Periodic Review Report

New York Twist Drill OU-2 Off-Site

25 October 2019

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Periodic Review Report

NYSDEC Site Number 1-52-169

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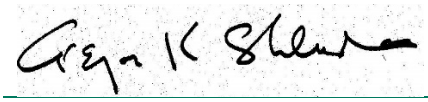

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1. SITE OVERVIEW

This Periodic Review Report (PRR) is required as an element of the remedial program at the New York Twist Drill OU-2 Off-Site (hereinafter referred to as the "OU-2 Off-Site Area") under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The OU-2 Off-Site Area is a Class 4 Site that is monitored under a Site Management Plan (SMP) prepared by ERM Consulting & Engineering, Inc. (ERM) and approved by the NYSDEC in 2016.

The Site is located in the Melville, County of Suffolk, New York. The OU-2 Off-Site Area is an approximately 100-acre area bounded by Melville Park Road to the north and Ruland Road to the south, with a west to east width ranging from 1,500 feet on the northern edge to 1,050 feet on the southern (see Figure 1).

The former New York Twist Drill Site ("Former NYTD Site or OU-1") is located at 25 Melville Park Road in a large commercial/industrial area immediately south of the Long Island Expressway in Melville, New York. The main facility feature is a two-story office building. Paved parking lots are located to the east and north of the building and a grass lawn is located to the south.

The Former NYTD Site is zoned for commercial use and currently used for offices. NYTD was operated by New York Twist Drill, Inc. from 1966 until 1984, and by New York Twist Drill Company until 1984. Operations consisted of the manufacture of carbon steel and other hardened metal twist drills. Hammer operations included heat treatment with salt baths, nitriding, and vapor degreasing with chlorinated solvents. A State Pollutant Discharge Elimination System (SPDES) permit was in place from the mid-1960s to early 1980s, which permitted discharging industrial wastewater from Site operations to the environment. In 1985, the building was converted into a two-story office complex.

OU-1 is the on-Site portion of NYTD and is listed as a Class 2 site. Cleanup of OU-1 is being conducted under the Voluntary Cleanup Program (Site number V00128). Remedial actions are being performed at the Former NYTD Site to address contamination and prevent the migration of contamination off-Site of OU-1 in accordance with the ROD for OU-1, dated March, 2004. Remedial actions include reductive dechlorination, free-phase product removal and a vapor control system.

OU-2 covers off-Site activities conducted by Drico Corporation and Robert, Mark, and Jeffery Hammer, and Suzanne Eliot (hereafter "Respondents") in accordance with Order on Consent Index # W1-0998-04-04, Site #1-52-169, which was executed on November 16, 2004 under the State Superfund Program. A ROD, dated January 15, 2015, selected a "No Further Action" remedy with groundwater and vapor monitoring for the Off-Site contamination. An SMP was prepared and submitted in January 2016, to satisfy the requirements of the ROD, which requires evaluation of the performance of the OU-1 remedy on Off-Site Conditions. The Remedial Investigation/Feasibility Study, dated September 2014, provides a detailed report on the investigation of the Off-Site contamination. Figure 1 provides the location and boundaries of the area subject to this plan.

ERM prepared this Periodic Review Report (PRR) on behalf of the Respondents. The PRR is organized in accordance with the requirements in NYSDEC DER-10 "Technical Guidance for Site Investigation and Remediation," dated May 2010, and additional guidelines provided by NYSDEC project manager. This PRR addresses the activities completed as part of the SMP during this reporting period. The previous PRRs were submitted in September 2017 and updated in November 2017, detailing activities in 2016 and 2017. A second PRR was submitted in 2018 and contained data on activities in 2018.

The following activities were completed in 2018 – 2019 to manage the remaining contamination in the OU-2 Off-Site area including:

1.1 Vertical Profile – Monitoring Well Installation

Negotiations were concluded for site access for the installation of the two vertical profile borings (VPBs) and monitoring wells located along Ruland Road near the intersection with Maxess Road and Republic Road. Drilling of the first VPB (VPB-10) was starting in January 2019 and completed in February 2019. The VPB was advanced to 395-feet bgs with groundwater samples collected every 10-feet. Groundwater samples were sent for VOC analysis on an accelerated bases. The VOC data were plotted with depth and after geophysical logging of the borehole, the results were discussed with the NYSDEC and intervals were selected for the installation of groundwater monitoring wells. Figure 2 presents the results of the groundwater sampling and geophysical logging (N.B. the geophysical scale [Gamma – counts per second, lower x-axis] is atypically displayed from right to left to permit all the borehole data to be displayed on the same graph). As seen on Figure 2, multiple intervals with VOC elevated concentrations were observed. As a result, it was decided to install two monitoring wells in the VPB -10 borehole. The bore hole was reamed (enlarged) to accommodate two – 2-inch wells and monitoring wells screened from 185 -195 (ERM-MW-13S) and 285 – 295-feet bgs (ERM-MW-13D) were installed.

VPB-11 was installed starting at the end of February 2019 and was completed on 22 March 2019. The boring was advanced to a total depth of 398-feet bgs with split-barrel core and groundwater samples collected every 10-feet. Groundwater samples were sent for accelerated turn-around VOC analysis and the VOC concentration plotted with depth to determine the vertical distribution of VOCs. The vertical distribution of VOCs along with the Geophysical Log of the borehole is shown on Figure 3 (as discussed above, N.B. the geophysical scale [Gamma – counts per second, lower x-axis] is atypically displayed from right to left to permit all the borehole data to be displayed on the same graph). With the concurrence of the NYSDEC two monitoring wells were completed in the borehole, a 2-inch diameter well screened from 345-355-feet bgs (ERM-MW-14D) and a 1-inch diameter piezometer screened from 55 – 65 feet bgs (ERM-MW-14S).

In May 2019, a round of Preliminary Sampling was carried out in the newly completed well. Samples were collected using PDB sampling and sent for analysis for VOCs using USEPA SW-846 Method 8260. A summary of the Preliminary Data are presented below:

	cis- 1,2-DCE	trans-1,2-DCE	PCE	TCE	VC
ERM-MW-13S	3.9	054U	5.6	8	0.79U
ERM-MW-13D	5.3	0.54U	14.2	15.4	0.79U
ERM-MW-14D	1.4	0.54U	6.5	7.4	0.79U

Concentrations in ug/L

U – Below Detection Limit

1.2 Groundwater Monitoring in the OU-2 Off-Site Area

Groundwater monitoring was performed on the network of monitoring wells identified in the SMP to monitor both up-gradient (of OU-2) and down-gradient (of OU-1) groundwater conditions. Existing

monitoring wells ERM-MW-01, ERM-MW-02, ERM-MW-02D, ERM-MW-05, ERM-MW-09, ERM-MW-11S, ERM-MW-11M, ERM-MW-11D, ERM-MW-12S, ERM-MW-12M, and newly installed monitoring wells ERM-MW-13S, ERM-MW-13D and ERM-MW-14D were gauged and sampled on 19 September 2019 and analyzed for VOCs using SW-846 Method 8260C by an ELAP certified laboratory.

1.3 Vapor Intrusion Sampling at 10 Melville Park Road

Vapor Intrusion (VI) samples were collected to ensure that soil vapor VOC concentrations are decreasing because of the continuing On-Site clean-up at 25 Melville Park Road (OU-1) and that Indoor VOC concentrations are below New York Department of Health (NYSDOH) Guidance Values. Two sub-slab, one outdoor and one indoor air sample were collected at 10 Melville Park Road on 23 – 24 March 2019 and analyzed for VOCs using USEPA Method TO-15 by an ELAP certified laboratory.

1.4 Well Installation Reporting

The NYSDEC office in Stony Brook, New York was contacted in September 2019 to review the Long Island well completion records for the previous year. The review was focused on the OU-2 Off-Site Area to determine if any new air conditioning, monitoring or diffusion wells were installed

2. MONITORING PLAN COMPLIANCE REPORT

The following table summarizes monitoring reporting requirements as specified in the SMP:

Reporting Requirement	Location
Date of event	Section 3.1 and 3.2
Personnel conducting sampling	Appendix C
Description of the activities performed	Sections 2.2, 2.3 and 2.4 and 2.5
Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc.)	Sections 2.2 and 2.3
Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.)	Appendix C
Sampling results in comparison to appropriate standards/criteria	Tables 2 and 3
A figure illustrating sample type and sampling locations.	Figures 3 and 4
Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC identified format)	Appendix A and D
A Data Usability Summary Report (DUSR) for vapor intrusion sampling and a DUSR for groundwater sampling when termination of groundwater sampling activities is requested	Appendix E
Any observations, conclusions, or recommendations	Section 3.1 and 3.2
A determination as to whether groundwater conditions have changed since the last reporting event	Section 3.1

In addition, the following is also required to be incorporated into this PRR:

Results of the required annual Site inspections and severe condition inspections, if applicable	Not Applicable
All applicable inspection forms and other records generated for the Site during the reporting period in electronic format	Field Sampling Forms can be found in Appendix C
A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions	Not Applicable
Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.	Summary tables and graphical representations can be found in Tables 1 and 2 and Appendix B
Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format	Laboratory Data Packages can be found in Appendices A and D. Equis EDDs were

	submitted to the NYSDEC electronically.
■ Site evaluation, which will include the following: The compliance of the remedy with the requirements of the Site-specific RAWP, ROD or Decision Document; Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and The overall performance and effectiveness of the remedy	A Site evaluation can be found in Section 3.

2.1 COMPONENTS OF MONITORING PLAN

The following table summarizes the elements of the monitoring program as set forth in the SMP:

Monitoring Program	Frequency*	Matrix	Analysis
Vapor Intrusion	Annual	Soil Vapor/Indoor Air/Ambient Air	TO-15
Groundwater	Annual	Groundwater	USEPA SW-846 Method 8260B
Well Installation Records Review	Annual	Groundwater	NA

** The frequency and duration of events will be conducted as specified until otherwise approved or varied by NYSDEC and/or NYSDOH*

The SMP describes the measures for evaluating the performance and effectiveness of the OU-1 remedy on off-site conditions. Trends in contaminant levels in groundwater and soil vapor monitoring in the OU-2 Off-Site Area are evaluated to determine if the OU-1 remedy continues to be effective in achieving remedial goals.

2.2 GROUNDWATER MONITORING PROGRAM

The SMP established an annual groundwater monitoring program to assess the performance of the OU-1 remedy. Groundwater samples were collected from ERM-MW-01, ERM-MW-02, ERM-MW-02D, ERM-MW-05, ERM-MW-09, ERM-MW-11S, ERM-MW-11M, ERM-MW-11D, ERM-MW-12S, ERM-MW-12M, ERM-MW-13S, ERM-MW-13D and ERM-MW-14D in September 2019. All monitoring wells were gauged prior to sampling (Table 1). The elevation of the water table was determined and recorded for each of the wells sampled and used to determine groundwater flow direction. Figures 4 and 4A depict groundwater flow conditions[1]. Table 2 and Figure 5 present a summary of the 2019 annual groundwater analytical results.

[1] Note that wells installed for this investigation was based on the highest concentration of CVOCs detected in a vertical profile boring (VPB) installed prior to monitoring well installation. As a result of the VPB installation, very few wells were actually completed at the water-table. The wells available to construct a true “water table” map are limited. The direction of groundwater flow shown on the water table flow map presented on Figure 4 and the potentiometric flow diagram on Figure 4A generally show groundwater flow in the NYTD Off Site area to be south/southeast.

Samples were collected using passive diffusion sampling methods. Prior to sample collection the depth to water was measured and recorded. The passive diffusion bags (PDBs) were hung in the wells on stainless-steel tethers with the PDB centered in the wells screen. The PDBs were allowed to equilibrate for a period of two weeks. The PDBs were then removed from the wells; the equilibrated groundwater was poured into 40-milliliter (ml) sampling vials and analyzed for VOCs using USEPA SW-846 Method 8260C by SGS Accutest Laboratories with Category B deliverables. Resampling of ERM-MW-11S was not carried out in 2019 due to the narrow well diameter.

2.3 VAPOR INTRUSION MONITORING PROGRAM

Vapor intrusion sampling was conducted in March 2019 at 10 Melville Park Road, an office building located on the south side of Melville Park Road, across the street and down-gradient of the former NYTD Site, to ensure that soil vapor VOC concentrations are decreasing as a result of the continuing On-Site clean up at 25 Melville Park Road and that Indoor VOC concentrations are below New York Department of Health (NYSDOH) Guidance Values. Two sub-slab soil vapor, one outdoor and a ground floor indoor air sample and duplicate were collected as shown on Figure 4. Analytical results from the vapor intrusion sampling are summarized in Table 3.

With the consent of Property Owner, sub-slab soil vapor samples were collected from beneath the ground floor slab in a closet and a storage room and adjacent to the building outdoors. Soil vapor sampling ports installed in the closet and storeroom during previous sampling events were used to collect the sub-slab samples. The ground floor indoor air sample was collected from within the lobby area. An ambient air sample was collected outside of the building under the overhang of the canopy.

The sampling was carried out using the methodologies presented in the New York State Department of Health (NYSDOH) document entitled Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006. Prior to sub-slab sample collection, one to three volumes of air was purged from the probe line and a leak test was conducted. Both sub-slab sampling points passed leak detection tests. Sub-slab soil gas, indoor air and ambient air samples were collected over a 24-hour period using 6-liter laboratory certified SUMMA® canisters. All samples were analyzed by SGS Accutest Laboratories for VOCs using USEPA Method TO-15.

2.4 WELL INSTALLATION REPORTING

A well installation records review was conducted in August 2019 via Freedom of Information Law (FOIL) request. The review focused on the OU-2 Off-Site Area to determine if any new air conditioning, monitoring or diffusion wells were installed. Results of the records review can be found in Appendix F.

2.5 MONITORING DEFICIENCIES

None noted.

3. COMMENTS CONCLUSIONS & RECOMMENDATIONS

3.1 GROUNDWATER SAMPLING RESULTS AND CONCLUSIONS

Groundwater sample collection was performed in September 2019 to assess the performance of the remedy. A summary of the groundwater analytical results for the 2019 sampling event can be found in Table 2 and Figure 3. Complete analytical data packages are provided in Appendix A. Concentration vs time graphs can be found in Appendix B. All field sampling notes and forms can be found in Appendix C. An Equis Electronic Data Deliverable (EDD) was submitted and accepted by the NYSDEC on (28 August 2019). The data were validated by an independent third party, Environmental Data Services, Inc. (EDS), located at 177 Herman Melville Avenue, Newport News, Virginia 23606. Final review of all data was performed by the ERM Quality Assurance Officer (QAO). The Data Usability Reports (DUSR) with qualified Form I's are presented as Appendix E. Based on these evaluations, the data is acceptable for use in monitoring remedial progress.

Analytical results indicate the cis-1,2-dichloroethene exceeded the Technical & Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (referred to as the GWQC) in samples collected from ERM-MW-01, ERM-MW-05, ERM-MW-09, ERM-MW-11S and ERM-MW-13D. GWQC were also exceeded by the concentrations of trans-1,2-DCE detected in monitoring wells ERM-MW-05, ERM-MW-13S and ERM-MW-13D. PCE concentration exceeded GWQC in monitoring wells ERM-MW-05, ERM-MW-09, ERM-MW-11S, ERM-MW-11D, ERM-MW-13S, ERM-MW-13D and ERM-MW-14D. Additionally, the concentrations of TCE exceeded GWQC in ERM-MW-05, ERM-MW-11S, ERM-MW-11D, ERM-MW-12D, ERM-MW-13S, ERM-MW-13D and ERM-MW-14D. Finally, VC concentrations in ERM-MW-01 and ERM-MW-05 also exceeded the GWQC. VOC concentrations in ERM-MW-02, ERM-MW-02D and ERM-MW-12S were all below GWQC. ERM-MW-01 and ERM-MW-05 are the closest well to the Former NYTD Site. The detection of DCE within the plume at a greater concentration than PCE indicates that natural degradation of PCE is occurring, insofar as PCE is the primary contaminant detected at the OU-1 Site and DCE is a known degradation product of PCE. In both ERM-MW-05 and ERM-MW-09, concentrations of daughter products were greater than parent products PCE or trichloroethene (TCE) indicating that the on-Site remedy continues to remain effective. Except in monitoring wells ERM-MW-01 the concentrations of PCE, TCE, cis-DCE and VC decreased in groundwater from 2017 to 2019. In monitoring well ERM-MW-01 the concentrations of cis-DCE increased in 2018 (106 micrograms per liter [µg/l]) as compared to 2017 (15 µg/l). Increases in VOC concentrations in ERM-MW-01 and ERM-MW-05 are likely due to the uncontrolled migration of contaminants from OU-1, a condition that cannot be remedied by the OU-2 Respondents.

Consistent with previous sampling results, the highest concentrations of PCE and TCE were detected near the center of the plume at Baylis Road (ERM-MW-11S and ERM-MW-11D). Concentrations of PCE and TCE in ERM-11S were 61.4 ug/l and 46.2 ug/l, respectively. Concentrations of PCE and TCE in ERM-11D were 29.9 ug/l and 26.4 ug/l, respectively. The concentrations of PCE and TCE in these wells show a decrease from the concentrations observed in 2017/2018. PCE and TCE detected in ERM-MW-12D, located at the eastern leading edge of the plume along Ruland Road, have continued to show a decrease in concentrations to just above GWQC (5ug/l) with PCE concentrations of 4.8 ug/l and 5.1 ug/l, respectively (again decreases from the 2017/2018 results). These results are indicative that the on-site remedy remains effective and is in compliance with the ROD. A summary table comparing the 2017 2018 and 2019 PCE, TCE, 1,2-DCE and VC (CVOC) results is shown below.

SUMMARY OF 2017 THROUGH 2019 CVOC SAMPLING RESULTS

Monitoring Well	Year	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	VC
ERM-MW-01	**2017**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ERM-MW-01	**2018**	1.0 U	1.0 U	15.0	1.0 U	1.0 U
ERM-MW-01	**2019**	1.0 U	1.0 U	103	0.82 J	5.7
ERM-MW-02D	**2017**	1.0 U	1.0 U	1.1	1.0 U	0.40 J
ERM-MW-02D	**2018**	1.0 U	1.0 U	0.54 J	1.0 U	1.0 U
ERM-MW-02D	**2019**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ERM-MW-05	**2017**	1.0 U	2.0	37.9	7.3	8.8
ERM-MW-05	**2018**	3.0	5.6	83.6	6.7	34.9
ERM-MW-05	**2019**	1	5.1	48.6	8	15
ERM-MW-09	**2017**	21.9	17.9	33.4	0.58 J	1.0 U
ERM-MW-09	**2018**	10.4	9.9	16.9	1.0 U	1.0 U
ERM-MW-09	**2019**	8	4.6	40.3	3.2	1.3
ERM-MW-11M	**2017**	214	107	58.1	1.3	1.0 U
ERM-MW-11M	**2018**	117	47.8	28.8	0.62 J	1.0 U
ERM-MW-11M	**2019**	8.9	4.2	1.0 U	1.8	1.0 U
ERM-MW-11D	**2017**	99.3	70.1	71.7	1.4	1.0 U
ERM-MW-11D	**2018**	37.2	30.8	43.4	1.0	1.0 U
ERM-MW-11D	**2019**	29.9	26.4	29.5	057J	1.0 U
ERM-MW-12S	**2017**	0.57 J	0.34 J	1.0 U	1.0 U	1.0 U
ERM-MW-12S	**2018**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ERM-MW-12D	**2017**	9.1	10.4	2.0	1.0 U	1.0 U
ERM-MW-12D	**2018**	5.6	6.6	1.3	1.0 U	1.0 U
ERM-MW-12D	**2019**	4.8	5.1	2	1.0 U	1.0 U
ERM-MW-13S	**5/2019**	5.6	8.0	3.9	1.0U	1.0U
ERM-MW-13S	**9/2019**	4.8	5.1	2.0	1.0U	1.0U
ERM-MW-13D	**5/2019**	14.2	15.4	5.3	1.0U	1.0U
ERM-MW-13D	**9/2019**	14.4	21.1	10.9	1.0U	1.0U
ERM-MW-14D	**5/2019**	6.5	7.4	1.4	1.0U	1.0U
ERM-MW-14D	**9/2019**	5.7	6.1	1.4	1.0U	1.0U

NOTES
U - Not Detected
J - Estimated Concentration

3.2 VAPOR INTRUSION SAMPLING RESULTS AND CONCLUSIONS

Vapor intrusion sampling was conducted on 23-24 March 2019. Two sub-slab, one indoor and duplicate, and one outdoor air samples were collected from 10 Melville Park Road (Figure 4). A summary of the vapor intrusion analytical results for the 2018 sampling event can be found in Table 3. The complete analytical data package is provided in Appendix D. An Equis Electronic Data Deliverable (EDD) was submitted and accepted by the NYSDEC on (December 26, 2020). EDS validated the data. The ERM

QAO performed final review of all data. The DUSR with qualified Form I's is presented as Appendix E. Based on these evaluations, the data is acceptable for use in monitoring remedial progress. Results from the March 2019 vapor intrusion sampling event were sent to the property owner upon completion on May 5, 2019. A copy of the letter sent to the building manager is attached as Appendix G.

Analytical results from the March 2019 sub-slab and indoor air samples indicate that tetrachloroethene (PCE) is present in sub-slab soil vapor at concentrations of 8.8 ug/m3 and 10.0 ug/m3. PCE was detected in both of the indoor air samples at a concentrations of 0.81 ug/m3and 0.75 ug/m3. PCE was not detected in the outdoor air sample at a detection limit concentration of 0.22U ug/m3. The only other site constituent of concern, TCE, was non-detect in both indoor air sample (0.33U ug/m3) and present in one sub slab sample at 7.5 ug/m3 and non-detect in the other sub sample (0.86U ug/m3). The outdoor air sample also did not contain TCE (0.17U ug/. These results indicate that sub-slab soil vapor and indoor air VOC concentrations remain below the NYSDOH Guidance Values as a result of the ongoing on-Site cleanup at the Former NYTD Site and that the on-site remedy remains effective and is in compliance of the ROD. A summary of the VI sampling results at 10 Melville Park Road for cis-1,2,-DCE, PCE, TCE and VC for the five rounds of samples that have been collected at this location is presented below, showing continued decreases in the concentration of CVOCs.

SUMMARY OF VI SAMPLING RESLULTS AT 10 MELVILLE PARK ROAD

	cis-1,2-DCE	PCE	TCE	VC
2007				
Indoor Air	1.3U	1.8U	1.3U	1.2U
Ambient Air	1.3U	1.8U	1.3U	1.2U
Sub-Slab-1	1.3U	***111***	1.3U	1.2U
Sub-Slab-2	***21.2***	***1010***	***66.6***	1.2U
2014				
Indoor Air	0.79U	0.27U	0.21U	0.51U
Ambient Air	0.79U	0.27U	0.21U	0.51U
Sub-Slab-1	3.2U	***32***	0.86U	2.0U
Sub-Slab-2	3.2U	***73.9***	0.86U	2.0U
2017				
Indoor Air	0.79U	0.27U	0.21U	0.10U
Ambient Air	0.79U	***1***	0.21U	0.10U
Sub-Slab-1	0.79U	***50***	0.21U	0.10U
Sub-Slab-2	1.5U	***29***	0.41U	0.19U
2018				
Indoor Air-1	0.13U	0.21J	0.18J	0.087U
Indoor Air-2	0.56U	0.95J	***1.8***	0.36U
Ambient Air	0.13U	***0.35***	***0.26***	0.082U
Sub-Slab-1	0.16U	***1***	0.21U	0.10U

Sub-Slab-2	0.16U	***0.26J***	***0.59***	0.10U
2019				
Indoor Air-1	1.4U	***0.81***	0.33U	0.16U
Indoor Air-1 Dup	1.4U	***0.75***	0.33U	0.16U
Ambient Air	0.13U	0.22U	0.17U	0.082U
Sub-Slab-1	0.79U	***10***	***7.5***	0.51U
Sub-Slab-2	0.63U	***8.8***	0.86U	0.41U

U -Not Detected

J-Estimated Concentration

Concentrations ug/m^3

3.3 WELL INSTALLATION REPORTING RESULTS AND CONCLUSIONS

A well installation records review was conducted via FOIL request on 28 August 2018 to the NYSDEC. The review focused on the OU-2 Off-Site Area to determine if any new air conditioning, monitoring or diffusion wells were installed. Results of the FOIL request produced no records of new well installations. A copy of the results of the FOIL request can be found in Appendix F. The NYSDEC IC/EC Certification is presented in Appendix H.

3.4 ACTIVITIES TO BE CONDUCTED DURING NEXT REPORTING PERIOD

ERM proposes to continue the groundwater monitoring next year.

The ROD indicated that monitoring of this structure should be undertaken to insure that there is no vapor intrusion exposure pathway to employees using the building. The VI data collected over three years of monitoring have demonstrated:

- no site (OU-1) related contaminants at concentrations exceeding the NYSDOH Guidelines in the 10 Melville Park Road, and;
- no site (OU-1) related contaminates in sub-slab samples at concentrations that would require mitigation.

As shown in Appendix B, except for wells that monitor the migration of OU-1 VOCs into OU-2, VOC concentrations have decreased in all wells, indicating that the natural attenuation of VOC impacts from past activities is effective in restoring groundwater quality. Consequently, the potential for VI into 10 Melville Park will continue to decrease. Except for periods when the groundwater treatment system at 25 Melville Park Road requires modification, VI impacts to indoor air at the 10 Melville Park Road building have not been above NYSDOH Guidelines. The VI monitoring at 10 Melville Park Road will, therefore, be discontinued.

ERM has over 160 offices across the following countries and territories worldwide

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Belgium
Brazil
Canada
China
Colombia
France
Germany
Hong Kong
Hungary
India
Indonesia
Ireland
Italy
Japan
Kazakhstan
Kenya
Malaysia
Mexico
The Netherlands
New Zealand
Panama
Peru
Poland
Portugal
Puerto Rico
Romania
Russia
Singapore
South Africa
South Korea
Spain
Sweden
Taiwan
Thailand
UAE
UK
US
Vietnam

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105 Maxess Road
Suite 316
Melville, NY 11747

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F: 1+631.756.8901

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FIGURES

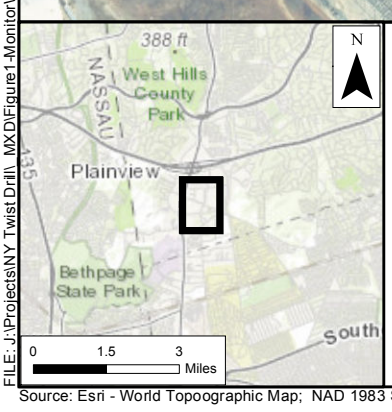
DRAWN BY: SRV

N

MW-35
MW-34
SCDHS-MPR-01
ERM-MW-01
ERM-MW-02
ERM-MW-02D
ERM-MW-06
ERM-MW-05
ERM-MW-09
ERM-MW-07
ERM-MW-07D
ERM-MW-04
ERM-MW-08
ERM-MW-10
ERM-MW-03
ERM-MW-11S
ERM-MW-11M
ERM-MW-11D
ERM-MW-012S
ERM-MW-012M
ERM-MW-14S
ERM-MW-14D
ERM-MW-013S
ERM-MW-013D

Broad Hollow Rd
Huntington Quadrangle
Corporate Center Dr
Maxess Rd
Baylis Rd
Duryea Rd
Ruland Rd
Ruland Pl
Deshon Dr
110

0 375 750
Feet



Legend

- Monitoring Well Location
- OU-2 Boundary
- Former NYTD Site

Figure 1
OU-2 Boundary Map
NYTD Site
Respondants Order on Consent
NO. W1-0998-04-04
Suffolk County, New York

Environmental Resources Management
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Source: Esri - World Topoographic Map; NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

FILE: J:\Projects\NY Twist Drill_MXD\Figure1-MonitorWellNetworkMap_20191023.mxd | REVISED: 10/23/2019 | SCALE: 1:4,800 when printed at 11x17

DRAWN BY: SRV

CONCENTRATION (μg/L)

0 20 40 60 80 100 120 140

VPB-10

PCE

TCE

cis-DCE

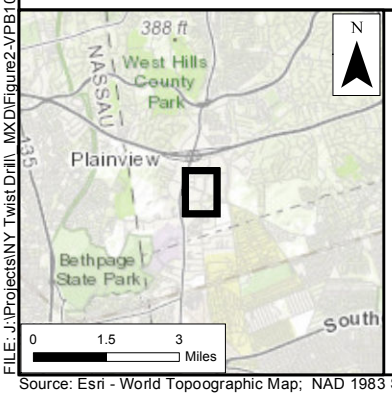
Line/Scatter Plot 4

DEEPTH (feet below grade)

0 50 100 150 200 250 300 350 400

80 70 60 50 40 30 20 10 0

GAMMA (Counts Per Second)



Source: Esri - World Topoographic Map; NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

Figure 2
Detected VOCs in Groundwater
September 2019
Respondants Order on Consent
NO. W1-0998-04-04
Suffolk County, New York

Environmental Resources Management
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FILE: J:\Projects\NY Twist Drill_MXD\Figure2-VPB10_GammaGraph_20191015.mxd | REVISED: 10/15/2019 | SCALE: 1:4,050 when printed at 11x17

DRAWN BY: SRV

CONCENTRATION µg/l

0 5 10 15 20 25 30 35 40 45 50

DEPTH feet (below land surface)

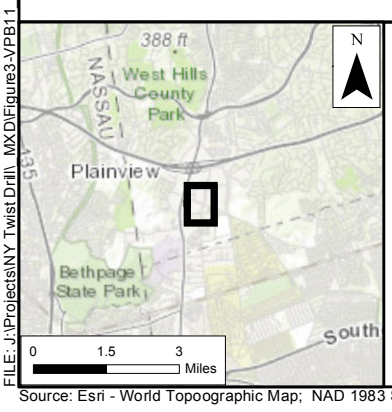
0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425

VP-11

PCE
TCE
cis-DCE
VC
Gamma Log

80 60 40 20 0

GAMMA LOG (CPS)



Source: Esri - World Topoographic Map; NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

Figure 3
Detected VOCs in Groundwater
September 2019
Respondants Order on Consent
NO. W1-0998-04-04
Suffolk County, New York

Environmental Resources Management
www.erm.com
ERM

FILE: J:\Projects\NY Twist Drill_MXD\Figure3-VPB11_GammaGraph_20191015.mxd | REVISED: 10/15/2019 | SCALE: 1:3,520 when printed at 11x17

DRAWN BY: SRV

N

MW-35
NM
MW-34
NM
ERM-MW-02
NM
SCDHS-MPR-01
69.43
ERM-MW-02D
NM
ERM-MW-01
NM
ERM-MW-06
NM
ERM-MW-05
NM
69
Broad Hollow Rd
Corporate Center Dr
Huntington Quadrangle
Maxess Rd
110
ERM-MW-09
NM
68
ERM-MW-04
78.42
ERM-MW-07
NM
ERM-MW-07D
NM
ERM-MW-08
NM
Baylis Rd
ERM-MW-03
NM
ERM-MW-10
NM
ERM-MW-11M
NM
ERM-MW-011D
NM
ERM-MW-11S
66.36
67
Duryea Rd
66
Ruland Rd
ERM-MW-012S
64.14
ERM-MW-012M
NM
ERM-MW-013S
ERM-MW-013D
64.04
ERM-MW-14S
65.26
ERM-MW-14D
NM
Deshon Dr

0 375 750
Feet

388 ft
West Hills County Park
NASSAU
Plainview
Bethpage State Park
South
135
0 1.5 3
Miles

Legend

- Monitoring Well Location (Used in Flow Calculation)
- Monitoring Well Location (Not used in Flow Calculation)
- Former NYTD Site

Notes:
1. Date of gauging 10/24/2019
2. NM - Not measured

Figure 4
Groundwater Contour Map
October 2019
Respondants Order on Consent
NO. W1-0998-04-04
Suffolk County, New York

Environmental Resources Management
www.erm.com
ERM

Source: Esri - World Topoographic Map; NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

FILE: J:\Projects\NY Twist Drill\ MXD\Figure4-GroundwaterContourMap_OCTOBER2019_20191025.mxd | REVISED: 10/25/2019 | SCALE: 1:4,800 when printed at 11x17

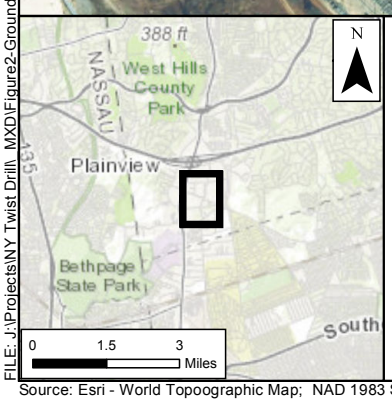
DRAWN BY: SRV

MW-35
NM
MW-34
NM
ERM-MW-02
70.05
SCDHS-MPR-01
70.12
ERM-MW-02D
70.31
ERM-MW-01
70
ERM-MW-06
69.87
ERM-MW-05
69.56
ERM-MW-09
68.37
ERM-MW-07
62.43
ERM-MW-07D
66.43
ERM-MW-04
78.42
ERM-MW-08
67.47
ERM-MW-03
NM
ERM-MW-10
NM
ERM-MW-11M
60.76
ERM-MW-011D
66.2
ERM-MW-11S
59.56
ERM-MW-012S
65.24
ERM-MW-012M
65.11
ERM-MW-013S
ERM-MW-013D
65.11
ERM-MW-14S
65.63
ERM-MW-14D
NM

70
69
68
67
66
65

Broad Hollow Rd
Maxess Rd
Corporate Center Dr
Huntington Quadrangle
Baylis Rd
Duryea Rd
Ruland Rd
Deshon Dr
110

0 375 750
Feet



Legend

- Monitoring Well Location (Used in Flow Calculation)
- Monitoring Well Location (Not used in Flow Calculation)
- Groundwater Flow Direction
- Groundwater Contour (1 Ft. Interval)
- Former NYTC Site

Notes:
1. Date of gauging 8/29/2019
2. NM - Not measured

Figure 4A
Groundwater Contour Map
August 2019
Respondants Order on Consent
NO. W1-0998-04-04
Suffolk County, New York

Environmental Resources Management
www.erm.com
ERM

Source: Esri - World Topoographic Map; NAD 1983 StatePlane New York Long Island FIPS 3104 Feet

FILE: J:\Projects\NY Twist Drill_MXD\Figure2-GroundwaterContourMap_AUGUST2019_20190925.mxd | REVISED: 09/26/2019 | SCALE: 1:4,800 when printed at 11x17

DRAWN BY: SRV

ERM-MW-01
Acetone 8.8 J µg/L
1,1-Dichloroethane 2.2 µg/L
cis-1,2-Dichloroethene 106 µg/L
Chloroethane 2.2 µg/L
trans-1,2-Dichloroethene 0.82 J µg/L
Vinyl chloride 5.7 µg/L

ERM-MW-02
Acetone 12.3 µg/L
trans-1,2-Dichloroethene 2.2 µg/L

ERM-MW-02D
Acetone 13.3 µg/L

ERM-MW-05
Acetone 11.2 µg/L
1,1-Dichloroethane 1.4 µg/L
cis-1,2-Dichloroethene 48.6 µg/L
Chloroethane 4.3 µg/L
Tetrachloroethene 1 µg/L
trans-1,2-Dichloroethene 8 µg/L
Trichloroethene 5.1 µg/L
Vinyl chloride 15 µg/L

ERM-MW-09
Acetone 20.5 µg/L
1,1-Dichloroethane 0.8 J µg/L
cis-1,2-Dichloroethene 40.3 µg/L
Chloroethane 0.75 J µg/L
Tetrachloroethene 8 µg/L
trans-1,2-Dichloroethene 3.2 µg/L
Trichloroethene 4.6 µg/L
Vinyl chloride 1.3 µg/L

ERM-MW-11D
1,1,1-Trichloroethane 1 µg/L
1,1-Dichloroethane 0.75 J µg/L FD
1,1-Dichloroethane 1.5 µg/L
1,1-Dichloroethene 3.2 µg/L
Acetone 21.1 µg/L FD
Acetone 12.3 µg/L
cis-1,2-Dichloroethene 29.5 µg/L
cis-1,2-Dichloroethene 41.3 µg/L FD
Chloroethane 0.86 J µg/L FD
Tetrachloroethene 8.9 µg/L FD
Tetrachloroethene 29.9 µg/L
trans-1,2-Dichloroethene 3.3 µg/L FD
trans-1,2-Dichloroethene 0.71 J µg/L
trans-1,2-Dichloroethene 0.57 J µg/L
Trichloroethene 26.4 µg/L
Trichloroethene 5 µg/L FD
Vinyl chloride 1.4 µg/L FD

ERM-MW-11M
Acetone 13.3 µg/L
cis-1,2-Dichloroethene 1.8 µg/L
Chloroform 0.74 J µg/L
Tetrachloroethene 8.9 µg/L
Trichloroethene 4.2 µg/L

ERM-MW-11S
Acetone 17.6 µg/L
1,1-Dichloroethane 2.1 µg/L
1,1-Dichloroethene 1.3 µg/L
cis-1,2-Dichloroethene 31 µg/L
Tetrachloroethene 61.4 µg/L
Trichloroethene 46.2 µg/L

ERM-MW-13S
1,1,1-Trichloroethane 0.58 J µg/L
1,1-Dichloroethene 2.9 µg/L
1,1-Dichloroethane 1.6 µg/L
Acetone 11.8 µg/L
cis-1,2-Dichloroethene 11.6 µg/L
Tetrachloroethene 18.6 µg/L
Trichloroethene 17.9 µg/L

ERM-MW-13D
1,1,1-Trichloroethane 0.85 J µg/L
1,1-Dichloroethene 7.1 µg/L
1,1-Dichloroethane 1.9 µg/L
Acetone 12.6 µg/L
cis-1,2-Dichloroethene 10.9 µg/L
Chloroform 0.76 J µg/L
Tetrachloroethene 14.4 µg/L
Trichloroethene 21.1 µg/L

ERM-MW-12S
Acetone 18.7 µg/L

ERM-MW-12D
1,1-Dichloroethene 1.6 µg/L
Acetone 11.2 µg/L
cis-1,2-Dichloroethene 2 µg/L
Tetrachloroethene 4.8 µg/L
Trichloroethene 5.1 µg/L

ERM-MW-14D
1,1-Dichloroethene 0.73 J µg/L
Acetone 10.2 µg/L
cis-1,2-Dichloroethene 1.4 µg/L
Chloroform 2.3 µg/L
Tetrachloroethene 5.7 µg/L
Trichloroethene 6.1 µg/L

0 375 750
Feet

388 ft
West Hills County Park
Plainview
Bethpage State Park
South
0 1.5 3
Miles

Legend

Monitor Well Location VOC Detections

Former NYTD Site

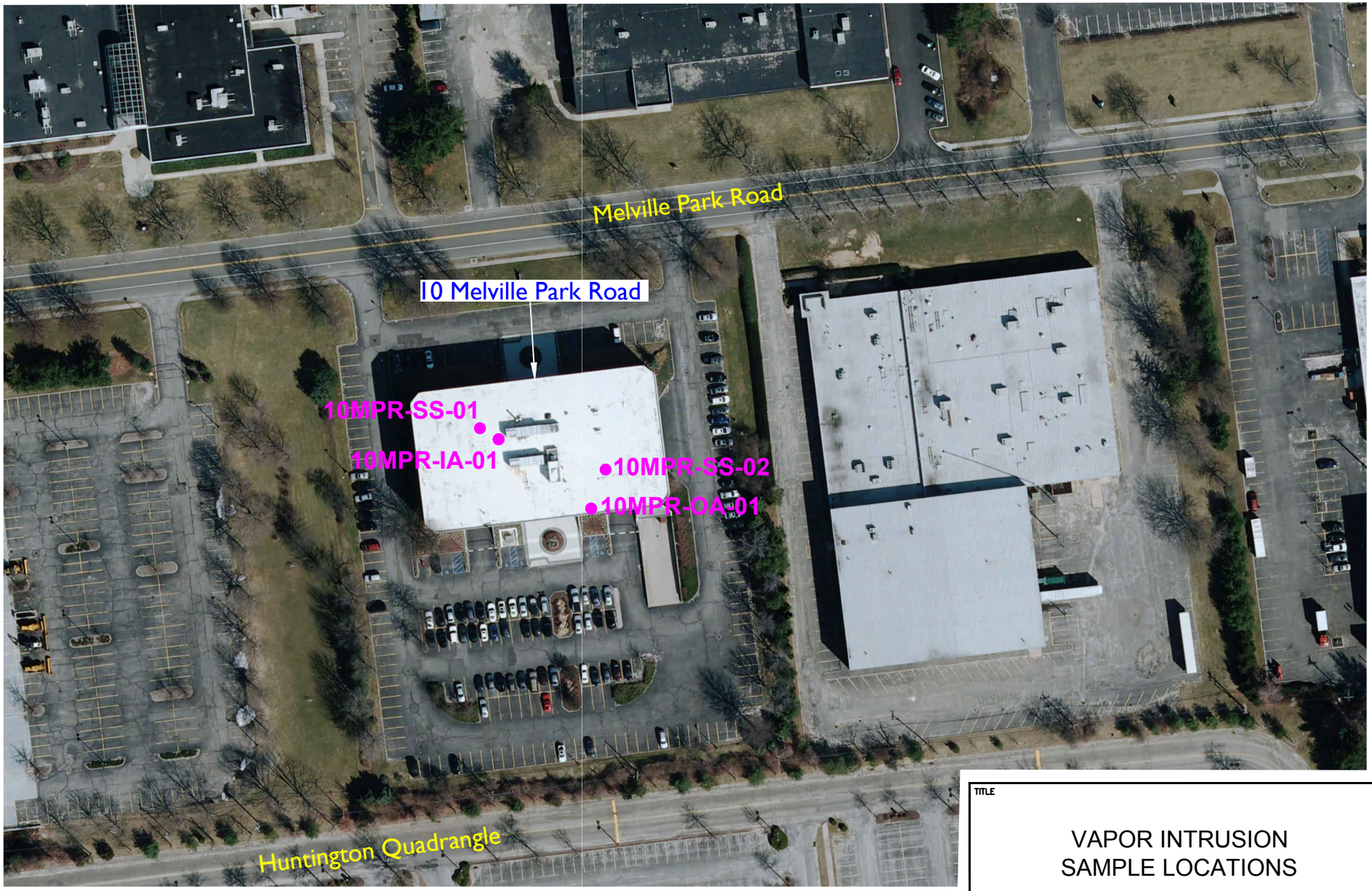
Notes:
1. Sampling Event September 12, 2019
2. J - Estimated Value
3. FD - Feild Duplicate
4. All monitoring wells evaulated for full suite of VOCs

Figure 5
Detected VOCs in Groundwater September 2019
Respondants Order on Consent
NO. W1-0998-04-04
Suffolk County, New York

Environmental Resources Management
www.erm.com

FILE: J:\Projects\NY Twist Drill_MXD\Figure5-GroundwaterVOC_SEPT2019_20191015.mxd | REVISED: 10/15/2019 | SCALE: 1:4,800 when printed at 11x17

Source: Esri - World Topoographic Map; NAD 1983 StatePlane New York Long Island FIPS 3104 Feet



Legend

- **VI Sample Location**

0 120 240

GRAPHIC SCALE IN FEET

N

TITLE

VAPOR INTRUSION SAMPLE LOCATIONS

PREPARED FOR

RESPONDENTS ORDER ON CONSENT
NO. W1-0998-04-04

Environmental Resources Management

FIGURE 6

DRAWN BY	SCALE	DATE	JOB NO.
GKS/EMF	GRAPHIC	09/08/17	0372902.04

M:\Scout\Projects\NY Twist Drill\CAD\2017\207-09-08 - NY Twist Drill - Soil Vapor Samples.dwg (09/08/2017 - 9:57am Melville)

TABLES

Table 1
Groundwater Summary Table - 2019
New York Twist Drill Facility
Melville, New York

Analyte	Unit	Location ID Sample Date Sample Type NY-TOGS1.1.1-DW-CLASSGA-TAB1-1998-2004	ERM-MW-01 12-Sep-19 N	ERM-MW-02 12-Sep-19 N	ERM-MW-02D 12-Sep-19 N	ERM-MW-05 12-Sep-19 N	ERM-MW-09 12-Sep-19 N	ERM-MW-11D 12-Sep-19 N	ERM-MW-11D 12-Sep-19 FD	ERM-MW-11M 12-Sep-19 N	ERM-MW-11S 12-Sep-19 N	ERM-MW-12D 12-Sep-19 N	ERM-MW-12S 12-Sep-19 N
Method 8260C, not applicable, µg/L													
1,1,1-Trichloroethane	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	1.0	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2,2-Tetrachloroethane	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2-trichloro-1,2,2-trifluoroethane (Freo	µg/L	5	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*
1,1,2-Trichloroethane	µg/L	1	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,1-Dichloroethane	µg/L	5	2.2	*< 1.0*	*< 1.0*	1.4	0.80 J	1.5	0.75 J	*< 1.0*	2.1	*< 1.0*	*< 1.0*
1,1-Dichloroethene	µg/L	**5**	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	3.2	*< 1.0*	*< 1.0*	1.3	1.6	*< 1.0*
1,2,3-Trichlorobenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2,4-Trichlorobenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dibromo-3-chloropropane	µg/L	0.04	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*
1,2-Dichlorobenzene	µg/L	3	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloroethane	µg/L	0.6	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloropropane	µg/L	1	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,3-Dichlorobenzene	µg/L	3	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Dichlorobenzene	µg/L	3	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Dioxane	µg/L	NS	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*	*< 130*
2-Butanone	µg/L	50	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*
2-Hexanone	µg/L	50	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*
4-Methyl-2-pentanone	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*
Acetone	µg/L	50	8.8 J	12.3	13.3	11.2	20.5	12.3	21.1	13.3	17.6	11.2	18.7
Benzene	µg/L	1	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*	*< 0.50*
Bromodichloromethane	µg/L	50	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Bromoform	µg/L	50	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Carbon disulfide	µg/L	60	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*
Carbon tetrachloride	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chlorobenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chlorobromomethane	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chloroethane	µg/L	5	2.2	*< 1.0*	*< 1.0*	4.3	0.75 J	*< 1.0*	0.86 J	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Chloroform	µg/L	7	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	0.74 J	*< 1.0*	*< 1.0*	*< 1.0*
cis-1,2-Dichloroethene	µg/L	**5**	**106**	*< 1.0*	*< 1.0*	**48.6**	**40.3**	**29.5**	**41.3**	1.8	**31.0**	2.0	*< 1.0*
cis-1,3-Dichloropropene	µg/L	0.4	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Cyclohexane	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*
Dibromochloromethane	µg/L	50	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Dichlorodifluoromethane (Freon 12)	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*
Ethylbenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Ethylene dibromide	µg/L	0.0006	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Isopropylbenzene (Cumene)	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
m,p-Xylenes	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl acetate	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*
Methyl bromide	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*
Methyl chloride	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methyl tert-butyl ether	µg/L	10	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Methylcyclohexane	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*
Methylene chloride	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*

Analyte	Unit	Location ID Sample Date Sample Type NY-TOGS1.1.1-DW-CLASSGA-TAB1-1998-2004	ERM-MW-01 12-Sep-19 N	ERM-MW-02 12-Sep-19 N	ERM-MW-02D 12-Sep-19 N	ERM-MW-05 12-Sep-19 N	ERM-MW-09 12-Sep-19 N	ERM-MW-11D 12-Sep-19 N	ERM-MW-11D 12-Sep-19 FD	ERM-MW-11M 12-Sep-19 N	ERM-MW-11S 12-Sep-19 N	ERM-MW-12D 12-Sep-19 N	ERM-MW-12S 12-Sep-19 N
o-Xylene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Styrene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Tetrachloroethene	µg/L	**5**	*< 1.0*	*< 1.0*	*< 1.0*	1.0	**8.0**	**29.9**	**8.9**	**8.9**	**61.4**	4.8	*< 1.0*
Toluene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
trans-1,2-Dichloroethene	µg/L	**5**	0.82 J	2.2	*< 1.0*	**8.0**	3.2	0.57 J	3.3	*< 1.0*	0.71 J	*< 1.0*	*< 1.0*
trans-1,3-Dichloropropene	µg/L	0.4	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Trichloroethene	µg/L	**5**	*< 1.0*	*< 1.0*	*< 1.0*	**5.1**	4.6	**26.4**	**5.0**	4.2	**46.2**	**5.1**	*< 1.0*
Trichlorofluoromethane (Freon 11)	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*	*< 2.0*
Vinyl chloride	µg/L	**2**	**5.7**	*< 1.0*	*< 1.0*	**15.0**	1.3	*< 1.0*	1.4	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
Xylene, Total	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*

Notes:
< = Compound not detected at concentrations above the laboratory reporting detection limit.
The laboratory reporting detection limit is shown.
Empty cells = Not analyzed
NS = No Standard
Units are in µg/L = micrograms per liter

Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate concentration of the analyte in the sample.
All analyses performed by Accutest, NJ.

NY-TOGS1.1.1-DW-CLASSGA-TAB1-1998-2004 = NYDEC Division of Water Technical and Operational Guidance Series (TOGS) No. 1.1.1 Water Class GA, Type H(WS) Standard AND Guidance; Protection for Source of Drinking Wate

Table 1
Groundwater Summary Table - 2019
New York Twist Drill Facility
Melville, New York

Analyte	Unit	Location ID Sample Date Sample Type NY-TOGS1.1.1-DW-CLASSGA-TAB1-1998-2004	ERM-MW-13D 12-Sep-19 N	ERM-MW-13S 12-Sep-19 N	ERM-MW-14D 12-Sep-19 N
Method 8260C, not applicable, µg/L					
1,1,1-Trichloroethane	µg/L	5	0.85 J	0.58 J	*< 1.0*
1,1,2,2-Tetrachloroethane	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
1,1,2-trichloro-1,2,2-trifluoroethane (Freo	µg/L	5	*< 5.0*	*< 5.0*	*< 5.0*
1,1,2-Trichloroethane	µg/L	1	*< 1.0*	*< 1.0*	*< 1.0*
1,1-Dichloroethane	µg/L	5	1.9	1.6	*< 1.0*
1,1-Dichloroethene	µg/L	**5**	**7.1**	2.9	0.73 J
1,2,3-Trichlorobenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
1,2,4-Trichlorobenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dibromo-3-chloropropane	µg/L	0.04	*< 2.0*	*< 2.0*	*< 2.0*
1,2-Dichlorobenzene	µg/L	3	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloroethane	µg/L	0.6	*< 1.0*	*< 1.0*	*< 1.0*
1,2-Dichloropropane	µg/L	1	*< 1.0*	*< 1.0*	*< 1.0*
1,3-Dichlorobenzene	µg/L	3	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Dichlorobenzene	µg/L	3	*< 1.0*	*< 1.0*	*< 1.0*
1,4-Dioxane	µg/L	NS	*< 130*	*< 130*	*< 130*
2-Butanone	µg/L	50	*< 10*	*< 10*	*< 10*
2-Hexanone	µg/L	50	*< 5.0*	*< 5.0*	*< 5.0*
4-Methyl-2-pentanone	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*
Acetone	µg/L	50	12.6	11.8	10.2
Benzene	µg/L	1	*< 0.50*	*< 0.50*	*< 0.50*
Bromodichloromethane	µg/L	50	*< 1.0*	*< 1.0*	*< 1.0*
Bromoform	µg/L	50	*< 1.0*	*< 1.0*	*< 1.0*
Carbon disulfide	µg/L	60	*< 2.0*	*< 2.0*	*< 2.0*
Carbon tetrachloride	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Chlorobenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Chlorobromomethane	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Chloroethane	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Chloroform	µg/L	7	0.76 J	*< 1.0*	2.3
cis-1,2-Dichloroethene	µg/L	**5**	**10.9**	**11.6**	1.4
cis-1,3-Dichloropropene	µg/L	0.4	*< 1.0*	*< 1.0*	*< 1.0*
Cyclohexane	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*
Dibromochloromethane	µg/L	50	*< 1.0*	*< 1.0*	*< 1.0*
Dichlorodifluoromethane (Freon 12)	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*
Ethylbenzene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Ethylene dibromide	µg/L	0.0006	*< 1.0*	*< 1.0*	*< 1.0*
Isopropylbenzene (Cumene)	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
m,p-Xylenes	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Methyl acetate	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*
Methyl bromide	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*
Methyl chloride	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Methyl tert-butyl ether	µg/L	10	*< 1.0*	*< 1.0*	*< 1.0*
Methylcyclohexane	µg/L	NS	*< 5.0*	*< 5.0*	*< 5.0*
Methylene chloride	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*

Analyte	Unit	Location ID Sample Date Sample Type NY-TOGS1.1.1-DW-CLASSGA-TAB1-1998-2004	ERM-MW-13D 12-Sep-19 N	ERM-MW-13S 12-Sep-19 N	ERM-MW-14D 12-Sep-19 N
o-Xylene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Styrene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
Tetrachloroethene	µg/L	**5**	**14.4**	**18.6**	**5.7**
Toluene	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*
trans-1,2-Dichloroethene	µg/L	**5**	*< 1.0*	*< 1.0*	*< 1.0*
trans-1,3-Dichloropropene	µg/L	0.4	*< 1.0*	*< 1.0*	*< 1.0*
Trichloroethene	µg/L	**5**	**21.1**	**17.9**	**6.1**
Trichlorofluoromethane (Freon 11)	µg/L	5	*< 2.0*	*< 2.0*	*< 2.0*
Vinyl chloride	µg/L	**2**	*< 1.0*	*< 1.0*	*< 1.0*
Xylene, Total	µg/L	5	*< 1.0*	*< 1.0*	*< 1.0*

Notes:
< = Compound not detected at concentrations above the laboratory reporting detection limit.
The laboratory reporting detection limit is shown.
Empty cells = Not analyzed
NS = No Standard
Units are in µg/L = micrograms per liter

Qualifiers - Organic:
J = The analyte was positively identified; associated numerical va
All analyses performed by Accutest, NJ.

NY-TOGS1.1.1-DW-CLASSGA-TAB1-1998-2004 = NYDEC Divisr (groundwater); 1998, including addendums 1999 through 200

Table 2
Indoor Air, System Air and Outdoor Ambient Air Summary Table
New York Twist Drill Facility
Melville, New York

Location ID	10MPR-IA-01	10MPR-IA-01	10MPR-OA-01	10MPR-SS-01	10MPR-SS-02
Sample Date	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19
Sample Type	N	FD	N	N	N
Lab Sample ID	JC85165-1	JC85165-5	JC85165-4	JC85165-2	JC85165-3
Analyte					
Method TO-15, µg/m3					
1,1,1-Trichloroethane	0.82 U	0.82 U	0.44 U	2.7 U	2.2 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	0.55 U	3.4 U	2.7 U
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 11	1.1 U	1.1 U	0.61 U	3.8 U	3.1 U
1,1,2-Trichloroethane	0.82 U	0.82 U	0.44 U	2.7 U	2.2 U
1,1-Dichloroethane	1.2 U	1.2 U	0.65 U	4.0 U	3.2 U
1,1-Dichloroethene	0.24 U	0.24 U	0.13 U	0.79 U	0.63 U
1,2,4-Trichlorobenzene	1.1 U	1.1 U	0.59 U	3.7 U	3.0 U
1,2,4-Trimethylbenzene	1.5 U	1.5 U	0.79 U	4.9 U	3.9 U
1,2-dichloro-1,1,2,2-tetrafluoroethane (Freon 1	1.0 U	1.0 U	0.56 U	3.5 U	2.8 U
1,2-Dichlorobenzene	0.37 U	0.37 U	0.19 U	1.2 U	0.96 U
1,2-Dichloroethane	1.2 U	1.2 U	0.65 U	4.0 U	3.2 U
1,2-Dichloropropane	1.4 U	1.4 U	0.74 U	4.6 U	3.7 U
1,3,5-Trimethylbenzene	1.5 U	1.5 U	0.79 U	4.9 U	3.9 U
1,3-Butadiene	0.66 U	0.66 U	0.35 U	2.2 U	1.8 U
1,3-Dichlorobenzene	0.90 U	0.90 U	0.78	3.0 U	2.4 U
1,4-Dichlorobenzene	0.90 U	0.90 U	0.48 U	3.0 U	2.4 U
1,4-Dioxane	1.1 U	1.1 U	0.58 U	3.6 U	2.9 U
2,2,4-Trimethylpentane	1.4 U	1.4 U	0.75 U	4.7 U	3.7 U
2-Butanone	0.88 U	0.47 J	13	2.9 U	2.4 U
2-Hexanone	1.2 U	1.2 U	0.65 U	4.1 U	3.3 U
4-Ethyltoluene	1.5 U	1.5 U	0.79 U	4.9 U	3.9 U
4-Methyl-2-pentanone	1.2 U	1.2 U	0.66 U	4.1 U	3.3 U
Acetone	8.3	8.8	259	14	18
Allyl chloride	0.94 U	0.94 U	0.50 U	3.1 U	2.5 U
Benzene	0.96 U	0.96 U	1.3	3.2 U	2.6 U
Benzyl chloride	1.5 UJ	1.5 U	0.82 UJ	5.2 U	4.1 UJ
Bromodichloromethane	1.0 U	1.0 U	0.54 U	3.3 U	2.7 U
Bromoform	0.63 U	0.63 U	0.33 U	2.1 U	1.7 U
Carbon disulfide	0.93 U	0.93 U	1.1	3.1 U	2.5 U
Carbon tetrachloride	0.38 U	0.38 U	0.20 U	1.3 U	1.0 U
Chlorobenzene	1.4 U	1.4 U	0.74 U	4.6 U	3.7 U
Chloroethane	0.79 U	0.79 U	0.42 U	2.6 U	2.1 U
Chloroform	1.5 U	1.5 U	0.78 U	4.9 U	2.0 J
cis-1,2-Dichloroethene	0.24 U	0.24 U	0.13 U	0.79 U	0.63 U
cis-1,3-Dichloropropene	1.4 U	1.4 U	0.73 U	4.5 U	3.6 U
Cyclohexane	1.0 U	1.0 U	0.55 U	3.4 U	2.8 U
Dibromochloromethane	1.3 U	1.3 U	0.68 U	4.3 U	3.4 U
Dichlorodifluoromethane (Freon 12)	2.8	2.7	2.1	3.2 J	4.1
Ethanol	13	12	41.6	35.8	51.3
Ethyl acetate	1.1 U	1.1 U	5.0	5.4	4.3
Ethylbenzene	1.3 U	1.3 U	0.69 U	4.3 U	3.5 U
Ethylene dibromide	1.2 U	1.2 U	0.61 U	3.8 U	3.1 U
Heptane	1.2 U	1.2 U	0.53 J	4.1 U	3.3 U
Hexachlorobutadiene	1.5 U	1.5 U	0.77 U	4.8 U	3.8 U
Isopropyl alcohol	1.2	1.4	2.9	8.1	2.0 U
m,p-Xylenes	1.3 U	1.3 U	0.61 J	4.3 U	3.5 U
Methyl bromide	1.2 U	1.2 U	0.62 U	3.9 U	3.1 U
Methyl chloride	1.5	1.4	1.6	2.1 U	1.7 U
Methyl methacrylate	1.2 U	1.2 U	0.66 U	4.1 U	3.3 U
Methyl tert-butyl ether	1.1 U	1.1 U	0.58 U	3.6 U	2.9 U
Methylene chloride	1.0 U	1.0 U	0.63	3.5 U	2.8 U
n-Hexane	1.1 U	1.1 U	0.67	2.4 J	2.8 U
o-Chlorotoluene (2-chlorotoluene)	1.6 U	1.6 U	0.83 U	5.2 U	4.1 U
o-Xylene	1.3 U	1.3 U	0.69 U	4.3 U	3.5 U
Propylene	1.3 U	1.3 U	9.1	4.3 U	3.4 U
Styrene	1.3 U	1.3 U	0.68 U	4.3 U	3.4 U
tert-Butyl alcohol	0.91 U	0.91 U	12	3.0 U	2.4 U
Tetrachloroethene	0.81	0.75	0.22 U	10	8.8
Tetrahydrofuran	0.88 U	0.88 U	0.47 U	2.9 U	2.4 U
Toluene	1.1 U	1.1 U	0.75	4.1	7.5
trans-1,2-Dichloroethene	1.2 U	1.2 U	0.63 U	4.0 U	3.2 U
trans-1,3-Dichloropropene	1.4 U	1.4 U	0.73 U	4.5 U	3.6 U
Trichloroethene	0.33 U	0.33 U	0.17 U	7.5	0.86 U
Trichlorofluoromethane (Freon 11)	1.3	1.3	1.1	2.8	6.2
Vinyl acetate	1.1 U	1.1 U	0.56 U	3.5 U	2.8 U
Vinyl bromide	1.3 U	1.3 U	0.70 U	4.4 U	3.5 U
Vinyl chloride	0.16 U	0.16 U	0.082 U	0.51 U	0.41 U

Analyte	Location ID	10MPR-IA-01	10MPR-IA-01	10MPR-OA-01	10MPR-SS-01	10MPR-SS-02
	Sample Date	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19
	Sample Type	N	FD	N	N	N
	Lab Sample ID	JC85165-1	JC85165-5	JC85165-4	JC85165-2	JC85165-3
Xylene, Total		1.3 U	1.3 U	0.61 J	4.3 U	3.5 U

Notes:
= Compound not detected at concentrations above the laboratory reporting detection limit. The laboratory reporting detection limit is shown.
Empty cells = Not analyzed
Units are in µg/m3 = micrograms per cubic meter
Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate concentration of the analyte in the sample
U = Compound Not Deteccted
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.
All analyses performed by Accutest, NJ.

TABLE 3 - GROUNDWATER ELEVATION DATA AUGUST 29, 2019

Well	VP	MP	North	East	Lat	Long	Daimeter (inches)	Well Depth (feet-bgs)	Screen Interval (feet)	Screen Midpoint	DTW 08-29-19	WT Elevation 08-29-2019
ERM-MW-01	VP-01	116.21	222586.1	1145783	40.77615	-73.4168	2	60.5	55.5-60.5	58	46.21	70
ERM-MW-02	VP-02	116.05	222593.8	1145860	40.77617	-73.4165	2	95.5	90.5-95.5	93.2		
ERM-MW-03		109.51	220430.4	1146261	40.77022	-73.4151	1	60	55-60	57.5	46	63.51
ERM-MW-04		111.21	220753.9	1145429	40.77113	-73.4181	1	60	55-60	57.5	32.79	78.42
ERM-MW-02D	VP-02	115.96	222592.5	1145853	40.77616	-73.4165	2	170.5	165.5-170.5	168	45.95	70.01
ERM-MW-05	VP-03	115.91	222180.7	1146083	40.77503	-73.4157	2	150	145-150	147.5	46.35	69.56
ERM-MW-06	VP-04	116.41	222169.9	1146012	40.775	-73.416	2	100	95-100	97.5	46.54	69.87
ERM-MW-07	VP-05	109.15	220822.3	1146698	40.77129	-73.4135	1	60	50-60	55	46.72	62.43
ERM-MW-07D	VP-05	109.03	220822.2	1146699	40.77129	-73.4135	2	290	280-290	285	42.6	66.43
ERM-MW-08	VP-06	108.9	220656.9	1146658	40.77084	-73.4137	2	296	285-295	290	41.43	67.47
ERM-MW-09	VP-07	114.84	221168	1146282	40.77225	-73.415	2	175	165-175	170	46.47	68.37
ERM-MW-10	VP-08	109.94	220434.6	1146256	40.77023	-73.4151	2	235	225-235	230		
ERM-MW-11S	VP-08	108.07	220120.5	1146521	40.76937	-73.4142	1	195	185-195	190	48.51	59.56
ERM-MW-11M	VP-08	108.06	220120.3	1146521	40.76937	-73.4142	2	245	235-245	240	47.3	60.76
ERM-MW-011D	VP-08	107.7	220103.5	1146515	40.76932	-73.4142	2	295	285-295	290	41.5	66.2
ERM-MW-012S	VP-09	103.84	218395.1	1147035	40.76462	-73.4123	1	100	90-100	95	38.6	65.24
ERM-MW-012D	VP-09	103.81	218395	1147035	40.76462	-73.4123	2	238	228-238	233	38.7	65.11
ERM-MW-013S	VP-10	102.74	218196.2	1146777	40.76408	-73.4133	2	195	185-195	190	37.2	65.54
ERM-MW-013D	VP-10	102.75	218196.3	1146777	40.76408	-73.4133	2	295	285-295	290	37.64	65.11
ERM-MW-014S	VP-11	99.76	218051.9	1146262	40.76369	-73.4151	1	55	45-55	50		
ERM-MW-014D	VP-11	99.76	218052.9	1146262	40.7637	-73.4151	2	355	345-355	350	34.13	65.63

Notes

MP - NAVD 88

APPENDIX A GROUNDWATER ANALYTICAL RESULTS

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

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

New York Twist Drill, Melville Park Road, Melville, NY

0372902

SGS Job Number: JC95050

Sampling Date: 09/12/19

Report to:

ERM, Inc.
105 Maxess Road Suite 316
Melville, NY 11747-3851
karen.pickering@erm.com; brice.lynch@erm.com;
Greg.Shkuda@erm.com
ATTN: Karen Pickering

Total number of pages in report: 271

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

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

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

Sections: 1 2 3 4 5 6 7

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SGS North America Inc.

Sample Summary

ERM, Inc.

Job No: JC95050

New York Twist Drill, Melville Park Road, Melville, NY
Project No: 0372902

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JC95050-1	09/12/19	12:10	EM	09/12/19	AQ	Ground Water	ERM-MW-01-091219
JC95050-2	09/12/19	12:05	EM	09/12/19	AQ	Ground Water	ERM-MW-02-091219
JC95050-3	09/12/19	12:00	EM	09/12/19	AQ	Ground Water	ERM-MW-02D-091219
JC95050-4	09/12/19	11:45	EM	09/12/19	AQ	Ground Water	ERM-MW-05-091219
JC95050-5	09/12/19	11:30	EM	09/12/19	AQ	Ground Water	ERM-MW-09-091219
JC95050-6	09/12/19	11:10	EM	09/12/19	AQ	Ground Water	ERM-MW-11S-091219
JC95050-7	09/12/19	11:05	EM	09/12/19	AQ	Ground Water	ERM-MW-11M-091219
JC95050-8	09/12/19	11:00	EM	09/12/19	AQ	Ground Water	ERM-MW-11D-091219
JC95050-9	09/12/19	10:55	EM	09/12/19	AQ	Ground Water	ERM-MW-12S-091219
JC95050-10	09/12/19	10:50	EM	09/12/19	AQ	Ground Water	ERM-MW-12D-091219
JC95050-11	09/12/19	10:35	EM	09/12/19	AQ	Ground Water	ERM-MW-13S-091219
JC95050-12	09/12/19	10:30	EM	09/12/19	AQ	Ground Water	ERM-MW-13D-091219

Sample Summary
(continued)

ERM, Inc.

Job No: JC95050

New York Twist Drill, Melville Park Road, Melville, NY
Project No: 0372902

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC95050-13	09/12/19	10:00	EM	09/12/19	AQ	Ground Water	ERM-MW-14D-091219
JC95050-14	09/12/19	00:00	EM	09/12/19	AQ	Ground Water	DUP091219
JC95050-15	09/12/19	12:10	EM	09/12/19	AQ	Trip Blank Water	TB091219

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JC95050
Site:	New York Twist Drill, Melville Park Road, Melville, NY	**Report Date**	9/20/2019 1:58:08 PM

On 09/12/2019, 14 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC95050 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

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

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2C7649

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC95050-2MS, JC95050-2MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, Bromoform, cis-1,3-Dichloropropene, Dibromochloromethane, trans-1,3-Dichloropropene are outside control limits. High percent recoveries and no associated positive reported in the QC batch.
- RPD(s) for MSD for Bromomethane, Chloroethane, Chloromethane, Cyclohexane, Trichlorofluoromethane, Vinyl chloride are outside control limits for sample JC95050-2MSD. Analytical precision exceeds in-house control limits.
- JC95050-1 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-2 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-2 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-2 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-2 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-3 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-2 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-6 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-6 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-1 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-1 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-1 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-1 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-1 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-1 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-3 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-3 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-3 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-4 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-2 for Methylcyclohexane: Associated CCV outside of control limits low.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2C7649

- JC95050-8 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-2 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-4 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-6 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-15 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-15 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-15 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-15 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-15 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-15 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-15 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-4 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-4 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-4 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-4 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-3 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-6 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-3 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-5 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-5 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-5 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-5 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-5 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-5 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-5 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-6 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-6 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-6 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-13 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-4 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-7 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-9 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-9 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-11 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-10 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-3 for Methylcyclohexane: Associated CCV outside of control limits low.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2C7649

- JC95050-9 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-7 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-7 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-7 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-7 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-12 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-7 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-10 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-8 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-8 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-8 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-8 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-8 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-11 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-8 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-9 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-9 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-9 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-7 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-10 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-11 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-11 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-11 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-11 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-12 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-12 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-12 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-12 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-12 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-12 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-9 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-13 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-10 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-13 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC95050-13 for Methylcyclohexane: Associated CCV outside of control limits low.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2C7649

- JC95050-13 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-13 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-13 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.
- JC95050-10 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-10 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-10 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-11 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V2C7651

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC94921-7MS, JC94921-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, Bromoform, cis-1,3-Dichloropropene, Dibromochloromethane, trans-1,3-Dichloropropene are outside control limits. High percent recoveries and no associated positive reported in the QC batch.
- Matrix Spike Duplicate Recovery(s) for trans-1,3-Dichloropropene are outside control limits.
- JC95050-14 for Dibromochloromethane: This compound in BS is outside in house QC limits bias high.
- JC95050-14 for Bromoform: This compound in BS is outside in house QC limits bias high.
- JC95050-14 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC95050-14 for Methylcyclohexane: Associated CCV outside of control limits low.
- JC95050-14 for 1,4-Dioxane: Associated CCV outside of control limits low.
- JC95050-14 for trans-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC95050-14 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JC95050-14 for cis-1,3-Dichloropropene: This compound in BS is outside in house QC limits bias high.

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

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

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

Summary of Hits

Job Number: JC95050
Account: ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Collected: 09/12/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC95050-1	**ERM-MW-01-091219**					
Acetone		8.8 J	10	6.0	ug/l	SW846 8260C
Chloroethane		2.2	1.0	0.73	ug/l	SW846 8260C
1,1-Dichloroethane		2.2	1.0	0.57	ug/l	SW846 8260C
cis-1,2-Dichloroethene		106	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.82 J	1.0	0.54	ug/l	SW846 8260C
Vinyl chloride		5.7	1.0	0.79	ug/l	SW846 8260C
JC95050-2	**ERM-MW-02-091219**					
Acetone		12.3	10	6.0	ug/l	SW846 8260C
trans-1,2-Dichloroethene		2.2	1.0	0.54	ug/l	SW846 8260C
JC95050-3	**ERM-MW-02D-091219**					
Acetone		13.3	10	6.0	ug/l	SW846 8260C
JC95050-4	**ERM-MW-05-091219**					
Acetone		11.2	10	6.0	ug/l	SW846 8260C
Chloroethane		4.3	1.0	0.73	ug/l	SW846 8260C
1,1-Dichloroethane		1.4	1.0	0.57	ug/l	SW846 8260C
cis-1,2-Dichloroethene		48.6	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		8.0	1.0	0.54	ug/l	SW846 8260C
Tetrachloroethene		1.0	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		5.1	1.0	0.53	ug/l	SW846 8260C
Vinyl chloride		15.0	1.0	0.79	ug/l	SW846 8260C
JC95050-5	**ERM-MW-09-091219**					
Acetone		20.5	10	6.0	ug/l	SW846 8260C
Chloroethane		0.75 J	1.0	0.73	ug/l	SW846 8260C
1,1-Dichloroethane		0.80 J	1.0	0.57	ug/l	SW846 8260C
cis-1,2-Dichloroethene		40.3	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		3.2	1.0	0.54	ug/l	SW846 8260C
Tetrachloroethene		8.0	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		4.6	1.0	0.53	ug/l	SW846 8260C
Vinyl chloride		1.3	1.0	0.79	ug/l	SW846 8260C
JC95050-6	**ERM-MW-11S-091219**					
Acetone		17.6	10	6.0	ug/l	SW846 8260C
1,1-Dichloroethane		2.1	1.0	0.57	ug/l	SW846 8260C
1,1-Dichloroethene		1.3	1.0	0.59	ug/l	SW846 8260C

Summary of Hits

Job Number: JC95050
Account: ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Collected: 09/12/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
cis-1,2-Dichloroethene		31.0	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.71 J	1.0	0.54	ug/l	SW846 8260C
Tetrachloroethene		61.4	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		46.2	1.0	0.53	ug/l	SW846 8260C
JC95050-7	**ERM-MW-11M-091219**					
Acetone		13.3	10	6.0	ug/l	SW846 8260C
Chloroform		0.74 J	1.0	0.50	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.8	1.0	0.51	ug/l	SW846 8260C
Tetrachloroethene		8.9	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		4.2	1.0	0.53	ug/l	SW846 8260C
JC95050-8	**ERM-MW-11D-091219**					
Acetone		12.3	10	6.0	ug/l	SW846 8260C
1,1-Dichloroethane		1.5	1.0	0.57	ug/l	SW846 8260C
1,1-Dichloroethene		3.2	1.0	0.59	ug/l	SW846 8260C
cis-1,2-Dichloroethene		29.5	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.57 J	1.0	0.54	ug/l	SW846 8260C
Tetrachloroethene		29.9	1.0	0.90	ug/l	SW846 8260C
1,1,1-Trichloroethane		1.0	1.0	0.54	ug/l	SW846 8260C
Trichloroethene		26.4	1.0	0.53	ug/l	SW846 8260C
JC95050-9	**ERM-MW-12S-091219**					
Acetone		18.7	10	6.0	ug/l	SW846 8260C
JC95050-10	**ERM-MW-12D-091219**					
Acetone		11.2	10	6.0	ug/l	SW846 8260C
1,1-Dichloroethene		1.6	1.0	0.59	ug/l	SW846 8260C
cis-1,2-Dichloroethene		2.0	1.0	0.51	ug/l	SW846 8260C
Tetrachloroethene		4.8	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		5.1	1.0	0.53	ug/l	SW846 8260C
JC95050-11	**ERM-MW-13S-091219**					
Acetone		11.8	10	6.0	ug/l	SW846 8260C
1,1-Dichloroethane		1.6	1.0	0.57	ug/l	SW846 8260C
1,1-Dichloroethene		2.9	1.0	0.59	ug/l	SW846 8260C
cis-1,2-Dichloroethene		11.6	1.0	0.51	ug/l	SW846 8260C
Tetrachloroethene		18.6	1.0	0.90	ug/l	SW846 8260C
1,1,1-Trichloroethane		0.58 J	1.0	0.54	ug/l	SW846 8260C
Trichloroethene		17.9	1.0	0.53	ug/l	SW846 8260C

Summary of Hits

Job Number: JC95050
Account: ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Collected: 09/12/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC95050-12	**ERM-MW-13D-091219**					
Acetone		12.6	10	6.0	ug/l	SW846 8260C
Chloroform		0.76 J	1.0	0.50	ug/l	SW846 8260C
1,1-Dichloroethane		1.9	1.0	0.57	ug/l	SW846 8260C
1,1-Dichloroethene		7.1	1.0	0.59	ug/l	SW846 8260C
cis-1,2-Dichloroethene		10.9	1.0	0.51	ug/l	SW846 8260C
Tetrachloroethene		14.4	1.0	0.90	ug/l	SW846 8260C
1,1,1-Trichloroethane		0.85 J	1.0	0.54	ug/l	SW846 8260C
Trichloroethene		21.1	1.0	0.53	ug/l	SW846 8260C
JC95050-13	**ERM-MW-14D-091219**					
Acetone		10.2	10	6.0	ug/l	SW846 8260C
Chloroform		2.3	1.0	0.50	ug/l	SW846 8260C
1,1-Dichloroethene		0.73 J	1.0	0.59	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.4	1.0	0.51	ug/l	SW846 8260C
Tetrachloroethene		5.7	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		6.1	1.0	0.53	ug/l	SW846 8260C
JC95050-14	**DUP091219**					
Acetone		21.1	10	6.0	ug/l	SW846 8260C
Chloroethane		0.86 J	1.0	0.73	ug/l	SW846 8260C
1,1-Dichloroethane		0.75 J	1.0	0.57	ug/l	SW846 8260C
cis-1,2-Dichloroethene		41.3	1.0	0.51	ug/l	SW846 8260C
trans-1,2-Dichloroethene		3.3	1.0	0.54	ug/l	SW846 8260C
Tetrachloroethene		8.9	1.0	0.90	ug/l	SW846 8260C
Trichloroethene		5.0	1.0	0.53	ug/l	SW846 8260C
Vinyl chloride		1.4	1.0	0.79	ug/l	SW846 8260C
JC95050-15	**TB091219**					

No hits reported in this sample.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-01-091219		
Lab Sample ID:	JC95050-1	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170157.D	1	09/18/19 11:35	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.8	10	6.0	ug/l	J
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	2.2	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	2.2	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	106	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.82	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-01-091219		
Lab Sample ID:	JC95050-1	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	5.7	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-02-091219		
Lab Sample ID:	JC95050-2	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170156.D	1	09/18/19 11:07	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	2.2	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-02-091219		
Lab Sample ID:	JC95050-2	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-02D-091219		
Lab Sample ID:	JC95050-3	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170158.D	1	09/18/19 12:04	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-02D-091219		
Lab Sample ID:	JC95050-3	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-05-091219		
Lab Sample ID:	JC95050-4	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170164.D	1	09/18/19 14:56	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.2	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	4.3	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.4	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	48.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	8.0	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-05-091219		
Lab Sample ID:	JC95050-4	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	1.0	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	15.0	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	106%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-09-091219		
Lab Sample ID:	JC95050-5	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170165.D	1	09/18/19 15:24	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.5	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	0.75	1.0	0.73	ug/l	J
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.80	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	40.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.2	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-09-091219		
Lab Sample ID:	JC95050-5	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	8.0	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	1.3	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-11S-091219		
Lab Sample ID:	JC95050-6	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170166.D	1	09/18/19 15:53	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	17.6	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	2.1	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	1.3	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	31.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.71	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-11S-091219		
Lab Sample ID:	JC95050-6	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	61.4	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	46.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-11M-091219		
Lab Sample ID:	JC95050-7	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170167.D	1	09/18/19 16:22	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.74	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-11M-091219		
Lab Sample ID:	JC95050-7	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	8.9	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-11D-091219		
Lab Sample ID:	JC95050-8	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170168.D	1	09/18/19 16:50	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.5	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	3.2	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	29.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.57	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-11D-091219		
Lab Sample ID:	JC95050-8	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	29.9	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	1.0	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	26.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-12S-091219		
Lab Sample ID:	JC95050-9	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170169.D	1	09/18/19 17:18	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	18.7	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-12S-091219		
Lab Sample ID:	JC95050-9	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-12D-091219		
Lab Sample ID:	JC95050-10	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170170.D	1	09/18/19 17:47	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.2	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	1.6	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-12D-091219		
Lab Sample ID:	JC95050-10	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	4.8	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-13S-091219		
Lab Sample ID:	JC95050-11	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170171.D	1	09/18/19 18:15	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.8	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.6	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	2.9	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	11.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-13S-091219		
Lab Sample ID:	JC95050-11	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	18.6	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.58	1.0	0.54	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	17.9	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-13D-091219		
Lab Sample ID:	JC95050-12	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170172.D	1	09/18/19 18:44	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.6	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.76	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.9	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	7.1	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-13D-091219		
Lab Sample ID:	JC95050-12	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	14.4	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.85	1.0	0.54	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	21.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: ERM-MW-14D-091219
Lab Sample ID: JC95050-13 **Date Sampled:** 09/12/19
Matrix: AQ - Ground Water **Date Received:** 09/12/19
Method: SW846 8260C **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170173.D	1	09/18/19 19:12	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.2	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	2.3	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	0.73	1.0	0.59	ug/l	J
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

Report of Analysis

Client Sample ID:	ERM-MW-14D-091219		
Lab Sample ID:	JC95050-13	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	5.7	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	6.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	DUP091219		
Lab Sample ID:	JC95050-14	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170185.D	1	09/19/19 10:02	ED	n/a	n/a	V2C7651
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	21.1	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	0.86	1.0	0.73	ug/l	J
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.75	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	41.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.3	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane [d]	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP091219		
Lab Sample ID:	JC95050-14	**Date Sampled:**	09/12/19
Matrix:	AQ - Ground Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	8.9	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	1.4	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TB091219		
Lab Sample ID:	JC95050-15	**Date Sampled:**	09/12/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170163.D	1	09/18/19 14:27	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	TB091219		
Lab Sample ID:	JC95050-15	**Date Sampled:**	09/12/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/12/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
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2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

FED-EX Tracking #:
Bottle Order Control #: TM-09519-88
SGS Quote #:
SGS Job #: JC95050

Client / Reporting Information	Project Information	Billing Information (If different from Report to)
Company Name: ERM	Project Name: NYTD	Company Name:
Street Address: 105 Maxess Road	Street: 25 Melville Park Rd	Street Address:
City: Melville State: NY Zip: 11747	City: Melville State: NY	City: State: Zip:
Project Contact: Greg.Shkuda@erm.com E-mail:	Project #: 0372902	
Phone #: (631) 756-0900	Client Purchase Order #:	
Sampler(s) Name(s): E. Morris K. Flaherty Phone #:	Project Manager: Greg Shkuda	Attention:

Requested Analysis: TCL VOCs 8260

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB-Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
1	ERM-MW-01-091219		9/12/19	12:10	EM/KF	G	GW	3	3								X
2	ERM-MW-02-091219	★		12:05				4	4								
3	ERM-MW-02D-091219			12:00				3	3								
4	ERM-MW-05-091219			11:45													
5	ERM-MW-09-091219			11:30													
6	ERM-MW-11S-091219			11:10													
7	ERM-MW-11M-091219			11:05													
8	ERM-MW-11D-091219			11:00													
9	ERM-MW-12S-091219			10:55													
10	ERM-MW-12D-091219			10:50													
11	ERM-MW-13S-091219			10:35													
12	ERM-MW-13D-091219			10:30													

V988

Turn Around Time (Business Days)

Approved By (SGS PM): / Date: Tammy / 9/12/19

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Labilink. Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

★ VOC QC

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1		9/12/19 1330	Chris Lau	Chris Lau	9/12/19 1520	
2						
3						
4						
5						

Custody Seal #: 141168 ☒ Intact ☐ Not Intact
Preserved where applicable: ☐ Absent ☐ Therm. ID ☒ On Ice
Cooler Temp. °C: 3.9 cor

INITIAL ASESSMENT KG 2A

LABEL VERIFICATION

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

5.1 5

Page 2 of 2

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: JC95050

Client / Reporting Information

Company Name: ERM
Street Address: 105 Maxess Road
City: Melville State: NY Zip: 11747
Project Contact: Greg.Sukuda@erm.com E-mail:
Phone #: (631) 756-8900
Sampler(s) Name(s): E. Marcus K. Pickering Phone #:

Project Information

Project Name: NYTD
Street: 75 Melville Park Rd
City: Melville State: NY
Project #: 0372902
Client Purchase Order #:
Project Manager: Greg Sukuda

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis

TCL VOCs 8260

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
L/Q - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
13	ERM-MW-14D-090219		9/12/19	10:00	ERM	G	GW	3	3								
14	DUP091219		↓	00:00	↓	↓	↓	↓	↓								
15	TB091219		↓	12:15	↓	↓	↓	2	2								

Turn Around Time (Business Days)

Approved By (SGS PM): / Date: (Tammy): 9/12/19

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days
- [ ] 2 Business Days
- [ ] 1 Business Day
- [ ] Other

All data available via Lablink
Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished by:	Date / Time:	Received By:
1		9/12/19 1315		2	9/12/19 1320	
3				4		
5				Custody Seal # 14468	Intact / Not intact	Preserved where applicable: Absent / Therm. ID: On Ice / Cooler Temp. °C

INITIAL ASESSMENT KGDA

LABEL VERIFICATION

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JC95050 **Client:** _____ **Project:** _____

Date / Time Received: 9/12/2019 6:20:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (3.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JC95050

New York Twist Drill, Melville Park Road, Melville, NY
Project No: 0372902

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC95050-1 Collected: 12-SEP-19 12:10 By: EM ERM-MW-01-091219				Received: 12-SEP-19	By: DG	
JC95050-1	SW846 8260C	18-SEP-19 11:35	ED			V8260TCL11
JC95050-2 Collected: 12-SEP-19 12:05 By: EM ERM-MW-02-091219				Received: 12-SEP-19	By: DG	
JC95050-2	SW846 8260C	18-SEP-19 11:07	ED			V8260TCL11
JC95050-3 Collected: 12-SEP-19 12:00 By: EM ERM-MW-02D-091219				Received: 12-SEP-19	By: DG	
JC95050-3	SW846 8260C	18-SEP-19 12:04	ED			V8260TCL11
JC95050-4 Collected: 12-SEP-19 11:45 By: EM ERM-MW-05-091219				Received: 12-SEP-19	By: DG	
JC95050-4	SW846 8260C	18-SEP-19 14:56	ED			V8260TCL11
JC95050-5 Collected: 12-SEP-19 11:30 By: EM ERM-MW-09-091219				Received: 12-SEP-19	By: DG	
JC95050-5	SW846 8260C	18-SEP-19 15:24	ED			V8260TCL11
JC95050-6 Collected: 12-SEP-19 11:10 By: EM ERM-MW-11S-091219				Received: 12-SEP-19	By: DG	
JC95050-6	SW846 8260C	18-SEP-19 15:53	ED			V8260TCL11
JC95050-7 Collected: 12-SEP-19 11:05 By: EM ERM-MW-11M-091219				Received: 12-SEP-19	By: DG	
JC95050-7	SW846 8260C	18-SEP-19 16:22	ED			V8260TCL11
JC95050-8 Collected: 12-SEP-19 11:00 By: EM ERM-MW-11D-091219				Received: 12-SEP-19	By: DG	
JC95050-8	SW846 8260C	18-SEP-19 16:50	ED			V8260TCL11

Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JC95050

New York Twist Drill, Melville Park Road, Melville, NY
Project No: 0372902

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC95050-9 Collected: 12-SEP-19 10:55 By: EM ERM-MW-12S-091219				Received: 12-SEP-19	By: DG	
JC95050-9	SW846 8260C	18-SEP-19 17:18	ED			V8260TCL11
JC95050-10 Collected: 12-SEP-19 10:50 By: EM ERM-MW-12D-091219				Received: 12-SEP-19	By: DG	
JC95050-10	SW846 8260C	18-SEP-19 17:47	ED			V8260TCL11
JC95050-11 Collected: 12-SEP-19 10:35 By: EM ERM-MW-13S-091219				Received: 12-SEP-19	By: DG	
JC95050-11	SW846 8260C	18-SEP-19 18:15	ED			V8260TCL11
JC95050-12 Collected: 12-SEP-19 10:30 By: EM ERM-MW-13D-091219				Received: 12-SEP-19	By: DG	
JC95050-12	SW846 8260C	18-SEP-19 18:44	ED			V8260TCL11
JC95050-13 Collected: 12-SEP-19 10:00 By: EM ERM-MW-14D-091219				Received: 12-SEP-19	By: DG	
JC95050-13	SW846 8260C	18-SEP-19 19:12	ED			V8260TCL11
JC95050-14 Collected: 12-SEP-19 00:00 By: EM DUP091219				Received: 12-SEP-19	By: DG	
JC95050-14	SW846 8260C	19-SEP-19 10:02	ED			V8260TCL11
JC95050-15 Collected: 12-SEP-19 12:10 By: EM TB091219				Received: 12-SEP-19	By: DG	
JC95050-15	SW846 8260C	18-SEP-19 14:27	ED			V8260TCL11

SGS Internal Chain of Custody

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Received: 09/12/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC95050-1.1	Secured Storage	Krizhka Cuenta	09/18/19 10:09	Retrieve from Storage
JC95050-1.1	Krizhka Cuenta	GCMS2C	09/18/19 10:09	Load on Instrument
JC95050-1.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-1.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-2.1	Secured Storage	Krizhka Cuenta	09/18/19 10:09	Retrieve from Storage
JC95050-2.1	Krizhka Cuenta	GCMS2C	09/18/19 10:09	Load on Instrument
JC95050-2.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-2.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-2.2	Secured Storage	Krizhka Cuenta	09/18/19 11:51	Retrieve from Storage
JC95050-2.2	Krizhka Cuenta	GCMS2C	09/18/19 11:51	Load on Instrument
JC95050-2.2	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-2.2	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-2.3	Secured Storage	Krizhka Cuenta	09/18/19 11:51	Retrieve from Storage
JC95050-2.3	Krizhka Cuenta	GCMS2C	09/18/19 11:51	Load on Instrument
JC95050-2.3	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-2.3	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-3.1	Secured Storage	Krizhka Cuenta	09/18/19 10:09	Retrieve from Storage
JC95050-3.1	Krizhka Cuenta	GCMS2C	09/18/19 10:09	Load on Instrument
JC95050-3.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-3.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-4.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-4.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-4.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-4.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-5.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-5.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-5.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-5.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-6.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-6.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-6.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-6.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-7.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-7.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-7.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-7.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage

SGS Internal Chain of Custody

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Received: 09/12/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC95050-8.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-8.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-8.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-8.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-9.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-9.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-9.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-9.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-10.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-10.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-10.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-10.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-11.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-11.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-11.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-11.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-12.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-12.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-12.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-12.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-13.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-13.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-13.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-13.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-14.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-14.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-14.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument
JC95050-14.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage
JC95050-14.2	Secured Storage	Krizhka Cuenta	09/19/19 09:41	Retrieve from Storage
JC95050-14.2	Krizhka Cuenta	GCMS2C	09/19/19 09:41	Load on Instrument
JC95050-14.2	GCMS2C	Krizhka Cuenta	09/20/19 09:34	Unload from Instrument
JC95050-14.2	Krizhka Cuenta	Secured Storage	09/20/19 09:34	Return to Storage
JC95050-15.1	Secured Storage	Krizhka Cuenta	09/18/19 12:03	Retrieve from Storage
JC95050-15.1	Krizhka Cuenta	GCMS2C	09/18/19 12:03	Load on Instrument
JC95050-15.1	GCMS2C	Krizhka Cuenta	09/19/19 09:13	Unload from Instrument

SGS Internal Chain of Custody

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Received: 09/12/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC95050-15.1	Krizhka Cuenta	Secured Storage	09/19/19 09:13	Return to Storage

MS Volatiles

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QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7649-MB	2C170153.D	1	09/18/19	ED	n/a	n/a	V2C7649

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-1, JC95050-2, JC95050-3, JC95050-4, JC95050-5, JC95050-6, JC95050-7, JC95050-8, JC95050-9, JC95050-10, JC95050-11, JC95050-12, JC95050-13, JC95050-15

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	

Method Blank Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7649-MB	2C170153.D	1	09/18/19	ED	n/a	n/a	V2C7649

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-1, JC95050-2, JC95050-3, JC95050-4, JC95050-5, JC95050-6, JC95050-7, JC95050-8, JC95050-9, JC95050-10, JC95050-11, JC95050-12, JC95050-13, JC95050-15

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7651-MB	2C170184.D	1	09/19/19	ED	n/a	n/a	V2C7651

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-14

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	

Method Blank Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7651-MB	2C170184.D	1	09/19/19	ED	n/a	n/a	V2C7651

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-14

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	102%	81-124%
2037-26-5	Toluene-D8	104%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7649-BS	2C170151.D	1	09/18/19	ED	n/a	n/a	V2C7649

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-1, JC95050-2, JC95050-3, JC95050-4, JC95050-5, JC95050-6, JC95050-7, JC95050-8, JC95050-9, JC95050-10, JC95050-11, JC95050-12, JC95050-13, JC95050-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	203	102	42-150
71-43-2	Benzene	50	48.2	96	80-120
74-97-5	Bromochloromethane	50	48.7	97	84-121
75-27-4	Bromodichloromethane	50	55.8	112	83-120
75-25-2	Bromoform	50	66.5	133* [a]	76-129
74-83-9	Bromomethane	50	41.5	83	57-138
78-93-3	2-Butanone (MEK)	200	248	124	64-137
75-15-0	Carbon disulfide	50	49.0	98	64-137
56-23-5	Carbon tetrachloride	50	47.9	96	75-135
108-90-7	Chlorobenzene	50	51.4	103	84-117
75-00-3	Chloroethane	50	40.2	80	63-132
67-66-3	Chloroform	50	46.3	93	80-119
74-87-3	Chloromethane	50	43.6	87	46-136
110-82-7	Cyclohexane	50	44.8	90	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	60.5	121	72-127
124-48-1	Dibromochloromethane	50	64.5	129* [a]	80-123
106-93-4	1,2-Dibromoethane	50	56.0	112	84-117
95-50-1	1,2-Dichlorobenzene	50	54.1	108	84-119
541-73-1	1,3-Dichlorobenzene	50	54.0	108	81-117
106-46-7	1,4-Dichlorobenzene	50	53.8	108	82-117
75-71-8	Dichlorodifluoromethane	50	41.2	82	36-149
75-34-3	1,1-Dichloroethane	50	46.5	93	79-120
107-06-2	1,2-Dichloroethane	50	46.2	92	78-126
75-35-4	1,1-Dichloroethene	50	44.2	88	69-126
156-59-2	cis-1,2-Dichloroethene	50	46.2	92	80-120
156-60-5	trans-1,2-Dichloroethene	50	43.9	88	76-120
78-87-5	1,2-Dichloropropane	50	51.7	103	82-121
10061-01-5	cis-1,3-Dichloropropene	50	60.6	121* [a]	83-120
10061-02-6	trans-1,3-Dichloropropene	50	68.2	136* [a]	82-121
123-91-1	1,4-Dioxane	1250	1250	100	52-147
100-41-4	Ethylbenzene	50	48.6	97	80-120
76-13-1	Freon 113	50	48.9	98	62-182
591-78-6	2-Hexanone	200	224	112	65-132
98-82-8	Isopropylbenzene	50	46.6	93	83-120
79-20-9	Methyl Acetate	50	52.1	104	67-129
108-87-2	Methylcyclohexane	50	39.4	79	71-134

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7649-BS	2C170151.D	1	09/18/19	ED	n/a	n/a	V2C7649

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-1, JC95050-2, JC95050-3, JC95050-4, JC95050-5, JC95050-6, JC95050-7, JC95050-8, JC95050-9, JC95050-10, JC95050-11, JC95050-12, JC95050-13, JC95050-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	50	48.4	97	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	195	98	71-131
75-09-2	Methylene chloride	50	43.8	88	77-120
100-42-5	Styrene	50	50.0	100	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	61.1	122* [a]	76-119
127-18-4	Tetrachloroethene	50	53.8	108	70-131
108-88-3	Toluene	50	53.2	106	80-120
87-61-6	1,2,3-Trichlorobenzene	50	56.3	113	76-134
120-82-1	1,2,4-Trichlorobenzene	50	57.3	115	79-132
71-55-6	1,1,1-Trichloroethane	50	46.9	94	81-128
79-00-5	1,1,2-Trichloroethane	50	57.3	115	83-118
79-01-6	Trichloroethene	50	50.3	101	80-120
75-69-4	Trichlorofluoromethane	50	44.6	89	64-136
75-01-4	Vinyl chloride	50	43.7	87	51-135
	m,p-Xylene	100	98.6	99	80-120
95-47-6	o-Xylene	50	47.4	95	80-120
1330-20-7	Xylene (total)	150	146	97	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	81-124%
2037-26-5	Toluene-D8	103%	80-120%
460-00-4	4-Bromofluorobenzene	108%	80-120%

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

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7651-BS	2C170182.D	1	09/19/19	ED	n/a	n/a	V2C7651

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	208	104	42-150
71-43-2	Benzene	50	50.5	101	80-120
74-97-5	Bromochloromethane	50	50.1	100	84-121
75-27-4	Bromodichloromethane	50	58.7	117	83-120
75-25-2	Bromoform	50	66.3	133* [a]	76-129
74-83-9	Bromomethane	50	43.6	87	57-138
78-93-3	2-Butanone (MEK)	200	250	125	64-137
75-15-0	Carbon disulfide	50	59.7	119	64-137
56-23-5	Carbon tetrachloride	50	51.1	102	75-135
108-90-7	Chlorobenzene	50	53.6	107	84-117
75-00-3	Chloroethane	50	43.6	87	63-132
67-66-3	Chloroform	50	49.1	98	80-119
74-87-3	Chloromethane	50	47.2	94	46-136
110-82-7	Cyclohexane	50	47.6	95	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	59.1	118	72-127
124-48-1	Dibromochloromethane	50	65.0	130* [a]	80-123
106-93-4	1,2-Dibromoethane	50	55.1	110	84-117
95-50-1	1,2-Dichlorobenzene	50	53.9	108	84-119
541-73-1	1,3-Dichlorobenzene	50	54.4	109	81-117
106-46-7	1,4-Dichlorobenzene	50	53.8	108	82-117
75-71-8	Dichlorodifluoromethane	50	43.2	86	36-149
75-34-3	1,1-Dichloroethane	50	50.0	100	79-120
107-06-2	1,2-Dichloroethane	50	49.4	99	78-126
75-35-4	1,1-Dichloroethene	50	46.1	92	69-126
156-59-2	cis-1,2-Dichloroethene	50	48.3	97	80-120
156-60-5	trans-1,2-Dichloroethene	50	46.6	93	76-120
78-87-5	1,2-Dichloropropane	50	54.3	109	82-121
10061-01-5	cis-1,3-Dichloropropene	50	62.7	125* [a]	83-120
10061-02-6	trans-1,3-Dichloropropene	50	70.1	140* [a]	82-121
123-91-1	1,4-Dioxane	1250	1170	94	52-147
100-41-4	Ethylbenzene	50	50.5	101	80-120
76-13-1	Freon 113	50	50.0	100	62-182
591-78-6	2-Hexanone	200	226	113	65-132
98-82-8	Isopropylbenzene	50	48.1	96	83-120
79-20-9	Methyl Acetate	50	54.3	109	67-129
108-87-2	Methylcyclohexane	50	41.1	82	71-134

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7651-BS	2C170182.D	1	09/19/19	ED	n/a	n/a	V2C7651

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	50	48.5	97	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	200	100	71-131
75-09-2	Methylene chloride	50	45.6	91	77-120
100-42-5	Styrene	50	51.3	103	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	60.6	121* [a]	76-119
127-18-4	Tetrachloroethene	50	54.9	110	70-131
108-88-3	Toluene	50	54.7	109	80-120
87-61-6	1,2,3-Trichlorobenzene	50	55.6	111	76-134
120-82-1	1,2,4-Trichlorobenzene	50	56.4	113	79-132
71-55-6	1,1,1-Trichloroethane	50	50.5	101	81-128
79-00-5	1,1,2-Trichloroethane	50	57.7	115	83-118
79-01-6	Trichloroethene	50	53.9	108	80-120
75-69-4	Trichlorofluoromethane	50	48.0	96	64-136
75-01-4	Vinyl chloride	50	46.5	93	51-135
	m,p-Xylene	100	101	101	80-120
95-47-6	o-Xylene	50	48.6	97	80-120
1330-20-7	Xylene (total)	150	150	100	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	105%	80-120%

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

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC95050-2MS	2C170159.D	1	09/18/19	ED	n/a	n/a	V2C7649
JC95050-2MSD	2C170160.D	1	09/18/19	ED	n/a	n/a	V2C7649
JC95050-2	2C170156.D	1	09/18/19	ED	n/a	n/a	V2C7649

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-1, JC95050-2, JC95050-3, JC95050-4, JC95050-5, JC95050-6, JC95050-7, JC95050-8, JC95050-9, JC95050-10, JC95050-11, JC95050-12, JC95050-13, JC95050-15

CAS No.	Compound	JC95050-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	12.3		200	177	82	200	184	86	4	34-149/17
71-43-2	Benzene	ND		50	43.1	86	50	43.6	87	1	54-136/10
74-97-5	Bromochloromethane	ND		50	41.3	83	50	41.3	83	0	79-124/11
75-27-4	Bromodichloromethane	ND		50	47.1	94	50	47.6	95	1	79-124/11
75-25-2	Bromoform	ND		50	52.2	104	50	53.2	106	2	71-130/11
74-83-9	Bromomethane	ND		50	46.1	92	50	39.6	79	15* [a]	53-142/14
78-93-3	2-Butanone (MEK)	ND		200	198	99	200	203	102	2	54-142/15
75-15-0	Carbon disulfide	ND		50	53.2	106	50	51.4	103	3	59-145/17
56-23-5	Carbon tetrachloride	ND		50	46.5	93	50	44.5	89	4	70-143/12
108-90-7	Chlorobenzene	ND		50	44.0	88	50	44.9	90	2	78-123/10
75-00-3	Chloroethane	ND		50	45.1	90	50	38.6	77	16* [a]	57-141/14
67-66-3	Chloroform	ND		50	40.6	81	50	40.3	81	1	76-123/11
74-87-3	Chloromethane	ND		50	56.7	113	50	47.9	96	17* [a]	43-141/16
110-82-7	Cyclohexane	ND		50	49.2	98	50	41.5	83	17* [a]	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	48.2	96	50	49.7	99	3	66-130/13
124-48-1	Dibromochloromethane	ND		50	52.8	106	50	52.9	106	0	76-125/11
106-93-4	1,2-Dibromoethane	ND		50	45.8	92	50	46.4	93	1	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		50	45.6	91	50	46.2	92	1	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		50	45.7	91	50	47.0	94	3	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		50	45.2	90	50	46.1	92	2	76-122/11
75-71-8	Dichlorodifluoromethane	ND		50	65.9	132	50	57.2	114	14	31-159/16
75-34-3	1,1-Dichloroethane	ND		50	42.4	85	50	42.3	85	0	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	40.1	80	50	40.4	81	1	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	44.1	88	50	43.1	86	2	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	41.1	82	50	41.0	82	0	60-136/11
156-60-5	trans-1,2-Dichloroethene	2.2		50	43.2	82	50	43.3	82	0	70-126/11
78-87-5	1,2-Dichloropropane	ND		50	44.9	90	50	45.0	90	0	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		50	50.6	101	50	51.3	103	1	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	56.8	114	50	57.9	116	2	77-123/11
123-91-1	1,4-Dioxane	ND		1250	1010	81	1250	1130	90	11	49-146/26
100-41-4	Ethylbenzene	ND		50	42.7	85	50	43.2	86	1	51-140/20
76-13-1	Freon 113	ND		50	50.9	102	50	49.1	98	4	60-192/14
591-78-6	2-Hexanone	ND		200	177	89	200	186	93	5	56-139/14
98-82-8	Isopropylbenzene	ND		50	41.2	82	50	41.2	82	0	75-129/11
79-20-9	Methyl Acetate	ND		50	43.5	87	50	44.5	89	2	55-131/15
108-87-2	Methylcyclohexane	ND		50	39.4	79	50	39.3	79	0	57-155/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC95050-2MS	2C170159.D	1	09/18/19	ED	n/a	n/a	V2C7649
JC95050-2MSD	2C170160.D	1	09/18/19	ED	n/a	n/a	V2C7649
JC95050-2	2C170156.D	1	09/18/19	ED	n/a	n/a	V2C7649

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-1, JC95050-2, JC95050-3, JC95050-4, JC95050-5, JC95050-6, JC95050-7, JC95050-8, JC95050-9, JC95050-10, JC95050-11, JC95050-12, JC95050-13, JC95050-15

CAS No.	Compound	JC95050-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		50	42.0	84	50	41.7	83	1	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	161	81	200	163	82	1	66-136/13
75-09-2	Methylene chloride	ND		50	39.2	78	50	38.8	78	1	73-125/13
100-42-5	Styrene	ND		50	42.4	85	50	42.6	85	0	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	49.7	99	50	51.1	102	3	71-122/11
127-18-4	Tetrachloroethene	ND		50	48.3	97	50	48.9	98	1	61-139/11
108-88-3	Toluene	ND		50	46.1	92	50	47.4	95	3	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.8	94	50	48.5	97	4	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND		50	48.8	98	50	49.7	99	2	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		50	44.3	89	50	42.9	86	3	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	47.6	95	50	48.7	97	2	78-121/11
79-01-6	Trichloroethene	ND		50	44.9	90	50	45.3	91	1	62-141/10
75-69-4	Trichlorofluoromethane	ND		50	50.8	102	50	43.8	88	15* [a]	57-149/14
75-01-4	Vinyl chloride	ND		50	54.4	109	50	46.5	93	16* [a]	43-146/15
	m,p-Xylene	ND		100	85.5	86	100	85.6	86	0	50-144/20
95-47-6	o-Xylene	ND		50	41.1	82	50	41.1	82	0	63-134/10
1330-20-7	Xylene (total)	ND		150	127	85	150	127	85	0	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC95050-2	Limits
1868-53-7	Dibromofluoromethane	98%	97%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	92%	92%	96%	81-124%
2037-26-5	Toluene-D8	103%	104%	102%	80-120%
460-00-4	4-Bromofluorobenzene	105%	107%	102%	80-120%

(a) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC94921-7MS	2C170189.D	1	09/19/19	ED	n/a	n/a	V2C7651
JC94921-7MSD	2C170190.D	1	09/19/19	ED	n/a	n/a	V2C7651
JC94921-7	2C170186.D	1	09/19/19	ED	n/a	n/a	V2C7651

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-14

CAS No.	Compound	JC94921-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	183	92	200	185	93	1	34-149/17
71-43-2	Benzene	ND		50	44.9	90	50	47.1	94	5	54-136/10
74-97-5	Bromochloromethane	ND		50	43.1	86	50	44.1	88	2	79-124/11
75-27-4	Bromodichloromethane	ND		50	49.7	99	50	52.0	104	5	79-124/11
75-25-2	Bromoform	ND		50	54.2	108	50	58.5	117	8	71-130/11
74-83-9	Bromomethane	ND		50	46.2	92	50	45.6	91	1	53-142/14
78-93-3	2-Butanone (MEK)	ND		200	218	109	200	222	111	2	54-142/15
75-15-0	Carbon disulfide	ND		50	53.0	106	50	56.5	113	6	59-145/17
56-23-5	Carbon tetrachloride	ND		50	46.1	92	50	49.7	99	8	70-143/12
108-90-7	Chlorobenzene	ND		50	46.0	92	50	49.4	99	7	78-123/10
75-00-3	Chloroethane	ND		50	45.9	92	50	44.5	89	3	57-141/14
67-66-3	Chloroform	ND		50	42.4	85	50	44.1	88	4	76-123/11
74-87-3	Chloromethane	ND		50	57.1	114	50	53.6	107	6	43-141/16
110-82-7	Cyclohexane	ND		50	49.9	100	50	47.8	96	4	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	49.4	99	50	55.2	110	11	66-130/13
124-48-1	Dibromochloromethane	ND		50	54.4	109	50	59.5	119	9	76-125/11
106-93-4	1,2-Dibromoethane	ND		50	47.8	96	50	51.1	102	7	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		50	46.2	92	50	49.5	99	7	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		50	47.0	94	50	49.9	100	6	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		50	47.0	94	50	49.5	99	5	76-122/11
75-71-8	Dichlorodifluoromethane	ND		50	66.5	133	50	67.3	135	1	31-159/16
75-34-3	1,1-Dichloroethane	ND		50	44.2	88	50	45.9	92	4	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	43.9	88	50	44.3	89	1	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	43.9	88	50	46.9	94	7	63-136/14
156-59-2	cis-1,2-Dichloroethene	4.9		50	46.5	83	50	48.5	87	4	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	40.9	82	50	43.3	87	6	70-126/11
78-87-5	1,2-Dichloropropane	ND		50	47.2	94	50	48.7	97	3	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		50	52.9	106	50	55.8	112	5	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	59.5	119	50	64.3	129* [a]	8	77-123/11
123-91-1	1,4-Dioxane	ND		1250	1080	86	1250	1280	102	17	49-146/26
100-41-4	Ethylbenzene	ND		50	43.6	87	50	47.1	94	8	51-140/20
76-13-1	Freon 113	ND		50	49.4	99	50	53.7	107	8	60-192/14
591-78-6	2-Hexanone	ND		200	193	97	200	210	105	8	56-139/14
98-82-8	Isopropylbenzene	ND		50	41.2	82	50	45.0	90	9	75-129/11
79-20-9	Methyl Acetate	ND		50	48.0	96	50	49.1	98	2	55-131/15
108-87-2	Methylcyclohexane	ND		50	39.2	78	50	41.5	83	6	57-155/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC94921-7MS	2C170189.D	1	09/19/19	ED	n/a	n/a	V2C7651
JC94921-7MSD	2C170190.D	1	09/19/19	ED	n/a	n/a	V2C7651
JC94921-7	2C170186.D	1	09/19/19	ED	n/a	n/a	V2C7651

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC95050-14

CAS No.	Compound	JC94921-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		50	42.5	85	50	45.2	90	6	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	173	87	200	182	91	5	66-136/13
75-09-2	Methylene chloride	ND		50	40.0	80	50	42.0	84	5	73-125/13
100-42-5	Styrene	ND		50	43.7	87	50	46.8	94	7	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	51.8	104	50	54.9	110	6	71-122/11
127-18-4	Tetrachloroethene	13.0		50	61.3	97	50	64.9	104	6	61-139/11
108-88-3	Toluene	ND		50	47.4	95	50	52.0	104	9	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.3	93	50	50.8	102	9	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.8	96	50	51.7	103	8	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		50	43.9	88	50	47.1	94	7	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	49.7	99	50	53.0	106	6	78-121/11
79-01-6	Trichloroethene	3.7		50	50.3	93	50	53.7	100	7	62-141/10
75-69-4	Trichlorofluoromethane	ND		50	52.8	106	50	51.0	102	3	57-149/14
75-01-4	Vinyl chloride	ND		50	53.8	108	50	53.4	107	1	43-146/15
	m,p-Xylene	ND		100	87.2	87	100	93.8	94	7	50-144/20
95-47-6	o-Xylene	ND		50	41.2	82	50	44.8	90	8	63-134/10
1330-20-7	Xylene (total)	ND		150	128	85	150	139	93	8	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC94921-7	Limits
1868-53-7	Dibromofluoromethane	99%	96%	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	93%	101%	81-124%
2037-26-5	Toluene-D8	103%	107%	106%	80-120%
460-00-4	4-Bromofluorobenzene	104%	104%	96%	80-120%

(a) Outside control limits.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample: V2C7580-BFB
Lab File ID: 2C169067.D
Instrument ID: GCMS2C
Injection Date: 07/31/19
Injection Time: 18:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	25293	21.3		Pass
75	30.0 - 60.0% of mass 95	61562	51.8		Pass
95	Base peak, 100% relative abundance	118832	100.0		Pass
96	5.0 - 9.0% of mass 95	8105	6.82		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	118096	99.4		Pass
175	5.0 - 9.0% of mass 174	9372	7.89	(7.94) [a]	Pass
176	95.0 - 101.0% of mass 174	114704	96.5	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	7741	6.51	(6.75) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C7580-IC7580	2C169068.D	07/31/19	18:56	00:32	Initial cal 0.2
V2C7580-IC7580	2C169069.D	07/31/19	19:26	01:02	Initial cal 0.5
V2C7580-IC7580	2C169070.D	07/31/19	19:55	01:31	Initial cal 1
V2C7580-IC7580	2C169071.D	07/31/19	20:24	02:00	Initial cal 2
V2C7580-IC7580	2C169072.D	07/31/19	20:54	02:30	Initial cal 4
V2C7580-IC7580	2C169073.D	07/31/19	21:23	02:59	Initial cal 8
V2C7580-IC7580	2C169074.D	07/31/19	21:52	03:28	Initial cal 20
V2C7580-ICC7580	2C169075.D	07/31/19	22:22	03:58	Initial cal 50
V2C7580-IC7580	2C169076.D	07/31/19	22:51	04:27	Initial cal 100
V2C7580-IC7580	2C169077.D	07/31/19	23:20	04:56	Initial cal 200
V2C7580-ICV7580	2C169080.D	08/01/19	00:48	06:24	Initial cal verification 50
V2C7580-ICV7580	2C169081.D	08/01/19	01:17	06:53	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample: V2C7649-BFB
Lab File ID: 2C170149.D
Instrument ID: GCMS2C
Injection Date: 09/18/19
Injection Time: 07:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20283	21.0		Pass
75	30.0 - 60.0% of mass 95	49795	51.5		Pass
95	Base peak, 100% relative abundance	96765	100.0		Pass
96	5.0 - 9.0% of mass 95	6825	7.05		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	97992	101.3		Pass
175	5.0 - 9.0% of mass 174	7620	7.87	(7.78) [a]	Pass
176	95.0 - 101.0% of mass 174	98357	101.6	(100.4) [a]	Pass
177	5.0 - 9.0% of mass 176	6182	6.39	(6.29) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C7649-CC7580	2C170149.D	09/18/19	07:40	00:00	Continuing cal 20
V2C7649-BS	2C170151.D	09/18/19	08:44	01:04	Blank Spike
V2C7649-MB	2C170153.D	09/18/19	09:41	02:01	Method Blank
ZZZZZZ	2C170154.D	09/18/19	10:10	02:30	(unrelated sample)
ZZZZZZ	2C170155.D	09/18/19	10:38	02:58	(unrelated sample)
JC95050-2	2C170156.D	09/18/19	11:07	03:27	ERM-MW-02-091219
JC95050-1	2C170157.D	09/18/19	11:35	03:55	ERM-MW-01-091219
JC95050-3	2C170158.D	09/18/19	12:04	04:24	ERM-MW-02D-091219
JC95050-2MS	2C170159.D	09/18/19	12:32	04:52	Matrix Spike
JC95050-2MSD	2C170160.D	09/18/19	13:01	05:21	Matrix Spike Duplicate
ZZZZZZ	2C170162.D	09/18/19	13:59	06:19	(unrelated sample)
JC95050-15	2C170163.D	09/18/19	14:27	06:47	TB091219
JC95050-4	2C170164.D	09/18/19	14:56	07:16	ERM-MW-05-091219
JC95050-5	2C170165.D	09/18/19	15:24	07:44	ERM-MW-09-091219
JC95050-6	2C170166.D	09/18/19	15:53	08:13	ERM-MW-11S-091219
JC95050-7	2C170167.D	09/18/19	16:22	08:42	ERM-MW-11M-091219
JC95050-8	2C170168.D	09/18/19	16:50	09:10	ERM-MW-11D-091219
JC95050-9	2C170169.D	09/18/19	17:18	09:38	ERM-MW-12S-091219
JC95050-10	2C170170.D	09/18/19	17:47	10:07	ERM-MW-12D-091219
JC95050-11	2C170171.D	09/18/19	18:15	10:35	ERM-MW-13S-091219
JC95050-12	2C170172.D	09/18/19	18:44	11:04	ERM-MW-13D-091219
JC95050-13	2C170173.D	09/18/19	19:12	11:32	ERM-MW-14D-091219

Instrument Performance Check (BFB)

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample: V2C7651-BFB
Lab File ID: 2C170180.D
Instrument ID: GCMS2C
Injection Date: 09/19/19
Injection Time: 07:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19184	21.9		Pass
75	30.0 - 60.0% of mass 95	45851	52.5		Pass
95	Base peak, 100% relative abundance	87408	100.0		Pass
96	5.0 - 9.0% of mass 95	5776	6.61		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	88840	101.6		Pass
175	5.0 - 9.0% of mass 174	7437	8.51	(8.37) [a]	Pass
176	95.0 - 101.0% of mass 174	86888	99.4	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	5813	6.65	(6.69) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C7651-CC7580	2C170180.D	09/19/19	07:33	00:00	Continuing cal 20
V2C7651-BS	2C170182.D	09/19/19	08:37	01:04	Blank Spike
V2C7651-MB	2C170184.D	09/19/19	09:33	02:00	Method Blank
JC95050-14	2C170185.D	09/19/19	10:02	02:29	DUP091219
JC94921-7	2C170186.D	09/19/19	10:30	02:57	(used for QC only; not part of job JC95050)
ZZZZZZ	2C170187.D	09/19/19	10:59	03:26	(unrelated sample)
ZZZZZZ	2C170188.D	09/19/19	11:27	03:54	(unrelated sample)
JC94921-7MS	2C170189.D	09/19/19	11:56	04:23	Matrix Spike
JC94921-7MSD	2C170190.D	09/19/19	12:24	04:51	Matrix Spike Duplicate
ZZZZZZ	2C170191.D	09/19/19	12:53	05:20	(unrelated sample)
ZZZZZZ	2C170192.D	09/19/19	13:21	05:48	(unrelated sample)
ZZZZZZ	2C170193.D	09/19/19	13:50	06:17	(unrelated sample)
ZZZZZZ	2C170194.D	09/19/19	14:18	06:45	(unrelated sample)
ZZZZZZ	2C170195.D	09/19/19	14:47	07:14	(unrelated sample)
ZZZZZZ	2C170196.D	09/19/19	15:15	07:42	(unrelated sample)
ZZZZZZ	2C170197.D	09/19/19	15:44	08:11	(unrelated sample)
ZZZZZZ	2C170198.D	09/19/19	16:13	08:40	(unrelated sample)
ZZZZZZ	2C170199.D	09/19/19	16:41	09:08	(unrelated sample)
ZZZZZZ	2C170200.D	09/19/19	17:10	09:37	(unrelated sample)
ZZZZZZ	2C170201.D	09/19/19	17:39	10:06	(unrelated sample)
ZZZZZZ	2C170202.D	09/19/19	18:07	10:34	(unrelated sample)
ZZZZZZ	2C170203.D	09/19/19	18:36	11:03	(unrelated sample)
ZZZZZZ	2C170204.D	09/19/19	19:04	11:31	(unrelated sample)
ZZZZZZ	2C170205.D	09/19/19	19:33	12:00	(unrelated sample)

Internal Standard Area Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Check Std:	V2C7649-CC7580	**Injection Date:**	09/18/19
Lab File ID:	2C170149.D	**Injection Time:**	07:40
Instrument ID:	GCMS2C	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	234387	8.22	199449	10.68	298665	11.62	309701	14.61	202688	16.79
Upper Limit [a]	468774	8.72	398898	11.18	597330	12.12	619402	15.11	405376	17.29
Lower Limit [b]	117194	7.72	99725	10.18	149333	11.12	154851	14.11	101344	16.29

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2C7649-BS	219659	8.21	204671	10.68	302568	11.62	308738	14.61	198591	16.79
V2C7649-MB	203922	8.21	186999	10.68	281466	11.62	286218	14.61	195960	16.79
ZZZZZZ	216382	8.22	193532	10.68	295890	11.62	290898	14.61	193892	16.79
ZZZZZZ	200404	8.22	180885	10.68	275329	11.62	276797	14.61	191683	16.78
JC95050-2	208636	8.22	178810	10.68	278961	11.62	280244	14.61	188387	16.79
JC95050-1	201191	8.22	179880	10.68	272325	11.62	272703	14.61	185937	16.78
JC95050-3	188240	8.21	170870	10.68	264260	11.62	266513	14.61	180144	16.79
JC95050-2MS	192616	8.23	177985	10.68	263014	11.62	270000	14.61	175924	16.79
JC95050-2MSD	208867	8.22	193749	10.68	281564	11.62	286344	14.61	182100	16.79
ZZZZZZ	204177	8.22	177403	10.68	271832	11.63	270469	14.61	184742	16.79
JC95050-15	201411	8.22	179572	10.68	275800	11.62	271348	14.61	181238	16.78
JC95050-4	201121	8.22	173308	10.68	265006	11.62	261864	14.61	177837	16.78
JC95050-5	184743	8.22	173495	10.68	265537	11.62	265563	14.61	176655	16.79
JC95050-6	189870	8.22	165626	10.68	252943	11.63	256486	14.61	173613	16.78
JC95050-7	187953	8.20	160547	10.68	248677	11.62	252252	14.61	169038	16.79
JC95050-8	186907	8.21	158955	10.68	243180	11.62	246996	14.61	168767	16.79
JC95050-9	184897	8.20	152237	10.68	236287	11.62	242251	14.61	165750	16.78
JC95050-10	182338	8.22	151616	10.68	238132	11.62	243067	14.61	162790	16.79
JC95050-11	176901	8.21	155658	10.68	245143	11.62	244932	14.61	164616	16.79
JC95050-12	176118	8.21	150579	10.68	235679	11.62	239605	14.61	162988	16.79
JC95050-13	173371	8.21	148942	10.68	235970	11.62	241911	14.61	161761	16.79

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Check Std:	V2C7651-CC7580	**Injection Date:**	09/19/19
Lab File ID:	2C170180.D	**Injection Time:**	07:33
Instrument ID:	GCMS2C	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	284508	8.22	179207	10.68	269951	11.62	283415	14.61	194129	16.79
Upper Limit [a]	569016	8.72	358414	11.18	539902	12.12	566830	15.11	388258	17.29
Lower Limit [b]	142254	7.72	89604	10.18	134976	11.12	141708	14.11	97065	16.29

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2C7651-BS	192779	8.21	177602	10.68	260583	11.62	272932	14.61	180187	16.79
V2C7651-MB	179517	8.22	169078	10.68	258420	11.62	260331	14.61	173194	16.79
JC95050-14	182838	8.22	165365	10.68	254556	11.62	255961	14.61	169645	16.79
JC94921-7	187832	8.24	156868	10.68	249062	11.63	242044	14.61	161479	16.79
ZZZZZZ	177297	8.23	162749	10.68	255837	11.63	249624	14.61	168807	16.79
ZZZZZZ	182065	8.22	160023	10.68	246874	11.63	246220	14.61	163658	16.79
JC94921-7MS	177894	8.21	170701	10.68	252647	11.62	262763	14.61	170143	16.79
JC94921-7MSD	195904	8.22	175629	10.68	259279	11.62	261784	14.61	173342	16.78
ZZZZZZ	194808	8.22	175488	10.68	266050	11.62	261939	14.61	176193	16.79
ZZZZZZ	195222	8.23	161314	10.68	252356	11.63	259410	14.61	171865	16.79
ZZZZZZ	186713	8.21	162491	10.68	253599	11.63	252415	14.61	167382	16.79
ZZZZZZ	176261	8.23	158386	10.68	244524	11.63	234102	14.61	153117	16.78
ZZZZZZ	171922	8.21	151053	10.68	241639	11.63	246790	14.61	160063	16.79
ZZZZZZ	180304	8.22	149890	10.68	237193	11.63	244457	14.61	157531	16.79
ZZZZZZ	182533	8.22	145980	10.68	234942	11.63	237025	14.61	154510	16.78
ZZZZZZ	169724	8.21	144617	10.68	230258	11.62	229445	14.61	155131	16.78
ZZZZZZ	175810	8.22	138264	10.68	221600	11.62	223597	14.61	151379	16.79
ZZZZZZ	175085	8.23	140781	10.68	228348	11.62	227598	14.61	155223	16.78
ZZZZZZ	166447	8.22	141120	10.68	228478	11.62	229785	14.61	153963	16.78
ZZZZZZ	170791	8.20	141681	10.68	227640	11.63	228852	14.61	152583	16.79
ZZZZZZ	173679	8.21	138228	10.68	225289	11.63	227707	14.61	153880	16.79
ZZZZZZ	173332	8.21	136074	10.68	218360	11.62	226035	14.61	152923	16.79
ZZZZZZ	161763	8.22	136061	10.68	217177	11.62	227478	14.61	153480	16.79

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC95050-1	2C170157.D	101	98	104	101
JC95050-2	2C170156.D	102	96	102	102
JC95050-3	2C170158.D	103	98	102	99
JC95050-4	2C170164.D	102	99	106	99
JC95050-5	2C170165.D	102	101	103	101
JC95050-6	2C170166.D	101	101	104	99
JC95050-7	2C170167.D	107	101	102	99
JC95050-8	2C170168.D	103	102	104	98
JC95050-9	2C170169.D	105	102	102	97
JC95050-10	2C170170.D	107	102	103	98
JC95050-11	2C170171.D	106	101	104	98
JC95050-12	2C170172.D	107	102	104	98
JC95050-13	2C170173.D	109	103	102	100
JC95050-14	2C170185.D	103	100	104	102
JC95050-15	2C170163.D	103	99	104	102
JC94921-7MS	2C170189.D	99	96	103	104
JC94921-7MSD	2C170190.D	96	93	107	104
JC95050-2MS	2C170159.D	98	92	103	105
JC95050-2MSD	2C170160.D	97	92	104	107
V2C7649-BS	2C170151.D	97	90	103	108
V2C7649-MB	2C170153.D	98	96	102	100
V2C7651-BS	2C170182.D	100	95	102	105
V2C7651-MB	2C170184.D	104	102	104	101

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC95050 **Sample:** V2C7580-ICC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169075.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Calibration Files
1 =2C169070.D 2 =2C169071.D 100 =2C169076.D 50 =2C169075.D
20 =2C169074.D 200 =2C169077.D 0.5 =2C169069.D 4 =2C169072.D
8 =2C169073.D 0.2 =2C169068.D = =

Compound	1	2	100	50	20	200	0.5	4	8	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9	----------ISTD----------											
2) ethanol											0.000#	-1.00
3) tertiary butyl alcohol	1.078	1.254	1.291	1.228	1.215		1.175	1.205			1.206	5.61
4) 1,4-dioxane			0.100	0.112	0.107	0.096		0.088	0.101		0.100	8.57
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	1.328	1.189	1.002	1.129	1.167	0.930		1.210	1.239		1.149	11.19
7) dichlorodifluoromethane	1.316	1.182	1.113	1.241	1.291	1.002	1.097	1.260	1.268		1.197	8.82
8) chloromethane	1.789	1.539	1.191	1.344	1.377	1.048		1.501	1.460		1.406	16.02
9) vinyl chloride	1.495	1.343	1.156	1.308	1.352	1.019	1.476	1.330	1.325	1.315	1.312	10.58
10) 1,3-butadiene			1.052	0.799	0.927	0.963	0.711		1.023	1.006	0.926	13.60
11) bromomethane			1.235	0.940	1.066	1.106	0.889		1.151	1.038	1.061	11.25
12) chloroethane	0.997	0.834	0.738	0.813	0.805	0.698		0.842	0.821		0.818	10.73
13) trichlorofluoromethane	1.650	1.442	1.446	1.543	1.509	1.400	1.314	1.469	1.488		1.473	6.36
14) vinyl bromide	1.138	1.025	0.967	1.084	1.067	0.906	1.147	1.045	1.031	1.066	1.048	6.91
15) ethyl ether	0.374	0.345	0.359	0.381	0.348	0.340		0.339	0.347		0.354	4.42
16) 2-chloropropane			1.328	1.133	1.231	1.196	1.059		1.346	1.329	1.232	8.92
17) acrolein				0.127	0.134	0.130	0.120		0.125	0.128	0.127	3.49
18) freon 113	0.612	0.638	0.581	0.630	0.624	0.561	0.464	0.639	0.637		0.598	9.60
19) 1,1-dichloroethene	0.819	0.687	0.647	0.685	0.694	0.608	0.778	0.717	0.716	0.655	0.701	8.83
20) acetone			0.083	0.084	0.088	0.089	0.079		0.092	0.094	0.087	6.28
21) iodomethane	1.368	1.243	1.222	1.278	1.256	1.181	1.238	1.232	1.267	1.118	1.240	5.22
22) acetonitrile				0.114	0.117	0.122	0.101		0.119	0.130	0.117	8.05
23) carbon disulfide												

Initial Calibration Summary

Job Number: JC95050 **Sample:** V2C7580-ICC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169075.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

	2.152	1.889	1.917	2.022	1.960	1.805	1.994	1.902	1.950	2.257	1.985	6.68
24)	methylene chloride											
	1.169	0.904	0.731	0.775	0.769	0.674		0.826	0.784		0.829	18.43
25)	methyl acetate											
			0.607	0.684	0.643	0.582		0.670	0.749		0.656	9.04
26)	methyl tert butyl ether											
	2.420	2.080	1.997	2.144	2.115	1.850	2.272	2.085	2.114		2.120	7.54
27)	trans-1,2-dichloroethene											
	0.775	0.708	0.636	0.680	0.643	0.571	0.705	0.685	0.662		0.674	8.41
28)	hexane											
	0.428	0.369	0.368	0.387	0.355	0.343		0.358	0.357		0.371	7.20
29)	di-isopropyl ether											
	2.467	2.140	2.044	2.187	2.076	1.864	2.270	2.050	2.111	2.257	2.146	7.57
30)	1,1-dichloroethane											
	1.194	1.112	1.053	1.124	1.074	0.959	1.155	1.087	1.113	1.053	1.092	5.89
31)	chloroprene											
	0.924	0.820	0.852	0.894	0.840	0.790	0.910	0.847	0.854		0.859	5.04
32)	acrylonitrile											
	0.305	0.352	0.334	0.349	0.345	0.317		0.336	0.346		0.336	4.95
33)	vinyl acetate											
			0.099	0.103	0.099	0.098		0.083	0.098		0.097	7.12
34)	ethyl tert-butyl ether											
	2.170	1.968	1.959	2.087	1.963	1.817	1.988	1.979	1.983	2.063	1.998	4.68
35)	2-butanone											
	0.081	0.072	0.082	0.084	0.081	0.080		0.078	0.078		0.079	4.65
36)	ethyl acetate											
			0.100	0.105	0.092	0.093		0.086	0.090		0.094	7.40
37)	2,2-dichloropropane											
	1.071	0.905	0.846	0.922	0.905	0.764	0.954	0.959	0.910	0.952	0.919	8.64
38)	cis-1,2-dichloroethene											
	0.761	0.679	0.682	0.711	0.662	0.626	0.782	0.678	0.694		0.697	6.94
39)	propionitrile											
	0.131	0.121	0.121	0.127	0.125	0.111		0.124	0.126		0.123	4.70
40)	bromochloromethane											
	0.398	0.341	0.366	0.372	0.350	0.336		0.343	0.356		0.358	5.66
41)	tetrahydrofuran											
			0.099	0.105	0.099	0.092		0.089	0.089		0.096	6.89
42)	chloroform											
	1.277	1.137	1.064	1.130	1.071	0.978	1.331	1.085	1.088		1.129	9.76
43)	t-butyl formate											
	0.398	0.408	0.466	0.488	0.444	0.433		0.402	0.419		0.432	7.43
44)	dibromofluoromethane (s)											
	0.505	0.504	0.498	0.507	0.503	0.486	0.506	0.498	0.510	0.516	0.503	1.60
45)	methacrylonitrile											
		0.233	0.256	0.267	0.243	0.247		0.237	0.232		0.245	5.29
46)	1,1,1-trichloroethane											
	1.306	1.132	1.130	1.203	1.148	1.035	1.088	1.148	1.142	1.059	1.139	6.68
47)	cyclohexane											
	1.104	1.062	0.956	1.041	1.003	0.862	1.086	1.022	1.005	1.033	1.017	6.81
48)	1,1-dichloropropene											
	0.752	0.686	0.650	0.687	0.659	0.608	0.686	0.654	0.678	0.593	0.665	6.70
49)	carbon tetrachloride											
	1.029	0.944	0.949	1.015	0.958	0.877	0.929	0.961	0.964	0.806	0.943	6.81
50)	isobutyl alcohol											
											0.000#	-1.00
51)	I 1,4-difluorobenzene	----------ISTD----------										
52)	1,2-dichloroethane-d4 (s)											
	0.415	0.403	0.370	0.390	0.409	0.362	0.418	0.405	0.411	0.426	0.401	5.20
53)	n-butyl alcohol											

	0.026	0.024	0.025	0.027	0.026	0.023		0.025	0.025		0.025	5.30
54)	tert-amyl alcohol												
		0.038	0.042	0.044	0.035			0.041	0.044		0.041	8.97
55)	iso-octane												
	1.672	1.437	1.458	1.570	1.494	1.354	1.497	1.426	1.439	1.250	1.460	7.82
56)	benzene												
	1.609	1.437	1.423	1.489	1.414	1.362	1.415	1.392	1.400	1.650	1.459	6.57
57)	tert-amyl methyl ether												
	0.405	0.344	0.324	0.347	0.350	0.307	0.333	0.338	0.357		0.345	7.79
58)	heptane												
	0.286	0.251	0.237	0.246	0.230	0.223	0.202	0.237	0.228		0.238	9.71
59)	isopropyl acetate												
		0.100	0.108	0.101	0.098			0.100	0.097		0.101	3.71
60)	1,2-dichloroethane												
	0.702	0.582	0.507	0.553	0.543	0.482		0.575	0.559		0.563	11.66
61)	ethyl acrylate												
		0.519	0.501	0.548	0.515	0.472		0.522	0.526		0.515	4.60
62)	trichloroethene												
	0.394	0.374	0.367	0.400	0.373	0.349	0.371	0.358	0.367	0.404	0.376	4.81
63)	2-nitropropane												
		0.132	0.123	0.119	0.133				0.107		0.123	8.56
64)	2-chloroethyl vinyl ether												
	0.229	0.199	0.206	0.224	0.220	0.197	0.207	0.199	0.211	0.180	0.207	7.07
65)	methyl methacrylate												
		0.105	0.110	0.117	0.110	0.107		0.096	0.102		0.107	6.30
66)	1,2-dichloropropane												
	0.442	0.366	0.358	0.388	0.370	0.342	0.293	0.367	0.367		0.366	10.71
67)	dibromomethane												
	0.323	0.263	0.268	0.293	0.278	0.257	0.247	0.285	0.280		0.277	8.01
68)	methylcyclohexane												
	0.961	0.853	0.830	0.915	0.873	0.785	0.892	0.862	0.855	0.969	0.879	6.46
69)	bromodichloromethane												
	0.506	0.493	0.538	0.571	0.523	0.521	0.462	0.479	0.499	0.532	0.512	6.13
70)	epichlorohydrin												
		0.059	0.057	0.063	0.061	0.054		0.055	0.060		0.058	5.50
71)	cis-1,3-dichloropropene												
	0.562	0.512	0.546	0.582	0.538	0.523	0.507	0.493	0.498	0.503	0.527	5.63
72)	4-methyl-2-pentanone												
	0.280	0.236	0.225	0.249	0.250	0.213	0.213	0.246	0.241	0.222	0.237	8.64
73)	3-methyl-1-butanol												
		0.043	0.041	0.048	0.048	0.037		0.045	0.047		0.044	9.27
74)	I chlorobenzene-d5	----------	ISTD	----------									
75)	toluene-d8 (s)												
	1.029	1.037	1.163	1.130	1.074	1.211	1.014	1.041	1.043	1.027	1.077	6.27
76)	toluene												
	0.850	0.768	0.888	0.900	0.820	0.899	0.807	0.777	0.770	0.849	0.833	6.26
77)	ethyl methacrylate												
	0.488	0.445	0.508	0.520	0.496	0.494	0.490	0.452	0.457	0.559	0.491	7.00
78)	trans-1,3-dichloropropene												
	0.414	0.403	0.499	0.507	0.447	0.498	0.384	0.402	0.418	0.376	0.435	11.43
79)	1,1,2-trichloroethane												
	0.263	0.265	0.292	0.302	0.271	0.290	0.286	0.261	0.268		0.278	5.44
80)	2-hexanone												
	0.217	0.207	0.190	0.206	0.203	0.180	0.216	0.196	0.199	0.162	0.198	8.55
81)	tetrachloroethene												
	0.342	0.334	0.366	0.366	0.330	0.365	0.338	0.322	0.319	0.406	0.349	7.73
82)	1,3-dichloropropane												
	0.535	0.493	0.495	0.515	0.485	0.491	0.500	0.505	0.486		0.501	3.21
83)	butyl acetate												

```
      0.338 0.293 0.279 0.297 0.294 0.268       0.303 0.299        0.296    6.94
 84)  dibromochloromethane
      0.351 0.324 0.460 0.447 0.372 0.466       0.317 0.345        0.385   16.21
 85)  1,2-dibromoethane
      0.477 0.420 0.464 0.472 0.431 0.452 0.404 0.409 0.403 0.476  0.441    6.99
 86)  n-butyl ether
      1.723 1.524 1.545 1.633 1.541 1.468 1.637 1.515 1.511 1.752  1.585    6.07
 87)  chlorobenzene
      1.102 1.003 1.032 1.070 0.997 1.000 0.993 0.978 0.999 1.039  1.021    3.85
 88)  1,1,1,2-tetrachloroethane
      0.458 0.433 0.504 0.511 0.447 0.520 0.412 0.431 0.422 0.431  0.457    8.75
 89)  ethylbenzene
      1.950 1.739 1.733 1.840 1.761 1.680 1.798 1.725 1.744 1.937  1.791    5.09
 90)  m,p-xylene
      0.778 0.667 0.702 0.730 0.695 0.690 0.697 0.686 0.678 0.687  0.701    4.52
 91)  o-xylene
      0.828 0.746 0.816 0.840 0.782 0.808 0.840 0.760 0.766        0.798    4.50
 92)  styrene
      1.270 1.160 1.193 1.267 1.216 1.151 1.243 1.190 1.188 1.229  1.211    3.43
 93)  butyl acrylate
      1.044 0.921 0.908 0.992 0.972 0.851 0.996 0.948 0.962 0.945  0.954    5.60
 94)  bromoform
      0.304 0.274 0.399 0.399 0.326 0.405       0.279 0.299        0.336   16.76
 95)  isopropylbenzene
      2.333 2.052 2.177 2.293 2.144 2.102 2.019 2.151 2.164 2.105  2.154    4.53
 96)  cis-1,4-dichloro-2-butene
                0.216 0.220 0.202 0.210       0.171 0.179        0.200   10.10

 97) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 98)  4-bromofluorobenzene (s)
      0.689 0.687 0.741 0.722 0.698 0.739 0.693 0.684 0.675 0.690  0.702    3.34
 99)  bromobenzene
      0.828 0.796 0.833 0.865 0.790 0.795 0.782 0.779 0.772 0.732  0.797    4.64
100)  1,1,2,2-tetrachloroethane
      1.035 0.889 1.015 1.047 0.950 0.962 0.842 0.888 0.913 0.861  0.940    7.84
101)  trans-1,4-dichloro-2-butene
                0.123 0.127 0.108 0.124       0.102 0.094        0.113   11.94
102)  1,2,3-trichloropropane
      0.278 0.269 0.271 0.280 0.259 0.259 0.267 0.262 0.253        0.267    3.41
103)  n-propylbenzene
      3.414 3.074 3.221 3.357 3.139 3.009 3.156 3.116 3.120 3.133  3.174    3.93
104)  2-chlorotoluene
      0.754 0.700 0.791 0.797 0.733 0.777 0.705 0.710 0.703 0.616  0.728    7.46
105)  4-chlorotoluene
      2.136 1.951 1.959 2.025 1.892 1.860 1.887 1.909 1.833 1.875  1.933    4.68
106)  1,3,5-trimethylbenzene
      2.591 2.349 2.568 2.628 2.422 2.497 2.295 2.352 2.392 2.486  2.458    4.63
107)  tert-butylbenzene
      2.099 1.860 2.343 2.319 2.019 2.348 1.805 1.914 1.902        2.068   10.59
108)  1,2,4-trimethylbenzene
      2.687 2.464 2.613 2.714 2.588 2.475 2.513 2.506 2.493 2.647  2.570    3.58
109)  sec-butylbenzene
      3.254 3.059 3.594 3.663 3.317 3.457 2.962 3.127 3.179 3.214  3.283    6.94
110)  1,3-dichlorobenzene
      1.777 1.641 1.614 1.697 1.614 1.518 1.670 1.605 1.590 1.610  1.634    4.25
111)  p-isopropyltoluene
      2.794 2.644 3.066 3.135 2.889 2.924 2.585 2.688 2.761 2.758  2.824    6.32
112)  1,4-dichlorobenzene
      1.762 1.595 1.634 1.684 1.603 1.573 1.673 1.530 1.565 1.834  1.645    5.76
113)  1,2-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC95050 **Sample:** V2C7580-ICC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169075.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

```
       1.852 1.646 1.781 1.872 1.779 1.695 1.752 1.736 1.731 1.777  1.762    3.82
114)  n-butylbenzene
       1.419 1.360 1.538 1.593 1.469 1.475 1.279 1.377 1.409 1.328  1.425    6.75
115)  1,2-dibromo-3-chloropropane
       0.225 0.205 0.312 0.304 0.256 0.314       0.213 0.232        0.258   17.88
116)  1,3,5-trichlorobenzene
       1.556 1.416 1.769 1.815 1.671 1.729 1.318 1.534 1.537 1.592  1.594    9.81
117)  nitrobenzene
                   0.052 0.042 0.034 0.064       0.022 0.029        0.040   38.23
           ----- Quadratic regression -----                Coefficient =  0.9998
                Response Ratio = -0.00251 + 0.04029 *A + 0.00599 *A^2

118)  1,2,4-trichlorobenzene
       1.185 1.141 1.695 1.711 1.506 1.640       1.210 1.338        1.428   16.73
119)  2-ethylhexyl acrylate
      *This compound does not meet initial calibration criteria*
                   1.008 0.765 0.451 1.183             0.274        0.736   51.27
120)  hexachlorobutadiene
       0.729 0.657 0.788 0.781 0.709 0.800 0.614 0.670 0.679        0.714    9.13
121)  naphthalene
                   4.328 4.300 3.776 4.199       2.971 3.355        3.821   14.67
122)  1,2,3-trichlorobenzene
       1.128 1.024 1.619 1.612 1.437 1.563       1.153 1.253        1.349   17.67
123)  hexachloroethane
      *This compound does not meet initial calibration criteria*
             0.279 0.584 0.527 0.385 0.636       0.311 0.314        0.434   33.68
           ----- Quadratic regression -----                Coefficient =  0.9996
                Response Ratio = -0.03113 + 0.53833 *A + 0.02663 *A^2

124)  2-methylnaphthalene
                   2.280 1.993 1.387 2.340             0.884        1.777   35.20
              ----- Linear regression -----  Coefficient =  0.9979
                Response Ratio = -0.14599 + 2.38983 *A

