90**	60-112	
75-01-4	Vinyl Chloride	211	**165**	**78**	63-127	
106-99-0	1,3-Butadiene	210	**166**	**79**	57-149	
74-83-9	Bromomethane	210	**184**	**88**	63-132	
75-00-3	Chloroethane	210	**204**	**97**	68-129	
64-17-5	Ethanol	1,040	**974**	**94**	62-131	
75-05-8	Acetonitrile	210	**196**	**93**	56-136	
107-02-8	Acrolein	209	**196**	**94**	60-132	
67-64-1	Acetone	1,050	**1030**	**98**	63-124	
75-69-4	Trichlorofluoromethane (CFC 11)	208	**182**	**88**	65-113	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**390**	**92**	62-135	
107-13-1	Acrylonitrile	212	**207**	**98**	68-138	
75-35-4	1,1-Dichloroethene	213	**201**	**94**	72-118	
75-09-2	Methylene Chloride	213	**191**	**90**	67-116	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	212	**204**	**96**	61-143	
76-13-1	Trichlorotrifluoroethane (CFC 113)	214	**199**	**93**	68-113	
75-15-0	Carbon Disulfide	214	**205**	**96**	68-120	
156-60-5	trans-1,2-Dichloroethene	214	**205**	**96**	71-125	
75-34-3	1,1-Dichloroethane	212	**189**	**89**	68-118	
1634-04-4	Methyl tert-Butyl Ether	213	**199**	**93**	60-123	
108-05-4	Vinyl Acetate	1,060	**1250**	**118**	73-135	

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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180402-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	212	**202**	**95**	70-129	
156-59-2	cis-1,2-Dichloroethene	212	**197**	**93**	69-121	
110-54-3	n-Hexane	213	**200**	**94**	61-124	
67-66-3	Chloroform	212	**187**	**88**	69-113	
107-06-2	1,2-Dichloroethane	212	**179**	**84**	62-120	
71-55-6	1,1,1-Trichloroethane	212	**188**	**89**	65-116	
71-43-2	Benzene	213	**185**	**87**	66-111	
56-23-5	Carbon Tetrachloride	214	**191**	**89**	64-122	
78-87-5	1,2-Dichloropropane	212	**195**	**92**	69-121	
75-27-4	Bromodichloromethane	214	**203**	**95**	69-123	
79-01-6	Trichloroethene	212	**188**	**89**	69-112	
123-91-1	1,4-Dioxane	213	**205**	**96**	74-123	
10061-01-5	cis-1,3-Dichloropropene	208	**205**	**99**	74-129	
108-10-1	4-Methyl-2-pentanone	213	**213**	**100**	66-138	
10061-02-6	trans-1,3-Dichloropropene	213	**206**	**97**	75-130	
79-00-5	1,1,2-Trichloroethane	212	**200**	**94**	73-117	
108-88-3	Toluene	211	**194**	**92**	66-114	
591-78-6	2-Hexanone	211	**200**	**95**	58-146	
124-48-1	Dibromochloromethane	212	**210**	**99**	67-130	
106-93-4	1,2-Dibromoethane	211	**201**	**95**	70-127	
123-86-4	n-Butyl Acetate	215	**208**	**97**	62-140	
127-18-4	Tetrachloroethene	212	**203**	**96**	62-119	

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Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1801538
Client Project ID: **Dover-Binghamton / 5101.0003** ALS Sample ID: P180402-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 4/2/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	212	**194**	**92**	66-115	
100-41-4	Ethylbenzene	212	**199**	**94**	69-117	
179601-23-1	m,p-Xylenes	424	**401**	**95**	67-117	
75-25-2	Bromoform	212	**207**	**98**	67-135	
100-42-5	Styrene	211	**207**	**98**	70-128	
95-47-6	o-Xylene	211	**200**	**95**	67-118	
111-84-2	n-Nonane	212	**198**	**93**	61-127	
79-34-5	1,1,2,2-Tetrachloroethane	212	**212**	**100**	70-125	
98-82-8	Cumene	212	**199**	**94**	68-116	
80-56-8	alpha-Pinene	213	**211**	**99**	69-122	
622-96-8	4-Ethyltoluene	211	**208**	**99**	69-124	
108-67-8	1,3,5-Trimethylbenzene	212	**199**	**94**	65-117	
95-63-6	1,2,4-Trimethylbenzene	212	**200**	**94**	67-124	
100-44-7	Benzyl Chloride	212	**217**	**102**	75-142	
541-73-1	1,3-Dichlorobenzene	212	**194**	**92**	70-124	
106-46-7	1,4-Dichlorobenzene	214	**192**	**90**	63-124	
95-50-1	1,2-Dichlorobenzene	214	**195**	**91**	66-125	
5989-27-5	d-Limonene	213	**210**	**99**	64-135	
96-12-8	1,2-Dibromo-3-chloropropane	210	**198**	**94**	73-136	
120-82-1	1,2,4-Trichlorobenzene	218	**187**	**86**	70-141	
91-20-3	Naphthalene	209	**167**	**80**	71-146	
87-68-3	Hexachlorobutadiene	212	**182**	**86**	63-126	

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