125)  Ethylenimine
                                                                    0.000#  -1.00
126)  Bis(chloromethyl)ether
                                                                    0.000#  -1.00
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2C7580.M         Thu Aug 01 12:13:21 2019   RPT1
```

Initial Calibration Verification

Job Number: JC95050 **Sample:** V2C7580-ICV7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169080.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2C7580\2C169080.D Vial: 16
Acq On : 1 Aug 2019 12:48 am Operator: brittank
Sample : icv7580-50 Inst : Instrument #1
Misc : MS36344,V2C7580,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Thu Aug 01 12:11:34 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	109	0.00	8.24
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.206	1.316	-9.1	111	0.00	8.36
4		1,4-dioxane	0.100	0.113	-13.0	110	0.00	12.26
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.68
6		chlorodifluoromethane	1.149	1.148	0.1	107	0.00	4.41
7		dichlorodifluoromethane	1.197	1.042	12.9	89	0.00	4.38
8		chloromethane	1.406	1.198	14.8	94	0.00	4.82
9		vinyl chloride	1.312	1.251	4.6	101	0.00	5.09
10		1,3-butadiene	0.926	1.127	-21.7	128	0.00	5.13
11		bromomethane	1.061	1.271	-19.8	126	0.01	5.79
12		chloroethane	0.818	0.694	15.2	90	0.00	5.99
13		trichlorofluoromethane	1.473	1.456	1.2	100	0.01	6.52
14		vinyl bromide	1.048	1.081	-3.1	105	0.01	6.38
15		ethyl ether	0.354	0.381	-7.6	106	0.00	6.96
16		2-chloropropane	1.232	1.330	-8.0	114	0.00	7.20
17		acrolein	0.127	0.165	-29.9	131	0.00	7.22
18		freon 113	0.598	0.731	-22.2	122	0.00	7.47
19		1,1-dichloroethene	0.701	0.659	6.0	101	-0.02	7.44
20		acetone	0.087	0.092	-5.7	110	0.00	7.45
21		iodomethane	1.240	1.473	-18.8	122	0.00	7.73
22		acetonitrile		----------NA----------				
23		carbon disulfide	1.985	2.268	-14.3	118	0.00	7.89
24		methylene chloride	0.829	0.778	6.2	106	0.00	8.25
25		methyl acetate	0.656	0.615	6.3	95	0.00	7.98
26		methyl tert butyl ether	2.120	2.180	-2.8	108	0.00	8.66
27		trans-1,2-dichloroethene	0.674	0.681	-1.0	106	0.00	8.68
28		hexane	0.371	0.422	-13.7	115	0.00	9.09
29		di-isopropyl ether	2.146	2.177	-1.4	105	0.00	9.33
30		1,1-dichloroethane	1.092	1.149	-5.2	108	0.00	9.32
31		chloroprene	0.859	0.961	-11.9	113	0.00	9.43
32		acrylonitrile		----------NA----------				
33		vinyl acetate	0.097	0.099	-2.1	102	-0.01	9.25
34		ethyl tert-butyl ether	1.998	2.154	-7.8	109	0.00	9.83
35		2-butanone	0.079	0.088	-11.4	110	0.00	10.02
36		ethyl acetate	0.094	0.107	-13.8	107	0.00	10.04
37		2,2-dichloropropane	0.919	0.897	2.4	103	0.00	10.14
38		cis-1,2-dichloroethene	0.697	0.699	-0.3	104	0.00	10.10
39		propionitrile	0.123	0.134	-8.9	111	-0.01	10.10
40		bromochloromethane	0.358	0.381	-6.4	108	0.00	10.41
41		tetrahydrofuran	0.096	0.104	-8.3	104	0.00	10.43

Initial Calibration Verification

Job Number: JC95050 **Sample:** V2C7580-ICV7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169080.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

42		chloroform	1.129	1.146	-1.5	107	0.00	10.51
43		t-butyl formate	0.432	0.475	-10.0	103	0.00	10.56
44	S	dibromofluoromethane (s)	0.503	0.498	1.0	104	0.00	10.71
45		methacrylonitrile	0.245	0.267	-9.0	105	0.00	10.32
46		1,1,1-trichloroethane	1.139	1.219	-7.0	107	0.00	10.78
47		cyclohexane	1.017	1.136	-11.7	115	0.00	10.90
48		1,1-dichloropropene	0.665	0.709	-6.6	109	0.00	10.95
49		carbon tetrachloride	0.943	1.066	-13.0	111	0.00	10.99
50		isobutyl alcohol		----------NA----------				
51	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.63
52	S	1,2-dichloroethane-d4 (s)	0.401	0.382	4.7	103	0.00	11.14
53		n-butyl alcohol	0.025	0.027	-8.0	105	0.00	11.68
54		tert-amyl alcohol	0.041	0.044	-7.3	111	0.00	11.11
55		iso-octane	1.460	1.868	-27.9	125	0.00	11.32
56		benzene	1.459	1.514	-3.8	107	0.00	11.21
57		tert-amyl methyl ether	0.345	0.361	-4.6	109	0.00	11.30
58		heptane	0.238	0.307	-29.0	131	0.00	11.47
59		isopropyl acetate	0.101	0.103	-2.0	100	0.00	11.12
60		1,2-dichloroethane	0.563	0.541	3.9	103	0.00	11.23
61		ethyl acrylate	0.515	0.557	-8.2	107	0.00	11.91
62		trichloroethene	0.376	0.399	-6.1	105	0.00	11.93
63		2-nitropropane	0.123	0.145	-17.9	124	0.00	12.65
64		2-chloroethyl vinyl ether	0.207	0.246	-18.8	115	0.00	12.69
65		methyl methacrylate	0.107	0.113	-5.6	101	0.00	12.17
66		1,2-dichloropropane	0.366	0.384	-4.9	104	0.00	12.21
67		dibromomethane	0.277	0.285	-2.9	102	0.00	12.31
68		methylcyclohexane	0.879	0.925	-5.2	106	0.00	12.22
69		bromodichloromethane	0.512	0.555	-8.4	102	0.00	12.46
70		epichlorohydrin	0.058	0.068	-17.2	112	0.00	12.76
71		cis-1,3-dichloropropene	0.527	0.575	-9.1	104	0.00	12.89
72		4-methyl-2-pentanone	0.237	0.249	-5.1	105	0.00	12.99
73		3-methyl-1-butanol	0.044	0.049	-11.4	108	0.00	13.00
74	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.61
75	S	toluene-d8 (s)	1.077	1.120	-4.0	101	0.00	13.19
76		toluene	0.833	0.907	-8.9	103	0.00	13.26
77		ethyl methacrylate	0.491	0.540	-10.0	106	0.00	13.42
78		trans-1,3-dichloropropene	0.435	0.526	-20.9	106	0.00	13.43
79		1,1,2-trichloroethane	0.278	0.303	-9.0	102	0.00	13.64
80		2-hexanone	0.198	0.207	-4.5	102	0.00	13.79
81		tetrachloroethene		----------NA----------				
82		1,3-dichloropropane	0.501	0.524	-4.6	104	0.00	13.81
83		butyl acetate	0.296	0.306	-3.4	105	0.00	13.86
84		dibromochloromethane	0.385	0.466	-21.0	106	0.00	14.04
85		1,2-dibromoethane	0.441	0.480	-8.8	103	0.00	14.19
86		n-butyl ether	1.585	1.770	-11.7	110	0.00	14.60
87		chlorobenzene	1.021	1.101	-7.8	105	0.00	14.64
88		1,1,1,2-tetrachloroethane	0.457	0.529	-15.8	105	0.00	14.70
89		ethylbenzene	1.791	1.884	-5.2	104	0.00	14.70
90		m,p-xylene	0.701	0.753	-7.4	105	0.00	14.81
91		o-xylene	0.798	0.862	-8.0	104	0.00	15.19
92		styrene	1.211	1.294	-6.9	104	0.00	15.19
93		butyl acrylate	0.954	1.003	-5.1	103	0.00	15.02
94		bromoform	0.336	0.429	-27.7	109	0.00	15.41
95		isopropylbenzene	2.154	2.382	-10.6	106	0.00	15.51
96		cis-1,4-dichloro-2-butene	0.200	0.220	-10.0	102	0.00	15.54
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	16.79
98	S	4-bromofluorobenzene (s)	0.702	0.728	-3.7	101	0.00	15.69

Initial Calibration Verification

Job Number: JC95050 **Sample:** V2C7580-ICV7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169080.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

99	bromobenzene	0.797	0.884	-10.9	102	0.00	15.87
100	1,1,2,2-tetrachloroethane	0.940	1.106	-17.7	105	0.00	15.76
101	trans-1,4-dichloro-2-bute	0.113	0.142	-25.7	112	0.00	15.79
102	1,2,3-trichloropropane	0.267	0.289	-8.2	103	0.00	15.85
103	n-propylbenzene	3.174	3.569	-12.4	106	0.00	15.89
104	2-chlorotoluene	0.728	0.830	-14.0	104	0.00	16.02
105	4-chlorotoluene	1.933	2.157	-11.6	106	0.00	16.12
106	1,3,5-trimethylbenzene	2.458	2.762	-12.4	105	0.00	16.04
107	tert-butylbenzene	2.068	2.470	-19.4	106	0.00	16.36
108	1,2,4-trimethylbenzene	2.570	2.896	-12.7	106	0.00	16.40
109	sec-butylbenzene	3.283	3.882	-18.2	106	0.00	16.56
110	1,3-dichlorobenzene	1.634	1.787	-9.4	105	0.00	16.72
111	p-isopropyltoluene	2.824	3.376	-19.5	107	0.00	16.68
112	1,4-dichlorobenzene	1.645	1.789	-8.8	106	0.00	16.81
113	1,2-dichlorobenzene	1.762	1.988	-12.8	106	0.00	17.17
114	n-butylbenzene	1.425	1.719	-20.6	108	0.00	17.07
115	1,2-dibromo-3-chloropropa	0.258	0.316	-22.5	104	0.00	17.92
116	1,3,5-trichlorobenzene	1.594	1.982	-24.3	109	0.00	18.12
	----------	True	Calc.	% Drift	----------		
117	nitrobenzene	50.000	52.132	-4.3	110	0.00	18.12
	----------	AvgRF	CCRF	% Dev	----------		
118	1,2,4-trichlorobenzene	1.428	1.804	-26.3	105	0.00	18.77
119	2-ethylhexyl acrylate	0.736	0.909	-23.5	118	0.00	18.77
120	hexachlorobutadiene	0.714	0.830	-16.2	106	0.00	18.88
121	naphthalene	3.821	4.582	-19.9	106	0.00	19.07
122	1,2,3-trichlorobenzene	1.349	1.716	-27.2	106	0.00	19.29
	----------	True	Calc.	% Drift	----------		
123	hexachloroethane	50.000	54.335	-8.7	111	0.00	17.46
124	2-methylnaphthalene	25.000	26.882	-7.5	114	0.00	20.22
	----------	AvgRF	CCRF	% Dev	----------		
125	Ethylenimine		----------NA----------				
126	Bis(chloromethyl)ether		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C169075.D M2C7580.M Thu Aug 01 12:13:08 2019 RPT1

Initial Calibration Verification

Job Number: JC95050 **Sample:** V2C7580-ICV7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169081.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2C7580\2C169081.D Vial: 17
Acq On : 1 Aug 2019 1:17 am Operator: brittank
Sample : icv7580-50 Inst : Instrument #1
Misc : MS36344,V2C7580,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Thu Aug 01 12:11:34 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	8.24
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	10.68
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		iodomethane		----------NA----------				
22		acetonitrile	0.117	0.131	-12.0	107	0.00	7.94
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		1,1-dichloroethane		----------NA----------				
31		chloroprene		----------NA----------				
32		acrylonitrile	0.336	0.344	-2.4	95	0.00	8.58
33		vinyl acetate		----------NA----------				
34		ethyl tert-butyl ether		----------NA----------				
35		2-butanone		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		bromochloromethane		----------NA----------				
41		tetrahydrofuran		----------NA----------				

Initial Calibration Verification

Job Number: JC95050 **Sample:** V2C7580-ICV7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169081.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

42		chloroform		----------NA----------				
43		t-butyl formate		----------NA----------				
44	S	dibromofluoromethane (s)	0.503	0.494	1.8	94	0.00	10.71
45		methacrylonitrile		----------NA----------				
46		1,1,1-trichloroethane		----------NA----------				
47		cyclohexane		----------NA----------				
48		1,1-dichloropropene		----------NA----------				
49		carbon tetrachloride		----------NA----------				
50		isobutyl alcohol		----------NA----------				
51	I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	11.62
52	S	1,2-dichloroethane-d4 (s)	0.401	0.411	-2.5	96	0.00	11.14
53		n-butyl alcohol		----------NA----------				
54		tert-amyl alcohol		----------NA----------				
55		iso-octane		----------NA----------				
56		benzene		----------NA----------				
57		tert-amyl methyl ether		----------NA----------				
58		heptane		----------NA----------				
59		isopropyl acetate		----------NA----------				
60		1,2-dichloroethane		----------NA----------				
61		ethyl acrylate		----------NA----------				
62		trichloroethene		----------NA----------				
63		2-nitropropane		----------NA----------				
64		2-chloroethyl vinyl ether		----------NA----------				
65		methyl methacrylate		----------NA----------				
66		1,2-dichloropropane		----------NA----------				
67		dibromomethane		----------NA----------				
68		methylcyclohexane		----------NA----------				
69		bromodichloromethane		----------NA----------				
70		epichlorohydrin		----------NA----------				
71		cis-1,3-dichloropropene		----------NA----------				
72		4-methyl-2-pentanone		----------NA----------				
73		3-methyl-1-butanol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.61
75	S	toluene-d8 (s)	1.077	1.060	1.6	95	0.00	13.19
76		toluene		----------NA----------				
77		ethyl methacrylate		----------NA----------				
78		trans-1,3-dichloropropene		----------NA----------				
79		1,1,2-trichloroethane		----------NA----------				
80		2-hexanone		----------NA----------				
81		tetrachloroethene	0.349	0.388	-11.2	108	0.00	13.79
82		1,3-dichloropropane		----------NA----------				
83		butyl acetate		----------NA----------				
84		dibromochloromethane		----------NA----------				
85		1,2-dibromoethane		----------NA----------				
86		n-butyl ether		----------NA----------				
87		chlorobenzene		----------NA----------				
88		1,1,1,2-tetrachloroethane		----------NA----------				
89		ethylbenzene		----------NA----------				
90		m,p-xylene		----------NA----------				
91		o-xylene		----------NA----------				
92		styrene		----------NA----------				
93		butyl acrylate		----------NA----------				
94		bromoform		----------NA----------				
95		isopropylbenzene		----------NA----------				
96		cis-1,4-dichloro-2-butene		----------NA----------				
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	111	0.00	16.79
98	S	4-bromofluorobenzene (s)	0.702	0.692	1.4	107	0.00	15.69

Initial Calibration Verification

Job Number: JC95050 **Sample:** V2C7580-ICV7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C169081.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

99	bromobenzene		----------NA----------
100	1,1,2,2-tetrachloroethane		----------NA----------
101	trans-1,4-dichloro-2-bute		----------NA----------
102	1,2,3-trichloropropane		----------NA----------
103	n-propylbenzene		----------NA----------
104	2-chlorotoluene		----------NA----------
105	4-chlorotoluene		----------NA----------
106	1,3,5-trimethylbenzene		----------NA----------
107	tert-butylbenzene		----------NA----------
108	1,2,4-trimethylbenzene		----------NA----------
109	sec-butylbenzene		----------NA----------
110	1,3-dichlorobenzene		----------NA----------
111	p-isopropyltoluene		----------NA----------
112	1,4-dichlorobenzene		----------NA----------
113	1,2-dichlorobenzene		----------NA----------
114	n-butylbenzene		----------NA----------
115	1,2-dibromo-3-chloropropa		----------NA----------
116	1,3,5-trichlorobenzene		----------NA----------
	----------	True	Calc. % Drift ----------
117	nitrobenzene		----------NA----------
	----------	AvgRF	CCRF % Dev ----------
118	1,2,4-trichlorobenzene		----------NA----------
119	2-ethylhexyl acrylate		----------NA----------
120	hexachlorobutadiene		----------NA----------
121	naphthalene		----------NA----------
122	1,2,3-trichlorobenzene		----------NA----------
	----------	True	Calc. % Drift ----------
123	hexachloroethane		----------NA----------
124	2-methylnaphthalene		----------NA----------
	----------	AvgRF	CCRF % Dev ----------
125	Ethylenimine		----------NA----------
126	Bis(chloromethyl)ether		----------NA----------

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C169075.D M2C7580.M Thu Aug 01 12:13:10 2019 RPT1

Continuing Calibration Summary

Job Number: JC95050 **Sample:** V2C7649-CC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C170149.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...c7649-rush\2c170149.d Vial: 2
Acq On : 18 Sep 2019 7:40 am Operator: edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Thu Aug 01 12:11:34 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 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)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	93	-0.02	8.22
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.206	1.325	-9.9	100	-0.04	8.33
4		1,4-dioxane	0.100	0.110	-10.0	96	0.00	12.26
5	I	pentafluorobenzene	1.000	1.000	0.0	105	-0.01	10.68
6		chlorodifluoromethane	1.149	1.197	-4.2	108	0.00	4.40
7		dichlorodifluoromethane	1.197	1.299	-8.5	106	-0.01	4.36
8		chloromethane	1.406	1.502	-6.8	115	-0.01	4.80
9		vinyl chloride	1.312	1.304	0.6	101	0.00	5.08
10		1,3-butadiene	0.926	0.865	6.6	94	-0.01	5.11
11		bromomethane	1.061	0.957	9.8	91	0.00	5.77
12		chloroethane	0.818	0.717	12.3	94	0.00	5.98
13		trichlorofluoromethane	1.473	1.406	4.5	98	0.00	6.52
14		vinyl bromide	1.048	0.770	26.5#	76	0.00	6.38
15		ethyl ether	0.354	0.339	4.2	102	-0.01	6.94
16		2-chloropropane	1.232	1.163	5.6	102	-0.01	7.19
17		acrolein	0.127	0.172	-35.4#	140	0.00	7.22
18		freon 113	0.598	0.618	-3.3	104	0.00	7.46
19		1,1-dichloroethene	0.701	0.662	5.6	100	0.00	7.45
20		acetone	0.087	0.094	-8.0	111	-0.01	7.44
21		iodomethane	1.240	1.378	-11.1	115	0.00	7.73
22		acetonitrile	0.117	0.104	11.1	89	0.00	7.94
23		carbon disulfide	1.985	2.151	-8.4	115	0.00	7.89
24		methylene chloride	0.829	0.765	7.7	104	0.00	8.25
25		methyl acetate	0.656	0.708	-7.9	116	-0.02	7.96
26		methyl tert butyl ether	2.120	2.102	0.8	104	-0.01	8.65
27		trans-1,2-dichloroethene	0.674	0.599	11.1	98	0.00	8.67
28		hexane	0.371	0.366	1.3	108	0.00	9.08
29		di-isopropyl ether	2.146	2.146	0.0	109	-0.02	9.31
30		1,1-dichloroethane	1.092	1.038	4.9	102	-0.01	9.31
31		chloroprene	0.859	0.785	8.6	98	0.00	9.42
32		acrylonitrile	0.336	0.356	-6.0	108	0.00	8.57
33		vinyl acetate	0.097	0.116	-19.6	123	0.00	9.25
34		ethyl tert-butyl ether	1.998	2.028	-1.5	109	-0.01	9.82
35		2-butanone	0.079	0.100	-26.6#	130	0.00	10.02
36		ethyl acetate	0.094	0.137	-45.7#	156	0.00	10.04
37		2,2-dichloropropane	0.919	0.968	-5.3	112	0.00	10.13
38		cis-1,2-dichloroethene	0.697	0.661	5.2	105	-0.01	10.09
39		propionitrile	0.123	0.146	-18.7	124	-0.01	10.10
40		bromochloromethane	0.358	0.346	3.4	104	-0.01	10.40
41		tetrahydrofuran	0.096	0.113	-17.7	120	0.00	10.43

Continuing Calibration Summary

Job Number: JC95050 **Sample:** V2C7649-CC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C170149.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

42		chloroform	1.129	1.037	8.1	102	-0.01	10.50
43		t-butyl formate	0.432	0.369	14.6	87	0.00	10.55
44	S	dibromofluoromethane (s)	0.503	0.494	1.8	103	-0.01	10.70
45		methacrylonitrile	0.245	0.303	-23.7#	131	0.00	10.32
46		1,1,1-trichloroethane	1.139	1.075	5.6	98	0.00	10.78
47		cyclohexane	1.017	0.943	7.3	99	0.00	10.90
48		1,1-dichloropropene	0.665	0.677	-1.8	108	0.00	10.95
49		carbon tetrachloride	0.943	0.933	1.1	102	-0.01	10.98
50		isobutyl alcohol		----------NA----------				
51	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	11.62
52	S	1,2-dichloroethane-d4 (s)	0.401	0.380	5.2	104	0.00	11.14
53		n-butyl alcohol	0.025	0.026	-4.0	112	0.00	11.69
54		tert-amyl alcohol	0.041	0.041	0.0	104	0.00	11.11
55		iso-octane	1.460	1.423	2.5	106	0.00	11.32
56		benzene	1.459	1.403	3.8	111	0.00	11.20
57		tert-amyl methyl ether	0.345	0.305	11.6	97	0.00	11.30
58		heptane	0.238	0.231	2.9	112	0.00	11.47
59		isopropyl acetate	0.101	0.095	5.9	104	0.00	11.13
60		1,2-dichloroethane	0.563	0.520	7.6	107	0.00	11.23
61		ethyl acrylate	0.515	0.572	-11.1	124	0.00	11.92
62		trichloroethene	0.376	0.373	0.8	112	0.00	11.92
63		2-nitropropane	0.123	0.173	-40.7#	162	0.00	12.65
64		2-chloroethyl vinyl ether	0.207	0.221	-6.8	112	0.00	12.69
65		methyl methacrylate	0.107	0.116	-8.4	118	0.00	12.18
66		1,2-dichloropropane	0.366	0.372	-1.6	112	0.00	12.20
67		dibromomethane	0.277	0.278	-0.4	112	0.00	12.31
68		methylcyclohexane	0.879	0.687	21.8#	88	0.00	12.22
69		bromodichloromethane	0.512	0.550	-7.4	117	0.00	12.46
70		epichlorohydrin	0.058	0.067	-15.5	122	0.00	12.77
71		cis-1,3-dichloropropene	0.527	0.608	-15.4	126	0.00	12.89
72		4-methyl-2-pentanone	0.237	0.232	2.1	104	0.00	12.99
73		3-methyl-1-butanol	0.044	0.044	0.0	101	0.00	13.00
74	I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	14.61
75	S	toluene-d8 (s)	1.077	1.086	-0.8	100	0.00	13.19
76		toluene	0.833	0.833	0.0	101	0.00	13.26
77		ethyl methacrylate	0.491	0.482	1.8	96	0.00	13.42
78		trans-1,3-dichloropropene	0.435	0.560	-28.7#	124	0.00	13.43
79		1,1,2-trichloroethane	0.278	0.301	-8.3	110	0.00	13.64
80		2-hexanone	0.198	0.217	-9.6	106	0.00	13.79
81		tetrachloroethene	0.349	0.357	-2.3	107	0.00	13.79
82		1,3-dichloropropane	0.501	0.543	-8.4	111	0.00	13.81
83		butyl acetate	0.296	0.293	1.0	99	0.00	13.87
84		dibromochloromethane	0.385	0.465	-20.8#	124	0.00	14.04
85		1,2-dibromoethane	0.441	0.462	-4.8	106	0.00	14.19
86		n-butyl ether	1.585	1.446	8.8	93	0.00	14.60
87		chlorobenzene	1.021	1.009	1.2	100	0.00	14.64
88		1,1,1,2-tetrachloroethane	0.457	0.452	1.1	100	0.00	14.70
89		ethylbenzene	1.791	1.692	5.5	95	0.00	14.69
90		m,p-xylene	0.701	0.659	6.0	94	0.00	14.81
91		o-xylene	0.798	0.728	8.8	92	0.00	15.19
92		styrene	1.211	1.162	4.0	95	0.00	15.19
93		butyl acrylate	0.954	0.821	13.9	84	0.00	15.02
94		bromoform	0.336	0.399	-18.8	121	0.00	15.41
95		isopropylbenzene	2.154	1.931	10.4	89	0.00	15.51
96		cis-1,4-dichloro-2-butene	0.200	0.219	-9.5	107	0.00	15.54
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	85	0.00	16.79
98	S	4-bromofluorobenzene (s)	0.702	0.731	-4.1	89	0.00	15.69

Continuing Calibration Summary

Job Number: JC95050 **Sample:** V2C7649-CC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C170149.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

99	bromobenzene	0.797	0.875	-9.8	94	0.00	15.87
100	1,1,2,2-tetrachloroethane	0.940	1.092	-16.2	98	0.00	15.76
101	trans-1,4-dichloro-2-bute	0.113	0.140	-23.9#	111	0.00	15.79
102	1,2,3-trichloropropane	0.267	0.289	-8.2	95	0.00	15.85
103	n-propylbenzene	3.174	3.296	-3.8	89	0.00	15.89
104	2-chlorotoluene	0.728	0.750	-3.0	87	0.00	16.02
105	4-chlorotoluene	1.933	2.073	-7.2	93	0.00	16.12
106	1,3,5-trimethylbenzene	2.458	2.512	-2.2	88	0.00	16.04
107	tert-butylbenzene	2.068	2.205	-6.6	93	0.00	16.36
108	1,2,4-trimethylbenzene	2.570	2.614	-1.7	86	0.00	16.40
109	sec-butylbenzene	3.283	3.418	-4.1	88	0.00	16.56
110	1,3-dichlorobenzene	1.634	1.743	-6.7	92	0.00	16.72
111	p-isopropyltoluene	2.824	2.913	-3.2	86	0.00	16.68
112	1,4-dichlorobenzene	1.645	1.698	-3.2	90	0.00	16.81
113	1,2-dichlorobenzene	1.762	1.871	-6.2	90	0.00	17.17
114	n-butylbenzene	1.425	1.482	-4.0	86	0.00	17.07
115	1,2-dibromo-3-chloropropa	0.258	0.281	-8.9	93	0.00	17.92
116	1,3,5-trichlorobenzene	1.594	1.695	-6.3	86	0.00	18.11
		True	Calc.	% Drift			
117	nitrobenzene	20.000	34.967	-74.8#	179	0.00	18.12
		AvgRF	CCRF	% Dev			
118	1,2,4-trichlorobenzene	1.428	1.507	-5.5	85	0.00	18.77
119	2-ethylhexyl acrylate	0.736	0.407	44.7#	77	0.00	18.77
120	hexachlorobutadiene	0.714	0.742	-3.9	89	0.00	18.89
121	naphthalene	3.821	3.564	6.7	80	0.00	19.07
122	1,2,3-trichlorobenzene	1.349	1.367	-1.3	81	0.00	19.29
		True	Calc.	% Drift			
123	hexachloroethane	20.000	24.249	-21.2#	131	0.00	17.46
124	2-methylnaphthalene	10.000	8.317	16.8	77	0.00	20.23
		AvgRF	CCRF	% Dev			
125	Ethylenimine		----------NA----------				
126	Bis(chloromethyl)ether		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C169074.D M2C7580.M Wed Sep 18 13:46:03 2019

Continuing Calibration Summary

Job Number: JC95050 **Sample:** V2C7651-CC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C170180.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...c7651 rush\2c170180.d Vial: 2
Acq On : 19 Sep 2019 7:33 am Operator: edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Thu Aug 01 12:11:34 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 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)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	113	-0.02	8.22
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.206	1.041	13.7	96	0.00	8.36
4		1,4-dioxane	0.100	0.078	22.0#	82	0.00	12.26
5	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	10.68
6		chlorodifluoromethane	1.149	1.085	5.6	88	0.00	4.40
7		dichlorodifluoromethane	1.197	1.282	-7.1	94	0.00	4.37
8		chloromethane	1.406	1.431	-1.8	98	0.00	4.81
9		vinyl chloride	1.312	1.276	2.7	89	0.00	5.08
10		1,3-butadiene	0.926	0.731	21.1#	72	0.00	5.12
11		bromomethane	1.061	0.939	11.5	80	0.01	5.79
12		chloroethane	0.818	0.708	13.4	83	0.00	5.98
13		trichlorofluoromethane	1.473	1.418	3.7	89	0.01	6.52
14		vinyl bromide	1.048	0.755	28.0#	67	0.00	6.37
15		ethyl ether	0.354	0.341	3.7	93	0.00	6.95
16		2-chloropropane	1.232	1.156	6.2	91	0.00	7.21
17		acrolein	0.127	0.180	-41.7#	131	0.00	7.21
18		freon 113	0.598	0.584	2.3	88	0.00	7.47
19		1,1-dichloroethene	0.701	0.629	10.3	86	0.00	7.45
20		acetone	0.087	0.098	-12.6	104	-0.02	7.43
21		iodomethane	1.240	1.248	-0.6	94	0.00	7.74
22		acetonitrile	0.117	0.117	0.0	90	-0.02	7.93
23		carbon disulfide	1.985	1.995	-0.5	96	0.02	7.91
24		methylene chloride	0.829	0.754	9.0	92	0.00	8.25
25		methyl acetate	0.656	0.729	-11.1	107	0.00	7.97
26		methyl tert butyl ether	2.120	1.985	6.4	89	0.00	8.66
27		trans-1,2-dichloroethene	0.674	0.615	8.8	90	0.00	8.68
28		hexane	0.371	0.366	1.3	97	0.00	9.08
29		di-isopropyl ether	2.146	2.080	3.1	95	-0.01	9.32
30		1,1-dichloroethane	1.092	1.072	1.8	94	0.00	9.31
31		chloroprene	0.859	0.809	5.8	91	0.00	9.42
32		acrylonitrile	0.336	0.366	-8.9	100	-0.02	8.56
33		vinyl acetate	0.097	0.111	-14.4	106	0.00	9.26
34		ethyl tert-butyl ether	1.998	1.908	4.5	92	-0.01	9.82
35		2-butanone	0.079	0.103	-30.4#	121	0.00	10.02
36		ethyl acetate	0.094	0.126	-34.0#	129	0.00	10.05
37		2,2-dichloropropane	0.919	0.936	-1.8	98	-0.01	10.13
38		cis-1,2-dichloroethene	0.697	0.654	6.2	93	0.00	10.10
39		propionitrile	0.123	0.148	-20.3#	112	0.00	10.11
40		bromochloromethane	0.358	0.355	0.8	96	0.00	10.41
41		tetrahydrofuran	0.096	0.115	-19.8	109	0.00	10.44

Continuing Calibration Summary

Job Number: JC95050 **Sample:** V2C7651-CC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C170180.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

42		chloroform	1.129	1.097	2.8	97	0.00	10.51
43		t-butyl formate	0.432	0.339	21.5#	72	-0.01	10.55
44	S	dibromofluoromethane (s)	0.503	0.509	-1.2	96	-0.01	10.70
45		methacrylonitrile	0.245	0.305	-24.5#	118	0.00	10.32
46		1,1,1-trichloroethane	1.139	1.070	6.1	88	0.00	10.78
47		cyclohexane	1.017	0.926	8.9	87	0.00	10.90
48		1,1-dichloropropene	0.665	0.692	-4.1	99	0.00	10.95
49		carbon tetrachloride	0.943	0.925	1.9	91	0.00	10.99
50		isobutyl alcohol		----------NA----------				
51	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	11.62
52	S	1,2-dichloroethane-d4 (s)	0.401	0.388	3.2	96	0.00	11.14
53		n-butyl alcohol	0.025	0.027	-8.0	104	0.00	11.68
54		tert-amyl alcohol	0.041	0.045	-9.8	101	-0.02	11.10
55		iso-octane	1.460	1.424	2.5	96	0.00	11.32
56		benzene	1.459	1.424	2.4	101	0.00	11.21
57		tert-amyl methyl ether	0.345	0.286	17.1	82	-0.01	11.30
58		heptane	0.238	0.226	5.0	99	0.00	11.47
59		isopropyl acetate	0.101	0.090	10.9	90	0.00	11.12
60		1,2-dichloroethane	0.563	0.538	4.4	100	0.00	11.23
61		ethyl acrylate	0.515	0.557	-8.2	109	0.00	11.92
62		trichloroethene	0.376	0.370	1.6	100	0.00	11.93
63		2-nitropropane	0.123	0.180	-46.3#	152	0.00	12.65
64		2-chloroethyl vinyl ether	0.207	0.223	-7.7	102	0.00	12.69
65		methyl methacrylate	0.107	0.108	-0.9	100	0.00	12.17
66		1,2-dichloropropane	0.366	0.385	-5.2	105	0.00	12.21
67		dibromomethane	0.277	0.285	-2.9	103	0.00	12.31
68		methylcyclohexane	0.879	0.660	24.9#	76	0.00	12.22
69		bromodichloromethane	0.512	0.565	-10.4	109	0.00	12.46
70		epichlorohydrin	0.058	0.066	-13.8	110	0.00	12.77
71		cis-1,3-dichloropropene	0.527	0.600	-13.9	113	0.00	12.89
72		4-methyl-2-pentanone	0.237	0.229	3.4	92	0.00	12.99
73		3-methyl-1-butanol	0.044	0.044	0.0	93	0.00	13.00
74	I	chlorobenzene-d5	1.000	1.000	0.0	91	0.00	14.61
75	S	toluene-d8 (s)	1.077	1.078	-0.1	91	0.00	13.19
76		toluene	0.833	0.824	1.1	91	0.00	13.26
77		ethyl methacrylate	0.491	0.463	5.7	85	0.00	13.42
78		trans-1,3-dichloropropene	0.435	0.565	-29.9#	115	0.00	13.43
79		1,1,2-trichloroethane	0.278	0.300	-7.9	100	0.00	13.64
80		2-hexanone	0.198	0.214	-8.1	95	0.00	13.80
81		tetrachloroethene	0.349	0.354	-1.4	97	0.00	13.79
82		1,3-dichloropropane	0.501	0.543	-8.4	101	0.00	13.81
83		butyl acetate	0.296	0.286	3.4	88	0.00	13.87
84		dibromochloromethane	0.385	0.461	-19.7	112	0.00	14.04
85		1,2-dibromoethane	0.441	0.453	-2.7	95	0.00	14.19
86		n-butyl ether	1.585	1.344	15.2	79	0.00	14.60
87		chlorobenzene	1.021	1.026	-0.5	93	0.00	14.64
88		1,1,1,2-tetrachloroethane	0.457	0.440	3.7	89	0.00	14.70
89		ethylbenzene	1.791	1.672	6.6	86	0.00	14.70
90		m,p-xylene	0.701	0.652	7.0	85	0.00	14.81
91		o-xylene	0.798	0.696	12.8	81	0.00	15.19
92		styrene	1.211	1.111	8.3	83	0.00	15.19
93		butyl acrylate	0.954	0.774	18.9	72	0.00	15.02
94		bromoform	0.336	0.392	-16.7	109	0.00	15.41
95		isopropylbenzene	2.154	1.837	14.7	78	0.00	15.51
96		cis-1,4-dichloro-2-butene	0.200	0.218	-9.0	98	0.00	15.54
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	82	0.00	16.79
98	S	4-bromofluorobenzene (s)	0.702	0.698	0.6	82	0.00	15.69

Continuing Calibration Summary

Job Number: JC95050 **Sample:** V2C7651-CC7580
Account: ERMNYW ERM, Inc. **Lab FileID:** 2C170180.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

99	bromobenzene	0.797	0.815	-2.3	84	0.00	15.87
100	1,1,2,2-tetrachloroethane	0.940	1.016	-8.1	87	0.00	15.76
101	trans-1,4-dichloro-2-bute	0.113	0.143	-26.5#	108	0.00	15.79
102	1,2,3-trichloropropane	0.267	0.269	-0.7	85	0.00	15.85
103	n-propylbenzene	3.174	3.106	2.1	81	0.00	15.89
104	2-chlorotoluene	0.728	0.712	2.2	79	0.00	16.02
105	4-chlorotoluene	1.933	1.928	0.3	83	0.00	16.12
106	1,3,5-trimethylbenzene	2.458	2.382	3.1	80	0.00	16.04
107	tert-butylbenzene	2.068	2.013	2.7	81	0.00	16.36
108	1,2,4-trimethylbenzene	2.570	2.463	4.2	78	0.00	16.40
109	sec-butylbenzene	3.283	3.163	3.7	78	0.00	16.56
110	1,3-dichlorobenzene	1.634	1.623	0.7	82	0.00	16.72
111	p-isopropyltoluene	2.824	2.705	4.2	76	0.00	16.69
112	1,4-dichlorobenzene	1.645	1.579	4.0	80	0.00	16.81
113	1,2-dichlorobenzene	1.762	1.733	1.6	79	0.00	17.17
114	n-butylbenzene	1.425	1.380	3.2	77	0.00	17.07
115	1,2-dibromo-3-chloropropa	0.258	0.264	-2.3	84	0.00	17.92
116	1,3,5-trichlorobenzene	1.594	1.545	3.1	75	0.00	18.12
		True	Calc.	% Drift			
117	nitrobenzene	20.000	33.329	-66.6#	162	0.00	18.12
		AvgRF	CCRF	% Dev			
118	1,2,4-trichlorobenzene	1.428	1.330	6.9	72	0.00	18.77
119	2-ethylhexyl acrylate	0.736	0.429	41.7#	78	0.00	18.78
120	hexachlorobutadiene	0.714	0.689	3.5	79	0.00	18.89
121	naphthalene	3.821	3.147	17.6	68	0.00	19.07
122	1,2,3-trichlorobenzene	1.349	1.251	7.3	71	0.00	19.29
		True	Calc.	% Drift			
123	hexachloroethane	20.000	22.977	-14.9	117	0.00	17.46
124	2-methylnaphthalene	10.000	7.481	25.2#	62	0.00	20.22
		AvgRF	CCRF	% Dev			
125	Ethylenimine		----------NA----------				
126	Bis(chloromethyl)ether		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C169074.D M2C7580.M Thu Sep 19 11:40:49 2019

Run Sequence Report

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Run ID: V2C7580	**Method:** SW846 8260C	**Instrument ID:** GCMS2C

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2C7580-BFB	2C169067.D	07/31/19 18:24	n/a	BFB Tune
V2C7580-IC7580	2C169068.D	07/31/19 18:56	n/a	Initial cal 0.2
V2C7580-IC7580	2C169069.D	07/31/19 19:26	n/a	Initial cal 0.5
V2C7580-IC7580	2C169070.D	07/31/19 19:55	n/a	Initial cal 1
V2C7580-IC7580	2C169071.D	07/31/19 20:24	n/a	Initial cal 2
V2C7580-IC7580	2C169072.D	07/31/19 20:54	n/a	Initial cal 4
V2C7580-IC7580	2C169073.D	07/31/19 21:23	n/a	Initial cal 8
V2C7580-IC7580	2C169074.D	07/31/19 21:52	n/a	Initial cal 20
V2C7580-ICC7580	2C169075.D	07/31/19 22:22	n/a	Initial cal 50
V2C7580-IC7580	2C169076.D	07/31/19 22:51	n/a	Initial cal 100
V2C7580-IC7580	2C169077.D	07/31/19 23:20	n/a	Initial cal 200
V2C7580-ICV7580	2C169080.D	08/01/19 00:48	n/a	Initial cal verification 50
V2C7580-ICV7580	2C169081.D	08/01/19 01:17	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Run ID: V2C7649	**Method:** SW846 8260C	**Instrument ID:** GCMS2C

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2C7649-BFB	2C170149.D	09/18/19 07:40	n/a	BFB Tune
V2C7649-CC7580	2C170149.D	09/18/19 07:40	n/a	Continuing cal 20
V2C7649-BS	2C170151.D	09/18/19 08:44	n/a	Blank Spike
V2C7649-MB	2C170153.D	09/18/19 09:41	n/a	Method Blank
ZZZZZZ	2C170154.D	09/18/19 10:10	n/a	(unrelated sample)
ZZZZZZ	2C170155.D	09/18/19 10:38	n/a	(unrelated sample)
JC95050-2	2C170156.D	09/18/19 11:07	n/a	ERM-MW-02-091219
JC95050-1	2C170157.D	09/18/19 11:35	n/a	ERM-MW-01-091219
JC95050-3	2C170158.D	09/18/19 12:04	n/a	ERM-MW-02D-091219
JC95050-2MS	2C170159.D	09/18/19 12:32	n/a	Matrix Spike
JC95050-2MSD	2C170160.D	09/18/19 13:01	n/a	Matrix Spike Duplicate
ZZZZZZ	2C170162.D	09/18/19 13:59	n/a	(unrelated sample)
JC95050-15	2C170163.D	09/18/19 14:27	n/a	TB091219
JC95050-4	2C170164.D	09/18/19 14:56	n/a	ERM-MW-05-091219
JC95050-5	2C170165.D	09/18/19 15:24	n/a	ERM-MW-09-091219
JC95050-6	2C170166.D	09/18/19 15:53	n/a	ERM-MW-11S-091219
JC95050-7	2C170167.D	09/18/19 16:22	n/a	ERM-MW-11M-091219
JC95050-8	2C170168.D	09/18/19 16:50	n/a	ERM-MW-11D-091219
JC95050-9	2C170169.D	09/18/19 17:18	n/a	ERM-MW-12S-091219
JC95050-10	2C170170.D	09/18/19 17:47	n/a	ERM-MW-12D-091219
JC95050-11	2C170171.D	09/18/19 18:15	n/a	ERM-MW-13S-091219
JC95050-12	2C170172.D	09/18/19 18:44	n/a	ERM-MW-13D-091219
JC95050-13	2C170173.D	09/18/19 19:12	n/a	ERM-MW-14D-091219

Run Sequence Report

Job Number: JC95050
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Run ID: V2C7651 **Method:** SW846 8260C **Instrument ID:** GCMS2C

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2C7651-BFB	2C170180.D	09/19/19 07:33	n/a	BFB Tune
V2C7651-CC7580	2C170180.D	09/19/19 07:33	n/a	Continuing cal 20
V2C7651-BS	2C170182.D	09/19/19 08:37	n/a	Blank Spike
V2C7651-MB	2C170184.D	09/19/19 09:33	n/a	Method Blank
JC95050-14	2C170185.D	09/19/19 10:02	n/a	DUP091219
JC94921-7	2C170186.D	09/19/19 10:30	n/a	(used for QC only; not part of job JC95050)
ZZZZZZ	2C170187.D	09/19/19 10:59	n/a	(unrelated sample)
ZZZZZZ	2C170188.D	09/19/19 11:27	n/a	(unrelated sample)
JC94921-7MS	2C170189.D	09/19/19 11:56	n/a	Matrix Spike
JC94921-7MSD	2C170190.D	09/19/19 12:24	n/a	Matrix Spike Duplicate
ZZZZZZ	2C170191.D	09/19/19 12:53	n/a	(unrelated sample)
ZZZZZZ	2C170192.D	09/19/19 13:21	n/a	(unrelated sample)
ZZZZZZ	2C170193.D	09/19/19 13:50	n/a	(unrelated sample)
ZZZZZZ	2C170194.D	09/19/19 14:18	n/a	(unrelated sample)
ZZZZZZ	2C170195.D	09/19/19 14:47	n/a	(unrelated sample)
ZZZZZZ	2C170196.D	09/19/19 15:15	n/a	(unrelated sample)
ZZZZZZ	2C170197.D	09/19/19 15:44	n/a	(unrelated sample)
ZZZZZZ	2C170198.D	09/19/19 16:13	n/a	(unrelated sample)
ZZZZZZ	2C170199.D	09/19/19 16:41	n/a	(unrelated sample)
ZZZZZZ	2C170200.D	09/19/19 17:10	n/a	(unrelated sample)
ZZZZZZ	2C170201.D	09/19/19 17:39	n/a	(unrelated sample)
ZZZZZZ	2C170202.D	09/19/19 18:07	n/a	(unrelated sample)
ZZZZZZ	2C170203.D	09/19/19 18:36	n/a	(unrelated sample)
ZZZZZZ	2C170204.D	09/19/19 19:04	n/a	(unrelated sample)
ZZZZZZ	2C170205.D	09/19/19 19:33	n/a	(unrelated sample)

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170157.d
Acq On : 18 Sep 2019 11:35 am
Operator : edwardd
Sample : jc95050-1 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:42:00 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

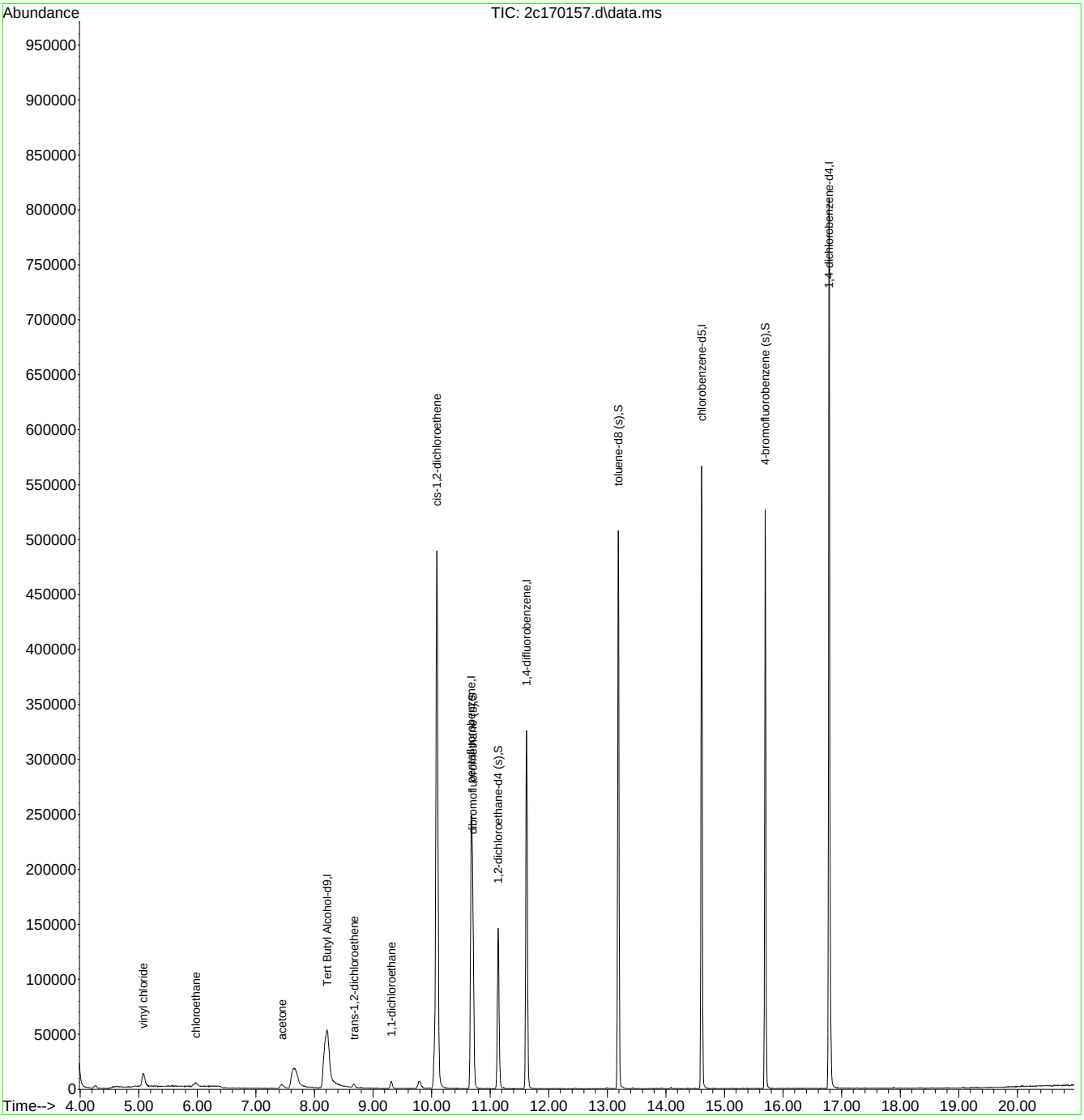
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.218	65	201191	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	179880	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	272325	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	272703	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	185937	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	91872	50.74	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.48%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	107486	49.25	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.50%			
75) toluene-d8 (s)	13.188	98	304339	51.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.62%			
98) 4-bromofluorobenzene (s)	15.694	95	131182	50.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%			
Target Compounds						Qvalue
9) vinyl chloride	5.077	62	26704	5.66	ug/L	94
12) chloroethane	5.979	64	6490	2.20	ug/L	87
20) acetone	7.447	58	2755	8.80	ug/L #	42
27) trans-1,2-dichloroethene	8.679	96	1982	0.82	ug/L	86
30) 1,1-dichloroethane	9.314	63	8542	2.17	ug/L	97
38) cis-1,2-dichloroethene	10.090	96	266339	106.17	ug/L	98

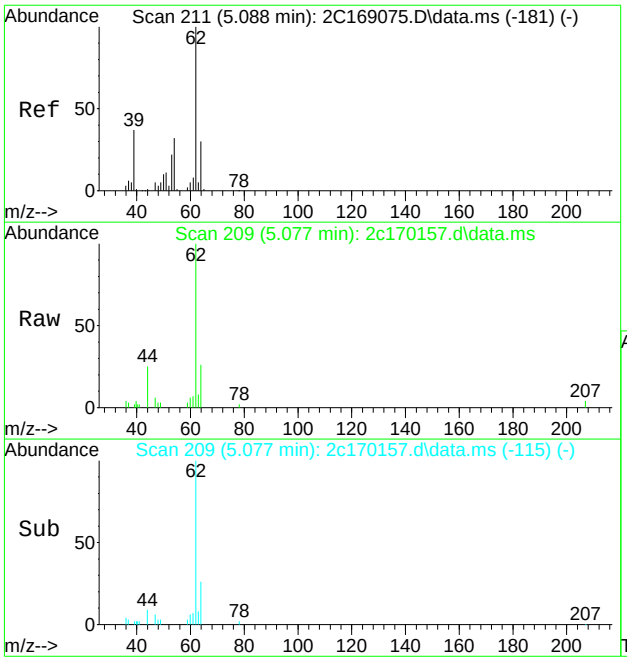
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170157.d
Acq On : 18 Sep 2019 11:35 am
Operator : edwardd
Sample : jc95050-1 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:42:00 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

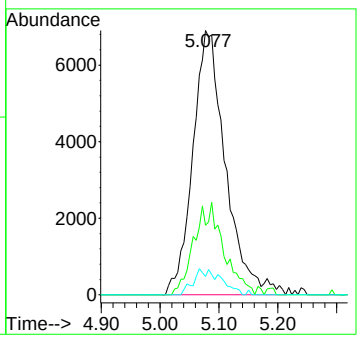


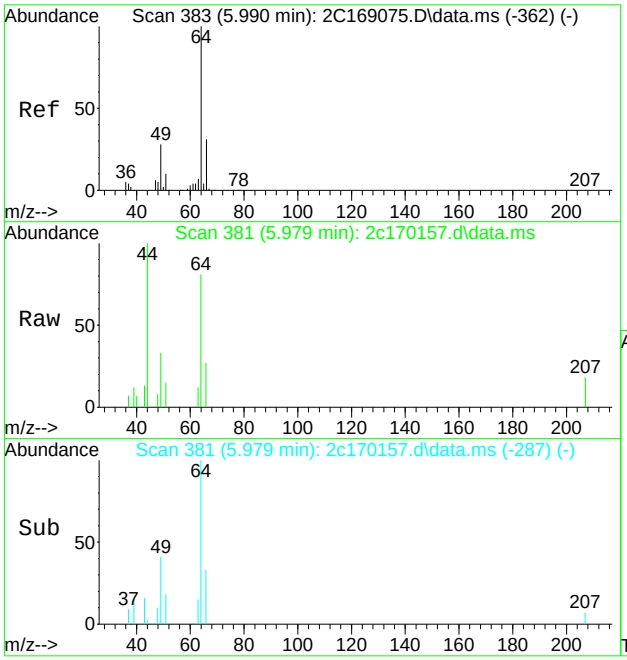


#9
vinyl chloride
Concen: 5.66 ug/L
RT: 5.077 min Scan# 209
Delta R.T. -0.005 min
Lab File: 2c170157.d
Acq: 18 Sep 2019 11:35 am

Tgt Ion: 62 Resp: 26704

Ion	Ratio	Lower	Upper
62	100		
64	26.3	0.0	59.8
61	6.9	0.0	38.2

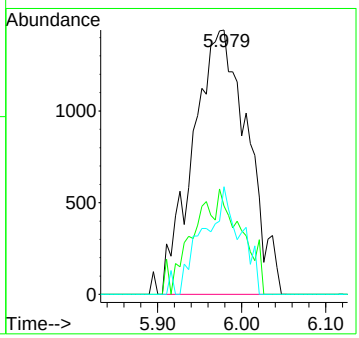


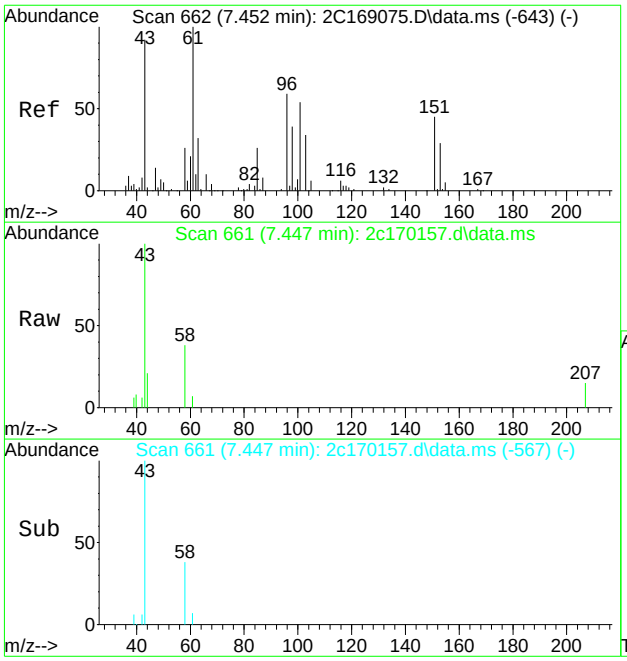


#12
chloroethane
Concen: 2.20 ug/L
RT: 5.979 min Scan# 381
Delta R.T. -0.005 min
Lab File: 2c170157.d
Acq: 18 Sep 2019 11:35 am

Tgt Ion: 64 Resp: 6490

Ion	Ratio	Lower	Upper
64	100		
66	33.4	1.4	61.4
49	40.8	0.0	58.0

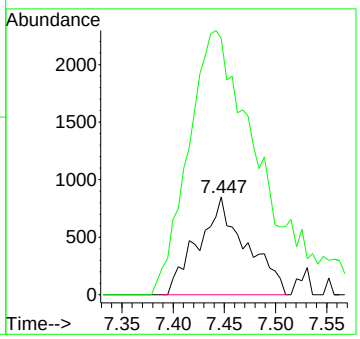


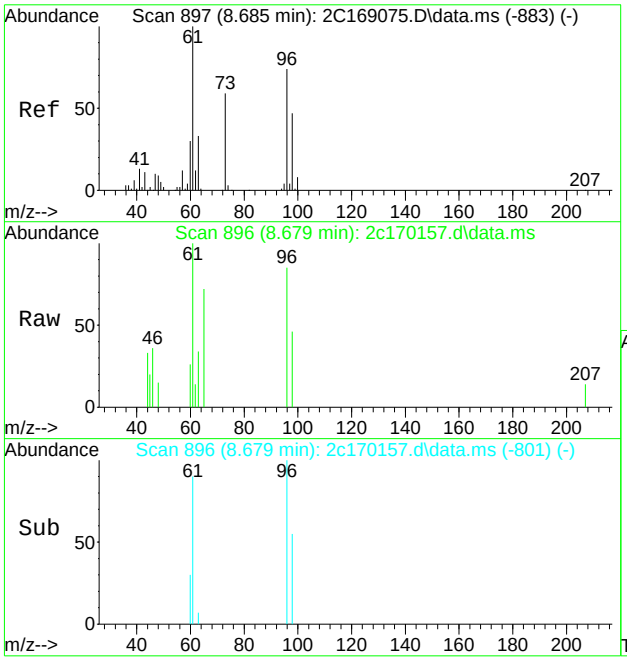


#20
acetone
Concen: 8.80 ug/L
RT: 7.447 min Scan# 661
Delta R.T. -0.005 min
Lab File: 2c170157.d
Acq: 18 Sep 2019 11:35 am

Tgt Ion: 58 Resp: 2755

Ion	Ratio	Lower	Upper
58	100		
43	234.2	332.0	392.0#

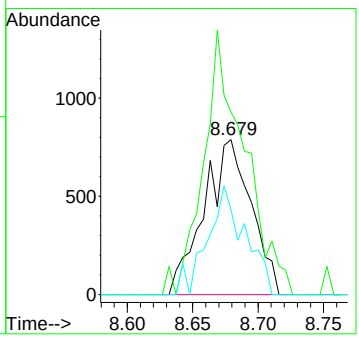


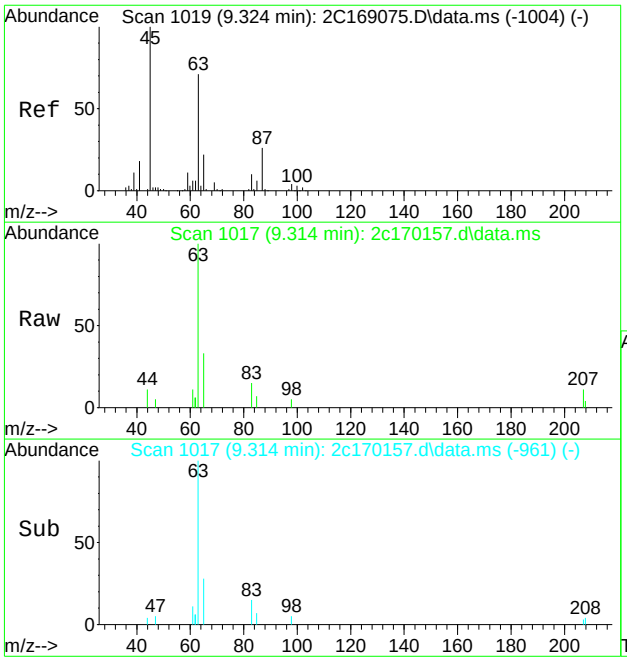


#27
trans-1,2-dichloroethene
Concen: 0.82 ug/L
RT: 8.679 min Scan# 896
Delta R.T. -0.000 min
Lab File: 2c170157.d
Acq: 18 Sep 2019 11:35 am

Tgt Ion: 96 Resp: 1982

Ion	Ratio	Lower	Upper
96	100		
61	117.7	105.5	165.5
98	54.6	33.2	93.2

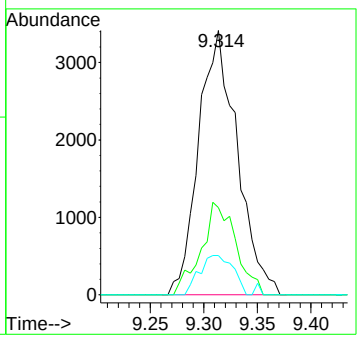


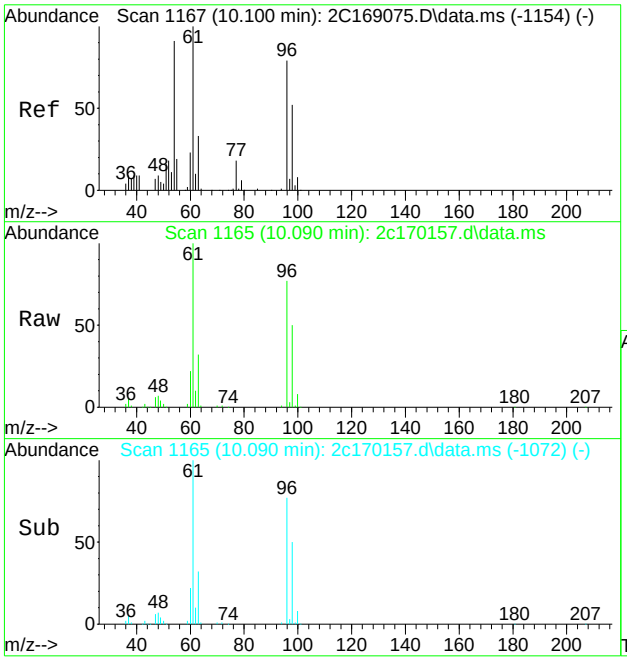


#30
1,1-dichloroethane
Concen: 2.17 ug/L
RT: 9.314 min Scan# 1017
Delta R.T. -0.005 min
Lab File: 2c170157.d
Acq: 18 Sep 2019 11:35 am

Tgt Ion: 63 Resp: 8542

Ion	Ratio	Lower	Upper
63	100		
65	32.9	0.8	60.8
83	14.9	0.0	44.1

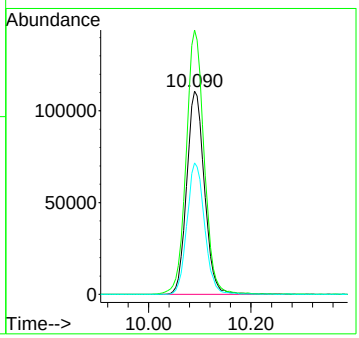




#38
cis-1,2-dichloroethene
Concen: 106.17 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.011 min
Lab File: 2c170157.d
Acq: 18 Sep 2019 11:35 am

Tgt Ion: 96 Resp: 266339

Ion	Ratio	Lower	Upper
96	100		
61	129.8	102.1	162.1
98	64.6	35.1	95.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170156.d
Acq On : 18 Sep 2019 11:07 am
Operator : edwardd
Sample : jc95050-2 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:44:11 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

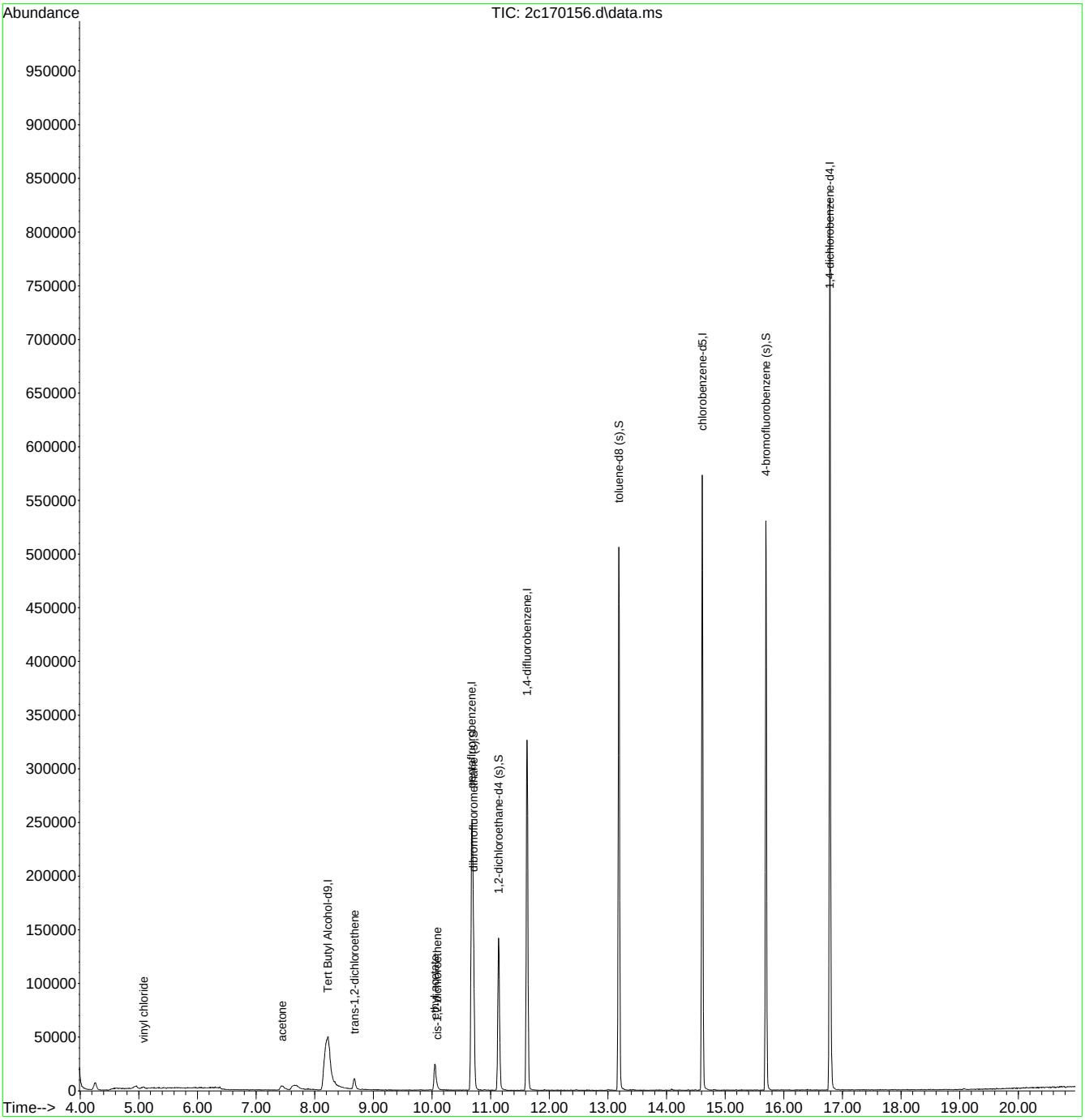
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	208636	500.00	ug/L	-0.02
5) pentafluorobenzene	10.677	168	178810	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	278961	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	280244	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	188387	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.708	113	91449	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	107203	47.95	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.90%			
75) toluene-d8 (s)	13.188	98	308393	51.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.18%			
98) 4-bromofluorobenzene (s)	15.695	95	134961	51.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.06%			
Target Compounds						Qvalue
9) vinyl chloride	5.083	62	2240	0.48	ug/L	89
20) acetone	7.442	58	3813	12.26	ug/L #	53
27) trans-1,2-dichloroethene	8.679	96	5401	2.24	ug/L	90
36) ethyl acetate	10.048	45	5743	17.02	ug/L #	1
38) cis-1,2-dichloroethene	10.090	96	889	0.36	ug/L	87

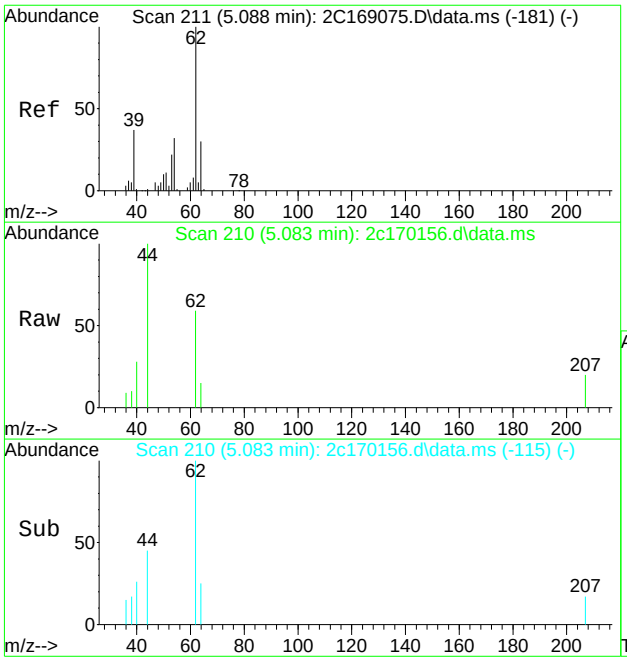
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170156.d
Acq On : 18 Sep 2019 11:07 am
Operator : edwardd
Sample : jc95050-2 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:44:11 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

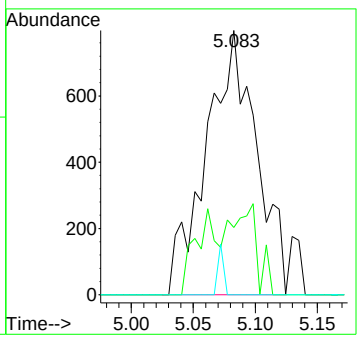


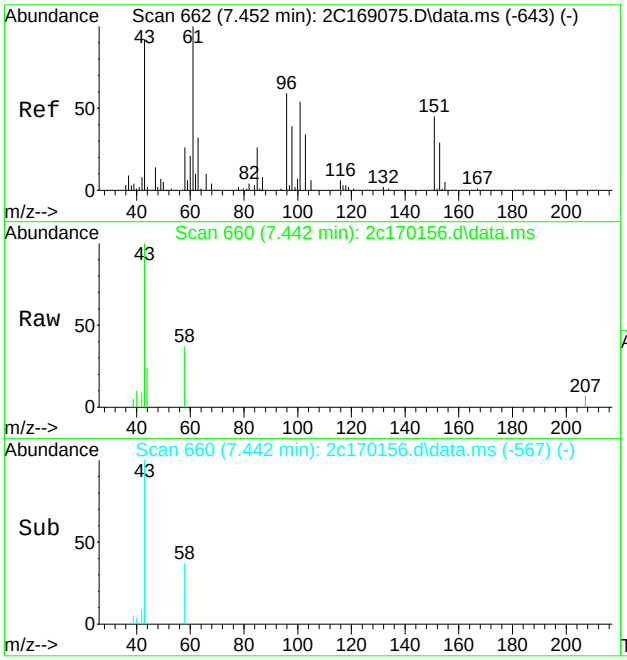


#9
vinyl chloride
Concen: 0.48 ug/L
RT: 5.083 min Scan# 210
Delta R.T. 0.000 min
Lab File: 2c170156.d
Acq: 18 Sep 2019 11:07 am

Tgt Ion: 62 Resp: 2240

Ion	Ratio	Lower	Upper
62	100		
64	25.4	0.0	59.8
61	0.0	0.0	38.2

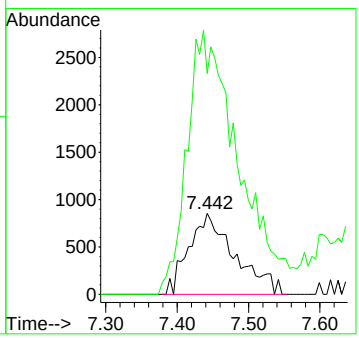


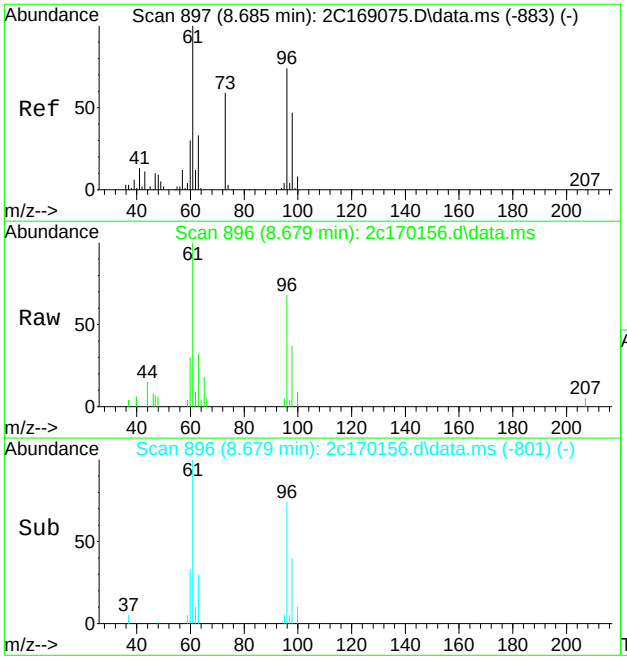


#20
acetone
Concen: 12.26 ug/L
RT: 7.442 min Scan# 660
Delta R.T. -0.010 min
Lab File: 2c170156.d
Acq: 18 Sep 2019 11:07 am

Tgt Ion: 58 Resp: 3813

Ion	Ratio	Lower	Upper
58	100		
43	257.7	332.0	392.0#

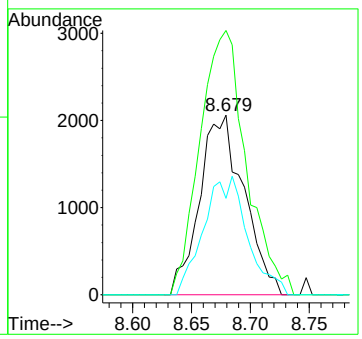


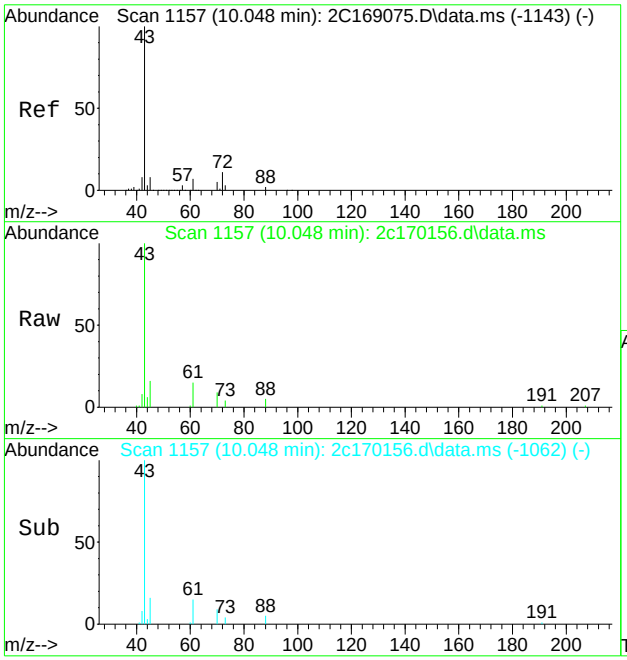


#27
trans-1,2-dichloroethene
Concen: 2.24 ug/L
RT: 8.679 min Scan# 896
Delta R.T. 0.000 min
Lab File: 2c170156.d
Acq: 18 Sep 2019 11:07 am

Tgt Ion: 96 Resp: 5401

Ion	Ratio	Lower	Upper
96	100		
61	147.1	105.5	165.5
98	53.7	33.2	93.2

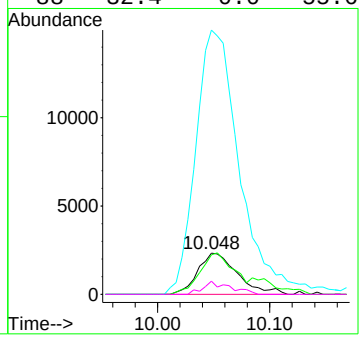


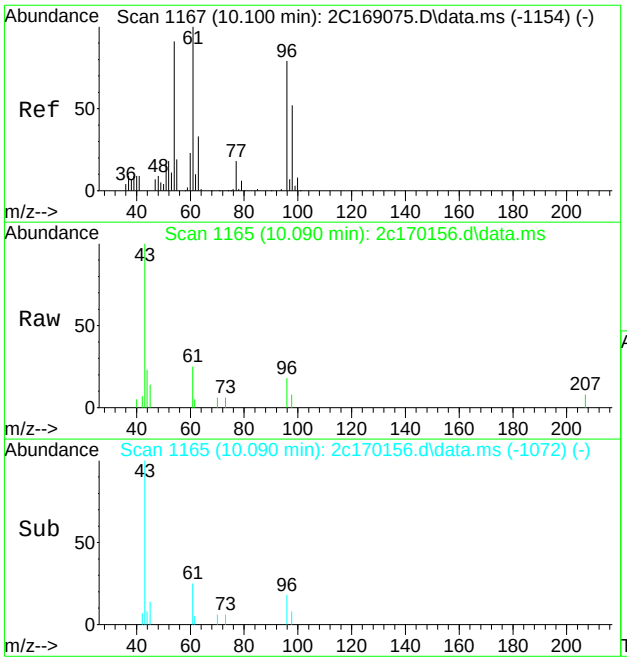


#36
ethyl acetate
Concen: 17.02 ug/L
RT: 10.048 min Scan# 1157
Delta R.T. 0.000 min
Lab File: 2c170156.d
Acq: 18 Sep 2019 11:07 am

Tgt Ion: 45 Resp: 5743

Ion	Ratio	Lower	Upper
45	100		
61	96.2	66.1	126.1
43	641.3	1285.8	1345.8#
88	32.4	0.0	55.6

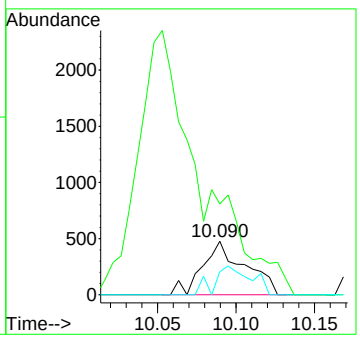




#38
cis-1,2-dichloroethene
Concen: 0.36 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170156.d
Acq: 18 Sep 2019 11:07 am

Tgt Ion: 96 Resp: 889

Ion	Ratio	Lower	Upper
96	100		
61	139.1	102.1	162.1
98	43.1	35.1	95.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170158.d
Acq On : 18 Sep 2019 12:04 pm
Operator : edwardd
Sample : jc95050-3 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:42:58 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

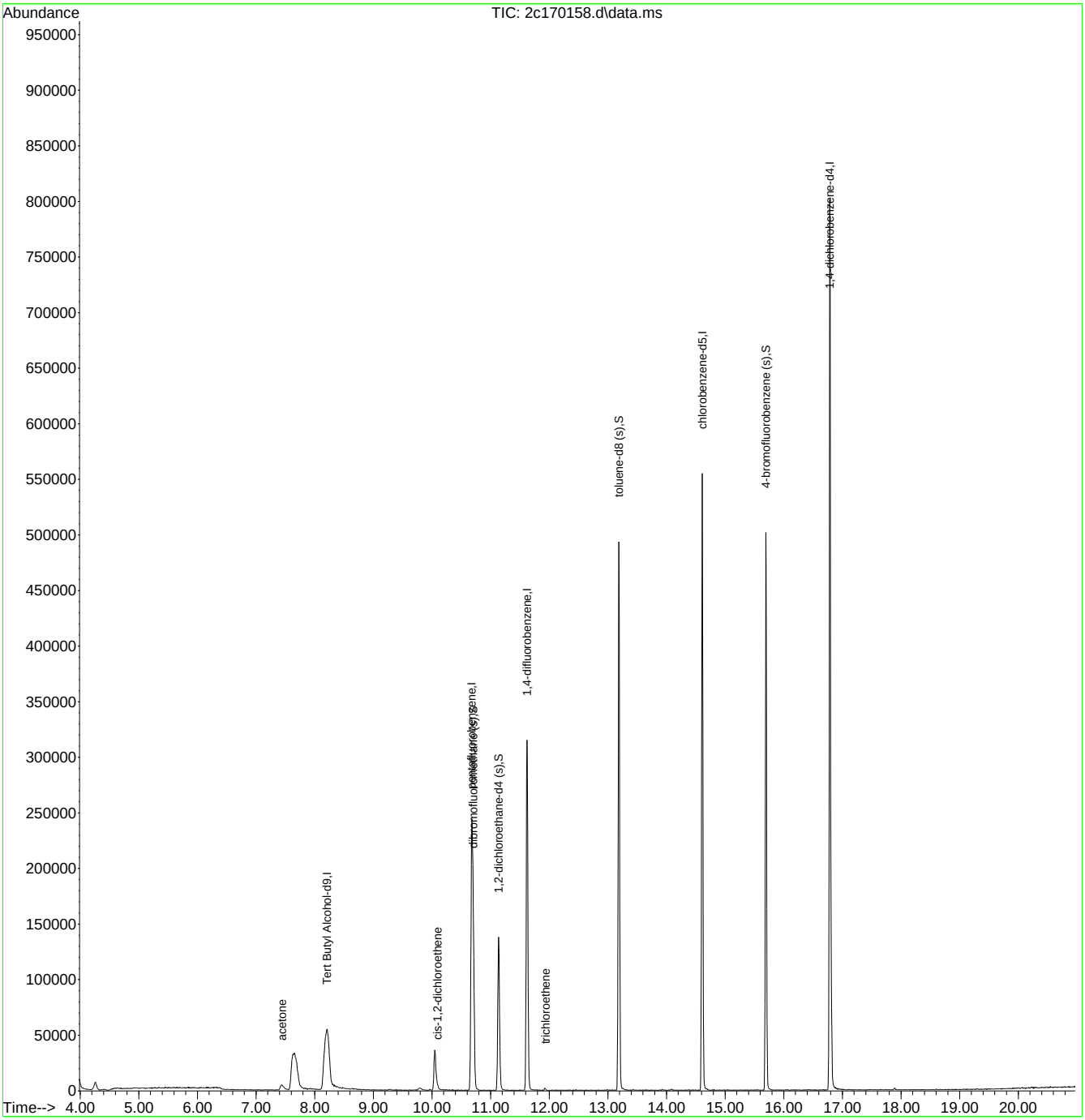
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.208	65	188240	500.00	ug/L	-0.04
5) pentafluorobenzene	10.677	168	170870	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	264260	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	266513	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	180144	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	88788	51.62	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.24%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	104155	49.18	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.36%			
75) toluene-d8 (s)	13.188	98	293121	51.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.12%			
98) 4-bromofluorobenzene (s)	15.695	95	125529	49.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%			
Target Compounds						Qvalue
20) acetone	7.442	58	3946	13.27	ug/L #	58
38) cis-1,2-dichloroethene	10.095	96	1181	0.50	ug/L	88
62) trichloroethene	11.935	95	713	0.36	ug/L #	67

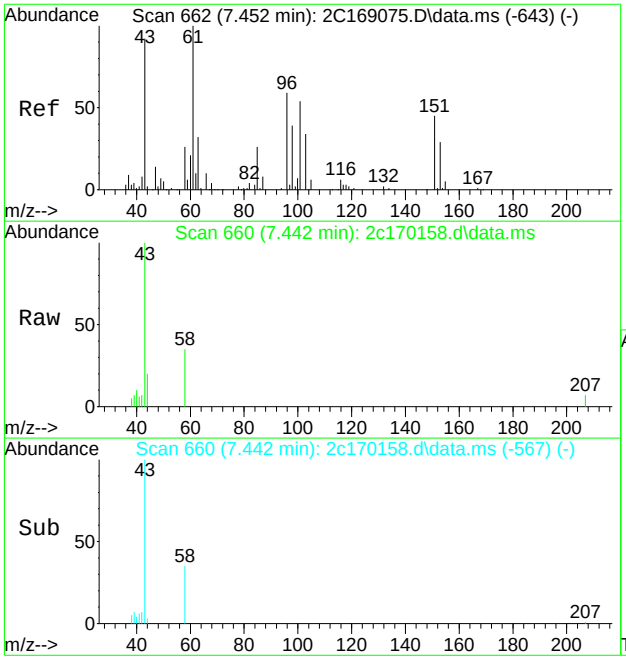
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170158.d
Acq On : 18 Sep 2019 12:04 pm
Operator : edwardd
Sample : jc95050-3 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:42:58 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

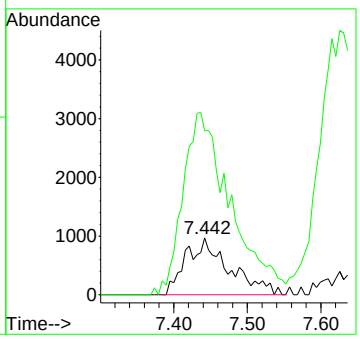


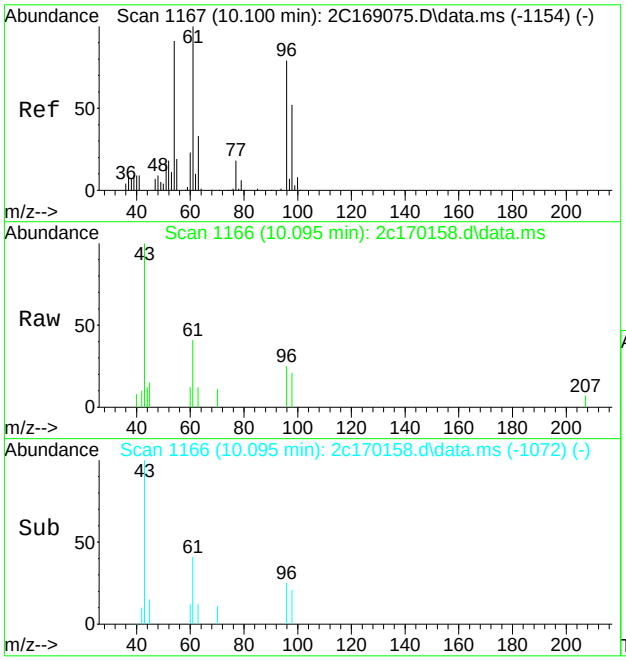


#20
acetone
Concen: 13.27 ug/L
RT: 7.442 min Scan# 660
Delta R.T. -0.010 min
Lab File: 2c170158.d
Acq: 18 Sep 2019 12:04 pm

Tgt Ion: 58 Resp: 3946

Ion	Ratio	Lower	Upper
58	100		
43	269.3	332.0	392.0#

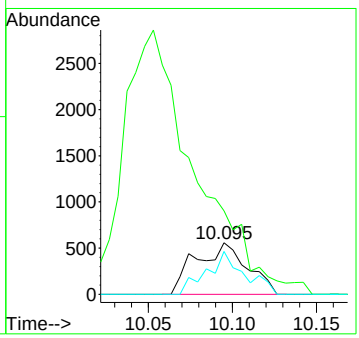


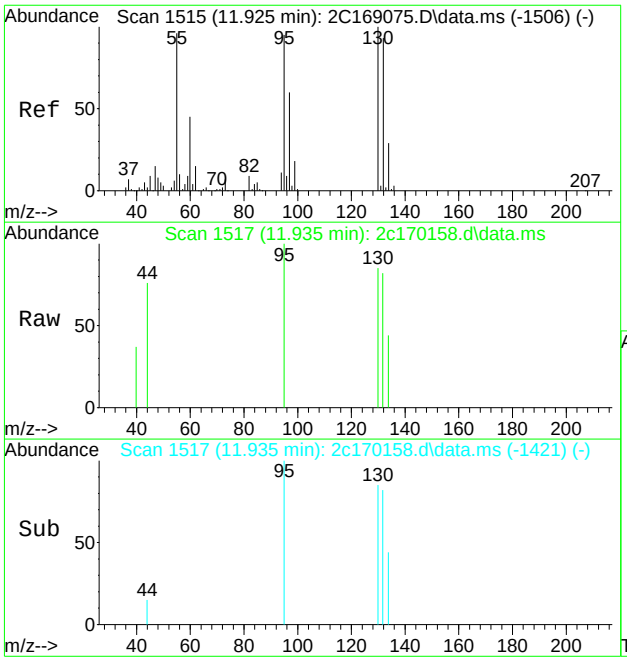


#38
cis-1,2-dichloroethene
Concen: 0.50 ug/L
RT: 10.095 min Scan# 1166
Delta R.T. -0.005 min
Lab File: 2c170158.d
Acq: 18 Sep 2019 12:04 pm

Tgt Ion: 96 Resp: 1181

Ion	Ratio	Lower	Upper
96	100		
61	140.0	102.1	162.1
98	83.5	35.1	95.1

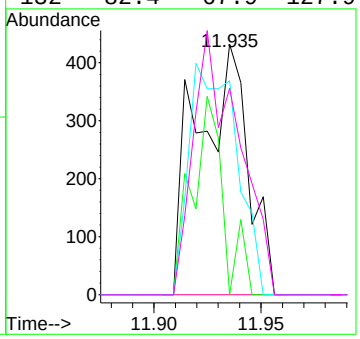




#62
trichloroethene
Concen: 0.36 ug/L
RT: 11.935 min Scan# 1517
Delta R.T. 0.005 min
Lab File: 2c170158.d
Acq: 18 Sep 2019 12:04 pm

Tgt Ion: 95 Resp: 713

Ion	Ratio	Lower	Upper
95	100		
97	0.0	33.6	93.6#
130	85.4	75.4	135.4
132	82.4	67.9	127.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170164.d
Acq On : 18 Sep 2019 2:56 pm
Operator : edwardd
Sample : jc95050-4 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:37:00 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

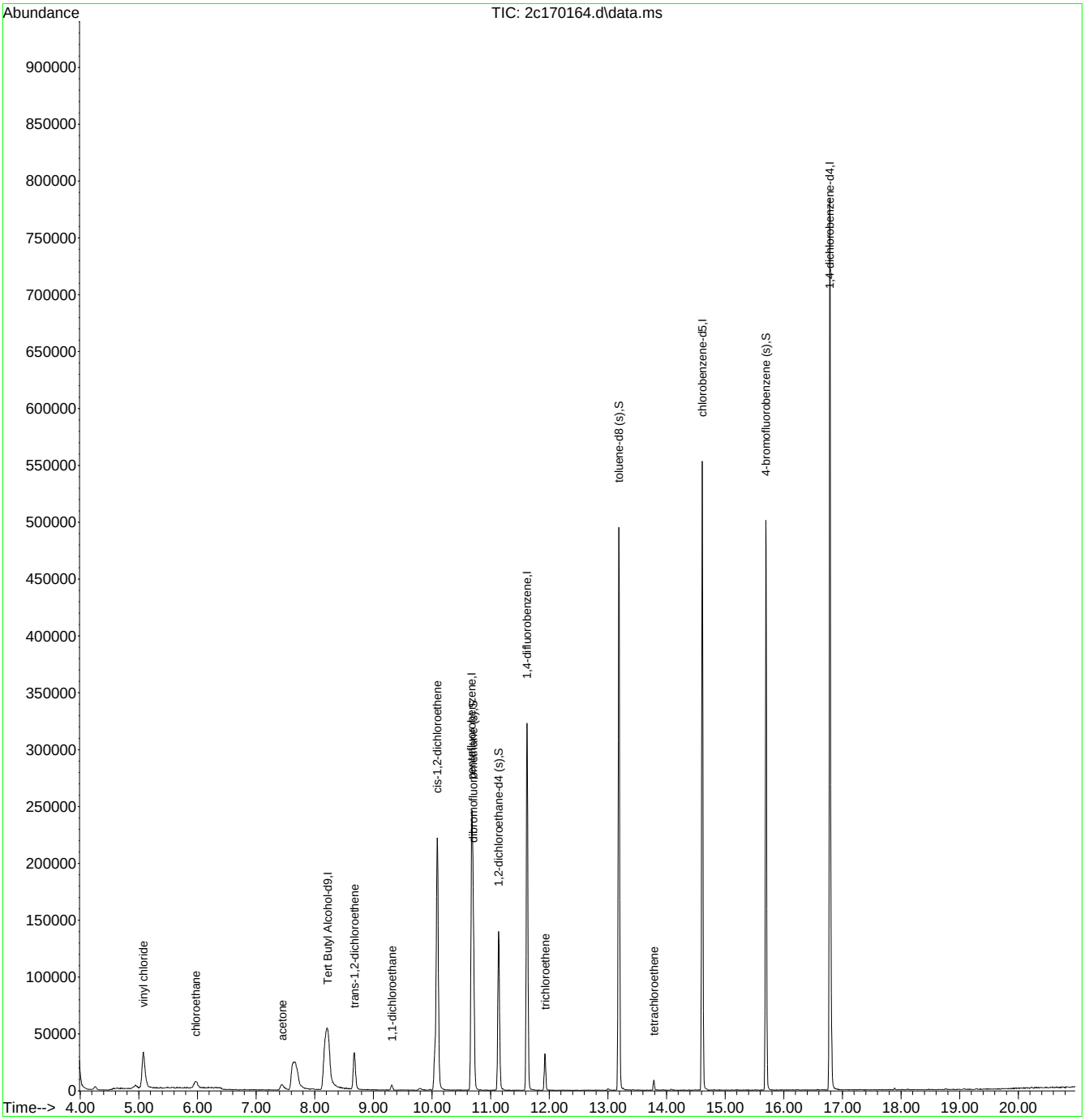
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	201121	500.00	ug/L	-0.02
5) pentafluorobenzene	10.677	168	173308	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	265006	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	261864	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	177837	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	89065	51.05	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	105236	49.55	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.10%			
75) toluene-d8 (s)	13.188	98	297575	52.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.52%			
98) 4-bromofluorobenzene (s)	15.694	95	123421	49.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.88%			
Target Compounds						Qvalue
9) vinyl chloride	5.077	62	68344	15.03	ug/L	95
12) chloroethane	5.969	64	12080	4.26	ug/L	98
20) acetone	7.447	58	3389	11.24	ug/L #	67
27) trans-1,2-dichloroethene	8.679	96	18684	8.00	ug/L	89
30) 1,1-dichloroethane	9.319	63	5490	1.45	ug/L	86
38) cis-1,2-dichloroethene	10.090	96	117534	48.63	ug/L	98
62) trichloroethene	11.930	95	10163	5.10	ug/L	94
81) tetrachloroethene	13.786	164	1889	1.03	ug/L	91

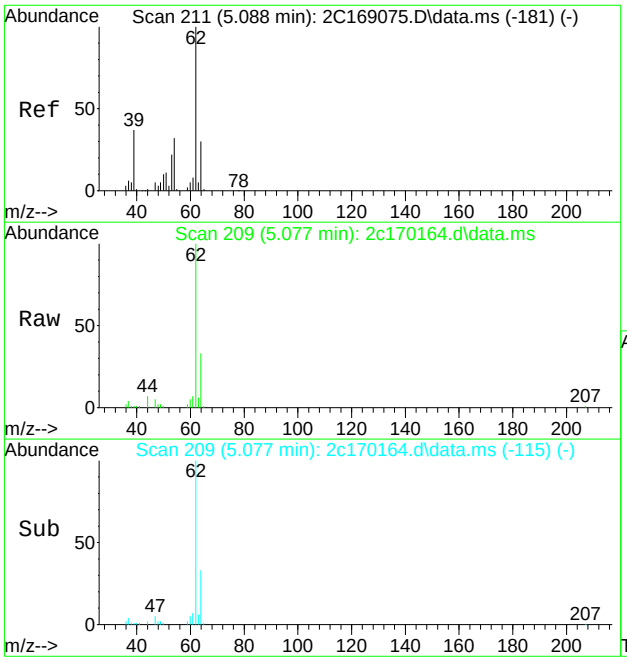
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170164.d
Acq On : 18 Sep 2019 2:56 pm
Operator : edwardd
Sample : jc95050-4 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:37:00 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

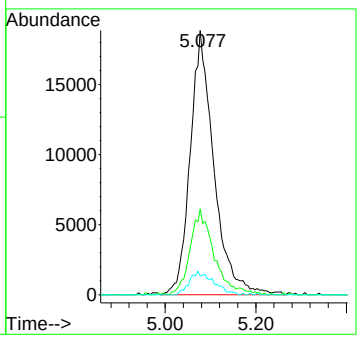


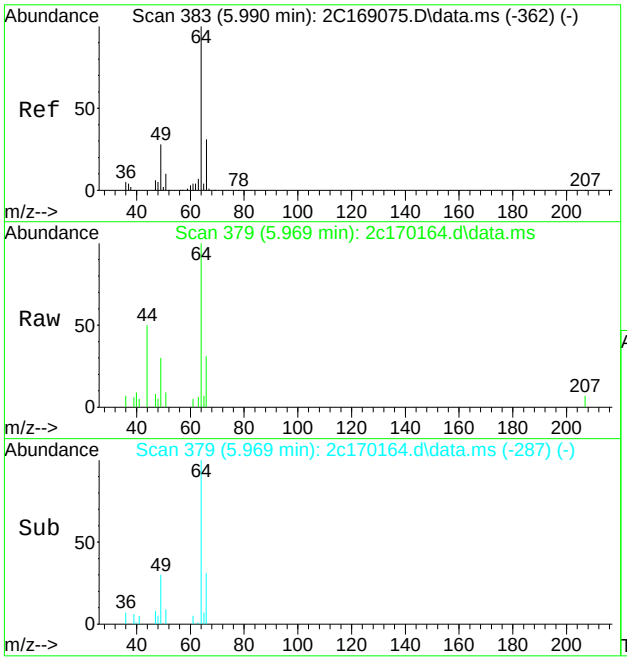


#9
vinyl chloride
Concen: 15.03 ug/L
RT: 5.077 min Scan# 209
Delta R.T. -0.005 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 62 Resp: 68344

Ion	Ratio	Lower	Upper
62	100		
64	32.6	0.0	59.8
61	7.1	0.0	38.2

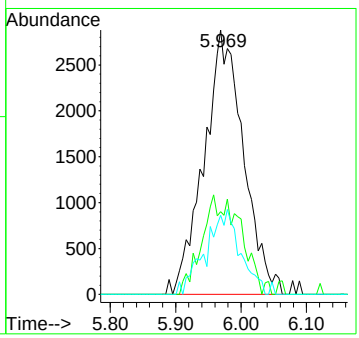


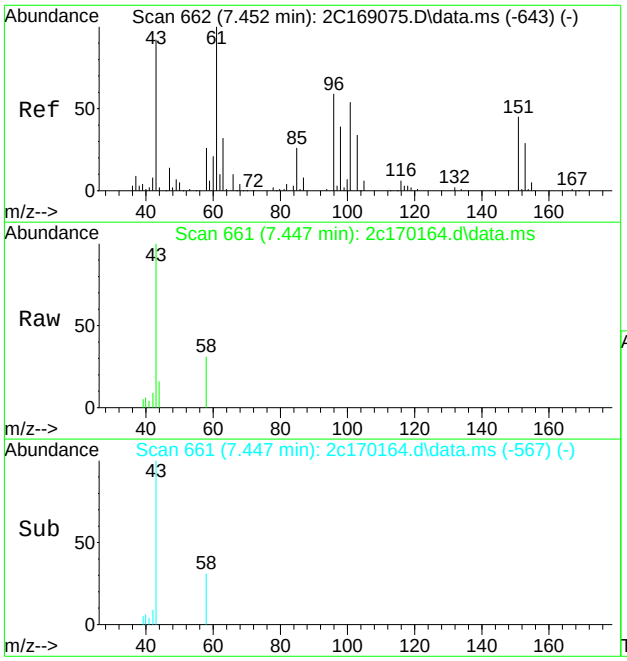


#12
chloroethane
Concen: 4.26 ug/L
RT: 5.969 min Scan# 379
Delta R.T. -0.016 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 64 Resp: 12080

Ion	Ratio	Lower	Upper
64	100		
66	31.3	1.4	61.4
49	29.9	0.0	58.0

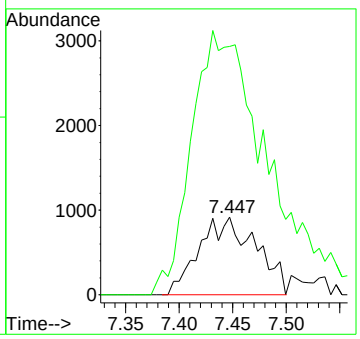


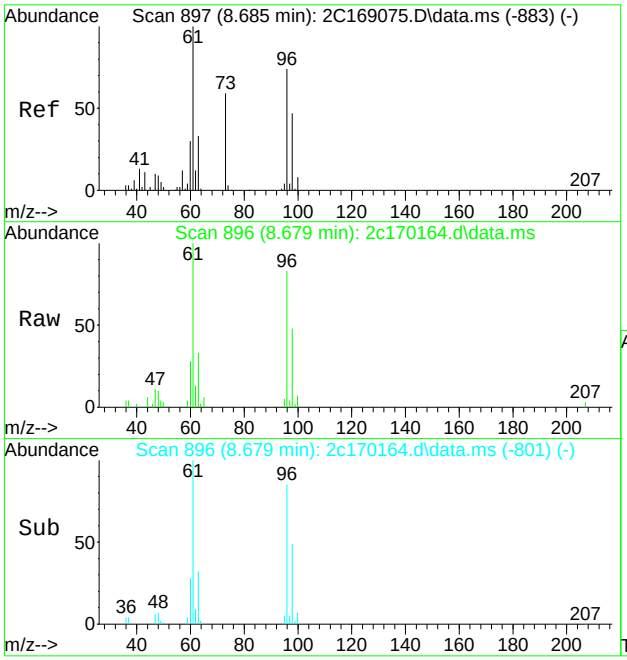


#20
acetone
Concen: 11.24 ug/L
RT: 7.447 min Scan# 661
Delta R.T. -0.005 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 58 Resp: 3389

Ion	Ratio	Lower	Upper
58	100		
43	287.7	332.0	392.0#

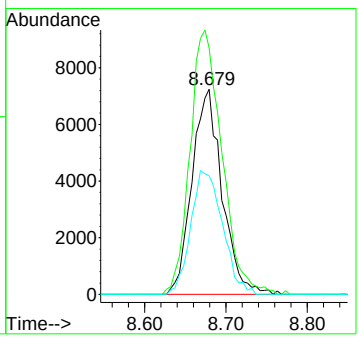


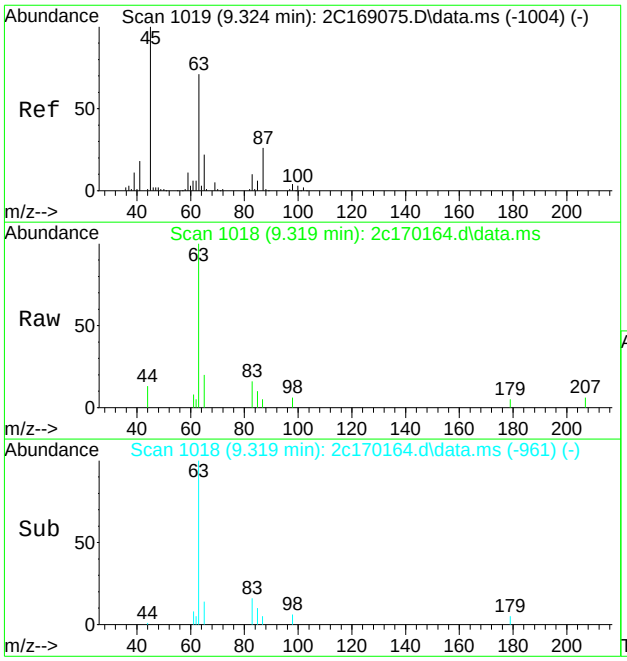


#27
trans-1,2-dichloroethene
Concen: 8.00 ug/L
RT: 8.679 min Scan# 896
Delta R.T. 0.000 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 96 Resp: 18684

Ion	Ratio	Lower	Upper
96	100		
61	120.1	105.5	165.5
98	57.8	33.2	93.2

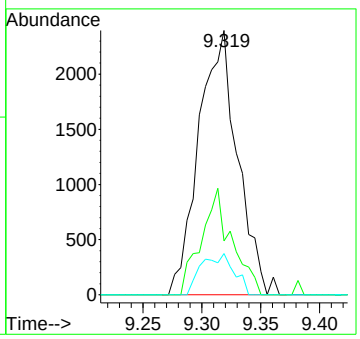


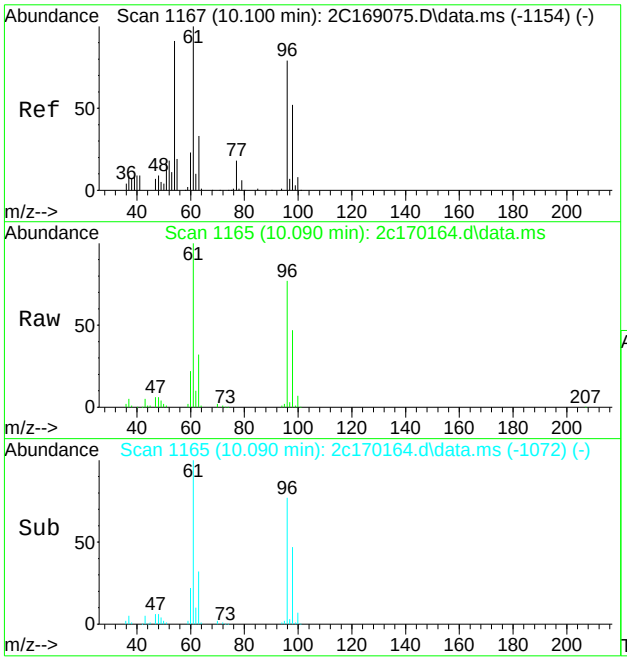


#30
1,1-dichloroethane
Concen: 1.45 ug/L
RT: 9.319 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 63 Resp: 5490

Ion	Ratio	Lower	Upper
63	100		
65	20.4	0.8	60.8
83	15.6	0.0	44.1

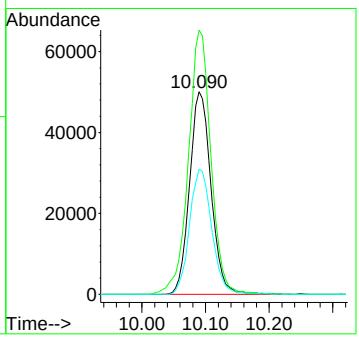


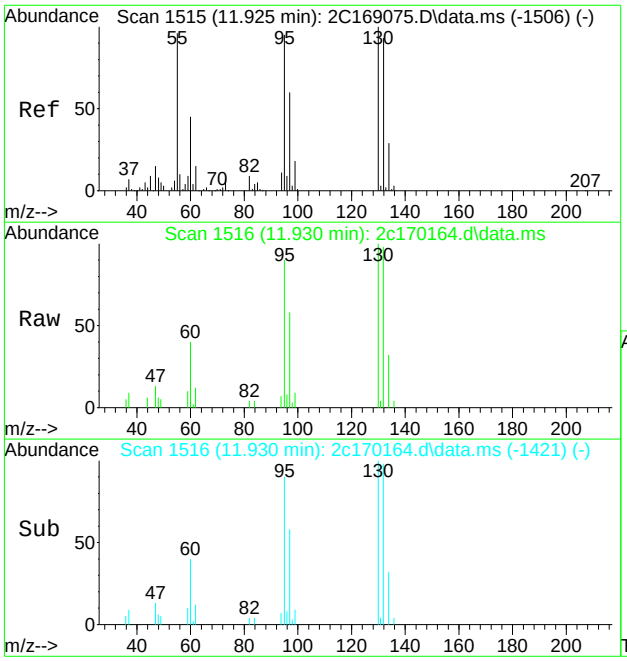


#38
cis-1,2-dichloroethene
Concen: 48.63 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 96 Resp: 117534

Ion	Ratio	Lower	Upper
96	100		
61	130.5	102.1	162.1
98	61.9	35.1	95.1

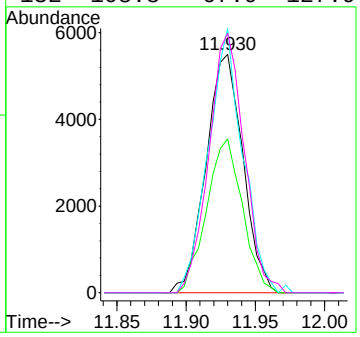


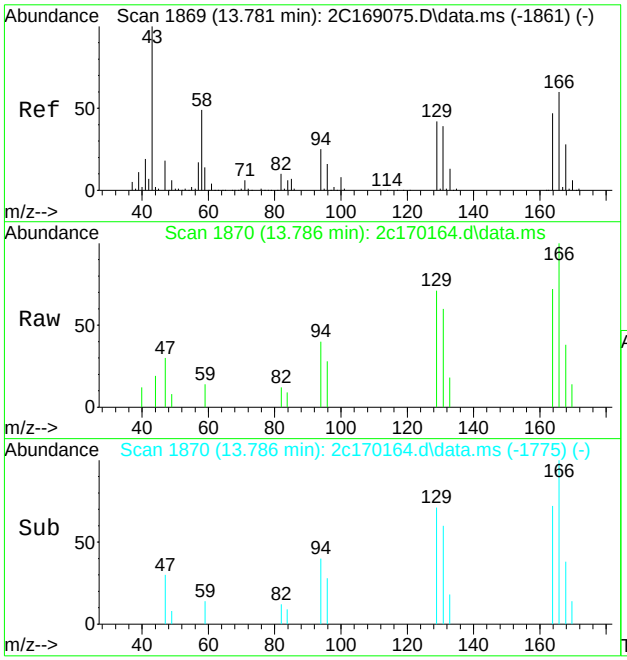


#62
trichloroethene
Concen: 5.10 ug/L
RT: 11.930 min Scan# 1516
Delta R.T. 0.000 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion: 95 Resp: 10163

Ion	Ratio	Lower	Upper
95	100		
97	64.5	33.6	93.6
130	110.8	75.4	135.4
132	108.8	67.9	127.9

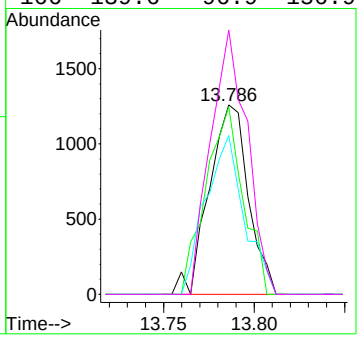




#81
tetrachloroethene
Concen: 1.03 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170164.d
Acq: 18 Sep 2019 2:56 pm

Tgt Ion:164 Resp: 1889

Ion	Ratio	Lower	Upper
164	100		
129	99.1	58.2	118.2
131	84.0	52.0	112.0
166	139.6	96.9	156.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170165.d
Acq On : 18 Sep 2019 3:24 pm
Operator : edwardd
Sample : jc95050-5 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:38:05 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

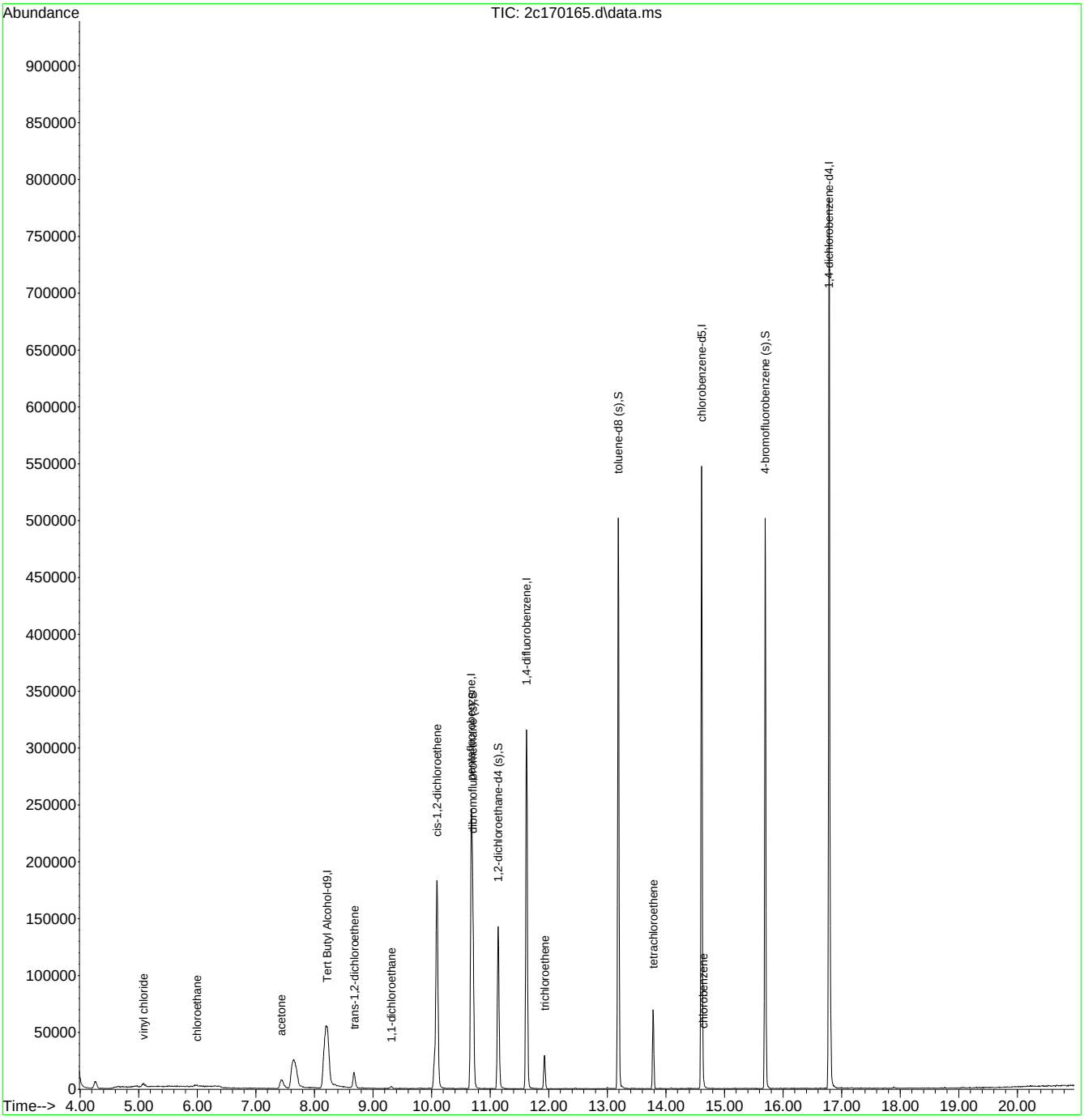
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.218	65	184743	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	173495	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	265537	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	265563	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	176655	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	89070	51.00	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.00%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	107071	50.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.62%			
75) toluene-d8 (s)	13.188	98	295193	51.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.22%			
98) 4-bromofluorobenzene (s)	15.695	95	125251	50.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.02%			
Target Compounds						Qvalue
9) vinyl chloride	5.083	62	5958	1.31	ug/L	93
12) chloroethane	5.995	64	2121	0.75	ug/L	91
20) acetone	7.437	58	6202	20.55	ug/L #	71
27) trans-1,2-dichloroethene	8.685	96	7557	3.23	ug/L	87
30) 1,1-dichloroethane	9.314	63	3029	0.80	ug/L	79
38) cis-1,2-dichloroethene	10.095	96	97607	40.34	ug/L	99
62) trichloroethene	11.930	95	9188	4.60	ug/L	96
81) tetrachloroethene	13.786	164	14826	8.00	ug/L	93
87) chlorobenzene	14.641	112	1781	0.33	ug/L	92

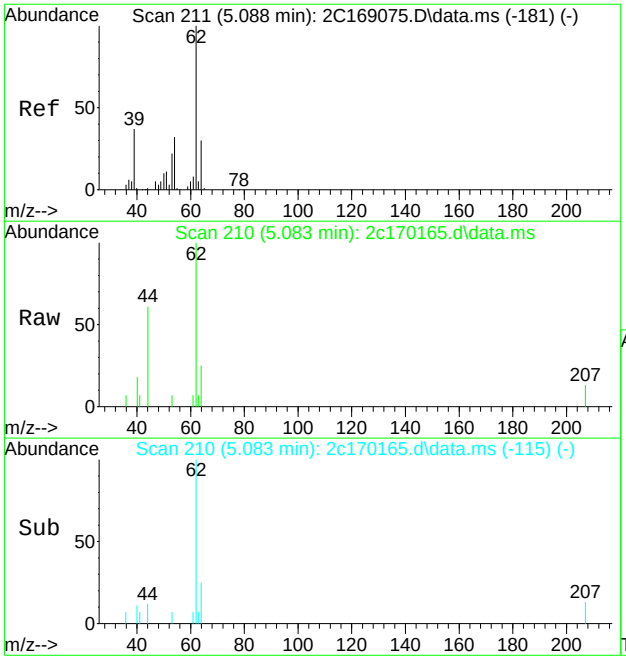
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170165.d
Acq On : 18 Sep 2019 3:24 pm
Operator : edwardd
Sample : jc95050-5 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:38:05 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

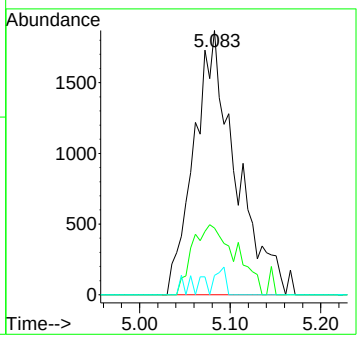


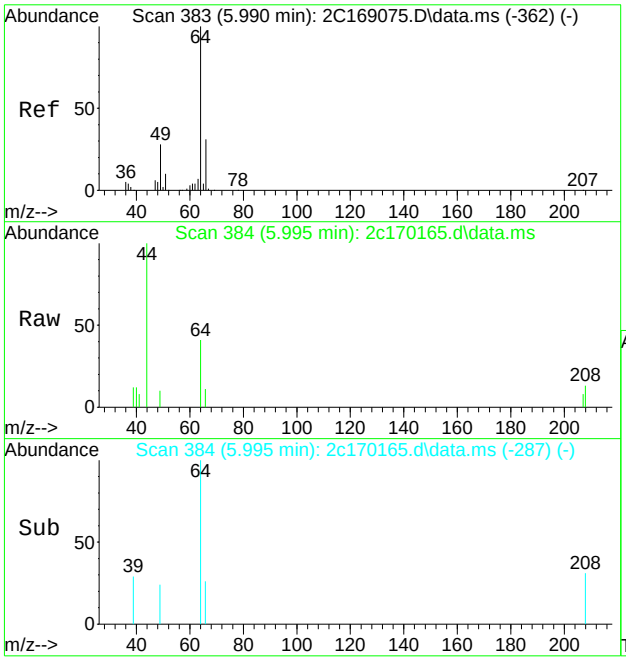


#9
vinyl chloride
Concen: 1.31 ug/L
RT: 5.083 min Scan# 210
Delta R.T. 0.000 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 62 Resp: 5958

Ion	Ratio	Lower	Upper
62	100		
64	25.3	0.0	59.8
61	7.4	0.0	38.2

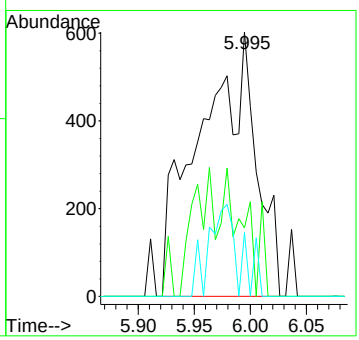


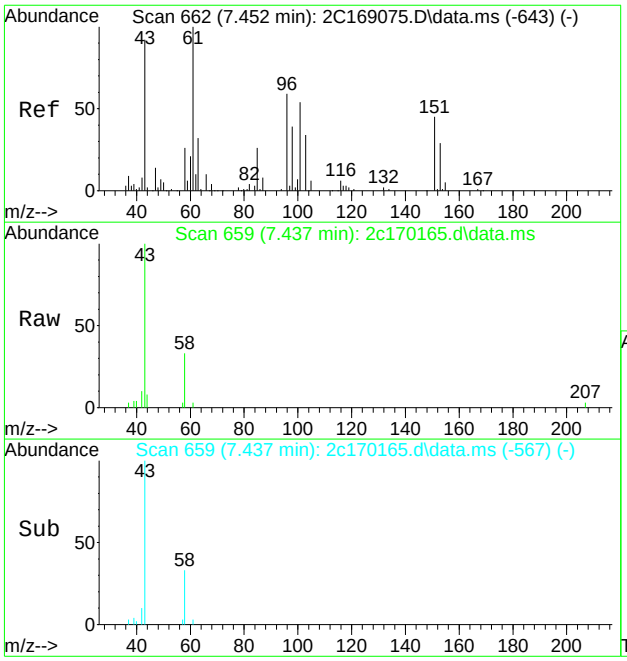


#12
chloroethane
Concen: 0.75 ug/L
RT: 5.995 min Scan# 384
Delta R.T. 0.011 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 64 Resp: 2121

Ion	Ratio	Lower	Upper
64	100		
66	25.9	1.4	61.4
49	24.2	0.0	58.0

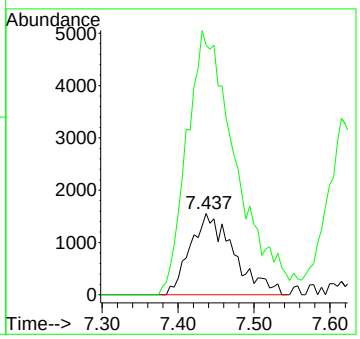


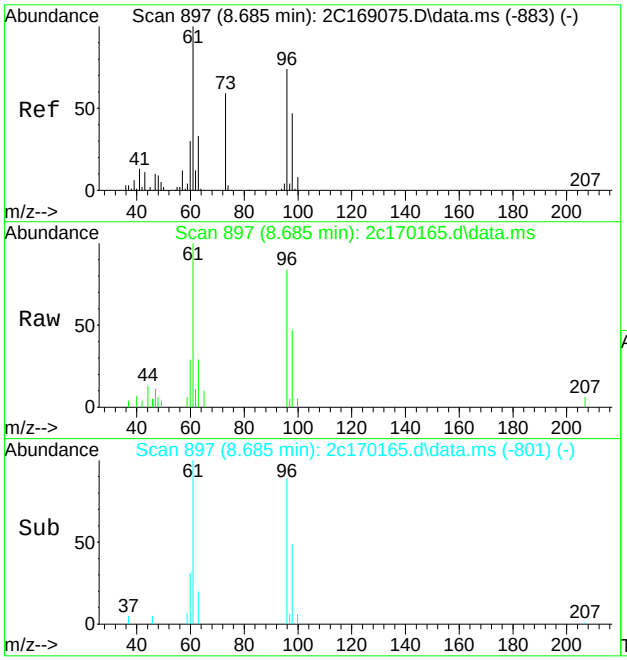


#20
acetone
Concen: 20.55 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.016 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 58 Resp: 6202

Ion	Ratio	Lower	Upper
58	100		
43	296.5	332.0	392.0#

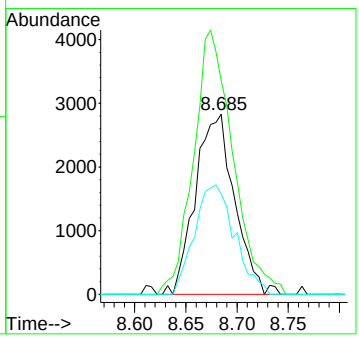


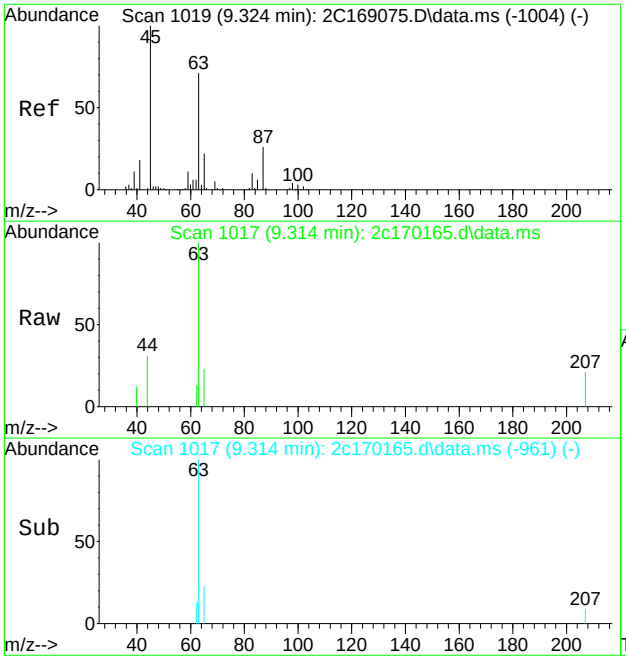


#27
trans-1,2-dichloroethene
Concen: 3.23 ug/L
RT: 8.685 min Scan# 897
Delta R.T. 0.005 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 96 Resp: 7557

Ion	Ratio	Lower	Upper
96	100		
61	118.6	105.5	165.5
98	55.6	33.2	93.2

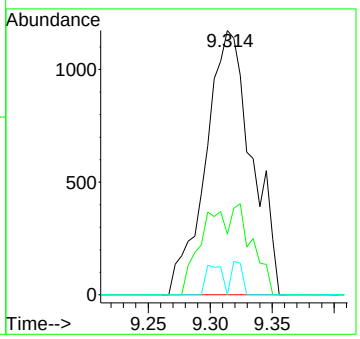


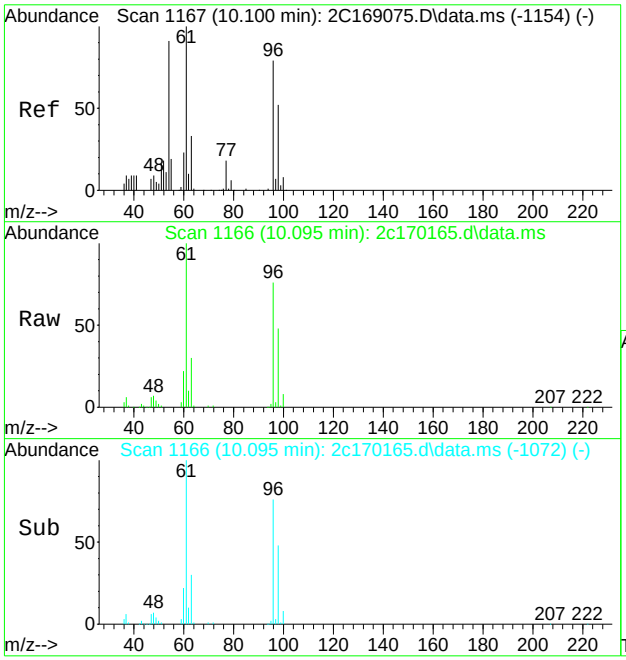


#30
1,1-dichloroethane
Concen: 0.80 ug/L
RT: 9.314 min Scan# 1017
Delta R.T. -0.005 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 63 Resp: 3029

Ion	Ratio	Lower	Upper
63	100		
65	22.9	0.8	60.8
83	0.0	0.0	44.1

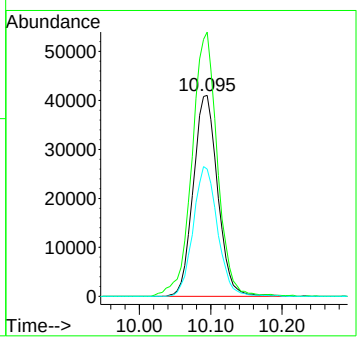


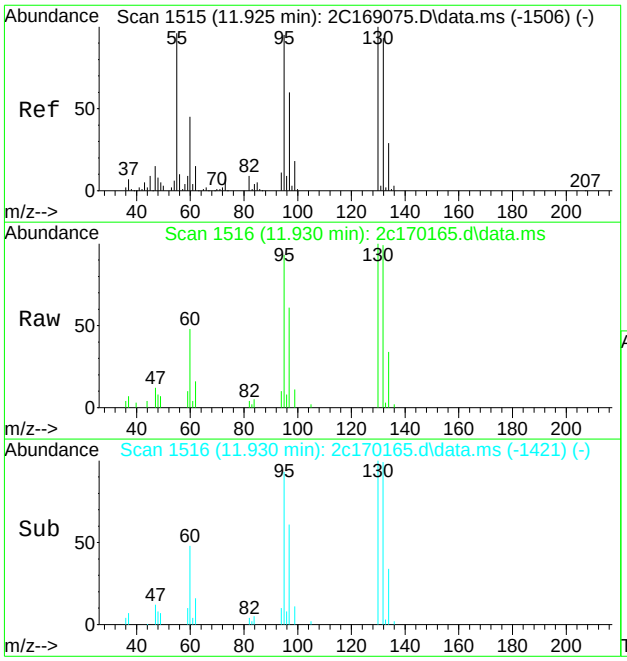


#38
cis-1,2-dichloroethene
Concen: 40.34 ug/L
RT: 10.095 min Scan# 1166
Delta R.T. -0.005 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 96 Resp: 97607

Ion	Ratio	Lower	Upper
96	100		
61	131.2	102.1	162.1
98	63.4	35.1	95.1

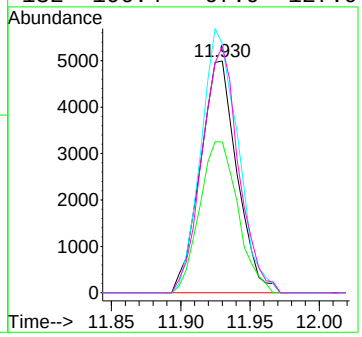


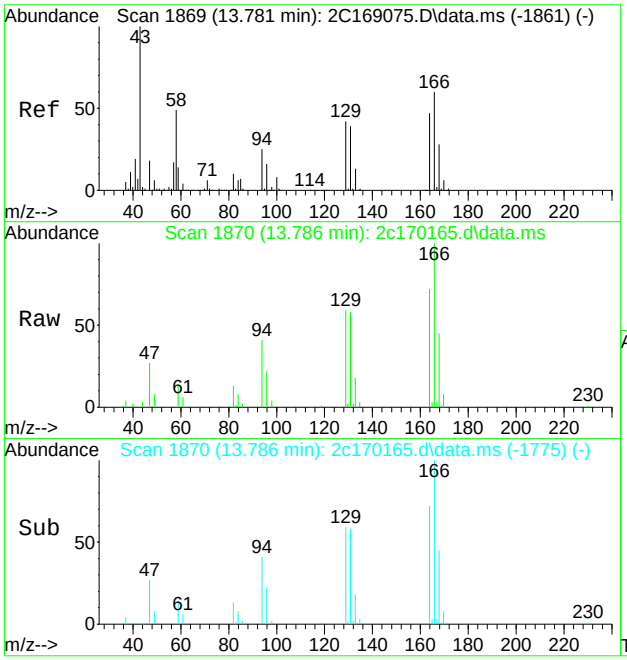


#62
trichloroethene
Concen: 4.60 ug/L
RT: 11.930 min Scan# 1516
Delta R.T. 0.000 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion: 95 Resp: 9188

Ion	Ratio	Lower	Upper
95	100		
97	65.1	33.6	93.6
130	107.4	75.4	135.4
132	106.4	67.9	127.9

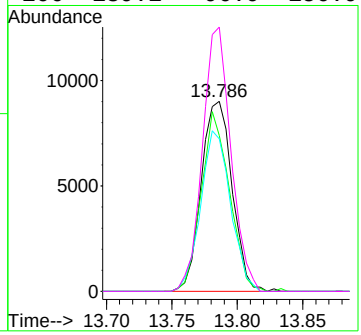


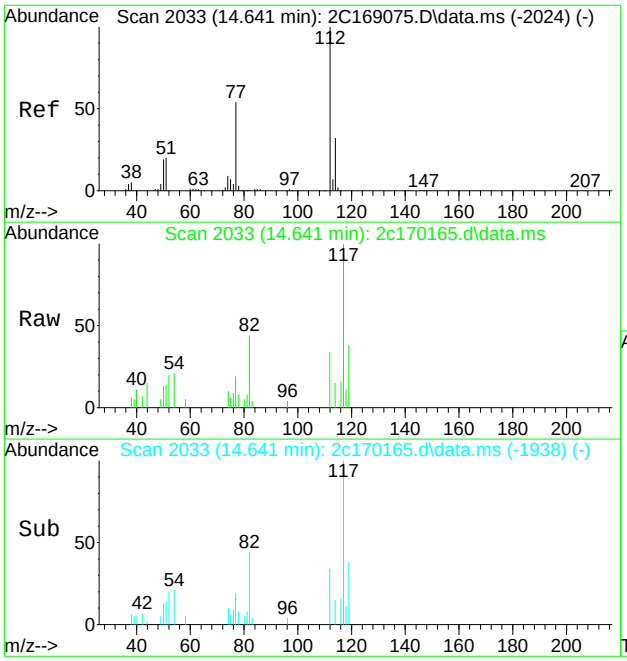


#81
tetrachloroethene
Concen: 8.00 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion:164 Resp: 14826

Ion	Ratio	Lower	Upper
164	100		
129	82.0	58.2	118.2
131	80.3	52.0	112.0
166	139.1	96.9	156.9

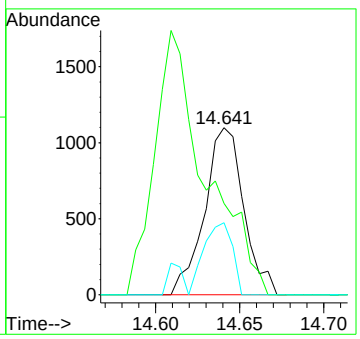




#87
chlorobenzene
Concen: 0.33 ug/L
RT: 14.641 min Scan# 2033
Delta R.T. 0.000 min
Lab File: 2c170165.d
Acq: 18 Sep 2019 3:24 pm

Tgt Ion:112 Resp: 1781

Ion	Ratio	Lower	Upper
112	100		
77	54.8	24.0	84.0
114	43.3	2.4	62.4



7.1.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170166.d
Acq On : 18 Sep 2019 3:53 pm
Operator : edwardd
Sample : jc95050-6 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:39:14 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

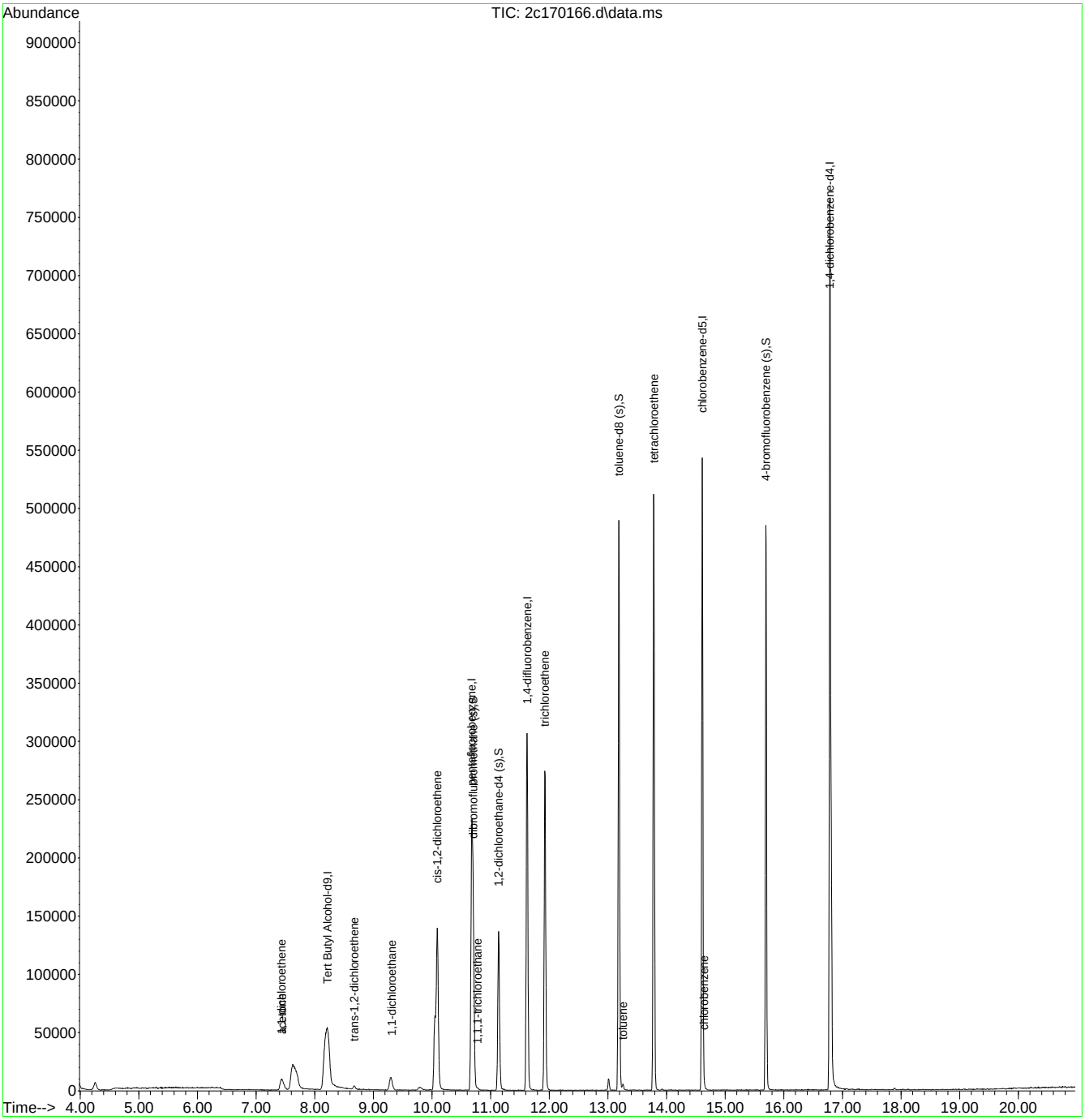
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.218	65	189870	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	165626	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.626	114	252943	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	256486	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	173613	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	83823	50.28	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	102054	50.34	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.68%			
75) toluene-d8 (s)	13.188	98	288233	52.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.34%			
98) 4-bromofluorobenzene (s)	15.694	95	120814	49.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.431	96	2907	1.25	ug/L	# 71
20) acetone	7.442	58	5057	17.55	ug/L	91
27) trans-1,2-dichloroethene	8.674	96	1584	0.71	ug/L	83
30) 1,1-dichloroethane	9.314	63	7693	2.13	ug/L	95
38) cis-1,2-dichloroethene	10.090	96	71677	31.03	ug/L	96
46) 1,1,1-trichloroethane	10.776	97	1306	0.35	ug/L	94
62) trichloroethene	11.925	95	87807	46.19	ug/L	97
76) toluene	13.256	92	1653	0.39	ug/L	94
81) tetrachloroethene	13.786	164	109824	61.38	ug/L	96
87) chlorobenzene	14.641	112	1575	0.30	ug/L	92

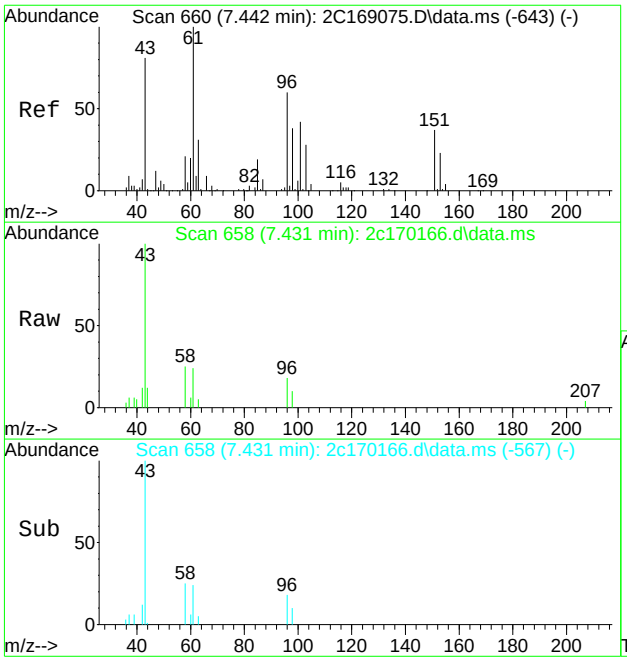
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170166.d
Acq On : 18 Sep 2019 3:53 pm
Operator : edwardd
Sample : jc95050-6 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:39:14 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

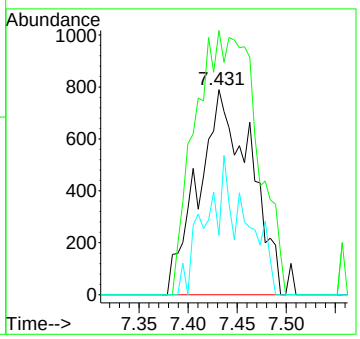


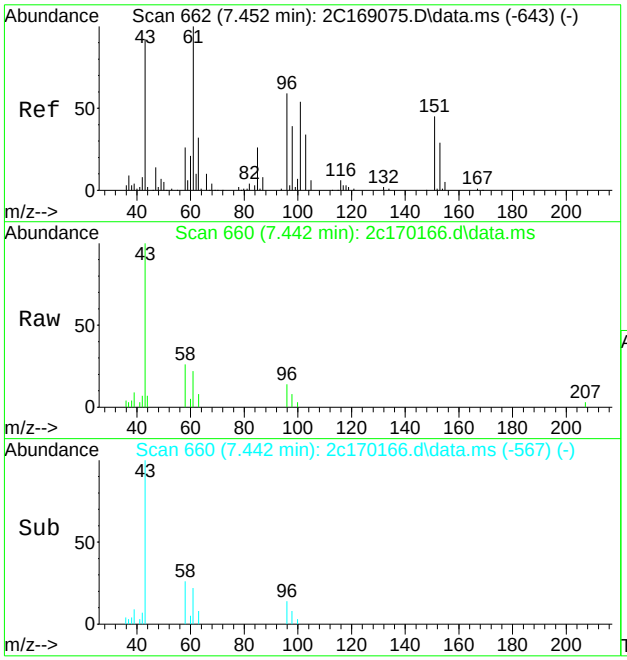


#19
1,1-dichloroethene
Concen: 1.25 ug/L
RT: 7.431 min Scan# 658
Delta R.T. -0.021 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 96 Resp: 2907

Ion	Ratio	Lower	Upper
96	100		
61	128.9	136.5	196.5#
63	29.0	21.3	81.3

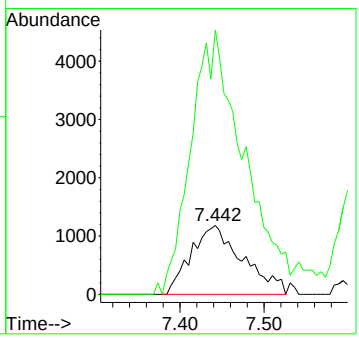


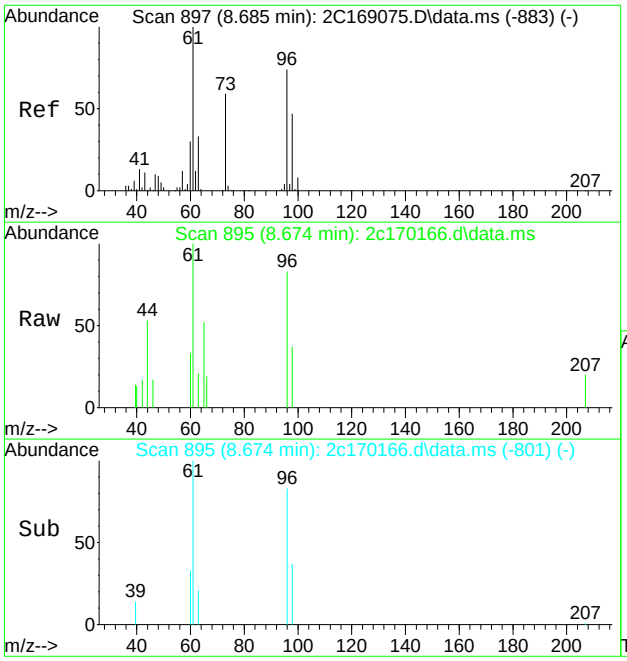


#20
acetone
Concen: 17.55 ug/L
RT: 7.442 min Scan# 660
Delta R.T. -0.010 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 58 Resp: 5057

Ion	Ratio	Lower	Upper
58	100		
43	382.6	332.0	392.0

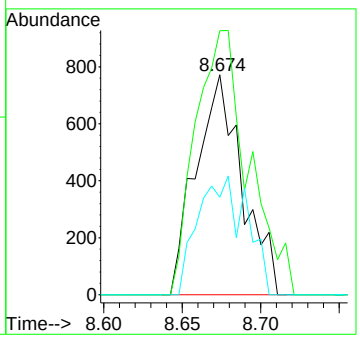


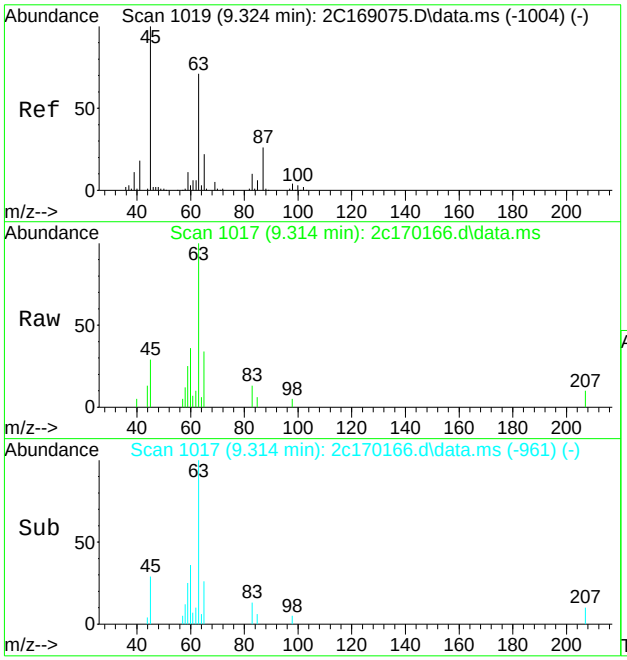


#27
trans-1,2-dichloroethene
Concen: 0.71 ug/L
RT: 8.674 min Scan# 895
Delta R.T. -0.005 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 96 Resp: 1584

Ion	Ratio	Lower	Upper
96	100		
61	120.1	105.5	165.5
98	44.3	33.2	93.2

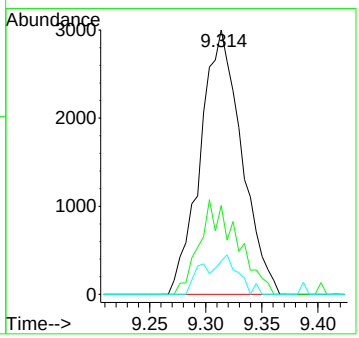


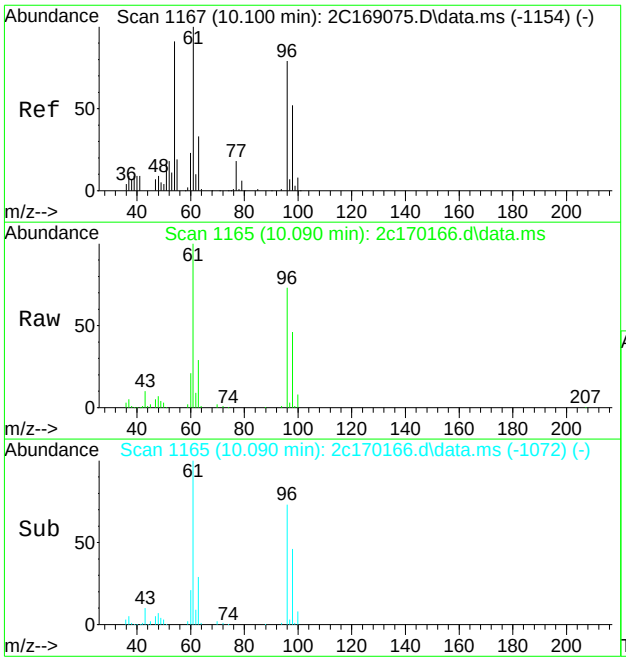


#30
1,1-dichloroethane
Concen: 2.13 ug/L
RT: 9.314 min Scan# 1017
Delta R.T. -0.005 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 63 Resp: 7693

Ion	Ratio	Lower	Upper
63	100		
65	33.7	0.8	60.8
83	12.5	0.0	44.1

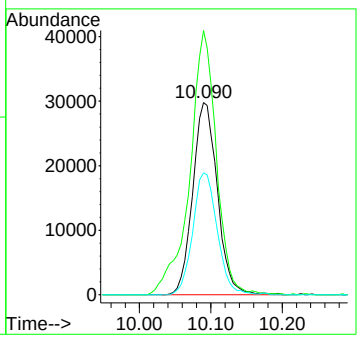


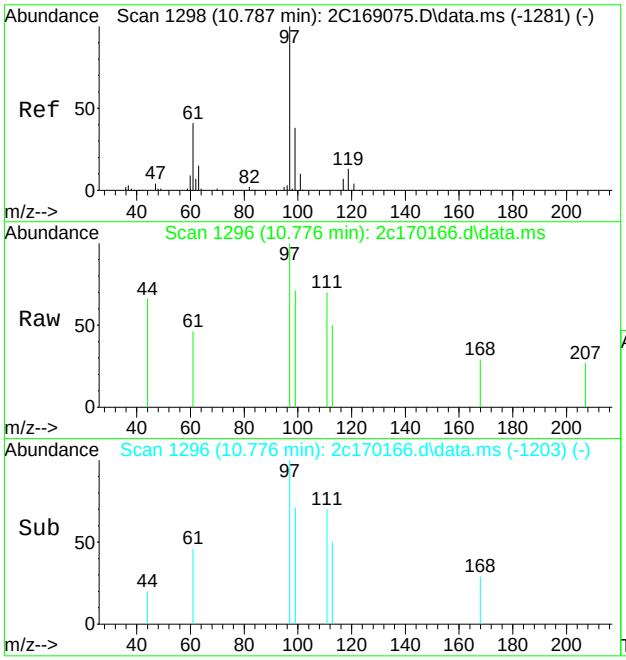


#38
cis-1,2-dichloroethene
Concen: 31.03 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 96 Resp: 71677

Ion	Ratio	Lower	Upper
96	100		
61	137.6	102.1	162.1
98	63.4	35.1	95.1

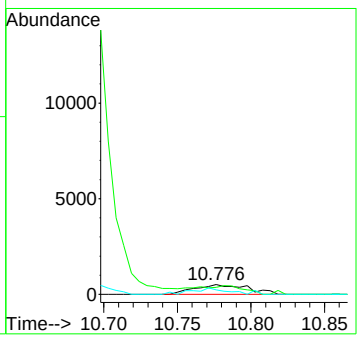


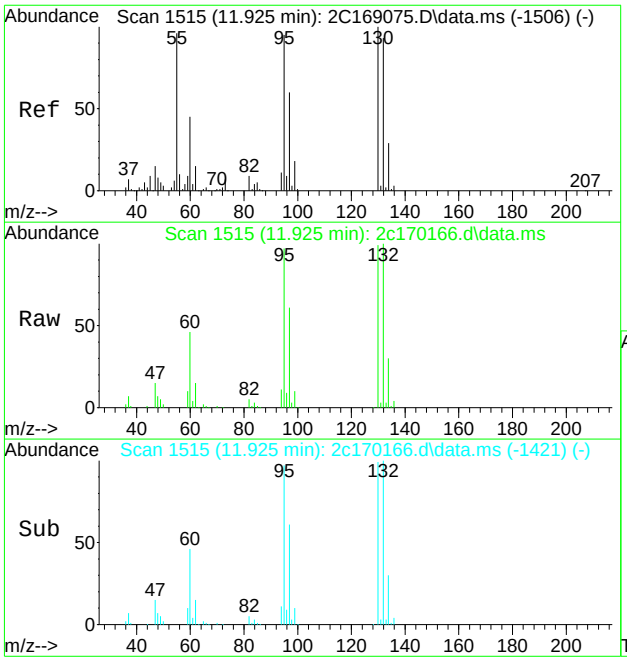


#46
1,1,1-trichloroethane
Concen: 0.35 ug/L
RT: 10.776 min Scan# 1296
Delta R.T. -0.010 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 97 Resp: 1306

Ion	Ratio	Lower	Upper
97	100		
99	70.9	35.7	95.7
61	45.9	12.4	72.4

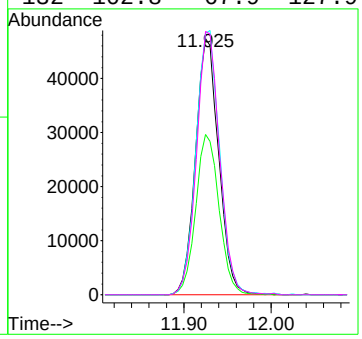


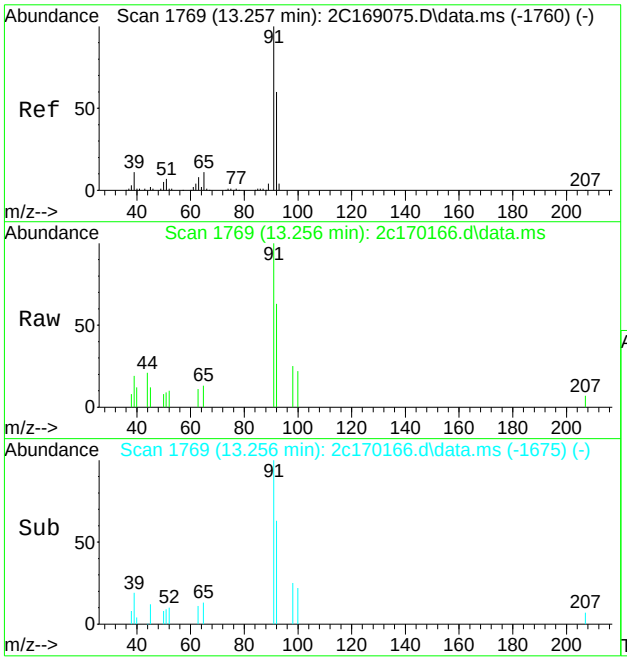


#62
trichloroethene
Concen: 46.19 ug/L
RT: 11.925 min Scan# 1515
Delta R.T. -0.005 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 95 Resp: 87807

Ion	Ratio	Lower	Upper
95	100		
97	62.5	33.6	93.6
130	102.0	75.4	135.4
132	102.8	67.9	127.9

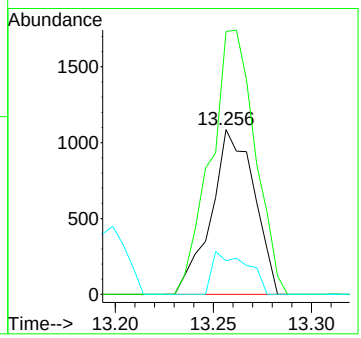


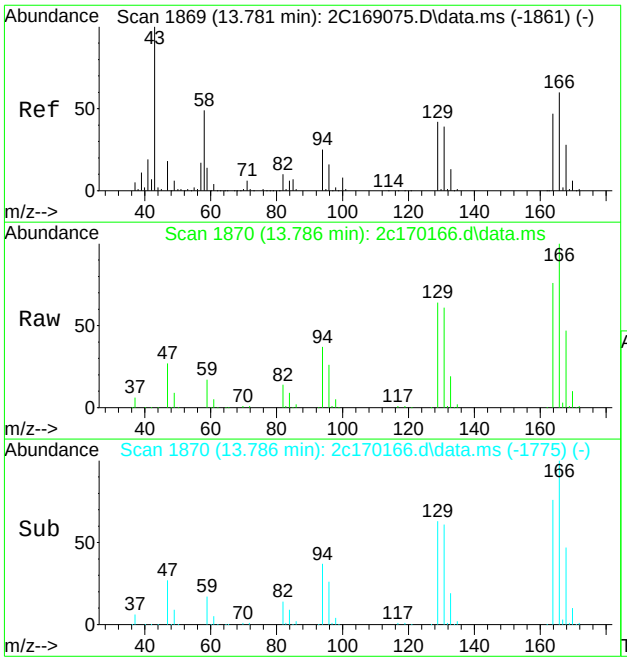


#76
toluene
Concen: 0.39 ug/L
RT: 13.256 min Scan# 1769
Delta R.T. -0.005 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion: 92 Resp: 1653

Ion	Ratio	Lower	Upper
92	100		
91	159.4	147.8	187.8
65	20.5	0.0	39.4

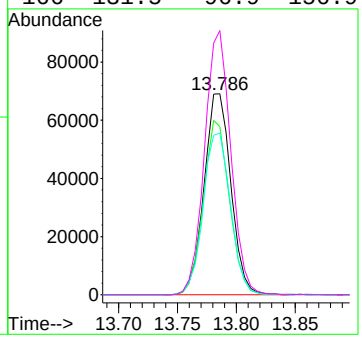


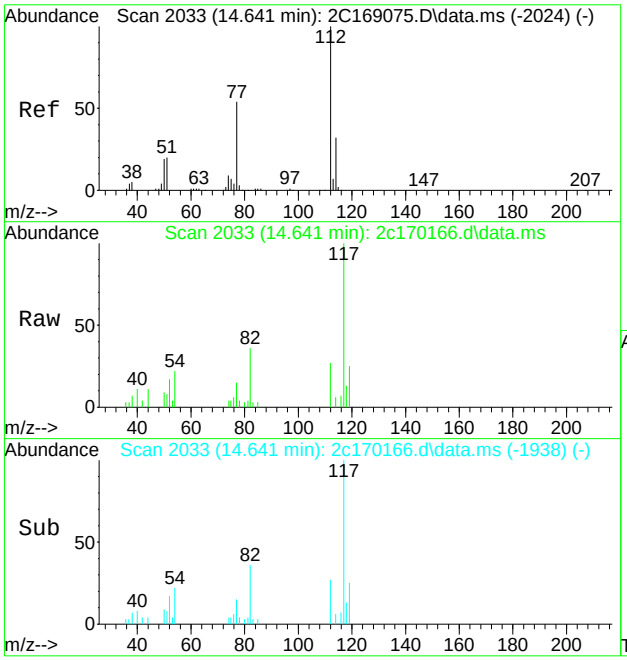


#81
tetrachloroethene
Concen: 61.38 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion:164 Resp: 109824

Ion	Ratio	Lower	Upper
164	100		
129	83.6	58.2	118.2
131	80.4	52.0	112.0
166	131.5	96.9	156.9

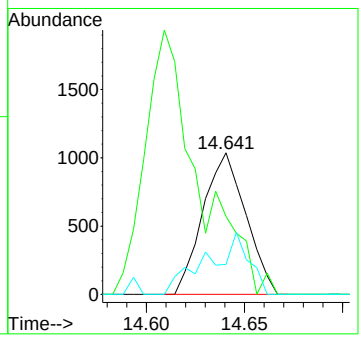




#87
chlorobenzene
Concen: 0.30 ug/L
RT: 14.641 min Scan# 2033
Delta R.T. 0.000 min
Lab File: 2c170166.d
Acq: 18 Sep 2019 3:53 pm

Tgt Ion:112 Resp: 1575

Ion	Ratio	Lower	Upper
112	100		
77	55.1	24.0	84.0
114	21.2	2.4	62.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170167.d
Acq On : 18 Sep 2019 4:22 pm
Operator : edwardd
Sample : jc95050-7 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:40:33 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

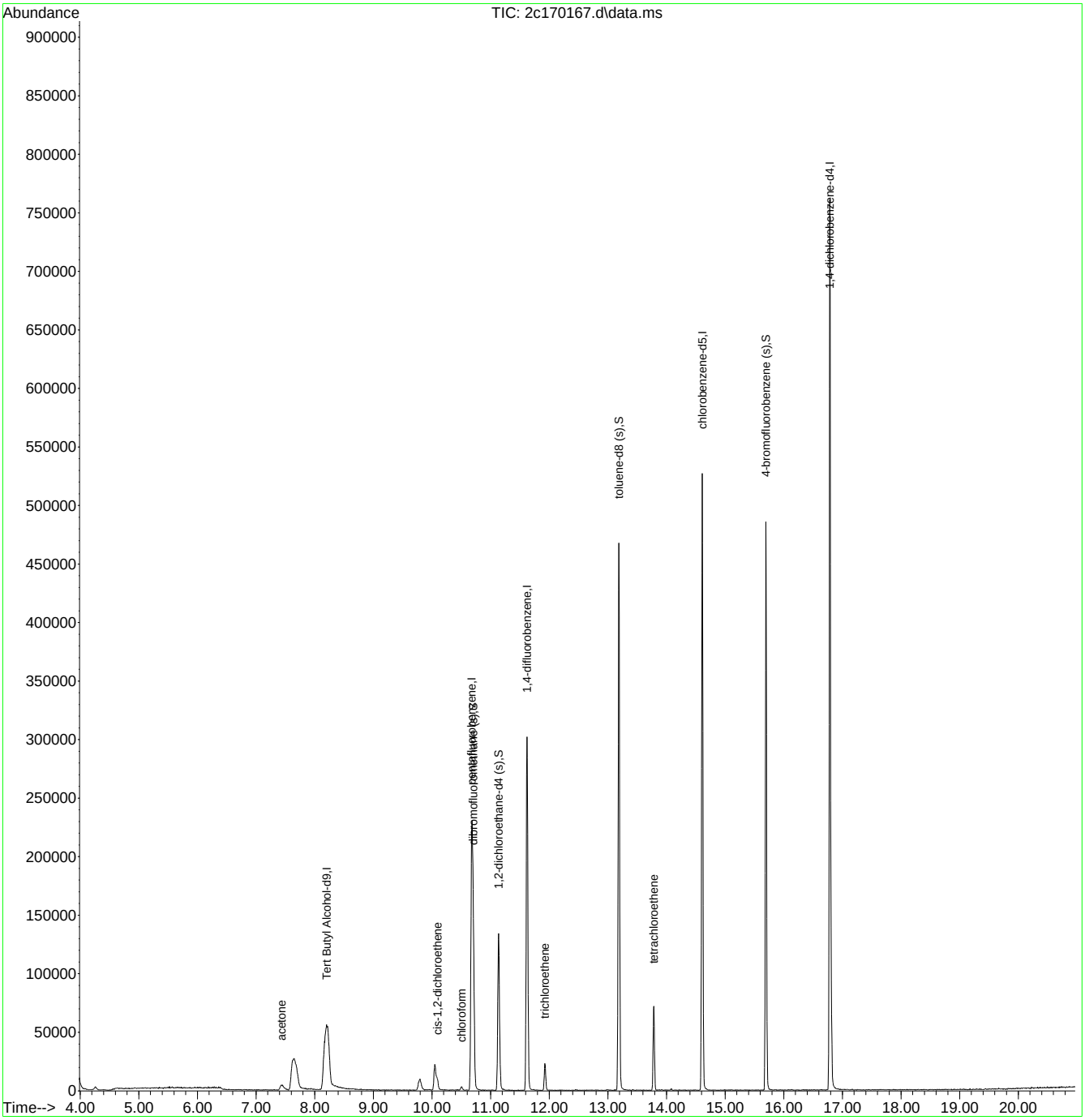
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.202	65	187953	500.00	ug/L	-0.04
5) pentafluorobenzene	10.677	168	160547	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	248677	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	252252	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	169038	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	86485	53.52	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.04%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	100935	50.64	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.28%			
75) toluene-d8 (s)	13.188	98	277984	51.16	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.32%			
98) 4-bromofluorobenzene (s)	15.694	95	117661	49.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%			
Target Compounds						Qvalue
20) acetone	7.437	58	3727	13.34	ug/L	87
38) cis-1,2-dichloroethene	10.095	96	4000	1.79	ug/L	94
42) chloroform	10.504	83	2699	0.74	ug/L	86
62) trichloroethene	11.925	95	7776	4.16	ug/L	90
81) tetrachloroethene	13.781	164	15575	8.85	ug/L	97

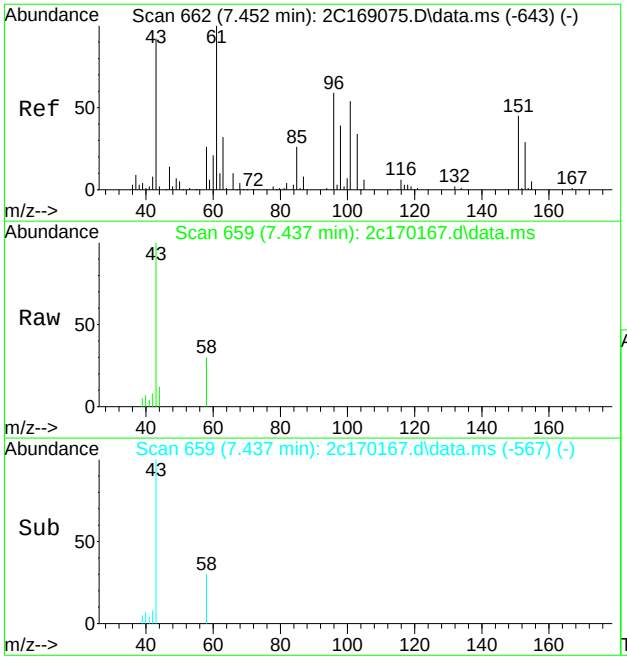
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170167.d
Acq On : 18 Sep 2019 4:22 pm
Operator : edwardd
Sample : jc95050-7 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:40:33 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

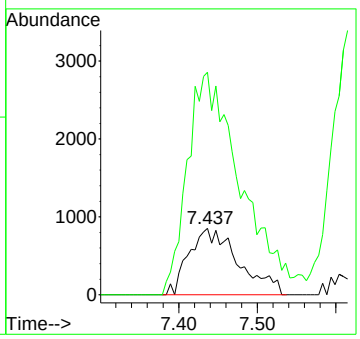


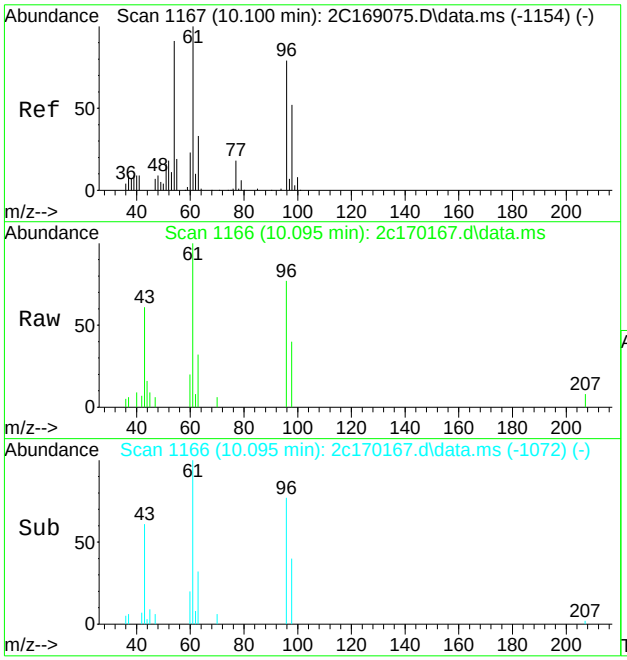


#20
acetone
Concen: 13.34 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.016 min
Lab File: 2c170167.d
Acq: 18 Sep 2019 4:22 pm

Tgt Ion: 58 Resp: 3727

Ion	Ratio	Lower	Upper
58	100		
43	334.2	332.0	392.0

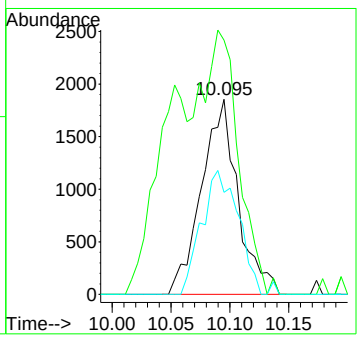


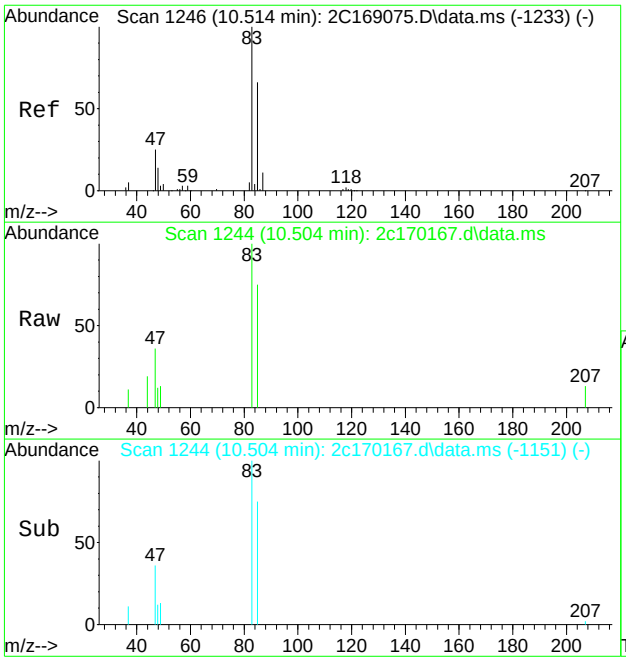


#38
cis-1,2-dichloroethene
Concen: 1.79 ug/L
RT: 10.095 min Scan# 1166
Delta R.T. -0.005 min
Lab File: 2c170167.d
Acq: 18 Sep 2019 4:22 pm

Tgt Ion: 96 Resp: 4000

Ion	Ratio	Lower	Upper
96	100		
61	130.4	102.1	162.1
98	52.3	35.1	95.1

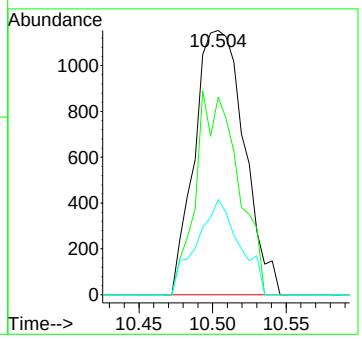


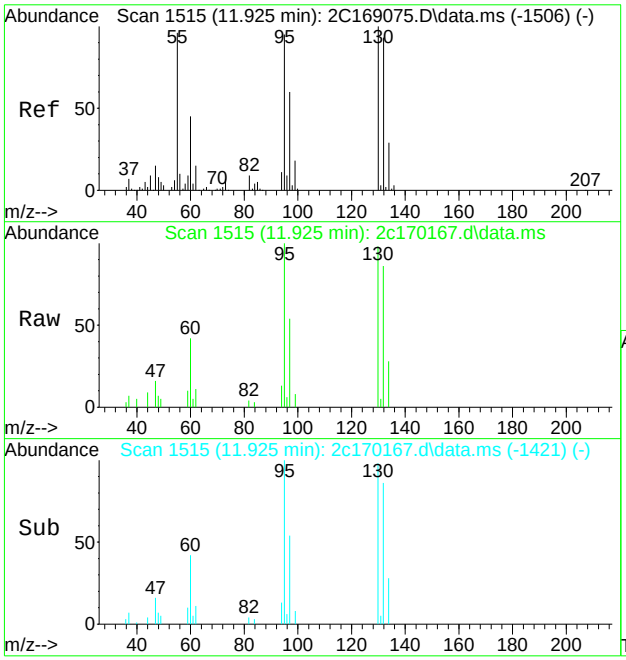


#42
chloroform
Concen: 0.74 ug/L
RT: 10.504 min Scan# 1244
Delta R.T. -0.010 min
Lab File: 2c170167.d
Acq: 18 Sep 2019 4:22 pm

Tgt Ion: 83 Resp: 2699

Ion	Ratio	Lower	Upper
83	100		
85	74.7	35.7	95.7
47	36.0	0.0	55.5

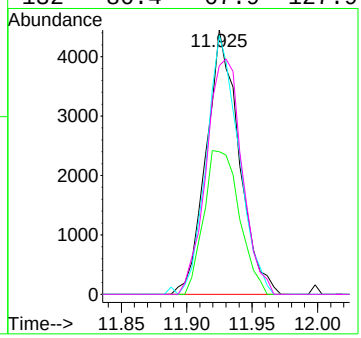


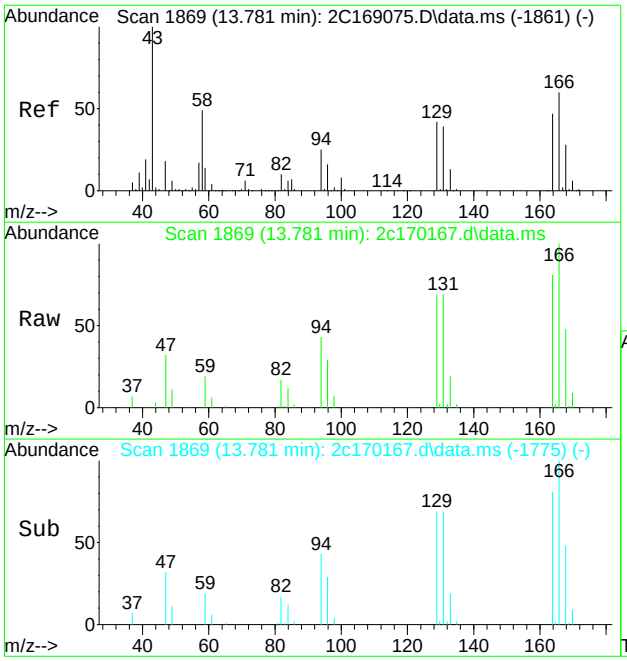


#62
trichloroethene
Concen: 4.16 ug/L
RT: 11.925 min Scan# 1515
Delta R.T. -0.005 min
Lab File: 2c170167.d
Acq: 18 Sep 2019 4:22 pm

Tgt Ion: 95 Resp: 7776

Ion	Ratio	Lower	Upper
95	100		
97	54.0	33.6	93.6
130	97.9	75.4	135.4
132	86.4	67.9	127.9

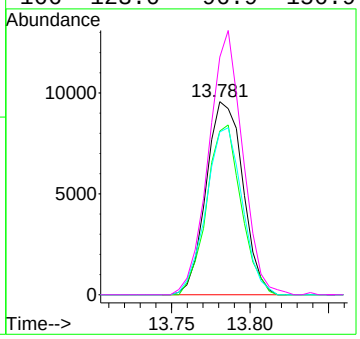




#81
tetrachloroethene
Concen: 8.85 ug/L
RT: 13.781 min Scan# 1869
Delta R.T. -0.005 min
Lab File: 2c170167.d
Acq: 18 Sep 2019 4:22 pm

Tgt Ion:164 Resp: 15575

Ion	Ratio	Lower	Upper
164	100		
129	84.7	58.2	118.2
131	84.3	52.0	112.0
166	123.0	96.9	156.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170168.d
Acq On : 18 Sep 2019 4:50 pm
Operator : edwardd
Sample : jc95050-8 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:41:26 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.213	65	186907	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	158955	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	243180	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	246996	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	168767	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	82784	51.74	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.48%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	99631	51.12	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.24%			
75) toluene-d8 (s)	13.188	98	275461	51.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.56%			
98) 4-bromofluorobenzene (s)	15.695	95	115661	48.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.64%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.437	96	7068	3.17	ug/L	96
20) acetone	7.437	58	3392	12.27	ug/L #	35
27) trans-1,2-dichloroethene	8.674	96	1229	0.57	ug/L	91
30) 1,1-dichloroethane	9.309	63	5374	1.55	ug/L	95
38) cis-1,2-dichloroethene	10.090	96	65296	29.45	ug/L	99
46) 1,1,1-trichloroethane	10.777	97	3699	1.02	ug/L	87
62) trichloroethene	11.925	95	48304	26.43	ug/L	97
81) tetrachloroethene	13.786	164	51551	29.92	ug/L	97

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

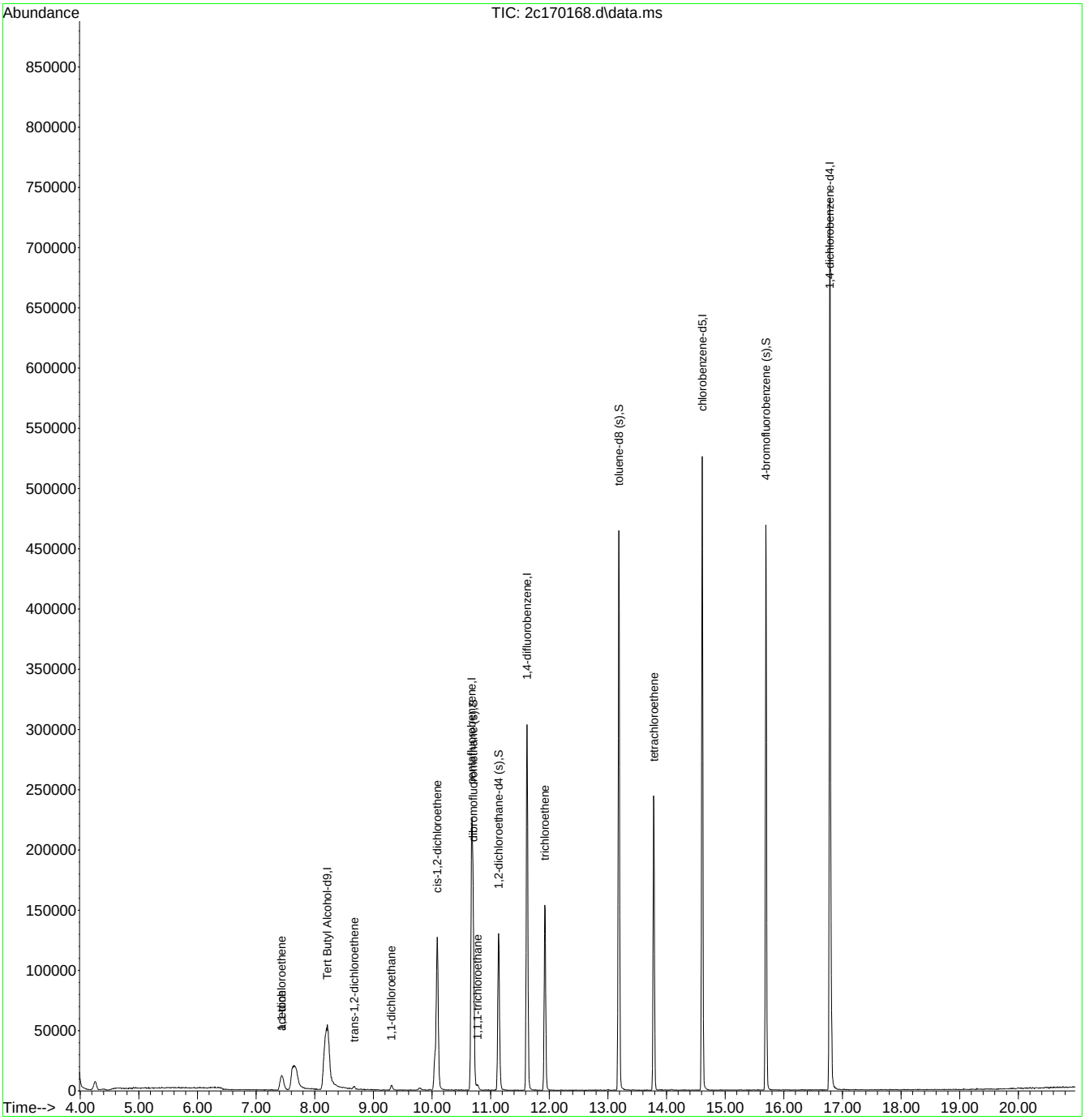
7.1.8

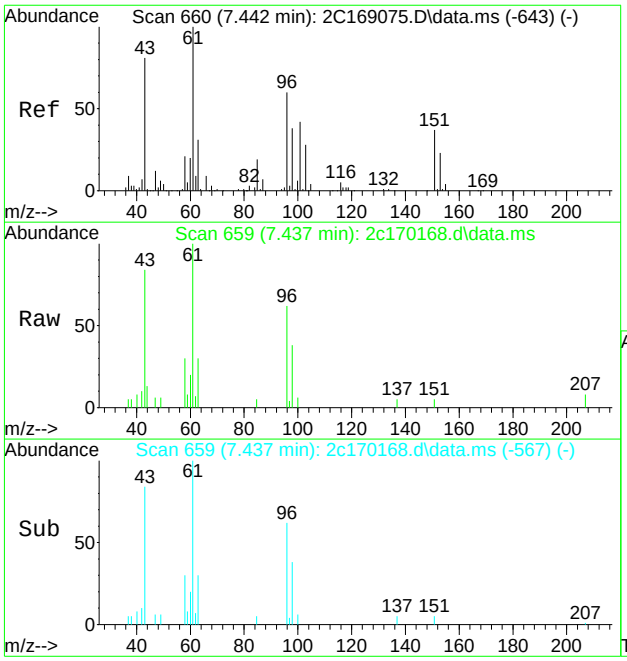
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170168.d
Acq On : 18 Sep 2019 4:50 pm
Operator : edwardd
Sample : jc95050-8 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:41:26 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

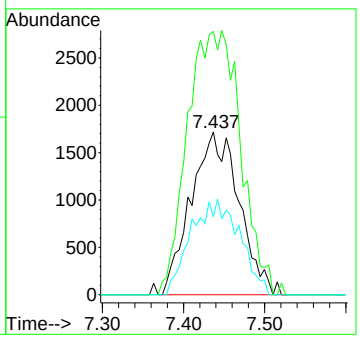


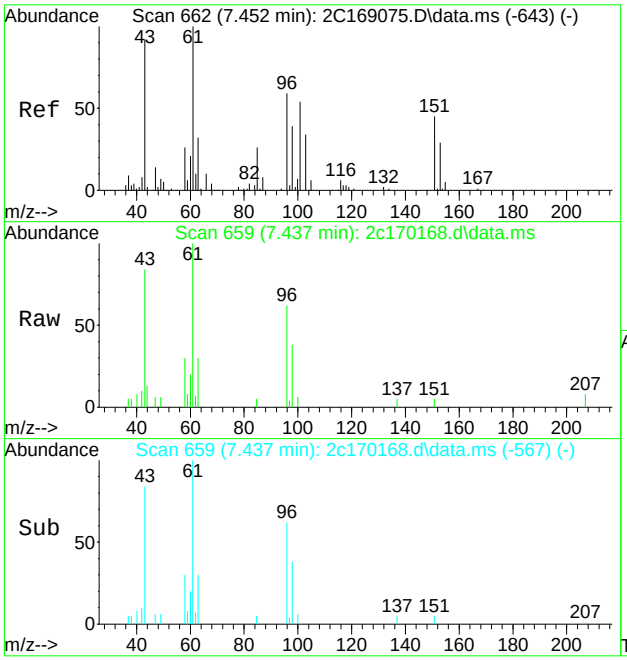


#19
1,1-dichloroethene
Concen: 3.17 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.016 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 96 Resp: 7068

Ion	Ratio	Lower	Upper
96	100		
61	161.8	136.5	196.5
63	47.9	21.3	81.3

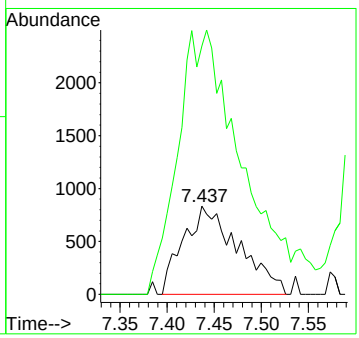


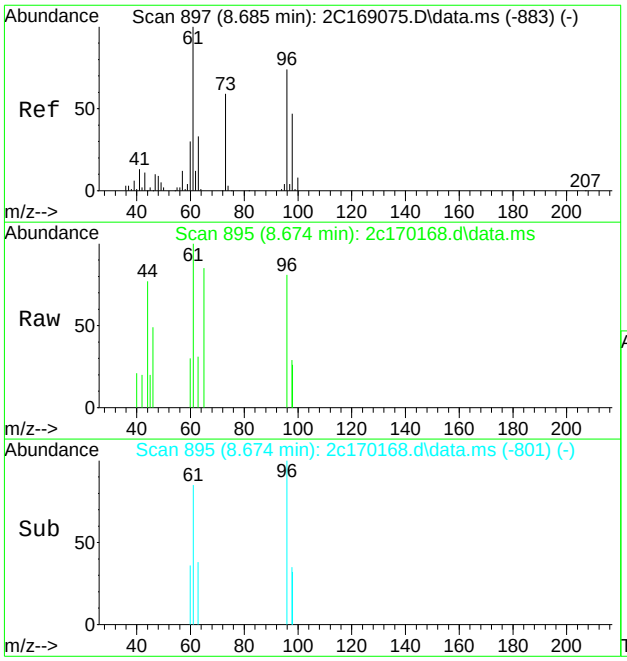


#20
acetone
Concen: 12.27 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.016 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 58 Resp: 3392

Ion	Ratio	Lower	Upper
58	100		
43	217.7	332.0	392.0#

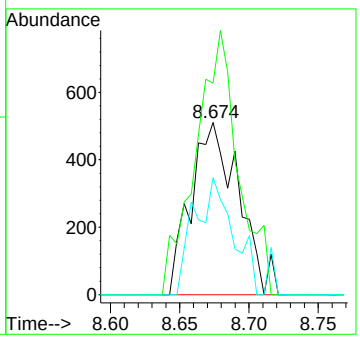


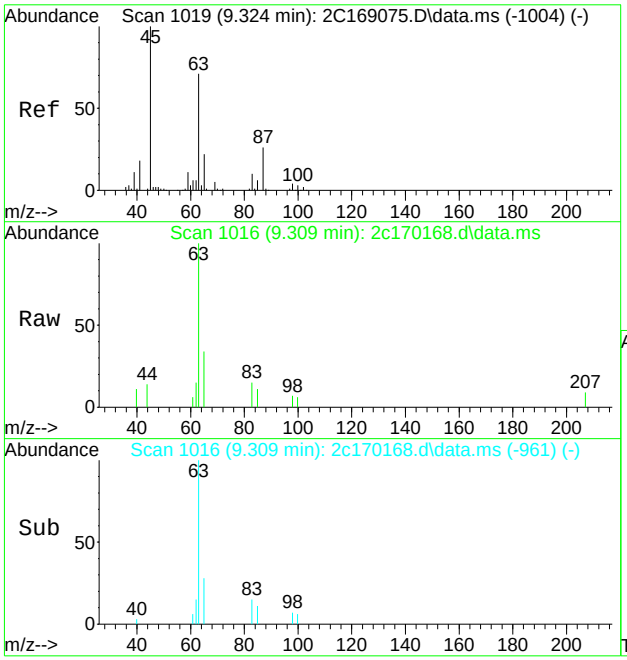


#27
trans-1,2-dichloroethene
Concen: 0.57 ug/L
RT: 8.674 min Scan# 895
Delta R.T. -0.005 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 96 Resp: 1229

Ion	Ratio	Lower	Upper
96	100		
61	122.7	105.5	165.5
98	67.9	33.2	93.2

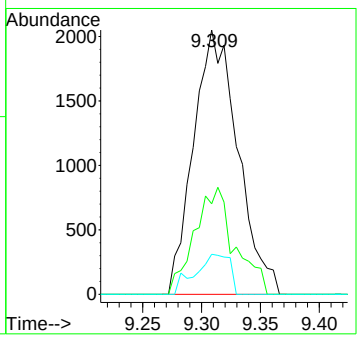


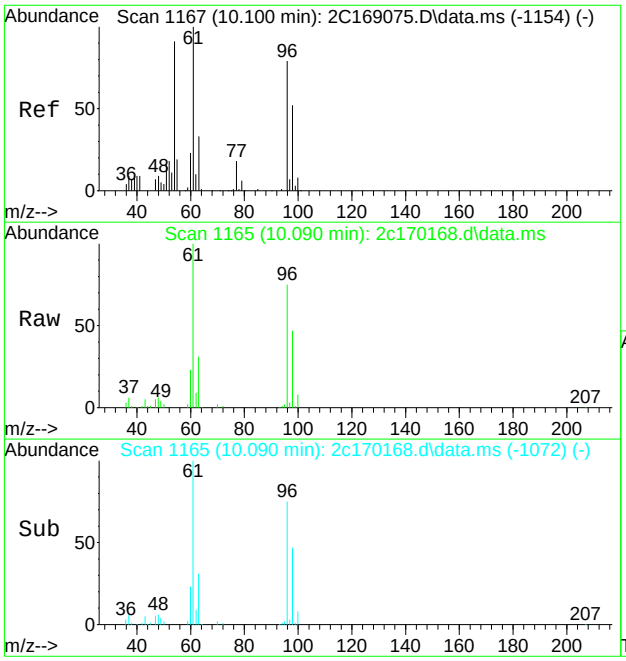


#30
1,1-dichloroethane
Concen: 1.55 ug/L
RT: 9.309 min Scan# 1016
Delta R.T. -0.010 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 63 Resp: 5374

Ion	Ratio	Lower	Upper
63	100		
65	34.2	0.8	60.8
83	15.1	0.0	44.1

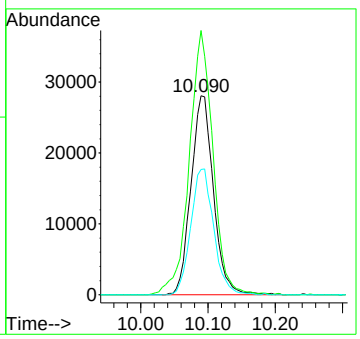


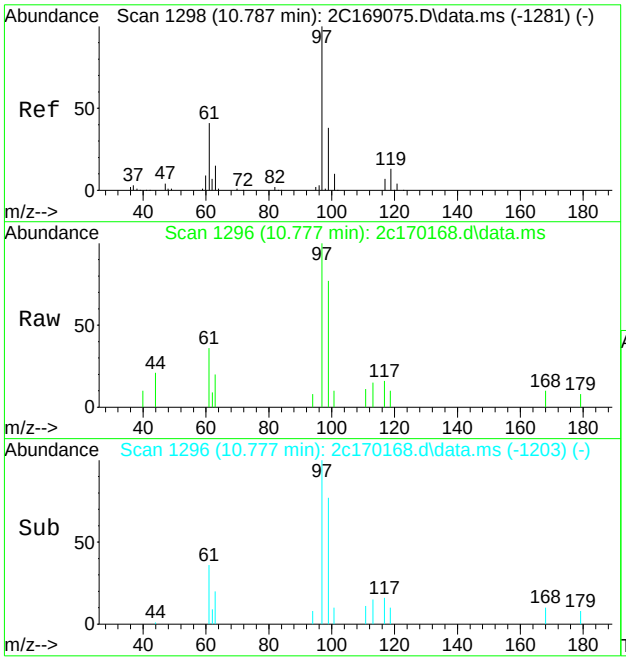


#38
cis-1,2-dichloroethene
Concen: 29.45 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 96 Resp: 65296

Ion	Ratio	Lower	Upper
96	100		
61	132.9	102.1	162.1
98	62.9	35.1	95.1

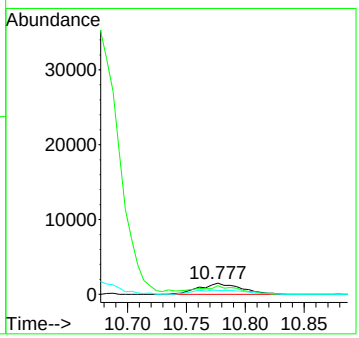


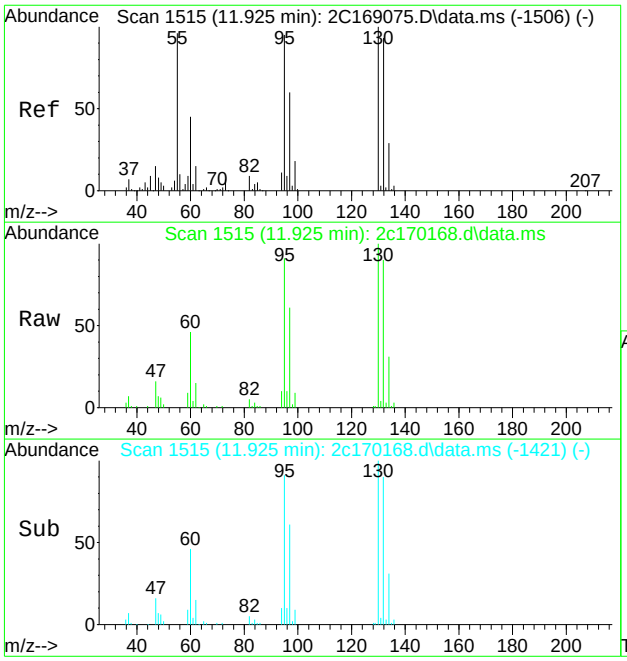


#46
1,1,1-trichloroethane
Concen: 1.02 ug/L
RT: 10.777 min Scan# 1296
Delta R.T. -0.010 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 97 Resp: 3699

Ion	Ratio	Lower	Upper
97	100		
99	77.0	35.7	95.7
61	35.6	12.4	72.4

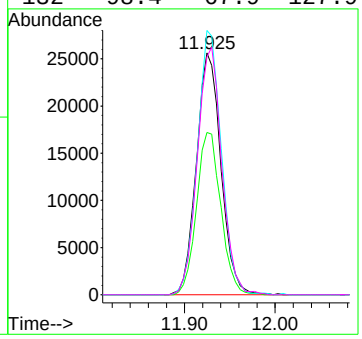


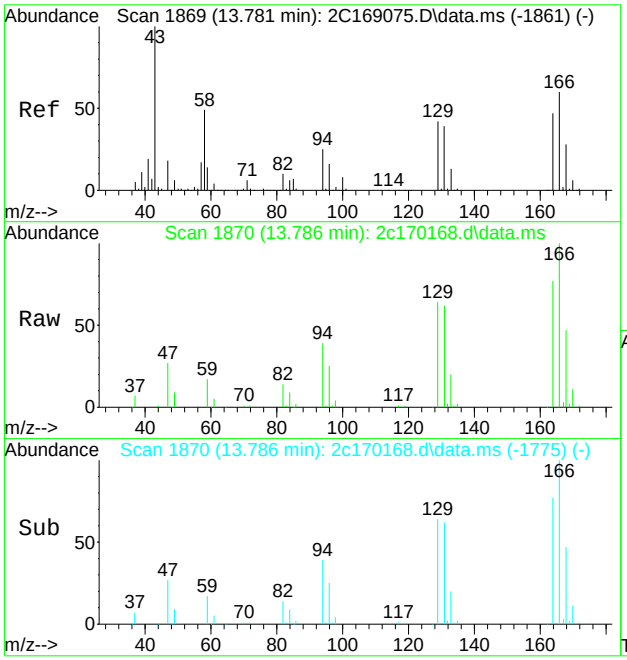


#62
trichloroethene
Concen: 26.43 ug/L
RT: 11.925 min Scan# 1515
Delta R.T. -0.005 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion: 95 Resp: 48304

Ion	Ratio	Lower	Upper
95	100		
97	67.1	33.6	93.6
130	109.3	75.4	135.4
132	98.4	67.9	127.9

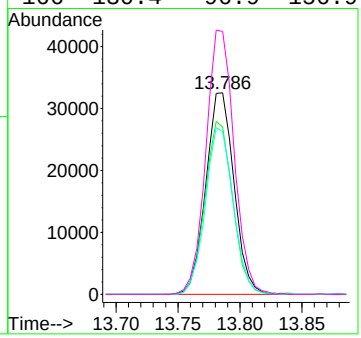




#81
tetrachloroethene
Concen: 29.92 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170168.d
Acq: 18 Sep 2019 4:50 pm

Tgt Ion:164 Resp: 51551

Ion	Ratio	Lower	Upper
164	100		
129	83.0	58.2	118.2
131	80.7	52.0	112.0
166	130.4	96.9	156.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170169.d
Acq On : 18 Sep 2019 5:18 pm
Operator : edwardd
Sample : jc95050-9 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:42:12 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

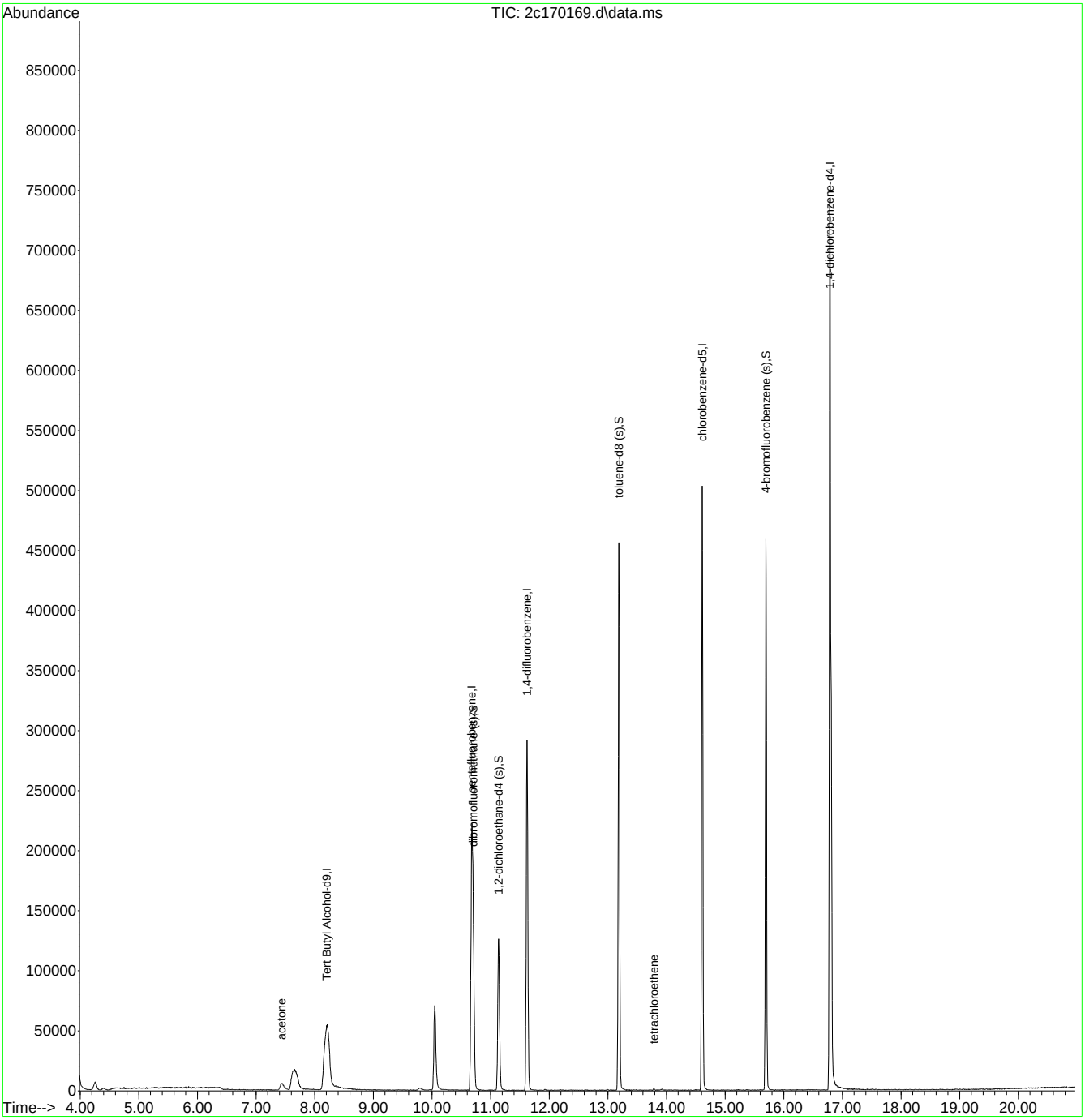
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.202	65	184897	500.00	ug/L	-0.04
5) pentafluorobenzene	10.677	168	152237	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	236287	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	242251	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	165750	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	80422	52.48	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.96%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	96605	51.01	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.02%			
75) toluene-d8 (s)	13.188	98	266654	51.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.20%			
98) 4-bromofluorobenzene (s)	15.694	95	113279	48.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.38%			
Target Compounds						Qvalue
20) acetone	7.431	58	4944	18.67	ug/L	# 58
81) tetrachloroethene	13.786	164	380	0.22	ug/L	# 81

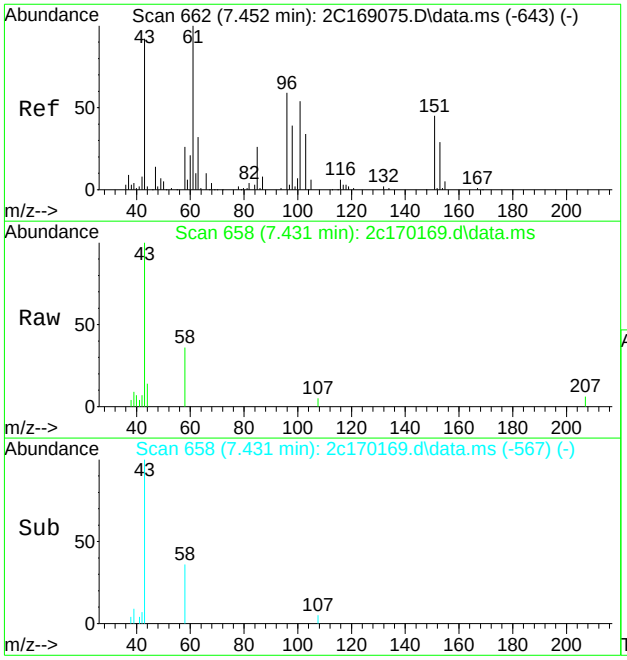
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170169.d
Acq On : 18 Sep 2019 5:18 pm
Operator : edwardd
Sample : jc95050-9 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:42:12 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

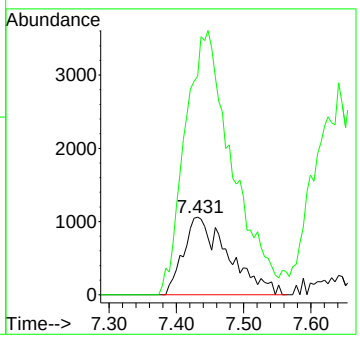


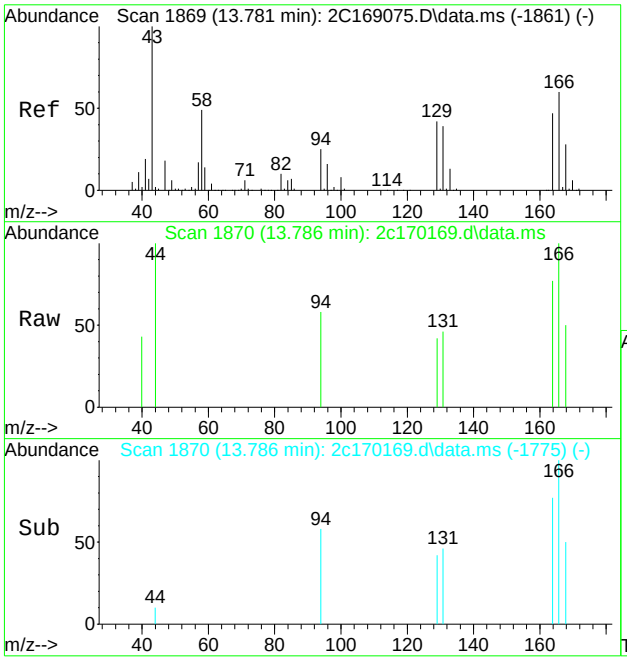


#20
acetone
Concen: 18.67 ug/L
RT: 7.431 min Scan# 658
Delta R.T. -0.021 min
Lab File: 2c170169.d
Acq: 18 Sep 2019 5:18 pm

Tgt Ion: 58 Resp: 4944

Ion	Ratio	Lower	Upper
58	100		
43	269.5	332.0	392.0#

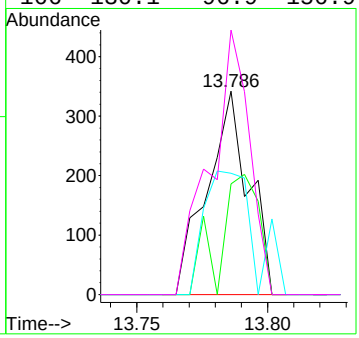




#81
tetrachloroethene
Concen: 0.22 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170169.d
Acq: 18 Sep 2019 5:18 pm

Tgt Ion:164 Resp: 380

Ion	Ratio	Lower	Upper
164	100		
129	54.4	58.2	118.2#
131	59.6	52.0	112.0
166	130.1	96.9	156.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170170.d
Acq On : 18 Sep 2019 5:47 pm
Operator : edwardd
Sample : jc95050-10 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:43:13 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

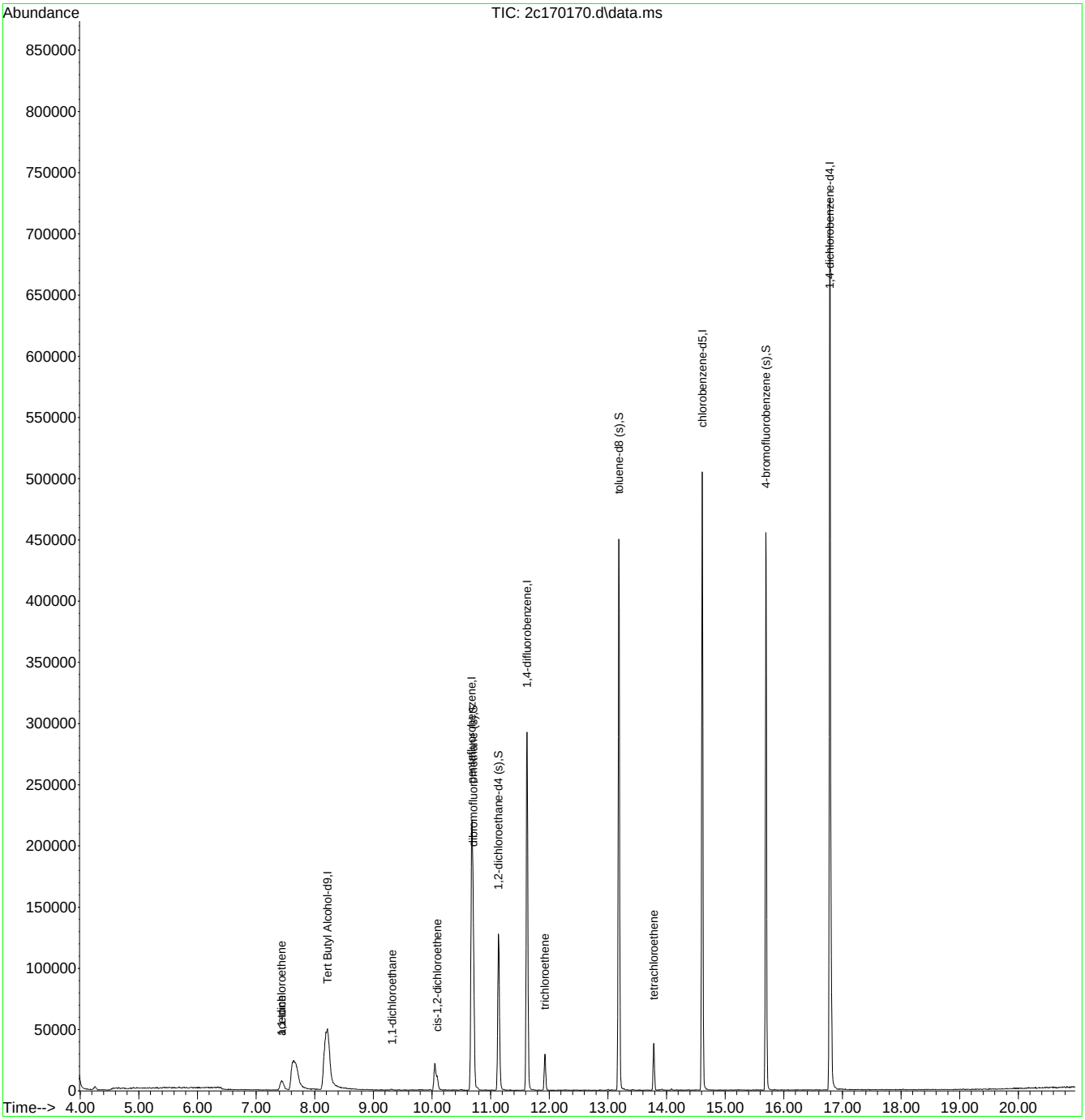
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.218	65	182338	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	151616	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	238132	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	243067	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	162790	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	81576	53.45	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.90%			
52) 1,2-dichloroethane-d4 (s)	11.133	65	97713	51.20	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.40%			
75) toluene-d8 (s)	13.188	98	268609	51.31	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.62%			
98) 4-bromofluorobenzene (s)	15.695	95	111560	48.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.64%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.437	96	3426	1.61	ug/L #	80
20) acetone	7.437	58	2956	11.21	ug/L #	68
30) 1,1-dichloroethane	9.319	63	1229	0.37	ug/L	82
38) cis-1,2-dichloroethene	10.090	96	4325	2.05	ug/L	95
62) trichloroethene	11.925	95	9122	5.10	ug/L	97
81) tetrachloroethene	13.781	164	8089	4.77	ug/L	94

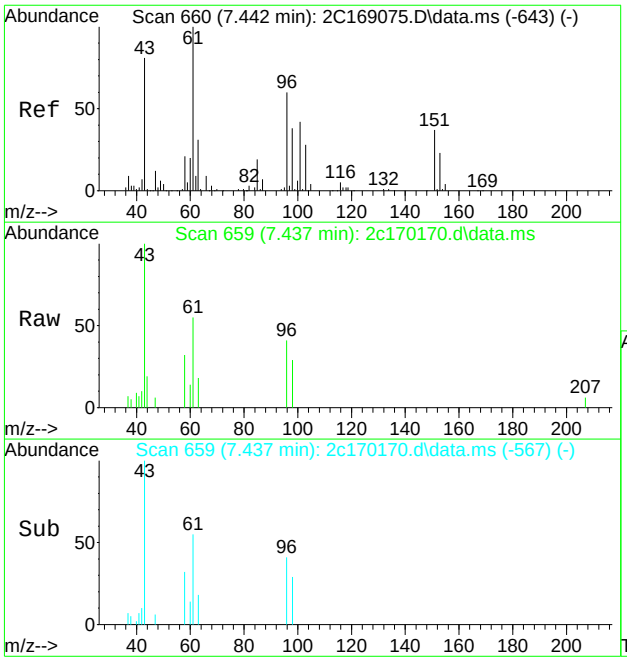
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170170.d
Acq On : 18 Sep 2019 5:47 pm
Operator : edwardd
Sample : jc95050-10 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:43:13 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

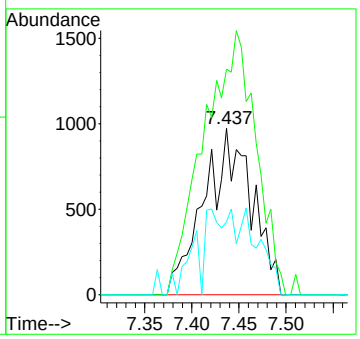


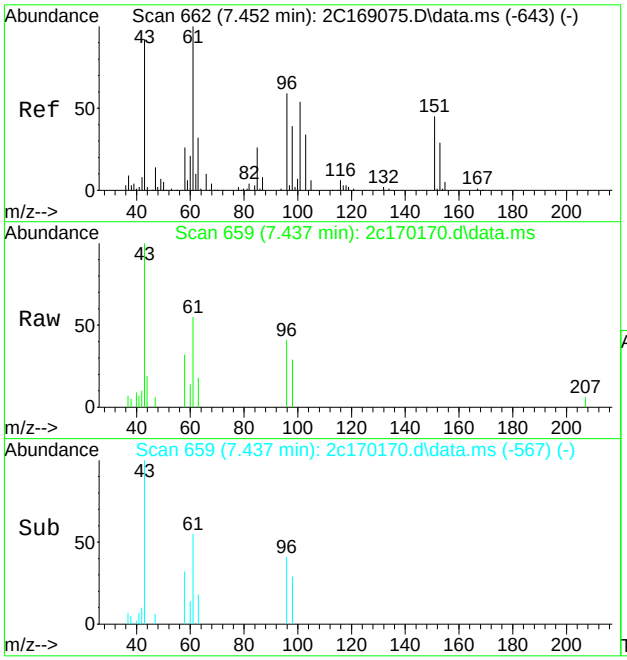


#19
1,1-dichloroethene
Concen: 1.61 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.016 min
Lab File: 2c170170.d
Acq: 18 Sep 2019 5:47 pm

Tgt Ion: 96 Resp: 3426

Ion	Ratio	Lower	Upper
96	100		
61	135.5	136.5	196.5#
63	43.8	21.3	81.3

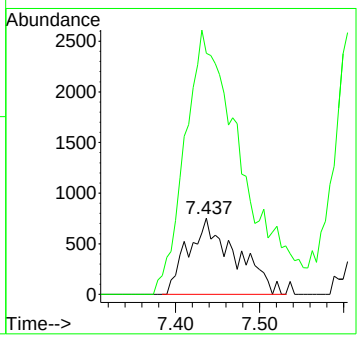


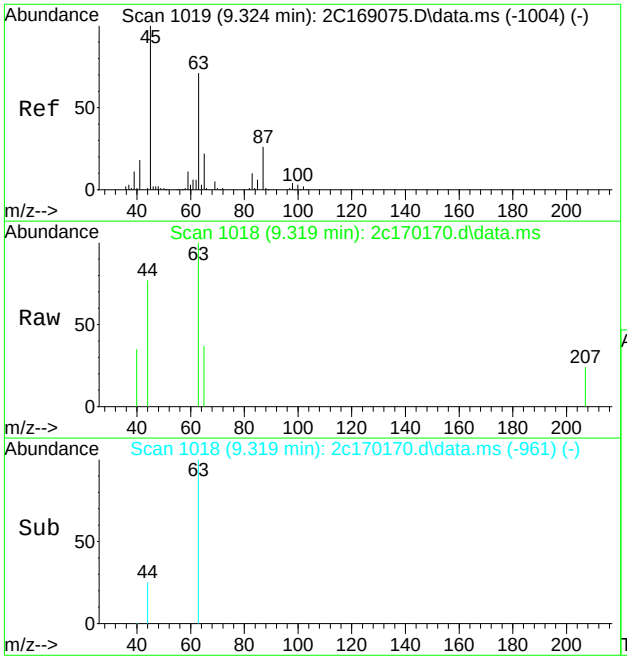


#20
acetone
Concen: 11.21 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.016 min
Lab File: 2c170170.d
Acq: 18 Sep 2019 5:47 pm

Tgt Ion: 58 Resp: 2956

Ion	Ratio	Lower	Upper
58	100		
43	290.6	332.0	392.0#

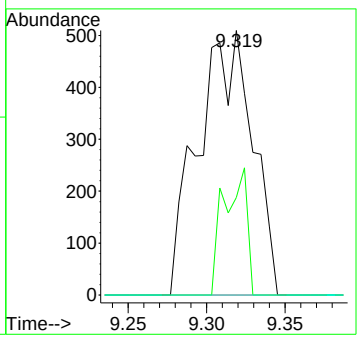


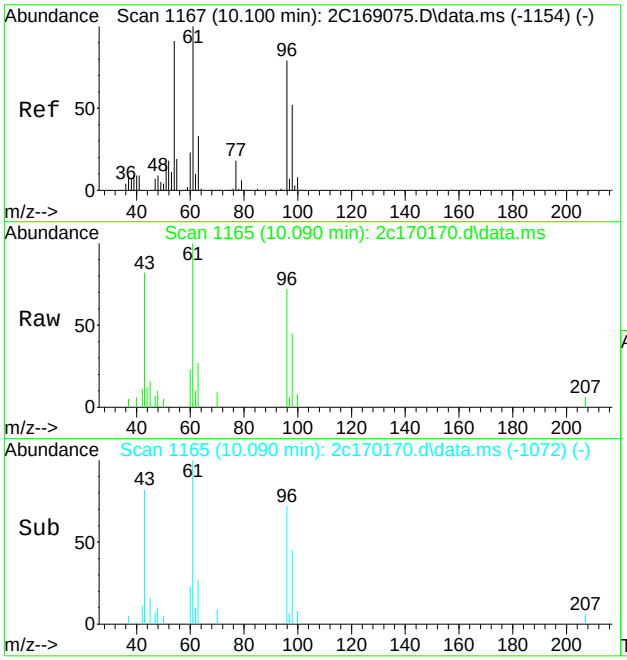


#30
1,1-dichloroethane
Concen: 0.37 ug/L
RT: 9.319 min Scan# 1018
Delta R.T. 0.000 min
Lab File: 2c170170.d
Acq: 18 Sep 2019 5:47 pm

Tgt Ion: 63 Resp: 1229

Ion	Ratio	Lower	Upper
63	100		
65	36.9	0.8	60.8
83	0.0	0.0	44.1

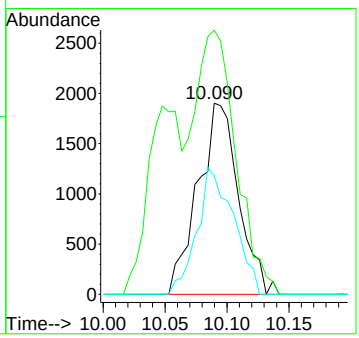


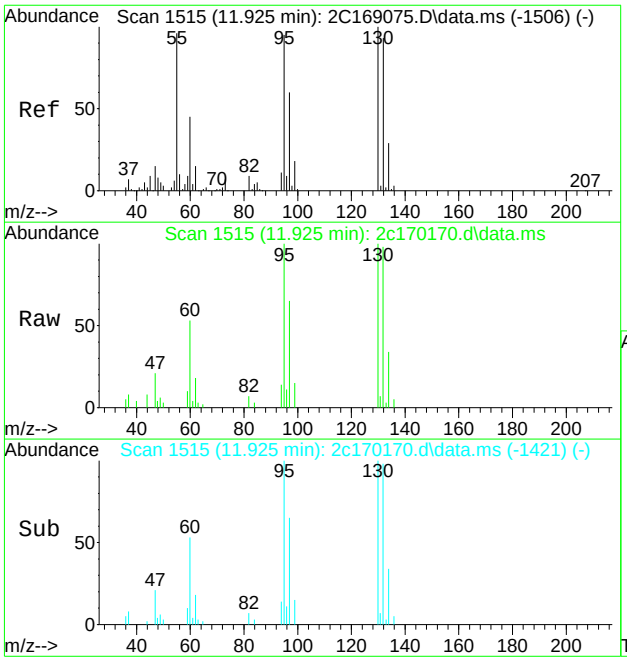


#38
cis-1,2-dichloroethene
Concen: 2.05 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170170.d
Acq: 18 Sep 2019 5:47 pm

Tgt Ion: 96 Resp: 4325

Ion	Ratio	Lower	Upper
96	100		
61	138.3	102.1	162.1
98	62.0	35.1	95.1

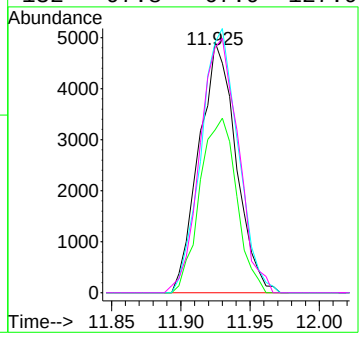


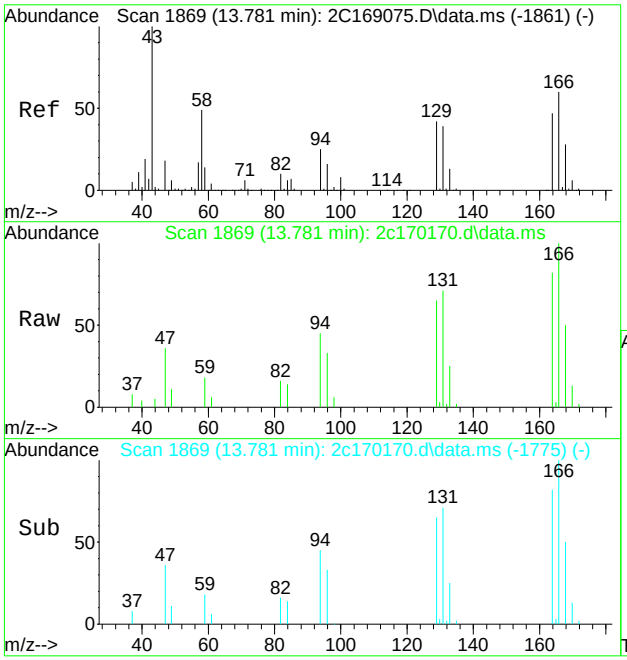


#62
trichloroethene
Concen: 5.10 ug/L
RT: 11.925 min Scan# 1515
Delta R.T. -0.005 min
Lab File: 2c170170.d
Acq: 18 Sep 2019 5:47 pm

Tgt Ion: 95 Resp: 9122

Ion	Ratio	Lower	Upper
95	100		
97	64.9	33.6	93.6
130	99.7	75.4	135.4
132	97.8	67.9	127.9

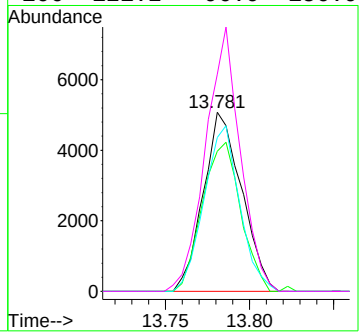




#81
tetrachloroethene
Concen: 4.77 ug/L
RT: 13.781 min Scan# 1869
Delta R.T. -0.005 min
Lab File: 2c170170.d
Acq: 18 Sep 2019 5:47 pm

Tgt Ion:164 Resp: 8089

Ion	Ratio	Lower	Upper
164	100		
129	78.2	58.2	118.2
131	85.9	52.0	112.0
166	121.2	96.9	156.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170171.d
Acq On : 18 Sep 2019 6:15 pm
Operator : edwardd
Sample : jc95050-11 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:44:27 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

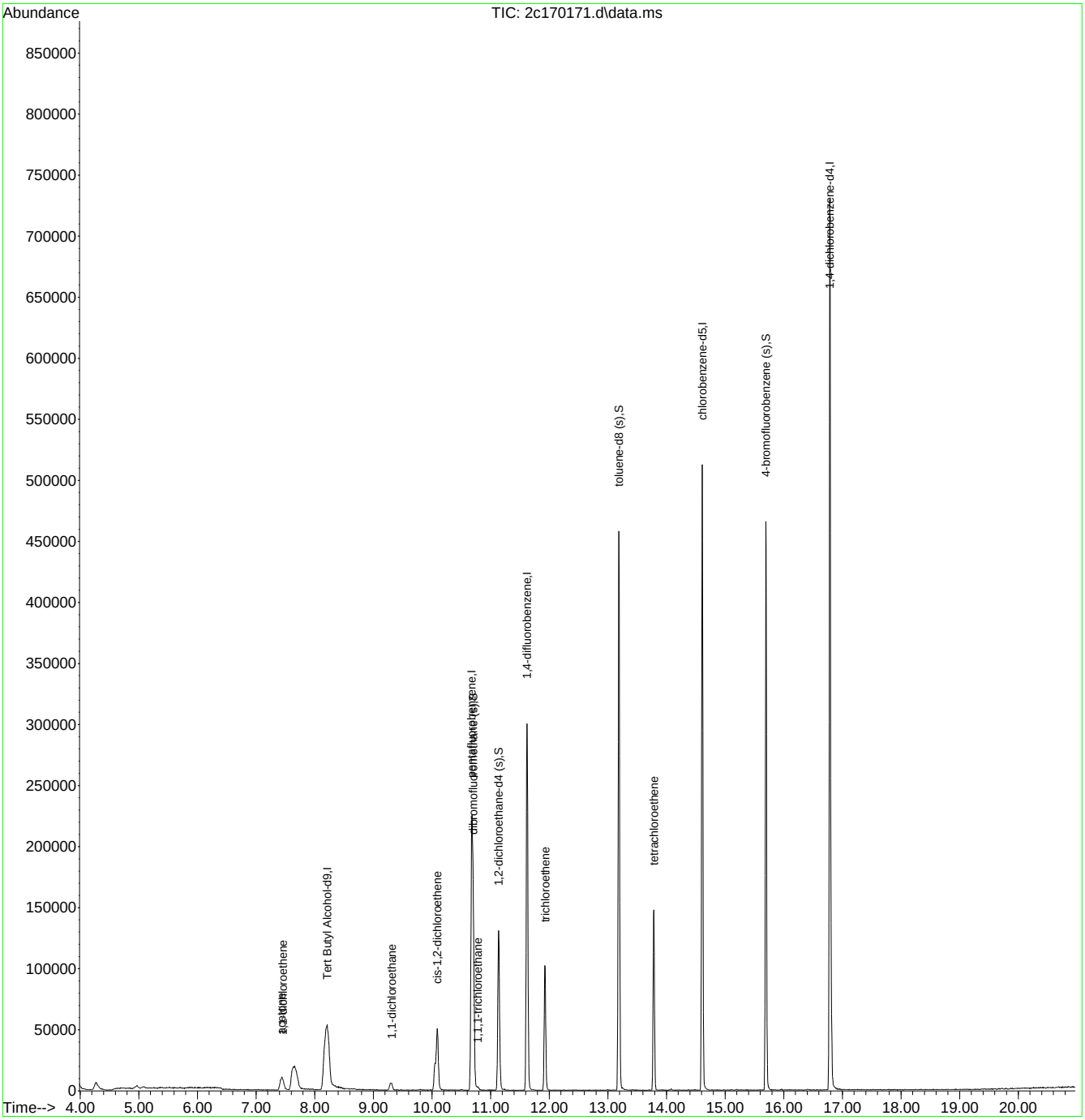
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.213	65	176901	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	155658	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	245143	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	244932	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	164616	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	82999	52.97	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.94%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	99340	50.56	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.12%			
75) toluene-d8 (s)	13.188	98	274860	52.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.20%			
98) 4-bromofluorobenzene (s)	15.694	95	113630	49.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.34%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.458	96	6275	2.88	ug/L	89
20) acetone	7.431	58	3203	11.83	ug/L #	49
30) 1,1-dichloroethane	9.314	63	5558	1.63	ug/L	97
38) cis-1,2-dichloroethene	10.090	96	25140	11.58	ug/L	97
46) 1,1,1-trichloroethane	10.782	97	2048	0.58	ug/L	76
62) trichloroethene	11.930	95	33021	17.92	ug/L	97
81) tetrachloroethene	13.786	164	31746	18.58	ug/L	96

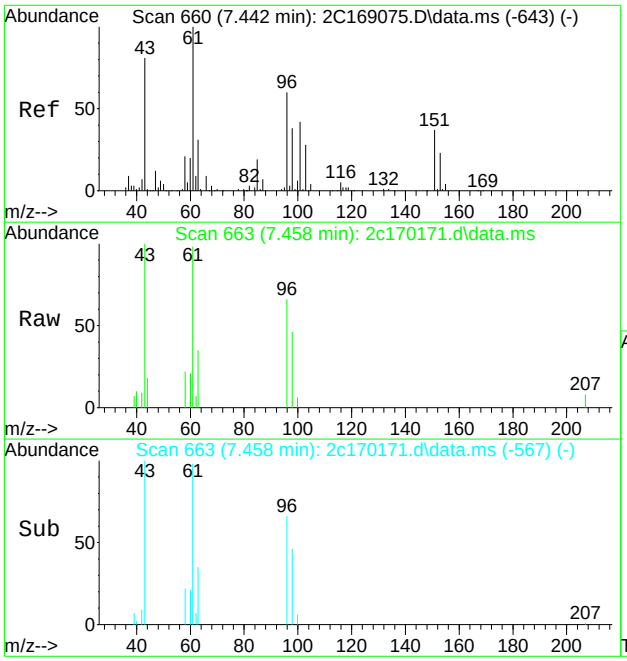
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170171.d
Acq On : 18 Sep 2019 6:15 pm
Operator : edwardd
Sample : jc95050-11 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:44:27 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

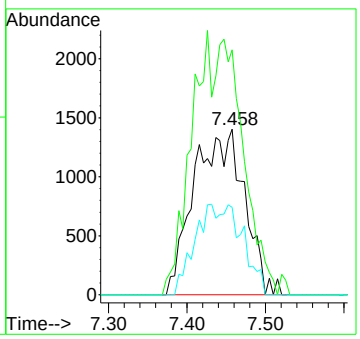


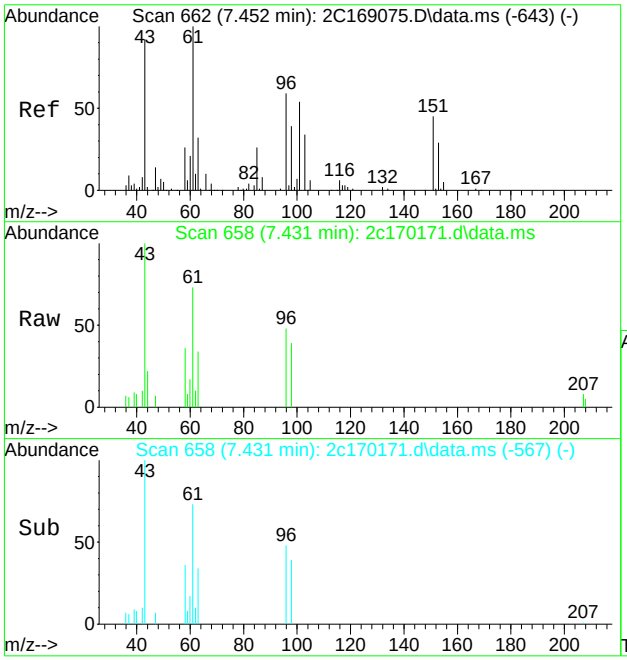


#19
1,1-dichloroethene
Concen: 2.88 ug/L
RT: 7.458 min Scan# 663
Delta R.T. 0.005 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion: 96 Resp: 6275

Ion	Ratio	Lower	Upper
96	100		
61	147.8	136.5	196.5
63	52.7	21.3	81.3

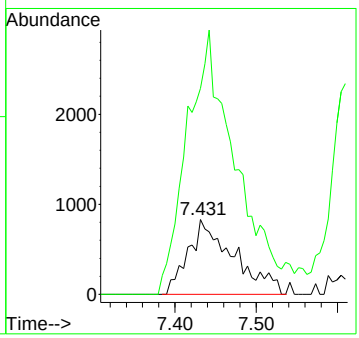


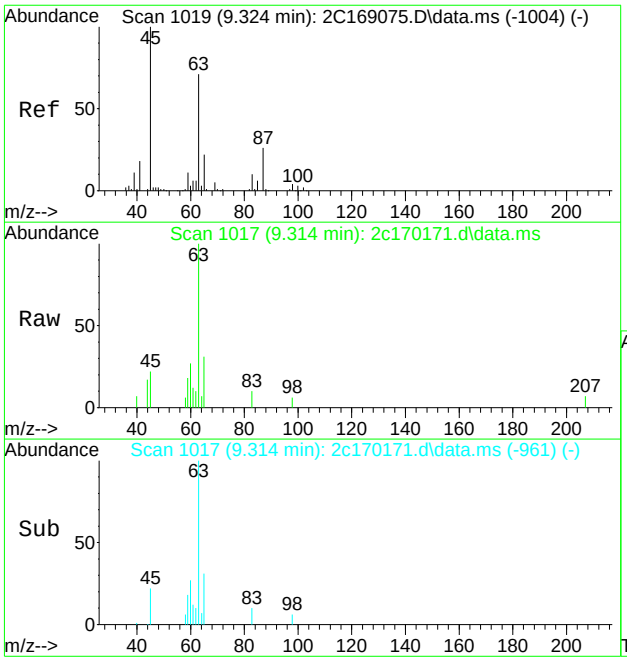


#20
acetone
Concen: 11.83 ug/L
RT: 7.431 min Scan# 658
Delta R.T. -0.021 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion: 58 Resp: 3203

Ion	Ratio	Lower	Upper
58	100		
43	249.6	332.0	392.0#

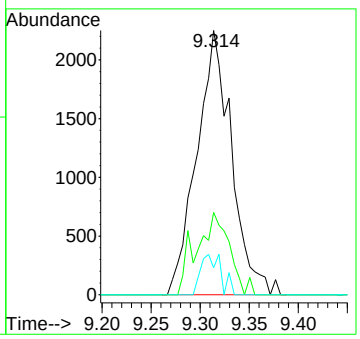


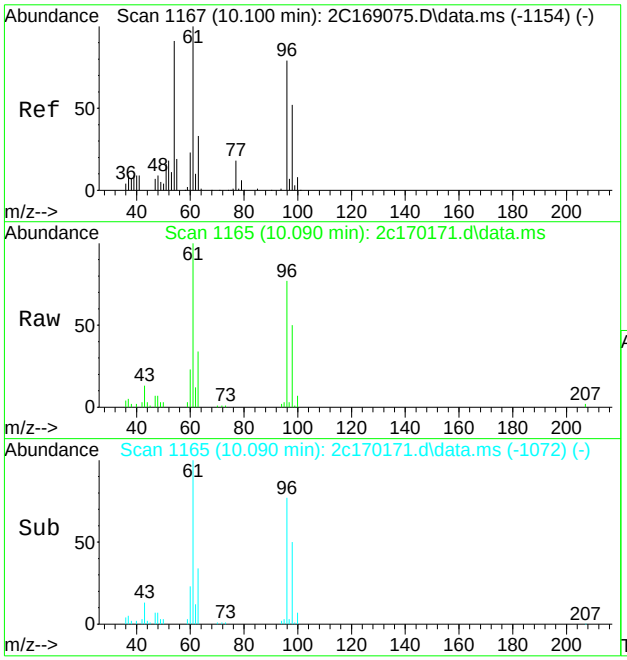


#30
1,1-dichloroethane
Concen: 1.63 ug/L
RT: 9.314 min Scan# 1017
Delta R.T. -0.005 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion: 63 Resp: 5558

Ion	Ratio	Lower	Upper
63	100		
65	31.2	0.8	60.8
83	10.2	0.0	44.1

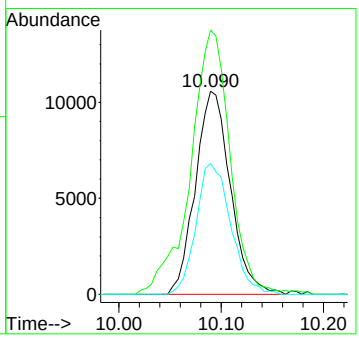


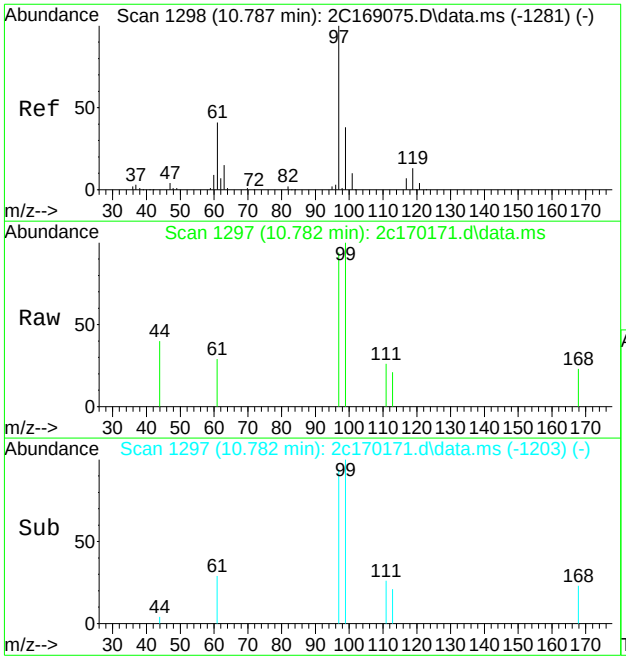


#38
cis-1,2-dichloroethene
Concen: 11.58 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion: 96 Resp: 25140

Ion	Ratio	Lower	Upper
96	100		
61	128.2	102.1	162.1
98	64.5	35.1	95.1

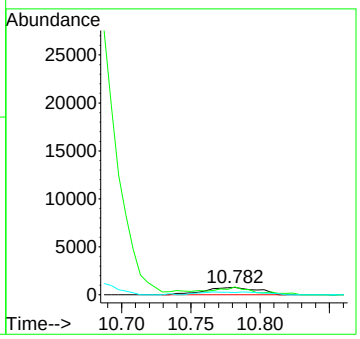


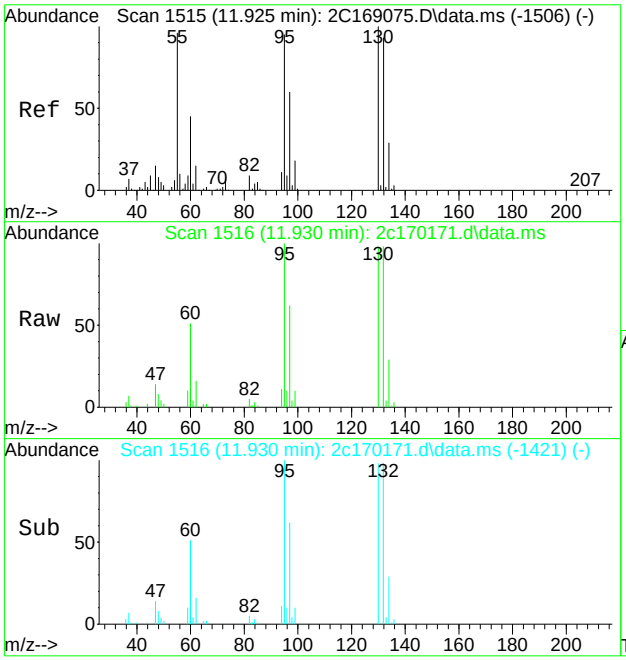


#46
1,1,1-trichloroethane
Concen: 0.58 ug/L
RT: 10.782 min Scan# 1297
Delta R.T. -0.005 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion: 97 Resp: 2048

Ion	Ratio	Lower	Upper
97	100		
99	87.7	35.7	95.7
61	31.0	12.4	72.4

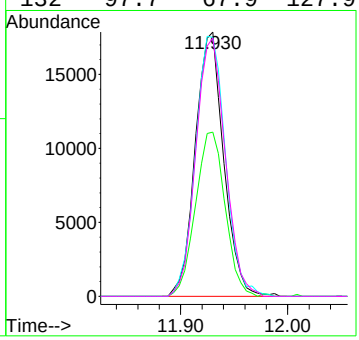


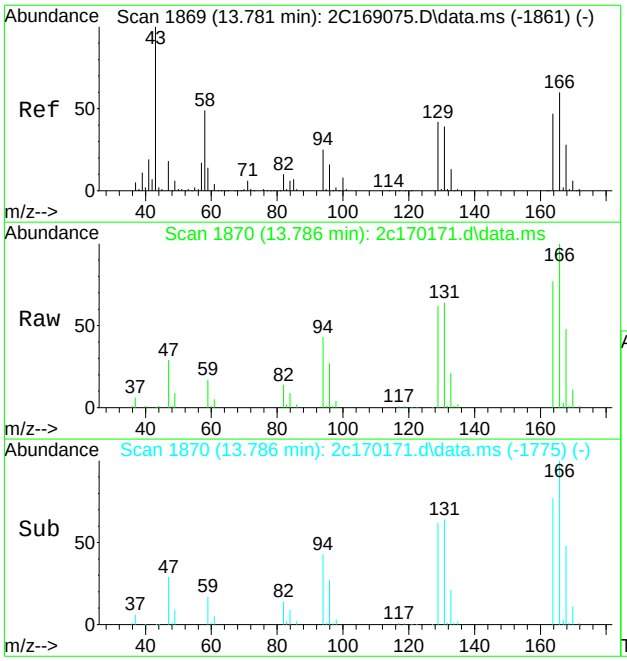


#62
trichloroethene
Concen: 17.92 ug/L
RT: 11.930 min Scan# 1516
Delta R.T. 0.000 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion: 95 Resp: 33021

Ion	Ratio	Lower	Upper
95	100		
97	62.1	33.6	93.6
130	97.9	75.4	135.4
132	97.7	67.9	127.9

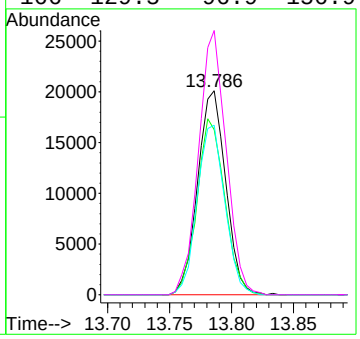




#81
tetrachloroethene
Concen: 18.58 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170171.d
Acq: 18 Sep 2019 6:15 pm

Tgt Ion:164 Resp: 31746

Ion	Ratio	Lower	Upper
164	100		
129	80.8	58.2	118.2
131	83.1	52.0	112.0
166	129.5	96.9	156.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170172.d
Acq On : 18 Sep 2019 6:44 pm
Operator : edwardd
Sample : jc95050-12 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:45:19 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

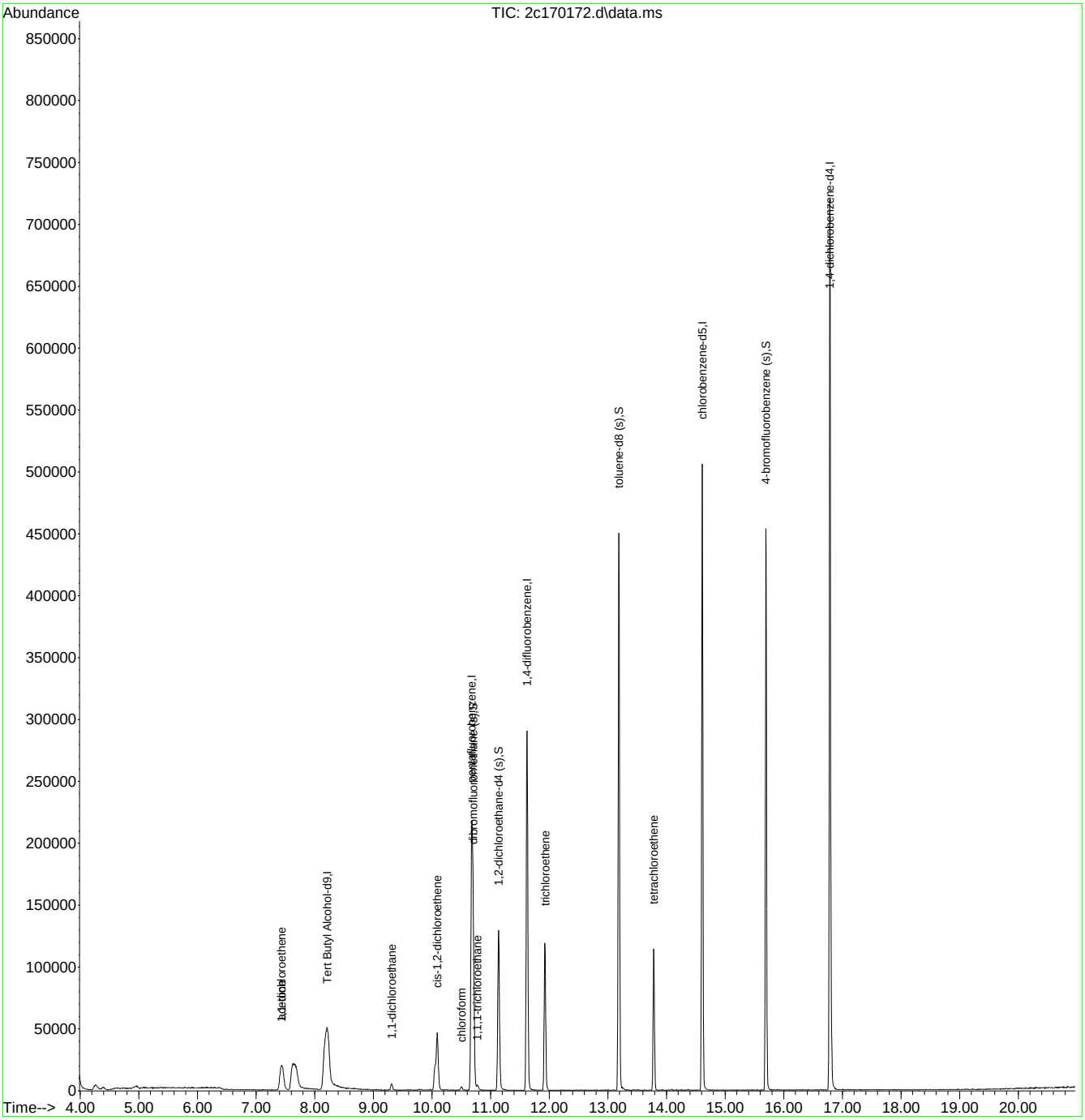
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.213	65	176118	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	150579	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	235679	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	239605	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	162988	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	80794	53.30	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.60%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	96109	50.88	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.76%			
75) toluene-d8 (s)	13.188	98	267987	51.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.86%			
98) 4-bromofluorobenzene (s)	15.695	95	112230	49.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.10%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.432	96	14879	7.05	ug/L	90
20) acetone	7.437	58	3310	12.64	ug/L #	70
30) 1,1-dichloroethane	9.314	63	6353	1.93	ug/L	97
38) cis-1,2-dichloroethene	10.090	96	22797	10.86	ug/L	97
42) chloroform	10.504	83	2579	0.76	ug/L	96
46) 1,1,1-trichloroethane	10.771	97	2904	0.85	ug/L	96
62) trichloroethene	11.930	95	37314	21.07	ug/L	98
81) tetrachloroethene	13.781	164	24121	14.43	ug/L	98

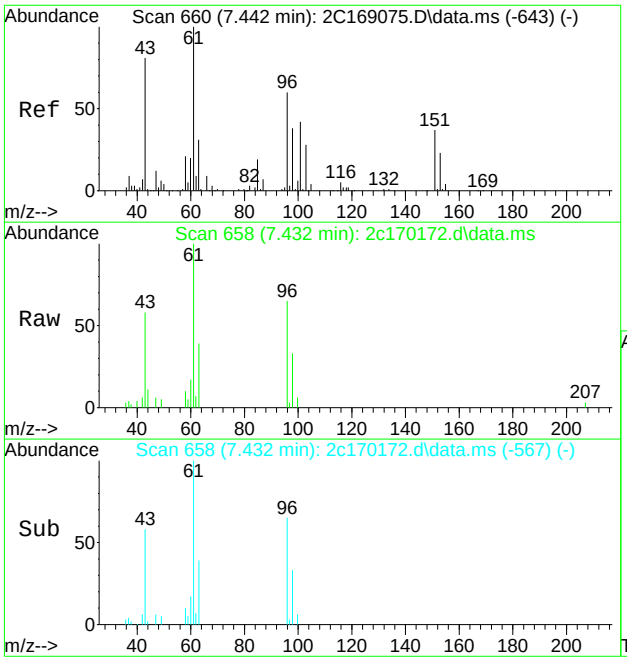
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170172.d
Acq On : 18 Sep 2019 6:44 pm
Operator : edwardd
Sample : jc95050-12 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:45:19 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

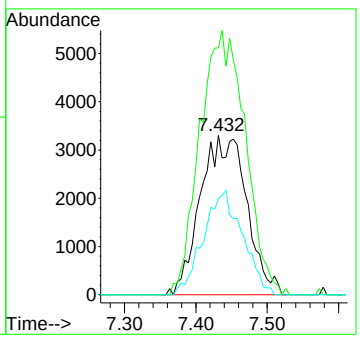


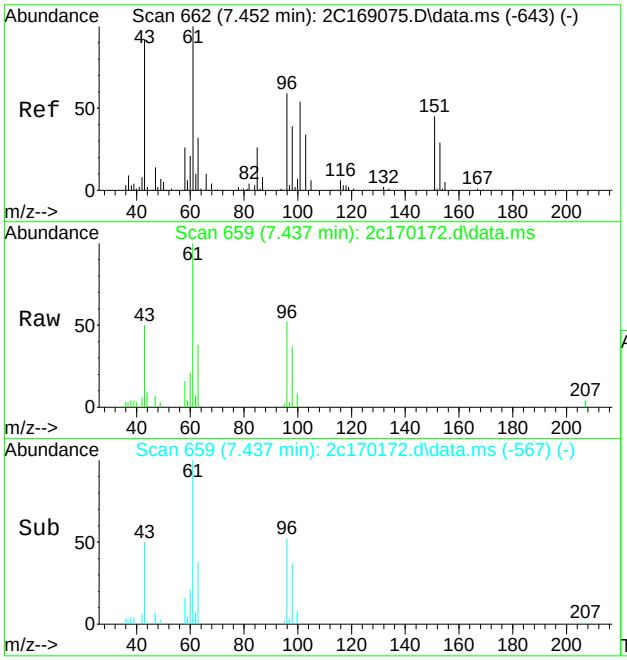


#19
1,1-dichloroethene
Concen: 7.05 ug/L
RT: 7.432 min Scan# 658
Delta R.T. -0.021 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 96 Resp: 14879

Ion	Ratio	Lower	Upper
96	100		
61	155.0	136.5	196.5
63	60.4	21.3	81.3

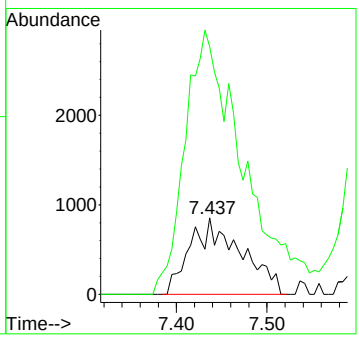


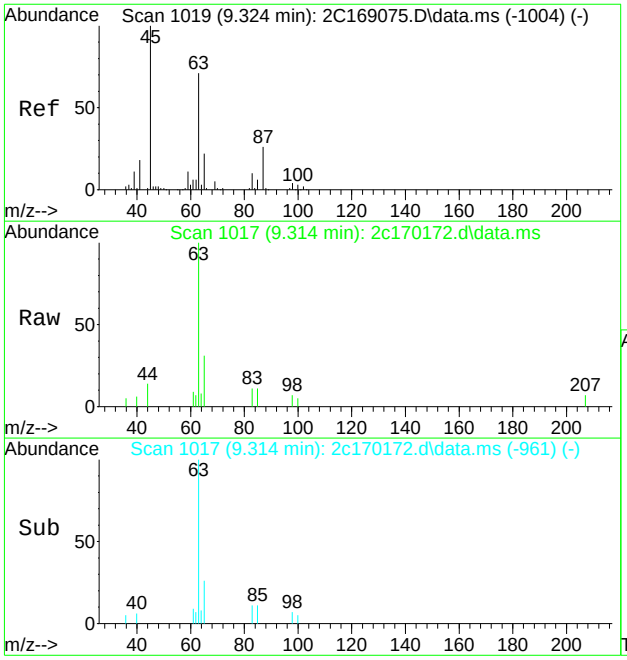


#20
acetone
Concen: 12.64 ug/L
RT: 7.437 min Scan# 659
Delta R.T. -0.015 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 58 Resp: 3310

Ion	Ratio	Lower	Upper
58	100		
43	294.7	332.0	392.0#

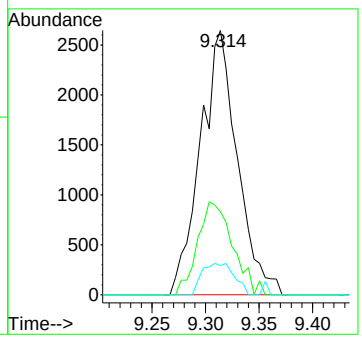


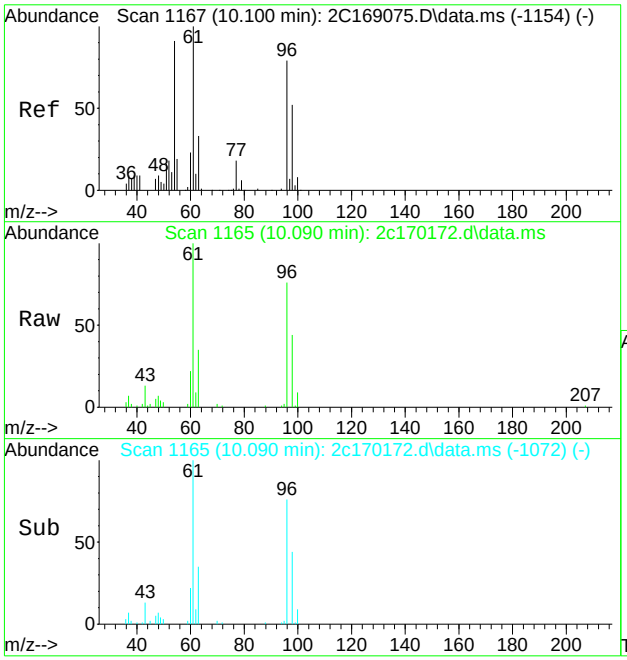


#30
1,1-dichloroethane
Concen: 1.93 ug/L
RT: 9.314 min Scan# 1017
Delta R.T. -0.005 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 63 Resp: 6353

Ion	Ratio	Lower	Upper
63	100		
65	31.4	0.8	60.8
83	11.0	0.0	44.1

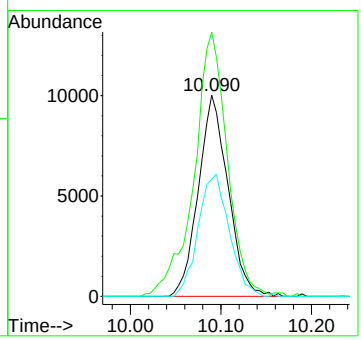


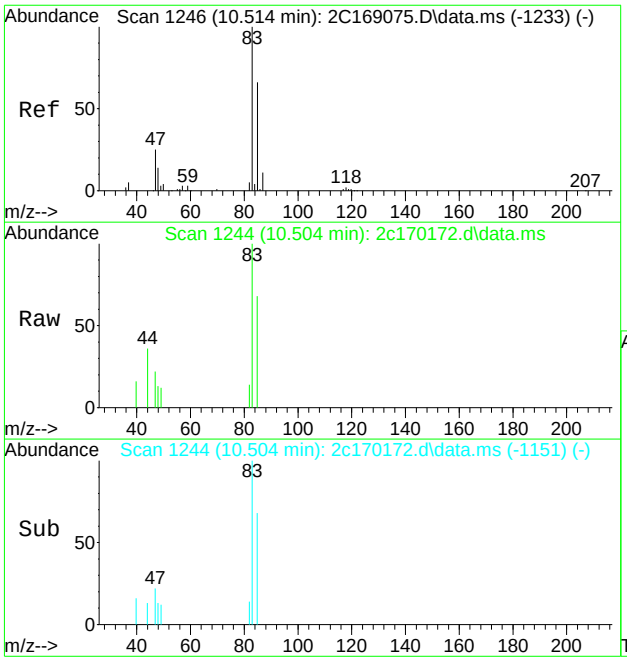


#38
cis-1,2-dichloroethene
Concen: 10.86 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 96 Resp: 22797

Ion	Ratio	Lower	Upper
96	100		
61	131.4	102.1	162.1
98	58.2	35.1	95.1

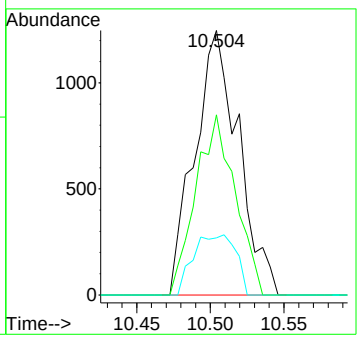


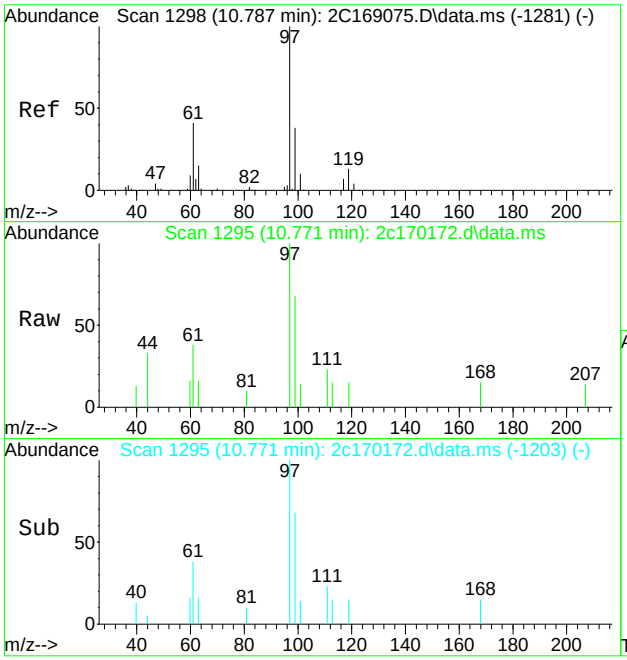


#42
chloroform
Concen: 0.76 ug/L
RT: 10.504 min Scan# 1244
Delta R.T. -0.010 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 83 Resp: 2579

Ion	Ratio	Lower	Upper
83	100		
85	68.1	35.7	95.7
47	21.6	0.0	55.5

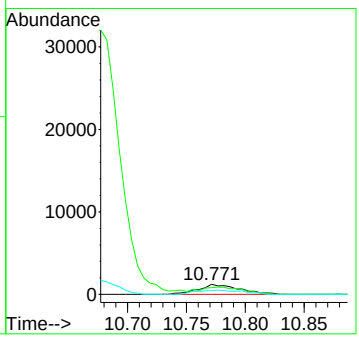


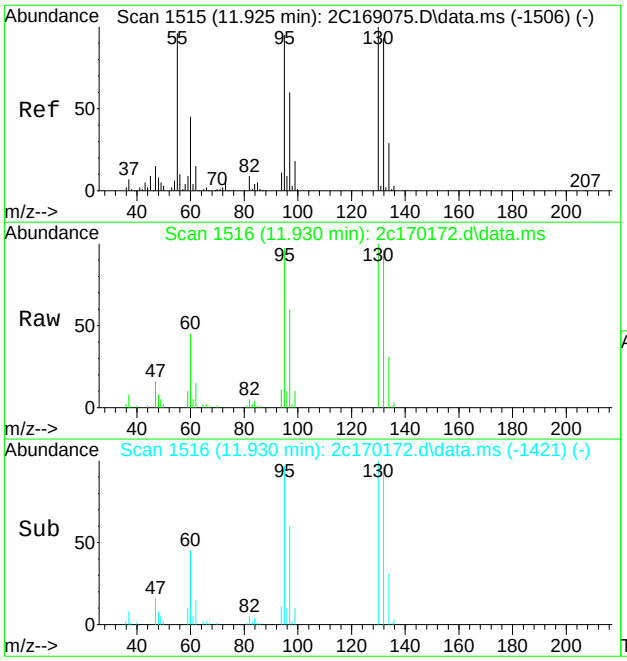


#46
1,1,1-trichloroethane
Concen: 0.85 ug/L
RT: 10.771 min Scan# 1295
Delta R.T. -0.015 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 97 Resp: 2904

Ion	Ratio	Lower	Upper
97	100		
99	67.7	35.7	95.7
61	37.6	12.4	72.4

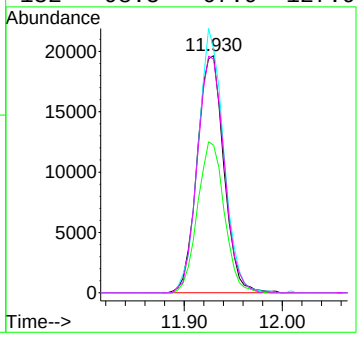


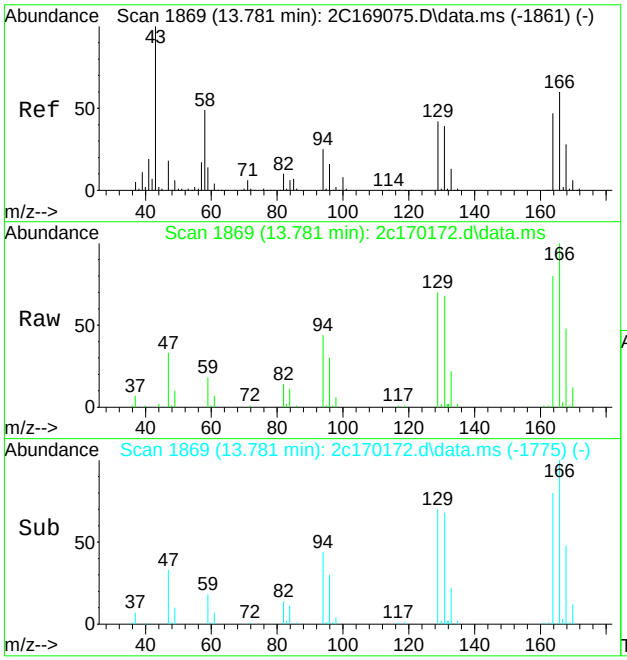


#62
trichloroethene
Concen: 21.07 ug/L
RT: 11.930 min Scan# 1516
Delta R.T. 0.000 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion: 95 Resp: 37314

Ion	Ratio	Lower	Upper
95	100		
97	62.2	33.6	93.6
130	102.9	75.4	135.4
132	98.5	67.9	127.9

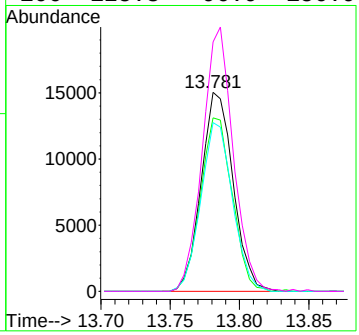




#81
tetrachloroethene
Concen: 14.43 ug/L
RT: 13.781 min Scan# 1869
Delta R.T. -0.005 min
Lab File: 2c170172.d
Acq: 18 Sep 2019 6:44 pm

Tgt Ion:164 Resp: 24121

Ion	Ratio	Lower	Upper
164	100		
129	87.1	58.2	118.2
131	84.8	52.0	112.0
166	125.3	96.9	156.9



Manual Integrations APPROVED (compounds with "m" flag)
MoHui Huang
09/19/19 11:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170173.d
Acq On : 18 Sep 2019 7:12 pm
Operator : edwardd
Sample : jc95050-13 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:47:27 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.208	65	173371	500.00	ug/L	-0.04
5) pentafluorobenzene	10.677	168	148942	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	235970	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	241911	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	161761	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	81344	54.26	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.52%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	96948	51.26	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.52%			
75) toluene-d8 (s)	13.188	98	266500	51.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.30%			
98) 4-bromofluorobenzene (s)	15.695	95	113869	50.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.432	96	1529	0.73	ug/L	# 55
20) acetone	7.426	58	2650m	10.23	ug/L	
38) cis-1,2-dichloroethene	10.090	96	2827	1.36	ug/L	83
42) chloroform	10.504	83	7732	2.30	ug/L	95
62) trichloroethene	11.925	95	10805	6.09	ug/L	96
81) tetrachloroethene	13.786	164	9545	5.66	ug/L	92

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

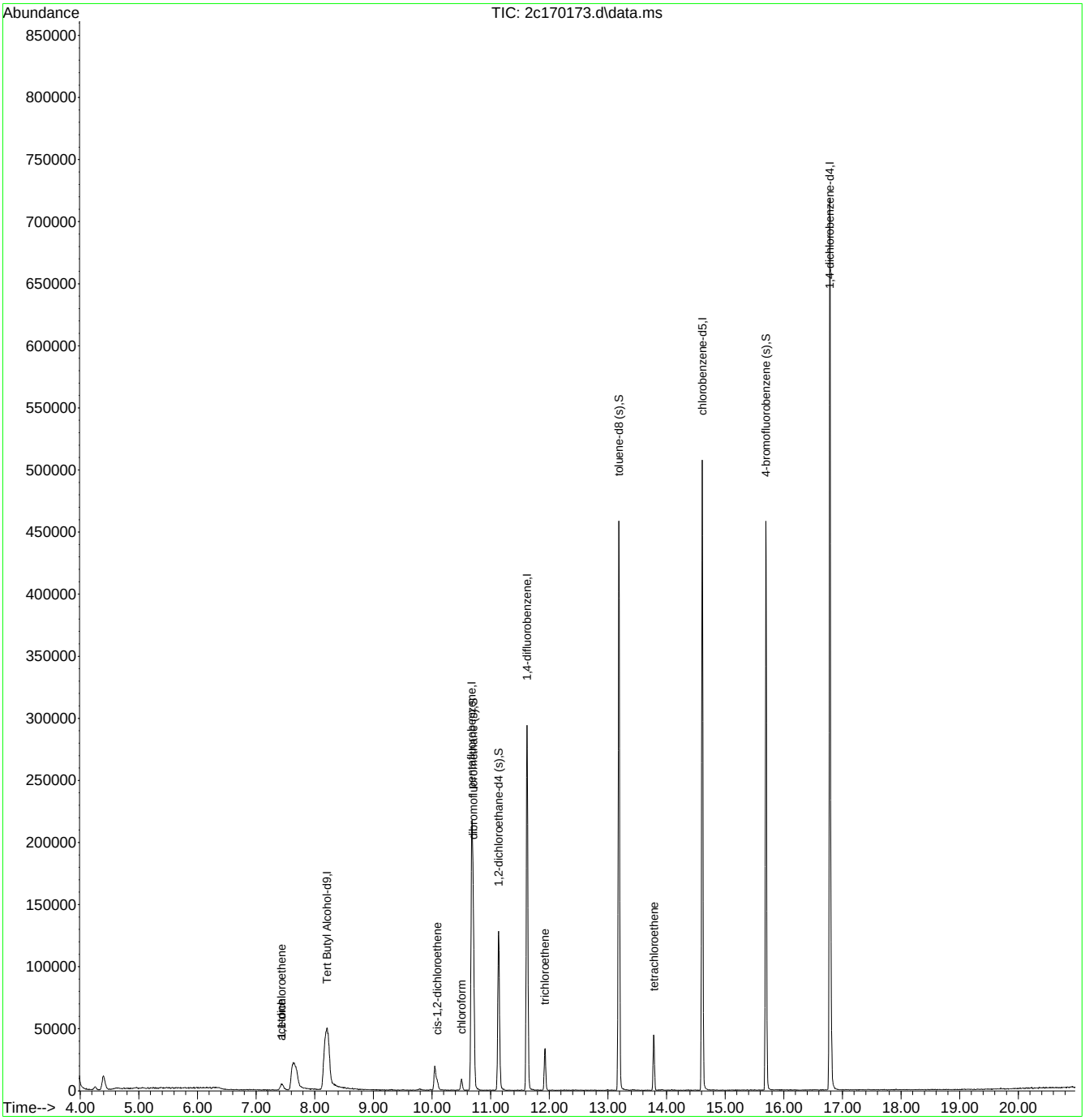
7.1.13

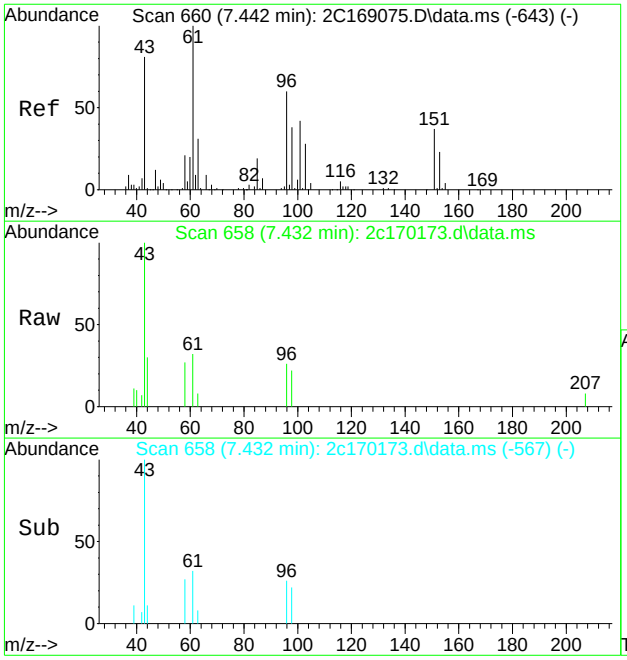
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170173.d
Acq On : 18 Sep 2019 7:12 pm
Operator : edwardd
Sample : jc95050-13 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:47:27 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

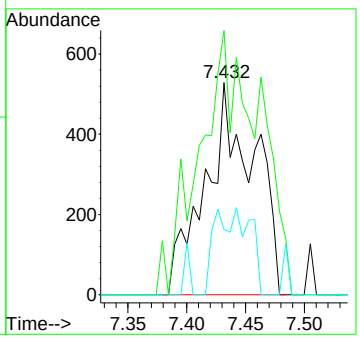


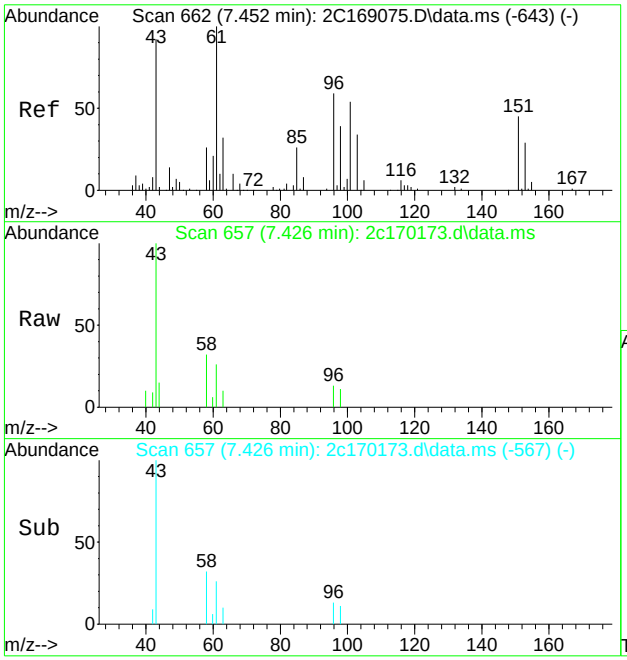


#19
1,1-dichloroethene
Concen: 0.73 ug/L
RT: 7.432 min Scan# 658
Delta R.T. -0.021 min
Lab File: 2c170173.d
Acq: 18 Sep 2019 7:12 pm

Tgt Ion: 96 Resp: 1529

Ion	Ratio	Lower	Upper
96	100		
61	99.1	136.5	196.5#
63	30.8	21.3	81.3

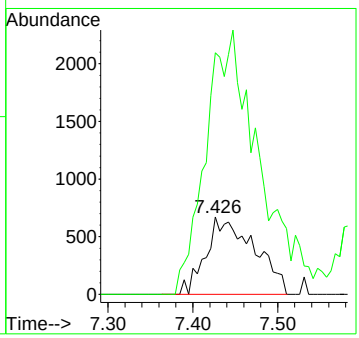


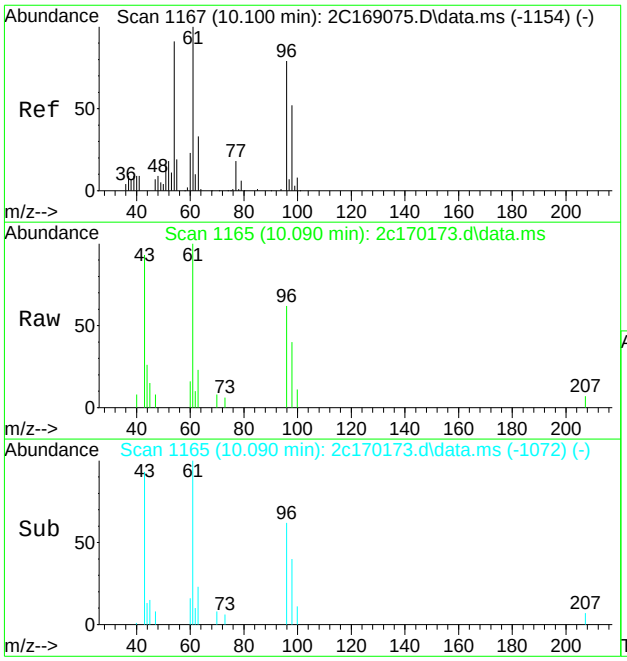


#20
acetone
Concen: 10.23 ug/L m
RT: 7.426 min Scan# 657
Delta R.T. -0.026 min
Lab File: 2c170173.d
Acq: 18 Sep 2019 7:12 pm

Tgt Ion: 58 Resp: 2650

Ion	Ratio	Lower	Upper
58	100		
43	312.5	332.0	392.0#

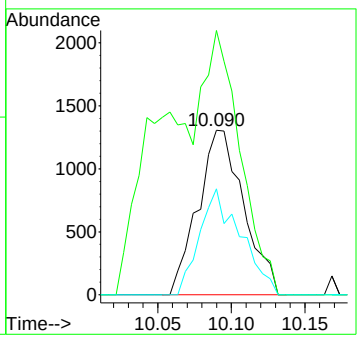


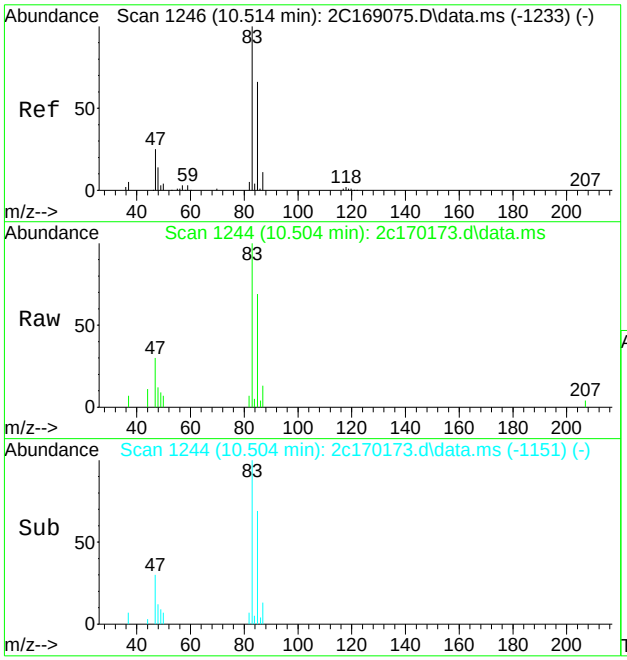


#38
cis-1,2-dichloroethene
Concen: 1.36 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170173.d
Acq: 18 Sep 2019 7:12 pm

Tgt Ion: 96 Resp: 2827

Ion	Ratio	Lower	Upper
96	100		
61	160.8	102.1	162.1
98	64.5	35.1	95.1

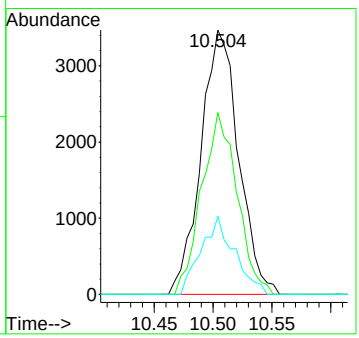


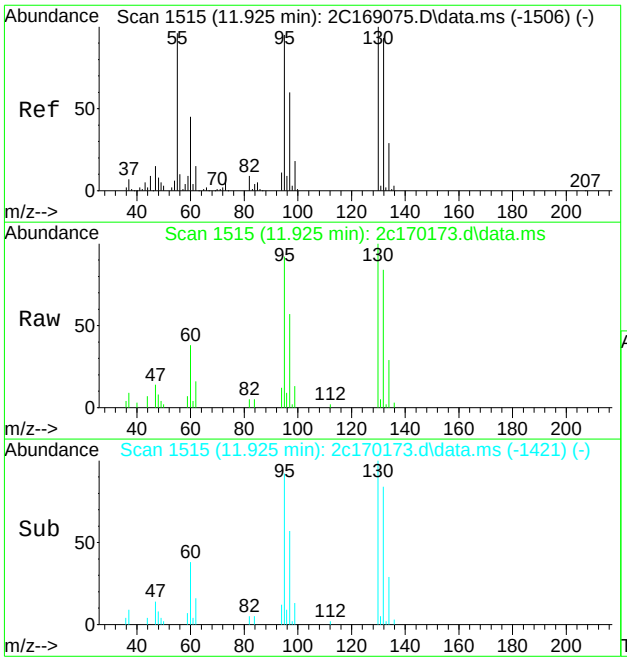


#42
chloroform
Concen: 2.30 ug/L
RT: 10.504 min Scan# 1244
Delta R.T. -0.010 min
Lab File: 2c170173.d
Acq: 18 Sep 2019 7:12 pm

Tgt Ion: 83 Resp: 7732

Ion	Ratio	Lower	Upper
83	100		
85	68.8	35.7	95.7
47	29.6	0.0	55.5

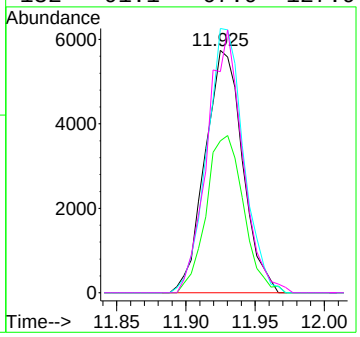


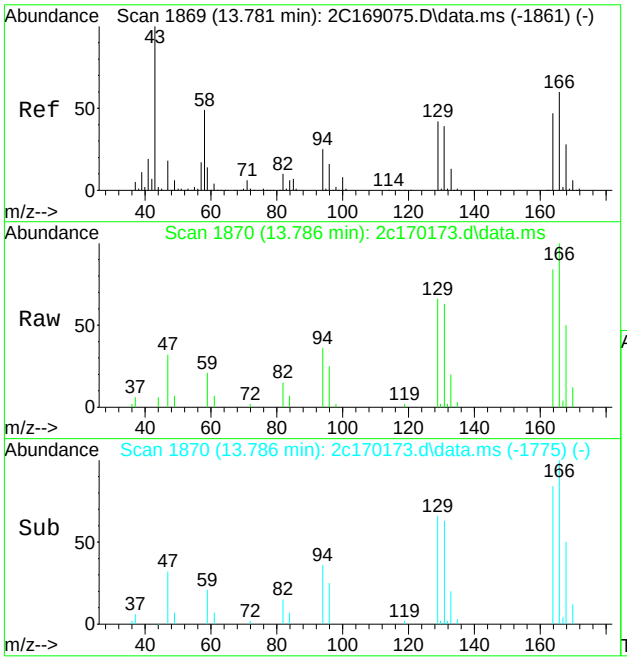


#62
trichloroethene
Concen: 6.09 ug/L
RT: 11.925 min Scan# 1515
Delta R.T. -0.005 min
Lab File: 2c170173.d
Acq: 18 Sep 2019 7:12 pm

Tgt Ion: 95 Resp: 10805

Ion	Ratio	Lower	Upper
95	100		
97	62.6	33.6	93.6
130	109.0	75.4	135.4
132	91.1	67.9	127.9

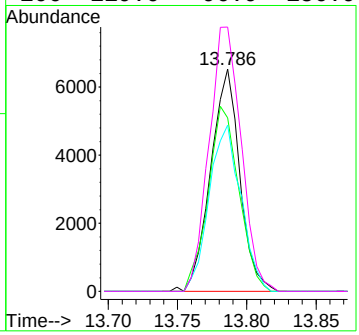




#81
tetrachloroethene
Concen: 5.66 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170173.d
Acq: 18 Sep 2019 7:12 pm

Tgt Ion:164 Resp: 9545

Ion	Ratio	Lower	Upper
164	100		
129	78.1	58.2	118.2
131	74.8	52.0	112.0
166	119.0	96.9	156.9



Manual Integration Approval Summary

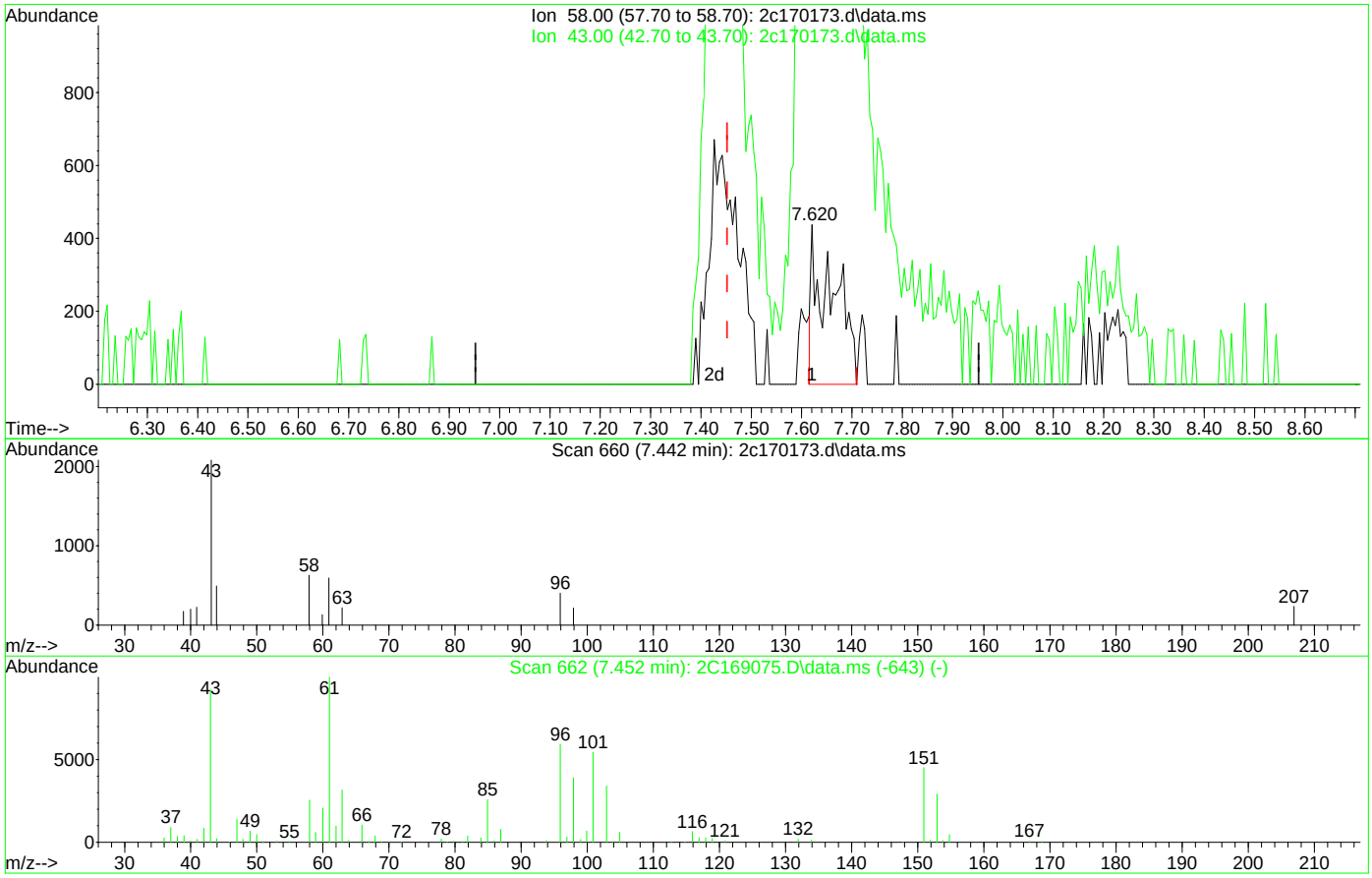
Sample Number: JC95050-13
Lab FileID: 2C170173.D
Injection Time: 09/18/19 19:12
Method: SW846 8260C
Analyst approved: 09/19/19 04:52 Nizel Eugenio
Supervisor approved: 09/19/19 11:54 MoHui Huang

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetone	67-64-1		7.43	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170173.d
Acq On : 18 Sep 2019 7:12 pm
Operator : edwardd
Sample : jc95050-13 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 21:37:00 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



TIC: 2c170173.d\data.ms

(20) acetone

7.620min (+0.168) 4.94ug/L

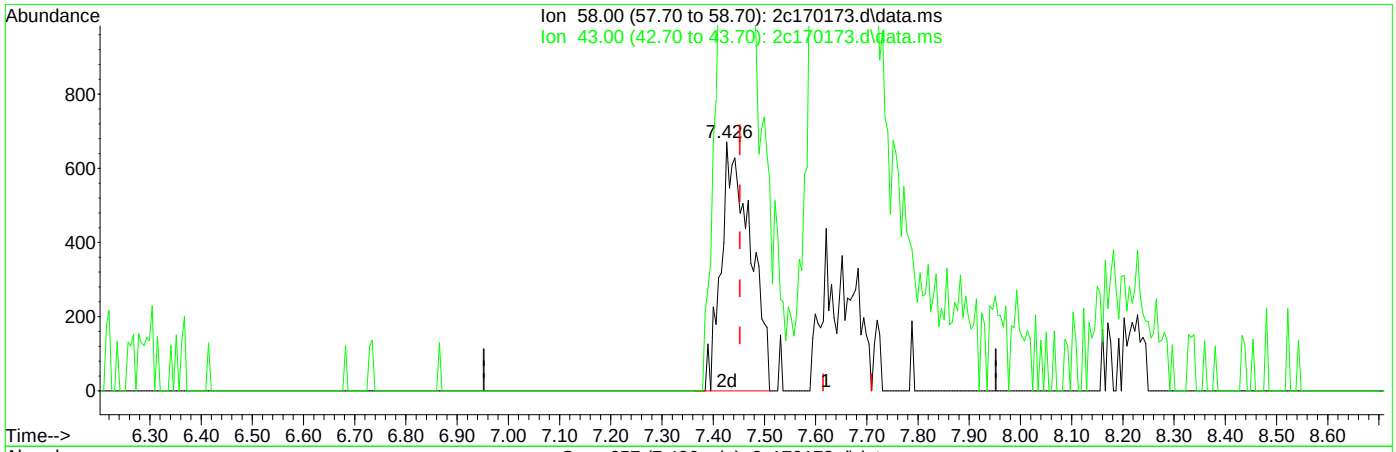
response 1281

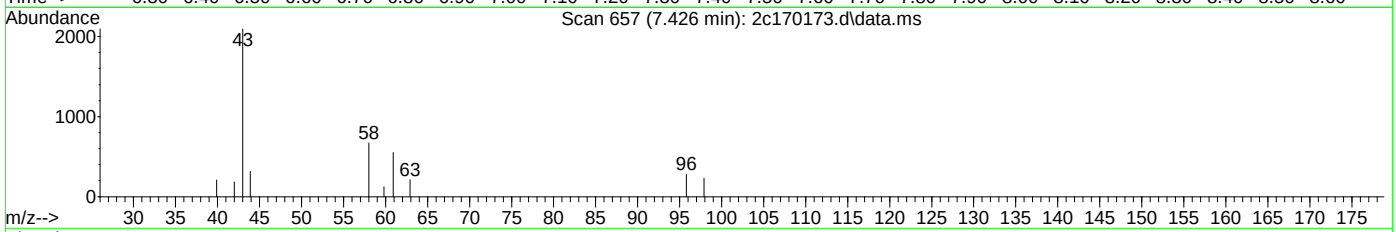
Ion	Exp%	Act%
58.00	100	100
43.00	362.00	335.93
0.00	0.00	0.00
0.00	0.00	0.00

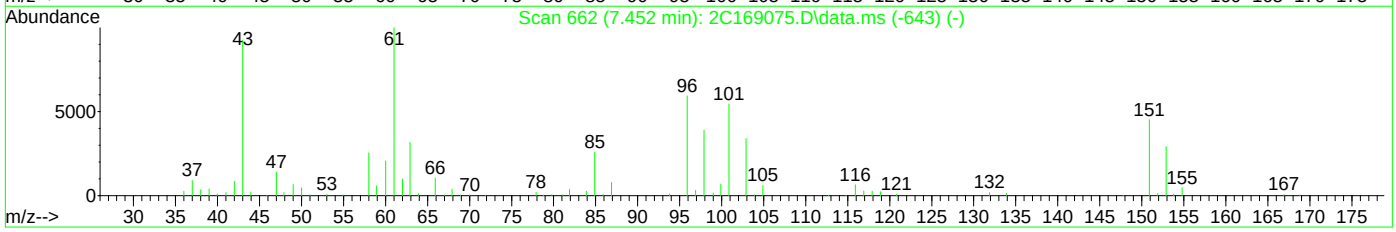
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170173.d
Acq On : 18 Sep 2019 7:12 pm
Operator : edwardd
Sample : jc95050-13 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 21:37:00 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration







TIC: 2c170173.d\data.ms

(20) acetone

7.426min (-0.026) 10.23ug/L m

response 2650

Ion	Exp%	Act%
58.00	100	100
43.00	362.00	312.52#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170185.d
Acq On : 19 Sep 2019 10:02 am
Operator : edwardd
Sample : jc95050-14 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:36:49 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

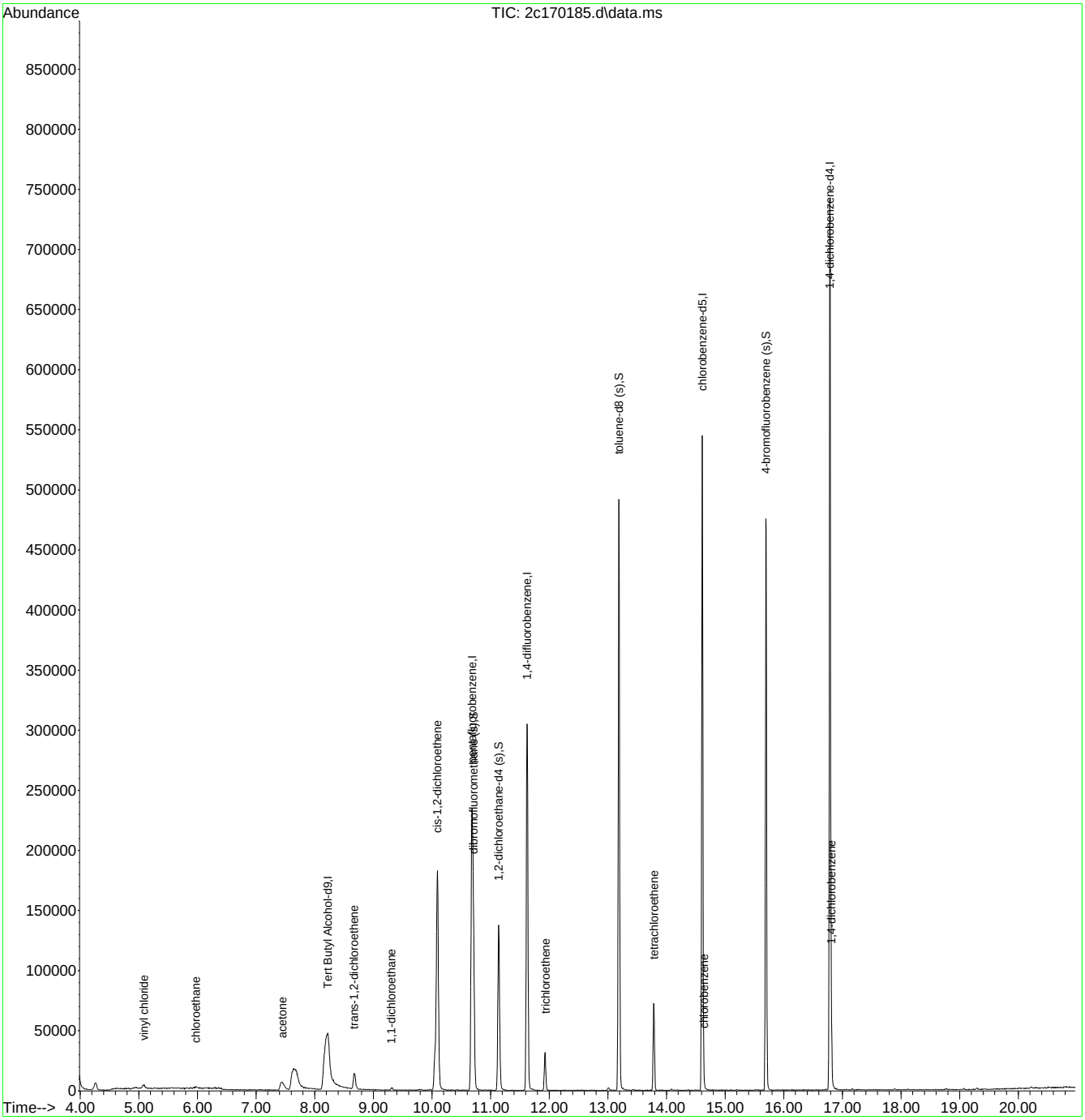
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	182838	500.00	ug/L	-0.02
5) pentafluorobenzene	10.682	168	165365	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	254556	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	255961	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	169645	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.708	113	85576	51.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.82%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	101704	49.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.70%			
75) toluene-d8 (s)	13.188	98	286738	52.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.02%			
98) 4-bromofluorobenzene (s)	15.695	95	121007	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
Target Compounds						Qvalue
9) vinyl chloride	5.088	62	6033	1.39	ug/L	85
12) chloroethane	5.969	64	2329	0.86	ug/L	81
20) acetone	7.447	58	6084	21.15	ug/L #	38
27) trans-1,2-dichloroethene	8.669	96	7381	3.31	ug/L	94
30) 1,1-dichloroethane	9.303	63	2692	0.75	ug/L	85
38) cis-1,2-dichloroethene	10.090	96	95256	41.30	ug/L	96
62) trichloroethene	11.935	95	9643	5.04	ug/L	93
81) tetrachloroethene	13.786	164	15916	8.91	ug/L	94
87) chlorobenzene	14.641	112	1723	0.33	ug/L	84
112) 1,4-dichlorobenzene	16.811	146	1578	0.28	ug/L	91

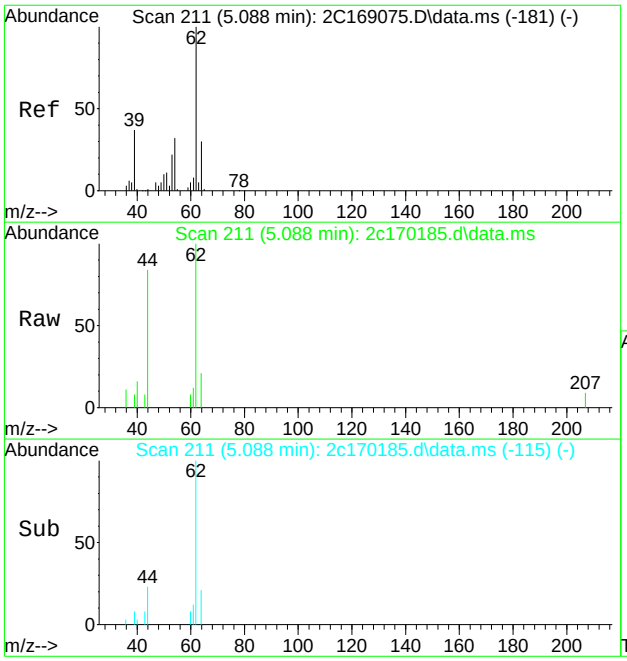
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170185.d
Acq On : 19 Sep 2019 10:02 am
Operator : edwardd
Sample : jc95050-14 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:36:49 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

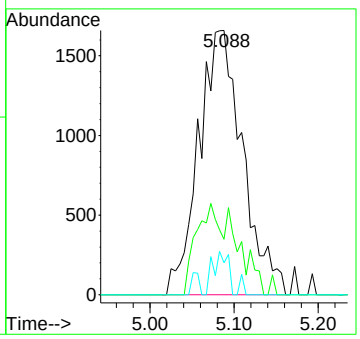


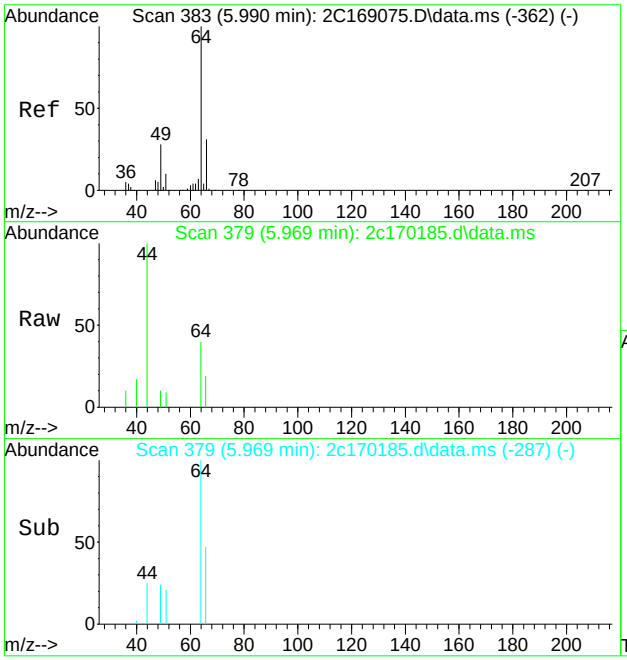


#9
vinyl chloride
Concen: 1.39 ug/L
RT: 5.088 min Scan# 211
Delta R.T. 0.005 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 62 Resp: 6033

Ion	Ratio	Lower	Upper
62	100		
64	21.0	0.0	59.8
61	12.1	0.0	38.2

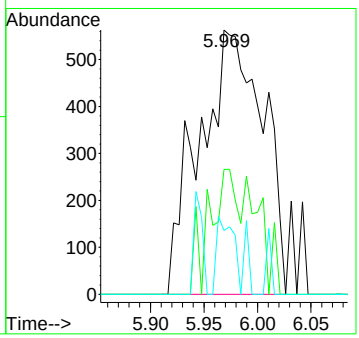


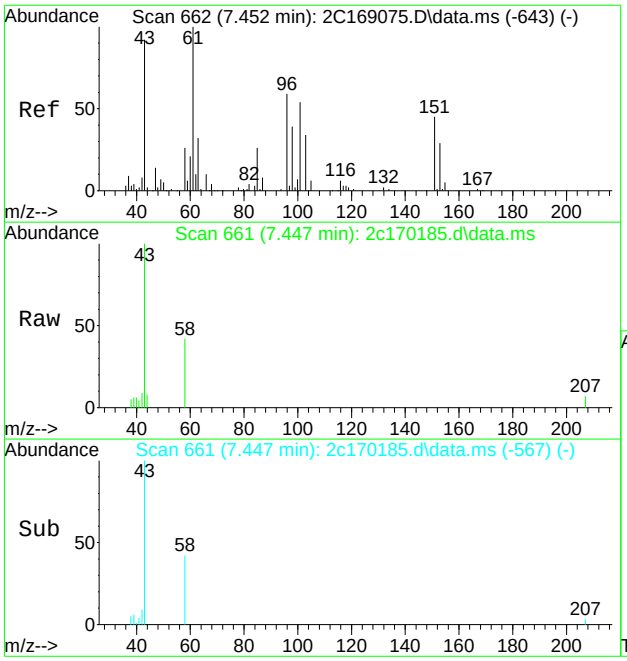


#12
chloroethane
Concen: 0.86 ug/L
RT: 5.969 min Scan# 379
Delta R.T. -0.016 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 64 Resp: 2329

Ion	Ratio	Lower	Upper
64	100		
66	47.2	1.4	61.4
49	24.2	0.0	58.0

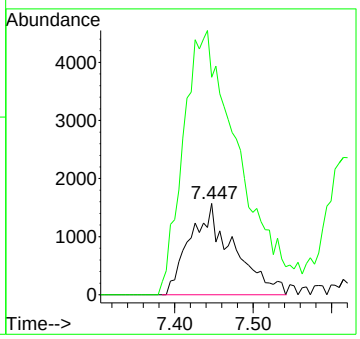


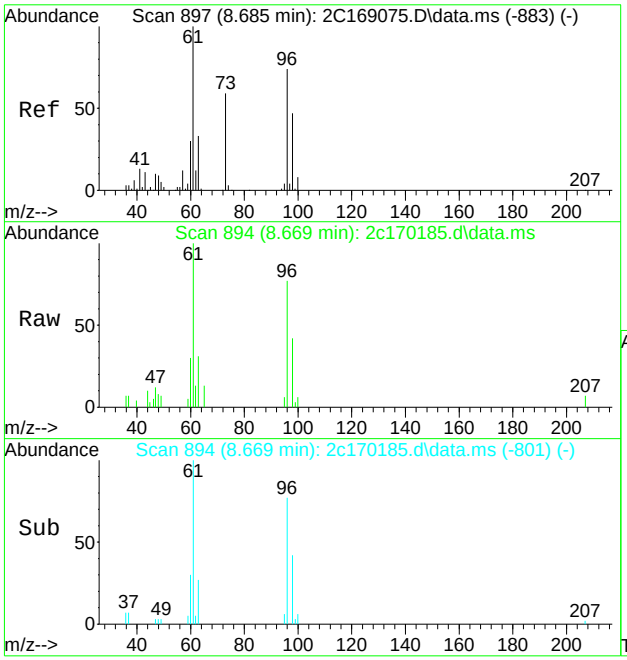


#20
acetone
Concen: 21.15 ug/L
RT: 7.447 min Scan# 661
Delta R.T. -0.005 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 58 Resp: 6084

Ion	Ratio	Lower	Upper
58	100		
43	223.4	332.0	392.0#

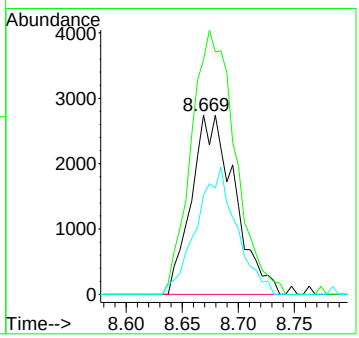


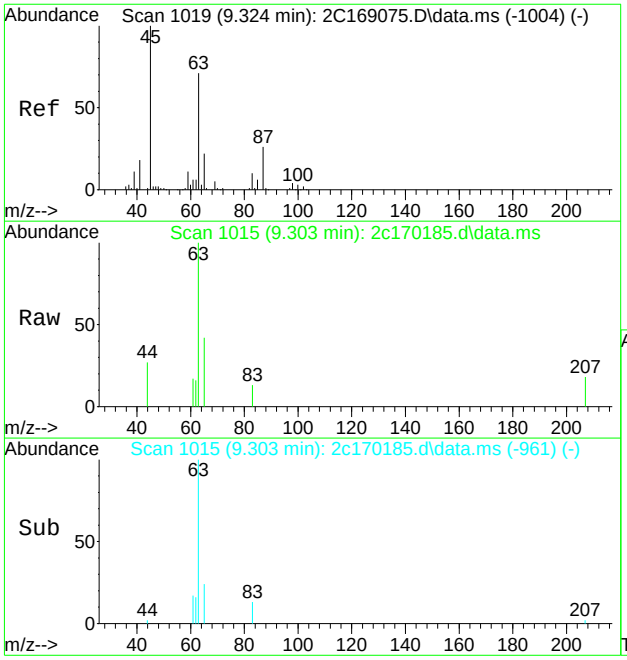


#27
trans-1,2-dichloroethene
Concen: 3.31 ug/L
RT: 8.669 min Scan# 894
Delta R.T. -0.010 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 96 Resp: 7381

Ion	Ratio	Lower	Upper
96	100		
61	130.6	105.5	165.5
98	55.2	33.2	93.2

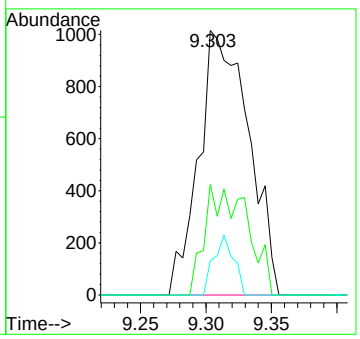


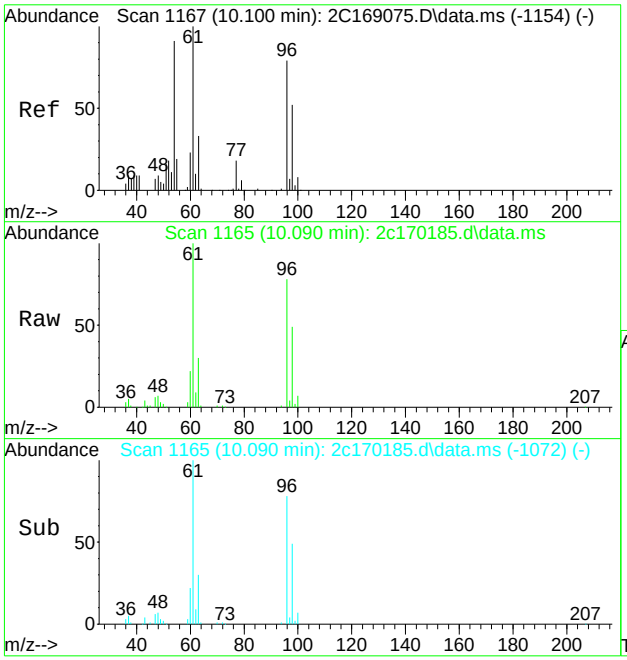


#30
1,1-dichloroethane
Concen: 0.75 ug/L
RT: 9.303 min Scan# 1015
Delta R.T. -0.016 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 63 Resp: 2692

Ion	Ratio	Lower	Upper
63	100		
65	41.8	0.8	60.8
83	12.9	0.0	44.1

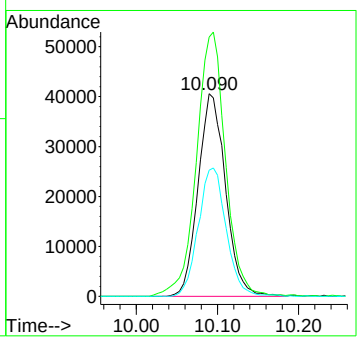


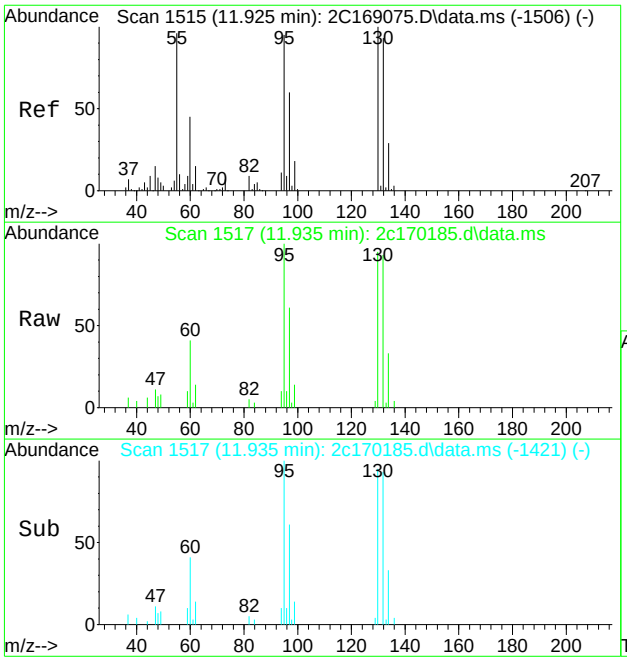


#38
cis-1,2-dichloroethene
Concen: 41.30 ug/L
RT: 10.090 min Scan# 1165
Delta R.T. -0.010 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 96 Resp: 95256

Ion	Ratio	Lower	Upper
96	100		
61	127.6	102.1	162.1
98	62.3	35.1	95.1

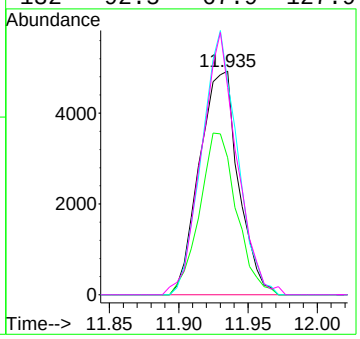


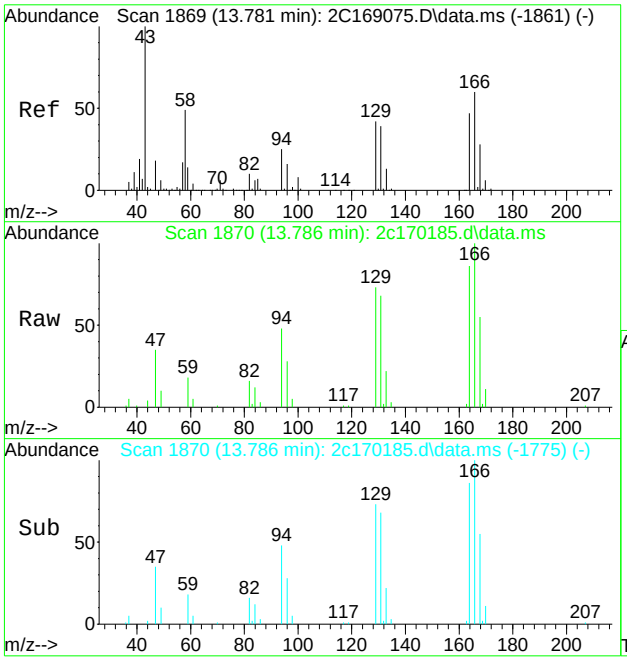


#62
trichloroethene
Concen: 5.04 ug/L
RT: 11.935 min Scan# 1517
Delta R.T. 0.005 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion: 95 Resp: 9643

Ion	Ratio	Lower	Upper
95	100		
97	61.2	33.6	93.6
130	95.3	75.4	135.4
132	92.5	67.9	127.9

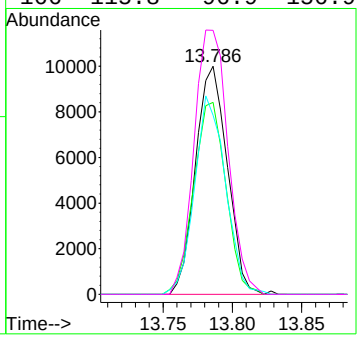


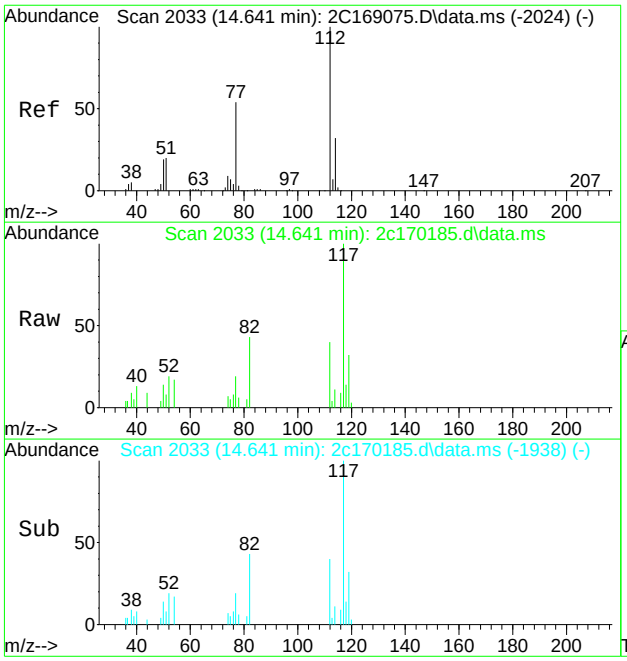


#81
tetrachloroethene
Concen: 8.91 ug/L
RT: 13.786 min Scan# 1870
Delta R.T. 0.000 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion:164 Resp: 15916

Ion	Ratio	Lower	Upper
164	100		
129	84.1	58.2	118.2
131	78.5	52.0	112.0
166	115.8	96.9	156.9

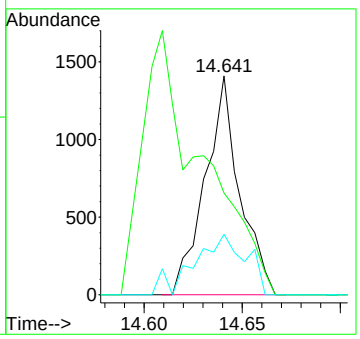


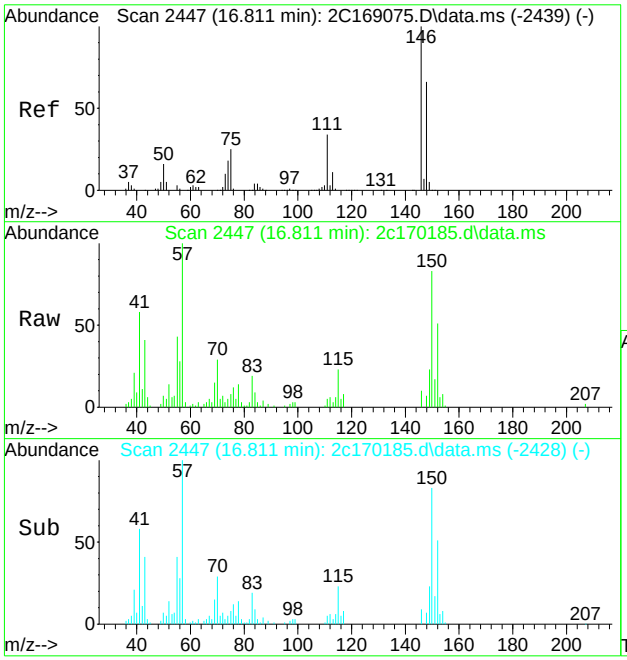


#87
chlorobenzene
Concen: 0.33 ug/L
RT: 14.641 min Scan# 2033
Delta R.T. 0.000 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion:112 Resp: 1723

Ion	Ratio	Lower	Upper
112	100		
77	41.8	24.0	84.0
114	24.9	2.4	62.4

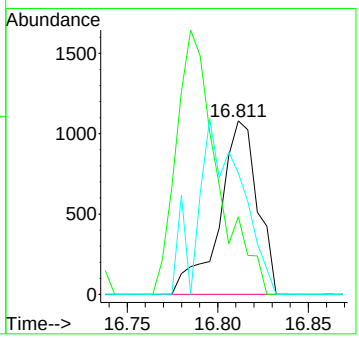




#112
1,4-dichlorobenzene
Concen: 0.28 ug/L
RT: 16.811 min Scan# 2447
Delta R.T. 0.000 min
Lab File: 2c170185.d
Acq: 19 Sep 2019 10:02 am

Tgt Ion:146 Resp: 1578

Ion	Ratio	Lower	Upper
146	100		
111	44.7	4.3	64.3
148	69.9	36.4	96.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170163.d
Acq On : 18 Sep 2019 2:27 pm
Operator : edwardd
Sample : jc95050-15 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:36:10 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

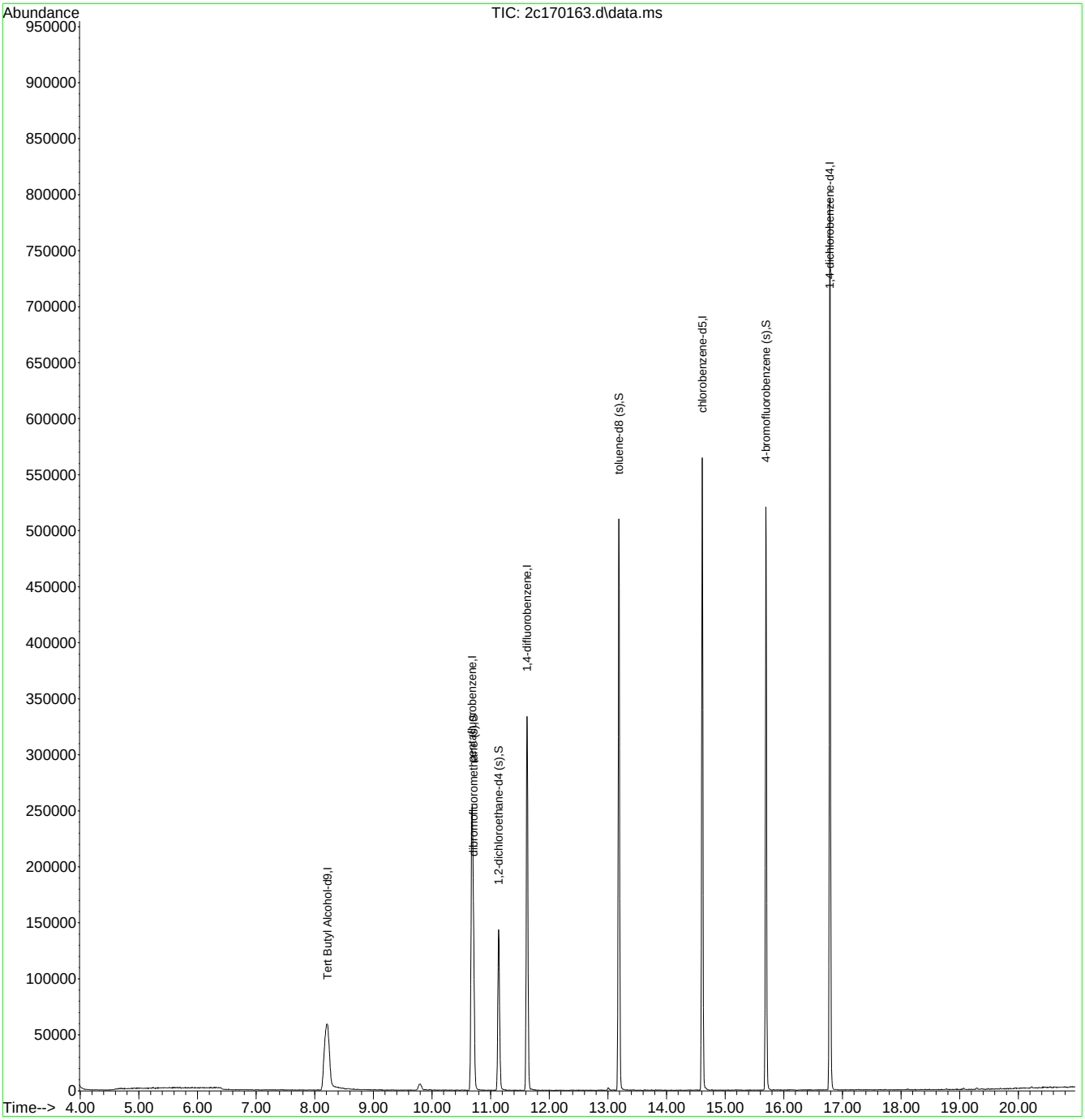
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.218	65	201411	500.00	ug/L	-0.03
5) pentafluorobenzene	10.682	168	179572	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.620	114	275800	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	271348	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	181238	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.708	113	92795	51.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.68%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	109776	49.66	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.32%			
75) toluene-d8 (s)	13.188	98	304626	52.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.24%			
98) 4-bromofluorobenzene (s)	15.694	95	130150	51.16	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.32%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170163.d
Acq On : 18 Sep 2019 2:27 pm
Operator : edwardd
Sample : jc95050-15 Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:36:10 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170153.d
Acq On : 18 Sep 2019 9:41 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS37677,V2C7649,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:37:31 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

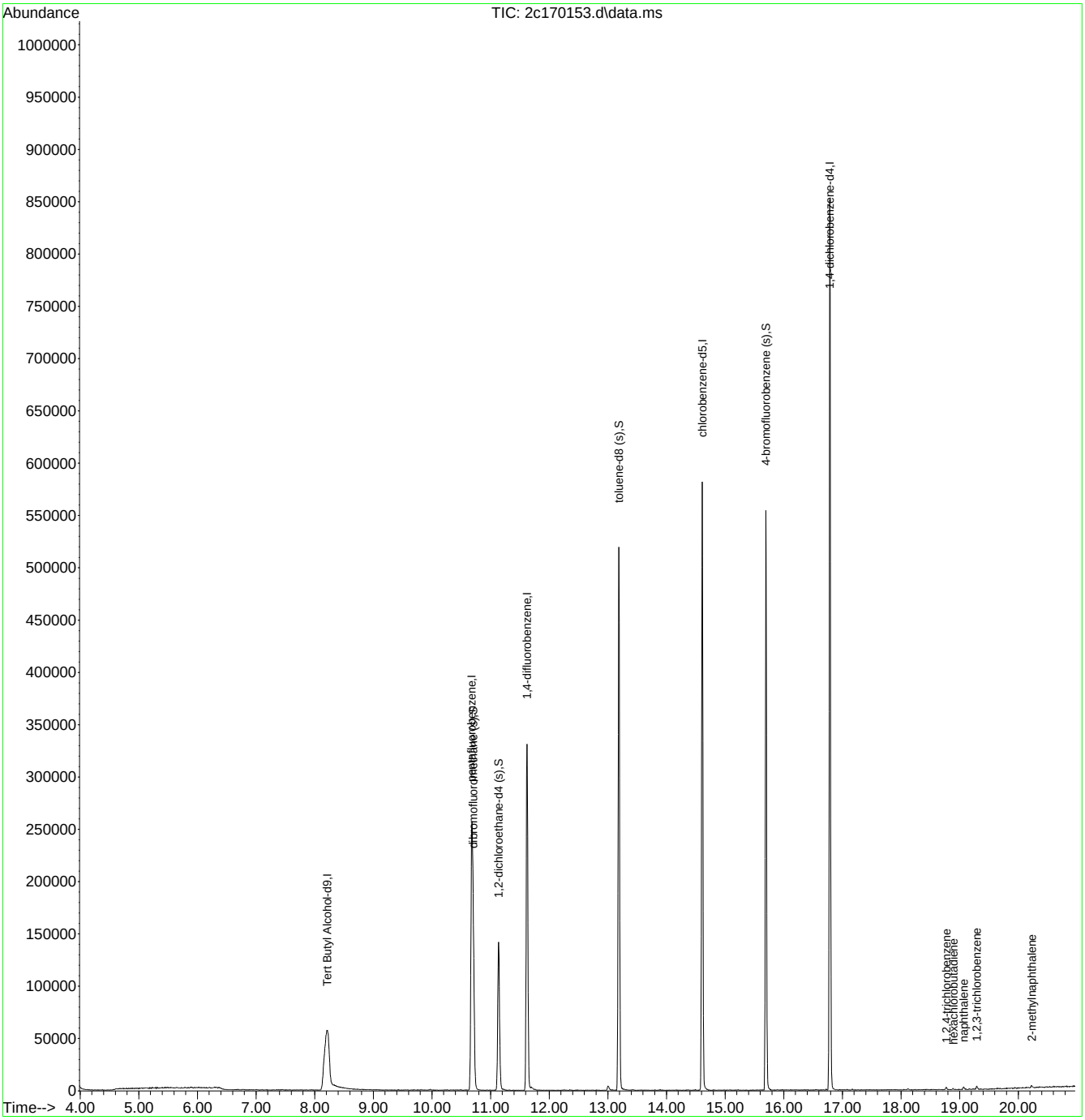
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.213	65	203922	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	186999	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	281466	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	286218	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	195960	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	91965	48.86	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.72%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	108156	47.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.88%			
75) toluene-d8 (s)	13.188	98	314770	51.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.12%			
98) 4-bromofluorobenzene (s)	15.695	95	137504	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
Target Compounds						Qvalue
118) 1,2,4-trichlorobenzene	18.777	180	816	0.15	ug/L	90
120) hexachlorobutadiene	18.893	225	310	0.11	ug/L #	52
121) naphthalene	19.071	128	2493	0.17	ug/L	96
122) 1,2,3-trichlorobenzene	19.291	180	1284	0.24	ug/L #	66
124) 2-methylnaphthalene	20.230	142	1102	3.17	ug/L	80

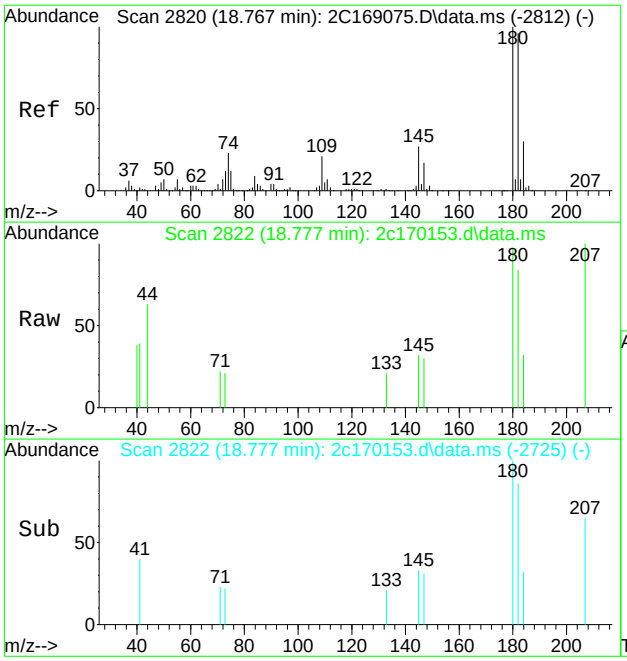
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170153.d
Acq On : 18 Sep 2019 9:41 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS37677,V2C7649,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:37:31 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

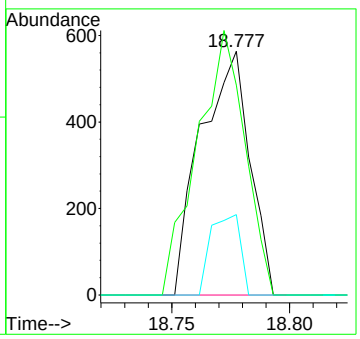


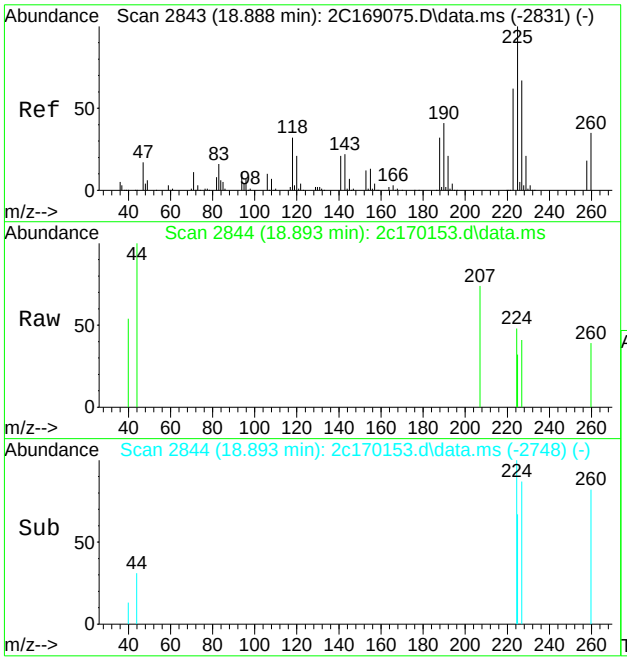


#118
1,2,4-trichlorobenzene
Concen: 0.15 ug/L
RT: 18.777 min Scan# 2822
Delta R.T. 0.011 min
Lab File: 2c170153.d
Acq: 18 Sep 2019 9:41 am

Tgt Ion:180 Resp: 816

Ion	Ratio	Lower	Upper
180	100		
182	86.0	65.7	125.7
145	33.0	0.0	56.9

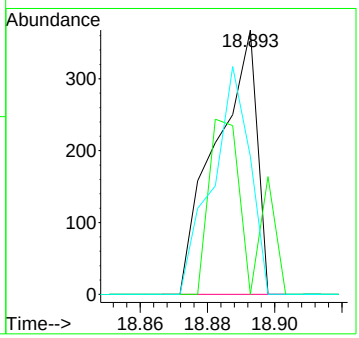


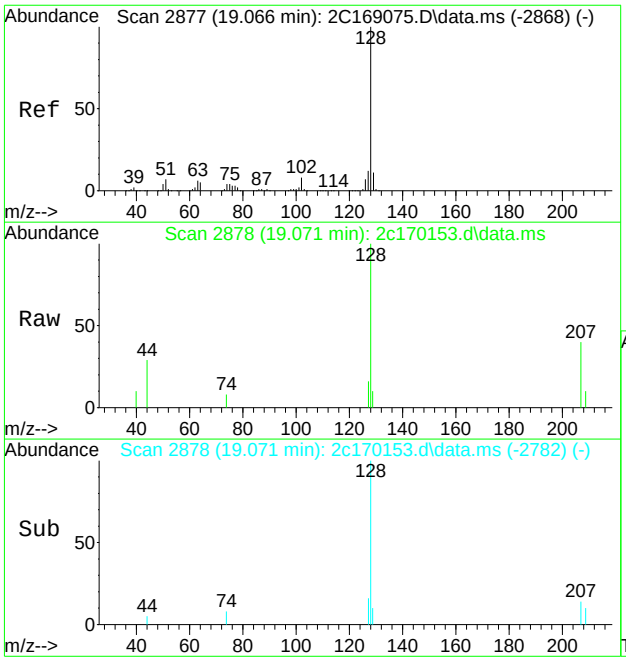


#120
hexachlorobutadiene
Concen: 0.11 ug/L
RT: 18.893 min Scan# 2844
Delta R.T. 0.005 min
Lab File: 2c170153.d
Acq: 18 Sep 2019 9:41 am

Tgt Ion:225 Resp: 310

Ion	Ratio	Lower	Upper
225	100		
223	0.0	31.7	91.7#
227	52.2	37.4	97.4

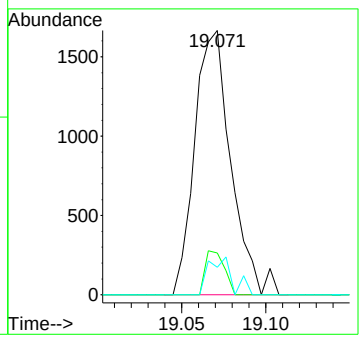


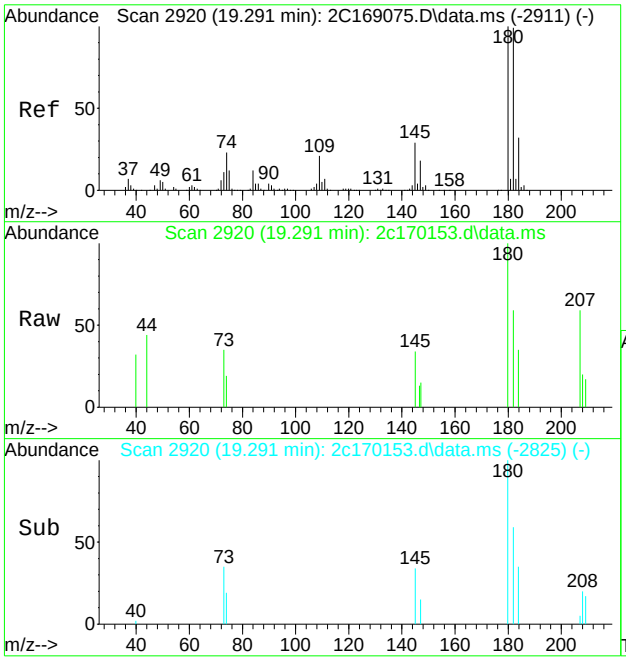


#121
naphthalene
Concen: 0.17 ug/L
RT: 19.071 min Scan# 2878
Delta R.T. 0.005 min
Lab File: 2c170153.d
Acq: 18 Sep 2019 9:41 am

Tgt Ion:128 Resp: 2493

Ion	Ratio	Lower	Upper
128	100		
127	14.3	0.0	42.4
129	9.5	0.0	40.8

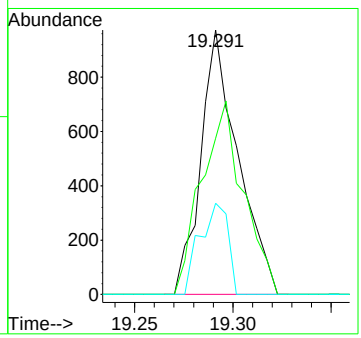


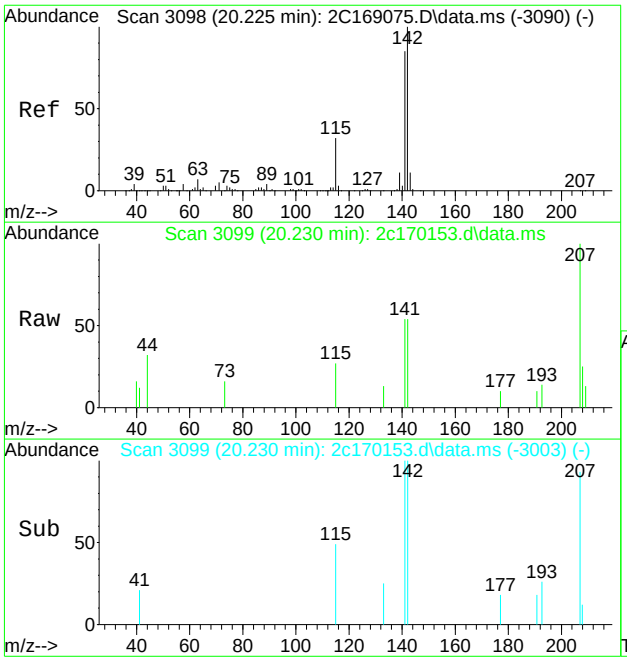


#122
1,2,3-trichlorobenzene
Concen: 0.24 ug/L
RT: 19.291 min Scan# 2920
Delta R.T. 0.000 min
Lab File: 2c170153.d
Acq: 18 Sep 2019 9:41 am

Tgt Ion:180 Resp: 1284

Ion	Ratio	Lower	Upper
180	100		
182	59.0	69.3	129.3#
145	34.5	0.0	58.5

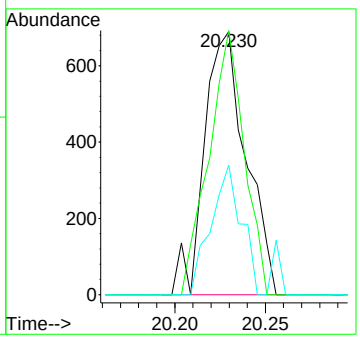




#124
2-methylnaphthalene
Concen: 3.17 ug/L
RT: 20.230 min Scan# 3099
Delta R.T. 0.005 min
Lab File: 2c170153.d
Acq: 18 Sep 2019 9:41 am

Tgt Ion:142 Resp: 1102

Ion	Ratio	Lower	Upper
142	100		
141	100.4	65.3	105.3
115	49.3	2.3	62.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170184.d
Acq On : 19 Sep 2019 9:33 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS37677,V2C7651,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:34:52 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

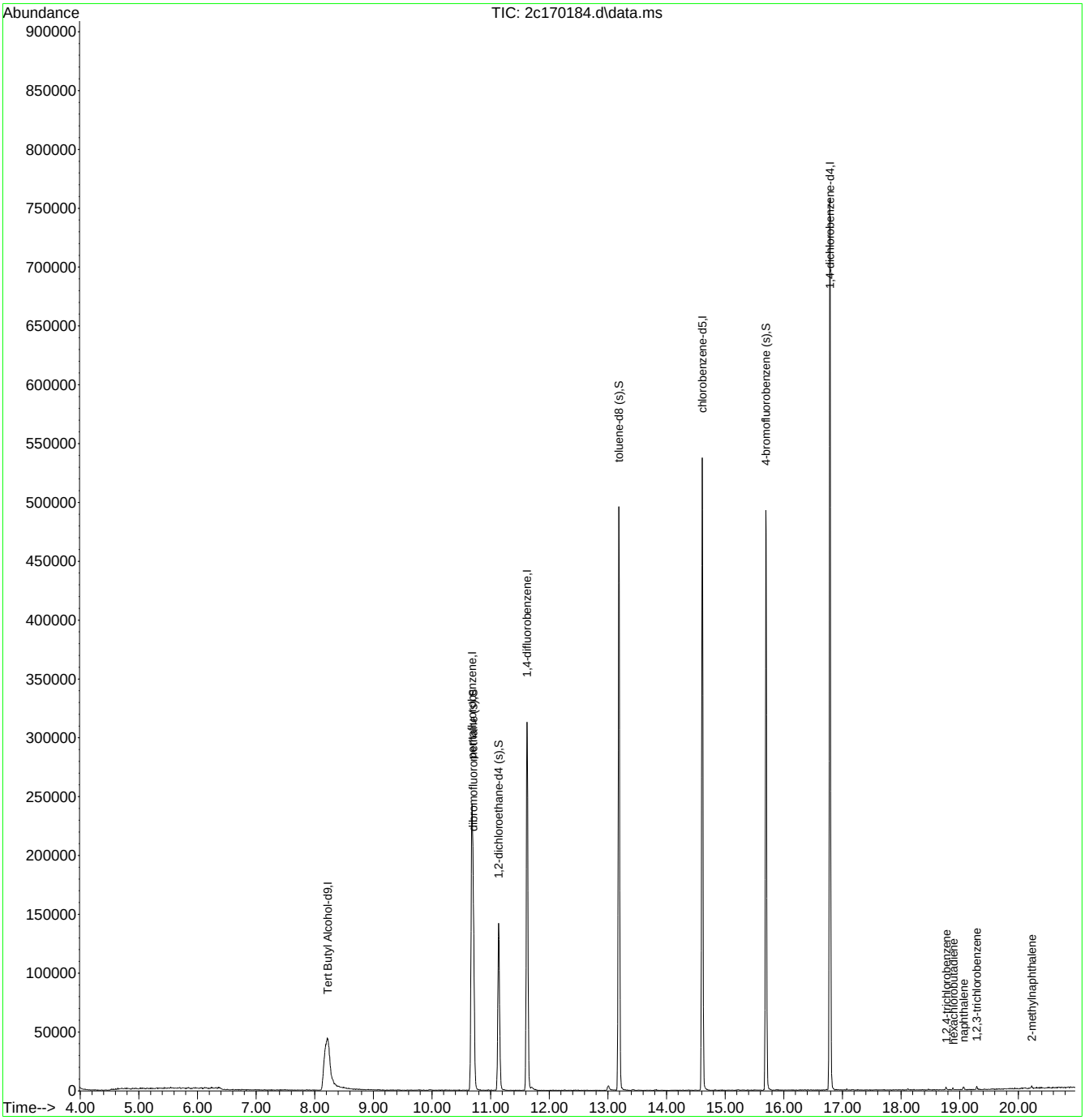
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	179517	500.00	ug/L	-0.02
5) pentafluorobenzene	10.682	168	169078	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	258420	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	260331	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.790	152	173194	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	88221	51.83	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.66%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	105899	51.13	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.26%			
75) toluene-d8 (s)	13.188	98	290423	51.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.58%			
98) 4-bromofluorobenzene (s)	15.694	95	122543	50.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.80%			
Target Compounds						Qvalue
118) 1,2,4-trichlorobenzene	18.772	180	841	0.17	ug/L #	59
120) hexachlorobutadiene	18.893	225	386	0.16	ug/L #	54
121) naphthalene	19.071	128	2167	0.16	ug/L	91
122) 1,2,3-trichlorobenzene	19.291	180	1027	0.22	ug/L	95
124) 2-methylnaphthalene	20.230	142	869	3.16	ug/L	89

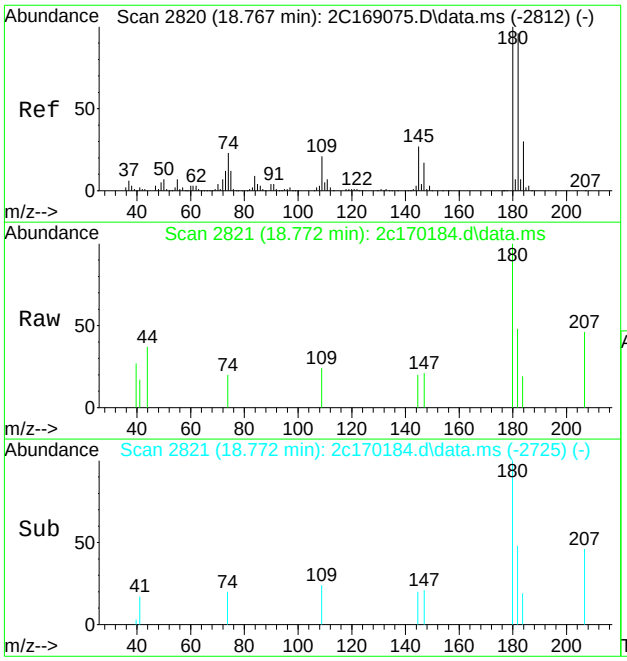
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170184.d
Acq On : 19 Sep 2019 9:33 am
Operator : edwardd
Sample : mb Inst : Instrument #1
Misc : MS37677,V2C7651,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:34:52 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

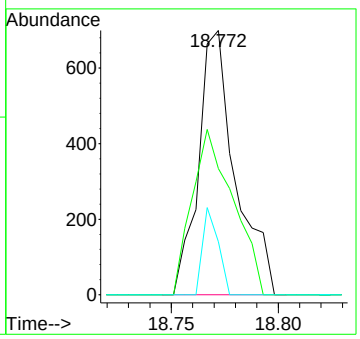


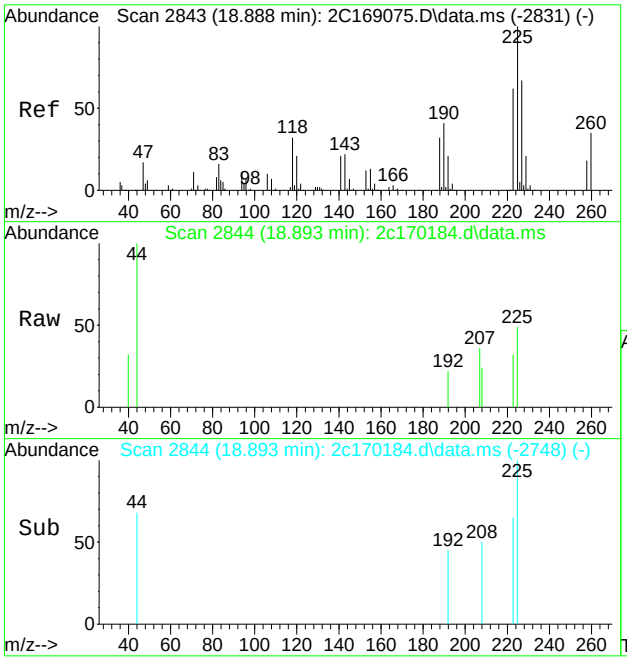


#118
1,2,4-trichlorobenzene
Concen: 0.17 ug/L
RT: 18.772 min Scan# 2821
Delta R.T. 0.005 min
Lab File: 2c170184.d
Acq: 19 Sep 2019 9:33 am

Tgt Ion:180 Resp: 841

Ion	Ratio	Lower	Upper
180	100		
182	47.7	65.7	125.7#
145	20.0	0.0	56.9

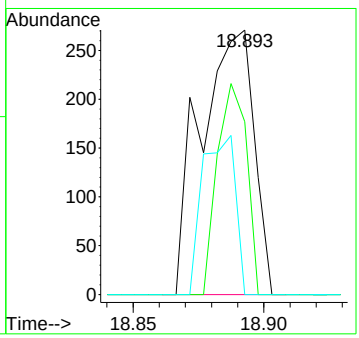


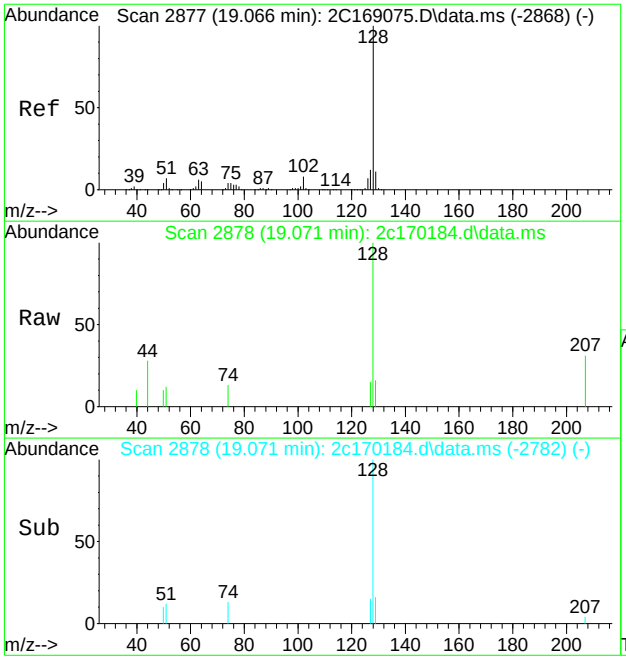


#120
hexachlorobutadiene
Concen: 0.16 ug/L
RT: 18.893 min Scan# 2844
Delta R.T. 0.005 min
Lab File: 2c170184.d
Acq: 19 Sep 2019 9:33 am

Tgt Ion:225 Resp: 386

Ion	Ratio	Lower	Upper
225	100		
223	65.3	31.7	91.7
227	0.0	37.4	97.4#

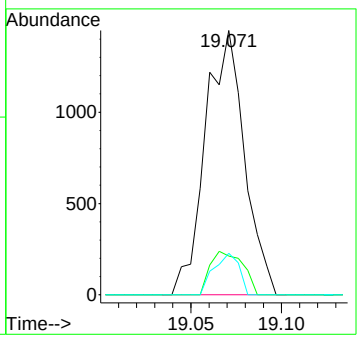


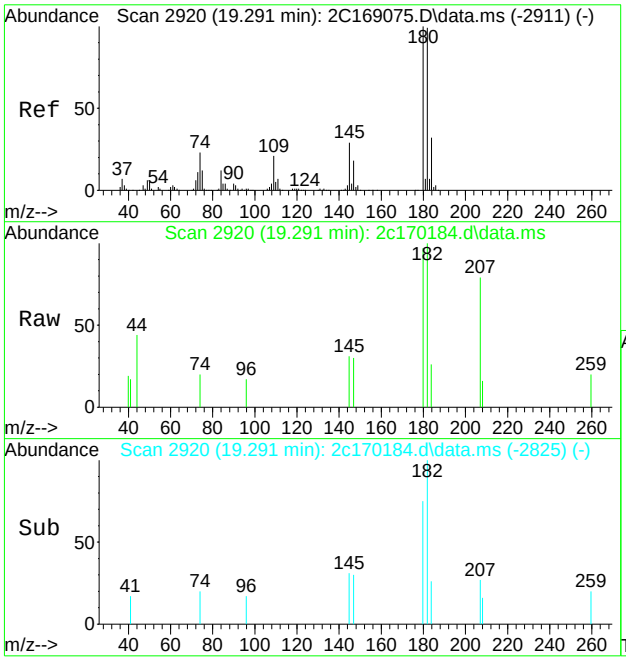


#121
naphthalene
Concen: 0.16 ug/L
RT: 19.071 min Scan# 2878
Delta R.T. 0.005 min
Lab File: 2c170184.d
Acq: 19 Sep 2019 9:33 am

Tgt Ion:128 Resp: 2167

Ion	Ratio	Lower	Upper
128	100		
127	14.7	0.0	42.4
129	15.7	0.0	40.8

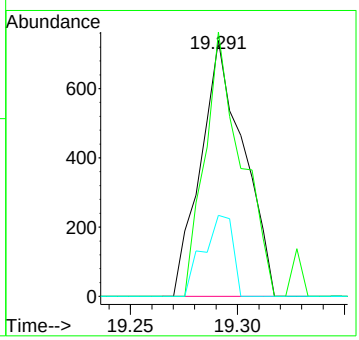


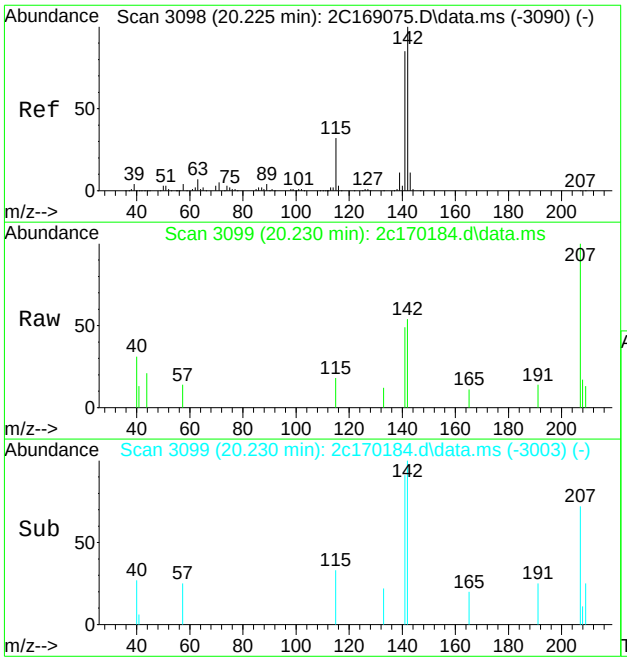


#122
1,2,3-trichlorobenzene
Concen: 0.22 ug/L
RT: 19.291 min Scan# 2920
Delta R.T. -0.000 min
Lab File: 2c170184.d
Acq: 19 Sep 2019 9:33 am

Tgt Ion:180 Resp: 1027

Ion	Ratio	Lower	Upper
180	100		
182	103.4	69.3	129.3
145	31.7	0.0	58.5

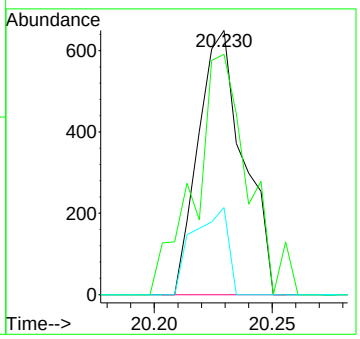




#124
2-methylnaphthalene
Concen: 3.16 ug/L
RT: 20.230 min Scan# 3099
Delta R.T. 0.005 min
Lab File: 2c170184.d
Acq: 19 Sep 2019 9:33 am

Tgt Ion:142 Resp: 869

Ion	Ratio	Lower	Upper
142	100		
141	71.4	65.3	105.3
115	32.9	2.3	62.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170151.d
Acq On : 18 Sep 2019 8:44 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:36:09 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.207	65	219659	500.00	ug/L	-0.04
5) pentafluorobenzene	10.682	168	204671	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	302568	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	308738	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	198591	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	99886	48.48	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.96%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	108589	44.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.56%			
75) toluene-d8 (s)	13.188	98	342643	51.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.06%			
98) 4-bromofluorobenzene (s)	15.694	95	149856	53.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.52%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.349	59	154185	290.90	ug/L	98
4) 1,4-dioxane	12.255	88	55025	1246.79	ug/L	94
6) chlorodifluoromethane	4.396	51	205511	43.69	ug/L	97
7) dichlorodifluoromethane	4.370	85	201827	41.21	ug/L	99
8) chloromethane	4.805	50	250950	43.60	ug/L	97
9) vinyl chloride	5.083	62	234417	43.65	ug/L	96
10) 1,3-butadiene	5.114	54	148769	39.25	ug/L	93
11) bromomethane	5.785	94	180255	41.51	ug/L	99
12) chloroethane	5.979	64	134685	40.20	ug/L	100
13) trichlorofluoromethane	6.524	101	268862	44.58	ug/L	99
14) vinyl bromide	6.372	106	149244	34.80	ug/L	97
15) ethyl ether	6.949	74	66050	45.57	ug/L	90
16) 2-chloropropane	7.206	43	227320	45.08	ug/L	95
17) acrolein	7.206	56	31265	59.95	ug/L	94
18) freon 113	7.458	151	119839	48.92	ug/L	96
19) 1,1-dichloroethene	7.447	96	126724	44.18	ug/L	98
20) acetone	7.431	58	72110	202.52	ug/L	87
21) iodomethane	7.730	142	264698	52.13	ug/L	98
22) acetonitrile	7.930	41	229705	478.92	ug/L	93
23) carbon disulfide	7.903	76	398040	48.99	ug/L	97
24) methylene chloride	8.249	84	148706	43.83	ug/L	99
25) methyl acetate	7.961	43	139783	52.05	ug/L	99
26) methyl tert butyl ether	8.653	73	419632	48.36	ug/L	97
27) trans-1,2-dichloroethene	8.674	96	121184	43.92	ug/L	96
28) hexane	9.078	56	75487	49.75	ug/L	97
29) di-isopropyl ether	9.319	45	425346	48.41	ug/L	99
30) 1,1-dichloroethane	9.314	63	207776	46.46	ug/L	99
31) chloroprene	9.424	53	163014	46.36	ug/L	97
32) acrylonitrile	8.559	53	73695	53.64	ug/L	95
33) vinyl acetate	9.251	86	23629	59.65	ug/L #	93
34) ethyl tert-butyl ether	9.822	59	411946	50.37	ug/L	99
35) 2-butanone	10.022	72	80668	248.19	ug/L	94
36) ethyl acetate	10.042	45	25410	65.78	ug/L #	87
37) 2,2-dichloropropane	10.132	77	184865	49.15	ug/L	98
38) cis-1,2-dichloroethene	10.095	96	131926	46.22	ug/L	99
39) propionitrile	10.100	54	277808	551.44	ug/L	95
40) bromochloromethane	10.404	128	71323	48.69	ug/L	96
41) tetrahydrofuran	10.436	71	23116	59.02	ug/L	91
42) chloroform	10.504	83	213944	46.29	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170151.d
Acq On : 18 Sep 2019 8:44 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:36:09 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.551	59	87650	49.53	ug/L		94
45) methacrylonitrile	10.310	67	61192	61.04	ug/L		95
46) 1,1,1-trichloroethane	10.782	97	218596	46.88	ug/L		98
47) cyclohexane	10.897	84	186685	44.83	ug/L		86
48) 1,1-dichloropropene	10.955	75	137599	50.53	ug/L		98
49) carbon tetrachloride	10.986	117	185086	47.94	ug/L		98
53) n-butyl alcohol	11.684	56	386020	2541.31	ug/L		99
54) tert-amyl alcohol	11.096	55	58257	236.76	ug/L	#	90
55) iso-octane	11.317	57	444628	50.33	ug/L		94
56) benzene	11.201	78	425522	48.19	ug/L		98
57) tert-amyl methyl ether	11.296	87	90833	43.52	ug/L		95
58) heptane	11.474	57	72586	50.45	ug/L		99
59) isopropyl acetate	11.123	87	30136	49.46	ug/L		97
60) 1,2-dichloroethane	11.233	62	157473	46.22	ug/L		99
61) ethyl acrylate	11.914	55	180539	57.99	ug/L		98
62) trichloroethene	11.925	95	114406	50.31	ug/L		96
63) 2-nitropropane	12.648	41	55526	74.68	ug/L		94
64) 2-chloroethyl vinyl ether	12.685	63	359119	286.38	ug/L		99
65) methyl methacrylate	12.171	100	35887	55.55	ug/L	#	82
66) 1,2-dichloropropane	12.203	63	114577	51.73	ug/L		94
67) dibromomethane	12.307	93	85255	50.82	ug/L		98
68) methylcyclohexane	12.218	83	209772	39.42	ug/L		99
69) bromodichloromethane	12.460	83	173002	55.80	ug/L		98
70) epichlorohydrin	12.769	57	100448	283.97	ug/L		96
71) cis-1,3-dichloropropene	12.895	75	193153	60.62	ug/L		95
72) 4-methyl-2-pentanone	12.989	58	279991	194.85	ug/L		98
73) 3-methyl-1-butanol	12.994	55	250118	936.06	ug/L		96
76) toluene	13.256	92	273336	53.16	ug/L		99
77) ethyl methacrylate	13.424	69	164003	54.11	ug/L		98
78) trans-1,3-dichloropropene	13.435	75	183099	68.20	ug/L		97
79) 1,1,2-trichloroethane	13.639	83	98120	57.25	ug/L		98
80) 2-hexanone	13.791	58	274076	224.49	ug/L		98
81) tetrachloroethene	13.786	164	115825	53.77	ug/L		97
82) 1,3-dichloropropane	13.812	76	171847	55.57	ug/L		99
83) butyl acetate	13.870	56	95490	52.18	ug/L		98
84) dibromochloromethane	14.043	129	153481	64.52	ug/L		98
85) 1,2-dibromoethane	14.190	107	152504	56.03	ug/L		98
86) n-butyl ether	14.599	57	471797	48.21	ug/L		99
87) chlorobenzene	14.641	112	324283	51.41	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.698	131	143029	50.71	ug/L		99
89) ethylbenzene	14.693	91	537510	48.61	ug/L		100
90) m,p-xylene	14.808	106	426627	98.56	ug/L		99
91) o-xylene	15.181	106	233528	47.37	ug/L		98
92) styrene	15.191	104	373669	49.98	ug/L		99
93) butyl acrylate	15.018	55	281967	47.88	ug/L		99
94) bromoform	15.406	173	137730	66.46	ug/L		97
95) isopropylbenzene	15.506	105	619268	46.56	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	71683	58.10	ug/L		95
99) bromobenzene	15.868	156	183768	58.04	ug/L		97
100) 1,1,2,2-tetrachloroethane	15.763	83	228018	61.06	ug/L		99
101) trans-1,4-dichloro-2-b...	15.794	88	31522	70.25	ug/L		97
102) 1,2,3-trichloropropane	15.847	110	59716	56.41	ug/L		98
103) n-propylbenzene	15.894	91	679260	53.88	ug/L		100
104) 2-chlorotoluene	16.020	126	165424	57.17	ug/L		97
105) 4-chlorotoluene	16.124	91	428744	55.86	ug/L		99
106) 1,3,5-trimethylbenzene	16.041	105	520741	53.34	ug/L		100
107) tert-butylbenzene	16.355	119	473637	57.68	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170151.d
Acq On : 18 Sep 2019 8:44 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:36:09 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

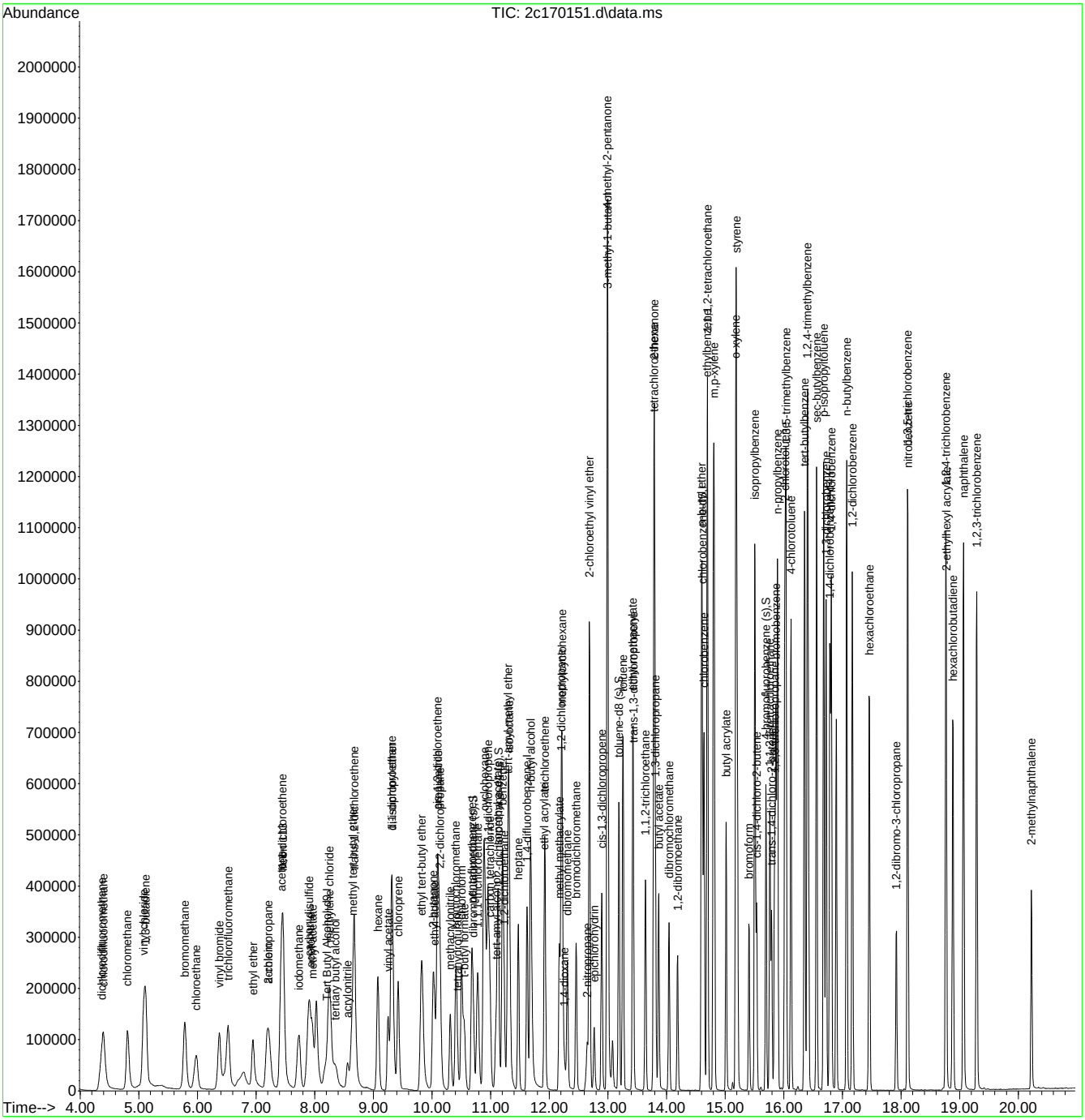
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	16.402	105	540576	52.96	ug/L	99
109) sec-butylbenzene	16.560	105	723676	55.50	ug/L	99
110) 1,3-dichlorobenzene	16.722	146	350647	54.04	ug/L	99
111) p-isopropyltoluene	16.680	119	620468	55.31	ug/L	100
112) 1,4-dichlorobenzene	16.811	146	351777	53.84	ug/L	100
113) 1,2-dichlorobenzene	17.168	146	378512	54.08	ug/L	99
114) n-butylbenzene	17.073	92	318488	56.29	ug/L	98
115) 1,2-dibromo-3-chloropr...	17.918	75	61966	60.55	ug/L	96
116) 1,3,5-trichlorobenzene	18.112	180	351348	55.51	ug/L	99
117) nitrobenzene	18.117	77	16978	86.81	ug/L	92
118) 1,2,4-trichlorobenzene	18.767	180	324869	57.27	ug/L	98
119) 2-ethylhexyl acrylate	18.772	55	24973	8.54	ug/L	95
120) hexachlorobutadiene	18.887	225	154737	54.57	ug/L	97
121) naphthalene	19.066	128	789987	52.05	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	301459	56.28	ug/L	98
123) hexachloroethane	17.461	201	130409	60.29	ug/L	93
124) 2-methylnaphthalene	20.224	142	177171	21.72	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170151.d
Acq On : 18 Sep 2019 8:44 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:36:09 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170182.d
Acq On : 19 Sep 2019 8:37 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:33:37 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.213	65	192779	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	177602	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	260583	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	272932	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	180187	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.708	113	89732	50.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	98996	47.40	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.80%			
75) toluene-d8 (s)	13.188	98	300626	51.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.28%			
98) 4-bromofluorobenzene (s)	15.694	95	132409	52.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.70%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.354	59	135690	291.70	ug/L	96
4) 1,4-dioxane	12.255	88	45406	1172.29	ug/L	92
6) chlorodifluoromethane	4.401	51	184992	45.32	ug/L	94
7) dichlorodifluoromethane	4.364	85	183673	43.21	ug/L	99
8) chloromethane	4.810	50	235851	47.22	ug/L	97
9) vinyl chloride	5.077	62	216745	46.51	ug/L	98
10) 1,3-butadiene	5.114	54	128102	38.95	ug/L	98
11) bromomethane	5.785	94	164335	43.62	ug/L	98
12) chloroethane	5.979	64	126719	43.59	ug/L	98
13) trichlorofluoromethane	6.524	101	250953	47.95	ug/L	99
14) vinyl bromide	6.372	106	138151	37.13	ug/L	97
15) ethyl ether	6.949	74	59185	47.06	ug/L	97
16) 2-chloropropane	7.196	43	212506	48.57	ug/L	94
17) acrolein	7.211	56	28131	62.16	ug/L	79
18) freon 113	7.452	151	106211	49.97	ug/L	96
19) 1,1-dichloroethene	7.452	96	114706	46.09	ug/L	99
20) acetone	7.431	58	64373	208.35	ug/L #	85
21) iodomethane	7.730	142	232102	52.68	ug/L	99
22) acetonitrile	7.956	41	196939	473.19	ug/L	91
23) carbon disulfide	7.909	76	420636	59.67	ug/L	98
24) methylene chloride	8.255	84	134336	45.62	ug/L	98
25) methyl acetate	7.961	43	126562	54.31	ug/L	100
26) methyl tert butyl ether	8.648	73	365335	48.52	ug/L	98
27) trans-1,2-dichloroethene	8.674	96	111687	46.65	ug/L	97
28) hexane	9.073	56	68369	51.93	ug/L	98
29) di-isopropyl ether	9.314	45	385182	50.52	ug/L	98
30) 1,1-dichloroethane	9.314	63	193857	49.96	ug/L	99
31) chloroprene	9.424	53	154940	50.78	ug/L	98
32) acrylonitrile	8.564	53	66385	55.68	ug/L	92
33) vinyl acetate	9.251	86	19697	57.30	ug/L #	72
34) ethyl tert-butyl ether	9.822	59	366238	51.61	ug/L	97
35) 2-butanone	10.022	72	70600	250.32	ug/L	90
36) ethyl acetate	10.048	45	23391	69.78	ug/L #	75
37) 2,2-dichloropropane	10.132	77	171418	52.52	ug/L	98
38) cis-1,2-dichloroethene	10.095	96	119658	48.31	ug/L	99
39) propionitrile	10.100	54	252381	577.32	ug/L	94
40) bromochloromethane	10.410	128	63630	50.06	ug/L	98
41) tetrahydrofuran	10.425	71	20041	58.96	ug/L #	79
42) chloroform	10.504	83	197058	49.14	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170182.d
Acq On : 19 Sep 2019 8:37 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:33:37 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.551	59	75726	49.32	ug/L		95
45) methacrylonitrile	10.310	67	53428	61.42	ug/L		97
46) 1,1,1-trichloroethane	10.782	97	204491	50.54	ug/L		98
47) cyclohexane	10.902	84	171842	47.56	ug/L		98
48) 1,1-dichloropropene	10.955	75	126161	53.39	ug/L		99
49) carbon tetrachloride	10.981	117	171049	51.06	ug/L		99
53) n-butyl alcohol	11.684	56	333183	2546.87	ug/L		97
54) tert-amyl alcohol	11.096	55	53416	252.06	ug/L	#	84
55) iso-octane	11.317	57	408403	53.68	ug/L		98
56) benzene	11.201	78	383699	50.46	ug/L		99
57) tert-amyl methyl ether	11.296	87	81699	45.45	ug/L		92
58) heptane	11.474	57	65894	53.17	ug/L		95
59) isopropyl acetate	11.123	87	26513	50.53	ug/L		95
60) 1,2-dichloroethane	11.227	62	144895	49.38	ug/L		98
61) ethyl acrylate	11.914	55	160963	60.03	ug/L		99
62) trichloroethene	11.925	95	105495	53.87	ug/L		99
63) 2-nitropropane	12.648	41	48988	76.50	ug/L		94
64) 2-chloroethyl vinyl ether	12.685	63	318449	294.86	ug/L		97
65) methyl methacrylate	12.171	100	31134	55.96	ug/L	#	84
66) 1,2-dichloropropane	12.203	63	103586	54.31	ug/L		94
67) dibromomethane	12.307	93	74999	51.91	ug/L		99
68) methylcyclohexane	12.218	83	188438	41.11	ug/L		96
69) bromodichloromethane	12.460	83	156858	58.74	ug/L		99
70) epichlorohydrin	12.769	57	89064	292.36	ug/L		96
71) cis-1,3-dichloropropene	12.895	75	171924	62.65	ug/L		98
72) 4-methyl-2-pentanone	12.994	58	247239	199.78	ug/L		95
73) 3-methyl-1-butanol	12.994	55	222237	965.72	ug/L		94
76) toluene	13.256	92	248770	54.73	ug/L		96
77) ethyl methacrylate	13.424	69	145371	54.25	ug/L		97
78) trans-1,3-dichloropropene	13.435	75	166299	70.07	ug/L		96
79) 1,1,2-trichloroethane	13.639	83	87485	57.74	ug/L		99
80) 2-hexanone	13.791	58	243665	225.77	ug/L		98
81) tetrachloroethene	13.786	164	104563	54.91	ug/L		97
82) 1,3-dichloropropane	13.812	76	153447	56.13	ug/L		96
83) butyl acetate	13.870	56	83477	51.60	ug/L		98
84) dibromochloromethane	14.043	129	136683	65.00	ug/L		100
85) 1,2-dibromoethane	14.190	107	132677	55.14	ug/L		99
86) n-butyl ether	14.599	57	425066	49.13	ug/L		98
87) chlorobenzene	14.641	112	298697	53.57	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.698	131	129002	51.73	ug/L		97
89) ethylbenzene	14.698	91	493214	50.46	ug/L		99
90) m,p-xylene	14.808	106	388323	101.48	ug/L		99
91) o-xylene	15.181	106	211672	48.57	ug/L		99
92) styrene	15.191	104	338928	51.29	ug/L		98
93) butyl acrylate	15.018	55	248257	47.68	ug/L		98
94) bromoform	15.406	173	121409	66.27	ug/L		100
95) isopropylbenzene	15.506	105	565207	48.07	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	66077	60.59	ug/L		98
99) bromobenzene	15.868	156	164953	57.41	ug/L		97
100) 1,1,2,2-tetrachloroethane	15.763	83	205404	60.63	ug/L		99
101) trans-1,4-dichloro-2-b...	15.794	88	29678	72.89	ug/L		99
102) 1,2,3-trichloropropane	15.847	110	52813	54.99	ug/L		100
103) n-propylbenzene	15.894	91	631358	55.20	ug/L		98
104) 2-chlorotoluene	16.020	126	149058	56.78	ug/L		100
105) 4-chlorotoluene	16.124	91	393230	56.46	ug/L		99
106) 1,3,5-trimethylbenzene	16.041	105	480683	54.26	ug/L		99
107) tert-butylbenzene	16.355	119	433616	58.19	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170182.d
Acq On : 19 Sep 2019 8:37 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:33:37 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

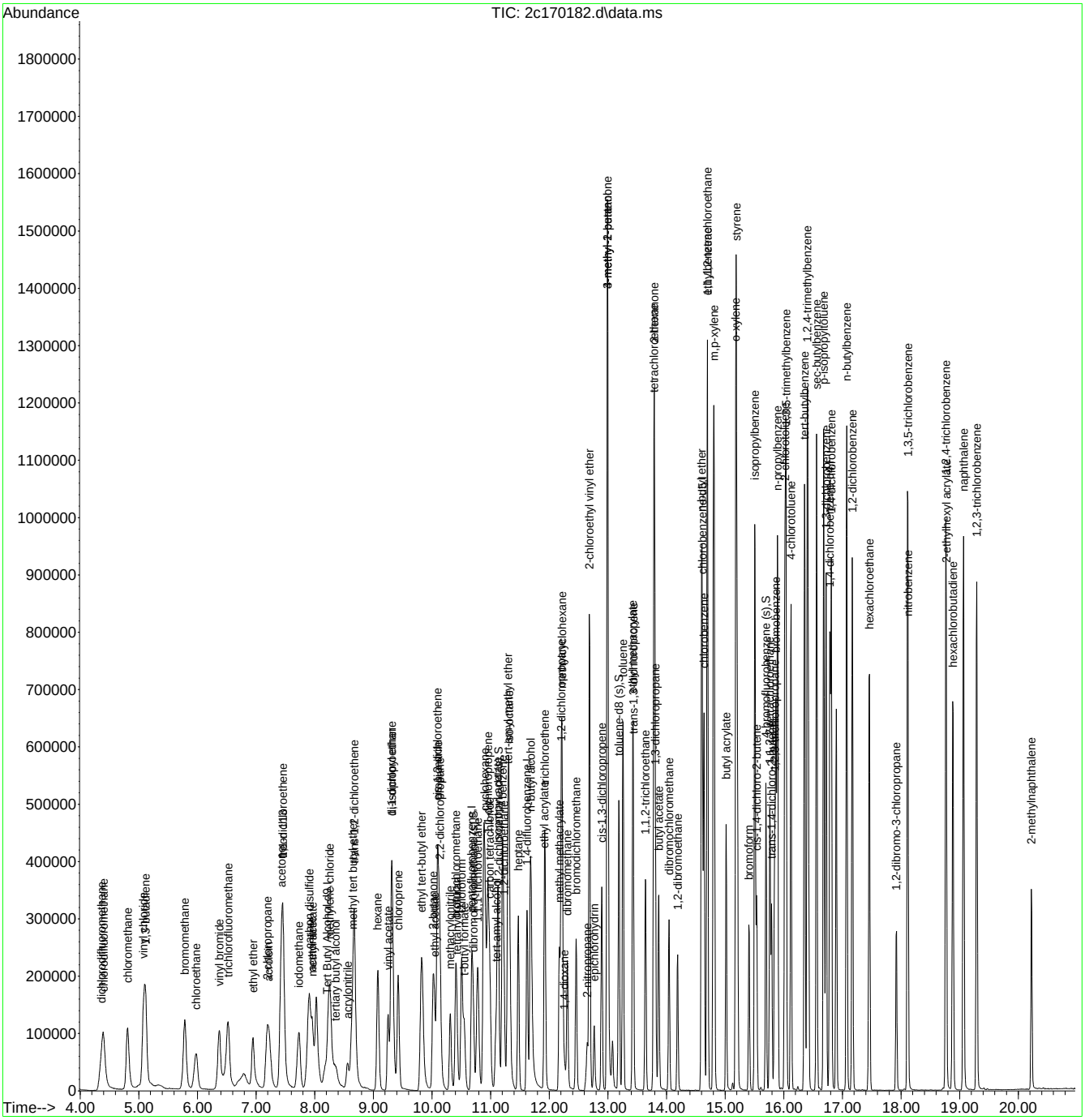
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	16.402	105	496311	53.59	ug/L	98
109) sec-butylbenzene	16.560	105	669503	56.59	ug/L	98
110) 1,3-dichlorobenzene	16.722	146	319976	54.35	ug/L	99
111) p-isopropyltoluene	16.680	119	573714	56.37	ug/L	98
112) 1,4-dichlorobenzene	16.811	146	319000	53.81	ug/L	99
113) 1,2-dichlorobenzene	17.168	146	342292	53.90	ug/L	97
114) n-butylbenzene	17.073	92	294606	57.39	ug/L	97
115) 1,2-dibromo-3-chloropr...	17.918	75	54874	59.09	ug/L	97
116) 1,3,5-trichlorobenzene	18.117	180	318111	55.39	ug/L	97
117) nitrobenzene	18.122	77	15697	88.14	ug/L	81
118) 1,2,4-trichlorobenzene	18.767	180	290084	56.36	ug/L	98
119) 2-ethylhexyl acrylate	18.772	55	23358	8.80	ug/L	95
120) hexachlorobutadiene	18.887	225	144125	56.02	ug/L	98
121) naphthalene	19.066	128	696343	50.57	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	270345	55.62	ug/L	98
123) hexachloroethane	17.461	201	122240	62.09	ug/L	93
124) 2-methylnaphthalene	20.224	142	148700	20.32	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170182.d
Acq On : 19 Sep 2019 8:37 am
Operator : edwardd
Sample : bs Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:33:37 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170159.d
Acq On : 18 Sep 2019 12:32 pm
Operator : edwardd
Sample : jc95050-2ms Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:31:55 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.228	65	192616	500.00	ug/L		-0.02
5) pentafluorobenzene	10.677	168	177985	50.00	ug/L		-0.01
51) 1,4-difluorobenzene	11.621	114	263014	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	270000	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	175924	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.703	113	88003	49.12	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.24%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	96576	45.81	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.62%				
75) toluene-d8 (s)	13.188	98	300718	51.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.42%				
98) 4-bromofluorobenzene (s)	15.695	95	129446	52.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.84%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.349	59	111983	240.94	ug/L		97
4) 1,4-dioxane	12.250	88	39092	1010.13	ug/L		94
6) chlorodifluoromethane	4.391	51	219283	53.61	ug/L		99
7) dichlorodifluoromethane	4.364	85	280540	65.86	ug/L		100
8) chloromethane	4.805	50	283773	56.69	ug/L		100
9) vinyl chloride	5.072	62	253920	54.37	ug/L		95
10) 1,3-butadiene	5.114	54	158689	48.15	ug/L		96
11) bromomethane	5.775	94	173913	46.06	ug/L		95
12) chloroethane	5.974	64	131327	45.08	ug/L		99
13) trichlorofluoromethane	6.509	101	266544	50.82	ug/L		99
14) vinyl bromide	6.367	106	140949	37.80	ug/L		99
15) ethyl ether	6.944	74	50708	40.23	ug/L		97
16) 2-chloropropane	7.185	43	198067	45.17	ug/L		94
17) acrolein	7.196	56	22289	49.14	ug/L		95
18) freon 113	7.452	151	108415	50.90	ug/L		98
19) 1,1-dichloroethene	7.442	96	109880	44.05	ug/L		99
20) acetone	7.426	58	54749	176.82	ug/L	#	86
21) iodomethane	7.720	142	219354	49.68	ug/L		98
22) acetonitrile	7.909	41	171117	410.26	ug/L		96
23) carbon disulfide	7.893	76	375861	53.20	ug/L		95
24) methylene chloride	8.244	84	115635	39.19	ug/L		99
25) methyl acetate	7.956	43	101553	43.49	ug/L		98
26) methyl tert butyl ether	8.643	73	316952	42.01	ug/L		97
27) trans-1,2-dichloroethene	8.674	96	103716	43.23	ug/L		99
28) hexane	9.073	56	69628	52.77	ug/L		91
29) di-isopropyl ether	9.314	45	329874	43.17	ug/L		99
30) 1,1-dichloroethane	9.309	63	165008	42.43	ug/L		99
31) chloroprene	9.424	53	132550	43.35	ug/L		95
32) acrylonitrile	8.554	53	53041	44.40	ug/L		94
33) vinyl acetate	9.251	86	16940	49.17	ug/L	#	91
34) ethyl tert-butyl ether	9.822	59	308792	43.42	ug/L		98
35) 2-butanone	10.016	72	55916	197.83	ug/L		98
36) ethyl acetate	10.048	45	24545	73.07	ug/L	#	40
37) 2,2-dichloropropane	10.132	77	157954	48.29	ug/L		99
38) cis-1,2-dichloroethene	10.090	96	102069	41.12	ug/L		98
39) propionitrile	10.095	54	195901	447.16	ug/L		93
40) bromochloromethane	10.404	128	52598	41.29	ug/L		97
41) tetrahydrofuran	10.431	71	16007	46.99	ug/L		90
42) chloroform	10.504	83	163187	40.61	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170159.d
Acq On : 18 Sep 2019 12:32 pm
Operator : edwardd
Sample : jc95050-2ms Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:31:55 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.551	59	46058	29.93	ug/L		88
45) methacrylonitrile	10.310	67	43730	50.16	ug/L		97
46) 1,1,1-trichloroethane	10.777	97	179721	44.33	ug/L		96
47) cyclohexane	10.897	84	178019	49.16	ug/L		96
48) 1,1-dichloropropene	10.955	75	110438	46.63	ug/L		99
49) carbon tetrachloride	10.981	117	156103	46.50	ug/L		98
53) n-butyl alcohol	11.684	56	260026	1969.28	ug/L		99
54) tert-amyl alcohol	11.096	55	43741	204.50	ug/L	#	81
55) iso-octane	11.317	57	393665	51.27	ug/L		95
56) benzene	11.201	78	330584	43.07	ug/L		100
57) tert-amyl methyl ether	11.296	87	67045	36.95	ug/L		97
58) heptane	11.469	57	63658	50.90	ug/L		92
59) isopropyl acetate	11.123	87	20860	39.39	ug/L	#	83
60) 1,2-dichloroethane	11.227	62	118669	40.07	ug/L		99
61) ethyl acrylate	11.914	55	126275	46.66	ug/L		99
62) trichloroethene	11.925	95	88709	44.88	ug/L		96
63) 2-nitropropane	12.648	41	37565	58.12	ug/L		96
65) methyl methacrylate	12.171	100	25862	46.05	ug/L	#	75
66) 1,2-dichloropropane	12.203	63	86362	44.86	ug/L		97
67) dibromomethane	12.308	93	61816	42.39	ug/L		99
68) methylcyclohexane	12.218	83	182383	39.42	ug/L		96
69) bromodichloromethane	12.460	83	126881	47.08	ug/L		99
70) epichlorohydrin	12.769	57	70218	228.37	ug/L		95
71) cis-1,3-dichloropropene	12.895	75	140180	50.61	ug/L		98
72) 4-methyl-2-pentanone	12.989	58	201583	161.38	ug/L		96
73) 3-methyl-1-butanol	13.000	55	174698	752.13	ug/L		98
76) toluene	13.257	92	207358	46.11	ug/L		96
77) ethyl methacrylate	13.424	69	117067	44.16	ug/L		97
78) trans-1,3-dichloropropene	13.430	75	133336	56.79	ug/L		90
79) 1,1,2-trichloroethane	13.639	83	71391	47.63	ug/L		98
80) 2-hexanone	13.791	58	189409	177.40	ug/L		94
81) tetrachloroethene	13.786	164	90972	48.30	ug/L		97
82) 1,3-dichloropropane	13.812	76	125904	46.56	ug/L		99
83) butyl acetate	13.865	56	67614	42.25	ug/L		98
84) dibromochloromethane	14.043	129	109762	52.76	ug/L		98
85) 1,2-dibromoethane	14.190	107	108986	45.79	ug/L		99
86) n-butyl ether	14.599	57	352168	41.15	ug/L		97
87) chlorobenzene	14.641	112	242893	44.04	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.698	131	106665	43.24	ug/L		97
89) ethylbenzene	14.693	91	412982	42.71	ug/L		99
90) m,p-xylene	14.808	106	323752	85.53	ug/L		99
91) o-xylene	15.181	106	177048	41.06	ug/L		99
92) styrene	15.191	104	277399	42.43	ug/L		99
93) butyl acrylate	15.018	55	197292	38.30	ug/L		99
94) bromoform	15.406	173	94683	52.24	ug/L		99
95) isopropylbenzene	15.506	105	479162	41.19	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	50527	46.83	ug/L		96
99) bromobenzene	15.868	156	134386	47.91	ug/L		98
100) 1,1,2,2-tetrachloroethane	15.763	83	164431	49.71	ug/L		99
101) trans-1,4-dichloro-2-b...	15.794	88	22916	57.65	ug/L		95
102) 1,2,3-trichloropropane	15.847	110	42680	45.52	ug/L		98
103) n-propylbenzene	15.894	91	529755	47.44	ug/L		98
104) 2-chlorotoluene	16.020	126	123976	48.37	ug/L		97
105) 4-chlorotoluene	16.124	91	324131	47.67	ug/L		100
106) 1,3,5-trimethylbenzene	16.041	105	402797	46.57	ug/L		99
107) tert-butylbenzene	16.355	119	359956	49.48	ug/L		98
108) 1,2,4-trimethylbenzene	16.402	105	413114	45.68	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170159.d
Acq On : 18 Sep 2019 12:32 pm
Operator : edwardd
Sample : jc95050-2ms Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:31:55 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

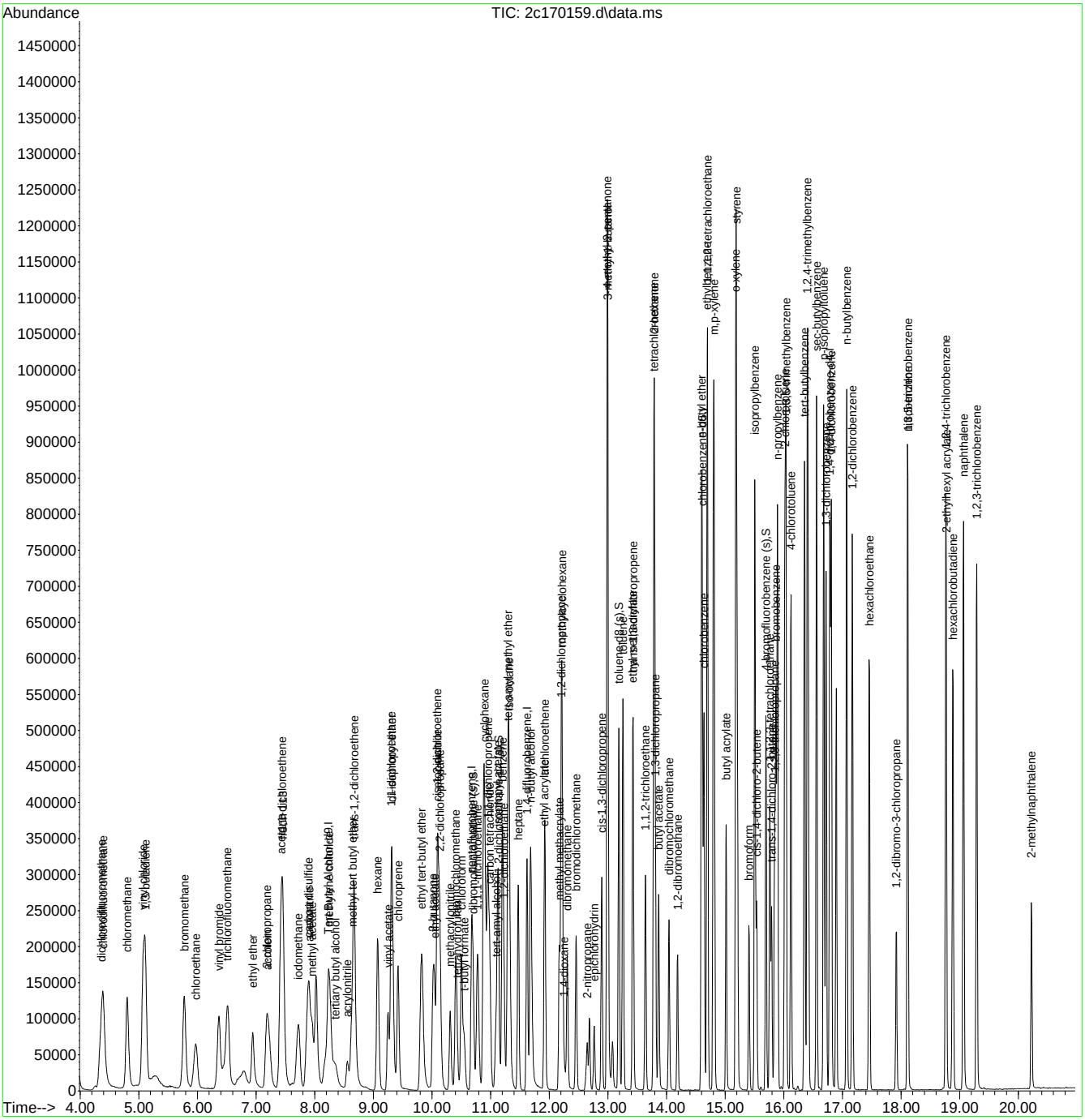
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	16.560	105	565438	48.96	ug/L	99
110) 1,3-dichlorobenzene	16.722	146	262388	45.65	ug/L	100
111) p-isopropyltoluene	16.680	119	481673	48.47	ug/L	98
112) 1,4-dichlorobenzene	16.811	146	261637	45.20	ug/L	98
113) 1,2-dichlorobenzene	17.168	146	282838	45.62	ug/L	99
114) n-butylbenzene	17.073	92	252269	50.33	ug/L	97
115) 1,2-dibromo-3-chloropr...	17.918	75	43710	48.21	ug/L	90
116) 1,3,5-trichlorobenzene	18.117	180	272768	48.65	ug/L	96
117) nitrobenzene	18.117	77	10472	64.59	ug/L	96
118) 1,2,4-trichlorobenzene	18.767	180	245158	48.78	ug/L	98
119) 2-ethylhexyl acrylate	18.772	55	17651	6.81	ug/L	95
120) hexachlorobutadiene	18.888	225	121878	48.52	ug/L	97
121) naphthalene	19.066	128	575007	42.77	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	222107	46.81	ug/L	97
123) hexachloroethane	17.461	201	98124	52.02	ug/L	93
124) 2-methylnaphthalene	20.225	142	116789	16.94	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170159.d
Acq On : 18 Sep 2019 12:32 pm
Operator : edwardd
Sample : jc95050-2ms Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:31:55 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170160.d
Acq On : 18 Sep 2019 1:01 pm
Operator : edwardd
Sample : jc95050-2msd Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:33:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	208867	500.00	ug/L	-0.02
5) pentafluorobenzene	10.682	168	193749	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	281564	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	286344	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	182100	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	94208	48.30	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.60%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	103625	45.92	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.84%			
75) toluene-d8 (s)	13.188	98	320184	51.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.82%			
98) 4-bromofluorobenzene (s)	15.695	95	136791	53.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.02%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.339	59	128612	255.19	ug/L	98
4) 1,4-dioxane	12.255	88	47402	1129.56	ug/L	95
6) chlorodifluoromethane	4.401	51	232153	52.14	ug/L	96
7) dichlorodifluoromethane	4.364	85	265350	57.23	ug/L	99
8) chloromethane	4.810	50	261155	47.93	ug/L	98
9) vinyl chloride	5.077	62	236520	46.52	ug/L	97
10) 1,3-butadiene	5.114	54	165368	46.09	ug/L	96
11) bromomethane	5.780	94	162877	39.63	ug/L	97
12) chloroethane	5.979	64	122522	38.63	ug/L	96
13) trichlorofluoromethane	6.519	101	250035	43.80	ug/L	99
14) vinyl bromide	6.367	106	132122	32.55	ug/L	97
15) ethyl ether	6.949	74	56591	41.24	ug/L	98
16) 2-chloropropane	7.196	43	208281	43.64	ug/L	94
17) acrolein	7.206	56	26140	52.95	ug/L	99
18) freon 113	7.458	151	113870	49.11	ug/L	99
19) 1,1-dichloroethene	7.452	96	116981	43.09	ug/L	100
20) acetone	7.426	58	62061	184.13	ug/L	93
21) iodomethane	7.725	142	234009	48.68	ug/L	95
22) acetonitrile	7.914	41	190501	419.57	ug/L	93
23) carbon disulfide	7.893	76	395137	51.38	ug/L	97
24) methylene chloride	8.249	84	124468	38.75	ug/L	99
25) methyl acetate	7.961	43	113064	44.48	ug/L	97
26) methyl tert butyl ether	8.653	73	342454	41.69	ug/L	100
27) trans-1,2-dichloroethene	8.679	96	113214	43.35	ug/L	97
28) hexane	9.078	56	76673	53.38	ug/L	96
29) di-isopropyl ether	9.319	45	355511	42.74	ug/L	98
30) 1,1-dichloroethane	9.314	63	178965	42.28	ug/L	99
31) chloroprene	9.424	53	145441	43.69	ug/L	97
32) acrylonitrile	8.559	53	58503	44.98	ug/L	97
33) vinyl acetate	9.251	86	18730	49.95	ug/L #	89
34) ethyl tert-butyl ether	9.822	59	331587	42.83	ug/L	97
35) 2-butanone	10.016	72	62553	203.30	ug/L	92
36) ethyl acetate	10.048	45	27144	74.23	ug/L #	51
37) 2,2-dichloropropane	10.126	77	164765	46.27	ug/L	99
38) cis-1,2-dichloroethene	10.090	96	110662	40.95	ug/L	98
39) propionitrile	10.100	54	217741	456.57	ug/L	94
40) bromochloromethane	10.410	128	57263	41.30	ug/L	97
41) tetrahydrofuran	10.431	71	18480	49.84	ug/L #	80
42) chloroform	10.504	83	176219	40.28	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170160.d
Acq On : 18 Sep 2019 1:01 pm
Operator : edwardd
Sample : jc95050-2msd Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:33:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.551	59	41409	24.72	ug/L		90
45) methacrylonitrile	10.315	67	48612	51.23	ug/L		96
46) 1,1,1-trichloroethane	10.782	97	189182	42.86	ug/L		97
47) cyclohexane	10.897	84	163616	41.51	ug/L		86
48) 1,1-dichloropropene	10.955	75	121573	47.16	ug/L		98
49) carbon tetrachloride	10.986	117	162485	44.46	ug/L		100
53) n-butyl alcohol	11.684	56	303306	2145.73	ug/L		98
54) tert-amyl alcohol	11.096	55	47159	205.95	ug/L	#	87
55) iso-octane	11.317	57	415986	50.60	ug/L		95
56) benzene	11.201	78	358225	43.60	ug/L		98
57) tert-amyl methyl ether	11.296	87	72924	37.54	ug/L		93
58) heptane	11.474	57	69867	52.18	ug/L		95
59) isopropyl acetate	11.123	87	23315	41.12	ug/L		97
60) 1,2-dichloroethane	11.233	62	128145	40.41	ug/L		97
61) ethyl acrylate	11.914	55	141602	48.87	ug/L		99
62) trichloroethene	11.925	95	95823	45.28	ug/L		96
63) 2-nitropropane	12.648	41	40036	57.86	ug/L		95
65) methyl methacrylate	12.171	100	28433	47.29	ug/L	#	78
66) 1,2-dichloropropane	12.203	63	92742	45.00	ug/L		100
67) dibromomethane	12.308	93	67901	43.49	ug/L		96
68) methylcyclohexane	12.218	83	194576	39.29	ug/L		98
69) bromodichloromethane	12.460	83	137451	47.64	ug/L		99
70) epichlorohydrin	12.769	57	75013	227.89	ug/L		96
71) cis-1,3-dichloropropene	12.895	75	152209	51.33	ug/L		98
72) 4-methyl-2-pentanone	12.989	58	218219	163.19	ug/L		95
73) 3-methyl-1-butanol	12.994	55	194890	783.78	ug/L		96
76) toluene	13.257	92	226238	47.44	ug/L		99
77) ethyl methacrylate	13.424	69	127688	45.42	ug/L		96
78) trans-1,3-dichloropropene	13.435	75	144140	57.88	ug/L		98
79) 1,1,2-trichloroethane	13.639	83	77395	48.69	ug/L		97
80) 2-hexanone	13.791	58	210320	185.74	ug/L		97
81) tetrachloroethene	13.786	164	97692	48.90	ug/L		96
82) 1,3-dichloropropane	13.812	76	134405	46.86	ug/L		100
83) butyl acetate	13.870	56	74253	43.75	ug/L		99
84) dibromochloromethane	14.043	129	116742	52.92	ug/L		98
85) 1,2-dibromoethane	14.190	107	117087	46.38	ug/L		98
86) n-butyl ether	14.599	57	380270	41.89	ug/L		99
87) chlorobenzene	14.641	112	262410	44.86	ug/L		100
88) 1,1,1,2-tetrachloroethane	14.698	131	115610	44.19	ug/L		98
89) ethylbenzene	14.698	91	443126	43.21	ug/L		100
90) m,p-xylene	14.808	106	343805	85.64	ug/L		98
91) o-xylene	15.181	106	188118	41.14	ug/L		99
92) styrene	15.191	104	295024	42.55	ug/L		98
93) butyl acrylate	15.018	55	216561	39.65	ug/L		99
94) bromoform	15.406	173	102336	53.24	ug/L		95
95) isopropylbenzene	15.506	105	508785	41.24	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	54285	47.44	ug/L		98
99) bromobenzene	15.868	156	142985	49.25	ug/L		98
100) 1,1,2,2-tetrachloroethane	15.763	83	174899	51.08	ug/L		99
101) trans-1,4-dichloro-2-b...	15.794	88	24429	59.37	ug/L		96
102) 1,2,3-trichloropropane	15.847	110	45885	47.27	ug/L		97
103) n-propylbenzene	15.894	91	560744	48.51	ug/L		99
104) 2-chlorotoluene	16.020	126	129493	48.81	ug/L		95
105) 4-chlorotoluene	16.124	91	344158	48.90	ug/L		99
106) 1,3,5-trimethylbenzene	16.041	105	425665	47.55	ug/L		100
107) tert-butylbenzene	16.355	119	384277	51.03	ug/L		98
108) 1,2,4-trimethylbenzene	16.402	105	437590	46.75	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170160.d
Acq On : 18 Sep 2019 1:01 pm
Operator : edwardd
Sample : jc95050-2msd Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:33:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

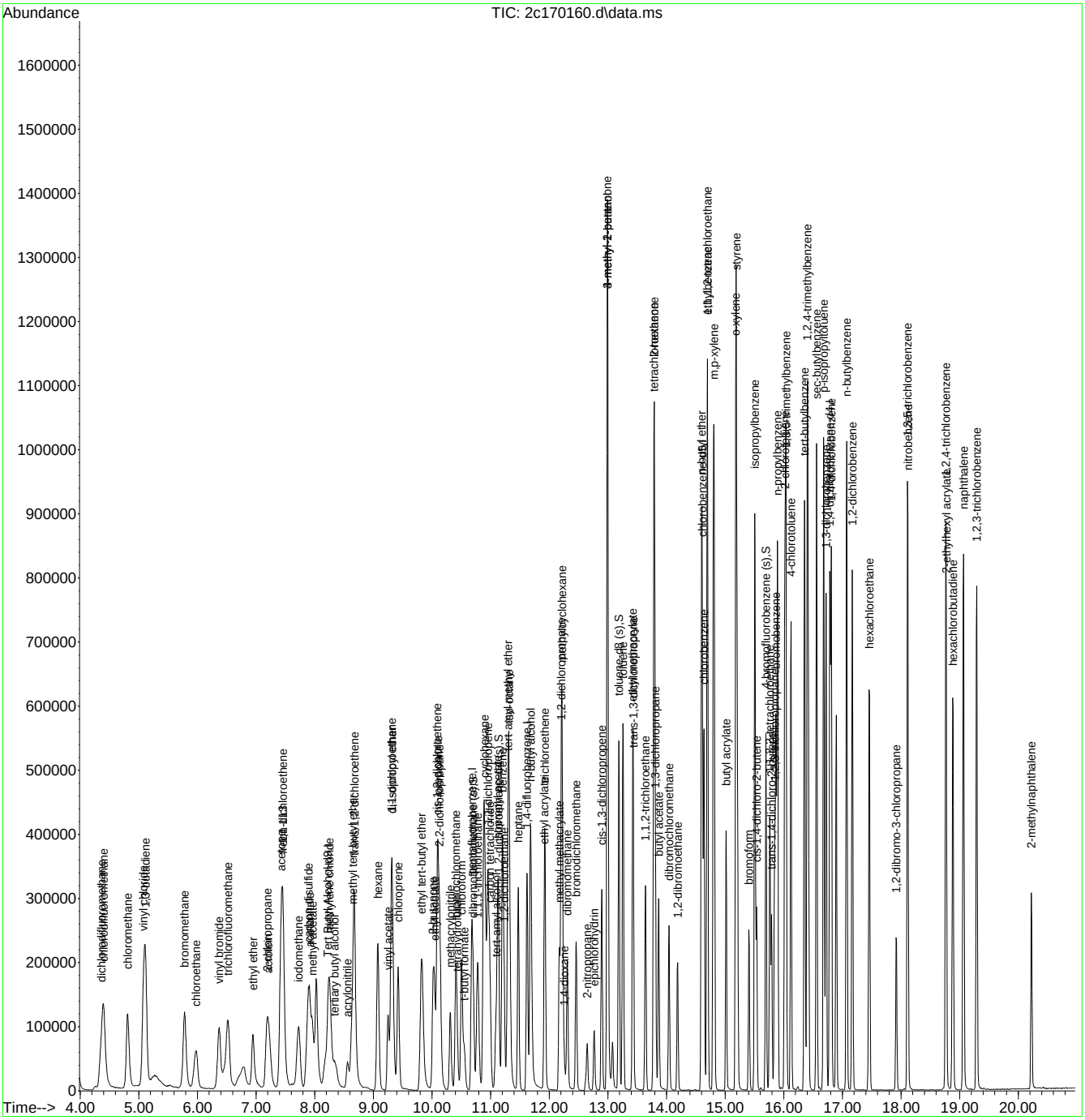
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	16.560	105	596449	49.89	ug/L	98
110) 1,3-dichlorobenzene	16.722	146	279338	46.95	ug/L	99
111) p-isopropyltoluene	16.680	119	507883	49.38	ug/L	99
112) 1,4-dichlorobenzene	16.811	146	276089	46.08	ug/L	100
113) 1,2-dichlorobenzene	17.168	146	296348	46.18	ug/L	99
114) n-butylbenzene	17.073	92	263692	50.82	ug/L	97
115) 1,2-dibromo-3-chloropr...	17.918	75	46658	49.72	ug/L	99
116) 1,3,5-trichlorobenzene	18.112	180	283163	48.79	ug/L	98
117) nitrobenzene	18.117	77	12462	72.45	ug/L	90
118) 1,2,4-trichlorobenzene	18.767	180	258696	49.73	ug/L	99
119) 2-ethylhexyl acrylate	18.772	55	20933	7.81	ug/L	97
120) hexachlorobutadiene	18.888	225	130495	50.19	ug/L	97
121) naphthalene	19.066	128	620002	44.55	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	238417	48.54	ug/L	98
123) hexachloroethane	17.461	201	104868	53.54	ug/L	94
124) 2-methylnaphthalene	20.225	142	136320	18.72	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-19-19\v2c7649\
Data File : 2c170160.d
Acq On : 18 Sep 2019 1:01 pm
Operator : edwardd
Sample : jc95050-2msd Inst : Instrument #1
Misc : MS37626,V2C7649,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 04:33:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170189.d
Acq On : 19 Sep 2019 11:56 am
Operator : edwardd
Sample : jc94921-7ms Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:31:34 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.213	65	177894	500.00	ug/L	-0.03
5) pentafluorobenzene	10.677	168	170701	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	252647	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	262763	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	170143	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	85484	49.75	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	97212	48.01	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.02%			
75) toluene-d8 (s)	13.188	98	291295	51.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.94%			
98) 4-bromofluorobenzene (s)	15.695	95	124253	52.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.04%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.360	59	112117	261.19	ug/L	92
4) 1,4-dioxane	12.255	88	38649	1081.33	ug/L	94
6) chlorodifluoromethane	4.401	51	211298	53.86	ug/L	97
7) dichlorodifluoromethane	4.370	85	271470	66.45	ug/L	97
8) chloromethane	4.805	50	274356	57.15	ug/L	100
9) vinyl chloride	5.077	62	240773	53.76	ug/L	99
10) 1,3-butadiene	5.114	54	148776	47.07	ug/L	97
11) bromomethane	5.780	94	167146	46.16	ug/L	99
12) chloroethane	5.974	64	128183	45.87	ug/L	96
13) trichlorofluoromethane	6.519	101	265703	52.83	ug/L	99
14) vinyl bromide	6.372	106	136720	38.23	ug/L	96
15) ethyl ether	6.949	74	52374	43.32	ug/L	92
16) 2-chloropropane	7.190	43	193193	45.94	ug/L	96
17) acrolein	7.211	56	23741	54.58	ug/L	94
18) freon 113	7.452	151	100998	49.44	ug/L	98
19) 1,1-dichloroethene	7.447	96	105065	43.92	ug/L	96
20) acetone	7.432	58	54242	182.66	ug/L	98
21) iodomethane	7.730	142	205525	48.53	ug/L	98
22) acetonitrile	7.935	41	164671	411.65	ug/L	98
23) carbon disulfide	7.903	76	359277	53.02	ug/L	97
24) methylene chloride	8.249	84	113212	40.00	ug/L	95
25) methyl acetate	7.966	43	107485	47.99	ug/L	98
26) methyl tert butyl ether	8.653	73	307425	42.48	ug/L	95
27) trans-1,2-dichloroethene	8.674	96	94023	40.86	ug/L	94
28) hexane	9.073	56	69997	55.31	ug/L	98
29) di-isopropyl ether	9.319	45	325956	44.48	ug/L	96
30) 1,1-dichloroethane	9.314	63	164985	44.24	ug/L	98
31) chloroprene	9.429	53	133698	45.59	ug/L	98
32) acrylonitrile	8.564	53	55061	48.05	ug/L	95
33) vinyl acetate	9.256	86	17247	52.20	ug/L #	93
34) ethyl tert-butyl ether	9.822	59	298627	43.78	ug/L	96
35) 2-butanone	10.022	72	59198	218.38	ug/L #	89
36) ethyl acetate	10.048	45	21045	65.32	ug/L #	68
37) 2,2-dichloropropane	10.132	77	148712	47.40	ug/L	94
38) cis-1,2-dichloroethene	10.095	96	110814	46.55	ug/L	99
39) propionitrile	10.100	54	214397	510.26	ug/L	94
40) bromochloromethane	10.410	128	52603	43.06	ug/L	95
41) tetrahydrofuran	10.425	71	16838	51.54	ug/L #	82
42) chloroform	10.504	83	163555	42.43	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170189.d
Acq On : 19 Sep 2019 11:56 am
Operator : edwardd
Sample : jc94921-7ms Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:31:34 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.551	59	37893	25.68	ug/L		95
45) methacrylonitrile	10.315	67	44944	53.76	ug/L		94
46) 1,1,1-trichloroethane	10.777	97	170833	43.93	ug/L		95
47) cyclohexane	10.897	84	173220	49.88	ug/L		87
48) 1,1-dichloropropene	10.955	75	110542	48.67	ug/L		99
49) carbon tetrachloride	10.986	117	148425	46.10	ug/L		99
53) n-butyl alcohol	11.689	56	279876	2206.59	ug/L		99
54) tert-amyl alcohol	11.107	55	45503	221.46	ug/L	#	83
55) iso-octane	11.317	57	385885	52.31	ug/L		98
56) benzene	11.207	78	331357	44.95	ug/L		98
57) tert-amyl methyl ether	11.301	87	66552	38.19	ug/L		94
58) heptane	11.474	57	65851	54.81	ug/L		95
59) isopropyl acetate	11.123	87	21606	42.47	ug/L	#	93
60) 1,2-dichloroethane	11.227	62	125012	43.94	ug/L		99
61) ethyl acrylate	11.914	55	131959	50.76	ug/L		99
62) trichloroethene	11.925	95	95482	50.29	ug/L		96
63) 2-nitropropane	12.648	41	39833	64.16	ug/L		96
65) methyl methacrylate	12.176	100	25695	47.63	ug/L	#	80
66) 1,2-dichloropropane	12.203	63	87267	47.19	ug/L		94
67) dibromomethane	12.308	93	63371	45.24	ug/L		95
68) methylcyclohexane	12.218	83	174273	39.22	ug/L		98
69) bromodichloromethane	12.460	83	128780	49.74	ug/L		99
70) epichlorohydrin	12.769	57	73095	247.48	ug/L		95
71) cis-1,3-dichloropropene	12.895	75	140716	52.89	ug/L		98
72) 4-methyl-2-pentanone	12.994	58	206980	172.50	ug/L		94
73) 3-methyl-1-butanol	13.000	55	183338	821.71	ug/L		97
76) toluene	13.257	92	207398	47.39	ug/L		99
77) ethyl methacrylate	13.424	69	118056	45.76	ug/L		98
78) trans-1,3-dichloropropene	13.430	75	135967	59.50	ug/L		86
79) 1,1,2-trichloroethane	13.639	83	72472	49.69	ug/L		99
80) 2-hexanone	13.791	58	200280	192.75	ug/L		94
81) tetrachloroethene	13.786	164	112386	61.31	ug/L		98
82) 1,3-dichloropropane	13.812	76	128860	48.96	ug/L		97
83) butyl acetate	13.870	56	68620	44.06	ug/L		96
84) dibromochloromethane	14.043	129	110186	54.43	ug/L		100
85) 1,2-dibromoethane	14.190	107	110789	47.83	ug/L		97
86) n-butyl ether	14.599	57	345609	41.49	ug/L		98
87) chlorobenzene	14.641	112	246834	45.98	ug/L		97
88) 1,1,1,2-tetrachloroethane	14.698	131	105281	43.85	ug/L		99
89) ethylbenzene	14.693	91	410118	43.58	ug/L		98
90) m,p-xylene	14.808	106	321365	87.23	ug/L		100
91) o-xylene	15.186	106	172752	41.17	ug/L		98
92) styrene	15.191	104	278185	43.72	ug/L		99
93) butyl acrylate	15.018	55	203432	40.58	ug/L		98
94) bromoform	15.411	173	95597	54.20	ug/L		98
95) isopropylbenzene	15.506	105	466675	41.22	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	50507	48.10	ug/L		97
99) bromobenzene	15.868	156	134010	49.40	ug/L		98
100) 1,1,2,2-tetrachloroethane	15.763	83	165661	51.78	ug/L		96
101) trans-1,4-dichloro-2-b...	15.794	88	23021	59.88	ug/L		96
102) 1,2,3-trichloropropane	15.847	110	42162	46.49	ug/L		97
103) n-propylbenzene	15.894	91	522683	48.40	ug/L		99
104) 2-chlorotoluene	16.020	126	121670	49.08	ug/L		99
105) 4-chlorotoluene	16.124	91	316840	48.18	ug/L		99
106) 1,3,5-trimethylbenzene	16.041	105	394627	47.18	ug/L		99
107) tert-butylbenzene	16.355	119	354974	50.45	ug/L		99
108) 1,2,4-trimethylbenzene	16.402	105	404944	46.30	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170189.d
Acq On : 19 Sep 2019 11:56 am
Operator : edwardd
Sample : jc94921-7ms Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:31:34 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

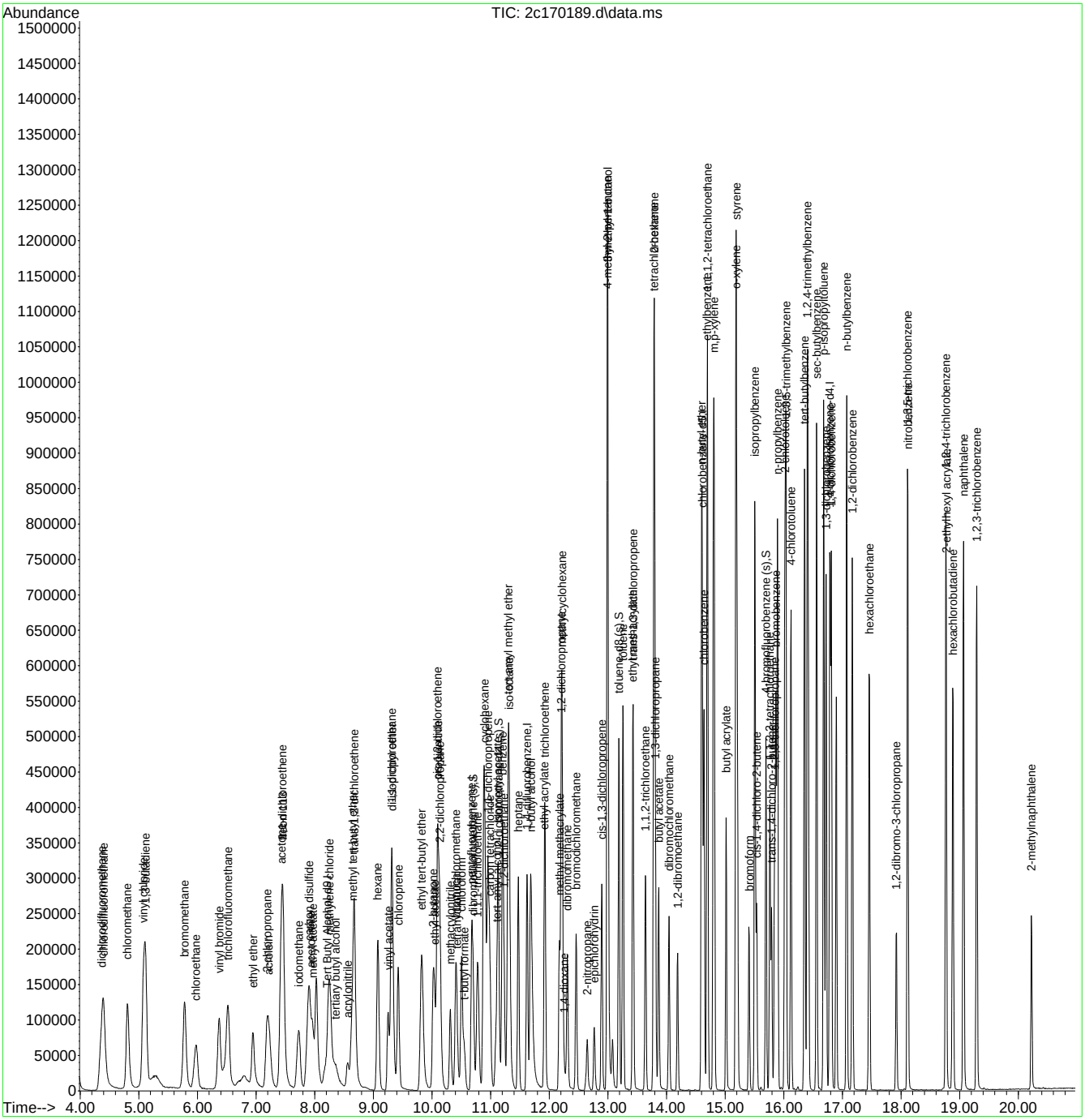
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	16.560	105	553766	49.57	ug/L	97
110) 1,3-dichlorobenzene	16.722	146	261191	46.99	ug/L	99
111) p-isopropyltoluene	16.680	119	470715	48.98	ug/L	100
112) 1,4-dichlorobenzene	16.811	146	262932	46.97	ug/L	98
113) 1,2-dichlorobenzene	17.168	146	277209	46.23	ug/L	99
114) n-butylbenzene	17.073	92	245414	50.63	ug/L	96
115) 1,2-dibromo-3-chloropr...	17.918	75	43312	49.40	ug/L	95
116) 1,3,5-trichlorobenzene	18.112	180	260836	48.10	ug/L	98
117) nitrobenzene	18.117	77	10029	64.07	ug/L	87
118) 1,2,4-trichlorobenzene	18.767	180	232358	47.81	ug/L	99
119) 2-ethylhexyl acrylate	18.772	55	16873	6.74	ug/L	90
120) hexachlorobutadiene	18.888	225	120716	49.69	ug/L	96
121) naphthalene	19.066	128	552147	42.46	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	212421	46.29	ug/L	97
123) hexachloroethane	17.461	201	96648	52.88	ug/L	93
124) 2-methylnaphthalene	20.225	142	107592	16.28	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170189.d
Acq On : 19 Sep 2019 11:56 am
Operator : edwardd
Sample : jc94921-7ms Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:31:34 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170190.d
Acq On : 19 Sep 2019 12:24 pm
Operator : edwardd
Sample : jc94921-7msd Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:34:25 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	195904	500.00	ug/L	-0.02
5) pentafluorobenzene	10.682	168	175629	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	259279	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	261784	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	173342	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	85110	48.14	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.28%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	96831	46.60	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.20%			
75) toluene-d8 (s)	13.188	98	300973	53.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.76%			
98) 4-bromofluorobenzene (s)	15.694	95	126573	52.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.04%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.349	59	128143	271.08	ug/L	95
4) 1,4-dioxane	12.260	88	50295	1277.80	ug/L	98
6) chlorodifluoromethane	4.396	51	236156	58.51	ug/L	98
7) dichlorodifluoromethane	4.364	85	282728	67.27	ug/L	95
8) chloromethane	4.805	50	264899	53.63	ug/L	98
9) vinyl chloride	5.077	62	245912	53.36	ug/L	99
10) 1,3-butadiene	5.109	54	168079	51.68	ug/L	97
11) bromomethane	5.780	94	169813	45.58	ug/L	98
12) chloroethane	5.974	64	127868	44.48	ug/L	97
13) trichlorofluoromethane	6.524	101	263969	51.01	ug/L	98
14) vinyl bromide	6.367	106	137174	37.28	ug/L	94
15) ethyl ether	6.949	74	54413	43.75	ug/L	92
16) 2-chloropropane	7.195	43	212041	49.01	ug/L	93
17) acrolein	7.190	56	24820	55.46	ug/L	98
18) freon 113	7.452	151	112941	53.73	ug/L	99
19) 1,1-dichloroethene	7.442	96	115436	46.90	ug/L	98
20) acetone	7.426	58	56447	184.75	ug/L	95
21) iodomethane	7.730	142	230742	52.96	ug/L	98
22) acetonitrile	7.945	41	181001	439.78	ug/L	94
23) carbon disulfide	7.903	76	393984	56.51	ug/L	97
24) methylene chloride	8.255	84	122358	42.02	ug/L	97
25) methyl acetate	7.956	43	113187	49.12	ug/L	97
26) methyl tert butyl ether	8.653	73	336665	45.22	ug/L	93
27) trans-1,2-dichloroethene	8.674	96	102445	43.27	ug/L	96
28) hexane	9.078	56	73964	56.81	ug/L	97
29) di-isopropyl ether	9.319	45	352555	46.76	ug/L	98
30) 1,1-dichloroethane	9.314	63	176050	45.88	ug/L	98
31) chloroprene	9.424	53	144488	47.89	ug/L	98
32) acrylonitrile	8.553	53	57540	48.81	ug/L	95
33) vinyl acetate	9.251	86	17997	52.94	ug/L #	81
34) ethyl tert-butyl ether	9.822	59	328523	46.81	ug/L	96
35) 2-butanone	10.021	72	61895	221.92	ug/L #	82
36) ethyl acetate	10.042	45	21043	63.48	ug/L	98
37) 2,2-dichloropropane	10.126	77	164548	50.98	ug/L	99
38) cis-1,2-dichloroethene	10.090	96	118702	48.46	ug/L	98
39) propionitrile	10.100	54	224773	519.94	ug/L	94
40) bromochloromethane	10.409	128	55480	44.14	ug/L	97
41) tetrahydrofuran	10.430	71	18532	55.14	ug/L	90
42) chloroform	10.504	83	174699	44.05	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170190.d
Acq On : 19 Sep 2019 12:24 pm
Operator : edwardd
Sample : jc94921-7msd Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:34:25 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.541	59	36074	23.76	ug/L		91
45) methacrylonitrile	10.315	67	47707	55.46	ug/L		95
46) 1,1,1-trichloroethane	10.776	97	188291	47.06	ug/L		98
47) cyclohexane	10.897	84	170881	47.82	ug/L		86
48) 1,1-dichloropropene	10.955	75	120619	51.62	ug/L		97
49) carbon tetrachloride	10.986	117	164718	49.72	ug/L		99
53) n-butyl alcohol	11.683	56	329806	2533.74	ug/L		100
54) tert-amyl alcohol	11.096	55	49491	234.71	ug/L	#	83
55) iso-octane	11.316	57	412834	54.54	ug/L		97
56) benzene	11.201	78	356653	47.14	ug/L		99
57) tert-amyl methyl ether	11.296	87	71265	39.84	ug/L		90
58) heptane	11.474	57	69002	55.96	ug/L		96
59) isopropyl acetate	11.122	87	23502	45.02	ug/L	#	71
60) 1,2-dichloroethane	11.227	62	129340	44.30	ug/L		99
61) ethyl acrylate	11.914	55	143602	53.82	ug/L		98
62) trichloroethene	11.925	95	104632	53.70	ug/L		97
63) 2-nitropropane	12.648	41	41972	65.87	ug/L		99
65) methyl methacrylate	12.171	100	28344	51.20	ug/L	#	79
66) 1,2-dichloropropane	12.208	63	92507	48.74	ug/L		96
67) dibromomethane	12.313	93	67155	46.71	ug/L		97
68) methylcyclohexane	12.218	83	189050	41.45	ug/L		97
69) bromodichloromethane	12.459	83	138111	51.98	ug/L		99
70) epichlorohydrin	12.769	57	77747	256.49	ug/L		97
71) cis-1,3-dichloropropene	12.895	75	152412	55.82	ug/L		99
72) 4-methyl-2-pentanone	12.989	58	224348	182.20	ug/L		94
73) 3-methyl-1-butanol	12.999	55	212005	925.89	ug/L		97
76) toluene	13.256	92	226719	52.00	ug/L		100
77) ethyl methacrylate	13.424	69	127561	49.63	ug/L		96
78) trans-1,3-dichloropropene	13.435	75	146415	64.31	ug/L		96
79) 1,1,2-trichloroethane	13.639	83	77057	53.03	ug/L		98
80) 2-hexanone	13.791	58	217040	209.66	ug/L		97
81) tetrachloroethene	13.786	164	118551	64.91	ug/L		97
82) 1,3-dichloropropane	13.812	76	137092	52.29	ug/L		97
83) butyl acetate	13.870	56	74543	48.04	ug/L		98
84) dibromochloromethane	14.043	129	119998	59.50	ug/L		100
85) 1,2-dibromoethane	14.190	107	117963	51.11	ug/L		100
86) n-butyl ether	14.599	57	378666	45.63	ug/L		98
87) chlorobenzene	14.641	112	264291	49.42	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.698	131	113413	47.42	ug/L		98
89) ethylbenzene	14.693	91	441926	47.14	ug/L		99
90) m,p-xylene	14.808	106	344141	93.77	ug/L		99
91) o-xylene	15.181	106	187268	44.80	ug/L		98
92) styrene	15.191	104	296523	46.78	ug/L		98
93) butyl acrylate	15.018	55	218878	43.83	ug/L		97
94) bromoform	15.406	173	102781	58.49	ug/L		98
95) isopropylbenzene	15.506	105	507462	44.99	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	56846	54.34	ug/L		98
99) bromobenzene	15.867	156	144735	52.37	ug/L		97
100) 1,1,2,2-tetrachloroethane	15.763	83	178990	54.92	ug/L		99
101) trans-1,4-dichloro-2-b...	15.794	88	25294	64.58	ug/L		97
102) 1,2,3-trichloropropane	15.846	110	46490	50.32	ug/L		99
103) n-propylbenzene	15.894	91	566700	51.50	ug/L		99
104) 2-chlorotoluene	16.019	126	131161	51.94	ug/L		98
105) 4-chlorotoluene	16.124	91	343750	51.31	ug/L		99
106) 1,3,5-trimethylbenzene	16.040	105	430962	50.57	ug/L		98
107) tert-butylbenzene	16.355	119	387292	54.03	ug/L		100
108) 1,2,4-trimethylbenzene	16.402	105	441117	49.51	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170190.d
Acq On : 19 Sep 2019 12:24 pm
Operator : edwardd
Sample : jc94921-7msd Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:34:25 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

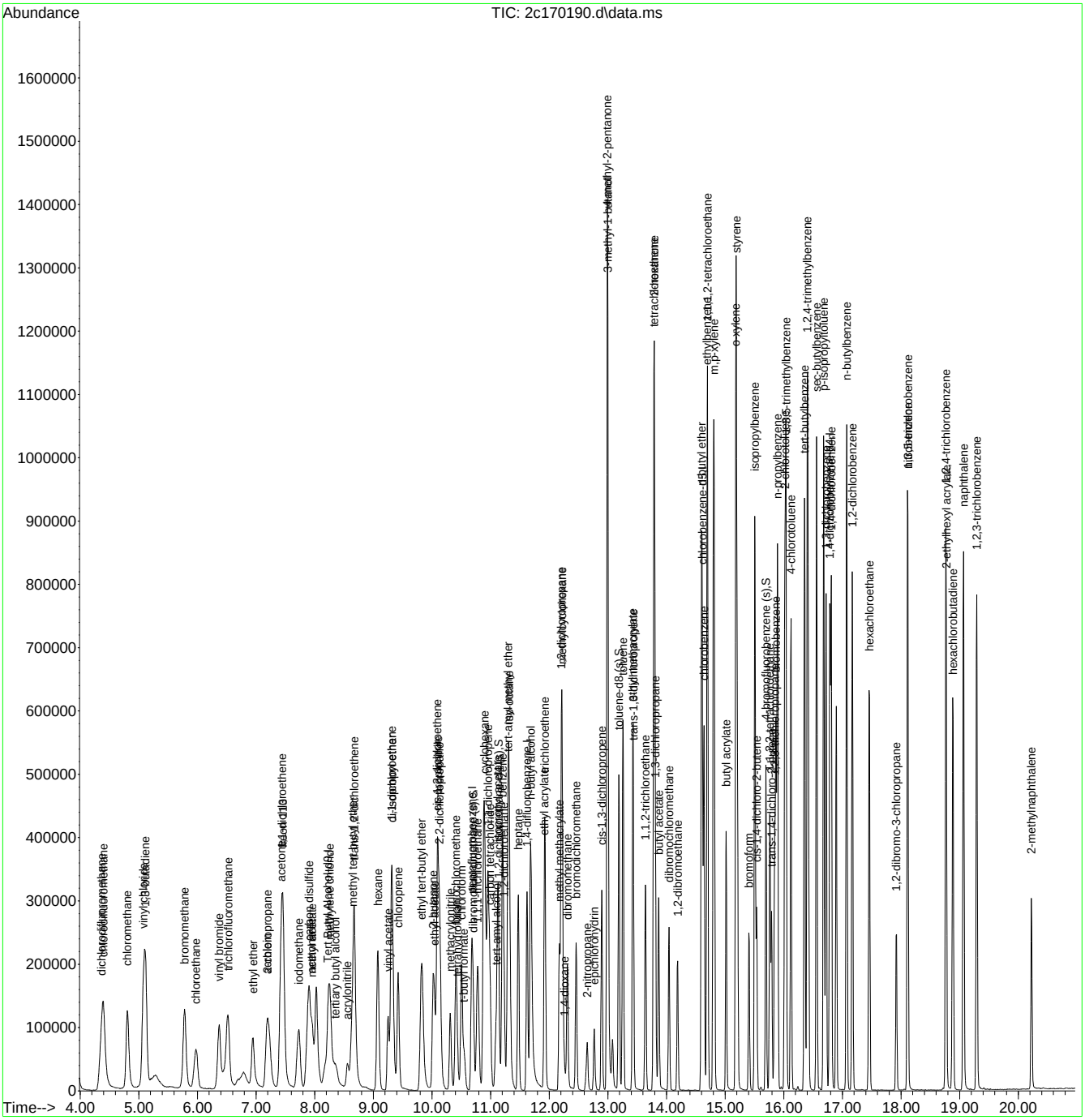
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	16.560	105	603815	53.06	ug/L	98
110) 1,3-dichlorobenzene	16.722	146	282399	49.87	ug/L	100
111) p-isopropyltoluene	16.680	119	512694	52.36	ug/L	98
112) 1,4-dichlorobenzene	16.811	146	282111	49.46	ug/L	98
113) 1,2-dichlorobenzene	17.168	146	302181	49.46	ug/L	99
114) n-butylbenzene	17.073	92	270542	54.78	ug/L	98
115) 1,2-dibromo-3-chloropr...	17.917	75	49323	55.21	ug/L	94
116) 1,3,5-trichlorobenzene	18.117	180	284750	51.54	ug/L	97
117) nitrobenzene	18.117	77	12306	74.65	ug/L	90
118) 1,2,4-trichlorobenzene	18.767	180	255951	51.69	ug/L	100
119) 2-ethylhexyl acrylate	18.772	55	20211	7.92	ug/L	99
120) hexachlorobutadiene	18.887	225	130629	52.78	ug/L	97
121) naphthalene	19.066	128	618899	46.72	ug/L	98
122) 1,2,3-trichlorobenzene	19.291	180	237518	50.80	ug/L	96
123) hexachloroethane	17.461	201	105152	56.12	ug/L	93
124) 2-methylnaphthalene	20.224	142	134366	19.27	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\9_sept\9-20-19\v2c7651\
Data File : 2c170190.d
Acq On : 19 Sep 2019 12:24 pm
Operator : edwardd
Sample : jc94921-7msd Inst : Instrument #1
Misc : MS37578,V2C7651,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

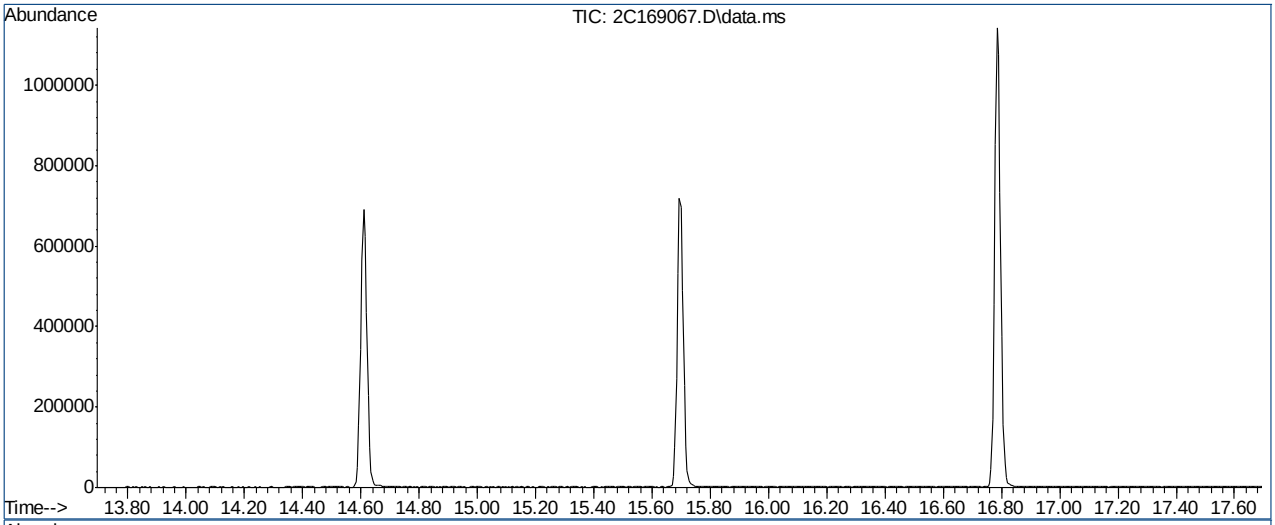
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 23:34:25 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

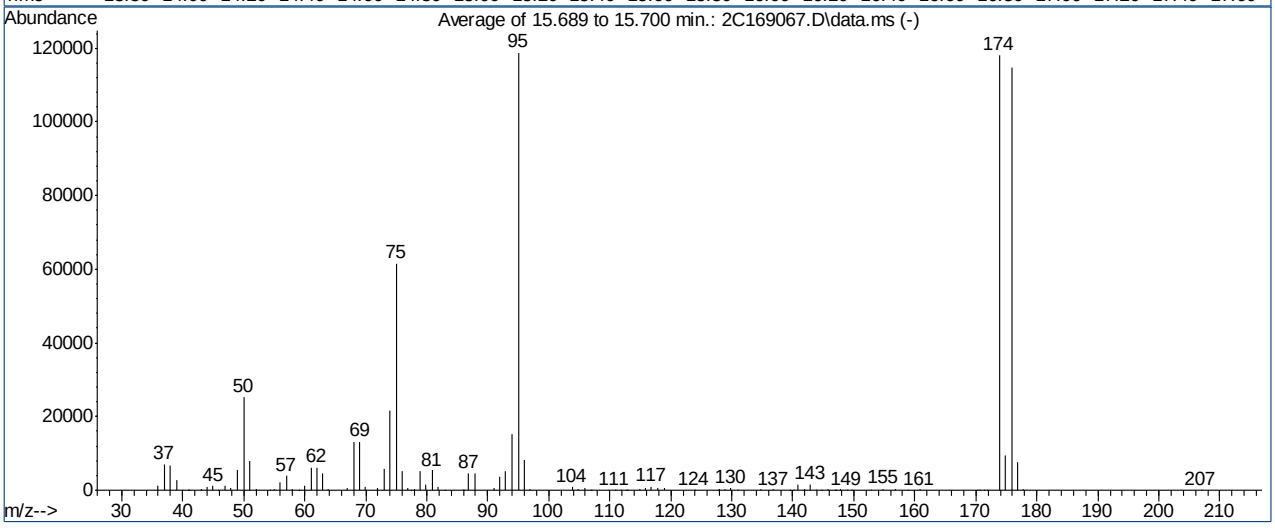


SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V2C7580\2C169067.D Vial: 3
Acq On : 31 Jul 2019 6:24 pm Operator: brittank
Sample : bfb Inst : Instrument #1
Misc : MS36344,V2C7580,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um





AutoFind: Scans 2233, 2234, 2235; Background Corrected with Scan 2225

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	25293	PASS
75	95	30	60	51.8	61562	PASS
95	95	100	100	100.0	118832	PASS
96	95	5	9	6.8	8105	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.4	118096	PASS
175	174	5	9	7.9	9372	PASS
176	174	95	101	97.1	114704	PASS
177	176	5	9	6.7	7741	PASS

2C169067.D M2C7580.M Thu Aug 01 12:16:34 2019 RPT1

Average of 15.689 to 15.700 min.: 2C169067.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1349	47.00	1211	59.10	40	73.00	5787
37.00	7149	47.95	566	59.95	1144	74.00	21733
38.00	6588	49.00	5630	61.00	6160	75.00	61562
39.00	2639	50.00	25293	62.00	6181	76.00	5069
39.95	115	51.00	7917	63.00	4688	76.95	673
40.80	46	52.00	323	63.90	441	77.50	83
41.00	47	54.30	40	67.05	469	77.90	442
43.00	200	54.95	381	68.00	12981	78.85	5106
44.00	947	56.00	2232	69.00	13225	79.90	1512
44.95	1194	57.00	3936	69.95	1064	80.90	5413
45.90	88	58.00	177	71.95	725	81.90	1046

Average of 15.689 to 15.700 min.: 2C169067.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	53	96.95	233	114.85	215	134.80	298
85.90	74	103.85	775	115.80	548	136.85	302
86.10	69	104.80	231	116.85	948	139.60	44
86.90	4672	105.85	708	117.85	546	140.05	98
87.90	4587	106.80	49	118.90	771	140.90	1477
90.95	570	106.95	103	123.90	48	141.95	249
91.90	3597	109.85	100	127.70	117	142.90	1548
92.95	5135	110.85	159	127.90	332	143.80	60
94.00	15117	111.85	106	128.85	244	144.75	139
95.00	118832	112.70	69	129.85	505	145.85	232
96.00	8105	112.90	50	130.85	162	146.80	67

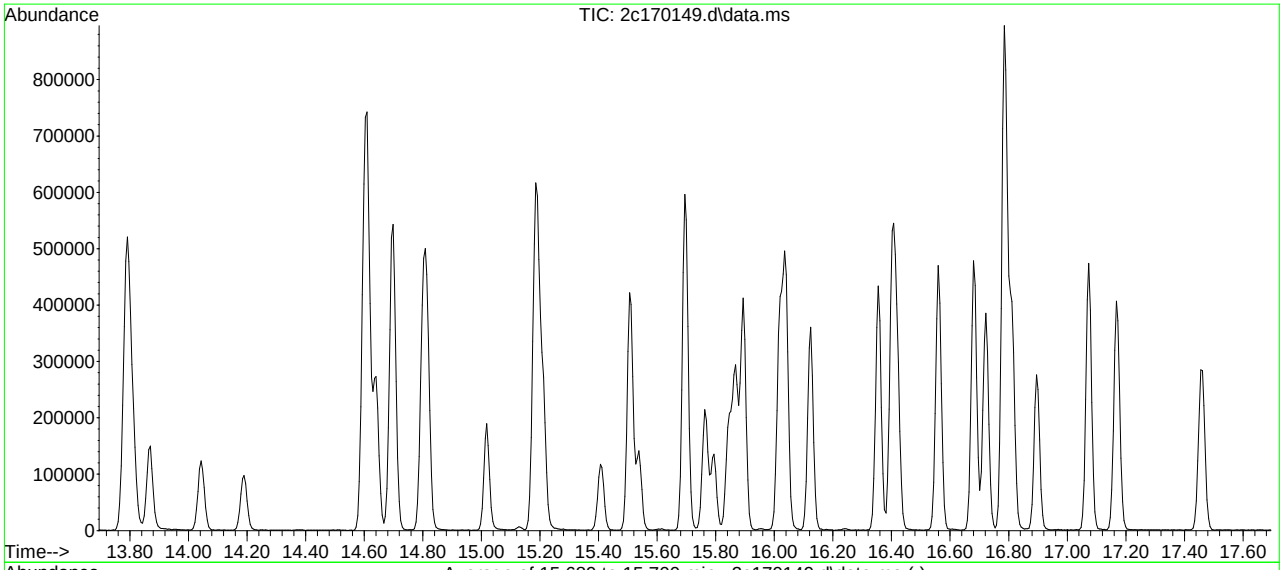
Average of 15.689 to 15.700 min.: 2C169067.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
147.00	44	171.35	138				
147.80	363	171.90	70				
148.85	119	173.90	118096				
149.70	48	174.90	9372				
152.85	91	175.90	114704				
154.85	356	176.90	7741				
156.85	176	177.85	216				
158.85	158	206.90	11				
160.85	186						
170.30	53						
170.60	41						

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...c7649-rush\2c170149.d Vial: 2
Acq On : 18 Sep 2019 7:40 am Operator: edwardd
Sample : BFB Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2233, 2234, 2235; Background Corrected with Scan 2225

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	20283	PASS
75	95	30	60	51.5	49795	PASS
95	95	100	100	100.0	96765	PASS
96	95	5	9	7.1	6825	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	101.3	97992	PASS
175	174	5	9	7.8	7620	PASS
176	174	95	101	100.4	98357	PASS
177	176	5	9	6.3	6182	PASS

2c170149.d M2C7580.M Wed Sep 18 13:34:19 2019

Average of 15.689 to 15.700 min.: 2c170149.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1148	49.00	4430	63.00	3953	76.00	4138
37.00	6221	50.00	20283	63.95	406	76.95	592
38.00	5336	51.00	6602	65.00	109	77.95	475
39.00	2240	51.95	307	67.00	263	78.90	4056
39.90	34	54.85	318	68.00	10291	79.85	1126
43.05	103	55.95	1679	69.00	10639	80.90	4227
44.00	745	57.00	3233	69.90	936	81.85	925
45.00	1142	57.95	186	71.95	557	85.90	89
46.00	96	59.95	843	73.00	4814	86.90	4097
46.95	1239	61.00	5040	74.00	17286	87.90	3808
47.90	599	62.00	4726	75.00	49795	90.80	170

Average of 15.689 to 15.700 min.: 2c170149.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	311	110.10	46	129.70	97	143.95	113
91.95	2992	110.80	99	129.85	281	144.85	165
92.95	4376	112.80	53	130.85	187	145.75	219
94.00	12196	114.95	135	134.70	49	147.00	43
95.00	96765	115.85	432	134.95	187	147.90	238
96.00	6825	116.85	748	136.70	148	148.90	78
97.00	191	117.85	442	136.90	109	149.90	95
103.85	559	118.85	608	139.85	96	152.90	45
104.85	191	126.90	40	140.85	1086	154.85	277
105.85	612	127.85	412	141.80	189	156.90	252
106.70	47	128.85	234	142.85	1223	158.75	115

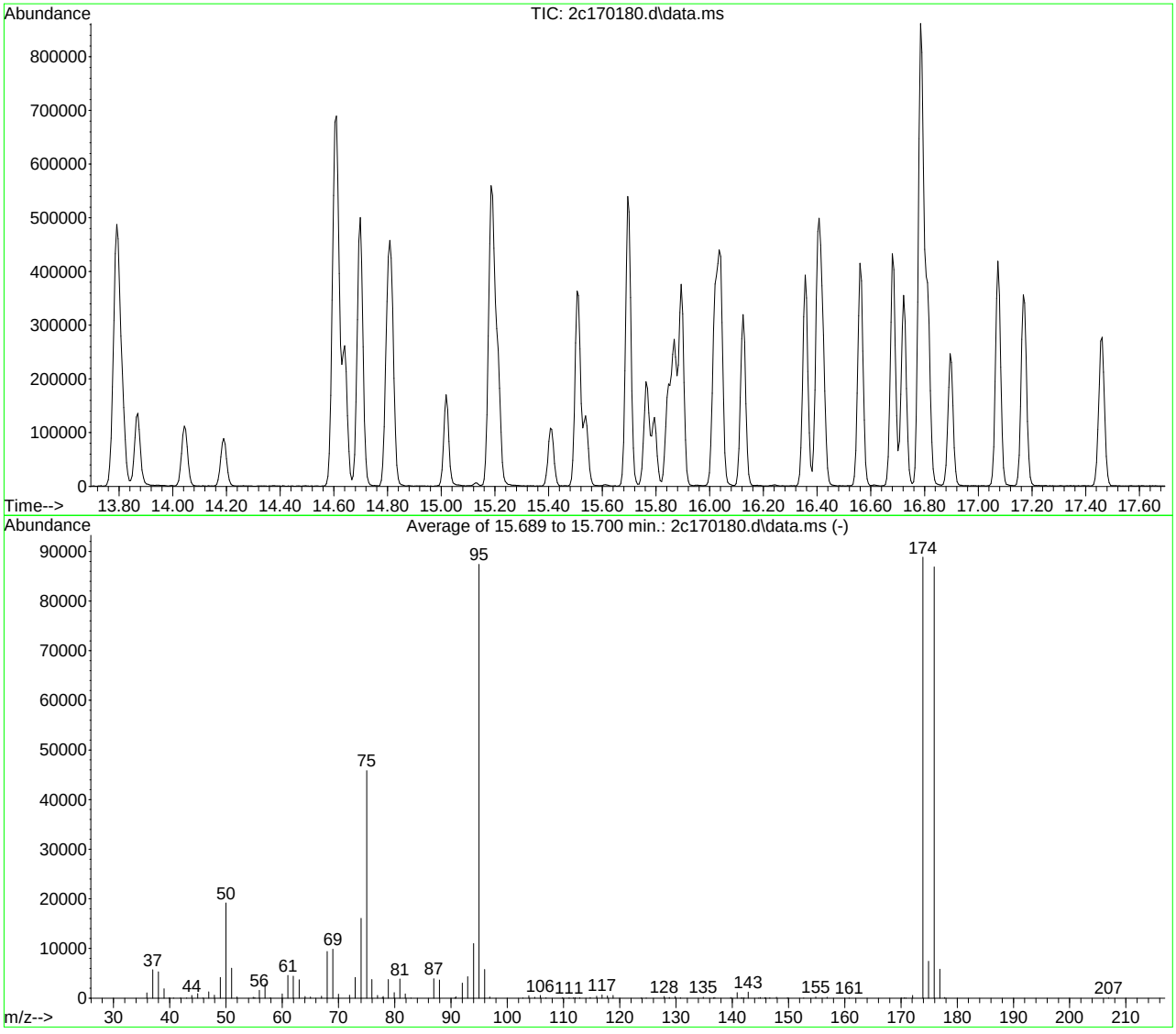
Average of 15.689 to 15.700 min.: 2c170149.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.80	114	207.05	197				
170.20	44						
170.55	103						
171.20	57						
171.95	458						
173.90	97992						
174.95	7620						
175.90	98357						
176.90	6182						
177.75	105						
178.00	86						

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...c7651 rush\2c170180.d Vial: 2
Acq On : 19 Sep 2019 7:33 am Operator: edwardd
Sample : BFB Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7580.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2233, 2234, 2235; Background Corrected with Scan 2224

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.9	19184	PASS
75	95	30	60	52.5	45851	PASS
95	95	100	100	100.0	87408	PASS
96	95	5	9	6.6	5776	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	101.6	88840	PASS
175	174	5	9	8.4	7437	PASS
176	174	95	101	97.8	86888	PASS
177	176	5	9	6.7	5813	PASS

2c170180.d M2C7580.M Thu Sep 19 11:29:04 2019

Average of 15.689 to 15.700 min.: 2c170180.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	1044	46.95	1258	60.00	863	72.95	4164
37.00	5709	47.95	595	61.00	4572	74.00	16083
38.00	5322	49.00	4188	61.95	4433	75.00	45851
39.00	1884	50.00	19184	63.00	3700	75.95	3748
39.95	97	51.00	6059	64.05	342	76.95	562
40.70	44	51.95	227	65.00	245	77.80	119
41.90	53	54.85	167	67.00	369	77.95	341
43.00	50	55.10	143	68.00	9381	78.85	3779
43.90	550	55.95	1606	69.00	9857	79.90	1107
44.95	922	56.95	2805	70.00	828	80.90	3883
45.90	43	57.90	96	71.95	576	81.85	865

Average of 15.689 to 15.700 min.: 2c170180.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.90	52	102.80	49	115.90	408	136.70	69
86.95	3897	103.85	514	116.85	655	136.90	158
87.95	3672	104.90	173	117.80	417	139.75	109
90.70	104	105.90	539	118.80	551	140.90	1111
90.85	303	106.90	96	123.80	45	141.60	52
92.00	3024	109.80	100	124.70	54	141.80	58
92.95	4308	111.00	64	127.90	359	142.10	69
94.00	10980	111.80	62	128.80	141	142.85	1239
95.00	87408	112.10	57	129.85	357	144.70	52
96.00	5776	112.90	100	130.80	57	145.00	116
96.90	228	114.75	124	134.85	209	145.80	70

Average of 15.689 to 15.700 min.: 2c170180.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
146.00	51	172.05	533				
146.70	58	173.90	88840				
147.85	207	174.90	7437				
149.85	105	175.90	86888				
152.70	53	176.90	5813				
154.85	259	177.80	121				
156.85	207	206.90	55				
160.80	50						
170.10	41						
170.60	57						
170.90	54						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169068.D
Acq On : 31 Jul 2019 6:56 pm
Operator : brittank
Sample : ic7580-0.2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 01 11:47:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.228	65	253771	500.00	ug/L		0.00
5) pentafluorobenzene	10.687	168	184654	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.626	114	247314	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	297803	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	240653	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.713	113	95255	51.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.06%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	105336	52.64	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.28%				
75) toluene-d8 (s)	13.188	98	305973	48.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.18%				
98) 4-bromofluorobenzene (s)	15.694	95	166067	49.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.02%				
Target Compounds							Qvalue
9) vinyl chloride	5.082	62	971	0.22	ug/L		83
14) vinyl bromide	6.383	106	787	0.22	ug/L	#	61
19) 1,1-dichloroethene	7.442	96	484	0.20	ug/L	#	6
21) iodomethane	7.735	142	826	0.21	ug/L	#	41
23) carbon disulfide	7.877	76	1667	0.25	ug/L	#	1
29) di-isopropyl ether	9.335	45	1667	0.23	ug/L		69
30) 1,1-dichloroethane	9.319	63	778	0.21	ug/L		88
34) ethyl tert-butyl ether	9.827	59	1524	0.23	ug/L		73
37) 2,2-dichloropropane	10.131	77	703	0.23	ug/L	#	29
46) 1,1,1-trichloroethane	10.787	97	782	0.20	ug/L		99
47) cyclohexane	10.907	84	763	0.22	ug/L	#	59
48) 1,1-dichloropropene	10.960	75	438	0.20	ug/L	#	46
49) carbon tetrachloride	10.997	117	595	0.19	ug/L	#	65
55) iso-octane	11.311	57	1237	0.19	ug/L		84
56) benzene	11.212	78	1632	0.25	ug/L		96
62) trichloroethene	11.930	95	400	0.24	ug/L	#	75
64) 2-chloroethyl vinyl ether	12.690	63	888	0.96	ug/L		71
68) methylcyclohexane	12.223	83	959	0.24	ug/L		90
69) bromodichloromethane	12.454	83	526	0.23	ug/L		92
71) cis-1,3-dichloropropene	12.900	75	498	0.21	ug/L	#	66
72) 4-methyl-2-pentanone	12.999	58	877	0.82	ug/L		96
76) toluene	13.267	92	1011	0.23	ug/L	#	71
77) ethyl methacrylate	13.435	69	666	0.25	ug/L		74
78) trans-1,3-dichloropropene	13.440	75	448	0.20	ug/L	#	48
80) 2-hexanone	13.807	58	770	0.72	ug/L	#	42
81) tetrachloroethene	13.781	164	484	0.26	ug/L	#	82
85) 1,2-dibromoethane	14.190	107	567	0.24	ug/L	#	61
86) n-butyl ether	14.604	57	2087	0.24	ug/L	#	1
87) chlorobenzene	14.640	112	1238	0.23	ug/L		94
88) 1,1,1,2-tetrachloroethane	14.698	131	513	0.21	ug/L		83
89) ethylbenzene	14.698	91	2307	0.24	ug/L		93
90) m,p-xylene	14.814	106	1636	0.43	ug/L	#	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169068.D
Acq On : 31 Jul 2019 6:56 pm
Operator : brittank
Sample : ic7580-0.2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 01 11:47:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

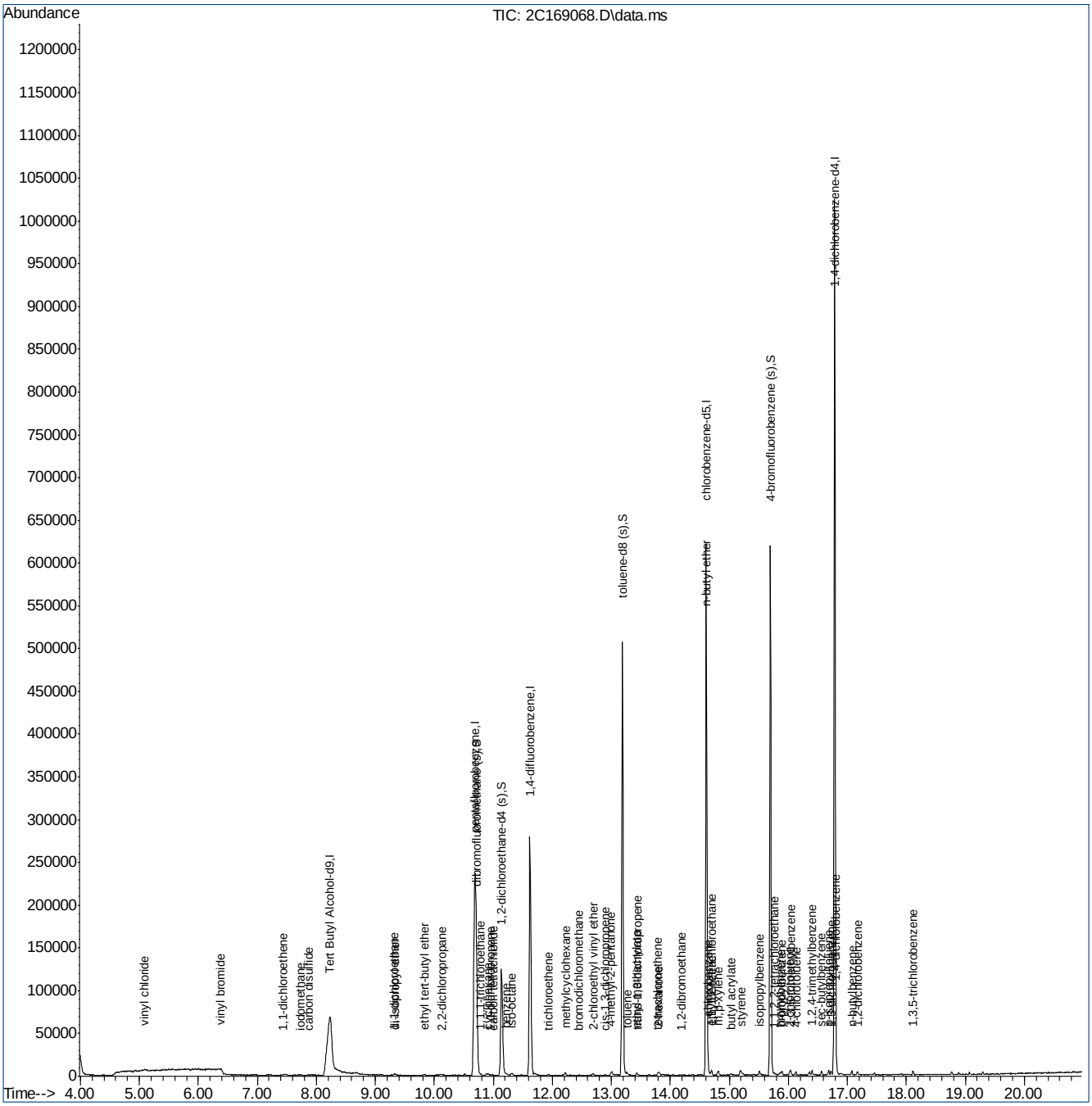
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) styrene	15.196	104	1464	0.22	ug/L		87
93) butyl acrylate	15.023	55	1126	0.22	ug/L		89
95) isopropylbenzene	15.511	105	2508	0.22	ug/L		95
99) bromobenzene	15.867	156	705	0.20	ug/L	#	75
100) 1,1,2,2-tetrachloroethane	15.768	83	829	0.20	ug/L		94
103) n-propylbenzene	15.894	91	3016	0.22	ug/L		97
104) 2-chlorotoluene	16.019	126	593	0.19	ug/L		88
105) 4-chlorotoluene	16.130	91	1805	0.21	ug/L		88
106) 1,3,5-trimethylbenzene	16.035	105	2393	0.22	ug/L		78
108) 1,2,4-trimethylbenzene	16.407	105	2548	0.23	ug/L		88
109) sec-butylbenzene	16.559	105	3094	0.22	ug/L		89
110) 1,3-dichlorobenzene	16.722	146	1550	0.22	ug/L		96
111) p-isopropyltoluene	16.685	119	2655	0.22	ug/L		97
112) 1,4-dichlorobenzene	16.811	146	1765	0.25	ug/L		83
113) 1,2-dichlorobenzene	17.173	146	1711	0.22	ug/L		96
114) n-butylbenzene	17.079	92	1278	0.21	ug/L		88
116) 1,3,5-trichlorobenzene	18.117	180	1532	0.22	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169068.D
Acq On : 31 Jul 2019 6:56 pm
Operator : brittank
Sample : ic7580-0.2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 01 11:47:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169069.D
Acq On : 31 Jul 2019 7:26 pm
Operator : brittank
Sample : ic7580-0.5
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:50:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.228	65	243135	500.00	ug/L		0.00
5) pentafluorobenzene	10.682	168	184430	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.621	114	252236	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	311341	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	247112	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.708	113	93374	50.08	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.16%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	105355	51.62	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.24%				
75) toluene-d8 (s)	13.188	98	315719	47.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.92%				
98) 4-bromofluorobenzene (s)	15.695	95	171338	49.75	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%				
Target Compounds							Qvalue
7) dichlorodifluoromethane	4.370	85	2023	0.55	ug/L	#	52
9) vinyl chloride	5.088	62	2722	0.61	ug/L		95
13) trichlorofluoromethane	6.530	101	2423	0.51	ug/L		85
14) vinyl bromide	6.383	106	2116	0.60	ug/L		90
18) freon 113	7.463	151	855	0.49	ug/L	#	76
19) 1,1-dichloroethene	7.447	96	1434	0.61	ug/L	#	76
21) iodomethane	7.736	142	2283	0.58	ug/L		83
23) carbon disulfide	7.888	76	3678	0.55	ug/L		81
26) methyl tert butyl ether	8.664	73	4190	0.63	ug/L		94
27) trans-1,2-dichloroethene	8.679	96	1301	0.60	ug/L		84
29) di-isopropyl ether	9.340	45	4186	0.58	ug/L		91
30) 1,1-dichloroethane	9.330	63	2130	0.58	ug/L		81
31) chloroprene	9.424	53	1679	0.63	ug/L		85
34) ethyl tert-butyl ether	9.822	59	3666	0.55	ug/L		89
37) 2,2-dichloropropane	10.137	77	1759	0.57	ug/L		74
38) cis-1,2-dichloroethene	10.095	96	1443	0.63	ug/L	#	62
42) chloroform	10.514	83	2455	0.61	ug/L		87
46) 1,1,1-trichloroethane	10.777	97	2006	0.52	ug/L		90
47) cyclohexane	10.913	84	2003	0.59	ug/L	#	64
48) 1,1-dichloropropene	10.960	75	1265	0.57	ug/L		92
49) carbon tetrachloride	10.986	117	1714	0.54	ug/L		94
55) iso-octane	11.311	57	3777	0.57	ug/L		99
56) benzene	11.207	78	3569	0.54	ug/L		94
57) tert-amyl methyl ether	11.301	87	840	0.53	ug/L	#	34
58) heptane	11.479	57	509	0.47	ug/L		91
62) trichloroethene	11.935	95	937	0.54	ug/L		85
64) 2-chloroethyl vinyl ether	12.690	63	2615	2.77	ug/L		93
66) 1,2-dichloropropane	12.208	63	738	0.47	ug/L		68
67) dibromomethane	12.318	93	624	0.50	ug/L		84
68) methylcyclohexane	12.224	83	2249	0.56	ug/L		90
69) bromodichloromethane	12.460	83	1165	0.50	ug/L		95
71) cis-1,3-dichloropropene	12.900	75	1279	0.53	ug/L		83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169069.D
Acq On : 31 Jul 2019 7:26 pm
Operator : brittank
Sample : ic7580-0.5
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:50:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

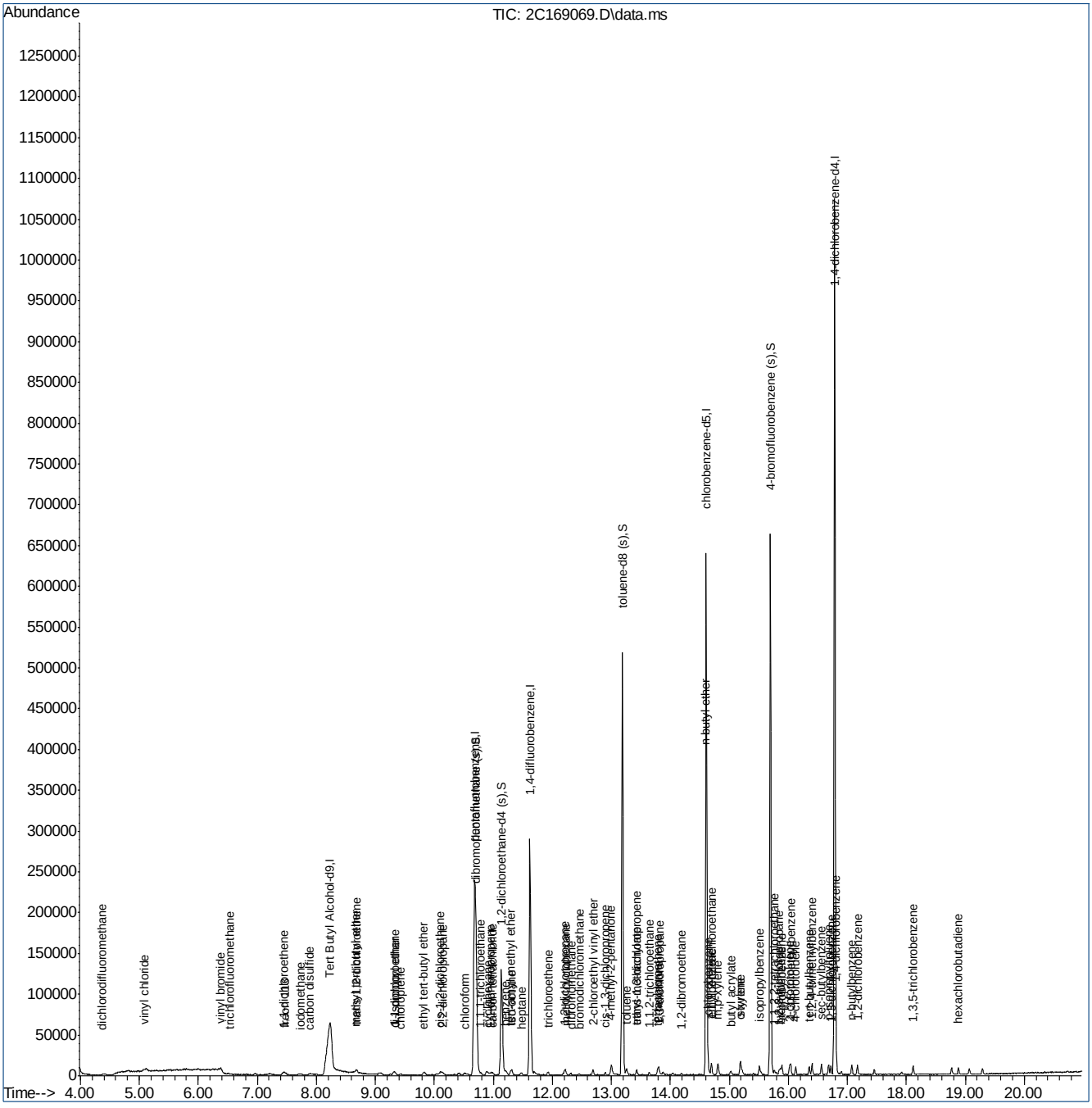
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
72) 4-methyl-2-pentanone	13.000	58	2149	1.97	ug/L	#	77
76) toluene	13.257	92	2514	0.54	ug/L	#	77
77) ethyl methacrylate	13.430	69	1525	0.55	ug/L		89
78) trans-1,3-dichloropropene	13.430	75	1197	0.50	ug/L		80
79) 1,1,2-trichloroethane	13.639	83	890	0.59	ug/L		81
80) 2-hexanone	13.797	58	2684	2.40	ug/L	#	84
81) tetrachloroethene	13.781	164	1052	0.54	ug/L		83
82) 1,3-dichloropropane	13.812	76	1558	0.56	ug/L	#	68
85) 1,2-dibromoethane	14.190	107	1258	0.51	ug/L		92
86) n-butyl ether	14.599	57	5098	0.57	ug/L	#	1
87) chlorobenzene	14.641	112	3092	0.54	ug/L		93
88) 1,1,1,2-tetrachloroethane	14.704	131	1283	0.51	ug/L		87
89) ethylbenzene	14.698	91	5599	0.55	ug/L		99
90) m,p-xylene	14.803	106	4337	1.10	ug/L		96
91) o-xylene	15.181	106	2614	0.54	ug/L		84
92) styrene	15.191	104	3869	0.57	ug/L		91
93) butyl acrylate	15.023	55	3101	0.57	ug/L		96
95) isopropylbenzene	15.511	105	6287	0.52	ug/L		98
99) bromobenzene	15.873	156	1932	0.54	ug/L	#	70
100) 1,1,2,2-tetrachloroethane	15.763	83	2080	0.50	ug/L		84
102) 1,2,3-trichloropropane	15.847	110	660	0.56	ug/L		82
103) n-propylbenzene	15.894	91	7799	0.55	ug/L		93
104) 2-chlorotoluene	16.025	126	1742	0.54	ug/L		91
105) 4-chlorotoluene	16.125	91	4662	0.54	ug/L		97
106) 1,3,5-trimethylbenzene	16.041	105	5671	0.52	ug/L		87
107) tert-butylbenzene	16.355	119	4460	0.50	ug/L		99
108) 1,2,4-trimethylbenzene	16.402	105	6210	0.54	ug/L		96
109) sec-butylbenzene	16.560	105	7319	0.50	ug/L		95
110) 1,3-dichlorobenzene	16.722	146	4126	0.56	ug/L		92
111) p-isopropyltoluene	16.680	119	6388	0.51	ug/L		91
112) 1,4-dichlorobenzene	16.811	146	4133	0.56	ug/L		89
113) 1,2-dichlorobenzene	17.173	146	4330	0.55	ug/L		91
114) n-butylbenzene	17.073	92	3160	0.50	ug/L		99
116) 1,3,5-trichlorobenzene	18.112	180	3256	0.46	ug/L		97
120) hexachlorobutadiene	18.882	225	1518	0.49	ug/L		89

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169069.D
Acq On : 31 Jul 2019 7:26 pm
Operator : brittank
Sample : ic7580-0.5
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 11:50:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169070.D
Acq On : 31 Jul 2019 7:55 pm
Operator : brittank
Sample : ic7580-1
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:53:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.228	65	248149	500.00	ug/L		0.00
5) pentafluorobenzene	10.682	168	186315	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.621	114	257048	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	313227	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	250495	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.708	113	94110	49.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	106620	51.26	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.52%				
75) toluene-d8 (s)	13.188	98	322233	48.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.30%				
98) 4-bromofluorobenzene (s)	15.694	95	172712	49.47	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.94%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.417	51	4948	1.29	ug/L		97
7) dichlorodifluoromethane	4.385	85	4902	1.32	ug/L		90
8) chloromethane	4.815	50	6668	1.27	ug/L		92
9) vinyl chloride	5.083	62	5572	1.24	ug/L		99
12) chloroethane	5.979	64	3715	1.38	ug/L		90
13) trichlorofluoromethane	6.524	101	6150	1.28	ug/L		86
14) vinyl bromide	6.378	106	4239	1.19	ug/L		91
15) ethyl ether	6.954	74	1392	1.24	ug/L	#	73
18) freon 113	7.458	151	2281	1.30	ug/L		94
19) 1,1-dichloroethene	7.431	96	3053	1.28	ug/L		80
21) iodomethane	7.736	142	5099	1.29	ug/L		89
23) carbon disulfide	7.898	76	8020	1.19	ug/L		99
24) methylene chloride	8.249	84	4355	1.30	ug/L		86
26) methyl tert butyl ether	8.648	73	9016	1.34	ug/L		92
27) trans-1,2-dichloroethene	8.685	96	2889	1.32	ug/L	#	75
28) hexane	9.088	56	1596	1.38	ug/L	#	74
29) di-isopropyl ether	9.329	45	9191	1.27	ug/L		95
30) 1,1-dichloroethane	9.314	63	4450	1.20	ug/L		98
31) chloroprene	9.424	53	3443	1.28	ug/L		87
32) acrylonitrile	8.590	53	1137	0.94	ug/L		75
34) ethyl tert-butyl ether	9.828	59	8087	1.20	ug/L		92
35) 2-butanone	10.037	72	1200	4.12	ug/L	#	69
37) 2,2-dichloropropane	10.132	77	3991	1.27	ug/L		80
38) cis-1,2-dichloroethene	10.100	96	2836	1.23	ug/L	#	79
39) propionitrile	10.100	54	4868	12.60	ug/L		91
40) bromochloromethane	10.420	128	1482	1.28	ug/L		90
42) chloroform	10.509	83	4760	1.18	ug/L		93
43) t-butyl formate	10.562	59	1483	1.05	ug/L		75
46) 1,1,1-trichloroethane	10.777	97	4867	1.26	ug/L		82
47) cyclohexane	10.902	84	4112	1.19	ug/L		98
48) 1,1-dichloropropene	10.955	75	2801	1.24	ug/L		94
49) carbon tetrachloride	10.986	117	3836	1.20	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169070.D
Acq On : 31 Jul 2019 7:55 pm
Operator : brittank
Sample : ic7580-1
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:53:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
53) n-butyl alcohol	11.689	56	6646	62.34	ug/L		93
55) iso-octane	11.317	57	8597	1.26	ug/L		94
56) benzene	11.201	78	8270	1.22	ug/L		93
57) tert-amyl methyl ether	11.306	87	2080	1.30	ug/L	#	61
58) heptane	11.484	57	1471	1.32	ug/L	#	69
60) 1,2-dichloroethane	11.233	62	3611	1.27	ug/L		86
62) trichloroethene	11.930	95	2025	1.16	ug/L		86
64) 2-chloroethyl vinyl ether	12.690	63	5887	6.13	ug/L		94
66) 1,2-dichloropropane	12.203	63	2271	1.41	ug/L		96
67) dibromomethane	12.307	93	1658	1.30	ug/L	#	80
68) methylcyclohexane	12.224	83	4938	1.20	ug/L		89
69) bromodichloromethane	12.460	83	2602	1.10	ug/L		91
71) cis-1,3-dichloropropene	12.895	75	2891	1.19	ug/L		92
72) 4-methyl-2-pentanone	13.000	58	5766	5.19	ug/L		87
76) toluene	13.262	92	5326	1.14	ug/L		91
77) ethyl methacrylate	13.424	69	3058	1.11	ug/L		90
78) trans-1,3-dichloropropene	13.429	75	2592	1.07	ug/L	#	57
79) 1,1,2-trichloroethane	13.639	83	1645	1.08	ug/L		89
80) 2-hexanone	13.797	58	5449	4.84	ug/L	#	83
81) tetrachloroethene	13.786	164	2141	1.09	ug/L		85
82) 1,3-dichloropropane	13.812	76	3354	1.19	ug/L		93
83) butyl acetate	13.875	56	2119	1.31	ug/L	#	80
84) dibromochloromethane	14.038	129	2198	1.09	ug/L		90
85) 1,2-dibromoethane	14.190	107	2987	1.20	ug/L		93
86) n-butyl ether	14.599	57	10795	1.20	ug/L	#	2
87) chlorobenzene	14.646	112	6904	1.20	ug/L		95
88) 1,1,1,2-tetrachloroethane	14.698	131	2869	1.13	ug/L		95
89) ethylbenzene	14.698	91	12214	1.20	ug/L		97
90) m,p-xylene	14.814	106	9749	2.46	ug/L		83
91) o-xylene	15.186	106	5187	1.07	ug/L		97
92) styrene	15.196	104	7957	1.16	ug/L		93
93) butyl acrylate	15.023	55	6539	1.20	ug/L		91
94) bromoform	15.406	173	1906	1.07	ug/L		80
95) isopropylbenzene	15.506	105	14613	1.20	ug/L		93
99) bromobenzene	15.868	156	4147	1.15	ug/L		94
100) 1,1,2,2-tetrachloroethane	15.768	83	5185	1.23	ug/L		93
102) 1,2,3-trichloropropane	15.847	110	1395	1.17	ug/L		80
103) n-propylbenzene	15.894	91	17104	1.19	ug/L		99
104) 2-chlorotoluene	16.020	126	3778	1.16	ug/L		94
105) 4-chlorotoluene	16.124	91	10699	1.22	ug/L		98
106) 1,3,5-trimethylbenzene	16.041	105	12983	1.17	ug/L		95
107) tert-butylbenzene	16.355	119	10517	1.16	ug/L		92
108) 1,2,4-trimethylbenzene	16.402	105	13464	1.16	ug/L		92
109) sec-butylbenzene	16.560	105	16304	1.11	ug/L		98
110) 1,3-dichlorobenzene	16.722	146	8902	1.20	ug/L		96
111) p-isopropyltoluene	16.680	119	13997	1.10	ug/L		99
112) 1,4-dichlorobenzene	16.811	146	8828	1.18	ug/L		93
113) 1,2-dichlorobenzene	17.173	146	9278	1.16	ug/L		95
114) n-butylbenzene	17.073	92	7107	1.11	ug/L		98
115) 1,2-dibromo-3-chloropr...	17.923	75	1125	1.04	ug/L		83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169070.D
Acq On : 31 Jul 2019 7:55 pm
Operator : brittank
Sample : ic7580-1
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:53:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

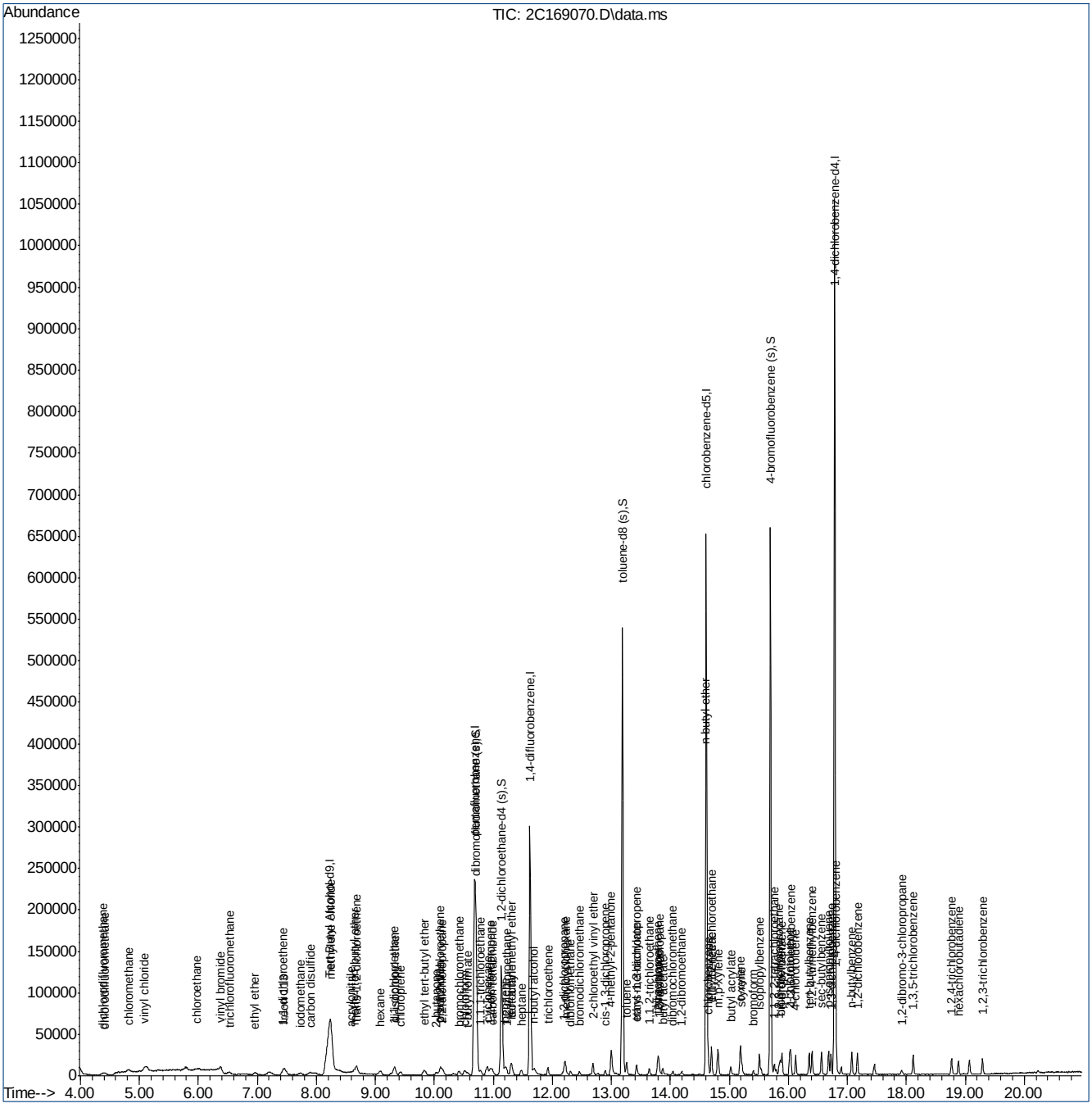
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
116) 1,3,5-trichlorobenzene	18.117	180	7794	1.09	ug/L	92
118) 1,2,4-trichlorobenzene	18.767	180	5938	0.99	ug/L	96
120) hexachlorobutadiene	18.887	225	3650	1.17	ug/L	94
122) 1,2,3-trichlorobenzene	19.291	180	5653	1.03	ug/L	91

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169070.D
Acq On : 31 Jul 2019 7:55 pm
Operator : brittank
Sample : ic7580-1
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 01 11:53:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169071.D
Acq On : 31 Jul 2019 8:24 pm
Operator : brittank
Sample : ic7580-2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 11:54:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.234	65	244163	500.00	ug/L		0.00
5) pentafluorobenzene	10.682	168	186702	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.621	114	265994	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	319797	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	250774	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.708	113	94132	49.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	107216	49.81	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.62%				
75) toluene-d8 (s)	13.188	98	331653	49.05	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.10%				
98) 4-bromofluorobenzene (s)	15.695	95	172235	49.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.56%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.375	59	5263	10.58	ug/L		91
6) chlorodifluoromethane	4.417	51	8878	2.31	ug/L		95
7) dichlorodifluoromethane	4.380	85	8830	2.37	ug/L		94
8) chloromethane	4.815	50	11492	2.18	ug/L		95
9) vinyl chloride	5.088	62	10032	2.23	ug/L		98
10) 1,3-butadiene	5.119	54	7857	2.31	ug/L		94
11) bromomethane	5.790	94	9226	2.27	ug/L		87
12) chloroethane	5.974	64	6229	2.31	ug/L		75
13) trichlorofluoromethane	6.525	101	10766	2.23	ug/L		90
14) vinyl bromide	6.378	106	7654	2.14	ug/L		86
15) ethyl ether	6.970	74	2579	2.30	ug/L	#	72
16) 2-chloropropane	7.185	43	9914	2.54	ug/L		93
18) freon 113	7.453	151	4768	2.72	ug/L		92
19) 1,1-dichloroethene	7.453	96	5127	2.14	ug/L		88
20) acetone	7.463	58	2470	9.94	ug/L	#	16
21) iodomethane	7.736	142	9284	2.34	ug/L		95
23) carbon disulfide	7.898	76	14106	2.09	ug/L		99
24) methylene chloride	8.255	84	6751	2.01	ug/L		97
26) methyl tert butyl ether	8.658	73	15535	2.30	ug/L		100
27) trans-1,2-dichloroethene	8.695	96	5289	2.42	ug/L		85
28) hexane	9.078	56	2753	2.38	ug/L	#	74
29) di-isopropyl ether	9.330	45	15981	2.20	ug/L		91
30) 1,1-dichloroethane	9.324	63	8307	2.23	ug/L		90
31) chloroprene	9.434	53	6123	2.27	ug/L		97
32) acrylonitrile	8.590	53	2632	2.18	ug/L		92
34) ethyl tert-butyl ether	9.838	59	14700	2.18	ug/L		94
35) 2-butanone	10.022	72	2151	7.36	ug/L	#	66
37) 2,2-dichloropropane	10.137	77	6759	2.15	ug/L		87
38) cis-1,2-dichloroethene	10.095	96	5071	2.20	ug/L		77
39) propionitrile	10.116	54	9001	23.26	ug/L		92
40) bromochloromethane	10.420	128	2549	2.20	ug/L		94
42) chloroform	10.514	83	8490	2.10	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169071.D
Acq On : 31 Jul 2019 8:24 pm
Operator : brittank
Sample : ic7580-2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 11:54:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	t-butyl formate	10.556	59	3047	2.14	ug/L		93
45)	methacrylonitrile	10.320	67	1737	2.03	ug/L		86
46)	1,1,1-trichloroethane	10.787	97	8455	2.19	ug/L		95
47)	cyclohexane	10.902	84	7930	2.30	ug/L		92
48)	1,1-dichloropropene	10.955	75	5121	2.27	ug/L		94
49)	carbon tetrachloride	10.986	117	7048	2.21	ug/L		86
53)	n-butyl alcohol	11.689	56	12928	117.18	ug/L		90
55)	iso-octane	11.317	57	15293	2.17	ug/L		94
56)	benzene	11.207	78	15287	2.17	ug/L		96
57)	tert-amyl methyl ether	11.306	87	3655	2.20	ug/L	#	65
58)	heptane	11.484	57	2671	2.32	ug/L		74
60)	1,2-dichloroethane	11.233	62	6196	2.10	ug/L		96
61)	ethyl acrylate	11.920	55	5517	2.34	ug/L		97
62)	trichloroethene	11.930	95	3978	2.19	ug/L		97
64)	2-chloroethyl vinyl ether	12.685	63	10601	10.66	ug/L		96
65)	methyl methacrylate	12.182	100	1122	1.87	ug/L	#	65
66)	1,2-dichloropropane	12.203	63	3899	2.34	ug/L		97
67)	dibromomethane	12.313	93	2803	2.12	ug/L		91
68)	methylcyclohexane	12.224	83	9071	2.13	ug/L		87
69)	bromodichloromethane	12.460	83	5248	2.14	ug/L		92
70)	epichlorohydrin	12.769	57	3151	11.75	ug/L		92
71)	cis-1,3-dichloropropene	12.900	75	5446	2.16	ug/L		99
72)	4-methyl-2-pentanone	13.000	58	10056	8.74	ug/L		98
73)	3-methyl-1-butanol	13.005	55	9240	45.52	ug/L		90
76)	toluene	13.257	92	9823	2.07	ug/L		99
77)	ethyl methacrylate	13.424	69	5691	2.01	ug/L		93
78)	trans-1,3-dichloropropene	13.435	75	5159	2.09	ug/L		87
79)	1,1,2-trichloroethane	13.639	83	3387	2.18	ug/L		91
80)	2-hexanone	13.797	58	10616	9.24	ug/L		99
81)	tetrachloroethene	13.786	164	4272	2.14	ug/L		98
82)	1,3-dichloropropane	13.812	76	6312	2.20	ug/L		80
83)	butyl acetate	13.870	56	3754	2.27	ug/L		90
84)	dibromochloromethane	14.043	129	4144	2.00	ug/L		98
85)	1,2-dibromoethane	14.190	107	5378	2.12	ug/L		95
86)	n-butyl ether	14.599	57	19489	2.12	ug/L	#	53
87)	chlorobenzene	14.641	112	12826	2.17	ug/L		97
88)	1,1,1,2-tetrachloroethane	14.698	131	5538	2.14	ug/L		95
89)	ethylbenzene	14.698	91	22248	2.14	ug/L		96
90)	m,p-xylene	14.809	106	17064	4.22	ug/L		90
91)	o-xylene	15.186	106	9544	1.92	ug/L		97
92)	styrene	15.191	104	14838	2.12	ug/L		96
93)	butyl acrylate	15.018	55	11778	2.12	ug/L		95
94)	bromoform	15.411	173	3502	1.92	ug/L		89
95)	isopropylbenzene	15.506	105	26251	2.11	ug/L		98
99)	bromobenzene	15.868	156	7987	2.22	ug/L		94
100)	1,1,2,2-tetrachloroethane	15.763	83	8913	2.10	ug/L		98
102)	1,2,3-trichloropropane	15.847	110	2695	2.27	ug/L		92
103)	n-propylbenzene	15.894	91	30836	2.14	ug/L		97
104)	2-chlorotoluene	16.020	126	7022	2.15	ug/L		90
105)	4-chlorotoluene	16.125	91	19570	2.23	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169071.D
Acq On : 31 Jul 2019 8:24 pm
Operator : brittank
Sample : ic7580-2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 11:54:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration

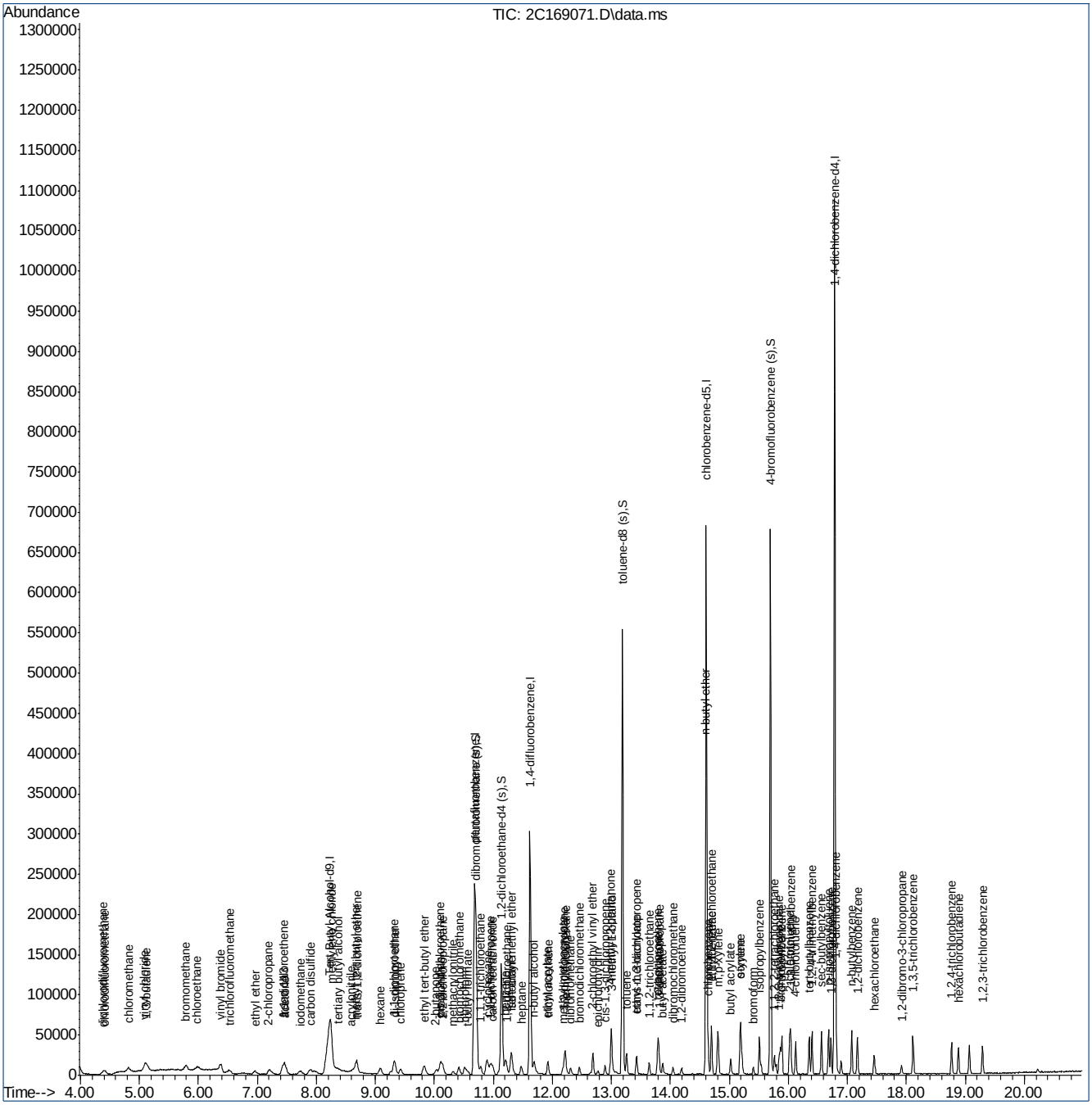
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
106) 1,3,5-trimethylbenzene	16.041	105	23566	2.13	ug/L		98
107) tert-butylbenzene	16.355	119	18661	2.06	ug/L		93
108) 1,2,4-trimethylbenzene	16.402	105	24714	2.12	ug/L		93
109) sec-butylbenzene	16.560	105	30684	2.08	ug/L		100
110) 1,3-dichlorobenzene	16.722	146	16461	2.21	ug/L		97
111) p-isopropyltoluene	16.680	119	26524	2.09	ug/L		95
112) 1,4-dichlorobenzene	16.811	146	15995	2.14	ug/L		97
113) 1,2-dichlorobenzene	17.173	146	16506	2.07	ug/L		97
114) n-butylbenzene	17.074	92	13640	2.13	ug/L		98
115) 1,2-dibromo-3-chloropr...	17.923	75	2059	1.91	ug/L		83
116) 1,3,5-trichlorobenzene	18.117	180	14202	1.99	ug/L		96
118) 1,2,4-trichlorobenzene	18.767	180	11448	1.92	ug/L		89
120) hexachlorobutadiene	18.888	225	6591	2.11	ug/L		87
122) 1,2,3-trichlorobenzene	19.297	180	10273	1.86	ug/L		96
123) hexachloroethane	17.462	201	2794	1.21	ug/L	#	75

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169071.D
Acq On : 31 Jul 2019 8:24 pm
Operator : brittank
Sample : ic7580-2
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 11:54:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 07:31:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169072.D
Acq On : 31 Jul 2019 8:54 pm
Operator : brittank
Sample : ic7580-4
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:59:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.234	65	239564	500.00	ug/L		-0.01
5) pentafluorobenzene	10.682	168	183105	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.621	114	257973	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	307798	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	243574	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.708	113	91223	49.49	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.98%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	104470	50.54	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.08%				
75) toluene-d8 (s)	13.188	98	320395	48.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.66%				
98) 4-bromofluorobenzene (s)	15.694	95	166514	48.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.46%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.349	59	11259	19.45	ug/L		97
4) 1,4-dioxane	12.266	88	4193	86.81	ug/L		84
6) chlorodifluoromethane	4.406	51	17721	4.21	ug/L		96
7) dichlorodifluoromethane	4.390	85	18454	4.21	ug/L		83
8) chloromethane	4.810	50	21987	4.30	ug/L		95
9) vinyl chloride	5.088	62	19482	4.07	ug/L		99
10) 1,3-butadiene	5.130	54	14981	4.42	ug/L		90
11) bromomethane	5.780	94	16864	4.34	ug/L		91
12) chloroethane	5.984	64	12332	4.11	ug/L		98
13) trichlorofluoromethane	6.524	101	21518	3.99	ug/L		92
14) vinyl bromide	6.372	106	15301	3.99	ug/L		93
15) ethyl ether	6.965	74	4961	3.83	ug/L		91
16) 2-chloropropane	7.211	43	19719	4.37	ug/L		97
17) acrolein	7.222	56	1838	3.94	ug/L		71
18) freon 113	7.468	151	9360	4.27	ug/L		91
19) 1,1-dichloroethene	7.437	96	10506	4.09	ug/L		94
20) acetone	7.463	58	5383	16.90	ug/L	#	79
21) iodomethane	7.736	142	18046	3.97	ug/L		97
22) acetonitrile	7.951	41	17422	37.26	ug/L		92
23) carbon disulfide	7.893	76	27855	3.83	ug/L		98
24) methylene chloride	8.260	84	12102	3.99	ug/L		86
25) methyl acetate	7.982	43	9812	4.08	ug/L		93
26) methyl tert butyl ether	8.658	73	30541	3.94	ug/L		99
27) trans-1,2-dichloroethene	8.685	96	10030	4.06	ug/L		94
28) hexane	9.088	56	5239	3.86	ug/L		90
29) di-isopropyl ether	9.329	45	30028	3.82	ug/L		94
30) 1,1-dichloroethane	9.324	63	15920	3.98	ug/L		99
31) chloroprene	9.424	53	12400	3.94	ug/L		94
32) acrylonitrile	8.580	53	4927	4.01	ug/L		86
33) vinyl acetate	9.251	86	1220	3.44	ug/L	#	44
34) ethyl tert-butyl ether	9.833	59	28988	3.96	ug/L		98
35) 2-butanone	10.022	72	4542	15.62	ug/L	#	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169072.D
Acq On : 31 Jul 2019 8:54 pm
Operator : brittank
Sample : ic7580-4
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:59:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	10.053	45	1256	3.63	ug/L	#	48
37) 2,2-dichloropropane	10.137	77	14053	4.18	ug/L		90
38) cis-1,2-dichloroethene	10.105	96	9934	3.89	ug/L		92
39) propionitrile	10.100	54	18153	40.29	ug/L		86
40) bromochloromethane	10.410	128	5029	3.84	ug/L		87
41) tetrahydrofuran	10.441	71	1308	3.73	ug/L		91
42) chloroform	10.514	83	15895	3.84	ug/L		94
43) t-butyl formate	10.556	59	5894	3.72	ug/L		89
45) methacrylonitrile	10.326	67	3469	3.87	ug/L		94
46) 1,1,1-trichloroethane	10.782	97	16820	4.03	ug/L		92
47) cyclohexane	10.908	84	14964	4.04	ug/L	#	78
48) 1,1-dichloropropene	10.955	75	9585	3.93	ug/L		97
49) carbon tetrachloride	10.986	117	14070	4.07	ug/L		91
53) n-butyl alcohol	11.689	56	25508	201.98	ug/L		96
54) tert-amyl alcohol	11.117	55	4216	20.10	ug/L	#	75
55) iso-octane	11.311	57	29420	3.91	ug/L		93
56) benzene	11.201	78	28731	3.82	ug/L		100
57) tert-amyl methyl ether	11.296	87	6982	3.92	ug/L		94
58) heptane	11.474	57	4894	3.99	ug/L		89
59) isopropyl acetate	11.133	87	2056	3.96	ug/L	#	45
60) 1,2-dichloroethane	11.233	62	11877	4.09	ug/L		100
61) ethyl acrylate	11.919	55	10765	4.06	ug/L		98
62) trichloroethene	11.930	95	7393	3.81	ug/L		93
64) 2-chloroethyl vinyl ether	12.685	63	20584	19.25	ug/L		97
65) methyl methacrylate	12.176	100	1978	3.58	ug/L		94
66) 1,2-dichloropropane	12.203	63	7574	3.91	ug/L		90
67) dibromomethane	12.307	93	5892	4.12	ug/L		93
68) methylcyclohexane	12.218	83	17792	3.92	ug/L		97
69) bromodichloromethane	12.460	83	9879	3.74	ug/L		98
70) epichlorohydrin	12.769	57	5709	18.93	ug/L		94
71) cis-1,3-dichloropropene	12.895	75	10183	3.75	ug/L		98
72) 4-methyl-2-pentanone	12.994	58	20276	16.55	ug/L		99
73) 3-methyl-1-butanol	13.000	55	18661	82.01	ug/L		94
76) toluene	13.256	92	19142	3.73	ug/L		99
77) ethyl methacrylate	13.429	69	11131	3.68	ug/L		91
78) trans-1,3-dichloropropene	13.435	75	9896	3.70	ug/L		78
79) 1,1,2-trichloroethane	13.639	83	6430	3.76	ug/L		95
80) 2-hexanone	13.797	58	19320	15.89	ug/L		93
81) tetrachloroethene	13.781	164	7932	3.69	ug/L		97
82) 1,3-dichloropropane	13.812	76	12443	4.04	ug/L		97
83) butyl acetate	13.870	56	7460	4.09	ug/L		97
84) dibromochloromethane	14.043	129	7809	3.29	ug/L		97
85) 1,2-dibromoethane	14.190	107	10062	3.71	ug/L		98
86) n-butyl ether	14.599	57	37294	3.83	ug/L	#	76
87) chlorobenzene	14.641	112	24085	3.83	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.704	131	10622	3.78	ug/L		95
89) ethylbenzene	14.698	91	42468	3.85	ug/L		99
90) m,p-xylene	14.808	106	33806	7.83	ug/L		96
91) o-xylene	15.186	106	18712	3.81	ug/L		96
92) styrene	15.191	104	29302	3.93	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169072.D
Acq On : 31 Jul 2019 8:54 pm
Operator : brittank
Sample : ic7580-4
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:59:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

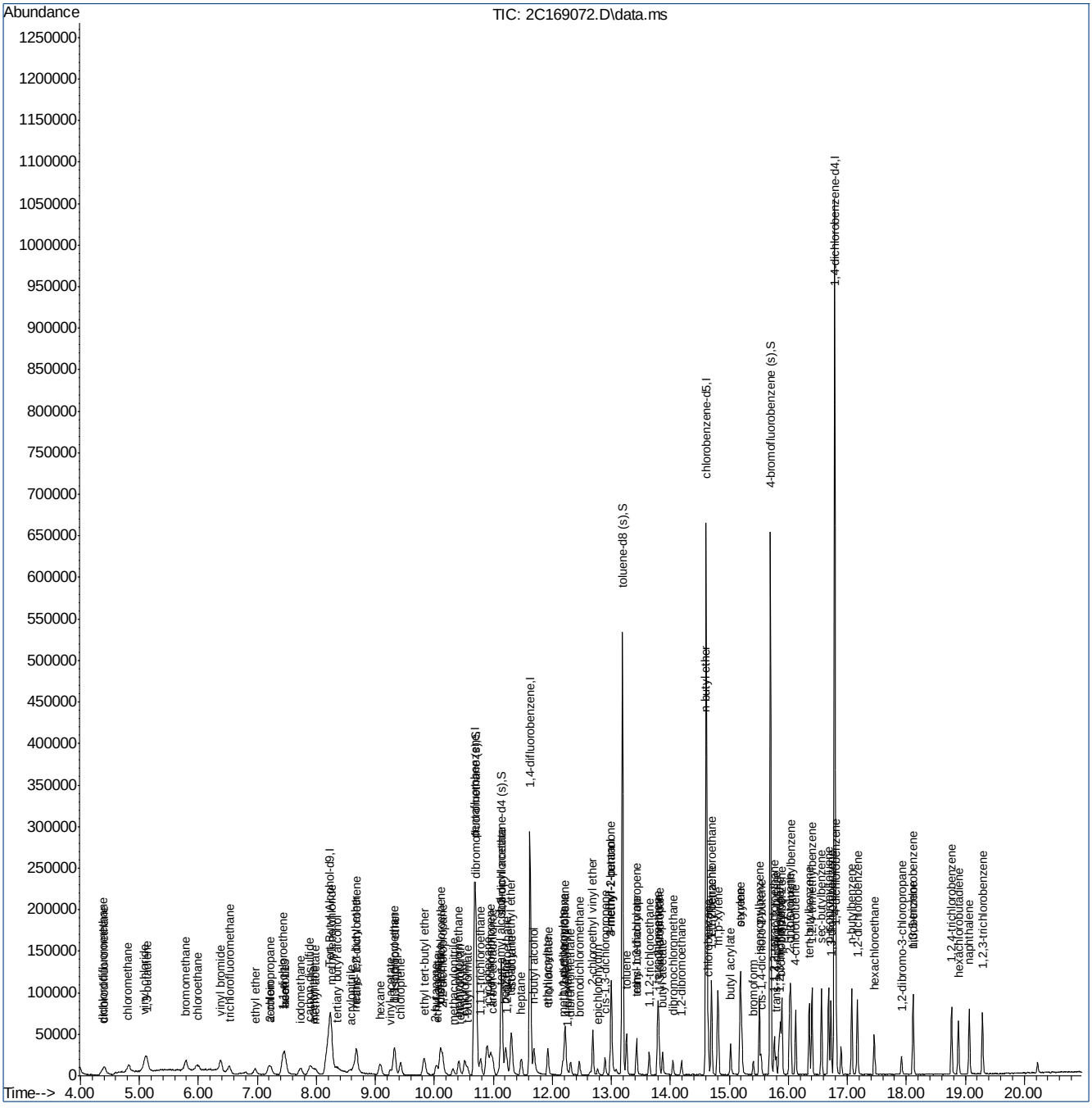
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) butyl acrylate	15.018	55	23343	3.97	ug/L		95
94) bromoform	15.411	173	6877	3.33	ug/L		96
95) isopropylbenzene	15.506	105	52977	3.99	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	4209	3.42	ug/L	#	85
99) bromobenzene	15.868	156	15175	3.91	ug/L		96
100) 1,1,2,2-tetrachloroethane	15.763	83	17294	3.78	ug/L		96
101) trans-1,4-dichloro-2-b...	15.794	88	1985	3.61	ug/L	#	69
102) 1,2,3-trichloropropane	15.852	110	5114	3.99	ug/L		96
103) n-propylbenzene	15.894	91	60711	3.93	ug/L		97
104) 2-chlorotoluene	16.020	126	13831	3.90	ug/L		96
105) 4-chlorotoluene	16.124	91	37202	3.95	ug/L		97
106) 1,3,5-trimethylbenzene	16.041	105	45828	3.83	ug/L		98
107) tert-butylbenzene	16.355	119	37289	3.70	ug/L		95
108) 1,2,4-trimethylbenzene	16.402	105	48824	3.90	ug/L		93
109) sec-butylbenzene	16.560	105	60936	3.81	ug/L		98
110) 1,3-dichlorobenzene	16.722	146	31275	3.93	ug/L		99
111) p-isopropyltoluene	16.680	119	52374	3.81	ug/L		97
112) 1,4-dichlorobenzene	16.811	146	29810	3.72	ug/L		98
113) 1,2-dichlorobenzene	17.173	146	33828	3.94	ug/L		94
114) n-butylbenzene	17.073	92	26830	3.87	ug/L		92
115) 1,2-dibromo-3-chloropr...	17.923	75	4153	3.31	ug/L		93
116) 1,3,5-trichlorobenzene	18.117	180	29895	3.85	ug/L		97
117) nitrobenzene	18.117	77	423	2.15	ug/L	#	53
118) 1,2,4-trichlorobenzene	18.767	180	23574	3.39	ug/L		94
120) hexachlorobutadiene	18.887	225	13049	3.75	ug/L		95
121) naphthalene	19.066	128	57888	3.11	ug/L		98
122) 1,2,3-trichlorobenzene	19.291	180	22458	3.42	ug/L		97
123) hexachloroethane	17.456	201	6067	5.18	ug/L		83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169072.D
Acq On : 31 Jul 2019 8:54 pm
Operator : brittank
Sample : ic7580-4
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:59:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169073.D
Acq On : 31 Jul 2019 9:23 pm
Operator : brittank
Sample : ic7580-8
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 11:59:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.228	65	257162	500.00	ug/L		-0.02
5) pentafluorobenzene	10.682	168	183565	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.621	114	258368	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	307650	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	242311	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.714	113	93556	50.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	106193	51.29	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.58%				
75) toluene-d8 (s)	13.188	98	320759	48.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.82%				
98) 4-bromofluorobenzene (s)	15.695	95	163680	48.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.30%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.354	59	24789	39.89	ug/L		97
4) 1,4-dioxane	12.255	88	10367	199.94	ug/L		93
6) chlorodifluoromethane	4.417	51	36392	8.63	ug/L		97
7) dichlorodifluoromethane	4.385	85	37244	8.48	ug/L		97
8) chloromethane	4.810	50	42879	8.37	ug/L		95
9) vinyl chloride	5.093	62	38902	8.10	ug/L		92
10) 1,3-butadiene	5.125	54	29549	8.69	ug/L		95
11) bromomethane	5.796	94	30480	7.82	ug/L		97
12) chloroethane	5.984	64	24115	8.03	ug/L		94
13) trichlorofluoromethane	6.519	101	43697	8.08	ug/L		88
14) vinyl bromide	6.378	106	30293	7.88	ug/L		96
15) ethyl ether	6.960	74	10192	7.84	ug/L		95
16) 2-chloropropane	7.190	43	39029	8.63	ug/L		93
17) acrolein	7.222	56	3773	8.07	ug/L		88
18) freon 113	7.458	151	18695	8.51	ug/L		93
19) 1,1-dichloroethene	7.447	96	21035	8.18	ug/L		96
20) acetone	7.463	58	11081	34.70	ug/L	#	69
21) iodomethane	7.725	142	37226	8.17	ug/L		98
22) acetonitrile	7.945	41	38037	81.15	ug/L		98
23) carbon disulfide	7.888	76	57266	7.86	ug/L		100
24) methylene chloride	8.255	84	23023	7.57	ug/L		96
25) methyl acetate	7.982	43	21995	9.13	ug/L		96
26) methyl tert butyl ether	8.658	73	62087	7.99	ug/L		95
27) trans-1,2-dichloroethene	8.679	96	19441	7.86	ug/L		94
28) hexane	9.088	56	10491	7.71	ug/L		96
29) di-isopropyl ether	9.330	45	62010	7.87	ug/L		96
30) 1,1-dichloroethane	9.319	63	32679	8.15	ug/L		99
31) chloroprene	9.434	53	25092	7.96	ug/L		98
32) acrylonitrile	8.575	53	10162	8.25	ug/L		91
33) vinyl acetate	9.246	86	2871	8.08	ug/L	#	53
34) ethyl tert-butyl ether	9.822	59	58232	7.94	ug/L		95
35) 2-butanone	10.022	72	9146	31.37	ug/L	#	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169073.D
Acq On : 31 Jul 2019 9:23 pm
Operator : brittank
Sample : ic7580-8
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 11:59:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	10.048	45	2643	7.63	ug/L	#	90
37) 2,2-dichloropropane	10.137	77	26738	7.93	ug/L		99
38) cis-1,2-dichloroethene	10.100	96	20388	7.96	ug/L		97
39) propionitrile	10.105	54	36963	81.83	ug/L		94
40) bromochloromethane	10.415	128	10448	7.95	ug/L		95
41) tetrahydrofuran	10.441	71	2616	7.45	ug/L		81
42) chloroform	10.514	83	31969	7.71	ug/L		98
43) t-butyl formate	10.556	59	12303	7.75	ug/L		93
45) methacrylonitrile	10.315	67	6812	7.58	ug/L		95
46) 1,1,1-trichloroethane	10.792	97	33536	8.02	ug/L		94
47) cyclohexane	10.902	84	29503	7.95	ug/L		98
48) 1,1-dichloropropene	10.950	75	19918	8.16	ug/L		92
49) carbon tetrachloride	10.986	117	28324	8.18	ug/L		97
53) n-butyl alcohol	11.684	56	52147	412.29	ug/L		99
54) tert-amyl alcohol	11.102	55	9076	43.19	ug/L	#	89
55) iso-octane	11.317	57	59467	7.88	ug/L		98
56) benzene	11.207	78	57857	7.68	ug/L		100
57) tert-amyl methyl ether	11.301	87	14741	8.27	ug/L	#	83
58) heptane	11.469	57	9408	7.66	ug/L		92
59) isopropyl acetate	11.133	87	4018	7.72	ug/L	#	86
60) 1,2-dichloroethane	11.233	62	23118	7.95	ug/L		100
61) ethyl acrylate	11.914	55	21731	8.17	ug/L		97
62) trichloroethene	11.925	95	15162	7.81	ug/L		94
63) 2-nitropropane	12.648	41	4442	6.66	ug/L		95
64) 2-chloroethyl vinyl ether	12.685	63	43548	40.67	ug/L		97
65) methyl methacrylate	12.171	100	4218	7.61	ug/L	#	71
66) 1,2-dichloropropane	12.203	63	15153	7.82	ug/L		96
67) dibromomethane	12.308	93	11585	8.09	ug/L		90
68) methylcyclohexane	12.224	83	35362	7.78	ug/L		98
69) bromodichloromethane	12.460	83	20643	7.80	ug/L		99
70) epichlorohydrin	12.769	57	12380	40.99	ug/L		95
71) cis-1,3-dichloropropene	12.895	75	20602	7.57	ug/L		97
72) 4-methyl-2-pentanone	12.994	58	39835	32.46	ug/L		91
73) 3-methyl-1-butanol	13.000	55	38924	170.79	ug/L		97
76) toluene	13.257	92	37888	7.39	ug/L		96
77) ethyl methacrylate	13.424	69	22484	7.44	ug/L		94
78) trans-1,3-dichloropropene	13.435	75	20565	7.69	ug/L		91
79) 1,1,2-trichloroethane	13.639	83	13213	7.74	ug/L		96
80) 2-hexanone	13.797	58	39225	32.28	ug/L		98
81) tetrachloroethene	13.781	164	15683	7.31	ug/L		93
82) 1,3-dichloropropane	13.807	76	23934	7.77	ug/L		82
83) butyl acetate	13.870	56	14698	8.06	ug/L		96
84) dibromochloromethane	14.043	129	16964	7.16	ug/L		95
85) 1,2-dibromoethane	14.190	107	19815	7.30	ug/L		99
86) n-butyl ether	14.599	57	74393	7.64	ug/L		90
87) chlorobenzene	14.641	112	49175	7.82	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.704	131	20763	7.39	ug/L		96
89) ethylbenzene	14.698	91	85845	7.79	ug/L		100
90) m,p-xylene	14.808	106	66795	15.48	ug/L		97
91) o-xylene	15.181	106	37704	7.67	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169073.D
Acq On : 31 Jul 2019 9:23 pm
Operator : brittank
Sample : ic7580-8
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 11:59:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

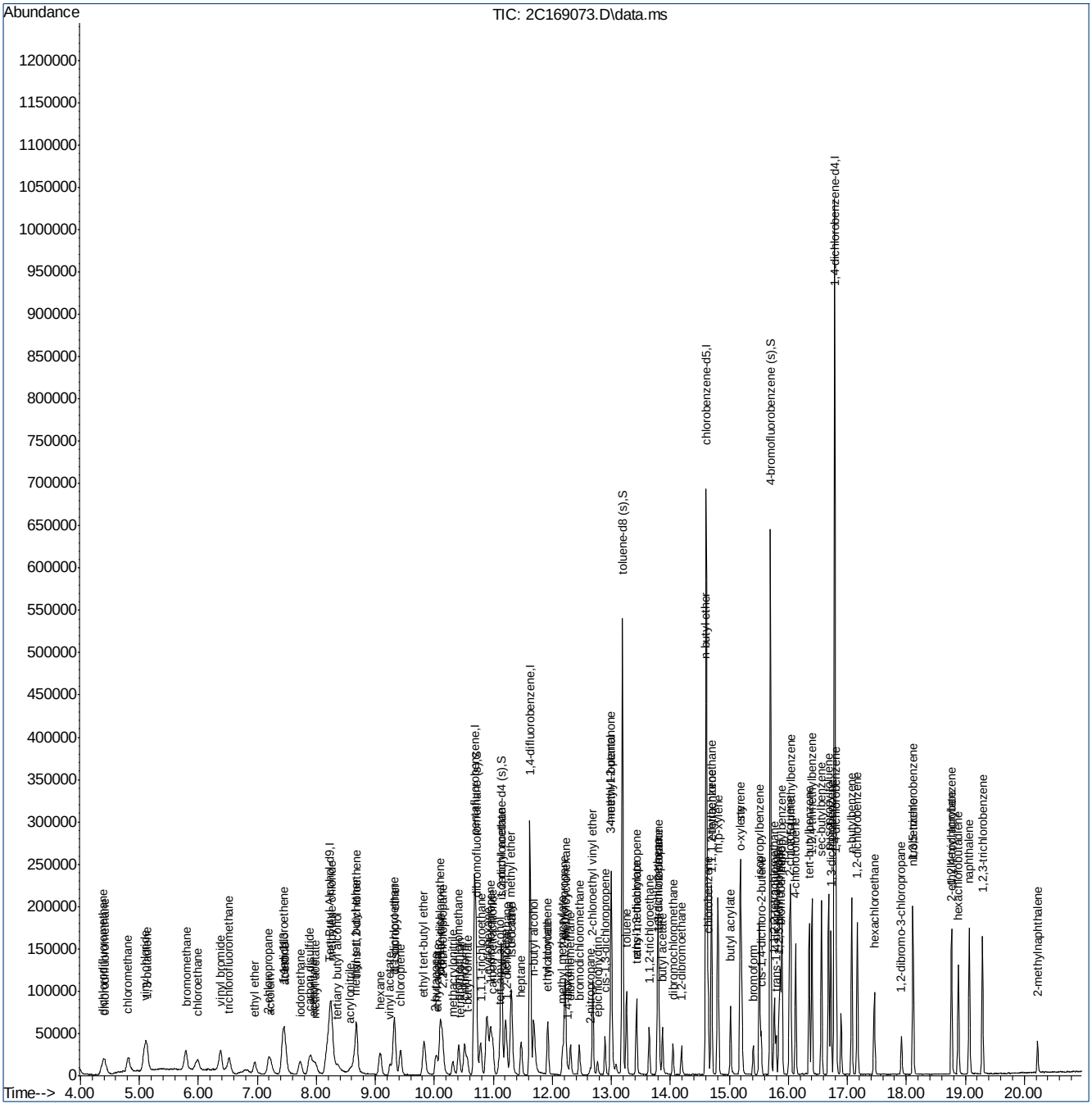
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	15.191	104	58482	7.85	ug/L	99
93) butyl acrylate	15.018	55	47333	8.06	ug/L	96
94) bromoform	15.411	173	14727	7.13	ug/L	90
95) isopropylbenzene	15.506	105	106525	8.04	ug/L	100
96) cis-1,4-dichloro-2-butene	15.537	75	8833	7.18	ug/L	91
99) bromobenzene	15.868	156	29926	7.74	ug/L	99
100) 1,1,2,2-tetrachloroethane	15.763	83	35383	7.76	ug/L	97
101) trans-1,4-dichloro-2-b...	15.794	88	3662	6.69	ug/L	98
102) 1,2,3-trichloropropane	15.847	110	9811	7.70	ug/L	88
103) n-propylbenzene	15.894	91	120981	7.86	ug/L	100
104) 2-chlorotoluene	16.020	126	27243	7.72	ug/L	97
105) 4-chlorotoluene	16.125	91	71076	7.59	ug/L	98
106) 1,3,5-trimethylbenzene	16.041	105	92743	7.78	ug/L	95
107) tert-butylbenzene	16.355	119	73751	7.37	ug/L	98
108) 1,2,4-trimethylbenzene	16.402	105	96657	7.76	ug/L	98
109) sec-butylbenzene	16.560	105	123257	7.75	ug/L	98
110) 1,3-dichlorobenzene	16.722	146	61630	7.78	ug/L	98
111) p-isopropyltoluene	16.680	119	107024	7.82	ug/L	98
112) 1,4-dichlorobenzene	16.811	146	60688	7.61	ug/L	98
113) 1,2-dichlorobenzene	17.168	146	67124	7.86	ug/L	98
114) n-butylbenzene	17.073	92	54616	7.91	ug/L	98
115) 1,2-dibromo-3-chloropr...	17.918	75	8981	7.19	ug/L	90
116) 1,3,5-trichlorobenzene	18.112	180	59594	7.71	ug/L	100
117) nitrobenzene	18.117	77	1124	5.75	ug/L	86
118) 1,2,4-trichlorobenzene	18.767	180	51856	7.49	ug/L	98
119) 2-ethylhexyl acrylate	18.772	55	2122	0.59	ug/L	86
120) hexachlorobutadiene	18.882	225	26306	7.60	ug/L	94
121) naphthalene	19.066	128	130064	7.02	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	48581	7.43	ug/L	99
123) hexachloroethane	17.461	201	12174	7.50	ug/L	88
124) 2-methylnaphthalene	20.225	142	17145	4.53	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169073.D
Acq On : 31 Jul 2019 9:23 pm
Operator : brittank
Sample : ic7580-8
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 11:59:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169074.D
Acq On : 31 Jul 2019 9:52 pm
Operator : brittank
Sample : ic7580-20
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:00:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.234	65	251596	500.00	ug/L		-0.01
5) pentafluorobenzene	10.682	168	189871	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.626	114	267796	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	312688	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	237973	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.708	113	95424	49.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.86%				
52) 1,2-dichloroethane-d4 (s)	11.138	65	109477	51.02	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.04%				
75) toluene-d8 (s)	13.188	98	335855	49.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%				
98) 4-bromofluorobenzene (s)	15.695	95	166128	49.76	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.52%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.359	59	61793	101.65	ug/L		95
4) 1,4-dioxane	12.255	88	26842	529.13	ug/L		90
6) chlorodifluoromethane	4.411	51	88596	20.30	ug/L		97
7) dichlorodifluoromethane	4.380	85	98039	21.57	ug/L		94
8) chloromethane	4.815	50	104572	19.74	ug/L		95
9) vinyl chloride	5.083	62	102661	20.67	ug/L		97
10) 1,3-butadiene	5.119	54	73104	20.79	ug/L		97
11) bromomethane	5.785	94	84020	20.85	ug/L		99
12) chloroethane	5.990	64	61160	19.68	ug/L		96
13) trichlorofluoromethane	6.524	101	114604	20.48	ug/L		99
14) vinyl bromide	6.378	106	81003	20.36	ug/L		98
15) ethyl ether	6.954	74	26428	19.65	ug/L		92
16) 2-chloropropane	7.206	43	90862	19.43	ug/L		99
17) acrolein	7.222	56	9845	20.36	ug/L		93
18) freon 113	7.468	151	47424	20.87	ug/L		97
19) 1,1-dichloroethene	7.437	96	52741	19.82	ug/L		95
20) acetone	7.452	58	26989	81.71	ug/L		98
21) iodomethane	7.725	142	95416	20.26	ug/L		98
22) acetonitrile	7.945	41	92594	190.99	ug/L		94
23) carbon disulfide	7.888	76	148889	19.75	ug/L		98
24) methylene chloride	8.255	84	58431	18.56	ug/L		96
25) methyl acetate	7.977	43	48867	19.62	ug/L		98
26) methyl tert butyl ether	8.658	73	160665	19.99	ug/L		98
27) trans-1,2-dichloroethene	8.679	96	48816	19.07	ug/L		93
28) hexane	9.088	56	26975	19.16	ug/L		96
29) di-isopropyl ether	9.329	45	157640	19.34	ug/L		98
30) 1,1-dichloroethane	9.319	63	81542	19.66	ug/L		98
31) chloroprene	9.429	53	63803	19.56	ug/L		99
32) acrylonitrile	8.574	53	26233	20.58	ug/L		95
33) vinyl acetate	9.251	86	7526	20.48	ug/L	#	65
34) ethyl tert-butyl ether	9.833	59	149114	19.65	ug/L		97
35) 2-butanone	10.022	72	24476	81.17	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169074.D
Acq On : 31 Jul 2019 9:52 pm
Operator : brittank
Sample : ic7580-20
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:00:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	10.048	45	7005	19.55	ug/L		95
37) 2,2-dichloropropane	10.132	77	68771	19.71	ug/L		99
38) cis-1,2-dichloroethene	10.100	96	50248	18.98	ug/L		97
39) propionitrile	10.105	54	94573	202.42	ug/L		97
40) bromochloromethane	10.410	128	26618	19.59	ug/L		97
41) tetrahydrofuran	10.425	71	7554	20.79	ug/L		98
42) chloroform	10.509	83	81310	18.97	ug/L		97
43) t-butyl formate	10.556	59	33746	20.56	ug/L		96
45) methacrylonitrile	10.320	67	18487	19.88	ug/L		89
46) 1,1,1-trichloroethane	10.787	97	87174	20.15	ug/L		97
47) cyclohexane	10.902	84	76201	19.85	ug/L		97
48) 1,1-dichloropropene	10.955	75	50058	19.81	ug/L		96
49) carbon tetrachloride	10.986	117	72728	20.31	ug/L		95
53) n-butyl alcohol	11.684	56	140280	1070.06	ug/L		97
54) tert-amyl alcohol	11.107	55	23793	109.25	ug/L		95
55) iso-octane	11.317	57	160079	20.47	ug/L		98
56) benzene	11.206	78	151492	19.41	ug/L		100
57) tert-amyl methyl ether	11.301	87	37491	20.29	ug/L		93
58) heptane	11.469	57	24655	19.36	ug/L		93
59) isopropyl acetate	11.123	87	10850	20.12	ug/L	#	92
60) 1,2-dichloroethane	11.233	62	58212	19.30	ug/L		98
61) ethyl acrylate	11.914	55	55129	20.01	ug/L		99
62) trichloroethene	11.925	95	39930	19.84	ug/L		98
63) 2-nitropropane	12.648	41	12750	18.45	ug/L		97
64) 2-chloroethyl vinyl ether	12.685	63	117896	106.22	ug/L		99
65) methyl methacrylate	12.171	100	11742	20.45	ug/L	#	79
66) 1,2-dichloropropane	12.208	63	39684	19.75	ug/L		99
67) dibromomethane	12.307	93	29774	20.05	ug/L		96
68) methylcyclohexane	12.224	83	93535	19.86	ug/L		99
69) bromodichloromethane	12.460	83	56024	20.42	ug/L		97
70) epichlorohydrin	12.769	57	32540	103.94	ug/L		95
71) cis-1,3-dichloropropene	12.895	75	57593	20.42	ug/L		97
72) 4-methyl-2-pentanone	12.994	58	106950	84.09	ug/L		92
73) 3-methyl-1-butanol	13.000	55	102776	435.09	ug/L		96
76) toluene	13.256	92	102522	19.68	ug/L		98
77) ethyl methacrylate	13.424	69	62077	20.22	ug/L		98
78) trans-1,3-dichloropropene	13.435	75	55901	20.56	ug/L		94
79) 1,1,2-trichloroethane	13.639	83	33898	19.53	ug/L		98
80) 2-hexanone	13.797	58	101563	82.23	ug/L		100
81) tetrachloroethene	13.786	164	41267	18.91	ug/L		96
82) 1,3-dichloropropane	13.812	76	60649	19.36	ug/L		98
83) butyl acetate	13.865	56	36756	19.83	ug/L		99
84) dibromochloromethane	14.043	129	46577	19.33	ug/L		100
85) 1,2-dibromoethane	14.190	107	53955	19.57	ug/L		100
86) n-butyl ether	14.599	57	192737	19.49	ug/L		97
87) chlorobenzene	14.641	112	124752	19.53	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.698	131	55868	19.55	ug/L		97
89) ethylbenzene	14.693	91	220220	19.66	ug/L		98
90) m,p-xylene	14.808	106	173792	39.64	ug/L		98
91) o-xylene	15.186	106	97747	19.57	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169074.D
Acq On : 31 Jul 2019 9:52 pm
Operator : brittank
Sample : ic7580-20
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:00:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

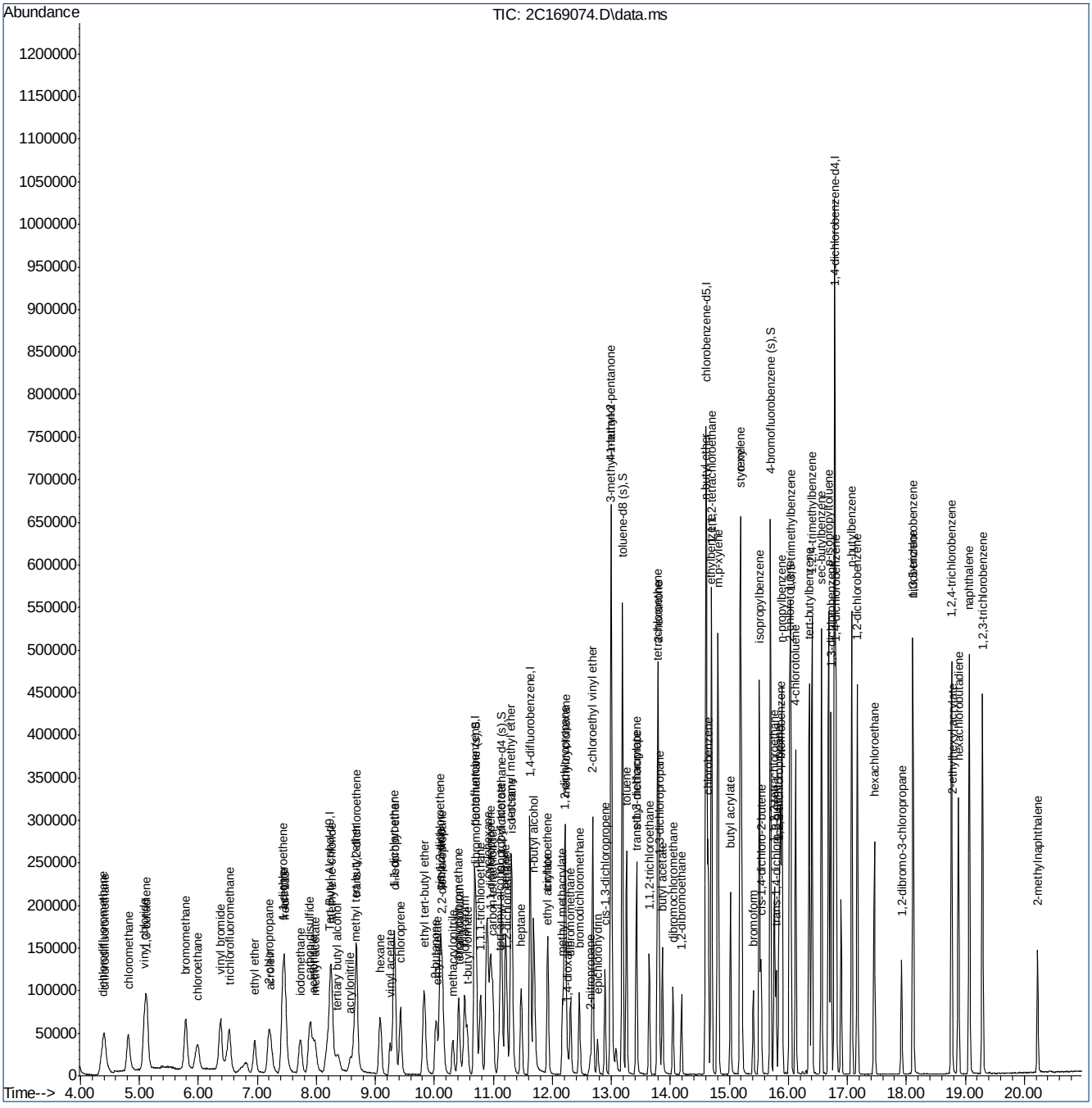
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.191	104	152058	20.08	ug/L	99
93)	butyl acrylate	15.018	55	121592	20.38	ug/L	99
94)	bromoform	15.411	173	40826	19.45	ug/L	97
95)	isopropylbenzene	15.511	105	268219	19.91	ug/L	99
96)	cis-1,4-dichloro-2-butene	15.537	75	25313	20.26	ug/L	96
99)	bromobenzene	15.868	156	75230	19.82	ug/L	98
100)	1,1,2,2-tetrachloroethane	15.763	83	90442	20.21	ug/L	97
101)	trans-1,4-dichloro-2-b...	15.794	88	10245	19.05	ug/L	94
102)	1,2,3-trichloropropane	15.847	110	24612	19.67	ug/L	95
103)	n-propylbenzene	15.894	91	298757	19.77	ug/L	99
104)	2-chlorotoluene	16.020	126	69757	20.11	ug/L	99
105)	4-chlorotoluene	16.124	91	180056	19.57	ug/L	99
106)	1,3,5-trimethylbenzene	16.041	105	230555	19.70	ug/L	98
107)	tert-butylbenzene	16.355	119	192141	19.54	ug/L	100
108)	1,2,4-trimethylbenzene	16.402	105	246394	20.14	ug/L	98
109)	sec-butylbenzene	16.560	105	315756	20.20	ug/L	99
110)	1,3-dichlorobenzene	16.722	146	153627	19.75	ug/L	99
111)	p-isopropyltoluene	16.680	119	274961	20.45	ug/L	99
112)	1,4-dichlorobenzene	16.811	146	152599	19.48	ug/L	98
113)	1,2-dichlorobenzene	17.168	146	169361	20.19	ug/L	98
114)	n-butylbenzene	17.073	92	139875	20.62	ug/L	94
115)	1,2-dibromo-3-chloropr...	17.923	75	24368	19.87	ug/L	93
116)	1,3,5-trichlorobenzene	18.117	180	159060	20.97	ug/L	97
117)	nitrobenzene	18.117	77	3239	16.88	ug/L	79
118)	1,2,4-trichlorobenzene	18.767	180	143342	21.08	ug/L	99
119)	2-ethylhexyl acrylate	18.777	55	8586	2.45	ug/L	94
120)	hexachlorobutadiene	18.887	225	67455	19.85	ug/L	97
121)	naphthalene	19.066	128	359429	19.76	ug/L	99
122)	1,2,3-trichlorobenzene	19.291	180	136817	21.31	ug/L	97
123)	hexachloroethane	17.461	201	36680	16.92	ug/L	92
124)	2-methylnaphthalene	20.224	142	66006	8.86	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169074.D
Acq On : 31 Jul 2019 9:52 pm
Operator : brittank
Sample : ic7580-20
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:00:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169075.D
Acq On : 31 Jul 2019 10:22 pm
Operator : brittank
Sample : icc7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:00:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.228	65	260439	500.00	ug/L	-0.02
5) pentafluorobenzene	10.682	168	209847	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.626	114	304385	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	326112	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	236644	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.708	113	106377	50.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.72%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	118565	48.61	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.22%			
75) toluene-d8 (s)	13.188	98	368585	52.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.96%			
98) 4-bromofluorobenzene (s)	15.695	95	170762	51.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.86%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.365	59	168120	267.16	ug/L	100
4) 1,4-dioxane	12.255	88	73171	1393.43	ug/L	100
6) chlorodifluoromethane	4.412	51	236858	49.11	ug/L	100
7) dichlorodifluoromethane	4.380	85	260330	51.83	ug/L	100
8) chloromethane	4.815	50	282059	48.19	ug/L	100
9) vinyl chloride	5.088	62	274555	50.01	ug/L	100
10) 1,3-butadiene	5.125	54	194489	50.05	ug/L	100
11) bromomethane	5.785	94	223652	50.22	ug/L	100
12) chloroethane	5.990	64	170535	49.65	ug/L	100
13) trichlorofluoromethane	6.524	101	323713	52.35	ug/L	100
14) vinyl bromide	6.372	106	227500	51.74	ug/L	100
15) ethyl ether	6.960	74	79911	53.77	ug/L	100
16) 2-chloropropane	7.201	43	258349	49.97	ug/L	100
17) acrolein	7.222	56	28019	52.43	ug/L	100
18) freon 113	7.458	151	132106	52.60	ug/L	100
19) 1,1-dichloroethene	7.442	96	143788	48.90	ug/L	100
20) acetone	7.452	58	74021	202.76	ug/L	100
21) iodomethane	7.730	142	268213	51.52	ug/L	100
22) acetonitrile	7.945	41	246379	459.81	ug/L	100
23) carbon disulfide	7.893	76	424208	50.93	ug/L	100
24) methylene chloride	8.249	84	162666	46.76	ug/L	100
25) methyl acetate	7.977	43	143619	52.16	ug/L	100
26) methyl tert butyl ether	8.658	73	449864	50.65	ug/L	100
27) trans-1,2-dichloroethene	8.685	96	142780	50.47	ug/L	100
28) hexane	9.088	56	81313	52.27	ug/L	100
29) di-isopropyl ether	9.330	45	458832	50.93	ug/L	100
30) 1,1-dichloroethane	9.324	63	235961	51.47	ug/L	100
31) chloroprene	9.434	53	187615	52.04	ug/L	100
32) acrylonitrile	8.575	53	73169	51.94	ug/L	100
33) vinyl acetate	9.246	86	21658	53.32	ug/L	100
34) ethyl tert-butyl ether	9.828	59	437959	52.23	ug/L	100
35) 2-butanone	10.022	72	70640	211.98	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169075.D
Acq On : 31 Jul 2019 10:22 pm
Operator : brittank
Sample : icc7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:00:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) ethyl acetate	10.048	45	22082	55.75	ug/L	100
37) 2,2-dichloropropane	10.137	77	193509	50.17	ug/L	100
38) cis-1,2-dichloroethene	10.100	96	149145	50.96	ug/L	100
39) propionitrile	10.105	54	266773	516.63	ug/L	100
40) bromochloromethane	10.415	128	78033	51.96	ug/L	100
41) tetrahydrofuran	10.436	71	22084	54.99	ug/L	100
42) chloroform	10.514	83	237165	50.05	ug/L	100
43) t-butyl formate	10.551	59	102410	56.45	ug/L	100
45) methacrylonitrile	10.315	67	56089	54.57	ug/L	100
46) 1,1,1-trichloroethane	10.787	97	252427	52.80	ug/L	100
47) cyclohexane	10.902	84	218380	51.47	ug/L	100
48) 1,1-dichloropropene	10.955	75	144192	51.64	ug/L	100
49) carbon tetrachloride	10.992	117	212955	53.80	ug/L	100
53) n-butyl alcohol	11.684	56	412906	2771.05	ug/L	100
54) tert-amyl alcohol	11.102	55	63775	257.63	ug/L	100
55) iso-octane	11.317	57	477954	53.78	ug/L	100
56) benzene	11.207	78	453240	51.08	ug/L	100
57) tert-amyl methyl ether	11.301	87	105620	50.30	ug/L	100
58) heptane	11.474	57	74894	51.74	ug/L	100
59) isopropyl acetate	11.128	87	32767	53.46	ug/L	100
60) 1,2-dichloroethane	11.233	62	168205	49.07	ug/L	100
61) ethyl acrylate	11.914	55	166928	53.29	ug/L	100
62) trichloroethene	11.925	95	121825	53.25	ug/L	100
63) 2-nitropropane	12.648	41	37335	47.54	ug/L	100
64) 2-chloroethyl vinyl ether	12.685	63	340858	270.19	ug/L	100
65) methyl methacrylate	12.176	100	35665	54.65	ug/L	100
66) 1,2-dichloropropane	12.208	63	118249	51.78	ug/L	100
67) dibromomethane	12.313	93	89136	52.82	ug/L	100
68) methylcyclohexane	12.224	83	278472	52.01	ug/L	100
69) bromodichloromethane	12.460	83	173702	55.69	ug/L	100
70) epichlorohydrin	12.769	57	95944	269.62	ug/L	100
71) cis-1,3-dichloropropene	12.895	75	177160	55.27	ug/L	100
72) 4-methyl-2-pentanone	12.994	58	302951	209.57	ug/L	100
73) 3-methyl-1-butanol	13.000	55	289649	1078.80	ug/L	100
76) toluene	13.257	92	293392	54.01	ug/L	100
77) ethyl methacrylate	13.424	69	169704	53.00	ug/L	100
78) trans-1,3-dichloropropene	13.435	75	165186	58.24	ug/L	100
79) 1,1,2-trichloroethane	13.645	83	98589	54.45	ug/L	100
80) 2-hexanone	13.791	58	269233	209.00	ug/L	100
81) tetrachloroethene	13.781	164	119332	52.44	ug/L	100
82) 1,3-dichloropropane	13.812	76	167958	51.41	ug/L	100
83) butyl acetate	13.870	56	96995	50.17	ug/L	100
84) dibromochloromethane	14.043	129	145615	57.95	ug/L	100
85) 1,2-dibromoethane	14.190	107	154046	53.57	ug/L	100
86) n-butyl ether	14.599	57	532674	51.64	ug/L	100
87) chlorobenzene	14.641	112	349078	52.39	ug/L	100
88) 1,1,1,2-tetrachloroethane	14.698	131	166530	55.88	ug/L	100
89) ethylbenzene	14.693	91	600026	51.37	ug/L	100
90) m,p-xylene	14.808	106	475867	104.07	ug/L	100
91) o-xylene	15.181	106	274063	52.62	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169075.D
Acq On : 31 Jul 2019 10:22 pm
Operator : brittank
Sample : icc7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:00:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration

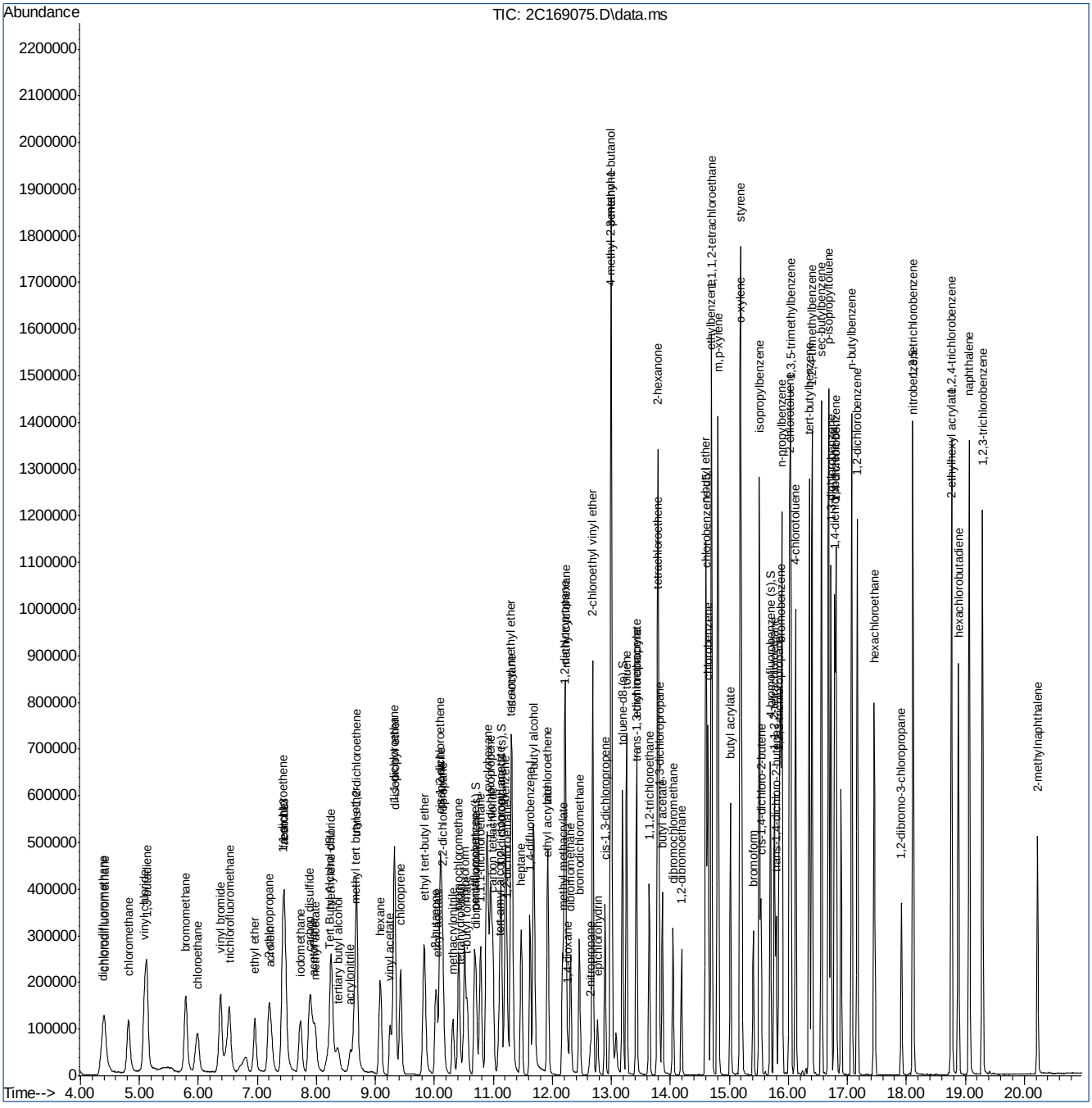
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.191	104	413255	52.33	ug/L	100
93)	butyl acrylate	15.018	55	323376	51.97	ug/L	100
94)	bromoform	15.406	173	129994	59.37	ug/L	100
95)	isopropylbenzene	15.506	105	747889	53.22	ug/L	100
96)	cis-1,4-dichloro-2-butene	15.537	75	71852	55.14	ug/L	100
99)	bromobenzene	15.868	156	204795	54.26	ug/L	100
100)	1,1,2,2-tetrachloroethane	15.763	83	247868	55.69	ug/L	100
101)	trans-1,4-dichloro-2-b...	15.794	88	29964	56.04	ug/L	100
102)	1,2,3-trichloropropane	15.847	110	66256	53.25	ug/L	100
103)	n-propylbenzene	15.894	91	794322	52.87	ug/L	100
104)	2-chlorotoluene	16.020	126	188535	54.67	ug/L	100
105)	4-chlorotoluene	16.124	91	479106	52.37	ug/L	100
106)	1,3,5-trimethylbenzene	16.041	105	621959	53.45	ug/L	100
107)	tert-butylbenzene	16.355	119	548777	56.12	ug/L	100
108)	1,2,4-trimethylbenzene	16.402	105	642335	52.79	ug/L	100
109)	sec-butylbenzene	16.560	105	866876	55.78	ug/L	100
110)	1,3-dichlorobenzene	16.722	146	401613	51.93	ug/L	100
111)	p-isopropyltoluene	16.680	119	741987	55.49	ug/L	100
112)	1,4-dichlorobenzene	16.811	146	398428	51.16	ug/L	100
113)	1,2-dichlorobenzene	17.168	146	442925	53.09	ug/L	100
114)	n-butylbenzene	17.073	92	377033	55.91	ug/L	100
115)	1,2-dibromo-3-chloropr...	17.918	75	71933	58.98	ug/L	100
116)	1,3,5-trichlorobenzene	18.112	180	429540	56.94	ug/L	100
117)	nitrobenzene	18.117	77	9902	51.89	ug/L	100
118)	1,2,4-trichlorobenzene	18.767	180	404970	59.90	ug/L	100
119)	2-ethylhexyl acrylate	18.772	55	36216	10.39	ug/L	100
120)	hexachlorobutadiene	18.888	225	184771	54.68	ug/L	100
121)	naphthalene	19.066	128	1017456	56.26	ug/L	100
122)	1,2,3-trichlorobenzene	19.291	180	381390	59.74	ug/L	100
123)	hexachloroethane	17.461	201	124697	49.42	ug/L	100
124)	2-methylnaphthalene	20.225	142	235766	23.90	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169075.D
Acq On : 31 Jul 2019 10:22 pm
Operator : brittank
Sample : icc7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:00:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 11:58:55 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169076.D
Acq On : 31 Jul 2019 10:51 pm
Operator : brittank
Sample : ic7580-100
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:03:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.239	65	291250	500.00	ug/L	0.00
5) pentafluorobenzene	10.687	168	239544	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.626	114	337886	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	335632	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.790	152	234179	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.714	113	119406	49.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.04%			
52) 1,2-dichloroethane-d4 (s)	11.143	65	124920	46.14	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.28%			
75) toluene-d8 (s)	13.188	98	390381	54.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.02%			
98) 4-bromofluorobenzene (s)	15.694	95	173595	52.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.68%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.365	59	365237	518.99	ug/L	96
4) 1,4-dioxane	12.255	88	144913	2467.70	ug/L	100
6) chlorodifluoromethane	4.411	51	480195	87.23	ug/L	98
7) dichlorodifluoromethane	4.380	85	533340	93.02	ug/L	97
8) chloromethane	4.815	50	570699	85.41	ug/L	98
9) vinyl chloride	5.088	62	553886	88.37	ug/L	96
10) 1,3-butadiene	5.124	54	382972	86.34	ug/L	96
11) bromomethane	5.785	94	450269	88.57	ug/L	99
12) chloroethane	5.984	64	353604	90.18	ug/L	99
13) trichlorofluoromethane	6.519	101	692557	98.12	ug/L	98
14) vinyl bromide	6.372	106	463392	92.33	ug/L	95
15) ethyl ether	6.954	74	172092	101.44	ug/L	98
16) 2-chloropropane	7.201	43	542950	92.01	ug/L	98
17) acrolein	7.211	56	60917	99.85	ug/L	87
18) freon 113	7.458	151	278324	97.09	ug/L	97
19) 1,1-dichloroethene	7.442	96	309882	92.31	ug/L	99
20) acetone	7.458	58	161813	388.30	ug/L	95
21) iodomethane	7.730	142	585510	98.52	ug/L	98
22) acetonitrile	7.945	41	546771	893.93	ug/L	96
23) carbon disulfide	7.893	76	918318	96.58	ug/L	98
24) methylene chloride	8.255	84	349995	88.13	ug/L	98
25) methyl acetate	7.977	43	290992	92.59	ug/L	98
26) methyl tert butyl ether	8.658	73	956590	94.36	ug/L	99
27) trans-1,2-dichloroethene	8.684	96	304890	94.42	ug/L	98
28) hexane	9.083	56	176320	99.29	ug/L	97
29) di-isopropyl ether	9.329	45	979034	95.21	ug/L	99
30) 1,1-dichloroethane	9.319	63	504271	96.35	ug/L	98
31) chloroprene	9.434	53	408176	99.18	ug/L	97
32) acrylonitrile	8.574	53	159988	99.50	ug/L	94
33) vinyl acetate	9.251	86	47490	102.43	ug/L	95
34) ethyl tert-butyl ether	9.833	59	938705	98.07	ug/L	98
35) 2-butanone	10.021	72	157940	415.19	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169076.D
Acq On : 31 Jul 2019 10:51 pm
Operator : brittank
Sample : ic7580-100
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:03:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	10.048	45	47695	105.49	ug/L	#	87
37) 2,2-dichloropropane	10.142	77	405248	92.05	ug/L		96
38) cis-1,2-dichloroethene	10.100	96	326921	97.86	ug/L		96
39) propionitrile	10.105	54	578033	980.63	ug/L		98
40) bromochloromethane	10.415	128	175479	102.36	ug/L		94
41) tetrahydrofuran	10.436	71	47530	103.68	ug/L		95
42) chloroform	10.509	83	509541	94.21	ug/L		99
43) t-butyl formate	10.556	59	223131	107.74	ug/L		95
45) methacrylonitrile	10.315	67	122442	104.36	ug/L		98
46) 1,1,1-trichloroethane	10.782	97	541173	99.17	ug/L		97
47) cyclohexane	10.902	84	458172	94.60	ug/L		98
48) 1,1-dichloropropene	10.955	75	311368	97.69	ug/L		97
49) carbon tetrachloride	10.991	117	454598	100.61	ug/L		99
53) n-butyl alcohol	11.684	56	832063	5030.40	ug/L		98
54) tert-amyl alcohol	11.107	55	128278	466.83	ug/L	#	87
55) iso-octane	11.317	57	985538	99.90	ug/L		99
56) benzene	11.206	78	961794	97.65	ug/L		98
57) tert-amyl methyl ether	11.301	87	218909	93.92	ug/L	#	89
58) heptane	11.474	57	160313	99.77	ug/L		98
59) isopropyl acetate	11.133	87	67833	99.70	ug/L	#	90
60) 1,2-dichloroethane	11.233	62	342832	90.10	ug/L		99
61) ethyl acrylate	11.914	55	338694	97.41	ug/L		99
62) trichloroethene	11.930	95	247864	97.61	ug/L		96
63) 2-nitropropane	12.648	41	89228	102.35	ug/L		96
64) 2-chloroethyl vinyl ether	12.685	63	695392	496.57	ug/L		99
65) methyl methacrylate	12.171	100	74488	102.82	ug/L		94
66) 1,2-dichloropropane	12.208	63	242264	95.56	ug/L		97
67) dibromomethane	12.307	93	181391	96.82	ug/L		98
68) methylcyclohexane	12.224	83	561088	94.41	ug/L		98
69) bromodichloromethane	12.459	83	363679	105.04	ug/L		100
70) epichlorohydrin	12.769	57	192923	488.40	ug/L		96
71) cis-1,3-dichloropropene	12.895	75	369193	103.76	ug/L		98
72) 4-methyl-2-pentanone	12.994	58	608542	379.23	ug/L		94
73) 3-methyl-1-butanol	13.000	55	554577	1860.72	ug/L		98
76) toluene	13.262	92	595791	106.57	ug/L		98
77) ethyl methacrylate	13.424	69	340720	103.39	ug/L		97
78) trans-1,3-dichloropropene	13.435	75	335197	114.83	ug/L		99
79) 1,1,2-trichloroethane	13.639	83	196023	105.20	ug/L		99
80) 2-hexanone	13.791	58	510062	384.72	ug/L		96
81) tetrachloroethene	13.786	164	245928	105.02	ug/L		97
82) 1,3-dichloropropane	13.812	76	332318	98.84	ug/L		99
83) butyl acetate	13.865	56	187023	94.00	ug/L		99
84) dibromochloromethane	14.043	129	308730	119.37	ug/L		100
85) 1,2-dibromoethane	14.190	107	311318	105.20	ug/L		100
86) n-butyl ether	14.599	57	1037369	97.71	ug/L		99
87) chlorobenzene	14.641	112	692977	101.05	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.698	131	338258	110.29	ug/L		98
89) ethylbenzene	14.698	91	1163495	96.78	ug/L		98
90) m,p-xylene	14.808	106	942445	200.25	ug/L		96
91) o-xylene	15.186	106	548046	102.24	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169076.D
Acq On : 31 Jul 2019 10:51 pm
Operator : brittank
Sample : ic7580-100
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:03:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration

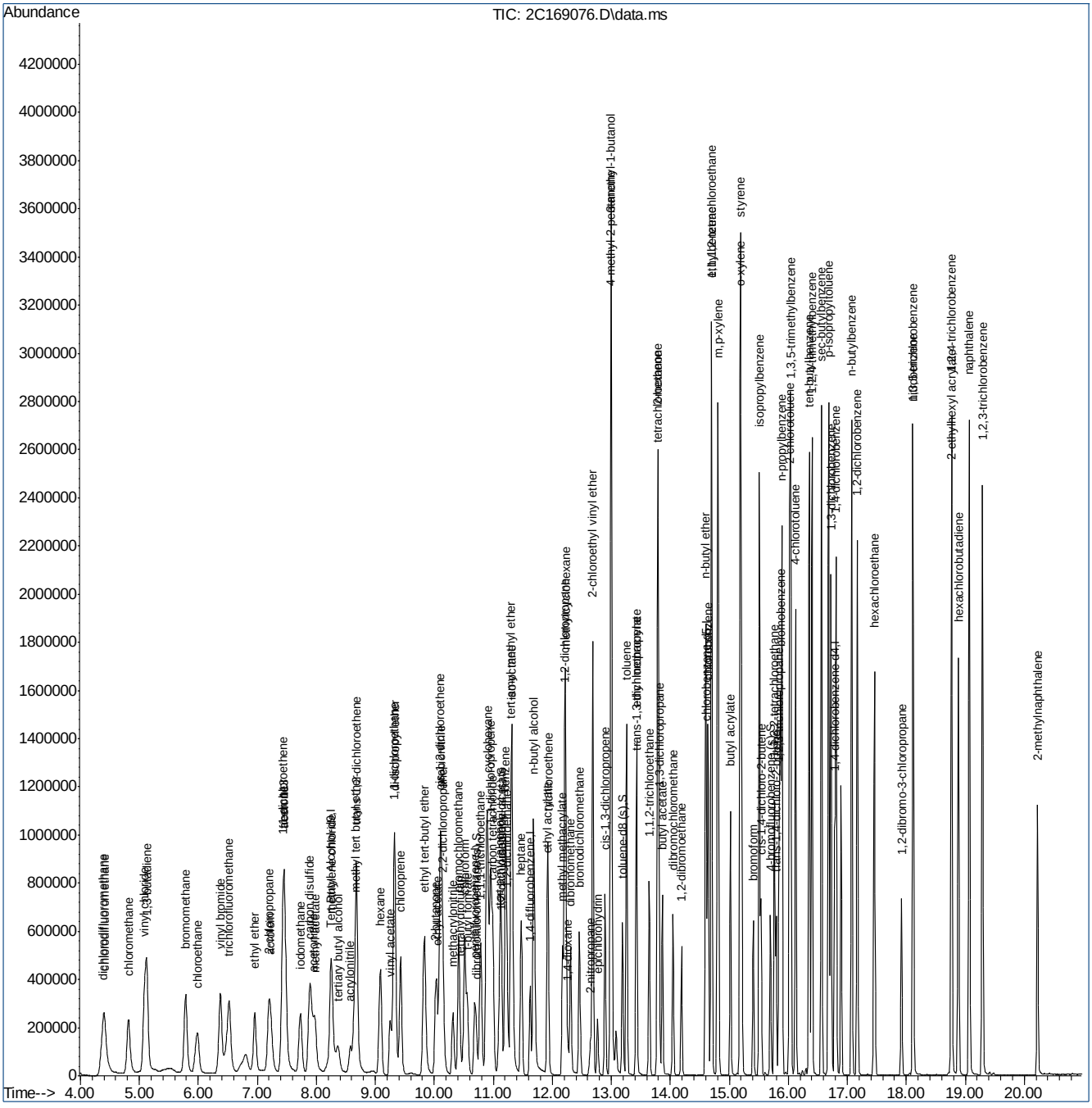
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.191	104	800660	98.51	ug/L	99
93)	butyl acrylate	15.018	55	609805	95.23	ug/L	99
94)	bromoform	15.411	173	267610	118.76	ug/L	97
95)	isopropylbenzene	15.506	105	1461055	101.03	ug/L	99
96)	cis-1,4-dichloro-2-butene	15.537	75	144863	108.01	ug/L	98
99)	bromobenzene	15.867	156	390111	104.45	ug/L	98
100)	1,1,2,2-tetrachloroethane	15.763	83	475594	107.98	ug/L	99
101)	trans-1,4-dichloro-2-b...	15.794	88	57524	108.71	ug/L	97
102)	1,2,3-trichloropropane	15.846	110	126875	103.05	ug/L	99
103)	n-propylbenzene	15.894	91	1508674	101.47	ug/L	100
104)	2-chlorotoluene	16.020	126	370408	108.54	ug/L	100
105)	4-chlorotoluene	16.124	91	917641	101.35	ug/L	99
106)	1,3,5-trimethylbenzene	16.040	105	1202627	104.43	ug/L	98
107)	tert-butylbenzene	16.355	119	1097372	113.39	ug/L	99
108)	1,2,4-trimethylbenzene	16.402	105	1223723	101.63	ug/L	100
109)	sec-butylbenzene	16.560	105	1683284	109.46	ug/L	99
110)	1,3-dichlorobenzene	16.722	146	755917	98.78	ug/L	99
111)	p-isopropyltoluene	16.680	119	1435943	108.53	ug/L	99
112)	1,4-dichlorobenzene	16.811	146	765466	99.31	ug/L	99
113)	1,2-dichlorobenzene	17.168	146	834143	101.04	ug/L	99
114)	n-butylbenzene	17.073	92	720168	107.91	ug/L	98
115)	1,2-dibromo-3-chloropr...	17.923	75	146326	121.23	ug/L	88
116)	1,3,5-trichlorobenzene	18.117	180	828326	110.95	ug/L	97
117)	nitrobenzene	18.117	77	24271	128.52	ug/L	94
118)	1,2,4-trichlorobenzene	18.767	180	793848	118.65	ug/L	98
119)	2-ethylhexyl acrylate	18.772	55	94416	27.38	ug/L	94
120)	hexachlorobutadiene	18.887	225	368892	110.31	ug/L	98
121)	naphthalene	19.066	128	2027253	113.27	ug/L	99
122)	1,2,3-trichlorobenzene	19.291	180	758318	120.04	ug/L	99
123)	hexachloroethane	17.461	201	273658	101.28	ug/L	96
124)	2-methylnaphthalene	20.224	142	533921	50.76	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169076.D
Acq On : 31 Jul 2019 10:51 pm
Operator : brittank
Sample : ic7580-100
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:03:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169077.D
Acq On : 31 Jul 2019 11:20 pm
Operator : brittank
Sample : ic7580-200
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 01 12:03:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.244	65	294940	500.00	ug/L	0.00
5) pentafluorobenzene	10.687	168	264582	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.626	114	359360	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	335676	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	236364	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.713	113	128534	48.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.52%			
52) 1,2-dichloroethane-d4 (s)	11.143	65	130067	45.17	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.34%			
75) toluene-d8 (s)	13.188	98	406522	56.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.46%			
98) 4-bromofluorobenzene (s)	15.694	95	174655	52.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.34%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.370	59	716538	1005.45	ug/L	97
4) 1,4-dioxane	12.255	88	282781	4755.19	ug/L	97
6) chlorodifluoromethane	4.406	51	983807	161.79	ug/L	99
7) dichlorodifluoromethane	4.375	85	1060207	167.42	ug/L	97
8) chloromethane	4.815	50	1109619	150.35	ug/L	96
9) vinyl chloride	5.082	62	1078949	155.86	ug/L	97
10) 1,3-butadiene	5.124	54	752781	153.65	ug/L	97
11) bromomethane	5.780	94	940636	167.51	ug/L	99
12) chloroethane	5.984	64	738235	170.46	ug/L	99
13) trichlorofluoromethane	6.514	101	1481336	190.01	ug/L	98
14) vinyl bromide	6.372	106	959372	173.07	ug/L	99
15) ethyl ether	6.954	74	360034	192.15	ug/L	98
16) 2-chloropropane	7.201	43	1120745	171.95	ug/L	98
17) acrolein	7.211	56	127231	188.82	ug/L	100
18) freon 113	7.463	151	593602	187.47	ug/L	98
19) 1,1-dichloroethene	7.452	96	643749	173.62	ug/L	95
20) acetone	7.452	58	332504	722.39	ug/L	94
21) iodomethane	7.730	142	1249639	190.38	ug/L	98
22) acetonitrile	7.945	41	1070319	1584.29	ug/L	96
23) carbon disulfide	7.893	76	1910544	181.91	ug/L	98
24) methylene chloride	8.255	84	712864	162.52	ug/L	97
25) methyl acetate	7.977	43	616206	177.51	ug/L	98
26) methyl tert butyl ether	8.663	73	1958032	174.86	ug/L	100
27) trans-1,2-dichloroethene	8.679	96	604430	169.46	ug/L	99
28) hexane	9.083	56	362807	184.97	ug/L	96
29) di-isopropyl ether	9.329	45	1972928	173.70	ug/L	98
30) 1,1-dichloroethane	9.319	63	1015364	175.65	ug/L	98
31) chloroprene	9.429	53	835910	183.90	ug/L	95
32) acrylonitrile	8.574	53	335578	188.95	ug/L	96
33) vinyl acetate	9.256	86	103906	202.90	ug/L	97
34) ethyl tert-butyl ether	9.833	59	1923418	181.94	ug/L	99
35) 2-butanone	10.021	72	339483	807.97	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169077.D
Acq On : 31 Jul 2019 11:20 pm
Operator : brittank
Sample : ic7580-200
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 01 12:03:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36)	ethyl acetate	10.048	45	98924	198.10	ug/L	#	67
37)	2,2-dichloropropane	10.137	77	809079	166.39	ug/L		94
38)	cis-1,2-dichloroethene	10.100	96	662928	179.65	ug/L		97
39)	propionitrile	10.111	54	1178349	1809.89	ug/L		90
40)	bromochloromethane	10.415	128	355656	187.82	ug/L		96
41)	tetrahydrofuran	10.436	71	97212	191.99	ug/L		89
42)	chloroform	10.514	83	1034594	173.18	ug/L		100
43)	t-butyl formate	10.556	59	458300	200.34	ug/L		92
45)	methacrylonitrile	10.315	67	260981	201.40	ug/L		96
46)	1,1,1-trichloroethane	10.787	97	1095582	181.77	ug/L		100
47)	cyclohexane	10.902	84	912296	170.54	ug/L		97
48)	1,1-dichloropropene	10.955	75	643196	182.71	ug/L		98
49)	carbon tetrachloride	10.991	117	928084	185.96	ug/L		99
53)	n-butyl alcohol	11.683	56	1635752	9298.32	ug/L		96
54)	tert-amyl alcohol	11.112	55	250938	858.64	ug/L	#	84
55)	iso-octane	11.322	57	1945684	185.45	ug/L		97
56)	benzene	11.206	78	1957943	186.90	ug/L		98
57)	tert-amyl methyl ether	11.306	87	441684	178.17	ug/L		91
58)	heptane	11.474	57	320302	187.43	ug/L		99
59)	isopropyl acetate	11.128	87	140793	194.57	ug/L	#	91
60)	1,2-dichloroethane	11.233	62	692334	171.08	ug/L		100
61)	ethyl acrylate	11.914	55	677758	183.28	ug/L		99
62)	trichloroethene	11.930	95	502196	185.95	ug/L		94
63)	2-nitropropane	12.648	41	191450	206.48	ug/L		94
64)	2-chloroethyl vinyl ether	12.685	63	1416297	950.92	ug/L		99
65)	methyl methacrylate	12.171	100	153771	199.58	ug/L		96
66)	1,2-dichloropropane	12.208	63	491703	182.36	ug/L		98
67)	dibromomethane	12.313	93	369081	185.24	ug/L		97
68)	methylcyclohexane	12.223	83	1128185	178.48	ug/L		98
69)	bromodichloromethane	12.459	83	748636	203.30	ug/L		98
70)	epichlorohydrin	12.769	57	386874	920.88	ug/L		96
71)	cis-1,3-dichloropropene	12.895	75	751543	198.60	ug/L		97
72)	4-methyl-2-pentanone	12.994	58	1225833	718.26	ug/L		89
73)	3-methyl-1-butanol	12.999	55	1057781	3337.00	ug/L		97
76)	toluene	13.262	92	1206792	215.84	ug/L		96
77)	ethyl methacrylate	13.424	69	662787	201.10	ug/L		98
78)	trans-1,3-dichloropropene	13.435	75	668692	229.04	ug/L		99
79)	1,1,2-trichloroethane	13.644	83	389115	208.80	ug/L		97
80)	2-hexanone	13.791	58	969011	730.80	ug/L		96
81)	tetrachloroethene	13.786	164	490554	209.45	ug/L		96
82)	1,3-dichloropropane	13.812	76	659683	196.18	ug/L		98
83)	butyl acetate	13.870	56	359390	180.60	ug/L		95
84)	dibromochloromethane	14.043	129	626211	242.10	ug/L		99
85)	1,2-dibromoethane	14.190	107	606823	205.03	ug/L		99
86)	n-butyl ether	14.599	57	1971610	185.69	ug/L		97
87)	chlorobenzene	14.641	112	1342784	195.78	ug/L		99
88)	1,1,1,2-tetrachloroethane	14.703	131	698448	227.71	ug/L		97
89)	ethylbenzene	14.698	91	2255943	187.63	ug/L		97
90)	m,p-xylene	14.808	106	1854105	393.92	ug/L		93
91)	o-xylene	15.186	106	1084902	202.37	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169077.D
Acq On : 31 Jul 2019 11:20 pm
Operator : brittank
Sample : ic7580-200
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 01 12:03:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration

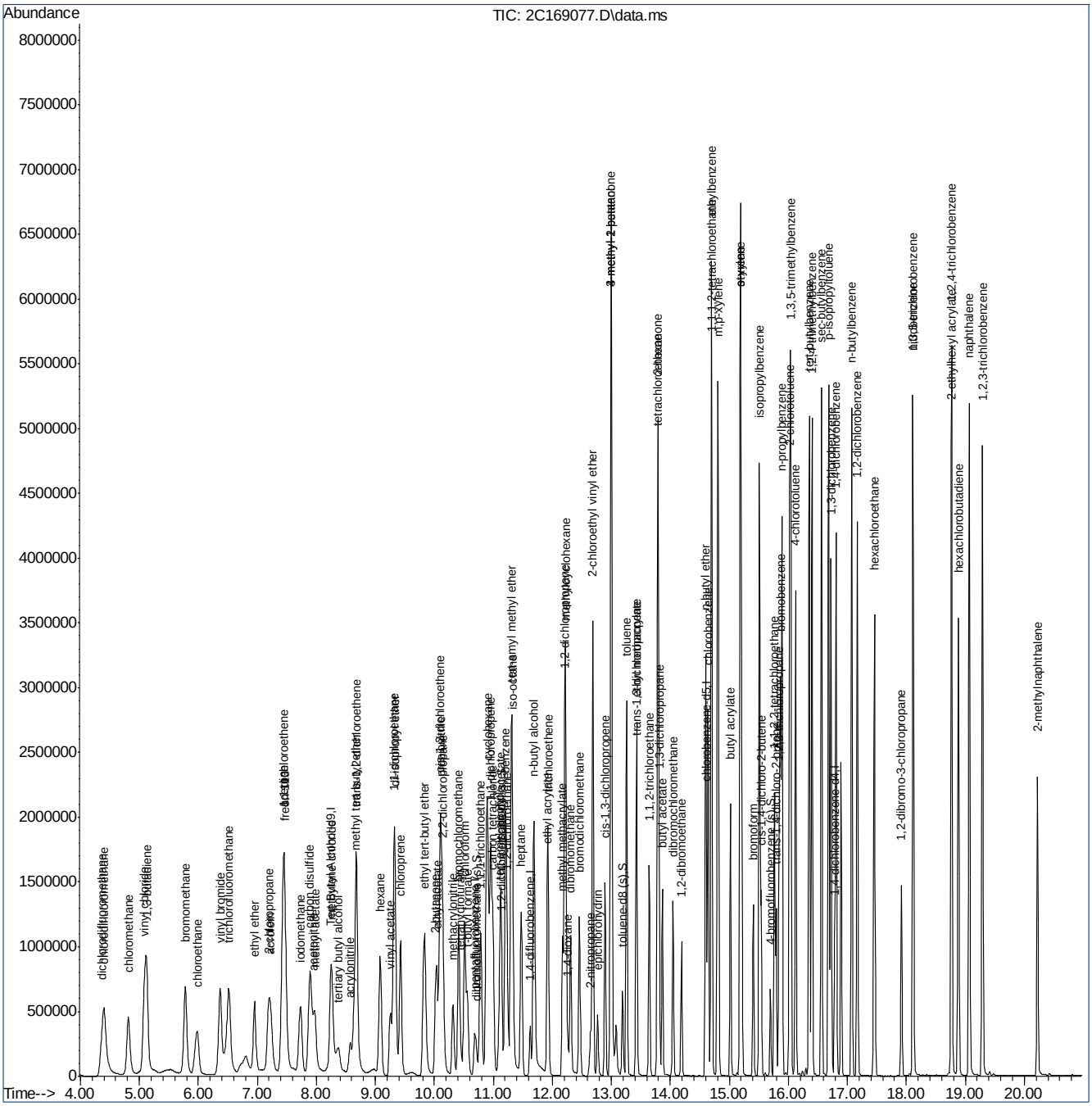
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	15.191	104	1545713	190.15	ug/L	100
93) butyl acrylate	15.018	55	1142007	178.32	ug/L	98
94) bromoform	15.406	173	543704	241.25	ug/L	97
95) isopropylbenzene	15.506	105	2822830	195.16	ug/L	98
96) cis-1,4-dichloro-2-butene	15.537	75	281848	210.12	ug/L	96
99) bromobenzene	15.867	156	751380	199.32	ug/L	98
100) 1,1,2,2-tetrachloroethane	15.763	83	909541	204.60	ug/L	99
101) trans-1,4-dichloro-2-b...	15.794	88	117681	220.35	ug/L	96
102) 1,2,3-trichloropropane	15.846	110	245275	197.37	ug/L	99
103) n-propylbenzene	15.894	91	2844409	189.53	ug/L	98
104) 2-chlorotoluene	16.019	126	734280	213.17	ug/L	97
105) 4-chlorotoluene	16.124	91	1758352	192.41	ug/L	98
106) 1,3,5-trimethylbenzene	16.040	105	2361028	203.13	ug/L	96
107) tert-butylbenzene	16.355	119	2219526	227.23	ug/L	99
108) 1,2,4-trimethylbenzene	16.402	105	2340115	192.56	ug/L	98
109) sec-butylbenzene	16.559	105	3268356	210.56	ug/L	98
110) 1,3-dichlorobenzene	16.722	146	1435194	185.80	ug/L	98
111) p-isopropyltoluene	16.680	119	2764192	206.98	ug/L	98
112) 1,4-dichlorobenzene	16.811	146	1486925	191.14	ug/L	98
113) 1,2-dichlorobenzene	17.168	146	1602748	192.35	ug/L	97
114) n-butylbenzene	17.073	92	1394657	207.04	ug/L	95
115) 1,2-dibromo-3-chloropr...	17.917	75	297238	243.99	ug/L	100
116) 1,3,5-trichlorobenzene	18.117	180	1634752	216.95	ug/L	99
117) nitrobenzene	18.117	77	60074	315.16	ug/L	94
118) 1,2,4-trichlorobenzene	18.767	180	1550830	229.66	ug/L	96
119) 2-ethylhexyl acrylate	18.772	55	223743	64.29	ug/L	93
120) hexachlorobutadiene	18.887	225	756515	224.13	ug/L	99
121) naphthalene	19.066	128	3969593	219.75	ug/L	98
122) 1,2,3-trichlorobenzene	19.291	180	1477839	231.77	ug/L	99
123) hexachloroethane	17.461	201	601515	199.78	ug/L	94
124) 2-methylnaphthalene	20.224	142	1106008	100.95	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169077.D
Acq On : 31 Jul 2019 11:20 pm
Operator : brittank
Sample : ic7580-200
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 01 12:03:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:02:50 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169080.D
Acq On : 1 Aug 2019 12:48 am
Operator : brittank
Sample : icv7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 01 12:12:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.239	65	284700	500.00	ug/L		0.00
5) pentafluorobenzene	10.682	168	221377	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.626	114	319418	50.00	ug/L		0.00
74) chlorobenzene-d5	14.609	117	331731	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.785	152	236094	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.708	113	110330	49.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.02%				
52) 1,2-dichloroethane-d4 (s)	11.144	65	122131	47.71	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.42%				
75) toluene-d8 (s)	13.188	98	371565	52.00	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.00%				
98) 4-bromofluorobenzene (s)	15.695	95	171824	51.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.70%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.365	59	187315	272.67	ug/L		99
4) 1,4-dioxane	12.255	88	80491	1407.16	ug/L		93
6) chlorodifluoromethane	4.412	51	254082	49.94	ug/L		97
7) dichlorodifluoromethane	4.380	85	230685	43.54	ug/L		99
8) chloromethane	4.815	50	265293	42.61	ug/L		98
9) vinyl chloride	5.088	62	277007	47.69	ug/L		97
10) 1,3-butadiene	5.130	54	249406	60.84	ug/L		97
11) bromomethane	5.790	94	281314	59.90	ug/L		99
12) chloroethane	5.990	64	153597	42.39	ug/L		98
13) trichlorofluoromethane	6.524	101	322328	49.41	ug/L		98
14) vinyl bromide	6.383	106	239296	51.59	ug/L		100
15) ethyl ether	6.960	74	84439	53.86	ug/L		95
16) 2-chloropropane	7.201	43	294517	54.00	ug/L		99
17) acrolein	7.217	56	36624	64.92	ug/L		92
18) freon 113	7.468	151	161800	61.07	ug/L		98
19) 1,1-dichloroethene	7.437	96	145913	47.03	ug/L		99
20) acetone	7.453	58	81069	210.50	ug/L		98
21) iodomethane	7.730	142	326060	59.37	ug/L		99
23) carbon disulfide	7.888	76	502131	57.14	ug/L		100
24) methylene chloride	8.249	84	172145	46.90	ug/L		98
25) methyl acetate	7.977	43	136053	46.84	ug/L		99
26) methyl tert butyl ether	8.664	73	965257	102.85	ug/L		99
27) trans-1,2-dichloroethene	8.685	96	150663	50.49	ug/L		98
28) hexane	9.088	56	93348	56.88	ug/L		96
29) di-isopropyl ether	9.330	45	481851	50.70	ug/L		98
30) 1,1-dichloroethane	9.319	63	254374	52.59	ug/L		99
31) chloroprene	9.434	53	212812	55.95	ug/L		99
33) vinyl acetate	9.246	86	21998	51.34	ug/L	#	94
34) ethyl tert-butyl ether	9.833	59	476745	53.90	ug/L		98
35) 2-butanone	10.022	72	77751	221.16	ug/L		95
36) ethyl acetate	10.043	45	23579	56.43	ug/L	#	77
37) 2,2-dichloropropane	10.137	77	198486	48.78	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169080.D
Acq On : 1 Aug 2019 12:48 am
Operator : brittank
Sample : icv7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 01 12:12:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) cis-1,2-dichloroethene	10.100	96	154845	50.15	ug/L		98
39) propionitrile	10.100	54	295547	542.38	ug/L		95
40) bromochloromethane	10.415	128	84327	53.22	ug/L		98
41) tetrahydrofuran	10.431	71	22928	54.12	ug/L		87
42) chloroform	10.514	83	253649	50.74	ug/L		99
43) t-butyl formate	10.556	59	105246	54.99	ug/L		97
45) methacrylonitrile	10.315	67	59091	54.50	ug/L		93
46) 1,1,1-trichloroethane	10.782	97	269788	53.50	ug/L		98
47) cyclohexane	10.902	84	251397	55.82	ug/L		95
48) 1,1-dichloropropene	10.955	75	157006	53.30	ug/L		99
49) carbon tetrachloride	10.992	117	235920	56.50	ug/L		100
53) n-butyl alcohol	11.684	56	435406	2715.22	ug/L		99
54) tert-amyl alcohol	11.112	55	71047	273.50	ug/L	#	85
55) iso-octane	11.317	57	596777	63.99	ug/L		98
56) benzene	11.207	78	483705	51.89	ug/L		98
57) tert-amyl methyl ether	11.301	87	115288	52.32	ug/L		99
58) heptane	11.474	57	98178	64.63	ug/L		97
59) isopropyl acetate	11.123	87	32841	51.06	ug/L		99
60) 1,2-dichloroethane	11.233	62	172709	48.01	ug/L		99
61) ethyl acrylate	11.914	55	177982	54.15	ug/L		99
62) trichloroethene	11.930	95	127555	53.13	ug/L		95
63) 2-nitropropane	12.648	41	46396	59.11	ug/L		97
64) 2-chloroethyl vinyl ether	12.685	63	393644	297.35	ug/L		99
65) methyl methacrylate	12.171	100	36006	52.79	ug/L	#	73
66) 1,2-dichloropropane	12.208	63	122654	52.46	ug/L		95
67) dibromomethane	12.308	93	91120	51.45	ug/L		99
68) methylcyclohexane	12.224	83	295314	52.56	ug/L		99
69) bromodichloromethane	12.460	83	177184	54.13	ug/L		99
70) epichlorohydrin	12.764	57	107842	288.79	ug/L		98
71) cis-1,3-dichloropropene	12.895	75	183558	54.57	ug/L		98
72) 4-methyl-2-pentanone	12.994	58	318495	209.95	ug/L		98
73) 3-methyl-1-butanol	13.000	55	313507	1111.40	ug/L		99
76) toluene	13.257	92	300962	54.48	ug/L		99
77) ethyl methacrylate	13.424	69	179225	55.03	ug/L		99
78) trans-1,3-dichloropropene	13.435	75	174512	60.49	ug/L		98
79) 1,1,2-trichloroethane	13.645	83	100397	54.52	ug/L		100
80) 2-hexanone	13.791	58	275291	209.86	ug/L		97
82) 1,3-dichloropropane	13.812	76	173923	52.35	ug/L		99
83) butyl acetate	13.865	56	101632	51.69	ug/L		99
84) dibromochloromethane	14.043	129	154716	60.53	ug/L		98
85) 1,2-dibromoethane	14.190	107	159253	54.45	ug/L		99
86) n-butyl ether	14.599	57	587019	55.82	ug/L		99
87) chlorobenzene	14.641	112	365362	53.91	ug/L		100
88) 1,1,1,2-tetrachloroethane	14.698	131	175497	57.90	ug/L		98
89) ethylbenzene	14.698	91	624972	52.61	ug/L		99
90) m,p-xylene	14.809	106	499349	107.37	ug/L		98
91) o-xylene	15.186	106	285949	53.98	ug/L		95
92) styrene	15.191	104	429369	53.45	ug/L		99
93) butyl acrylate	15.018	55	332583	52.56	ug/L		99
94) bromoform	15.406	173	142338	63.92	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169080.D
Acq On : 1 Aug 2019 12:48 am
Operator : brittank
Sample : icv7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 01 12:12:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

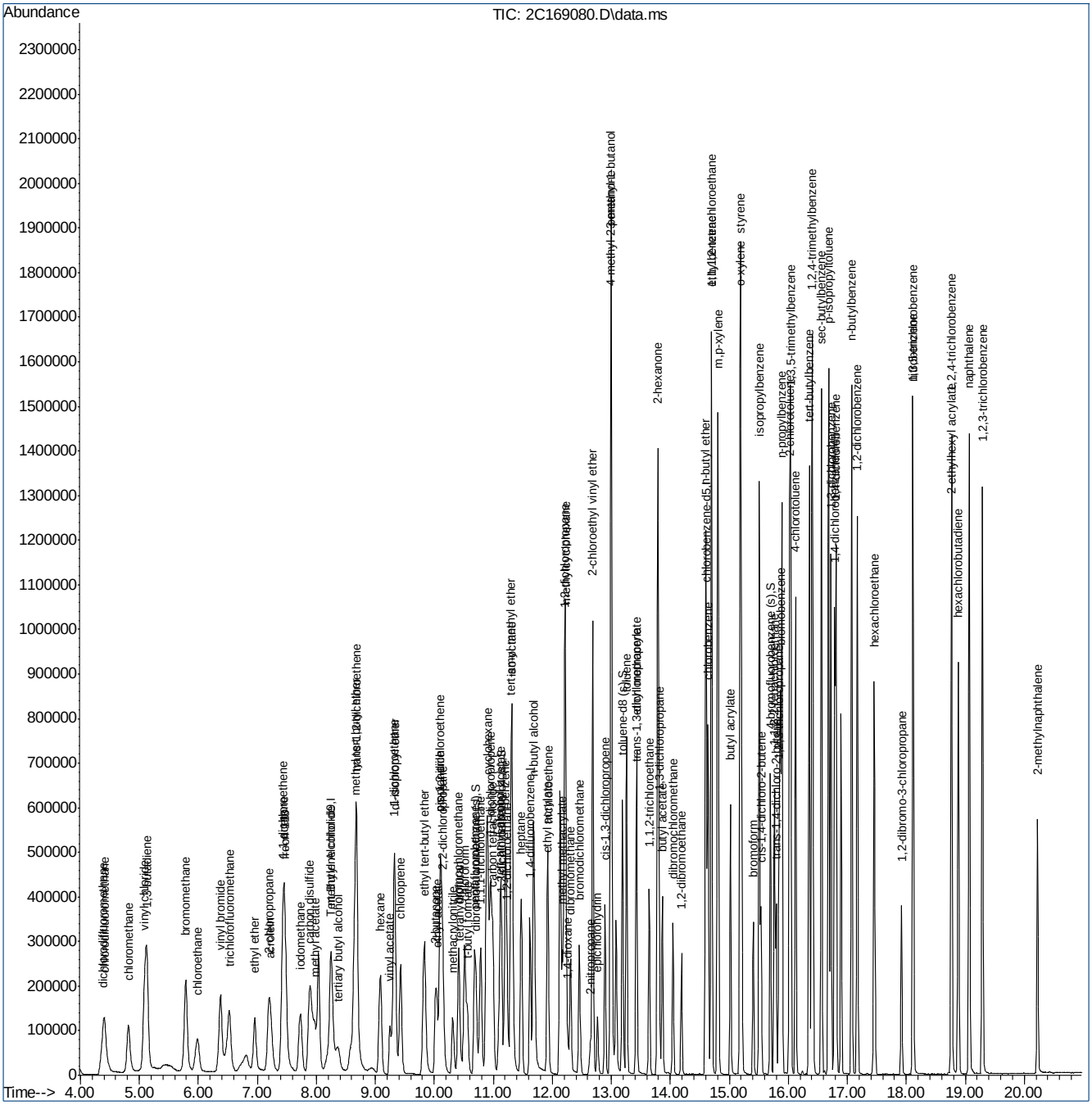
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) isopropylbenzene	15.506	105	790098	55.28	ug/L	99
96) cis-1,4-dichloro-2-butene	15.537	75	73023	55.09	ug/L	97
99) bromobenzene	15.868	156	208797	55.47	ug/L	97
100) 1,1,2,2-tetrachloroethane	15.763	83	261114	58.82	ug/L	100
101) trans-1,4-dichloro-2-b...	15.794	88	33582	62.95	ug/L	98
102) 1,2,3-trichloropropane	15.847	110	68166	54.17	ug/L	100
103) n-propylbenzene	15.894	91	842511	56.22	ug/L	99
104) 2-chlorotoluene	16.020	126	195910	56.96	ug/L	99
105) 4-chlorotoluene	16.125	91	509273	55.81	ug/L	99
106) 1,3,5-trimethylbenzene	16.041	105	652048	56.18	ug/L	99
107) tert-butylbenzene	16.355	119	583063	59.72	ug/L	99
108) 1,2,4-trimethylbenzene	16.402	105	683838	56.35	ug/L	100
109) sec-butylbenzene	16.560	105	916471	59.13	ug/L	100
110) 1,3-dichlorobenzene	16.722	146	421812	54.69	ug/L	100
111) p-isopropyltoluene	16.680	119	796993	59.76	ug/L	99
112) 1,4-dichlorobenzene	16.811	146	422313	54.36	ug/L	98
113) 1,2-dichlorobenzene	17.168	146	469444	56.42	ug/L	98
114) n-butylbenzene	17.073	92	405728	60.32	ug/L	99
115) 1,2-dibromo-3-chloropr...	17.923	75	74489	61.22	ug/L	92
116) 1,3,5-trichlorobenzene	18.117	180	467897	62.18	ug/L	96
117) nitrobenzene	18.117	77	10862	52.13	ug/L	96
118) 1,2,4-trichlorobenzene	18.767	180	425941	63.16	ug/L	99
119) 2-ethylhexyl acrylate	18.772	55	42902	12.34	ug/L	95
120) hexachlorobutadiene	18.882	225	195987	58.14	ug/L	96
121) naphthalene	19.066	128	1081667	59.95	ug/L	99
122) 1,2,3-trichlorobenzene	19.291	180	405118	63.62	ug/L	99
123) hexachloroethane	17.461	201	138190	54.33	ug/L	99
124) 2-methylnaphthalene	20.225	142	268882	26.88	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169080.D
Acq On : 1 Aug 2019 12:48 am
Operator : brittank
Sample : icv7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 01 12:12:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169081.D
Acq On : 1 Aug 2019 1:17 am
Operator : brittank
Sample : icv7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:12:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

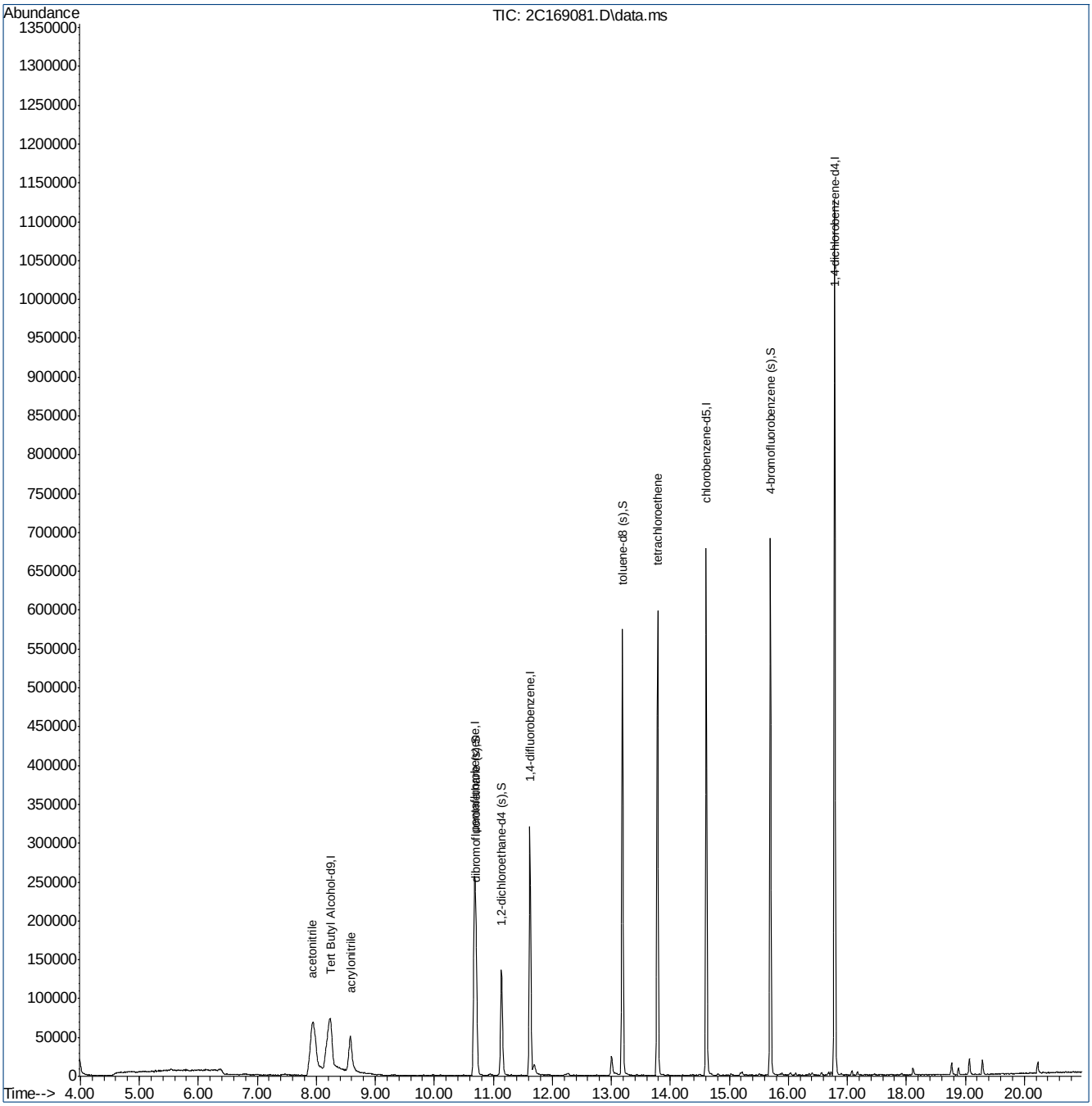
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.239	65	272469	500.00	ug/L	0.00
5) pentafluorobenzene	10.682	168	201847	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	276288	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	331156	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	262854	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.708	113	99721	49.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.16%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	113434	51.23	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.46%			
75) toluene-d8 (s)	13.188	98	350875	49.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.38%			
98) 4-bromofluorobenzene (s)	15.694	95	181974	49.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.64%			
Target Compounds						Qvalue
22) acetonitrile	7.940	41	264215	558.58	ug/L	95
32) acrylonitrile	8.580	53	69497	51.29	ug/L	96
81) tetrachloroethene	13.786	164	128341	55.55	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C7580\
Data File : 2C169081.D
Acq On : 1 Aug 2019 1:17 am
Operator : brittank
Sample : icv7580-50
Misc : MS36344,V2C7580,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:12:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170149.d
Acq On : 18 Sep 2019 7:40 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:35:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	234387	500.00	ug/L	-0.02
5) pentafluorobenzene	10.677	168	199449	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	11.621	114	298665	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	309701	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	202688	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	98543	49.08	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.16%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	113518	47.42	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.84%			
75) toluene-d8 (s)	13.188	98	336271	50.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.82%			
98) 4-bromofluorobenzene (s)	15.695	95	148252	52.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.22%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.333	59	62097	109.79	ug/L	93
4) 1,4-dioxane	12.255	88	25895	549.88	ug/L	93
6) chlorodifluoromethane	4.401	51	95480	20.83	ug/L	96
7) dichlorodifluoromethane	4.364	85	103638	21.71	ug/L	97
8) chloromethane	4.805	50	119840	21.36	ug/L	95
9) vinyl chloride	5.077	62	104057	19.88	ug/L	95
10) 1,3-butadiene	5.114	54	68988	18.68	ug/L	96
11) bromomethane	5.775	94	76377	18.05	ug/L	91
12) chloroethane	5.979	64	57216	17.53	ug/L	99
13) trichlorofluoromethane	6.519	101	112204	19.09	ug/L	96
14) vinyl bromide	6.378	106	61462	14.71	ug/L	100
15) ethyl ether	6.944	74	27073	19.17	ug/L	85
16) 2-chloropropane	7.190	43	92773	18.88	ug/L	98
17) acrolein	7.217	56	13746	27.05	ug/L	90
18) freon 113	7.458	151	49283	20.65	ug/L	96
19) 1,1-dichloroethene	7.447	96	52786	18.89	ug/L	94
20) acetone	7.442	58	29996	86.45	ug/L #	85
21) iodomethane	7.730	142	109906	22.21	ug/L	98
22) acetonitrile	7.940	41	82804	177.16	ug/L	98
23) carbon disulfide	7.893	76	171581	21.67	ug/L	98
24) methylene chloride	8.255	84	60994	18.45	ug/L	96
25) methyl acetate	7.956	43	56509	21.59	ug/L	96
26) methyl tert butyl ether	8.653	73	167735	19.84	ug/L	95
27) trans-1,2-dichloroethene	8.674	96	47815	17.78	ug/L	96
28) hexane	9.083	56	29201	19.75	ug/L	97
29) di-isopropyl ether	9.314	45	171170	19.99	ug/L	98
30) 1,1-dichloroethane	9.309	63	82777	19.00	ug/L	97
31) chloroprene	9.424	53	62644	18.28	ug/L	96
32) acrylonitrile	8.569	53	28382	21.20	ug/L	87
33) vinyl acetate	9.251	86	9293	24.07	ug/L	97
34) ethyl tert-butyl ether	9.822	59	161811	20.30	ug/L	95
35) 2-butanone	10.022	72	31859	100.59	ug/L	96
36) ethyl acetate	10.043	45	10906	28.97	ug/L #	93
37) 2,2-dichloropropane	10.132	77	77206	21.06	ug/L	94
38) cis-1,2-dichloroethene	10.090	96	52756	18.97	ug/L	94
39) propionitrile	10.100	54	116811	237.94	ug/L	96
40) bromochloromethane	10.404	128	27595	19.33	ug/L	97
41) tetrahydrofuran	10.431	71	9052	23.72	ug/L #	84
42) chloroform	10.504	83	82752	18.38	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170149.d
Acq On : 18 Sep 2019 7:40 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:35:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.551	59	29468	17.09	ug/L		91
45) methacrylonitrile	10.315	67	24140	24.71	ug/L		95
46) 1,1,1-trichloroethane	10.782	97	85791	18.88	ug/L		98
47) cyclohexane	10.897	84	75224	18.54	ug/L		85
48) 1,1-dichloropropene	10.950	75	53985	20.34	ug/L		98
49) carbon tetrachloride	10.981	117	74446	19.79	ug/L		97
53) n-butyl alcohol	11.689	56	157026	1047.27	ug/L		98
54) tert-amyl alcohol	11.107	55	24700	101.69	ug/L	#	93
55) iso-octane	11.317	57	169943	19.49	ug/L		95
56) benzene	11.201	78	167608	19.23	ug/L		98
57) tert-amyl methyl ether	11.301	87	36420	17.68	ug/L		89
58) heptane	11.474	57	27561	19.41	ug/L		92
59) isopropyl acetate	11.128	87	11290	18.77	ug/L	#	91
60) 1,2-dichloroethane	11.227	62	62069	18.45	ug/L		95
61) ethyl acrylate	11.920	55	68343	22.24	ug/L		96
62) trichloroethene	11.925	95	44596	19.87	ug/L		98
63) 2-nitropropane	12.648	41	20685	28.18	ug/L		94
64) 2-chloroethyl vinyl ether	12.685	63	132178	106.78	ug/L		99
65) methyl methacrylate	12.176	100	13911	21.81	ug/L		93
66) 1,2-dichloropropane	12.203	63	44461	20.34	ug/L		95
67) dibromomethane	12.308	93	33250	20.08	ug/L		96
68) methylcyclohexane	12.218	83	82036	15.62	ug/L		97
69) bromodichloromethane	12.460	83	65760	21.49	ug/L		98
70) epichlorohydrin	12.769	57	39831	114.08	ug/L		93
71) cis-1,3-dichloropropene	12.895	75	72652	23.10	ug/L		97
72) 4-methyl-2-pentanone	12.989	58	110995	78.25	ug/L		99
73) 3-methyl-1-butanol	13.000	55	104224	395.15	ug/L		97
76) toluene	13.257	92	103253	20.02	ug/L		95
77) ethyl methacrylate	13.424	69	59738	19.65	ug/L		98
78) trans-1,3-dichloropropene	13.435	75	69386	25.76	ug/L		100
79) 1,1,2-trichloroethane	13.639	83	37298	21.70	ug/L		99
80) 2-hexanone	13.791	58	107492	87.77	ug/L		96
81) tetrachloroethene	13.786	164	44280	20.49	ug/L		98
82) 1,3-dichloropropane	13.812	76	67230	21.67	ug/L		99
83) butyl acetate	13.870	56	36292	19.77	ug/L		93
84) dibromochloromethane	14.043	129	57593	24.14	ug/L		97
85) 1,2-dibromoethane	14.190	107	57250	20.97	ug/L		96
86) n-butyl ether	14.599	57	179118	18.24	ug/L		96
87) chlorobenzene	14.641	112	124976	19.75	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.698	131	55973	19.78	ug/L		99
89) ethylbenzene	14.693	91	209574	18.90	ug/L		98
90) m,p-xylene	14.808	106	163232	37.59	ug/L		98
91) o-xylene	15.186	106	90195	18.24	ug/L		96
92) styrene	15.191	104	143889	19.19	ug/L		99
93) butyl acrylate	15.018	55	101760	17.22	ug/L		98
94) bromoform	15.406	173	49404	23.76	ug/L		100
95) isopropylbenzene	15.506	105	239199	17.93	ug/L		98
96) cis-1,4-dichloro-2-butene	15.537	75	27070	21.87	ug/L		97
99) bromobenzene	15.868	156	70923	21.95	ug/L		97
100) 1,1,2,2-tetrachloroethane	15.763	83	88504	23.22	ug/L		98
101) trans-1,4-dichloro-2-b...	15.794	88	11356	24.80	ug/L		85
102) 1,2,3-trichloropropane	15.847	110	23467	21.72	ug/L		95
103) n-propylbenzene	15.894	91	267262	20.77	ug/L		98
104) 2-chlorotoluene	16.020	126	60794	20.59	ug/L		94
105) 4-chlorotoluene	16.124	91	168031	21.45	ug/L		98
106) 1,3,5-trimethylbenzene	16.041	105	203661	20.44	ug/L		99
107) tert-butylbenzene	16.355	119	178811	21.33	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170149.d
Acq On : 18 Sep 2019 7:40 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:35:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

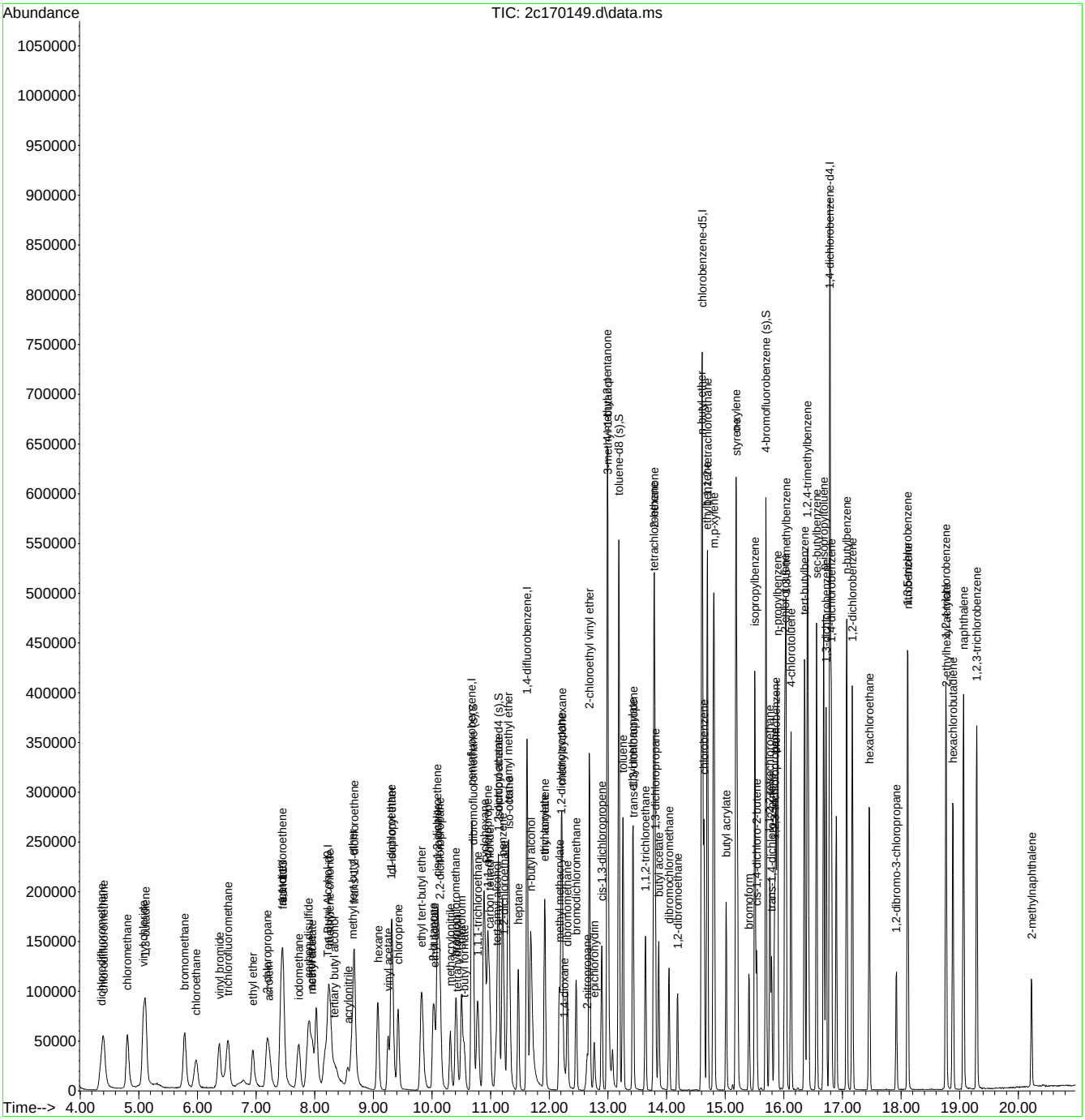
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	16.402	105	211923	20.34	ug/L	96
109) sec-butylbenzene	16.560	105	277092	20.82	ug/L	97
110) 1,3-dichlorobenzene	16.722	146	141344	21.34	ug/L	99
111) p-isopropyltoluene	16.680	119	236178	20.63	ug/L	99
112) 1,4-dichlorobenzene	16.811	146	137640	20.64	ug/L	97
113) 1,2-dichlorobenzene	17.168	146	151663	21.23	ug/L	99
114) n-butylbenzene	17.073	92	120164	20.81	ug/L	95
115) 1,2-dibromo-3-chloropr...	17.918	75	22768	21.80	ug/L	94
116) 1,3,5-trichlorobenzene	18.112	180	137403	21.27	ug/L	99
117) nitrobenzene	18.117	77	5796	34.97	ug/L	93
118) 1,2,4-trichlorobenzene	18.767	180	122193	21.10	ug/L	97
119) 2-ethylhexyl acrylate	18.772	55	6600	2.21	ug/L	84
120) hexachlorobutadiene	18.888	225	60159	20.79	ug/L	97
121) naphthalene	19.066	128	288937	18.65	ug/L	100
122) 1,2,3-trichlorobenzene	19.291	180	110825	20.27	ug/L	100
123) hexachloroethane	17.461	201	47879	24.25	ug/L	94
124) 2-methylnaphthalene	20.230	142	50982	8.32	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-19-19\v2c7649-rush\
Data File : 2c170149.d
Acq On : 18 Sep 2019 7:40 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37557,V2C7649,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 18 13:35:07 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170180.d
Acq On : 19 Sep 2019 7:33 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:30:10 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.223	65	284508	500.00	ug/L	-0.02
5) pentafluorobenzene	10.682	168	179207	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.621	114	269951	50.00	ug/L	0.00
74) chlorobenzene-d5	14.609	117	283415	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.785	152	194129	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.703	113	91178	50.54	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.08%			
52) 1,2-dichloroethane-d4 (s)	11.138	65	104646	48.37	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.74%			
75) toluene-d8 (s)	13.188	98	305603	50.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			
98) 4-bromofluorobenzene (s)	15.695	95	135491	49.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.365	59	59250	86.31	ug/L	93
4) 1,4-dioxane	12.255	88	22093	386.49	ug/L	89
6) chlorodifluoromethane	4.401	51	77771	18.88	ug/L	99
7) dichlorodifluoromethane	4.375	85	91880	21.42	ug/L	91
8) chloromethane	4.810	50	102555	20.35	ug/L	93
9) vinyl chloride	5.083	62	91472	19.45	ug/L	95
10) 1,3-butadiene	5.119	54	52417	15.80	ug/L	95
11) bromomethane	5.790	94	67279	17.70	ug/L	98
12) chloroethane	5.979	64	50782	17.31	ug/L	97
13) trichlorofluoromethane	6.524	101	101672	19.25	ug/L	91
14) vinyl bromide	6.372	106	54126	14.42	ug/L	98
15) ethyl ether	6.949	74	24473	19.28	ug/L	98
16) 2-chloropropane	7.206	43	82892	18.78	ug/L	99
17) acrolein	7.211	56	12890	28.23	ug/L	78
18) freon 113	7.468	151	41836	19.51	ug/L	98
19) 1,1-dichloroethene	7.447	96	45124	17.97	ug/L	93
20) acetone	7.432	58	28179	90.39	ug/L #	82
21) iodomethane	7.736	142	89491	20.13	ug/L	99
22) acetonitrile	7.930	41	83649	199.18	ug/L	92
23) carbon disulfide	7.909	76	142980	20.10	ug/L	97
24) methylene chloride	8.255	84	54042	18.19	ug/L	98
25) methyl acetate	7.972	43	52257	22.22	ug/L	97
26) methyl tert butyl ether	8.658	73	142279	18.73	ug/L	97
27) trans-1,2-dichloroethene	8.679	96	44109	18.26	ug/L	96
28) hexane	9.078	56	26261	19.77	ug/L	96
29) di-isopropyl ether	9.319	45	149119	19.38	ug/L	97
30) 1,1-dichloroethane	9.314	63	76819	19.62	ug/L	98
31) chloroprene	9.424	53	58000	18.84	ug/L	97
32) acrylonitrile	8.559	53	26218	21.80	ug/L	97
33) vinyl acetate	9.256	86	7988	23.03	ug/L #	89
34) ethyl tert-butyl ether	9.822	59	136737	19.10	ug/L	94
35) 2-butanone	10.022	72	29574	103.92	ug/L	91
36) ethyl acetate	10.048	45	9051	26.76	ug/L #	64
37) 2,2-dichloropropane	10.126	77	67121	20.38	ug/L	95
38) cis-1,2-dichloroethene	10.095	96	46889	18.76	ug/L	98
39) propionitrile	10.105	54	105884	240.04	ug/L	97
40) bromochloromethane	10.410	128	25461	19.85	ug/L	93
41) tetrahydrofuran	10.436	71	8265	24.10	ug/L #	79
42) chloroform	10.509	83	78667	19.44	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170180.d
Acq On : 19 Sep 2019 7:33 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:30:10 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	10.546	59	24284	15.67	ug/L		84
45) methacrylonitrile	10.315	67	21893	24.94	ug/L		92
46) 1,1,1-trichloroethane	10.782	97	76735	18.80	ug/L		96
47) cyclohexane	10.897	84	66380	18.21	ug/L	#	78
48) 1,1-dichloropropene	10.955	75	49618	20.81	ug/L		98
49) carbon tetrachloride	10.986	117	66328	19.62	ug/L		98
53) n-butyl alcohol	11.684	56	146015	1077.41	ug/L		97
54) tert-amyl alcohol	11.096	55	24126	109.89	ug/L	#	66
55) iso-octane	11.317	57	153781	19.51	ug/L		95
56) benzene	11.207	78	153741	19.52	ug/L		98
57) tert-amyl methyl ether	11.296	87	30879	16.58	ug/L	#	86
58) heptane	11.474	57	24395	19.00	ug/L		94
59) isopropyl acetate	11.123	87	9732	17.90	ug/L		95
60) 1,2-dichloroethane	11.233	62	58131	19.12	ug/L		98
61) ethyl acrylate	11.920	55	60095	21.63	ug/L		99
62) trichloroethene	11.930	95	39986	19.71	ug/L		99
63) 2-nitropropane	12.648	41	19387	29.22	ug/L		94
64) 2-chloroethyl vinyl ether	12.685	63	120442	107.65	ug/L		95
65) methyl methacrylate	12.171	100	11708	20.31	ug/L	#	78
66) 1,2-dichloropropane	12.208	63	41604	21.06	ug/L		96
67) dibromomethane	12.308	93	30724	20.53	ug/L		90
68) methylcyclohexane	12.218	83	71292	15.01	ug/L		95
69) bromodichloromethane	12.460	83	60955	22.04	ug/L		98
70) epichlorohydrin	12.769	57	35730	113.22	ug/L		97
71) cis-1,3-dichloropropene	12.895	75	64818	22.80	ug/L		95
72) 4-methyl-2-pentanone	12.994	58	98703	76.99	ug/L		92
73) 3-methyl-1-butanol	13.000	55	95360	400.00	ug/L		95
76) toluene	13.262	92	93378	19.78	ug/L		100
77) ethyl methacrylate	13.424	69	52528	18.88	ug/L		96
78) trans-1,3-dichloropropene	13.435	75	64101	26.01	ug/L		99
79) 1,1,2-trichloroethane	13.645	83	34025	21.63	ug/L		94
80) 2-hexanone	13.797	58	96980	86.53	ug/L		96
81) tetrachloroethene	13.786	164	40168	20.32	ug/L		98
82) 1,3-dichloropropane	13.812	76	61551	21.68	ug/L		93
83) butyl acetate	13.870	56	32367	19.27	ug/L		88
84) dibromochloromethane	14.043	129	52231	23.92	ug/L		98
85) 1,2-dibromoethane	14.190	107	51349	20.55	ug/L		99
86) n-butyl ether	14.599	57	152319	16.95	ug/L		96
87) chlorobenzene	14.641	112	116258	20.08	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.698	131	49855	19.25	ug/L		98
89) ethylbenzene	14.698	91	189556	18.68	ug/L		99
90) m,p-xylene	14.808	106	147797	37.20	ug/L		99
91) o-xylene	15.186	106	78909	17.44	ug/L		95
92) styrene	15.191	104	125966	18.36	ug/L		98
93) butyl acrylate	15.018	55	87714	16.22	ug/L		97
94) bromoform	15.411	173	44465	23.37	ug/L		97
95) isopropylbenzene	15.506	105	208240	17.05	ug/L		99
96) cis-1,4-dichloro-2-butene	15.537	75	24755	21.86	ug/L		95
99) bromobenzene	15.868	156	63308	20.45	ug/L		95
100) 1,1,2,2-tetrachloroethane	15.763	83	78916	21.62	ug/L		99
101) trans-1,4-dichloro-2-b...	15.794	88	11101	25.31	ug/L		98
102) 1,2,3-trichloropropane	15.847	110	20855	20.15	ug/L		98
103) n-propylbenzene	15.894	91	241191	19.57	ug/L		97
104) 2-chlorotoluene	16.020	126	55326	19.56	ug/L		94
105) 4-chlorotoluene	16.124	91	149749	19.96	ug/L		98
106) 1,3,5-trimethylbenzene	16.041	105	184957	19.38	ug/L		99
107) tert-butylbenzene	16.355	119	156348	19.48	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170180.d
Acq On : 19 Sep 2019 7:33 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:30:10 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration

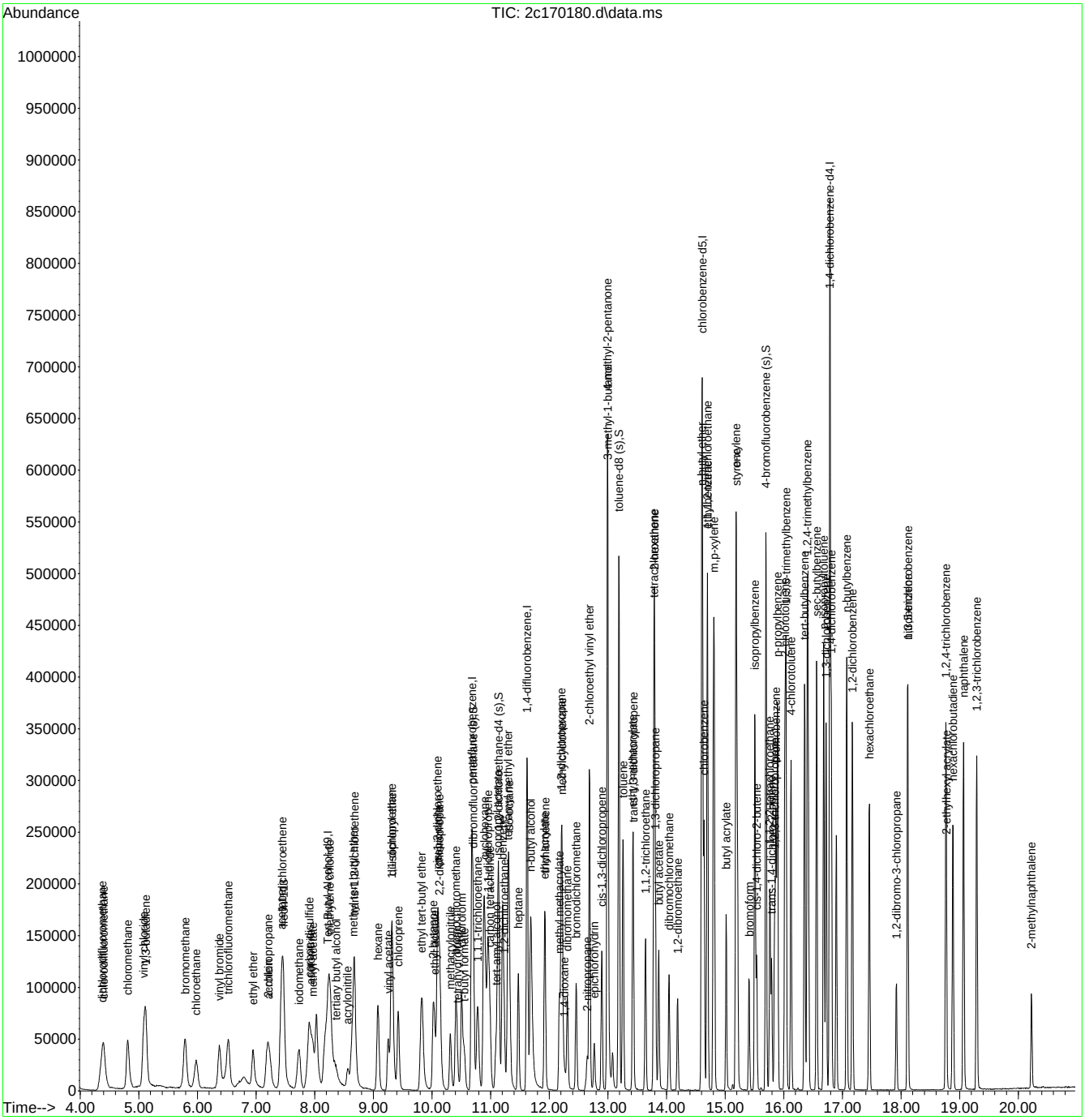
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	16.402	105	191225	19.16	ug/L	98
109) sec-butylbenzene	16.560	105	245610	19.27	ug/L	97
110) 1,3-dichlorobenzene	16.722	146	126058	19.88	ug/L	99
111) p-isopropyltoluene	16.685	119	210070	19.16	ug/L	98
112) 1,4-dichlorobenzene	16.811	146	122624	19.20	ug/L	98
113) 1,2-dichlorobenzene	17.173	146	134556	19.67	ug/L	98
114) n-butylbenzene	17.073	92	107127	19.37	ug/L	97
115) 1,2-dibromo-3-chloropr...	17.923	75	20497	20.49	ug/L	96
116) 1,3,5-trichlorobenzene	18.117	180	120003	19.40	ug/L	95
117) nitrobenzene	18.117	77	5243	33.33	ug/L	91
118) 1,2,4-trichlorobenzene	18.767	180	103281	18.62	ug/L	97
119) 2-ethylhexyl acrylate	18.777	55	6661	2.33	ug/L	90
120) hexachlorobutadiene	18.888	225	53530	19.31	ug/L	98
121) naphthalene	19.066	128	244386	16.47	ug/L	98
122) 1,2,3-trichlorobenzene	19.291	180	97115	18.55	ug/L	94
123) hexachloroethane	17.461	201	43073	22.98	ug/L	96
124) 2-methylnaphthalene	20.225	142	41076	7.48	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\09-20-19\v2c7651 rush\
Data File : 2c170180.d
Acq On : 19 Sep 2019 7:33 am
Operator : edwardd
Sample : CC7580-20 Inst : Instrument #1
Misc : MS37626,V2C7651,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7580.M
Quant Results File: M2C7580.RES
Quant Time: Sep 19 11:30:10 2019
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Thu Aug 01 12:11:34 2019
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
Standards	ABK: V019-2659-90.6	EC: V019-2659-91.11	Acrolein: V019-2659-67.2		Method	V8260C
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM		Init Calib Date	07/31/2019
Standards	Ext. ABK: V019-2659-57.11	Ext. EC: V019-2659-95.5	Ext. Acrolein: V019-2659-	Ext. PA: V019-2659-4		
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM	100/1000 PPM		
					Analysis Date	7/31/2019
Internal Surrogate	V019-2659-60				Sequence loaded by	Brittany Klimek
Internal Surrogate Concentration	250/2500 PPM				Data processed by	Robert Szot
					Batch ID	V2C7580
					Matrix	AQ
Initial Calibration Method	M2C7580				Approved By:	KANYAV
pH Paper Lot#	204518				Approved Date:	8/1/2019 4:27:23 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2c	169067	BFB		NA			5			1	ok	7/31/19; 6:24PM.
2c	169068	IC7580-0.2		NA		AQ Initial Calibration	5			2	ok	1 uL ABK, EC, Acrolein/500mL DI H2O.
2c	169069	IC7580-0.5		NA		AQ Initial Calibration	5			3	ok	2.5uL ABK, EC, Acrolein/500mL DI H2O.
2c	169070	IC7580-1		NA		AQ Initial Calibration	5			4	ok	1uL ABK, EC, Acrolein/100mL DI H2O.
2c	169071	IC7580-2		NA		AQ Initial Calibration	5			5	ok	2uL ABK, EC, Acrolein/100mL DI H2O.
2c	169072	IC7580-4		NA		AQ Initial Calibration	5			6	ok	4uL ABK, EC, Acrolein/100mL DI H2O.
2c	169073	IC7580-8		NA		AQ Initial Calibration	5			7	ok	8uL ABK, EC, Acrolein/100mL DI H2O.
2c	169074	IC7580-20		NA		AQ Initial Calibration	5			8	ok	20uL ABK, EC, Acrolein/100mL DI H2O.
2c	169075	ICC7580-50		NA		AQ Initial Calibration	5			9	ok	50uL ABK, EC, Acrolein/100mL DI H2O.
2c	169076	IC7580-100		NA		AQ Initial Calibration	5			10	ok	100uL ABK, EC, Acrolein/100mL DI H2O.
2c	169077	IC7580-200		NA		AQ Initial Calibration	5			11	ok	200uL ABK, EC, Acrolein/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2c	169078	IB		NA			5			12	ok	
2c	169079	IB		NA			5			13	ok	
2c	169080	ICV7580-50		NA		AQ Initial Calibration	5			14	ok	50uL Ext. ABK, EC, Acrolein/100mL DI H2O.
2c	169081	ICV7580-50		NA		AQ Initial Calibration	5			15	ok	50uL Ext. PA/100mL DI H2O.
2c	169082	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
Standards	ABK: V019-2659-149.12	EC: V019-2688-15.6	Acrolein: V019-2659-135 44		Method	V8260C
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM		Init Calib Date	7/31/2019
Expiration Date	10/10/2019	09/25/2019	09/29/2019			
Internal Surrogate	V019-2659-141					
Internal Surrogate Concentration	250/2500 PPM				Analysis Date	9/18/2019
Expiration Date	10/04/2019				Sequence loaded by	Krizhka Cuenta
					Data processed by	janellec/nizele
					Batch ID	V2C7649
rough reviewed by	Krizhka Cuenta 9/18, 9/19				Matrix	AQ
Initial Calibration Method	M2C7580				Approved By:	MOHUI
pH Paper Lot#	204518				Approved Date:	9/20/2019 2:42:26 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2C	170148	IB		NA			5			1	ok	
2C	170149	BFB/CC7580-20		NA			5			2	ok/ok	20uL ABK, EC, Acrolein/100mL (7:40 am) #68 low, #35, 78, 84 high
2C	170150	CC7580-2		NA			5			3	ok	2uL ABK, EC, Acrolein/100mL
2C	170151	BS		NA			5			4	ok	50uL ABK, EC, Acrolein/100mL #71, 78, 84, 88, 94 high
2C	170152	IB		NA			5			5	ok	
2C	170153	MB		NA			5			6	ok	
2C	170154	JC94800-23	2	NA	MS37547	V8260PAUG	5		1	7	ok	
2C	170155	JC94800-20	2	100X	MS37547	V8260PAUG	0.50/50		1	8	ok	+2C170135
2C	170156	JC95050-2	1	NA	MS37626	V8260TCL11	5		1	9	ok	
2C	170157	JC95050-1	1	NA	MS37626	V8260TCL11	5		1	10	ok	
2C	170158	JC95050-3	1	NA	MS37626	V8260TCL11	5		1	11	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2C	170159	JC95050-2MS	2	NA	MS37626	V8260TCL11	5		1	12	ok	20uL ABK, EC, Acrolein/40mL
2C	170160	JC95050-2MSD	3	NA	MS37626	V8260TCL11	5		1	13	ok	20uL ABK, EC, Acrolein/40mL
2C	170161	IB		NA			5			14	ok	
2C	170162	JC94429-1	5	NA	MS37454	V8260TCL, 124TMB, CHEX, CUME, HEX,	5		1	15	ok	
2C	170163	JC95050-15	1	NA	MS37626	V8260TCL11	5		1	16	ok	
2C	170164	JC95050-4	1	NA	MS37626	V8260TCL11	5		1	17	ok	
2C	170165	JC95050-5	1	NA	MS37626	V8260TCL11	5		1	18	ok	
2C	170166	JC95050-6	1	NA	MS37626	V8260TCL11	5		1	19	ok	
2C	170167	JC95050-7	1	NA	MS37626	V8260TCL11	5		1	20	ok	
2C	170168	JC95050-8	1	NA	MS37626	V8260TCL11	5		1	21	ok	
2C	170169	JC95050-9	1	NA	MS37626	V8260TCL11	5		1	22	ok	
2C	170170	JC95050-10	1	NA	MS37626	V8260TCL11	5		1	23	ok	
2C	170171	JC95050-11	1	NA	MS37626	V8260TCL11	5		1	24	ok	
2C	170172	JC95050-12	1	NA	MS37626	V8260TCL11	5		1	25	ok	
2C	170173	JC95050-13	1	NA	MS37626	V8260TCL11	5		1	26	ok	7:12 pm
2C	170174	JC95050-14	1	NA	MS37626	V8260TCL11	5		1	27	rr	out of bfb

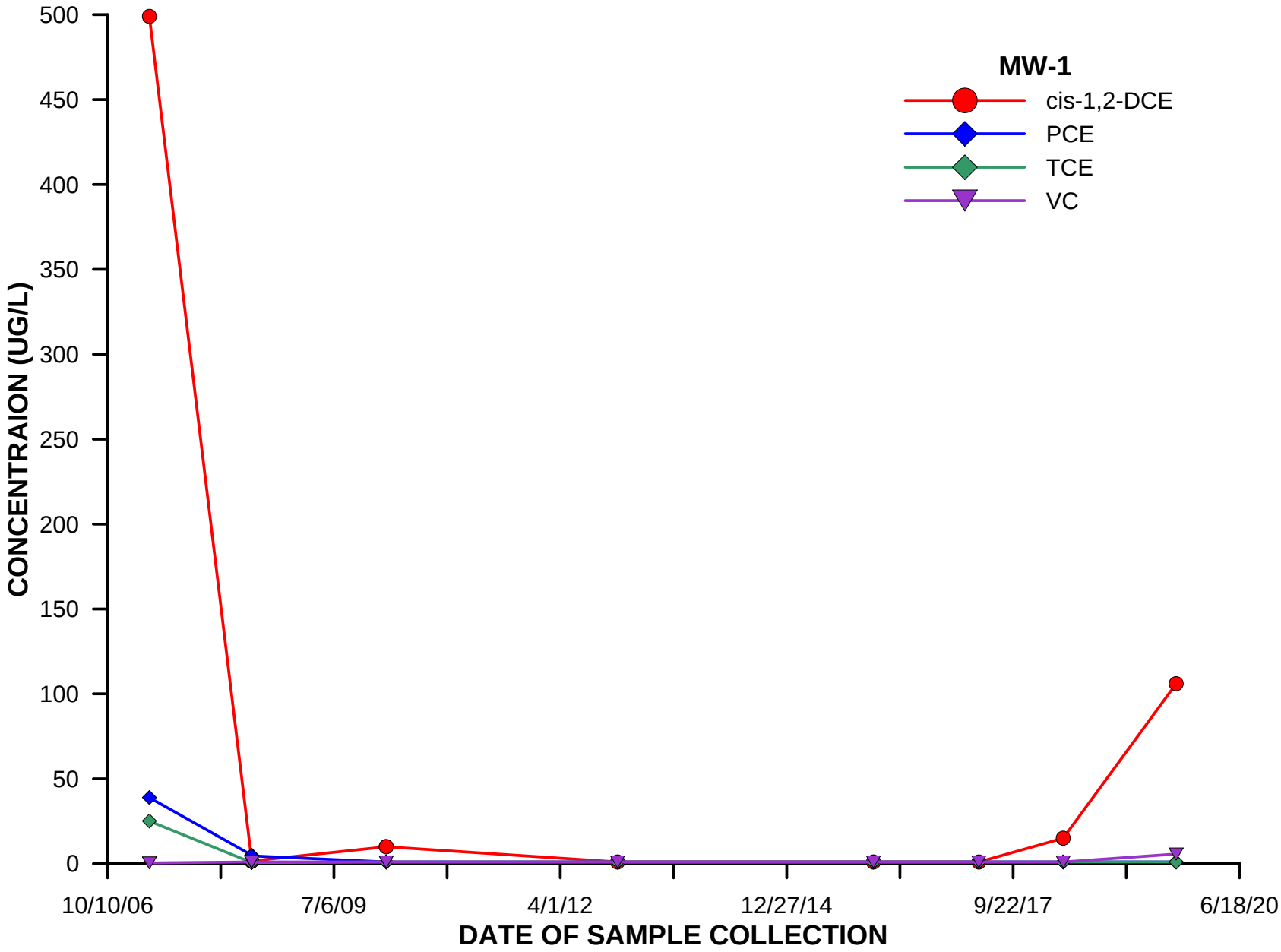
GCMS Volatile Run Log

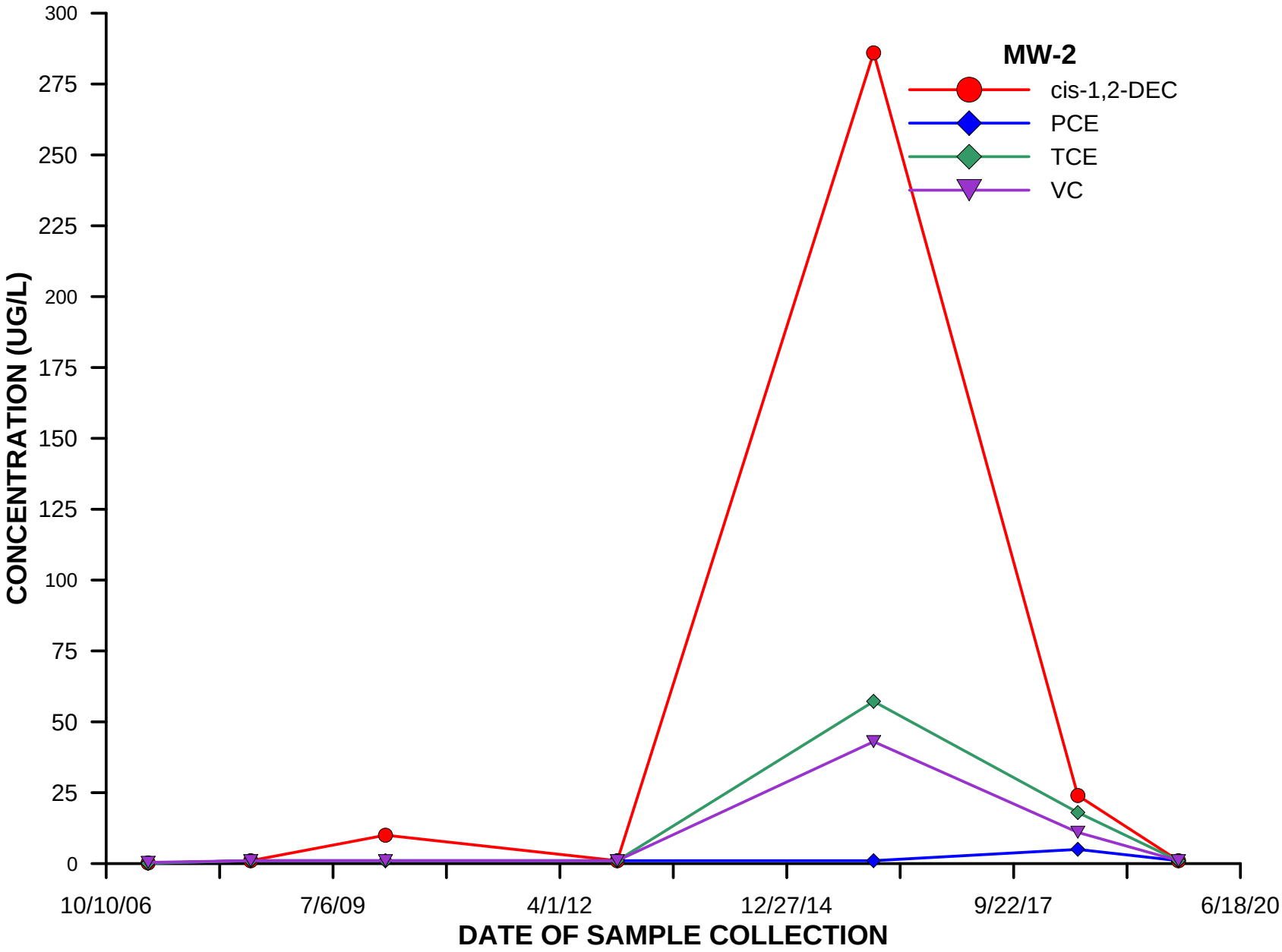
Standard / Reagents	Lot #					
Standards	ABK: V019-2659-149.12	EC: V019-2688-15.6	Acrolein: V019-2659-135 44		Column	ZB624(60mx0.25mmx1.4um)
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM		Method	V8260C
Expiration Date	10/10/2019	09/25/2019	09/29/2019		Init Calib Date	7/31/2019
Internal Surrogate	V019-2659-141					
Internal Surrogate Concentration	250/2500 PPM				Analysis Date	9/19/2019
Expiration Date	10/04/2019				Sequence loaded by	Krizhka Cuenta
					Data processed by	nizele
					Batch ID	V2C7651
rough reviewed by	Krizhka Cuenta 9/19, 9/20				Matrix	AQ
Initial Calibration Method	M2C7580				Approved By:	MOHUI
pH Paper Lot#	204518				Approved Date:	9/20/2019 1:28:59 PM

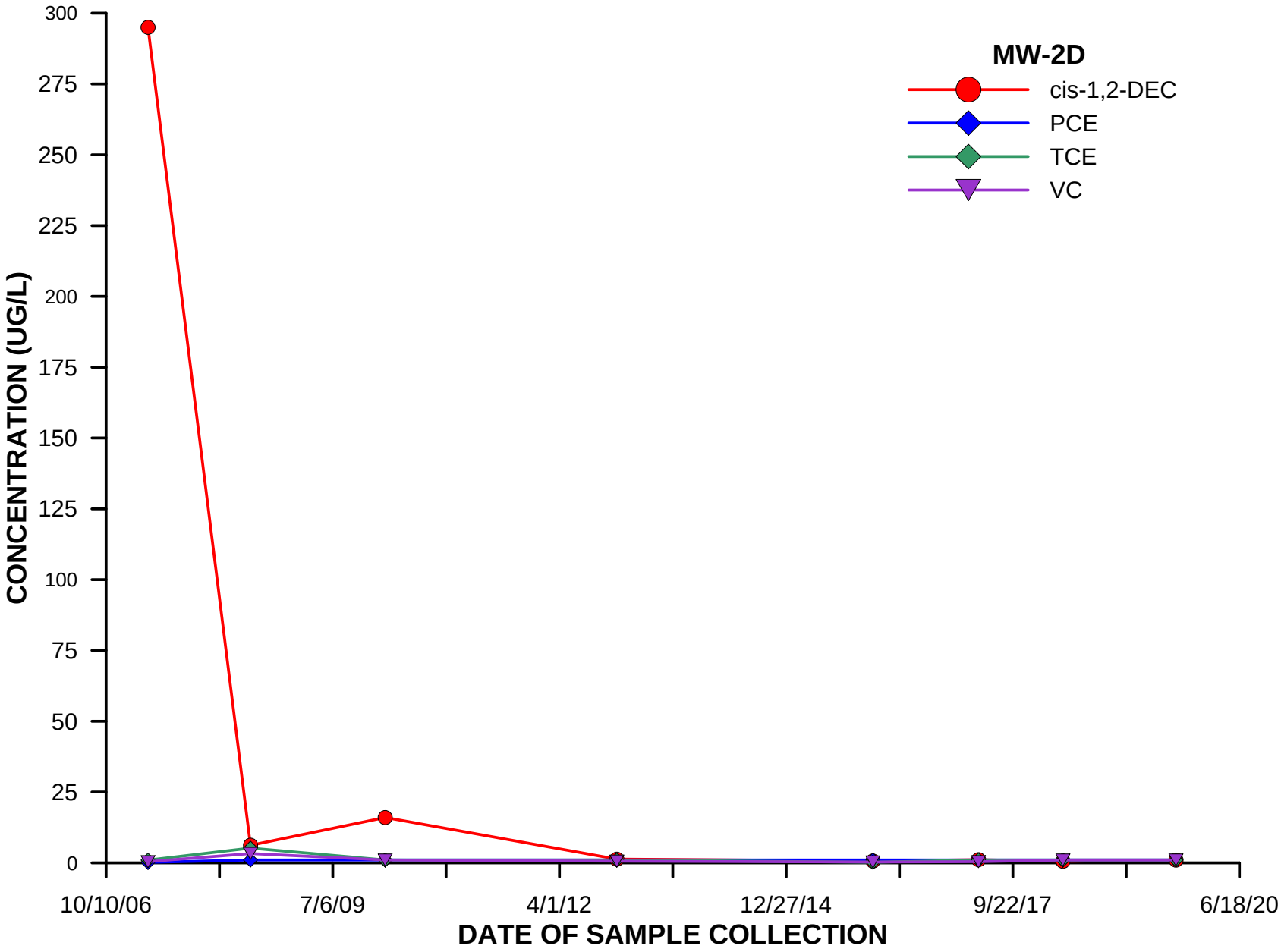
Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2C	170179	IB		NA			5			1	ok	
2C	170180	BFB/CC7580-20		NA			5			2	ok/ok	20uL ABK, EC, Acrolein/100mL (7:33 am) #4, 68 low, #35, 78 high
2C	170181	CC7580-2		NA			5			3	ok	2uL ABK, EC, Acrolein/100mL, methylcyclohexane ok per Robert
2C	170182	BS		NA			5			4	ok	50uL ABK, EC, Acrolein/100mL #71, 78, 84, 94, 100 high
2C	170183	IB		NA			5			5	ok	
2C	170184	MB		NA			5			6	ok	
2C	170185	JC95050-14	2	NA	MS37626	V8260TCL11	5		1	7	ok	
2C	170186	JC94921-7	17	NA	MS37578	V8260SL	5		1	8	ok	
2C	170187	JC95045-1	1	NA	MS37627	V8260TCL20+	5		1	9	ok	
2C	170188	JC95045-2	1	NA	MS37627	V8260TCL20+	5		1	10	ok/dl	f/d 10x
2C	170189	JC94921-7MS	18	NA	MS37578	V8260SL	5		1	11	ok	20uL ABK, EC, Acrolein/40mL

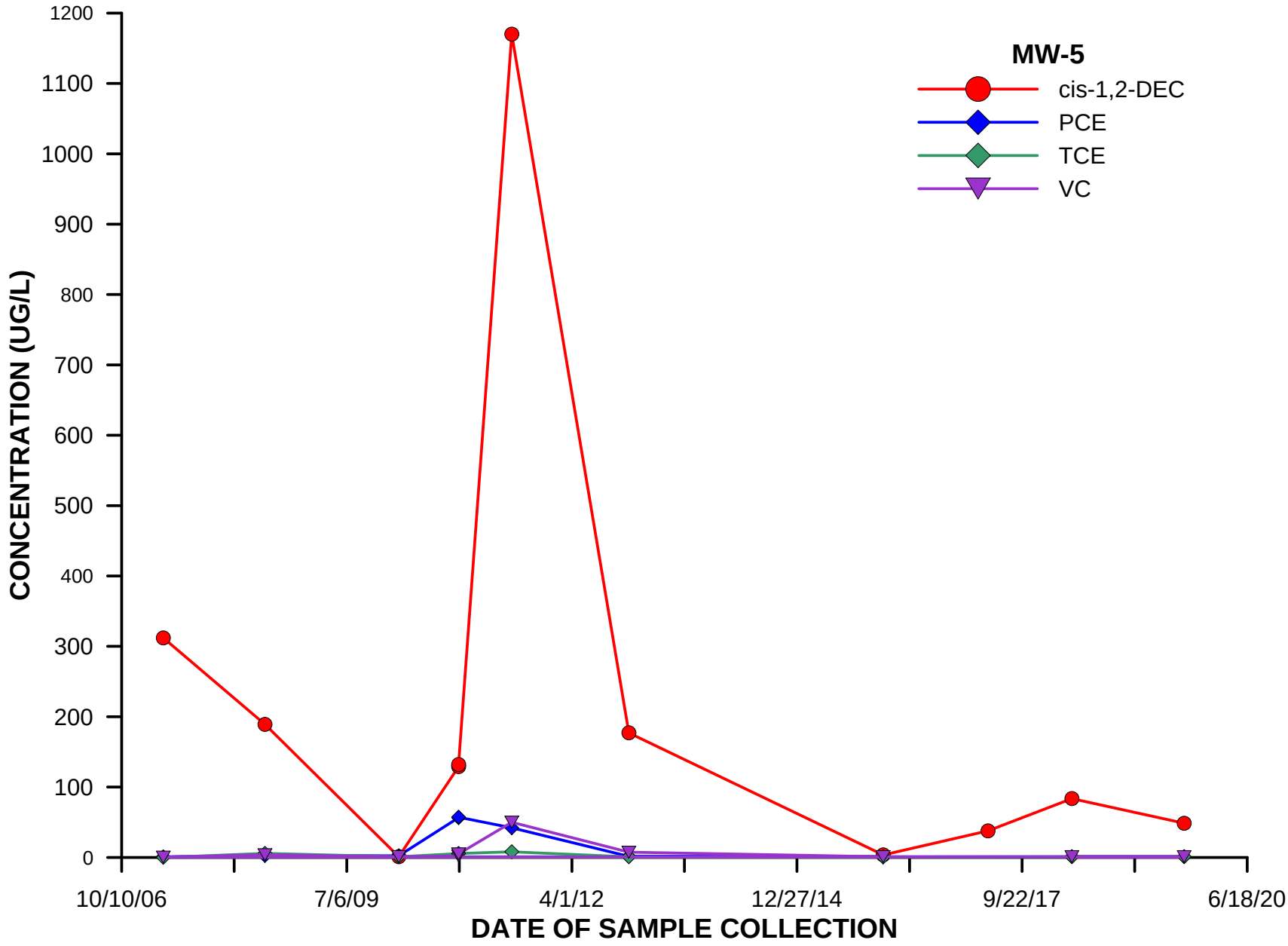
Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2C	170190	JC94921-7MSD	19	NA	MS37578	V8260SL	5		1	12	ok	20uL ABK, EC, Acrolein/40mL
2C	170191	JC95045-2	1	10X	MS37627	V8260TCL20+	5/50		1	13	ok	+2C170188
2C	170192	JC95048-4	1	NA	MS37627	V8260TCL20+	5		1	14	ok	
2C	170193	JC95048-5	1	NA	MS37627	V8260TCL20+	5		1	15	ok	
2C	170194	JC95048-7	1	NA	MS37627	V8260TCL20+	5		1	16	ok/dl	f/d 50x
2C	170195	JC94921-10	1	NA	MS37578	V8260SL	5		1	17	rr	rr 1x (c/o?)
2C	170196	JC94921-11	1	NA	MS37578	V8260SL	5		1	18	rr	rr 1x (c/o?)
2C	170197	JC94921-2	10	NA	MS37578	V8260SL	5		1	19	rr	rr 1x (c/o?)
2C	170198	JC94921-3	10	NA	MS37578	V8260SL	5		1	20	ok	
2C	170199	JC94921-4	10	NA	MS37578	V8260SL	5		1	21	ok	
2C	170200	JC94921-5	10	NA	MS37578	V8260SL	5		1	22	ok	
2C	170201	JC94921-6	10	NA	MS37578	V8260SL	5		1	23	ok	
2C	170202	JC94921-8	10	NA	MS37578	V8260SL	5		1	24	ok	
2C	170203	JC94921-9	3	NA	MS37578	V8260SL	5		1	25	ok	
2C	170204	JC95048-7	1	50X	MS37627	V8260TCL20+	1/50		1	26	ok	+2C170194
2C	170205	JC94921-1	10	NA	MS37578	V8260SL	5		1	27	rr	7:33 pm, rr 1x (out of bfb)
2C	170206	JC94921-1	10	10X	MS37578	V8260SL	5/50		1	28	not need	out of bfb, o/d

APPENDIX B CONCENTRATION VS TIME GRAPHS


MW-1
cis-1,2-DCE
PCE
TCE
VC
CONCENTRAION (UG/L)
500
450
400
350
300
250
200
150
100
50
0
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION


MW-2
cis-1,2-DEC
PCE
TCE
VC
CONCENTRATION (UG/L)
300
275
250
225
200
175
150
125
100
75
50
25
0
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION


MW-2D
cis-1,2-DEC
PCE
TCE
VC
CONCENTRATION (UG/L)
300
275
250
225
200
175
150
125
100
75
50
25
0
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION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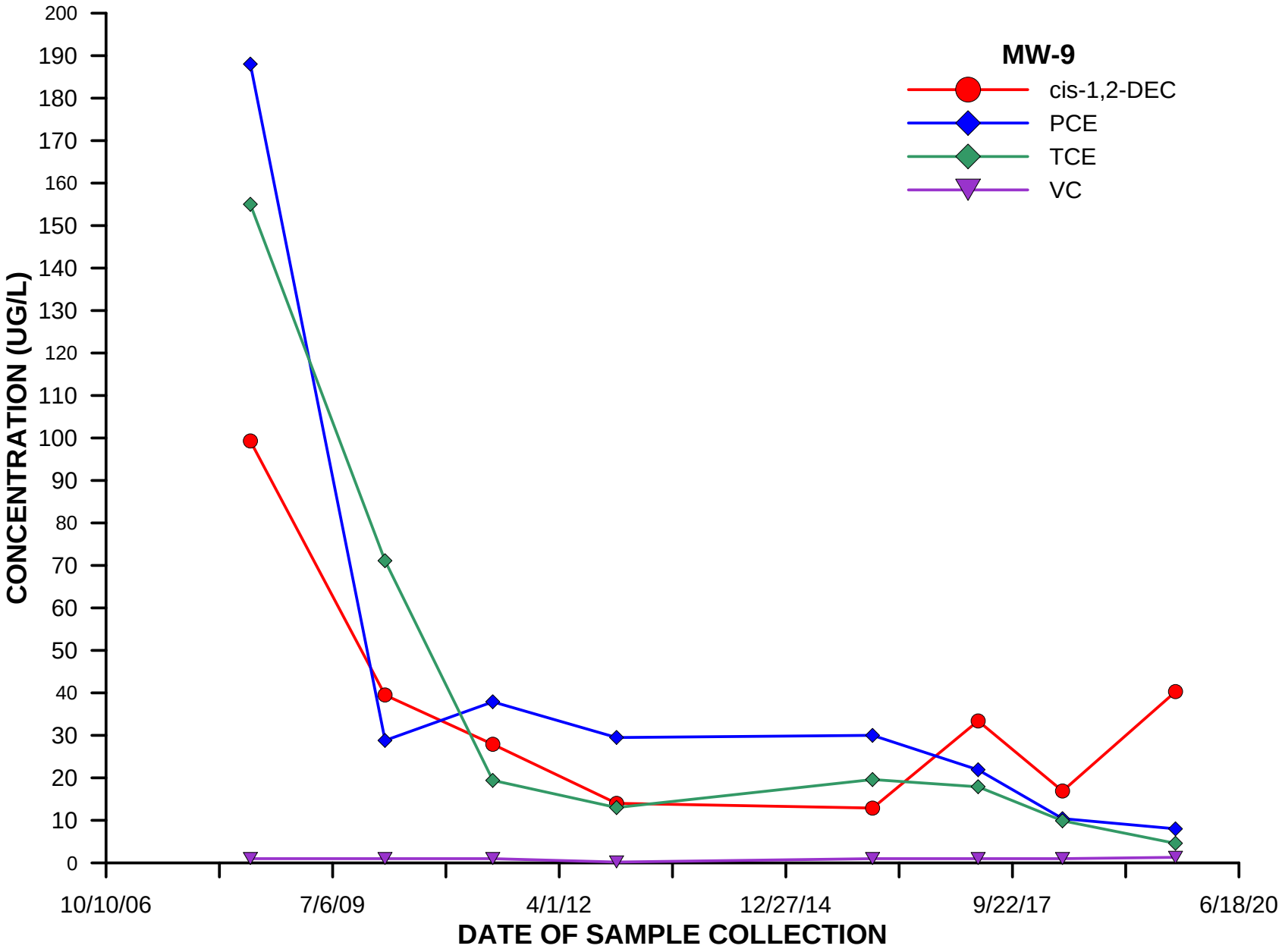
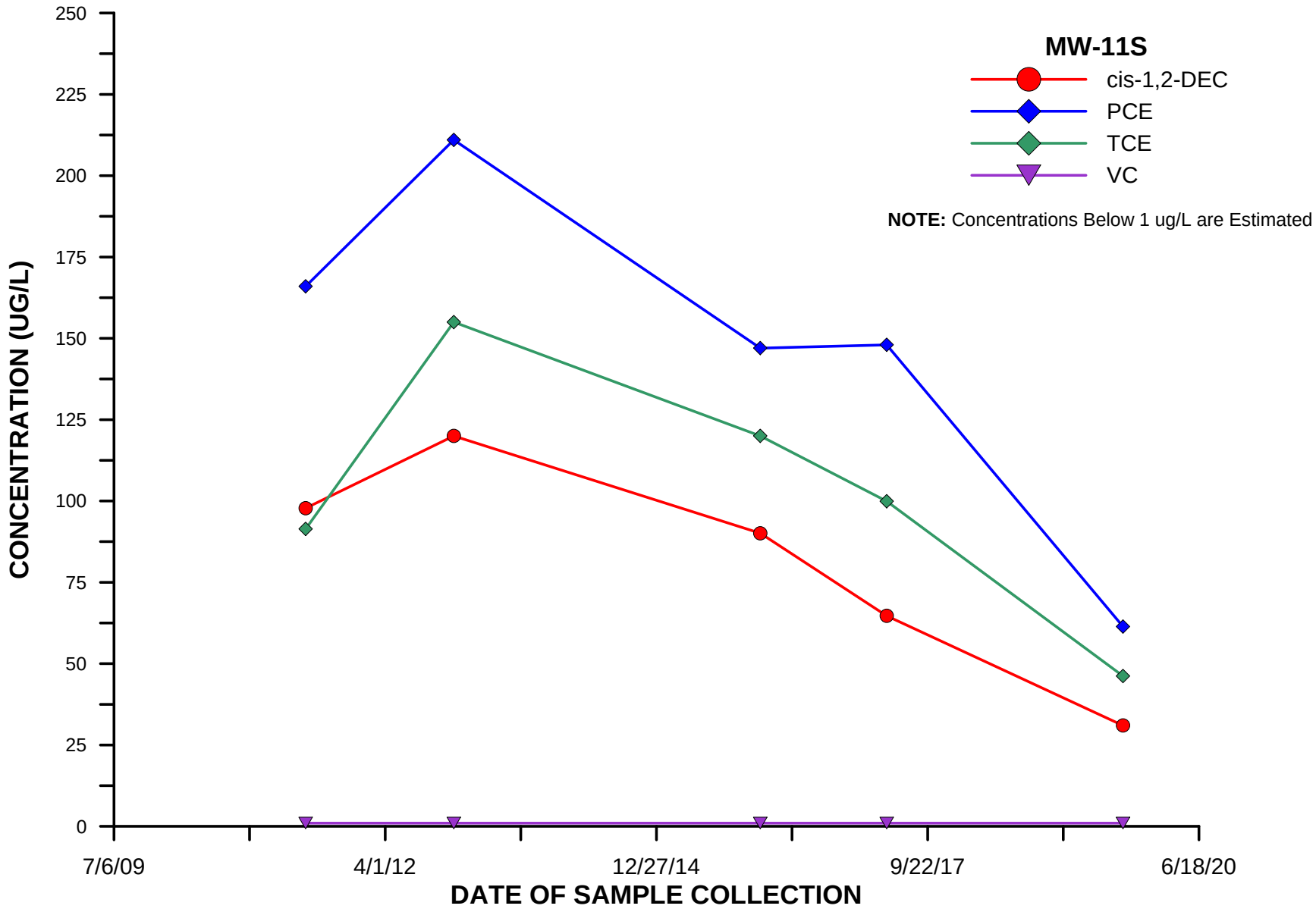
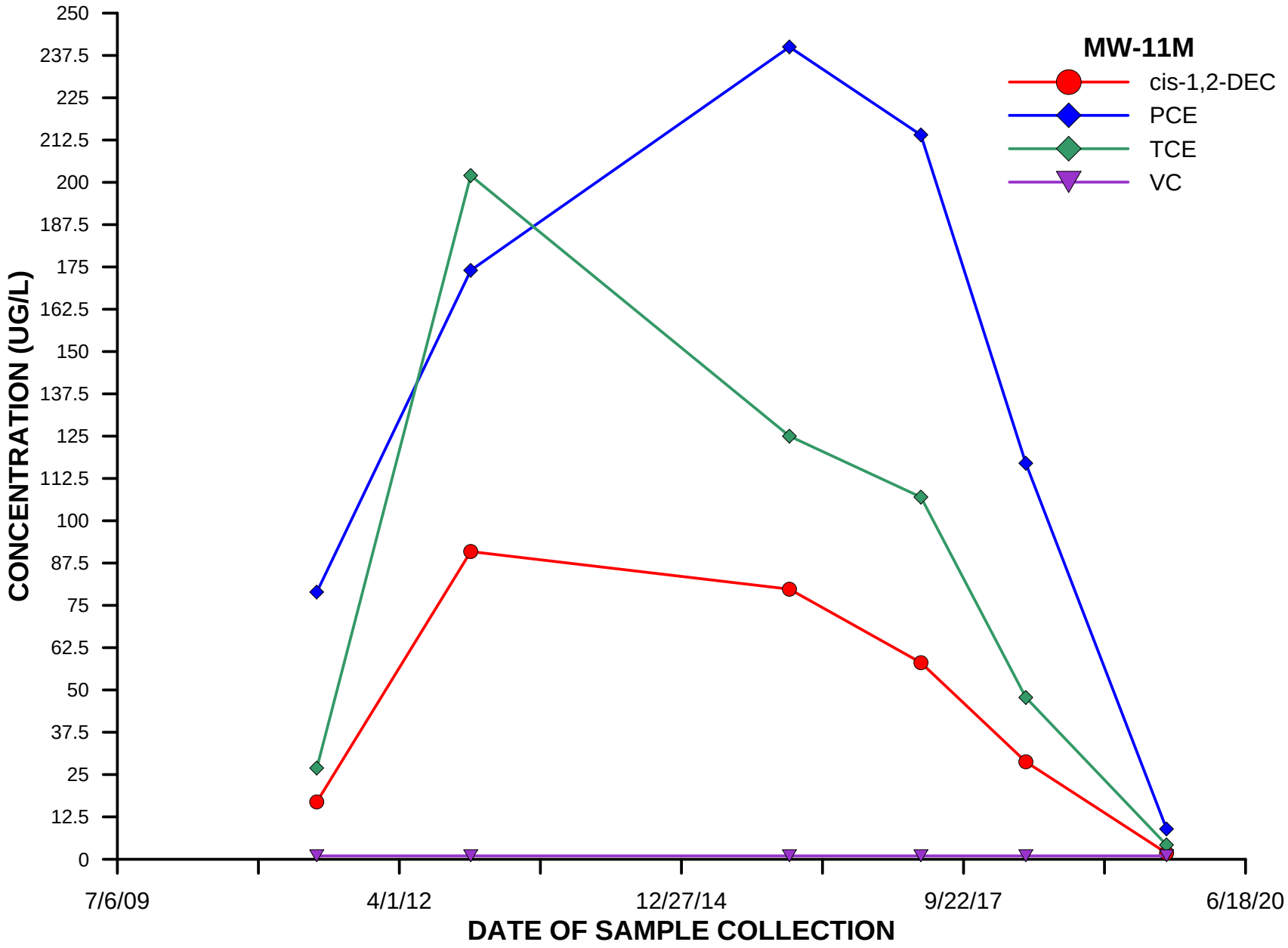
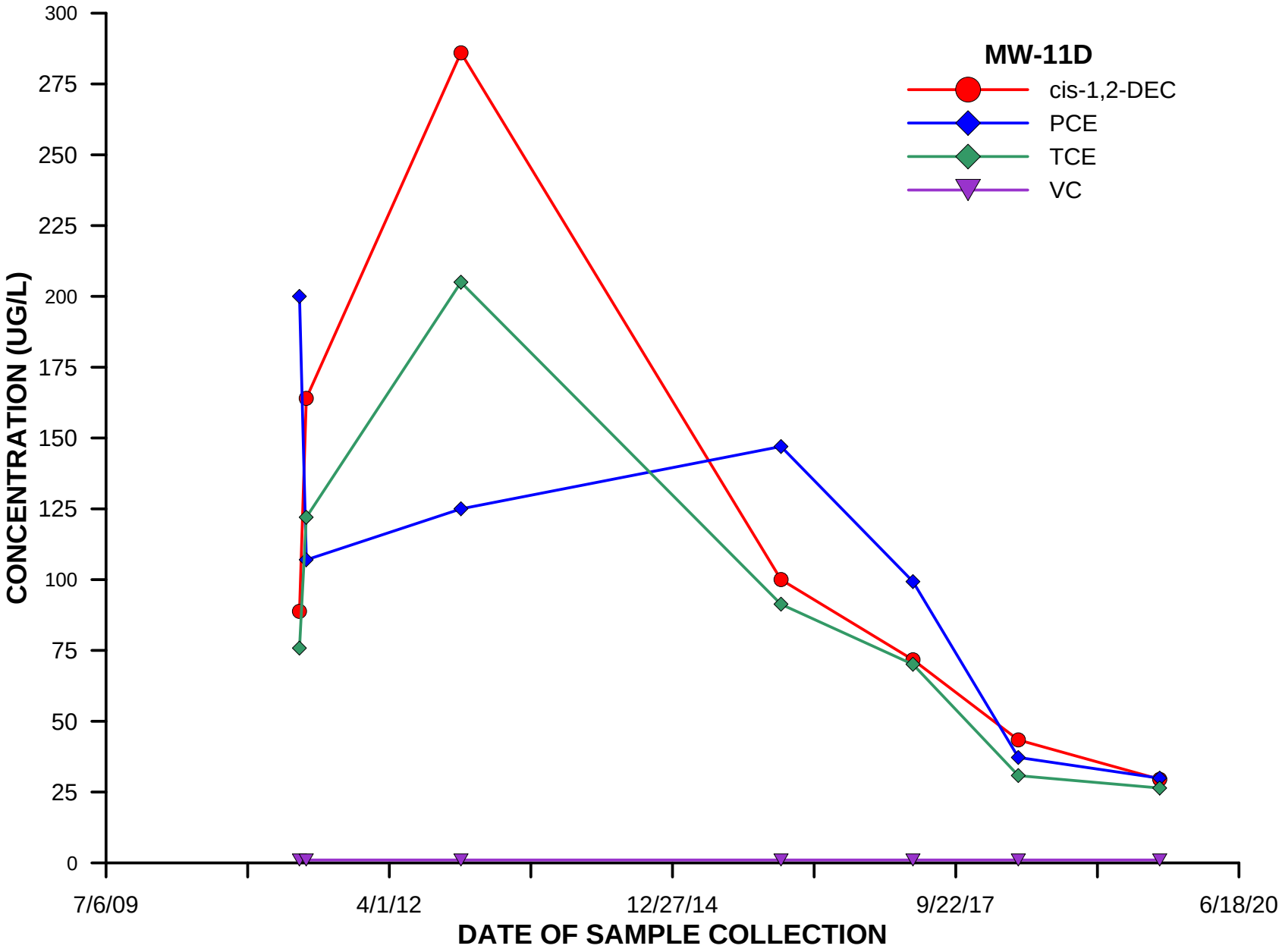
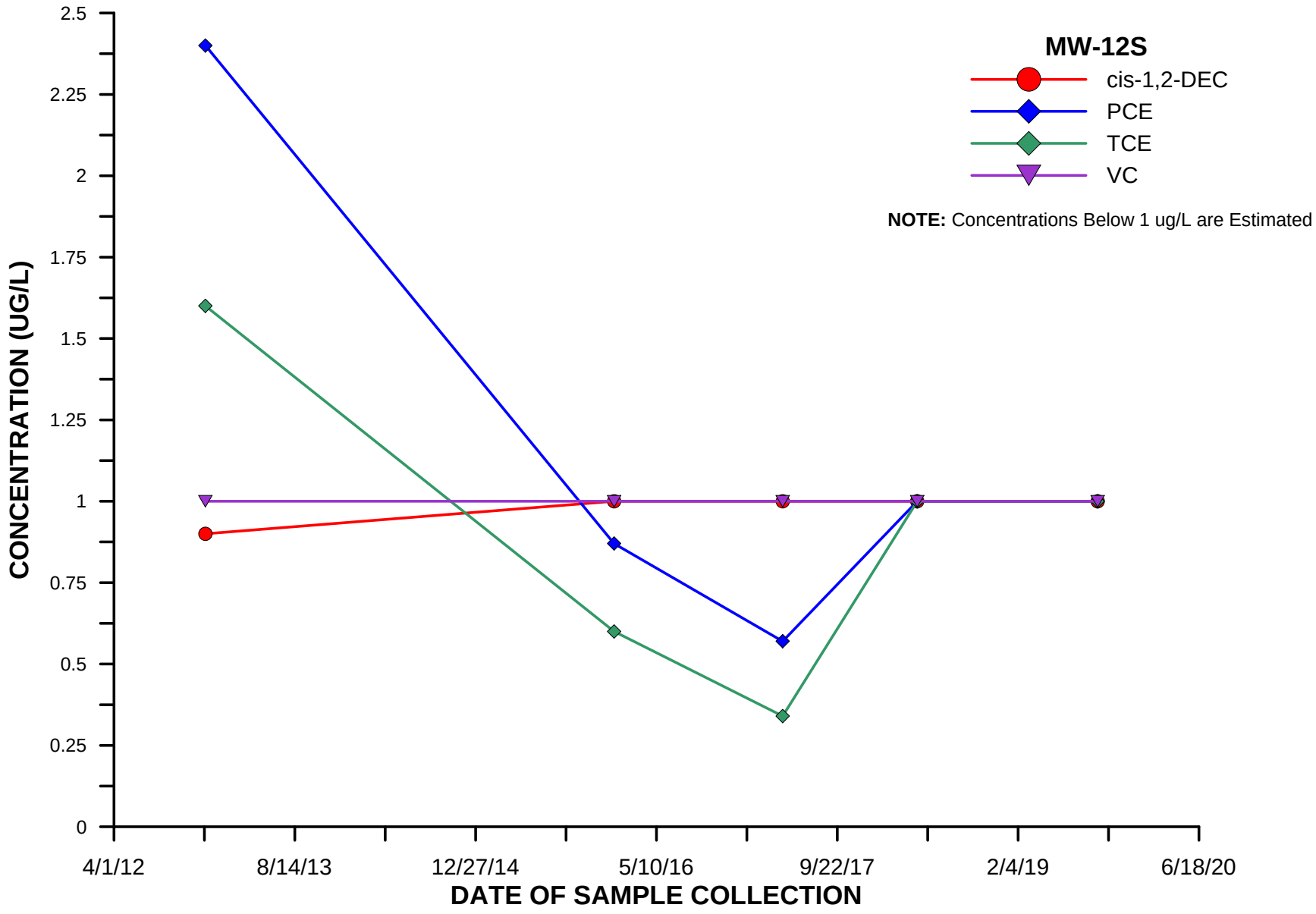
cis-1,2-DEC
PCE
TCE
VC
CONCENTRATION (UG/L)
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION

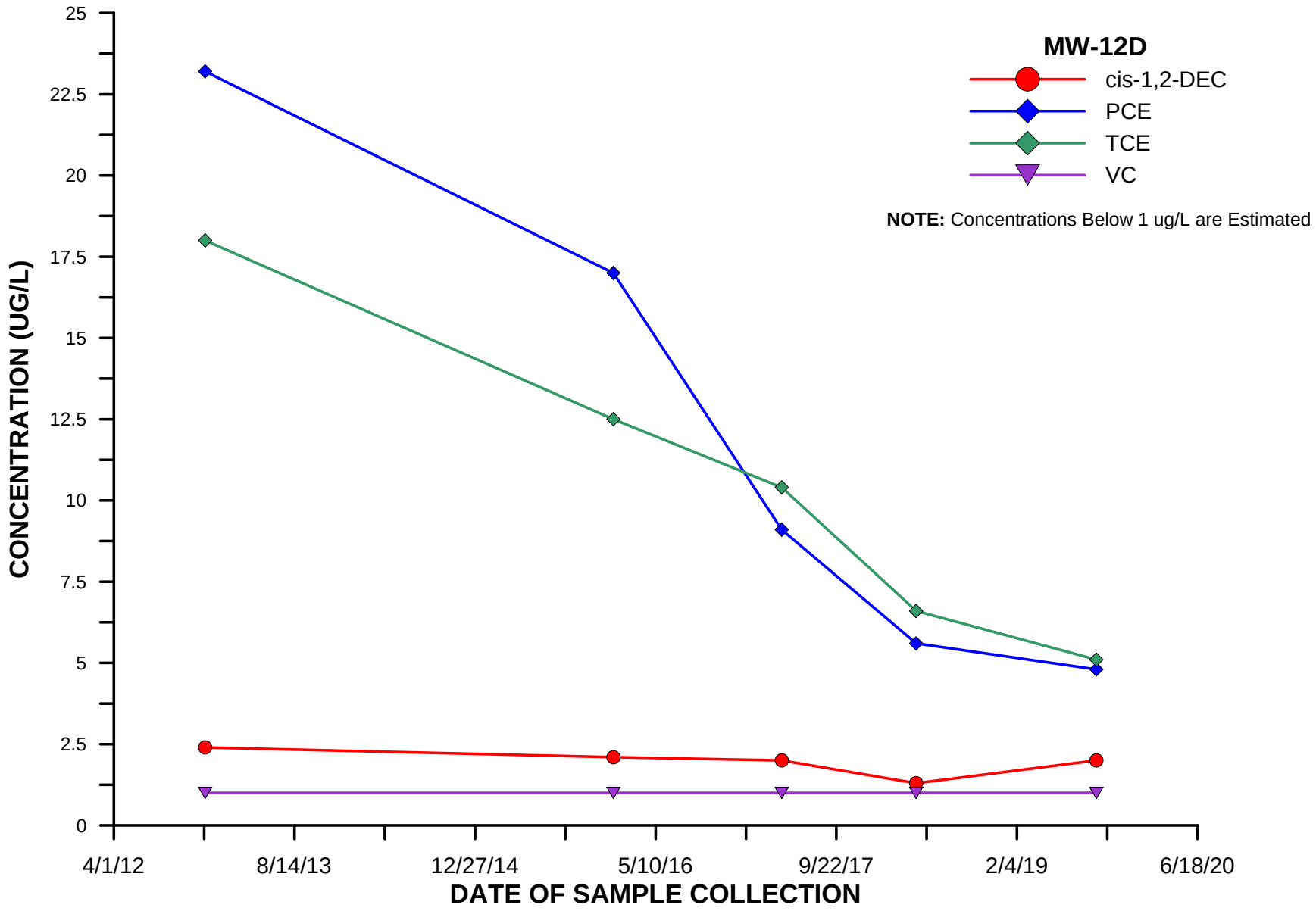

MW-9
cis-1,2-DEC
PCE
TCE
VC
CONCENTRATION (UG/L)
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION


MW-11S
cis-1,2-DEC
PCE
TCE
VC
NOTE: Concentrations Below 1 ug/L are Estimated
CONCENTRATION (UG/L)
250
225
200
175
150
125
100
75
50
25
0
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION


MW-11M
cis-1,2-DEC
PCE
TCE
VC
CONCENTRATION (UG/L)
250
237.5
225
212.5
200
187.5
175
162.5
150
137.5
125
112.5
100
87.5
75
62.5
50
37.5
25
12.5
0
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION


MW-11D
cis-1,2-DEC
PCE
TCE
VC
CONCENTRATION (UG/L)
300
275
250
225
200
175
150
125
100
75
50
25
0
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
DATE OF SAMPLE COLLECTION


MW-12S
cis-1,2-DEC
PCE
TCE
VC
NOTE: Concentrations Below 1 ug/L are Estimated
CONCENTRATION (UG/L)
2.5
2.25
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
4/1/12
8/14/13
12/27/14
5/10/16
9/22/17
2/4/19
6/18/20
DATE OF SAMPLE COLLECTION


MW-12D
cis-1,2-DEC
PCE
TCE
VC
NOTE: Concentrations Below 1 ug/L are Estimated
CONCENTRATION (UG/L)
25
22.5
20
17.5
15
12.5
10
7.5
5
2.5
0
4/1/12
8/14/13
12/27/14
5/10/16
9/22/17
2/4/19
6/18/20
DATE OF SAMPLE COLLECTION

APPENDIX C SAMPLING FORMS

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: New York Twist Drill | Site Code: 152169 | Operable Unit: 2

Building Code: 10MPR | Building Name: Marcum, LLP

Address: 10 Melville Park Road | Apt/Suite No:

City: Melville | State: NY | Zip: 11747 | County: Suffolk

Contact Information

Preparer's Name: Brice Lynch | Phone No: (631) 756-8944

Preparer's Affiliation: ERM | Company Code: ERMLI

Purpose of Investigation: Annual VI Sampling | Date of Inspection: Mar 23, 2019

Contact Name: Dave Fornieri | Affiliation: OWNER

Phone No: (631) 293-7800 | Alt. Phone No: | Email: dwf@miapropertiers.c

Number of Occupants (total): >100 | Number of Children: NA

☐ Occupant Interviewed? ☐ Owner Occupied? ☒ Owner Interviewed?

Owner Name (if different): | Owner Phone:

Owner Mailing Address:

Building Details

Bldg Type (Res/Com/Ind/Mixed): COMMERCIAL/MIXED | Bldg Size (S/M/L): MEDIUM

If Commercial or Industrial Facility, Select Operations: OFFICE/PROF BUILDING

If Residential Select Structure Type:

Number of Floors: 3 | Approx. Year Construction: 1981 | ☒ Building Insulated? | ☐ Attached Garage?

Describe Overall Building 'Tightness' and Airflows(e.g., results of smoke tests):

NA

Foundation Description

Foundation Type: NO BASEMENT/SLAB | Foundation Depth (bgs): 0 | Unit: FEET

Foundation Floor Material: POURED CONCRETE | Foundation Floor Thickness: 6

Foundation Wall Material: | Foundation Wall Thickness: | Unit: INCHES

☒ Floor penetrations? Describe Floor Penetrations: Drains

☐ Wall penetrations? Describe Wall Penetrations:

Basement is: | Basement is: | ☐ Sumps/Drains? | Water In Sump?: N/A

Describe Foundation Condition (cracks, seepage, etc.) : NA

☐ Radon Mitigation System Installed? ☐ VOC Mitigation System Installed? ☐ Mitigation System On?

Heating/Cooling/Ventilation Systems

Heating System: FORCED AIR | Heat Fuel Type: GAS | ☒ Central A/C Present?

Vented Appliances

Water Heater Fuel Type: ELECTRIC | Clothes Dryer Fuel Type: NO CLOTHES DRYER

Water Htr Vent Location: OUTSIDE | Dryer Vent Location: NONE

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

PRODUCT INVENTORY

Building Name: Marcum, LLP Bldg Code: 10MPR Date: 3/23/2019

Bldg Address: 10 Melville Park Road Apt/Suite No:

Bldg City/State/Zip: Melville NY, 11747

Make and Model of PID: Mini Rae PID 3000 Date of Calibration: Mar 23, 2019

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COC Y/N?
Maintenance F	Simple Green	32	O		0.0	☐
Maintenance F	Gojo Hand Soap	128	UO		0.0	☐
Maintenance F	Bleach	128	O		0.0	☐
Maintenance F	Fabuloso	128	O		0.0	☐
Maintenance F	Easy Glide Glass Cleaner	32	U		0.0	☐
Maintenance F	Marvel Stainless Steel Polish	16	U		0.0	☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐
						☐

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

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

Product Inventory Complete? Yes Were there any elevated PID readings taken on site? No ☐ Products with COC?

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: New York Twist Drill Site Code: 152169 Operable Unit: 2

Building Code: 10MPR Building Name: Marcum, LLP

Address: 10 Melville Park Road Apt/Suite No:

City: Melville State: NY Zip: 11747 County: Suffolk

Factors Affecting Indoor Air Quailty

Frequency Basement/Lowest Level is Occupied?: OCCASIONALLY Floor Material: TILE

☐ Inhabited? ☒ HVAC System On? ☐ Bathroom Exhaust Fan? ☐ Kitchen Exhaust Fan?

Alternate Heat Source: ☐ Is there smoking in the building?

☐ Air Fresheners? Description/Location of Air Freshener:

☒ Cleaning Products Used Recently?: Description of Cleaning Products: See Inventory

☐ Cosmetic Products Used Recently?: Description of Cosmetic Products:

☐ New Carpet or Furniture? Location of New Carpet/Furniture:

☒ Recent Dry Cleaning? Location of Recently Dry Cleaned Fabrics: Building Occupants

☐ Recent Painting/Staining? Location of New Painting:

☐ Solvent or Chemical Odors? Describe Odors (if any):

☐ Do Any Occupants Use Solvents At Work? If So, List Solvents Used:

☒ Recent Pesticide/Rodenticide? Description of Last Use: Not sure, exterminator comes.

Describe Any Household Activities (chemical use,/storage, unvented appliances, hobbies, etc.) That May Affect Indoor Air Quality:

☐ Any Prior Testing For Radon? If So, When?:

☒ Any Prior Testing For VOCs? If So, When?: 2/22/2018

Sampling Conditions

Weather Conditions: PARTLY CLOUDY Outdoor Temperature: 38 °F

Current Building Use: OFFICE/PROF BUILDING Barometric Pressure: 30.11 in(hg)

Product Inventory Complete? Yes ☒ Building Questionnaire Completed?

Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Building Code: 10MPR Address: 10 Melville Park Road Melville, NY 11747

Sampling Information

Sampler Name(s): Brice Lynch

Sampler Company Code: ERMLI

Sample Collection Date: Mar 23, 2019

Date Samples Sent To Lab: Mar 25, 2019

Sample Chain of Custody Number: NA

Outdoor Air Sample Location ID: 10MPR-OA-01

SUMMA Canister Information

Sample ID:	10MPR-SS-01-032	10MPR-SS-02	10MPR-IA-01	10MPR-OA-01	DUP032319
Location Code:	10MPR-SS-01	10MPR-SS-02	10MPR-IA-01	10MPR-OA-01	10MPR-IA-01
Location Type:	SUBSLAB	SUBSLAB	FIRST FLOOR	OUTDOOR	FIRST FLOOR
Canister ID:	A271	A905	A878	M242	A832
Regulator ID:	MC230	FC467	FC498	FC270	FC498
Matrix:	Subslab Soil Vap	Subslab Soil	Indoor Air	Ambient Outd	Indoor Air
Sampling Method:	SUMMA AIR SAMPLI	SUMMA AIR SA	SUMMA AIR SA	SUMMA AIR SA	SUMMA AIR SA

Sampling Area Info

Slab Thickness (inches):	6"	6"			
Sub-Slab Material:	DIRT	DIRT			
Sub-Slab Moisture:	DRY	DRY			
Seal Type:	MECHANICAL	MECHANICAL			
Seal Adequate?:	☒	☒	☐	☐	☐

Sample Times and Vacuum Readings

Sample Start Date/Time:	03/23/2019 8:30	03/23/2019	03/23/2019	03/23/2019	03/23/2019
Vacuum Gauge Start:	-28.5	-29	-27.5	-29	-27.5
Sample End Date/Time:	03/24/2019 8:37	03/24/2019	03/24/2019	03/24/2019	03/24/2019
Vacuum Gauge End:	-5	-3.5	-10	-5	-10
Sample Duration (hrs):	24	24	24	24	24
Vacuum Gauge Unit:	in(hg)	in(hg)	in(hg)	in(hg)	in(hg)

Sample QA/QC Readings

Vapor Port Purge:	☒	☒	☐	☐	☐
Purge PID Reading:	0.0	0.2			
Purge PID Unit:	ppm	ppm			
Tracer Test Pass:	☒	☒	☐	☐	☐

Sample start and end times should be entered using the following format: MM/DD/YYYY HH:MM

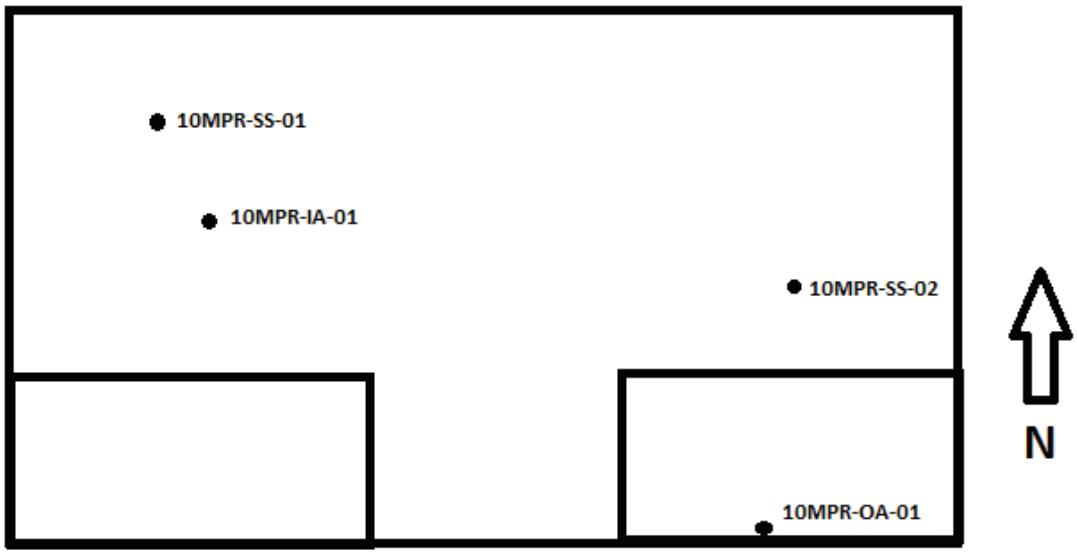
Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

LOWEST BUILDING LEVEL LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the lowest building level .
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Environmental Resources Management
105 Maxess Road, Suite 316
Melville, NY 11747
Phone: (631) 756-8900
Fax: (631) 756-8901

Project #: 0372902
Project Name: NYTD

Location: 10 Melville Park Road
Project Manager: Greg Shkuda

Sample Location:	10 Melville Park Road, Melville NY 11747	**Collector(s):**	Brice Lynch
Address:			
PID Meter Used: (Model, Serial #)		**Building No:**	

SUMMA Canister Record:

INDOOR AIR (1st Floor)		INDOOR AIR (1st Floor)		SUBSTRUCTURE SOIL GAS		SUBSTRUCTURE SOIL GAS	
Sample ID:	10MPR-IA-01-032319	**Sample ID:**	DUP032319	**Sample ID:**	10MPR-SS-01-032319	**Sample ID:**	10MPR-SS-02-032319
Canister Serial No.:	A878	Canister Serial No.:	A832	Canister Serial No.:	A271	Canister Serial No.:	A905
Flow Controller Id No:	FC498	Flow Controller Id No:	FC498	Flow Controller Id No:	MC 230	Flow Controller Id No:	FC467
Start Date/Time:	3/23/19 8:18	Start Date/Time:	3/23/19 8:18	Start Date/Time:	3/23/19 8:30	Start Date/Time:	3/23/19 8:36
Start Pressure: (inches Hg)	-27.5	Start Pressure: (inches Hg)	-27.5	Start Pressure: (inches Hg)	-28.5	Start Pressure: (inches Hg)	-29
Stop Date/Time:	3/24/19 8:34	Stop Date/Time:	3/24/19 8:34	Stop Date/Time:	3/24/19 8:37	Stop Date/Time:	3/24/19 8:42
Stop Pressure: (inches Hg)	-10	Stop Pressure: (inches Hg)	-10	Stop Pressure: (inches Hg)	-5	Stop Pressure: (inches Hg)	-3.5

Other Sampling Information:

PID Reading (ppm)	0.0	PID Reading (ppm)	0.0	PID Reading (ppm) Room & as purged	0.0 / 0.0	PID Reading (ppm) Room & as purged	0.0 / 0.2
Story/Level	1st	Story/Level	1st	Basement or Crawl Space?	N/A	Basement or Crawl Space?	N/A
Room	Front	Room	lobby	Floor Slab Thickness (inches) *[if present]*	6"	Floor Slab Thickness (inches) *[if present]*	6"
Indoor Air Temp (°F)	68°	Indoor Air Temp (°F)	68°	Potential Vapor Entry Points Observed?	None	Potential Vapor Entry Points Observed?	None
Intake Height Above Floor Level (ft.)	3'	Intake Height Above Floor Level (ft.)	3'	Ground Surface Condition (Crawl Space Only)	/	Ground Surface Condition (Crawl Space Only)	/
Noticeable Odor?	None	Noticeable Odor?	None	Noticeable Odor?	/	Noticeable Odor?	/
Barometric Pressure ("Hg or mb)		Barometric Pressure ("Hg or mb)		Percent $O_2/CO_2/CH_4$	/	Percent $O_2/CO_2/CH_4$	/
Duplicate Sample?	—	Duplicate Sample?	Yes	Duplicate Sample?	/	Duplicate Sample?	/

Comments:

Signature: _____

Environmental Resources Management
105 Maxess Road, Suite 316
Melville, NY 11747
Phone: (631) 756-8900
Fax: (631) 756-8901

Project #:
Project Name:

Location:
Project Manager:

Sample Location:		**Collector(s):**	
Address:			
PID Meter Used: (Model, Serial #)		**Building No:**	

SUMMA Canister Record:

INDOOR AIR (basement)		INDOOR AIR (1st Floor)		SUBSTRUCTURE SOIL GAS		OUTDOOR AIR	
Sample ID: IAMPR-OA-01-052919		**Sample ID:**		**Sample ID:**		**Sample ID:**	
Canister Serial No.:	M242	Canister Serial No.:		Canister Serial No.:		Canister Serial No.:	
Flow Controller Id No:	FC270	Flow Controller Id No:		Flow Controller Id No:		Flow Controller Id No:	
Start Date/Time:	3/25/19 8:43	Start Date/Time:		Start Date/Time:		Start Date/Time:	
Start Pressure: (inches Hg)	-29	Start Pressure: (inches Hg)		Start Pressure: (inches Hg)		Start Pressure: (inches Hg)	
Stop Date/Time:	3/24/19 8:22	Stop Date/Time:		Stop Date/Time:		Stop Date/Time:	
Stop Pressure: (inches Hg)	-5	Stop Pressure: (inches Hg)		Stop Pressure: (inches Hg)		Stop Pressure: (inches Hg)	

Other Sampling Information:

PID Reading (ppm)	0.0	PID Reading (ppm)		PID Reading (ppm) Room & as purged		PID Reading (ppm)	
Story/Level	/	Story/Level		Basement or Crawl Space?		Depth of Vapor Probe	
Room	30'	Room		Floor Slab Thickness (inches) *[if present]*		Distance from Building	
Indoor Air Temp (°F)	4'	Indoor Air Temp (°F)		Potential Vapor Entry Points Observed?		Intake Height Above Ground Level (ft.)	
Intake Height Above Floor Level (ft.)	Teflon	Intake Height Above Floor Level (ft.)		Ground Surface Condition (Crawl Space Only)		Intake Tubing used?	
Noticeable Odor?	150'	Noticeable Odor?		Noticeable Odor?		Distance to nearest Roadway (ft.)	
Barometric Pressure ("Hg or mb)		Barometric Pressure ("Hg or mb)		Percent $O_2/CO_2/CH_4$		Noticeable Odor?	
Duplicate Sample?	—	Duplicate Sample?		Duplicate Sample?		Duplicate Sample?	

Comments:

Signature: _____

AIR CHAIN OF CUSTODY

PAGE 1 OF 1

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

FED-EX Tracking #	Bottle Order Control # TM-02719-150
SGS Quote #	SGS Job #

Client / Reporting Information

Company Name: ERM
Address: 105 Maxess Rd Ste 316
City: Melville State: NY Zip: 11747
Project Contact: Karen.Pickering@erm.com E-mail:
Phone #: (631-756-8908 Fax #: 8901
Sampler(s) Name(s):

Project Information

Project Name: NYTD
Street: 10 Melville Park Rd
City: Melville State: NY
Project #: 0372902
Client Purchase Order #:

Weather Parameters

Temperature (Fahrenheit)
Start: 68° Maximum:
Stop 68° Minimum:
Atmoshpheric Pressure (inches of Hg)
Start: 30.11 Maximum:
Stop: 30.19 Minimum:
Other weather comment:

Requested Analysis

TO-15 MSL

Lab Sample #	Field ID / Point of Collection	Air Type: Indoor (I) Soil Vap (SV) Ambient (A)	Sampling Equipment Info: Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Requested Analysis
	IAMPR-IA-01-052319	I	A878	6L	FC498	5/23/19	8:18	-27.5	68	BWL	5/24/19	8:34	-16	68	BWL	✓
	IAMPR-SS-01-052319	SV	A271	"	MC230	"	8:30	-28.5	"	"	"	8:37	-5	"	"	"
	IAMPR-SS-02-052319	SV	A905	"	FC467	"	8:36	-29	↓	"	"	8:42	-3.5	↓	"	"
	IAMPR-OA-01-052319	A	0292	"	FC290	"	8:43	-29	WOE	"	"	8:29	-5	WOE	"	"
	DUP 052319	I	A832	↓	FC496	↓	8:18	-27.5	68	↓	↓	8:18	-10	68	↓	↓

Turnaround Time (Business days)

- ✓ Standard - 15 Days
- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Other

Approved By: _____

Date: _____

Data Deliverable Information

All NJDEP TO-15 is mandatory Full T1

Comm A	
Comm B	✓
Reduced T2	
Full T1	
Other:	
DKQP reporting	

Comments / Remarks

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Laboratory 1	Date Time:	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
R2 Overnight	3/23/19 1600	Brian Lynch	Brian Lynch	5/24/19 11:00	Chris Law
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #		

APPENDIX D VAPOR INTRUSION ANALYTICAL RESULTS

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

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

New York Twist Drill, Melville Park Road, Melville, NY

0372902

SGS Job Number: JC85165

Sampling Date: 03/24/19

Report to:

ERM, Inc.

Greg.Shkuda@erm.com

ATTN: Greg Shkuda

Total number of pages in report: **364**

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

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

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

Table of Contents

Sample Summary

ERM, Inc.

Job No: JC85165

New York Twist Drill, Melville Park Road, Melville, NY
Project No: 0372902

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC85165-1	03/24/19	08:34	BWL	03/25/19	AIR	Indoor Air Comp.	10MPR-IA-01-032319
JC85165-2	03/24/19	08:37	BWL	03/25/19	AIR	Soil Vapor Comp.	10MPR-SS-01-032319
JC85165-3	03/24/19	08:42	BWL	03/25/19	AIR	Soil Vapor Comp.	10MPR-SS-02-032319
JC85165-4	03/24/19	08:29	BWL	03/25/19	AIR	Ambient Air Comp.	10MPR-OA-01-032319
JC85165-5	03/24/19	08:18	BWL	03/25/19	AIR	Indoor Air Comp.	DUP032319

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	ERM, Inc.	**Job No**	JC85165
Site:	New York Twist Drill, Melville Park Road, Melville, NY	**Report Date**	4/8/2019 2:41:45 PM

On 03/25/2019, 5 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. A SGS North America Inc. Job Number of JC85165 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

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

MS Volatiles By Method TO-15

Matrix: AIR **Batch ID:** V5W1468

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC85165-3DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AIR **Batch ID:** V6W457

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC84962-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Benzyl Chloride, Bromoform are outside control limits. High percent recoveries and no associated positive reported in the QC batch.
- JC85165-1 for Benzyl Chloride: Associated CCV outside of control limits high, sample was ND.
- JC85165-4 for Benzyl Chloride: Associated CCV outside of control limits high, sample was ND.
- JC85165-5 for Benzyl Chloride: Associated CCV outside of control limits high, sample was ND.

Matrix: AIR **Batch ID:** V6W458

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC85477-1DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

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

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

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

Summary of Hits

Job Number: JC85165
Account: ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Collected: 03/24/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC85165-1	**10MPR-IA-01-032319**					
Acetone		3.5	0.30	0.17	ppbv	TO-15
Chloromethane		0.71	0.30	0.023	ppbv	TO-15
Dichlorodifluoromethane		0.56	0.30	0.025	ppbv	TO-15
Ethanol		6.7	0.76	0.33	ppbv	TO-15
Isopropyl Alcohol		0.49	0.30	0.098	ppbv	TO-15
Tetrachloroethylene		0.12	0.061	0.047	ppbv	TO-15
Trichlorofluoromethane		0.23	0.15	0.043	ppbv	TO-15
Acetone		8.3	0.71	0.40	ug/m3	TO-15
Chloromethane		1.5	0.62	0.047	ug/m3	TO-15
Dichlorodifluoromethane		2.8	1.5	0.12	ug/m3	TO-15
Ethanol		13	1.4	0.62	ug/m3	TO-15
Isopropyl Alcohol		1.2	0.74	0.24	ug/m3	TO-15
Tetrachloroethylene		0.81	0.41	0.32	ug/m3	TO-15
Trichlorofluoromethane		1.3	0.84	0.24	ug/m3	TO-15
JC85165-2	**10MPR-SS-01-032319**					
Acetone		5.8	1.0	0.56	ppbv	TO-15
Dichlorodifluoromethane		0.65 J	1.0	0.083	ppbv	TO-15
Ethanol		19.0	2.5	1.1	ppbv	TO-15
Ethyl Acetate		1.5	1.0	0.19	ppbv	TO-15
Hexane		0.67 J	1.0	0.053	ppbv	TO-15
Isopropyl Alcohol		3.3	1.0	0.32	ppbv	TO-15
Tetrachloroethylene		1.5	0.20	0.15	ppbv	TO-15
Toluene		1.1	1.0	0.072	ppbv	TO-15
Trichloroethylene		1.4	0.20	0.095	ppbv	TO-15
Trichlorofluoromethane		0.50	0.50	0.14	ppbv	TO-15
Acetone		14	2.4	1.3	ug/m3	TO-15
Dichlorodifluoromethane		3.2 J	4.9	0.41	ug/m3	TO-15
Ethanol		35.8	4.7	2.1	ug/m3	TO-15
Ethyl Acetate		5.4	3.6	0.68	ug/m3	TO-15
Hexane		2.4 J	3.5	0.19	ug/m3	TO-15
Isopropyl Alcohol		8.1	2.5	0.79	ug/m3	TO-15
Tetrachloroethylene		10	1.4	1.0	ug/m3	TO-15
Toluene		4.1	3.8	0.27	ug/m3	TO-15
Trichloroethylene		7.5	1.1	0.51	ug/m3	TO-15
Trichlorofluoromethane		2.8	2.8	0.79	ug/m3	TO-15
JC85165-3	**10MPR-SS-02-032319**					
Acetone		7.4	0.80	0.45	ppbv	TO-15
Chloroform		0.41 J	0.80	0.080	ppbv	TO-15
Dichlorodifluoromethane		0.83	0.80	0.066	ppbv	TO-15

Summary of Hits

Job Number: JC85165
Account: ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Collected: 03/24/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethanol		27.2	2.0	0.87	ppbv	TO-15
Ethyl Acetate		1.2	0.80	0.15	ppbv	TO-15
Tetrachloroethylene		1.3	0.16	0.12	ppbv	TO-15
Toluene		2.0	0.80	0.058	ppbv	TO-15
Trichlorofluoromethane		1.1	0.40	0.11	ppbv	TO-15
Acetone		18	1.9	1.1	ug/m3	TO-15
Chloroform		2.0 J	3.9	0.39	ug/m3	TO-15
Dichlorodifluoromethane		4.1	4.0	0.33	ug/m3	TO-15
Ethanol		51.3	3.8	1.6	ug/m3	TO-15
Ethyl Acetate		4.3	2.9	0.54	ug/m3	TO-15
Tetrachloroethylene		8.8	1.1	0.81	ug/m3	TO-15
Toluene		7.5	3.0	0.22	ug/m3	TO-15
Trichlorofluoromethane		6.2	2.2	0.62	ug/m3	TO-15
JC85165-4	**10MPR-OA-01-032319**					
Acetone		109	0.80	0.45	ppbv	TO-15
Benzene		0.41	0.16	0.0095	ppbv	TO-15
Carbon disulfide		0.36	0.16	0.019	ppbv	TO-15
Chloromethane		0.78	0.16	0.012	ppbv	TO-15
Dichlorodifluoromethane		0.43	0.16	0.013	ppbv	TO-15
m-Dichlorobenzene		0.13	0.080	0.015	ppbv	TO-15
Ethanol		22.1	0.40	0.17	ppbv	TO-15
Ethyl Acetate		1.4	0.16	0.030	ppbv	TO-15
Heptane		0.13 J	0.16	0.014	ppbv	TO-15
Hexane		0.19	0.16	0.0085	ppbv	TO-15
Isopropyl Alcohol		1.2	0.16	0.052	ppbv	TO-15
Methylene chloride		0.18	0.16	0.012	ppbv	TO-15
Methyl ethyl ketone		4.5	0.16	0.034	ppbv	TO-15
Propylene		5.3	0.40	0.013	ppbv	TO-15
Tertiary Butyl Alcohol		3.8	0.16	0.011	ppbv	TO-15
Toluene		0.20	0.16	0.012	ppbv	TO-15
Trichlorofluoromethane		0.20	0.080	0.022	ppbv	TO-15
m,p-Xylene		0.14 J	0.16	0.027	ppbv	TO-15
Xylenes (total)		0.14 J	0.16	0.014	ppbv	TO-15
Acetone		259	1.9	1.1	ug/m3	TO-15
Benzene		1.3	0.51	0.030	ug/m3	TO-15
Carbon disulfide		1.1	0.50	0.059	ug/m3	TO-15
Chloromethane		1.6	0.33	0.025	ug/m3	TO-15
Dichlorodifluoromethane		2.1	0.79	0.064	ug/m3	TO-15
m-Dichlorobenzene		0.78	0.48	0.090	ug/m3	TO-15
Ethanol		41.6	0.75	0.32	ug/m3	TO-15
Ethyl Acetate		5.0	0.58	0.11	ug/m3	TO-15
Heptane		0.53 J	0.66	0.057	ug/m3	TO-15
Hexane		0.67	0.56	0.030	ug/m3	TO-15

Summary of Hits

Job Number: JC85165
Account: ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Collected: 03/24/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Isopropyl Alcohol	2.9	0.39	0.13	ug/m3	TO-15
Methylene chloride	0.63	0.56	0.042	ug/m3	TO-15
Methyl ethyl ketone	13	0.47	0.10	ug/m3	TO-15
Propylene	9.1	0.69	0.022	ug/m3	TO-15
Tertiary Butyl Alcohol	12	0.49	0.033	ug/m3	TO-15
Toluene	0.75	0.60	0.045	ug/m3	TO-15
Trichlorofluoromethane	1.1	0.45	0.12	ug/m3	TO-15
m,p-Xylene	0.61 J	0.69	0.12	ug/m3	TO-15
Xylenes (total)	0.61 J	0.69	0.061	ug/m3	TO-15
JC85165-5 DUP032319					
Acetone	3.7	0.30	0.17	ppbv	TO-15
Chloromethane	0.66	0.30	0.023	ppbv	TO-15
Dichlorodifluoromethane	0.54	0.30	0.025	ppbv	TO-15
Ethanol	6.6	0.76	0.33	ppbv	TO-15
Isopropyl Alcohol	0.55	0.30	0.098	ppbv	TO-15
Methyl ethyl ketone	0.16 J	0.30	0.064	ppbv	TO-15
Tetrachloroethylene	0.11	0.061	0.047	ppbv	TO-15
Trichlorofluoromethane	0.23	0.15	0.043	ppbv	TO-15
Acetone	8.8	0.71	0.40	ug/m3	TO-15
Chloromethane	1.4	0.62	0.047	ug/m3	TO-15
Dichlorodifluoromethane	2.7	1.5	0.12	ug/m3	TO-15
Ethanol	12	1.4	0.62	ug/m3	TO-15
Isopropyl Alcohol	1.4	0.74	0.24	ug/m3	TO-15
Methyl ethyl ketone	0.47 J	0.88	0.19	ug/m3	TO-15
Tetrachloroethylene	0.75	0.41	0.32	ug/m3	TO-15
Trichlorofluoromethane	1.3	0.84	0.24	ug/m3	TO-15

Sample Results

Report of Analysis

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

Client Sample ID: 10MPR-IA-01-032319
Lab Sample ID: JC85165-1 **Date Sampled:** 03/24/19
Matrix: AIR - Indoor Air Comp. Summa ID: A878 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6W11389.D	1.9	04/04/19 00:10	GP	n/a	n/a	V6W457
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	3.5	0.30	0.17	ppbv		8.3	0.71	0.40	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.30	0.070	ppbv		ND	0.66	0.15	ug/m3
71-43-2	78.11	Benzene	ND	0.30	0.018	ppbv		ND	0.96	0.058	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.15	0.041	ppbv		ND	1.0	0.27	ug/m3
75-25-2	252.8	Bromoform	ND	0.061	0.057	ppbv		ND	0.63	0.59	ug/m3
74-83-9	94.94	Bromomethane	ND	0.30	0.033	ppbv		ND	1.2	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.30	0.033	ppbv		ND	1.3	0.14	ug/m3
100-44-7	126	Benzyl Chloride [a]	ND	0.30	0.086	ppbv		ND	1.5	0.44	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.30	0.036	ppbv		ND	0.93	0.11	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.30	0.040	ppbv		ND	1.4	0.18	ug/m3
75-00-3	64.52	Chloroethane	ND	0.30	0.074	ppbv		ND	0.79	0.20	ug/m3
67-66-3	119.4	Chloroform	ND	0.30	0.030	ppbv		ND	1.5	0.15	ug/m3
74-87-3	50.49	Chloromethane	0.71	0.30	0.023	ppbv		1.5	0.62	0.047	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.30	0.060	ppbv		ND	0.94	0.19	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.30	0.038	ppbv		ND	1.6	0.20	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.061	0.036	ppbv		ND	0.38	0.23	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.30	0.033	ppbv		ND	1.0	0.11	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.30	0.018	ppbv		ND	1.2	0.073	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.061	0.025	ppbv		ND	0.24	0.099	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.15	0.027	ppbv		ND	1.2	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.30	0.032	ppbv		ND	1.2	0.13	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.30	0.029	ppbv		ND	1.4	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.30	0.079	ppbv		ND	1.1	0.28	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.56	0.30	0.025	ppbv		2.8	1.5	0.12	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.15	0.051	ppbv		ND	1.3	0.43	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.30	0.011	ppbv		ND	1.2	0.044	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.061	0.018	ppbv		ND	0.24	0.071	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.15	0.029	ppbv		ND	0.90	0.17	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.061	0.033	ppbv		ND	0.37	0.20	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.15	0.027	ppbv		ND	0.90	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 10MPR-IA-01-032319
Lab Sample ID: JC85165-1 **Date Sampled:** 03/24/19
Matrix: AIR - Indoor Air Comp. Summa ID: A878 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	6.7	0.76	0.33	ppbv		13	1.4	0.62	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.30	0.023	ppbv		ND	1.3	0.10	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.30	0.057	ppbv		ND	1.1	0.21	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.30	0.045	ppbv		ND	1.5	0.22	ug/m3
76-13-1	187.4	Freon 113	ND	0.15	0.026	ppbv		ND	1.1	0.20	ug/m3
76-14-2	170.9	Freon 114	ND	0.15	0.029	ppbv		ND	1.0	0.20	ug/m3
142-82-5	100.2	Heptane	ND	0.30	0.027	ppbv		ND	1.2	0.11	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.14	0.069	ppbv		ND	1.5	0.74	ug/m3
110-54-3	86.17	Hexane	ND	0.30	0.016	ppbv		ND	1.1	0.056	ug/m3
591-78-6	100	2-Hexanone	ND	0.30	0.055	ppbv		ND	1.2	0.22	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.49	0.30	0.098	ppbv		1.2	0.74	0.24	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.30	0.022	ppbv		ND	1.0	0.076	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.30	0.064	ppbv		ND	0.88	0.19	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.30	0.055	ppbv		ND	1.2	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.30	0.029	ppbv		ND	1.1	0.10	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.30	0.050	ppbv		ND	1.2	0.20	ug/m3
115-07-1	42	Propylene	ND	0.76	0.024	ppbv		ND	1.3	0.041	ug/m3
100-42-5	104.1	Styrene	ND	0.30	0.029	ppbv		ND	1.3	0.12	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.15	0.050	ppbv		ND	0.82	0.27	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.15	0.041	ppbv		ND	1.0	0.28	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.15	0.046	ppbv		ND	0.82	0.25	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.15	0.13	ppbv		ND	1.1	0.97	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.30	0.050	ppbv		ND	1.5	0.25	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.30	0.051	ppbv		ND	1.5	0.25	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.30	0.033	ppbv		ND	1.4	0.15	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.30	0.021	ppbv		ND	0.91	0.064	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.12	0.061	0.047	ppbv		0.81	0.41	0.32	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.30	0.076	ppbv		ND	0.88	0.22	ug/m3
108-88-3	92.14	Toluene	ND	0.30	0.022	ppbv		ND	1.1	0.083	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.061	0.029	ppbv		ND	0.33	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.23	0.15	0.043	ppbv		1.3	0.84	0.24	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.061	0.034	ppbv		ND	0.16	0.087	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.30	0.052	ppbv		ND	1.1	0.18	ug/m3
	106.2	m,p-Xylene	ND	0.30	0.052	ppbv		ND	1.3	0.23	ug/m3
95-47-6	106.2	o-Xylene	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	10MPR-IA-01-032319		
Lab Sample ID:	JC85165-1	**Date Sampled:**	03/24/19
Matrix:	AIR - Indoor Air Comp. Summa ID: A878	**Date Received:**	03/25/19
Method:	TO-15	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TO15 List

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

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

Client Sample ID: 10MPR-SS-01-032319
Lab Sample ID: JC85165-2 **Date Sampled:** 03/24/19
Matrix: AIR - Soil Vapor Comp. Summa ID: A271 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W35994.D	1	04/06/19 14:38	GP	n/a	n/a	V5W1468
Run #2							

	Initial Volume
Run #1	80.0 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	5.8	1.0	0.56	ppbv		14	2.4	1.3	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	1.0	0.23	ppbv		ND	2.2	0.51	ug/m3
71-43-2	78.11	Benzene	ND	1.0	0.060	ppbv		ND	3.2	0.19	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.50	0.13	ppbv		ND	3.3	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.19	ppbv		ND	2.1	2.0	ug/m3
74-83-9	94.94	Bromomethane	ND	1.0	0.11	ppbv		ND	3.9	0.43	ug/m3
593-60-2	106.9	Bromoethene	ND	1.0	0.11	ppbv		ND	4.4	0.48	ug/m3
100-44-7	126	Benzyl Chloride	ND	1.0	0.28	ppbv		ND	5.2	1.4	ug/m3
75-15-0	76.14	Carbon disulfide	ND	1.0	0.12	ppbv		ND	3.1	0.37	ug/m3
108-90-7	112.6	Chlorobenzene	ND	1.0	0.13	ppbv		ND	4.6	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	1.0	0.24	ppbv		ND	2.6	0.63	ug/m3
67-66-3	119.4	Chloroform	ND	1.0	0.10	ppbv		ND	4.9	0.49	ug/m3
74-87-3	50.49	Chloromethane	ND	1.0	0.077	ppbv		ND	2.1	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	1.0	0.20	ppbv		ND	3.1	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	1.0	0.13	ppbv		ND	5.2	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.12	ppbv		ND	1.3	0.75	ug/m3
110-82-7	84.16	Cyclohexane	ND	1.0	0.11	ppbv		ND	3.4	0.38	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	1.0	0.058	ppbv		ND	4.0	0.23	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.084	ppbv		ND	0.79	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.50	0.089	ppbv		ND	3.8	0.68	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	1.0	0.10	ppbv		ND	4.0	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	1.0	0.096	ppbv		ND	4.6	0.44	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	1.0	0.26	ppbv		ND	3.6	0.94	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.65	1.0	0.083	ppbv	J	3.2	4.9	0.41	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.50	0.17	ppbv		ND	4.3	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	1.0	0.037	ppbv		ND	4.0	0.15	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.059	ppbv		ND	0.79	0.23	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	1.0	0.098	ppbv		ND	4.5	0.44	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.50	0.095	ppbv		ND	3.0	0.57	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.11	ppbv		ND	1.2	0.66	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.50	0.088	ppbv		ND	3.0	0.53	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	1.0	0.098	ppbv		ND	4.5	0.44	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 10MPR-SS-01-032319
Lab Sample ID: JC85165-2 **Date Sampled:** 03/24/19
Matrix: AIR - Soil Vapor Comp. Summa ID: A271 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	19.0	2.5	1.1	ppbv		35.8	4.7	2.1	ug/m3
100-41-4	106.2	Ethylbenzene	ND	1.0	0.076	ppbv		ND	4.3	0.33	ug/m3
141-78-6	88	Ethyl Acetate	1.5	1.0	0.19	ppbv		5.4	3.6	0.68	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	1.0	0.15	ppbv		ND	4.9	0.74	ug/m3
76-13-1	187.4	Freon 113	ND	0.50	0.086	ppbv		ND	3.8	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.50	0.096	ppbv		ND	3.5	0.67	ug/m3
142-82-5	100.2	Heptane	ND	1.0	0.088	ppbv		ND	4.1	0.36	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.45	0.23	ppbv		ND	4.8	2.5	ug/m3
110-54-3	86.17	Hexane	0.67	1.0	0.053	ppbv	J	2.4	3.5	0.19	ug/m3
591-78-6	100	2-Hexanone	ND	1.0	0.18	ppbv		ND	4.1	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	3.3	1.0	0.32	ppbv		8.1	2.5	0.79	ug/m3
75-09-2	84.94	Methylene chloride	ND	1.0	0.073	ppbv		ND	3.5	0.25	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	1.0	0.21	ppbv		ND	2.9	0.62	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	1.0	0.18	ppbv		ND	4.1	0.74	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	1.0	0.096	ppbv		ND	3.6	0.35	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	1.0	0.16	ppbv		ND	4.1	0.66	ug/m3
115-07-1	42	Propylene	ND	2.5	0.080	ppbv		ND	4.3	0.14	ug/m3
100-42-5	104.1	Styrene	ND	1.0	0.095	ppbv		ND	4.3	0.40	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.50	0.17	ppbv		ND	2.7	0.93	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.50	0.14	ppbv		ND	3.4	0.96	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.50	0.15	ppbv		ND	2.7	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.50	0.44	ppbv		ND	3.7	3.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	1.0	0.17	ppbv		ND	4.9	0.84	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	1.0	0.17	ppbv		ND	4.9	0.84	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	1.0	0.11	ppbv		ND	4.7	0.51	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	1.0	0.069	ppbv		ND	3.0	0.21	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.5	0.20	0.15	ppbv		10	1.4	1.0	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	1.0	0.25	ppbv		ND	2.9	0.74	ug/m3
108-88-3	92.14	Toluene	1.1	1.0	0.072	ppbv		4.1	3.8	0.27	ug/m3
79-01-6	131.4	Trichloroethylene	1.4	0.20	0.095	ppbv		7.5	1.1	0.51	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.50	0.50	0.14	ppbv		2.8	2.8	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.11	ppbv		ND	0.51	0.28	ug/m3
108-05-4	86	Vinyl Acetate	ND	1.0	0.17	ppbv		ND	3.5	0.60	ug/m3
	106.2	m,p-Xylene	ND	1.0	0.17	ppbv		ND	4.3	0.74	ug/m3
95-47-6	106.2	o-Xylene	ND	1.0	0.085	ppbv		ND	4.3	0.37	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	1.0	0.085	ppbv		ND	4.3	0.37	ug/m3

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

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

Client Sample ID:	10MPR-SS-02-032319		
Lab Sample ID:	JC85165-3	**Date Sampled:**	03/24/19
Matrix:	AIR - Soil Vapor Comp. Summa ID: A905	**Date Received:**	03/25/19
Method:	TO-15	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W35995.D	1	04/06/19 15:24	GP	n/a	n/a	V5W1468
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	7.4	0.80	0.45	ppbv		18	1.9	1.1	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.18	ppbv		ND	1.8	0.40	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.048	ppbv		ND	2.6	0.15	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.40	0.11	ppbv		ND	2.7	0.74	ug/m3
75-25-2	252.8	Bromoform	ND	0.16	0.15	ppbv		ND	1.7	1.6	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.088	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.088	ppbv		ND	3.5	0.38	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.23	ppbv		ND	4.1	1.2	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.094	ppbv		ND	2.5	0.29	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.10	ppbv		ND	3.7	0.46	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.19	ppbv		ND	2.1	0.50	ug/m3
67-66-3	119.4	Chloroform	0.41	0.80	0.080	ppbv	J	2.0	3.9	0.39	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.061	ppbv		ND	1.7	0.13	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.16	ppbv		ND	2.5	0.50	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.16	0.094	ppbv		ND	1.0	0.59	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.088	ppbv		ND	2.8	0.30	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.046	ppbv		ND	3.2	0.19	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.16	0.067	ppbv		ND	0.63	0.27	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.40	0.071	ppbv		ND	3.1	0.55	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.083	ppbv		ND	3.2	0.34	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.077	ppbv		ND	3.7	0.36	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.21	ppbv		ND	2.9	0.76	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.83	0.80	0.066	ppbv		4.1	4.0	0.33	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.40	0.13	ppbv		ND	3.4	1.1	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.029	ppbv		ND	3.2	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.16	0.047	ppbv		ND	0.63	0.19	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.078	ppbv		ND	3.6	0.35	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.40	0.076	ppbv		ND	2.4	0.46	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.16	0.087	ppbv		ND	0.96	0.52	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.40	0.070	ppbv		ND	2.4	0.42	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.078	ppbv		ND	3.6	0.35	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 10MPR-SS-02-032319
Lab Sample ID: JC85165-3 **Date Sampled:** 03/24/19
Matrix: AIR - Soil Vapor Comp. Summa ID: A905 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	27.2	2.0	0.87	ppbv		51.3	3.8	1.6	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.060	ppbv		ND	3.5	0.26	ug/m3
141-78-6	88	Ethyl Acetate	1.2	0.80	0.15	ppbv		4.3	2.9	0.54	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
76-13-1	187.4	Freon 113	ND	0.40	0.068	ppbv		ND	3.1	0.52	ug/m3
76-14-2	170.9	Freon 114	ND	0.40	0.076	ppbv		ND	2.8	0.53	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.070	ppbv		ND	3.3	0.29	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.36	0.18	ppbv		ND	3.8	1.9	ug/m3
110-54-3	86.17	Hexane	ND	0.80	0.042	ppbv		ND	2.8	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.15	ppbv		ND	3.3	0.61	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.26	ppbv		ND	2.0	0.64	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.058	ppbv		ND	2.8	0.20	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.14	ppbv		ND	3.3	0.57	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.077	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	0.53	ug/m3
115-07-1	42	Propylene	ND	2.0	0.064	ppbv		ND	3.4	0.11	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.076	ppbv		ND	3.4	0.32	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.40	0.13	ppbv		ND	2.2	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.40	0.11	ppbv		ND	2.7	0.76	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.40	0.12	ppbv		ND	2.2	0.65	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.40	0.35	ppbv		ND	3.0	2.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.13	ppbv		ND	3.9	0.64	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.13	ppbv		ND	3.9	0.64	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.087	ppbv		ND	3.7	0.41	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.055	ppbv		ND	2.4	0.17	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.3	0.16	0.12	ppbv		8.8	1.1	0.81	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.20	ppbv		ND	2.4	0.59	ug/m3
108-88-3	92.14	Toluene	2.0	0.80	0.058	ppbv		7.5	3.0	0.22	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.076	ppbv		ND	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	1.1	0.40	0.11	ppbv		6.2	2.2	0.62	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.16	0.089	ppbv		ND	0.41	0.23	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.14	ppbv		ND	2.8	0.49	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.14	ppbv		ND	3.5	0.61	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.068	ppbv		ND	3.5	0.30	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.068	ppbv		ND	3.5	0.30	ug/m3

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

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

Client Sample ID: 10MPR-OA-01-032319
Lab Sample ID: JC85165-4 **Date Sampled:** 03/24/19
Matrix: AIR - Ambient Air Comp. Summa ID: M242 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6W11390.D	1	04/04/19 01:07	GP	n/a	n/a	V6W457
Run #2	6W11408.D	1	04/04/19 17:56	GP	n/a	n/a	V6W458

	Initial Volume
Run #1	500 ml
Run #2	100 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	109 [a]	0.80	0.45	ppbv		259 [a]	1.9	1.1	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.16	0.037	ppbv		ND	0.35	0.082	ug/m3
71-43-2	78.11	Benzene	0.41	0.16	0.0095	ppbv		1.3	0.51	0.030	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.080	0.021	ppbv		ND	0.54	0.14	ug/m3
75-25-2	252.8	Bromoform	ND	0.032	0.030	ppbv		ND	0.33	0.31	ug/m3
74-83-9	94.94	Bromomethane	ND	0.16	0.018	ppbv		ND	0.62	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.16	0.018	ppbv		ND	0.70	0.079	ug/m3
100-44-7	126	Benzyl Chloride [b]	ND	0.16	0.045	ppbv		ND	0.82	0.23	ug/m3
75-15-0	76.14	Carbon disulfide	0.36	0.16	0.019	ppbv		1.1	0.50	0.059	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.16	0.021	ppbv		ND	0.74	0.097	ug/m3
75-00-3	64.52	Chloroethane	ND	0.16	0.039	ppbv		ND	0.42	0.10	ug/m3
67-66-3	119.4	Chloroform	ND	0.16	0.016	ppbv		ND	0.78	0.078	ug/m3
74-87-3	50.49	Chloromethane	0.78	0.16	0.012	ppbv		1.6	0.33	0.025	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.16	0.032	ppbv		ND	0.50	0.10	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.16	0.020	ppbv		ND	0.83	0.10	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.032	0.019	ppbv		ND	0.20	0.12	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.16	0.018	ppbv		ND	0.55	0.062	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.16	0.0093	ppbv		ND	0.65	0.038	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.032	0.013	ppbv		ND	0.13	0.052	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.080	0.014	ppbv		ND	0.61	0.11	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.16	0.017	ppbv		ND	0.65	0.069	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.16	0.015	ppbv		ND	0.74	0.069	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.16	0.042	ppbv		ND	0.58	0.15	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.43	0.16	0.013	ppbv		2.1	0.79	0.064	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.080	0.027	ppbv		ND	0.68	0.23	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.16	0.0058	ppbv		ND	0.63	0.023	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.032	0.0094	ppbv		ND	0.13	0.037	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.16	0.016	ppbv		ND	0.73	0.073	ug/m3
541-73-1	147	m-Dichlorobenzene	0.13	0.080	0.015	ppbv		0.78	0.48	0.090	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.032	0.017	ppbv		ND	0.19	0.10	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.080	0.014	ppbv		ND	0.48	0.084	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.16	0.016	ppbv		ND	0.73	0.073	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 10MPR-OA-01-032319
Lab Sample ID: JC85165-4 **Date Sampled:** 03/24/19
Matrix: AIR - Ambient Air Comp. Summa ID: M242 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	22.1	0.40	0.17	ppbv		41.6	0.75	0.32	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.16	0.012	ppbv		ND	0.69	0.052	ug/m3
141-78-6	88	Ethyl Acetate	1.4	0.16	0.030	ppbv		5.0	0.58	0.11	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.16	0.024	ppbv		ND	0.79	0.12	ug/m3
76-13-1	187.4	Freon 113	ND	0.080	0.014	ppbv		ND	0.61	0.11	ug/m3
76-14-2	170.9	Freon 114	ND	0.080	0.015	ppbv		ND	0.56	0.10	ug/m3
142-82-5	100.2	Heptane	0.13	0.16	0.014	ppbv	J	0.53	0.66	0.057	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.072	0.036	ppbv		ND	0.77	0.38	ug/m3
110-54-3	86.17	Hexane	0.19	0.16	0.0085	ppbv		0.67	0.56	0.030	ug/m3
591-78-6	100	2-Hexanone	ND	0.16	0.029	ppbv		ND	0.65	0.12	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.2	0.16	0.052	ppbv		2.9	0.39	0.13	ug/m3
75-09-2	84.94	Methylene chloride	0.18	0.16	0.012	ppbv		0.63	0.56	0.042	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.5	0.16	0.034	ppbv		13	0.47	0.10	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.16	0.029	ppbv		ND	0.66	0.12	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.16	0.015	ppbv		ND	0.58	0.054	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.16	0.026	ppbv		ND	0.66	0.11	ug/m3
115-07-1	42	Propylene	5.3	0.40	0.013	ppbv		9.1	0.69	0.022	ug/m3
100-42-5	104.1	Styrene	ND	0.16	0.015	ppbv		ND	0.68	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.080	0.027	ppbv		ND	0.44	0.15	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.080	0.022	ppbv		ND	0.55	0.15	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.080	0.024	ppbv		ND	0.44	0.13	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.080	0.071	ppbv		ND	0.59	0.53	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.16	0.026	ppbv		ND	0.79	0.13	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.16	0.027	ppbv		ND	0.79	0.13	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.16	0.017	ppbv		ND	0.75	0.079	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	3.8	0.16	0.011	ppbv		12	0.49	0.033	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.032	0.025	ppbv		ND	0.22	0.17	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.16	0.040	ppbv		ND	0.47	0.12	ug/m3
108-88-3	92.14	Toluene	0.20	0.16	0.012	ppbv		0.75	0.60	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.032	0.015	ppbv		ND	0.17	0.081	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.20	0.080	0.022	ppbv		1.1	0.45	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.032	0.018	ppbv		ND	0.082	0.046	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.16	0.027	ppbv		ND	0.56	0.095	ug/m3
	106.2	m,p-Xylene	0.14	0.16	0.027	ppbv	J	0.61	0.69	0.12	ug/m3
95-47-6	106.2	o-Xylene	ND	0.16	0.014	ppbv		ND	0.69	0.061	ug/m3
1330-20-7	106.2	Xylenes (total)	0.14	0.16	0.014	ppbv	J	0.61	0.69	0.061	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%	99%	65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	10MPR-OA-01-032319		
Lab Sample ID:	JC85165-4	**Date Sampled:**	03/24/19
Matrix:	AIR - Ambient Air Comp. Summa ID: M242	**Date Received:**	03/25/19
Method:	TO-15	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TO15 List

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

(a) Result is from Run# 2
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

Client Sample ID: DUP032319
Lab Sample ID: JC85165-5 **Date Sampled:** 03/24/19
Matrix: AIR - Indoor Air Comp. Summa ID: A832 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6W11391.D	1.9	04/04/19 02:01	GP	n/a	n/a	V6W457
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	3.7	0.30	0.17	ppbv		8.8	0.71	0.40	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.30	0.070	ppbv		ND	0.66	0.15	ug/m3
71-43-2	78.11	Benzene	ND	0.30	0.018	ppbv		ND	0.96	0.058	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.15	0.041	ppbv		ND	1.0	0.27	ug/m3
75-25-2	252.8	Bromoform	ND	0.061	0.057	ppbv		ND	0.63	0.59	ug/m3
74-83-9	94.94	Bromomethane	ND	0.30	0.033	ppbv		ND	1.2	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.30	0.033	ppbv		ND	1.3	0.14	ug/m3
100-44-7	126	Benzyl Chloride [a]	ND	0.30	0.086	ppbv		ND	1.5	0.44	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.30	0.036	ppbv		ND	0.93	0.11	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.30	0.040	ppbv		ND	1.4	0.18	ug/m3
75-00-3	64.52	Chloroethane	ND	0.30	0.074	ppbv		ND	0.79	0.20	ug/m3
67-66-3	119.4	Chloroform	ND	0.30	0.030	ppbv		ND	1.5	0.15	ug/m3
74-87-3	50.49	Chloromethane	0.66	0.30	0.023	ppbv		1.4	0.62	0.047	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.30	0.060	ppbv		ND	0.94	0.19	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.30	0.038	ppbv		ND	1.6	0.20	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.061	0.036	ppbv		ND	0.38	0.23	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.30	0.033	ppbv		ND	1.0	0.11	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.30	0.018	ppbv		ND	1.2	0.073	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.061	0.025	ppbv		ND	0.24	0.099	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.15	0.027	ppbv		ND	1.2	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.30	0.032	ppbv		ND	1.2	0.13	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.30	0.029	ppbv		ND	1.4	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.30	0.079	ppbv		ND	1.1	0.28	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.54	0.30	0.025	ppbv		2.7	1.5	0.12	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.15	0.051	ppbv		ND	1.3	0.43	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.30	0.011	ppbv		ND	1.2	0.044	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.061	0.018	ppbv		ND	0.24	0.071	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.15	0.029	ppbv		ND	0.90	0.17	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.061	0.033	ppbv		ND	0.37	0.20	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.15	0.027	ppbv		ND	0.90	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP032319
Lab Sample ID: JC85165-5 **Date Sampled:** 03/24/19
Matrix: AIR - Indoor Air Comp. Summa ID: A832 **Date Received:** 03/25/19
Method: TO-15 **Percent Solids:** n/a
Project: New York Twist Drill, Melville Park Road, Melville, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	6.6	0.76	0.33	ppbv		12	1.4	0.62	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.30	0.023	ppbv		ND	1.3	0.10	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.30	0.057	ppbv		ND	1.1	0.21	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.30	0.045	ppbv		ND	1.5	0.22	ug/m3
76-13-1	187.4	Freon 113	ND	0.15	0.026	ppbv		ND	1.1	0.20	ug/m3
76-14-2	170.9	Freon 114	ND	0.15	0.029	ppbv		ND	1.0	0.20	ug/m3
142-82-5	100.2	Heptane	ND	0.30	0.027	ppbv		ND	1.2	0.11	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.14	0.069	ppbv		ND	1.5	0.74	ug/m3
110-54-3	86.17	Hexane	ND	0.30	0.016	ppbv		ND	1.1	0.056	ug/m3
591-78-6	100	2-Hexanone	ND	0.30	0.055	ppbv		ND	1.2	0.22	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.55	0.30	0.098	ppbv		1.4	0.74	0.24	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.30	0.022	ppbv		ND	1.0	0.076	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.16	0.30	0.064	ppbv	J	0.47	0.88	0.19	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.30	0.055	ppbv		ND	1.2	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.30	0.029	ppbv		ND	1.1	0.10	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.30	0.050	ppbv		ND	1.2	0.20	ug/m3
115-07-1	42	Propylene	ND	0.76	0.024	ppbv		ND	1.3	0.041	ug/m3
100-42-5	104.1	Styrene	ND	0.30	0.029	ppbv		ND	1.3	0.12	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.15	0.050	ppbv		ND	0.82	0.27	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.15	0.041	ppbv		ND	1.0	0.28	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.15	0.046	ppbv		ND	0.82	0.25	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.15	0.13	ppbv		ND	1.1	0.97	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.30	0.050	ppbv		ND	1.5	0.25	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.30	0.051	ppbv		ND	1.5	0.25	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.30	0.033	ppbv		ND	1.4	0.15	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.30	0.021	ppbv		ND	0.91	0.064	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.11	0.061	0.047	ppbv		0.75	0.41	0.32	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.30	0.076	ppbv		ND	0.88	0.22	ug/m3
108-88-3	92.14	Toluene	ND	0.30	0.022	ppbv		ND	1.1	0.083	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.061	0.029	ppbv		ND	0.33	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.23	0.15	0.043	ppbv		1.3	0.84	0.24	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.061	0.034	ppbv		ND	0.16	0.087	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.30	0.052	ppbv		ND	1.1	0.18	ug/m3
	106.2	m,p-Xylene	ND	0.30	0.052	ppbv		ND	1.3	0.23	ug/m3
95-47-6	106.2	o-Xylene	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP032319		
Lab Sample ID:	JC85165-5	**Date Sampled:**	03/24/19
Matrix:	AIR - Indoor Air Comp. Summa ID: A832	**Date Received:**	03/25/19
Method:	TO-15	**Percent Solids:**	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TO15 List

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

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Summa Canister and Flow Controller Log
- Sample Tracking Chronicle
- Internal Chain of Custody
- 2018 MDL Study - Method: TO-15

SGS

AIR CHAIN OF CUSTODY

PAGE 1 OF 1

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

FED-EX Tracking #: 779-150
Bottle Order Control #:
SGS Quote #:
SGS Job #: JC85165

Client / Reporting Information	Project Information	Weather Parameters	Requested Analysis
Company Name: ERM	Project Name: NYTD	Temperature (Fahrenheit) Start: 68° Maximum:	TO-15 MSL
Address: 105 Maxess Rd Ste 316	Street: 10 Melville Park Rd	Stop: 68° Minimum:	
City: Melville State: NY Zip: 11747	City: Melville State: NY	Atmoshpheric Pressure (inches of Hg) Start: 30.11 Maximum:	
Project Contact: Kalea.Pickering@erm.com E-mail:	Project #: 0372902	Stop: 30.19 Minimum:	
Phone #: 631-756-8908 Fax #: 8901	Client Purchase Order #:	Other weather comment:	
Sampler(s) Name(s)			

Lab Sample #	Field ID / Point of Collection	Air Type: Indoor (I) Soil Vap (SV) Ambient (A)	Sampling Equipment Info: Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	TO-15 MSL
1	10MPR-IA-01-052319	I	A878	6L	FC498	5/23/19	8:18	-27.5	68	BWL	5/24/19	8:34	-10	68	BWL	✓
2	10MPR-SS-01-052319	SV	A271		MC230		8:30	-28.5				8:37	-5			
3	10MPR-SS-02-052319	SV	A905		FC467		8:36	-29				8:42	-3.5			
4	10MPR-OA-01-052319	A	M292		FC270		8:43	-29				8:29	-5			
5	DUP 052319	I	A832		FC498		8:18	-27.5	68			8:18	-10	68		

Turnaround Time (Business days)
- ✓ Standard - 15 Days
- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Other

Approved By:
Date:

Data Deliverable Information
All NJDEP TO-15 is mandatory Full T1
- Comm A: ✓
- Comm B
- Reduced T2
- Full T1
- Other:
- DKQP reporting

Comments / Remarks
INITIAL ASESSMENT 3A Dm
LABEL VERIFICATION
Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Laboratory 1	Date Time: 5/23/19 1600	Received By: 1 Brian Lynch	Relinquished By: 2 Brian Lynch	Date Time: 5/24/19 11:00	Received By: 2 Chris Lau
Relinquished by: 3 Chris Lau	Date Time: 5/25/19 1900	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #		

Form:SM088-03D (revised 2-12-18)

http://www.sgs.com/en/terms-and-conditions

JC85165: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC85165 **Client:** ERM, INC. **Project:** NEW YORK TWIST DRILL, MELVILLE PARK RO

Date / Time Received: 3/25/2019 7:00:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

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

Quality Control _Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC85165: Chain of Custody
Page 2 of 2

Summa Canister and Flow Controller Log

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Received: 03/25/19

SUMMA CANISTERS

Shipping							Receiving					
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A878	6	29.4	03/20/19	JT	CP102766	W11073.D	JC85165-1	03/29/19	JT	13		1.1	1.9
A271	6	29.4	03/20/19	JT	CP102766	W11073.D	JC85165-2	03/29/19	JT	6			1
A905	6	29.4	03/20/19	JT	CP102766	W11073.D	JC85165-3	03/29/19	JT	3			1
M242	6	29.4	03/20/19	JT	CP102766	W11073.D	JC85165-4	03/29/19	JT	3.5			1
A832	6	29.4	03/20/19	JT	CP102766	W11073.D	JC85165-5	03/29/19	JT	13		1.1	1.9

FLOW CONTROLLERS / OTHER

Shipping					Receiving				
Flow Crtl ID	Date Out	By	cc/ min	Time hrs.	Date In	By	cc/ min	Flow RPD	Equipment Type
FC270	03/20/19	JT	3.2	24	03/29/19	JT	3.8	17.1	Flow Controller
FC467	03/20/19	JT	3.2	24	03/29/19	JT	3.4	6.1	Flow Controller
FC498	03/20/19	JT	3.2	24	03/29/19	JT	3.6	11.8	Flow Controller
FC602	03/20/19	JT	3.2	24	03/29/19	JT	3.4	6.1	Flow Controller
MC230	03/20/19	JT	3.2	24	03/29/19	JT	3.8	17.1	Flow Controller

SGS Bottle Order(s):
TM-022719-150

Prep Date	Room Temp(F)	Bar Pres "Hg
03/20/19	70	29.92

Internal Sample Tracking Chronicle

ERM, Inc.

Job No: JC85165

New York Twist Drill, Melville Park Road, Melville, NY
Project No: 0372902

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC85165-1	Collected: 24-MAR-19 08:34 By: BWL 10MPR-IA-01-032319		Received: 25-MAR-19	By: AS		
JC85165-1	TO-15	04-APR-19 00:10	GP			VTO15NYLL
JC85165-2	Collected: 24-MAR-19 08:37 By: BWL 10MPR-SS-01-032319		Received: 25-MAR-19	By: AS		
JC85165-2	TO-15	06-APR-19 14:38	GP			VTO15NYSVLL
JC85165-3	Collected: 24-MAR-19 08:42 By: BWL 10MPR-SS-02-032319		Received: 25-MAR-19	By: AS		
JC85165-3	TO-15	06-APR-19 15:24	GP			VTO15NYSVLL
JC85165-4	Collected: 24-MAR-19 08:29 By: BWL 10MPR-OA-01-032319		Received: 25-MAR-19	By: AS		
JC85165-4	TO-15	04-APR-19 01:07	GP			VTO15NYLL
JC85165-4	TO-15	04-APR-19 17:56	GP			VTO15NYLL
JC85165-5	Collected: 24-MAR-19 08:18 By: BWL DUP032319		Received: 25-MAR-19	By: AS		
JC85165-5	TO-15	04-APR-19 02:01	GP			VTO15NYLL

SGS Internal Chain of Custody

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY
Received: 03/25/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC85165-1.1	James Kwon	Air Storage	03/26/19 17:36	Return to Storage
JC85165-2.1	James Kwon	Air Storage	03/26/19 17:36	Return to Storage
JC85165-3.1	James Kwon	Air Storage	03/26/19 17:36	Return to Storage
JC85165-4.1	James Kwon	Air Storage	03/26/19 17:36	Return to Storage
JC85165-5.1	James Kwon	Air Storage	03/26/19 17:36	Return to Storage

Accutest Laboratories Annual Method Detection Limit Determination
Dayton, NJ Facility

Method: TO-15 (VTO14/15)
Instrument(s): GCMS3W, GCMS5W, GCMS6W
Analyst: Pooled

Matrix: AIR
Quant Factor: 1.00
Study Period: July,2018

			Replicate Spikes											
Cmpd./Element/Parm. Name	Analysis Date	Spike ppbv	R1 ppbv	R2 ppbv	R3 ppbv	R4 ppbv	R5 ppbv	R6 ppbv	R7 ppbv	X-Bar ppbv	X-Bar %Recov.	STD.Dev. ppbv	MDL	Spike/MDL Ratio
Acetone	4-Apr-18	0.1	0.15	0.17	0.14	0.17	0.17	0.09	0.09	0.14	139.43	0.04	0.11	0.89
Acrylonitrile	6-Mar-18	0.1	0.11	0.13	0.13	0.10	0.11	0.09	0.10	0.11	110.28	0.02	0.05	1.97
Acetonitrile	4-Apr-18	0.1	0.17	0.13	0.16	0.15	0.21	0.09	0.07	0.14	140.53	0.05	0.15	0.67
1,3-Butadiene	4-Apr-18	0.1	0.10	0.11	0.10	0.10	0.10	0.07	0.07	0.09	93.21	0.01	0.05	2.16
Benzene	6-Mar-18	0.1	0.10	0.10	0.10	0.09	0.09	0.10	0.10	0.10	96.63	0.00	0.01	8.40
Bromobenzene	4-Apr-18	0.04	0.05	0.04	0.05	0.04	0.05	0.03	0.03	0.04	103.07	0.01	0.02	1.79
Bromodichloromethane	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.05	120.64	0.01	0.03	1.49
Bromoform	4-Apr-18	0.04	0.06	0.06	0.06	0.05	0.06	0.03	0.03	0.05	127.36	0.01	0.04	1.07
Bromomethane	4-Apr-18	0.04	0.06	0.05	0.05	0.06	0.06	0.04	0.04	0.05	128.54	0.01	0.02	1.82
Bromoethene	4-Apr-18	0.04	0.04	0.05	0.05	0.04	0.04	0.03	0.03	0.04	103.18	0.01	0.02	1.82
n-Butane	9-Jul-18	0.2	0.20	0.18	0.20	0.18	0.12	0.20	0.15	0.18	88.23	0.03	0.10	2.10
Benzyl Chloride	4-Apr-18	0.1	0.10	0.09	0.09	0.08	0.08	0.05	0.05	0.08	77.01	0.02	0.06	1.77
n-Butylbenzene	6-Mar-18	0.1	0.07	0.07	0.07	0.09	0.07	0.05	0.06	0.07	69.64	0.01	0.04	2.69
sec-Butylbenzene	6-Mar-18	0.1	0.09	0.10	0.09	0.11	0.10	0.07	0.08	0.09	91.41	0.01	0.04	2.26
tert-Butylbenzene	6-Mar-18	0.1	0.09	0.10	0.10	0.11	0.10	0.07	0.09	0.09	93.20	0.01	0.04	2.71
Carbon disulfide	16-Mar-18	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.05	0.03	84.90	0.01	0.02	1.69
Chlorobenzene	4-Apr-18	0.04	0.06	0.05	0.05	0.05	0.05	0.03	0.04	0.05	121.74	0.01	0.03	1.53
Chlorodifluoromethane	4-Apr-18	0.1	0.11	0.12	0.12	0.12	0.11	0.07	0.03	0.10	97.42	0.03	0.10	0.96
Chloroethane	4-Apr-18	0.1	0.11	0.10	0.10	0.10	0.11	0.08	0.08	0.10	98.82	0.02	0.05	2.07
Chlorotrifluoroethene	16-Mar-18	0.04	0.04	0.03	0.03	0.04	0.04	0.05	0.04	0.04	96.91	0.00	0.01	2.74
Chloroform	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.04	109.12	0.01	0.02	2.01
Chloromethane	4-Apr-18	0.1	0.09	0.10	0.09	0.10	0.10	0.08	0.09	0.09	92.74	0.00	0.02	6.54
3-Chloropropene	16-Mar-18	0.1	0.08	0.08	0.07	0.05	0.06	0.08	0.07	0.07	70.88	0.01	0.04	2.52
2-Chlorotoluene	4-Apr-18	0.1	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.08	82.41	0.01	0.03	4.00
Carbon tetrachloride	4-Apr-18	0.04	0.04	0.04	0.05	0.05	0.05	0.03	0.03	0.04	105.24	0.01	0.02	1.70
Cyclohexane	4-Apr-18	0.1	0.06	0.07	0.06	0.06	0.06	0.08	0.08	0.07	66.65	0.01	0.02	4.55
1,1-Dichloroethane	4-Apr-18	0.1	0.09	0.10	0.10	0.10	0.10	0.09	0.09	0.10	95.35	0.00	0.01	8.62
1,1-Dichloroethylene	6-Mar-18	0.04	0.06	0.05	0.05	0.05	0.04	0.05	0.05	0.05	122.85	0.01	0.02	2.40
1,2-Dibromoethane	4-Apr-18	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	92.37	0.01	0.02	2.25
1,2-Dichloroethane	4-Apr-18	0.04	0.04	0.05	0.04	0.05	0.05	0.03	0.03	0.04	102.51	0.01	0.02	1.92
1,2-Dichloropropane	6-Mar-18	0.04	0.05	0.05	0.05	0.04	0.04	0.05	0.06	0.05	123.28	0.01	0.02	2.09
1,3-Dichloropropane	6-Mar-18	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.03	79.01	0.01	0.02	2.54
1,4-Dioxane	16-Mar-18	0.1	0.10	0.09	0.07	0.09	0.09	0.06	0.05	0.08	77.81	0.02	0.05	1.93
Dichlorodifluoromethane	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.05	113.93	0.01	0.02	2.43

Dichlorofluoromethane	4-Apr-18	0.04	0.05	0.06	0.05	0.06	0.05	0.04	0.04	0.05	121.63	0.01	0.03	1.44
Dibromochloromethane	4-Apr-18	0.04	0.06	0.06	0.05	0.05	0.05	0.03	0.03	0.05	119.40	0.01	0.03	1.20
Dibromomethane	4-Apr-18	0.04	0.06	0.06	0.06	0.06	0.06	0.04	0.04	0.05	129.43	0.01	0.02	1.61
trans-1,2-Dichloroethylene	16-Mar-18	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	78.89	0.00	0.01	5.45
cis-1,2-Dichloroethylene	16-Mar-18	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.03	0.03	84.39	0.00	0.01	3.43
cis-1,3-Dichloropropene	6-Mar-18	0.1	0.10	0.10	0.10	0.08	0.09	0.09	0.09	0.09	91.08	0.01	0.02	5.13
m-Dichlorobenzene	4-Apr-18	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	87.14	0.01	0.02	2.12
o-Dichlorobenzene	6-Mar-18	0.1	0.08	0.09	0.08	0.08	0.08	0.07	0.07	0.08	79.00	0.01	0.02	4.58
p-Dichlorobenzene	4-Apr-18	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	84.30	0.01	0.02	2.29
trans-1,3-Dichloropropene	4-Apr-18	0.1	0.08	0.08	0.08	0.07	0.08	0.07	0.07	0.07	74.34	0.01	0.02	5.13
Di-Isopropyl ether	6-Mar-18	0.2	0.21	0.22	0.22	0.21	0.22	0.20	0.21	0.21	106.79	0.01	0.03	6.78
2,3-Dimethylpentane	4-Apr-18	0.1	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.08	76.36	0.01	0.02	5.07
2,4-Dimethylpentane	4-Apr-18	0.1	0.07	0.07	0.06	0.07	0.07	0.08	0.08	0.07	69.67	0.01	0.02	5.70
Ethanol	4-Apr-18	0.1	0.20	0.20	0.22	0.21	0.21	0.08	0.06	0.17	168.18	0.07	0.22	0.46
Ethylbenzene	6-Mar-18	0.1	0.09	0.10	0.10	0.10	0.09	0.11	0.09	0.10	96.79	0.00	0.02	6.61
Ethyl Acetate	6-Mar-18	0.1	0.08	0.08	0.10	0.09	0.09	0.06	0.06	0.08	79.31	0.01	0.04	2.66
Ethyl Acrylate	6-Mar-18	0.1	0.08	0.09	0.10	0.08	0.08	0.06	0.06	0.08	76.98	0.01	0.05	2.16
4-Ethyltoluene	6-Mar-18	0.1	0.08	0.09	0.09	0.09	0.09	0.07	0.07	0.08	82.05	0.01	0.03	3.38
Freon 113	4-Apr-18	0.04	0.05	0.04	0.05	0.04	0.04	0.03	0.03	0.04	103.42	0.01	0.02	2.34
Freon 114	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.05	115.71	0.01	0.02	2.09
Freon 115	6-Mar-18	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	99.91	0.00	0.01	5.22
Freon 123	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.04	107.96	0.01	0.02	2.05
Freon 123A	16-Mar-18	0.04	0.05	0.04	0.04	0.04	0.04	0.08	0.08	0.05	131.10	0.02	0.06	0.63
Freon 141B	4-Apr-18	0.04	0.06	0.06	0.06	0.06	0.06	0.04	0.04	0.05	132.21	0.01	0.03	1.30
Freon 142B	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.05	120.27	0.01	0.03	1.46
Freon 143a	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.05	119.26	0.01	0.02	1.96
Freon 152A	4-Apr-18	0.1	0.09	0.10	0.10	0.10	0.10	0.08	0.08	0.09	93.15	0.01	0.03	3.93
Heptane	16-Mar-18	0.04	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.02	51.50	0.01	0.02	2.29
Hexachlorobutadiene	4-Apr-18	0.04	0.07	0.07	0.07	0.07	0.06	0.04	0.04	0.06	141.60	0.01	0.05	0.88
Hexachloroethane	4-Apr-18	0.04	0.07	0.07	0.07	0.07	0.07	0.04	0.03	0.06	148.40	0.02	0.05	0.75
Hexane	6-Mar-18	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04	101.95	0.00	0.01	3.79
2-Hexanone	6-Mar-18	0.1	0.07	0.08	0.08	0.08	0.07	0.05	0.06	0.07	68.64	0.01	0.04	2.76
Iodomethane	6-Mar-18	0.1	0.10	0.10	0.10	0.09	0.09	0.10	0.09	0.10	96.55	0.00	0.01	8.77
Isopropylbenzene	6-Mar-18	0.1	0.10	0.10	0.10	0.11	0.10	0.09	0.08	0.10	95.35	0.01	0.03	3.65
Isopropyl Alcohol	9-Jul-18	0.2	0.32	0.32	0.31	0.32	0.29	0.27	0.33	0.31	154.14	0.02	0.06	3.09
p-Isopropyltoluene	6-Mar-18	0.1	0.08	0.09	0.09	0.10	0.10	0.07	0.07	0.09	85.96	0.01	0.04	2.82
Methylene chloride	6-Mar-18	0.1	0.13	0.14	0.13	0.12	0.13	0.12	0.13	0.13	130.26	0.00	0.01	6.92
Methyl ethyl ketone	6-Mar-18	0.1	0.08	0.08	0.09	0.09	0.10	0.06	0.06	0.08	80.25	0.01	0.04	2.38
Methyl Isobutyl Ketone	6-Mar-18	0.1	0.08	0.09	0.10	0.09	0.09	0.06	0.08	0.08	82.66	0.01	0.04	2.78
Methyl Tert Butyl Ether	6-Mar-18	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	95.74	0.01	0.02	2.09
Methylmethacrylate	6-Mar-18	0.1	0.08	0.08	0.09	0.08	0.09	0.06	0.07	0.08	79.33	0.01	0.03	3.07
Naphthalene	16-Mar-18	0.2	0.08	0.07	0.07	0.06	0.05	0.01	0.01	0.05	25.45	0.03	0.09	2.20
Nonane	16-Mar-18	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	69.05	0.00	0.01	2.98
Octane	4-Apr-18	0.1	0.06	0.05	0.05	0.05	0.05	0.07	0.07	0.06	57.51	0.01	0.03	3.20
Pentane	16-Mar-18	0.2	0.20	0.20	0.18	0.20	0.17	0.17	0.16	0.18	91.02	0.02	0.06	3.63

n-Propylbenzene	6-Mar-18	0.1	0.08	0.09	0.08	0.09	0.09	0.07	0.07	0.08	81.29	0.01	0.03	3.80
Propylene	16-Mar-18	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.05	115.79	0.01	0.02	2.51
Styrene	4-Apr-18	0.1	0.07	0.07	0.07	0.06	0.06	0.07	0.07	0.06	64.67	0.01	0.02	5.30
1,1,1-Trichloroethane	4-Apr-18	0.04	0.05	0.06	0.06	0.05	0.05	0.03	0.03	0.05	120.15	0.01	0.03	1.20
1,1,1,2-Tetrachloroethane	4-Apr-18	0.04	0.05	0.06	0.05	0.06	0.05	0.04	0.03	0.05	123.96	0.01	0.04	1.10
1,1,2,2-Tetrachloroethane	4-Apr-18	0.04	0.05	0.05	0.05	0.05	0.05	0.03	0.03	0.05	113.92	0.01	0.03	1.47
1,1,2-Trichloroethane	4-Apr-18	0.04	0.04	0.04	0.05	0.05	0.04	0.02	0.03	0.04	95.93	0.01	0.03	1.31
1,2,4-Trichlorobenzene	6-Mar-18	0.2	0.12	0.16	0.11	0.11	0.10	0.08	0.08	0.11	54.59	0.03	0.09	2.26
1,2,3-Trichloropropane	6-Mar-18	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.06	0.04	94.35	0.01	0.04	1.12
1,2,4-Trimethylbenzene	6-Mar-18	0.1	0.08	0.09	0.09	0.09	0.09	0.07	0.07	0.08	84.25	0.01	0.03	3.03
1,3,5-Trimethylbenzene	6-Mar-18	0.1	0.09	0.09	0.10	0.10	0.10	0.08	0.08	0.09	89.95	0.01	0.03	2.98
2,2,4-Trimethylpentane	6-Mar-18	0.1	0.11	0.11	0.11	0.09	0.09	0.10	0.10	0.10	100.21	0.01	0.02	4.59
Tertiary Butyl Alcohol	6-Mar-18	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	97.25	0.00	0.01	2.90
Tetrachloroethylene	6-Mar-18	0.2	0.20	0.22	0.21	0.23	0.21	0.21	0.22	0.21	106.97	0.01	0.03	6.49
Tetrahydrofuran	16-Mar-18	0.1	0.07	0.05	0.05	0.08	0.06	0.03	0.04	0.05	54.16	0.02	0.05	1.99
Toluene	6-Mar-18	0.1	0.09	0.09	0.10	0.09	0.09	0.09	0.09	0.09	92.31	0.00	0.01	6.94
Trichloroethylene	4-Apr-18	0.04	0.04	0.05	0.04	0.04	0.05	0.03	0.03	0.04	101.18	0.01	0.02	2.10
Trichlorofluoromethane	4-Apr-18	0.04	0.06	0.06	0.05	0.06	0.06	0.04	0.04	0.05	129.81	0.01	0.03	1.42
Vinyl chloride	4-Apr-18	0.1	0.10	0.11	0.10	0.10	0.10	0.09	0.09	0.10	97.80	0.01	0.02	4.49
Vinyl Acetate	6-Mar-18	0.1	0.06	0.04	0.04	0.06	0.06	0.04	0.04	0.05	50.75	0.01	0.03	2.93
m,p-Xylene	6-Mar-18	0.2	0.17	0.18	0.18	0.18	0.19	0.19	0.16	0.18	89.18	0.01	0.03	5.86
o-Xylene	6-Mar-18	0.1	0.08	0.09	0.09	0.09	0.09	0.08	0.08	0.09	87.80	0.01	0.02	5.90
TVHC As Equiv Pentane	16-Mar-18	0.1	0.14	0.14	0.15	0.13	0.14	0.11	0.12	0.13	133.35	0.01	0.04	2.64

MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W457-MB	6W11381.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.11	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.046	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.012	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.027	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.022	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.022	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.057	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.024	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.026	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.048	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.020	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.015	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.040	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.025	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.024	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.022	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.012	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.017	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.018	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.021	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.019	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.052	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.017	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.033	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.0073	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.012	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.019	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.022	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.018	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.22	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.015	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.038	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.030	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W457-MB	6W11381.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.017	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.019	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.018	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.011	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.065	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.015	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.042	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.019	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.033	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.016	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.019	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.033	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.027	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.089	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.033	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.034	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.022	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.014	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.031	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.050	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.014	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.028	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.022	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.034	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.034	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.017	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.017	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W457-MB	6W11381.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

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

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W458-MB	6W11406.D	1	04/04/19	GP	n/a	n/a	V6W458

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

JC85165-4

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.11	ppbv		ND	0.48	ug/m3

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

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1468-MB	5W35992.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.11	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.046	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.012	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.027	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.022	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.022	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.057	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.024	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.026	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.048	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.020	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.015	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.040	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.025	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.024	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.022	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.012	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.017	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.018	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.021	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.019	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.052	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.017	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.033	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.0073	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.012	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.019	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.022	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.018	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.22	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.015	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.038	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.030	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1468-MB	5W35992.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.017	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.019	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.018	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.011	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.065	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.015	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.042	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.019	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.033	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.016	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.019	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.033	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.027	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.089	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.033	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.034	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.022	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.014	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.031	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.050	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.014	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.028	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.022	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.034	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.034	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.017	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.017	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1468-MB	5W35992.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	89%	65-128%

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-MB	6W11057.D	1	03/14/19	TCH	n/a	n/a	V6W443

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

V6W443-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.11	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.046	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.012	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.027	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.022	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.022	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.057	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.024	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.026	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.048	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.020	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.015	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.040	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.025	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.024	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.022	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.012	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.017	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.018	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.021	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.019	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.052	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.017	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.033	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.0073	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.012	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.019	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.022	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.018	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.22	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.015	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.038	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.030	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-MB	6W11057.D	1	03/14/19	TCH	n/a	n/a	V6W443

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

V6W443-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.017	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.019	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.018	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.011	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.065	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.015	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.042	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.019	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.033	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.016	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.019	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.033	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.027	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.089	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.033	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.034	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.022	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.014	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.031	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.050	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.014	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.028	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.022	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.034	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.034	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.017	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.017	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-MB	6W11057.D	1	03/14/19	TCH	n/a	n/a	V6W443

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

V6W443-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	87%	65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.60	41	ppbv	JN
	Total TIC, Volatile		0	ppbv	

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W457-BS	6W11378.D	1	04/03/19	GP	n/a	n/a	V6W457
V6W457-BSD	6W11379.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.9	99	10	100	1	70-130/30
106-99-0	1,3-Butadiene	10	11.0	110	11.0	110	0	70-130/30
71-43-2	Benzene	10	10.1	101	10.2	102	1	70-130/30
75-27-4	Bromodichloromethane	10	9.4	94	9.5	95	1	70-130/30
75-25-2	Bromoform	10	13.2	132* [a]	13.1	131* [a]	1	70-130/30
74-83-9	Bromomethane	10	10.3	103	10.3	103	0	70-130/30
593-60-2	Bromoethene	10	10.3	103	10.4	104	1	70-130/30
100-44-7	Benzyl Chloride	10	16.6	166* [a]	16.6	166* [a]	0	70-130/30
75-15-0	Carbon disulfide	10	10.4	104	10.5	105	1	70-130/30
108-90-7	Chlorobenzene	10	10.0	100	9.9	99	1	70-130/30
75-00-3	Chloroethane	10	11.1	111	11.1	111	0	70-130/30
67-66-3	Chloroform	10	8.8	88	8.8	88	0	70-130/30
74-87-3	Chloromethane	10	10.7	107	10.8	108	1	70-130/30
107-05-1	3-Chloropropene	10	11.3	113	11.3	113	0	70-130/30
95-49-8	2-Chlorotoluene	10	10.7	107	10.6	106	1	70-130/30
56-23-5	Carbon tetrachloride	10	8.8	88	8.9	89	1	70-130/30
110-82-7	Cyclohexane	10	11.1	111	11.2	112	1	70-130/30
75-34-3	1,1-Dichloroethane	10	10.0	100	10.0	100	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.6	96	9.7	97	1	70-130/30
106-93-4	1,2-Dibromoethane	10	9.7	97	9.9	99	2	70-130/30
107-06-2	1,2-Dichloroethane	10	8.1	81	8.2	82	1	70-130/30
78-87-5	1,2-Dichloropropane	10	11.1	111	11.3	113	2	70-130/30
123-91-1	1,4-Dioxane	10	9.2	92	9.4	94	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	8.2	82	8.3	83	1	70-130/30
124-48-1	Dibromochloromethane	10	10.6	106	10.7	107	1	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.1	101	10.1	101	0	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.1	101	10.1	101	0	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.6	106	10.7	107	1	70-130/30
541-73-1	m-Dichlorobenzene	10	11.7	117	11.6	116	1	70-130/30
95-50-1	o-Dichlorobenzene	10	11.6	116	11.5	115	1	70-130/30
106-46-7	p-Dichlorobenzene	10	12.2	122	11.9	119	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.3	103	10.6	106	3	70-130/30
64-17-5	Ethanol	10	8.5	85	8.6	86	1	70-130/30
100-41-4	Ethylbenzene	10	10.1	101	9.9	99	2	70-130/30
141-78-6	Ethyl Acetate	10	11.2	112	11.5	115	3	70-130/30
622-96-8	4-Ethyltoluene	10	10.7	107	10.3	103	4	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W457-BS	6W11378.D	1	04/03/19	GP	n/a	n/a	V6W457
V6W457-BSD	6W11379.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.3	93	9.4	94	1	70-130/30
76-14-2	Freon 114	10	9.1	91	9.2	92	1	70-130/30
142-82-5	Heptane	10	10.8	108	11.0	110	2	70-130/30
87-68-3	Hexachlorobutadiene	10	9.5	95	9.6	96	1	70-130/30
110-54-3	Hexane	10	11.3	113	11.3	113	0	70-130/30
591-78-6	2-Hexanone	10	10.5	105	10.6	106	1	70-130/30
67-63-0	Isopropyl Alcohol	10	9.6	96	9.7	97	1	70-130/30
75-09-2	Methylene chloride	10	9.2	92	9.3	93	1	70-130/30
78-93-3	Methyl ethyl ketone	10	10.5	105	10.6	106	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.3	113	11.4	114	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.5	95	9.5	95	0	70-130/30
80-62-6	Methylmethacrylate	10	11.0	110	11.0	110	0	70-130/30
115-07-1	Propylene	10	11.9	119	11.9	119	0	70-130/30
100-42-5	Styrene	10	11.3	113	11.1	111	2	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.4	84	8.5	85	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	12.7	127	12.5	125	2	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.0	100	10.2	102	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	12.9	129	12.9	129	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.5	105	10.3	103	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.0	100	9.8	98	2	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	11.0	110	11.2	112	2	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.2	102	10.2	102	0	70-130/30
127-18-4	Tetrachloroethylene	10	9.0	90	9.1	91	1	70-130/30
109-99-9	Tetrahydrofuran	10	11.0	110	11.0	110	0	70-130/30
108-88-3	Toluene	10	9.7	97	9.8	98	1	70-130/30
79-01-6	Trichloroethylene	10	9.2	92	9.3	93	1	70-130/30
75-69-4	Trichlorofluoromethane	10	7.9	79	8.0	80	1	70-130/30
75-01-4	Vinyl chloride	10	10.6	106	10.7	107	1	70-130/30
108-05-4	Vinyl Acetate	10	11.5	115	11.6	116	1	70-130/30
	m,p-Xylene	20	19.4	97	19.0	95	2	70-130/30
95-47-6	o-Xylene	10	9.9	99	9.7	97	2	70-130/30
1330-20-7	Xylenes (total)	30	29.3	98	28.7	96	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W457-BS	6W11378.D	1	04/03/19	GP	n/a	n/a	V6W457
V6W457-BSD	6W11379.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	103%	105%	65-128%

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

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W458-BS	6W11403.D	1	04/04/19	GP	n/a	n/a	V6W458
V6W458-BSD	6W11404.D	1	04/04/19	GP	n/a	n/a	V6W458

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

JC85165-4

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	11.7	117	11.6	116	1	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	103%	103%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1468-BS	5W35989.D	1	04/06/19	GP	n/a	n/a	V5W1468
V5W1468-BSD	5W35990.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.7	97	9.5	95	2	70-130/30
106-99-0	1,3-Butadiene	10	12.1	121	12.3	123	2	70-130/30
71-43-2	Benzene	10	8.9	89	8.5	85	5	70-130/30
75-27-4	Bromodichloromethane	10	9.9	99	9.7	97	2	70-130/30
75-25-2	Bromoform	10	10.1	101	9.8	98	3	70-130/30
74-83-9	Bromomethane	10	10.6	106	11.0	110	4	70-130/30
593-60-2	Bromoethene	10	11.4	114	11.1	111	3	70-130/30
100-44-7	Benzyl Chloride	10	10.3	103	9.9	99	4	70-130/30
75-15-0	Carbon disulfide	10	9.8	98	9.4	94	4	70-130/30
108-90-7	Chlorobenzene	10	8.7	87	8.7	87	0	70-130/30
75-00-3	Chloroethane	10	11.6	116	11.7	117	1	70-130/30
67-66-3	Chloroform	10	9.7	97	9.2	92	5	70-130/30
74-87-3	Chloromethane	10	12.2	122	12.2	122	0	70-130/30
107-05-1	3-Chloropropene	10	9.8	98	9.5	95	3	70-130/30
95-49-8	2-Chlorotoluene	10	10.2	102	10.1	101	1	70-130/30
56-23-5	Carbon tetrachloride	10	10.3	103	9.7	97	6	70-130/30
110-82-7	Cyclohexane	10	8.8	88	8.6	86	2	70-130/30
75-34-3	1,1-Dichloroethane	10	9.5	95	9.2	92	3	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.4	104	9.9	99	5	70-130/30
106-93-4	1,2-Dibromoethane	10	9.1	91	9.0	90	1	70-130/30
107-06-2	1,2-Dichloroethane	10	11.0	110	10.3	103	7	70-130/30
78-87-5	1,2-Dichloropropane	10	9.1	91	9.1	91	0	70-130/30
123-91-1	1,4-Dioxane	10	8.1	81	8.2	82	1	70-130/30
75-71-8	Dichlorodifluoromethane	10	11.2	112	11.6	116	4	70-130/30
124-48-1	Dibromochloromethane	10	10.1	101	9.6	96	5	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.9	99	9.5	95	4	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.5	95	9.2	92	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.6	96	9.5	95	1	70-130/30
541-73-1	m-Dichlorobenzene	10	10.0	100	9.7	97	3	70-130/30
95-50-1	o-Dichlorobenzene	10	9.8	98	9.6	96	2	70-130/30
106-46-7	p-Dichlorobenzene	10	9.4	94	9.1	91	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.3	103	10.1	101	2	70-130/30
64-17-5	Ethanol	10	7.9	79	8.1	81	2	70-130/30
100-41-4	Ethylbenzene	10	9.4	94	9.3	93	1	70-130/30
141-78-6	Ethyl Acetate	10	9.6	96	9.0	90	6	70-130/30
622-96-8	4-Ethyltoluene	10	9.6	96	9.4	94	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1468-BS	5W35989.D	1	04/06/19	GP	n/a	n/a	V5W1468
V5W1468-BSD	5W35990.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.6	96	9.1	91	5	70-130/30
76-14-2	Freon 114	10	12.3	123	12.3	123	0	70-130/30
142-82-5	Heptane	10	10.1	101	10	100	1	70-130/30
87-68-3	Hexachlorobutadiene	10	10.1	101	9.7	97	4	70-130/30
110-54-3	Hexane	10	9.1	91	9.0	90	1	70-130/30
591-78-6	2-Hexanone	10	9.0	90	9.0	90	0	70-130/30
67-63-0	Isopropyl Alcohol	10	8.3	83	7.9	79	5	70-130/30
75-09-2	Methylene chloride	10	8.7	87	8.5	85	2	70-130/30
78-93-3	Methyl ethyl ketone	10	9.4	94	9.1	91	3	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10	100	10	100	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	10.1	101	9.7	97	4	70-130/30
80-62-6	Methylmethacrylate	10	9.6	96	9.5	95	1	70-130/30
115-07-1	Propylene	10	10.3	103	11.1	111	7	70-130/30
100-42-5	Styrene	10	9.7	97	9.8	98	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.5	105	9.8	98	7	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.0	90	8.9	89	1	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.5	95	9.3	93	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	9.5	95	9.5	95	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.5	95	9.2	92	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.1	91	9.0	90	1	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	9.6	96	9.5	95	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	9.6	96	9.3	93	3	70-130/30
127-18-4	Tetrachloroethylene	10	9.2	92	8.9	89	3	70-130/30
109-99-9	Tetrahydrofuran	10	9.1	91	9.0	90	1	70-130/30
108-88-3	Toluene	10	9.3	93	9.1	91	2	70-130/30
79-01-6	Trichloroethylene	10	9.2	92	9.0	90	2	70-130/30
75-69-4	Trichlorofluoromethane	10	11.1	111	10.8	108	3	70-130/30
75-01-4	Vinyl chloride	10	12.4	124	13.0	130	5	70-130/30
108-05-4	Vinyl Acetate	10	8.7	87	8.5	85	2	70-130/30
	m,p-Xylene	20	18.6	93	18.2	91	2	70-130/30
95-47-6	o-Xylene	10	9.8	98	9.6	96	2	70-130/30
1330-20-7	Xylenes (total)	30	28.4	95	27.8	93	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1468-BS	5W35989.D	1	04/06/19	GP	n/a	n/a	V5W1468
V5W1468-BSD	5W35990.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	108%	109%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-BS	6W11054.D	1	03/14/19	TCH	n/a	n/a	V6W443
V6W443-BSD	6W11055.D	1	03/14/19	TCH	n/a	n/a	V6W443

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

V6W443-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	11.3	113	11.1	111	2	70-130/30
106-99-0	1,3-Butadiene	10	10.8	108	10.7	107	1	70-130/30
71-43-2	Benzene	10	10.2	102	10.1	101	1	70-130/30
75-27-4	Bromodichloromethane	10	9.3	93	9.3	93	0	70-130/30
75-25-2	Bromoform	10	13.8	138* [a]	13.9	139* [a]	1	70-130/30
74-83-9	Bromomethane	10	10.5	105	10.3	103	2	70-130/30
593-60-2	Bromoethene	10	10.6	106	10.4	104	2	70-130/30
100-44-7	Benzyl Chloride	10	17.7	177* [a]	17.5	175* [a]	1	70-130/30
75-15-0	Carbon disulfide	10	10.5	105	10.4	104	1	70-130/30
108-90-7	Chlorobenzene	10	10.8	108	10.8	108	0	70-130/30
75-00-3	Chloroethane	10	10.9	109	10.9	109	0	70-130/30
67-66-3	Chloroform	10	8.8	88	8.7	87	1	70-130/30
74-87-3	Chloromethane	10	10.4	104	10.3	103	1	70-130/30
107-05-1	3-Chloropropene	10	11.4	114	11.2	112	2	70-130/30
95-49-8	2-Chlorotoluene	10	11.5	115	11.5	115	0	70-130/30
56-23-5	Carbon tetrachloride	10	8.9	89	8.8	88	1	70-130/30
110-82-7	Cyclohexane	10	11.1	111	11.0	110	1	70-130/30
75-34-3	1,1-Dichloroethane	10	9.9	99	9.9	99	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.5	95	9.4	94	1	70-130/30
106-93-4	1,2-Dibromoethane	10	10.4	104	10.4	104	0	70-130/30
107-06-2	1,2-Dichloroethane	10	8.2	82	8.0	80	2	70-130/30
78-87-5	1,2-Dichloropropane	10	11.1	111	11.0	110	1	70-130/30
123-91-1	1,4-Dioxane	10	11.0	110	11.0	110	0	70-130/30
75-71-8	Dichlorodifluoromethane	10	8.3	83	8.1	81	2	70-130/30
124-48-1	Dibromochloromethane	10	10.7	107	10.7	107	0	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.1	101	10.1	101	0	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.0	100	9.9	99	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.9	109	10.8	108	1	70-130/30
541-73-1	m-Dichlorobenzene	10	12.7	127	12.6	126	1	70-130/30
95-50-1	o-Dichlorobenzene	10	12.1	121	12.0	120	1	70-130/30
106-46-7	p-Dichlorobenzene	10	13.3	133* [a]	13.2	132* [a]	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	11.2	112	11.2	112	0	70-130/30
64-17-5	Ethanol	10	11.0	110	11.0	110	0	70-130/30
100-41-4	Ethylbenzene	10	10.6	106	10.6	106	0	70-130/30
141-78-6	Ethyl Acetate	10	12.3	123	12.2	122	1	70-130/30
622-96-8	4-Ethyltoluene	10	11.3	113	11.2	112	1	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-BS	6W11054.D	1	03/14/19	TCH	n/a	n/a	V6W443
V6W443-BSD	6W11055.D	1	03/14/19	TCH	n/a	n/a	V6W443

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

V6W443-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.4	94	9.4	94	0	70-130/30
76-14-2	Freon 114	10	9.2	92	9.1	91	1	70-130/30
142-82-5	Heptane	10	10.8	108	10.8	108	0	70-130/30
87-68-3	Hexachlorobutadiene	10	9.2	92	9.3	93	1	70-130/30
110-54-3	Hexane	10	11.2	112	11.1	111	1	70-130/30
591-78-6	2-Hexanone	10	12.5	125	12.4	124	1	70-130/30
67-63-0	Isopropyl Alcohol	10	11.3	113	11.2	112	1	70-130/30
75-09-2	Methylene chloride	10	9.2	92	9.2	92	0	70-130/30
78-93-3	Methyl ethyl ketone	10	12.2	122	12.1	121	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.8	118	11.7	117	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.5	95	9.5	95	0	70-130/30
80-62-6	Methylmethacrylate	10	11.5	115	11.5	115	0	70-130/30
115-07-1	Propylene	10	11.7	117	11.4	114	3	70-130/30
100-42-5	Styrene	10	12.2	122	12.2	122	0	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.5	85	8.4	84	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	12.4	124	12.3	123	1	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.1	101	10.2	102	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	13.3	133* [a]	12.9	129	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	11.1	111	11.1	111	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.7	107	10.7	107	0	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	11.0	110	10.9	109	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.8	108	10.7	107	1	70-130/30
127-18-4	Tetrachloroethylene	10	9.3	93	9.4	94	1	70-130/30
109-99-9	Tetrahydrofuran	10	11.7	117	11.7	117	0	70-130/30
108-88-3	Toluene	10	9.7	97	9.7	97	0	70-130/30
79-01-6	Trichloroethylene	10	9.4	94	9.3	93	1	70-130/30
75-69-4	Trichlorofluoromethane	10	7.9	79	7.9	79	0	70-130/30
75-01-4	Vinyl chloride	10	10.6	106	10.6	106	0	70-130/30
108-05-4	Vinyl Acetate	10	12.1	121	11.9	119	2	70-130/30
	m,p-Xylene	20	20.5	103	20.5	103	0	70-130/30
95-47-6	o-Xylene	10	10.4	104	10.4	104	0	70-130/30
1330-20-7	Xylenes (total)	30	31.0	103	30.9	103	0	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-BS	6W11054.D	1	03/14/19	TCH	n/a	n/a	V6W443
V6W443-BSD	6W11055.D	1	03/14/19	TCH	n/a	n/a	V6W443

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

V6W443-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	102%	102%	65-128%

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

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84962-2DUP	6W11385.D	1	04/03/19	GP	n/a	n/a	V6W457
JC84962-2	6W11384.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Compound	JC84962-2 ppbv	Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	10.5		10.0		5	25
106-99-0	1,3-Butadiene	ND		ND		nc	25
71-43-2	Benzene	ND		ND		nc	25
75-27-4	Bromodichloromethane	ND		ND		nc	25
75-25-2	Bromoform	ND		ND		nc	25
74-83-9	Bromomethane	ND		ND		nc	25
593-60-2	Bromoethene	ND		ND		nc	25
100-44-7	Benzyl Chloride	ND		ND		nc	25
75-15-0	Carbon disulfide	ND		ND		nc	25
108-90-7	Chlorobenzene	ND		ND		nc	25
75-00-3	Chloroethane	ND		ND		nc	25
67-66-3	Chloroform	0.53	J	0.50	J	6	25
74-87-3	Chloromethane	0.65	J	0.63	J	3	25
107-05-1	3-Chloropropene	ND		ND		nc	25
95-49-8	2-Chlorotoluene	ND		ND		nc	25
56-23-5	Carbon tetrachloride	ND		ND		nc	25
110-82-7	Cyclohexane	ND		ND		nc	25
75-34-3	1,1-Dichloroethane	ND		ND		nc	25
75-35-4	1,1-Dichloroethylene	ND		ND		nc	25
106-93-4	1,2-Dibromoethane	ND		ND		nc	25
107-06-2	1,2-Dichloroethane	ND		ND		nc	25
78-87-5	1,2-Dichloropropane	ND		ND		nc	25
123-91-1	1,4-Dioxane	ND		ND		nc	25
75-71-8	Dichlorodifluoromethane	0.44	J	0.44	J	0	25
124-48-1	Dibromochloromethane	ND		ND		nc	25
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	25
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	25
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	25
541-73-1	m-Dichlorobenzene	ND		ND		nc	25
95-50-1	o-Dichlorobenzene	ND		ND		nc	25
106-46-7	p-Dichlorobenzene	ND		ND		nc	25
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	25
64-17-5	Ethanol	4.5		4.4		2	25
100-41-4	Ethylbenzene	ND		ND		nc	25
141-78-6	Ethyl Acetate	1.3		1.3		0	25
622-96-8	4-Ethyltoluene	ND		ND		nc	25

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84962-2DUP	6W11385.D	1	04/03/19	GP	n/a	n/a	V6W457
JC84962-2	6W11384.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Compound	JC84962-2 ppbv	Q	DUP ppbv	Q	RPD	Limits
76-13-1	Freon 113	ND		ND		nc	25
76-14-2	Freon 114	ND		ND		nc	25
142-82-5	Heptane	ND		ND		nc	25
87-68-3	Hexachlorobutadiene	ND		ND		nc	25
110-54-3	Hexane	ND		ND		nc	25
591-78-6	2-Hexanone	ND		ND		nc	25
67-63-0	Isopropyl Alcohol	1.9		1.7		11	25
75-09-2	Methylene chloride	0.97		0.94		3	25
78-93-3	Methyl ethyl ketone	0.63	J	0.63	J	0	25
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	25
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	25
80-62-6	Methylmethacrylate	ND		ND		nc	25
115-07-1	Propylene	ND		ND		nc	25
100-42-5	Styrene	ND		ND		nc	25
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	25
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	25
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	25
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	25
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	25
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	25
540-84-1	2,2,4-Trimethylpentane	ND		ND		nc	25
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	25
127-18-4	Tetrachloroethylene	75.9		70.7		7	25
109-99-9	Tetrahydrofuran	ND		ND		nc	25
108-88-3	Toluene	0.91		0.82		10	25
79-01-6	Trichloroethylene	1.2		1.1		9	25
75-69-4	Trichlorofluoromethane	ND		ND		nc	25
75-01-4	Vinyl chloride	ND		ND		nc	25
108-05-4	Vinyl Acetate	ND		ND		nc	25
	m,p-Xylene	0.87		0.84		4	25
95-47-6	o-Xylene	ND		ND		nc	25
1330-20-7	Xylenes (total)	0.87		0.84		4	25

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84962-2DUP	6W11385.D	1	04/03/19	GP	n/a	n/a	V6W457
JC84962-2	6W11384.D	1	04/03/19	GP	n/a	n/a	V6W457

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

JC85165-1, JC85165-4, JC85165-5

CAS No.	Surrogate Recoveries	DUP	JC84962-2	Limits
460-00-4	4-Bromofluorobenzene	101%	101%	65-128%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

	Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	JC85477-1DUP	6W11410.D	1	04/04/19	GP	n/a	n/a	V6W458
(b)	JC85477-1 [a]	6W11409.D	1	04/04/19	GP	n/a	n/a	V6W458

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

JC85165-4

CAS No.	Compound	JC85477-1 ppbv	Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	6.9		6.7		3	25

CAS No.	Surrogate Recoveries	DUP	JC85477-1	Limits
460-00-4	4-Bromofluorobenzene	97%	101%	65-128%

(a) Ethyl acetate hit, CC failed high
(b) SAMPLE NOT YET APPROVED BY LAB. DO NOT REPORT.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC85165-3DUP	5W35996.D	1	04/06/19	GP	n/a	n/a	V5W1468
JC85165-3	5W35995.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Compound	JC85165-3 ppbv	Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	7.4		7.3		1	25
106-99-0	1,3-Butadiene	ND		ND		nc	25
71-43-2	Benzene	ND		ND		nc	25
75-27-4	Bromodichloromethane	ND		ND		nc	25
75-25-2	Bromoform	ND		ND		nc	25
74-83-9	Bromomethane	ND		ND		nc	25
593-60-2	Bromoethene	ND		ND		nc	25
100-44-7	Benzyl Chloride	ND		ND		nc	25
75-15-0	Carbon disulfide	ND		ND		nc	25
108-90-7	Chlorobenzene	ND		ND		nc	25
75-00-3	Chloroethane	ND		ND		nc	25
67-66-3	Chloroform	0.41	J	0.39	J	5	25
74-87-3	Chloromethane	ND		ND		nc	25
107-05-1	3-Chloropropene	ND		ND		nc	25
95-49-8	2-Chlorotoluene	ND		ND		nc	25
56-23-5	Carbon tetrachloride	ND		ND		nc	25
110-82-7	Cyclohexane	ND		ND		nc	25
75-34-3	1,1-Dichloroethane	ND		ND		nc	25
75-35-4	1,1-Dichloroethylene	ND		ND		nc	25
106-93-4	1,2-Dibromoethane	ND		ND		nc	25
107-06-2	1,2-Dichloroethane	ND		ND		nc	25
78-87-5	1,2-Dichloropropane	ND		ND		nc	25
123-91-1	1,4-Dioxane	ND		ND		nc	25
75-71-8	Dichlorodifluoromethane	0.83		0.92		10	25
124-48-1	Dibromochloromethane	ND		ND		nc	25
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	25
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	25
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	25
541-73-1	m-Dichlorobenzene	ND		ND		nc	25
95-50-1	o-Dichlorobenzene	ND		ND		nc	25
106-46-7	p-Dichlorobenzene	ND		ND		nc	25
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	25
64-17-5	Ethanol	27.2		26.4		3	25
100-41-4	Ethylbenzene	ND		ND		nc	25
141-78-6	Ethyl Acetate	1.2		1.4		15	25
622-96-8	4-Ethyltoluene	ND		ND		nc	25

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC85165-3DUP	5W35996.D	1	04/06/19	GP	n/a	n/a	V5W1468
JC85165-3	5W35995.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Compound	JC85165-3 ppbv	Q	DUP ppbv	Q	RPD	Limits
76-13-1	Freon 113	ND		ND		nc	25
76-14-2	Freon 114	ND		ND		nc	25
142-82-5	Heptane	ND		ND		nc	25
87-68-3	Hexachlorobutadiene	ND		ND		nc	25
110-54-3	Hexane	ND		ND		nc	25
591-78-6	2-Hexanone	ND		ND		nc	25
67-63-0	Isopropyl Alcohol	ND		ND		nc	25
75-09-2	Methylene chloride	ND		ND		nc	25
78-93-3	Methyl ethyl ketone	ND		ND		nc	25
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	25
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	25
80-62-6	Methylmethacrylate	ND		ND		nc	25
115-07-1	Propylene	ND		ND		nc	25
100-42-5	Styrene	ND		ND		nc	25
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	25
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	25
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	25
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	25
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	25
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	25
540-84-1	2,2,4-Trimethylpentane	ND		ND		nc	25
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	25
127-18-4	Tetrachloroethylene	1.3		1.3		0	25
109-99-9	Tetrahydrofuran	ND		ND		nc	25
108-88-3	Toluene	2.0		2.0		0	25
79-01-6	Trichloroethylene	ND		ND		nc	25
75-69-4	Trichlorofluoromethane	1.1		1.0		10	25
75-01-4	Vinyl chloride	ND		ND		nc	25
108-05-4	Vinyl Acetate	ND		ND		nc	25
	m,p-Xylene	ND		ND		nc	25
95-47-6	o-Xylene	ND		ND		nc	25
1330-20-7	Xylenes (total)	ND		ND		nc	25

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC85165-3DUP	5W35996.D	1	04/06/19	GP	n/a	n/a	V5W1468
JC85165-3	5W35995.D	1	04/06/19	GP	n/a	n/a	V5W1468

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

JC85165-2, JC85165-3

CAS No.	Surrogate Recoveries	DUP	JC85165-3	Limits
460-00-4	4-Bromofluorobenzene	97%	95%	65-128%

* = Outside of Control Limits.

Summa Cleaning Certification

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-SCC	6W11073.D	1	03/15/19	TCH	n/a	n/a	V6W443

The QC reported here (Summa A814) applies to the following samples: **Method:** TO-15

Batch CP10276 cleaned 03/12/19: JC85165-1(A878), JC85165-2(A271), JC85165-3(A905), JC85165-4(M242), JC85165-5(A832)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.11	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.046	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.012	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.027	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.022	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.022	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.057	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.024	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.026	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.048	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.020	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.015	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.040	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.025	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.024	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.022	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.012	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.017	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.018	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.021	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.019	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.052	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.017	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.033	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.0073	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.012	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.019	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.022	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.018	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.22	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.015	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.038	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.030	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-SCC	6W11073.D	1	03/15/19	TCH	n/a	n/a	V6W443

The QC reported here (Summa A814) applies to the following samples: **Method:** TO-15

Batch CP10276 cleaned 03/12/19: JC85165-1(A878), JC85165-2(A271), JC85165-3(A905), JC85165-4(M242), JC85165-5(A832)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.017	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.019	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.018	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.011	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.065	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.015	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.042	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.019	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.033	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.016	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.019	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.033	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.027	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.089	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.033	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.034	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.022	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.014	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.031	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.050	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.014	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.028	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.022	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.034	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.034	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.017	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.017	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V6W443-SCC	6W11073.D	1	03/15/19	TCH	n/a	n/a	V6W443

The QC reported here (Summa A814) applies to the following samples: **Method:** TO-15

Batch CP10276 cleaned 03/12/19: JC85165-1(A878), JC85165-2(A271), JC85165-3(A905), JC85165-4(M242), JC85165-5(A832)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	86%	65-128%

Instrument Performance Check (BFB)

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample: V5W1449-BFB
Lab File ID: 5W35520.D
Instrument ID: GCMS5W
Injection Date: 03/12/19
Injection Time: 12:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	25933	14.3		Pass
75	30.0 - 66.0% of mass 95	78333	43.2		Pass
95	Base peak, 100% relative abundance	181205	100.0		Pass
96	5.0 - 9.0% of mass 95	12094	6.67		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	204757	113.0		Pass
175	4.0 - 9.0% of mass 174	14814	8.18	(7.23) [a]	Pass
176	93.0 - 101.0% of mass 174	198229	109.4	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	13085	7.22	(6.60) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W1449-IC1449	5W35525.D	03/12/19	16:17	04:17	Initial cal 5
V5W1449-ICC1449	5W35526.D	03/12/19	17:02	05:02	Initial cal 10
V5W1449-IC1449	5W35527.D	03/12/19	17:49	05:49	Initial cal 20
V5W1449-IC1449	5W35528.D	03/12/19	18:40	06:40	Initial cal 40
V5W1449-IC1449	5W35530.D	03/12/19	20:08	08:08	Initial cal 0.04
V5W1449-IC1449	5W35531.D	03/12/19	20:54	08:54	Initial cal 0.1
V5W1449-IC1449	5W35532.D	03/12/19	21:41	09:41	Initial cal 0.2
V5W1449-IC1449	5W35533.D	03/12/19	22:33	10:33	Initial cal 0.5
V5W1449-ICV1449	5W35534.D	03/12/19	23:18	11:18	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample: V5W1468-BFB
Lab File ID: 5W35986.D
Instrument ID: GCMS5W
Injection Date: 04/06/19
Injection Time: 07:34

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	18230	16.2		Pass
75	30.0 - 66.0% of mass 95	54128	48.0		Pass
95	Base peak, 100% relative abundance	112696	100.0		Pass
96	5.0 - 9.0% of mass 95	7914	7.02		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	129816	115.2		Pass
175	4.0 - 9.0% of mass 174	10196	9.05	(7.85) [a]	Pass
176	93.0 - 101.0% of mass 174	124218	110.2	(95.7) [a]	Pass
177	5.0 - 9.0% of mass 176	8009	7.11	(6.45) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W1468-CC1449	5W35987.D	04/06/19	08:20	00:46	Continuing cal 10
V5W1468-BS	5W35989.D	04/06/19	09:53	02:19	Blank Spike
V5W1468-BSD	5W35990.D	04/06/19	11:04	03:30	Blank Spike Duplicate
V5W1468-MB	5W35992.D	04/06/19	12:49	05:15	Method Blank
JC85165-2	5W35994.D	04/06/19	14:38	07:04	10MPR-SS-01-032319
JC85165-3	5W35995.D	04/06/19	15:24	07:50	10MPR-SS-02-032319
JC85165-3DUP	5W35996.D	04/06/19	16:10	08:36	Duplicate
ZZZZZZ	5W35997.D	04/06/19	16:54	09:20	(unrelated sample)
ZZZZZZ	5W35999.D	04/06/19	18:27	10:53	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample:	V6W335-BFB	**Injection Date:**	10/22/18
Lab File ID:	6W08748.D	**Injection Time:**	12:00
Instrument ID:	GCMS6W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	34776	17.6		Pass
75	30.0 - 66.0% of mass 95	93560	47.5		Pass
95	Base peak, 100% relative abundance	197120	100.0		Pass
96	5.0 - 9.0% of mass 95	13073	6.63		Pass
173	Less than 2.0% of mass 174	1546	0.78	(0.81) [a]	Pass
174	50.0 - 120.0% of mass 95	190869	96.8		Pass
175	4.0 - 9.0% of mass 174	13968	7.09	(7.32) [a]	Pass
176	93.0 - 101.0% of mass 174	187051	94.9	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	12105	6.14	(6.47) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V6W335-IC335	6W08749.D	10/22/18	12:49	00:49	Initial cal 0.04
V6W335-IC335	6W08750.D	10/22/18	13:48	01:48	Initial cal 0.1
V6W335-IC335	6W08751.D	10/22/18	14:40	02:40	Initial cal 0.2
V6W335-IC335	6W08752.D	10/22/18	15:33	03:33	Initial cal 0.5
V6W335-IC335	6W08753.D	10/22/18	16:23	04:23	Initial cal 5
V6W335-ICC335	6W08754.D	10/22/18	17:14	05:14	Initial cal 10
V6W335-IC335	6W08755.D	10/22/18	18:07	06:07	Initial cal 20
V6W335-IC335	6W08756.D	10/22/18	19:04	07:04	Initial cal 40
V6W335-ICV335	6W08758.D	10/22/18	20:45	08:45	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample: V6W443-BFB
Lab File ID: 6W11052.D
Instrument ID: GCMS6W
Injection Date: 03/14/19
Injection Time: 10:03

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	21045	14.7		Pass
75	30.0 - 66.0% of mass 95	58899	41.2		Pass
95	Base peak, 100% relative abundance	143040	100.0		Pass
96	5.0 - 9.0% of mass 95	9314	6.51		Pass
173	Less than 2.0% of mass 174	1194	0.83	(0.84) [a]	Pass
174	50.0 - 120.0% of mass 95	142208	99.4		Pass
175	4.0 - 9.0% of mass 174	10487	7.33	(7.37) [a]	Pass
176	93.0 - 101.0% of mass 174	138520	96.8	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	9111	6.37	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V6W443-CC335	6W11053.D	03/14/19	10:51	00:48	Continuing cal 10
V6W443-BS	6W11054.D	03/14/19	11:52	01:49	Blank Spike
V6W443-BSD	6W11055.D	03/14/19	12:40	02:37	Blank Spike Duplicate
V6W443-MB	6W11057.D	03/14/19	14:20	04:17	Method Blank
ZZZZZZ	6W11058.D	03/14/19	16:04	06:01	(unrelated sample)
ZZZZZZ	6W11059.D	03/14/19	16:51	06:48	(unrelated sample)
ZZZZZZ	6W11060.D	03/14/19	17:39	07:36	(unrelated sample)
ZZZZZZ	6W11061.D	03/14/19	18:36	08:33	(unrelated sample)
ZZZZZZ	6W11062.D	03/14/19	19:23	09:20	(unrelated sample)
ZZZZZZ	6W11063.D	03/14/19	20:17	10:14	(unrelated sample)
ZZZZZZ	6W11065.D	03/14/19	22:00	11:57	(unrelated sample)
JC84155-1	6W11067.D	03/14/19	23:42	13:39	(used for QC only; not part of job JC85165)
JC84155-1DUP	6W11068.D	03/15/19	00:35	14:32	Duplicate
ZZZZZZ	6W11069.D	03/15/19	01:28	15:25	(unrelated sample)
ZZZZZZ	6W11070.D	03/15/19	02:20	16:17	(unrelated sample)
ZZZZZZ	6W11071.D	03/15/19	03:13	17:10	(unrelated sample)
ZZZZZZ	6W11072.D	03/15/19	04:07	18:04	(unrelated sample)
V6W443-SCC	6W11073.D	03/15/19	05:00	18:57	Summa Cleaning Certification

Instrument Performance Check (BFB)

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample:	V6W457-BFB	**Injection Date:**	04/03/19
Lab File ID:	6W11375.D	**Injection Time:**	12:44
Instrument ID:	GCMS6W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	29152	16.0		Pass
75	30.0 - 66.0% of mass 95	77752	42.8		Pass
95	Base peak, 100% relative abundance	181845	100.0		Pass
96	5.0 - 9.0% of mass 95	12121	6.67		Pass
173	Less than 2.0% of mass 174	1575	0.87	(0.89) [a]	Pass
174	50.0 - 120.0% of mass 95	177323	97.5		Pass
175	4.0 - 9.0% of mass 174	13502	7.43	(7.61) [a]	Pass
176	93.0 - 101.0% of mass 174	172480	94.9	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	11103	6.11	(6.44) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V6W457-CC335	6W11377.D	04/03/19	14:20	01:36	Continuing cal 10
V6W457-BS	6W11378.D	04/03/19	15:07	02:23	Blank Spike
V6W457-BSD	6W11379.D	04/03/19	15:55	03:11	Blank Spike Duplicate
V6W457-MB	6W11381.D	04/03/19	17:35	04:51	Method Blank
ZZZZZZ	6W11382.D	04/03/19	18:30	05:46	(unrelated sample)
ZZZZZZ	6W11383.D	04/03/19	19:18	06:34	(unrelated sample)
JC84962-2	6W11384.D	04/03/19	20:05	07:21	(used for QC only; not part of job JC85165)
JC84962-2DUP	6W11385.D	04/03/19	20:53	08:09	Duplicate
ZZZZZZ	6W11386.D	04/03/19	21:41	08:57	(unrelated sample)
ZZZZZZ	6W11387.D	04/03/19	22:28	09:44	(unrelated sample)
ZZZZZZ	6W11388.D	04/03/19	23:16	10:32	(unrelated sample)
JC85165-1	6W11389.D	04/04/19	00:10	11:26	10MPR-IA-01-032319
JC85165-4	6W11390.D	04/04/19	01:07	12:23	10MPR-OA-01-032319
JC85165-5	6W11391.D	04/04/19	02:01	13:17	DUP032319
V6W457-SCC	6W11395.D	04/04/19	05:40	16:56	Summa Cleaning Certification
V6W457-SCC	6W11396.D	04/04/19	06:33	17:49	Summa Cleaning Certification
V6W457-SCC	6W11397.D	04/04/19	07:26	18:42	Summa Cleaning Certification

Instrument Performance Check (BFB)

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample:	V6W458-BFB	**Injection Date:**	04/04/19
Lab File ID:	6W11401.D	**Injection Time:**	11:46
Instrument ID:	GCMS6W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	21800	15.8		Pass
75	30.0 - 66.0% of mass 95	58917	42.8		Pass
95	Base peak, 100% relative abundance	137771	100.0		Pass
96	5.0 - 9.0% of mass 95	9079	6.59		Pass
173	Less than 2.0% of mass 174	1175	0.85	(0.85) [a]	Pass
174	50.0 - 120.0% of mass 95	138283	100.4		Pass
175	4.0 - 9.0% of mass 174	10133	7.35	(7.33) [a]	Pass
176	93.0 - 101.0% of mass 174	135541	98.4	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	8916	6.47	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V6W458-CC335	6W11402.D	04/04/19	12:34	00:48	Continuing cal 10
V6W458-BS	6W11403.D	04/04/19	13:26	01:40	Blank Spike
V6W458-BSD	6W11404.D	04/04/19	14:13	02:27	Blank Spike Duplicate
V6W458-MB	6W11406.D	04/04/19	16:15	04:29	Method Blank
V6W458-SCC	6W11407.D	04/04/19	17:08	05:22	Summa Cleaning Certification
JC85165-4	6W11408.D	04/04/19	17:56	06:10	10MPR-OA-01-032319
JC85477-1	6W11409.D	04/04/19	18:50	07:04	(used for QC only; not part of job JC85165)
JC85477-1DUP	6W11410.D	04/04/19	19:44	07:58	Duplicate
ZZZZZZ	6W11411.D	04/04/19	20:38	08:52	(unrelated sample)
ZZZZZZ	6W11412.D	04/04/19	21:33	09:47	(unrelated sample)
ZZZZZZ	6W11413.D	04/04/19	22:26	10:40	(unrelated sample)
ZZZZZZ	6W11414.D	04/04/19	23:21	11:35	(unrelated sample)
ZZZZZZ	6W11415.D	04/05/19	00:16	12:30	(unrelated sample)
ZZZZZZ	6W11416.D	04/05/19	01:09	13:23	(unrelated sample)
ZZZZZZ	6W11417.D	04/05/19	02:03	14:17	(unrelated sample)
ZZZZZZ	6W11418.D	04/05/19	02:58	15:12	(unrelated sample)
ZZZZZZ	6W11419.D	04/05/19	03:45	15:59	(unrelated sample)

Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Check Std:	V5W1468-CC1449	**Injection Date:**	04/06/19
Lab File ID:	5W35987.D	**Injection Time:**	08:20
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	213497	8.11	705715	10.22	313946	15.69
Upper Limit [a]	298896	8.44	988001	10.55	439524	16.02
Lower Limit [b]	128098	7.78	423429	9.89	188368	15.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W1468-BS	237652	8.11	811902	10.22	355445	15.69
V5W1468-BSD	267507	8.11	879612	10.22	381123	15.69
V5W1468-MB	242319	8.10	798472	10.22	289294	15.69
JC85165-2	226051	8.11	763952	10.23	297000	15.69
JC85165-3	210336	8.08	706405	10.23	277149	15.69
JC85165-3DUP	215663	8.11	728954	10.23	278006	15.69
ZZZZZZ	214961	8.11	724656	10.24	277608	15.69
ZZZZZZ	205008	8.08	679121	10.21	248646	15.69

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

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

Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Check Std:	V6W443-CC335	**Injection Date:**	03/14/19
Lab File ID:	6W11053.D	**Injection Time:**	10:51
Instrument ID:	GCMS6W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	222218	8.17	811042	10.37	338206	15.91
Upper Limit [a]	311105	8.50	1135459	10.70	473488	16.24
Lower Limit [b]	133331	7.84	486625	10.04	202924	15.58

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V6W443-BS	225262	8.16	825350	10.37	341162	15.90
V6W443-BSD	229007	8.16	832335	10.37	344371	15.91
V6W443-MB	223002	8.16	819423	10.37	307762	15.90
ZZZZZZ	212708	8.16	773105	10.37	301771	15.90
ZZZZZZ	206003	8.17	726259	10.37	270143	15.91
ZZZZZZ	206728	8.16	748021	10.37	284475	15.91
ZZZZZZ	208359	8.17	749127	10.37	302965	15.90
ZZZZZZ	208622	8.17	758997	10.37	286056	15.91
ZZZZZZ	210351	8.17	755427	10.37	288103	15.91
ZZZZZZ	195611	8.16	694866	10.37	290530	15.90
JC84155-1	197918	8.16	722095	10.37	282569	15.90
JC84155-1DUP	201615	8.16	727433	10.37	286551	15.90
ZZZZZZ	197213	8.17	714177	10.37	280092	15.90
ZZZZZZ	198156	8.16	712730	10.37	281427	15.91
ZZZZZZ	193212	8.16	696747	10.37	278550	15.90
ZZZZZZ	190994	8.16	687490	10.37	279588	15.90
V6W443-SCC	201583	8.16	734919	10.37	281090	15.90

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

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

Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Check Std:	V6W457-CC335	**Injection Date:**	04/03/19
Lab File ID:	6W11377.D	**Injection Time:**	14:20
Instrument ID:	GCMS6W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	214828	8.16	781405	10.37	349576	15.90
Upper Limit [a]	300759	8.49	1093967	10.70	489406	16.23
Lower Limit [b]	128897	7.83	468843	10.04	209746	15.57

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V6W457-BS	209623	8.16	760534	10.37	327800	15.90
V6W457-BSD	209729	8.16	755894	10.37	336197	15.91
V6W457-MB	209780	8.16	759266	10.36	310582	15.90
ZZZZZZ	196869	8.16	712353	10.36	293019	15.90
ZZZZZZ	201149	8.17	727823	10.37	301234	15.90
JC84962-2	191310	8.17	680186	10.37	293285	15.90
JC84962-2DUP	196885	8.17	708973	10.37	293978	15.90
ZZZZZZ	197817	8.17	722823	10.37	322676	15.90
ZZZZZZ	209020	8.17	757238	10.37	329270	15.90
ZZZZZZ	208356	8.17	733933	10.37	313684	15.90
JC85165-1	195217	8.16	696191	10.37	282384	15.90
JC85165-4	190126	8.16	677447	10.37	276715	15.90
JC85165-5	190519	8.16	686091	10.36	284395	15.90
V6W457-SCC	188151	8.16	688939	10.36	286016	15.90
V6W457-SCC	187277	8.16	679337	10.36	281431	15.90
V6W457-SCC	186204	8.16	668548	10.37	279506	15.90

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

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

Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Check Std:	V6W458-CC335	**Injection Date:**	04/04/19
Lab File ID:	6W11402.D	**Injection Time:**	12:34
Instrument ID:	GCMS6W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	198984	8.16	722563	10.37	324613	15.90
Upper Limit [a]	278578	8.49	1011588	10.70	454458	16.23
Lower Limit [b]	119390	7.83	433538	10.04	194768	15.57

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V6W458-BS	207399	8.16	744071	10.37	333183	15.90
V6W458-BSD	213135	8.16	774195	10.37	342532	15.90
V6W458-MB	199758	8.16	725203	10.36	296330	15.90
V6W458-SCC	191778	8.16	695803	10.36	284587	15.90
JC85165-4	178511	8.16	643821	10.36	273180	15.90
JC85477-1	180129	8.16	635836	10.37	262651	15.90
JC85477-1DUP	180289	8.16	645041	10.36	260587	15.90
ZZZZZZ	177187	8.16	632756	10.36	274382	15.90
ZZZZZZ	185651	8.16	669138	10.36	288522	15.90
ZZZZZZ	188127	8.16	682064	10.37	288385	15.90
ZZZZZZ	194101	8.16	705310	10.36	294608	15.90
ZZZZZZ	189876	8.16	685495	10.36	288993	15.90
ZZZZZZ	188940	8.16	680165	10.36	279825	15.90
ZZZZZZ	182454	8.16	654300	10.36	264237	15.90
ZZZZZZ	183542	8.16	660297	10.36	277607	15.90
ZZZZZZ	187360	8.16	676788	10.37	281759	15.90

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

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

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	Reporting this level
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.29	8.09	0.654	ok	0.655	0.595-0.715
Acrolein	5.18	8.09	0.640	ok	0.641	0.581-0.701
Acrylonitrile	5.68	8.09	0.702	ok	0.702	0.642-0.762
Acetonitrile	5.09	8.09	0.629	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.09	0.551	ok	0.551	0.491-0.611
Benzene	9.78	8.09	1.209	ok	1.209	1.149-1.269
Bromobenzene	18.25	15.69	1.163	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.21	1.075	ok	1.075	1.015-1.135
Bromoform	16.64	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.68	8.09	0.578	ok	0.577	0.517-0.637
Bromoethene	5.07	8.09	0.627	ok	0.627	0.567-0.687
n-Butane	4.50	8.09	0.556	ok	0.555	0.495-0.615
Benzyl Chloride	20.09	15.69	1.280	ok	1.281	1.221-1.341
n-Butylbenzene	21.11	15.69	1.345	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.89	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.31	8.09	0.780	ok	0.779	0.719-0.839
Chlorobenzene	15.75	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	4.00	8.09	0.494	ok	0.493	0.433-0.553
Chloroethane	4.80	8.09	0.593	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.02	8.09	0.497	ok	0.497	0.437-0.557
Chloroform	8.23	8.09	1.017	ok	1.017	0.957-1.077
Chloromethane	4.20	8.09	0.519	ok	0.518	0.458-0.578
3-Chloropropene	6.15	8.09	0.760	ok	0.760	0.700-0.820
2-Chlorotoluene	18.88	15.69	1.203	ok	1.203	1.143-1.263
Carbon tetrachloride	9.96	8.09	1.231	ok	1.230	1.170-1.290
Cyclohexane	10.08	8.09	1.246	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.28	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.09	8.09	0.876	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.09	0.734	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.21	1.389	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.01	8.09	1.114	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.21	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.36	10.21	1.309	ok	1.309	1.249-1.369
1,4-Dioxane	11.07	10.21	1.084	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.08	8.09	0.504	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.87	8.09	0.602	ok	0.602	0.542-0.662
Dibromochloromethane	13.86	10.21	1.357	ok	1.358	1.298-1.418
Dibromomethane	10.71	10.21	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.89	8.09	0.852	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	Reporting this level
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.92	8.09	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.08	10.21	1.183	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.10	15.69	1.281	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.67	15.69	1.317	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.20	15.69	1.287	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.76	10.21	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.13	8.09	1.005	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.36	8.09	1.281	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.09	1.117	ok	1.117	1.057-1.177
Ethanol	4.92	8.09	0.608	ok	0.608	0.548-0.668
Ethylbenzene	16.29	15.69	1.038	ok	1.039	0.979-1.099
Ethyl Acetate	8.18	8.09	1.011	ok	1.012	0.952-1.072
Ethyl Acrylate	10.79	10.21	1.057	ok	1.057	0.997-1.117
4-Ethyltoluene	19.18	15.69	1.222	ok	1.223	1.163-1.283
Freon 113	6.27	8.09	0.775	ok	0.775	0.715-0.835
Freon 114	4.27	8.09	0.528	ok	0.527	0.467-0.587
Freon 123	5.20	8.09	0.643	ok	0.642	0.582-0.702
Freon 123A	5.24	8.09	0.648	ok	0.647	0.587-0.707
Freon 142B	4.18	8.09	0.517	ok	0.516	0.456-0.576
Freon 152A	3.96	8.09	0.489	ok	0.488	0.428-0.548
Heptane	11.37	10.21	1.114	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.10	8.09	1.001	ok	1.001	0.941-1.061
2-Hexanone	13.71	10.21	1.343	ok	1.344	1.284-1.404
Iodomethane	5.88	8.09	0.727	ok	0.726	0.666-0.786
Isopropylbenzene	18.14	15.69	1.156	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.50	8.09	0.680	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methylene chloride	6.05	8.09	0.748	ok	0.747	0.687-0.807
Methyl ethyl ketone	7.51	8.09	0.928	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.15	10.21	1.190	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.16	8.09	0.885	ok	0.886	0.826-0.946
Methylmethacrylate	11.31	10.21	1.108	ok	1.108	1.048-1.168
Naphthalene	23.05	15.69	1.469	ok	1.470	1.410-1.530
Nonane	17.62	15.69	1.123	ok	1.123	1.063-1.183
Octane	14.65	10.21	1.435	ok	1.435	1.375-1.495
Pentane	5.68	8.09	0.702	ok	0.702	0.642-0.762
n-Propylbenzene	18.95	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.02	8.09	0.497	ok	0.496	0.436-0.556

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	Reporting this level
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.09	15.69	1.089	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.27	8.09	1.146	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.73	10.21	1.541	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.24	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.21	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.93	15.69	1.461	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.43	15.69	1.111	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.91	15.69	1.269	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.31	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.03	10.21	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.01	8.09	0.743	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.21	1.451	ok	1.450	1.390-1.510
Tetrahydrofuran	8.69	8.09	1.074	ok	1.076	1.016-1.136
Toluene	13.31	10.21	1.304	ok	1.304	1.244-1.364
Trichloroethylene	11.02	10.21	1.079	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.09	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.09	0.539	ok	0.539	0.479-0.599
Vinyl Acetate	7.25	8.09	0.896	ok	0.896	0.836-0.956
m,p-Xylene	16.56	15.69	1.055	ok	1.056	0.996-1.116
o-Xylene	17.24	15.69	1.099	ok	1.099	1.039-1.159
TVHC As Equiv Pentane	5.68	15.69	0.362	ok	0.362	0.302-0.422

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.09	ok	8.09	7.76-8.42	214650	ok	216226	129736-302716
1,4-Difluorobenzene	10.21	ok	10.21	9.88-10.54	752956	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	318001	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.30	8.10	0.654	ok	0.655	0.595-0.715
Acrolein	5.18	8.10	0.640	ok	0.641	0.581-0.701
Acrylonitrile	5.68	8.10	0.701	ok	0.702	0.642-0.762
Acetonitrile	5.10	8.10	0.630	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.10	0.551	ok	0.551	0.491-0.611
Benzene	9.79	8.10	1.209	ok	1.209	1.149-1.269
Bromobenzene	18.25	15.69	1.163	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.21	1.075	ok	1.075	1.015-1.135
Bromoform	16.64	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.68	8.10	0.578	ok	0.577	0.517-0.637
Bromoethene	5.08	8.10	0.627	ok	0.627	0.567-0.687
n-Butane	4.50	8.10	0.556	ok	0.555	0.495-0.615
Benzyl Chloride	20.09	15.69	1.280	ok	1.281	1.221-1.341
n-Butylbenzene	21.11	15.69	1.345	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.90	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.31	8.10	0.779	ok	0.779	0.719-0.839
Chlorobenzene	15.75	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	4.00	8.10	0.494	ok	0.493	0.433-0.553
Chloroethane	4.80	8.10	0.593	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.03	8.10	0.498	ok	0.497	0.437-0.557
Chloroform	8.23	8.10	1.016	ok	1.017	0.957-1.077
Chloromethane	4.20	8.10	0.519	ok	0.518	0.458-0.578
3-Chloropropene	6.16	8.10	0.760	ok	0.760	0.700-0.820
2-Chlorotoluene	18.87	15.69	1.203	ok	1.203	1.143-1.263
Carbon tetrachloride	9.96	8.10	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.08	8.10	1.244	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.29	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.09	8.10	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.10	0.733	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.21	1.389	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.01	8.10	1.112	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.21	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.36	10.21	1.309	ok	1.309	1.249-1.369
1,4-Dioxane	11.07	10.21	1.084	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.08	8.10	0.504	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.88	8.10	0.602	ok	0.602	0.542-0.662
Dibromochloromethane	13.86	10.21	1.357	ok	1.358	1.298-1.418
Dibromomethane	10.71	10.21	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.89	8.10	0.851	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.92	8.10	0.978	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.09	10.21	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.10	15.69	1.281	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.67	15.69	1.317	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.20	15.69	1.287	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.76	10.21	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.13	8.10	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.36	8.10	1.279	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.10	1.116	ok	1.117	1.057-1.177
Ethanol	4.92	8.10	0.607	ok	0.608	0.548-0.668
Ethylbenzene	16.29	15.69	1.038	ok	1.039	0.979-1.099
Ethyl Acetate	8.18	8.10	1.010	ok	1.012	0.952-1.072
Ethyl Acrylate	10.79	10.21	1.057	ok	1.057	0.997-1.117
4-Ethyltoluene	19.18	15.69	1.222	ok	1.223	1.163-1.283
Freon 113	6.27	8.10	0.774	ok	0.775	0.715-0.835
Freon 114	4.27	8.10	0.527	ok	0.527	0.467-0.587
Freon 123	5.20	8.10	0.642	ok	0.642	0.582-0.702
Freon 123A	5.24	8.10	0.647	ok	0.647	0.587-0.707
Freon 142B	4.19	8.10	0.517	ok	0.516	0.456-0.576
Freon 152A	3.96	8.10	0.489	ok	0.488	0.428-0.548
Heptane	11.37	10.21	1.114	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.10	8.10	1.000	ok	1.001	0.941-1.061
2-Hexanone	13.71	10.21	1.343	ok	1.344	1.284-1.404
Iodomethane	5.88	8.10	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.51	8.10	0.680	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methylene chloride	6.05	8.10	0.747	ok	0.747	0.687-0.807
Methyl ethyl ketone	7.51	8.10	0.927	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.15	10.21	1.190	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.16	8.10	0.884	ok	0.886	0.826-0.946
Methylmethacrylate	11.31	10.21	1.108	ok	1.108	1.048-1.168
Naphthalene	23.05	15.69	1.469	ok	1.470	1.410-1.530
Nonane	17.63	15.69	1.124	ok	1.123	1.063-1.183
Octane	14.65	10.21	1.435	ok	1.435	1.375-1.495
Pentane	5.69	8.10	0.702	ok	0.702	0.642-0.762
n-Propylbenzene	18.95	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.02	8.10	0.496	ok	0.496	0.436-0.556

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.09	15.69	1.089	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.28	8.10	1.146	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.74	10.21	1.542	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.24	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.21	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.93	15.69	1.461	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.43	15.69	1.111	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.91	15.69	1.269	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.31	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.03	10.21	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.01	8.10	0.742	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.21	1.451	ok	1.450	1.390-1.510
Tetrahydrofuran	8.68	8.10	1.072	ok	1.076	1.016-1.136
Toluene	13.31	10.21	1.304	ok	1.304	1.244-1.364
Trichloroethylene	11.02	10.21	1.079	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.10	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.10	0.538	ok	0.539	0.479-0.599
Vinyl Acetate	7.25	8.10	0.895	ok	0.896	0.836-0.956
m,p-Xylene	16.57	15.69	1.056	ok	1.056	0.996-1.116
o-Xylene	17.24	15.69	1.099	ok	1.099	1.039-1.159
TVHC As Equiv Pentane	5.69	15.69	0.363	ok	0.362	0.302-0.422

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.10	ok	8.09	7.76-8.42	214470	ok	216226	129736-302716
1,4-Difluorobenzene	10.21	ok	10.21	9.88-10.54	744744	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	325282	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.29	8.10	0.653	ok	0.655	0.595-0.715
Acrolein	5.18	8.10	0.640	ok	0.641	0.581-0.701
Acrylonitrile	5.67	8.10	0.700	ok	0.702	0.642-0.762
Acetonitrile	5.09	8.10	0.628	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.10	0.551	ok	0.551	0.491-0.611
Benzene	9.79	8.10	1.209	ok	1.209	1.149-1.269
Bromobenzene	18.25	15.69	1.163	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.22	1.074	ok	1.075	1.015-1.135
Bromoform	16.64	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.67	8.10	0.577	ok	0.577	0.517-0.637
Bromoethene	5.07	8.10	0.626	ok	0.627	0.567-0.687
n-Butane	4.49	8.10	0.554	ok	0.555	0.495-0.615
Benzyl Chloride	20.10	15.69	1.281	ok	1.281	1.221-1.341
n-Butylbenzene	21.11	15.69	1.345	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.90	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.30	8.10	0.778	ok	0.779	0.719-0.839
Chlorobenzene	15.76	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.99	8.10	0.493	ok	0.493	0.433-0.553
Chloroethane	4.80	8.10	0.593	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.02	8.10	0.496	ok	0.497	0.437-0.557
Chloroform	8.24	8.10	1.017	ok	1.017	0.957-1.077
Chloromethane	4.19	8.10	0.517	ok	0.518	0.458-0.578
3-Chloropropene	6.15	8.10	0.759	ok	0.760	0.700-0.820
2-Chlorotoluene	18.88	15.69	1.203	ok	1.203	1.143-1.263
Carbon tetrachloride	9.96	8.10	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.08	8.10	1.244	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.28	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.09	8.10	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.10	0.733	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.22	1.387	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.01	8.10	1.112	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.22	1.050	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.36	10.22	1.307	ok	1.309	1.249-1.369
1,4-Dioxane	11.06	10.22	1.082	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.06	8.10	0.501	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.87	8.10	0.601	ok	0.602	0.542-0.662
Dibromochloromethane	13.87	10.22	1.357	ok	1.358	1.298-1.418
Dibromomethane	10.72	10.22	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.89	8.10	0.851	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.92	8.10	0.978	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.09	10.22	1.183	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.10	15.69	1.281	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.68	15.69	1.318	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.20	15.69	1.287	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.76	10.22	1.249	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.13	8.10	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.36	8.10	1.279	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.10	1.116	ok	1.117	1.057-1.177
Ethanol	4.92	8.10	0.607	ok	0.608	0.548-0.668
Ethylbenzene	16.30	15.69	1.039	ok	1.039	0.979-1.099
Ethyl Acetate	8.18	8.10	1.010	ok	1.012	0.952-1.072
Ethyl Acrylate	10.79	10.22	1.056	ok	1.057	0.997-1.117
4-Ethyltoluene	19.19	15.69	1.223	ok	1.223	1.163-1.283
Freon 113	6.27	8.10	0.774	ok	0.775	0.715-0.835
Freon 114	4.27	8.10	0.527	ok	0.527	0.467-0.587
Freon 123	5.19	8.10	0.641	ok	0.642	0.582-0.702
Freon 123A	5.24	8.10	0.647	ok	0.647	0.587-0.707
Freon 142B	4.17	8.10	0.515	ok	0.516	0.456-0.576
Freon 152A	3.95	8.10	0.488	ok	0.488	0.428-0.548
Heptane	11.37	10.22	1.113	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.10	8.10	1.000	ok	1.001	0.941-1.061
2-Hexanone	13.71	10.22	1.341	ok	1.344	1.284-1.404
Iodomethane	5.87	8.10	0.725	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.51	8.10	0.680	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methylene chloride	6.05	8.10	0.747	ok	0.747	0.687-0.807
Methyl ethyl ketone	7.50	8.10	0.926	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.15	10.22	1.189	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.15	8.10	0.883	ok	0.886	0.826-0.946
Methylmethacrylate	11.31	10.22	1.107	ok	1.108	1.048-1.168
Naphthalene	23.05	15.69	1.469	ok	1.470	1.410-1.530
Nonane	17.63	15.69	1.124	ok	1.123	1.063-1.183
Octane	14.65	10.22	1.433	ok	1.435	1.375-1.495
Pentane	5.68	8.10	0.701	ok	0.702	0.642-0.762
n-Propylbenzene	18.95	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.01	8.10	0.495	ok	0.496	0.436-0.556

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.09	15.69	1.089	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.27	8.10	1.144	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.74	10.22	1.540	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.25	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.22	1.269	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.93	15.69	1.461	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.44	15.69	1.112	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.92	15.69	1.270	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.32	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.04	10.22	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.01	8.10	0.742	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.22	1.449	ok	1.450	1.390-1.510
Tetrahydrofuran	8.68	8.10	1.072	ok	1.076	1.016-1.136
Toluene	13.31	10.22	1.302	ok	1.304	1.244-1.364
Trichloroethylene	11.02	10.22	1.078	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.10	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.10	0.538	ok	0.539	0.479-0.599
Vinyl Acetate	7.25	8.10	0.895	ok	0.896	0.836-0.956
m,p-Xylene	16.57	15.69	1.056	ok	1.056	0.996-1.116
o-Xylene	17.24	15.69	1.099	ok	1.099	1.039-1.159
TVHC As Equiv Pentane	5.68	15.69	0.362	ok	0.362	0.302-0.422

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.10	ok	8.09	7.76-8.42	217610	ok	216226	129736-302716
1,4-Difluorobenzene	10.22	ok	10.21	9.88-10.54	767350	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	333054	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.29	8.10	0.653	ok	0.655	0.595-0.715
Acrolein	5.18	8.10	0.640	ok	0.641	0.581-0.701
Acrylonitrile	5.68	8.10	0.701	ok	0.702	0.642-0.762
Acetonitrile	5.10	8.10	0.630	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.10	0.551	ok	0.551	0.491-0.611
Benzene	9.80	8.10	1.210	ok	1.209	1.149-1.269
Bromobenzene	18.26	15.69	1.164	ok	1.163	1.103-1.223
Bromodichloromethane	10.99	10.22	1.075	ok	1.075	1.015-1.135
Bromoform	16.65	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.67	8.10	0.577	ok	0.577	0.517-0.637
Bromoethene	5.07	8.10	0.626	ok	0.627	0.567-0.687
n-Butane	4.49	8.10	0.554	ok	0.555	0.495-0.615
Benzyl Chloride	20.10	15.69	1.281	ok	1.281	1.221-1.341
n-Butylbenzene	21.11	15.69	1.345	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.90	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.31	8.10	0.779	ok	0.779	0.719-0.839
Chlorobenzene	15.76	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.99	8.10	0.493	ok	0.493	0.433-0.553
Chloroethane	4.80	8.10	0.593	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.01	8.10	0.495	ok	0.497	0.437-0.557
Chloroform	8.24	8.10	1.017	ok	1.017	0.957-1.077
Chloromethane	4.19	8.10	0.517	ok	0.518	0.458-0.578
3-Chloropropene	6.15	8.10	0.759	ok	0.760	0.700-0.820
2-Chlorotoluene	18.88	15.69	1.203	ok	1.203	1.143-1.263
Carbon tetrachloride	9.96	8.10	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.08	8.10	1.244	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.29	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.09	8.10	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.10	0.733	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.19	10.22	1.388	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.01	8.10	1.112	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.74	10.22	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.36	10.22	1.307	ok	1.309	1.249-1.369
1,4-Dioxane	11.07	10.22	1.083	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.07	8.10	0.502	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.87	8.10	0.601	ok	0.602	0.542-0.662
Dibromochloromethane	13.88	10.22	1.358	ok	1.358	1.298-1.418
Dibromomethane	10.73	10.22	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.89	8.10	0.851	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.93	8.10	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.09	10.22	1.183	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.11	15.69	1.282	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.69	15.69	1.319	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.21	15.69	1.288	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.76	10.22	1.249	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.13	8.10	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.37	8.10	1.280	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.05	8.10	1.117	ok	1.117	1.057-1.177
Ethanol	4.93	8.10	0.609	ok	0.608	0.548-0.668
Ethylbenzene	16.30	15.69	1.039	ok	1.039	0.979-1.099
Ethyl Acetate	8.19	8.10	1.011	ok	1.012	0.952-1.072
Ethyl Acrylate	10.80	10.22	1.057	ok	1.057	0.997-1.117
4-Ethyltoluene	19.19	15.69	1.223	ok	1.223	1.163-1.283
Freon 113	6.27	8.10	0.774	ok	0.775	0.715-0.835
Freon 114	4.27	8.10	0.527	ok	0.527	0.467-0.587
Freon 123	5.20	8.10	0.642	ok	0.642	0.582-0.702
Freon 123A	5.24	8.10	0.647	ok	0.647	0.587-0.707
Freon 142B	4.18	8.10	0.516	ok	0.516	0.456-0.576
Freon 152A	3.95	8.10	0.488	ok	0.488	0.428-0.548
Heptane	11.38	10.22	1.114	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.11	8.10	1.001	ok	1.001	0.941-1.061
2-Hexanone	13.71	10.22	1.341	ok	1.344	1.284-1.404
Iodomethane	5.88	8.10	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.51	8.10	0.680	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.54	15.69	1.309	ok	1.309	1.249-1.369
Methylene chloride	6.05	8.10	0.747	ok	0.747	0.687-0.807
Methyl ethyl ketone	7.51	8.10	0.927	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.16	10.22	1.190	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.16	8.10	0.884	ok	0.886	0.826-0.946
Methylmethacrylate	11.31	10.22	1.107	ok	1.108	1.048-1.168
Naphthalene	23.05	15.69	1.469	ok	1.470	1.410-1.530
Nonane	17.63	15.69	1.124	ok	1.123	1.063-1.183
Octane	14.66	10.22	1.434	ok	1.435	1.375-1.495
Pentane	5.68	8.10	0.701	ok	0.702	0.642-0.762
n-Propylbenzene	18.96	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.01	8.10	0.495	ok	0.496	0.436-0.556

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.09	15.69	1.089	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.28	8.10	1.146	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.74	10.22	1.540	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.25	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.22	1.269	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.93	15.69	1.461	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.44	15.69	1.112	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.92	15.69	1.270	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.32	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.04	10.22	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.02	8.10	0.743	ok	0.745	0.685-0.805
Tetrachloroethylene	14.82	10.22	1.450	ok	1.450	1.390-1.510
Tetrahydrofuran	8.68	8.10	1.072	ok	1.076	1.016-1.136
Toluene	13.32	10.22	1.303	ok	1.304	1.244-1.364
Trichloroethylene	11.03	10.22	1.079	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.10	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.10	0.538	ok	0.539	0.479-0.599
Vinyl Acetate	7.25	8.10	0.895	ok	0.896	0.836-0.956
m,p-Xylene	16.57	15.69	1.056	ok	1.056	0.996-1.116
o-Xylene	17.25	15.69	1.099	ok	1.099	1.039-1.159
TVHC As Equiv Pentane	5.68	15.69	0.362	ok	0.362	0.302-0.422

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.10	ok	8.09	7.76-8.42	227970	ok	216226	129736-302716
1,4-Difluorobenzene	10.22	ok	10.21	9.88-10.54	799523	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	358909	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrolein	5.19	8.09	0.642	ok	0.641	0.581-0.701
Acrylonitrile	5.69	8.09	0.703	ok	0.702	0.642-0.762
1,3-Butadiene	4.46	8.09	0.551	ok	0.551	0.491-0.611
Benzene	9.79	8.09	1.210	ok	1.209	1.149-1.269
Bromobenzene	18.25	15.69	1.163	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.21	1.075	ok	1.075	1.015-1.135
Bromoform	16.65	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.67	8.09	0.577	ok	0.577	0.517-0.637
Bromoethene	5.07	8.09	0.627	ok	0.627	0.567-0.687
n-Butylbenzene	21.11	15.69	1.345	ok	1.346	1.286-1.406
tert-Butylbenzene	19.89	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.30	8.09	0.779	ok	0.779	0.719-0.839
Chlorobenzene	15.75	15.69	1.004	ok	1.004	0.944-1.064
Chloroethane	4.79	8.09	0.592	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.02	8.09	0.497	ok	0.497	0.437-0.557
Chloroform	8.23	8.09	1.017	ok	1.017	0.957-1.077
Chloromethane	4.20	8.09	0.519	ok	0.518	0.458-0.578
3-Chloropropene	6.14	8.09	0.759	ok	0.760	0.700-0.820
2-Chlorotoluene	18.89	15.69	1.204	ok	1.203	1.143-1.263
Carbon tetrachloride	9.95	8.09	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.07	8.09	1.245	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.28	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.08	8.09	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.09	0.734	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.21	1.389	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.00	8.09	1.112	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.21	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.38	10.21	1.310	ok	1.309	1.249-1.369
1,4-Dioxane	11.14	10.21	1.091	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.07	8.09	0.503	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.88	8.09	0.603	ok	0.602	0.542-0.662
Dibromochloromethane	13.88	10.21	1.359	ok	1.358	1.298-1.418
Dibromomethane	10.71	10.21	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.90	8.09	0.853	ok	0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.92	8.09	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.11	10.21	1.186	ok	1.184	1.124-1.244
trans-1,3-Dichloropropene	12.79	10.21	1.253	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.14	8.09	1.006	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.35	8.09	1.279	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.09	1.117	ok	1.117	1.057-1.177

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Ethylbenzene	16.31	15.69	1.040	ok	1.039	0.979-1.099
4-Ethyltoluene	19.20	15.69	1.224	ok	1.223	1.163-1.283
Freon 113	6.26	8.09	0.774	ok	0.775	0.715-0.835
Freon 114	4.27	8.09	0.528	ok	0.527	0.467-0.587
Freon 123	5.19	8.09	0.642	ok	0.642	0.582-0.702
Freon 123A	5.24	8.09	0.648	ok	0.647	0.587-0.707
Freon 142B	4.17	8.09	0.515	ok	0.516	0.456-0.576
Freon 152A	3.95	8.09	0.488	ok	0.488	0.428-0.548
Heptane	11.37	10.21	1.114	ok	1.113	1.053-1.173
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.10	8.09	1.001	ok	1.001	0.941-1.061
Iodomethane	5.87	8.09	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methyl ethyl ketone	7.56	8.09	0.934	ok	0.930	0.870-0.990
Methyl Tert Butyl Ether	7.20	8.09	0.890	ok	0.886	0.826-0.946
Nonane	17.63	15.69	1.124	ok	1.123	1.063-1.183
Octane	14.65	10.21	1.435	ok	1.435	1.375-1.495
n-Propylbenzene	18.97	15.69	1.209	ok	1.208	1.148-1.268
Propylene	4.02	8.09	0.497	ok	0.496	0.436-0.556
Styrene	17.11	15.69	1.091	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.26	8.09	1.145	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.73	10.21	1.541	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.25	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.98	10.21	1.271	ok	1.270	1.210-1.330
1,2,3-Trichloropropane	17.45	15.69	1.112	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.91	15.69	1.269	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.32	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.03	10.21	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.06	8.09	0.749	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.21	1.451	ok	1.450	1.390-1.510
Toluene	13.32	10.21	1.305	ok	1.304	1.244-1.364
Trichloroethylene	11.03	10.21	1.080	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.09	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.09	0.539	ok	0.539	0.479-0.599
Vinyl Acetate	7.26	8.09	0.897	ok	0.896	0.836-0.956
m,p-Xylene	16.56	15.69	1.055	ok	1.056	0.996-1.116
o-Xylene	17.25	15.69	1.099	ok	1.099	1.039-1.159

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.09	ok	8.09	7.76-8.42	219355	ok	216226	129736-302716
1,4-Difluorobenzene	10.21	ok	10.21	9.88-10.54	766358	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	291941	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.32	8.09	0.658	ok	0.655	0.595-0.715
Acrolein	5.19	8.09	0.642	ok	0.641	0.581-0.701
Acrylonitrile	5.69	8.09	0.703	ok	0.702	0.642-0.762
Acetonitrile	5.10	8.09	0.630	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.09	0.551	ok	0.551	0.491-0.611
Benzene	9.78	8.09	1.209	ok	1.209	1.149-1.269
Bromobenzene	18.26	15.69	1.164	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.21	1.075	ok	1.075	1.015-1.135
Bromoform	16.64	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.67	8.09	0.577	ok	0.577	0.517-0.637
Bromoethene	5.08	8.09	0.628	ok	0.627	0.567-0.687
n-Butane	4.49	8.09	0.555	ok	0.555	0.495-0.615
Benzyl Chloride	20.10	15.69	1.281	ok	1.281	1.221-1.341
n-Butylbenzene	21.12	15.69	1.346	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.90	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.31	8.09	0.780	ok	0.779	0.719-0.839
Chlorobenzene	15.75	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.99	8.09	0.493	ok	0.493	0.433-0.553
Chloroethane	4.79	8.09	0.592	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.01	8.09	0.496	ok	0.497	0.437-0.557
Chloroform	8.23	8.09	1.017	ok	1.017	0.957-1.077
Chloromethane	4.20	8.09	0.519	ok	0.518	0.458-0.578
3-Chloropropene	6.14	8.09	0.759	ok	0.760	0.700-0.820
2-Chlorotoluene	18.89	15.69	1.204	ok	1.203	1.143-1.263
Carbon tetrachloride	9.95	8.09	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.07	8.09	1.245	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.28	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.08	8.09	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.09	0.734	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.21	1.389	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.00	8.09	1.112	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.21	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.37	10.21	1.310	ok	1.309	1.249-1.369
1,4-Dioxane	11.12	10.21	1.089	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.06	8.09	0.502	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.87	8.09	0.602	ok	0.602	0.542-0.662
Dibromochloromethane	13.87	10.21	1.358	ok	1.358	1.298-1.418
Dibromomethane	10.72	10.21	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.89	8.09	0.852	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.92	8.09	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.10	10.21	1.185	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.11	15.69	1.282	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.68	15.69	1.318	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.21	15.69	1.288	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.77	10.21	1.251	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.14	8.09	1.006	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.36	8.09	1.281	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.09	1.117	ok	1.117	1.057-1.177
Ethylbenzene	16.31	15.69	1.040	ok	1.039	0.979-1.099
Ethyl Acetate	8.21	8.09	1.015	ok	1.012	0.952-1.072
Ethyl Acrylate	10.82	10.21	1.060	ok	1.057	0.997-1.117
4-Ethyltoluene	19.19	15.69	1.223	ok	1.223	1.163-1.283
Freon 113	6.27	8.09	0.775	ok	0.775	0.715-0.835
Freon 114	4.26	8.09	0.527	ok	0.527	0.467-0.587
Freon 123	5.18	8.09	0.640	ok	0.642	0.582-0.702
Freon 123A	5.24	8.09	0.648	ok	0.647	0.587-0.707
Freon 142B	4.17	8.09	0.515	ok	0.516	0.456-0.576
Freon 152A	3.95	8.09	0.488	ok	0.488	0.428-0.548
Heptane	11.37	10.21	1.114	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.57	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.11	8.09	1.002	ok	1.001	0.941-1.061
2-Hexanone	13.75	10.21	1.347	ok	1.344	1.284-1.404
Iodomethane	5.87	8.09	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.53	8.09	0.684	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methyl ethyl ketone	7.54	8.09	0.932	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.20	10.21	1.195	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.19	8.09	0.889	ok	0.886	0.826-0.946
Methylmethacrylate	11.34	10.21	1.111	ok	1.108	1.048-1.168
Nonane	17.63	15.69	1.124	ok	1.123	1.063-1.183
Octane	14.65	10.21	1.435	ok	1.435	1.375-1.495
Pentane	5.67	8.09	0.701	ok	0.702	0.642-0.762
n-Propylbenzene	18.96	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.01	8.09	0.496	ok	0.496	0.436-0.556
Styrene	17.11	15.69	1.091	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.28	8.09	1.147	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.73	10.21	1.541	ok	1.541	1.481-1.601

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,2,2-Tetrachloroethane	17.26	15.69	1.100	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.21	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.94	15.69	1.462	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.44	15.69	1.112	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.91	15.69	1.269	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.32	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.03	10.21	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.05	8.09	0.748	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.21	1.451	ok	1.450	1.390-1.510
Tetrahydrofuran	8.76	8.09	1.083	ok	1.076	1.016-1.136
Toluene	13.31	10.21	1.304	ok	1.304	1.244-1.364
Trichloroethylene	11.02	10.21	1.079	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.09	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.09	0.539	ok	0.539	0.479-0.599
Vinyl Acetate	7.26	8.09	0.897	ok	0.896	0.836-0.956
m,p-Xylene	16.55	15.69	1.055	ok	1.056	0.996-1.116
o-Xylene	17.24	15.69	1.099	ok	1.099	1.039-1.159

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.09	ok	8.09	7.76-8.42	214628	ok	216226	129736-302716
1,4-Difluorobenzene	10.21	ok	10.21	9.88-10.54	742363	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	291813	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.32	8.09	0.658	ok	0.655	0.595-0.715
Acrolein	5.19	8.09	0.642	ok	0.641	0.581-0.701
Acrylonitrile	5.68	8.09	0.702	ok	0.702	0.642-0.762
Acetonitrile	5.11	8.09	0.632	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.09	0.551	ok	0.551	0.491-0.611
Benzene	9.78	8.09	1.209	ok	1.209	1.149-1.269
Bromobenzene	18.26	15.69	1.164	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.21	1.075	ok	1.075	1.015-1.135
Bromoform	16.64	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.68	8.09	0.578	ok	0.577	0.517-0.637
Bromoethene	5.07	8.09	0.627	ok	0.627	0.567-0.687
n-Butane	4.50	8.09	0.556	ok	0.555	0.495-0.615
Benzyl Chloride	20.10	15.69	1.281	ok	1.281	1.221-1.341
n-Butylbenzene	21.12	15.69	1.346	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.89	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.30	8.09	0.779	ok	0.779	0.719-0.839
Chlorobenzene	15.75	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	4.00	8.09	0.494	ok	0.493	0.433-0.553
Chloroethane	4.80	8.09	0.593	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.02	8.09	0.497	ok	0.497	0.437-0.557
Chloroform	8.22	8.09	1.016	ok	1.017	0.957-1.077
Chloromethane	4.20	8.09	0.519	ok	0.518	0.458-0.578
3-Chloropropene	6.15	8.09	0.760	ok	0.760	0.700-0.820
2-Chlorotoluene	18.87	15.69	1.203	ok	1.203	1.143-1.263
Carbon tetrachloride	9.95	8.09	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.07	8.09	1.245	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.28	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.08	8.09	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.94	8.09	0.734	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.21	1.389	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.01	8.09	1.114	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.21	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.36	10.21	1.309	ok	1.309	1.249-1.369
1,4-Dioxane	11.12	10.21	1.089	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.07	8.09	0.503	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.87	8.09	0.602	ok	0.602	0.542-0.662
Dibromochloromethane	13.87	10.21	1.358	ok	1.358	1.298-1.418
Dibromomethane	10.71	10.21	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.90	8.09	0.853	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.92	8.09	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.10	10.21	1.185	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.11	15.69	1.282	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.68	15.69	1.318	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.21	15.69	1.288	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.78	10.21	1.252	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.14	8.09	1.006	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.36	8.09	1.281	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.09	1.117	ok	1.117	1.057-1.177
Ethanol	4.93	8.09	0.609	ok	0.608	0.548-0.668
Ethylbenzene	16.30	15.69	1.039	ok	1.039	0.979-1.099
Ethyl Acetate	8.20	8.09	1.014	ok	1.012	0.952-1.072
Ethyl Acrylate	10.81	10.21	1.059	ok	1.057	0.997-1.117
4-Ethyltoluene	19.19	15.69	1.223	ok	1.223	1.163-1.283
Freon 113	6.27	8.09	0.775	ok	0.775	0.715-0.835
Freon 114	4.27	8.09	0.528	ok	0.527	0.467-0.587
Freon 123	5.19	8.09	0.642	ok	0.642	0.582-0.702
Freon 123A	5.23	8.09	0.646	ok	0.647	0.587-0.707
Freon 142B	4.18	8.09	0.517	ok	0.516	0.456-0.576
Freon 152A	3.95	8.09	0.488	ok	0.488	0.428-0.548
Heptane	11.37	10.21	1.114	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.10	8.09	1.001	ok	1.001	0.941-1.061
2-Hexanone	13.75	10.21	1.347	ok	1.344	1.284-1.404
Iodomethane	5.87	8.09	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.52	8.09	0.682	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methylene chloride	6.05	8.09	0.748	ok	0.747	0.687-0.807
Methyl ethyl ketone	7.54	8.09	0.932	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.18	10.21	1.193	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.18	8.09	0.888	ok	0.886	0.826-0.946
Methylmethacrylate	11.33	10.21	1.110	ok	1.108	1.048-1.168
Naphthalene	23.07	15.69	1.470	ok	1.470	1.410-1.530
Nonane	17.63	15.69	1.124	ok	1.123	1.063-1.183
Octane	14.65	10.21	1.435	ok	1.435	1.375-1.495
Pentane	5.68	8.09	0.702	ok	0.702	0.642-0.762
n-Propylbenzene	18.96	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.01	8.09	0.496	ok	0.496	0.436-0.556

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	Reporting this level
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.10	15.69	1.090	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.26	8.09	1.145	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.73	10.21	1.541	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.25	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.21	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.94	15.69	1.462	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.44	15.69	1.112	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.91	15.69	1.269	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.32	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.03	10.21	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.03	8.09	0.745	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.21	1.451	ok	1.450	1.390-1.510
Tetrahydrofuran	8.74	8.09	1.080	ok	1.076	1.016-1.136
Toluene	13.31	10.21	1.304	ok	1.304	1.244-1.364
Trichloroethylene	11.01	10.21	1.078	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.09	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.09	0.539	ok	0.539	0.479-0.599
Vinyl Acetate	7.25	8.09	0.896	ok	0.896	0.836-0.956
m,p-Xylene	16.57	15.69	1.056	ok	1.056	0.996-1.116
o-Xylene	17.24	15.69	1.099	ok	1.099	1.039-1.159
TVHC As Equiv Pentane	5.68	15.69	0.362	ok	0.362	0.302-0.422

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.09	ok	8.09	7.76-8.42	214524	ok	216226	129736-302716
1,4-Difluorobenzene	10.21	ok	10.21	9.88-10.54	732548	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	284027	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.31	8.09	0.656	ok	0.655	0.595-0.715
Acrolein	5.19	8.09	0.642	ok	0.641	0.581-0.701
Acrylonitrile	5.68	8.09	0.702	ok	0.702	0.642-0.762
Acetonitrile	5.10	8.09	0.630	ok	0.630	0.570-0.690
1,3-Butadiene	4.46	8.09	0.551	ok	0.551	0.491-0.611
Benzene	9.78	8.09	1.209	ok	1.209	1.149-1.269
Bromobenzene	18.25	15.69	1.163	ok	1.163	1.103-1.223
Bromodichloromethane	10.98	10.21	1.075	ok	1.075	1.015-1.135
Bromoform	16.64	15.69	1.061	ok	1.061	1.001-1.121
Bromomethane	4.66	8.09	0.576	ok	0.577	0.517-0.637
Bromoethene	5.07	8.09	0.627	ok	0.627	0.567-0.687
n-Butane	4.49	8.09	0.555	ok	0.555	0.495-0.615
Benzyl Chloride	20.10	15.69	1.281	ok	1.281	1.221-1.341
n-Butylbenzene	21.11	15.69	1.345	ok	1.346	1.286-1.406
sec-Butylbenzene	20.29	15.69	1.293	ok	1.293	1.233-1.353
tert-Butylbenzene	19.89	15.69	1.268	ok	1.268	1.208-1.328
Carbon disulfide	6.30	8.09	0.779	ok	0.779	0.719-0.839
Chlorobenzene	15.75	15.69	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.99	8.09	0.493	ok	0.493	0.433-0.553
Chloroethane	4.80	8.09	0.593	ok	0.593	0.533-0.653
Chlorotrifluoroethene	4.02	8.09	0.497	ok	0.497	0.437-0.557
Chloroform	8.22	8.09	1.016	ok	1.017	0.957-1.077
Chloromethane	4.19	8.09	0.518	ok	0.518	0.458-0.578
3-Chloropropene	6.14	8.09	0.759	ok	0.760	0.700-0.820
2-Chlorotoluene	18.88	15.69	1.203	ok	1.203	1.143-1.263
Carbon tetrachloride	9.95	8.09	1.230	ok	1.230	1.170-1.290
Cyclohexane	10.08	8.09	1.246	ok	1.245	1.185-1.305
2H,3H-Decafluoropentane	4.28	15.69	0.273	ok	0.273	0.213-0.333
1,1-Dichloroethane	7.08	8.09	0.875	ok	0.875	0.815-0.935
1,1-Dichloroethylene	5.93	8.09	0.733	ok	0.734	0.674-0.794
1,2-Dibromoethane	14.18	10.21	1.389	ok	1.389	1.329-1.449
1,2-Dichloroethane	9.00	8.09	1.112	ok	1.113	1.053-1.173
1,2-Dichloropropane	10.73	10.21	1.051	ok	1.051	0.991-1.111
1,3-Dichloropropane	13.36	10.21	1.309	ok	1.309	1.249-1.369
1,4-Dioxane	11.10	10.21	1.087	ok	1.086	1.026-1.146
Dichlorodifluoromethane	4.06	8.09	0.502	ok	0.503	0.443-0.563
Dichlorofluoromethane	4.87	8.09	0.602	ok	0.602	0.542-0.662
Dibromochloromethane	13.86	10.21	1.357	ok	1.358	1.298-1.418
Dibromomethane	10.71	10.21	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.89	8.09	0.852	ok	0.852	0.792-0.912

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	7.92	8.09	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	12.09	10.21	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.10	15.69	1.281	ok	1.281	1.221-1.341
o-Dichlorobenzene	20.68	15.69	1.318	ok	1.318	1.258-1.378
p-Dichlorobenzene	20.21	15.69	1.288	ok	1.288	1.228-1.348
trans-1,3-Dichloropropene	12.76	10.21	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.13	8.09	1.005	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.37	8.09	1.282	ok	1.280	1.220-1.340
2,4-Dimethylpentane	9.04	8.09	1.117	ok	1.117	1.057-1.177
Ethanol	4.92	8.09	0.608	ok	0.608	0.548-0.668
Ethylbenzene	16.29	15.69	1.038	ok	1.039	0.979-1.099
Ethyl Acetate	8.19	8.09	1.012	ok	1.012	0.952-1.072
Ethyl Acrylate	10.80	10.21	1.058	ok	1.057	0.997-1.117
4-Ethyltoluene	19.19	15.69	1.223	ok	1.223	1.163-1.283
Freon 113	6.27	8.09	0.775	ok	0.775	0.715-0.835
Freon 114	4.26	8.09	0.527	ok	0.527	0.467-0.587
Freon 123	5.19	8.09	0.642	ok	0.642	0.582-0.702
Freon 123A	5.23	8.09	0.646	ok	0.647	0.587-0.707
Freon 142B	4.17	8.09	0.515	ok	0.516	0.456-0.576
Freon 152A	3.95	8.09	0.488	ok	0.488	0.428-0.548
Heptane	11.37	10.21	1.114	ok	1.113	1.053-1.173
Hexachlorobutadiene	23.51	15.69	1.498	ok	1.498	1.438-1.558
Hexachloroethane	21.58	15.69	1.375	ok	1.375	1.315-1.435
Hexane	8.10	8.09	1.001	ok	1.001	0.941-1.061
2-Hexanone	13.72	10.21	1.344	ok	1.344	1.284-1.404
Iodomethane	5.87	8.09	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	18.15	15.69	1.157	ok	1.157	1.097-1.217
Isopropyl Alcohol	5.51	8.09	0.681	ok	0.681	0.621-0.741
p-Isopropyltoluene	20.53	15.69	1.308	ok	1.309	1.249-1.369
Methylene chloride	6.05	8.09	0.748	ok	0.747	0.687-0.807
Methyl ethyl ketone	7.52	8.09	0.930	ok	0.930	0.870-0.990
Methyl Isobutyl Ketone	12.17	10.21	1.192	ok	1.191	1.131-1.251
Methyl Tert Butyl Ether	7.17	8.09	0.886	ok	0.886	0.826-0.946
Methylmethacrylate	11.31	10.21	1.108	ok	1.108	1.048-1.168
Naphthalene	23.07	15.69	1.470	ok	1.470	1.410-1.530
Nonane	17.62	15.69	1.123	ok	1.123	1.063-1.183
Octane	14.65	10.21	1.435	ok	1.435	1.375-1.495
Pentane	5.68	8.09	0.702	ok	0.702	0.642-0.762
n-Propylbenzene	18.95	15.69	1.208	ok	1.208	1.148-1.268
Propylene	4.00	8.09	0.494	ok	0.496	0.436-0.556

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1449-IC1449	5W35525.D	03/12/19 16:17	DFT	5	GCMS5W	TO-15	
V5W1449-ICC1449	5W35526.D	03/12/19 17:02	DFT	10	GCMS5W	TO-15	
V5W1449-IC1449	5W35527.D	03/12/19 17:49	DFT	20	GCMS5W	TO-15	
V5W1449-IC1449	5W35528.D	03/12/19 18:40	DFT	40	GCMS5W	TO-15	
V5W1449-IC1449	5W35530.D	03/12/19 20:08	DFT	0.04	GCMS5W	TO-15	
V5W1449-IC1449	5W35531.D	03/12/19 20:54	DFT	0.1	GCMS5W	TO-15	
V5W1449-IC1449	5W35532.D	03/12/19 21:41	DFT	0.2	GCMS5W	TO-15	
V5W1449-IC1449	5W35533.D	03/12/19 22:33	DFT	0.5	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.09	15.69	1.089	ok	1.090	1.030-1.150
1,1,1-Trichloroethane	9.26	8.09	1.145	ok	1.145	1.085-1.205
1,1,1,2-Tetrachloroethane	15.74	10.21	1.542	ok	1.541	1.481-1.601
1,1,2,2-Tetrachloroethane	17.25	15.69	1.099	ok	1.099	1.039-1.159
1,1,2-Trichloroethane	12.97	10.21	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	22.94	15.69	1.462	ok	1.462	1.402-1.522
1,2,3-Trichloropropane	17.44	15.69	1.112	ok	1.111	1.051-1.171
1,2,4-Trimethylbenzene	19.91	15.69	1.269	ok	1.269	1.209-1.329
1,3,5-Trimethylbenzene	19.31	15.69	1.231	ok	1.231	1.171-1.291
2,2,4-Trimethylpentane	11.03	10.21	1.080	ok	1.080	1.020-1.140
Tertiary Butyl Alcohol	6.03	8.09	0.745	ok	0.745	0.685-0.805
Tetrachloroethylene	14.81	10.21	1.451	ok	1.450	1.390-1.510
Tetrahydrofuran	8.71	8.09	1.077	ok	1.076	1.016-1.136
Toluene	13.31	10.21	1.304	ok	1.304	1.244-1.364
Trichloroethylene	11.01	10.21	1.078	ok	1.079	1.019-1.139
Trichlorofluoromethane	5.40	8.09	0.667	ok	0.667	0.607-0.727
Vinyl chloride	4.36	8.09	0.539	ok	0.539	0.479-0.599
Vinyl Acetate	7.25	8.09	0.896	ok	0.896	0.836-0.956
m,p-Xylene	16.56	15.69	1.055	ok	1.056	0.996-1.116
o-Xylene	17.24	15.69	1.099	ok	1.099	1.039-1.159
TVHC As Equiv Pentane	5.68	15.69	0.362	ok	0.362	0.302-0.422

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.09	ok	8.09	7.76-8.42	206598	ok	216226	129736-302716
1,4-Difluorobenzene	10.21	ok	10.21	9.88-10.54	711179	ok	752128	451277-1052979
Chlorobenzene-D5	15.69	ok	15.69	15.36-16.02	287029	ok	311257	186754-435760

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetonitrile	4.93	8.18	0.603	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.49	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.16	10.38	1.075	ok	1.076	1.016-1.136
Bromoform	16.87	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.50	8.18	0.550	ok	0.550	0.490-0.610
Bromoethene	4.94	8.18	0.604	ok	0.603	0.543-0.663
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.08	15.92	1.261	ok	1.262	1.202-1.322
Carbon disulfide	6.28	8.18	0.768	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.99	8.18	0.488	ok	0.487	0.427-0.547
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.26	8.18	1.254	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.12	8.18	0.870	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.38	1.387	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.14	8.18	1.117	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.91	10.38	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.58	10.38	1.308	ok	1.308	1.248-1.368
Dichlorodifluoromethane	3.86	8.18	0.472	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.09	10.38	1.357	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.38	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.91	8.18	0.845	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	8.00	8.18	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.29	10.38	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.29	15.92	1.274	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.38	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.22	8.18	1.005	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.55	8.18	1.290	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Ethylbenzene	16.52	15.92	1.038	ok	1.038	0.978-1.098
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.24	8.18	0.763	ok	0.762	0.702-0.822
Freon 114	4.07	8.18	0.498	ok	0.497	0.437-0.557
Freon 123	5.07	8.18	0.620	ok	0.619	0.559-0.679
Freon 123A	5.12	8.18	0.626	ok	0.625	0.565-0.685
Freon 142B	3.97	8.18	0.485	ok	0.485	0.425-0.545
Freon 152A	3.74	8.18	0.457	ok	0.456	0.396-0.516
Heptane	11.58	10.38	1.116	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
Iodomethane	5.81	8.18	0.710	ok	0.710	0.650-0.770
Isopropylbenzene	18.38	15.92	1.155	ok	1.154	1.094-1.214
p-Isopropyltoluene	20.70	15.92	1.300	ok	1.300	1.240-1.360
Methyl Tert Butyl Ether	7.19	8.18	0.879	ok	0.876	0.816-0.936
Naphthalene	23.18	15.92	1.456	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.38	1.434	ok	1.434	1.374-1.494
n-Propylbenzene	19.18	15.92	1.205	ok	1.204	1.144-1.264
Propylene	3.80	8.18	0.465	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.42	8.18	1.152	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.38	1.538	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.19	10.38	1.271	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.10	15.92	1.263	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.52	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.38	1.083	ok	1.083	1.023-1.143
Tetrachloroethylene	15.03	10.38	1.448	ok	1.449	1.389-1.509
Toluene	13.53	10.38	1.303	ok	1.303	1.243-1.363
Trichloroethylene	11.21	10.38	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.17	8.18	0.510	ok	0.509	0.449-0.569
m,p-Xylene	16.80	15.92	1.055	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	246056	ok	249531	149719-349343
1,4-Difluorobenzene	10.38	ok	10.38	10.05-10.71	891369	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	378089	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.16	8.18	0.631	ok	0.629	0.569-0.689
Acrolein	5.04	8.18	0.616	ok	0.615	0.555-0.675
Acrylonitrile	5.58	8.18	0.682	ok	0.680	0.620-0.740
Acetonitrile	4.93	8.18	0.603	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.49	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.16	10.37	1.076	ok	1.076	1.016-1.136
Bromoform	16.87	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.50	8.18	0.550	ok	0.550	0.490-0.610
Bromoethene	4.94	8.18	0.604	ok	0.603	0.543-0.663
n-Butane	4.32	8.18	0.528	ok	0.527	0.467-0.587
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.08	15.92	1.261	ok	1.262	1.202-1.322
Carbon disulfide	6.28	8.18	0.768	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.77	8.18	0.461	ok	0.460	0.400-0.520
Chloroethane	4.63	8.18	0.566	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.99	8.18	0.488	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.26	8.18	1.254	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.11	8.18	0.869	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.37	1.389	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.14	8.18	1.117	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.37	1.053	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.58	10.37	1.310	ok	1.308	1.248-1.368
1,4-Dioxane	11.25	10.37	1.085	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.86	8.18	0.472	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.08	10.37	1.358	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.37	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.91	8.18	0.845	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	8.00	8.18	0.978	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.37	1.185	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.29	15.92	1.274	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.37	1.251	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.22	8.18	1.005	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.55	8.18	1.290	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.74	8.18	0.579	ok	0.578	0.518-0.638
Ethylbenzene	16.52	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acrylate	10.97	10.37	1.058	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.24	8.18	0.763	ok	0.762	0.702-0.822
Freon 114	4.07	8.18	0.498	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.97	8.18	0.485	ok	0.485	0.425-0.545
Freon 152A	3.74	8.18	0.457	ok	0.456	0.396-0.516
Heptane	11.58	10.37	1.117	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.93	10.37	1.343	ok	1.340	1.280-1.400
Iodomethane	5.81	8.18	0.710	ok	0.710	0.650-0.770
Isopropylbenzene	18.38	15.92	1.155	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.39	8.18	0.659	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.70	15.92	1.300	ok	1.300	1.240-1.360
Methylene chloride	6.00	8.18	0.733	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.56	8.18	0.924	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.36	10.37	1.192	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.19	8.18	0.879	ok	0.876	0.816-0.936
Methylmethacrylate	11.49	10.37	1.108	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.37	1.435	ok	1.434	1.374-1.494
Pentane	5.61	8.18	0.686	ok	0.686	0.626-0.746
n-Propylbenzene	19.17	15.92	1.204	ok	1.204	1.144-1.264
Propylene	3.80	8.18	0.465	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.41	8.18	1.150	ok	1.151	1.091-1.211

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1,2-Tetrachloroethane	15.96	10.37	1.539	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.18	10.37	1.271	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.52	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.37	1.084	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.96	8.18	0.729	ok	0.723	0.663-0.783
Tetrachloroethylene	15.04	10.37	1.450	ok	1.449	1.389-1.509
Tetrahydrofuran	8.81	8.18	1.077	ok	1.071	1.011-1.131
Toluene	13.52	10.37	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.21	10.37	1.081	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.28	8.18	0.890	ok	0.889	0.829-0.949
m,p-Xylene	16.78	15.92	1.054	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	245093	ok	249531	149719-349343
1,4-Difluorobenzene	10.37	ok	10.38	10.05-10.71	884874	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	373986	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.15	8.18	0.630	ok	0.629	0.569-0.689
Acrolein	5.03	8.18	0.615	ok	0.615	0.555-0.675
Acrylonitrile	5.57	8.18	0.681	ok	0.680	0.620-0.740
Acetonitrile	4.92	8.18	0.601	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.49	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.16	10.37	1.076	ok	1.076	1.016-1.136
Bromoform	16.87	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.49	8.18	0.549	ok	0.550	0.490-0.610
Bromoethene	4.93	8.18	0.603	ok	0.603	0.543-0.663
n-Butane	4.31	8.18	0.527	ok	0.527	0.467-0.587
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
Carbon disulfide	6.28	8.18	0.768	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.77	8.18	0.461	ok	0.460	0.400-0.520
Chloroethane	4.63	8.18	0.566	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.99	8.18	0.488	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.25	8.18	1.253	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.11	8.18	0.869	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.37	1.389	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.14	8.18	1.117	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.37	1.053	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.57	10.37	1.309	ok	1.308	1.248-1.368
1,4-Dioxane	11.25	10.37	1.085	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.85	8.18	0.471	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.09	10.37	1.359	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.37	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.91	8.18	0.845	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	8.00	8.18	0.978	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.37	1.185	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.29	15.92	1.274	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.37	1.251	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.21	8.18	1.004	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.54	8.18	1.289	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.73	8.18	0.578	ok	0.578	0.518-0.638
Ethylbenzene	16.52	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.26	8.18	1.010	ok	1.007	0.947-1.067
Ethyl Acrylate	10.96	10.37	1.057	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.24	8.18	0.763	ok	0.762	0.702-0.822
Freon 114	4.06	8.18	0.496	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.96	8.18	0.484	ok	0.485	0.425-0.545
Freon 152A	3.73	8.18	0.456	ok	0.456	0.396-0.516
Heptane	11.58	10.37	1.117	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.92	10.37	1.342	ok	1.340	1.280-1.400
Iodomethane	5.81	8.18	0.710	ok	0.710	0.650-0.770
Isopropylbenzene	18.37	15.92	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.37	8.18	0.656	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.70	15.92	1.300	ok	1.300	1.240-1.360
Methylene chloride	6.00	8.18	0.733	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.55	8.18	0.923	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.35	10.37	1.191	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.18	8.18	0.878	ok	0.876	0.816-0.936
Methylmethacrylate	11.49	10.37	1.108	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.37	1.435	ok	1.434	1.374-1.494
Pentane	5.61	8.18	0.686	ok	0.686	0.626-0.746
n-Propylbenzene	19.17	15.92	1.204	ok	1.204	1.144-1.264
Propylene	3.80	8.18	0.465	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.41	8.18	1.150	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.37	1.539	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.18	10.37	1.271	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.51	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.37	1.084	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.94	8.18	0.726	ok	0.723	0.663-0.783
Tetrachloroethylene	15.03	10.37	1.449	ok	1.449	1.389-1.509
Tetrahydrofuran	8.79	8.18	1.075	ok	1.071	1.011-1.131
Toluene	13.52	10.37	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.21	10.37	1.081	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.28	8.18	0.890	ok	0.889	0.829-0.949
m,p-Xylene	16.80	15.92	1.055	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.61	15.92	0.352	ok	0.352	0.292-0.412

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	244439	ok	249531	149719-349343
1,4-Difluorobenzene	10.37	ok	10.38	10.05-10.71	886331	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	376518	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.15	8.18	0.630	ok	0.629	0.569-0.689
Acrolein	5.03	8.18	0.615	ok	0.615	0.555-0.675
Acrylonitrile	5.56	8.18	0.680	ok	0.680	0.620-0.740
Acetonitrile	4.92	8.18	0.601	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.49	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.16	10.38	1.075	ok	1.076	1.016-1.136
Bromoform	16.87	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.50	8.18	0.550	ok	0.550	0.490-0.610
Bromoethene	4.93	8.18	0.603	ok	0.603	0.543-0.663
n-Butane	4.32	8.18	0.528	ok	0.527	0.467-0.587
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.08	15.92	1.261	ok	1.262	1.202-1.322
Carbon disulfide	6.28	8.18	0.768	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.77	8.18	0.461	ok	0.460	0.400-0.520
Chloroethane	4.64	8.18	0.567	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.99	8.18	0.488	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.26	8.18	1.254	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.12	8.18	0.870	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.38	1.387	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.14	8.18	1.117	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.38	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.57	10.38	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.24	10.38	1.083	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.85	8.18	0.471	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.08	10.38	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.38	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.91	8.18	0.845	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	8.00	8.18	0.978	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.38	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.29	15.92	1.274	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.38	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.21	8.18	1.004	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.54	8.18	1.289	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.73	8.18	0.578	ok	0.578	0.518-0.638
Ethylbenzene	16.52	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.25	8.18	1.009	ok	1.007	0.947-1.067
Ethyl Acrylate	10.95	10.38	1.055	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.24	8.18	0.763	ok	0.762	0.702-0.822
Freon 114	4.07	8.18	0.498	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.97	8.18	0.485	ok	0.485	0.425-0.545
Freon 152A	3.74	8.18	0.457	ok	0.456	0.396-0.516
Heptane	11.58	10.38	1.116	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.91	10.38	1.340	ok	1.340	1.280-1.400
Iodomethane	5.81	8.18	0.710	ok	0.710	0.650-0.770
Isopropylbenzene	18.37	15.92	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.37	8.18	0.656	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.70	15.92	1.300	ok	1.300	1.240-1.360
Methylene chloride	5.99	8.18	0.732	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.54	8.18	0.922	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.34	10.38	1.189	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.17	8.18	0.877	ok	0.876	0.816-0.936
Methylmethacrylate	11.48	10.38	1.106	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.38	1.434	ok	1.434	1.374-1.494
Pentane	5.61	8.18	0.686	ok	0.686	0.626-0.746
n-Propylbenzene	19.17	15.92	1.204	ok	1.204	1.144-1.264
Propylene	3.80	8.18	0.465	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.41	8.18	1.150	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.38	1.538	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.18	10.38	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.51	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.38	1.083	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.93	8.18	0.725	ok	0.723	0.663-0.783
Tetrachloroethylene	15.03	10.38	1.448	ok	1.449	1.389-1.509
Tetrahydrofuran	8.78	8.18	1.073	ok	1.071	1.011-1.131
Toluene	13.52	10.38	1.303	ok	1.303	1.243-1.363
Trichloroethylene	11.21	10.38	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.27	8.18	0.889	ok	0.889	0.829-0.949
m,p-Xylene	16.80	15.92	1.055	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.61	15.92	0.352	ok	0.352	0.292-0.412

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	244906	ok	249531	149719-349343
1,4-Difluorobenzene	10.38	ok	10.38	10.05-10.71	884173	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	378452	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	Reporting this level
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.14	8.18	0.628	ok	0.629	0.569-0.689
Acrolein	5.03	8.18	0.615	ok	0.615	0.555-0.675
Acrylonitrile	5.56	8.18	0.680	ok	0.680	0.620-0.740
Acetonitrile	4.92	8.18	0.601	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.48	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.16	10.38	1.075	ok	1.076	1.016-1.136
Bromoform	16.87	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.49	8.18	0.549	ok	0.550	0.490-0.610
Bromoethene	4.93	8.18	0.603	ok	0.603	0.543-0.663
n-Butane	4.31	8.18	0.527	ok	0.527	0.467-0.587
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.08	15.92	1.261	ok	1.262	1.202-1.322
Carbon disulfide	6.27	8.18	0.767	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.76	8.18	0.460	ok	0.460	0.400-0.520
Chloroethane	4.63	8.18	0.566	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.98	8.18	0.487	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.25	8.18	1.253	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.11	8.18	0.869	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.38	1.387	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.13	8.18	1.116	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.38	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.57	10.38	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.20	10.38	1.079	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.85	8.18	0.471	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.08	10.38	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.38	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.90	8.18	0.844	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	7.99	8.18	0.977	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	Reporting this level
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.38	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.29	15.92	1.274	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.96	10.38	1.249	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.19	8.18	1.001	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.54	8.18	1.289	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.72	8.18	0.577	ok	0.578	0.518-0.638
Ethylbenzene	16.52	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.23	8.18	1.006	ok	1.007	0.947-1.067
Ethyl Acrylate	10.94	10.38	1.054	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.23	8.18	0.762	ok	0.762	0.702-0.822
Freon 114	4.06	8.18	0.496	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.96	8.18	0.484	ok	0.485	0.425-0.545
Freon 152A	3.72	8.18	0.455	ok	0.456	0.396-0.516
Heptane	11.58	10.38	1.116	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.89	10.38	1.338	ok	1.340	1.280-1.400
Iodomethane	5.80	8.18	0.709	ok	0.710	0.650-0.770
Isopropylbenzene	18.37	15.92	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.35	8.18	0.654	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.70	15.92	1.300	ok	1.300	1.240-1.360
Methylene chloride	5.99	8.18	0.732	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.52	8.18	0.919	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.32	10.38	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.15	8.18	0.874	ok	0.876	0.816-0.936
Methylmethacrylate	11.47	10.38	1.105	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.38	1.434	ok	1.434	1.374-1.494
Pentane	5.61	8.18	0.686	ok	0.686	0.626-0.746
n-Propylbenzene	19.17	15.92	1.204	ok	1.204	1.144-1.264
Propylene	3.78	8.18	0.462	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	Reporting this level
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.41	8.18	1.150	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.38	1.538	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.17	10.38	1.269	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.10	15.92	1.263	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.51	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.38	1.083	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.90	8.18	0.721	ok	0.723	0.663-0.783
Tetrachloroethylene	15.03	10.38	1.448	ok	1.449	1.389-1.509
Tetrahydrofuran	8.75	8.18	1.070	ok	1.071	1.011-1.131
Toluene	13.52	10.38	1.303	ok	1.303	1.243-1.363
Trichloroethylene	11.20	10.38	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.26	8.18	0.888	ok	0.889	0.829-0.949
m,p-Xylene	16.77	15.92	1.053	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.61	15.92	0.352	ok	0.352	0.292-0.412

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	247839	ok	249531	149719-349343
1,4-Difluorobenzene	10.38	ok	10.38	10.05-10.71	893861	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	390899	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.13	8.18	0.627	ok	0.629	0.569-0.689
Acrolein	5.03	8.18	0.615	ok	0.615	0.555-0.675
Acrylonitrile	5.55	8.18	0.678	ok	0.680	0.620-0.740
Acetonitrile	4.91	8.18	0.600	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.49	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.16	10.38	1.075	ok	1.076	1.016-1.136
Bromoform	16.87	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.49	8.18	0.549	ok	0.550	0.490-0.610
Bromoethene	4.93	8.18	0.603	ok	0.603	0.543-0.663
n-Butane	4.31	8.18	0.527	ok	0.527	0.467-0.587
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
Carbon disulfide	6.27	8.18	0.767	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.76	8.18	0.460	ok	0.460	0.400-0.520
Chloroethane	4.63	8.18	0.566	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.98	8.18	0.487	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.25	8.18	1.253	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.11	8.18	0.869	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.87	8.18	0.718	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.38	1.387	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.13	8.18	1.116	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.38	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.57	10.38	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.20	10.38	1.079	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.85	8.18	0.471	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.09	10.38	1.357	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.38	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.90	8.18	0.844	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	7.99	8.18	0.977	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.38	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.29	15.92	1.274	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.38	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.20	8.18	1.002	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.54	8.18	1.289	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.71	8.18	0.576	ok	0.578	0.518-0.638
Ethylbenzene	16.52	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.23	8.18	1.006	ok	1.007	0.947-1.067
Ethyl Acrylate	10.94	10.38	1.054	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.23	8.18	0.762	ok	0.762	0.702-0.822
Freon 114	4.06	8.18	0.496	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.96	8.18	0.484	ok	0.485	0.425-0.545
Freon 152A	3.72	8.18	0.455	ok	0.456	0.396-0.516
Heptane	11.58	10.38	1.116	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.89	10.38	1.338	ok	1.340	1.280-1.400
Iodomethane	5.80	8.18	0.709	ok	0.710	0.650-0.770
Isopropylbenzene	18.37	15.92	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.34	8.18	0.653	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.70	15.92	1.300	ok	1.300	1.240-1.360
Methylene chloride	5.99	8.18	0.732	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.51	8.18	0.918	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.32	10.38	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.15	8.18	0.874	ok	0.876	0.816-0.936
Methylmethacrylate	11.47	10.38	1.105	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.38	1.434	ok	1.434	1.374-1.494
Pentane	5.60	8.18	0.685	ok	0.686	0.626-0.746
n-Propylbenzene	19.17	15.92	1.204	ok	1.204	1.144-1.264
Propylene	3.78	8.18	0.462	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.41	8.18	1.150	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.38	1.538	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.17	10.38	1.269	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.10	15.92	1.263	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.52	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.38	1.083	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.89	8.18	0.720	ok	0.723	0.663-0.783
Tetrachloroethylene	15.03	10.38	1.448	ok	1.449	1.389-1.509
Tetrahydrofuran	8.74	8.18	1.068	ok	1.071	1.011-1.131
Toluene	13.52	10.38	1.303	ok	1.303	1.243-1.363
Trichloroethylene	11.20	10.38	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.29	8.18	0.647	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.26	8.18	0.888	ok	0.889	0.829-0.949
m,p-Xylene	16.80	15.92	1.055	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.60	15.92	0.352	ok	0.352	0.292-0.412

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	252414	ok	249531	149719-349343
1,4-Difluorobenzene	10.38	ok	10.38	10.05-10.71	912222	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	421846	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.13	8.18	0.627	ok	0.629	0.569-0.689
Acrolein	5.03	8.18	0.615	ok	0.615	0.555-0.675
Acrylonitrile	5.56	8.18	0.680	ok	0.680	0.620-0.740
Acetonitrile	4.92	8.18	0.601	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.94	8.18	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.49	15.92	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.17	10.38	1.076	ok	1.076	1.016-1.136
Bromoform	16.88	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.49	8.18	0.549	ok	0.550	0.490-0.610
Bromoethene	4.93	8.18	0.603	ok	0.603	0.543-0.663
n-Butane	4.31	8.18	0.527	ok	0.527	0.467-0.587
Benzyl Chloride	20.28	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
Carbon disulfide	6.27	8.18	0.767	ok	0.767	0.707-0.827
Chlorobenzene	15.98	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.76	8.18	0.460	ok	0.460	0.400-0.520
Chloroethane	4.63	8.18	0.566	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.32	8.18	1.017	ok	1.017	0.957-1.077
Chloromethane	3.98	8.18	0.487	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.25	8.18	1.253	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.11	8.18	0.869	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.40	10.38	1.387	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.14	8.18	1.117	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.38	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.57	10.38	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.20	10.38	1.079	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.85	8.18	0.471	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.09	10.38	1.357	ok	1.357	1.297-1.417
Dibromomethane	10.89	10.38	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.90	8.18	0.844	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	8.00	8.18	0.978	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.38	1.184	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.30	15.92	1.275	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.85	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.38	1.250	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.20	8.18	1.002	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.54	8.18	1.289	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.72	8.18	0.577	ok	0.578	0.518-0.638
Ethylbenzene	16.53	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.23	8.18	1.006	ok	1.007	0.947-1.067
Ethyl Acrylate	10.94	10.38	1.054	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.23	8.18	0.762	ok	0.762	0.702-0.822
Freon 114	4.06	8.18	0.496	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.96	8.18	0.484	ok	0.485	0.425-0.545
Freon 152A	3.73	8.18	0.456	ok	0.456	0.396-0.516
Heptane	11.58	10.38	1.116	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.89	10.38	1.338	ok	1.340	1.280-1.400
Iodomethane	5.81	8.18	0.710	ok	0.710	0.650-0.770
Isopropylbenzene	18.38	15.92	1.155	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.34	8.18	0.653	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.71	15.92	1.301	ok	1.300	1.240-1.360
Methylene chloride	5.99	8.18	0.732	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.51	8.18	0.918	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.32	10.38	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.15	8.18	0.874	ok	0.876	0.816-0.936
Methylmethacrylate	11.47	10.38	1.105	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.85	15.92	1.121	ok	1.121	1.061-1.181
Octane	14.88	10.38	1.434	ok	1.434	1.374-1.494
Pentane	5.61	8.18	0.686	ok	0.686	0.626-0.746
n-Propylbenzene	19.18	15.92	1.205	ok	1.204	1.144-1.264
Propylene	3.78	8.18	0.462	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	Reporting this level
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.41	8.18	1.150	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.38	1.538	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.18	10.38	1.270	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.10	15.92	1.263	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.52	15.92	1.226	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.38	1.083	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.89	8.18	0.720	ok	0.723	0.663-0.783
Tetrachloroethylene	15.04	10.38	1.449	ok	1.449	1.389-1.509
Tetrahydrofuran	8.73	8.18	1.067	ok	1.071	1.011-1.131
Toluene	13.53	10.38	1.303	ok	1.303	1.243-1.363
Trichloroethylene	11.21	10.38	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.26	8.18	0.888	ok	0.889	0.829-0.949
m,p-Xylene	16.80	15.92	1.055	ok	1.055	0.995-1.115
o-Xylene	17.47	15.92	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.61	15.92	0.352	ok	0.352	0.292-0.412

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	255343	ok	249531	149719-349343
1,4-Difluorobenzene	10.38	ok	10.38	10.05-10.71	913274	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	451610	ok	409848	245909-573787

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.14	8.18	0.628	ok	0.629	0.569-0.689
Acrolein	5.03	8.18	0.615	ok	0.615	0.555-0.675
Acrylonitrile	5.56	8.18	0.680	ok	0.680	0.620-0.740
Acetonitrile	4.92	8.18	0.601	ok	0.602	0.542-0.662
1,3-Butadiene	4.27	8.18	0.522	ok	0.522	0.462-0.582
Benzene	9.95	8.18	1.216	ok	1.215	1.155-1.275
Bromobenzene	18.50	15.92	1.162	ok	1.161	1.101-1.221
Bromodichloromethane	11.17	10.39	1.075	ok	1.076	1.016-1.136
Bromoform	16.88	15.92	1.060	ok	1.060	1.000-1.120
Bromomethane	4.50	8.18	0.550	ok	0.550	0.490-0.610
Bromoethene	4.93	8.18	0.603	ok	0.603	0.543-0.663
n-Butane	4.32	8.18	0.528	ok	0.527	0.467-0.587
Benzyl Chloride	20.29	15.92	1.274	ok	1.274	1.214-1.334
n-Butylbenzene	21.27	15.92	1.336	ok	1.336	1.276-1.396
sec-Butylbenzene	20.47	15.92	1.286	ok	1.286	1.226-1.346
tert-Butylbenzene	20.09	15.92	1.262	ok	1.262	1.202-1.322
Carbon disulfide	6.27	8.18	0.767	ok	0.767	0.707-0.827
Chlorobenzene	15.99	15.92	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.77	8.18	0.461	ok	0.460	0.400-0.520
Chloroethane	4.63	8.18	0.566	ok	0.566	0.506-0.626
Chlorotrifluoroethene	3.80	8.18	0.465	ok	0.465	0.405-0.525
Chloroform	8.33	8.18	1.018	ok	1.017	0.957-1.077
Chloromethane	3.99	8.18	0.488	ok	0.487	0.427-0.547
3-Chloropropene	6.10	8.18	0.746	ok	0.746	0.686-0.806
2-Chlorotoluene	19.10	15.92	1.200	ok	1.200	1.140-1.260
Carbon tetrachloride	10.12	8.18	1.237	ok	1.237	1.177-1.297
Cyclohexane	10.26	8.18	1.254	ok	1.254	1.194-1.314
1,1-Dichloroethane	7.12	8.18	0.870	ok	0.870	0.810-0.930
1,1-Dichloroethylene	5.88	8.18	0.719	ok	0.719	0.659-0.779
1,2-Dibromoethane	14.41	10.39	1.387	ok	1.388	1.328-1.448
1,2-Dichloroethane	9.14	8.18	1.117	ok	1.117	1.057-1.177
1,2-Dichloropropane	10.92	10.39	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.58	10.39	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.21	10.39	1.079	ok	1.081	1.021-1.141
Dichlorodifluoromethane	3.85	8.18	0.471	ok	0.471	0.411-0.531
Dichlorofluoromethane	4.71	8.18	0.576	ok	0.576	0.516-0.636
Dibromochloromethane	14.09	10.39	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.90	10.39	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	6.91	8.18	0.845	ok	0.844	0.784-0.904
cis-1,2-Dichloroethylene	8.00	8.18	0.978	ok	0.978	0.918-1.038

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.29	10.39	1.183	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.30	15.92	1.275	ok	1.275	1.215-1.335
o-Dichlorobenzene	20.86	15.92	1.310	ok	1.310	1.250-1.370
p-Dichlorobenzene	20.39	15.92	1.281	ok	1.281	1.221-1.341
trans-1,3-Dichloropropene	12.97	10.39	1.248	ok	1.250	1.190-1.310
Di-Isopropyl ether	8.20	8.18	1.002	ok	1.003	0.943-1.063
2,3-Dimethylpentane	10.55	8.18	1.290	ok	1.289	1.229-1.349
2,4-Dimethylpentane	9.19	8.18	1.123	ok	1.123	1.063-1.183
Ethanol	4.73	8.18	0.578	ok	0.578	0.518-0.638
Ethylbenzene	16.53	15.92	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.24	8.18	1.007	ok	1.007	0.947-1.067
Ethyl Acrylate	10.94	10.39	1.053	ok	1.055	0.995-1.115
4-Ethyltoluene	19.40	15.92	1.219	ok	1.219	1.159-1.279
Freon 113	6.24	8.18	0.763	ok	0.762	0.702-0.822
Freon 114	4.06	8.18	0.496	ok	0.497	0.437-0.557
Freon 123	5.06	8.18	0.619	ok	0.619	0.559-0.679
Freon 123A	5.11	8.18	0.625	ok	0.625	0.565-0.685
Freon 142B	3.96	8.18	0.484	ok	0.485	0.425-0.545
Freon 152A	3.73	8.18	0.456	ok	0.456	0.396-0.516
Heptane	11.58	10.39	1.115	ok	1.116	1.056-1.176
Hexachlorobutadiene	23.62	15.92	1.484	ok	1.484	1.424-1.544
Hexachloroethane	21.73	15.92	1.365	ok	1.365	1.305-1.425
Hexane	8.21	8.18	1.004	ok	1.004	0.944-1.064
2-Hexanone	13.90	10.39	1.338	ok	1.340	1.280-1.400
Iodomethane	5.81	8.18	0.710	ok	0.710	0.650-0.770
Isopropylbenzene	18.39	15.92	1.155	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.35	8.18	0.654	ok	0.655	0.595-0.715
p-Isopropyltoluene	20.71	15.92	1.301	ok	1.300	1.240-1.360
Methylene chloride	5.99	8.18	0.732	ok	0.733	0.673-0.793
Methyl ethyl ketone	7.52	8.18	0.919	ok	0.921	0.861-0.981
Methyl Isobutyl Ketone	12.33	10.39	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.16	8.18	0.875	ok	0.876	0.816-0.936
Methylmethacrylate	11.47	10.39	1.104	ok	1.106	1.046-1.166
Naphthalene	23.17	15.92	1.455	ok	1.455	1.395-1.515
Nonane	17.86	15.92	1.122	ok	1.121	1.061-1.181
Octane	14.88	10.39	1.432	ok	1.434	1.374-1.494
Pentane	5.61	8.18	0.686	ok	0.686	0.626-0.746
n-Propylbenzene	19.18	15.92	1.205	ok	1.204	1.144-1.264
Propylene	3.79	8.18	0.463	ok	0.463	0.403-0.523
Styrene	17.32	15.92	1.088	ok	1.088	1.028-1.148

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V6W335-IC335	6W08749.D	10/22/18 12:49	PC	0.04	GCMS6W	TO-15	
V6W335-IC335	6W08750.D	10/22/18 13:48	PC	0.1	GCMS6W	TO-15	
V6W335-IC335	6W08751.D	10/22/18 14:40	PC	0.2	GCMS6W	TO-15	
V6W335-IC335	6W08752.D	10/22/18 15:33	PC	0.5	GCMS6W	TO-15	
V6W335-IC335	6W08753.D	10/22/18 16:23	PC	5	GCMS6W	TO-15	
V6W335-ICC335	6W08754.D	10/22/18 17:14	PC	10	GCMS6W	TO-15	
V6W335-IC335	6W08755.D	10/22/18 18:07	PC	20	GCMS6W	TO-15	
V6W335-IC335	6W08756.D	10/22/18 19:04	PC	40	GCMS6W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.42	8.18	1.152	ok	1.151	1.091-1.211
1,1,1,2-Tetrachloroethane	15.96	10.39	1.536	ok	1.538	1.478-1.598
1,1,2,2-Tetrachloroethane	17.48	15.92	1.098	ok	1.098	1.038-1.158
1,1,2-Trichloroethane	13.18	10.39	1.269	ok	1.270	1.210-1.330
1,2,4-Trichlorobenzene	23.05	15.92	1.448	ok	1.448	1.388-1.508
1,2,3-Trichloropropane	17.67	15.92	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.11	15.92	1.263	ok	1.262	1.202-1.322
1,3,5-Trimethylbenzene	19.53	15.92	1.227	ok	1.226	1.166-1.286
2,2,4-Trimethylpentane	11.24	10.39	1.082	ok	1.083	1.023-1.143
Tertiary Butyl Alcohol	5.90	8.18	0.721	ok	0.723	0.663-0.783
Tetrachloroethylene	15.04	10.39	1.448	ok	1.449	1.389-1.509
Tetrahydrofuran	8.73	8.18	1.067	ok	1.071	1.011-1.131
Toluene	13.53	10.39	1.302	ok	1.303	1.243-1.363
Trichloroethylene	11.22	10.39	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.30	8.18	0.648	ok	0.648	0.588-0.708
Vinyl chloride	4.16	8.18	0.509	ok	0.509	0.449-0.569
Vinyl Acetate	7.27	8.18	0.889	ok	0.889	0.829-0.949
m,p-Xylene	16.81	15.92	1.056	ok	1.055	0.995-1.115
o-Xylene	17.48	15.92	1.098	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.61	15.92	0.352	ok	0.352	0.292-0.412

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.18	ok	8.18	7.85-8.51	260159	ok	249531	149719-349343
1,4-Difluorobenzene	10.39	ok	10.38	10.05-10.71	940320	ok	900803	540482-1261124
Chlorobenzene-D5	15.92	ok	15.92	15.59-16.25	507385	ok	409848	245909-573787

Surrogate Recovery Summary

Job Number: JC85165
Account: ERMNYW ERM, Inc.
Project: New York Twist Drill, Melville Park Road, Melville, NY

Method: TO-15	**Matrix:** AIR

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
JC85165-1	6W11389.D	100
JC85165-2	5W35994.D	97
JC85165-3	5W35995.D	95
JC85165-4	6W11408.D	99
JC85165-4	6W11390.D	102
JC85165-5	6W11391.D	99
JC84962-2DUP	6W11385.D	101
JC85165-3DUP	5W35996.D	97
JC85477-1DUP	6W11410.D	97
V5W1468-BS	5W35989.D	108
V5W1468-BSD	5W35990.D	109
V5W1468-MB	5W35992.D	89
V6W443-SCC	6W11073.D	86
V6W457-BS	6W11378.D	103
V6W457-BSD	6W11379.D	105
V6W457-MB	6W11381.D	96
V6W458-BS	6W11403.D	103
V6W458-BSD	6W11404.D	103
V6W458-MB	6W11406.D	96
V6W443-BS	6W11054.D	102
V6W443-BSD	6W11055.D	102
V6W443-MB	6W11057.D	87

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

Initial Calibration Summary

Job Number: JC85165 **Sample:** V5W1449-ICC1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35526.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Response Factor Report Air5w

Method : C:\msdchem\1\methods\m5w1449.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

Calibration Files
20 =5w35527.D 0.5 =5w35533.D 0.2 =5w35532.D 0.1 =5w35531.D
0.04=5w35530.D 10 =5w35526.D 5 =5w35525.D 40 =5w35528.D
= =

Compound	20	0.5	0.2	0.1	0.04	10	5	40	Avg	%RSD
1) I Bromochloromethane	----------ISTD----------									
2) 1,1,1-Trifluoroethane									0.000	-1.00
3) Freon 152A	0.453	0.426	0.438	0.448	0.476	0.451	0.470	0.451	0.452	3.56
4) Chlorodifluoromethane	0.211	0.206	0.227	0.207		0.219	0.232	0.205	0.215	5.05
5) Propene	0.420	0.426	0.409	0.449	0.437	0.426	0.453	0.404	0.428	4.08
6) Chlorotrifluoroethene	1.331	1.317	1.271	1.349	1.454	1.342	1.405	1.337	1.351	4.12
7) Dichlorodifluoromethane	2.271	2.255	2.345	2.380	2.629	2.305	2.422	2.232	2.355	5.45
8) 1-Chloro-1,1-difluoroethane	1.403	1.444	1.431	1.470	1.699	1.449	1.549	1.366	1.477	7.08
9) Chloromethane	0.448	0.446	0.468	0.426	0.449	0.450	0.476	0.433	0.449	3.67
10) Dichlorotetrafluoroethane	1.736	1.788	1.691	1.789	2.116	1.777	1.847	1.653	1.800	7.88
11) Vinyl Chloride	0.501	0.470	0.488	0.469	0.467	0.503	0.517	0.496	0.489	3.82
12) 1,3-Butadiene	0.321	0.319	0.328	0.315	0.302	0.318	0.332	0.319	0.319	2.77
13) n-Butane	0.069	0.062	0.064	0.041		0.068	0.072	0.067	0.063	16.63
14) Bromomethane	0.683	0.677	0.731	0.760	1.125	0.695	0.731	0.672	0.759	19.89
15) Chloroethane	0.223	0.214	0.215	0.243	0.220	0.223	0.238	0.218	0.224	4.71
16) Dichlorofluoromethane	1.276	1.285	1.315	1.467	1.485	1.316	1.391	1.235	1.346	6.81
17) Acetonitrile	0.253	0.324	0.287	0.398		0.262	0.281	0.245	0.293	18.20
18) Freon 123	1.401	1.477	1.399	1.612	1.506	1.465	1.574	1.335	1.471	6.31
19) Freon 123A	0.945	0.946	1.002	0.993	1.148	0.975	1.042	0.914	0.996	7.34
20) Bromoethene	0.702	0.685	0.705	0.677	0.856	0.720	0.755	0.684	0.723	8.17
21) Acrolein	0.170	0.180	0.163	0.182	0.189	0.174	0.182	0.163	0.175	5.46
22) Trichlorofluoromethane	2.125	2.166	2.165	2.279	2.374	2.209	2.279	2.090	2.211	4.25
23) Acetone										

		0.177	0.217	0.215	0.261	0.179	0.188	0.168	0.201	16.27
24)	Pentane									
		0.156	0.157	0.136	0.149	0.166	0.177	0.154	0.156	8.28
25)	1,1-Dichloro-1-fluoroethane									
									0.000	-1.00
26)	Iodomethane									
		2.835	2.793	2.762	2.871	3.523	2.937	3.077	2.859	2.957	8.39
27)	Isopropyl Alcohol									
		0.177	0.262	0.272	0.289	0.191	0.205	0.173	0.224	21.81
28)	1,1-Dichloroethene									
		1.129	1.074	1.099	1.072	1.338	1.165	1.198	1.081	1.144	7.91
29)	Freon 113									
		1.828	1.872	1.933	1.982	2.033	1.909	2.018	1.774	1.919	4.77
30)	Methylene Chloride									
		0.696	0.798	1.021		0.722	0.761	0.676	0.779	16.25
31)	Carbon Disulfide									
		2.156	2.165	2.046	2.103	2.381	2.253	2.368	2.087	2.195	5.78
32)	Ethanol									
		0.131	0.237	0.246		0.135	0.138	0.132	0.170	32.57
33)	Acrylonitrile									
		0.465	0.442	0.389	0.385	0.533	0.484	0.495	0.454	0.456	11.15
34)	3-Chloropropene									
		0.333	0.308	0.337	0.342	0.335	0.344	0.361	0.329	0.336	4.45
35)	trans-1,2-Dichloroethene									
		1.030	1.007	0.916	0.998	1.054	1.066	1.100	1.000	1.021	5.43
36)	tert-Butyl Alcohol									
		1.379	1.306	1.377	1.416	1.442	1.392	1.429	1.337	1.385	3.31
37)	Methyl tert-Butyl Ether									
		2.068	1.996	2.007	2.087	2.278	2.173	2.247	2.028	2.111	5.18
38)	Vinyl Acetate									
		1.538	1.595	1.508	1.603	1.900	1.593	1.640	1.545	1.615	7.59
39)	1,1-Dichloroethane									
		1.312	1.327	1.325	1.474	1.589	1.380	1.459	1.274	1.392	7.64
40)	2-Butanone									
		0.319	0.337	0.344	0.279	0.245	0.325	0.329	0.315	0.312	10.68
41)	Hexane									
		0.975	0.953	0.976	1.034	1.117	1.026	1.071	0.927	1.010	6.32
42)	cis-1,2-Dichloroethene									
		1.031	0.989	0.937	1.023	1.238	1.060	1.111	1.003	1.049	8.74
43)	Di-isopropyl Ether									
		0.651	0.624	0.627	0.578	0.794	0.664	0.702	0.625	0.658	9.98
44)	Ethyl Acetate									
		0.211	0.197	0.213	0.124	0.217	0.225	0.205	0.199	17.10
45)	Methyl Acrylate									
		1.074	1.013	1.027	0.903	1.133	1.098	1.136	1.023	1.051	7.31
46)	Chloroform									
		1.883	1.921	1.981	1.980	2.259	1.976	2.080	1.844	1.991	6.54
47)	2,4-Dimethylpentane									
		1.175	1.158	1.169	1.155	1.347	1.239	1.281	1.137	1.207	6.16
48)	Tetrahydrofuran									
		0.326	0.318	0.321	0.306	0.341	0.339	0.324	0.325	3.78
49)	1,1,1-Trichloroethane									
		1.980	2.045	1.996	1.968	2.204	2.060	2.168	1.974	2.049	4.45
50)	1,2-Dichloroethane									
		1.094	1.103	1.123	1.035	1.201	1.135	1.207	1.063	1.120	5.42
51)	Benzene									
		2.459	2.473	2.453	2.639	2.944	2.578	2.706	2.462	2.589	6.65
52)	Carbon Tetrachloride									
		2.136	1.952	1.951	2.068	2.367	2.162	2.267	2.157	2.132	6.73
53)	Cyclohexane									

Initial Calibration Summary

Job Number: JC85165 **Sample:** V5W1449-ICC1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35526.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

		1.029	0.949	0.992	1.055	1.208	1.066	1.096	0.996	1.049	7.57
54)	2,3-Dimethylpentane										
		0.490	0.480	0.483	0.495	0.602	0.498	0.526	0.480	0.507	8.13
55)	I 1,4-Difluorobenzene	----------ISTD----------									
56)	2,2,4-Trimethylpentane										
		0.931	0.951	0.903	0.917	1.026	0.997	1.035	0.882	0.955	6.05
57)	Heptane										
		0.211	0.198	0.196	0.193	0.186	0.222	0.229	0.207	0.205	7.29
58)	Trichloroethene										
		0.367	0.387	0.385	0.392	0.518	0.389	0.405	0.357	0.400	12.50
59)	1,2-Dichloropropane										
		0.242	0.244	0.262	0.248	0.279	0.257	0.269	0.237	0.255	5.71
60)	Dibromomethane										
		0.428	0.429	0.450	0.473	0.638	0.449	0.464	0.434	0.471	14.76
61)	Ethyl Acrylate										
		0.444	0.419	0.369	0.360		0.457	0.459	0.438	0.421	9.71
62)	Methyl Methacrylate										
		0.235	0.217	0.207	0.219		0.245	0.239	0.231	0.228	5.93
63)	1,4-Dioxane										
		0.158	0.181	0.191	0.172	0.203	0.164	0.166	0.151	0.173	10.07
64)	Bromodichloromethane										
		0.596	0.602	0.596	0.619	0.769	0.626	0.653	0.585	0.631	9.49
65)	cis-1,3-Dichloropropene										
		0.412	0.393	0.358	0.382	0.469	0.426	0.446	0.409	0.412	8.64
66)	4-Methyl-2-pentanone										
		0.191	0.160	0.141	0.114		0.194	0.196	0.190	0.169	18.87
67)	trans-1,3-Dichloropropene										
		0.363	0.323	0.326	0.308	0.366	0.385	0.393	0.351	0.352	8.63
68)	Toluene										
		0.912	0.897	0.865	0.908	0.995	0.973	0.998	0.904	0.932	5.36
69)	1,1,2-Trichloroethane										
		0.344	0.348	0.337	0.336	0.352	0.367	0.374	0.336	0.349	4.13
70)	1,3-Dichloropropane										
		0.397	0.396	0.394	0.352	0.455	0.425	0.434	0.383	0.404	8.01
71)	2-Hexanone										
		0.238	0.258	0.217	0.172		0.243	0.241	0.234	0.229	12.23
72)	Ethyl Methacrylate										
		0.404	0.363	0.313	0.297	0.303	0.414	0.411	0.394	0.363	13.95
73)	Dibromochloromethane										
		0.694	0.692	0.687	0.743	0.998	0.747	0.790	0.667	0.752	14.27
74)	Tetrachloroethene										
		0.621	0.643	0.684	0.791	1.063	0.652	0.679	0.629	0.720	20.59
75)	1,2-Dibromoethane										
		0.546	0.557	0.564	0.587	0.896	0.595	0.603	0.521	0.609	19.59
76)	Octane										
		0.430	0.370	0.356	0.383	0.405	0.455	0.451	0.410	0.408	8.99
77)	1,1,1,2-Tetrachloroethane										
		0.477	0.470	0.472	0.476	0.543	0.527	0.529	0.445	0.492	7.19
78)	I Chlorobenzene-d5	----------ISTD----------									
79)	Chlorobenzene										
		1.789	1.938	2.058	2.190	3.492	1.984	2.063	1.604	2.140	26.90
80)	Ethylbenzene										
		2.751	2.706	2.762	2.923	3.767	2.920	2.975	2.385	2.899	13.69
81)	m,p-Xylene										
		2.131	2.035	2.249	2.457	3.232	2.269	2.288	1.816	2.310	18.15
82)	Styrene										
		1.751	1.407	1.464	1.584	2.444	1.766	1.726	1.537	1.710	19.04
83)	Nonane										

	1.020	0.916	0.918	0.985	1.322	1.024	0.947	0.891	1.003	13.76
84)	o-Xylene									
	2.148	2.122	2.127	2.194	3.342	2.320	2.357	1.773	2.298	19.90
85)	Bromoform									
	1.744	1.672	1.745	1.723	3.099	1.907	1.931	1.441	1.908	26.44
86)	1,1,2,2-Tetrachloroethane									
	1.614	1.614	1.681	1.776	2.654	1.695	1.754	1.438	1.778	20.75
87)	1,2,3-Trichloropropane									
	1.127	1.136	1.184	1.285	1.948	1.183	1.201	0.985	1.256	23.26
88)	Isopropylbenzene									
	3.244	2.979	3.135	3.204	4.390	3.341	3.258	2.699	3.281	14.99
89)	Bromobenzene									
	1.202	1.126	1.282	1.388		1.270	1.245	0.988	1.214	10.53
90)	2-Chlorotoluene									
	0.881	0.755	0.787	0.887	1.297	0.900	0.894	0.722	0.890	20.05
91)	n-Propylbenzene									
	0.904	0.748	0.772	0.822	1.214	0.896	0.888	0.787	0.879	16.87
92)	4-Bromofluorobenzene									
	1.353	1.282	1.326	1.312	1.329	1.369	1.324	1.105	1.300	6.38
93)	4-Ethyltoluene									
	2.993	2.655	2.701	2.829	4.429	2.975	3.049	2.702	3.042	19.08
94)	1,3,5-Trimethylbenzene									
	2.556	2.346	2.463	2.639	4.301	2.575	2.583	2.362	2.728	23.62
95)	alpha-Methylstyrene									
	1.298	1.041	1.106	1.291	1.998	1.307	1.300	1.234	1.322	22.00
96)	tert-Butylbenzene									
	0.591	0.560	0.590	0.608	1.049	0.596	0.602	0.551	0.643	25.66
97)	1,2,4-Trimethylbenzene									
	2.450	2.212	2.262	2.368	4.110	2.475	2.510	2.285	2.584	24.22
98)	1,3-Dichlorobenzene									
	1.793	1.565	1.829	2.167		1.823	1.811	1.713	1.814	10.00
99)	Benzyl Chloride									
	1.725	1.257	1.293	1.481		1.710	1.638	1.689	1.542	12.96
100)	1,4-Dichlorobenzene									
	1.733	1.571	1.777	2.333		1.727	1.712	1.650	1.786	14.01
101)	sec-Butylbenzene									
	0.718	0.687	0.706	0.723		0.728	0.738	0.686	0.712	2.83
102)	p-Isopropyltoluene									
	0.791	0.745	0.694	0.771	1.156	0.811	0.815	0.760	0.818	17.39
103)	1,2-Dichlorobenzene									
	1.686	1.495	1.667	2.135		1.707	1.688	1.615	1.713	11.64
104)	n-Butylbenzene									
	0.654	0.529	0.531	0.634	1.139	0.676	0.673	0.640	0.685	28.16
105)	Hexachloroethane									
	1.252	1.021	1.014	1.072	1.362	1.242	1.198	1.139	1.162	10.58
106)	1,2,4-Trichlorobenzene									
	0.670	0.279	0.396	0.680		0.625	0.509	0.698	0.551	29.42
107)	Naphthalene									
	1.118	0.406	0.837			1.039	0.745	1.187	0.889	32.61
108)	Hexachlorobutadiene									
	0.910	0.722	0.872	1.023		0.951	0.916	0.879	0.896	10.29
109)	I Bromochloromethane (A	----------	ISTD	----------						
110)	TVHC as equiv Pentane									
	3.692	3.864	3.591			3.905	4.036	3.584	3.779	4.89
111)	2H,3H-Decafluoropentane									
	2.206	2.258	2.169	2.324	2.645	2.284	2.408	2.074	2.296	7.55

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

Initial Calibration Summary

Job Number: JC85165 **Sample:** V5W1449-ICC1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35526.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

m5w1449.M Wed Mar 13 09:30:03 2019

Initial Calibration Verification

Job Number: JC85165 **Sample:** V5W1449-ICV1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35534.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\5w35534.D Vial: 5
Acq On : 12 Mar 2019 11:18 pm Operator: danat
Sample : icv1449-10 Inst : Air5w
Misc : ms32850,v5w1449,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1449.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Wed Mar 13 09:29:26 2019
Response via : Single Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	96	0.00	8.09
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.452	0.445	1.5	95	0.00	3.95
4	Chlorodifluoromethane	0.215	0.217	-0.9	95	0.00	3.99
5	Propene	0.428	0.424	0.9	96	-0.01	4.01
6	Chlorotrifluoroethene	1.351	1.388	-2.7	100	-0.01	4.02
7	Dichlorodifluoromethane	2.355	2.303	2.2	96	-0.01	4.06
8	1-Chloro-1,1-difluoroetha	1.477	1.513	-2.4	100	-0.01	4.17
9	Chloromethane	0.449	0.444	1.1	95	0.00	4.19
10	Dichlorotetrafluoroethane	1.800	1.778	1.2	96	-0.01	4.26
11	Vinyl Chloride	0.489	0.502	-2.7	96	0.00	4.36
12	1,3-Butadiene	0.319	0.317	0.6	96	0.00	4.46
13	n-Butane	0.063	0.069	-9.5	97	0.00	4.49
14	Bromomethane	0.759	0.696	8.3	96	0.00	4.67
15	Chloroethane	0.224	0.228	-1.8	98	-0.01	4.79
16	Dichlorofluoromethane	1.346	1.252	7.0	92	-0.01	4.87
17	Acetonitrile	0.293	0.268	8.5	98	-0.01	5.09
18	Freon 123	1.471	1.526	-3.7	100	0.00	5.19
19	Freon 123A	0.996	1.101	-10.5	109	0.00	5.23
20	Bromoethene	0.723	0.716	1.0	96	-0.01	5.07
21	Acrolein	0.175	0.175	0.0	97	0.00	5.18
22	Trichlorofluoromethane	2.211	2.261	-2.3	99	0.00	5.40
23	Acetone	0.201	0.191	5.0	103	-0.01	5.29
24	Pentane	0.156	0.165	-5.8	95	0.00	5.68
25	1,1-Dichloro-1-fluoroetha		----------NA----------				
26	Iodomethane	2.957	2.945	0.4	97	0.00	5.87
27	Isopropyl Alcohol	0.224	0.209	6.7	105	0.00	5.50
28	1,1-Dichloroethene	1.144	1.243	-8.7	103	0.00	5.94
29	Freon 113	1.919	2.031	-5.8	102	-0.01	6.26
30	Methylene Chloride	0.779	0.755	3.1	101	0.00	6.05
31	Carbon Disulfide	2.195	2.418	-10.2	103	0.00	6.30
32	Ethanol	0.170	0.141	17.1	100	0.00	4.91
33	Acrylonitrile	0.456	0.506	-11.0	101	0.00	5.67
34	3-Chloropropene	0.336	0.355	-5.7	100	-0.01	6.14
35	trans-1,2-Dichloroethene	1.021	1.108	-8.5	100	0.00	6.89
36	tert-Butyl Alcohol	1.385	1.316	5.0	91	0.00	6.00
37	Methyl tert-Butyl Ether	2.111	2.179	-3.2	96	0.00	7.15
38	Vinyl Acetate	1.615	1.683	-4.2	102	0.00	7.25
39	1,1-Dichloroethane	1.392	1.391	0.1	97	0.00	7.09
40	2-Butanone	0.312	0.360	-15.4	107	0.00	7.50
41	Hexane	1.010	1.021	-1.1	96	0.00	8.10
42	cis-1,2-Dichloroethene	1.049	1.075	-2.5	98	0.00	7.92

Initial Calibration Verification

Job Number: JC85165 **Sample:** V5W1449-ICV1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35534.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

43		Di-isopropyl Ether	0.658	0.668	-1.5	97	0.00	8.13
44		Ethyl Acetate	0.199	0.239	-20.1	106	0.00	8.18
45		Methyl Acrylate	1.051	1.229	-16.9	108	0.00	8.16
46		Chloroform	1.991	1.990	0.1	97	0.00	8.22
47		2,4-Dimethylpentane	1.207	1.226	-1.6	95	0.00	9.04
48		Tetrahydrofuran	0.325	0.346	-6.5	97	0.00	8.68
49		1,1,1-Trichloroethane	2.049	2.088	-1.9	98	0.00	9.27
50		1,2-Dichloroethane	1.120	1.164	-3.9	99	0.00	9.00
51		Benzene	2.589	2.582	0.3	96	0.00	9.78
52		Carbon Tetrachloride	2.132	2.193	-2.9	98	0.00	9.95
53		Cyclohexane	1.049	1.059	-1.0	96	0.00	10.07
54		2,3-Dimethylpentane	0.507	0.506	0.2	98	0.00	10.36
55	I	1,4-Difluorobenzene	1.000	1.000	0.0	97	0.00	10.21
56		2,2,4-Trimethylpentane	0.955	0.996	-4.3	97	0.00	11.03
57		Heptane	0.205	0.222	-8.3	97	0.00	11.37
58		Trichloroethene	0.400	0.388	3.0	97	0.00	11.02
59		1,2-Dichloropropane	0.255	0.258	-1.2	97	0.00	10.73
60		Dibromomethane	0.471	0.477	-1.3	103	0.00	10.71
61		Ethyl Acrylate	0.421	0.482	-14.5	102	0.00	10.79
62		Methyl Methacrylate	0.228	0.250	-9.6	99	0.00	11.31
63		1,4-Dioxane	0.173	0.169	2.3	100	0.00	11.06
64		Bromodichloromethane	0.631	0.645	-2.2	100	0.00	10.98
65		cis-1,3-Dichloropropene	0.412	0.466	-13.1	106	0.00	12.08
66		4-Methyl-2-pentanone	0.169	0.198	-17.2	99	0.00	12.15
67		trans-1,3-Dichloropropene	0.352	0.419	-19.0	106	0.00	12.76
68		Toluene	0.932	0.964	-3.4	96	0.00	13.31
69		1,1,2-Trichloroethane	0.349	0.365	-4.6	97	0.00	12.97
70		1,3-Dichloropropane	0.404	0.444	-9.9	102	0.00	13.36
71		2-Hexanone	0.229	0.267	-16.6	107	0.00	13.70
72		Ethyl Methacrylate	0.363	0.425	-17.1	100	0.00	13.74
73		Dibromochloromethane	0.752	0.770	-2.4	100	0.00	13.86
74		Tetrachloroethene	0.720	0.656	8.9	98	0.00	14.81
75		1,2-Dibromoethane	0.609	0.630	-3.4	103	0.00	14.18
76		Octane	0.408	0.447	-9.6	95	0.00	14.65
77		1,1,1,2-Tetrachloroethane	0.492	0.531	-7.9	98	0.00	15.73
78	I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00	15.69
79		Chlorobenzene	2.140	2.015	5.8	99	0.00	15.75
80		Ethylbenzene	2.899	2.913	-0.5	97	0.00	16.29
81		m,p-Xylene	2.310	2.264	2.0	97	0.00	16.57
82		Styrene	1.710	1.823	-6.6	101	0.00	17.09
83		Nonane	1.003	1.053	-5.0	100	0.00	17.62
84		o-Xylene	2.298	2.304	-0.3	97	0.00	17.24
85		Bromoform	1.908	1.980	-3.8	101	0.00	16.64
86		1,1,2,2-Tetrachloroethane	1.778	1.749	1.6	101	0.00	17.24
87		1,2,3-Trichloropropane	1.256	1.210	3.7	100	0.00	17.43
88		Isopropylbenzene	3.281	3.384	-3.1	99	0.00	18.15
89		Bromobenzene	1.214	1.349	-11.1	103	0.00	18.25
90		2-Chlorotoluene	0.890	0.948	-6.5	103	0.00	18.88
91		n-Propylbenzene	0.879	0.956	-8.8	104	0.00	18.95
92	S	4-Bromofluorobenzene	1.300	1.347	-3.6	96	0.00	17.93
93		4-Ethyltoluene	3.042	3.162	-3.9	104	0.00	19.18
94		1,3,5-Trimethylbenzene	2.728	2.648	2.9	100	0.00	19.31
95		alpha-Methylstyrene	1.322	1.421	-7.5	106	0.00	19.55
96		tert-Butylbenzene	0.643	0.617	4.0	101	0.00	19.90
97		1,2,4-Trimethylbenzene	2.584	2.572	0.5	101	0.00	19.91
98		1,3-Dichlorobenzene	1.814	1.991	-9.8	106	0.00	20.10
99		Benzyl Chloride	1.542	1.955	-26.8	111	0.00	20.09
100		1,4-Dichlorobenzene	1.786	1.949	-9.1	110	0.00	20.20

Initial Calibration Verification

Job Number: JC85165 **Sample:** V5W1449-ICV1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35534.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

101		sec-Butylbenzene	0.712	0.765	-7.4	102	0.00	20.29
102		p-Isopropyltoluene	0.818	0.853	-4.3	102	0.00	20.53
103		1,2-Dichlorobenzene	1.713	1.837	-7.2	105	0.00	20.67
104		n-Butylbenzene	0.685	0.729	-6.4	105	0.00	21.11
105		Hexachloroethane	1.162	1.351	-16.3	106	0.00	21.58
106		1,2,4-Trichlorobenzene	0.551	0.794	-44.1#	124	0.00	22.92
107		Naphthalene	0.889	1.196	-34.5#	112	0.00	23.05
108		Hexachlorobutadiene	0.896	1.149	-28.2	118	0.00	23.51
109	I	Bromochloromethane (A)	1.000	1.000	0.0	96	0.00	8.09
110		TVHC as equiv Pentane	3.779	3.972	-5.1	98	-0.01	5.67
111		2H,3H-Decafluoropentane	2.296	2.258	1.7	95	0.00	4.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5w35526.D m5w1449.M Wed Mar 13 10:24:10 2019

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V5W1468-CC1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35987.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\5w35987.D Vial: 2
Acq On : 6 Apr 2019 8:20 am Operator: gabriep
Sample : cc1449-10 Inst : Air5w
Misc : ms33645,v5w1468,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1449.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Wed Mar 13 09:29:26 2019
Response via : Single Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	100	0.02	8.11
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.452	0.409	9.5	90	0.03	3.99
4	Chlorodifluoromethane	0.215	0.251	-16.7	114	0.03	4.03
5	Propene	0.428	0.375	12.4	88	0.02	4.05
6	Chlorotrifluoroethene	1.351	1.288	4.7	96	0.02	4.05
7	Dichlorodifluoromethane	2.355	2.441	-3.7	105	0.02	4.10
8	1-Chloro-1,1-difluoroetha	1.477	1.806	-22.3	124	0.02	4.21
9	Chloromethane	0.449	0.470	-4.7	104	0.02	4.22
10	Dichlorotetrafluoroethane	1.800	1.968	-9.3	110	0.02	4.30
11	Vinyl Chloride	0.489	0.534	-9.2	106	0.03	4.39
12	1,3-Butadiene	0.319	0.339	-6.3	106	0.03	4.49
13	n-Butane	0.063	0.068	-7.9	100	0.02	4.52
14	Bromomethane	0.759	0.730	3.8	104	0.02	4.70
15	Chloroethane	0.224	0.234	-4.5	104	0.02	4.83
16	Dichlorofluoromethane	1.346	1.478	-9.8	112	0.02	4.90
17	Acetonitrile	0.293	0.241	17.7	92	0.02	5.12
18	Freon 123	1.471	1.509	-2.6	103	0.02	5.22
19	Freon 123A	0.996	1.063	-6.7	109	0.02	5.26
20	Bromoethene	0.723	0.752	-4.0	104	0.02	5.10
21	Acrolein	0.175	0.158	9.7	91	0.02	5.21
22	Trichlorofluoromethane	2.211	2.508	-13.4	113	0.02	5.43
23	Acetone	0.201	0.177	11.9	98	0.02	5.32
24	Pentane	0.156	0.147	5.8	88	0.02	5.70
25	1,1-Dichloro-1-fluoroetha		----------NA----------				
26	Iodomethane	2.957	2.866	3.1	97	0.02	5.91
27	Isopropyl Alcohol	0.224	0.191	14.7	99	0.02	5.53
28	1,1-Dichloroethene	1.144	1.134	0.9	97	0.02	5.96
29	Freon 113	1.919	1.818	5.3	95	0.02	6.29
30	Methylene Chloride	0.779	0.647	16.9	89	0.02	6.08
31	Carbon Disulfide	2.195	2.061	6.1	91	0.02	6.33
32	Ethanol	0.170	0.128	24.7	94	0.02	4.94
33	Acrylonitrile	0.456	0.411	9.9	85	0.02	5.70
34	3-Chloropropene	0.336	0.303	9.8	88	0.02	6.17
35	trans-1,2-Dichloroethene	1.021	0.966	5.4	90	0.02	6.91
36	tert-Butyl Alcohol	1.385	1.273	8.1	91	0.02	6.03
37	Methyl tert-Butyl Ether	2.111	2.016	4.5	92	0.02	7.18
38	Vinyl Acetate	1.615	1.312	18.8	82	0.02	7.26
39	1,1-Dichloroethane	1.392	1.271	8.7	92	0.02	7.11
40	2-Butanone	0.312	0.269	13.8	82	0.01	7.52
41	Hexane	1.010	0.891	11.8	87	0.02	8.12
42	cis-1,2-Dichloroethene	1.049	0.957	8.8	90	0.02	7.94

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V5W1468-CC1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35987.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

43		Di-isopropyl Ether	0.658	0.608	7.6	91	0.01	8.14
44		Ethyl Acetate	0.199	0.181	9.0	83	0.01	8.19
45		Methyl Acrylate	1.051	0.925	12.0	84	0.01	8.18
46		Chloroform	1.991	1.946	2.3	98	0.01	8.24
47		2,4-Dimethylpentane	1.207	1.059	12.3	85	0.01	9.06
48		Tetrahydrofuran	0.325	0.280	13.8	82	0.01	8.70
49		1,1,1-Trichloroethane	2.049	2.156	-5.2	104	0.00	9.28
50		1,2-Dichloroethane	1.120	1.227	-9.6	108	0.01	9.02
51		Benzene	2.589	2.180	15.8	84	0.00	9.80
52		Carbon Tetrachloride	2.132	2.246	-5.3	103	0.00	9.96
53		Cyclohexane	1.049	0.879	16.2	82	0.00	10.08
54		2,3-Dimethylpentane	0.507	0.439	13.4	88	0.01	10.37
55	I	1,4-Difluorobenzene	1.000	1.000	0.0	95	0.00	10.22
56		2,2,4-Trimethylpentane	0.955	0.911	4.6	87	0.00	11.04
57		Heptane	0.205	0.207	-1.0	88	0.00	11.38
58		Trichloroethene	0.400	0.375	6.3	91	0.00	11.03
59		1,2-Dichloropropane	0.255	0.229	10.2	84	0.00	10.74
60		Dibromomethane	0.471	0.453	3.8	96	0.00	10.72
61		Ethyl Acrylate	0.421	0.398	5.5	82	0.00	10.79
62		Methyl Methacrylate	0.228	0.215	5.7	83	0.00	11.31
63		1,4-Dioxane	0.173	0.140	19.1	81	0.00	11.07
64		Bromodichloromethane	0.631	0.643	-1.9	97	0.00	10.99
65		cis-1,3-Dichloropropene	0.412	0.394	4.4	88	0.00	12.09
66		4-Methyl-2-pentanone	0.169	0.167	1.2	82	0.00	12.15
67		trans-1,3-Dichloropropene	0.352	0.364	-3.4	90	0.00	12.76
68		Toluene	0.932	0.865	7.2	84	0.00	13.31
69		1,1,2-Trichloroethane	0.349	0.334	4.3	86	0.00	12.97
70		1,3-Dichloropropane	0.404	0.394	2.5	88	0.00	13.36
71		2-Hexanone	0.229	0.203	11.4	79	0.00	13.71
72		Ethyl Methacrylate	0.363	0.378	-4.1	86	0.00	13.74
73		Dibromochloromethane	0.752	0.765	-1.7	97	0.00	13.86
74		Tetrachloroethene	0.720	0.667	7.4	97	0.00	14.81
75		1,2-Dibromoethane	0.609	0.556	8.7	89	0.00	14.18
76		Octane	0.408	0.414	-1.5	86	0.00	14.65
77		1,1,1,2-Tetrachloroethane	0.492	0.537	-9.1	97	0.00	15.73
78	I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00	15.69
79		Chlorobenzene	2.140	1.881	12.1	92	0.00	15.75
80		Ethylbenzene	2.899	2.740	5.5	91	0.00	16.29
81		m,p-Xylene	2.310	2.162	6.4	92	0.00	16.56
82		Styrene	1.710	1.654	3.3	90	0.00	17.08
83		Nonane	1.003	0.945	5.8	89	0.00	17.62
84		o-Xylene	2.298	2.286	0.5	95	0.00	17.24
85		Bromoform	1.908	1.991	-4.4	101	0.00	16.64
86		1,1,2,2-Tetrachloroethane	1.778	1.587	10.7	90	0.00	17.24
87		1,2,3-Trichloropropane	1.256	1.156	8.0	94	0.00	17.43
88		Isopropylbenzene	3.281	3.356	-2.3	97	0.00	18.14
89		Bromobenzene	1.214	1.309	-7.8	99	0.00	18.24
90		2-Chlorotoluene	0.890	0.915	-2.8	98	0.00	18.87
91		n-Propylbenzene	0.879	0.931	-5.9	100	0.00	18.95
92	S	4-Bromofluorobenzene	1.300	1.457	-12.1	103	0.00	17.92
93		4-Ethyltoluene	3.042	3.031	0.4	98	0.00	19.18
94		1,3,5-Trimethylbenzene	2.728	2.563	6.0	96	0.00	19.30
95		alpha-Methylstyrene	1.322	1.301	1.6	96	0.00	19.54
96		tert-Butylbenzene	0.643	0.628	2.3	102	0.00	19.89
97		1,2,4-Trimethylbenzene	2.584	2.506	3.0	98	0.00	19.90
98		1,3-Dichlorobenzene	1.814	1.842	-1.5	98	0.00	20.09
99		Benzyl Chloride	1.542	1.592	-3.2	90	0.00	20.09
100		1,4-Dichlorobenzene	1.786	1.690	5.4	94	0.00	20.20

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V5W1468-CC1449
Account: ERMNYW ERM, Inc. **Lab FileID:** 5W35987.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

101		sec-Butylbenzene	0.712	0.763	-7.2	101	0.00	20.28
102		p-Isopropyltoluene	0.818	0.858	-4.9	102	0.00	20.53
103		1,2-Dichlorobenzene	1.713	1.716	-0.2	97	0.00	20.67
104		n-Butylbenzene	0.685	0.656	4.2	94	0.00	21.11
105		Hexachloroethane	1.162	1.403	-20.7	109	0.00	21.57
106		1,2,4-Trichlorobenzene	0.551	0.480	12.9	74	0.00	22.92
107		Naphthalene	0.889	0.673	24.3	63	0.00	23.05
108		Hexachlorobutadiene	0.896	0.901	-0.6	91	0.00	23.51
109	I	Bromochloromethane (A)	1.000	1.000	0.0	100	0.02	8.11
110		TVHC as equiv Pentane	3.779	3.525	6.7	90	0.02	5.70
111		2H,3H-Decafluoropentane	2.296	2.654	-15.6	116	0.02	4.31

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5w35526.D m5w1449.M Mon Apr 08 09:30:09 2019

Initial Calibration Summary

Job Number: JC85165 **Sample:** V6W335-ICC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08754.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Response Factor Report GCMS6W

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Calibration Files
20 =6W08755.D 0.5 =6W08752.D 0.2 =6W08751.D 0.1 =6W08750.D
0.04=6W08749.D 10 =6W08754.D 5 =6W08753.D 40 =6W08756.D
= =

Compound	20	0.5	0.2	0.1	0.04	10	5	40	Avg	%RSD
1) I Bromochloromethane	----------ISTD----------									
2) 1,1,1-Trifluoroethane									0.000	-1.00
3) Freon 152A	0.504	0.505	0.507	0.552	0.507	0.517	0.533	0.499	0.515	3.48
4) Chlorodifluoromethane	0.256	0.250	0.237	0.240		0.258	0.268	0.249	0.251	4.26
5) Propene	0.555	0.553	0.576	0.602	0.674	0.570	0.592	0.549	0.584	7.01
6) Chlorotrifluoroethene	1.390	1.424	1.511	1.614	1.645	1.434	1.505	1.355	1.485	6.98
7) Dichlorodifluoromethane	2.460	2.570	2.681	2.905	2.875	2.534	2.663	2.362	2.631	7.22
8) 1-Chloro-1,1-difluoroethane	1.920	2.003	2.105	2.280	2.352	1.986	2.091	1.823	2.070	8.58
9) Chloromethane	0.699	0.730	0.765	0.816	0.769	0.727	0.766	0.683	0.744	5.79
10) Dichlorotetrafluoroethane	2.474	2.663	2.788	2.989	3.364	2.603	2.788	2.294	2.745	11.93
11) Vinyl Chloride	0.858	0.872	0.928	0.979	0.936	0.891	0.937	0.836	0.905	5.31
12) 1,3-Butadiene	0.610	0.624	0.648	0.732	0.542	0.629	0.667	0.605	0.632	8.65
13) n-Butane	0.159	0.161	0.154	0.109		0.164	0.174	0.158	0.154	13.46
14) Bromomethane	0.894	0.965	1.023	1.087	1.057	0.935	1.000	0.858	0.977	8.11
15) Acrolein	0.370	0.343	0.361	0.382		0.374	0.386	0.366	0.369	3.92
16) Chloroethane	0.453	0.472	0.445	0.483		0.467	0.495	0.444	0.466	4.14
17) Dichlorofluoromethane	2.092	2.192	2.335	2.507	2.447	2.176	2.314	2.007	2.259	7.64
18) Acetonitrile	0.653	0.652	0.687	0.740	0.702	0.668	0.691	0.653	0.681	4.54
19) Freon 123	2.171	2.236	2.400	2.525	2.662	2.249	2.365	2.084	2.336	8.17
20) Freon 123A	1.359	1.414	1.466	1.514	1.642	1.410	1.482	1.305	1.449	7.11
21) Bromoethene	0.952	0.978	1.033	1.102	0.957	0.988	1.034	0.919	0.995	5.86
22) Trichlorofluoromethane	2.484	2.593	2.753	2.962	3.041	2.561	2.709	2.428	2.691	8.18
23) Acetone										

Initial Calibration Summary

Job Number: JC85165 **Sample:** V6W335-ICC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08754.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

		0.388	0.411	0.419	0.503	0.395	0.420	0.381	0.417	9.80
24)	Pentane									
		0.223	0.209	0.209	0.163	0.225	0.237	0.223	0.213	11.22
25)	1,1-Dichloro-1-fluoroethane									
									0.000	-1.00
26)	Iodomethane									
		2.757	2.818	2.974	3.228	3.269	2.867	3.018	2.650	2.947	7.42
27)	Isopropyl Alcohol									
		1.505	1.379	1.592	1.728	1.528	1.570	1.490	1.542	6.94
28)	1,1-Dichloroethene									
		1.380	1.341	1.382	1.514	1.637	1.411	1.465	1.357	1.436	6.92
29)	Freon 113									
		1.974	2.025	2.149	2.262	2.341	2.036	2.146	1.931	2.108	6.76
30)	Methylene Chloride									
		0.817	0.889	1.036	1.304	0.836	0.877	0.810	0.939	19.02
31)	Carbon Disulfide									
		2.483	2.447	2.568	2.859	2.986	2.554	2.649	2.440	2.623	7.63
32)	Ethanol									
		0.328	0.354	0.366	0.406	0.334	0.351	0.326	0.352	7.90
33)	Acrylonitrile									
		0.681	0.610	0.648	0.614	0.691	0.704	0.679	0.661	5.66
34)	3-Chloropropene									
		0.450	0.414	0.396	0.401	0.454	0.465	0.446	0.432	6.43
35)	trans-1,2-Dichloroethene									
		1.280	1.239	1.279	1.346	1.348	1.306	1.343	1.271	1.302	3.15
36)	tert-Butyl Alcohol									
		1.889	1.621	1.648	1.696	1.894	1.912	1.882	1.792	7.26
37)	Methyl tert-Butyl Ether									
		2.687	2.565	2.626	2.867	2.869	2.738	2.818	2.670	2.730	4.14
38)	Vinyl Acetate									
		2.425	1.989	2.001	1.980	2.407	2.433	2.438	2.239	10.42
39)	1,1-Dichloroethane									
		1.583	1.562	1.653	1.803	2.029	1.624	1.685	1.567	1.688	9.40
40)	2-Butanone									
		0.466	0.385	0.345	0.276	0.470	0.478	0.470	0.413	19.22
41)	Hexane									
		1.366	1.304	1.353	1.410	1.310	1.387	1.451	1.347	1.366	3.64
42)	cis-1,2-Dichloroethene									
		1.261	1.210	1.264	1.328	1.315	1.289	1.332	1.262	1.282	3.25
43)	Di-isopropyl Ether									
		0.877	0.830	0.811	0.849	0.706	0.892	0.924	0.863	0.844	7.82
44)	Ethyl Acetate									
		0.288	0.243	0.205		0.291	0.299	0.288	0.269	13.82
45)	Methyl Acrylate									
		1.672	1.434	1.331	1.283	1.696	1.740	1.665	1.546	12.33
46)	Chloroform									
		2.065	2.071	2.194	2.394	2.628	2.119	2.223	2.033	2.216	9.17
47)	2,4-Dimethylpentane									
		1.598	1.519	1.558	1.672	1.541	1.626	1.697	1.587	1.600	3.90
48)	Tetrahydrofuran									
		0.437	0.375	0.356	0.307	0.437	0.451	0.438	0.400	13.71
49)	1,1,1-Trichloroethane									
		2.168	2.119	2.196	2.401	2.364	2.200	2.283	2.159	2.236	4.56
50)	1,2-Dichloroethane									
		1.328	1.301	1.376	1.398	1.371	1.361	1.422	1.327	1.360	2.96
51)	Benzene									
		2.945	2.860	2.961	3.266	3.239	3.008	3.134	2.897	3.039	5.11
52)	Carbon Tetrachloride									
		2.279	2.094	2.207	2.423	2.292	2.294	2.344	2.266	2.275	4.23
53)	Cyclohexane									

Initial Calibration Summary

Job Number: JC85165 **Sample:** V6W335-ICC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08754.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

		1.374	1.323	1.382	1.525	1.404	1.405	1.452	1.377	1.405	4.31
54)	2,3-Dimethylpentane										
		0.652	0.615	0.653	0.672	0.488	0.661	0.690	0.648	0.635	9.95
55)	I 1,4-Difluorobenzene	----------ISTD----------									
56)	2,2,4-Trimethylpentane										
		1.237	1.191	1.234	1.316	1.315	1.255	1.320	1.176	1.255	4.53
57)	Heptane										
		0.287	0.265	0.271	0.275	0.263	0.288	0.298	0.279	0.278	4.43
58)	Trichloroethene										
		0.397	0.381	0.397	0.429	0.430	0.400	0.418	0.381	0.404	4.85
59)	1,2-Dichloropropane										
		0.293	0.283	0.290	0.308	0.302	0.295	0.307	0.281	0.295	3.42
60)	Dibromomethane										
		0.413	0.410	0.424	0.489	0.522	0.421	0.441	0.393	0.439	10.03
61)	Ethyl Acrylate										
		0.606	0.462	0.429	0.425		0.596	0.601	0.594	0.530	16.39
62)	Methyl Methacrylate										
		0.307	0.249	0.234	0.236		0.303	0.313	0.305	0.278	13.11
63)	1,4-Dioxane										
		0.200	0.174	0.166	0.172		0.197	0.205	0.194	0.187	8.35
64)	Bromodichloromethane										
		0.641	0.591	0.590	0.642	0.620	0.640	0.661	0.629	0.627	4.05
65)	cis-1,3-Dichloropropene										
		0.485	0.409	0.413	0.425	0.418	0.480	0.486	0.483	0.450	8.08
66)	4-Methyl-2-pentanone										
		0.244	0.208	0.191	0.201		0.240	0.247	0.240	0.225	10.43
67)	trans-1,3-Dichloropropene										
		0.434	0.333	0.324	0.339	0.290	0.424	0.420	0.436	0.375	15.74
68)	Toluene										
		1.035	0.980	1.001	1.080	1.202	1.048	1.082	0.990	1.052	6.83
69)	1,1,2-Trichloroethane										
		0.349	0.334	0.336	0.349	0.349	0.352	0.364	0.342	0.347	2.80
70)	1,3-Dichloropropane										
		0.468	0.440	0.444	0.485	0.486	0.471	0.482	0.453	0.466	3.96
71)	2-Hexanone										
		0.328	0.245	0.219	0.210		0.322	0.321	0.329	0.282	19.39
72)	Ethyl Methacrylate										
		0.520	0.404	0.382	0.388		0.511	0.518	0.518	0.463	14.58
73)	Dibromochloromethane										
		0.668	0.559	0.553	0.598	0.578	0.664	0.665	0.639	0.615	7.98
74)	Tetrachloroethene										
		0.581	0.598	0.630	0.706	0.790	0.598	0.624	0.542	0.633	12.44
75)	1,2-Dibromoethane										
		0.549	0.483	0.489	0.500	0.503	0.550	0.554	0.532	0.520	5.67
76)	Octane										
		0.576	0.536	0.545	0.584	0.592	0.582	0.601	0.564	0.572	3.94
77)	1,1,1,2-Tetrachloroethane										
		0.451	0.415	0.423	0.451	0.421	0.454	0.467	0.422	0.438	4.53
78)	I Chlorobenzene-d5	----------ISTD----------									
79)	Chlorobenzene										
		1.641	1.857	1.943	2.132	2.148	1.783	1.919	1.406	1.854	13.32
80)	Ethylbenzene										
		2.624	2.907	3.003	3.196	3.245	2.826	3.082	2.308	2.899	10.77
81)	m,p-Xylene										
		2.028	2.369	2.395	2.540	2.461	2.188	2.391	1.783	2.269	11.20
82)	Styrene										
		1.517	1.416	1.332	1.421	1.383	1.590	1.702	1.352	1.464	8.80
83)	Nonane										

Initial Calibration Summary

Job Number: JC85165 **Sample:** V6W335-ICC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08754.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

```
            1.160 1.328 1.322 1.396 1.289 1.249 1.365 1.039          1.269    9.28
 84)  o-Xylene
            2.014 2.294 2.317 2.435 2.595 2.187 2.398 1.747          2.248   11.81
 85)  Bromoform
            1.206 1.013 0.985 1.054 0.953 1.240 1.281 1.074          1.101   11.32
 86)  1,1,2,2-Tetrachloroethane
            1.148 1.281 1.299 1.428 1.512 1.240 1.361 1.000          1.284   12.49
 87)  1,2,3-Trichloropropane
            0.913 0.984 1.016 1.113 1.128 0.972 1.053 0.818          1.000   10.28
 88)  Isopropylbenzene
            2.785 3.303 3.317 3.646 3.682 3.030 3.358 2.411          3.191   13.52
 89)  Bromobenzene
            0.883 0.926 0.918 0.975 0.953 0.928 1.006 0.779          0.921    7.43
 90)  2-Chlorotoluene
            0.665 0.742 0.725 0.787 0.715 0.713 0.777 0.585          0.714    9.04
 91)  n-Propylbenzene
            0.757 0.822 0.799 0.865 0.743 0.812 0.892 0.665          0.794    9.05
 92)  4-Bromofluorobenzene
            1.215 1.264 1.237 1.225 1.209 1.236 1.258 1.122          1.221    3.62
 93)  4-Ethyltoluene
            2.534 2.828 2.688 2.916 2.919 2.720 2.978 2.203          2.723    9.40
 94)  1,3,5-Trimethylbenzene
            2.185 2.523 2.497 2.627 2.799 2.338 2.613 1.902          2.436   11.69
 95)  alpha-Methylstyrene
            1.037 0.938 0.893 0.948 1.026 1.092 1.179 0.918          1.004    9.76
 96)  tert-Butylbenzene
            0.520 0.646 0.644 0.681 0.622 0.574 0.640 0.428          0.594   14.09
 97)  1,2,4-Trimethylbenzene
            2.056 2.339 2.306 2.442 2.435 2.242 2.447 1.720          2.248   11.15
 98)  1,3-Dichlorobenzene
            1.229 1.165 1.166 1.280 1.486 1.293 1.376 1.063          1.257   10.58
 99)  Benzyl Chloride
            1.204 0.590 0.570 0.619 0.735 1.159 1.087 1.151          0.889   32.02
100)  1,4-Dichlorobenzene
            1.143 0.992 0.967 1.050 1.288 1.175 1.228 1.019          1.108   10.63
101)  sec-Butylbenzene
            0.633 0.754 0.751 0.803 0.725 0.686 0.761 0.542          0.707   11.91
102)  p-Isopropyltoluene
            0.646 0.796 0.783 0.774 0.753 0.714 0.790 0.531          0.723   12.78
103)  1,2-Dichlorobenzene
            1.103 1.146 1.176 1.287 1.428 1.170 1.261 0.971          1.193   11.38
104)  n-Butylbenzene
            0.547 0.566 0.547 0.532 0.516 0.583 0.624 0.484          0.550    7.77
105)  Hexachloroethane
            0.708 0.685 0.673 0.712 0.575 0.732 0.755 0.620          0.683    8.72
106)  1,2,4-Trichlorobenzene
            0.332 0.268 0.273 0.310 0.503 0.325 0.307 0.330          0.331   22.23
107)  Naphthalene
            0.635 0.626 0.610 0.690 1.071 0.630 0.591 0.617          0.684   23.28
108)  Hexachlorobutadiene
            0.535 0.814 0.857 0.958 1.136 0.569 0.626 0.481          0.747   30.97

109) I   Bromochloromethane (A ----------------ISTD---------------------
110)  TVHC as equiv Pentane
            3.941 4.541 4.120            3.977 4.271 3.779          4.105    6.60
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           6w335.M           Tue Oct 23 17:34:18 2018
```

Initial Calibration Verification

Job Number: JC85165 **Sample:** V6W335-ICV335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08758.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\6W08758.D Vial: 5
Acq On : 22 Oct 2018 8:45 pm Operator: paulcw
Sample : icv335-10 Inst : GCMS6W
Misc : MS30116,V6W335,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Tue Oct 23 09:39:19 2018
Response via : Single Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	103	0.00	8.18
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.515	0.515	0.0	102	0.00	3.73
4	Chlorodifluoromethane	0.251	0.258	-2.8	102	0.00	3.77
5	Propene	0.584	0.583	0.2	105	0.00	3.79
6	Chlorotrifluoroethene	1.485	1.427	3.9	102	0.00	3.80
7	Dichlorodifluoromethane	2.631	2.562	2.6	104	0.00	3.85
8	1-Chloro-1,1-difluoroetha	2.070	1.849	10.7	96	0.00	3.96
9	Chloromethane	0.744	0.729	2.0	103	0.00	3.99
10	Dichlorotetrafluoroethane	2.745	2.615	4.7	103	0.00	4.06
11	Vinyl Chloride	0.905	0.897	0.9	103	0.00	4.16
12	1,3-Butadiene	0.632	0.637	-0.8	104	0.00	4.27
13	n-Butane	0.154	0.167	-8.4	104	0.00	4.31
14	Bromomethane	0.977	0.931	4.7	102	0.00	4.49
15	Acrolein	0.369	0.356	3.5	98	0.00	5.03
16	Chloroethane	0.466	0.471	-1.1	103	0.00	4.63
17	Dichlorofluoromethane	2.259	2.099	7.1	99	0.00	4.71
18	Acetonitrile	0.681	0.667	2.1	102	0.00	4.92
19	Freon 123	2.336	2.252	3.6	103	0.00	5.06
20	Freon 123A	1.449	1.604	-10.7	117	0.00	5.11
21	Bromoethene	0.995	0.945	5.0	98	0.00	4.93
22	Trichlorofluoromethane	2.691	2.590	3.8	104	0.00	5.30
23	Acetone	0.417	0.371	11.0	96	0.00	5.14
24	Pentane	0.213	0.221	-3.8	101	0.00	5.61
25	1,1-Dichloro-1-fluoroetha		----------NA----------				
26	Iodomethane	2.947	2.822	4.2	101	0.00	5.81
27	Isopropyl Alcohol	1.542	1.567	-1.6	105	0.00	5.34
28	1,1-Dichloroethene	1.436	1.476	-2.8	107	0.00	5.88
29	Freon 113	2.108	2.092	0.8	105	0.00	6.24
30	Methylene Chloride	0.939	0.855	8.9	105	0.00	5.99
31	Carbon Disulfide	2.623	2.049	21.9	82	0.00	6.27
32	Ethanol	0.352	0.327	7.1	100	0.00	4.72
33	Acrylonitrile	0.661	0.684	-3.5	102	0.00	5.56
34	3-Chloropropene	0.432	0.445	-3.0	101	0.00	6.10
35	trans-1,2-Dichloroethene	1.302	1.218	6.5	96	0.00	6.90
36	tert-Butyl Alcohol	1.792	1.625	9.3	88	0.00	5.89
37	Methyl tert-Butyl Ether	2.730	2.696	1.2	101	0.00	7.16
38	Vinyl Acetate	2.239	2.464	-10.0	105	0.00	7.27
39	1,1-Dichloroethane	1.688	1.633	3.3	103	0.00	7.11
40	2-Butanone	0.413	0.485	-17.4	106	0.00	7.51
41	Hexane	1.366	1.336	2.2	99	0.00	8.21
42	cis-1,2-Dichloroethene	1.282	1.280	0.2	102	0.00	8.00

Initial Calibration Verification

Job Number: JC85165 **Sample:** V6W335-ICV335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08758.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

43		Di-isopropyl Ether	0.844	0.898	-6.4	103	0.00	8.20
44		Ethyl Acetate	0.269	0.298	-10.8	105	0.00	8.23
45		Methyl Acrylate	1.546	1.743	-12.7	105	0.00	8.22
46		Chloroform	2.216	2.127	4.0	103	0.00	8.32
47		2,4-Dimethylpentane	1.600	1.666	-4.1	105	0.00	9.19
48		Tetrahydrofuran	0.400	0.472	-18.0	111	0.00	8.74
49		1,1,1-Trichloroethane	2.236	2.227	0.4	104	0.00	9.41
50		1,2-Dichloroethane	1.360	1.368	-0.6	103	0.00	9.13
51		Benzene	3.039	2.999	1.3	102	0.00	9.94
52		Carbon Tetrachloride	2.275	2.307	-1.4	103	0.00	10.12
53		Cyclohexane	1.405	1.396	0.6	102	0.00	10.25
54		2,3-Dimethylpentane	0.635	0.669	-5.4	104	0.00	10.54
55	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00	10.38
56		2,2,4-Trimethylpentane	1.255	1.306	-4.1	106	0.00	11.24
57		Heptane	0.278	0.293	-5.4	104	0.00	11.58
58		Trichloroethene	0.404	0.401	0.7	102	0.00	11.21
59		1,2-Dichloropropane	0.295	0.294	0.3	102	0.00	10.92
60		Dibromomethane	0.439	0.427	2.7	104	0.00	10.89
61		Ethyl Acrylate	0.530	0.595	-12.3	102	0.00	10.94
62		Methyl Methacrylate	0.278	0.316	-13.7	107	0.00	11.47
63		1,4-Dioxane	0.187	0.214	-14.4	111	0.00	11.20
64		Bromodichloromethane	0.627	0.672	-7.2	107	0.00	11.16
65		cis-1,3-Dichloropropene	0.450	0.494	-9.8	105	0.00	12.29
66		4-Methyl-2-pentanone	0.225	0.258	-14.7	109	0.00	12.32
67		trans-1,3-Dichloropropene	0.375	0.446	-18.9	107	0.00	12.97
68		Toluene	1.052	1.051	0.1	102	0.00	13.52
69		1,1,2-Trichloroethane	0.347	0.355	-2.3	103	0.00	13.17
70		1,3-Dichloropropane	0.466	0.482	-3.4	105	0.00	13.57
71		2-Hexanone	0.282	0.351	-24.5	111	0.00	13.89
72		Ethyl Methacrylate	0.463	0.527	-13.8	105	0.00	13.93
73		Dibromochloromethane	0.615	0.714	-16.1	110	0.00	14.09
74		Tetrachloroethene	0.633	0.590	6.8	101	0.00	15.03
75		1,2-Dibromoethane	0.520	0.567	-9.0	105	0.00	14.40
76		Octane	0.572	0.610	-6.6	107	0.00	14.88
77		1,1,1,2-Tetrachloroethane	0.438	0.479	-9.4	108	0.00	15.96
78	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00	15.92
79		Chlorobenzene	1.854	1.774	4.3	103	0.00	15.98
80		Ethylbenzene	2.899	2.815	2.9	103	0.00	16.52
81		m,p-Xylene	2.269	2.170	4.4	103	0.00	16.80
82		Styrene	1.464	1.592	-8.7	104	0.00	17.32
83		Nonane	1.269	1.281	-0.9	106	0.00	17.85
84		o-Xylene	2.248	2.167	3.6	103	0.00	17.47
85		Bromoform	1.101	1.332	-21.0	112	0.00	16.87
86		1,1,2,2-Tetrachloroethane	1.284	1.317	-2.6	110	0.00	17.48
87		1,2,3-Trichloropropane	1.000	1.051	-5.1	112	0.00	17.67
88		Isopropylbenzene	3.191	3.167	0.8	108	0.00	18.37
89		Bromobenzene	0.921	0.966	-4.9	108	0.00	18.49
90		2-Chlorotoluene	0.714	0.751	-5.2	109	0.00	19.10
91		n-Propylbenzene	0.794	0.842	-6.0	108	0.00	19.17
92	S	4-Bromofluorobenzene	1.221	1.228	-0.6	103	0.00	18.16
93		4-Ethyltoluene	2.723	2.979	-9.4	114	0.00	19.40
94		1,3,5-Trimethylbenzene	2.436	2.416	0.8	107	0.00	19.52
95		alpha-Methylstyrene	1.004	1.160	-15.5	110	0.00	19.75
96		tert-Butylbenzene	0.594	0.601	-1.2	109	0.00	20.09
97		1,2,4-Trimethylbenzene	2.248	2.337	-4.0	108	0.00	20.10
98		1,3-Dichlorobenzene	1.257	1.396	-11.1	112	0.00	20.29
99		Benzyl Chloride	0.889	1.401	-57.6#	126	0.00	20.28
100		1,4-Dichlorobenzene	1.108	1.295	-16.9	114	0.00	20.39

Initial Calibration Verification

Job Number: JC85165 **Sample:** V6W335-ICV335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W08758.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

101		sec-Butylbenzene	0.707	0.725	-2.5	110	0.00	20.47
102		p-Isopropyltoluene	0.723	0.766	-5.9	111	0.00	20.70
103		1,2-Dichlorobenzene	1.193	1.271	-6.5	113	0.00	20.85
104		n-Butylbenzene	0.550	0.646	-17.5	115	0.00	21.27
105		Hexachloroethane	0.683	0.817	-19.6	116	0.00	21.73
106		1,2,4-Trichlorobenzene	0.331	0.419	-26.6	134	0.00	23.05
107		Naphthalene	0.684	0.881	-28.8	145#	0.00	23.17
108		Hexachlorobutadiene	0.747	0.632	15.4	115	0.00	23.62
109	I	Bromochloromethane (A)	1.000	1.000	0.0	103	0.00	8.18
110		TVHC as equiv Pentane	4.105	4.011	2.3	103	0.00	5.61

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6W08754.D 6w335.M Tue Oct 23 17:33:57 2018

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W443-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11053.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\6W11053.D Vial: 2
Acq On : 14 Mar 2019 10:51 am Operator: thomash
Sample : cc335-10 Inst : GCMS6W
Misc : MS32960,V6W443,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Tue Oct 23 09:39:19 2018
Response via : Single Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	88	0.00	8.17
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.515	0.575	-11.7	98	0.00	3.73
4	Chlorodifluoromethane	0.251	0.200	20.3	68	0.00	3.77
5	Propene	0.584	0.691	-18.3	107	0.00	3.79
6	Chlorotrifluoroethene	1.485	1.418	4.5	87	0.00	3.80
7	Dichlorodifluoromethane	2.631	2.143	18.5	74	0.00	3.85
8	1-Chloro-1,1-difluoroetha	2.070	1.472	28.9	65	0.00	3.96
9	Chloromethane	0.744	0.787	-5.8	95	0.00	3.99
10	Dichlorotetrafluoroethane	2.745	2.517	8.3	85	0.00	4.06
11	Vinyl Chloride	0.905	0.960	-6.1	95	0.00	4.16
12	1,3-Butadiene	0.632	0.689	-9.0	96	0.00	4.27
13	n-Butane	0.154	0.182	-18.2	98	0.00	4.31
14	Bromomethane	0.977	1.004	-2.8	95	0.00	4.49
15	Acrolein	0.369	0.433	-17.3	102	0.00	5.03
16	Chloroethane	0.466	0.507	-8.8	96	0.00	4.63
17	Dichlorofluoromethane	2.259	2.131	5.7	86	0.00	4.71
18	Acetonitrile	0.681	0.819	-20.3	108	0.00	4.92
19	Freon 123	2.336	2.325	0.5	91	0.00	5.06
20	Freon 123A	1.449	1.361	6.1	85	0.00	5.11
21	Bromoethene	0.995	1.035	-4.0	92	0.00	4.93
22	Trichlorofluoromethane	2.691	2.141	20.4	74	0.00	5.29
23	Acetone	0.417	0.464	-11.3	103	0.00	5.14
24	Pentane	0.213	0.253	-18.8	99	0.00	5.60
25	1,1-Dichloro-1-fluoroetha		----------NA----------				
26	Iodomethane	2.947	2.920	0.9	90	0.00	5.80
27	Isopropyl Alcohol	1.542	1.742	-13.0	100	0.00	5.35
28	1,1-Dichloroethene	1.436	1.367	4.8	85	0.00	5.87
29	Freon 113	2.108	1.981	6.0	86	0.00	6.23
30	Methylene Chloride	0.939	0.866	7.8	91	0.00	5.99
31	Carbon Disulfide	2.623	2.754	-5.0	95	0.00	6.27
32	Ethanol	0.352	0.392	-11.4	103	0.00	4.72
33	Acrylonitrile	0.661	0.805	-21.8	103	0.00	5.56
34	3-Chloropropene	0.432	0.493	-14.1	96	0.00	6.10
35	trans-1,2-Dichloroethene	1.302	1.319	-1.3	89	0.00	6.90
36	tert-Butyl Alcohol	1.792	1.934	-7.9	90	0.00	5.90
37	Methyl tert-Butyl Ether	2.730	2.609	4.4	84	0.00	7.16
38	Vinyl Acetate	2.239	2.741	-22.4	100	0.00	7.26
39	1,1-Dichloroethane	1.688	1.696	-0.5	92	0.00	7.11
40	2-Butanone	0.413	0.500	-21.1	94	0.00	7.52
41	Hexane	1.366	1.538	-12.6	98	0.00	8.20
42	cis-1,2-Dichloroethene	1.282	1.290	-0.6	88	0.00	7.99

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W443-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11053.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

43		Di-isopropyl Ether	0.844	0.887	-5.1	88	0.00	8.20
44		Ethyl Acetate	0.269	0.332	-23.4	100	0.00	8.23
45		Methyl Acrylate	1.546	1.853	-19.9	96	0.00	8.22
46		Chloroform	2.216	1.958	11.6	81	0.00	8.31
47		2,4-Dimethylpentane	1.600	1.818	-13.6	98	0.00	9.18
48		Tetrahydrofuran	0.400	0.468	-17.0	94	0.00	8.75
49		1,1,1-Trichloroethane	2.236	1.893	15.3	76	0.00	9.41
50		1,2-Dichloroethane	1.360	1.122	17.5	73	0.00	9.12
51		Benzene	3.039	3.101	-2.0	91	-0.01	9.93
52		Carbon Tetrachloride	2.275	2.033	10.6	78	-0.01	10.10
53		Cyclohexane	1.405	1.565	-11.4	98	0.00	10.24
54		2,3-Dimethylpentane	0.635	0.704	-10.9	94	-0.01	10.53
55	I	1,4-Difluorobenzene	1.000	1.000	0.0	89	-0.01	10.37
56		2,2,4-Trimethylpentane	1.255	1.390	-10.8	98	-0.01	11.22
57		Heptane	0.278	0.302	-8.6	93	-0.01	11.57
58		Trichloroethene	0.404	0.378	6.4	84	0.00	11.20
59		1,2-Dichloropropane	0.295	0.326	-10.5	98	-0.01	10.91
60		Dibromomethane	0.439	0.419	4.6	88	-0.01	10.88
61		Ethyl Acrylate	0.530	0.643	-21.3	96	0.00	10.94
62		Methyl Methacrylate	0.278	0.322	-15.8	94	0.00	11.47
63		1,4-Dioxane	0.187	0.205	-9.6	92	0.00	11.20
64		Bromodichloromethane	0.627	0.588	6.2	82	0.00	11.16
65		cis-1,3-Dichloropropene	0.450	0.490	-8.9	91	-0.01	12.28
66		4-Methyl-2-pentanone	0.225	0.265	-17.8	98	0.00	12.32
67		trans-1,3-Dichloropropene	0.375	0.420	-12.0	88	-0.01	12.95
68		Toluene	1.052	1.028	2.3	87	0.00	13.52
69		1,1,2-Trichloroethane	0.347	0.351	-1.2	89	0.00	13.17
70		1,3-Dichloropropane	0.466	0.481	-3.2	91	-0.01	13.56
71		2-Hexanone	0.282	0.354	-25.5	98	0.00	13.89
72		Ethyl Methacrylate	0.463	0.528	-14.0	92	0.00	13.92
73		Dibromochloromethane	0.615	0.661	-7.5	89	-0.01	14.07
74		Tetrachloroethene	0.633	0.593	6.3	88	0.00	15.03
75		1,2-Dibromoethane	0.520	0.544	-4.6	88	0.00	14.39
76		Octane	0.572	0.668	-16.8	102	-0.01	14.86
77		1,1,1,2-Tetrachloroethane	0.438	0.453	-3.4	89	0.00	15.95
78	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00	15.91
79		Chlorobenzene	1.854	1.983	-7.0	89	-0.01	15.97
80		Ethylbenzene	2.899	3.054	-5.3	87	0.00	16.52
81		m,p-Xylene	2.269	2.319	-2.2	85	0.00	16.79
82		Styrene	1.464	1.786	-22.0	90	-0.01	17.30
83		Nonane	1.269	1.607	-26.6	103	-0.01	17.84
84		o-Xylene	2.248	2.343	-4.2	86	-0.01	17.46
85		Bromoform	1.101	1.505	-36.7#	97	0.00	16.86
86		1,1,2,2-Tetrachloroethane	1.284	1.585	-23.4	102	0.00	17.47
87		1,2,3-Trichloropropane	1.000	1.157	-15.7	95	0.00	17.66
88		Isopropylbenzene	3.191	3.316	-3.9	88	0.00	18.37
89		Bromobenzene	0.921	1.075	-16.7	93	0.00	18.48
90		2-Chlorotoluene	0.714	0.820	-14.8	92	0.00	19.09
91		n-Propylbenzene	0.794	0.928	-16.9	92	0.00	19.16
92	S	4-Bromofluorobenzene	1.221	1.234	-1.1	80	0.00	18.15
93		4-Ethyltoluene	2.723	3.041	-11.7	90	-0.01	19.38
94		1,3,5-Trimethylbenzene	2.436	2.603	-6.9	89	-0.01	19.51
95		alpha-Methylstyrene	1.004	1.264	-25.9	93	0.00	19.74
96		tert-Butylbenzene	0.594	0.669	-12.6	93	-0.01	20.08
97		1,2,4-Trimethylbenzene	2.248	2.497	-11.1	89	0.00	20.09
98		1,3-Dichlorobenzene	1.257	1.571	-25.0	97	0.00	20.28
99		Benzyl Chloride	0.889	1.542	-73.5#	107	0.00	20.27
100		1,4-Dichlorobenzene	1.108	1.437	-29.7	98	0.00	20.38

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W443-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11053.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

101		sec-Butylbenzene	0.707	0.804	-13.7	94	0.00	20.46
102		p-Isopropyltoluene	0.723	0.839	-16.0	94	0.00	20.69
103		1,2-Dichlorobenzene	1.193	1.416	-18.7	97	0.00	20.85
104		n-Butylbenzene	0.550	0.675	-22.7	93	0.00	21.26
105		Hexachloroethane	0.683	1.010	-47.9#	111	0.00	21.73
106		1,2,4-Trichlorobenzene	0.331	0.411	-24.2	101	0.00	23.04
107		Naphthalene	0.684	0.832	-21.6	106	0.00	23.17
108		Hexachlorobutadiene	0.747	0.618	17.3	87	0.00	23.61
109	I	Bromochloromethane (A)	1.000	1.000	0.0	88	0.00	8.17
110		TVHC as equiv Pentane	4.105	4.433	-8.0	98	0.00	5.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6W08754.D 6w335.M Fri Mar 15 17:25:51 2019

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W457-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11377.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\6W11377.D Vial: 2
Acq On : 3 Apr 2019 2:20 pm Operator: gabriep
Sample : cc335-10 Inst : GCMS6W
Misc : MS33500,V6W457,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Tue Oct 23 09:39:19 2018
Response via : Single Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	85	-0.01	8.16
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.515	0.561	-8.9	92	0.00	3.73
4	Chlorodifluoromethane	0.251	0.196	21.9	64	0.00	3.77
5	Propene	0.584	0.688	-17.8	103	0.00	3.79
6	Chlorotrifluoroethene	1.485	1.356	8.7	80	0.00	3.80
7	Dichlorodifluoromethane	2.631	2.137	18.8	72	0.00	3.85
8	1-Chloro-1,1-difluoroetha	2.070	1.475	28.7	63	0.00	3.96
9	Chloromethane	0.744	0.790	-6.2	92	0.00	3.98
10	Dichlorotetrafluoroethane	2.745	2.457	10.5	80	0.00	4.06
11	Vinyl Chloride	0.905	0.947	-4.6	90	0.00	4.16
12	1,3-Butadiene	0.632	0.683	-8.1	92	0.00	4.27
13	n-Butane	0.154	0.181	-17.5	94	0.00	4.31
14	Bromomethane	0.977	0.976	0.1	89	0.00	4.49
15	Acrolein	0.369	0.380	-3.0	86	0.00	5.02
16	Chloroethane	0.466	0.498	-6.9	91	0.00	4.63
17	Dichlorofluoromethane	2.259	2.109	6.6	82	0.00	4.71
18	Acetonitrile	0.681	0.719	-5.6	92	0.00	4.91
19	Freon 123	2.336	2.273	2.7	86	0.00	5.06
20	Freon 123A	1.449	1.330	8.2	80	0.00	5.10
21	Bromoethene	0.995	1.005	-1.0	87	0.00	4.93
22	Trichlorofluoromethane	2.691	2.115	21.4	70	0.00	5.29
23	Acetone	0.417	0.408	2.2	88	0.00	5.14
24	Pentane	0.213	0.256	-20.2	97	0.00	5.60
25	1,1-Dichloro-1-fluoroetha		----------NA----------				
26	Iodomethane	2.947	2.792	5.3	83	0.00	5.80
27	Isopropyl Alcohol	1.542	1.472	4.5	82	0.00	5.34
28	1,1-Dichloroethene	1.436	1.359	5.4	82	0.00	5.87
29	Freon 113	2.108	1.910	9.4	80	0.00	6.23
30	Methylene Chloride	0.939	0.844	10.1	86	0.00	5.99
31	Carbon Disulfide	2.623	2.683	-2.3	89	0.00	6.27
32	Ethanol	0.352	0.299	15.1	76	0.00	4.72
33	Acrylonitrile	0.661	0.727	-10.0	90	0.00	5.55
34	3-Chloropropene	0.432	0.475	-10.0	89	0.00	6.09
35	trans-1,2-Dichloroethene	1.302	1.291	0.8	84	0.00	6.90
36	tert-Butyl Alcohol	1.792	1.788	0.2	80	0.00	5.90
37	Methyl tert-Butyl Ether	2.730	2.536	7.1	79	0.00	7.16
38	Vinyl Acetate	2.239	2.548	-13.8	90	0.00	7.26
39	1,1-Dichloroethane	1.688	1.664	1.4	87	-0.01	7.10
40	2-Butanone	0.413	0.423	-2.4	77	0.00	7.52
41	Hexane	1.366	1.519	-11.2	93	-0.01	8.20
42	cis-1,2-Dichloroethene	1.282	1.262	1.6	83	-0.01	7.98

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W457-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11377.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

43		Di-isopropyl Ether	0.844	0.846	-0.2	81	0.00	8.20
44		Ethyl Acetate	0.269	0.298	-10.8	87	0.00	8.23
45		Methyl Acrylate	1.546	1.627	-5.2	82	0.00	8.22
46		Chloroform	2.216	1.909	13.9	77	-0.01	8.31
47		2,4-Dimethylpentane	1.600	1.766	-10.4	92	-0.01	9.17
48		Tetrahydrofuran	0.400	0.427	-6.7	83	0.00	8.75
49		1,1,1-Trichloroethane	2.236	1.855	17.0	72	-0.01	9.40
50		1,2-Dichloroethane	1.360	1.095	19.5	68	0.00	9.13
51		Benzene	3.039	3.007	1.1	85	-0.01	9.93
52		Carbon Tetrachloride	2.275	1.971	13.4	73	-0.01	10.10
53		Cyclohexane	1.405	1.540	-9.6	93	-0.01	10.24
54		2,3-Dimethylpentane	0.635	0.682	-7.4	88	-0.01	10.53
55	I	1,4-Difluorobenzene	1.000	1.000	0.0	86	-0.01	10.37
56		2,2,4-Trimethylpentane	1.255	1.363	-8.6	93	-0.01	11.22
57		Heptane	0.278	0.296	-6.5	88	-0.01	11.57
58		Trichloroethene	0.404	0.363	10.1	78	-0.01	11.19
59		1,2-Dichloropropane	0.295	0.321	-8.8	93	-0.01	10.91
60		Dibromomethane	0.439	0.382	13.0	78	-0.01	10.88
61		Ethyl Acrylate	0.530	0.569	-7.4	82	0.00	10.94
62		Methyl Methacrylate	0.278	0.296	-6.5	84	0.00	11.47
63		1,4-Dioxane	0.187	0.169	9.6	74	0.00	11.21
64		Bromodichloromethane	0.627	0.576	8.1	77	-0.01	11.15
65		cis-1,3-Dichloropropene	0.450	0.465	-3.3	83	-0.01	12.28
66		4-Methyl-2-pentanone	0.225	0.247	-9.8	88	0.00	12.32
67		trans-1,3-Dichloropropene	0.375	0.380	-1.3	77	-0.01	12.95
68		Toluene	1.052	0.991	5.8	81	-0.01	13.51
69		1,1,2-Trichloroethane	0.347	0.340	2.0	83	-0.01	13.16
70		1,3-Dichloropropane	0.466	0.463	0.6	84	-0.01	13.56
71		2-Hexanone	0.282	0.292	-3.5	78	0.00	13.89
72		Ethyl Methacrylate	0.463	0.486	-5.0	81	0.00	13.92
73		Dibromochloromethane	0.615	0.635	-3.3	82	-0.01	14.07
74		Tetrachloroethene	0.633	0.553	12.6	79	-0.01	15.02
75		1,2-Dibromoethane	0.520	0.493	5.2	77	-0.01	14.39
76		Octane	0.572	0.661	-15.6	97	-0.01	14.86
77		1,1,1,2-Tetrachloroethane	0.438	0.438	0.0	83	-0.01	15.95
78	I	Chlorobenzene-d5	1.000	1.000	0.0	83	-0.01	15.90
79		Chlorobenzene	1.854	1.745	5.9	81	-0.02	15.96
80		Ethylbenzene	2.899	2.729	5.9	80	-0.01	16.51
81		m,p-Xylene	2.269	2.074	8.6	79	-0.01	16.78
82		Styrene	1.464	1.546	-5.6	81	-0.01	17.30
83		Nonane	1.269	1.466	-15.5	97	-0.01	17.84
84		o-Xylene	2.248	2.094	6.9	79	-0.01	17.46
85		Bromoform	1.101	1.370	-24.4	92	-0.01	16.86
86		1,1,2,2-Tetrachloroethane	1.284	1.519	-18.3	101	-0.01	17.46
87		1,2,3-Trichloropropane	1.000	1.059	-5.9	90	-0.01	17.65
88		Isopropylbenzene	3.191	2.934	8.1	80	-0.01	18.36
89		Bromobenzene	0.921	0.918	0.3	82	-0.01	18.47
90		2-Chlorotoluene	0.714	0.709	0.7	82	0.00	19.09
91		n-Propylbenzene	0.794	0.796	-0.3	81	-0.01	19.16
92	S	4-Bromofluorobenzene	1.221	1.268	-3.8	85	-0.01	18.15
93		4-Ethyltoluene	2.723	2.621	3.7	80	-0.01	19.38
94		1,3,5-Trimethylbenzene	2.436	2.244	7.9	80	-0.01	19.51
95		alpha-Methylstyrene	1.004	1.092	-8.8	83	0.00	19.74
96		tert-Butylbenzene	0.594	0.582	2.0	84	-0.01	20.08
97		1,2,4-Trimethylbenzene	2.248	2.176	3.2	80	-0.01	20.09
98		1,3-Dichlorobenzene	1.257	1.305	-3.8	84	0.00	20.28
99		Benzyl Chloride	0.889	1.352	-52.1#	97	0.00	20.27
100		1,4-Dichlorobenzene	1.108	1.171	-5.7	83	0.00	20.38

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W457-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11377.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

101		sec-Butylbenzene	0.707	0.702	0.7	85	0.00	20.46
102		p-Isopropyltoluene	0.723	0.739	-2.2	86	0.00	20.69
103		1,2-Dichlorobenzene	1.193	1.255	-5.2	89	-0.01	20.84
104		n-Butylbenzene	0.550	0.602	-9.5	86	0.00	21.26
105		Hexachloroethane	0.683	0.921	-34.8#	104	-0.01	21.72
106		1,2,4-Trichlorobenzene	0.331	0.398	-20.2	102	0.00	23.04
107		Naphthalene	0.684	0.857	-25.3	113	0.00	23.17
108		Hexachlorobutadiene	0.747	0.656	12.2	96	-0.01	23.61
109	I	Bromochloromethane (A)	1.000	1.000	0.0	85	-0.01	8.16
110		TVHC as equiv Pentane	4.105	6.188	-50.7#	132	0.00	5.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6W08754.D 6w335.M Thu Apr 04 10:06:14 2019

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W458-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11402.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\6W11402.D Vial: 3
Acq On : 4 Apr 2019 12:34 pm Operator: gabriep
Sample : cc335-10 Inst : GCMS6W
Misc : MS33500,V6W458,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode
Last Update : Tue Oct 23 09:39:19 2018
Response via : Single Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	79	-0.01	8.16
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.515	0.619	-20.2	94	0.00	3.72
4	Chlorodifluoromethane	0.251	0.223	11.2	68	0.00	3.76
5	Propene	0.584	0.768	-31.5#	106	0.00	3.79
6	Chlorotrifluoroethene	1.485	1.515	-2.0	83	0.00	3.80
7	Dichlorodifluoromethane	2.631	2.370	9.9	74	0.00	3.85
8	1-Chloro-1,1-difluoroetha	2.070	1.672	19.2	66	0.00	3.96
9	Chloromethane	0.744	0.874	-17.5	95	0.00	3.98
10	Dichlorotetrafluoroethane	2.745	2.736	0.3	83	0.00	4.05
11	Vinyl Chloride	0.905	1.055	-16.6	93	0.00	4.16
12	1,3-Butadiene	0.632	0.758	-19.9	95	0.00	4.27
13	n-Butane	0.154	0.202	-31.2#	97	0.00	4.31
14	Bromomethane	0.977	1.079	-10.4	91	0.00	4.49
15	Acrolein	0.369	0.463	-25.5	98	0.00	5.02
16	Chloroethane	0.466	0.554	-18.9	94	0.00	4.63
17	Dichlorofluoromethane	2.259	2.348	-3.9	85	0.00	4.70
18	Acetonitrile	0.681	0.904	-32.7#	107	0.00	4.91
19	Freon 123	2.336	2.490	-6.6	87	0.00	5.06
20	Freon 123A	1.449	1.479	-2.1	83	0.00	5.10
21	Bromoethene	0.995	1.097	-10.3	88	0.00	4.93
22	Trichlorofluoromethane	2.691	2.364	12.2	73	0.00	5.29
23	Acetone	0.417	0.504	-20.9	101	0.00	5.14
24	Pentane	0.213	0.277	-30.0#	97	0.00	5.59
25	1,1-Dichloro-1-fluoroetha		----------NA----------				
26	Iodomethane	2.947	3.060	-3.8	84	0.00	5.80
27	Isopropyl Alcohol	1.542	1.908	-23.7	98	0.00	5.34
28	1,1-Dichloroethene	1.436	1.512	-5.3	84	0.00	5.86
29	Freon 113	2.108	2.092	0.8	81	0.00	6.23
30	Methylene Chloride	0.939	0.918	2.2	87	0.00	5.99
31	Carbon Disulfide	2.623	2.926	-11.6	90	0.00	6.27
32	Ethanol	0.352	0.437	-24.1	103	0.00	4.72
33	Acrylonitrile	0.661	0.866	-31.0#	99	0.00	5.55
34	3-Chloropropene	0.432	0.517	-19.7	90	0.00	6.09
35	trans-1,2-Dichloroethene	1.302	1.409	-8.2	85	-0.01	6.89
36	tert-Butyl Alcohol	1.792	2.105	-17.5	88	0.00	5.89
37	Methyl tert-Butyl Ether	2.730	2.795	-2.4	80	0.00	7.16
38	Vinyl Acetate	2.239	2.992	-33.6#	98	0.00	7.25
39	1,1-Dichloroethane	1.688	1.805	-6.9	88	-0.01	7.10
40	2-Butanone	0.413	0.525	-27.1	88	0.00	7.52
41	Hexane	1.366	1.649	-20.7	94	-0.01	8.20
42	cis-1,2-Dichloroethene	1.282	1.389	-8.3	85	-0.01	7.98

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W458-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11402.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

43		Di-isopropyl Ether	0.844	0.927	-9.8	82	0.00	8.20
44		Ethyl Acetate	0.269	0.353	-31.2#	96	0.00	8.23
45		Methyl Acrylate	1.546	1.989	-28.7	92	0.00	8.22
46		Chloroform	2.216	2.115	4.6	79	-0.01	8.31
47		2,4-Dimethylpentane	1.600	1.928	-20.5	93	-0.01	9.17
48		Tetrahydrofuran	0.400	0.494	-23.5	89	0.00	8.75
49		1,1,1-Trichloroethane	2.236	2.053	8.2	74	-0.01	9.40
50		1,2-Dichloroethane	1.360	1.236	9.1	72	-0.01	9.12
51		Benzene	3.039	3.236	-6.5	85	-0.01	9.93
52		Carbon Tetrachloride	2.275	2.192	3.6	75	-0.01	10.10
53		Cyclohexane	1.405	1.669	-18.8	94	-0.01	10.24
54		2,3-Dimethylpentane	0.635	0.746	-17.5	89	-0.01	10.53
55	I	1,4-Difluorobenzene	1.000	1.000	0.0	79	-0.01	10.37
56		2,2,4-Trimethylpentane	1.255	1.502	-19.7	95	-0.01	11.22
57		Heptane	0.278	0.322	-15.8	88	-0.02	11.56
58		Trichloroethene	0.404	0.395	2.2	78	-0.01	11.19
59		1,2-Dichloropropane	0.295	0.351	-19.0	94	-0.01	10.91
60		Dibromomethane	0.439	0.423	3.6	80	-0.01	10.88
61		Ethyl Acrylate	0.530	0.687	-29.6	91	0.00	10.94
62		Methyl Methacrylate	0.278	0.342	-23.0	89	0.00	11.47
63		1,4-Dioxane	0.187	0.215	-15.0	86	0.00	11.20
64		Bromodichloromethane	0.627	0.636	-1.4	79	-0.01	11.15
65		cis-1,3-Dichloropropene	0.450	0.512	-13.8	84	-0.01	12.28
66		4-Methyl-2-pentanone	0.225	0.286	-27.1	94	0.00	12.32
67		trans-1,3-Dichloropropene	0.375	0.430	-14.7	80	-0.02	12.95
68		Toluene	1.052	1.075	-2.2	81	-0.01	13.51
69		1,1,2-Trichloroethane	0.347	0.365	-5.2	82	-0.01	13.16
70		1,3-Dichloropropane	0.466	0.506	-8.6	85	-0.01	13.56
71		2-Hexanone	0.282	0.373	-32.3#	92	0.00	13.89
72		Ethyl Methacrylate	0.463	0.561	-21.2	87	0.00	13.92
73		Dibromochloromethane	0.615	0.691	-12.4	82	-0.02	14.07
74		Tetrachloroethene	0.633	0.601	5.1	80	-0.01	15.02
75		1,2-Dibromoethane	0.520	0.546	-5.0	79	-0.01	14.39
76		Octane	0.572	0.727	-27.1	99	-0.01	14.86
77		1,1,1,2-Tetrachloroethane	0.438	0.472	-7.8	82	-0.01	15.95
78	I	Chlorobenzene-d5	1.000	1.000	0.0	77	-0.01	15.90
79		Chlorobenzene	1.854	1.868	-0.8	81	-0.02	15.96
80		Ethylbenzene	2.899	2.950	-1.8	80	-0.01	16.51
81		m,p-Xylene	2.269	2.234	1.5	79	-0.01	16.78
82		Styrene	1.464	1.635	-11.7	79	-0.01	17.30
83		Nonane	1.269	1.621	-27.7	100	-0.02	17.84
84		o-Xylene	2.248	2.258	-0.4	79	-0.01	17.46
85		Bromoform	1.101	1.430	-29.9	89	-0.01	16.86
86		1,1,2,2-Tetrachloroethane	1.284	1.498	-16.7	93	-0.01	17.46
87		1,2,3-Trichloropropane	1.000	1.098	-9.8	87	-0.01	17.65
88		Isopropylbenzene	3.191	3.179	0.4	81	-0.01	18.36
89		Bromobenzene	0.921	0.961	-4.3	80	-0.01	18.47
90		2-Chlorotoluene	0.714	0.758	-6.2	82	-0.01	19.08
91		n-Propylbenzene	0.794	0.867	-9.2	82	-0.01	19.16
92	S	4-Bromofluorobenzene	1.221	1.267	-3.8	79	-0.01	18.15
93		4-Ethyltoluene	2.723	2.837	-4.2	80	-0.01	19.38
94		1,3,5-Trimethylbenzene	2.436	2.409	1.1	79	-0.01	19.51
95		alpha-Methylstyrene	1.004	1.145	-14.0	81	-0.01	19.73
96		tert-Butylbenzene	0.594	0.623	-4.9	84	-0.01	20.08
97		1,2,4-Trimethylbenzene	2.248	2.317	-3.1	80	-0.01	20.09
98		1,3-Dichlorobenzene	1.257	1.354	-7.7	81	-0.01	20.28
99		Benzyl Chloride	0.889	1.282	-44.2#	85	0.00	20.27
100		1,4-Dichlorobenzene	1.108	1.195	-7.9	78	-0.01	20.38

Continuing Calibration Summary

Job Number: JC85165 **Sample:** V6W458-CC335
Account: ERMNYW ERM, Inc. **Lab FileID:** 6W11402.D
Project: New York Twist Drill, Melville Park Road, Melville, NY

101		sec-Butylbenzene	0.707	0.745	-5.4	84	0.00	20.46
102		p-Isopropyltoluene	0.723	0.769	-6.4	83	-0.01	20.69
103		1,2-Dichlorobenzene	1.193	1.230	-3.1	81	-0.01	20.84
104		n-Butylbenzene	0.550	0.584	-6.2	77	-0.01	21.26
105		Hexachloroethane	0.683	0.936	-37.0#	98	-0.01	21.72
106		1,2,4-Trichlorobenzene	0.331	0.278	16.0	66	-0.01	23.04
107		Naphthalene	0.684	0.510	25.4	62	-0.01	23.16
108		Hexachlorobutadiene	0.747	0.535	28.4	72	-0.01	23.61
109	I	Bromochloromethane (A)	1.000	1.000	0.0	79	-0.01	8.16
110		TVHC as equiv Pentane	4.105	5.085	-23.9	101	0.00	5.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6W08754.D 6w335.M Fri Apr 05 09:05:25 2019

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11389.D
Acq On : 4 Apr 2019 12:10 am
Operator : gabriep
Sample : jc85165-1
Misc : MS33501,V6W457,500,,,,1.9
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:26:19 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

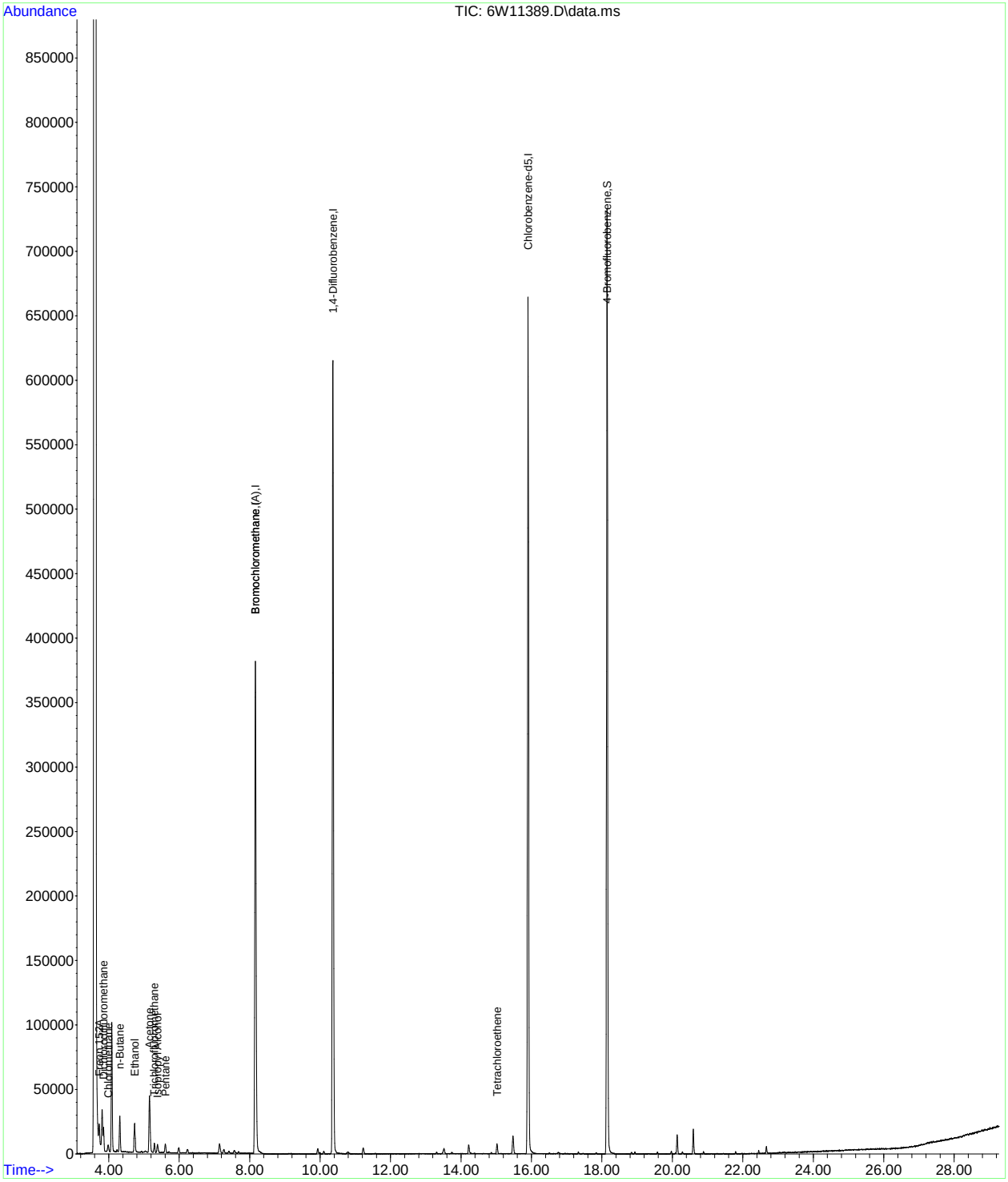
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.164	130	195217	10.00	ppb(v	#-0.01
55) 1,4-Difluorobenzene	10.367	114	696191	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	282384	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.164	130	195217	10.00	ppb(v	#-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	346148	10.04	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.40%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	9042	0.90	ppb(v	93
7) Dichlorodifluoromethane	3.851	85	18790	0.37	ppb(v	98
9) Chloromethane	3.986	50	6767	0.47	ppb(v	94
13) n-Butane	4.316	58	3849	1.28	ppb(v#	93
22) Trichlorofluoromethane	5.295	101	8056	0.15	ppb(v	98
23) Acetone	5.155	58	18768	2.31	ppb(v	91
24) Pentane	5.607	57	654	0.16	ppb(v	90
27) Isopropyl Alcohol	5.381	45	9660	0.32	ppb(v#	98
32) Ethanol	4.732	45	30376	4.42	ppb(v	98
74) Tetrachloroethene	15.022	166	3557	0.08	ppb(v	95

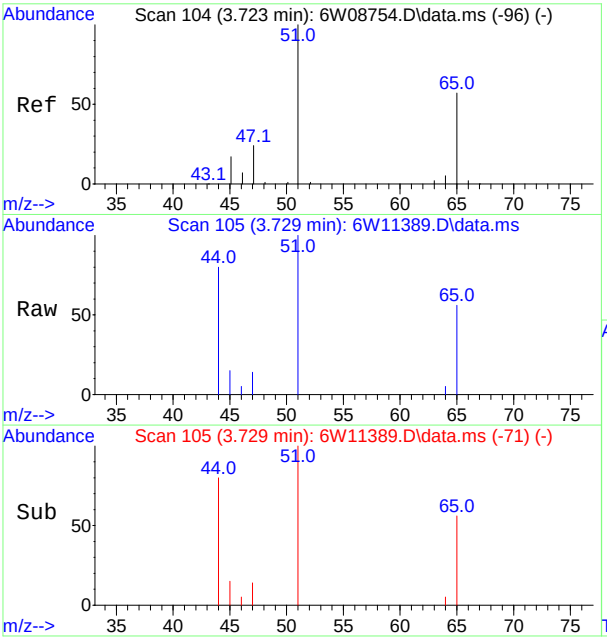
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11389.D
Acq On : 4 Apr 2019 12:10 am
Operator : gabriep
Sample : jc85165-1
Misc : MS33501,V6W457,500,,,,1.9
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:26:19 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

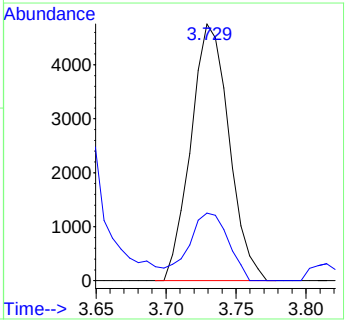


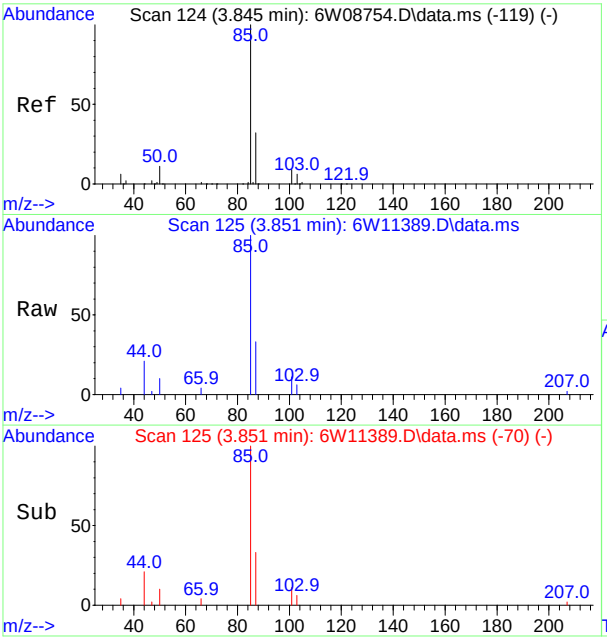


#3
Freon 152A
Concen: 0.90 ppb(v)
RT: 3.729 min Scan# 105
Delta R.T. 0.006 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 65 Resp: 9042

Ion	Ratio	Lower	Upper
65	100		
45	26.3	20.9	38.9

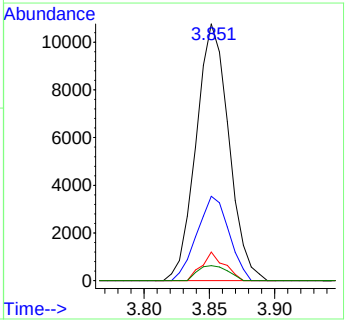


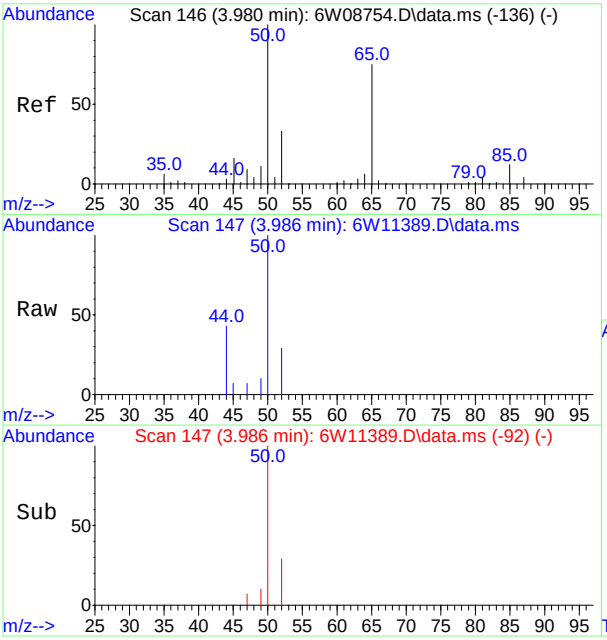


#7
Dichlorodifluoromethane
Concen: 0.37 ppb(v)
RT: 3.851 min Scan# 125
Delta R.T. 0.006 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 85 Resp: 18790

Ion	Ratio	Lower	Upper
85	100		
87	32.9	22.7	42.1
101	11.2	6.3	11.7
103	5.8	4.1	7.7

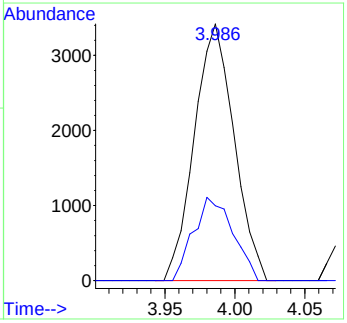


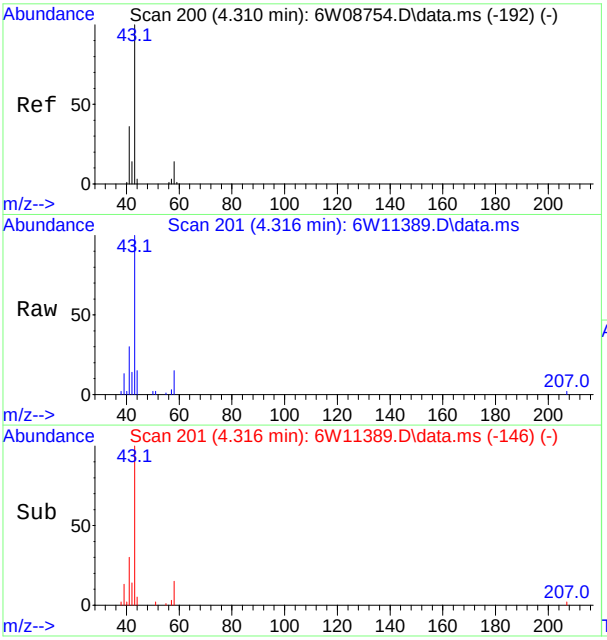


#9
Chloromethane
Concen: 0.47 ppb(v)
RT: 3.986 min Scan# 147
Delta R.T. 0.006 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 50 Resp: 6767

Ion	Ratio	Lower	Upper
50	100		
52	29.1	22.8	42.4

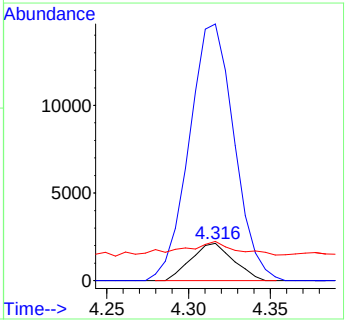


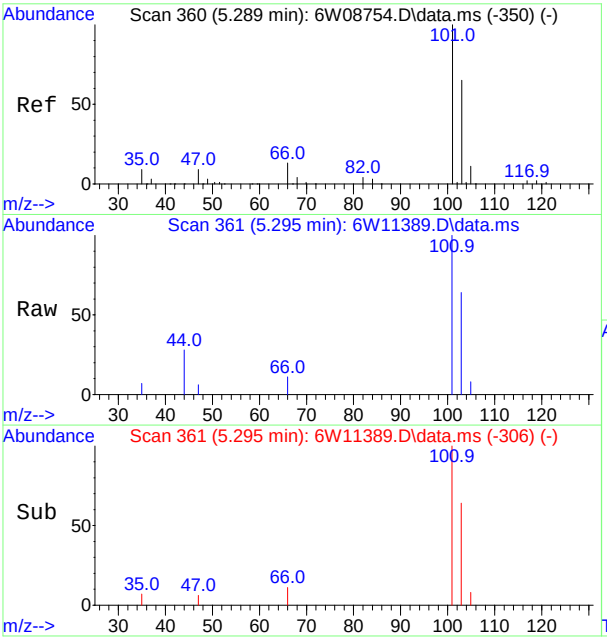


#13
n-Butane
Concen: 1.28 ppb(v)
RT: 4.316 min Scan# 201
Delta R.T. 0.006 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 58 Resp: 3849

Ion	Ratio	Lower	Upper
58	100		
43	688.7	485.0	900.6
44	105.3	19.2	35.6#

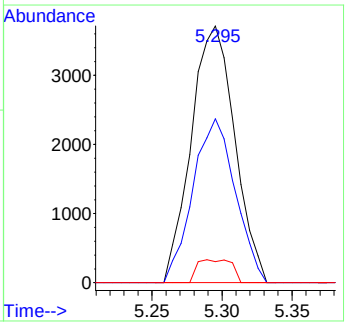


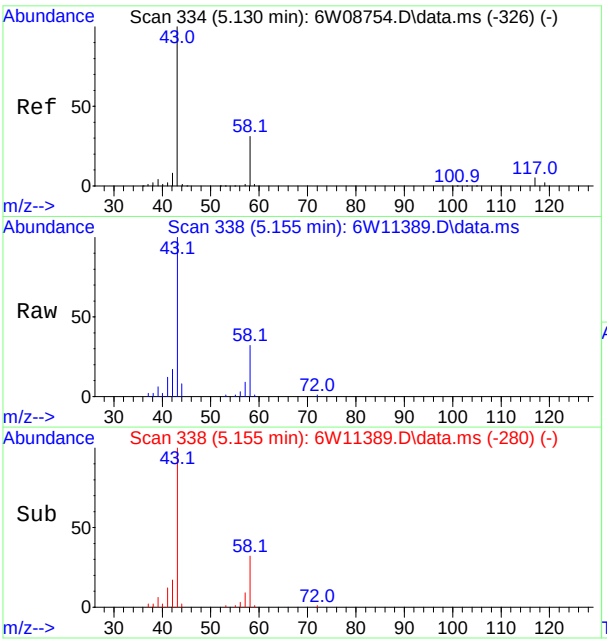


#22
Trichlorofluoromethane
Concen: 0.15 ppb(v)
RT: 5.295 min Scan# 361
Delta R.T. 0.006 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion:101 Resp: 8056

Ion	Ratio	Lower	Upper
101	100		
103	63.8	45.4	84.4
105	8.2	7.3	13.7

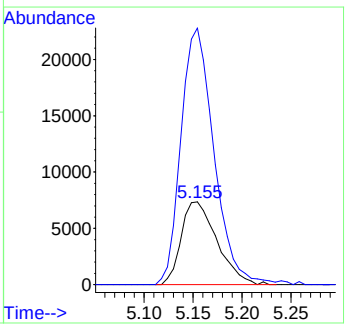


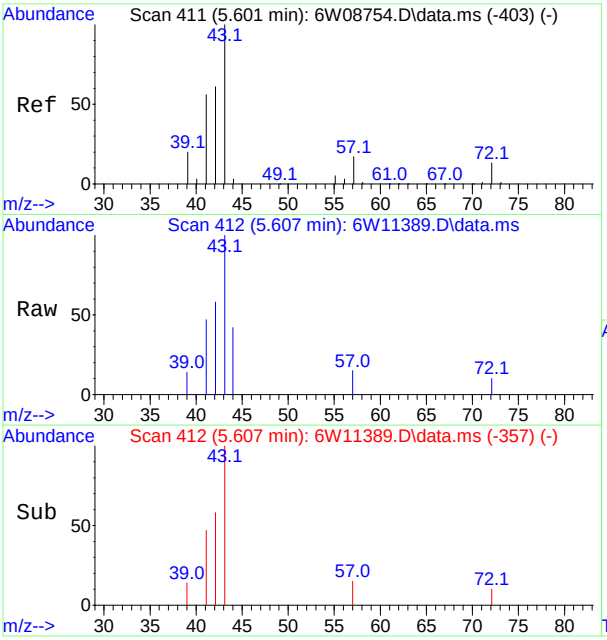


#23
Acetone
Concen: 2.31 ppb(v)
RT: 5.155 min Scan# 338
Delta R.T. 0.024 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 58 Resp: 18768

Ion	Ratio	Lower	Upper
58	100		
43	310.0	230.1	427.3

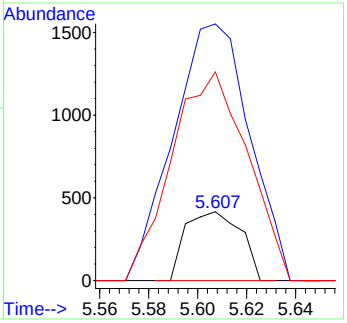


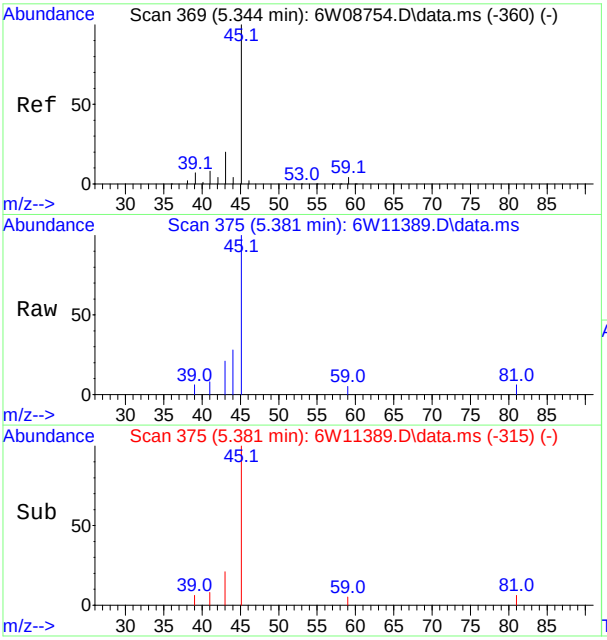


#24
Pentane
Concen: 0.16 ppb(v)
RT: 5.607 min Scan# 412
Delta R.T. 0.006 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 57 Resp: 654

Ion	Ratio	Lower	Upper
57	100		
42	373.1	250.8	465.8
41	303.4	232.7	432.1

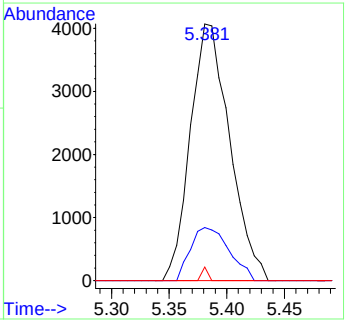


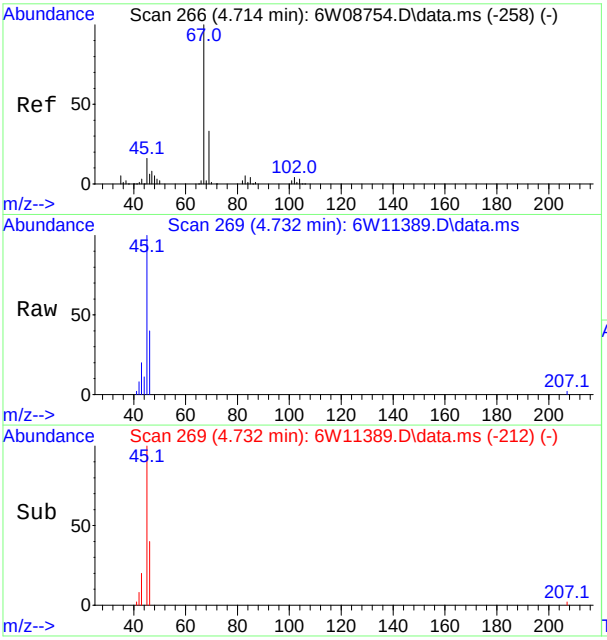


#27
Isopropyl Alcohol
Concen: 0.32 ppb(v)
RT: 5.381 min Scan# 375
Delta R.T. 0.037 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 45 Resp: 9660

Ion	Ratio	Lower	Upper
45	100		
43	20.7	14.1	26.1
59	5.3	2.8	5.2#

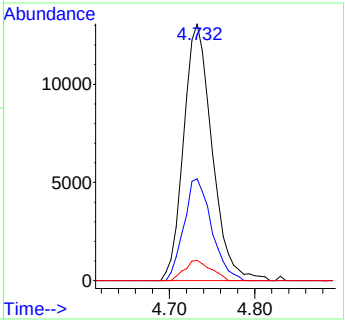


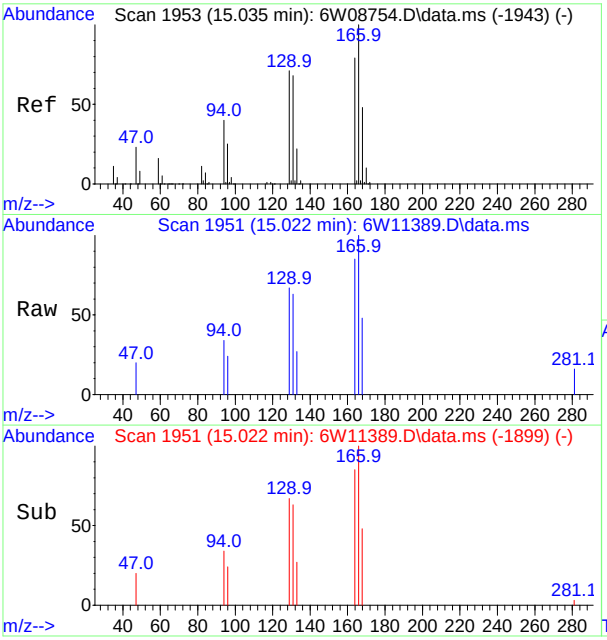


#32
Ethanol
Concen: 4.42 ppb(v)
RT: 4.732 min Scan# 269
Delta R.T. 0.018 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion: 45 Resp: 30376

Ion	Ratio	Lower	Upper
45	100		
46	39.6	26.9	49.9
42	7.8	6.0	11.2

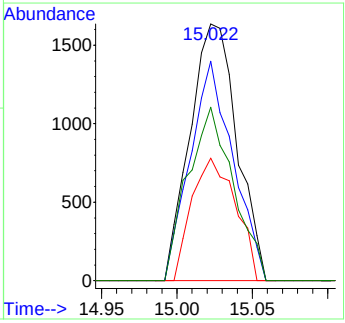




#74
Tetrachloroethene
Concen: 0.08 ppb(v)
RT: 15.022 min Scan# 1951
Delta R.T. -0.012 min
Lab File: 6W11389.D
Acq: 4 Apr 2019 12:10 am

Tgt Ion:166 Resp: 3557

Ion	Ratio	Lower	Upper
166	100		
164	85.5	55.1	102.3
168	47.7	33.6	62.4
129	67.5	49.6	92.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35994.D
Acq On : 6 Apr 2019 2:38 pm
Operator : gabriep
Sample : jc85165-2
Misc : ms33501,v5w1468,80,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 08 11:58:41 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

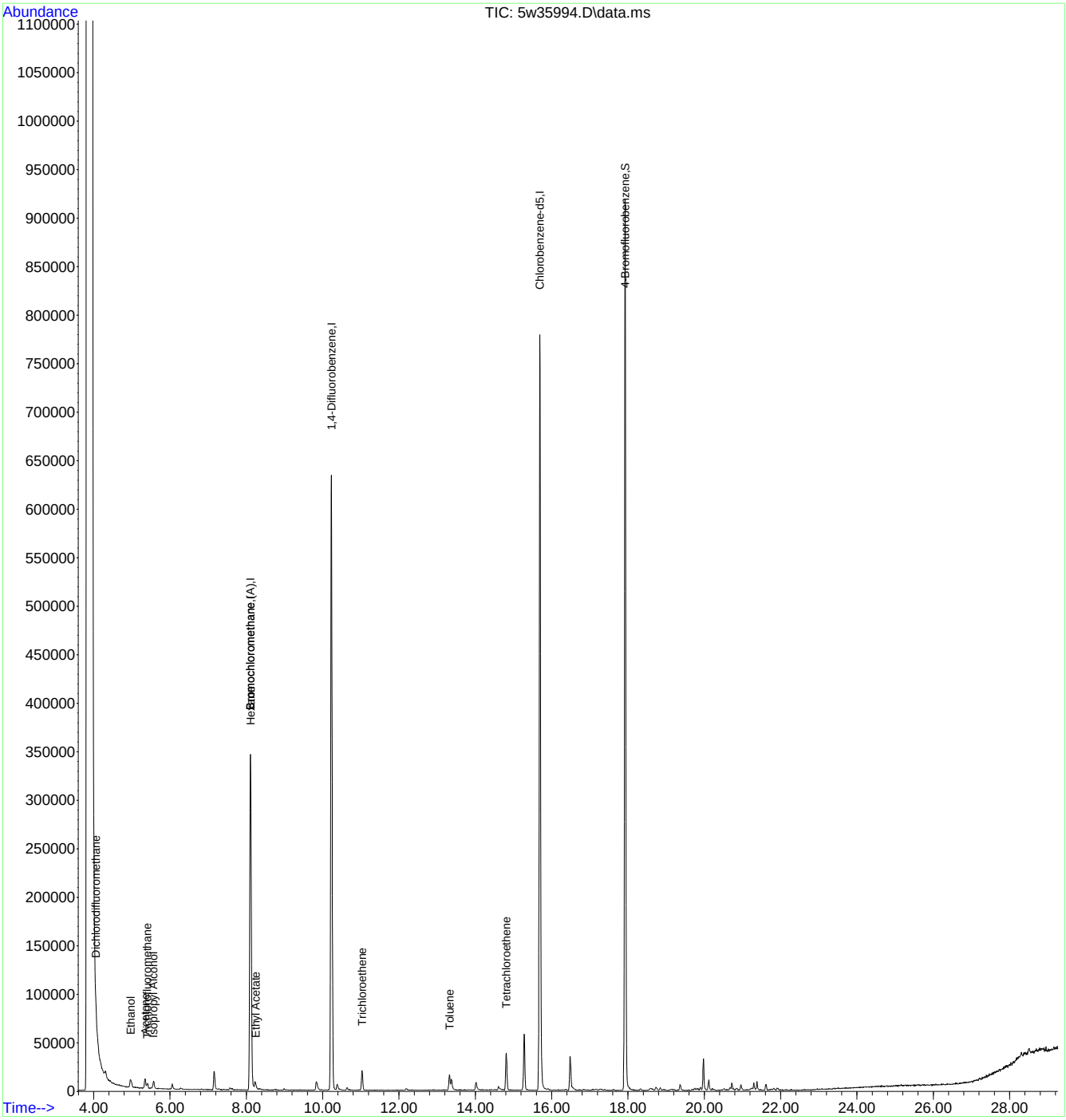
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.108	130	226051	10.00	ppb(v	0.01
55) 1,4-Difluorobenzene	10.231	114	763952	10.00	ppb(v	0.02
78) Chlorobenzene-d5	15.688	82	297000	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.108	130	226051	10.00	ppb(v	0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.921	95	374803	9.71	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.10%			
Target Compounds						Qvalue
7) Dichlorodifluoromethane	4.058	85	6945	0.13	ppb(v	97
22) Trichlorofluoromethane	5.404	101	4980	0.10	ppb(v#	70
23) Acetone	5.355	58	5241	1.15	ppb(v	88
27) Isopropyl Alcohol	5.563	43	3363	0.66	ppb(v#	30
32) Ethanol	4.969	45	14585	3.79	ppb(v	97
41) Hexane	8.114	57	3055	0.13	ppb(v#	85
44) Ethyl Acetate	8.242	61	1389	0.31	ppb(v#	46
58) Trichloroethene	11.032	95	8602	0.28	ppb(v	94
68) Toluene	13.320	91	16167	0.23	ppb(v#	94
74) Tetrachloroethene	14.813	166	17013	0.31	ppb(v	98

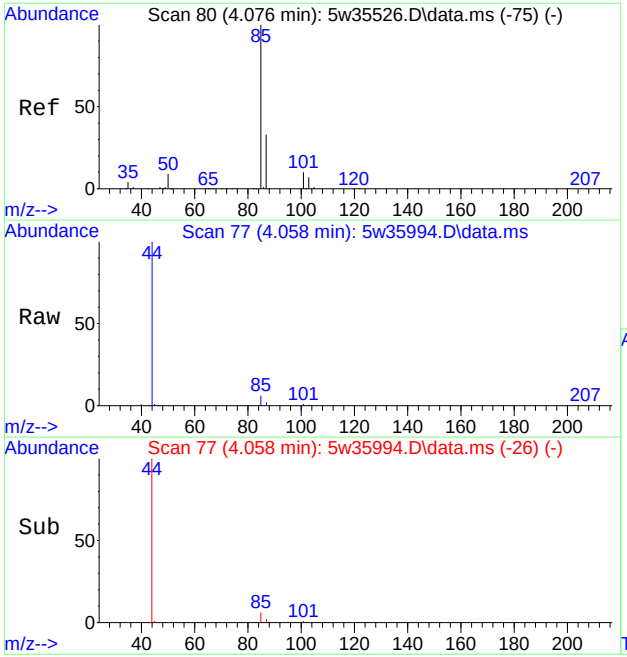
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35994.D
Acq On : 6 Apr 2019 2:38 pm
Operator : gabriep
Sample : jc85165-2
Misc : ms33501,v5w1468,80,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 08 11:58:41 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

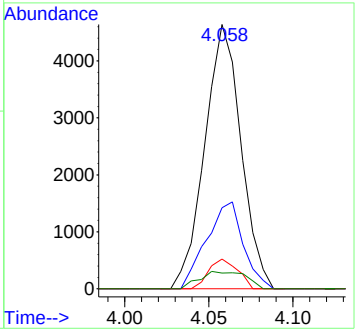


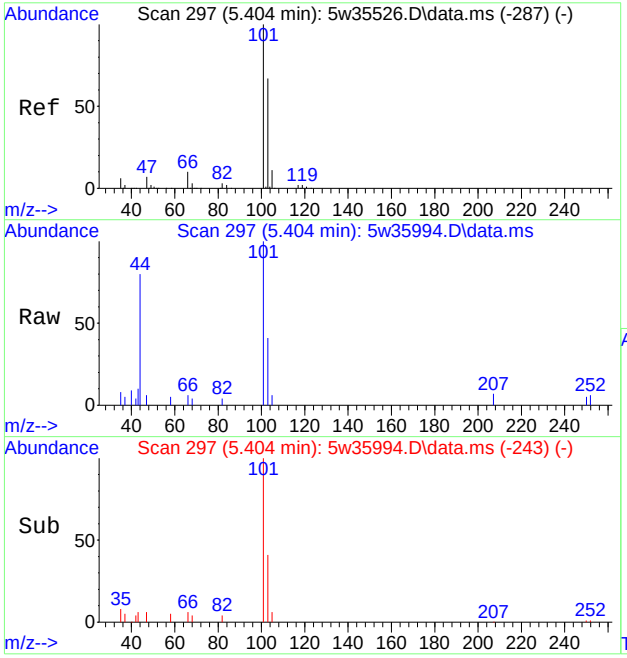


#7
Dichlorodifluoromethane
Concen: 0.13 ppb(v)
RT: 4.058 min Scan# 77
Delta R.T. -0.018 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 85 Resp: 6945

Ion	Ratio	Lower	Upper
85	100		
87	30.7	22.9	42.5
101	11.2	6.9	12.7
103	6.0	4.5	8.5

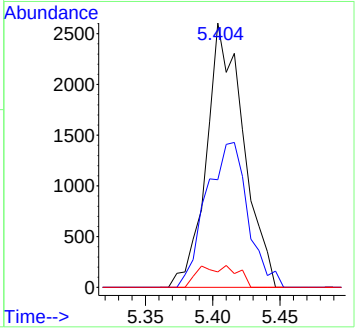


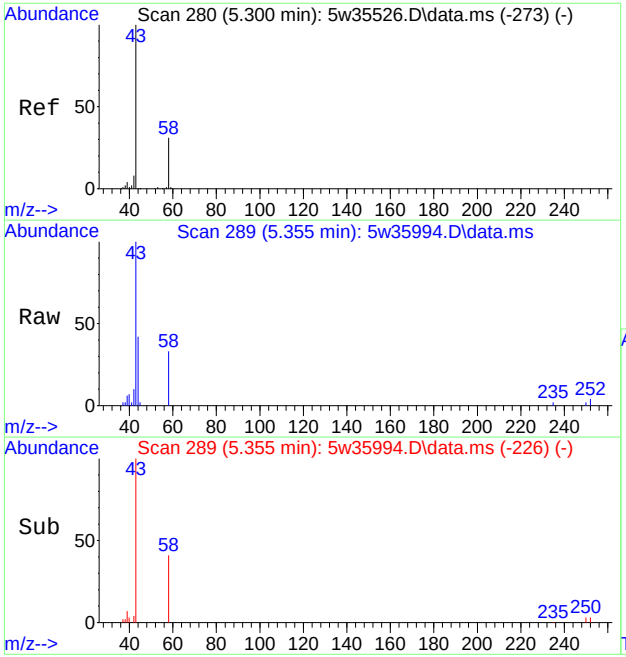


#22
Trichlorofluoromethane
Concen: 0.10 ppb(v)
RT: 5.404 min Scan# 297
Delta R.T. 0.000 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion:101 Resp: 4980

Ion	Ratio	Lower	Upper
101	100		
103	40.7	46.6	86.6#
105	5.9	7.3	13.7#

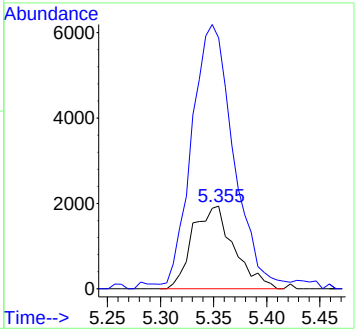


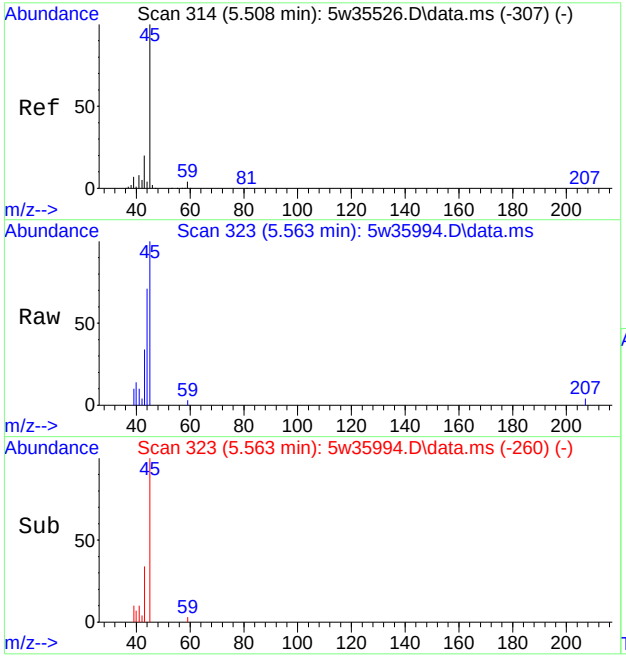


#23
Acetone
Concen: 1.15 ppb(v)
RT: 5.355 min Scan# 289
Delta R.T. 0.055 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 58 Resp: 5241

Ion	Ratio	Lower	Upper
58	100		
43	303.5	229.5	426.3

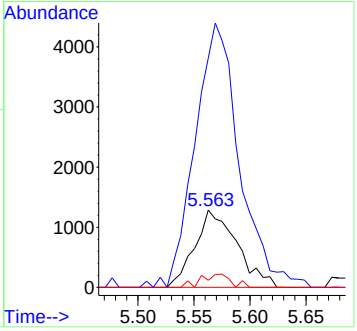


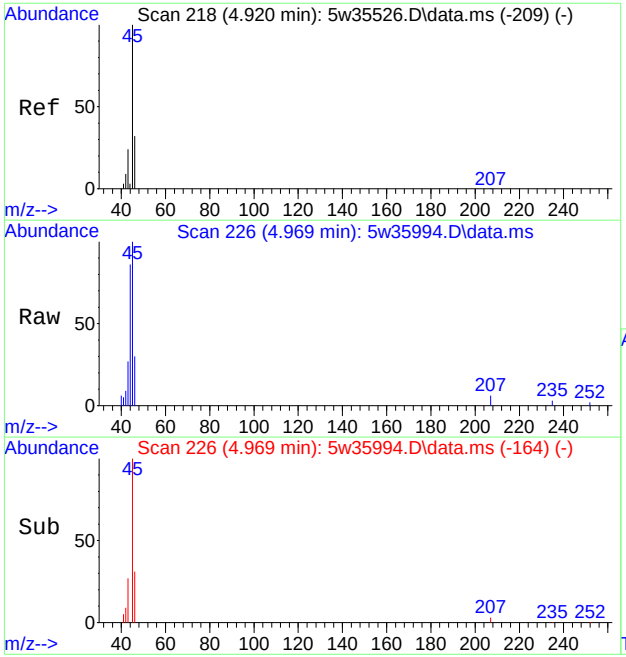


#27
Isopropyl Alcohol
Concen: 0.66 ppb(v)
RT: 5.563 min Scan# 323
Delta R.T. 0.055 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 43 Resp: 3363

Ion	Ratio	Lower	Upper
43	100		
45	296.3	345.0	640.6#
59	9.2	14.5	26.9#

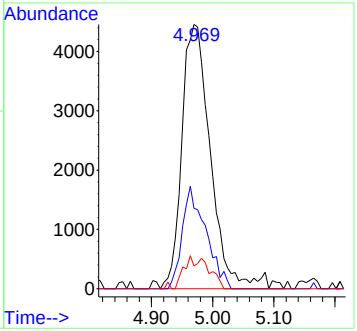


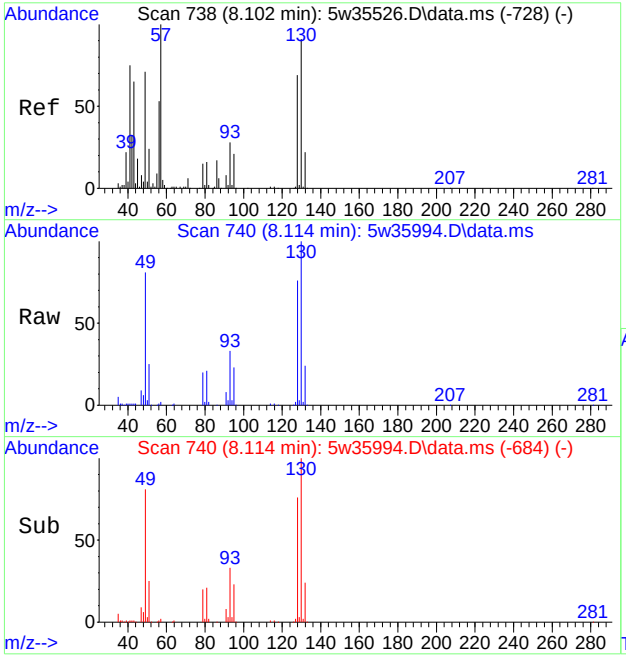


#32
Ethanol
Concen: 3.79 ppb(v)
RT: 4.969 min Scan# 226
Delta R.T. 0.049 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 45 Resp: 14585

Ion	Ratio	Lower	Upper
45	100		
46	30.4	22.3	41.5
42	8.6	7.4	13.8

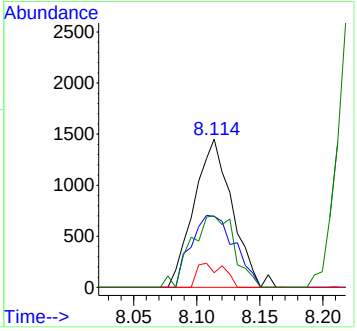


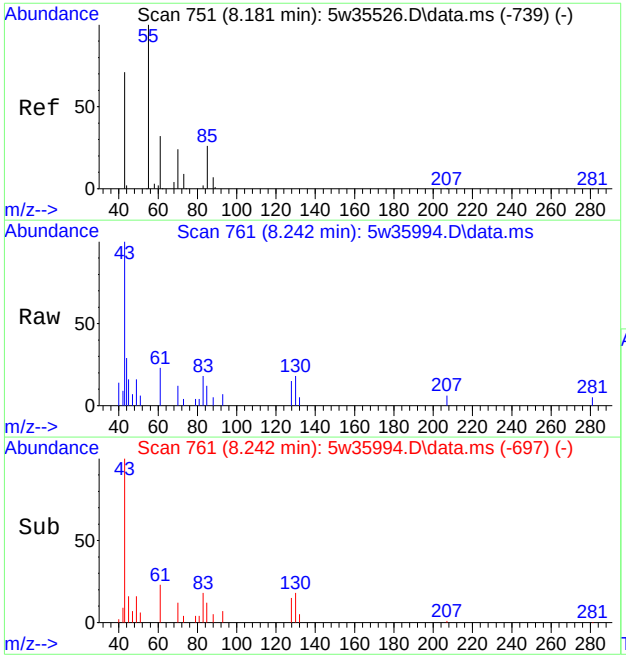


#41
Hexane
Concen: 0.13 ppb(v)
RT: 8.114 min Scan# 740
Delta R.T. 0.012 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 57 Resp: 3055

Ion	Ratio	Lower	Upper
57	100		
56	47.8	37.2	69.0
86	9.8	11.6	21.6#
43	48.1	45.7	84.9

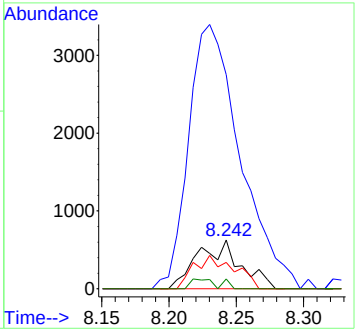


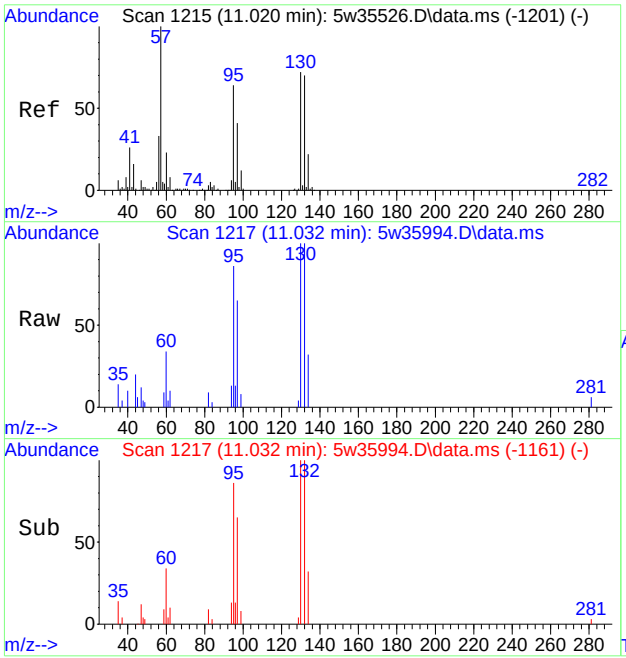


#44
Ethyl Acetate
Concen: 0.31 ppb(v)
RT: 8.242 min Scan# 761
Delta R.T. 0.061 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 61 Resp: 1389

Ion	Ratio	Lower	Upper
61	100		
43	439.1	439.2	815.6#
70	54.2	55.4	102.8#
88	19.9	20.0	37.2#

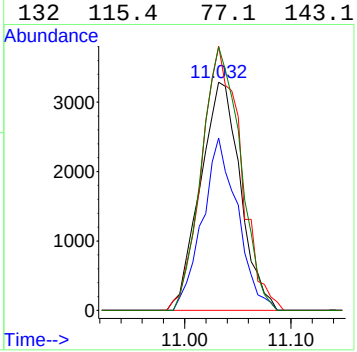


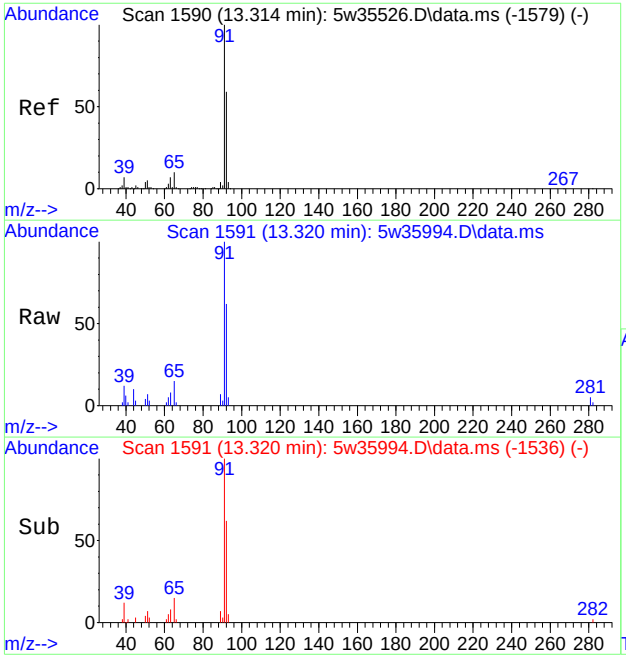


#58
Trichloroethene
Concen: 0.28 ppb(v)
RT: 11.032 min Scan# 1217
Delta R.T. 0.012 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 95 Resp: 8602

Ion	Ratio	Lower	Upper
95	100		
97	75.5	45.6	84.6
130	115.9	79.2	147.0
132	115.4	77.1	143.1

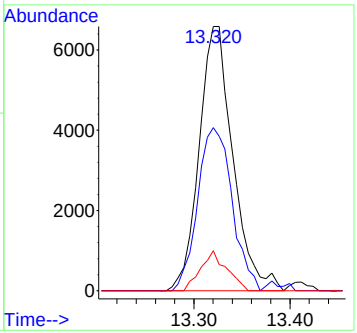


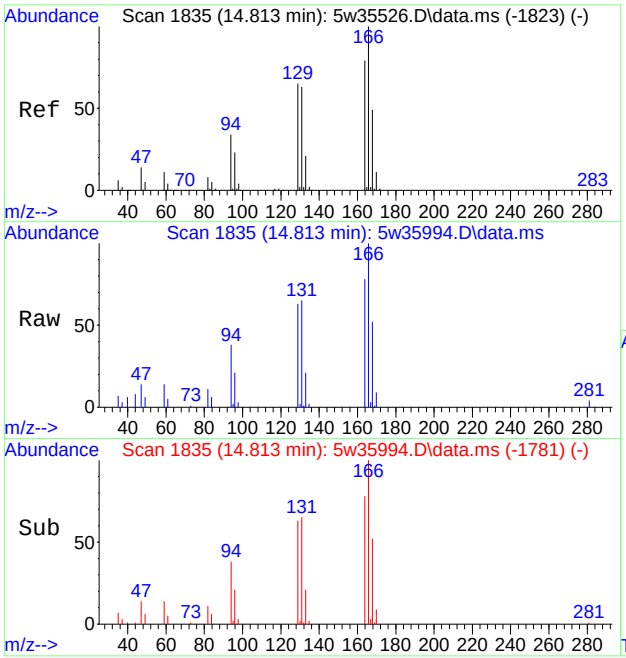


#68
Toluene
Concen: 0.23 ppb(v)
RT: 13.320 min Scan# 1591
Delta R.T. 0.006 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion: 91 Resp: 16167

Ion	Ratio	Lower	Upper
91	100		
92	61.7	41.0	76.2
65	15.2	7.0	13.0#

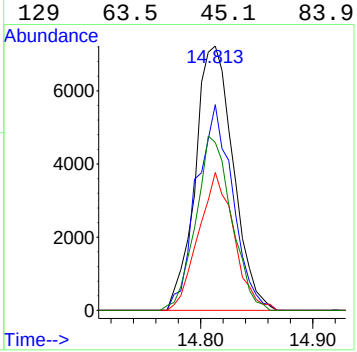




#74
Tetrachloroethene
Concen: 0.31 ppb(v)
RT: 14.813 min Scan# 1835
Delta R.T. 0.000 min
Lab File: 5w35994.D
Acq: 6 Apr 2019 2:38 pm

Tgt Ion:166 Resp: 17013

Ion	Ratio	Lower	Upper
166	100		
164	77.8	55.6	103.2
168	52.2	34.1	63.3
129	63.5	45.1	83.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35995.D
Acq On : 6 Apr 2019 3:24 pm
Operator : gabriep
Sample : jc85165-3
Misc : ms33501,v5w1468,100,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 12:00:03 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

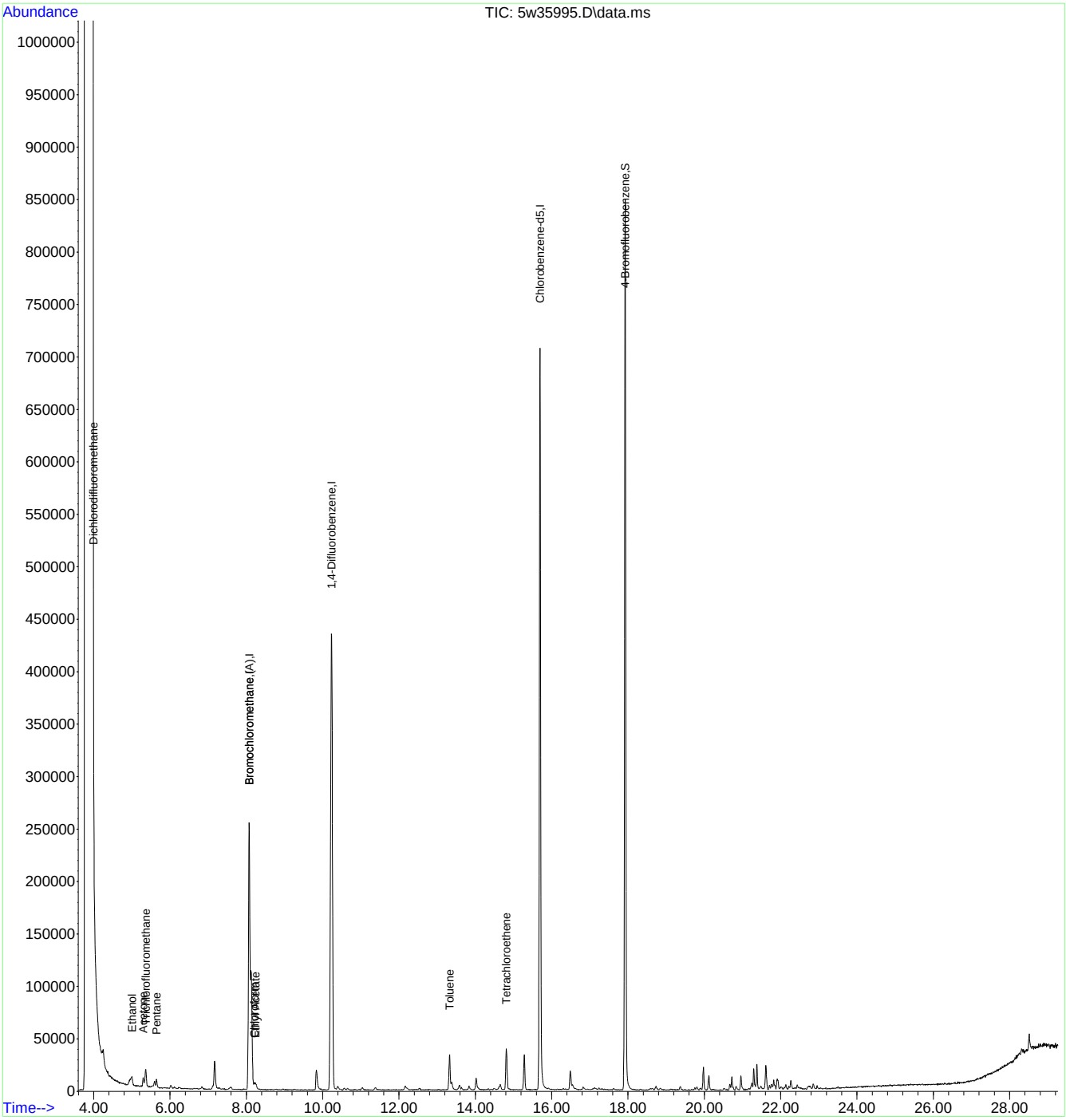
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.077	130	210336	10.00	ppb(v	-0.02
55) 1,4-Difluorobenzene	10.231	114	706405	10.00	ppb(v	0.02
78) Chlorobenzene-d5	15.694	82	277149	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.077	130	210336	10.00	ppb(v	-0.02
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	342195	9.50	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.00%			
Target Compounds						Qvalue
7) Dichlorodifluoromethane	3.997	85	10255	0.21	ppb(v	92
22) Trichlorofluoromethane	5.367	101	12341	0.27	ppb(v#	91
23) Acetone	5.294	58	7823	1.85	ppb(v	70
24) Pentane	5.648	57	1008	0.31	ppb(v	83
32) Ethanol	5.000	45	24328	6.80	ppb(v	88
44) Ethyl Acetate	8.236	61	1306	0.31	ppb(v#	48
46) Chloroform	8.206	83	4258	0.10	ppb(v	92
68) Toluene	13.326	91	33327	0.51	ppb(v	98
74) Tetrachloroethene	14.813	166	17166	0.34	ppb(v	96

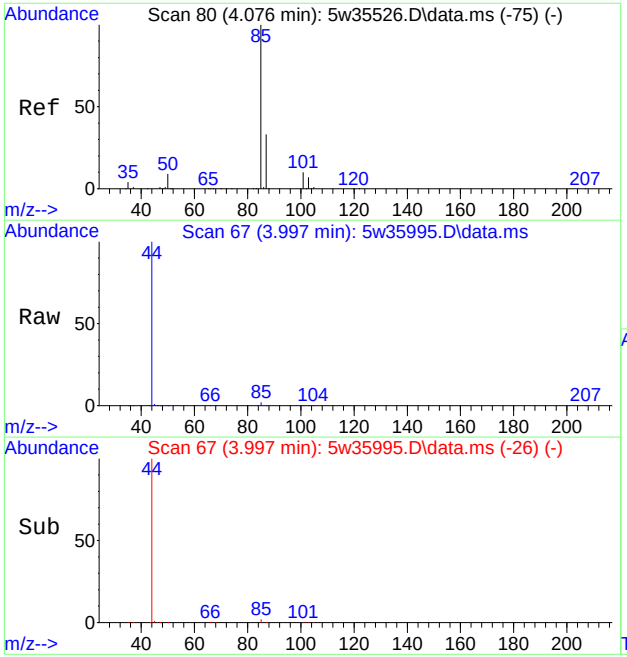
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35995.D
Acq On : 6 Apr 2019 3:24 pm
Operator : gabriep
Sample : jc85165-3
Misc : ms33501,v5w1468,100,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 12:00:03 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

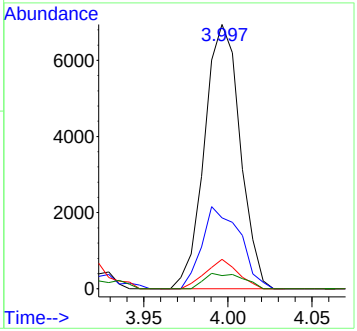


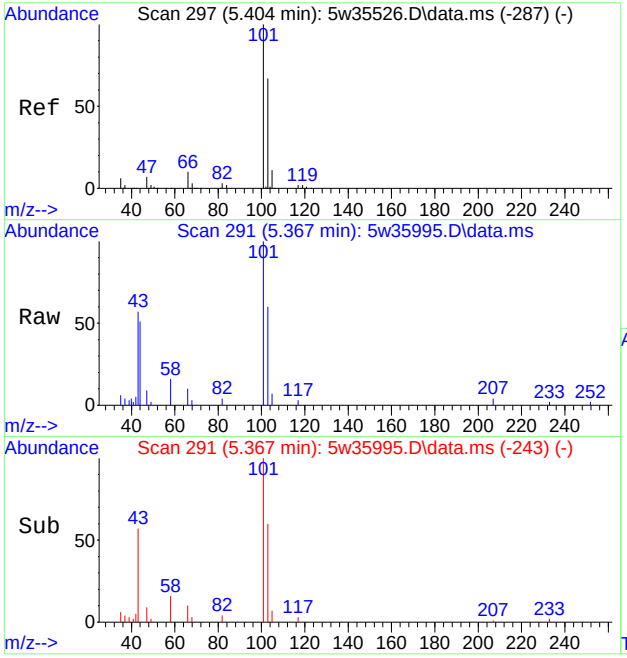


#7
Dichlorodifluoromethane
Concen: 0.21 ppb(v)
RT: 3.997 min Scan# 67
Delta R.T. -0.080 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 85 Resp: 10255

Ion	Ratio	Lower	Upper
85	100		
87	26.9	22.9	42.5
101	11.2	6.9	12.7
103	5.0	4.5	8.5

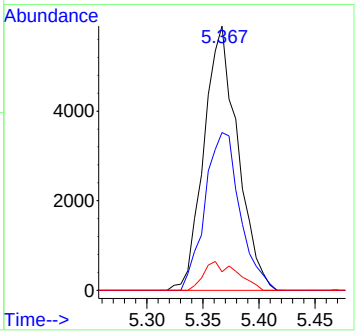


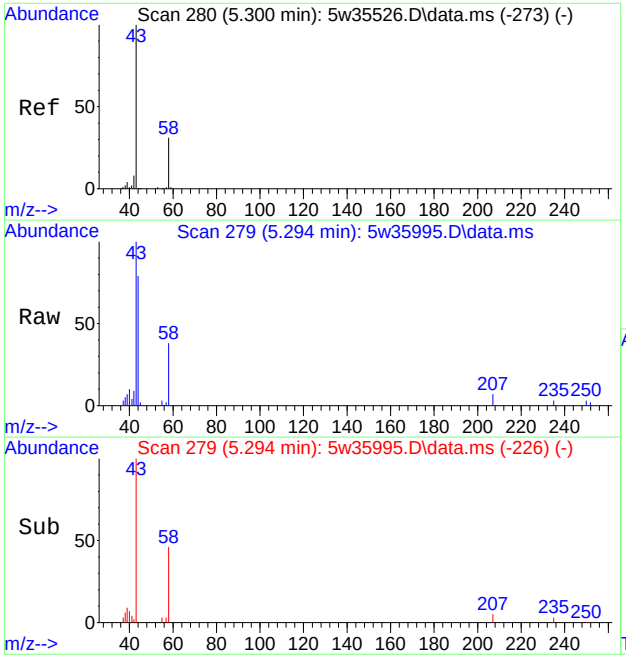


#22
Trichlorofluoromethane
Concen: 0.27 ppb(v)
RT: 5.367 min Scan# 291
Delta R.T. -0.037 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion:101 Resp: 12341

Ion	Ratio	Lower	Upper
101	100		
103	59.7	46.6	86.6
105	7.0	7.3	13.7#

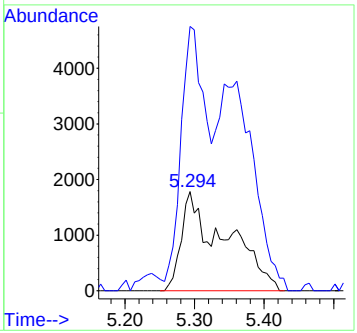


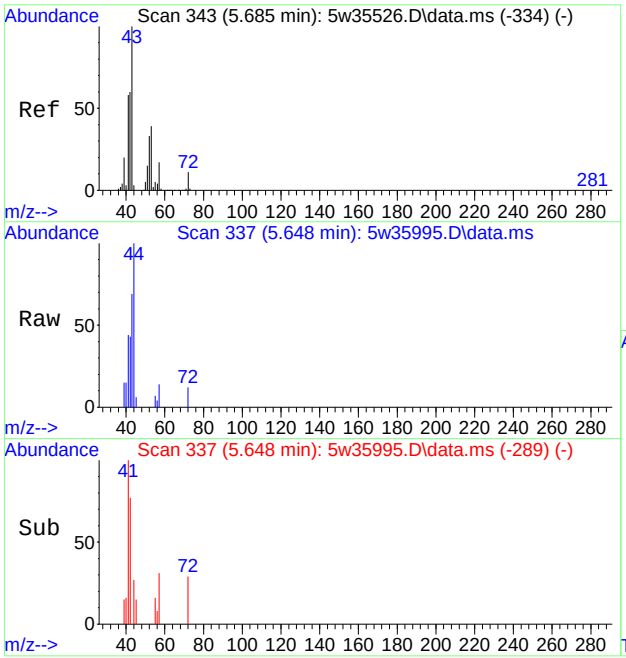


#23
Acetone
Concen: 1.85 ppb(v)
RT: 5.294 min Scan# 279
Delta R.T. -0.006 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 58 Resp: 7823

Ion	Ratio	Lower	Upper
58	100		
43	266.3	229.5	426.3

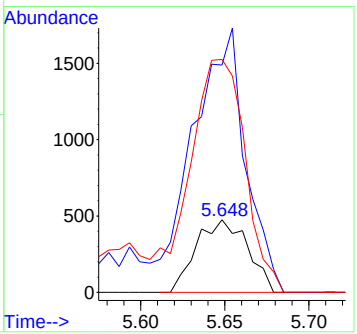


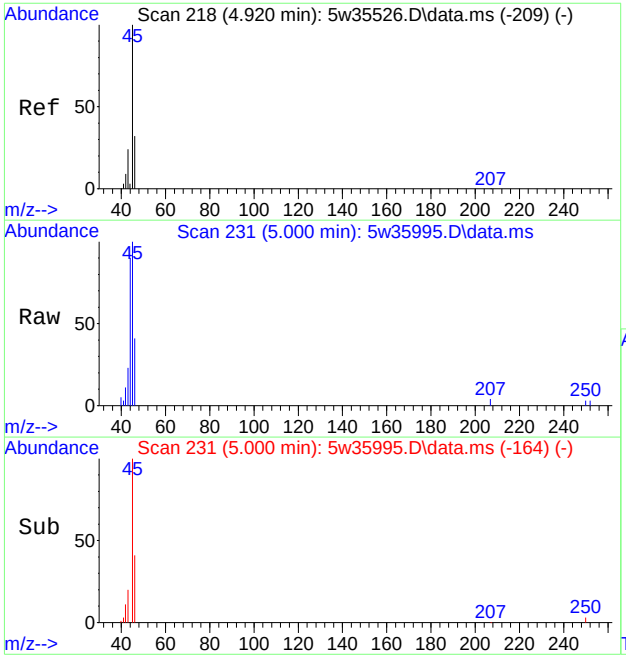


#24
Pentane
Concen: 0.31 ppb(v)
RT: 5.648 min Scan# 337
Delta R.T. -0.037 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 57 Resp: 1008

Ion	Ratio	Lower	Upper
57	100		
42	313.5	252.9	469.7
41	321.1	243.5	452.3

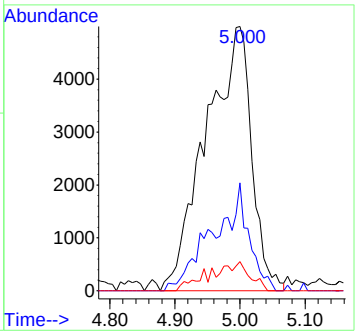


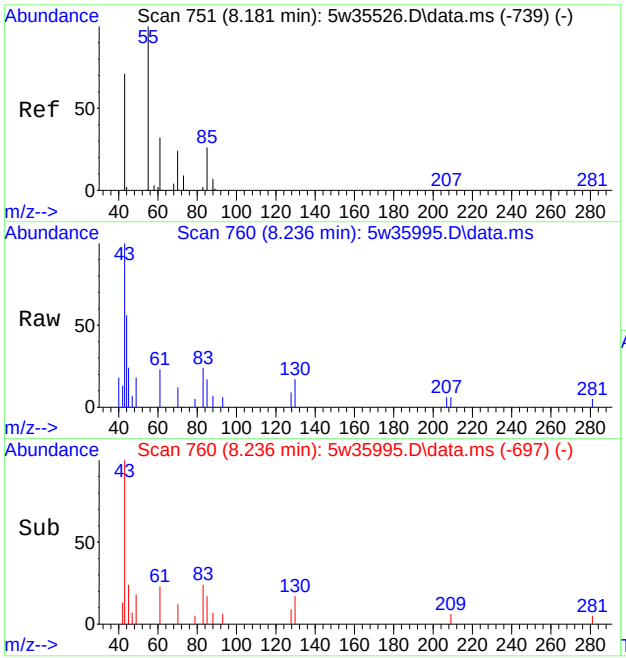


#32
Ethanol
Concen: 6.80 ppb(v)
RT: 5.000 min Scan# 231
Delta R.T. 0.080 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 45 Resp: 24328

Ion	Ratio	Lower	Upper
45	100		
46	40.8	22.3	41.5
42	11.1	7.4	13.8

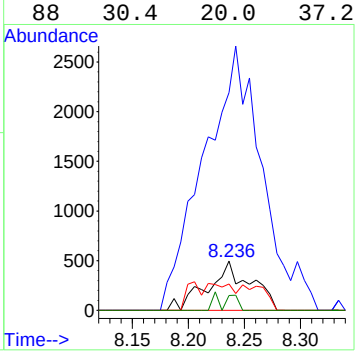


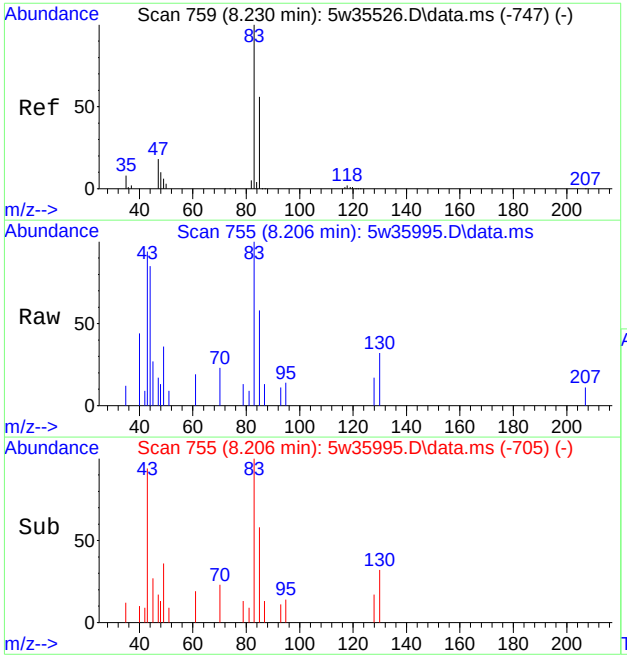


#44
Ethyl Acetate
Concen: 0.31 ppb(v)
RT: 8.236 min Scan# 760
Delta R.T. 0.055 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 61 Resp: 1306

Ion	Ratio	Lower	Upper
61	100		
43	441.9	439.2	815.6
70	53.4	55.4	102.8#
88	30.4	20.0	37.2

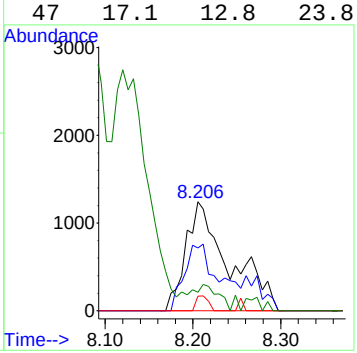


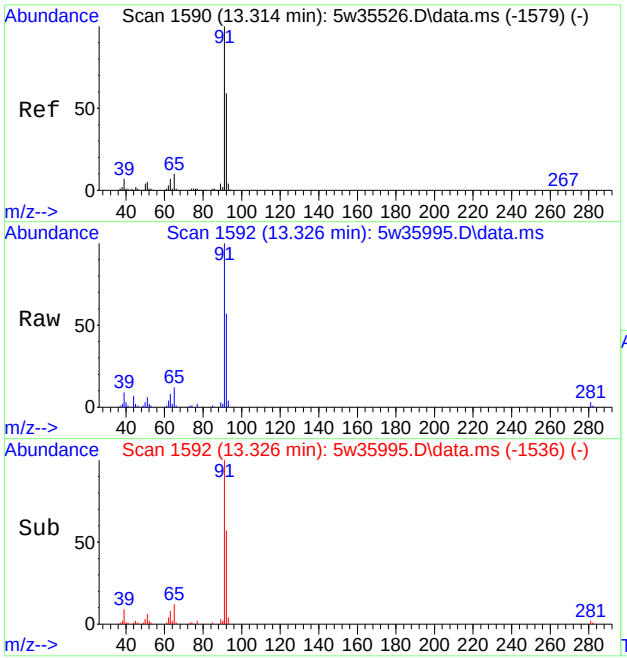


#46
Chloroform
Concen: 0.10 ppb(v)
RT: 8.206 min Scan# 755
Delta R.T. -0.025 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 83 Resp: 4258

Ion	Ratio	Lower	Upper
83	100		
85	57.8	45.7	84.9
87	13.4	7.5	13.9
47	17.1	12.8	23.8

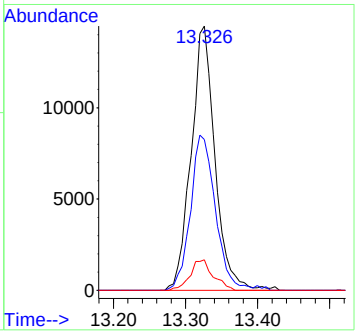


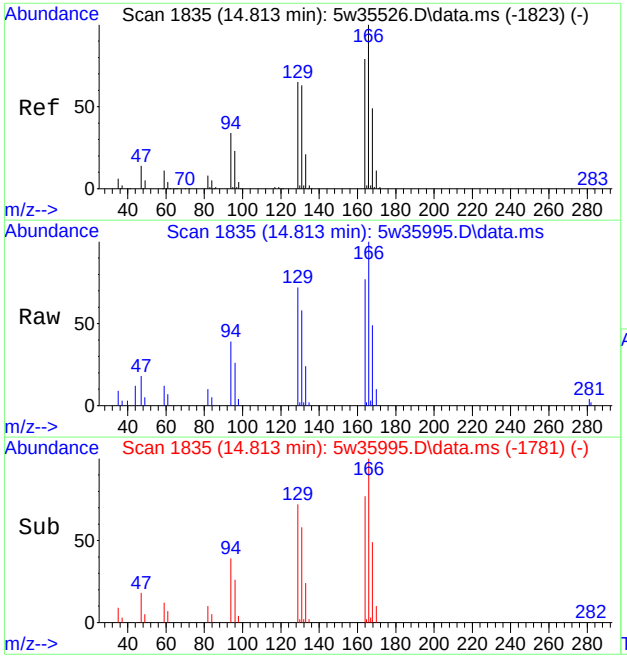


#68
Toluene
Concen: 0.51 ppb(v)
RT: 13.326 min Scan# 1592
Delta R.T. 0.012 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion: 91 Resp: 33327

Ion	Ratio	Lower	Upper
91	100		
92	57.0	41.0	76.2
65	11.5	7.0	13.0

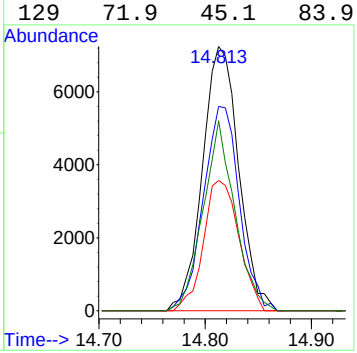




#74
Tetrachloroethene
Concen: 0.34 ppb(v)
RT: 14.813 min Scan# 1835
Delta R.T. -0.000 min
Lab File: 5w35995.D
Acq: 6 Apr 2019 3:24 pm

Tgt Ion:166 Resp: 17166

Ion	Ratio	Lower	Upper
166	100		
164	77.3	55.6	103.2
168	49.3	34.1	63.3
129	71.9	45.1	83.9



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon 04/08/19 13:15

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11390.D
Acq On : 4 Apr 2019 1:07 am
Operator : gabriep
Sample : jc85165-4
Misc : MS33501,V6W457,500,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 11:27:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

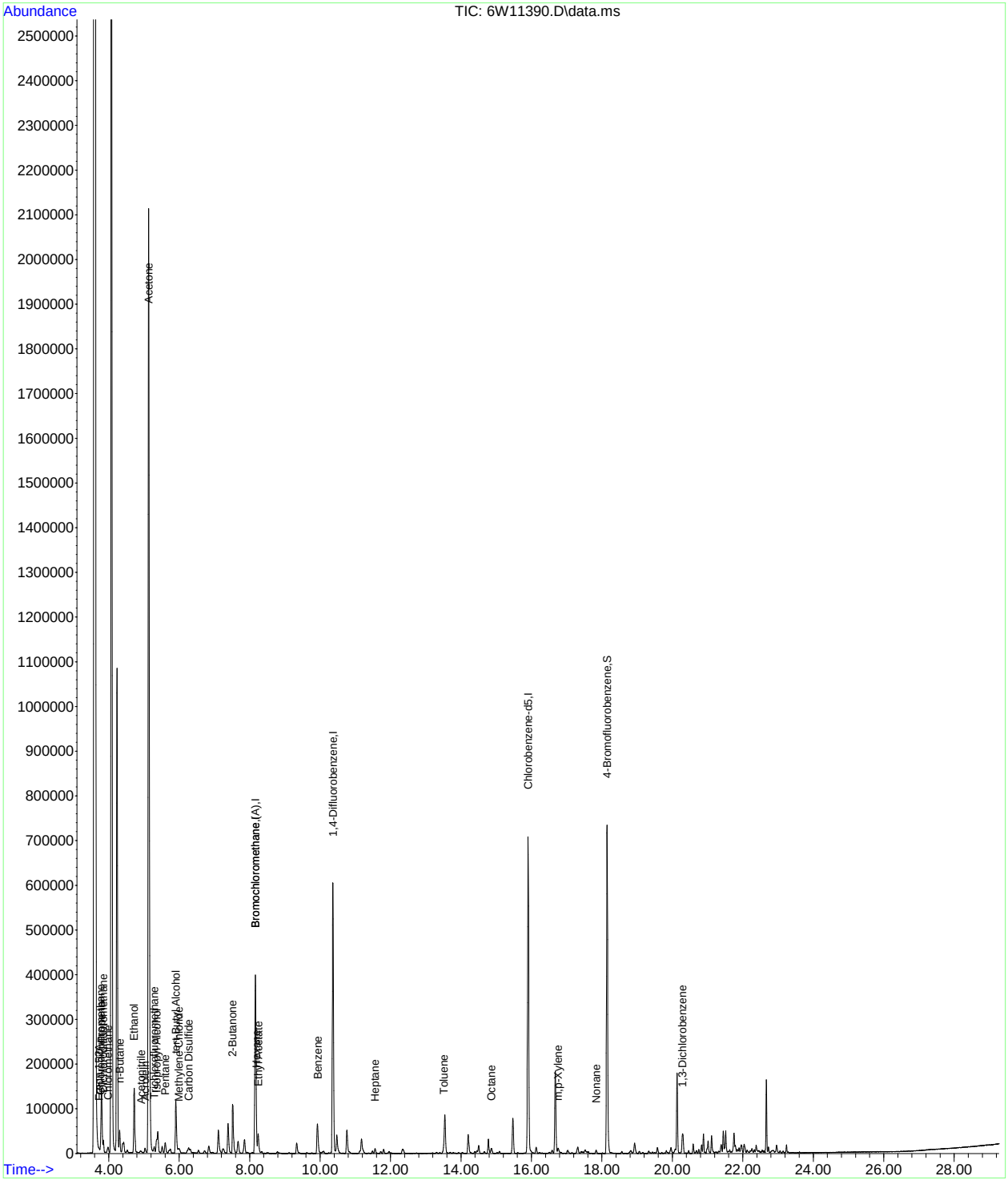
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	190126	10.00	ppb(v	#-0.01
55) 1,4-Difluorobenzene	10.367	114	677447	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	276715	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	190126	10.00	ppb(v	#-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	345991	10.24	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.40%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	2008	0.20	ppb(v	94
4) Chlorodifluoromethane	3.766	67	1134	0.24	ppb(v	97
5) Propene	3.790	41	73070	6.58	ppb(v	96
7) Dichlorodifluoromethane	3.845	85	26998	0.54	ppb(v	99
9) Chloromethane	3.980	50	13746	0.97	ppb(v	100
13) n-Butane	4.310	58	6283	2.14	ppb(v#	84
15) Acrolein	5.032	56	11381	1.62	ppb(v#	82
18) Acetonitrile	4.916	41	3812	0.29	ppb(v	93
22) Trichlorofluoromethane	5.289	101	12527	0.24	ppb(v	98
23) Acetone	5.130	58	1129264	142.49	ppb(v	78
24) Pentane	5.601	57	2516	0.62	ppb(v	82
27) Isopropyl Alcohol	5.356	45	43566	1.49	ppb(v	95
30) Methylene Chloride	5.987	84	4026	0.23	ppb(v	96
31) Carbon Disulfide	6.268	76	22338	0.45	ppb(v	98
32) Ethanol	4.720	45	184972	27.64	ppb(v	97
36) tert-Butyl Alcohol	5.907	59	163545	4.80	ppb(v	97
40) 2-Butanone	7.516	72	43754	5.58	ppb(v	84
41) Hexane	8.195	57	6141	0.24	ppb(v#	40
44) Ethyl Acetate	8.244	61	8969	1.75	ppb(v	81
51) Benzene	9.933	78	29462	0.51	ppb(v	99
57) Heptane	11.560	71	2991	0.16	ppb(v#	90
68) Toluene	13.511	91	18190	0.26	ppb(v	98
76) Octane	14.857	43	6228	0.16	ppb(v#	78
81) m,p-Xylene	16.754	91	11070	0.18	ppb(v	95
83) Nonane	17.837	43	4277	0.12	ppb(v#	89
98) 1,3-Dichlorobenzene	20.284	146	5494m	0.16	ppb(v	

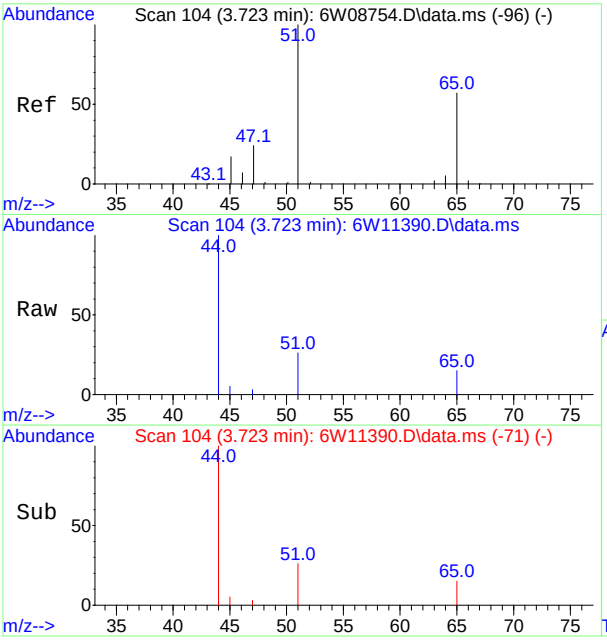
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11390.D
Acq On : 4 Apr 2019 1:07 am
Operator : gabriep
Sample : jc85165-4
Misc : MS33501,V6W457,500,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 11:27:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

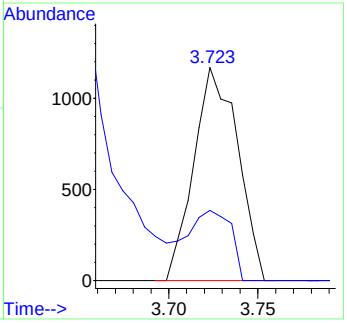


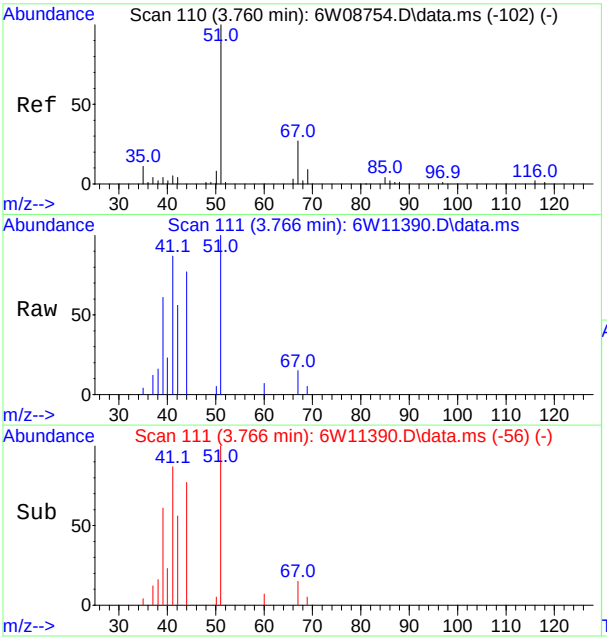


#3
Freon 152A
Concen: 0.20 ppb(v)
RT: 3.723 min Scan# 104
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 65 Resp: 2008

Ion	Ratio	Lower	Upper
65	100		
45	33.0	20.9	38.9

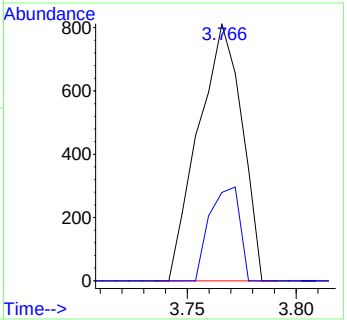


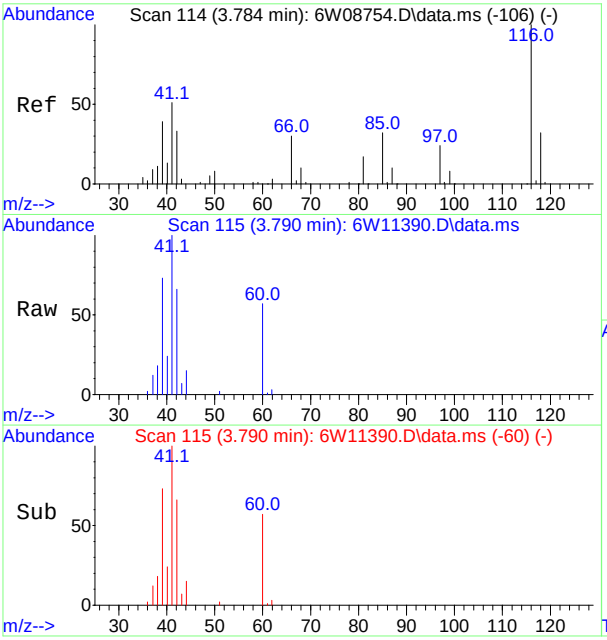


#4
Chlorodifluoromethane
Concen: 0.24 ppb(v)
RT: 3.766 min Scan# 111
Delta R.T. 0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 67 Resp: 1134

Ion	Ratio	Lower	Upper
67	100		
69	34.4	23.0	42.6

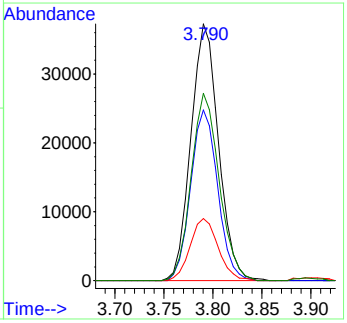


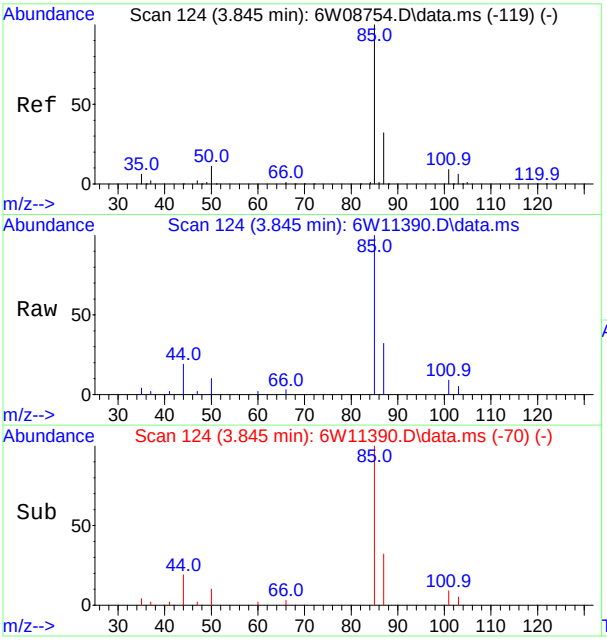


#5
Propene
Concen: 6.58 ppb(v)
RT: 3.790 min Scan# 115
Delta R.T. 0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 41 Resp: 73070

Ion	Ratio	Lower	Upper
41	100		
42	66.4	45.7	84.9
40	24.2	18.4	34.2
39	72.9	54.1	100.5

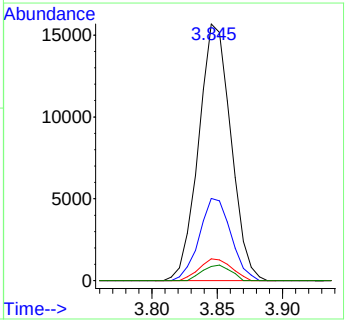


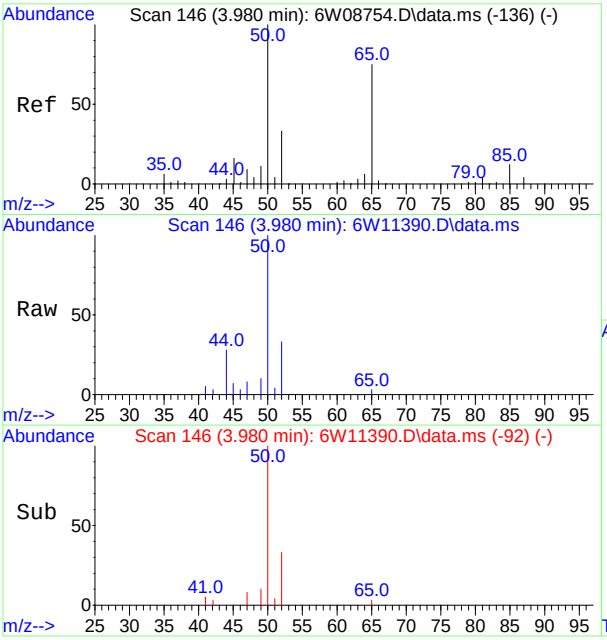


#7
Dichlorodifluoromethane
Concen: 0.54 ppb(v)
RT: 3.845 min Scan# 124
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 85 Resp: 26998

Ion	Ratio	Lower	Upper
85	100		
87	32.0	22.7	42.1
101	8.5	6.3	11.7
103	5.5	4.1	7.7

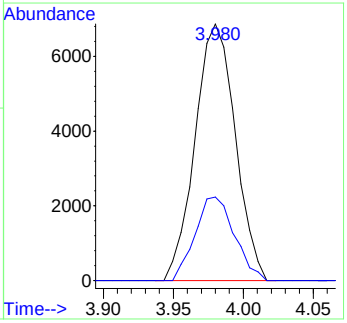


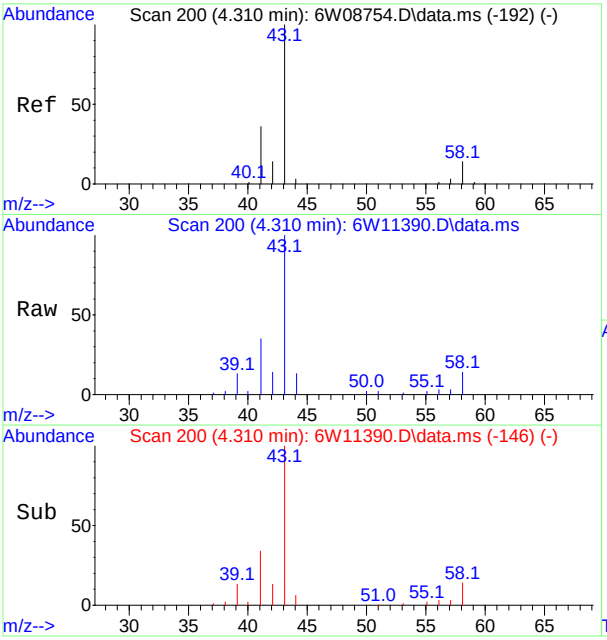


#9
Chloromethane
Concen: 0.97 ppb(v)
RT: 3.980 min Scan# 146
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 50 Resp: 13746

Ion	Ratio	Lower	Upper
50	100		
52	32.6	22.8	42.4

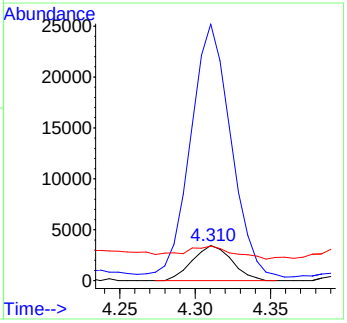


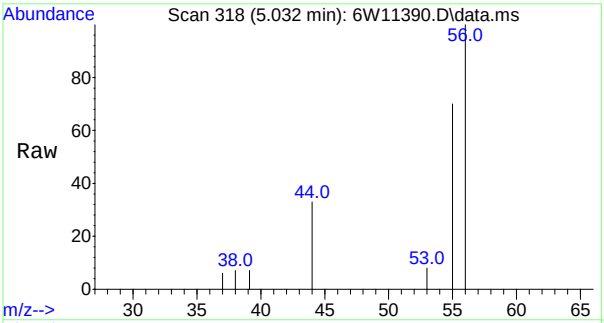


#13
n-Butane
Concen: 2.14 ppb(v)
RT: 4.310 min Scan# 200
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 58 Resp: 6283

Ion	Ratio	Lower	Upper
58	100		
43	731.1	485.0	900.6
44	98.3	19.2	35.6#

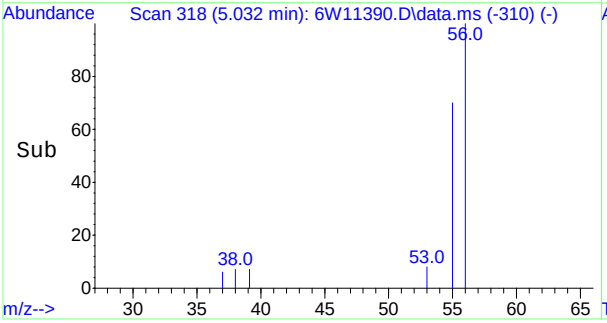


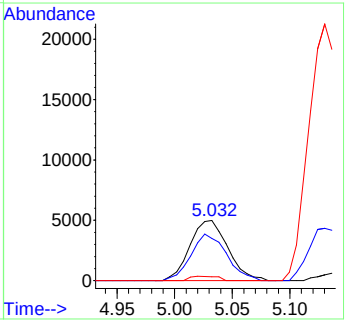


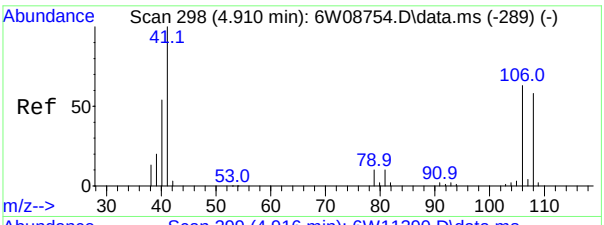
#15
Acrolein
Concen: 1.62 ppb(v)
RT: 5.032 min Scan# 318
Delta R.T. 0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 56 Resp: 11381

Ion	Ratio	Lower	Upper
56	100		
55	73.2	56.8	85.2
37	0.0	23.8	35.8#



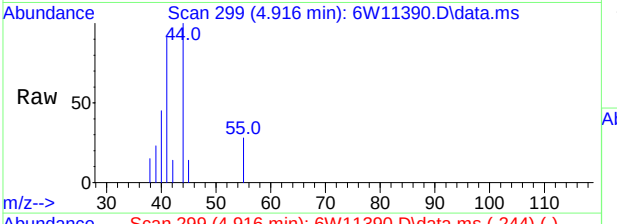


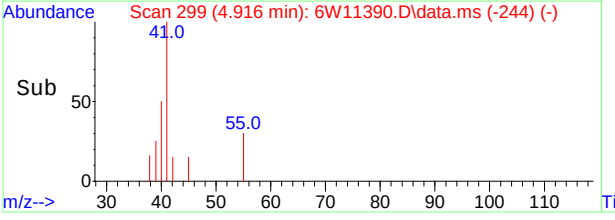


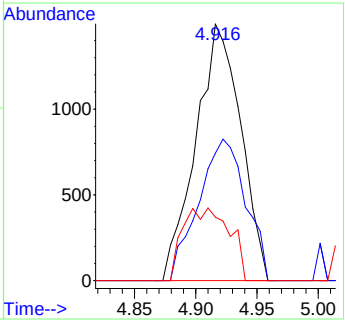
#18
Acetonitrile
Concen: 0.29 ppb(v)
RT: 4.916 min Scan# 299
Delta R.T. 0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

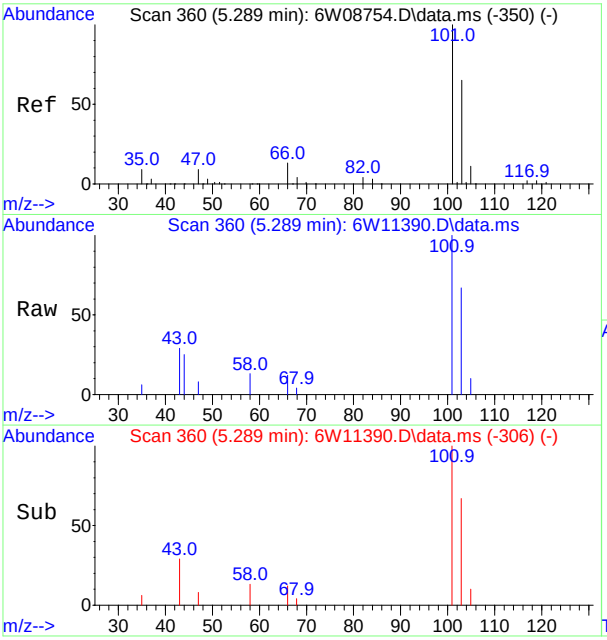
Tgt Ion: 41 Resp: 3812

Ion	Ratio	Lower	Upper
41	100		
40	49.6	37.9	70.5
39	24.7	14.0	26.0





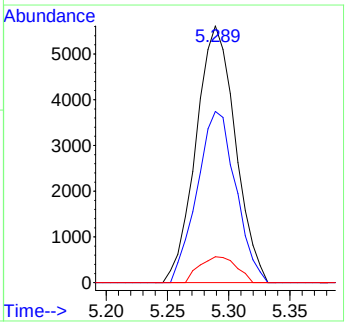


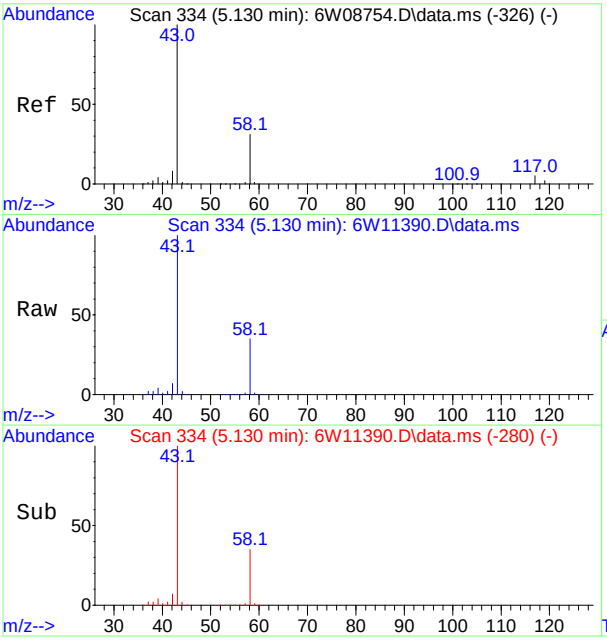


#22
Trichlorofluoromethane
Concen: 0.24 ppb(v)
RT: 5.289 min Scan# 360
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion:101 Resp: 12527

Ion	Ratio	Lower	Upper
101	100		
103	66.7	45.4	84.4
105	10.1	7.3	13.7

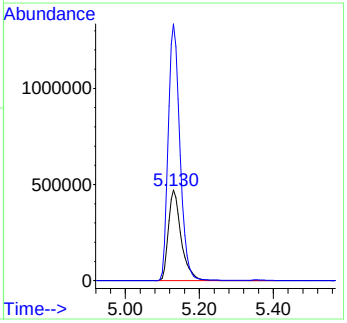


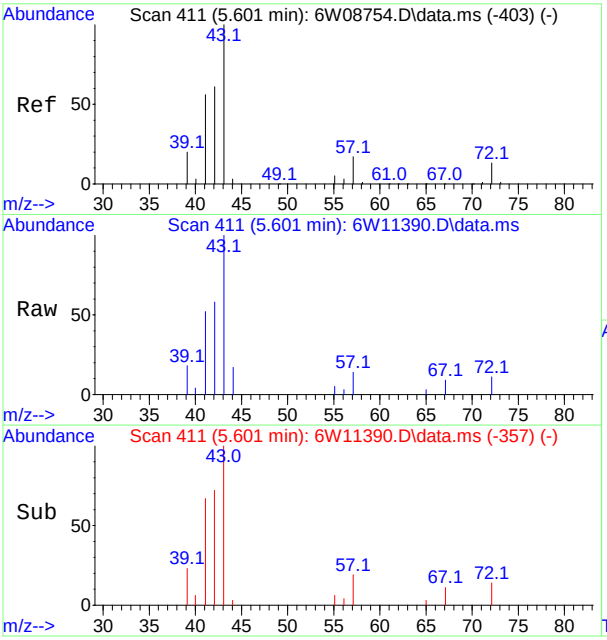


#23
Acetone
Concen: 142.49 ppb(v)
RT: 5.130 min Scan# 334
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 58 Resp: 1129264

Ion	Ratio	Lower	Upper
58	100		
43	283.3	230.1	427.3

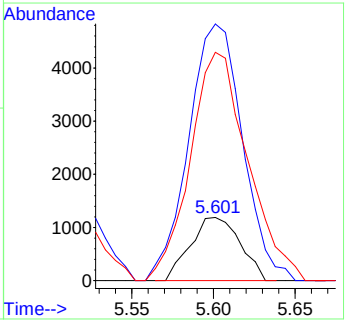


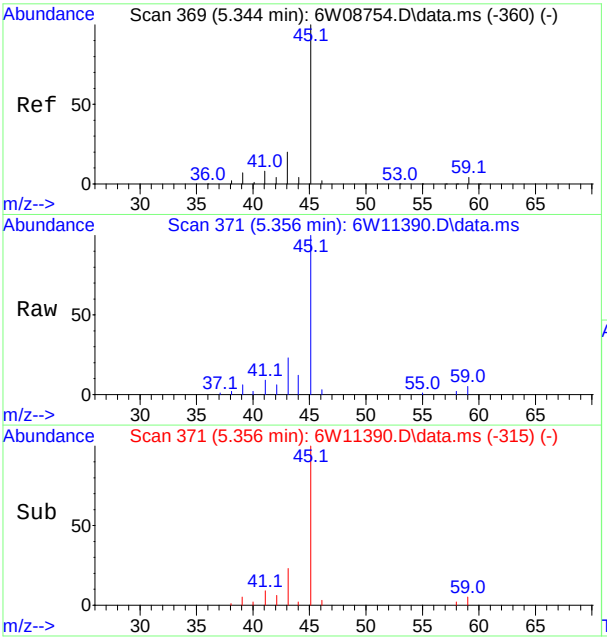


#24
Pentane
Concen: 0.62 ppb(v)
RT: 5.601 min Scan# 411
Delta R.T. 0.000 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 57 Resp: 2516

Ion	Ratio	Lower	Upper
57	100		
42	406.9	250.8	465.8
41	361.9	232.7	432.1

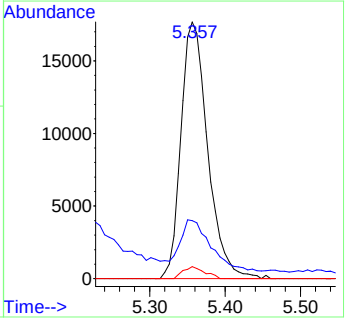


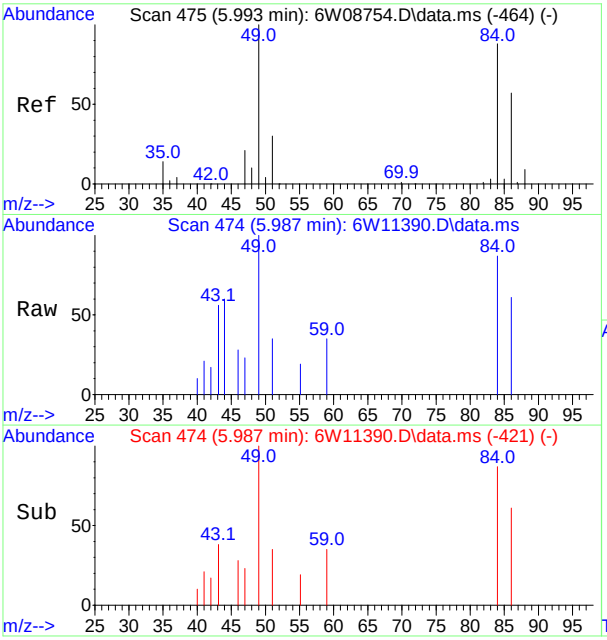


#27
Isopropyl Alcohol
Concen: 1.49 ppb(v)
RT: 5.356 min Scan# 371
Delta R.T. 0.012 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 45 Resp: 43566

Ion	Ratio	Lower	Upper
45	100		
43	22.6	14.1	26.1
59	4.7	2.8	5.2

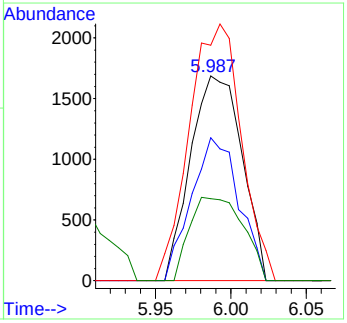


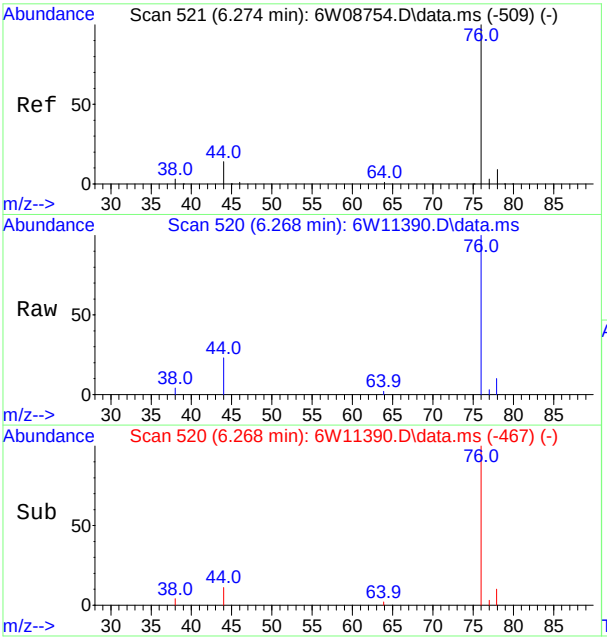


#30
Methylene Chloride
Concen: 0.23 ppb(v)
RT: 5.987 min Scan# 474
Delta R.T. -0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 84 Resp: 4026

Ion	Ratio	Lower	Upper
84	100		
86	69.9	45.5	84.5
49	115.1	79.5	147.7
51	40.0	24.6	45.6

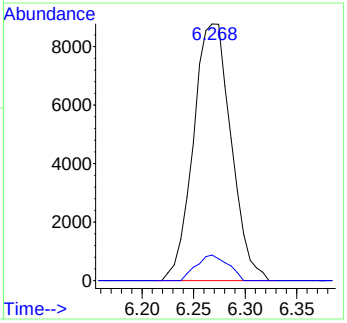


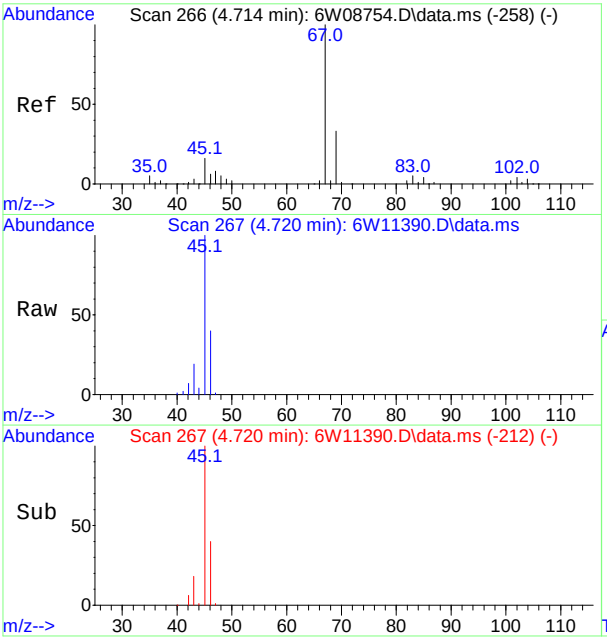


#31
Carbon Disulfide
Concen: 0.45 ppb(v)
RT: 6.268 min Scan# 520
Delta R.T. -0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 76 Resp: 22338

Ion	Ratio	Lower	Upper
76	100		
78	10.0	6.5	12.1

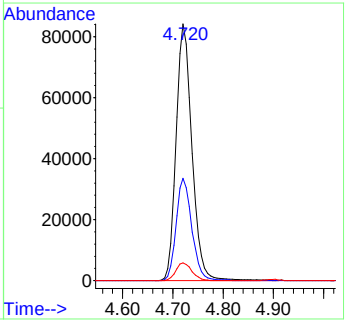


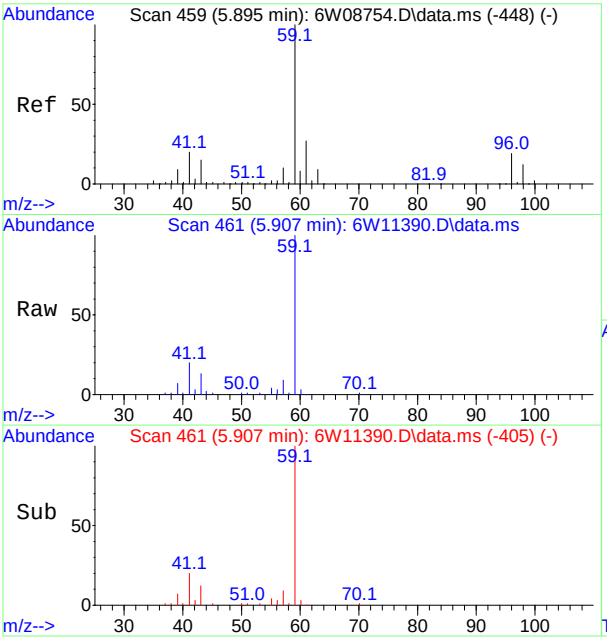


#32
Ethanol
Concen: 27.64 ppb(v)
RT: 4.720 min Scan# 267
Delta R.T. 0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 45 Resp: 184972

Ion	Ratio	Lower	Upper
45	100		
46	39.9	26.9	49.9
42	6.9	6.0	11.2

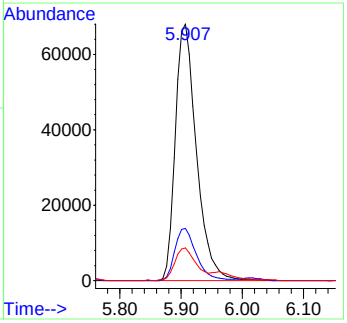


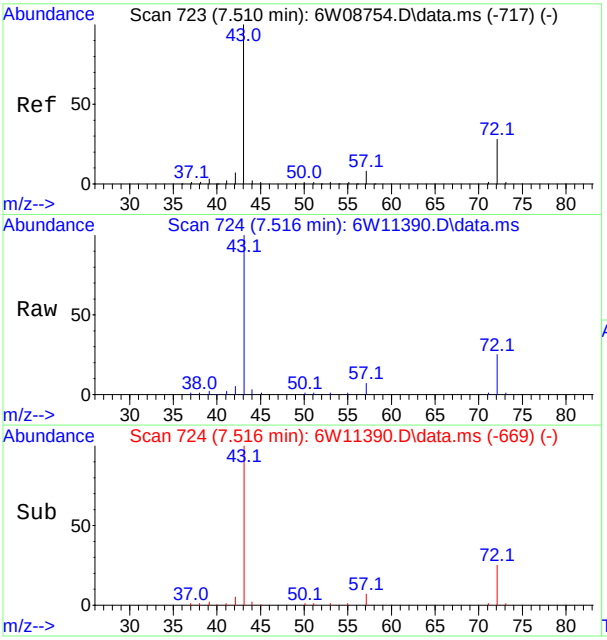


#36
tert-Butyl Alcohol
Concen: 4.80 ppb(v)
RT: 5.907 min Scan# 461
Delta R.T. 0.012 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 59 Resp: 163545

Ion	Ratio	Lower	Upper
59	100		
41	20.4	13.9	25.7
43	12.7	10.5	19.5

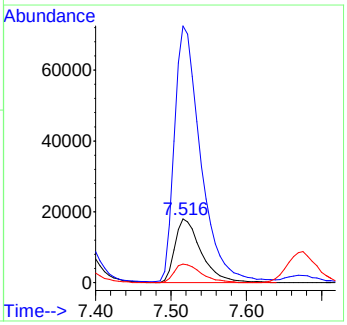


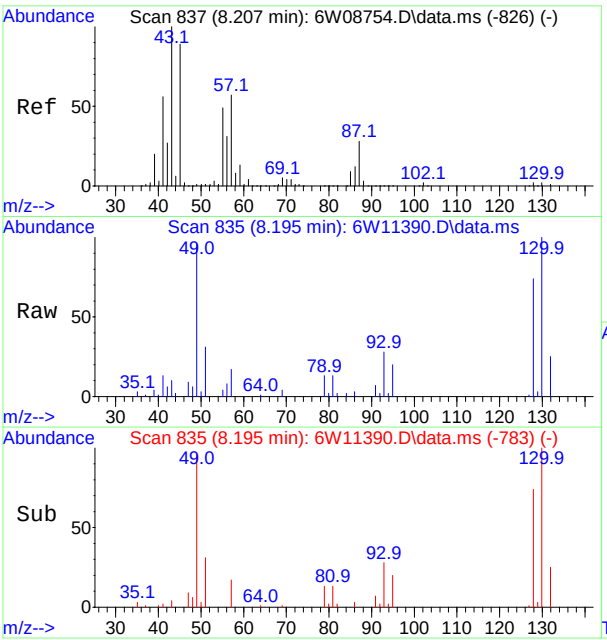


#40
2-Butanone
Concen: 5.58 ppb(v)
RT: 7.516 min Scan# 724
Delta R.T. 0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 72 Resp: 43754

Ion	Ratio	Lower	Upper
72	100		
43	402.3	255.4	474.4
57	29.2	20.7	38.5

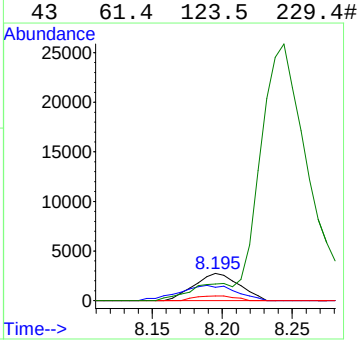


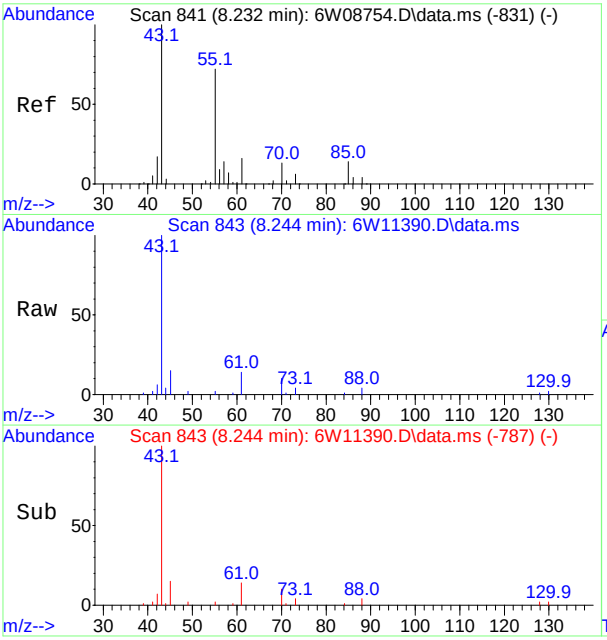


#41
Hexane
Concen: 0.24 ppb(v)
RT: 8.195 min Scan# 835
Delta R.T. -0.012 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 57 Resp: 6141

Ion	Ratio	Lower	Upper
57	100		
56	49.4	37.7	70.1
86	17.4	14.4	26.8
43	61.4	123.5	229.4#

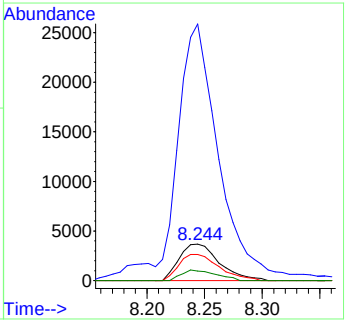


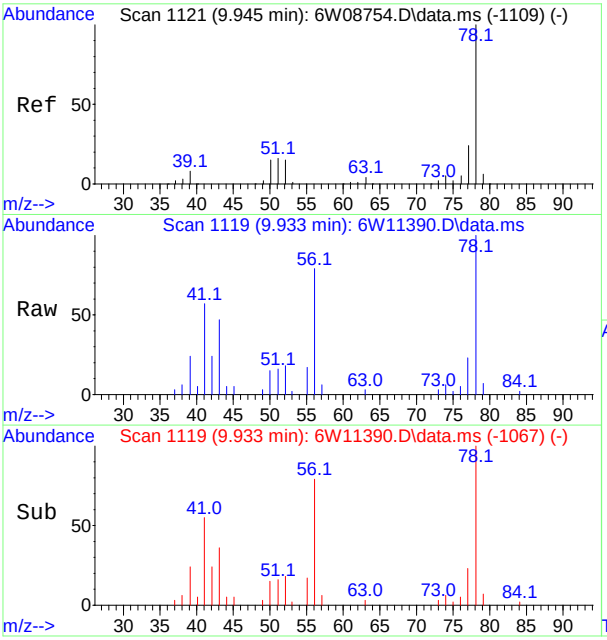


#44
Ethyl Acetate
Concen: 1.75 ppb(v)
RT: 8.244 min Scan# 843
Delta R.T. 0.012 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 61 Resp: 8969

Ion	Ratio	Lower	Upper
61	100		
43	703.7	546.6	1015.0
70	71.8	57.2	106.2
88	26.6	23.1	42.9

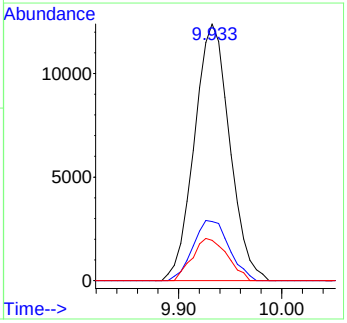


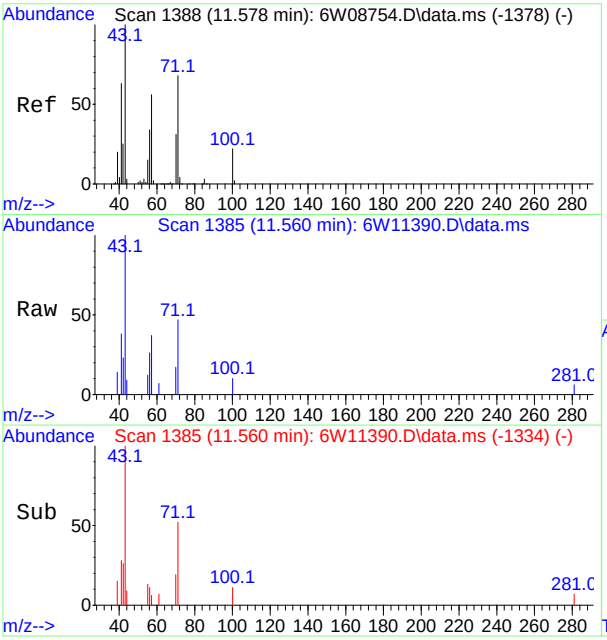


#51
Benzene
Concen: 0.51 ppb(v)
RT: 9.933 min Scan# 1119
Delta R.T. -0.012 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 78 Resp: 29462

Ion	Ratio	Lower	Upper
78	100		
77	23.0	16.7	30.9
51	15.7	11.3	21.1

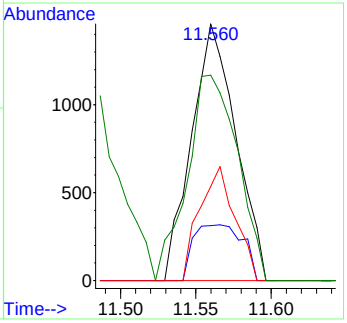


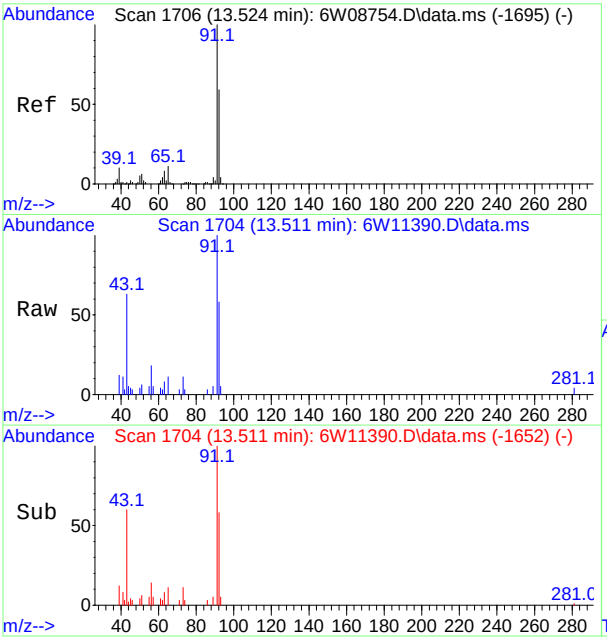


#57
Heptane
Concen: 0.16 ppb(v)
RT: 11.560 min Scan# 1385
Delta R.T. -0.018 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 71 Resp: 2991

Ion	Ratio	Lower	Upper
71	100		
100	21.4	23.2	43.2#
70	36.6	32.1	59.7
57	80.0	58.0	107.6

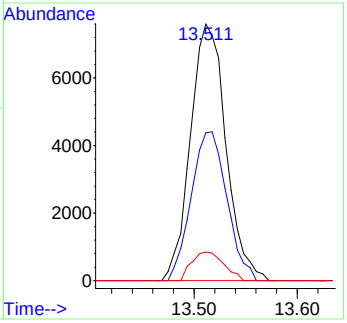


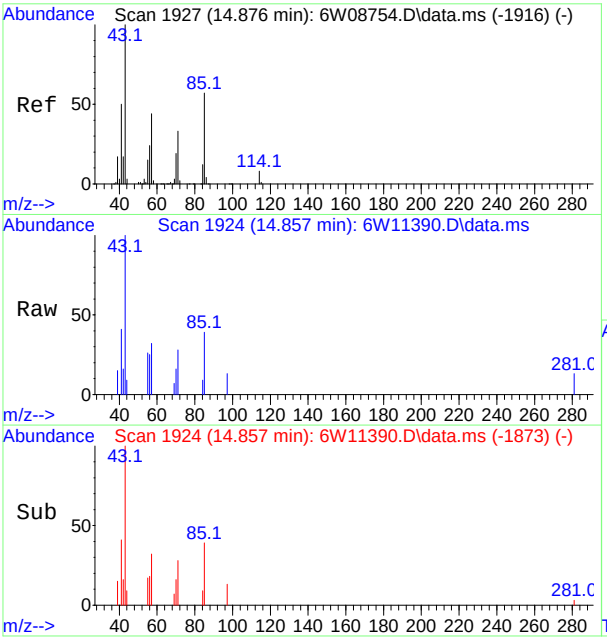


#68
Toluene
Concen: 0.26 ppb(v)
RT: 13.511 min Scan# 1704
Delta R.T. -0.012 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 91 Resp: 18190

Ion	Ratio	Lower	Upper
91	100		
92	57.6	41.4	77.0
65	11.1	7.9	14.7

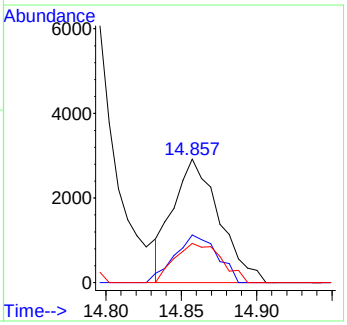


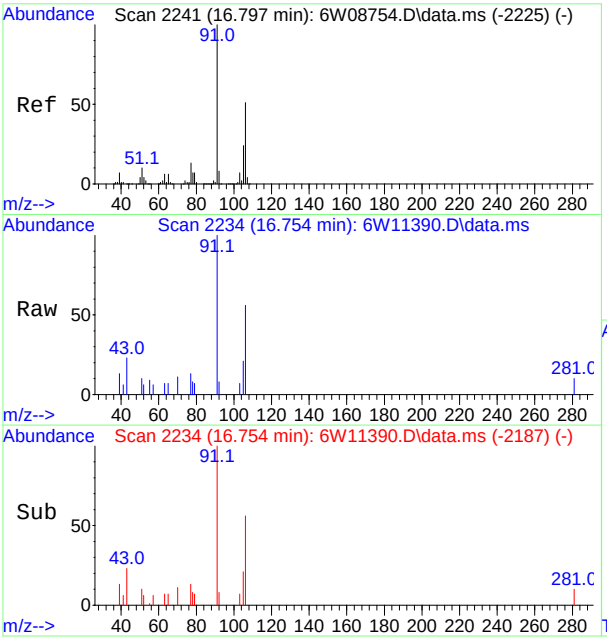


#76
Octane
Concen: 0.16 ppb(v)
RT: 14.857 min Scan# 1924
Delta R.T. -0.018 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 43 Resp: 6228

Ion	Ratio	Lower	Upper
43	100		
85	38.7	40.1	74.5#
57	31.7	30.7	57.1

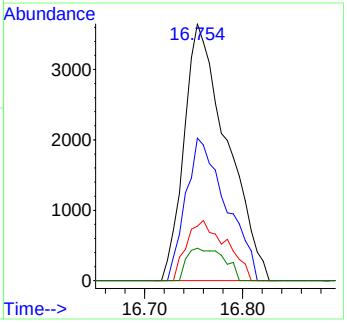


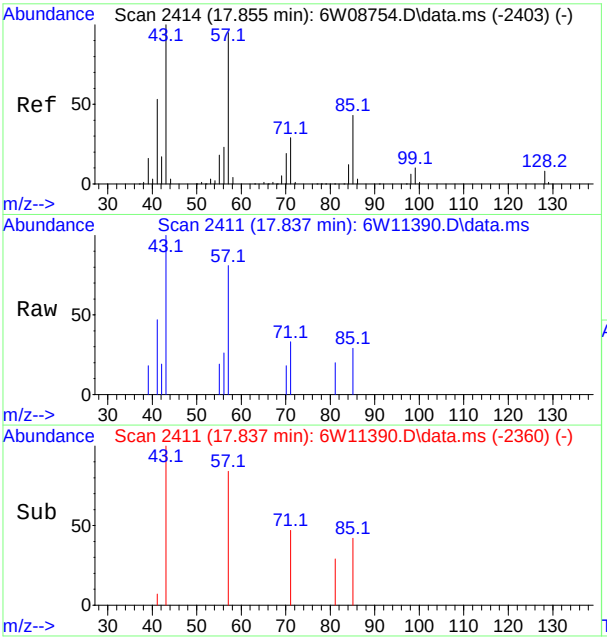


#81
m,p-Xylene
Concen: 0.18 ppb(v)
RT: 16.754 min Scan# 2234
Delta R.T. -0.043 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 91 Resp: 11070

Ion	Ratio	Lower	Upper
91	100		
106	55.5	35.9	66.7
105	21.3	16.7	31.1
77	12.6	9.2	17.0

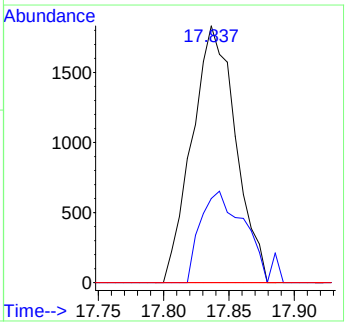


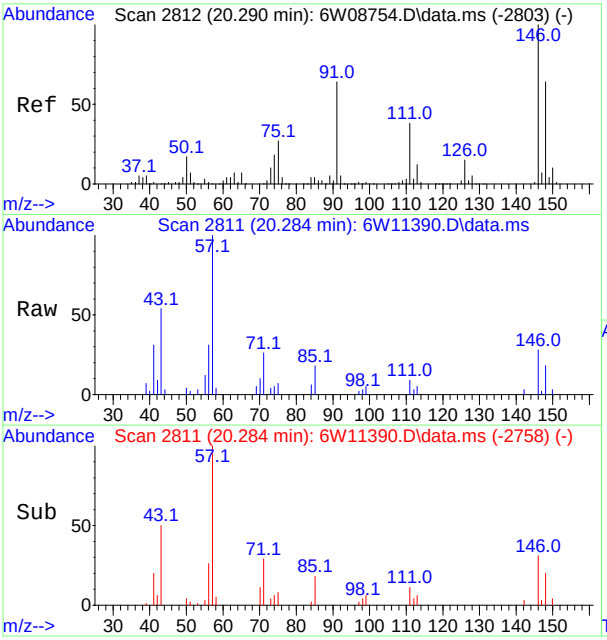


#83
Nonane
Concen: 0.12 ppb(v)
RT: 17.837 min Scan# 2411
Delta R.T. -0.018 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion: 43 Resp: 4277

Ion	Ratio	Lower	Upper
43	100		
71	32.8	20.2	37.6
128	0.0	5.9	10.9#

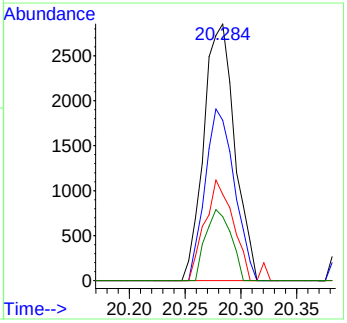




#98
1,3-Dichlorobenzene
Concen: 0.16 ppb(v) m
RT: 20.284 min Scan# 2811
Delta R.T. -0.006 min
Lab File: 6W11390.D
Acq: 4 Apr 2019 1:07 am

Tgt Ion:146 Resp: 5494

Ion	Ratio	Lower	Upper
146	100		
148	62.5	45.1	83.7
111	33.6	26.5	49.1
75	24.9	18.6	34.6



Manual Integration Approval Summary

Sample Number: JC85165-4
Lab FileID: 6W11390.D
Injection Time: 04/04/19 01:07

Method: TO-15
Analyst approved: 04/08/19 11:30 Dana Tryon
Supervisor approved: 04/08/19 13:15 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
m-Dichlorobenzene	541-73-1		20.28	Poor instrument integration

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11408.D
Acq On : 4 Apr 2019 5:56 pm
Operator : gabriep
Sample : jc85165-4
Misc : MS33501,V6W458,100,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 12:48:13 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

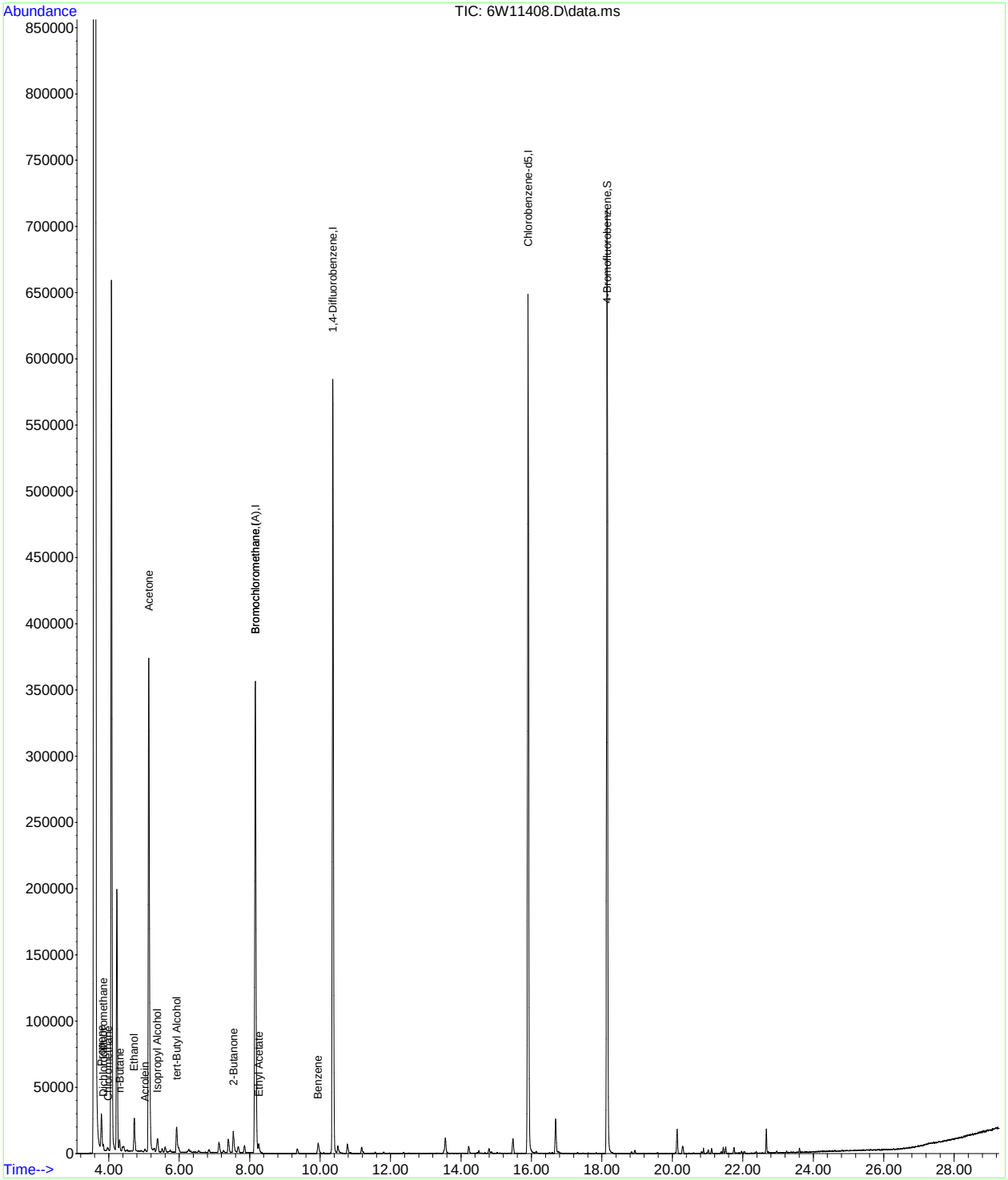
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	178511	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.361	114	643821	10.00	ppb(v	-0.02
78) Chlorobenzene-d5	15.903	82	273180	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	178511	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	331626	9.94	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.40%			
Target Compounds						Qvalue
5) Propene	3.790	41	13309	1.28	ppb(v	95
7) Dichlorodifluoromethane	3.845	85	5305	0.11	ppb(v#	93
9) Chloromethane	3.974	50	2353	0.18	ppb(v	85
13) n-Butane	4.310	58	1073	0.39	ppb(v#	66
15) Acrolein	5.026	56	2036	0.31	ppb(v#	84
23) Acetone	5.136	58	203586	27.36	ppb(v	78
27) Isopropyl Alcohol	5.375	45	8827	0.32	ppb(v#	81
32) Ethanol	4.720	45	33358	5.31	ppb(v	98
36) tert-Butyl Alcohol	5.932	59	28120	0.88	ppb(v	97
40) 2-Butanone	7.541	72	7097	0.96	ppb(v	93
44) Ethyl Acetate	8.262	61	1131	0.24	ppb(v#	82
51) Benzene	9.933	78	5250	0.10	ppb(v	96

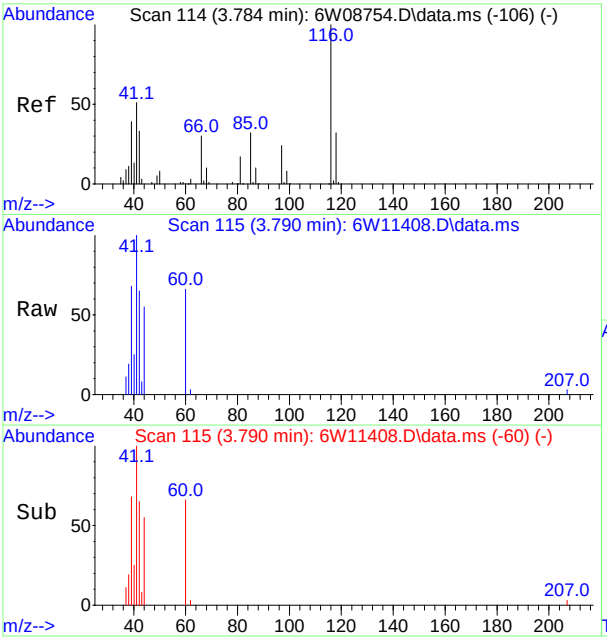
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11408.D
Acq On : 4 Apr 2019 5:56 pm
Operator : gabriep
Sample : jc85165-4
Misc : MS33501,V6W458,100,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 12:48:13 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

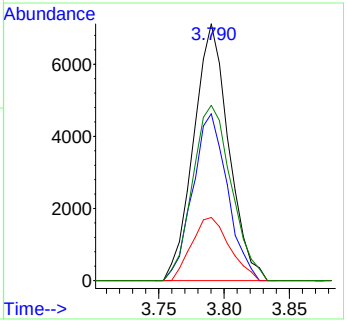


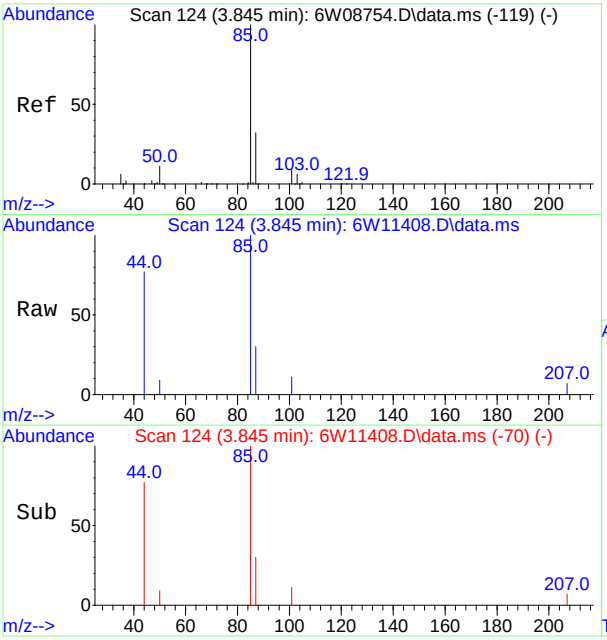


#5
Propene
Concen: 1.28 ppb(v)
RT: 3.790 min Scan# 115
Delta R.T. 0.006 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 41 Resp: 13309

Ion	Ratio	Lower	Upper
41	100		
42	65.0	45.7	84.9
40	24.6	18.4	34.2
39	68.2	54.1	100.5

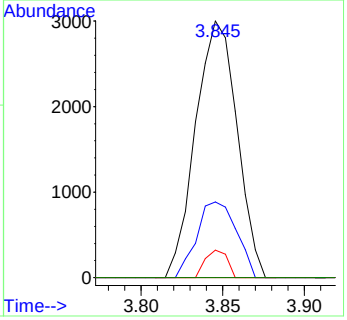


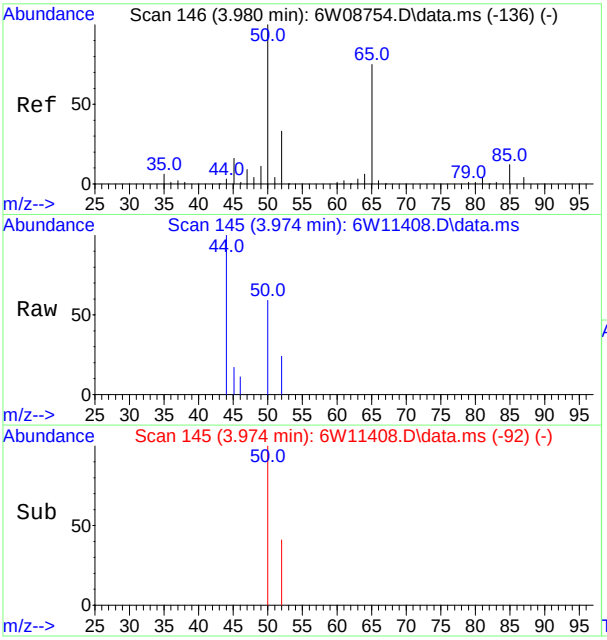


#7
Dichlorodifluoromethane
Concen: 0.11 ppb(v)
RT: 3.845 min Scan# 124
Delta R.T. 0.000 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 85 Resp: 5305

Ion	Ratio	Lower	Upper
85	100		
87	29.5	22.7	42.1
101	10.7	6.3	11.7
103	0.0	4.1	7.7#

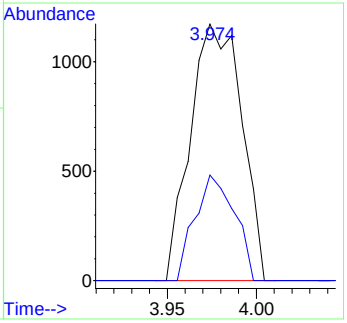


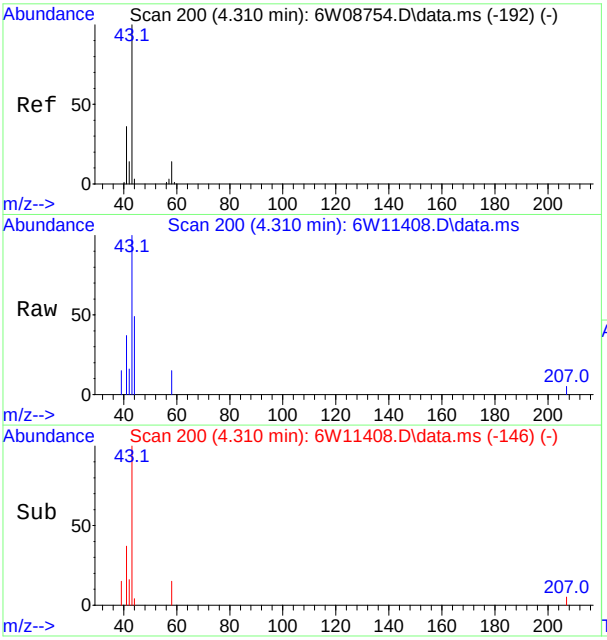


#9
Chloromethane
Concen: 0.18 ppb(v)
RT: 3.974 min Scan# 145
Delta R.T. -0.006 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 50 Resp: 2353

Ion	Ratio	Lower	Upper
50	100		
52	41.2	22.8	42.4

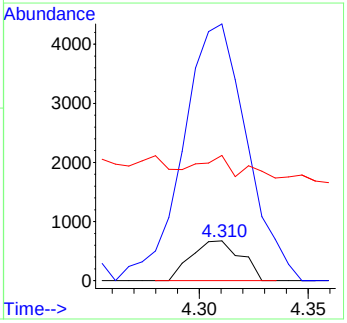


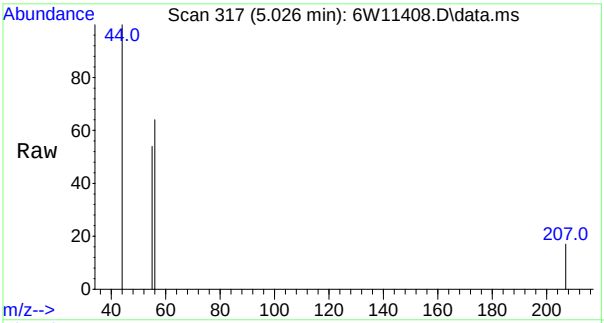


#13
n-Butane
Concen: 0.39 ppb(v)
RT: 4.310 min Scan# 200
Delta R.T. 0.000 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 58 Resp: 1073

Ion	Ratio	Lower	Upper
58	100		
43	646.6	485.0	900.6
44	315.5	19.2	35.6#

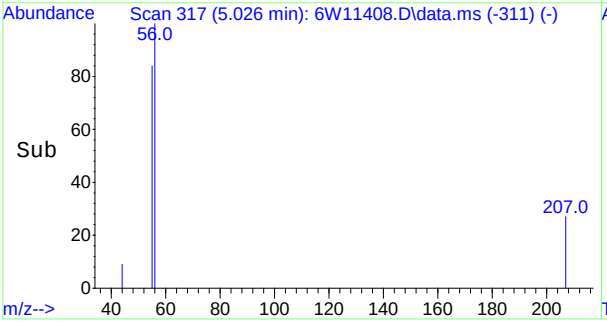


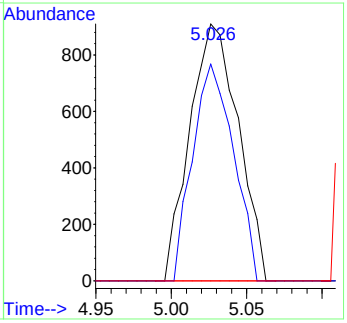


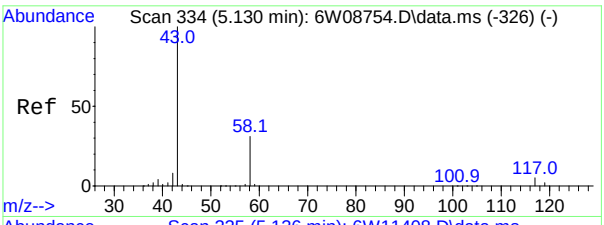
#15
Acrolein
Concen: 0.31 ppb(v)
RT: 5.026 min Scan# 317
Delta R.T. 0.000 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 56 Resp: 2036

Ion	Ratio	Lower	Upper
56	100		
55	70.9	56.8	85.2
37	0.0	23.8	35.8#



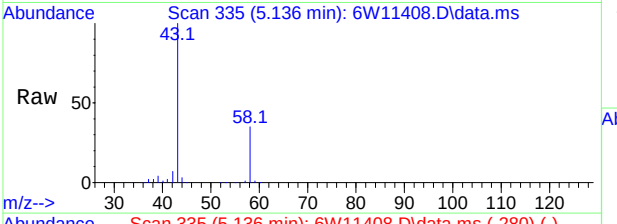


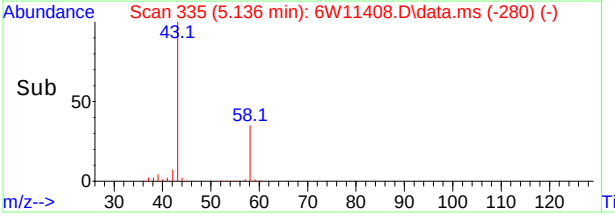


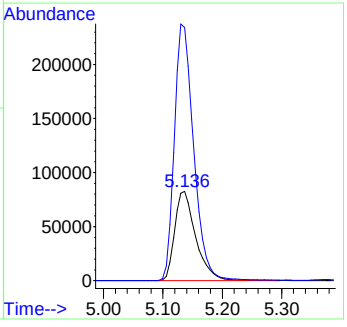
#23
Acetone
Concen: 27.36 ppb(v)
RT: 5.136 min Scan# 335
Delta R.T. 0.006 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

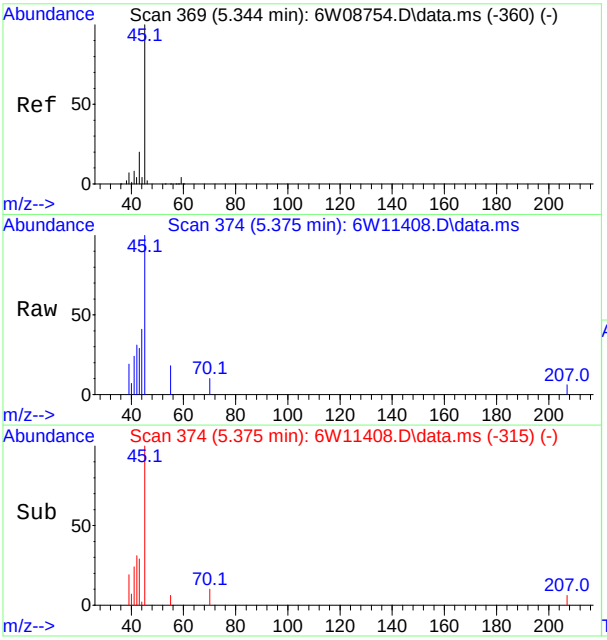
Tgt Ion: 58 Resp: 203586

Ion	Ratio	Lower	Upper
58	100		
43	283.1	230.1	427.3





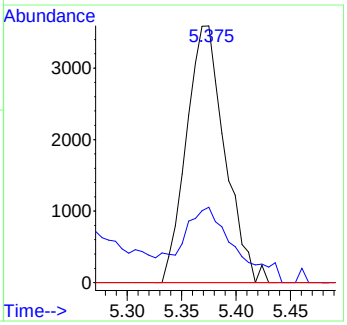


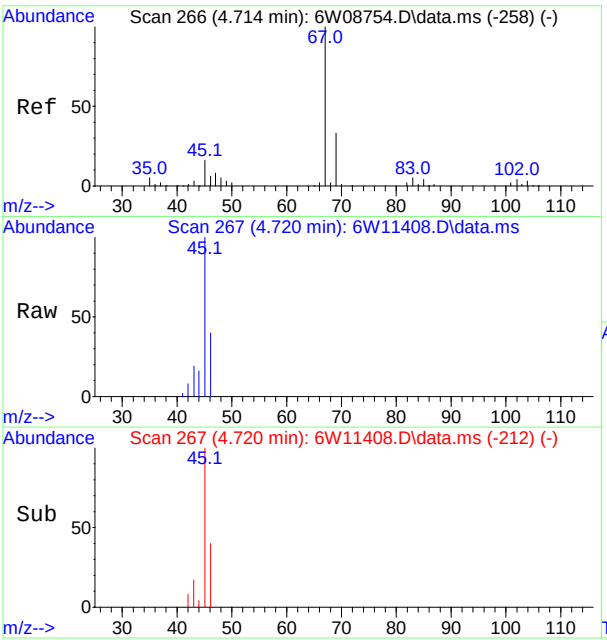


#27
Isopropyl Alcohol
Concen: 0.32 ppb(v)
RT: 5.375 min Scan# 374
Delta R.T. 0.031 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 45 Resp: 8827

Ion	Ratio	Lower	Upper
45	100		
43	29.4	14.1	26.1#
59	0.0	2.8	5.2#

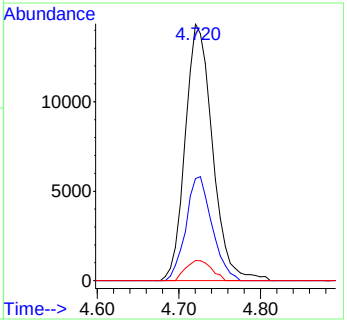


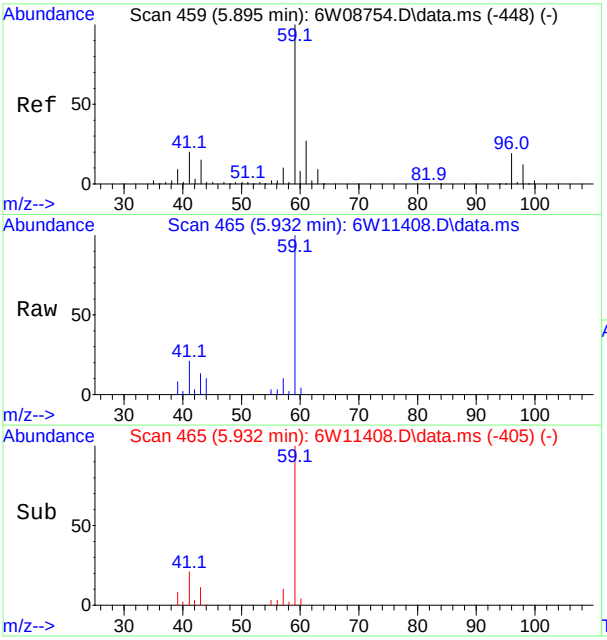


#32
Ethanol
Concen: 5.31 ppb(v)
RT: 4.720 min Scan# 267
Delta R.T. 0.006 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 45 Resp: 33358

Ion	Ratio	Lower	Upper
45	100		
46	39.8	26.9	49.9
42	7.8	6.0	11.2

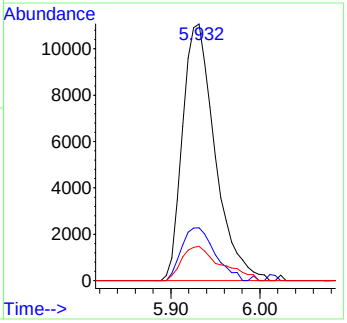


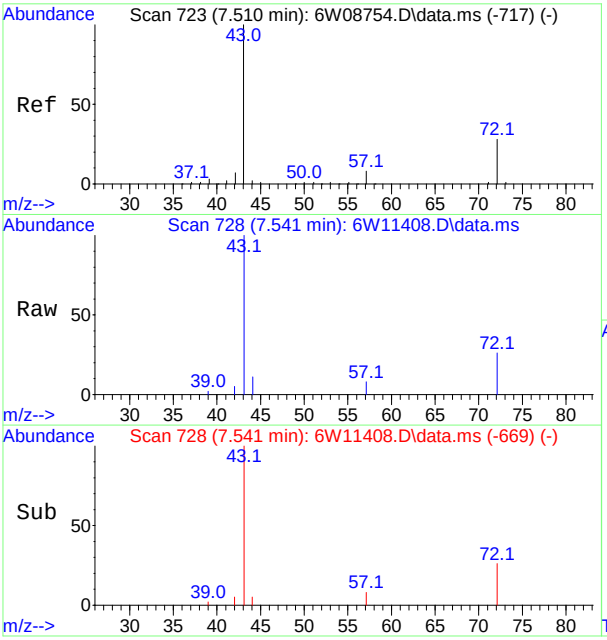


#36
tert-Butyl Alcohol
Concen: 0.88 ppb(v)
RT: 5.932 min Scan# 465
Delta R.T. 0.037 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 59 Resp: 28120

Ion	Ratio	Lower	Upper
59	100		
41	20.5	13.9	25.7
43	13.3	10.5	19.5

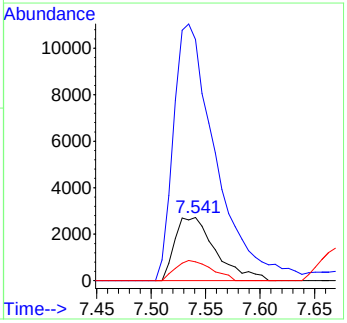


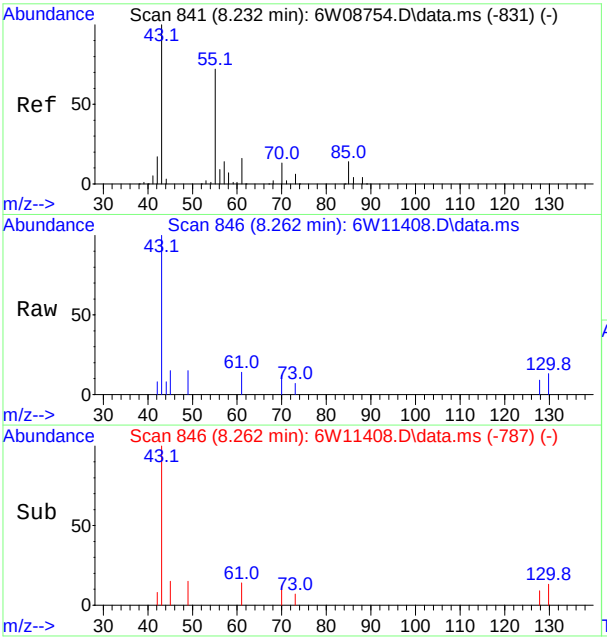


#40
2-Butanone
Concen: 0.96 ppb(v)
RT: 7.541 min Scan# 728
Delta R.T. 0.031 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 72 Resp: 7097

Ion	Ratio	Lower	Upper
72	100		
43	382.1	255.4	474.4
57	29.6	20.7	38.5

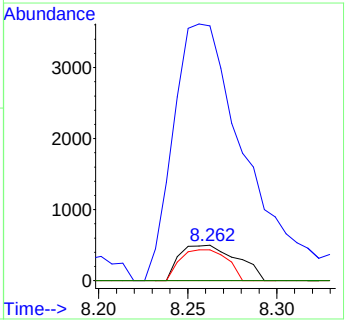


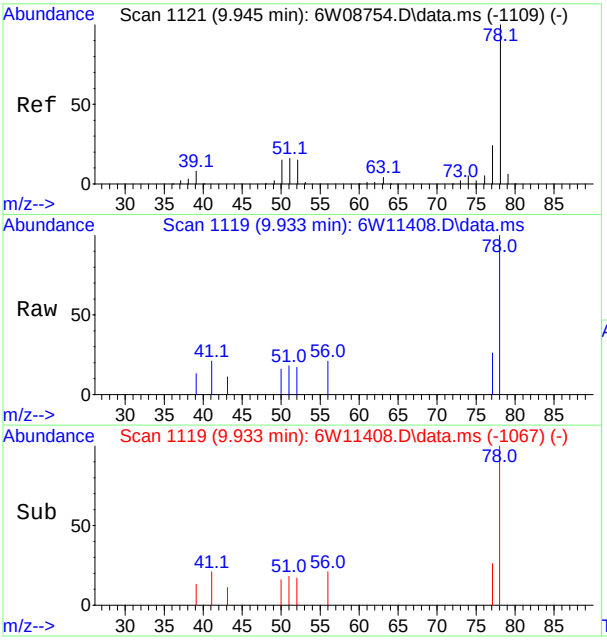


#44
Ethyl Acetate
Concen: 0.24 ppb(v)
RT: 8.262 min Scan# 846
Delta R.T. 0.031 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 61 Resp: 1131

Ion	Ratio	Lower	Upper
61	100		
43	717.2	546.6	1015.0
70	87.2	57.2	106.2
88	0.0	23.1	42.9#

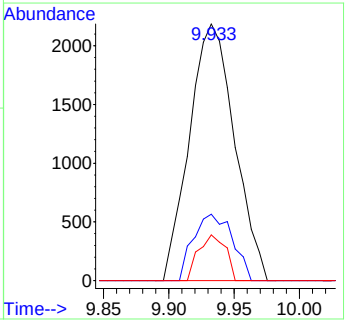




#51
Benzene
Concen: 0.10 ppb(v)
RT: 9.933 min Scan# 1119
Delta R.T. -0.012 min
Lab File: 6W11408.D
Acq: 4 Apr 2019 5:56 pm

Tgt Ion: 78 Resp: 5250

Ion	Ratio	Lower	Upper
78	100		
77	25.9	16.7	30.9
51	17.8	11.3	21.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11391.D
Acq On : 4 Apr 2019 2:01 am
Operator : gabriep
Sample : jc85165-5
Misc : MS33501,V6W457,500,,,,1.9
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 11:28:50 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

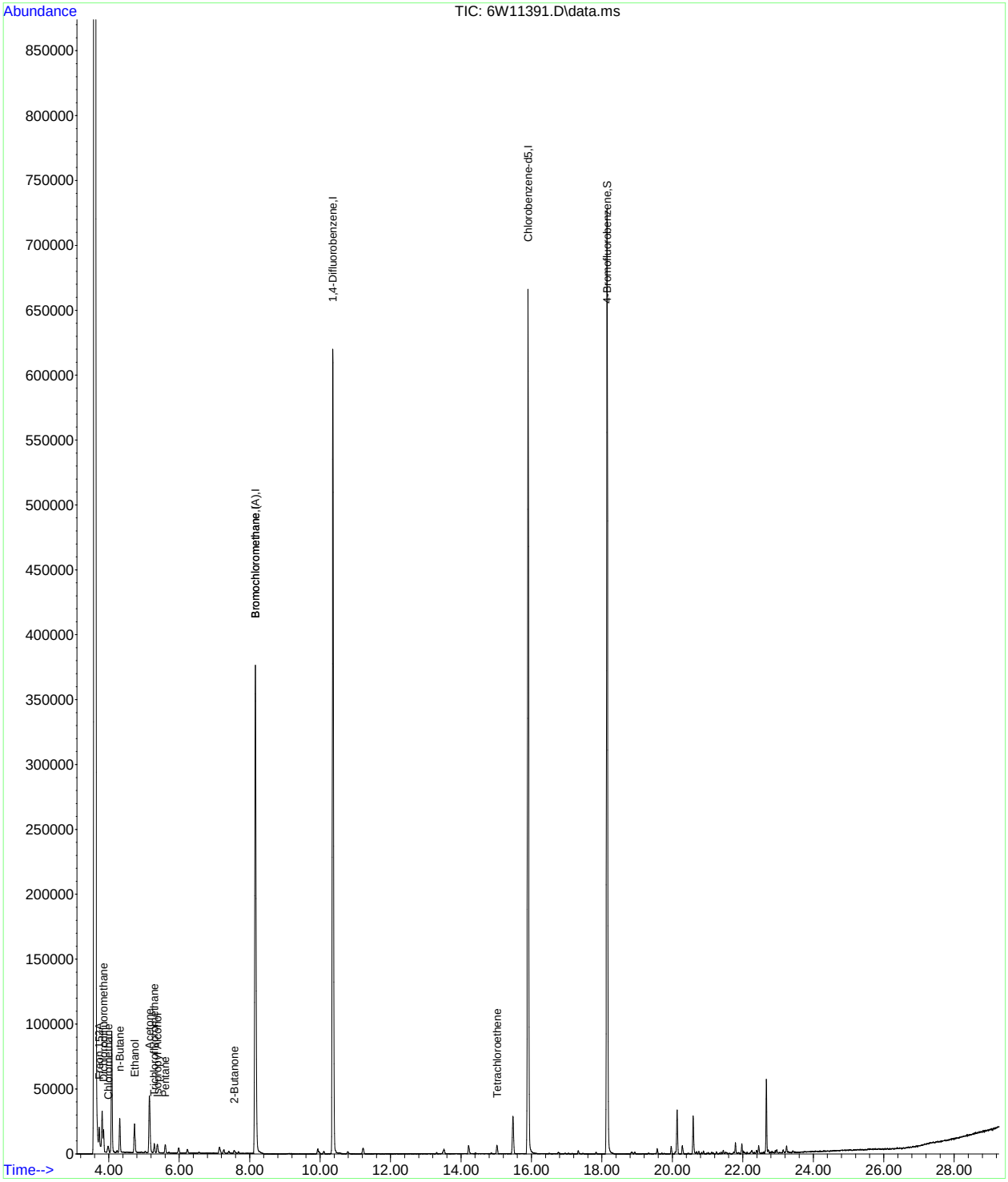
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.164	130	190519	10.00	ppb(v	#-0.01
55) 1,4-Difluorobenzene	10.361	114	686091	10.00	ppb(v	-0.02
78) Chlorobenzene-d5	15.903	82	284395	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.164	130	190519	10.00	ppb(v	#-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	342013	9.85	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.50%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	8415	0.86	ppb(v	91
7) Dichlorodifluoromethane	3.851	85	17660	0.35	ppb(v	97
9) Chloromethane	3.986	50	6137	0.43	ppb(v	93
13) n-Butane	4.310	58	3670	1.25	ppb(v#	95
22) Trichlorofluoromethane	5.289	101	7917	0.15	ppb(v	95
23) Acetone	5.148	58	19402	2.44	ppb(v	100
24) Pentane	5.601	57	633	0.16	ppb(v	83
27) Isopropyl Alcohol	5.381	45	10664	0.36	ppb(v	98
32) Ethanol	4.732	45	29149	4.35	ppb(v	99
40) 2-Butanone	7.565	72	850	0.11	ppb(v#	94
74) Tetrachloroethene	15.022	166	3151	0.07	ppb(v	97

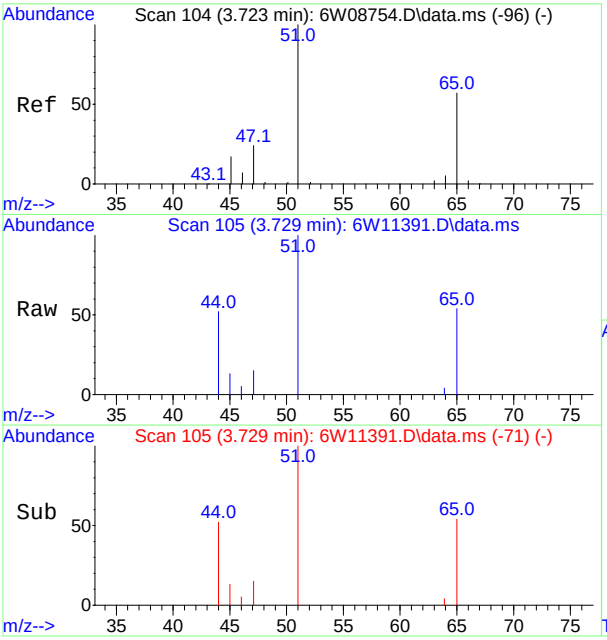
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11391.D
Acq On : 4 Apr 2019 2:01 am
Operator : gabriep
Sample : jc85165-5
Misc : MS33501,V6W457,500,,,,1.9
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 11:28:50 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

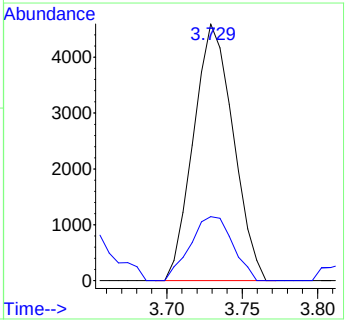


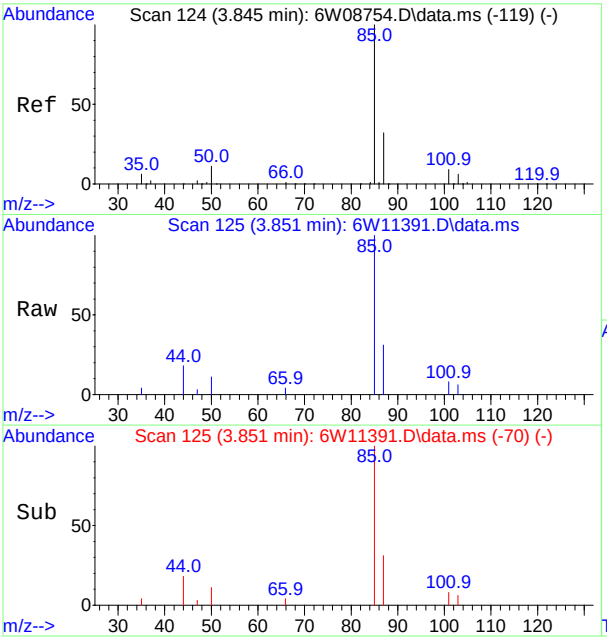


#3
Freon 152A
Concen: 0.86 ppb(v)
RT: 3.729 min Scan# 105
Delta R.T. 0.006 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 65 Resp: 8415

Ion	Ratio	Lower	Upper
65	100		
45	24.9	20.9	38.9

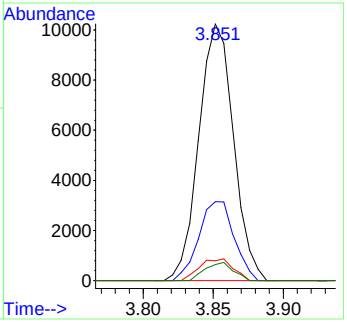


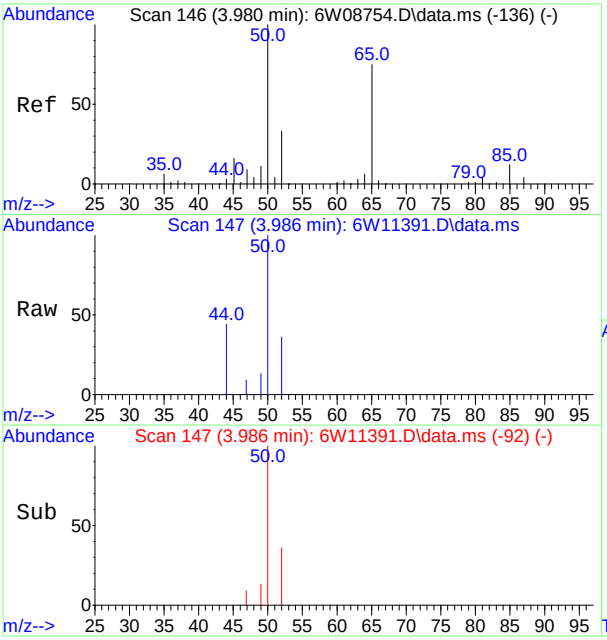


#7
Dichlorodifluoromethane
Concen: 0.35 ppb(v)
RT: 3.851 min Scan# 125
Delta R.T. 0.006 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 85 Resp: 17660

Ion	Ratio	Lower	Upper
85	100		
87	30.8	22.7	42.1
101	7.8	6.3	11.7
103	6.3	4.1	7.7

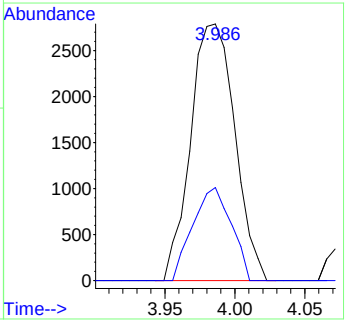


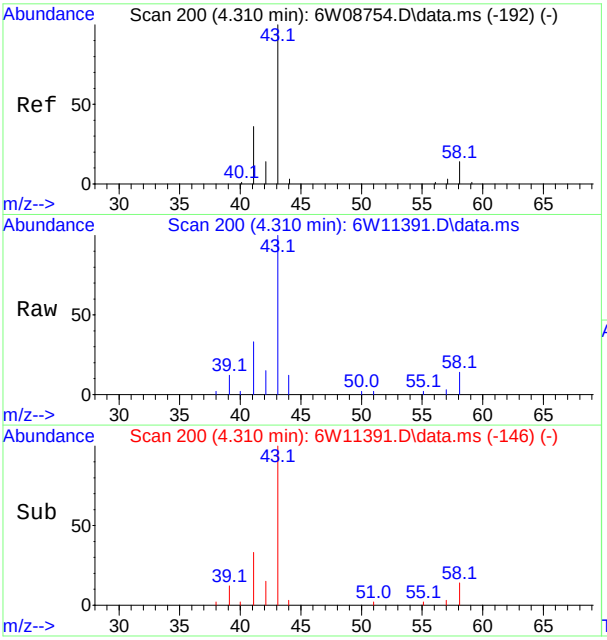


#9
Chloromethane
Concen: 0.43 ppb(v)
RT: 3.986 min Scan# 147
Delta R.T. 0.006 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 50 Resp: 6137

Ion	Ratio	Lower	Upper
50	100		
52	36.3	22.8	42.4

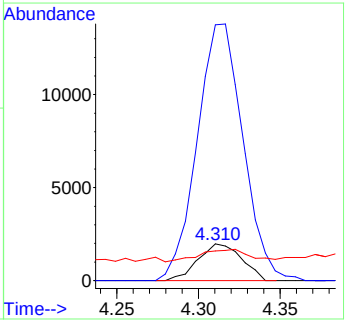


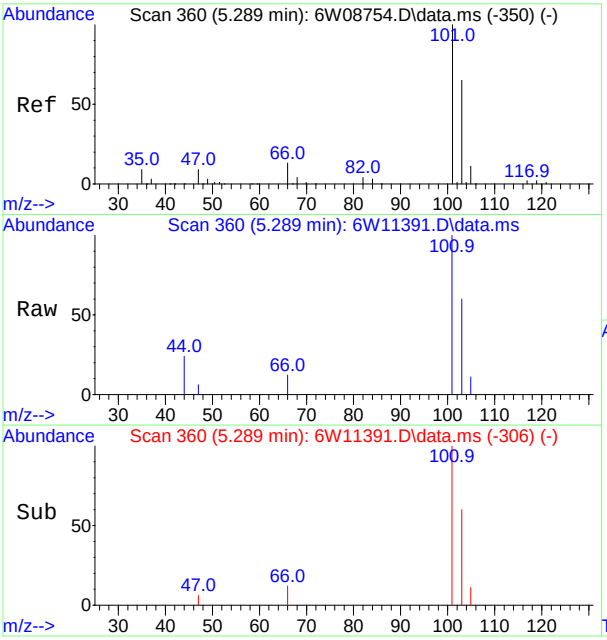


#13
n-Butane
Concen: 1.25 ppb(v)
RT: 4.310 min Scan# 200
Delta R.T. 0.000 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 58 Resp: 3670

Ion	Ratio	Lower	Upper
58	100		
43	696.8	485.0	900.6
44	81.2	19.2	35.6#

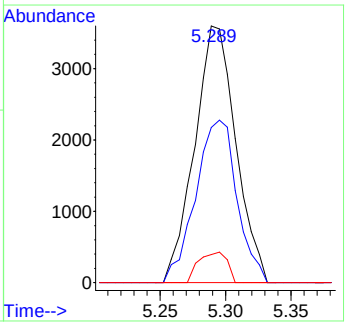


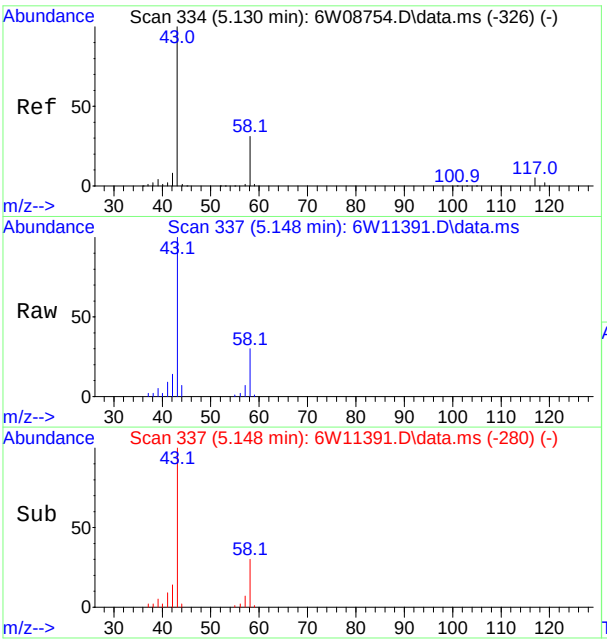


#22
Trichlorofluoromethane
Concen: 0.15 ppb(v)
RT: 5.289 min Scan# 360
Delta R.T. 0.000 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion:101 Resp: 7917

Ion	Ratio	Lower	Upper
101	100		
103	60.5	45.4	84.4
105	10.9	7.3	13.7

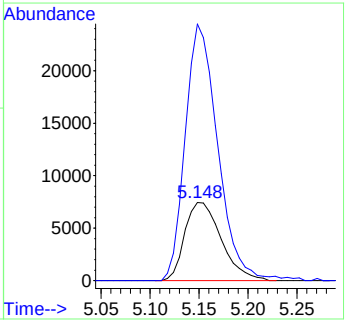


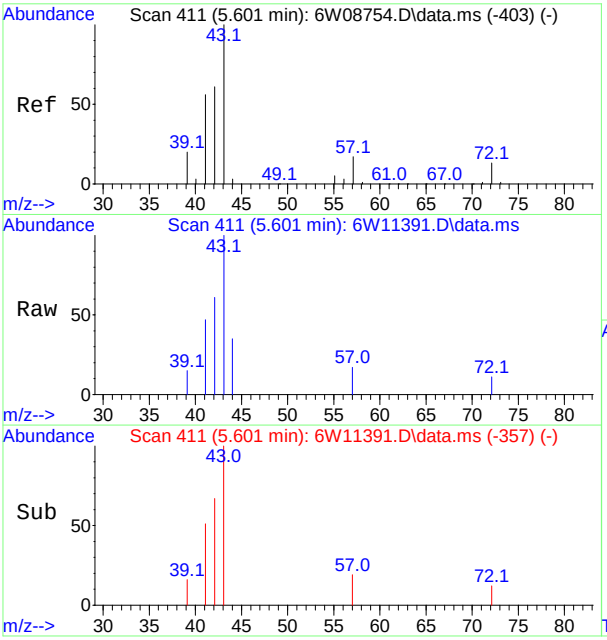


#23
Acetone
Concen: 2.44 ppb(v)
RT: 5.148 min Scan# 337
Delta R.T. 0.018 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 58 Resp: 19402

Ion	Ratio	Lower	Upper
58	100		
43	328.2	230.1	427.3

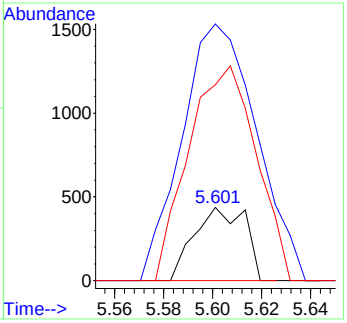


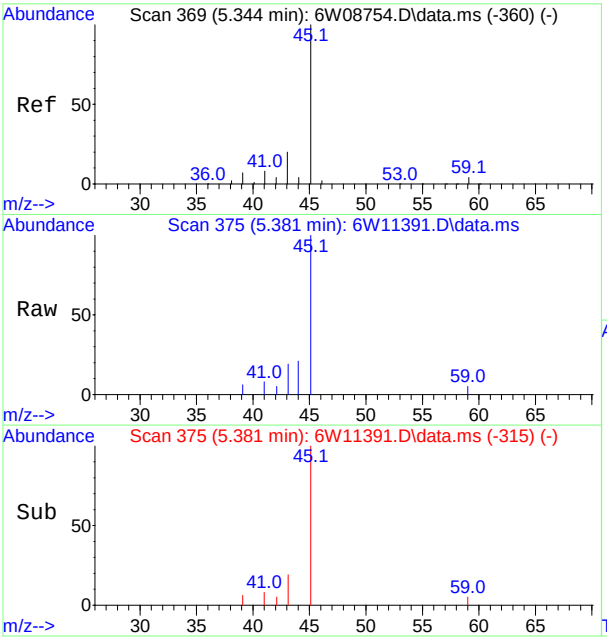


#24
Pentane
Concen: 0.16 ppb(v)
RT: 5.601 min Scan# 411
Delta R.T. -0.000 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 57 Resp: 633

Ion	Ratio	Lower	Upper
57	100		
42	350.8	250.8	465.8
41	267.7	232.7	432.1

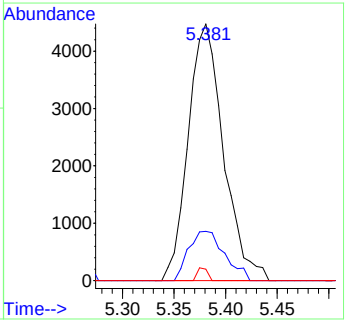


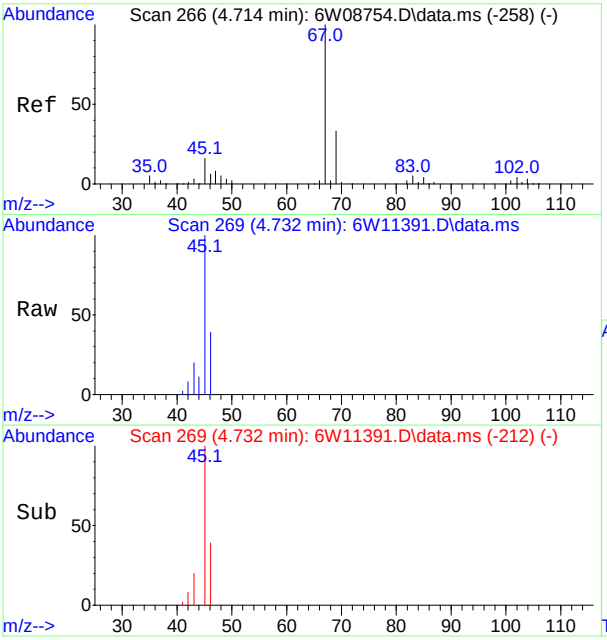


#27
Isopropyl Alcohol
Concen: 0.36 ppb(v)
RT: 5.381 min Scan# 375
Delta R.T. 0.037 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 45 Resp: 10664

Ion	Ratio	Lower	Upper
45	100		
43	19.2	14.1	26.1
59	4.5	2.8	5.2

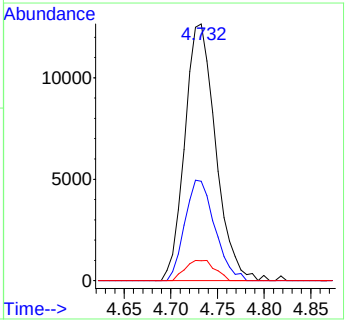


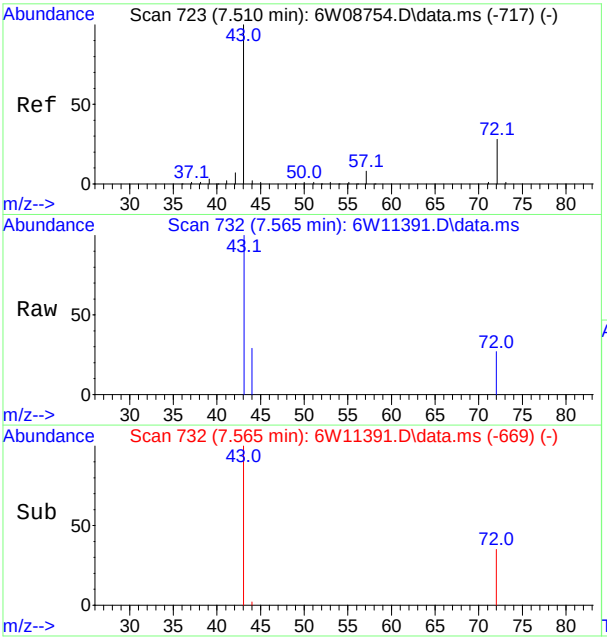


#32
Ethanol
Concen: 4.35 ppb(v)
RT: 4.732 min Scan# 269
Delta R.T. 0.018 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 45 Resp: 29149

Ion	Ratio	Lower	Upper
45	100		
46	38.7	26.9	49.9
42	7.7	6.0	11.2

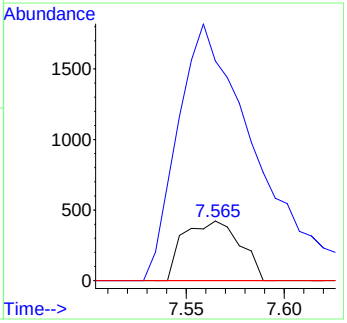


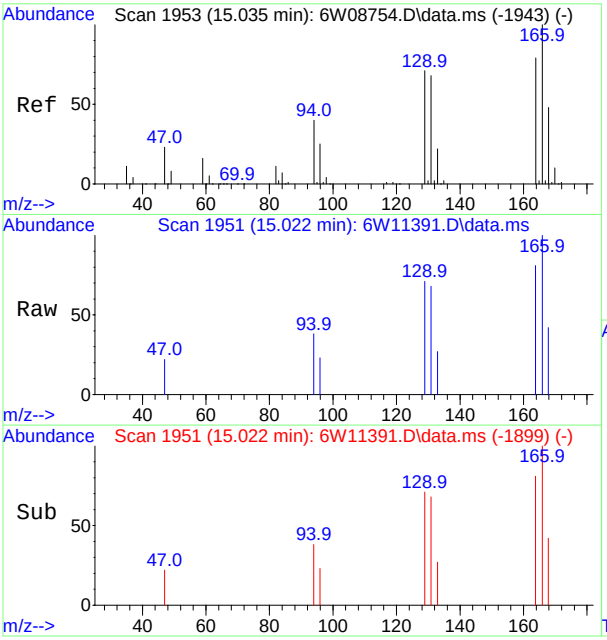


#40
2-Butanone
Concen: 0.11 ppb(v)
RT: 7.565 min Scan# 732
Delta R.T. 0.055 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion: 72 Resp: 850

Ion	Ratio	Lower	Upper
72	100		
43	369.0	255.4	474.4
57	0.0	20.7	38.5#

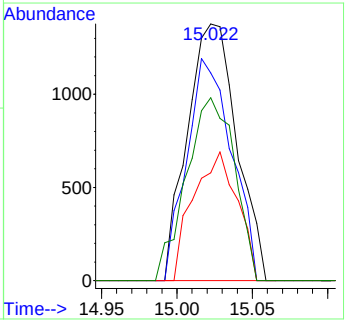




#74
Tetrachloroethene
Concen: 0.07 ppb(v)
RT: 15.022 min Scan# 1951
Delta R.T. -0.012 min
Lab File: 6W11391.D
Acq: 4 Apr 2019 2:01 am

Tgt Ion:166 Resp: 3151

Ion	Ratio	Lower	Upper
166	100		
164	80.9	55.1	102.3
168	42.0	33.6	62.4
129	71.3	49.6	92.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11381.D
Acq On : 3 Apr 2019 5:35 pm
Operator : gabriep
Sample : mb
Misc : MS33500,V6W457,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 10:05:51 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

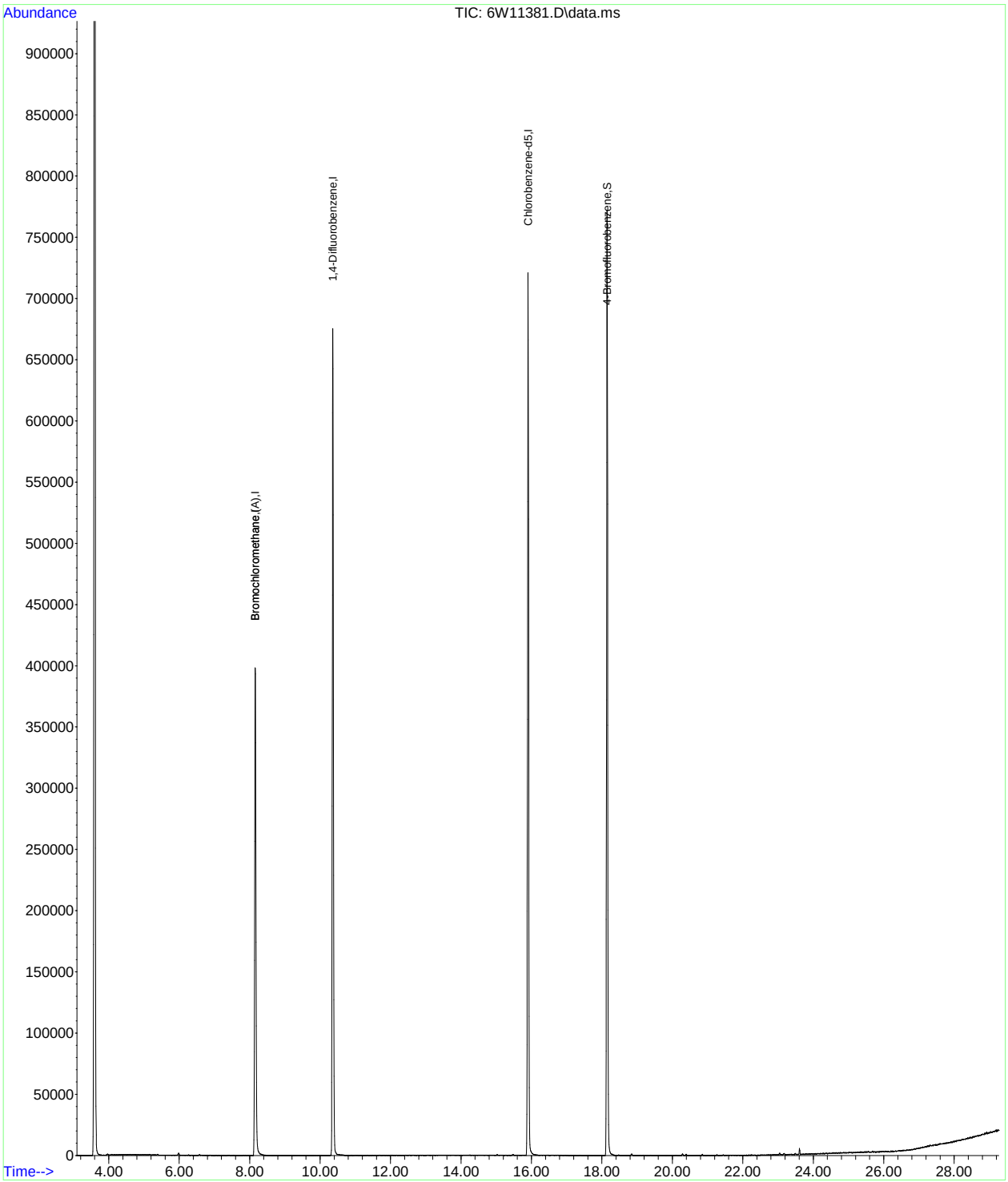
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.158	130	209780	10.00	ppb(v	-0.02
55) 1,4-Difluorobenzene	10.361	114	759266	10.00	ppb(v	-0.02
78) Chlorobenzene-d5	15.903	82	310582	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.158	130	209780	10.00	ppb(v	-0.02
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	362338	9.56	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.60%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11381.D
Acq On : 3 Apr 2019 5:35 pm
Operator : gabriep
Sample : mb
Misc : MS33500,V6W457,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 10:05:51 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11406.D
Acq On : 4 Apr 2019 4:15 pm
Operator : gabriep
Sample : MB
Misc : MS33500,V6W458,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:51:09 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

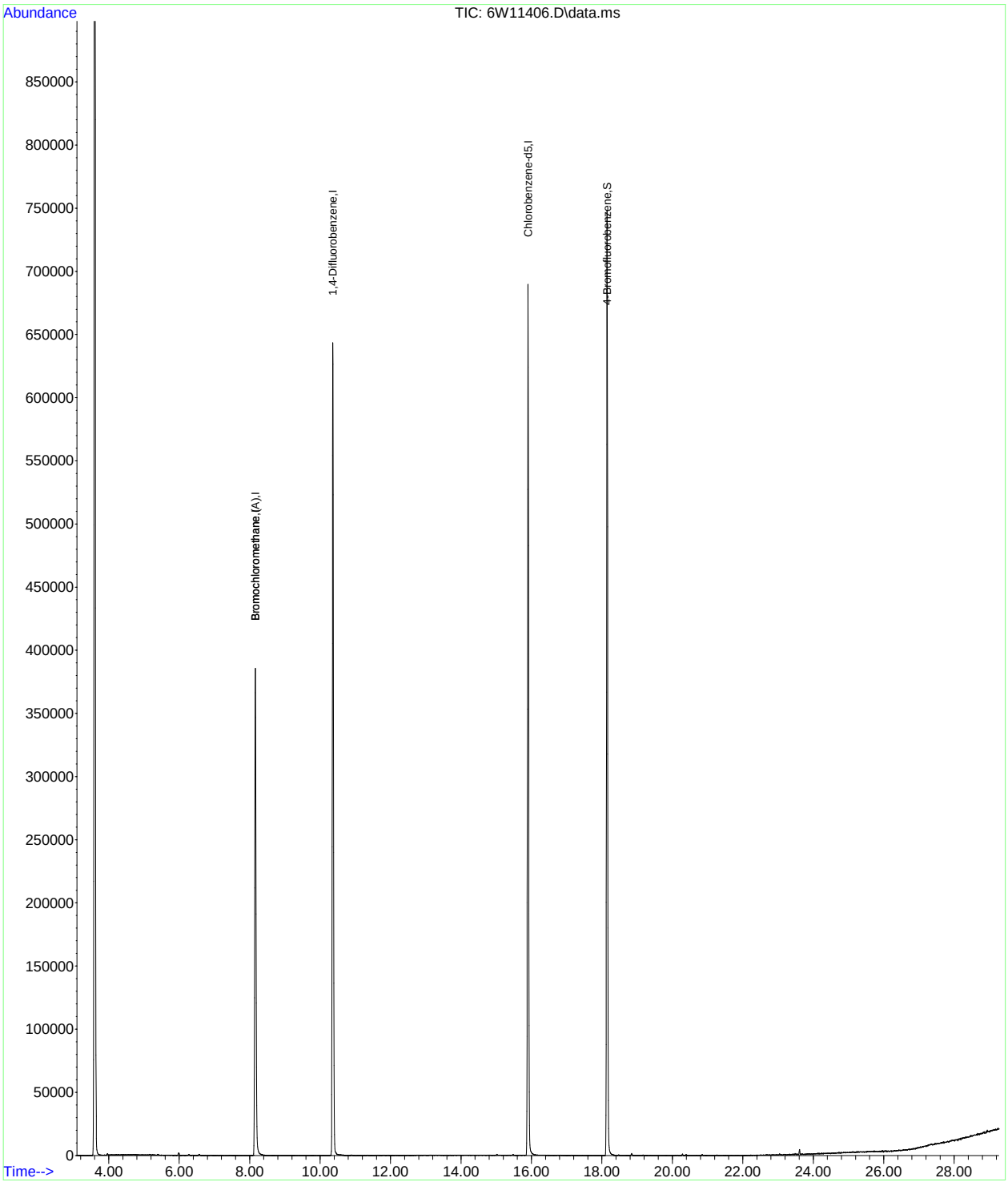
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	199758	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.361	114	725203	10.00	ppb(v	-0.02
78) Chlorobenzene-d5	15.904	82	296330	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	199758	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	346526	9.58	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.80%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11406.D
Acq On : 4 Apr 2019 4:15 pm
Operator : gabriep
Sample : MB
Misc : MS33500,V6W458,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:51:09 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35992.D
Acq On : 6 Apr 2019 12:49 pm
Operator : gabriep
Sample : mb
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 09:39:03 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

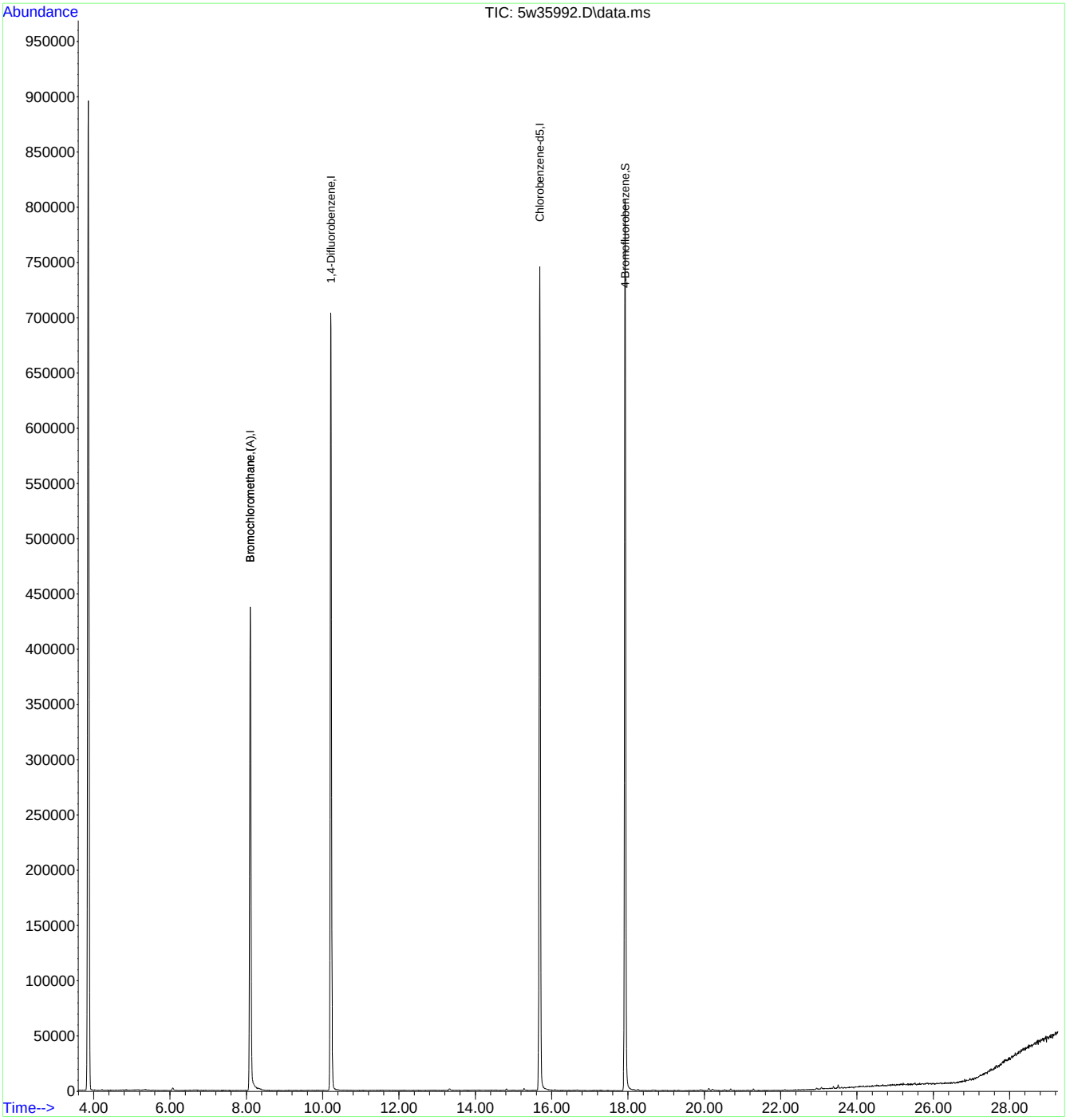
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.102	130	242319	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.218	114	798472	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	289294	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.102	130	243204	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.921	95	333453	8.87	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 88.70%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35992.D
Acq On : 6 Apr 2019 12:49 pm
Operator : gabriep
Sample : mb
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 09:39:03 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11057.D
Acq On : 14 Mar 2019 2:20 pm
Operator : thomash
Sample : mb
Misc : MS33081,V6W443,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 16:58:14 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

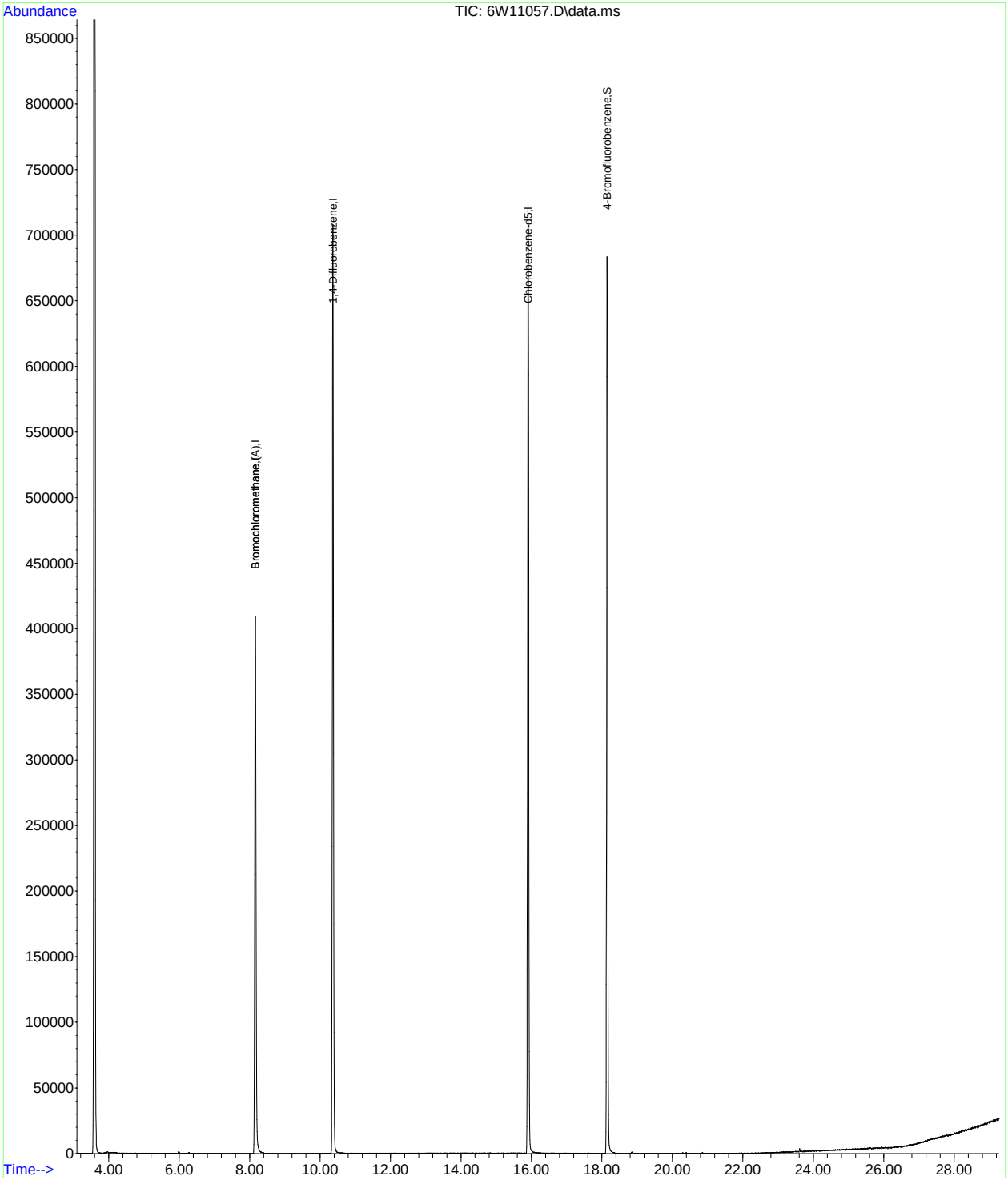
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	223002	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	819423	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.904	82	307762	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	223002	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	325392	8.66	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 86.60%			
Target Compounds						Qvalue

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11057.D
Acq On : 14 Mar 2019 2:20 pm
Operator : thomash
Sample : mb
Misc : MS33081,V6W443,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 15 16:58:14 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11378.D
Acq On : 3 Apr 2019 3:07 pm
Operator : gabriep
Sample : bs
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:03:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	209623	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	760534	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.904	82	327800	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	209623	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	411888	10.29	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.90%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	118937	11.01	ppb(v	87
4) Chlorodifluoromethane	3.766	67	42379	8.05	ppb(v	99
5) Propene	3.790	41	145657	11.90	ppb(v	95
6) Chlorotrifluoroethene	3.797	116	289498	9.30	ppb(v	98
7) Dichlorodifluoromethane	3.852	85	454515	8.24	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	314851	7.26	ppb(v#	95
9) Chloromethane	3.980	50	167578	10.74	ppb(v	99
10) Dichlorotetrafluoroethane	4.060	85	525630	9.13	ppb(v	98
11) Vinyl Chloride	4.158	62	201558	10.63	ppb(v#	99
12) 1,3-Butadiene	4.268	54	146402	11.05	ppb(v	99
13) n-Butane	4.310	58	38129	11.78	ppb(v	99
14) Bromomethane	4.494	94	210608	10.28	ppb(v	99
15) Acrolein	5.026	56	81718	10.58	ppb(v#	93
16) Chloroethane	4.635	64	107961	11.06	ppb(v	97
17) Dichlorofluoromethane	4.708	67	449755	9.50	ppb(v	99
18) Acetonitrile	4.916	41	152040	10.66	ppb(v	97
19) Freon 123	5.057	83	484918	9.90	ppb(v	98
20) Freon 123A	5.106	117	286577	9.43	ppb(v	96
21) Bromoethene	4.928	106	214835	10.30	ppb(v#	96
22) Trichlorofluoromethane	5.289	101	447642	7.93	ppb(v	100
23) Acetone	5.136	58	86218	9.87	ppb(v	81
24) Pentane	5.601	57	54219	12.16	ppb(v	89
26) Iodomethane	5.803	142	600024	9.71	ppb(v	89
27) Isopropyl Alcohol	5.344	45	311606	9.64	ppb(v	94
28) 1,1-Dichloroethene	5.870	61	289717	9.62	ppb(v	97
29) Freon 113	6.225	101	409407	9.26	ppb(v	99
30) Methylene Chloride	5.987	84	180721	9.19	ppb(v	95
31) Carbon Disulfide	6.268	76	573316	10.43	ppb(v	100
32) Ethanol	4.720	45	63070	8.55	ppb(v	98
33) Acrylonitrile	5.552	53	155931	11.26	ppb(v	97
34) 3-Chloropropene	6.097	76	102040	11.26	ppb(v	83
35) trans-1,2-Dichloroethene	6.898	61	275481	10.10	ppb(v	98
36) tert-Butyl Alcohol	5.901	59	381483	10.16	ppb(v	96
37) Methyl tert-Butyl Ether	7.155	73	541854	9.47	ppb(v	97
38) Vinyl Acetate	7.259	43	541768	11.54	ppb(v	98
39) 1,1-Dichloroethane	7.100	63	354728	10.02	ppb(v	100
40) 2-Butanone	7.516	72	91155	10.53	ppb(v	85
41) Hexane	8.195	57	323644	11.30	ppb(v	88
42) cis-1,2-Dichloroethene	7.987	61	270439	10.06	ppb(v	99
43) Di-isopropyl Ether	8.195	87	181943	10.28	ppb(v	74
44) Ethyl Acetate	8.232	61	63397	11.25	ppb(v	94
45) Methyl Acrylate	8.220	55	349523	10.79	ppb(v	97
46) Chloroform	8.311	83	407736	8.78	ppb(v	98
47) 2,4-Dimethylpentane	9.180	57	376213	11.22	ppb(v	98
48) Tetrahydrofuran	8.752	72	92210	11.00	ppb(v	91
49) 1,1,1-Trichloroethane	9.400	97	394386	8.41	ppb(v	98
50) 1,2-Dichloroethane	9.125	62	232115	8.14	ppb(v	98
51) Benzene	9.933	78	641955	10.08	ppb(v	98
52) Carbon Tetrachloride	10.104	117	421960	8.85	ppb(v	99
53) Cyclohexane	10.239	56	327602	11.12	ppb(v	92
54) 2,3-Dimethylpentane	10.532	71	145089	10.91	ppb(v	92
56) 2,2,4-Trimethylpentane	11.223	57	1054328	11.04	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11378.D
Acq On : 3 Apr 2019 3:07 pm
Operator : gabriep
Sample : bs
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:03:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

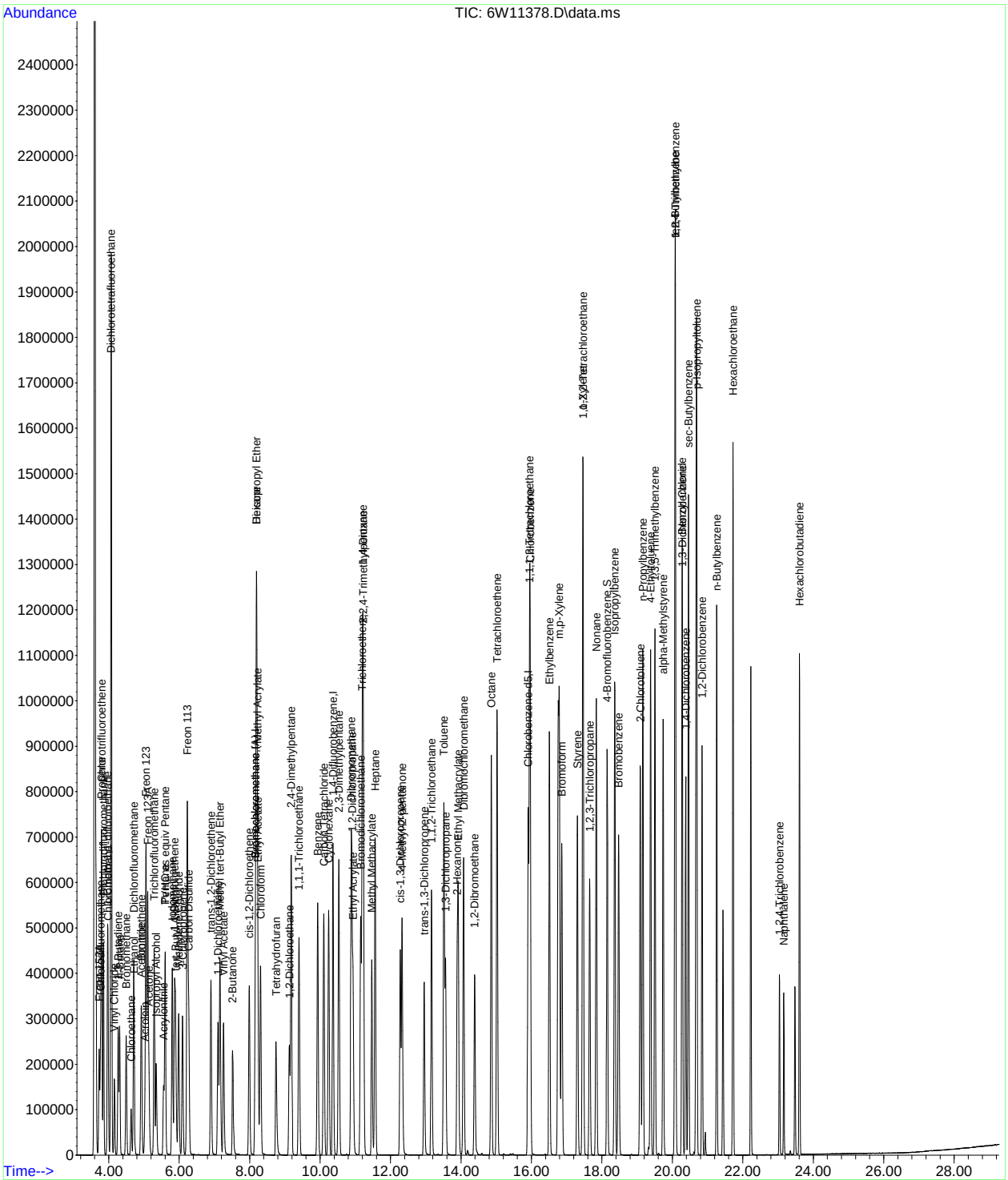
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.566	71	228294	10.79	ppb(v	96
58) Trichloroethene	11.193	95	283259	9.22	ppb(v	97
59) 1,2-Dichloropropane	10.905	63	249178	11.11	ppb(v	90
60) Dibromomethane	10.881	174	299632	8.97	ppb(v	99
61) Ethyl Acrylate	10.936	55	443436	11.00	ppb(v	97
62) Methyl Methacrylate	11.468	69	231996	10.96	ppb(v	98
63) 1,4-Dioxane	11.211	88	131099	9.23	ppb(v#	35
64) Bromodichloromethane	11.150	83	446870	9.38	ppb(v	98
65) cis-1,3-Dichloropropene	12.276	75	361472	10.56	ppb(v	99
66) 4-Methyl-2-pentanone	12.325	58	193164	11.31	ppb(v	97
67) trans-1,3-Dichloropropene	12.955	75	294937	10.34	ppb(v	99
68) Toluene	13.511	91	773091	9.66	ppb(v	99
69) 1,1,2-Trichloroethane	13.163	97	264809	10.04	ppb(v	98
70) 1,3-Dichloropropane	13.560	76	357705	10.09	ppb(v	98
71) 2-Hexanone	13.891	58	224646	10.47	ppb(v	97
72) Ethyl Methacrylate	13.921	69	376965	10.71	ppb(v	97
73) Dibromochloromethane	14.074	129	495780	10.59	ppb(v	99
74) Tetrachloroethene	15.023	166	431483	8.96	ppb(v	98
75) 1,2-Dibromoethane	14.386	107	384356	9.72	ppb(v	98
76) Octane	14.864	43	510593	11.73	ppb(v	91
77) 1,1,1,2-Tetrachloroethane	15.946	131	341973	10.27	ppb(v	97
79) Chlorobenzene	15.965	112	607748	10.00	ppb(v	100
80) Ethylbenzene	16.509	91	956194	10.06	ppb(v	99
81) m,p-Xylene	16.784	91	1446268	19.44	ppb(v	99
82) Styrene	17.304	104	542033	11.29	ppb(v	98
83) Nonane	17.843	43	509040	12.24	ppb(v	95
84) o-Xylene	17.457	91	727889	9.88	ppb(v	98
85) Bromoform	16.858	173	477991	13.25	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.464	83	534444	12.70	ppb(v	99
87) 1,2,3-Trichloropropane	17.653	75	374619	11.43	ppb(v	96
88) Isopropylbenzene	18.363	105	1028849	9.83	ppb(v	98
89) Bromobenzene	18.473	156	323434	10.71	ppb(v	99
90) 2-Chlorotoluene	19.091	126	250168	10.69	ppb(v	93
91) n-Propylbenzene	19.158	120	283915	10.90	ppb(v	98
93) 4-Ethyltoluene	19.384	105	958845	10.74	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.507	105	798975	10.01	ppb(v	98
95) alpha-Methylstyrene	19.739	118	390016	11.85	ppb(v	98
96) tert-Butylbenzene	20.076	134	206507	10.60	ppb(v	89
97) 1,2,4-Trimethylbenzene	20.088	105	772793	10.49	ppb(v	90
98) 1,3-Dichlorobenzene	20.284	146	483406	11.73	ppb(v	97
99) Benzyl Chloride	20.272	91	484670	16.63	ppb(v	98
100) 1,4-Dichlorobenzene	20.382	146	441888	12.17	ppb(v	97
101) sec-Butylbenzene	20.461	134	249573	10.77	ppb(v	94
102) p-Isopropyltoluene	20.694	134	259910	10.96	ppb(v	91
103) 1,2-Dichlorobenzene	20.840	146	453810	11.61	ppb(v	98
104) n-Butylbenzene	21.263	134	207681	11.52	ppb(v	97
105) Hexachloroethane	21.721	201	327085	14.62	ppb(v	98
106) 1,2,4-Trichlorobenzene	23.043	180	139659	12.88	ppb(v	99
107) Naphthalene	23.165	128	297626	13.28	ppb(v	100
108) Hexachlorobutadiene	23.606	225	232775	9.51	ppb(v	99
110) TVHC as equiv Pentane	5.601	TIC	994259	11.55	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11378.D
Acq On : 3 Apr 2019 3:07 pm
Operator : gabriep
Sample : bs
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:03:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11379.D
Acq On : 3 Apr 2019 3:55 pm
Operator : gabriep
Sample : bsd
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:04:42 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	209729	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	755894	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.910	82	336197	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.165	130	209729	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	432926	10.55	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 105.50%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	118812	10.99	ppb(v	87
4) Chlorodifluoromethane	3.766	67	42693	8.11	ppb(v	99
5) Propene	3.790	41	145558	11.89	ppb(v	95
6) Chlorotrifluoroethene	3.797	116	291880	9.37	ppb(v	98
7) Dichlorodifluoromethane	3.852	85	456256	8.27	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	314703	7.25	ppb(v	96
9) Chloromethane	3.980	50	168582	10.80	ppb(v	100
10) Dichlorotetrafluoroethane	4.060	85	529034	9.19	ppb(v	98
11) Vinyl Chloride	4.157	62	203820	10.74	ppb(v#	99
12) 1,3-Butadiene	4.268	54	145957	11.01	ppb(v	98
13) n-Butane	4.310	58	38711	11.96	ppb(v	91
14) Bromomethane	4.494	94	211095	10.30	ppb(v	98
15) Acrolein	5.026	56	82846	10.72	ppb(v#	87
16) Chloroethane	4.635	64	107912	11.05	ppb(v	97
17) Dichlorofluoromethane	4.708	67	452975	9.56	ppb(v	99
18) Acetonitrile	4.916	41	153027	10.72	ppb(v	97
19) Freon 123	5.057	83	487226	9.94	ppb(v	98
20) Freon 123A	5.106	117	289139	9.51	ppb(v	92
21) Bromoethene	4.928	106	216910	10.39	ppb(v#	96
22) Trichlorofluoromethane	5.289	101	450699	7.98	ppb(v	99
23) Acetone	5.136	58	87030	9.95	ppb(v	80
24) Pentane	5.601	57	54696	12.26	ppb(v	88
26) Iodomethane	5.803	142	609728	9.86	ppb(v	88
27) Isopropyl Alcohol	5.350	45	314570	9.73	ppb(v	93
28) 1,1-Dichloroethene	5.870	61	291868	9.69	ppb(v	97
29) Freon 113	6.225	101	416527	9.42	ppb(v	97
30) Methylene Chloride	5.987	84	182349	9.26	ppb(v	95
31) Carbon Disulfide	6.268	76	579689	10.54	ppb(v	99
32) Ethanol	4.720	45	63686	8.63	ppb(v	98
33) Acrylonitrile	5.552	53	156064	11.26	ppb(v	98
34) 3-Chloropropene	6.097	76	102683	11.32	ppb(v	83
35) trans-1,2-Dichloroethene	6.898	61	276704	10.14	ppb(v	97
36) tert-Butyl Alcohol	5.901	59	383065	10.19	ppb(v	96
37) Methyl tert-Butyl Ether	7.155	73	543589	9.49	ppb(v	95
38) Vinyl Acetate	7.259	43	542381	11.55	ppb(v	98
39) 1,1-Dichloroethane	7.106	63	355270	10.03	ppb(v	100
40) 2-Butanone	7.516	72	91812	10.61	ppb(v	92
41) Hexane	8.195	57	323890	11.31	ppb(v	88
42) cis-1,2-Dichloroethene	7.987	61	271575	10.10	ppb(v	99
43) Di-isopropyl Ether	8.195	87	183292	10.36	ppb(v	75
44) Ethyl Acetate	8.232	61	64663	11.47	ppb(v	97
45) Methyl Acrylate	8.220	55	348955	10.76	ppb(v	96
46) Chloroform	8.311	83	408874	8.80	ppb(v	98
47) 2,4-Dimethylpentane	9.180	57	380341	11.34	ppb(v	98
48) Tetrahydrofuran	8.752	72	92509	11.03	ppb(v	90
49) 1,1,1-Trichloroethane	9.400	97	397640	8.48	ppb(v	98
50) 1,2-Dichloroethane	9.125	62	233560	8.19	ppb(v	98
51) Benzene	9.933	78	648314	10.17	ppb(v	99
52) Carbon Tetrachloride	10.104	117	424725	8.90	ppb(v	98
53) Cyclohexane	10.238	56	328759	11.15	ppb(v	93
54) 2,3-Dimethylpentane	10.532	71	148541	11.16	ppb(v	96
56) 2,2,4-Trimethylpentane	11.223	57	1062890	11.20	ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11379.D
Acq On : 3 Apr 2019 3:55 pm
Operator : gabriep
Sample : bsd
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:04:42 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

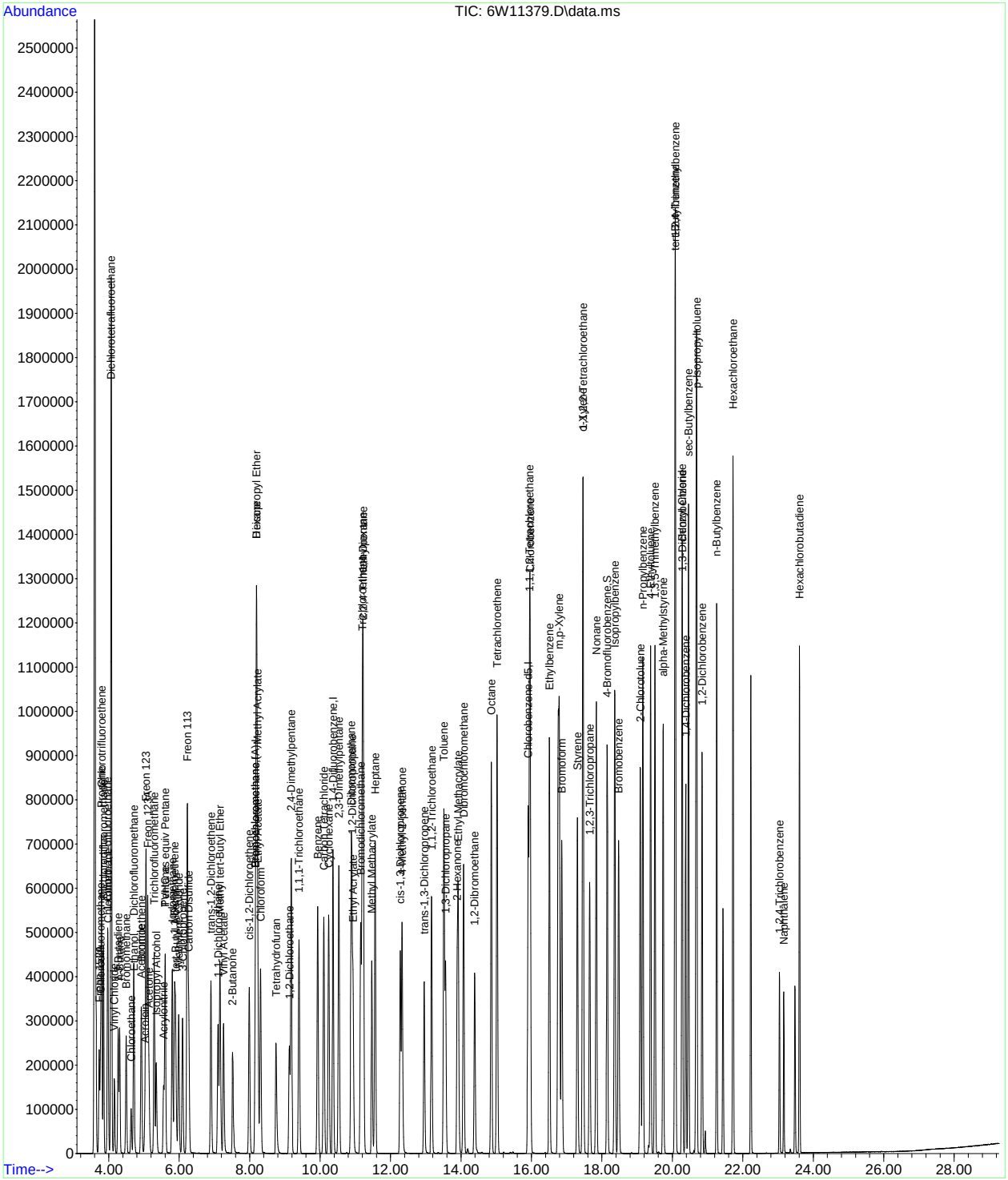
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.566	71	230586	10.97	ppb(v	96
58) Trichloroethene	11.199	95	283399	9.28	ppb(v	94
59) 1,2-Dichloropropane	10.905	63	250883	11.26	ppb(v	90
60) Dibromomethane	10.881	174	304990	9.19	ppb(v	99
61) Ethyl Acrylate	10.936	55	444389	11.09	ppb(v	97
62) Methyl Methacrylate	11.468	69	232327	11.05	ppb(v	98
63) 1,4-Dioxane	11.211	88	133049	9.42	ppb(v#	40
64) Bromodichloromethane	11.150	83	449139	9.48	ppb(v	100
65) cis-1,3-Dichloropropene	12.276	75	364239	10.71	ppb(v	99
66) 4-Methyl-2-pentanone	12.325	58	193032	11.37	ppb(v	96
67) trans-1,3-Dichloropropene	12.955	75	300344	10.59	ppb(v	99
68) Toluene	13.511	91	777248	9.77	ppb(v	99
69) 1,1,2-Trichloroethane	13.169	97	267482	10.20	ppb(v	99
70) 1,3-Dichloropropane	13.560	76	361160	10.25	ppb(v	97
71) 2-Hexanone	13.891	58	225402	10.57	ppb(v	95
72) Ethyl Methacrylate	13.921	69	381982	10.92	ppb(v	97
73) Dibromochloromethane	14.074	129	499126	10.73	ppb(v	100
74) Tetrachloroethene	15.023	166	437206	9.13	ppb(v	98
75) 1,2-Dibromoethane	14.386	107	390841	9.94	ppb(v	99
76) Octane	14.863	43	514892	11.90	ppb(v	91
77) 1,1,1,2-Tetrachloroethane	15.946	131	345565	10.44	ppb(v	98
79) Chlorobenzene	15.965	112	614708	9.86	ppb(v	99
80) Ethylbenzene	16.509	91	963137	9.88	ppb(v	100
81) m,p-Xylene	16.784	91	1451375	19.02	ppb(v	99
82) Styrene	17.304	104	548387	11.14	ppb(v	97
83) Nonane	17.843	43	511609	12.00	ppb(v	94
84) o-Xylene	17.457	91	731802	9.68	ppb(v	99
85) Bromoform	16.858	173	485519	13.12	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.463	83	540334	12.52	ppb(v	99
87) 1,2,3-Trichloropropane	17.653	75	378905	11.28	ppb(v	97
88) Isopropylbenzene	18.369	105	1037153	9.67	ppb(v	98
89) Bromobenzene	18.473	156	327207	10.57	ppb(v	99
90) 2-Chlorotoluene	19.091	126	253849	10.58	ppb(v	93
91) n-Propylbenzene	19.158	120	285481	10.69	ppb(v	99
93) 4-Ethyltoluene	19.384	105	946763	10.34	ppb(v	99
94) 1,3,5-Trimethylbenzene	19.507	105	804043	9.82	ppb(v	98
95) alpha-Methylstyrene	19.739	118	393330	11.65	ppb(v	98
96) tert-Butylbenzene	20.076	134	209235	10.48	ppb(v	86
97) 1,2,4-Trimethylbenzene	20.088	105	782017	10.35	ppb(v	90
98) 1,3-Dichlorobenzene	20.284	146	491407	11.63	ppb(v	97
99) Benzyl Chloride	20.272	91	496279	16.60	ppb(v	97
100) 1,4-Dichlorobenzene	20.382	146	445056	11.95	ppb(v	97
101) sec-Butylbenzene	20.461	134	252244	10.61	ppb(v	94
102) p-Isopropyltoluene	20.694	134	262168	10.78	ppb(v	91
103) 1,2-Dichlorobenzene	20.840	146	462198	11.53	ppb(v	98
104) n-Butylbenzene	21.256	134	212434	11.49	ppb(v	94
105) Hexachloroethane	21.721	201	330258	14.39	ppb(v	100
106) 1,2,4-Trichlorobenzene	23.043	180	143915	12.94	ppb(v	99
107) Naphthalene	23.165	128	305483	13.29	ppb(v	99
108) Hexachlorobutadiene	23.606	225	240156	9.56	ppb(v	98
110) TVHC as equiv Pentane	5.601	TIC	999970	11.62	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11379.D
Acq On : 3 Apr 2019 3:55 pm
Operator : gabriep
Sample : bsd
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:04:42 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11403.D
Acq On : 4 Apr 2019 1:26 pm
Operator : gabriep
Sample : BS
Misc : MS33500,V6W458,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:37:42 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	207399	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	744071	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	333183	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	207399	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	420380	10.33	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.30%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	125122	11.71	ppb(v	89
4) Chlorodifluoromethane	3.766	67	45294	8.70	ppb(v	99
5) Propene	3.790	41	155240	12.82	ppb(v	94
6) Chlorotrifluoroethene	3.797	116	307178	9.97	ppb(v	98
7) Dichlorodifluoromethane	3.852	85	482923	8.85	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	335610	7.82	ppb(v	96
9) Chloromethane	3.980	50	174558	11.31	ppb(v	99
10) Dichlorotetrafluoroethane	4.060	85	551474	9.69	ppb(v	99
11) Vinyl Chloride	4.157	62	211032	11.25	ppb(v#	99
12) 1,3-Butadiene	4.268	54	153757	11.73	ppb(v	98
13) n-Butane	4.310	58	40465	12.64	ppb(v	95
14) Bromomethane	4.494	94	219214	10.82	ppb(v	99
15) Acrolein	5.026	56	93986	12.29	ppb(v#	92
16) Chloroethane	4.635	64	112776	11.68	ppb(v	97
17) Dichlorofluoromethane	4.708	67	471004	10.05	ppb(v	99
18) Acetonitrile	4.916	41	182601	12.93	ppb(v	98
19) Freon 123	5.057	83	507568	10.47	ppb(v	99
20) Freon 123A	5.106	117	299714	9.97	ppb(v	95
21) Bromoethene	4.928	106	224943	10.90	ppb(v#	97
22) Trichlorofluoromethane	5.289	101	473818	8.49	ppb(v	100
23) Acetone	5.136	58	101416	11.73	ppb(v	81
24) Pentane	5.601	57	56426	12.79	ppb(v	92
26) Iodomethane	5.803	142	625206	10.23	ppb(v	90
27) Isopropyl Alcohol	5.350	45	392370	12.27	ppb(v	94
28) 1,1-Dichloroethene	5.870	61	304546	10.23	ppb(v	99
29) Freon 113	6.225	101	425332	9.73	ppb(v	99
30) Methylene Chloride	5.987	84	187221	9.62	ppb(v	94
31) Carbon Disulfide	6.268	76	593850	10.92	ppb(v	99
32) Ethanol	4.720	45	88203	12.08	ppb(v	98
33) Acrylonitrile	5.552	53	175615	12.81	ppb(v	97
34) 3-Chloropropene	6.097	76	106169	11.84	ppb(v	85
35) trans-1,2-Dichloroethene	6.898	61	287964	10.67	ppb(v	97
36) tert-Butyl Alcohol	5.901	59	429853	11.57	ppb(v	96
37) Methyl tert-Butyl Ether	7.155	73	564912	9.98	ppb(v	95
38) Vinyl Acetate	7.259	43	606391	13.06	ppb(v	98
39) 1,1-Dichloroethane	7.106	63	368710	10.53	ppb(v	99
40) 2-Butanone	7.516	72	108197	12.64	ppb(v	88
41) Hexane	8.195	57	335721	11.85	ppb(v	91
42) cis-1,2-Dichloroethene	7.987	61	282159	10.61	ppb(v	98
43) Di-isopropyl Ether	8.195	87	190001	10.85	ppb(v	78
44) Ethyl Acetate	8.232	61	72513	13.00	ppb(v	84
45) Methyl Acrylate	8.220	55	402697	12.56	ppb(v	96
46) Chloroform	8.311	83	426684	9.28	ppb(v	99
47) 2,4-Dimethylpentane	9.180	57	393267	11.85	ppb(v	98
48) Tetrahydrofuran	8.746	72	100276	12.09	ppb(v	89
49) 1,1,1-Trichloroethane	9.400	97	413602	8.92	ppb(v	98
50) 1,2-Dichloroethane	9.125	62	248467	8.81	ppb(v	98
51) Benzene	9.933	78	663455	10.53	ppb(v	99
52) Carbon Tetrachloride	10.104	117	443395	9.40	ppb(v	99
53) Cyclohexane	10.238	56	340127	11.67	ppb(v	93
54) 2,3-Dimethylpentane	10.532	71	151317	11.50	ppb(v	95
56) 2,2,4-Trimethylpentane	11.223	57	1106152	11.84	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11403.D
Acq On : 4 Apr 2019 1:26 pm
Operator : gabriep
Sample : BS
Misc : MS33500,V6W458,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:37:42 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

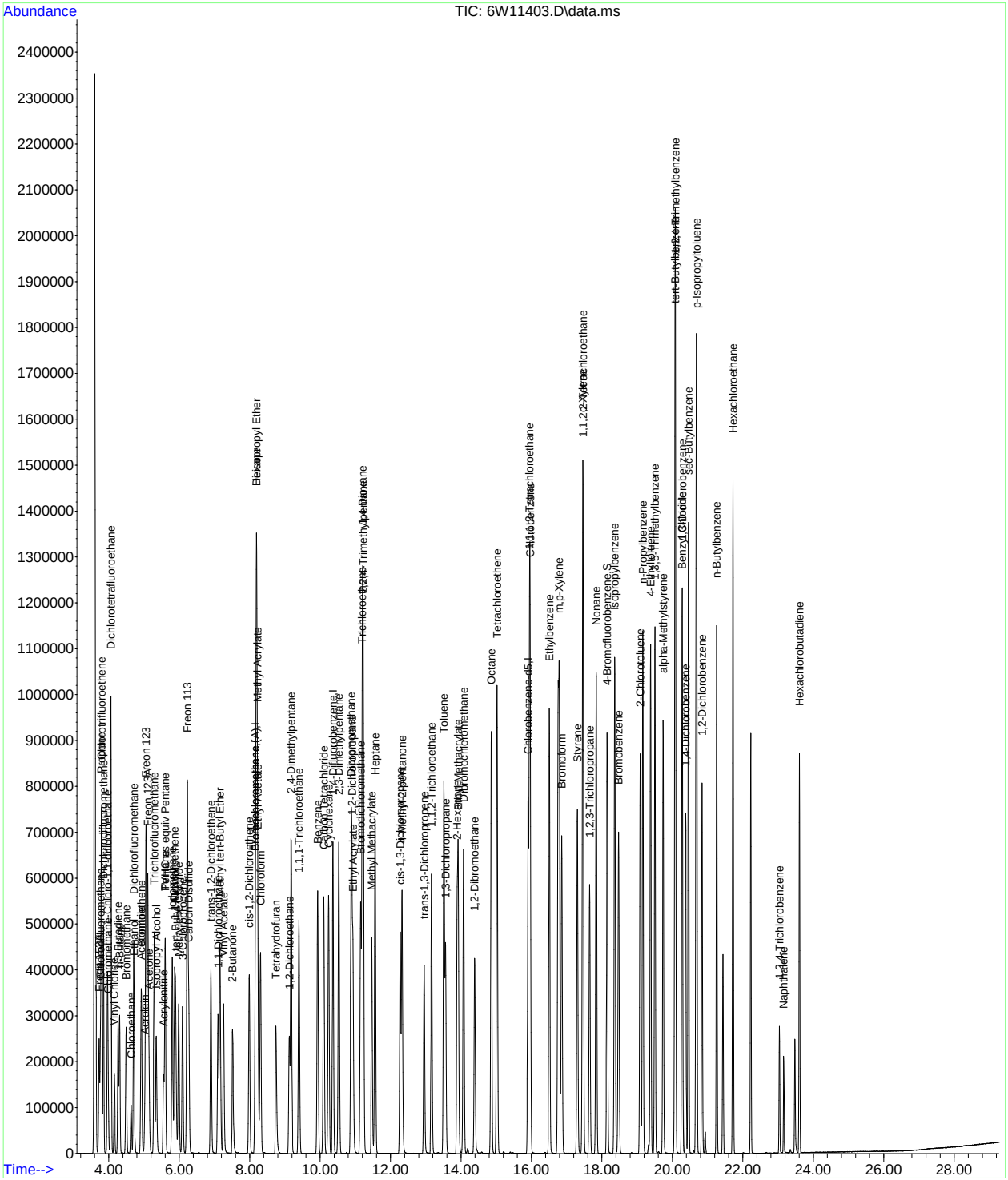
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.566	71	237018	11.45	ppb(v	96
58) Trichloroethene	11.193	95	294067	9.78	ppb(v	97
59) 1,2-Dichloropropane	10.905	63	257878	11.76	ppb(v	92
60) Dibromomethane	10.881	174	315008	9.64	ppb(v	99
61) Ethyl Acrylate	10.936	55	504130	12.78	ppb(v	98
62) Methyl Methacrylate	11.468	69	252165	12.18	ppb(v	98
63) 1,4-Dioxane	11.205	88	159787	11.50	ppb(v#	63
64) Bromodichloromethane	11.150	83	465654	9.99	ppb(v	99
65) cis-1,3-Dichloropropene	12.276	75	378287	11.30	ppb(v	98
66) 4-Methyl-2-pentanone	12.325	58	212606	12.72	ppb(v	97
67) trans-1,3-Dichloropropene	12.955	75	316096	11.33	ppb(v	100
68) Toluene	13.511	91	799076	10.21	ppb(v	100
69) 1,1,2-Trichloroethane	13.163	97	268908	10.42	ppb(v	99
70) 1,3-Dichloropropane	13.560	76	374213	10.79	ppb(v	99
71) 2-Hexanone	13.891	58	275804	13.14	ppb(v	96
72) Ethyl Methacrylate	13.921	69	415200	12.05	ppb(v	97
73) Dibromochloromethane	14.074	129	508462	11.10	ppb(v	100
74) Tetrachloroethene	15.023	166	447980	9.50	ppb(v	98
75) 1,2-Dibromoethane	14.386	107	405867	10.49	ppb(v	99
76) Octane	14.863	43	535294	12.57	ppb(v	90
77) 1,1,1,2-Tetrachloroethane	15.946	131	348263	10.69	ppb(v	99
79) Chlorobenzene	15.965	112	620696	10.05	ppb(v	99
80) Ethylbenzene	16.509	91	982142	10.17	ppb(v	99
81) m,p-Xylene	16.784	91	1475649	19.52	ppb(v	99
82) Styrene	17.304	104	544479	11.16	ppb(v	98
83) Nonane	17.837	43	533225	12.62	ppb(v	93
84) o-Xylene	17.457	91	751077	10.03	ppb(v	98
85) Bromoform	16.858	173	472831	12.89	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.463	83	490751	11.47	ppb(v	99
87) 1,2,3-Trichloropropane	17.653	75	362541	10.89	ppb(v	98
88) Isopropylbenzene	18.363	105	1052660	9.90	ppb(v	98
89) Bromobenzene	18.473	156	320021	10.43	ppb(v	99
90) 2-Chlorotoluene	19.085	126	250899	10.55	ppb(v	95
91) n-Propylbenzene	19.158	120	285224	10.78	ppb(v	100
93) 4-Ethyltoluene	19.384	105	942165	10.38	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.507	105	798489	9.84	ppb(v	98
95) alpha-Methylstyrene	19.733	118	376091	11.24	ppb(v	98
96) tert-Butylbenzene	20.076	134	206026	10.41	ppb(v	90
97) 1,2,4-Trimethylbenzene	20.088	105	767166	10.24	ppb(v	94
98) 1,3-Dichlorobenzene	20.278	146	447991	10.69	ppb(v	97
99) Benzyl Chloride	20.272	91	424327	14.32	ppb(v	97
100) 1,4-Dichlorobenzene	20.375	146	391713	10.61	ppb(v	98
101) sec-Butylbenzene	20.461	134	245776	10.44	ppb(v	90
102) p-Isopropyltoluene	20.688	134	252953	10.50	ppb(v	94
103) 1,2-Dichlorobenzene	20.840	146	406527	10.23	ppb(v	98
104) n-Butylbenzene	21.256	134	194024	10.59	ppb(v	94
105) Hexachloroethane	21.721	201	309186	13.59	ppb(v	98
106) 1,2,4-Trichlorobenzene	23.037	180	96644	8.77	ppb(v	98
107) Naphthalene	23.159	128	173977	7.64	ppb(v	99
108) Hexachlorobutadiene	23.606	225	181949	7.31	ppb(v	99
110) TVHC as equiv Pentane	5.601	TIC	1039405	12.21	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11403.D
Acq On : 4 Apr 2019 1:26 pm
Operator : gabriep
Sample : BS
Misc : MS33500,V6W458,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 16:37:42 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11404.D
Acq On : 4 Apr 2019 2:13 pm
Operator : gabriep
Sample : BSD
Misc : MS33500,V6W458,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:36:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	213135	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	774195	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	342532	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	213135	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	431787	10.33	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.30%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	127927	11.65	ppb(v	87
4) Chlorodifluoromethane	3.766	67	44994	8.41	ppb(v	99
5) Propene	3.790	41	155456	12.49	ppb(v	95
6) Chlorotrifluoroethene	3.797	116	311243	9.83	ppb(v	98
7) Dichlorodifluoromethane	3.852	85	489029	8.72	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.962	65	336704	7.63	ppb(v	96
9) Chloromethane	3.980	50	175072	11.03	ppb(v	99
10) Dichlorotetrafluoroethane	4.060	85	559690	9.57	ppb(v	98
11) Vinyl Chloride	4.157	62	214860	11.14	ppb(v#	99
12) 1,3-Butadiene	4.268	54	155080	11.51	ppb(v	97
13) n-Butane	4.310	58	41071	12.48	ppb(v	95
14) Bromomethane	4.494	94	223163	10.72	ppb(v	97
15) Acrolein	5.020	56	95186	12.12	ppb(v#	93
16) Chloroethane	4.635	64	113271	11.41	ppb(v	99
17) Dichlorofluoromethane	4.708	67	478340	9.94	ppb(v	99
18) Acetonitrile	4.916	41	184225	12.70	ppb(v	98
19) Freon 123	5.057	83	514444	10.33	ppb(v	99
20) Freon 123A	5.100	117	305395	9.89	ppb(v	92
21) Bromoethene	4.928	106	229610	10.82	ppb(v#	97
22) Trichlorofluoromethane	5.289	101	480717	8.38	ppb(v	100
23) Acetone	5.136	58	102861	11.58	ppb(v	78
24) Pentane	5.601	57	57639	12.72	ppb(v	89
26) Iodomethane	5.803	142	641747	10.22	ppb(v	89
27) Isopropyl Alcohol	5.344	45	403806	12.29	ppb(v	94
28) 1,1-Dichloroethene	5.870	61	309316	10.11	ppb(v	97
29) Freon 113	6.225	101	435461	9.69	ppb(v	98
30) Methylene Chloride	5.987	84	191428	9.57	ppb(v	96
31) Carbon Disulfide	6.268	76	608721	10.89	ppb(v	99
32) Ethanol	4.720	45	88805	11.84	ppb(v	98
33) Acrylonitrile	5.552	53	179119	12.72	ppb(v	97
34) 3-Chloropropene	6.097	76	109491	11.88	ppb(v	83
35) trans-1,2-Dichloroethene	6.898	61	293267	10.57	ppb(v	98
36) tert-Butyl Alcohol	5.901	59	436639	11.43	ppb(v	96
37) Methyl tert-Butyl Ether	7.155	73	579552	9.96	ppb(v	96
38) Vinyl Acetate	7.259	43	615175	12.89	ppb(v	98
39) 1,1-Dichloroethane	7.100	63	377397	10.49	ppb(v	99
40) 2-Butanone	7.516	72	110990	12.62	ppb(v	91
41) Hexane	8.195	57	343335	11.79	ppb(v	89
42) cis-1,2-Dichloroethene	7.987	61	287220	10.51	ppb(v	98
43) Di-isopropyl Ether	8.195	87	194334	10.80	ppb(v	74
44) Ethyl Acetate	8.232	61	73697	12.86	ppb(v	88
45) Methyl Acrylate	8.220	55	410646	12.46	ppb(v	97
46) Chloroform	8.305	83	434230	9.19	ppb(v	99
47) 2,4-Dimethylpentane	9.180	57	399180	11.71	ppb(v	98
48) Tetrahydrofuran	8.746	72	102633	12.04	ppb(v	91
49) 1,1,1-Trichloroethane	9.400	97	421463	8.84	ppb(v	99
50) 1,2-Dichloroethane	9.125	62	251190	8.66	ppb(v	98
51) Benzene	9.933	78	679912	10.50	ppb(v	99
52) Carbon Tetrachloride	10.104	117	452356	9.33	ppb(v	99
53) Cyclohexane	10.239	56	347607	11.61	ppb(v	94
54) 2,3-Dimethylpentane	10.532	71	154671	11.43	ppb(v	91
56) 2,2,4-Trimethylpentane	11.223	57	1127516	11.60	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11404.D
Acq On : 4 Apr 2019 2:13 pm
Operator : gabriep
Sample : BSD
Misc : MS33500,V6W458,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:36:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.560	71	244390	11.35	ppb(v	96
58) Trichloroethene	11.193	95	300073	9.59	ppb(v	96
59) 1,2-Dichloropropane	10.905	63	263059	11.53	ppb(v	91
60) Dibromomethane	10.881	174	323235	9.51	ppb(v	99
61) Ethyl Acrylate	10.936	55	514981	12.54	ppb(v	98
62) Methyl Methacrylate	11.468	69	258430	12.00	ppb(v	97
63) 1,4-Dioxane	11.205	88	163478	11.31	ppb(v#	64
64) Bromodichloromethane	11.150	83	474025	9.77	ppb(v	100
65) cis-1,3-Dichloropropene	12.276	75	385658	11.07	ppb(v	99
66) 4-Methyl-2-pentanone	12.325	58	214469	12.34	ppb(v	95
67) trans-1,3-Dichloropropene	12.955	75	321204	11.06	ppb(v	99
68) Toluene	13.511	91	808832	9.93	ppb(v	99
69) 1,1,2-Trichloroethane	13.163	97	275379	10.26	ppb(v	99
70) 1,3-Dichloropropane	13.560	76	381614	10.58	ppb(v	98
71) 2-Hexanone	13.891	58	279848	12.82	ppb(v	98
72) Ethyl Methacrylate	13.921	69	420800	11.74	ppb(v	97
73) Dibromochloromethane	14.074	129	517951	10.87	ppb(v	100
74) Tetrachloroethene	15.023	166	459294	9.37	ppb(v	97
75) 1,2-Dibromoethane	14.386	107	413810	10.28	ppb(v	99
76) Octane	14.863	43	542120	12.23	ppb(v	91
77) 1,1,1,2-Tetrachloroethane	15.946	131	354431	10.46	ppb(v	98
79) Chlorobenzene	15.965	112	635139	10.00	ppb(v	99
80) Ethylbenzene	16.509	91	1002310	10.09	ppb(v	99
81) m,p-Xylene	16.784	91	1512364	19.46	ppb(v	98
82) Styrene	17.304	104	554714	11.06	ppb(v	97
83) Nonane	17.843	43	536993	12.36	ppb(v	95
84) o-Xylene	17.457	91	758039	9.84	ppb(v	99
85) Bromoform	16.858	173	485378	12.87	ppb(v	100
86) 1,1,2,2-Tetrachloroethane	17.464	83	501078	11.40	ppb(v	99
87) 1,2,3-Trichloropropane	17.653	75	366886	10.72	ppb(v	97
88) Isopropylbenzene	18.363	105	1061705	9.71	ppb(v	99
89) Bromobenzene	18.473	156	326199	10.34	ppb(v	99
90) 2-Chlorotoluene	19.085	126	254609	10.42	ppb(v	97
91) n-Propylbenzene	19.158	120	291267	10.70	ppb(v	100
93) 4-Ethyltoluene	19.384	105	977487	10.48	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.507	105	813339	9.75	ppb(v	98
95) alpha-Methylstyrene	19.733	118	384887	11.19	ppb(v	99
96) tert-Butylbenzene	20.076	134	208667	10.25	ppb(v	88
97) 1,2,4-Trimethylbenzene	20.088	105	775011	10.06	ppb(v	93
98) 1,3-Dichlorobenzene	20.278	146	457978	10.63	ppb(v	97
99) Benzyl Chloride	20.272	91	444904	14.61	ppb(v	97
100) 1,4-Dichlorobenzene	20.376	146	407335	10.73	ppb(v	98
101) sec-Butylbenzene	20.461	134	249027	10.28	ppb(v	94
102) p-Isopropyltoluene	20.688	134	259092	10.46	ppb(v	96
103) 1,2-Dichlorobenzene	20.840	146	418902	10.25	ppb(v	98
104) n-Butylbenzene	21.256	134	200841	10.66	ppb(v	97
105) Hexachloroethane	21.721	201	314121	13.43	ppb(v	100
106) 1,2,4-Trichlorobenzene	23.037	180	96664	8.53	ppb(v	99
107) Naphthalene	23.159	128	176493	7.54	ppb(v	100
108) Hexachlorobutadiene	23.606	225	187808	7.34	ppb(v	99
110) TVHC as equiv Pentane	5.601	TIC	1050922	12.01	ppb(v	100

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

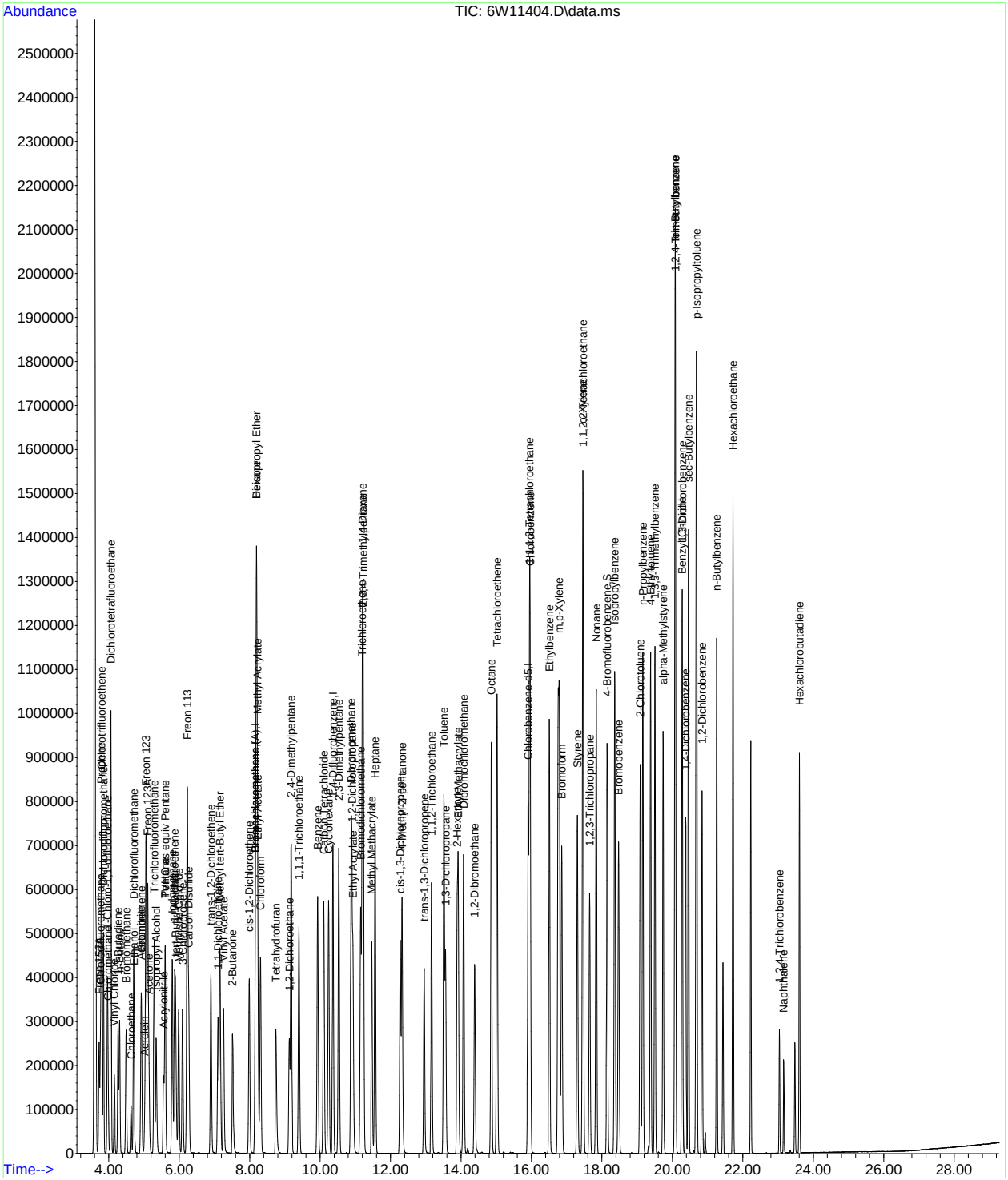
7.3.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11404.D
Acq On : 4 Apr 2019 2:13 pm
Operator : gabriep
Sample : BSD
Misc : MS33500,V6W458,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:36:34 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35989.D
Acq On : 6 Apr 2019 9:53 am
Operator : gabriep
Sample : bs
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:09 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.108	130	237652	10.00	ppb(v	0.01
55) 1,4-Difluorobenzene	10.218	114	811902	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	355445	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.108	130	237652	10.00	ppb(v	0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.921	95	500135	10.82	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 108.20%			
Target Compounds						Qvalue
3) Freon 152A	3.978	65	112289	10.46	ppb(v	94
4) Chlorodifluoromethane	4.021	67	60700	11.86	ppb(v	91
5) Propene	4.040	41	104657	10.29	ppb(v	96
6) Chlorotrifluoroethene	4.046	116	348425	10.85	ppb(v#	88
7) Dichlorodifluoromethane	4.095	85	624133	11.15	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	4.205	65	447850	12.76	ppb(v	98
9) Chloromethane	4.217	50	130469	12.22	ppb(v	97
10) Dichlorotetrafluoroethane	4.290	85	524474	12.26	ppb(v	99
11) Vinyl Chloride	4.382	62	143644	12.37	ppb(v	99
12) 1,3-Butadiene	4.486	54	91851	12.11	ppb(v	91
13) n-Butane	4.517	58	18791	12.47	ppb(v	92
14) Bromomethane	4.694	94	191031	10.59	ppb(v	100
15) Chloroethane	4.823	64	61710	11.57	ppb(v	99
16) Dichlorofluoromethane	4.890	67	379794	11.87	ppb(v	99
17) Acetonitrile	5.110	41	63389	9.10	ppb(v	95
18) Freon 123	5.214	83	381993	10.93	ppb(v	99
19) Freon 123A	5.257	117	264794	11.19	ppb(v	99
20) Bromoethene	5.092	106	196417	11.43	ppb(v	99
21) Acrolein	5.202	56	42908	10.30	ppb(v	95
22) Trichlorofluoromethane	5.422	101	583141	11.10	ppb(v	98
23) Acetone	5.318	58	46490	9.74	ppb(v	83
24) Pentane	5.697	57	37840	10.18	ppb(v	88
26) Iodomethane	5.893	142	708027	10.07	ppb(v	97
27) Isopropyl Alcohol	5.520	43	44008	8.26	ppb(v	96
28) 1,1-Dichloroethene	5.954	61	282225	10.38	ppb(v	95
29) Freon 113	6.285	101	436495	9.57	ppb(v	99
30) Methylene Chloride	6.071	84	161526	8.72	ppb(v	99
31) Carbon Disulfide	6.321	76	511949	9.81	ppb(v	99
32) Ethanol	4.939	45	31952	7.91	ppb(v	97
33) Acrylonitrile	5.697	53	103509	9.55	ppb(v	97
34) 3-Chloropropene	6.169	76	78202	9.80	ppb(v	90
35) trans-1,2-Dichloroethene	6.909	61	240599	9.91	ppb(v	98
36) tert-Butyl Alcohol	6.028	59	314771	9.56	ppb(v	97
37) Methyl tert-Butyl Ether	7.172	73	505810	10.08	ppb(v	99
38) Vinyl Acetate	7.257	43	332603	8.67	ppb(v	99
39) 1,1-Dichloroethane	7.105	63	315716	9.54	ppb(v	99
40) 2-Butanone	7.514	72	69524	9.39	ppb(v	99
41) Hexane	8.114	57	217719	9.07	ppb(v	96
42) cis-1,2-Dichloroethene	7.937	61	237160	9.51	ppb(v	98
43) Di-isopropyl Ether	8.138	87	150519	9.62	ppb(v	89
44) Ethyl Acetate	8.193	61	45467	9.62	ppb(v	97
45) Methyl Acrylate	8.175	55	230168	9.22	ppb(v	99
46) Chloroform	8.242	83	459874	9.72	ppb(v	98
47) 2,4-Dimethylpentane	9.050	57	258874	9.02	ppb(v	99
48) Tetrahydrofuran	8.695	72	70611	9.14	ppb(v	95
49) 1,1,1-Trichloroethane	9.276	97	511703	10.51	ppb(v	98
50) 1,2-Dichloroethane	9.013	62	293487	11.03	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35989.D
Acq On : 6 Apr 2019 9:53 am
Operator : gabriep
Sample : bs
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:09 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.796	78	546898	8.89	ppb(v	99
52)	Carbon Tetrachloride	9.961	117	524496	10.35	ppb(v	99
53)	Cyclohexane	10.078	56	218914	8.78	ppb(v	99
54)	2,3-Dimethylpentane	10.365	71	105487	8.76	ppb(v	96
56)	2,2,4-Trimethylpentane	11.032	57	741491	9.56	ppb(v	98
57)	Heptane	11.375	71	167867	10.07	ppb(v	99
58)	Trichloroethene	11.026	95	299995	9.24	ppb(v	97
59)	1,2-Dichloropropane	10.738	63	188483	9.12	ppb(v	93
60)	Dibromomethane	10.720	174	356464	9.33	ppb(v	95
61)	Ethyl Acrylate	10.794	55	320060	9.37	ppb(v	98
62)	Methyl Methacrylate	11.314	69	177628	9.60	ppb(v	96
63)	1,4-Dioxane	11.069	88	114497	8.14	ppb(v	93
64)	Bromodichloromethane	10.983	83	508035	9.92	ppb(v	99
65)	cis-1,3-Dichloropropene	12.090	75	322010	9.63	ppb(v	99
66)	4-Methyl-2-pentanone	12.152	58	137037	9.96	ppb(v	97
67)	trans-1,3-Dichloropropene	12.757	75	294355	10.30	ppb(v	98
68)	Toluene	13.308	91	702447	9.29	ppb(v	96
69)	1,1,2-Trichloroethane	12.965	97	269805	9.51	ppb(v	99
70)	1,3-Dichloropropane	13.357	76	318961	9.72	ppb(v	98
71)	2-Hexanone	13.706	58	167052	8.99	ppb(v	98
72)	Ethyl Methacrylate	13.736	69	301637	10.25	ppb(v	98
73)	Dibromochloromethane	13.865	129	613778	10.05	ppb(v	99
74)	Tetrachloroethene	14.807	166	535966	9.16	ppb(v	97
75)	1,2-Dibromoethane	14.170	107	450248	9.11	ppb(v	99
76)	Octane	14.648	43	331150	10.01	ppb(v	97
77)	1,1,1,2-Tetrachloroethane	15.730	131	416136	10.41	ppb(v	99
79)	Chlorobenzene	15.749	112	659738	8.67	ppb(v	98
80)	Ethylbenzene	16.287	91	969242	9.41	ppb(v	98
81)	m,p-Xylene	16.563	91	1528538	18.62	ppb(v	98
82)	Styrene	17.083	104	587408	9.67	ppb(v	98
83)	Nonane	17.615	43	342132	9.60	ppb(v	99
84)	o-Xylene	17.229	91	800249	9.80	ppb(v	97
85)	Bromoform	16.636	173	682084	10.06	ppb(v	100
86)	1,1,2,2-Tetrachloroethane	17.242	83	569610	9.01	ppb(v	99
87)	1,2,3-Trichloropropane	17.425	75	407594	9.13	ppb(v	97
88)	Isopropylbenzene	18.135	105	1155613	9.91	ppb(v	99
89)	Bromobenzene	18.245	156	449119	10.40	ppb(v	96
90)	2-Chlorotoluene	18.869	126	322783	10.20	ppb(v	92
91)	n-Propylbenzene	18.948	120	326321	10.44	ppb(v	89
93)	4-Ethyltoluene	19.181	105	1039396	9.61	ppb(v	99
94)	1,3,5-Trimethylbenzene	19.303	105	884527	9.12	ppb(v	98
95)	alpha-Methylstyrene	19.542	118	460265	9.79	ppb(v	96
96)	tert-Butylbenzene	19.891	134	214947	9.40	ppb(v	97
97)	1,2,4-Trimethylbenzene	19.903	105	867899	9.45	ppb(v	98
98)	1,3-Dichlorobenzene	20.092	146	645581	10.01	ppb(v	98
99)	Benzyl Chloride	20.086	91	563944	10.29	ppb(v	99
100)	1,4-Dichlorobenzene	20.196	146	599581	9.44	ppb(v	98
101)	sec-Butylbenzene	20.282	134	270426	10.68	ppb(v	95
102)	p-Isopropyltoluene	20.521	134	297681	10.24	ppb(v	91
103)	1,2-Dichlorobenzene	20.667	146	594118	9.76	ppb(v	99
104)	n-Butylbenzene	21.102	134	233882	9.61	ppb(v	92
105)	Hexachloroethane	21.573	201	474166	11.48	ppb(v	100
106)	1,2,4-Trichlorobenzene	22.925	180	186071	9.50	ppb(v	99
107)	Naphthalene	23.047	128	290357	9.19	ppb(v	99
108)	Hexachlorobutadiene	23.506	225	320936	10.08	ppb(v	98
110)	TVHC as equiv Pentane	5.697	TIC	869241	9.68	ppb(v	100
111)	2H,3H-Decafluoropentane	4.309	69	684005	12.54	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35989.D
Acq On : 6 Apr 2019 9:53 am
Operator : gabriep
Sample : bs
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:09 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

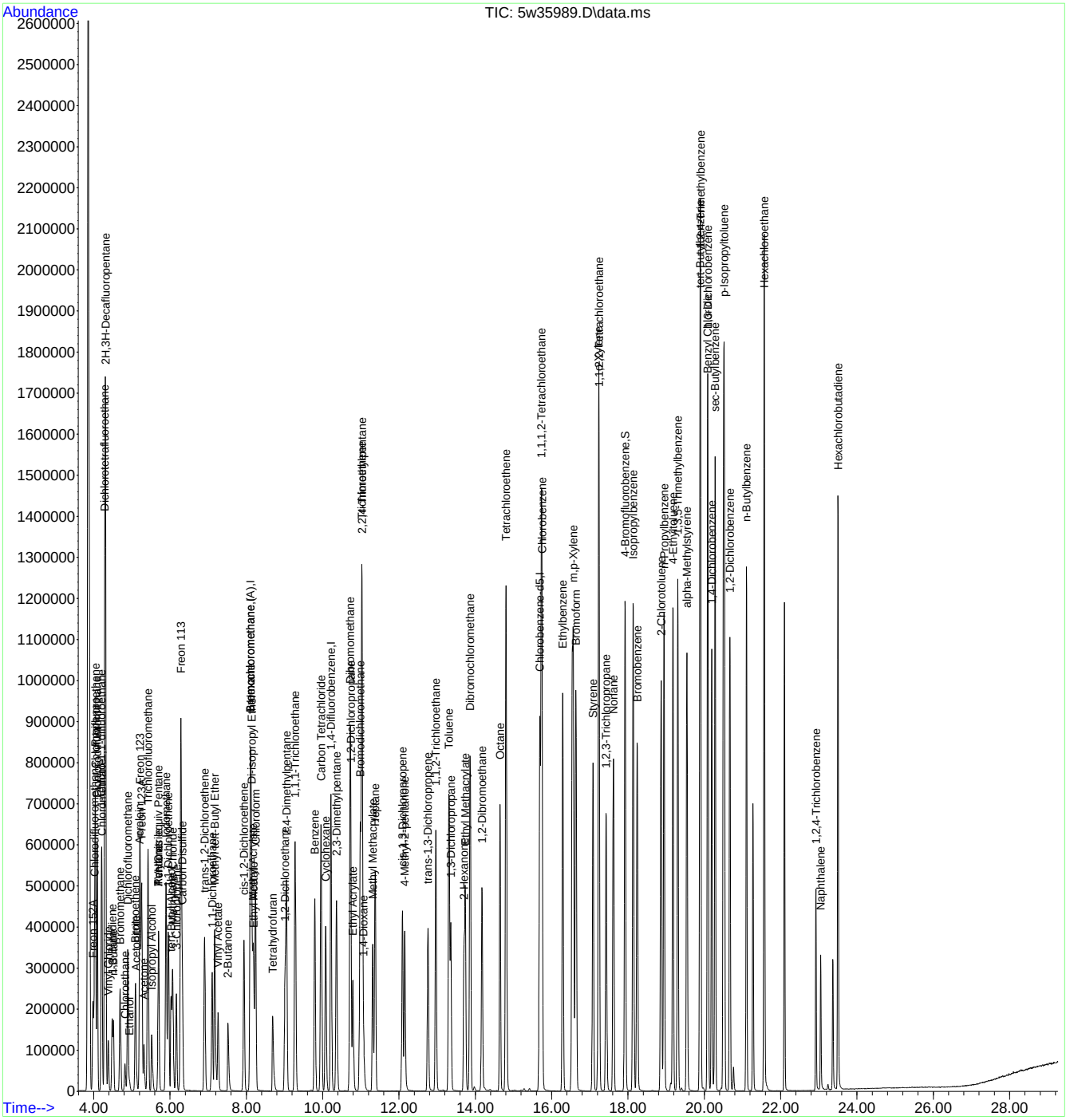
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35989.D
Acq On : 6 Apr 2019 9:53 am
Operator : gabriep
Sample : bs
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:09 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35990.D
Acq On : 6 Apr 2019 11:04 am
Operator : gabriep
Sample : bsd
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:26 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.108	130	267507	10.00	ppb(v	0.01
55) 1,4-Difluorobenzene	10.218	114	879612	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	381123	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.108	130	267507	10.00	ppb(v	0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	539051	10.88	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 108.80%			
Target Compounds						Qvalue
3) Freon 152A	3.991	65	135372	11.20	ppb(v	98
4) Chlorodifluoromethane	4.027	67	68734	11.93	ppb(v	94
5) Propene	4.046	41	126720	11.07	ppb(v	98
6) Chlorotrifluoroethene	4.052	116	424686	11.75	ppb(v#	88
7) Dichlorodifluoromethane	4.101	85	729443	11.58	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	4.211	65	494070	12.51	ppb(v	98
9) Chloromethane	4.223	50	146531	12.19	ppb(v	99
10) Dichlorotetrafluoroethane	4.297	85	594441	12.35	ppb(v	99
11) Vinyl Chloride	4.388	62	169862	12.99	ppb(v	97
12) 1,3-Butadiene	4.486	54	104946	12.29	ppb(v	94
13) n-Butane	4.523	58	23006	13.57	ppb(v	83
14) Bromomethane	4.700	94	223733	11.02	ppb(v	98
15) Chloroethane	4.829	64	70388	11.73	ppb(v	98
16) Dichlorofluoromethane	4.896	67	423036	11.75	ppb(v	99
17) Acetonitrile	5.116	41	71836	9.16	ppb(v	97
18) Freon 123	5.220	83	425186	10.80	ppb(v	99
19) Freon 123A	5.263	117	289660	10.87	ppb(v	98
20) Bromoethene	5.098	106	214873	11.11	ppb(v	98
21) Acrolein	5.208	56	47571	10.14	ppb(v	97
22) Trichlorofluoromethane	5.428	101	636092	10.76	ppb(v	98
23) Acetone	5.318	58	51021	9.50	ppb(v	90
24) Pentane	5.704	57	40262	9.62	ppb(v	89
26) Iodomethane	5.899	142	773987	9.78	ppb(v	98
27) Isopropyl Alcohol	5.520	43	47513	7.92	ppb(v	91
28) 1,1-Dichloroethene	5.961	61	301708	9.86	ppb(v	96
29) Freon 113	6.291	101	466174	9.08	ppb(v	97
30) Methylene Chloride	6.077	84	177019	8.49	ppb(v	97
31) Carbon Disulfide	6.328	76	553900	9.43	ppb(v	100
32) Ethanol	4.945	45	36972	8.13	ppb(v	98
33) Acrylonitrile	5.697	53	112607	9.23	ppb(v	98
34) 3-Chloropropene	6.169	76	85142	9.47	ppb(v	92
35) trans-1,2-Dichloroethene	6.909	61	259782	9.51	ppb(v	98
36) tert-Butyl Alcohol	6.028	59	344082	9.29	ppb(v	99
37) Methyl tert-Butyl Ether	7.172	73	547166	9.69	ppb(v	99
38) Vinyl Acetate	7.264	43	366262	8.48	ppb(v	98
39) 1,1-Dichloroethane	7.105	63	341765	9.18	ppb(v	97
40) 2-Butanone	7.521	72	75887	9.10	ppb(v	98
41) Hexane	8.120	57	242188	8.97	ppb(v	90
42) cis-1,2-Dichloroethene	7.943	61	259273	9.24	ppb(v	97
43) Di-isopropyl Ether	8.145	87	163671	9.30	ppb(v	88
44) Ethyl Acetate	8.194	61	48006	9.03	ppb(v	97
45) Methyl Acrylate	8.175	55	251765	8.96	ppb(v	99
46) Chloroform	8.242	83	490630	9.21	ppb(v	98
47) 2,4-Dimethylpentane	9.056	57	287275	8.89	ppb(v	100
48) Tetrahydrofuran	8.695	72	77942	8.96	ppb(v	96
49) 1,1,1-Trichloroethane	9.282	97	539704	9.84	ppb(v	99
50) 1,2-Dichloroethane	9.019	62	309367	10.32	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35990.D
Acq On : 6 Apr 2019 11:04 am
Operator : gabriep
Sample : bsd
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:26 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.796	78	590952	8.53	ppb(v	99
52)	Carbon Tetrachloride	9.962	117	553063	9.70	ppb(v	99
53)	Cyclohexane	10.084	56	241278	8.60	ppb(v	98
54)	2,3-Dimethylpentane	10.365	71	119810	8.84	ppb(v	94
56)	2,2,4-Trimethylpentane	11.038	57	794375	9.45	ppb(v	98
57)	Heptane	11.375	71	180285	9.99	ppb(v	96
58)	Trichloroethene	11.026	95	317493	9.02	ppb(v	96
59)	1,2-Dichloropropane	10.738	63	204227	9.12	ppb(v	94
60)	Dibromomethane	10.720	174	382513	9.24	ppb(v	97
61)	Ethyl Acrylate	10.794	55	354151	9.57	ppb(v	99
62)	Methyl Methacrylate	11.314	69	189525	9.46	ppb(v	97
63)	1,4-Dioxane	11.069	88	124822	8.20	ppb(v	95
64)	Bromodichloromethane	10.983	83	536859	9.68	ppb(v	99
65)	cis-1,3-Dichloropropene	12.091	75	344588	9.51	ppb(v	99
66)	4-Methyl-2-pentanone	12.152	58	148661	9.98	ppb(v	97
67)	trans-1,3-Dichloropropene	12.757	75	312436	10.10	ppb(v	97
68)	Toluene	13.314	91	748666	9.14	ppb(v	97
69)	1,1,2-Trichloroethane	12.965	97	285819	9.30	ppb(v	99
70)	1,3-Dichloropropane	13.357	76	341202	9.59	ppb(v	98
71)	2-Hexanone	13.706	58	180828	8.99	ppb(v	98
72)	Ethyl Methacrylate	13.736	69	328724	10.31	ppb(v	98
73)	Dibromochloromethane	13.865	129	638421	9.65	ppb(v	100
74)	Tetrachloroethene	14.807	166	565059	8.92	ppb(v	99
75)	1,2-Dibromoethane	14.177	107	479199	8.95	ppb(v	97
76)	Octane	14.648	43	353402	9.86	ppb(v	98
77)	1,1,1,2-Tetrachloroethane	15.731	131	444091	10.25	ppb(v	97
79)	Chlorobenzene	15.749	112	709163	8.70	ppb(v	98
80)	Ethylbenzene	16.293	91	1028483	9.31	ppb(v	97
81)	m,p-Xylene	16.563	91	1599629	18.17	ppb(v	97
82)	Styrene	17.083	104	636326	9.76	ppb(v	99
83)	Nonane	17.621	43	358667	9.38	ppb(v	99
84)	o-Xylene	17.235	91	844540	9.64	ppb(v	96
85)	Bromoform	16.636	173	715733	9.84	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.242	83	600062	8.85	ppb(v	99
87)	1,2,3-Trichloropropane	17.431	75	425693	8.89	ppb(v	97
88)	Isopropylbenzene	18.141	105	1219640	9.75	ppb(v	97
89)	Bromobenzene	18.245	156	476935	10.30	ppb(v	98
90)	2-Chlorotoluene	18.869	126	342059	10.08	ppb(v	91
91)	n-Propylbenzene	18.948	120	344497	10.28	ppb(v	89
93)	4-Ethyltoluene	19.181	105	1094127	9.44	ppb(v	98
94)	1,3,5-Trimethylbenzene	19.303	105	933606	8.98	ppb(v	97
95)	alpha-Methylstyrene	19.548	118	479472	9.52	ppb(v	95
96)	tert-Butylbenzene	19.891	134	229191	9.35	ppb(v	95
97)	1,2,4-Trimethylbenzene	19.903	105	901202	9.15	ppb(v	92
98)	1,3-Dichlorobenzene	20.092	146	669832	9.69	ppb(v	99
99)	Benzyl Chloride	20.092	91	580337	9.88	ppb(v	98
100)	1,4-Dichlorobenzene	20.196	146	620059	9.11	ppb(v	99
101)	sec-Butylbenzene	20.282	134	278376	10.25	ppb(v	99
102)	p-Isopropyltoluene	20.527	134	309386	9.93	ppb(v	88
103)	1,2-Dichlorobenzene	20.668	146	629176	9.64	ppb(v	98
104)	n-Butylbenzene	21.108	134	244425	9.37	ppb(v	88
105)	Hexachloroethane	21.573	201	491143	11.09	ppb(v	97
106)	1,2,4-Trichlorobenzene	22.925	180	198443	9.45	ppb(v	99
107)	Naphthalene	23.053	128	317505	9.37	ppb(v	98
108)	Hexachlorobutadiene	23.506	225	332190	9.73	ppb(v	99
110)	TVHC as equiv Pentane	5.704	TIC	943461	9.33	ppb(v	100
111)	2H,3H-Decafluoropentane	4.315	69	763425	12.43	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35990.D
Acq On : 6 Apr 2019 11:04 am
Operator : gabriep
Sample : bsd
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:26 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

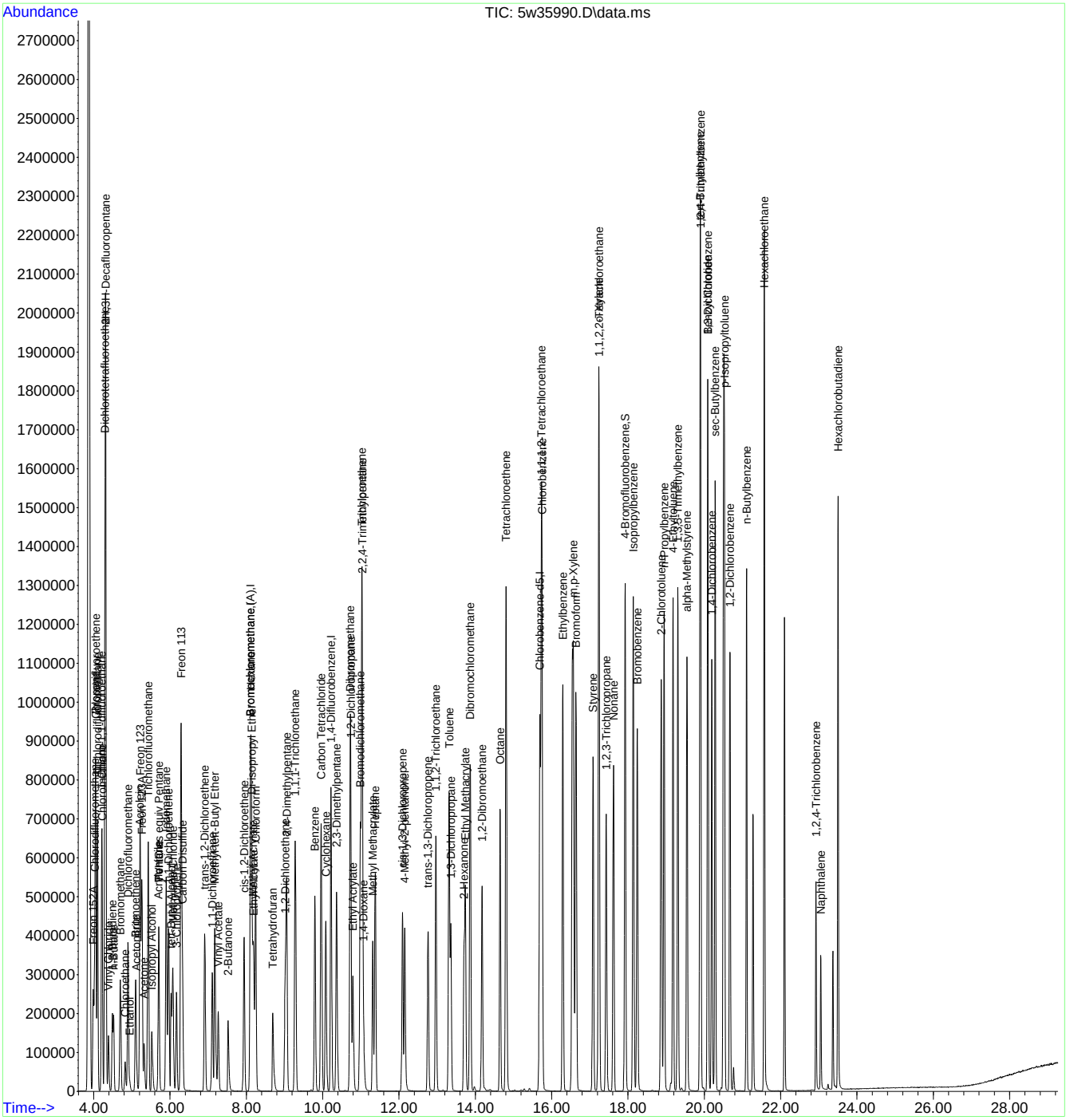
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35990.D
Acq On : 6 Apr 2019 11:04 am
Operator : gabriep
Sample : bsd
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:38:26 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11054.D
Acq On : 14 Mar 2019 11:52 am
Operator : thomash
Sample : bs
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:56:53 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.164	130	225262	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	825350	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	341162	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.164	130	225262	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	424298	10.19	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.90%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	128626	11.08	ppb(v	86
4) Chlorodifluoromethane	3.760	67	44240	7.82	ppb(v	99
5) Propene	3.790	41	154210	11.73	ppb(v	95
6) Chlorotrifluoroethene	3.796	116	318724	9.53	ppb(v	99
7) Dichlorodifluoromethane	3.845	85	491112	8.29	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	328572	7.05	ppb(v#	95
9) Chloromethane	3.980	50	174399	10.40	ppb(v	99
10) Dichlorotetrafluoroethane	4.053	85	567990	9.18	ppb(v	98
11) Vinyl Chloride	4.157	62	215245	10.56	ppb(v#	99
12) 1,3-Butadiene	4.261	54	154168	10.83	ppb(v	96
13) n-Butane	4.310	58	41098	11.82	ppb(v	96
14) Bromomethane	4.488	94	230849	10.49	ppb(v	99
15) Acrolein	5.020	56	97337	11.72	ppb(v#	92
16) Chloroethane	4.628	64	114341	10.90	ppb(v	98
17) Dichlorofluoromethane	4.702	67	478517	9.40	ppb(v	98
18) Acetonitrile	4.910	41	182306	11.89	ppb(v	97
19) Freon 123	5.051	83	522061	9.92	ppb(v	99
20) Freon 123A	5.099	117	310169	9.50	ppb(v	92
21) Bromoethene	4.922	106	237769	10.60	ppb(v#	96
22) Trichlorofluoromethane	5.283	101	480942	7.93	ppb(v	100
23) Acetone	5.136	58	106067	11.30	ppb(v	77
24) Pentane	5.595	57	57355	11.97	ppb(v	88
26) Iodomethane	5.797	142	665493	10.02	ppb(v	88
27) Isopropyl Alcohol	5.344	45	392173	11.29	ppb(v	94
28) 1,1-Dichloroethene	5.864	61	308730	9.54	ppb(v	98
29) Freon 113	6.225	101	445338	9.38	ppb(v	99
30) Methylene Chloride	5.987	84	195494	9.25	ppb(v	98
31) Carbon Disulfide	6.268	76	618632	10.47	ppb(v	100
32) Ethanol	4.720	45	87322	11.01	ppb(v	97
33) Acrylonitrile	5.552	53	180810	12.15	ppb(v	99
34) 3-Chloropropene	6.091	76	110681	11.36	ppb(v	83
35) trans-1,2-Dichloroethene	6.898	61	297097	10.13	ppb(v	100
36) tert-Butyl Alcohol	5.895	59	435514	10.79	ppb(v	95
37) Methyl tert-Butyl Ether	7.155	73	585842	9.53	ppb(v	97
38) Vinyl Acetate	7.253	43	611533	12.12	ppb(v	99
39) 1,1-Dichloroethane	7.100	63	378388	9.95	ppb(v	99
40) 2-Butanone	7.510	72	113160	12.17	ppb(v	91
41) Hexane	8.195	57	345484	11.23	ppb(v	89
42) cis-1,2-Dichloroethene	7.987	61	290201	10.05	ppb(v	100
43) Di-isopropyl Ether	8.195	87	199337	10.49	ppb(v	81
44) Ethyl Acetate	8.232	61	74738	12.34	ppb(v	83
45) Methyl Acrylate	8.220	55	417674	11.99	ppb(v	97
46) Chloroform	8.311	83	438934	8.79	ppb(v	98
47) 2,4-Dimethylpentane	9.174	57	406017	11.27	ppb(v	97
48) Tetrahydrofuran	8.746	72	105075	11.66	ppb(v	91
49) 1,1,1-Trichloroethane	9.400	97	426003	8.46	ppb(v	98
50) 1,2-Dichloroethane	9.125	62	250618	8.18	ppb(v	98
51) Benzene	9.932	78	698359	10.20	ppb(v	99
52) Carbon Tetrachloride	10.104	117	456415	8.91	ppb(v	99
53) Cyclohexane	10.238	56	349908	11.05	ppb(v	94
54) 2,3-Dimethylpentane	10.532	71	159792	11.18	ppb(v	98
56) 2,2,4-Trimethylpentane	11.223	57	1140336	11.01	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11054.D
Acq On : 14 Mar 2019 11:52 am
Operator : thomash
Sample : bs
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:56:53 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

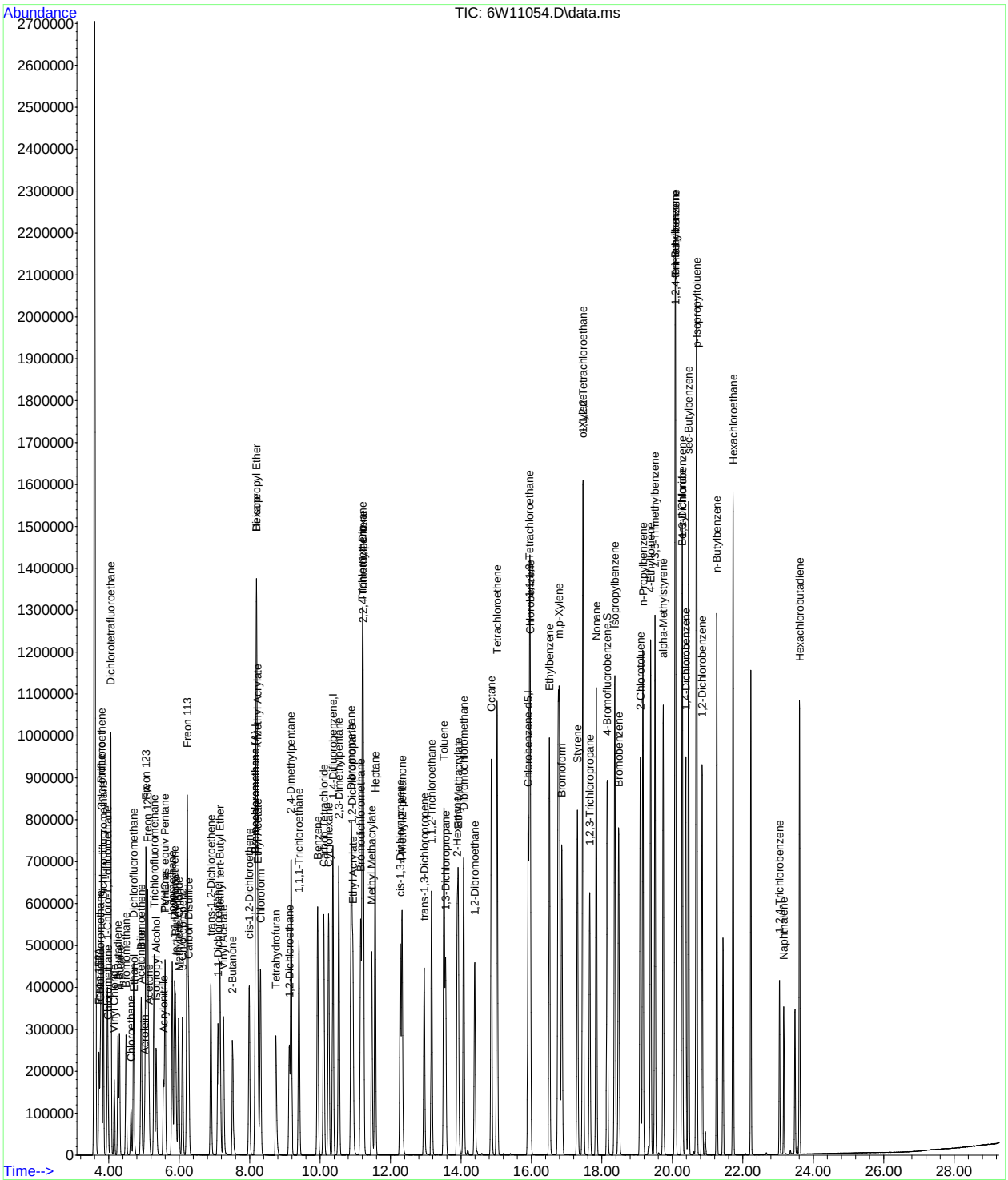
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	Heptane	11.566	71	248935	10.84	ppb(v	96
58)	Trichloroethene	11.199	95	311945	9.35	ppb(v	95
59)	1,2-Dichloropropane	10.905	63	269266	11.07	ppb(v	90
60)	Dibromomethane	10.881	174	347220	9.58	ppb(v	97
61)	Ethyl Acrylate	10.936	55	527120	12.04	ppb(v	98
62)	Methyl Methacrylate	11.468	69	263522	11.48	ppb(v	96
63)	1,4-Dioxane	11.205	88	169712	11.01	ppb(v#	69
64)	Bromodichloromethane	11.150	83	480279	9.28	ppb(v	99
65)	cis-1,3-Dichloropropene	12.276	75	404387	10.89	ppb(v	100
66)	4-Methyl-2-pentanone	12.325	58	218649	11.80	ppb(v	96
67)	trans-1,3-Dichloropropene	12.955	75	347635	11.23	ppb(v	99
68)	Toluene	13.511	91	846022	9.74	ppb(v	99
69)	1,1,2-Trichloroethane	13.163	97	289124	10.10	ppb(v	99
70)	1,3-Dichloropropane	13.560	76	394644	10.26	ppb(v	96
71)	2-Hexanone	13.891	58	291830	12.54	ppb(v	94
72)	Ethyl Methacrylate	13.921	69	431841	11.30	ppb(v	98
73)	Dibromochloromethane	14.074	129	541572	10.66	ppb(v	100
74)	Tetrachloroethene	15.022	166	488656	9.35	ppb(v	98
75)	1,2-Dibromoethane	14.392	107	447351	10.42	ppb(v	99
76)	Octane	14.863	43	540387	11.44	ppb(v	92
77)	1,1,1,2-Tetrachloroethane	15.946	131	372084	10.30	ppb(v	97
79)	Chlorobenzene	15.971	112	682638	10.79	ppb(v	98
80)	Ethylbenzene	16.515	91	1047203	10.59	ppb(v	99
81)	m,p-Xylene	16.784	91	1590941	20.55	ppb(v	97
82)	Styrene	17.304	104	609862	12.21	ppb(v	97
83)	Nonane	17.843	43	546996	12.64	ppb(v	96
84)	o-Xylene	17.457	91	800370	10.43	ppb(v	98
85)	Bromoform	16.858	173	519154	13.82	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.463	83	542680	12.39	ppb(v	100
87)	1,2,3-Trichloropropane	17.659	75	395037	11.58	ppb(v	98
88)	Isopropylbenzene	18.369	105	1137744	10.45	ppb(v	97
89)	Bromobenzene	18.479	156	369657	11.76	ppb(v	95
90)	2-Chlorotoluene	19.091	126	280993	11.54	ppb(v	92
91)	n-Propylbenzene	19.164	120	317841	11.73	ppb(v	97
93)	4-Ethyltoluene	19.384	105	1050728	11.31	ppb(v	98
94)	1,3,5-Trimethylbenzene	19.507	105	890188	10.71	ppb(v	97
95)	alpha-Methylstyrene	19.739	118	436167	12.74	ppb(v	97
96)	tert-Butylbenzene	20.076	134	229910	11.34	ppb(v	87
97)	1,2,4-Trimethylbenzene	20.088	105	854902	11.15	ppb(v#	85
98)	1,3-Dichlorobenzene	20.284	146	546279	12.74	ppb(v	97
99)	Benzyl Chloride	20.271	91	537518	17.72	ppb(v	97
100)	1,4-Dichlorobenzene	20.382	146	503609	13.32	ppb(v	97
101)	sec-Butylbenzene	20.461	134	277092	11.49	ppb(v	91
102)	p-Isopropyltoluene	20.694	134	290752	11.78	ppb(v	89
103)	1,2-Dichlorobenzene	20.840	146	491350	12.07	ppb(v	97
104)	n-Butylbenzene	21.262	134	232883	12.42	ppb(v	100
105)	Hexachloroethane	21.727	201	347291	14.91	ppb(v	92
106)	1,2,4-Trichlorobenzene	23.043	180	149888	13.28	ppb(v	99
107)	Naphthalene	23.165	128	295540	12.67	ppb(v	100
108)	Hexachlorobutadiene	23.612	225	234826	9.21	ppb(v	99
110)	TVHC as equiv Pentane	5.595	TIC	1017666	11.01	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11054.D
Acq On : 14 Mar 2019 11:52 am
Operator : thomash
Sample : bs
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:56:53 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11055.D
Acq On : 14 Mar 2019 12:40 pm
Operator : thomash
Sample : bsd
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:57:20 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	229007	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	832335	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.910	82	344371	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.165	130	229007	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.155	95	430420	10.24	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.40%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	128227	10.86	ppb(v	87
4) Chlorodifluoromethane	3.760	67	44687	7.77	ppb(v	99
5) Propene	3.790	41	153065	11.45	ppb(v	95
6) Chlorotrifluoroethene	3.797	116	324408	9.54	ppb(v	98
7) Dichlorodifluoromethane	3.846	85	490483	8.14	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.956	65	330253	6.97	ppb(v#	96
9) Chloromethane	3.980	50	176396	10.35	ppb(v	100
10) Dichlorotetrafluoroethane	4.054	85	570746	9.08	ppb(v	98
11) Vinyl Chloride	4.158	62	219125	10.58	ppb(v#	99
12) 1,3-Butadiene	4.268	54	154553	10.68	ppb(v	96
13) n-Butane	4.304	58	41446	11.72	ppb(v	97
14) Bromomethane	4.488	94	230021	10.28	ppb(v	99
15) Acrolein	5.020	56	97250	11.52	ppb(v#	92
16) Chloroethane	4.629	64	116062	10.89	ppb(v	98
17) Dichlorofluoromethane	4.702	67	480028	9.28	ppb(v	99
18) Acetonitrile	4.910	41	182255	11.69	ppb(v	97
19) Freon 123	5.051	83	527594	9.86	ppb(v	99
20) Freon 123A	5.100	117	311234	9.38	ppb(v	92
21) Bromoethene	4.922	106	237072	10.40	ppb(v#	96
22) Trichlorofluoromethane	5.283	101	488663	7.93	ppb(v	100
23) Acetone	5.136	58	106382	11.14	ppb(v	78
24) Pentane	5.595	57	57683	11.84	ppb(v	89
26) Iodomethane	5.797	142	674488	9.99	ppb(v	88
27) Isopropyl Alcohol	5.344	45	394245	11.17	ppb(v	93
28) 1,1-Dichloroethene	5.864	61	309602	9.41	ppb(v	97
29) Freon 113	6.225	101	451626	9.36	ppb(v	99
30) Methylene Chloride	5.987	84	198449	9.23	ppb(v	99
31) Carbon Disulfide	6.268	76	625431	10.41	ppb(v	99
32) Ethanol	4.720	45	88665	11.00	ppb(v	99
33) Acrylonitrile	5.552	53	183117	12.10	ppb(v	97
34) 3-Chloropropene	6.091	76	111186	11.23	ppb(v	83
35) trans-1,2-Dichloroethene	6.898	61	299698	10.05	ppb(v	99
36) tert-Butyl Alcohol	5.895	59	438868	10.70	ppb(v	95
37) Methyl tert-Butyl Ether	7.155	73	593018	9.49	ppb(v	97
38) Vinyl Acetate	7.253	43	612374	11.94	ppb(v	100
39) 1,1-Dichloroethane	7.100	63	381842	9.88	ppb(v	99
40) 2-Butanone	7.510	72	114214	12.08	ppb(v	97
41) Hexane	8.195	57	347779	11.12	ppb(v	88
42) cis-1,2-Dichloroethene	7.987	61	291367	9.92	ppb(v	98
43) Di-isopropyl Ether	8.195	87	201029	10.40	ppb(v	81
44) Ethyl Acetate	8.232	61	75193	12.21	ppb(v	83
45) Methyl Acrylate	8.220	55	418235	11.81	ppb(v	97
46) Chloroform	8.311	83	441919	8.71	ppb(v	98
47) 2,4-Dimethylpentane	9.180	57	406561	11.10	ppb(v	97
48) Tetrahydrofuran	8.746	72	107368	11.72	ppb(v	92
49) 1,1,1-Trichloroethane	9.400	97	428137	8.36	ppb(v	98
50) 1,2-Dichloroethane	9.125	62	250017	8.03	ppb(v	98
51) Benzene	9.933	78	704626	10.13	ppb(v	98
52) Carbon Tetrachloride	10.104	117	461001	8.85	ppb(v	98
53) Cyclohexane	10.239	56	354673	11.02	ppb(v	93
54) 2,3-Dimethylpentane	10.532	71	160251	11.03	ppb(v	95
56) 2,2,4-Trimethylpentane	11.224	57	1139845	10.91	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11055.D
Acq On : 14 Mar 2019 12:40 pm
Operator : thomash
Sample : bsd
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:57:20 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

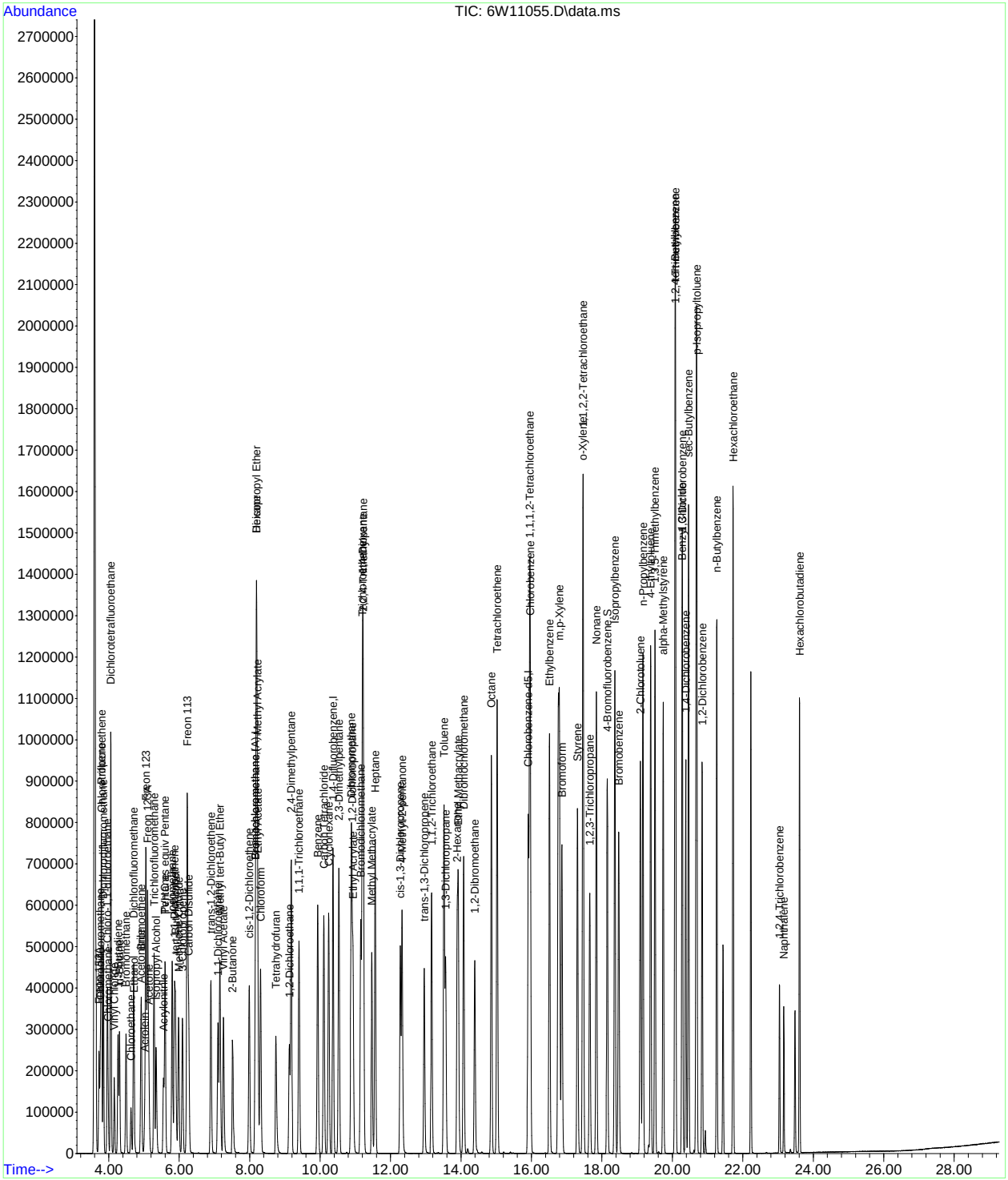
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	Heptane	11.566	71	250457	10.82	ppb(v	97
58)	Trichloroethene	11.199	95	312386	9.29	ppb(v	92
59)	1,2-Dichloropropane	10.905	63	268915	10.96	ppb(v	90
60)	Dibromomethane	10.881	174	349915	9.57	ppb(v	97
61)	Ethyl Acrylate	10.936	55	529628	12.00	ppb(v	98
62)	Methyl Methacrylate	11.468	69	266410	11.50	ppb(v	97
63)	1,4-Dioxane	11.205	88	171604	11.04	ppb(v#	72
64)	Bromodichloromethane	11.150	83	483866	9.28	ppb(v	99
65)	cis-1,3-Dichloropropene	12.276	75	405816	10.84	ppb(v	99
66)	4-Methyl-2-pentanone	12.325	58	219131	11.72	ppb(v	96
67)	trans-1,3-Dichloropropene	12.955	75	349178	11.18	ppb(v	99
68)	Toluene	13.518	91	853372	9.74	ppb(v	99
69)	1,1,2-Trichloroethane	13.169	97	293188	10.16	ppb(v	99
70)	1,3-Dichloropropane	13.560	76	398981	10.29	ppb(v	96
71)	2-Hexanone	13.891	58	291396	12.42	ppb(v	95
72)	Ethyl Methacrylate	13.921	69	436362	11.33	ppb(v	98
73)	Dibromochloromethane	14.074	129	546082	10.66	ppb(v	99
74)	Tetrachloroethene	15.029	166	494753	9.38	ppb(v	97
75)	1,2-Dibromoethane	14.392	107	449853	10.39	ppb(v	100
76)	Octane	14.864	43	545506	11.45	ppb(v	92
77)	1,1,1,2-Tetrachloroethane	15.952	131	376068	10.32	ppb(v	100
79)	Chlorobenzene	15.971	112	688197	10.78	ppb(v	97
80)	Ethylbenzene	16.515	91	1056209	10.58	ppb(v	98
81)	m,p-Xylene	16.791	91	1601238	20.49	ppb(v	97
82)	Styrene	17.305	104	616767	12.23	ppb(v	98
83)	Nonane	17.843	43	547184	12.53	ppb(v	96
84)	o-Xylene	17.457	91	805112	10.40	ppb(v	99
85)	Bromoform	16.864	173	525401	13.86	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.464	83	544548	12.32	ppb(v	99
87)	1,2,3-Trichloropropane	17.659	75	397097	11.54	ppb(v	98
88)	Isopropylbenzene	18.369	105	1147032	10.44	ppb(v	97
89)	Bromobenzene	18.479	156	372000	11.73	ppb(v	95
90)	2-Chlorotoluene	19.091	126	282574	11.50	ppb(v	93
91)	n-Propylbenzene	19.164	120	319612	11.68	ppb(v	96
93)	4-Ethyltoluene	19.385	105	1054048	11.24	ppb(v	98
94)	1,3,5-Trimethylbenzene	19.507	105	893912	10.66	ppb(v	97
95)	alpha-Methylstyrene	19.739	118	438059	12.67	ppb(v	98
96)	tert-Butylbenzene	20.076	134	231959	11.34	ppb(v	85
97)	1,2,4-Trimethylbenzene	20.088	105	860255	11.11	ppb(v#	84
98)	1,3-Dichlorobenzene	20.284	146	545829	12.61	ppb(v	96
99)	Benzyl Chloride	20.272	91	536962	17.53	ppb(v	96
100)	1,4-Dichlorobenzene	20.382	146	503383	13.19	ppb(v	97
101)	sec-Butylbenzene	20.461	134	277632	11.41	ppb(v	92
102)	p-Isopropyltoluene	20.694	134	290859	11.68	ppb(v	92
103)	1,2-Dichlorobenzene	20.847	146	492402	11.99	ppb(v	96
104)	n-Butylbenzene	21.263	134	235087	12.42	ppb(v	96
105)	Hexachloroethane	21.728	201	351077	14.93	ppb(v	91
106)	1,2,4-Trichlorobenzene	23.043	180	147031	12.90	ppb(v	98
107)	Naphthalene	23.165	128	295204	12.54	ppb(v	100
108)	Hexachlorobutadiene	23.612	225	238808	9.28	ppb(v	99
110)	TVHC as equiv Pentane	5.595	TIC	1025134	10.91	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11055.D
Acq On : 14 Mar 2019 12:40 pm
Operator : thomash
Sample : bsd
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:57:20 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11385.D
Acq On : 3 Apr 2019 8:53 pm
Operator : gabriep
Sample : jc84962-2dup
Misc : MS33440,V6W457,100,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 12:04:24 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

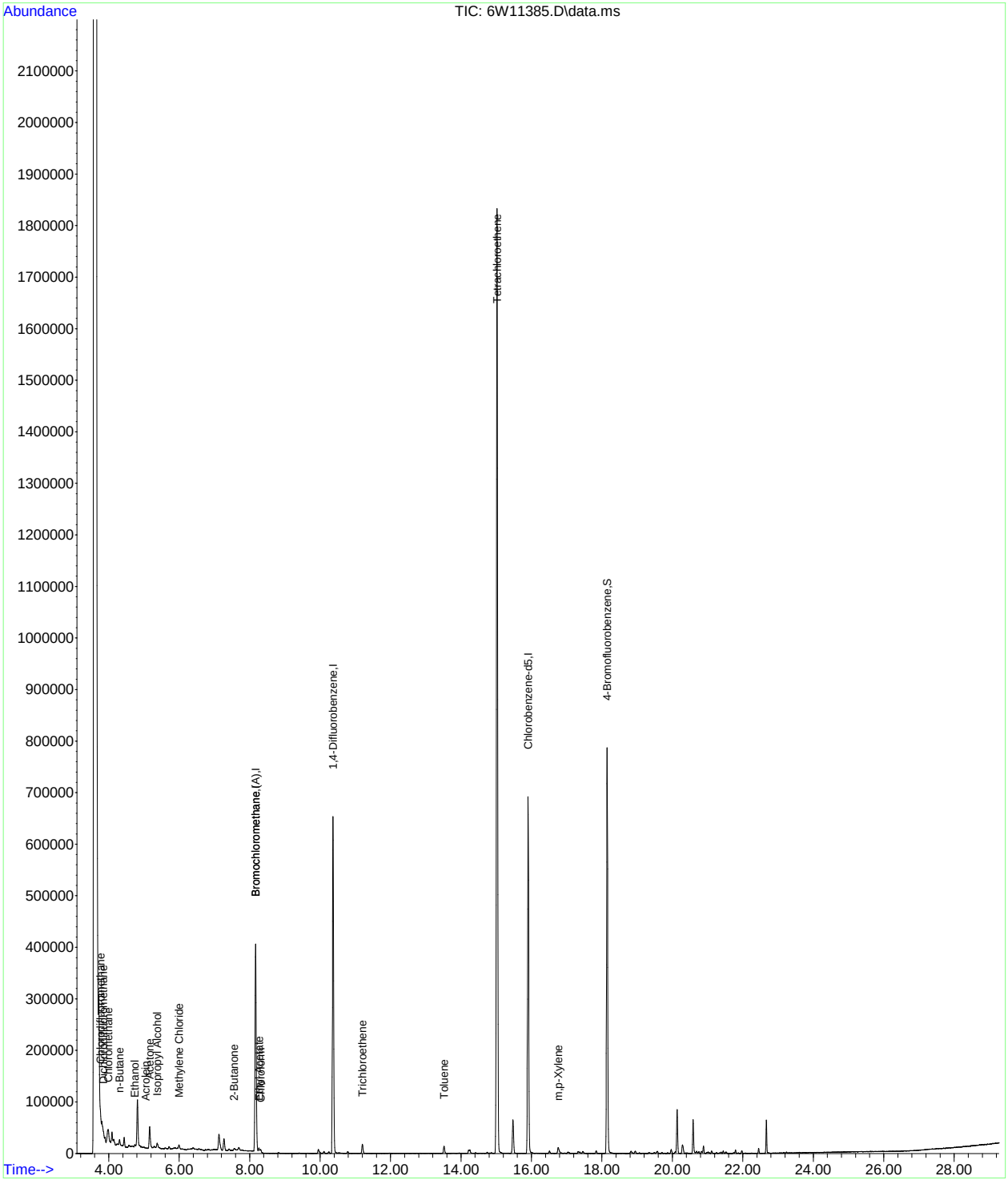
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.171	130	196885	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.367	114	708973	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	293978	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.171	130	196885	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	363307	10.12	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.20%			
Target Compounds						Qvalue
4) Chlorodifluoromethane	3.766	67	2535	0.51	ppb(v#	1
7) Dichlorodifluoromethane	3.845	85	5648	0.11	ppb(v	98
9) Chloromethane	3.986	50	2291	0.16	ppb(v	91
13) n-Butane	4.304	58	898	0.30	ppb(v#	1
15) Acrolein	5.045	56	790	0.11	ppb(v#	79
23) Acetone	5.161	58	20573	2.51	ppb(v	84
27) Isopropyl Alcohol	5.375	45	13136	0.43	ppb(v	98
30) Methylene Chloride	5.993	84	4351	0.24	ppb(v	87
32) Ethanol	4.739	45	7682	1.11	ppb(v	98
40) 2-Butanone	7.559	72	1288	0.16	ppb(v	90
44) Ethyl Acetate	8.269	61	1751	0.33	ppb(v	71
46) Chloroform	8.311	83	5471	0.13	ppb(v	99
58) Trichloroethene	11.199	95	7854	0.27	ppb(v	93
68) Toluene	13.518	91	15233	0.20	ppb(v	98
74) Tetrachloroethene	15.023	166	794211	17.68	ppb(v	98
81) m,p-Xylene	16.760	91	13955	0.21	ppb(v	97

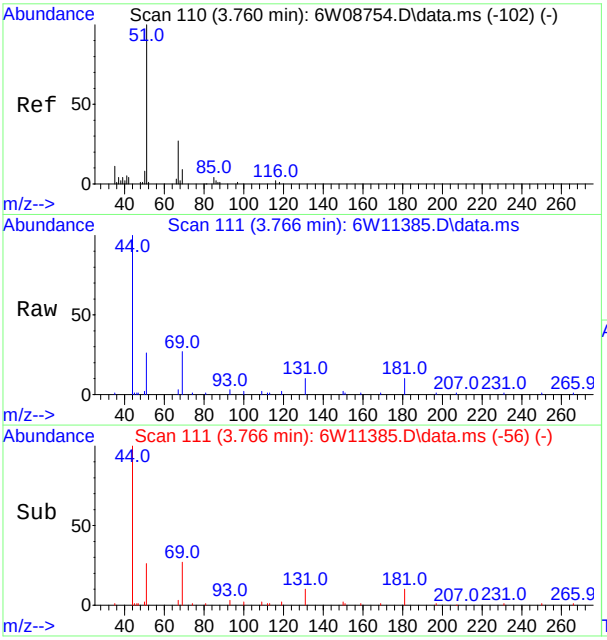
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11385.D
Acq On : 3 Apr 2019 8:53 pm
Operator : gabriep
Sample : jc84962-2dup
Misc : MS33440,V6W457,100,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 12:04:24 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

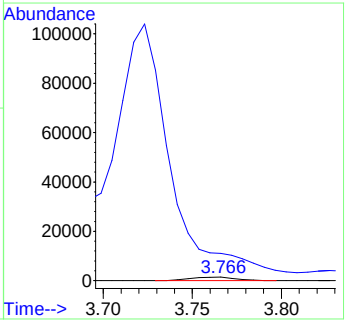


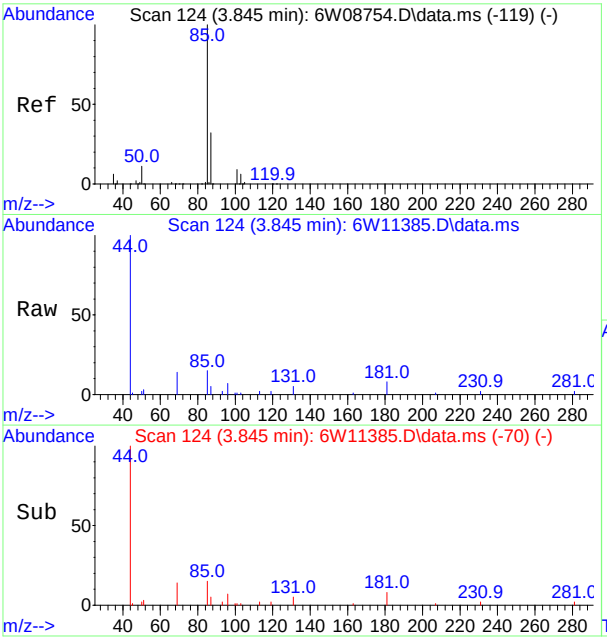


#4
Chlorodifluoromethane
Concen: 0.51 ppb(v)
RT: 3.766 min Scan# 111
Delta R.T. 0.006 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 67 Resp: 2535

Ion	Ratio	Lower	Upper
67	100		
69	781.1	23.0	42.6#

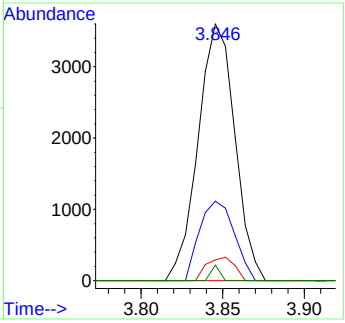


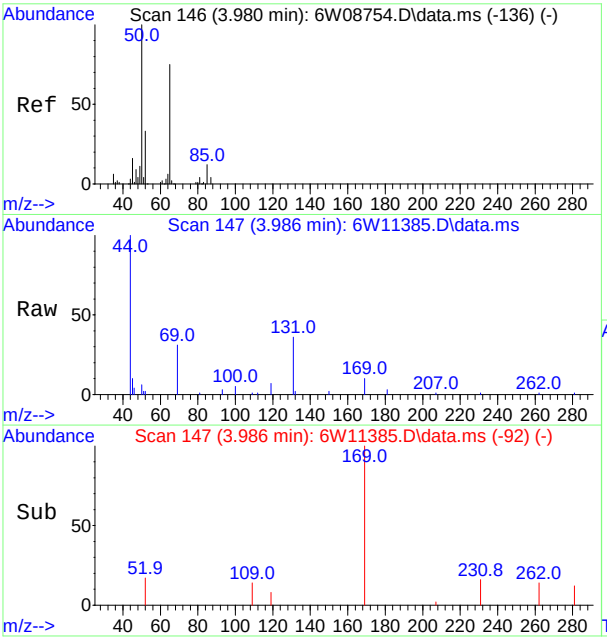


#7
Dichlorodifluoromethane
Concen: 0.11 ppb(v)
RT: 3.845 min Scan# 124
Delta R.T. 0.000 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 85 Resp: 5648

Ion	Ratio	Lower	Upper
85	100		
87	31.0	22.7	42.1
101	8.1	6.3	11.7
103	6.1	4.1	7.7

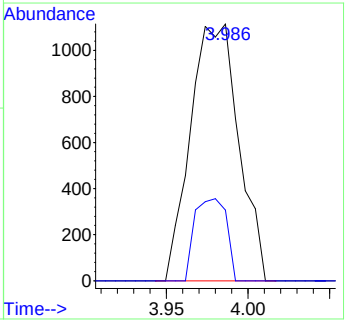


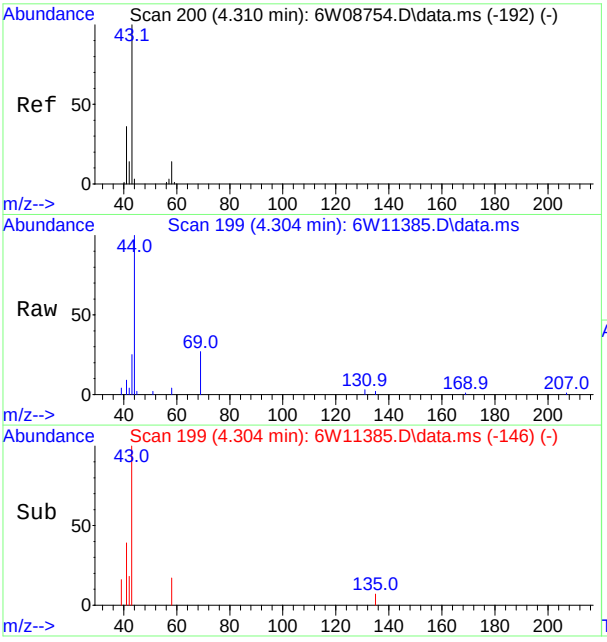


#9
Chloromethane
Concen: 0.16 ppb(v)
RT: 3.986 min Scan# 147
Delta R.T. 0.006 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 50 Resp: 2291

Ion	Ratio	Lower	Upper
50	100		
52	27.5	22.8	42.4

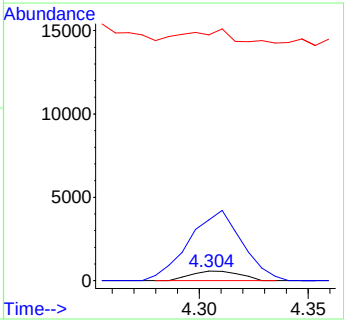


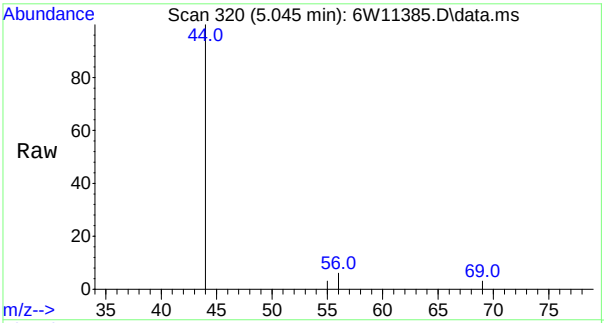


#13
n-Butane
Concen: 0.30 ppb(v)
RT: 4.304 min Scan# 199
Delta R.T. -0.006 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 58 Resp: 898

Ion	Ratio	Lower	Upper
58	100		
43	638.5	485.0	900.6
44	2582.8	19.2	35.6#

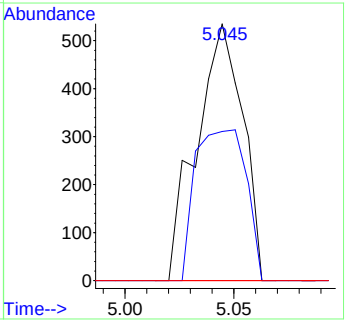


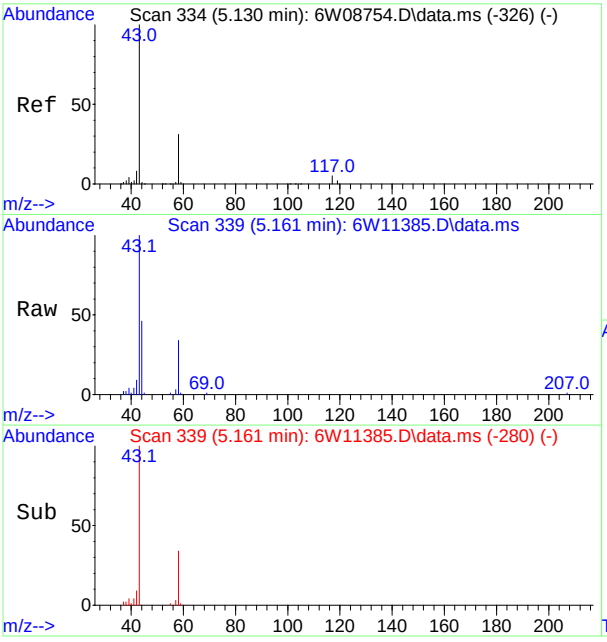


#15
Acrolein
Concen: 0.11 ppb(v)
RT: 5.045 min Scan# 320
Delta R.T. 0.019 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 56 Resp: 790

Ion	Ratio	Lower	Upper
56	100		
55	65.1	56.8	85.2
37	0.0	23.8	35.8#

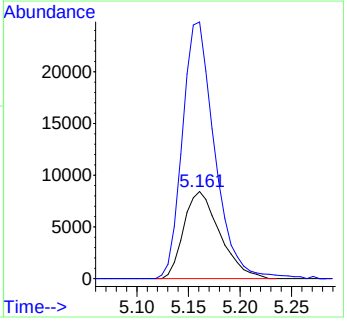


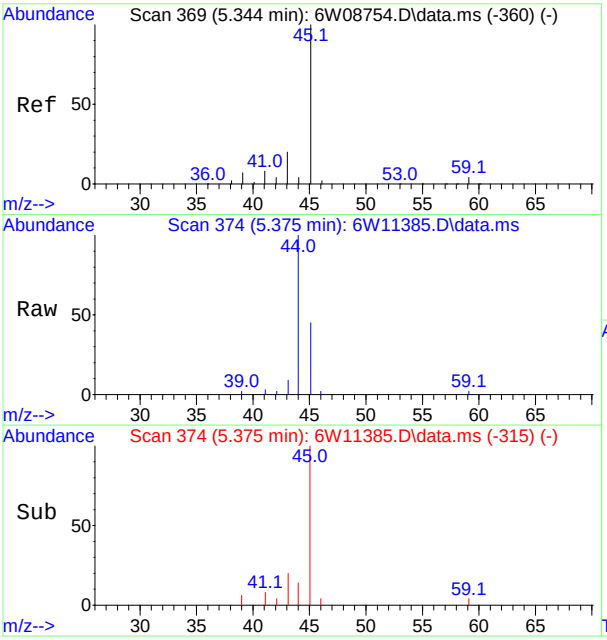


#23
Acetone
Concen: 2.51 ppb(v)
RT: 5.161 min Scan# 339
Delta R.T. 0.031 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 58 Resp: 20573

Ion	Ratio	Lower	Upper
58	100		
43	295.1	230.1	427.3

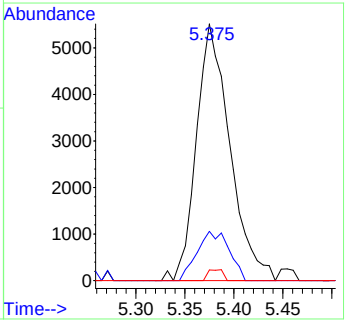


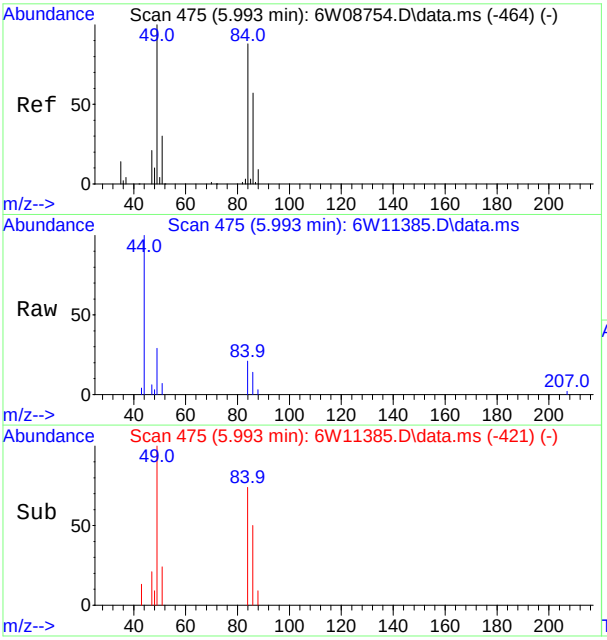


#27
Isopropyl Alcohol
Concen: 0.43 ppb(v)
RT: 5.375 min Scan# 374
Delta R.T. 0.031 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 45 Resp: 13136

Ion	Ratio	Lower	Upper
45	100		
43	19.2	14.1	26.1
59	4.2	2.8	5.2

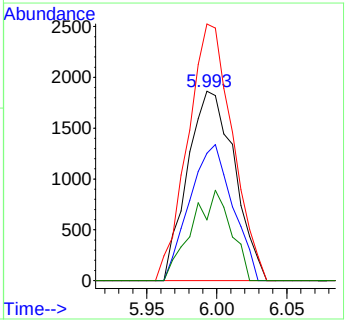


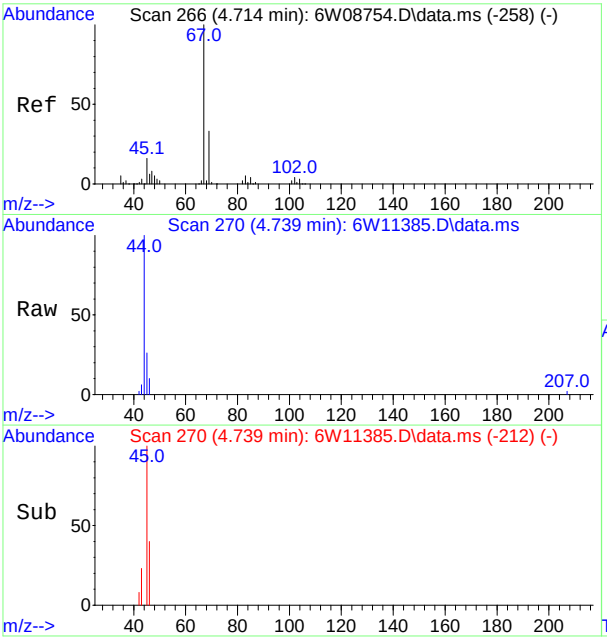


#30
Methylene Chloride
Concen: 0.24 ppb(v)
RT: 5.993 min Scan# 475
Delta R.T. 0.000 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 84 Resp: 4351

Ion	Ratio	Lower	Upper
84	100		
86	67.3	45.5	84.5
49	135.5	79.5	147.7
51	32.1	24.6	45.6

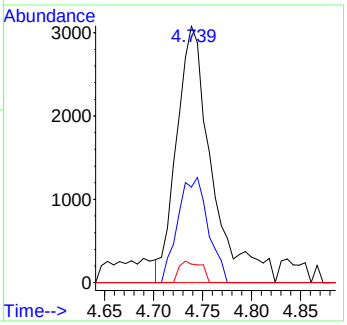


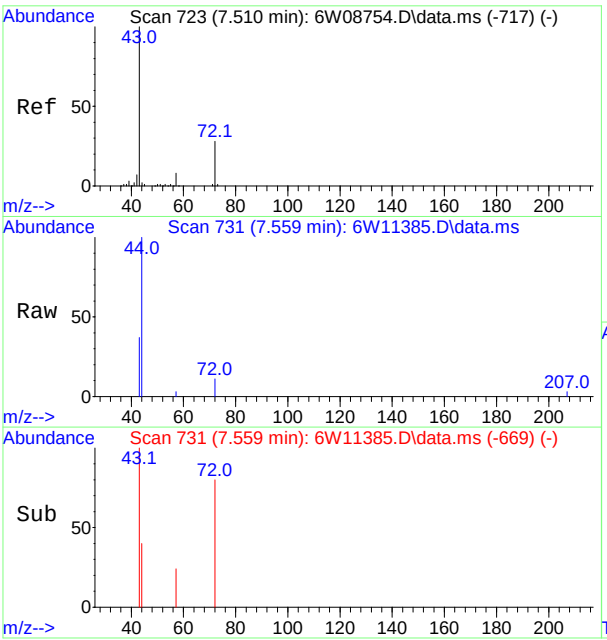


#32
Ethanol
Concen: 1.11 ppb(v)
RT: 4.739 min Scan# 270
Delta R.T. 0.025 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 45 Resp: 7682

Ion	Ratio	Lower	Upper
45	100		
46	37.2	26.9	49.9
42	7.2	6.0	11.2

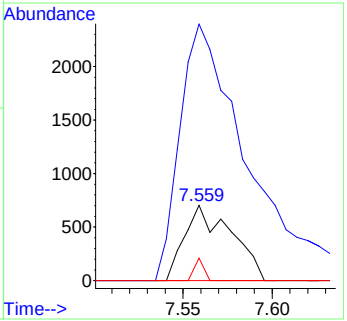


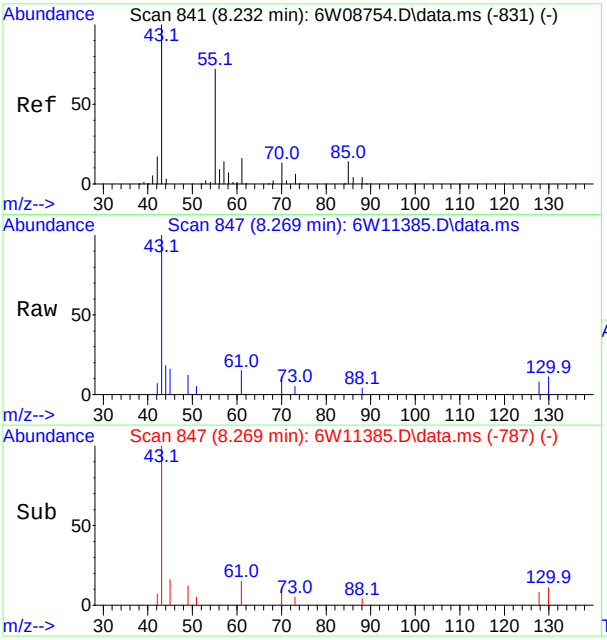


#40
2-Butanone
Concen: 0.16 ppb(v)
RT: 7.559 min Scan# 731
Delta R.T. 0.049 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 72 Resp: 1288

Ion	Ratio	Lower	Upper
72	100		
43	340.6	255.4	474.4
57	30.0	20.7	38.5

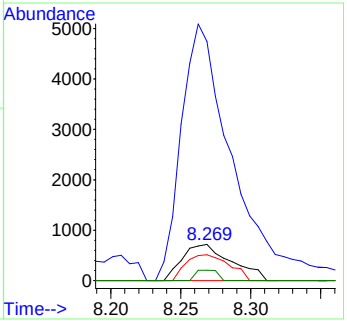


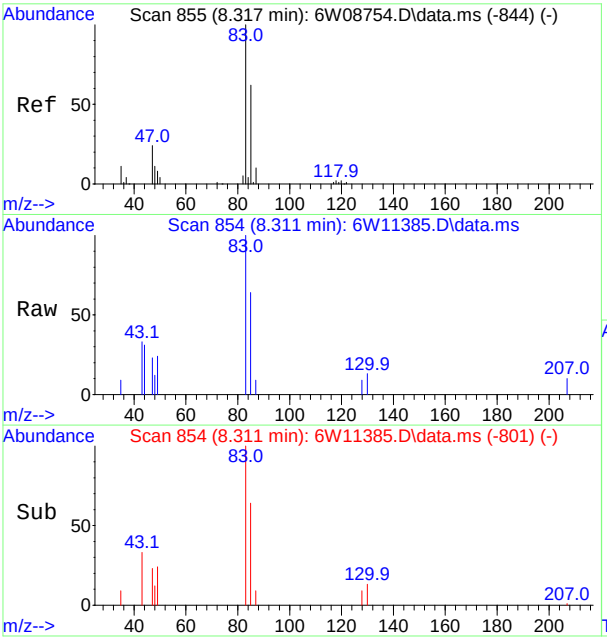


#44
Ethyl Acetate
Concen: 0.33 ppb(v)
RT: 8.269 min Scan# 847
Delta R.T. 0.037 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 61 Resp: 1751

Ion	Ratio	Lower	Upper
61	100		
43	661.0	546.6	1015.0
70	71.7	57.2	106.2
88	28.8	23.1	42.9

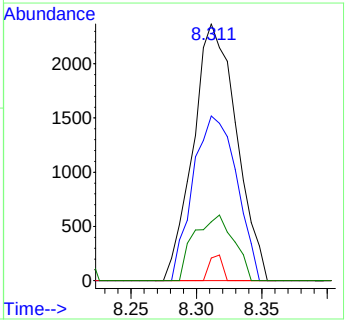


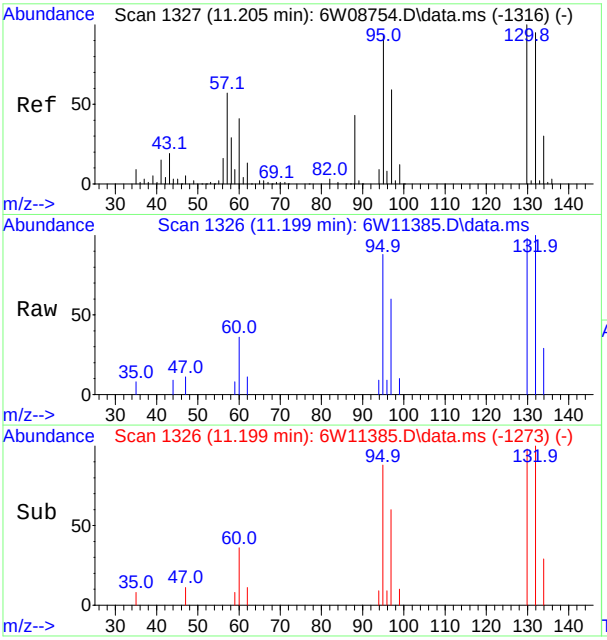


#46
Chloroform
Concen: 0.13 ppb(v)
RT: 8.311 min Scan# 854
Delta R.T. -0.006 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 83 Resp: 5471

Ion	Ratio	Lower	Upper
83	100		
85	64.1	45.1	83.9
87	8.8	7.3	13.5
47	22.9	16.7	31.1

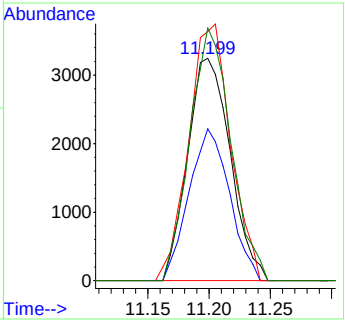


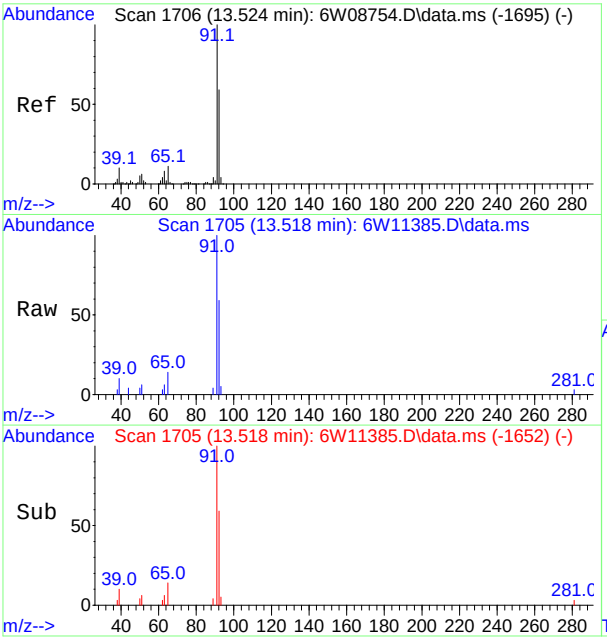


#58
Trichloroethene
Concen: 0.27 ppb(v)
RT: 11.199 min Scan# 1326
Delta R.T. -0.006 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 95 Resp: 7854

Ion	Ratio	Lower	Upper
95	100		
97	68.3	44.3	82.3
130	111.9	75.7	140.5
132	113.7	72.0	133.6

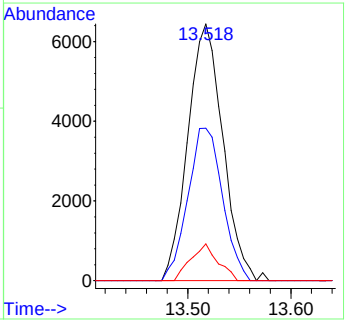


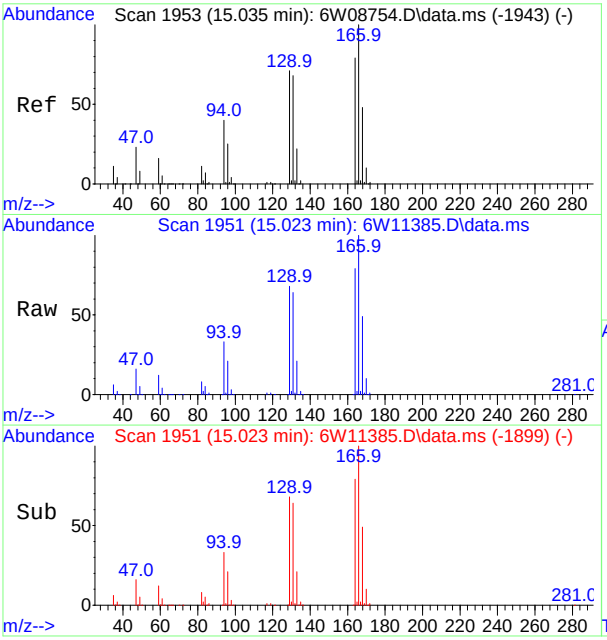


#68
Toluene
Concen: 0.20 ppb(v)
RT: 13.518 min Scan# 1705
Delta R.T. -0.006 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 91 Resp: 15233

Ion	Ratio	Lower	Upper
91	100		
92	59.4	41.4	77.0
65	14.3	7.9	14.7

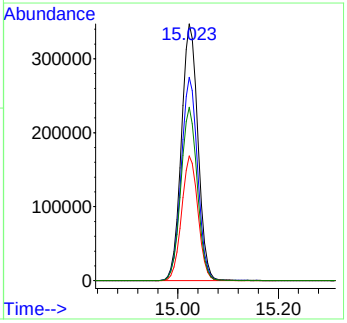


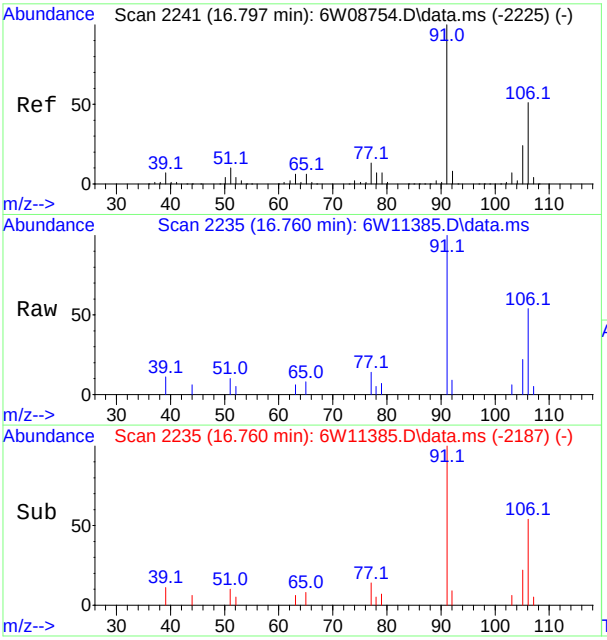


#74
Tetrachloroethene
Concen: 17.68 ppb(v)
RT: 15.023 min Scan# 1951
Delta R.T. -0.012 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion:166 Resp: 794211

Ion	Ratio	Lower	Upper
166	100		
164	79.1	55.1	102.3
168	48.6	33.6	62.4
129	67.5	49.6	92.0

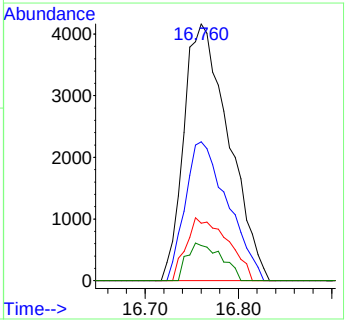




#81
m,p-Xylene
Concen: 0.21 ppb(v)
RT: 16.760 min Scan# 2235
Delta R.T. -0.037 min
Lab File: 6W11385.D
Acq: 3 Apr 2019 8:53 pm

Tgt Ion: 91 Resp: 13955

Ion	Ratio	Lower	Upper
91	100		
106	54.1	35.9	66.7
105	22.4	16.7	31.1
77	13.7	9.2	17.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11410.D
Acq On : 4 Apr 2019 7:44 pm
Operator : gabriep
Sample : jc85477-1dup
Misc : MS33645,V6W458,400,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 12:09:27 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

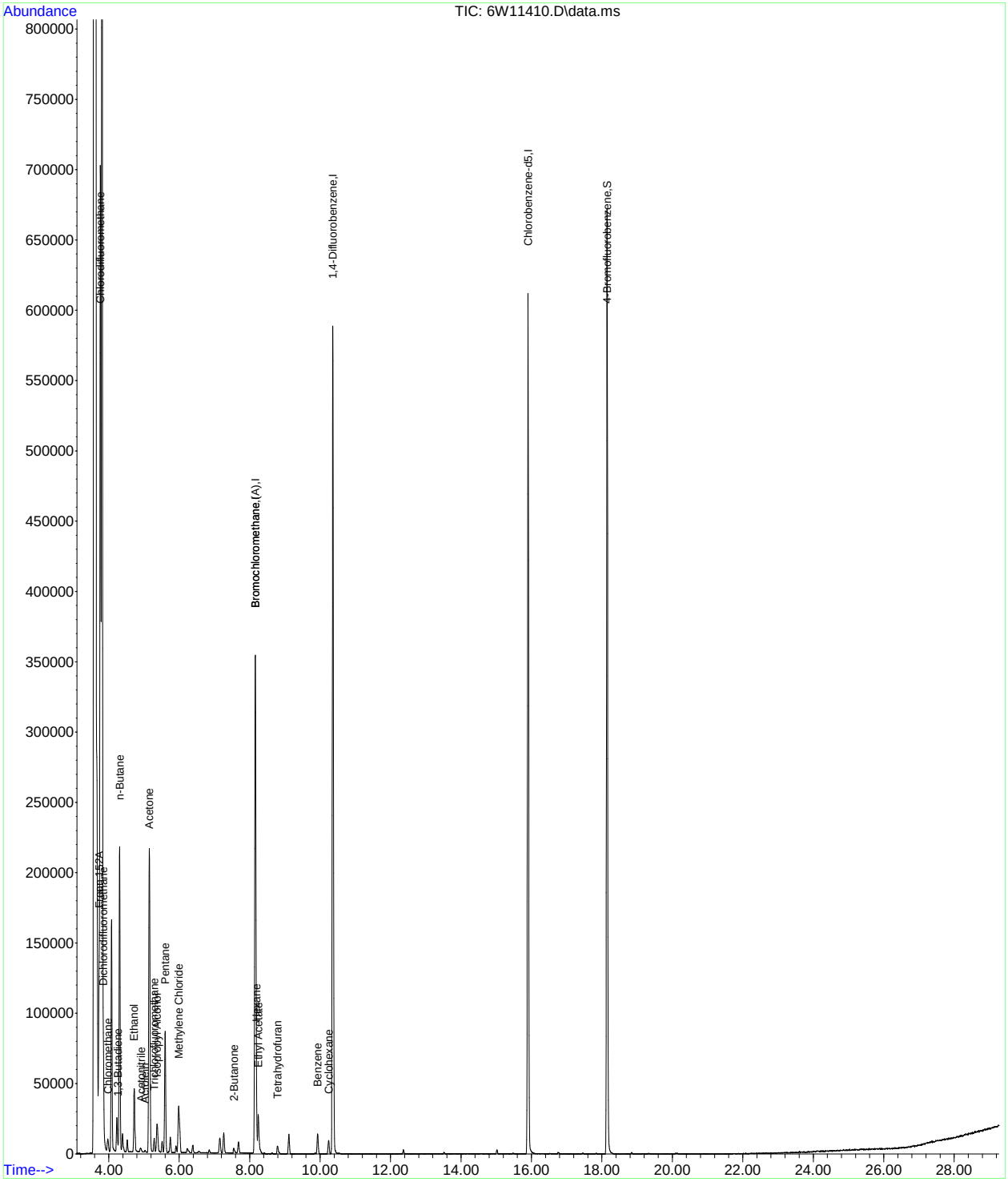
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	180289	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.361	114	645041	10.00	ppb(v	-0.02
78) Chlorobenzene-d5	15.903	82	260587	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	180289	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	309351	9.72	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.20%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	61336	6.60	ppb(v	89
4) Chlorodifluoromethane	3.760	67	133561	29.51	ppb(v	99
7) Dichlorodifluoromethane	3.845	85	67847	1.43	ppb(v	99
9) Chloromethane	3.980	50	9110	0.68	ppb(v	100
12) 1,3-Butadiene	4.261	54	2517	0.22	ppb(v	82
13) n-Butane	4.310	58	29500	10.60	ppb(v	94
15) Acrolein	5.026	56	1360	0.20	ppb(v#	73
18) Acetonitrile	4.922	41	2533	0.21	ppb(v#	78
22) Trichlorofluoromethane	5.289	101	10490	0.22	ppb(v	98
23) Acetone	5.142	58	50009	6.65	ppb(v	75
24) Pentane	5.601	57	10516	2.74	ppb(v	91
27) Isopropyl Alcohol	5.369	45	31482	1.13	ppb(v	96
30) Methylene Chloride	5.987	84	17262	1.02	ppb(v	94
32) Ethanol	4.720	45	58191	9.17	ppb(v	98
40) 2-Butanone	7.553	72	1441	0.19	ppb(v#	94
41) Hexane	8.195	57	4052	0.16	ppb(v#	46
44) Ethyl Acetate	8.244	61	5597	1.15	ppb(v	78
48) Tetrahydrofuran	8.795	72	1915	0.27	ppb(v	89
51) Benzene	9.926	78	17443	0.32	ppb(v	96
53) Cyclohexane	10.245	56	5788	0.23	ppb(v	89

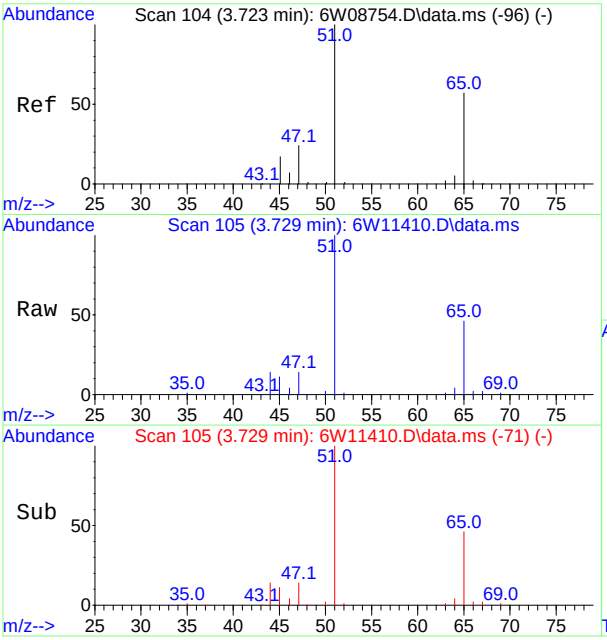
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11410.D
Acq On : 4 Apr 2019 7:44 pm
Operator : gabriep
Sample : jc85477-1dup
Misc : MS33645,V6W458,400,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 12:09:27 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

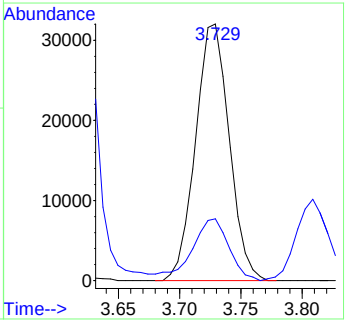


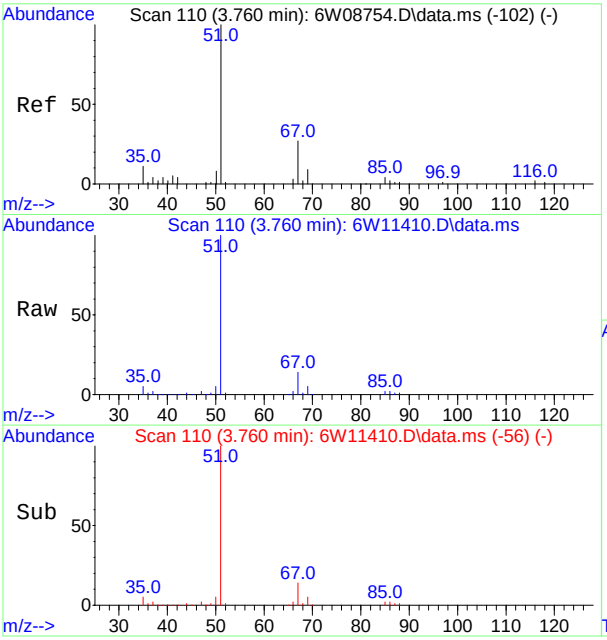


#3
Freon 152A
Concen: 6.60 ppb(v)
RT: 3.729 min Scan# 105
Delta R.T. 0.006 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 65 Resp: 61336

Ion	Ratio	Lower	Upper
65	100		
45	24.1	20.9	38.9

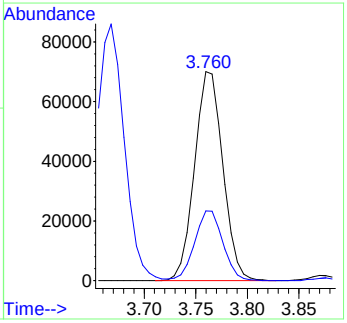


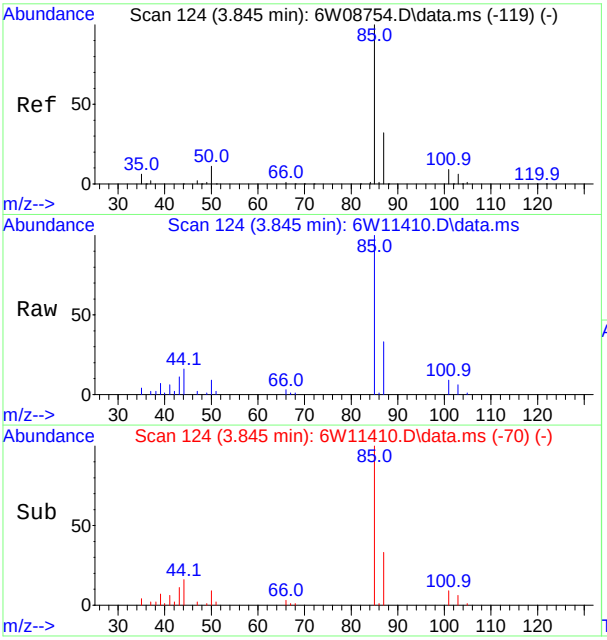


#4
Chlorodifluoromethane
Concen: 29.51 ppb(v)
RT: 3.760 min Scan# 110
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 67 Resp: 133561

Ion	Ratio	Lower	Upper
67	100		
69	33.4	23.0	42.6

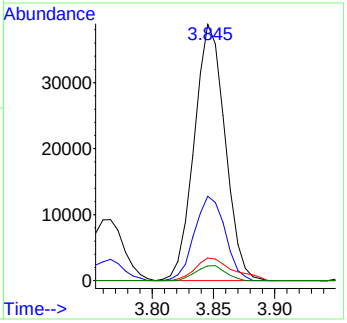


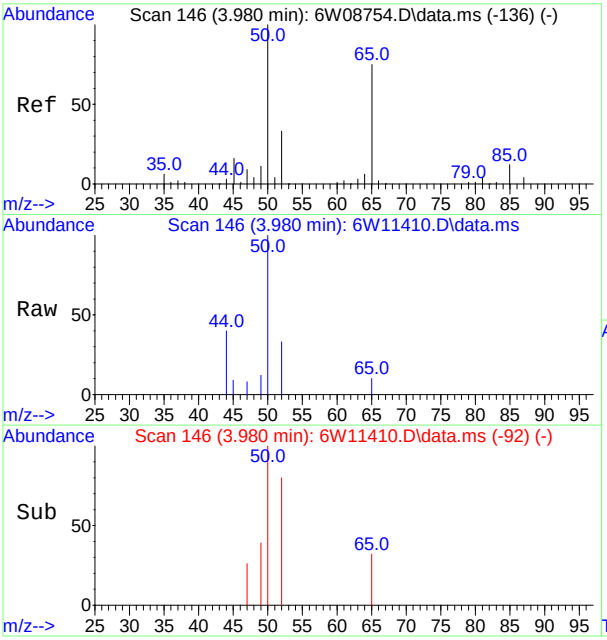


#7
Dichlorodifluoromethane
Concen: 1.43 ppb(v)
RT: 3.845 min Scan# 124
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 85 Resp: 67847

Ion	Ratio	Lower	Upper
85	100		
87	32.8	22.7	42.1
101	8.8	6.3	11.7
103	5.7	4.1	7.7

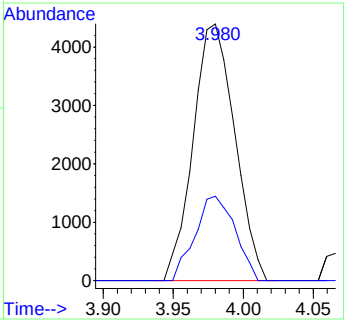


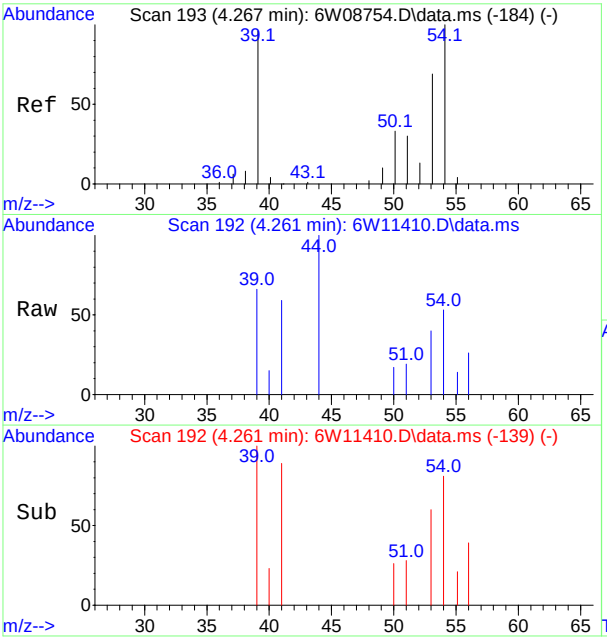


#9
Chloromethane
Concen: 0.68 ppb(v)
RT: 3.980 min Scan# 146
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 50 Resp: 9110

Ion	Ratio	Lower	Upper
50	100		
52	32.8	22.8	42.4

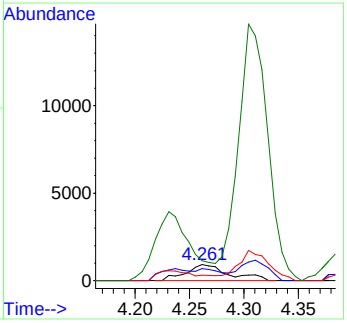


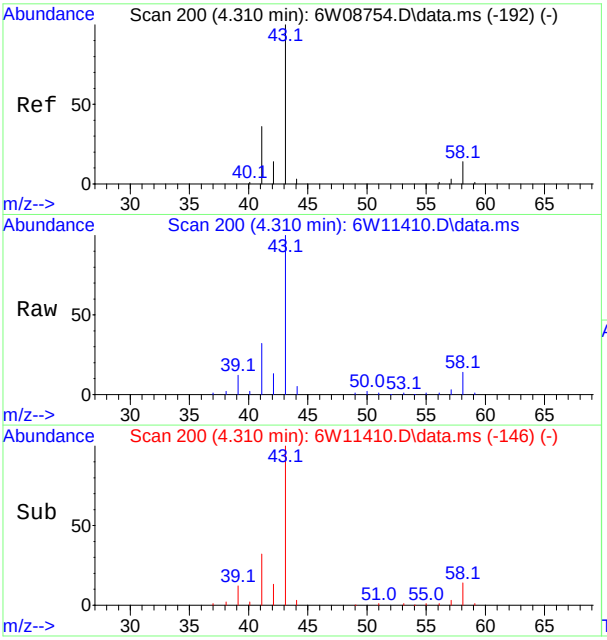


#12
1,3-Butadiene
Concen: 0.22 ppb(v)
RT: 4.261 min Scan# 192
Delta R.T. -0.006 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 54 Resp: 2517

Ion	Ratio	Lower	Upper
54	100		
53	75.0	48.2	89.6
51	34.7	20.6	38.4
39	124.2	67.1	124.7

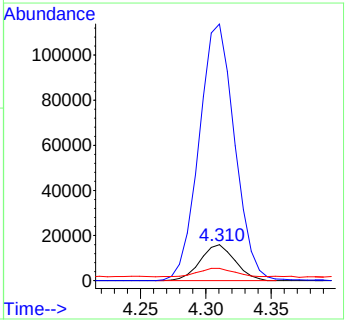


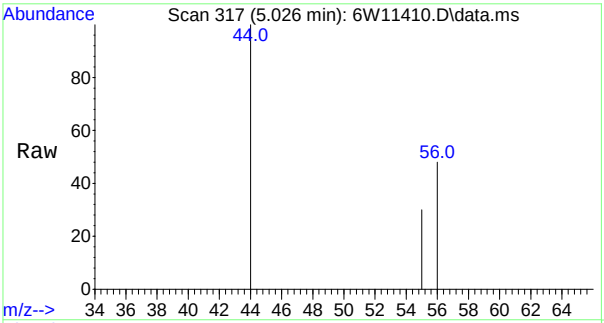


#13
n-Butane
Concen: 10.60 ppb(v)
RT: 4.310 min Scan# 200
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 58 Resp: 29500

Ion	Ratio	Lower	Upper
58	100		
43	712.9	485.0	900.6
44	34.4	19.2	35.6

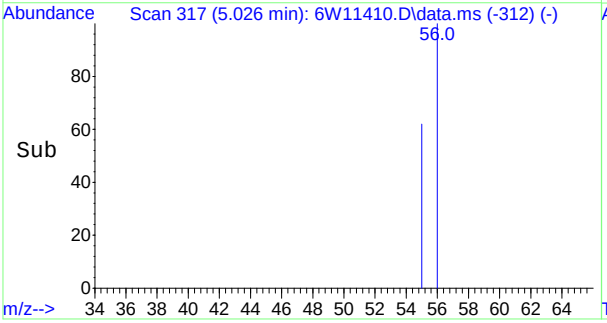


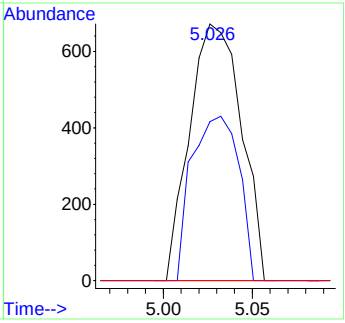


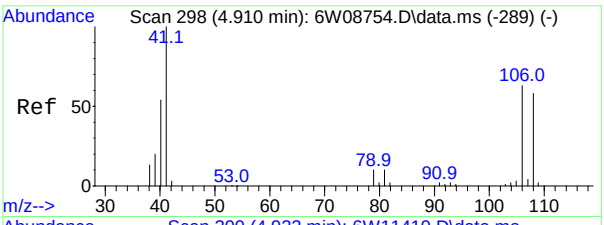
#15
Acrolein
Concen: 0.20 ppb(v)
RT: 5.026 min Scan# 317
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 56 Resp: 1360

Ion	Ratio	Lower	Upper
56	100		
55	58.3	56.8	85.2
37	0.0	23.8	35.8#



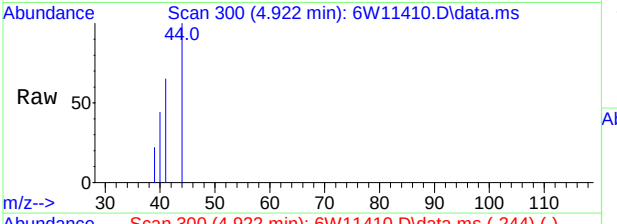


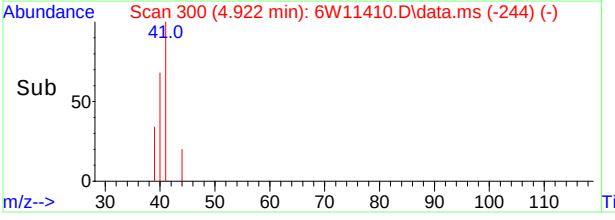


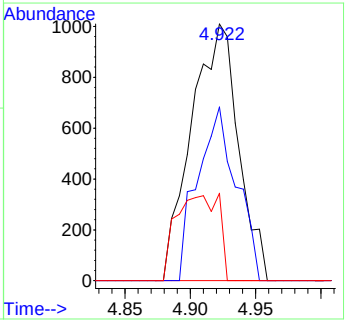
#18
Acetonitrile
Concen: 0.21 ppb(v)
RT: 4.922 min Scan# 300
Delta R.T. 0.012 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

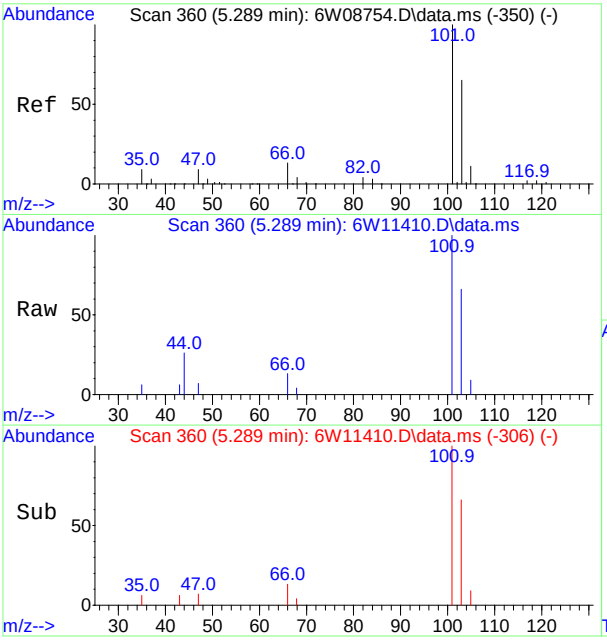
Tgt Ion: 41 Resp: 2533

Ion	Ratio	Lower	Upper
41	100		
40	67.6	37.9	70.5
39	34.1	14.0	26.0#





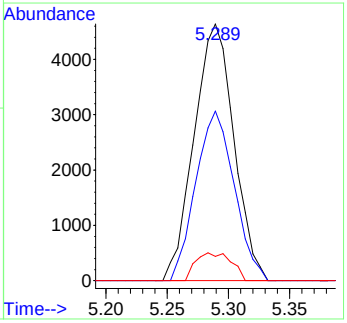


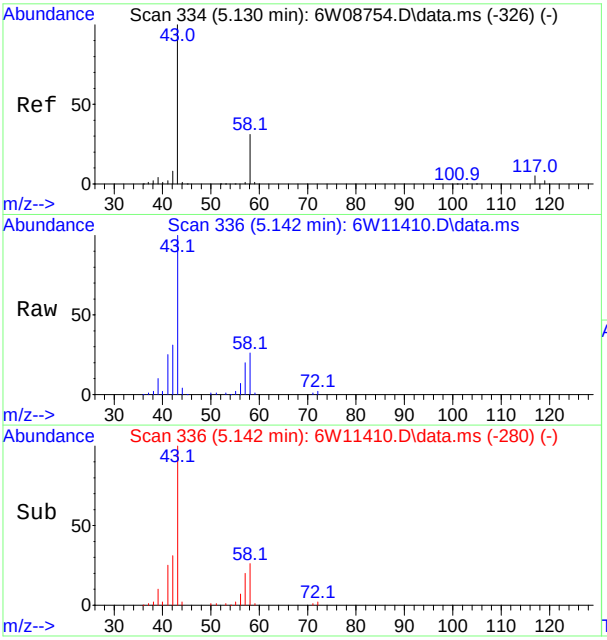


#22
Trichlorofluoromethane
Concen: 0.22 ppb(v)
RT: 5.289 min Scan# 360
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion:101 Resp: 10490

Ion	Ratio	Lower	Upper
101	100		
103	66.1	45.4	84.4
105	9.4	7.3	13.7

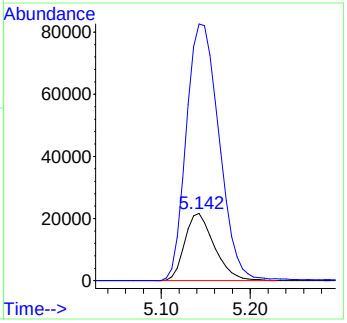


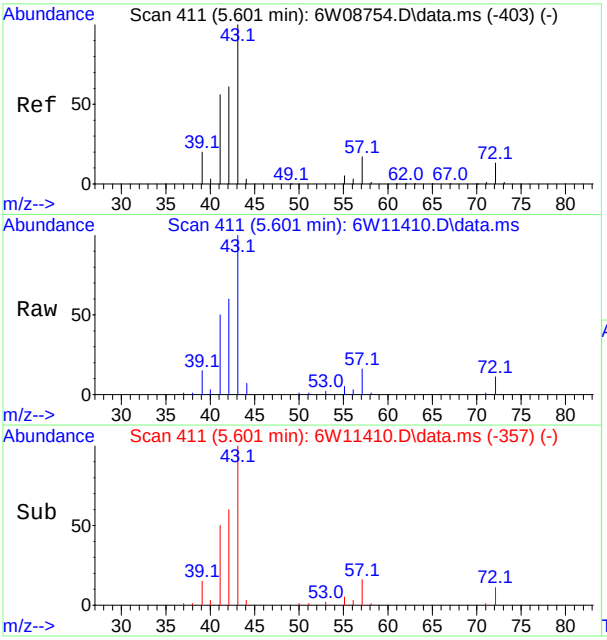


#23
Acetone
Concen: 6.65 ppb(v)
RT: 5.142 min Scan# 336
Delta R.T. 0.012 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 58 Resp: 50009

Ion	Ratio	Lower	Upper
58	100		
43	381.6	230.1	427.3

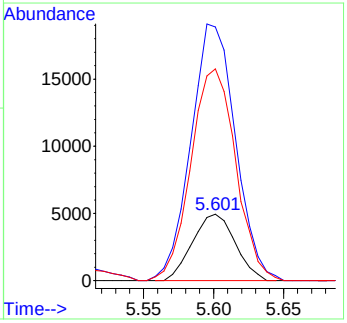


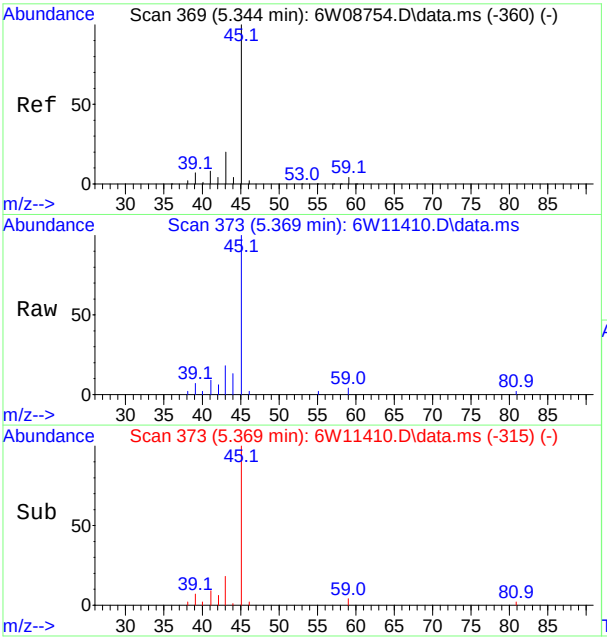


#24
Pentane
Concen: 2.74 ppb(v)
RT: 5.601 min Scan# 411
Delta R.T. 0.000 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 57 Resp: 10516

Ion	Ratio	Lower	Upper
57	100		
42	381.3	250.8	465.8
41	318.2	232.7	432.1

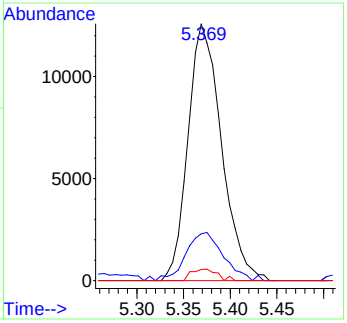


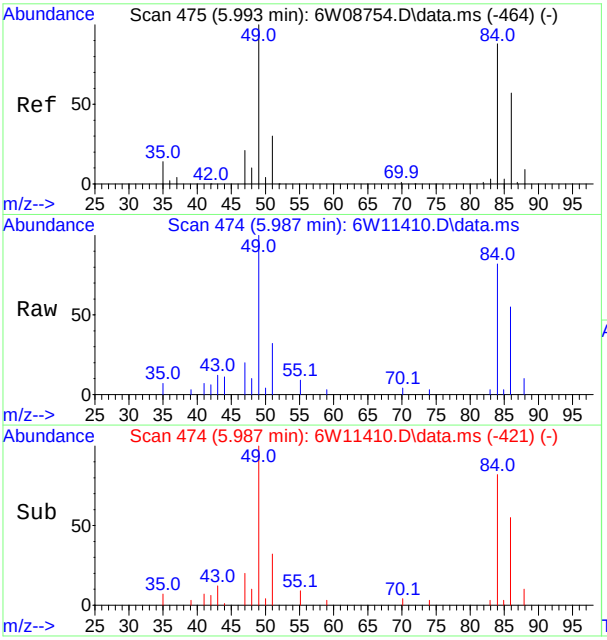


#27
Isopropyl Alcohol
Concen: 1.13 ppb(v)
RT: 5.369 min Scan# 373
Delta R.T. 0.025 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 45 Resp: 31482

Ion	Ratio	Lower	Upper
45	100		
43	18.2	14.1	26.1
59	4.3	2.8	5.2

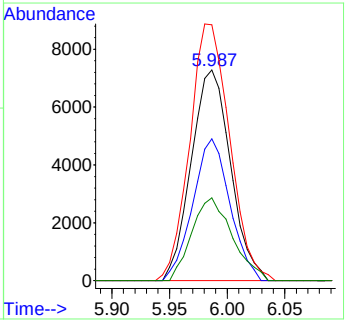


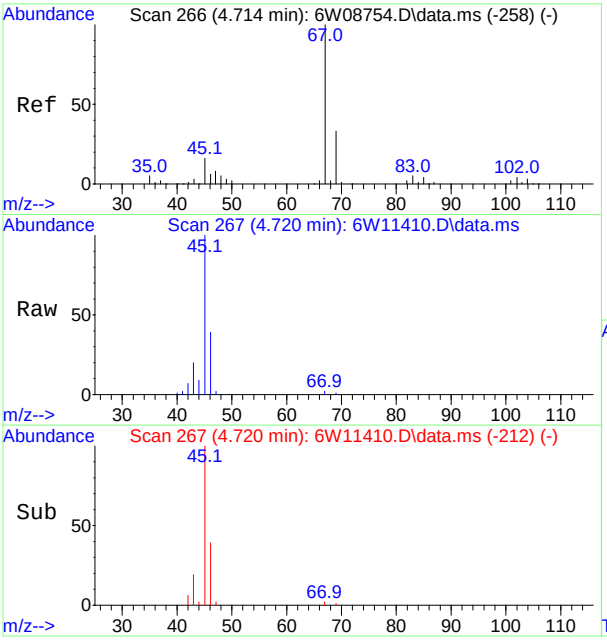


#30
Methylene Chloride
Concen: 1.02 ppb(v)
RT: 5.987 min Scan# 474
Delta R.T. -0.006 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 84 Resp: 17262

Ion	Ratio	Lower	Upper
84	100		
86	67.3	45.5	84.5
49	121.4	79.5	147.7
51	39.2	24.6	45.6

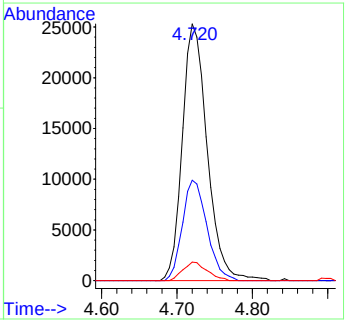


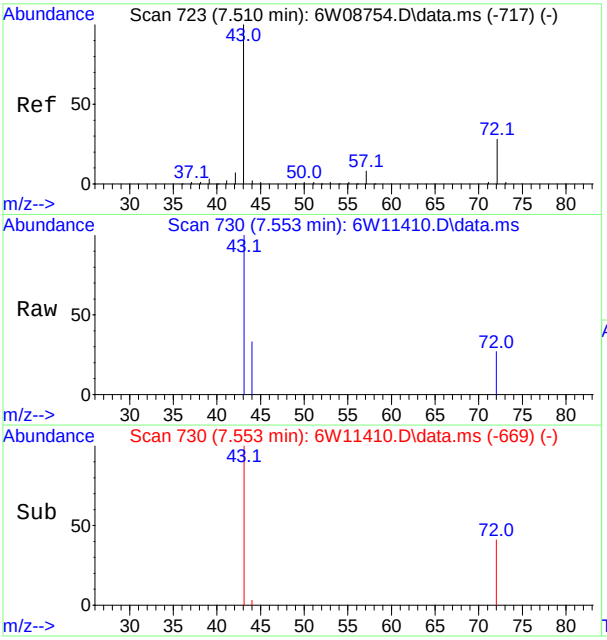


#32
Ethanol
Concen: 9.17 ppb(v)
RT: 4.720 min Scan# 267
Delta R.T. 0.006 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 45 Resp: 58191

Ion	Ratio	Lower	Upper
45	100		
46	39.2	26.9	49.9
42	7.3	6.0	11.2

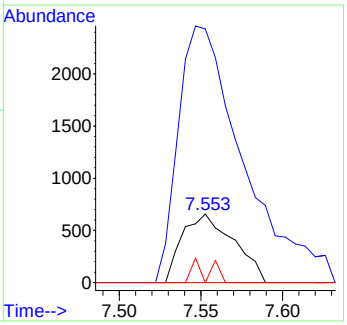


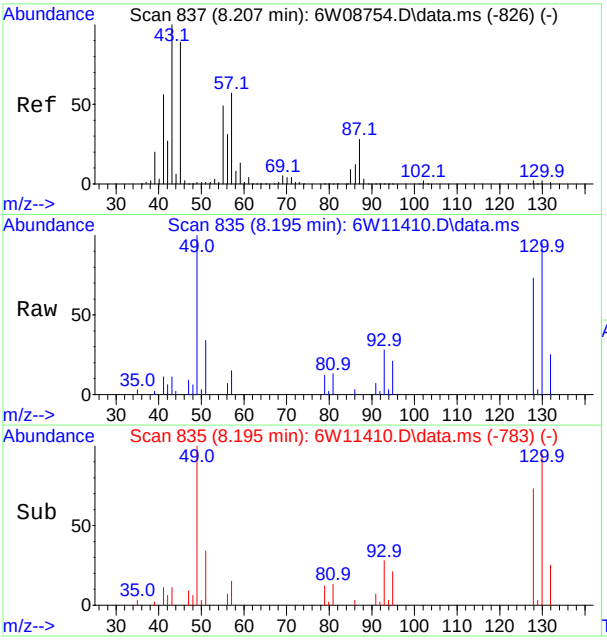


#40
2-Butanone
Concen: 0.19 ppb(v)
RT: 7.553 min Scan# 730
Delta R.T. 0.043 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 72 Resp: 1441

Ion	Ratio	Lower	Upper
72	100		
43	369.3	255.4	474.4
57	0.0	20.7	38.5#

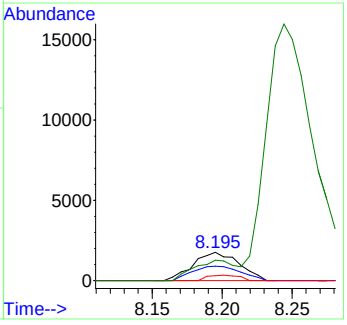


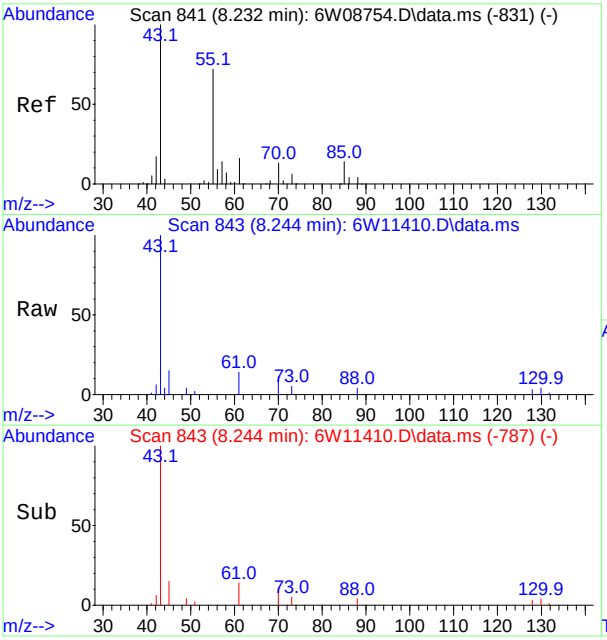


#41
Hexane
Concen: 0.16 ppb(v)
RT: 8.195 min Scan# 835
Delta R.T. -0.012 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 57 Resp: 4052

Ion	Ratio	Lower	Upper
57	100		
56	50.6	37.7	70.1
86	17.2	14.4	26.8
43	72.0	123.5	229.4#

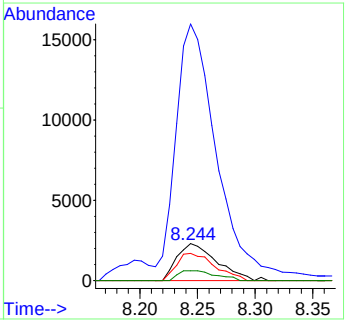


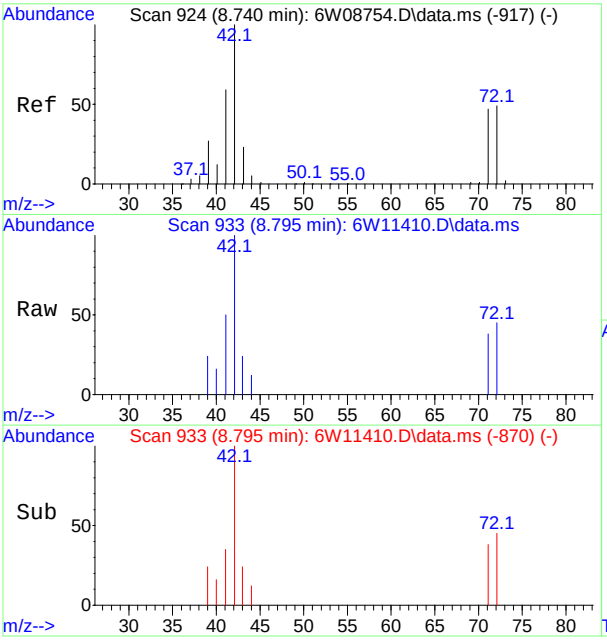


#44
Ethyl Acetate
Concen: 1.15 ppb(v)
RT: 8.244 min Scan# 843
Delta R.T. 0.012 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 61 Resp: 5597

Ion	Ratio	Lower	Upper
61	100		
43	690.7	546.6	1015.0
70	73.1	57.2	106.2
88	26.8	23.1	42.9

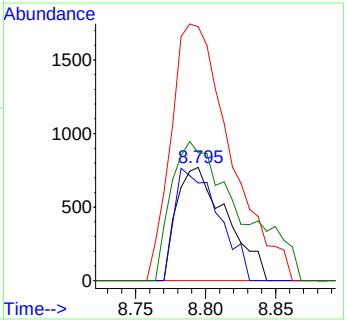


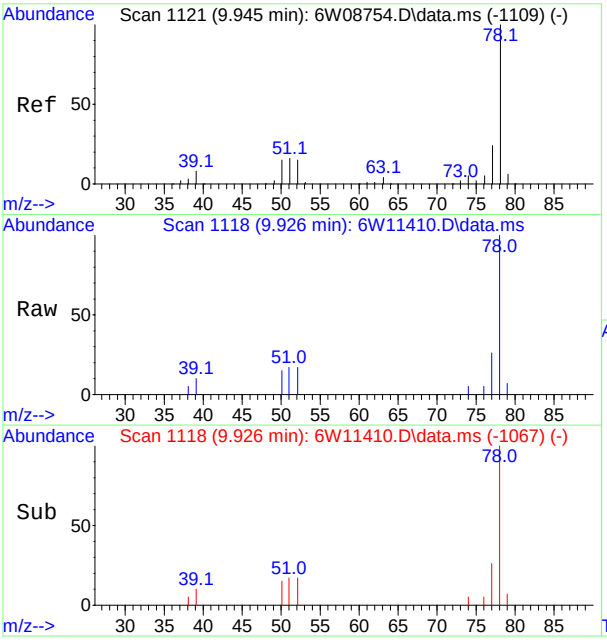


#48
Tetrahydrofuran
Concen: 0.27 ppb(v)
RT: 8.795 min Scan# 933
Delta R.T. 0.055 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 72 Resp: 1915

Ion	Ratio	Lower	Upper
72	100		
71	86.2	66.6	123.8
42	224.2	141.5	262.9
41	113.0	83.2	154.6

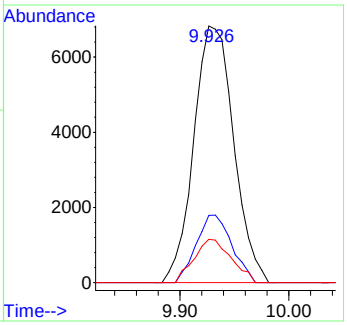


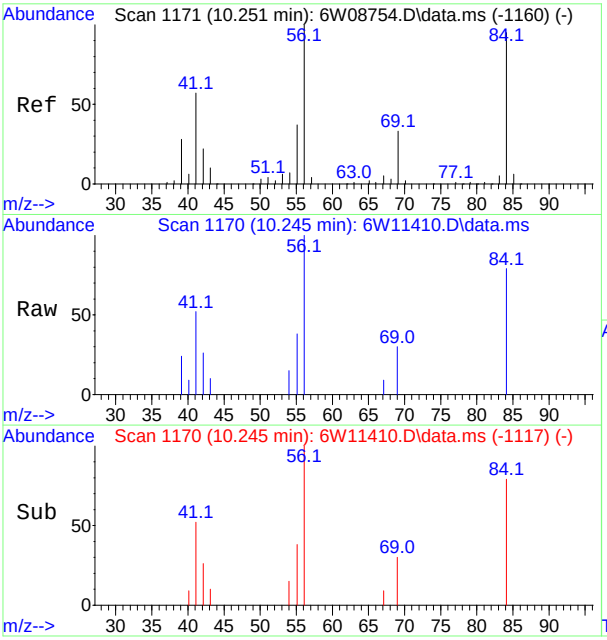


#51
Benzene
Concen: 0.32 ppb(v)
RT: 9.926 min Scan# 1118
Delta R.T. -0.018 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 78 Resp: 17443

Ion	Ratio	Lower	Upper
78	100		
77	26.2	16.7	30.9
51	16.9	11.3	21.1

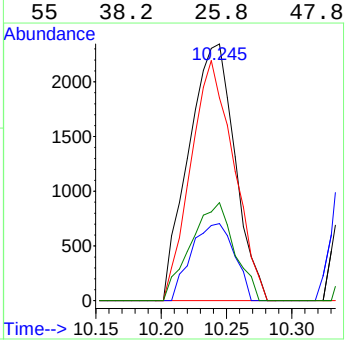




#53
Cyclohexane
Concen: 0.23 ppb(v)
RT: 10.245 min Scan# 1170
Delta R.T. -0.006 min
Lab File: 6W11410.D
Acq: 4 Apr 2019 7:44 pm

Tgt Ion: 56 Resp: 5788

Ion	Ratio	Lower	Upper
56	100		
69	30.0	23.2	43.2
84	79.0	66.2	123.0
55	38.2	25.8	47.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35996.D
Acq On : 6 Apr 2019 4:10 pm
Operator : gabriep
Sample : jc85165-3dup
Misc : ms33501,v5w1468,100,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 12:03:07 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

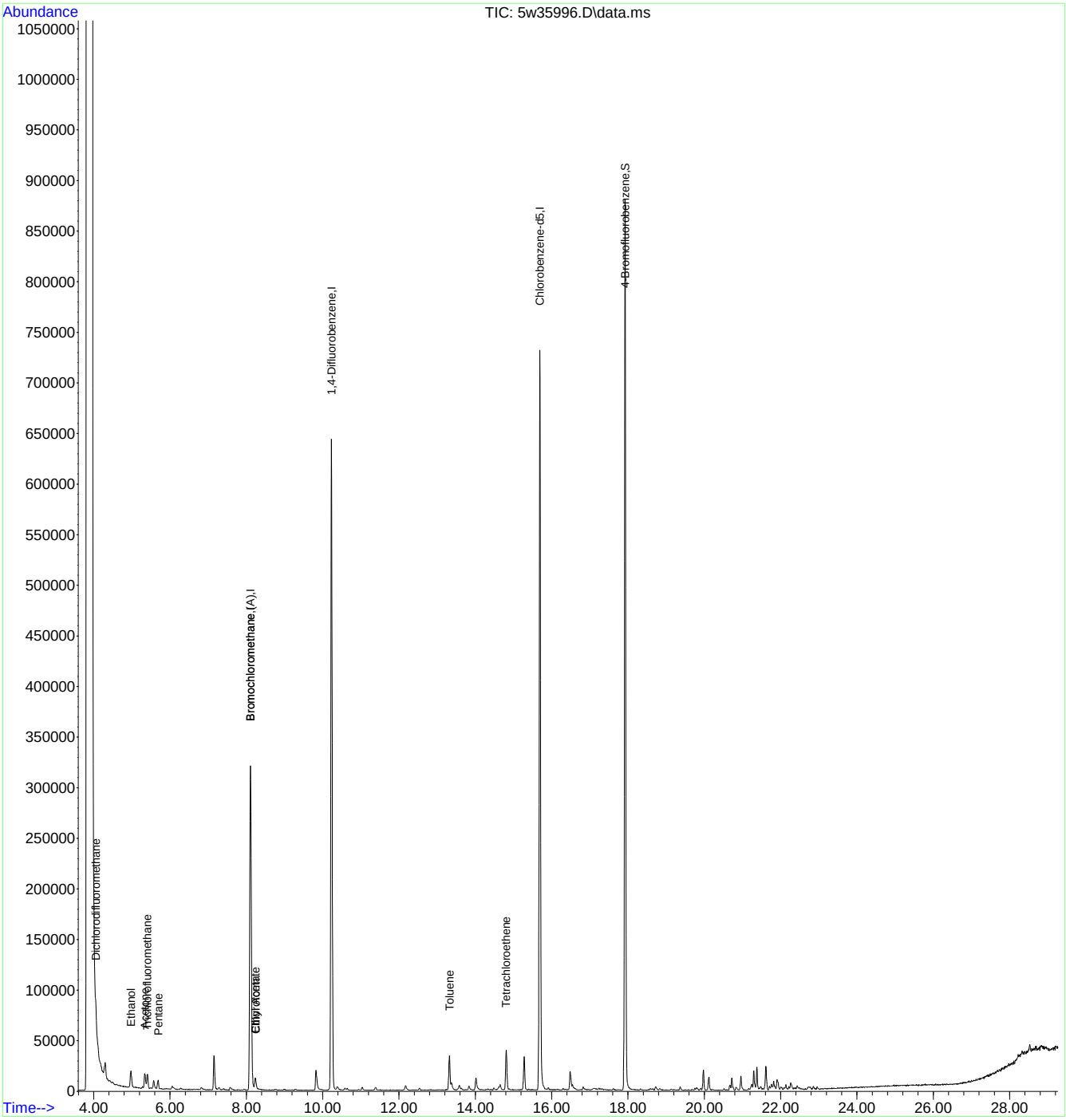
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.108	130	215663	10.00	ppb(v	0.01
55) 1,4-Difluorobenzene	10.231	114	728954	10.00	ppb(v	0.02
78) Chlorobenzene-d5	15.688	82	278006	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.108	130	215662	10.00	ppb(v	0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.921	95	350051	9.68	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 96.80%			
Target Compounds						Qvalue
7) Dichlorodifluoromethane	4.058	85	11737	0.23	ppb(v	99
22) Trichlorofluoromethane	5.404	101	12467	0.26	ppb(v	95
23) Acetone	5.336	58	7946	1.83	ppb(v	98
24) Pentane	5.691	57	896	0.27	ppb(v	80
32) Ethanol	4.982	45	24239	6.61	ppb(v	99
44) Ethyl Acetate	8.236	61	1474	0.34	ppb(v	95
46) Chloroform	8.242	83	4219	0.10	ppb(v	89
68) Toluene	13.320	91	34498	0.51	ppb(v	98
74) Tetrachloroethene	14.807	166	17179	0.33	ppb(v	95

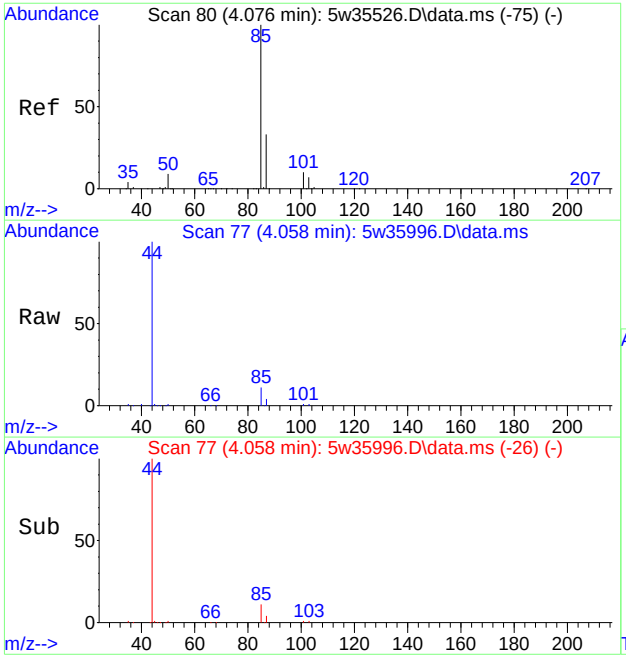
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35996.D
Acq On : 6 Apr 2019 4:10 pm
Operator : gabriep
Sample : jc85165-3dup
Misc : ms33501,v5w1468,100,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 12:03:07 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

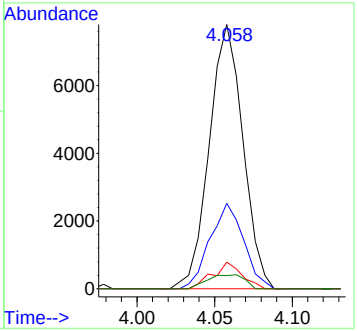


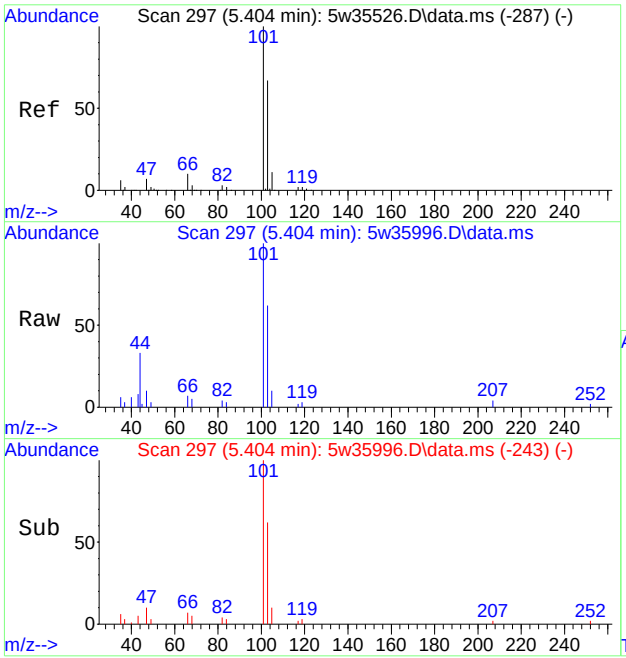


#7
Dichlorodifluoromethane
Concen: 0.23 ppb(v)
RT: 4.058 min Scan# 77
Delta R.T. -0.018 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 85 Resp: 11737

Ion	Ratio	Lower	Upper
85	100		
87	32.3	22.9	42.5
101	10.1	6.9	12.7
103	5.0	4.5	8.5

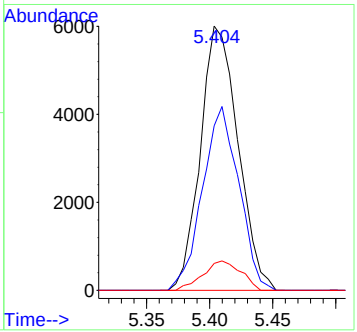


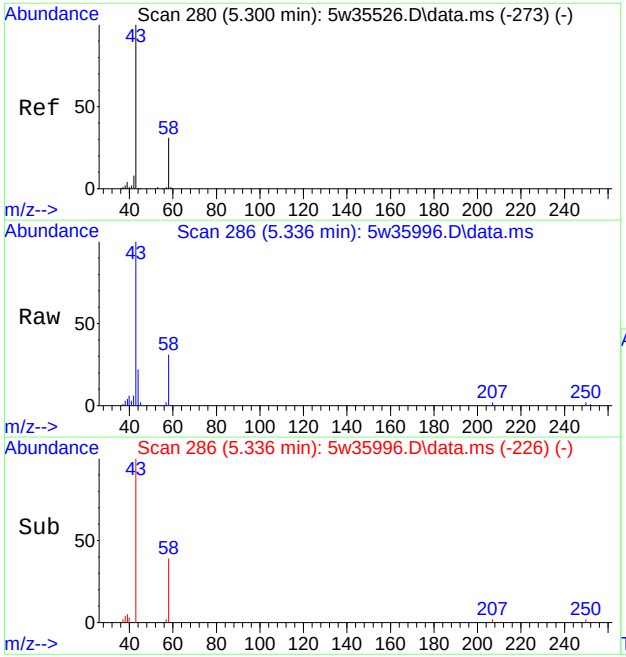


#22
Trichlorofluoromethane
Concen: 0.26 ppb(v)
RT: 5.404 min Scan# 297
Delta R.T. -0.000 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion:101 Resp: 12467

Ion	Ratio	Lower	Upper
101	100		
103	62.2	46.6	86.6
105	10.2	7.3	13.7

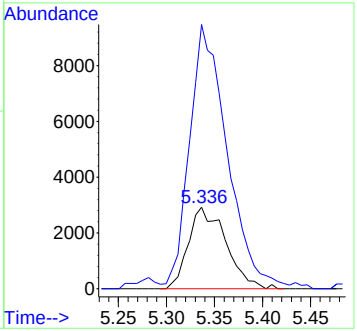


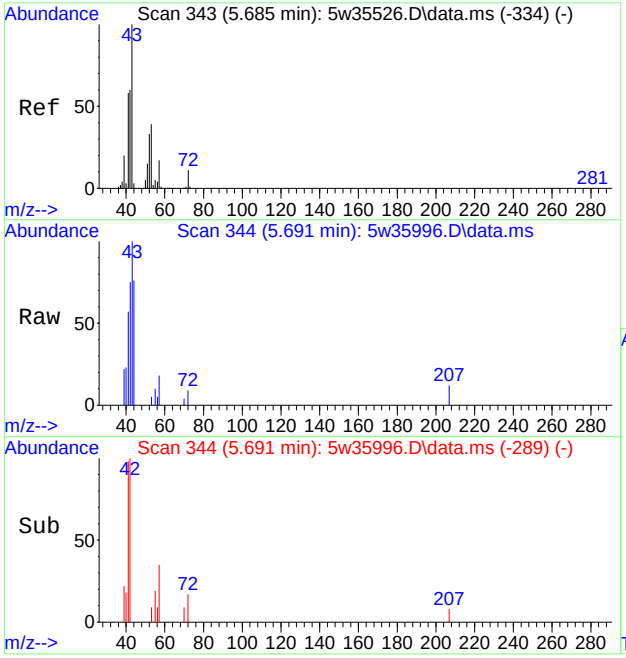


#23
Acetone
Concen: 1.83 ppb(v)
RT: 5.336 min Scan# 286
Delta R.T. 0.037 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 58 Resp: 7946

Ion	Ratio	Lower	Upper
58	100		
43	323.9	229.5	426.3

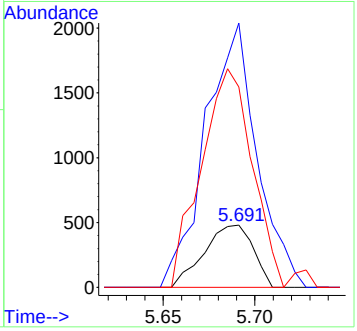


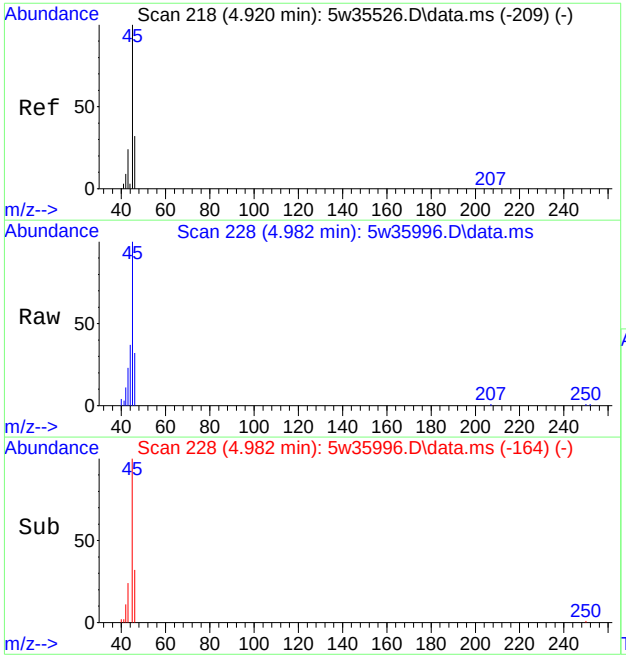


#24
Pentane
Concen: 0.27 ppb(v)
RT: 5.691 min Scan# 344
Delta R.T. 0.006 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 57 Resp: 896

Ion	Ratio	Lower	Upper
57	100		
42	425.0	252.9	469.7
41	322.3	243.5	452.3

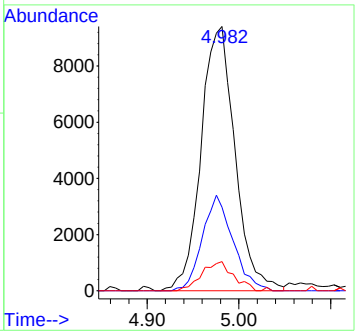


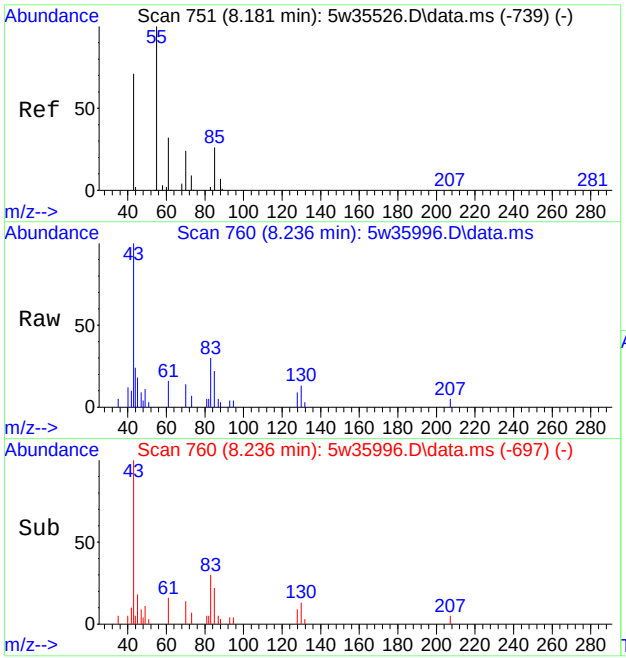


#32
Ethanol
Concen: 6.61 ppb(v)
RT: 4.982 min Scan# 228
Delta R.T. 0.062 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 45 Resp: 24239

Ion	Ratio	Lower	Upper
45	100		
46	31.6	22.3	41.5
42	11.1	7.4	13.8

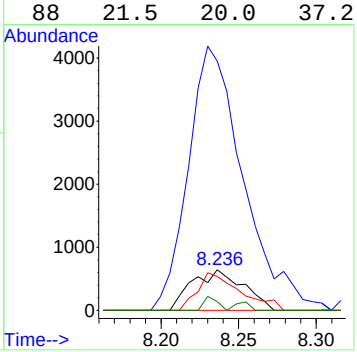


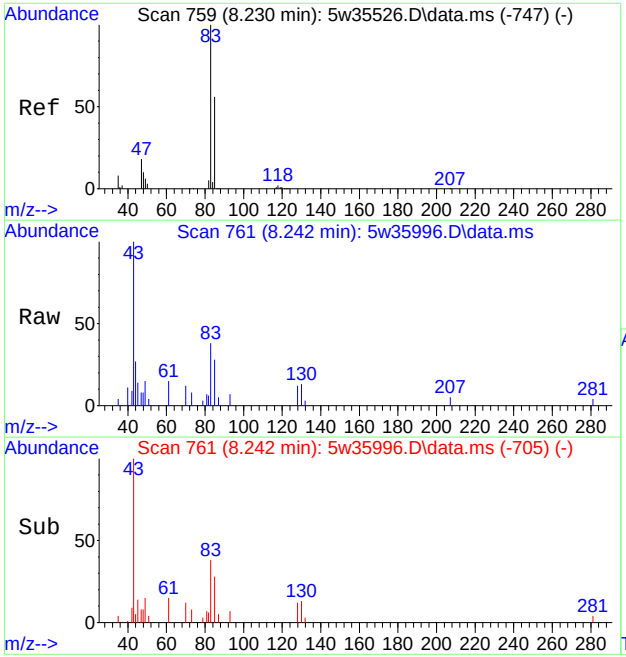


#44
Ethyl Acetate
Concen: 0.34 ppb(v)
RT: 8.236 min Scan# 760
Delta R.T. 0.055 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 61 Resp: 1474

Ion	Ratio	Lower	Upper
61	100		
43	613.8	439.2	815.6
70	83.4	55.4	102.8
88	21.5	20.0	37.2

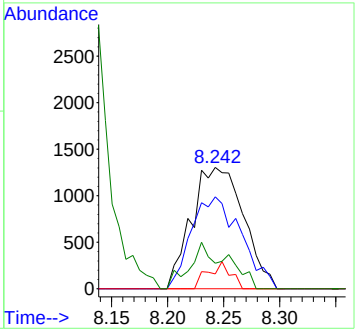


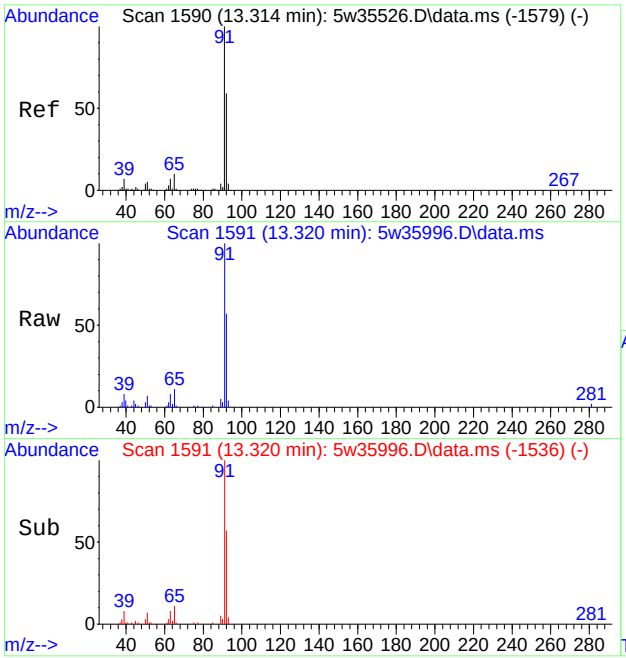


#46
Chloroform
Concen: 0.10 ppb(v)
RT: 8.242 min Scan# 761
Delta R.T. 0.012 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 83 Resp: 4219

Ion	Ratio	Lower	Upper
83	100		
85	75.8	45.7	84.9
87	12.3	7.5	13.9
47	21.2	12.8	23.8

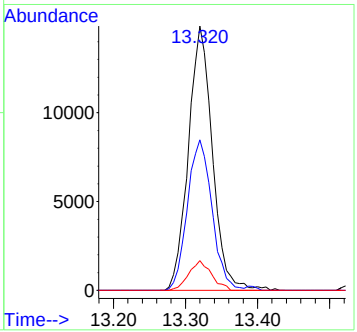


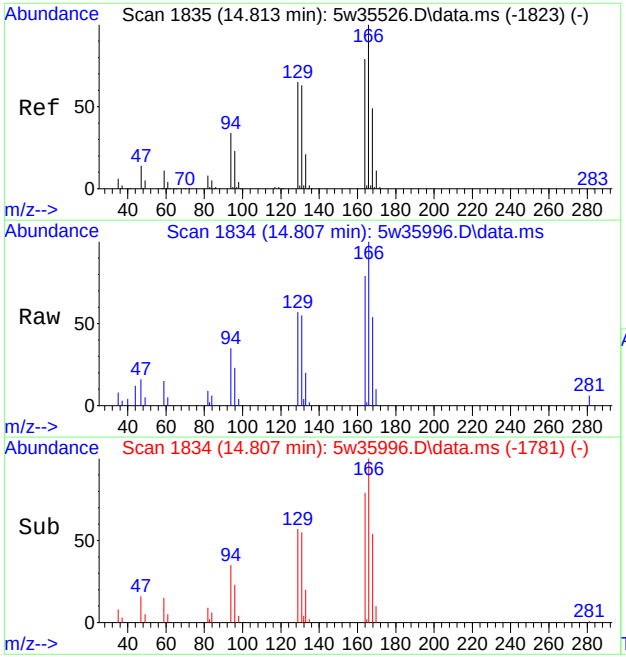


#68
Toluene
Concen: 0.51 ppb(v)
RT: 13.320 min Scan# 1591
Delta R.T. 0.006 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion: 91 Resp: 34498

Ion	Ratio	Lower	Upper
91	100		
92	56.9	41.0	76.2
65	11.2	7.0	13.0

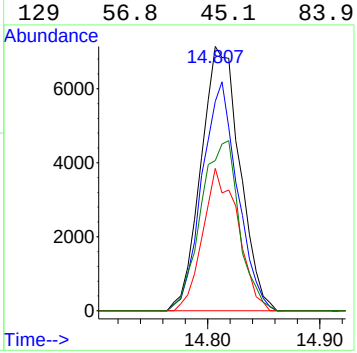




#74
Tetrachloroethene
Concen: 0.33 ppb(v)
RT: 14.807 min Scan# 1834
Delta R.T. -0.006 min
Lab File: 5w35996.D
Acq: 6 Apr 2019 4:10 pm

Tgt Ion:166 Resp: 17179

Ion	Ratio	Lower	Upper
166	100		
164	79.2	55.6	103.2
168	53.9	34.1	63.3
129	56.8	45.1	83.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11073.D
Acq On : 15 Mar 2019 5:00 am
Operator : thomash
Sample : scc(a814),cp10276
Misc : MS33081,V6W443,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 15 17:22:46 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.164	130	201583	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	734919	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	281090	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.164	130	201583	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	293781	8.56	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 85.60%			
Target Compounds						Qvalue

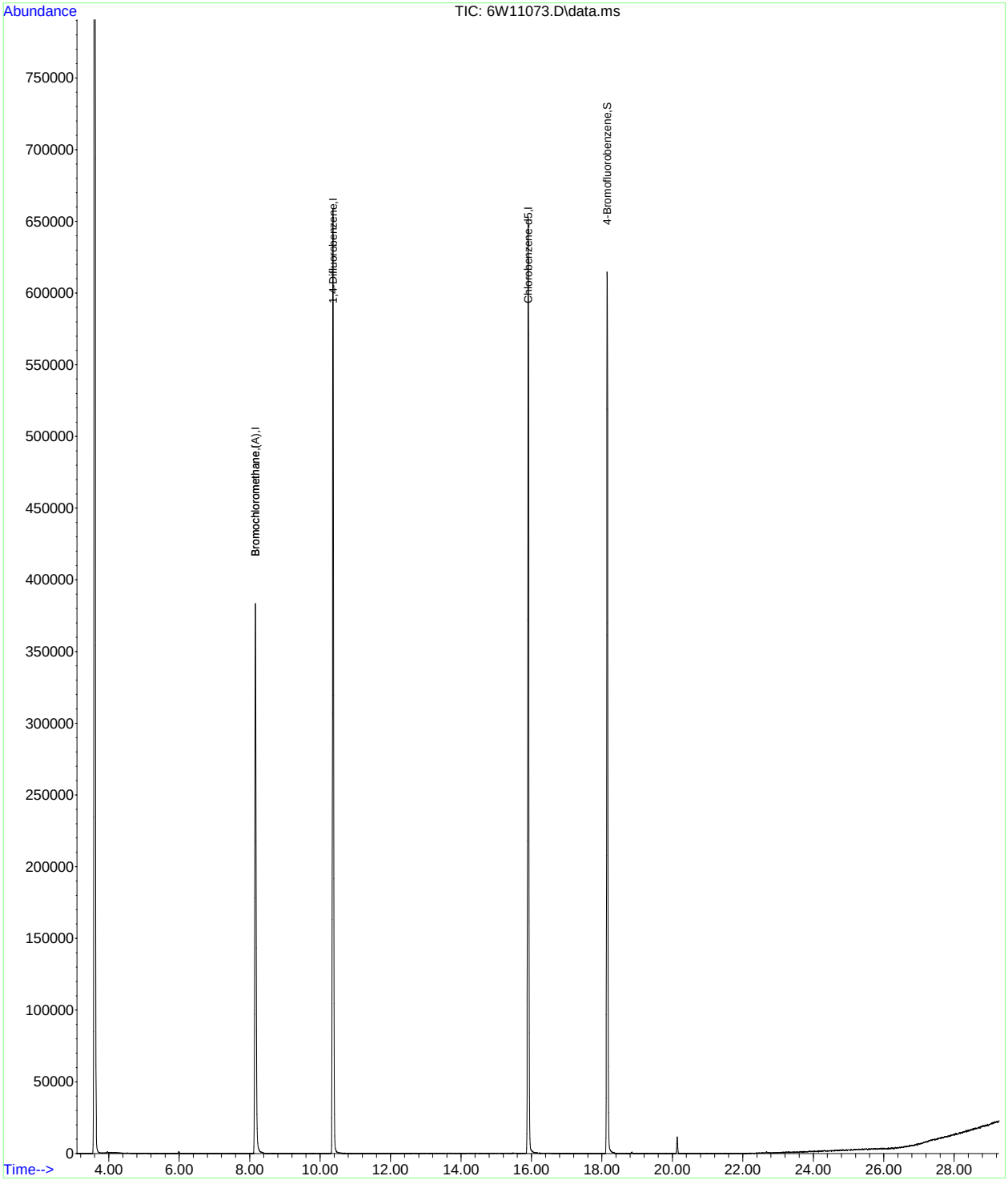
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.5.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11073.D
Acq On : 15 Mar 2019 5:00 am
Operator : thomash
Sample : scc(a814),cp10276
Misc : MS33081,V6W443,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 15 17:22:46 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

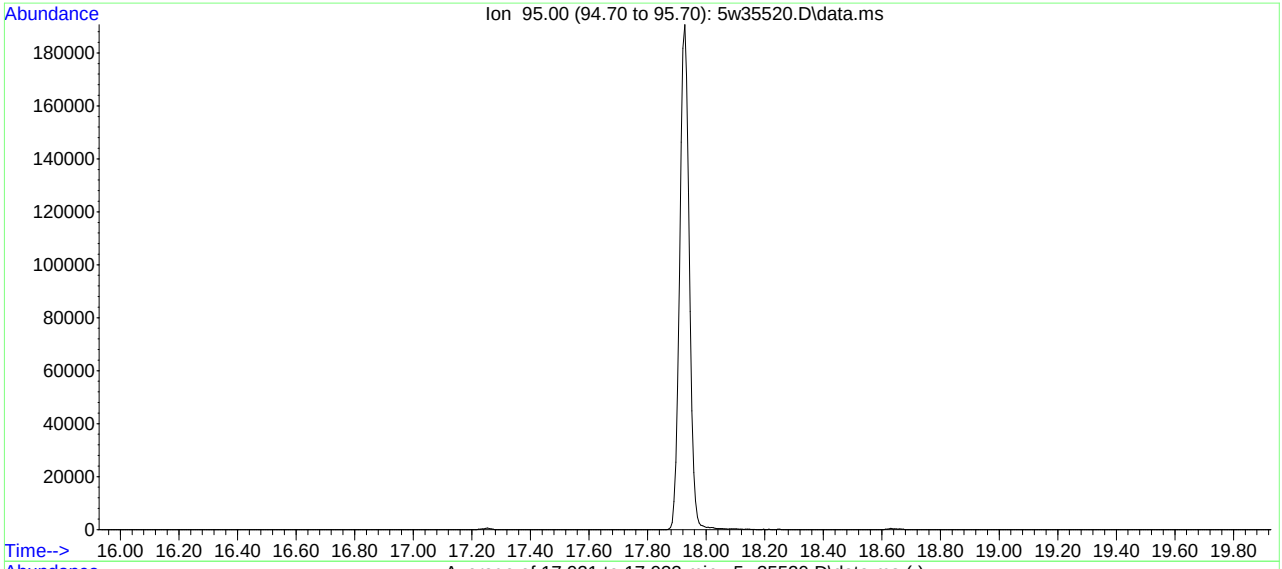


6w335.M Fri Mar 15 17:23:58 2019 Page: 2

BFB

Data File : C:\msdchem\1\data\5w35520.D Vial: 1
Acq On : 12 Mar 2019 12:00 pm Operator: danat
Sample : bfb Inst : Air5w
Misc : ms32850,v5w1449,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1449.M (RTE Integrator)
Title : TO-15 Full Scan Mode



AutoFind: Scans 2343, 2344, 2345; Background Corrected with Scan 2332

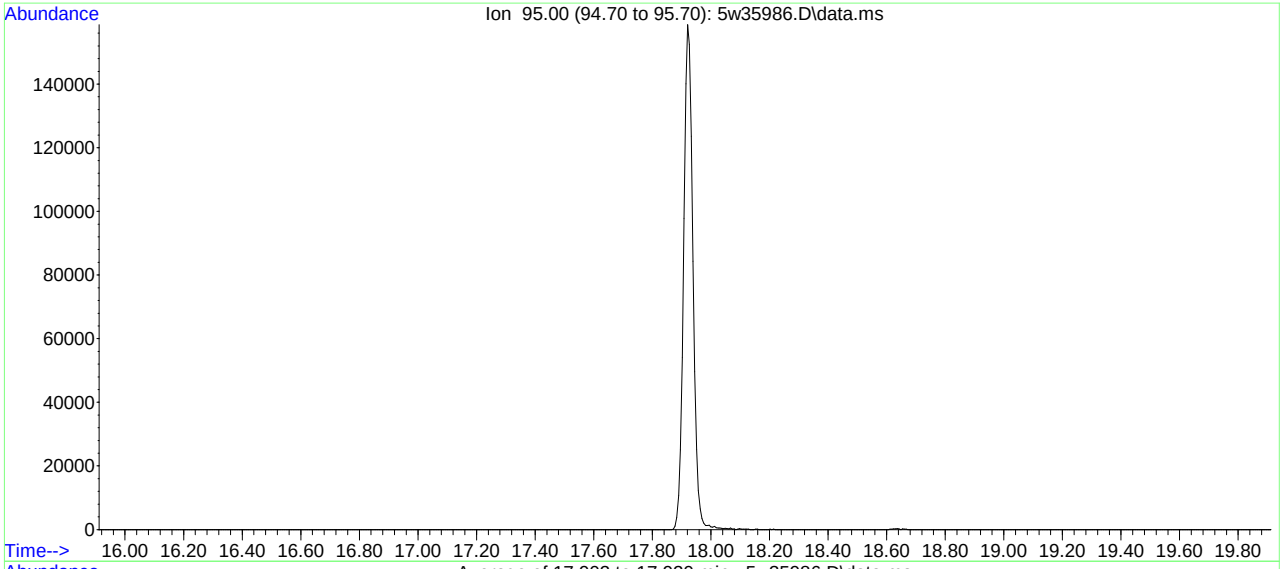
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.3	25933	PASS
75	95	30	66	43.2	78333	PASS
95	95	100	100	100.0	181205	PASS
96	95	5	9	6.7	12094	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	113.0	204757	PASS
175	174	4	9	7.2	14814	PASS
176	174	93	101	96.8	198229	PASS
177	176	5	9	6.6	13085	PASS

5w35520.D m5w1449.M Wed Mar 13 15:20:24 2019

BFB

Data File : C:\msdchem\1\data\5w35986.D Vial: 1
Acq On : 6 Apr 2019 7:34 am Operator: gabriep
Sample : bfb Inst : Air5w
Misc : ms33645,v5w1468,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\m5w1449.M (RTE Integrator)
Title : TO-15 Full Scan Mode



Spectrum Information: Average of 17.902 to 17.920 min.

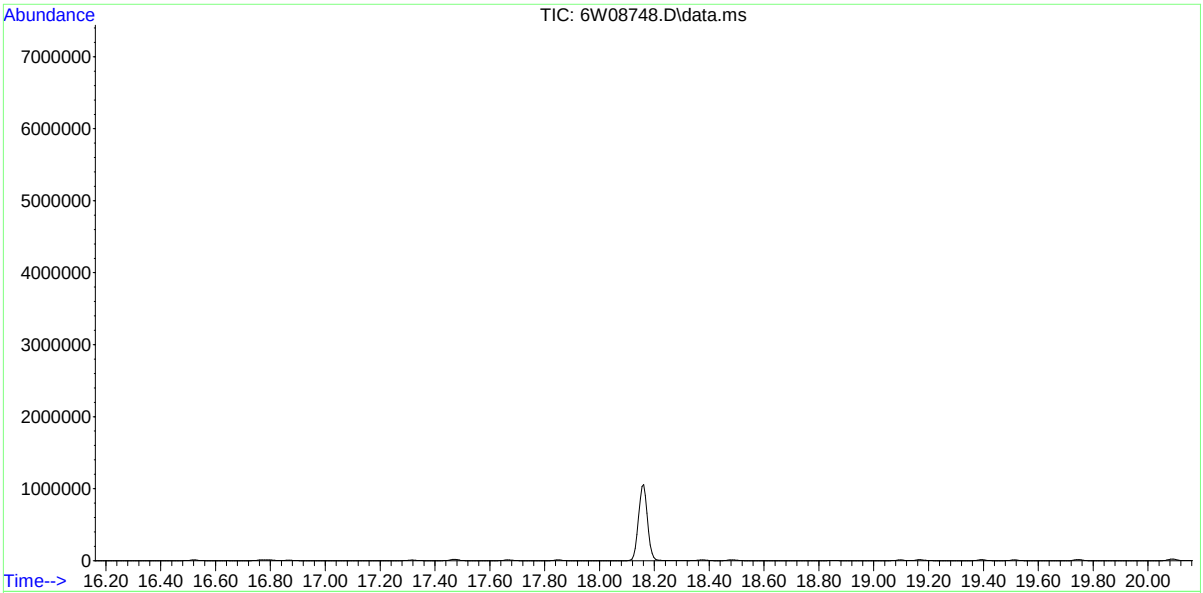
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.2	18230	PASS
75	95	30	66	48.0	54128	PASS
95	95	100	100	100.0	112696	PASS
96	95	5	9	7.0	7914	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	115.2	129816	PASS
175	174	4	9	7.9	10196	PASS
176	174	93	101	95.7	124218	PASS
177	176	5	9	6.4	8009	PASS

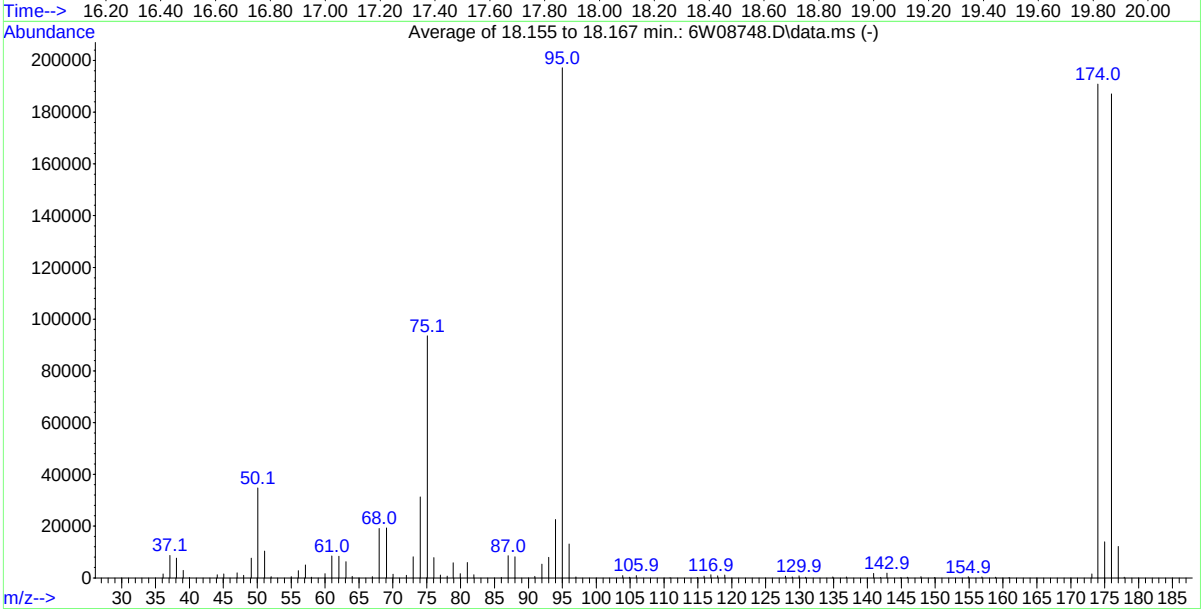
5w35986.D m5w1449.M Mon Apr 08 09:29:34 2019

BFB

Data File : C:\msdchem\1\data\6W08748.D Vial: 2
Acq On : 22 Oct 2018 12:00 pm Operator: paulcw
Sample : BFB Inst : GCMS6W
Misc : MS30116,V6W335,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode





AutoFind: Scans 2463, 2464, 2465; Background Corrected with Scan 2452

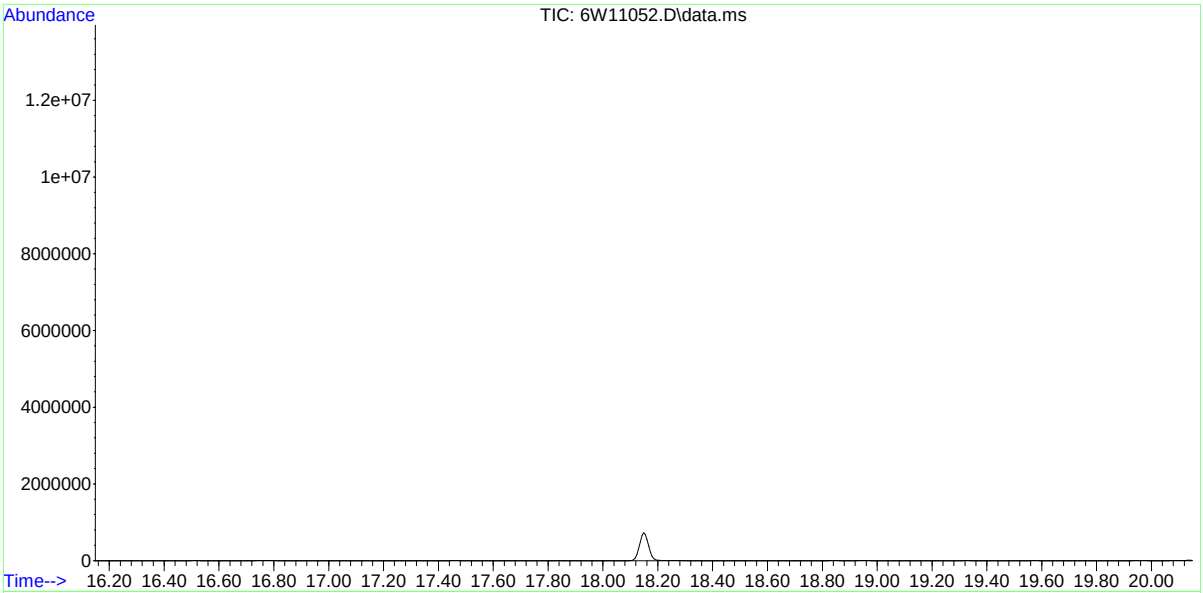
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.6	34776	PASS
75	95	30	66	47.5	93560	PASS
95	95	100	100	100.0	197120	PASS
96	95	5	9	6.6	13073	PASS
173	174	0.00	2	0.8	1546	PASS
174	95	50	120	96.8	190869	PASS
175	174	4	9	7.3	13968	PASS
176	174	93	101	98.0	187051	PASS
177	176	5	9	6.5	12105	PASS

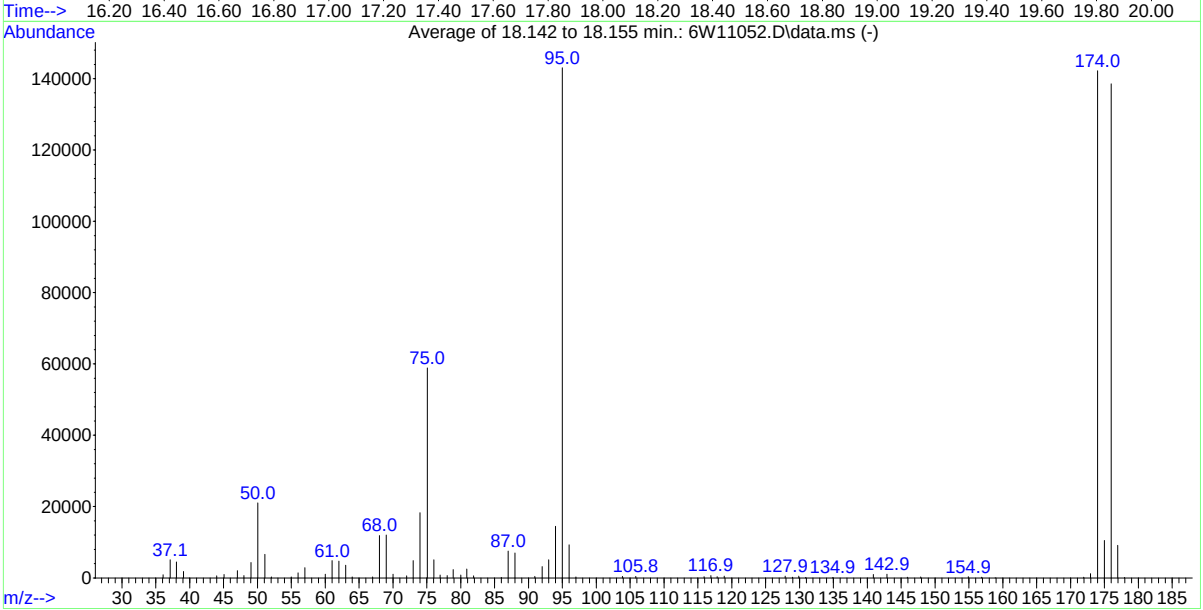
6W08748.D 6w335.M Tue Oct 23 09:41:07 2018

BFB

Data File : C:\msdchem\1\data\6W11052.D Vial: 1
Acq On : 14 Mar 2019 10:03 am Operator: thomash
Sample : bfb Inst : GCMS6W
Misc : MS32960,V6W443,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode





AutoFind: Scans 2461, 2462, 2463; Background Corrected with Scan 2451

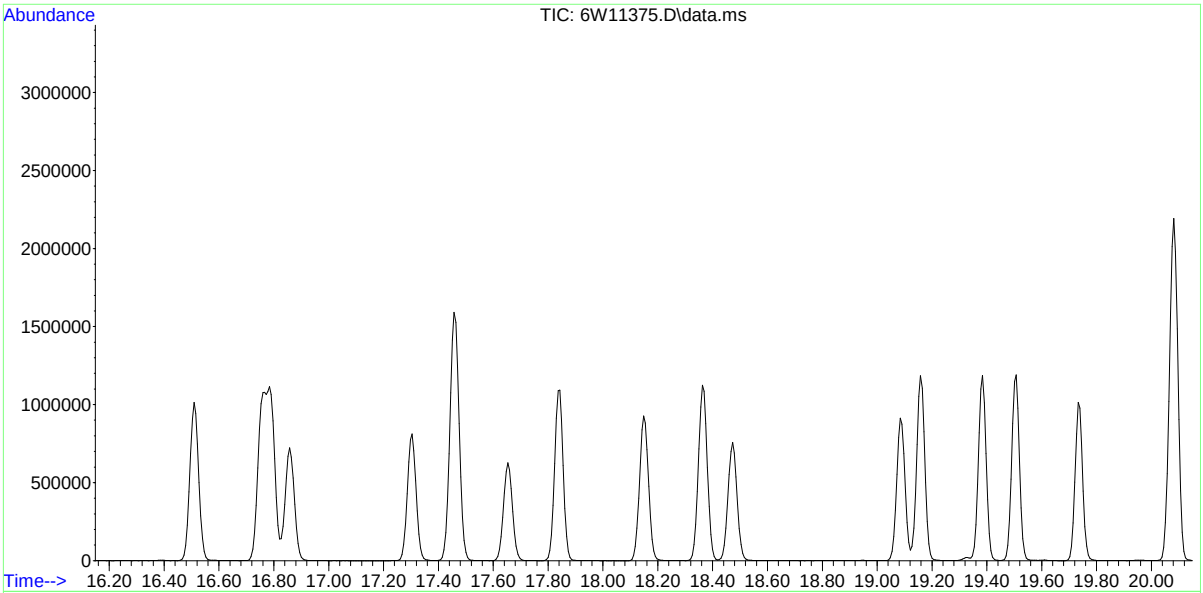
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.7	21045	PASS
75	95	30	66	41.2	58899	PASS
95	95	100	100	100.0	143040	PASS
96	95	5	9	6.5	9314	PASS
173	174	0.00	2	0.8	1194	PASS
174	95	50	120	99.4	142208	PASS
175	174	4	9	7.4	10487	PASS
176	174	93	101	97.4	138520	PASS
177	176	5	9	6.6	9111	PASS

6W11052.D 6w335.M Fri Mar 15 17:26:00 2019

BFB

Data File : C:\msdchem\1\data\6W11375.D Vial: 5
Acq On : 3 Apr 2019 12:44 pm Operator: gabriep
Sample : bfb Inst : GCMS6W
Misc : MS33500,V6W457,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode



Spectrum Information: Average of 18.142 to 18.155 min.

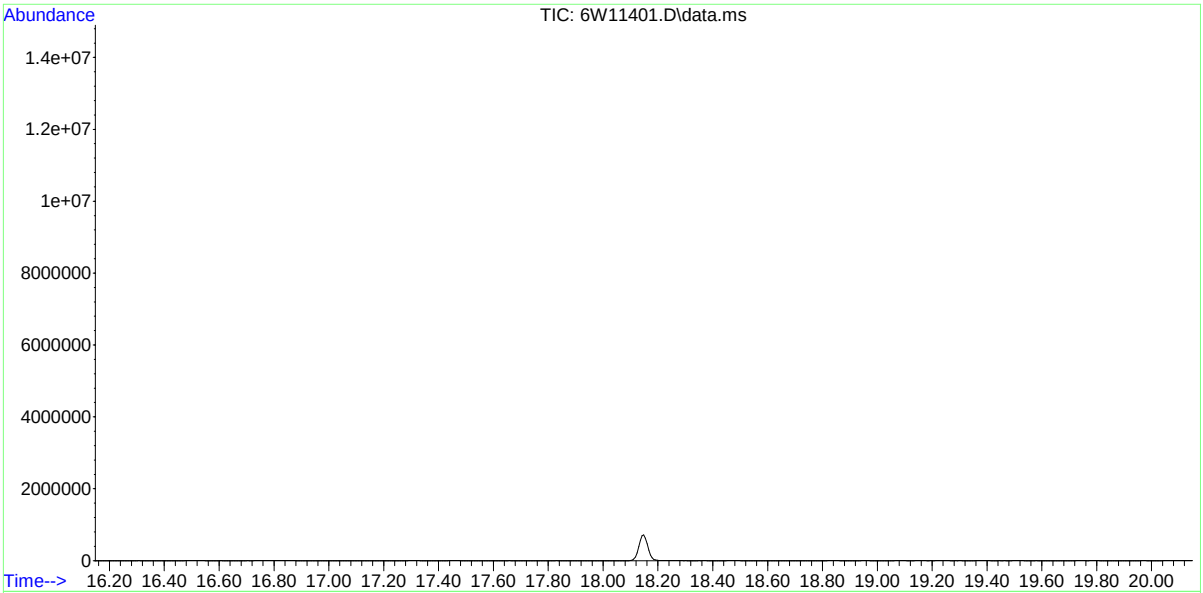
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.0	29152	PASS
75	95	30	66	42.8	77752	PASS
95	95	100	100	100.0	181845	PASS
96	95	5	9	6.7	12121	PASS
173	174	0.00	2	0.9	1575	PASS
174	95	50	120	97.5	177323	PASS
175	174	4	9	7.6	13502	PASS
176	174	93	101	97.3	172480	PASS
177	176	5	9	6.4	11103	PASS

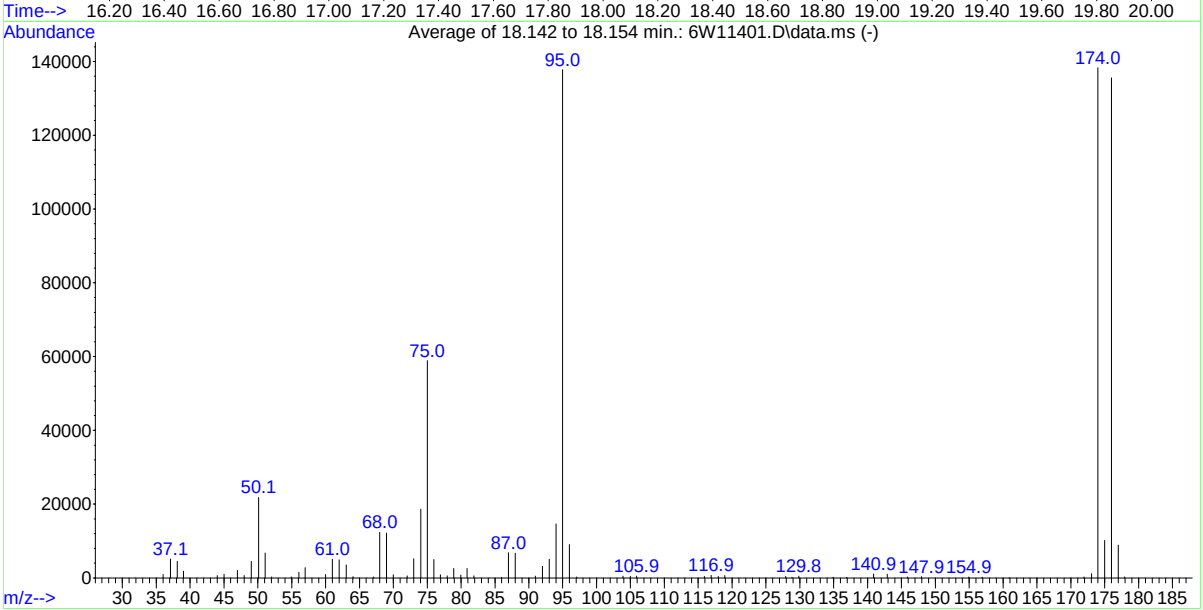
6W11375.D 6w335.M Thu Apr 04 10:02:15 2019

BFB

Data File : C:\msdchem\1\data\6W11401.D Vial: 2
Acq On : 4 Apr 2019 11:46 am Operator: gabriep
Sample : bfb Inst : GCMS6W
Misc : MS33500,V6W458,,,,,1 Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\msdchem\1\methods\6w335.M (RTE Integrator)
Title : TO-15 Full Scan Mode





Spectrum Information: Average of 18.142 to 18.154 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.8	21800	PASS
75	95	30	66	42.8	58917	PASS
95	95	100	100	100.0	137771	PASS
96	95	5	9	6.6	9079	PASS
173	174	0.00	2	0.8	1175	PASS
174	95	50	120	100.4	138283	PASS
175	174	4	9	7.3	10133	PASS
176	174	93	101	98.0	135541	PASS
177	176	5	9	6.6	8916	PASS

6W11401.D 6w335.M Fri Apr 05 08:50:02 2019

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35525.D
Acq On : 12 Mar 2019 4:17 pm
Operator : danat
Sample : ic1449-5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 16:58:13 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Jan 02 16:05:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.090	130	214650	10.00	ppb(v	#-0.04
55) 1,4-Difluorobenzene	10.212	114	752956	10.00	ppb(v	#-0.02
78) Chlorobenzene-d5	15.688	82	318001	10.00	ppb(v	-0.02
109) Bromochloromethane (A)	8.090	130	214650	10.00	ppb(v	#-0.04
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	421111	10.84	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 108.40%			
Target Compounds						Qvalue
3) Freon 152A	3.960	65	50395	4.08	ppb(v	88
4) Chlorodifluoromethane	4.003	67	24933	4.27	ppb(v	93
5) Propene	4.015	41	48627	3.42	ppb(v	95
6) Chlorotrifluoroethene	4.021	116	150776	5.24	ppb(v#	91
7) Dichlorodifluoromethane	4.076	85	259903	4.41	ppb(v	98
8) 1-Chloro-1,1-difluoroe...	4.180	65	166299	2.89	ppb(v	93
9) Chloromethane	4.199	50	51109	2.14	ppb(v	96
10) Dichlorotetrafluoroethane	4.272	85	198231	2.89	ppb(v#	80
11) Vinyl Chloride	4.364	62	55498	2.31	ppb(v	98
12) 1,3-Butadiene	4.462	54	35587	2.17	ppb(v	95
13) n-Butane	4.498	58	7690	2.30	ppb(v	71
14) Bromomethane	4.676	94	78437	3.01	ppb(v	98
15) Chloroethane	4.798	64	25505	2.27	ppb(v	97
16) Dichlorofluoromethane	4.872	67	149242	2.55	ppb(v	100
17) Acetonitrile	5.092	41	30203	1.65	ppb(v	97
18) Freon 123	5.196	83	168924	2.91	ppb(v	98
19) Freon 123A	5.239	117	111816	3.60	ppb(v	73
20) Bromoethene	5.074	106	80982	3.47	ppb(v	98
21) Acrolein	5.184	56	19508	1.95	ppb(v	93
22) Trichlorofluoromethane	5.404	101	244598	3.70	ppb(v	98
23) Acetone	5.294	58	20181	1.87	ppb(v	91
24) Pentane	5.679	57	18982	4.02	ppb(v	85
26) Iodomethane	5.881	142	330201	5.41	ppb(v	94
27) Isopropyl Alcohol	5.502	43	21965	2.24	ppb(v	86
28) 1,1-Dichloroethene	5.936	61	128524	3.76	ppb(v	89
29) Freon 113	6.266	101	216573	4.58	ppb(v	89
30) Methylene Chloride	6.052	84	81622	3.81	ppb(v	83
31) Carbon Disulfide	6.309	76	254192	4.35	ppb(v	100
32) Ethanol	4.921	45	14833	1.36	ppb(v	96
33) Acrylonitrile	5.679	53	53125	3.28	ppb(v	99
34) 3-Chloropropene	6.150	76	38759	4.43	ppb(v	69
35) trans-1,2-Dichloroethene	6.890	61	118012	3.96	ppb(v	85
36) tert-Butyl Alcohol	6.010	59	153338	3.84	ppb(v	92
37) Methyl tert-Butyl Ether	7.160	73	241197	4.38	ppb(v	92
38) Vinyl Acetate	7.245	43	175961	3.25	ppb(v	94
39) 1,1-Dichloroethane	7.086	63	156554	3.99	ppb(v	98
40) 2-Butanone	7.508	72	35334	3.78	ppb(v	70
41) Hexane	8.102	57	114922	3.79	ppb(v	91
42) cis-1,2-Dichloroethene	7.924	61	119279	3.97	ppb(v	83
43) Di-isopropyl Ether	8.132	87	75392	4.56	ppb(v	70
44) Ethyl Acetate	8.181	61	24174	4.01	ppb(v	68
45) Methyl Acrylate	8.163	55	121918	3.39	ppb(v	92
46) Chloroform	8.230	83	223278	4.39	ppb(v	96
47) 2,4-Dimethylpentane	9.044	57	137435	3.92	ppb(v	96
48) Tetrahydrofuran	8.689	72	36422	4.42	ppb(v	77
49) 1,1,1-Trichloroethane	9.270	97	232665	4.88	ppb(v	99
50) 1,2-Dichloroethane	9.007	62	129494	4.02	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35525.D
Acq On : 12 Mar 2019 4:17 pm
Operator : danat
Sample : ic1449-5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 16:58:13 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Jan 02 16:05:24 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.784	78	290421	4.47	ppb(v	96
52)	Carbon Tetrachloride	9.955	117	243294	5.66	ppb(v	98
53)	Cyclohexane	10.078	56	117674	3.95	ppb(v	90
54)	2,3-Dimethylpentane	10.359	71	56482	4.31	ppb(v	88
56)	2,2,4-Trimethylpentane	11.032	57	389715	3.90	ppb(v	95
57)	Heptane	11.375	71	86258	4.33	ppb(v	94
58)	Trichloroethene	11.020	95	152451	4.58	ppb(v	92
59)	1,2-Dichloropropane	10.732	63	101124	3.97	ppb(v	93
60)	Dibromomethane	10.714	174	174545	5.63	ppb(v	77
61)	Ethyl Acrylate	10.787	55	172648	3.75	ppb(v#	94
62)	Methyl Methacrylate	11.307	69	90079	4.12	ppb(v	81
63)	1,4-Dioxane	11.069	88	62502	4.26	ppb(v	85
64)	Bromodichloromethane	10.977	83	245944	4.53	ppb(v	98
65)	cis-1,3-Dichloropropene	12.084	75	168086	4.61	ppb(v	96
66)	4-Methyl-2-pentanone	12.152	58	73686	4.21	ppb(v	80
67)	trans-1,3-Dichloropropene	12.757	75	148007	4.66	ppb(v	95
68)	Toluene	13.308	91	375761	4.97	ppb(v	97
69)	1,1,2-Trichloroethane	12.965	97	140880	5.09	ppb(v	95
70)	1,3-Dichloropropane	13.357	76	163472	4.44	ppb(v#	88
71)	2-Hexanone	13.706	58	90730	3.75	ppb(v	85
72)	Ethyl Methacrylate	13.736	69	154661	4.35	ppb(v	94
73)	Dibromochloromethane	13.865	129	297340	6.03	ppb(v	97
74)	Tetrachloroethene	14.807	166	255768	6.06	ppb(v	96
75)	1,2-Dibromoethane	14.177	107	226935	5.11	ppb(v	99
76)	Octane	14.648	43	169870	3.79	ppb(v	90
77)	1,1,1,2-Tetrachloroethane	15.731	131	199084	5.96	ppb(v	99
79)	Chlorobenzene	15.749	112	327990	5.75	ppb(v	92
80)	Ethylbenzene	16.293	91	472988	5.65	ppb(v	97
81)	m,p-Xylene	16.563	91	727677	10.77	ppb(v	97
82)	Styrene	17.089	104	274490	6.15	ppb(v	96
83)	Nonane	17.621	43	150587	3.91	ppb(v#	92
84)	o-Xylene	17.236	91	374692	5.66	ppb(v	97
85)	Bromoform	16.636	173	307035	8.14	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.242	83	278849	5.52	ppb(v	98
87)	1,2,3-Trichloropropane	17.431	75	190920	5.20	ppb(v	93
88)	Isopropylbenzene	18.141	105	518089	5.83	ppb(v	94
89)	Bromobenzene	18.251	156	198015	6.85	ppb(v	78
90)	2-Chlorotoluene	18.875	126	142107	7.12	ppb(v#	78
91)	n-Propylbenzene	18.955	120	141233	6.53	ppb(v	80
93)	4-Ethyltoluene	19.181	105	484854	6.20	ppb(v	97
94)	1,3,5-Trimethylbenzene	19.309	105	410774	6.00	ppb(v	95
95)	alpha-Methylstyrene	19.548	118	206779	6.85	ppb(v	97
96)	tert-Butylbenzene	19.891	134	95710	6.66	ppb(v	81
97)	1,2,4-Trimethylbenzene	19.909	105	399024	6.21	ppb(v	93
98)	1,3-Dichlorobenzene	20.099	146	287906	6.85	ppb(v	92
99)	Benzyl Chloride	20.092	91	260392	7.63	ppb(v	94
100)	1,4-Dichlorobenzene	20.203	146	272138	6.66	ppb(v	93
101)	sec-Butylbenzene	20.288	134	117333	6.96	ppb(v	79
102)	p-Isopropyltoluene	20.527	134	129563	7.11	ppb(v	90
103)	1,2-Dichlorobenzene	20.674	146	268396	7.15	ppb(v	93
104)	n-Butylbenzene	21.108	134	107044	8.07	ppb(v	78
105)	Hexachloroethane	21.579	201	190407	8.99	ppb(v	80
106)	1,2,4-Trichlorobenzene	22.931	180	80864	12.73	ppb(v	98
107)	Naphthalene	23.053	128	118496	13.84	ppb(v	98
108)	Hexachlorobutadiene	23.506	225	145578	10.89	ppb(v	99
110)	TVHC as equiv Pentane	5.679	TIC	433167	3.28	ppb(v	100
111)	2H,3H-Decafluoropentane	4.284	69	258434	2.66	ppb(v#	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35525.D
Acq On : 12 Mar 2019 4:17 pm
Operator : danat
Sample : ic1449-5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 16:58:13 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Jan 02 16:05:24 2019
Response via : Initial Calibration

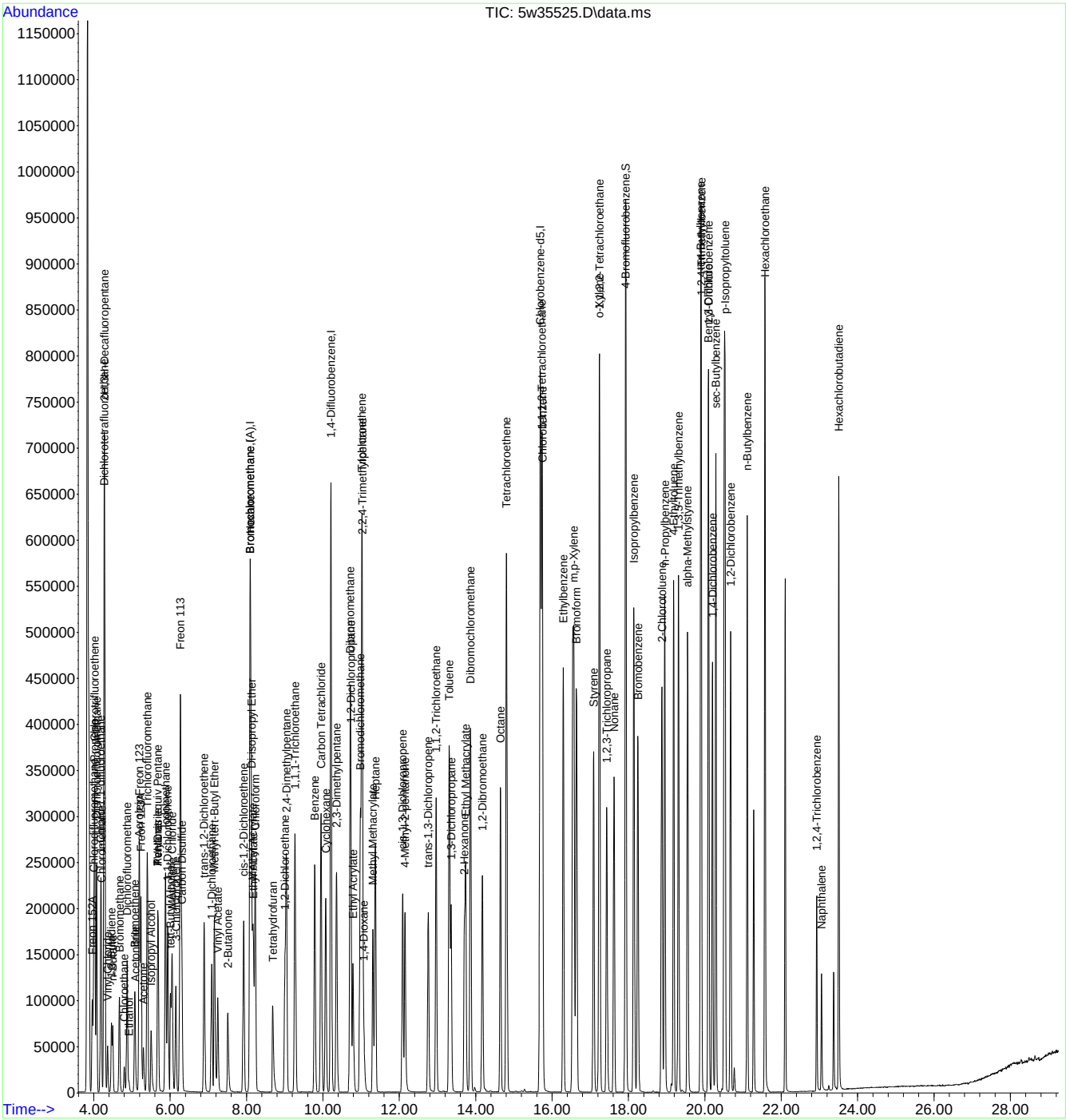
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35525.D
Acq On : 12 Mar 2019 4:17 pm
Operator : danat
Sample : ic1449-5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 16:58:13 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Jan 02 16:05:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35526.D
Acq On : 12 Mar 2019 5:02 pm
Operator : danat
Sample : icc1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 17:53:50 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 16:59:57 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.096	130	214470	10.00	ppb(v	# 0.00
55) 1,4-Difluorobenzene	10.212	114	744744	10.00	ppb(v	# 0.00
78) Chlorobenzene-d5	15.694	82	325282	10.00	ppb(v	# 0.00
109) Bromochloromethane (A)	8.096	130	214470	10.00	ppb(v	# 0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	445307	10.34	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.40%			
Target Compounds						Qvalue
3) Freon 152A	3.960	65	96812	9.61	ppb(v	91
4) Chlorodifluoromethane	3.997	67	46956	9.42	ppb(v	93
5) Propene	4.021	41	91388	9.40	ppb(v	98
6) Chlorotrifluoroethene	4.027	116	287848	9.55	ppb(v#	90
7) Dichlorodifluoromethane	4.076	85	494253	9.52	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	4.186	65	310755	9.35	ppb(v	93
9) Chloromethane	4.199	50	96555	9.45	ppb(v	98
10) Dichlorotetrafluoroethane	4.272	85	381086	9.62	ppb(v#	83
11) Vinyl Chloride	4.364	62	107876	9.73	ppb(v	99
12) 1,3-Butadiene	4.462	54	68100	9.58	ppb(v	96
13) n-Butane	4.498	58	14614	9.51	ppb(v	79
14) Bromomethane	4.676	94	149142	9.52	ppb(v	100
15) Chloroethane	4.804	64	47877	9.39	ppb(v	97
16) Dichlorofluoromethane	4.878	67	282156	9.46	ppb(v	97
17) Acetonitrile	5.098	41	56214	9.31	ppb(v	98
18) Freon 123	5.196	83	314223	9.31	ppb(v	98
19) Freon 123A	5.239	117	209188	9.36	ppb(v	73
20) Bromoethene	5.079	106	154359	9.54	ppb(v	97
21) Acrolein	5.183	56	37238	9.55	ppb(v	92
22) Trichlorofluoromethane	5.404	101	473730	9.69	ppb(v	98
23) Acetone	5.300	58	38472	9.54	ppb(v	91
24) Pentane	5.685	57	35675	9.40	ppb(v	92
26) Iodomethane	5.881	142	629806	9.54	ppb(v	92
27) Isopropyl Alcohol	5.508	43	40947	9.33	ppb(v	87
28) 1,1-Dichloroethene	5.942	61	249946	9.73	ppb(v	87
29) Freon 113	6.272	101	409501	9.46	ppb(v	90
30) Methylene Chloride	6.052	84	154859	9.49	ppb(v	83
31) Carbon Disulfide	6.309	76	483199	9.51	ppb(v	100
32) Ethanol	4.920	45	29059	9.80	ppb(v#	95
33) Acrylonitrile	5.679	53	103784	9.78	ppb(v	99
34) 3-Chloropropene	6.156	76	73679	9.51	ppb(v	70
35) trans-1,2-Dichloroethene	6.890	61	228536	9.69	ppb(v	89
36) tert-Butyl Alcohol	6.009	59	298614	9.75	ppb(v	91
37) Methyl tert-Butyl Ether	7.160	73	465982	9.67	ppb(v	92
38) Vinyl Acetate	7.245	43	341588	9.71	ppb(v	94
39) 1,1-Dichloroethane	7.092	63	295921	9.46	ppb(v	99
40) 2-Butanone	7.508	72	69783	9.88	ppb(v	70
41) Hexane	8.102	57	219985	9.58	ppb(v	90
42) cis-1,2-Dichloroethene	7.924	61	227408	9.54	ppb(v	84
43) Di-isopropyl Ether	8.132	87	142336	9.45	ppb(v	69
44) Ethyl Acetate	8.181	61	46434	9.61	ppb(v	74
45) Methyl Acrylate	8.169	55	235581	9.67	ppb(v	94
46) Chloroform	8.230	83	423831	9.50	ppb(v	96
47) 2,4-Dimethylpentane	9.044	57	265732	9.68	ppb(v	97
48) Tetrahydrofuran	8.683	72	73231	10.06	ppb(v	78
49) 1,1,1-Trichloroethane	9.276	97	441880	9.50	ppb(v	99
50) 1,2-Dichloroethane	9.007	62	243497	9.41	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35526.D
Acq On : 12 Mar 2019 5:02 pm
Operator : danat
Sample : icc1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 17:53:50 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 16:59:57 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.790	78	552985	9.53	ppb(v	96
52)	Carbon Tetrachloride	9.955	117	463666	9.54	ppb(v	98
53)	Cyclohexane	10.078	56	228637	9.72	ppb(v	91
54)	2,3-Dimethylpentane	10.359	71	106749	9.46	ppb(v	90
56)	2,2,4-Trimethylpentane	11.032	57	742821	9.64	ppb(v#	95
57)	Heptane	11.375	71	165386	9.69	ppb(v	94
58)	Trichloroethene	11.020	95	289889	9.61	ppb(v	89
59)	1,2-Dichloropropane	10.732	63	191612	9.58	ppb(v	95
60)	Dibromomethane	10.714	174	334108	9.68	ppb(v	79
61)	Ethyl Acrylate	10.787	55	340595	9.97	ppb(v	95
62)	Methyl Methacrylate	11.307	69	182587	10.25	ppb(v	79
63)	1,4-Dioxane	11.069	88	121992	9.87	ppb(v	85
64)	Bromodichloromethane	10.983	83	466394	9.59	ppb(v	99
65)	cis-1,3-Dichloropropene	12.090	75	317507	9.55	ppb(v	94
66)	4-Methyl-2-pentanone	12.152	58	144499	9.91	ppb(v	84
67)	trans-1,3-Dichloropropene	12.757	75	286408	9.78	ppb(v	94
68)	Toluene	13.314	91	724850	9.75	ppb(v	99
69)	1,1,2-Trichloroethane	12.965	97	273225	9.80	ppb(v	96
70)	1,3-Dichloropropane	13.357	76	316327	9.78	ppb(v#	88
71)	2-Hexanone	13.705	58	180654	10.07	ppb(v	83
72)	Ethyl Methacrylate	13.736	69	308592	10.09	ppb(v	94
73)	Dibromochloromethane	13.865	129	556076	9.45	ppb(v	97
74)	Tetrachloroethene	14.813	166	485698	9.60	ppb(v	95
75)	1,2-Dibromoethane	14.177	107	443369	9.88	ppb(v	98
76)	Octane	14.648	43	339148	10.09	ppb(v	88
77)	1,1,1,2-Tetrachloroethane	15.737	131	392204	9.96	ppb(v	94
79)	Chlorobenzene	15.749	112	645235	9.62	ppb(v	92
80)	Ethylbenzene	16.293	91	949828	9.82	ppb(v	97
81)	m,p-Xylene	16.569	91	1476215	19.83	ppb(v	96
82)	Styrene	17.089	104	574533	10.23	ppb(v	94
83)	Nonane	17.627	43	333043	10.81	ppb(v#	90
84)	o-Xylene	17.235	91	754611	9.84	ppb(v	96
85)	Bromoform	16.642	173	620362	9.88	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.241	83	551376	9.67	ppb(v#	99
87)	1,2,3-Trichloropropane	17.431	75	384916	9.85	ppb(v	93
88)	Isopropylbenzene	18.147	105	1086624	10.25	ppb(v	95
89)	Bromobenzene	18.251	156	413253	10.20	ppb(v#	78
90)	2-Chlorotoluene	18.875	126	292883	10.07	ppb(v#	78
91)	n-Propylbenzene	18.954	120	291607	10.09	ppb(v	77
93)	4-Ethyltoluene	19.181	105	967864	9.76	ppb(v	96
94)	1,3,5-Trimethylbenzene	19.309	105	837574	9.97	ppb(v	94
95)	alpha-Methylstyrene	19.548	118	425203	10.05	ppb(v	98
96)	tert-Butylbenzene	19.897	134	193758	9.90	ppb(v	80
97)	1,2,4-Trimethylbenzene	19.909	105	805027	9.86	ppb(v	95
98)	1,3-Dichlorobenzene	20.098	146	592955	10.07	ppb(v	93
99)	Benzyl Chloride	20.092	91	556260	10.44	ppb(v	94
100)	1,4-Dichlorobenzene	20.202	146	561608	10.09	ppb(v	93
101)	sec-Butylbenzene	20.288	134	236867	9.87	ppb(v	79
102)	p-Isopropyltoluene	20.527	134	263651	9.95	ppb(v	91
103)	1,2-Dichlorobenzene	20.674	146	555258	10.11	ppb(v	94
104)	n-Butylbenzene	21.108	134	219831	10.04	ppb(v	77
105)	Hexachloroethane	21.579	201	403948	10.37	ppb(v	79
106)	1,2,4-Trichlorobenzene	22.931	180	203334	12.29	ppb(v	98
107)	Naphthalene	23.053	128	337906	13.94	ppb(v	99
108)	Hexachlorobutadiene	23.506	225	309226	10.38	ppb(v	99
110)	TVHC as equiv Pentane	5.685	TIC	837519	9.68	ppb(v	100
111)	2H,3H-Decafluoropentane	4.290	69	489850	9.49	ppb(v#	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35526.D
Acq On : 12 Mar 2019 5:02 pm
Operator : danat
Sample : icc1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 17:53:50 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 16:59:57 2019
Response via : Initial Calibration

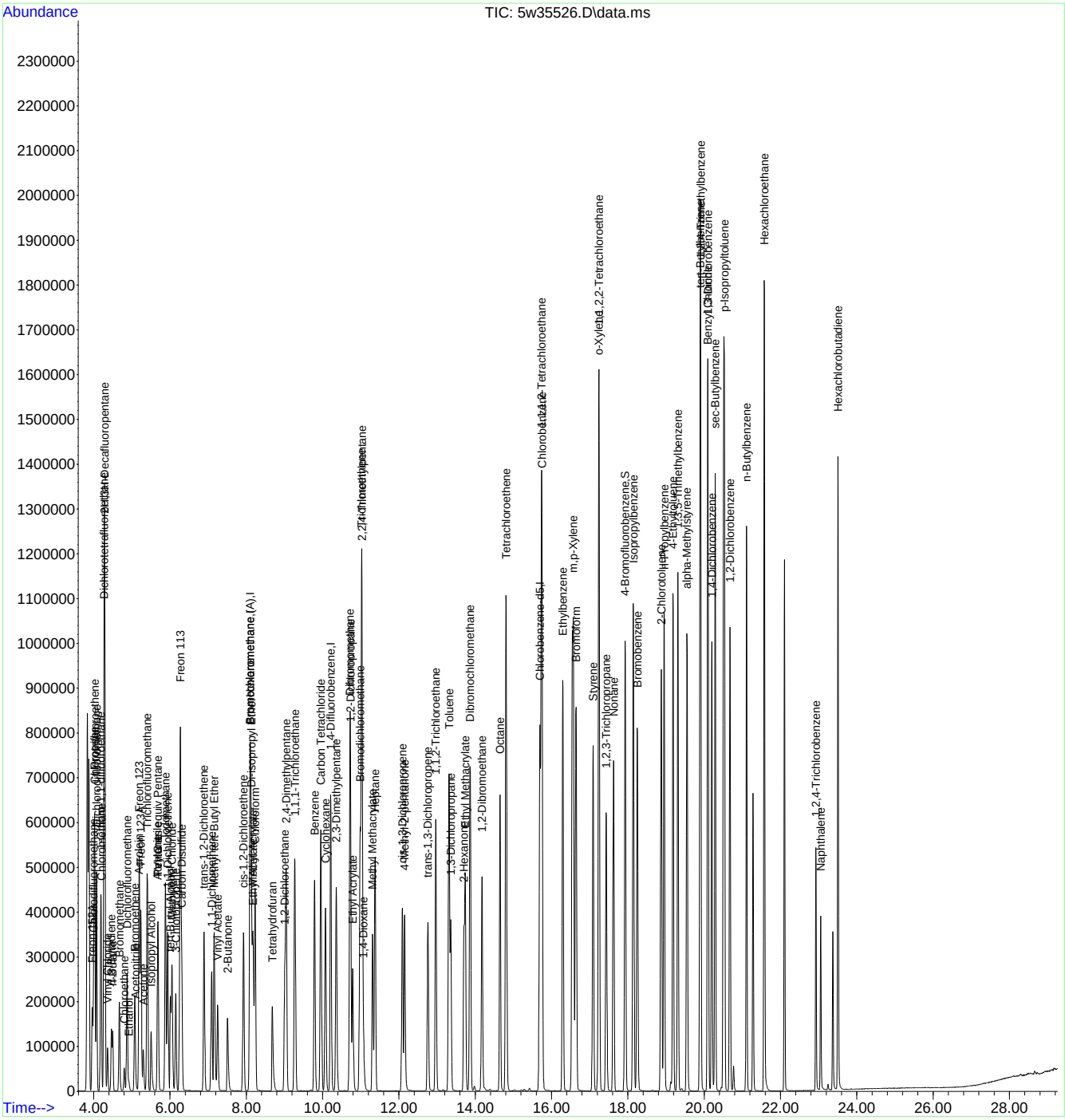
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35526.D
Acq On : 12 Mar 2019 5:02 pm
Operator : danat
Sample : icc1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 12 17:53:50 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 16:59:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35527.D
Acq On : 12 Mar 2019 5:49 pm
Operator : danat
Sample : ic1449-20
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:04:22 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 17:54:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.096	130	217610	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.219	114	767350	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.694	82	333054	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.096	130	217610	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.933	95	450568	10.05	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.50%			
Target Compounds						Qvalue
3) Freon 152A	3.954	65	197333	19.69	ppb(v	97
4) Chlorodifluoromethane	3.991	67	91637	18.66	ppb(v	92
5) Propene	4.009	41	182576	19.09	ppb(v	97
6) Chlorotrifluoroethene	4.015	116	579111	19.38	ppb(v	98
7) Dichlorodifluoromethane	4.064	85	988241	19.22	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	4.174	65	610593	18.72	ppb(v	100
9) Chloromethane	4.193	50	194827	19.33	ppb(v	98
10) Dichlorotetrafluoroethane	4.266	85	755325	19.16	ppb(v	96
11) Vinyl Chloride	4.358	62	217880	19.63	ppb(v	99
12) 1,3-Butadiene	4.456	54	139489	19.75	ppb(v	98
13) n-Butane	4.492	58	30230	19.88	ppb(v	84
14) Bromomethane	4.670	94	297064	19.14	ppb(v	100
15) Chloroethane	4.798	64	97112	19.37	ppb(v	99
16) Dichlorofluoromethane	4.872	67	555380	18.86	ppb(v	97
17) Acetonitrile	5.092	41	110074	18.61	ppb(v	98
18) Freon 123	5.190	83	609869	18.44	ppb(v	100
19) Freon 123A	5.239	117	411343	18.74	ppb(v	97
20) Bromoethene	5.074	106	305507	19.05	ppb(v	99
21) Acrolein	5.178	56	74205	19.19	ppb(v	96
22) Trichlorofluoromethane	5.404	101	924916	18.94	ppb(v	98
23) Acetone	5.294	58	77092	19.28	ppb(v	98
24) Pentane	5.679	57	67800	18.16	ppb(v	93
26) Iodomethane	5.875	142	1234045	18.86	ppb(v	98
27) Isopropyl Alcohol	5.508	43	77059	17.90	ppb(v	89
28) 1,1-Dichloroethene	5.936	61	491243	19.11	ppb(v	99
29) Freon 113	6.266	101	795385	18.61	ppb(v	100
30) Methylene Chloride	6.052	84	303009	18.78	ppb(v	99
31) Carbon Disulfide	6.303	76	938422	18.66	ppb(v	100
32) Ethanol	4.921	45	57193	19.21	ppb(v	94
33) Acrylonitrile	5.673	53	202544	19.02	ppb(v	100
34) 3-Chloropropene	6.150	76	144908	18.90	ppb(v	97
35) trans-1,2-Dichloroethene	6.891	61	448172	19.02	ppb(v	98
36) tert-Butyl Alcohol	6.010	59	600069	19.55	ppb(v	100
37) Methyl tert-Butyl Ether	7.154	73	900224	18.72	ppb(v	99
38) Vinyl Acetate	7.245	43	669156	19.03	ppb(v	100
39) 1,1-Dichloroethane	7.086	63	570858	18.48	ppb(v	100
40) 2-Butanone	7.502	72	138914	19.50	ppb(v	99
41) Hexane	8.102	57	424509	18.61	ppb(v	98
42) cis-1,2-Dichloroethene	7.924	61	448722	18.99	ppb(v	99
43) Di-isopropyl Ether	8.132	87	283359	19.06	ppb(v	97
44) Ethyl Acetate	8.181	61	91936	19.13	ppb(v	98
45) Methyl Acrylate	8.169	55	467371	19.22	ppb(v	100
46) Chloroform	8.236	83	819497	18.57	ppb(v	98
47) 2,4-Dimethylpentane	9.044	57	511289	18.65	ppb(v	99
48) Tetrahydrofuran	8.677	72	141733	19.13	ppb(v	98
49) 1,1,1-Trichloroethane	9.270	97	861623	18.73	ppb(v	99
50) 1,2-Dichloroethane	9.007	62	475997	18.68	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35527.D
Acq On : 12 Mar 2019 5:49 pm
Operator : danat
Sample : ic1449-20
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:04:22 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 17:54:54 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.790	78	1070250	18.61	ppb(v	99
52)	Carbon Tetrachloride	9.955	117	929657	19.29	ppb(v	100
53)	Cyclohexane	10.078	56	447754	19.03	ppb(v	99
54)	2,3-Dimethylpentane	10.359	71	213159	19.13	ppb(v	98
56)	2,2,4-Trimethylpentane	11.038	57	1429491	18.33	ppb(v	99
57)	Heptane	11.375	71	324319	18.73	ppb(v	99
58)	Trichloroethene	11.020	95	563433	18.49	ppb(v	99
59)	1,2-Dichloropropane	10.732	63	371576	18.42	ppb(v	99
60)	Dibromomethane	10.720	174	657190	18.78	ppb(v	96
61)	Ethyl Acrylate	10.794	55	680755	19.37	ppb(v	99
62)	Methyl Methacrylate	11.314	69	361331	19.44	ppb(v	99
63)	1,4-Dioxane	11.063	88	242833	19.19	ppb(v#	89
64)	Bromodichloromethane	10.983	83	913993	18.62	ppb(v	99
65)	cis-1,3-Dichloropropene	12.091	75	632801	18.90	ppb(v	100
66)	4-Methyl-2-pentanone	12.152	58	293387	19.62	ppb(v	97
67)	trans-1,3-Dichloropropene	12.764	75	556777	18.66	ppb(v	99
68)	Toluene	13.314	91	1399248	18.50	ppb(v	100
69)	1,1,2-Trichloroethane	12.972	97	527513	18.55	ppb(v	99
70)	1,3-Dichloropropane	13.363	76	608590	18.47	ppb(v	100
71)	2-Hexanone	13.706	58	364529	19.65	ppb(v	96
72)	Ethyl Methacrylate	13.742	69	619922	19.58	ppb(v	100
73)	Dibromochloromethane	13.871	129	1064566	18.06	ppb(v	99
74)	Tetrachloroethene	14.813	166	953155	18.66	ppb(v	98
75)	1,2-Dibromoethane	14.177	107	837301	18.21	ppb(v	99
76)	Octane	14.654	43	659966	18.97	ppb(v	99
77)	1,1,1,2-Tetrachloroethane	15.737	131	731334	18.06	ppb(v	99
79)	Chlorobenzene	15.755	112	1191687	17.68	ppb(v	99
80)	Ethylbenzene	16.300	91	1832615	18.67	ppb(v	99
81)	m,p-Xylene	16.575	91	2838738	37.40	ppb(v	98
82)	Styrene	17.089	104	1166219	20.05	ppb(v	98
83)	Nonane	17.627	43	679504	20.70	ppb(v	99
84)	o-Xylene	17.242	91	1431102	18.38	ppb(v	99
85)	Bromoform	16.642	173	1161844	18.18	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.248	83	1075227	18.72	ppb(v	99
87)	1,2,3-Trichloropropane	17.437	75	750497	18.90	ppb(v	99
88)	Isopropylbenzene	18.147	105	2160892	19.66	ppb(v	100
89)	Bromobenzene	18.251	156	800833	19.12	ppb(v	98
90)	2-Chlorotoluene	18.875	126	586681	19.64	ppb(v	97
91)	n-Propylbenzene	18.955	120	602351	20.27	ppb(v	97
93)	4-Ethyltoluene	19.187	105	1993912	19.87	ppb(v	99
94)	1,3,5-Trimethylbenzene	19.316	105	1702296	19.82	ppb(v	100
95)	alpha-Methylstyrene	19.554	118	864885	19.92	ppb(v	99
96)	tert-Butylbenzene	19.897	134	393815	19.75	ppb(v	98
97)	1,2,4-Trimethylbenzene	19.915	105	1632262	19.66	ppb(v	93
98)	1,3-Dichlorobenzene	20.105	146	1194086	19.73	ppb(v	99
99)	Benzyl Chloride	20.099	91	1149194	20.61	ppb(v	99
100)	1,4-Dichlorobenzene	20.203	146	1154393	20.16	ppb(v	100
101)	sec-Butylbenzene	20.294	134	478271	19.59	ppb(v	98
102)	p-Isopropyltoluene	20.533	134	526816	19.46	ppb(v	97
103)	1,2-Dichlorobenzene	20.680	146	1123105	19.87	ppb(v	99
104)	n-Butylbenzene	21.114	134	435803	19.40	ppb(v	95
105)	Hexachloroethane	21.579	201	834131	20.53	ppb(v	99
106)	1,2,4-Trichlorobenzene	22.931	180	446142	23.63	ppb(v	99
107)	Naphthalene	23.053	128	744535	25.06	ppb(v	99
108)	Hexachlorobutadiene	23.506	225	605874	19.50	ppb(v	99
110)	TVHC as equiv Pentane	5.679	TIC	1606915	18.60	ppb(v	100
111)	2H,3H-Decafluoropentane	4.284	69	959891	18.80	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35527.D
Acq On : 12 Mar 2019 5:49 pm
Operator : danat
Sample : ic1449-20
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:04:22 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 17:54:54 2019
Response via : Initial Calibration

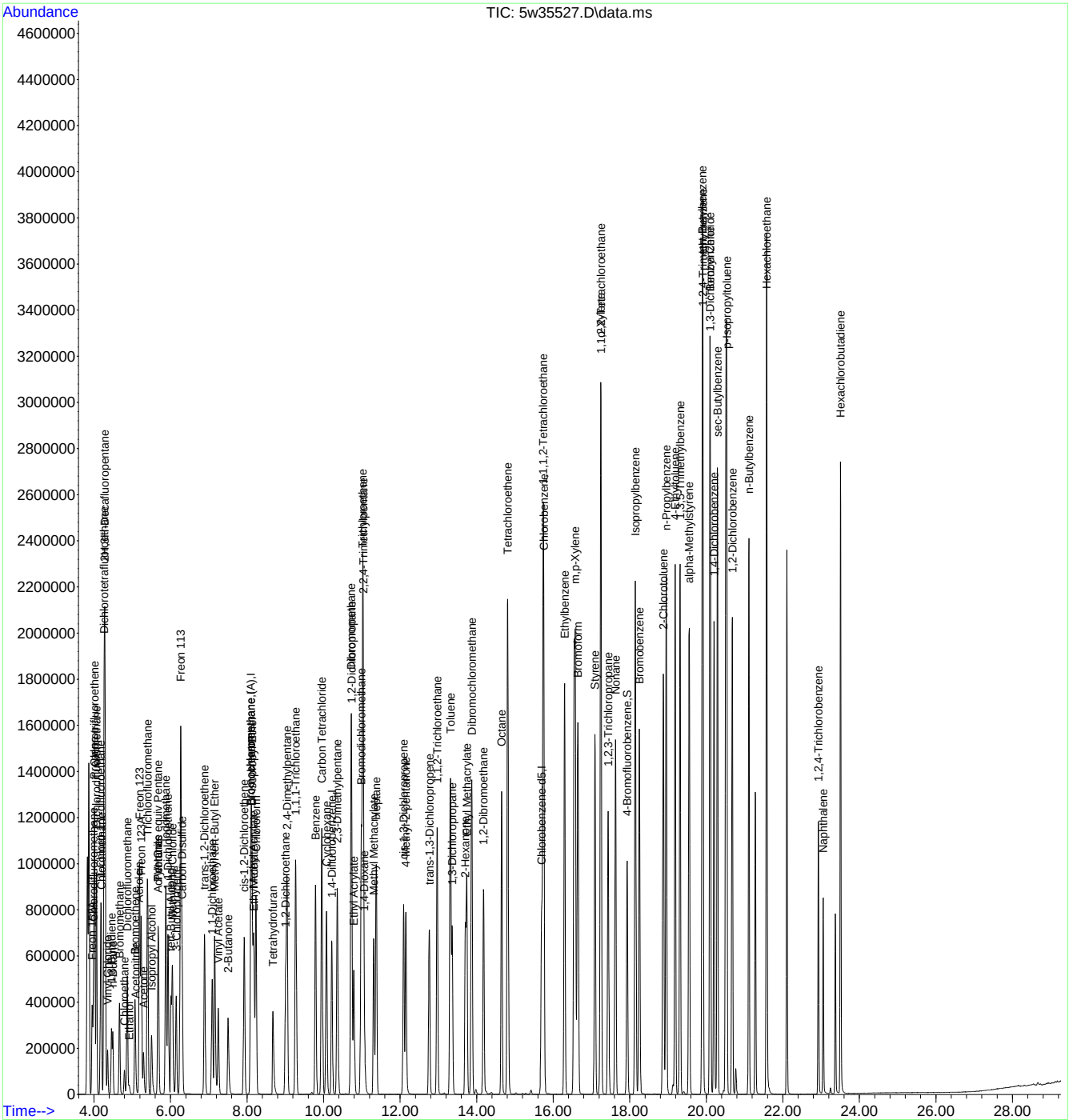
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35527.D
Acq On : 12 Mar 2019 5:49 pm
Operator : danat
Sample : ic1449-20
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:04:22 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Mar 12 17:54:54 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35528.D
Acq On : 12 Mar 2019 6:40 pm
Operator : danat
Sample : ic1449-40
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:06:01 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:05:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.102	130	227970	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.218	114	799523	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.694	82	358909	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.102	130	227970	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.933	95	396620	8.19	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 81.90%			
Target Compounds						Qvalue
3) Freon 152A	3.954	65	411319	39.38	ppb(v	97
4) Chlorodifluoromethane	3.991	67	186904	37.16	ppb(v	92
5) Propene	4.009	41	368380	37.33	ppb(v	99
6) Chlorotrifluoroethene	4.015	116	1219163	39.35	ppb(v	98
7) Dichlorodifluoromethane	4.070	85	2034885	38.27	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	4.180	65	1245701	37.24	ppb(v	99
9) Chloromethane	4.192	50	394796	37.81	ppb(v	99
10) Dichlorotetrafluoroethane	4.266	85	1507591	37.02	ppb(v	97
11) Vinyl Chloride	4.358	62	452538	39.16	ppb(v	99
12) 1,3-Butadiene	4.462	54	290891	39.48	ppb(v	94
13) n-Butane	4.492	58	61321	38.56	ppb(v	95
14) Bromomethane	4.670	94	612338	38.21	ppb(v	98
15) Chloroethane	4.798	64	198889	38.26	ppb(v	95
16) Dichlorofluoromethane	4.871	67	1125946	37.21	ppb(v	98
17) Acetonitrile	5.098	41	223744	36.97	ppb(v	96
18) Freon 123	5.196	83	1217250	36.07	ppb(v	99
19) Freon 123A	5.239	117	833133	37.01	ppb(v	96
20) Bromoethene	5.073	106	624096	37.74	ppb(v	100
21) Acrolein	5.177	56	148313	37.11	ppb(v	97
22) Trichlorofluoromethane	5.404	101	1906008	37.93	ppb(v	99
23) Acetone	5.294	58	153062	36.99	ppb(v	98
24) Pentane	5.679	57	140426	37.03	ppb(v	85
26) Iodomethane	5.881	142	2607130	38.77	ppb(v	99
27) Isopropyl Alcohol	5.514	43	157680	36.24	ppb(v	85
28) 1,1-Dichloroethene	5.942	61	986137	37.17	ppb(v	100
29) Freon 113	6.266	101	1617856	37.00	ppb(v	99
30) Methylene Chloride	6.052	84	616637	37.24	ppb(v	98
31) Carbon Disulfide	6.309	76	1903071	36.95	ppb(v	100
32) Ethanol	4.927	45	120709	39.21	ppb(v	99
33) Acrylonitrile	5.679	53	414395	37.76	ppb(v	100
34) 3-Chloropropene	6.150	76	299581	37.99	ppb(v	99
35) trans-1,2-Dichloroethene	6.890	61	911998	37.56	ppb(v	96
36) tert-Butyl Alcohol	6.015	59	1219622	38.22	ppb(v	99
37) Methyl tert-Butyl Ether	7.160	73	1849141	37.50	ppb(v	98
38) Vinyl Acetate	7.251	43	1409150	38.88	ppb(v	99
39) 1,1-Dichloroethane	7.092	63	1161465	36.83	ppb(v	99
40) 2-Butanone	7.508	72	287008	38.79	ppb(v	94
41) Hexane	8.108	57	845357	36.21	ppb(v	94
42) cis-1,2-Dichloroethene	7.930	61	914669	37.58	ppb(v	97
43) Di-isopropyl Ether	8.132	87	569567	37.16	ppb(v	95
44) Ethyl Acetate	8.187	61	186581	37.60	ppb(v	95
45) Methyl Acrylate	8.169	55	932768	37.10	ppb(v	100
46) Chloroform	8.242	83	1681414	37.25	ppb(v	99
47) 2,4-Dimethylpentane	9.050	57	1036392	36.92	ppb(v	99
48) Tetrahydrofuran	8.677	72	295831	38.68	ppb(v	99
49) 1,1,1-Trichloroethane	9.276	97	1799874	38.15	ppb(v	99
50) 1,2-Dichloroethane	9.013	62	969437	37.13	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35528.D
Acq On : 12 Mar 2019 6:40 pm
Operator : danat
Sample : ic1449-40
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:06:01 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:05:34 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.796	78	2244834	38.15	ppb(v	99
52)	Carbon Tetrachloride	9.955	117	1966660	39.42	ppb(v	100
53)	Cyclohexane	10.078	56	908463	37.46	ppb(v	100
54)	2,3-Dimethylpentane	10.365	71	437804	38.06	ppb(v	94
56)	2,2,4-Trimethylpentane	11.044	57	2819266	35.69	ppb(v	99
57)	Heptane	11.381	71	662712	37.53	ppb(v	99
58)	Trichloroethene	11.026	95	1142826	36.92	ppb(v	98
59)	1,2-Dichloropropane	10.738	63	757303	37.00	ppb(v	98
60)	Dibromomethane	10.726	174	1388460	38.87	ppb(v	92
61)	Ethyl Acrylate	10.800	55	1401471	38.68	ppb(v	99
62)	Methyl Methacrylate	11.313	69	737332	38.43	ppb(v	98
63)	1,4-Dioxane	11.069	88	481528	37.02	ppb(v	93
64)	Bromodichloromethane	10.989	83	1872110	37.46	ppb(v	99
65)	cis-1,3-Dichloropropene	12.090	75	1307435	38.17	ppb(v	99
66)	4-Methyl-2-pentanone	12.158	58	606807	39.19	ppb(v	97
67)	trans-1,3-Dichloropropene	12.763	75	1121685	36.90	ppb(v	99
68)	Toluene	13.320	91	2890393	37.62	ppb(v	99
69)	1,1,2-Trichloroethane	12.971	97	1074521	37.17	ppb(v	99
70)	1,3-Dichloropropane	13.363	76	1223796	36.57	ppb(v	98
71)	2-Hexanone	13.712	58	748859	38.97	ppb(v	99
72)	Ethyl Methacrylate	13.748	69	1259442	38.45	ppb(v	100
73)	Dibromochloromethane	13.877	129	2134012	35.91	ppb(v	99
74)	Tetrachloroethene	14.819	166	2012816	38.68	ppb(v	99
75)	1,2-Dibromoethane	14.189	107	1665888	35.85	ppb(v	99
76)	Octane	14.660	43	1312093	36.83	ppb(v	96
77)	1,1,1,2-Tetrachloroethane	15.743	131	1422937	34.85	ppb(v	99
79)	Chlorobenzene	15.761	112	2302213	32.98	ppb(v	99
80)	Ethylbenzene	16.299	91	3423556	33.10	ppb(v	100
81)	m,p-Xylene	16.575	91	5213864	65.16	ppb(v	100
82)	Styrene	17.095	104	2206605	35.18	ppb(v	100
83)	Nonane	17.633	43	1279207	35.75	ppb(v	99
84)	o-Xylene	17.248	91	2545125	31.17	ppb(v	99
85)	Bromoform	16.648	173	2068112	30.97	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.254	83	2063965	34.07	ppb(v	99
87)	1,2,3-Trichloropropane	17.443	75	1414582	33.68	ppb(v	97
88)	Isopropylbenzene	18.153	105	3874177	32.90	ppb(v	100
89)	Bromobenzene	18.257	156	1418016	31.88	ppb(v	98
90)	2-Chlorotoluene	18.881	126	1036860	32.40	ppb(v	97
91)	n-Propylbenzene	18.961	120	1130284	35.13	ppb(v	99
93)	4-Ethyltoluene	19.193	105	3879733	35.96	ppb(v	100
94)	1,3,5-Trimethylbenzene	19.315	105	3391018	36.74	ppb(v	99
95)	alpha-Methylstyrene	19.554	118	1772167	37.92	ppb(v	99
96)	tert-Butylbenzene	19.903	134	790944	36.96	ppb(v	99
97)	1,2,4-Trimethylbenzene	19.921	105	3279969	36.88	ppb(v	92
98)	1,3-Dichlorobenzene	20.111	146	2459595	37.89	ppb(v	99
99)	Benzyl Chloride	20.105	91	2424362	39.95	ppb(v	98
100)	1,4-Dichlorobenzene	20.209	146	2368656	38.29	ppb(v	100
101)	sec-Butylbenzene	20.294	134	984644	37.68	ppb(v	99
102)	p-Isopropyltoluene	20.539	134	1090754	37.73	ppb(v	94
103)	1,2-Dichlorobenzene	20.686	146	2318509	38.14	ppb(v	98
104)	n-Butylbenzene	21.114	134	919226	38.35	ppb(v	96
105)	Hexachloroethane	21.579	201	1634953	37.02	ppb(v	98
106)	1,2,4-Trichlorobenzene	22.931	180	1002514	46.46	ppb(v	99
107)	Naphthalene	23.053	128	1704279	49.09	ppb(v	100
108)	Hexachlorobutadiene	23.512	225	1261808	38.00	ppb(v	100
110)	TVHC as equiv Pentane	5.679	TIC	3267914	36.97	ppb(v	100
111)	2H,3H-Decafluoropentane	4.290	69	1891179	36.08	ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35528.D
Acq On : 12 Mar 2019 6:40 pm
Operator : danat
Sample : ic1449-40
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:06:01 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:05:34 2019
Response via : Initial Calibration

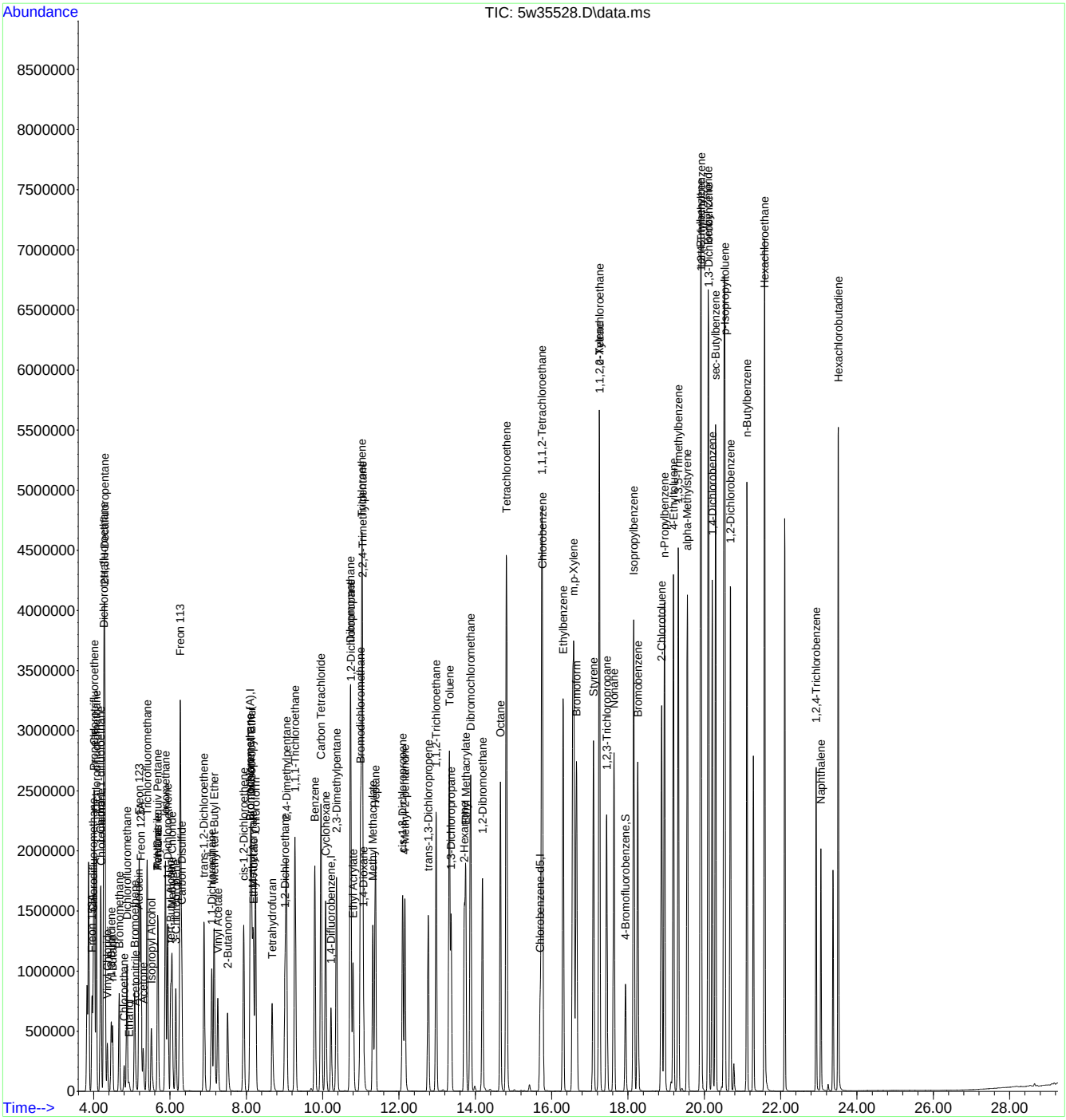
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35528.D
Acq On : 12 Mar 2019 6:40 pm
Operator : danat
Sample : ic1449-40
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 09:06:01 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:05:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35530.D
Acq On : 12 Mar 2019 8:08 pm
Operator : danat
Sample : ic1449-0.04
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:29:04 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:15:03 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.089	130	219355	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.206	114	766358	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	291941	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.089	130	219355	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	388094	10.26	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.60%			
Target Compounds						Qvalue
3) Freon 152A	3.954	65	418	0.04	ppb(v#	48
5) Propene	4.015	41	383	0.04	ppb(v#	46
6) Chlorotrifluoroethene	4.015	116	1276	0.04	ppb(v#	90
7) Dichlorodifluoromethane	4.070	85	2307	0.05	ppb(v#	83
8) 1-Chloro-1,1-difluoroe...	4.174	65	1491	0.05	ppb(v#	1
9) Chloromethane	4.205	50	394	0.04	ppb(v#	42
10) Dichlorotetrafluoroethane	4.266	85	1857	0.05	ppb(v	92
11) Vinyl Chloride	4.364	62	410	0.04	ppb(v#	81
12) 1,3-Butadiene	4.462	54	265	0.04	ppb(v#	32
14) Bromomethane	4.670	94	987	0.06	ppb(v#	73
15) Chloroethane	4.792	64	193	0.04	ppb(v#	47
16) Dichlorofluoromethane	4.878	67	1303	0.04	ppb(v#	92
18) Freon 123	5.190	83	1321	0.04	ppb(v#	81
19) Freon 123A	5.239	117	1007	0.05	ppb(v#	70
20) Bromoethene	5.067	106	751	0.05	ppb(v#	73
21) Acrolein	5.190	56	166	0.04	ppb(v#	62
22) Trichlorofluoromethane	5.404	101	2083	0.04	ppb(v	87
26) Iodomethane	5.875	142	3091	0.05	ppb(v	89
28) 1,1-Dichloroethene	5.942	61	1174	0.05	ppb(v#	91
29) Freon 113	6.260	101	1784	0.04	ppb(v#	86
31) Carbon Disulfide	6.303	76	2089	0.04	ppb(v#	74
33) Acrylonitrile	5.691	53	468	0.05	ppb(v#	76
34) 3-Chloropropene	6.144	76	294	0.04	ppb(v#	70
35) trans-1,2-Dichloroethene	6.896	61	925	0.04	ppb(v#	67
36) tert-Butyl Alcohol	6.058	59	1265	0.04	ppb(v#	75
37) Methyl tert-Butyl Ether	7.202	73	1999	0.04	ppb(v	95
38) Vinyl Acetate	7.257	43	1667	0.05	ppb(v#	83
39) 1,1-Dichloroethane	7.080	63	1394	0.05	ppb(v#	88
40) 2-Butanone	7.557	72	215	0.03	ppb(v#	49
41) Hexane	8.102	57	980	0.04	ppb(v#	80
42) cis-1,2-Dichloroethene	7.918	61	1086	0.05	ppb(v#	82
43) Di-isopropyl Ether	8.145	87	697	0.05	ppb(v#	68
45) Methyl Acrylate	8.193	55	994	0.04	ppb(v#	90
46) Chloroform	8.230	83	1982	0.05	ppb(v#	89
47) 2,4-Dimethylpentane	9.044	57	1182	0.05	ppb(v	97
49) 1,1,1-Trichloroethane	9.264	97	1934	0.04	ppb(v#	74
50) 1,2-Dichloroethane	9.001	62	1054	0.04	ppb(v#	92
51) Benzene	9.790	78	2583	0.05	ppb(v#	83
52) Carbon Tetrachloride	9.949	117	2077	0.05	ppb(v#	85
53) Cyclohexane	10.072	56	1060	0.05	ppb(v#	62
54) 2,3-Dimethylpentane	10.347	71	528	0.05	ppb(v#	89
56) 2,2,4-Trimethylpentane	11.032	57	3146	0.04	ppb(v	92
57) Heptane	11.369	71	570	0.04	ppb(v#	76
58) Trichloroethene	11.026	95	1589	0.05	ppb(v#	77
59) 1,2-Dichloropropane	10.732	63	855	0.04	ppb(v#	78
60) Dibromomethane	10.714	174	1955	0.06	ppb(v	89
63) 1,4-Dioxane	11.136	88	622	0.05	ppb(v#	67

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35530.D
Acq On : 12 Mar 2019 8:08 pm
Operator : danat
Sample : ic1449-0.04
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:29:04 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:15:03 2019
Response via : Initial Calibration

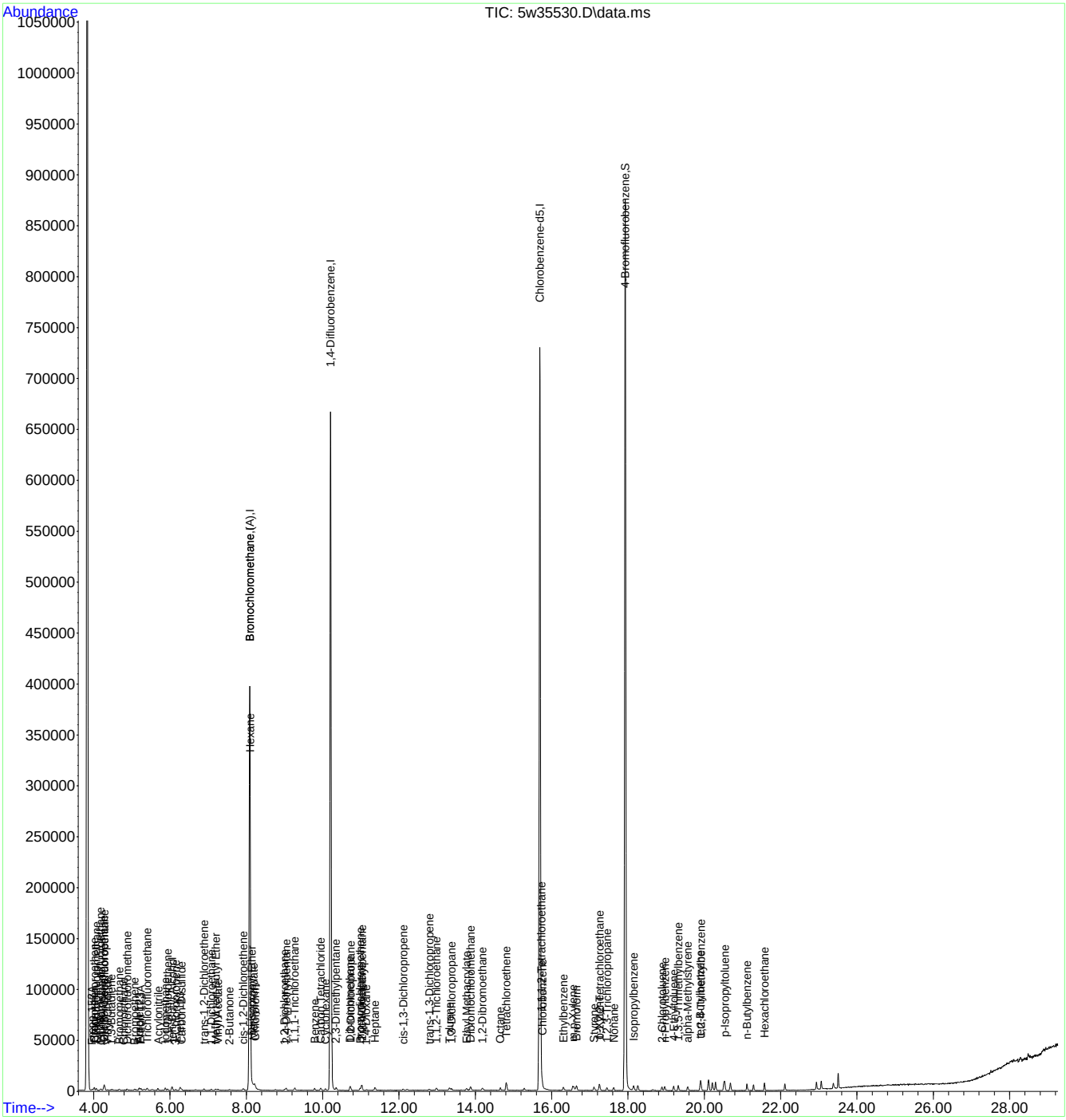
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
64)	Bromodichloromethane	10.983	83	2357	0.05	ppb(v#	95
65)	cis-1,3-Dichloropropene	12.109	75	1437	0.05	ppb(v#	85
67)	trans-1,3-Dichloropropene	12.794	75	1121	0.04	ppb(v#	74
68)	Toluene	13.320	91	3050	0.04	ppb(v#	74
69)	1,1,2-Trichloroethane	12.977	97	1078	0.04	ppb(v#	79
70)	1,3-Dichloropropane	13.375	76	1394	0.05	ppb(v	95
72)	Ethyl Methacrylate	13.767	69	929	0.03	ppb(v#	59
73)	Dibromochloromethane	13.877	129	3060	0.06	ppb(v#	94
74)	Tetrachloroethene	14.813	166	3258	0.06	ppb(v	94
75)	1,2-Dibromoethane	14.183	107	2746	0.06	ppb(v#	81
76)	Octane	14.654	43	1243	0.04	ppb(v	94
77)	1,1,1,2-Tetrachloroethane	15.730	131	1666	0.04	ppb(v#	1
79)	Chlorobenzene	15.755	112	4078	0.07	ppb(v	90
80)	Ethylbenzene	16.306	91	4399	0.05	ppb(v#	93
81)	m,p-Xylene	16.556	91	7549	0.12	ppb(v	94
82)	Styrene	17.107	104	2854	0.06	ppb(v	99
83)	Nonane	17.627	43	1544	0.06	ppb(v#	81
84)	o-Xylene	17.248	91	3903	0.06	ppb(v	88
85)	Bromoform	16.648	173	3619	0.07	ppb(v#	84
86)	1,1,2,2-Tetrachloroethane	17.254	83	3099	0.06	ppb(v#	94
87)	1,2,3-Trichloropropane	17.450	75	2275	0.07	ppb(v	87
88)	Isopropylbenzene	18.147	105	5127	0.06	ppb(v	94
90)	2-Chlorotoluene	18.893	126	1515	0.06	ppb(v	89
91)	n-Propylbenzene	18.973	120	1418	0.06	ppb(v	77
93)	4-Ethyltoluene	19.199	105	5172	0.06	ppb(v	89
94)	1,3,5-Trimethylbenzene	19.315	105	5023	0.07	ppb(v#	95
95)	alpha-Methylstyrene	19.560	118	2333	0.07	ppb(v	92
96)	tert-Butylbenzene	19.890	134	1225	0.07	ppb(v	75
97)	1,2,4-Trimethylbenzene	19.915	105	4799	0.07	ppb(v	89
102)	p-Isopropyltoluene	20.533	134	1350	0.06	ppb(v	92
104)	n-Butylbenzene	21.114	134	1330	0.07	ppb(v	80
105)	Hexachloroethane	21.579	201	1590	0.05	ppb(v	76
111)	2H,3H-Decafluoropentane	4.284	69	2321	0.05	ppb(v#	89

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35530.D
Acq On : 12 Mar 2019 8:08 pm
Operator : danat
Sample : ic1449-0.04
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:29:04 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:15:03 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/14/19 10:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35531.D
Acq On : 12 Mar 2019 8:54 pm
Operator : danat
Sample : ic1449-0.1
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:14:54 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:11:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.089	130	214628	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.206	114	742363	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	291813	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.089	130	214628	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	382768	10.14	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.40%			
Target Compounds						Qvalue
3) Freon 152A	3.948	65	961	0.10	ppb(v	90
4) Chlorodifluoromethane	3.990	67	445	0.10	ppb(v	96
5) Propene	4.009	41	963	0.11	ppb(v#	48
6) Chlorotrifluoroethene	4.015	116	2896	0.10	ppb(v	92
7) Dichlorodifluoromethane	4.064	85	5109	0.10	ppb(v#	95
8) 1-Chloro-1,1-difluoroe...	4.174	65	3156	0.10	ppb(v#	75
9) Chloromethane	4.198	50	914	0.09	ppb(v	89
10) Dichlorotetrafluoroethane	4.260	85	3839	0.10	ppb(v	89
11) Vinyl Chloride	4.357	62	1006	0.09	ppb(v#	97
12) 1,3-Butadiene	4.455	54	677	0.10	ppb(v#	79
13) n-Butane	4.492	58	87	0.06	ppb(v#	12
14) Bromomethane	4.670	94	1632	0.11	ppb(v#	89
15) Chloroethane	4.792	64	522	0.11	ppb(v#	47
16) Dichlorofluoromethane	4.871	67	3148	0.11	ppb(v	94
17) Acetonitrile	5.098	41	855	0.14	ppb(v#	48
18) Freon 123	5.183	83	3460	0.11	ppb(v#	75
19) Freon 123A	5.238	117	2132	0.10	ppb(v	89
20) Bromoethene	5.079	106	1454	0.10	ppb(v	88
21) Acrolein	5.190	56	391	0.11	ppb(v#	76
22) Trichlorofluoromethane	5.404	101	4891	0.10	ppb(v	80
23) Acetone	5.318	58	561	0.14	ppb(v	69
24) Pentane	5.673	57	319	0.09	ppb(v	79
26) Iodomethane	5.869	142	6163	0.10	ppb(v	97
27) Isopropyl Alcohol	5.532	43	621	0.14	ppb(v#	63
28) 1,1-Dichloroethene	5.936	61	2300	0.10	ppb(v	94
29) Freon 113	6.266	101	4254	0.10	ppb(v	91
31) Carbon Disulfide	6.309	76	4514	0.10	ppb(v	97
33) Acrylonitrile	5.691	53	827	0.08	ppb(v#	68
34) 3-Chloropropene	6.144	76	733	0.10	ppb(v#	87
35) trans-1,2-Dichloroethene	6.890	61	2141	0.10	ppb(v	92
36) tert-Butyl Alcohol	6.046	59	3040	0.10	ppb(v	98
37) Methyl tert-Butyl Ether	7.190	73	4479	0.10	ppb(v#	88
38) Vinyl Acetate	7.263	43	3441	0.10	ppb(v#	73
39) 1,1-Dichloroethane	7.080	63	3164	0.11	ppb(v#	95
40) 2-Butanone	7.545	72	599	0.09	ppb(v#	80
41) Hexane	8.108	57	2220	0.10	ppb(v	87
42) cis-1,2-Dichloroethene	7.918	61	2195	0.10	ppb(v	84
43) Di-isopropyl Ether	8.144	87	1241	0.09	ppb(v	99
44) Ethyl Acetate	8.206	61	267	0.06	ppb(v#	67
45) Methyl Acrylate	8.181	55	1939	0.09	ppb(v#	72
46) Chloroform	8.230	83	4250	0.10	ppb(v	89
47) 2,4-Dimethylpentane	9.044	57	2478	0.10	ppb(v	87
48) Tetrahydrofuran	8.762	72	656m	0.09	ppb(v	
49) 1,1,1-Trichloroethane	9.276	97	4223	0.10	ppb(v	95
50) 1,2-Dichloroethane	9.001	62	2221	0.09	ppb(v#	88
51) Benzene	9.784	78	5665	0.10	ppb(v	91
52) Carbon Tetrachloride	9.949	117	4439	0.10	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35531.D
Acq On : 12 Mar 2019 8:54 pm
Operator : danat
Sample : ic1449-0.1
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:14:54 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:11:52 2019
Response via : Initial Calibration

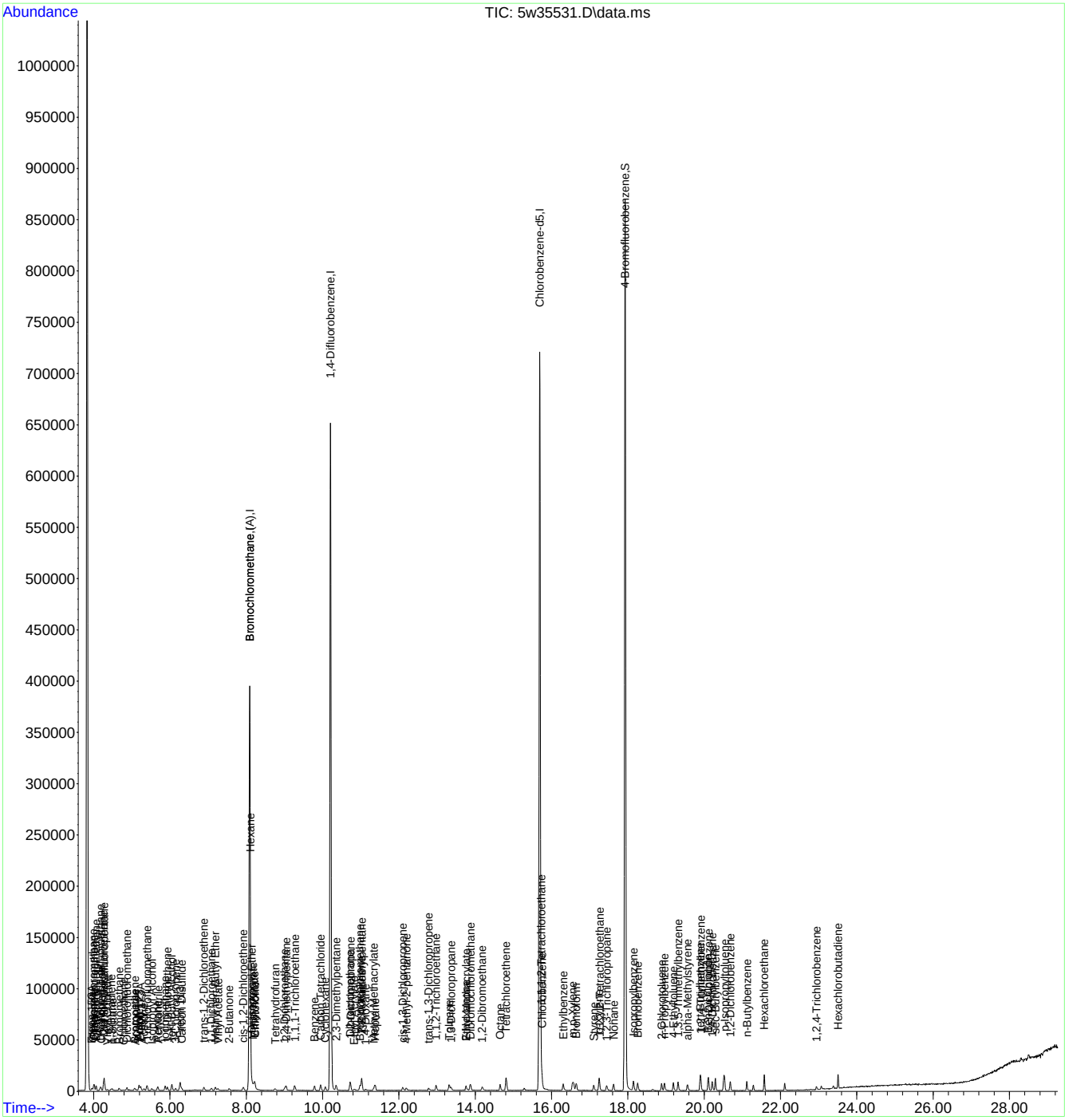
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
53) Cyclohexane	10.065	56	2264	0.10	ppb(v	85
54) 2,3-Dimethylpentane	10.359	71	1063	0.10	ppb(v#	87
56) 2,2,4-Trimethylpentane	11.026	57	6810	0.10	ppb(v	94
57) Heptane	11.375	71	1432	0.09	ppb(v#	86
58) Trichloroethene	11.020	95	2912	0.10	ppb(v	90
59) 1,2-Dichloropropane	10.732	63	1843	0.10	ppb(v#	87
60) Dibromomethane	10.720	174	3511	0.11	ppb(v	97
61) Ethyl Acrylate	10.824	55	2671	0.08	ppb(v#	77
62) Methyl Methacrylate	11.338	69	1628	0.10	ppb(v	86
63) 1,4-Dioxane	11.124	88	1278	0.10	ppb(v#	73
64) Bromodichloromethane	10.977	83	4592	0.10	ppb(v	89
65) cis-1,3-Dichloropropene	12.096	75	2833	0.09	ppb(v	95
66) 4-Methyl-2-pentanone	12.200	58	848m	0.06	ppb(v	
67) trans-1,3-Dichloropropene	12.769	75	2290	0.09	ppb(v	96
68) Toluene	13.314	91	6744	0.10	ppb(v	97
69) 1,1,2-Trichloroethane	12.971	97	2496	0.10	ppb(v	88
70) 1,3-Dichloropropane	13.369	76	2610	0.09	ppb(v	90
71) 2-Hexanone	13.754	58	1275	0.07	ppb(v#	89
72) Ethyl Methacrylate	13.760	69	2208	0.08	ppb(v#	89
73) Dibromochloromethane	13.871	129	5519	0.10	ppb(v#	90
74) Tetrachloroethene	14.807	166	5873	0.12	ppb(v	92
75) 1,2-Dibromoethane	14.176	107	4360	0.10	ppb(v#	88
76) Octane	14.654	43	2840	0.09	ppb(v	87
77) 1,1,1,2-Tetrachloroethane	15.730	131	3536	0.10	ppb(v#	1
79) Chlorobenzene	15.749	112	6392	0.11	ppb(v	93
80) Ethylbenzene	16.305	91	8530	0.11	ppb(v	100
81) m,p-Xylene	16.550	91	14337	0.23	ppb(v	94
82) Styrene	17.107	104	4622	0.10	ppb(v	94
83) Nonane	17.627	43	2875	0.10	ppb(v#	86
84) o-Xylene	17.241	91	6402	0.10	ppb(v	90
85) Bromoform	16.642	173	5027	0.10	ppb(v	90
86) 1,1,2,2-Tetrachloroethane	17.260	83	5184	0.11	ppb(v#	88
87) 1,2,3-Trichloropropane	17.443	75	3751	0.11	ppb(v#	84
88) Isopropylbenzene	18.147	105	9349	0.10	ppb(v	94
89) Bromobenzene	18.257	156	4050	0.12	ppb(v	91
90) 2-Chlorotoluene	18.887	126	2589	0.11	ppb(v	77
91) n-Propylbenzene	18.960	120	2400	0.10	ppb(v	88
93) 4-Ethyltoluene	19.193	105	8256	0.10	ppb(v#	95
94) 1,3,5-Trimethylbenzene	19.315	105	7700	0.11	ppb(v	98
95) alpha-Methylstyrene	19.560	118	3767	0.11	ppb(v	93
96) tert-Butylbenzene	19.896	134	1773	0.10	ppb(v	77
97) 1,2,4-Trimethylbenzene	19.915	105	6910	0.10	ppb(v#	85
98) 1,3-Dichlorobenzene	20.111	146	6324	0.12	ppb(v	95
99) Benzyl Chloride	20.104	91	4321	0.10	ppb(v#	92
100) 1,4-Dichlorobenzene	20.215	146	6808	0.14	ppb(v	93
101) sec-Butylbenzene	20.294	134	2110	0.10	ppb(v	92
102) p-Isopropyltoluene	20.533	134	2251	0.10	ppb(v	97
103) 1,2-Dichlorobenzene	20.680	146	6230	0.13	ppb(v	93
104) n-Butylbenzene	21.120	134	1850	0.10	ppb(v	70
105) Hexachloroethane	21.573	201	3128	0.09	ppb(v	94
106) 1,2,4-Trichlorobenzene	22.943	180	1983	0.13	ppb(v	84
108) Hexachlorobutadiene	23.506	225	2985	0.12	ppb(v	90
111) 2H,3H-Decafluoropentane	4.278	69	4988	0.10	ppb(v	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35531.D
Acq On : 12 Mar 2019 8:54 pm
Operator : danat
Sample : ic1449-0.1
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:14:54 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:11:52 2019
Response via : Initial Calibration



Manual Integration Approval Summary

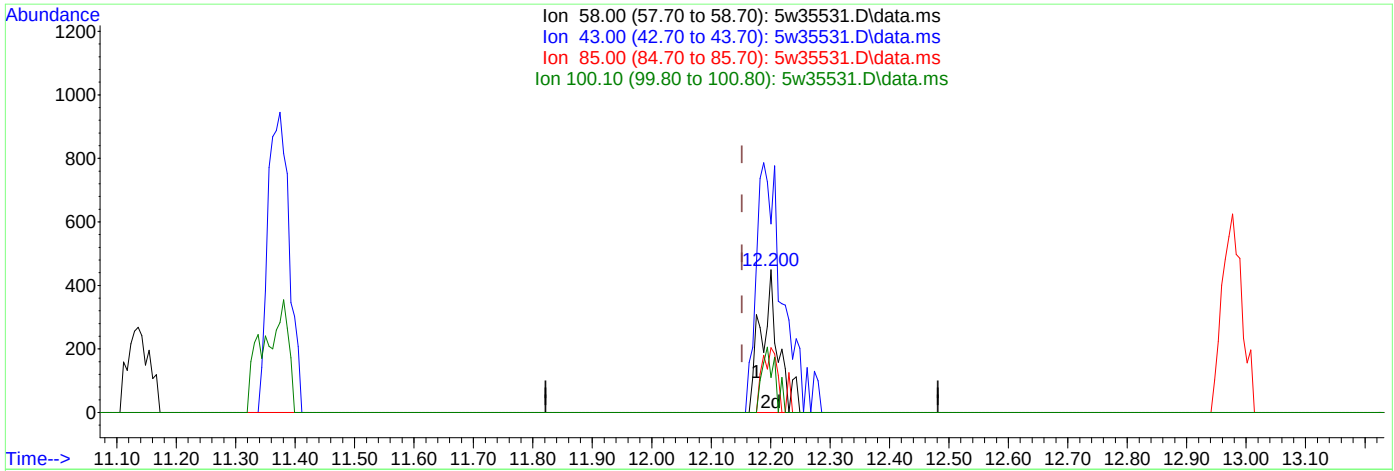
Sample Number: V5W1449-IC1449 **Method:** TO-15
Lab FileID: 5W35531.D **Analyst approved:** 03/13/19 09:36 Dana Tryon
Injection Time: 03/12/19 20:54 **Supervisor approved:** 03/14/19 10:54 Dana Tryon

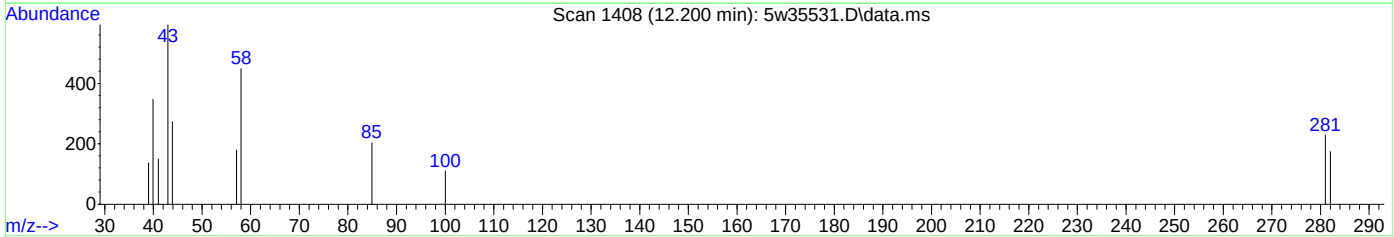
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrahydrofuran	109-99-9		8.76	Poor instrument integration
Methyl Isobutyl Ketone	108-10-1		12.20	Poor instrument integration

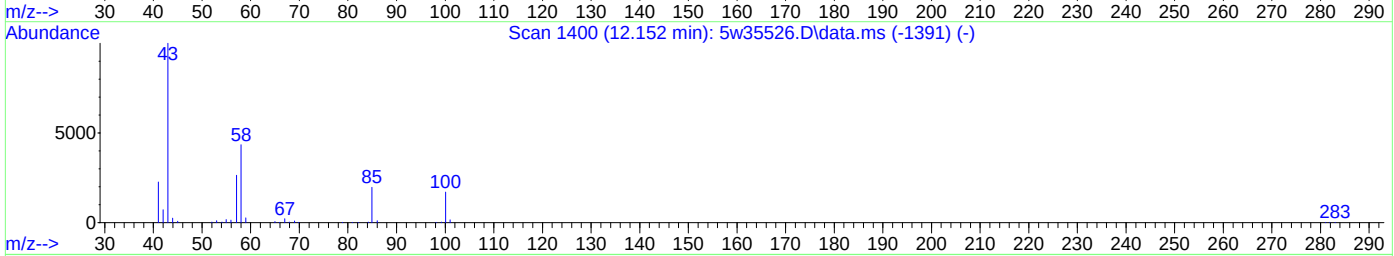
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w35531.D
Acq On : 12 Mar 2019 8:54 pm
Operator : danat
Sample : ic1449-0.1
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:14:54 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:11:52 2019
Response via : Initial Calibration







TIC: 5w35531.D\data.ms

(66) 4-Methyl-2-pentanone

12.200min (+0.049) 0.06ppb(v) m

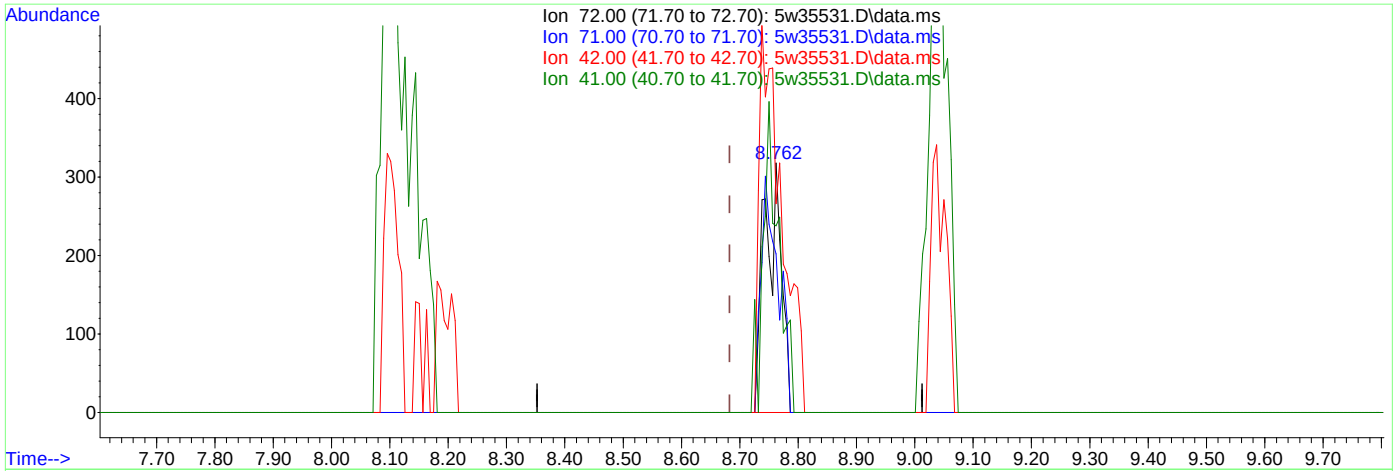
response 848

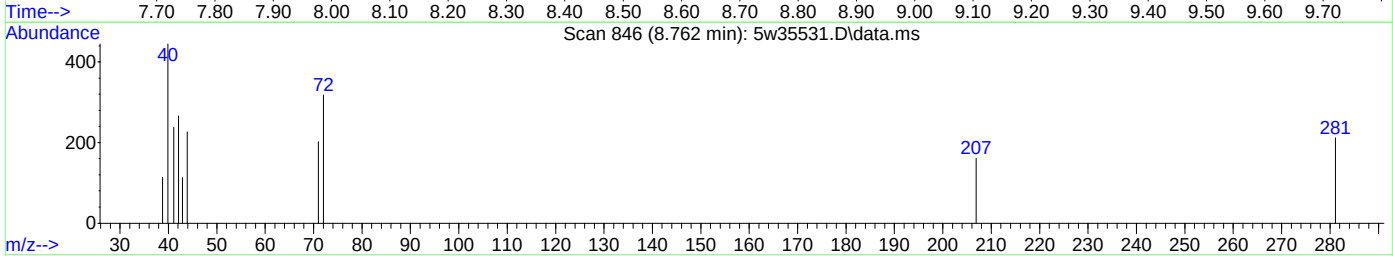
Ion	Exp%	Act%
58.00	100	100
43.00	230.30	132.29#
85.00	48.50	45.43
100.10	39.20	24.50#

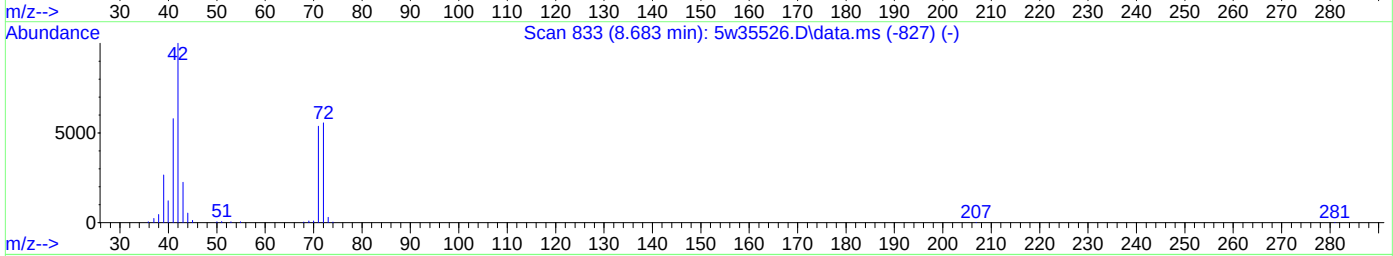
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w35531.D
Acq On : 12 Mar 2019 8:54 pm
Operator : danat
Sample : ic1449-0.1
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:14:54 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:11:52 2019
Response via : Initial Calibration







TIC: 5w35531.D\data.ms

(48) Tetrahydrofuran

8.762min (+0.079) 0.09ppb(v) m

response 656

Ion	Exp%	Act%
72.00	100	100
71.00	96.60	63.52#
42.00	179.80	83.65#
41.00	104.20	74.84

5W35532.D

Manual Integrations APPROVED (compounds with "m" flag)

Dana Tryon 03/14/19 10:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35532.D
Acq On : 12 Mar 2019 9:41 pm
Operator : danat
Sample : ic1449-0.2
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:11:42 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:09:30 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.089	130	214524	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.206	114	732548	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	284027	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.089	130	214524	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	376744	10.31	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.10%			
Target Compounds						Qvalue
3) Freon 152A	3.954	65	1879	0.19	ppb(v	87
4) Chlorodifluoromethane	4.003	67	974	0.21	ppb(v	93
5) Propene	4.009	41	1756	0.19	ppb(v#	73
6) Chlorotrifluoroethene	4.021	116	5455	0.19	ppb(v	97
7) Dichlorodifluoromethane	4.070	85	10061	0.20	ppb(v#	94
8) 1-Chloro-1,1-difluoroe...	4.180	65	6141	0.20	ppb(v#	88
9) Chloromethane	4.205	50	2008	0.21	ppb(v	83
10) Dichlorotetrafluoroethane	4.266	85	7257	0.19	ppb(v	92
11) Vinyl Chloride	4.364	62	2092	0.20	ppb(v#	85
12) 1,3-Butadiene	4.462	54	1408	0.20	ppb(v	83
13) n-Butane	4.498	58	276	0.19	ppb(v#	1
14) Bromomethane	4.676	94	3138	0.21	ppb(v	93
15) Chloroethane	4.798	64	924	0.19	ppb(v#	68
16) Dichlorofluoromethane	4.871	67	5640	0.20	ppb(v	97
17) Acetonitrile	5.110	41	1233	0.21	ppb(v	88
18) Freon 123	5.190	83	6004	0.19	ppb(v	97
19) Freon 123A	5.232	117	4301	0.21	ppb(v	91
20) Bromoethene	5.073	106	3026	0.20	ppb(v	83
21) Acrolein	5.190	56	699	0.19	ppb(v#	75
22) Trichlorofluoromethane	5.398	101	9289	0.20	ppb(v	91
23) Acetone	5.318	58	923	0.23	ppb(v	73
24) Pentane	5.679	57	583	0.17	ppb(v	76
26) Iodomethane	5.875	142	11851	0.19	ppb(v	99
27) Isopropyl Alcohol	5.520	43	1168	0.27	ppb(v	72
28) 1,1-Dichloroethene	5.942	61	4714	0.19	ppb(v	98
29) Freon 113	6.266	101	8293	0.21	ppb(v	96
30) Methylene Chloride	6.052	84	4382	0.28	ppb(v	96
31) Carbon Disulfide	6.303	76	8778	0.19	ppb(v	95
32) Ethanol	4.926	45	1056	0.32	ppb(v#	88
33) Acrylonitrile	5.679	53	1668	0.17	ppb(v	94
34) 3-Chloropropene	6.150	76	1444	0.20	ppb(v	85
35) trans-1,2-Dichloroethene	6.896	61	3931	0.18	ppb(v	94
36) tert-Butyl Alcohol	6.034	59	5908	0.20	ppb(v	98
37) Methyl tert-Butyl Ether	7.184	73	8612	0.19	ppb(v	97
38) Vinyl Acetate	7.245	43	6471	0.19	ppb(v	97
39) 1,1-Dichloroethane	7.080	63	5685	0.20	ppb(v#	92
40) 2-Butanone	7.545	72	1478	0.21	ppb(v	91
41) Hexane	8.102	57	4187	0.20	ppb(v	83
42) cis-1,2-Dichloroethene	7.924	61	4022	0.18	ppb(v	94
43) Di-isopropyl Ether	8.138	87	2692	0.19	ppb(v	92
44) Ethyl Acetate	8.199	61	913	0.20	ppb(v	87
45) Methyl Acrylate	8.181	55	4406	0.19	ppb(v#	80
46) Chloroform	8.224	83	8500	0.20	ppb(v	95
47) 2,4-Dimethylpentane	9.038	57	5016	0.20	ppb(v	92
48) Tetrahydrofuran	8.738	72	1379	0.19	ppb(v#	76
49) 1,1,1-Trichloroethane	9.264	97	8565	0.20	ppb(v	92
50) 1,2-Dichloroethane	9.007	62	4819	0.20	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35532.D
Acq On : 12 Mar 2019 9:41 pm
Operator : danat
Sample : ic1449-0.2
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:11:42 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:09:30 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.784	78	10524	0.19	ppb(v	97
52)	Carbon Tetrachloride	9.949	117	8369	0.18	ppb(v	95
53)	Cyclohexane	10.071	56	4258	0.19	ppb(v	95
54)	2,3-Dimethylpentane	10.359	71	2073	0.20	ppb(v#	69
56)	2,2,4-Trimethylpentane	11.032	57	13228	0.19	ppb(v	95
57)	Heptane	11.375	71	2869	0.18	ppb(v#	88
58)	Trichloroethene	11.014	95	5640	0.20	ppb(v	93
59)	1,2-Dichloropropane	10.732	63	3835	0.21	ppb(v#	89
60)	Dibromomethane	10.714	174	6591	0.20	ppb(v	96
61)	Ethyl Acrylate	10.812	55	5403	0.17	ppb(v	94
62)	Methyl Methacrylate	11.326	69	3040	0.18	ppb(v	97
63)	1,4-Dioxane	11.118	88	2796	0.23	ppb(v#	91
64)	Bromodichloromethane	10.983	83	8738	0.19	ppb(v	96
65)	cis-1,3-Dichloropropene	12.096	75	5242	0.17	ppb(v	98
66)	4-Methyl-2-pentanone	12.176	58	2063	0.15	ppb(v	80
67)	trans-1,3-Dichloropropene	12.775	75	4782	0.18	ppb(v#	93
68)	Toluene	13.308	91	12679	0.18	ppb(v	90
69)	1,1,2-Trichloroethane	12.965	97	4943	0.19	ppb(v	93
70)	1,3-Dichloropropane	13.363	76	5770	0.19	ppb(v	97
71)	2-Hexanone	13.748	58	3172	0.18	ppb(v	73
72)	Ethyl Methacrylate	13.742	69	4591	0.16	ppb(v#	94
73)	Dibromochloromethane	13.871	129	10061	0.19	ppb(v	97
74)	Tetrachloroethene	14.807	166	10015	0.21	ppb(v	94
75)	1,2-Dibromoethane	14.183	107	8256	0.20	ppb(v	96
76)	Octane	14.654	43	5220	0.17	ppb(v	85
77)	1,1,1,2-Tetrachloroethane	15.730	131	6917	0.19	ppb(v#	1
79)	Chlorobenzene	15.749	112	11691	0.22	ppb(v	91
80)	Ethylbenzene	16.299	91	15688	0.20	ppb(v	97
81)	m,p-Xylene	16.568	91	25556	0.43	ppb(v	98
82)	Styrene	17.101	104	8314	0.18	ppb(v	97
83)	Nonane	17.627	43	5216	0.19	ppb(v	99
84)	o-Xylene	17.241	91	12083	0.20	ppb(v	97
85)	Bromoform	16.642	173	9911	0.20	ppb(v	98
86)	1,1,2,2-Tetrachloroethane	17.254	83	9549	0.21	ppb(v#	98
87)	1,2,3-Trichloropropane	17.443	75	6723	0.21	ppb(v	98
88)	Isopropylbenzene	18.153	105	17808	0.20	ppb(v	93
89)	Bromobenzene	18.257	156	7282	0.22	ppb(v	86
90)	2-Chlorotoluene	18.875	126	4472	0.19	ppb(v	85
91)	n-Propylbenzene	18.960	120	4383	0.18	ppb(v	90
93)	4-Ethyltoluene	19.187	105	15344	0.19	ppb(v	98
94)	1,3,5-Trimethylbenzene	19.315	105	13992	0.20	ppb(v	93
95)	alpha-Methylstyrene	19.560	118	6283	0.18	ppb(v	93
96)	tert-Butylbenzene	19.890	134	3354	0.20	ppb(v	88
97)	1,2,4-Trimethylbenzene	19.909	105	12847	0.19	ppb(v	94
98)	1,3-Dichlorobenzene	20.111	146	10390	0.21	ppb(v	92
99)	Benzyl Chloride	20.105	91	7346	0.16	ppb(v	93
100)	1,4-Dichlorobenzene	20.209	146	10096	0.21	ppb(v	91
101)	sec-Butylbenzene	20.294	134	4012	0.20	ppb(v	86
102)	p-Isopropyltoluene	20.527	134	3940	0.18	ppb(v	96
103)	1,2-Dichlorobenzene	20.680	146	9472	0.20	ppb(v	95
104)	n-Butylbenzene	21.120	134	3014	0.17	ppb(v	73
105)	Hexachloroethane	21.579	201	5759	0.17	ppb(v	81
106)	1,2,4-Trichlorobenzene	22.943	180	2252	0.14	ppb(v#	88
107)	Naphthalene	23.072	128	4757	0.19	ppb(v	97
108)	Hexachlorobutadiene	23.512	225	4951	0.20	ppb(v	97
110)	TVHC as equiv Pentane	5.679	TIC	15405m	0.19	ppb(v	
111)	2H,3H-Decafluoropentane	4.278	69	9305	0.19	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35532.D
Acq On : 12 Mar 2019 9:41 pm
Operator : danat
Sample : ic1449-0.2
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:11:42 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:09:30 2019
Response via : Initial Calibration

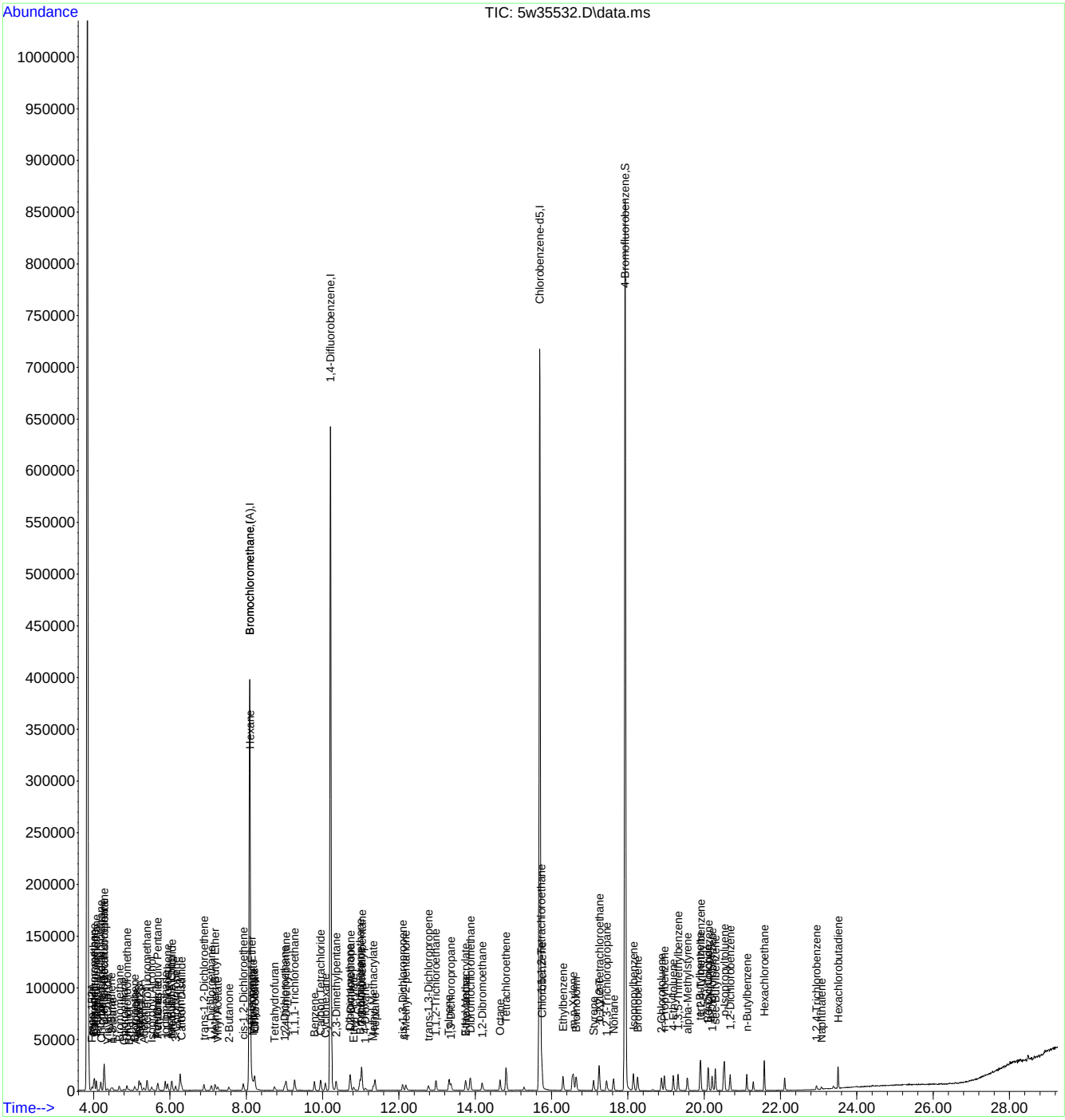
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35532.D
Acq On : 12 Mar 2019 9:41 pm
Operator : danat
Sample : ic1449-0.2
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:11:42 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:09:30 2019
Response via : Initial Calibration



Manual Integration Approval Summary

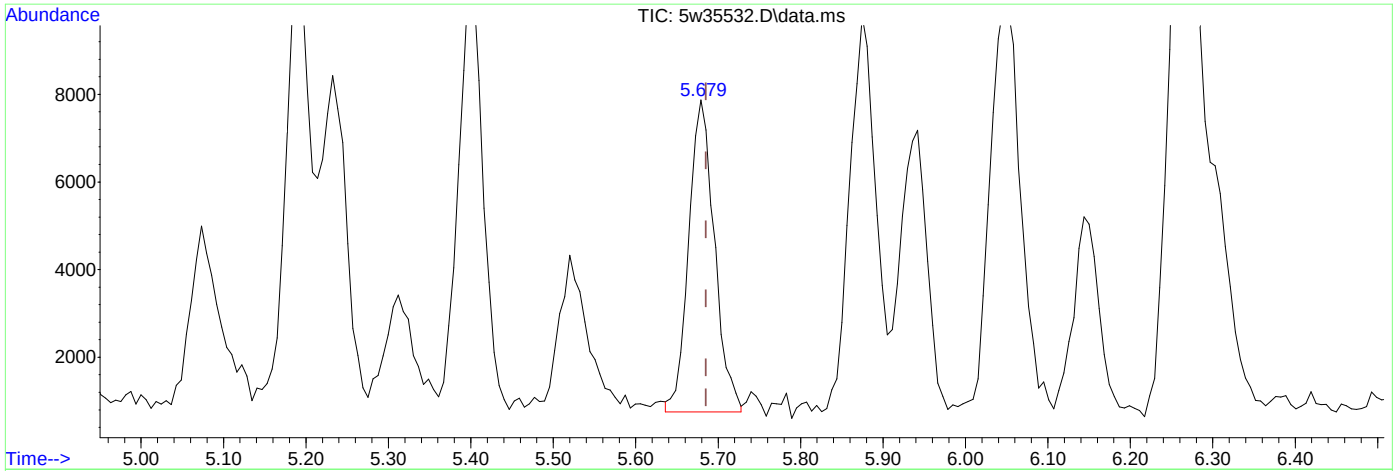
Sample Number:	V5W1449-IC1449	**Method:**	TO-15
Lab FileID:	5W35532.D	**Analyst approved:**	03/13/19 09:36 Dana Tryon
Injection Time:	03/12/19 21:41	**Supervisor approved:**	03/14/19 10:54 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.68	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w35532.D
Acq On : 12 Mar 2019 9:41 pm
Operator : danat
Sample : ic1449-0.2
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:11:42 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:09:30 2019
Response via : Initial Calibration



TIC: 5w35532.D\data.ms

(110) TVHC as equiv Pentane

5.679min (-0.006) 0.19ppb(v) m

response 15405

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/14/19 10:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35533.D
Acq On : 12 Mar 2019 10:33 pm
Operator : danat
Sample : ic1449-0.5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:09:17 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:07:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.090	130	206598	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.206	114	711179	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	287029	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.090	130	206598	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	368047	9.96	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.60%			
Target Compounds						Qvalue
3) Freon 152A	3.954	65	4399	0.47	ppb(v	93
4) Chlorodifluoromethane	3.991	67	2133	0.48	ppb(v	92
5) Propene	4.003	41	4397	0.50	ppb(v#	86
6) Chlorotrifluoroethene	4.015	116	13608	0.49	ppb(v	98
7) Dichlorodifluoromethane	4.064	85	23294	0.49	ppb(v	95
8) 1-Chloro-1,1-difluoroe...	4.174	65	14918	0.50	ppb(v	95
9) Chloromethane	4.193	50	4602	0.49	ppb(v	99
10) Dichlorotetrafluoroethane	4.260	85	18470	0.51	ppb(v	99
11) Vinyl Chloride	4.358	62	4850	0.47	ppb(v#	96
12) 1,3-Butadiene	4.456	54	3293	0.49	ppb(v	95
13) n-Butane	4.492	58	644	0.45	ppb(v#	82
14) Bromomethane	4.664	94	6996	0.49	ppb(v	97
15) Chloroethane	4.798	64	2211	0.47	ppb(v#	90
16) Dichlorofluoromethane	4.865	67	13272	0.49	ppb(v	93
17) Acetonitrile	5.104	41	3350	0.62	ppb(v#	70
18) Freon 123	5.190	83	15257	0.51	ppb(v	99
19) Freon 123A	5.226	117	9777	0.49	ppb(v	95
20) Bromoethene	5.067	106	7074	0.48	ppb(v	95
21) Acrolein	5.190	56	1856	0.52	ppb(v#	90
22) Trichlorofluoromethane	5.398	101	22374	0.50	ppb(v	98
23) Acetone	5.312	58	2241	0.61	ppb(v	80
24) Pentane	5.679	57	1626	0.48	ppb(v	77
26) Iodomethane	5.875	142	28856	0.48	ppb(v	98
27) Isopropyl Alcohol	5.508	43	2711	0.70	ppb(v	66
28) 1,1-Dichloroethene	5.930	61	11094	0.47	ppb(v	99
29) Freon 113	6.266	101	19333	0.50	ppb(v	95
30) Methylene Chloride	6.052	84	8247	0.56	ppb(v	95
31) Carbon Disulfide	6.303	76	22360	0.49	ppb(v	100
32) Ethanol	4.921	45	2444	0.88	ppb(v	98
33) Acrylonitrile	5.679	53	4568	0.47	ppb(v	95
34) 3-Chloropropene	6.144	76	3182	0.45	ppb(v	95
35) trans-1,2-Dichloroethene	6.890	61	10405	0.48	ppb(v	97
36) tert-Butyl Alcohol	6.028	59	13494	0.47	ppb(v#	87
37) Methyl tert-Butyl Ether	7.166	73	20621	0.47	ppb(v	95
38) Vinyl Acetate	7.245	43	16474	0.51	ppb(v	100
39) 1,1-Dichloroethane	7.080	63	13712	0.49	ppb(v	92
40) 2-Butanone	7.521	72	3477	0.52	ppb(v	93
41) Hexane	8.096	57	9843	0.48	ppb(v	90
42) cis-1,2-Dichloroethene	7.924	61	10215	0.47	ppb(v	95
43) Di-isopropyl Ether	8.132	87	6445	0.47	ppb(v	81
44) Ethyl Acetate	8.187	61	2035	0.46	ppb(v#	95
45) Methyl Acrylate	8.175	55	10464	0.47	ppb(v	99
46) Chloroform	8.218	83	19840	0.49	ppb(v	96
47) 2,4-Dimethylpentane	9.038	57	11960	0.48	ppb(v	96
48) Tetrahydrofuran	8.714	72	3290	0.48	ppb(v	90
49) 1,1,1-Trichloroethane	9.264	97	21124	0.50	ppb(v	98
50) 1,2-Dichloroethane	9.001	62	11394	0.49	ppb(v#	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35533.D
Acq On : 12 Mar 2019 10:33 pm
Operator : danat
Sample : ic1449-0.5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:09:17 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:07:07 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.784	78	25549	0.48	ppb(v	98
52)	Carbon Tetrachloride	9.949	117	20165	0.45	ppb(v	97
53)	Cyclohexane	10.078	56	9807	0.45	ppb(v	96
54)	2,3-Dimethylpentane	10.365	71	4958	0.48	ppb(v	85
56)	2,2,4-Trimethylpentane	11.026	57	33832	0.49	ppb(v	98
57)	Heptane	11.369	71	7026	0.45	ppb(v	95
58)	Trichloroethene	11.014	95	13746	0.51	ppb(v	91
59)	1,2-Dichloropropane	10.732	63	8665	0.49	ppb(v	98
60)	Dibromomethane	10.714	174	15259	0.48	ppb(v	97
61)	Ethyl Acrylate	10.800	55	14892	0.47	ppb(v	98
62)	Methyl Methacrylate	11.314	69	7728	0.46	ppb(v	97
63)	1,4-Dioxane	11.099	88	6427	0.57	ppb(v#	86
64)	Bromodichloromethane	10.977	83	21402	0.49	ppb(v	98
65)	cis-1,3-Dichloropropene	12.091	75	13958	0.46	ppb(v	99
66)	4-Methyl-2-pentanone	12.170	58	5699	0.42	ppb(v	98
67)	trans-1,3-Dichloropropene	12.763	75	11481	0.43	ppb(v	98
68)	Toluene	13.308	91	31898	0.47	ppb(v	91
69)	1,1,2-Trichloroethane	12.971	97	12376	0.49	ppb(v	97
70)	1,3-Dichloropropane	13.363	76	14079	0.48	ppb(v	99
71)	2-Hexanone	13.724	58	9169	0.54	ppb(v	99
72)	Ethyl Methacrylate	13.742	69	12922	0.45	ppb(v	97
73)	Dibromochloromethane	13.865	129	24598	0.48	ppb(v	95
74)	Tetrachloroethene	14.807	166	22878	0.50	ppb(v	99
75)	1,2-Dibromoethane	14.183	107	19806	0.49	ppb(v	95
76)	Octane	14.654	43	13141	0.42	ppb(v	98
77)	1,1,1,2-Tetrachloroethane	15.737	131	16721	0.48	ppb(v#	73
79)	Chlorobenzene	15.749	112	27812	0.52	ppb(v	89
80)	Ethylbenzene	16.293	91	38837	0.49	ppb(v	95
81)	m,p-Xylene	16.556	91	58419	0.96	ppb(v	99
82)	Styrene	17.095	104	20191	0.41	ppb(v	97
83)	Nonane	17.621	43	13144	0.47	ppb(v	95
84)	o-Xylene	17.242	91	30448	0.49	ppb(v	98
85)	Bromoform	16.636	173	23998	0.48	ppb(v	95
86)	1,1,2,2-Tetrachloroethane	17.248	83	23165	0.50	ppb(v	99
87)	1,2,3-Trichloropropane	17.437	75	16307	0.51	ppb(v	94
88)	Isopropylbenzene	18.147	105	42758	0.48	ppb(v	97
89)	Bromobenzene	18.251	156	16157	0.48	ppb(v	96
90)	2-Chlorotoluene	18.881	126	10833	0.44	ppb(v	95
91)	n-Propylbenzene	18.955	120	10728	0.43	ppb(v	98
93)	4-Ethyltoluene	19.187	105	38103	0.45	ppb(v	99
94)	1,3,5-Trimethylbenzene	19.309	105	33672	0.47	ppb(v	98
95)	alpha-Methylstyrene	19.554	118	14940	0.41	ppb(v	97
96)	tert-Butylbenzene	19.891	134	8037	0.48	ppb(v	77
97)	1,2,4-Trimethylbenzene	19.909	105	31745	0.46	ppb(v	99
98)	1,3-Dichlorobenzene	20.105	146	22467	0.44	ppb(v	96
99)	Benzyl Chloride	20.099	91	18035	0.37	ppb(v	98
100)	1,4-Dichlorobenzene	20.209	146	22547	0.46	ppb(v	98
101)	sec-Butylbenzene	20.294	134	9859	0.48	ppb(v	81
102)	p-Isopropyltoluene	20.527	134	10685	0.47	ppb(v	91
103)	1,2-Dichlorobenzene	20.680	146	21449	0.45	ppb(v	97
104)	n-Butylbenzene	21.114	134	7591	0.40	ppb(v	96
105)	Hexachloroethane	21.579	201	14660	0.42	ppb(v	93
106)	1,2,4-Trichlorobenzene	22.943	180	4000	0.22	ppb(v	94
107)	Naphthalene	23.066	128	5830	0.20	ppb(v	96
108)	Hexachlorobutadiene	23.506	225	10355	0.39	ppb(v	95
110)	TVHC as equiv Pentane	5.679	TIC	39919m	0.51	ppb(v	
111)	2H,3H-Decafluoropentane	4.278	69	23329	0.50	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35533.D
Acq On : 12 Mar 2019 10:33 pm
Operator : danat
Sample : ic1449-0.5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:09:17 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:07:07 2019
Response via : Initial Calibration

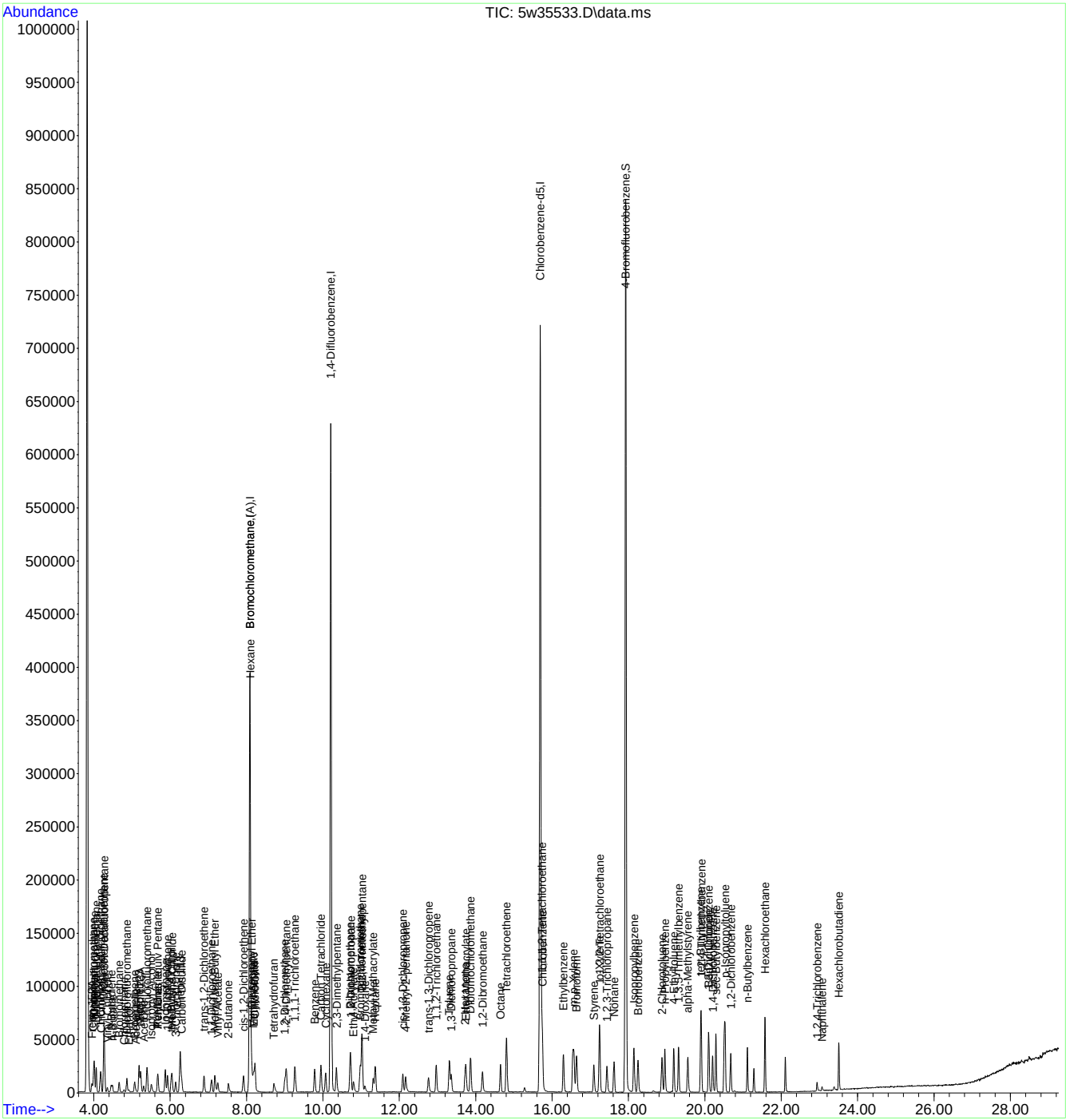
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35533.D
Acq On : 12 Mar 2019 10:33 pm
Operator : danat
Sample : ic1449-0.5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:09:17 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:07:07 2019
Response via : Initial Calibration



Manual Integration Approval Summary

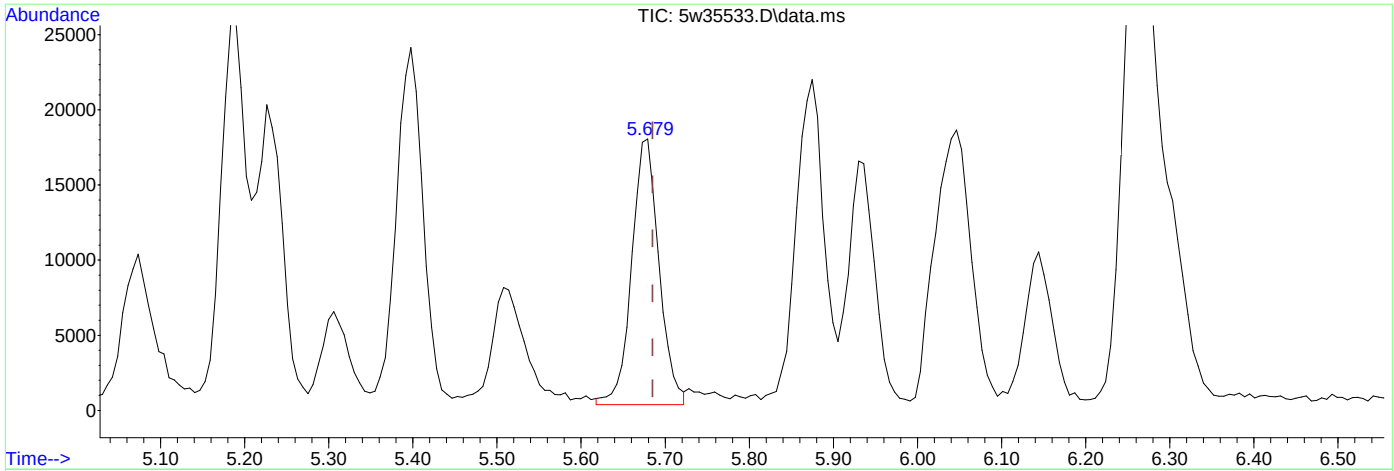
Sample Number:	V5W1449-IC1449	**Method:**	TO-15
Lab FileID:	5W35533.D	**Analyst approved:**	03/13/19 09:36 Dana Tryon
Injection Time:	03/12/19 22:33	**Supervisor approved:**	03/14/19 10:54 Dana Tryon

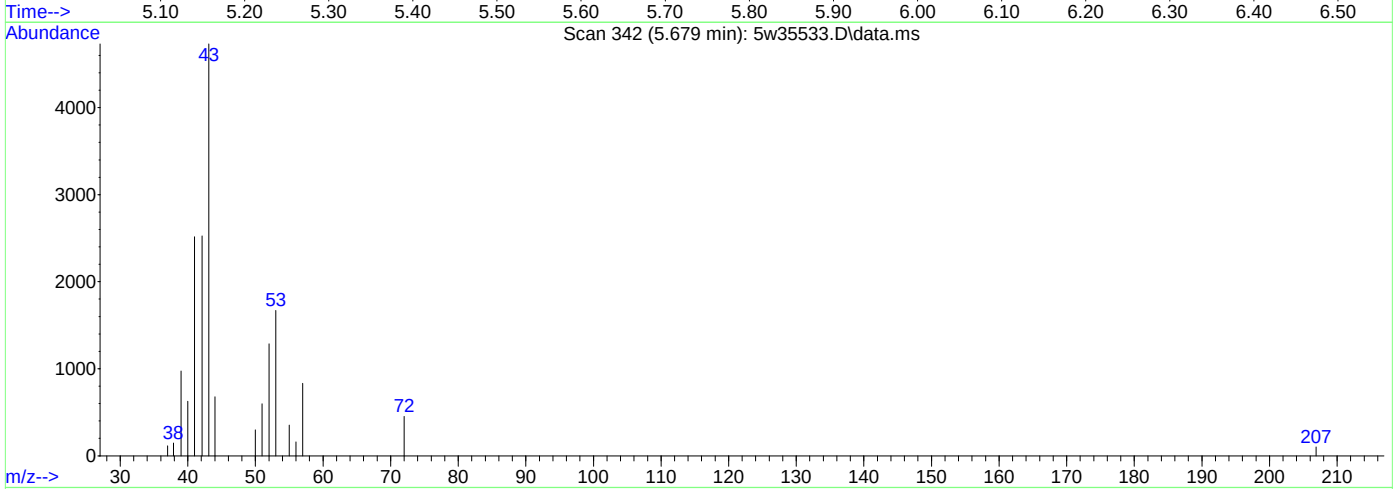
Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.68	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w35533.D
Acq On : 12 Mar 2019 10:33 pm
Operator : danat
Sample : ic1449-0.5
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 13 09:09:17 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:07:07 2019
Response via : Initial Calibration





TIC: 5w35533.D\data.ms

(110) TVHC as equiv Pentane

5.679min (-0.006) 0.51ppb(v) m

response 39919

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35534.D
Acq On : 12 Mar 2019 11:18 pm
Operator : danat
Sample : icv1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 10:23:30 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.089	130	206381	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.212	114	722716	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	316824	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.089	130	206381	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.927	95	426827	10.36	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.60%			
Target Compounds						Qvalue
3) Freon 152A	3.954	65	91782	9.85	ppb(v	99
4) Chlorodifluoromethane	3.991	67	44827	10.09	ppb(v	91
5) Propene	4.009	41	87412	9.90	ppb(v	97
6) Chlorotrifluoroethene	4.015	116	286480	10.28	ppb(v	98
7) Dichlorodifluoromethane	4.064	85	475245	9.78	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	4.174	65	312271	10.25	ppb(v	99
9) Chloromethane	4.192	50	91530	9.87	ppb(v	98
10) Dichlorotetrafluoroethane	4.260	85	366951	9.88	ppb(v	99
11) Vinyl Chloride	4.358	62	103633	10.27	ppb(v	97
12) 1,3-Butadiene	4.456	54	65424	9.93	ppb(v	99
13) n-Butane	4.492	58	14185	10.84	ppb(v	89
14) Bromomethane	4.670	94	143583	9.16	ppb(v	100
15) Chloroethane	4.792	64	46961	10.14	ppb(v	98
16) Dichlorofluoromethane	4.865	67	258444	9.30	ppb(v	98
17) Acetonitrile	5.086	41	55267	9.14	ppb(v	99
18) Freon 123	5.190	83	314916	10.37	ppb(v	99
19) Freon 123A	5.233	117	227187	11.06	ppb(v	97
20) Bromoethene	5.067	106	147691	9.90	ppb(v	99
21) Acrolein	5.177	56	36188	10.00	ppb(v	96
22) Trichlorofluoromethane	5.398	101	466697	10.23	ppb(v	99
23) Acetone	5.288	58	39473	9.52	ppb(v	100
24) Pentane	5.679	57	34005	10.53	ppb(v	89
26) Iodomethane	5.875	142	607834	9.96	ppb(v	98
27) Isopropyl Alcohol	5.502	43	43118	9.32	ppb(v	96
28) 1,1-Dichloroethene	5.936	61	256489	10.86	ppb(v	99
29) Freon 113	6.260	101	419261	10.59	ppb(v	98
30) Methylene Chloride	6.046	84	155916	9.70	ppb(v	98
31) Carbon Disulfide	6.303	76	499018	11.02	ppb(v	100
32) Ethanol	4.914	45	29163	8.31	ppb(v	99
33) Acrylonitrile	5.673	53	104528	11.11	ppb(v	99
34) 3-Chloropropene	6.144	76	73344	10.58	ppb(v	93
35) trans-1,2-Dichloroethene	6.890	61	228757	10.85	ppb(v	97
36) tert-Butyl Alcohol	6.003	59	271685	9.51	ppb(v	99
37) Methyl tert-Butyl Ether	7.153	73	449628	10.32	ppb(v	98
38) Vinyl Acetate	7.245	43	347441	10.42	ppb(v	100
39) 1,1-Dichloroethane	7.086	63	287070	9.99	ppb(v	99
40) 2-Butanone	7.502	72	74344	11.56	ppb(v	91
41) Hexane	8.102	57	210709	10.11	ppb(v	92
42) cis-1,2-Dichloroethene	7.924	61	221798	10.24	ppb(v	98
43) Di-isopropyl Ether	8.126	87	137871	10.15	ppb(v	99
44) Ethyl Acetate	8.175	61	49371	12.03	ppb(v	98
45) Methyl Acrylate	8.163	55	253630	11.69	ppb(v	99
46) Chloroform	8.224	83	410625	10.00	ppb(v	99
47) 2,4-Dimethylpentane	9.038	57	253019	10.15	ppb(v	99
48) Tetrahydrofuran	8.677	72	71351	10.63	ppb(v	99
49) 1,1,1-Trichloroethane	9.270	97	430967	10.19	ppb(v	98
50) 1,2-Dichloroethane	9.001	62	240190	10.39	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35534.D
Acq On : 12 Mar 2019 11:18 pm
Operator : danat
Sample : icv1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 10:23:30 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) Benzene	9.784	78	532797	9.97	ppb(v	99
52) Carbon Tetrachloride	9.949	117	452496	10.28	ppb(v	98
53) Cyclohexane	10.072	56	218614	10.10	ppb(v	99
54) 2,3-Dimethylpentane	10.359	71	104367	9.98	ppb(v	98
56) 2,2,4-Trimethylpentane	11.032	57	719625	10.42	ppb(v	100
57) Heptane	11.375	71	160227	10.80	ppb(v	99
58) Trichloroethene	11.020	95	280634	9.71	ppb(v	99
59) 1,2-Dichloropropane	10.726	63	186619	10.14	ppb(v	98
60) Dibromomethane	10.714	174	344785	10.14	ppb(v	98
61) Ethyl Acrylate	10.787	55	348655	11.47	ppb(v	99
62) Methyl Methacrylate	11.307	69	180642	10.97	ppb(v	96
63) 1,4-Dioxane	11.063	88	122077	9.75	ppb(v	95
64) Bromodichloromethane	10.977	83	466102	10.22	ppb(v	100
65) cis-1,3-Dichloropropene	12.084	75	336674	11.31	ppb(v	99
66) 4-Methyl-2-pentanone	12.146	58	143237	11.70	ppb(v	99
67) trans-1,3-Dichloropropene	12.757	75	303087	11.92	ppb(v	99
68) Toluene	13.308	91	696982	10.35	ppb(v	99
69) 1,1,2-Trichloroethane	12.965	97	263968	10.46	ppb(v	99
70) 1,3-Dichloropropane	13.357	76	321211	10.99	ppb(v	100
71) 2-Hexanone	13.699	58	193236	11.69	ppb(v	97
72) Ethyl Methacrylate	13.736	69	307233	11.73	ppb(v	100
73) Dibromochloromethane	13.865	129	556515	10.24	ppb(v	99
74) Tetrachloroethene	14.807	166	473773	9.10	ppb(v	98
75) 1,2-Dibromoethane	14.177	107	455491	10.36	ppb(v	99
76) Octane	14.654	43	323272	10.97	ppb(v	99
77) 1,1,1,2-Tetrachloroethane	15.730	131	383786	10.78	ppb(v	97
79) Chlorobenzene	15.749	112	638506	9.42	ppb(v	100
80) Ethylbenzene	16.293	91	922761	10.05	ppb(v	100
81) m,p-Xylene	16.569	91	1434722	19.61	ppb(v	99
82) Styrene	17.089	104	577487	10.66	ppb(v	98
83) Nonane	17.621	43	333560	10.50	ppb(v	99
84) o-Xylene	17.235	91	729922	10.03	ppb(v	99
85) Bromoform	16.636	173	627161	10.38	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.242	83	554247	9.84	ppb(v	100
87) 1,2,3-Trichloropropane	17.431	75	383475	9.64	ppb(v	100
88) Isopropylbenzene	18.147	105	1072267	10.31	ppb(v	100
89) Bromobenzene	18.251	156	427359	11.11	ppb(v	100
90) 2-Chlorotoluene	18.875	126	300310	10.64	ppb(v	99
91) n-Propylbenzene	18.948	120	302796	10.87	ppb(v	98
93) 4-Ethyltoluene	19.181	105	1001834	10.40	ppb(v	99
94) 1,3,5-Trimethylbenzene	19.309	105	839018	9.71	ppb(v	99
95) alpha-Methylstyrene	19.548	118	450294	10.75	ppb(v	99
96) tert-Butylbenzene	19.897	134	195394	9.59	ppb(v	97
97) 1,2,4-Trimethylbenzene	19.909	105	814859	9.95	ppb(v	99
98) 1,3-Dichlorobenzene	20.099	146	630853	10.97	ppb(v	99
99) Benzyl Chloride	20.092	91	619444	12.68	ppb(v	100
100) 1,4-Dichlorobenzene	20.203	146	617437	10.91	ppb(v	100
101) sec-Butylbenzene	20.288	134	242290	10.74	ppb(v	97
102) p-Isopropyltoluene	20.527	134	270218	10.43	ppb(v	99
103) 1,2-Dichlorobenzene	20.674	146	582087	10.72	ppb(v	99
104) n-Butylbenzene	21.108	134	231058	10.65	ppb(v	99
105) Hexachloroethane	21.579	201	427884	11.62	ppb(v	100
106) 1,2,4-Trichlorobenzene	22.925	180	251566	14.41	ppb(v	98
107) Naphthalene	23.053	128	379025	13.46	ppb(v	99
108) Hexachlorobutadiene	23.506	225	363953	12.82	ppb(v	99
110) TVHC as equiv Pentane	5.673	TIC	819747	10.51	ppb(v	100
111) 2H,3H-Decafluoropentane	4.284	69	465952	9.83	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35534.D
Acq On : 12 Mar 2019 11:18 pm
Operator : danat
Sample : icv1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 10:23:30 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration

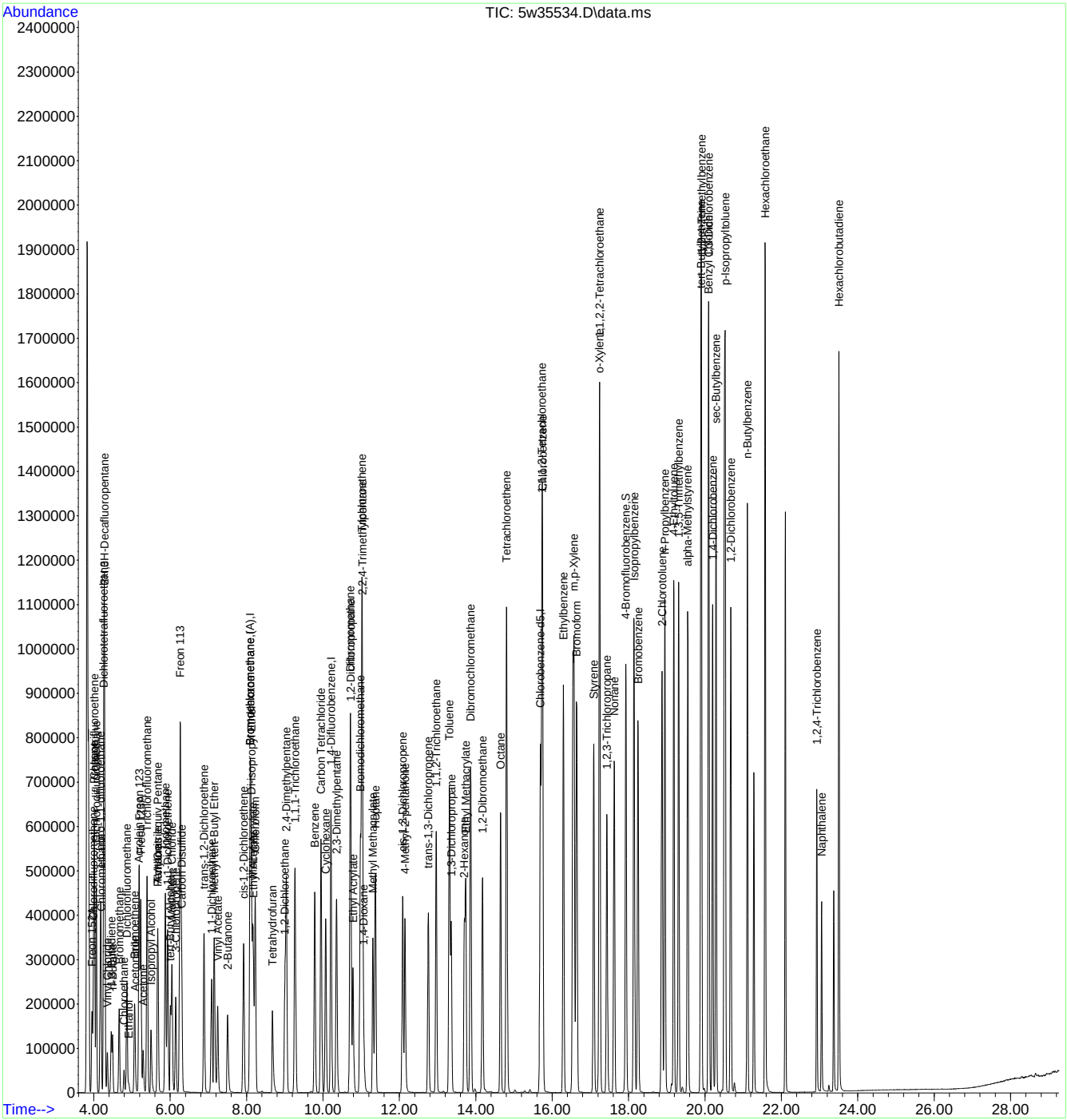
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35534.D
Acq On : 12 Mar 2019 11:18 pm
Operator : danat
Sample : icv1449-10
Misc : ms32850,v5w1449,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 10:23:30 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:17:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35987.D
Acq On : 6 Apr 2019 8:20 am
Operator : gabriep
Sample : cc1449-10
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:29:49 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.114	130	213497	10.00	ppb(v	0.02
55) 1,4-Difluorobenzene	10.218	114	705715	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.688	82	313946	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.114	130	213497	10.00	ppb(v	0.02
System Monitoring Compounds						
92) 4-Bromofluorobenzene	17.921	95	457289	11.20	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 112.00%			
Target Compounds						Qvalue
3) Freon 152A	3.991	65	87331	9.06	ppb(v	97
4) Chlorodifluoromethane	4.027	67	53498	11.63	ppb(v	97
5) Propene	4.046	41	80144	8.77	ppb(v	96
6) Chlorotrifluoroethene	4.052	116	274930	9.53	ppb(v#	88
7) Dichlorodifluoromethane	4.101	85	521186	10.37	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	4.211	65	385624	12.23	ppb(v	97
9) Chloromethane	4.223	50	100262	10.45	ppb(v	99
10) Dichlorotetrafluoroethane	4.296	85	420221	10.94	ppb(v	99
11) Vinyl Chloride	4.394	62	113918	10.92	ppb(v	98
12) 1,3-Butadiene	4.492	54	72290	10.61	ppb(v	98
13) n-Butane	4.523	58	14621	10.80	ppb(v	73
14) Bromomethane	4.700	94	155788	9.61	ppb(v	98
15) Chloroethane	4.829	64	49929	10.42	ppb(v	98
16) Dichlorofluoromethane	4.902	67	315451	10.98	ppb(v	98
17) Acetonitrile	5.116	41	51532	8.23	ppb(v	98
18) Freon 123	5.220	83	322226	10.26	ppb(v	98
19) Freon 123A	5.263	117	227025	10.68	ppb(v	98
20) Bromoethene	5.104	106	160617	10.41	ppb(v	96
21) Acrolein	5.208	56	33827	9.04	ppb(v#	94
22) Trichlorofluoromethane	5.428	101	535507	11.35	ppb(v	97
23) Acetone	5.324	58	37753	8.80	ppb(v	80
24) Pentane	5.704	57	31485	9.43	ppb(v	92
26) Iodomethane	5.905	142	611896	9.69	ppb(v	94
27) Isopropyl Alcohol	5.526	43	40709	8.50	ppb(v	76
28) 1,1-Dichloroethene	5.960	61	242157	9.91	ppb(v	93
29) Freon 113	6.291	101	388078	9.47	ppb(v	96
30) Methylene Chloride	6.077	84	138041	8.30	ppb(v	99
31) Carbon Disulfide	6.328	76	440028	9.39	ppb(v	100
32) Ethanol	4.945	45	27413	7.55	ppb(v	90
33) Acrylonitrile	5.704	53	87819	9.02	ppb(v	97
34) 3-Chloropropene	6.175	76	64714	9.02	ppb(v	89
35) trans-1,2-Dichloroethene	6.915	61	206323	9.46	ppb(v	98
36) tert-Butyl Alcohol	6.034	59	271794	9.19	ppb(v	96
37) Methyl tert-Butyl Ether	7.178	73	430506	9.55	ppb(v	98
38) Vinyl Acetate	7.264	43	280187	8.13	ppb(v	98
39) 1,1-Dichloroethane	7.111	63	271249	9.12	ppb(v	98
40) 2-Butanone	7.521	72	57490	8.64	ppb(v	98
41) Hexane	8.120	57	190324	8.83	ppb(v	92
42) cis-1,2-Dichloroethene	7.943	61	204352	9.12	ppb(v	98
43) Di-isopropyl Ether	8.145	87	129881	9.24	ppb(v	88
44) Ethyl Acetate	8.193	61	38722	9.12	ppb(v	97
45) Methyl Acrylate	8.181	55	197449	8.80	ppb(v	97
46) Chloroform	8.242	83	415507	9.78	ppb(v	98
47) 2,4-Dimethylpentane	9.056	57	226093	8.77	ppb(v	100
48) Tetrahydrofuran	8.695	72	59730	8.60	ppb(v	96
49) 1,1,1-Trichloroethane	9.282	97	460303	10.52	ppb(v	99
50) 1,2-Dichloroethane	9.019	62	261923	10.95	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35987.D
Acq On : 6 Apr 2019 8:20 am
Operator : gabriep
Sample : cc1449-10
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:29:49 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51)	Benzene	9.796	78	465411	8.42	ppb(v	98
52)	Carbon Tetrachloride	9.961	117	479487	10.53	ppb(v	99
53)	Cyclohexane	10.084	56	187724	8.38	ppb(v	98
54)	2,3-Dimethylpentane	10.371	71	93666	8.66	ppb(v	94
56)	2,2,4-Trimethylpentane	11.038	57	642867	9.53	ppb(v	97
57)	Heptane	11.381	71	146026	10.08	ppb(v	95
58)	Trichloroethene	11.026	95	264889	9.38	ppb(v	97
59)	1,2-Dichloropropane	10.738	63	161396	8.98	ppb(v	90
60)	Dibromomethane	10.720	174	319642	9.63	ppb(v	98
61)	Ethyl Acrylate	10.793	55	280563	9.45	ppb(v	99
62)	Methyl Methacrylate	11.313	69	151964	9.45	ppb(v	93
63)	1,4-Dioxane	11.075	88	98682	8.08	ppb(v	97
64)	Bromodichloromethane	10.989	83	454036	10.20	ppb(v	99
65)	cis-1,3-Dichloropropene	12.090	75	278019	9.57	ppb(v	99
66)	4-Methyl-2-pentanone	12.152	58	117853	9.86	ppb(v	99
67)	trans-1,3-Dichloropropene	12.763	75	257202	10.36	ppb(v	98
68)	Toluene	13.314	91	610363	9.28	ppb(v	98
69)	1,1,2-Trichloroethane	12.965	97	235823	9.57	ppb(v	98
70)	1,3-Dichloropropane	13.357	76	277775	9.74	ppb(v	97
71)	2-Hexanone	13.706	58	143446	8.89	ppb(v	91
72)	Ethyl Methacrylate	13.736	69	266537	10.42	ppb(v	99
73)	Dibromochloromethane	13.865	129	539712	10.17	ppb(v	98
74)	Tetrachloroethene	14.807	166	471010	9.27	ppb(v	98
75)	1,2-Dibromoethane	14.177	107	392565	9.14	ppb(v	97
76)	Octane	14.648	43	292347	10.16	ppb(v	98
77)	1,1,1,2-Tetrachloroethane	15.730	131	379294	10.92	ppb(v	98
79)	Chlorobenzene	15.749	112	590523	8.79	ppb(v	99
80)	Ethylbenzene	16.293	91	860167	9.45	ppb(v	97
81)	m,p-Xylene	16.562	91	1357629	18.72	ppb(v	98
82)	Styrene	17.082	104	519409	9.68	ppb(v	99
83)	Nonane	17.621	43	296697	9.42	ppb(v	98
84)	o-Xylene	17.235	91	717701	9.95	ppb(v	97
85)	Bromoform	16.636	173	624934	10.43	ppb(v	100
86)	1,1,2,2-Tetrachloroethane	17.242	83	498188	8.92	ppb(v	100
87)	1,2,3-Trichloropropane	17.431	75	363011	9.20	ppb(v	98
88)	Isopropylbenzene	18.141	105	1053717	10.23	ppb(v	98
89)	Bromobenzene	18.245	156	411021	10.78	ppb(v	98
90)	2-Chlorotoluene	18.869	126	287270	10.28	ppb(v	92
91)	n-Propylbenzene	18.948	120	292160	10.59	ppb(v	91
93)	4-Ethyltoluene	19.181	105	951517	9.96	ppb(v	100
94)	1,3,5-Trimethylbenzene	19.303	105	804759	9.40	ppb(v	98
95)	alpha-Methylstyrene	19.542	118	408542	9.84	ppb(v	96
96)	tert-Butylbenzene	19.890	134	197125	9.76	ppb(v	95
97)	1,2,4-Trimethylbenzene	19.903	105	786669	9.70	ppb(v	94
98)	1,3-Dichlorobenzene	20.092	146	578157	10.15	ppb(v	100
99)	Benzyl Chloride	20.092	91	499869	10.33	ppb(v	99
100)	1,4-Dichlorobenzene	20.196	146	530659	9.46	ppb(v	100
101)	sec-Butylbenzene	20.282	134	239691	10.72	ppb(v	98
102)	p-Isopropyltoluene	20.527	134	269396	10.49	ppb(v	88
103)	1,2-Dichlorobenzene	20.667	146	538795	10.02	ppb(v	100
104)	n-Butylbenzene	21.108	134	206087	9.59	ppb(v	88
105)	Hexachloroethane	21.573	201	440451	12.07	ppb(v	99
106)	1,2,4-Trichlorobenzene	22.925	180	150629	8.71	ppb(v	99
107)	Naphthalene	23.047	128	211414	7.58	ppb(v	99
108)	Hexachlorobutadiene	23.506	225	282858	10.06	ppb(v	98
110)	TVHC as equiv Pentane	5.704	TIC	752483	9.33	ppb(v	100
111)	2H,3H-Decafluoropentane	4.315	69	566552	11.56	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35987.D
Acq On : 6 Apr 2019 8:20 am
Operator : gabriep
Sample : cc1449-10
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:29:49 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration

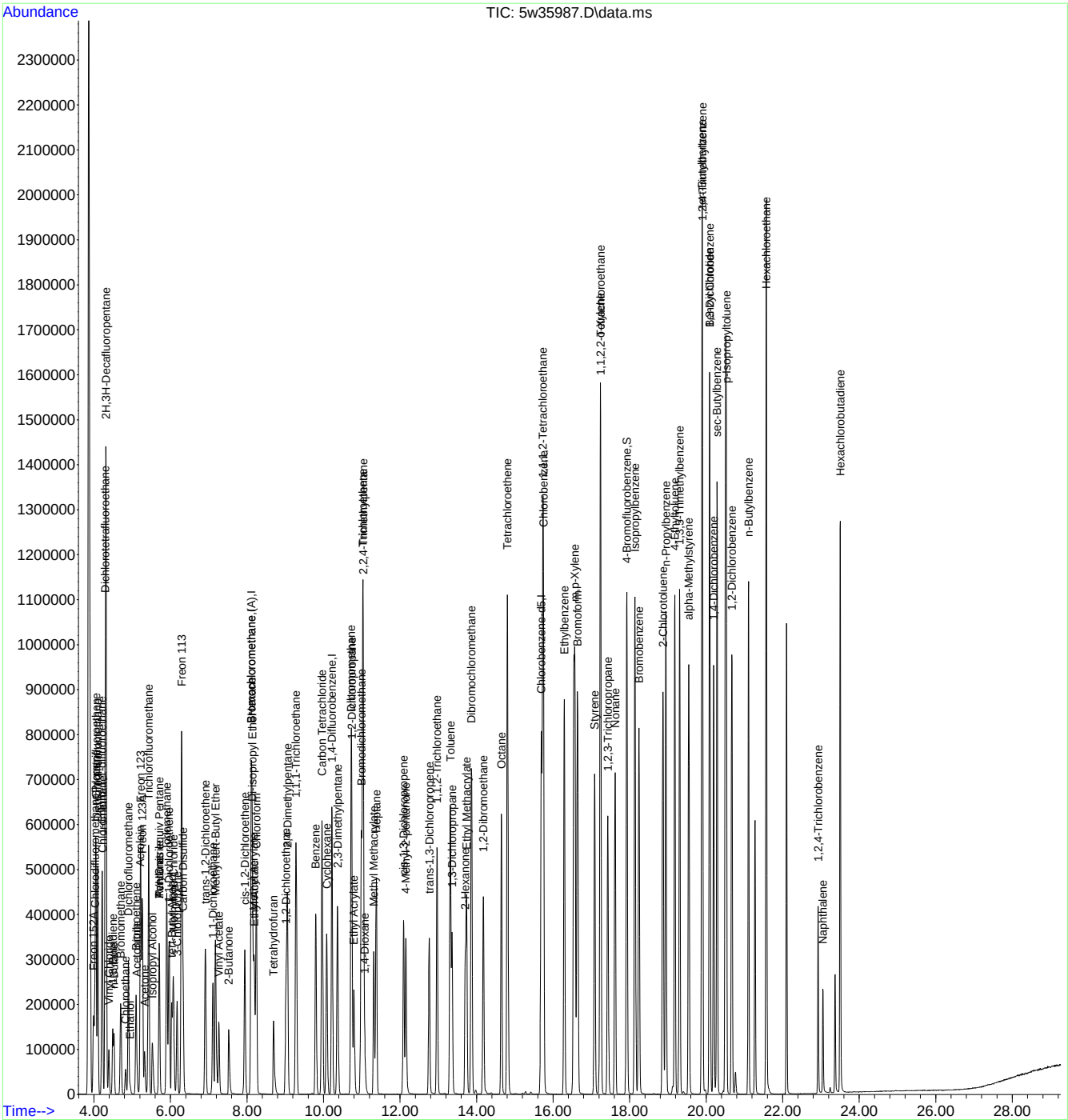
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w35987.D
Acq On : 6 Apr 2019 8:20 am
Operator : gabriep
Sample : cc1449-10
Misc : ms33645,v5w1468,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 09:29:49 2019
Quant Method : C:\msdchem\1\methods\m5w1449.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 13 09:29:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08749.D
Acq On : 22 Oct 2018 12:49 pm
Operator : paulcw
Sample : ic335-0.04
Misc : MS30116,V6W335,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 09:36:59 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:34:38 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	246056	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.379	114	891369	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.916	82	378089	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	246056	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	457071	9.89	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.90%			
Target Compounds						Qvalue
3) Freon 152A	3.735	65	499	0.04	ppb(v#	45
5) Propene	3.803	41	663	0.05	ppb(v#	89
6) Chlorotrifluoroethene	3.803	116	1619	0.05	ppb(v#	76
7) Dichlorodifluoromethane	3.858	85	2830	0.04	ppb(v#	89
8) 1-Chloro-1,1-difluoroe...	3.968	65	2315	0.05	ppb(v#	1
9) Chloromethane	3.986	50	757	0.04	ppb(v#	42
10) Dichlorotetrafluoroethane	4.066	85	3311	0.05	ppb(v	94
11) Vinyl Chloride	4.170	62	921	0.04	ppb(v#	49
12) 1,3-Butadiene	4.274	54	533	0.03	ppb(v#	81
14) Bromomethane	4.500	94	1040	0.04	ppb(v#	88
17) Dichlorofluoromethane	4.714	67	2408	0.04	ppb(v#	95
18) Acetonitrile	4.934	41	691	0.04	ppb(v#	72
19) Freon 123	5.069	83	2620	0.05	ppb(v	92
20) Freon 123A	5.118	117	1616	0.05	ppb(v	96
21) Bromoethene	4.941	106	942	0.04	ppb(v#	82
22) Trichlorofluoromethane	5.295	101	2993	0.05	ppb(v#	91
26) Iodomethane	5.809	142	3217	0.05	ppb(v	96
28) 1,1-Dichloroethene	5.883	61	1611	0.05	ppb(v	99
29) Freon 113	6.244	101	2304	0.05	ppb(v	93
31) Carbon Disulfide	6.280	76	2939	0.05	ppb(v#	74
35) trans-1,2-Dichloroethene	6.910	61	1327	0.04	ppb(v#	81
37) Methyl tert-Butyl Ether	7.192	73	2824	0.04	ppb(v	98
39) 1,1-Dichloroethane	7.118	63	1997	0.05	ppb(v#	90
41) Hexane	8.214	57	1289	0.04	ppb(v#	77
42) cis-1,2-Dichloroethene	7.999	61	1294	0.04	ppb(v#	85
43) Di-isopropyl Ether	8.220	87	695	0.03	ppb(v#	87
46) Chloroform	8.318	83	2587	0.05	ppb(v#	94
47) 2,4-Dimethylpentane	9.192	57	1517	0.04	ppb(v	91
49) 1,1,1-Trichloroethane	9.419	97	2327	0.04	ppb(v#	86
50) 1,2-Dichloroethane	9.137	62	1349	0.04	ppb(v#	54
51) Benzene	9.945	78	3188	0.04	ppb(v	95
52) Carbon Tetrachloride	10.116	117	2256	0.04	ppb(v	98
53) Cyclohexane	10.257	56	1382	0.04	ppb(v	94
54) 2,3-Dimethylpentane	10.551	71	480	0.03	ppb(v#	91
56) 2,2,4-Trimethylpentane	11.236	57	4690	0.04	ppb(v#	95
57) Heptane	11.578	71	936	0.04	ppb(v#	79
58) Trichloroethene	11.205	95	1534	0.04	ppb(v	97
59) 1,2-Dichloropropane	10.911	63	1075	0.04	ppb(v#	40
60) Dibromomethane	10.893	174	1860	0.05	ppb(v	94
64) Bromodichloromethane	11.162	83	2211	0.04	ppb(v#	90
65) cis-1,3-Dichloropropene	12.288	75	1489	0.04	ppb(v#	71
67) trans-1,3-Dichloropropene	12.967	75	1035	0.03	ppb(v#	48
68) Toluene	13.530	91	4286	0.05	ppb(v	94
69) 1,1,2-Trichloroethane	13.187	97	1244	0.04	ppb(v	87
70) 1,3-Dichloropropane	13.579	76	1733	0.04	ppb(v#	82
73) Dibromochloromethane	14.087	129	2060	0.04	ppb(v#	94
74) Tetrachloroethene	15.035	166	2816	0.05	ppb(v	96
75) 1,2-Dibromoethane	14.405	107	1792	0.04	ppb(v#	97
76) Octane	14.876	43	2109	0.04	ppb(v	98
77) 1,1,1,2-Tetrachloroethane	15.965	131	1501	0.04	ppb(v#	1
79) Chlorobenzene	15.983	112	3248	0.05	ppb(v	94
80) Ethylbenzene	16.521	91	4907	0.05	ppb(v#	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08749.D
Acq On : 22 Oct 2018 12:49 pm
Operator : paulcw
Sample : ic335-0.04
Misc : MS30116,V6W335,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 09:36:59 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:34:38 2018
Response via : Initial Calibration

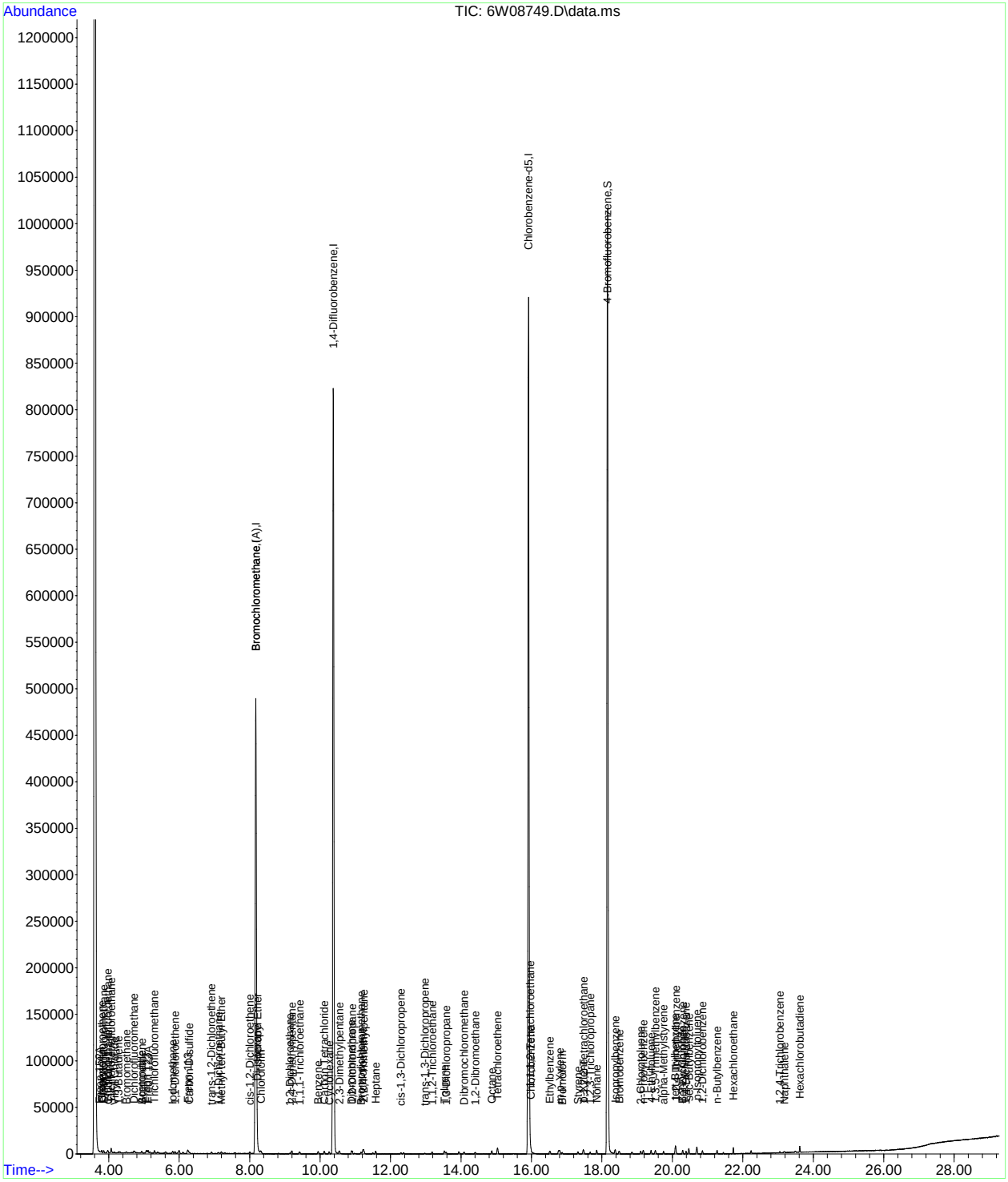
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
81)	m,p-Xylene	16.803	91	7444	0.09	ppb(v	97
82)	Styrene	17.323	104	2091	0.04	ppb(v#	91
83)	Nonane	17.849	43	1950	0.04	ppb(v#	92
84)	o-Xylene	17.470	91	3924	0.05	ppb(v	94
85)	Bromoform	16.870	173	1441	0.03	ppb(v#	94
86)	1,1,2,2-Tetrachloroethane	17.482	83	2287	0.05	ppb(v#	92
87)	1,2,3-Trichloropropane	17.672	75	1706	0.05	ppb(v	99
88)	Isopropylbenzene	18.381	105	5569	0.05	ppb(v	94
89)	Bromobenzene	18.491	156	1442	0.04	ppb(v	96
90)	2-Chlorotoluene	19.103	126	1082	0.04	ppb(v	95
91)	n-Propylbenzene	19.176	120	1123	0.04	ppb(v	94
93)	4-Ethyltoluene	19.397	105	4414	0.04	ppb(v	96
94)	1,3,5-Trimethylbenzene	19.519	105	4233	0.05	ppb(v	97
95)	alpha-Methylstyrene	19.745	118	1552	0.04	ppb(v	95
96)	tert-Butylbenzene	20.082	134	940	0.04	ppb(v	82
97)	1,2,4-Trimethylbenzene	20.100	105	3682	0.04	ppb(v	96
98)	1,3-Dichlorobenzene	20.290	146	2248	0.05	ppb(v	98
99)	Benzyl Chloride	20.284	91	1112	0.03	ppb(v#	63
100)	1,4-Dichlorobenzene	20.388	146	1948	0.05	ppb(v	98
101)	sec-Butylbenzene	20.473	134	1097	0.04	ppb(v	92
102)	p-Isopropyltoluene	20.700	134	1139	0.04	ppb(v	95
103)	1,2-Dichlorobenzene	20.853	146	2159	0.05	ppb(v	96
104)	n-Butylbenzene	21.269	134	780	0.04	ppb(v	95
105)	Hexachloroethane	21.734	201	870	0.03	ppb(v	92
106)	1,2,4-Trichlorobenzene	23.049	180	760	0.07	ppb(v#	75
107)	Naphthalene	23.177	128	1620	0.07	ppb(v#	69
108)	Hexachlorobutadiene	23.618	225	1718	0.07	ppb(v	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08749.D
Acq On : 22 Oct 2018 12:49 pm
Operator : paulcw
Sample : ic335-0.04
Misc : MS30116,V6W335,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 09:36:59 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:34:38 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08750.D
Acq On : 22 Oct 2018 1:48 pm
Operator : paulcw
Sample : ic335-0.1
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:33:49 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:31:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	245093	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.373	114	884874	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.916	82	373986	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	245093	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	458264	10.03	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.30%			
Target Compounds						Qvalue
3) Freon 152A	3.735	65	1352	0.11	ppb(v#	77
4) Chlorodifluoromethane	3.772	67	588	0.09	ppb(v#	42
5) Propene	3.803	41	1475	0.11	ppb(v#	91
6) Chlorotrifluoroethene	3.803	116	3955	0.11	ppb(v	94
7) Dichlorodifluoromethane	3.858	85	7119	0.11	ppb(v	96
8) 1-Chloro-1,1-difluoroe...	3.968	65	5588	0.11	ppb(v#	70
9) Chloromethane	3.986	50	2001	0.11	ppb(v	99
10) Dichlorotetrafluoroethane	4.066	85	7326	0.11	ppb(v	96
11) Vinyl Chloride	4.164	62	2399	0.11	ppb(v#	97
12) 1,3-Butadiene	4.274	54	1794	0.12	ppb(v	93
13) n-Butane	4.317	58	268	0.07	ppb(v#	65
14) Bromomethane	4.500	94	2663	0.11	ppb(v#	96
15) Acrolein	5.038	56	937	0.10	ppb(v#	77
16) Chloroethane	4.635	64	1184	0.10	ppb(v#	72
17) Dichlorofluoromethane	4.714	67	6145	0.11	ppb(v	99
18) Acetonitrile	4.928	41	1814	0.11	ppb(v#	77
19) Freon 123	5.063	83	6188	0.11	ppb(v	97
20) Freon 123A	5.112	117	3711	0.11	ppb(v	93
21) Bromoethene	4.941	106	2701	0.11	ppb(v	94
22) Trichlorofluoromethane	5.295	101	7260	0.11	ppb(v	97
23) Acetone	5.161	58	1233	0.12	ppb(v	91
24) Pentane	5.614	57	400	0.07	ppb(v	96
26) Iodomethane	5.809	142	7911	0.11	ppb(v	98
27) Isopropyl Alcohol	5.387	45	4236	0.11	ppb(v#	96
28) 1,1-Dichloroethene	5.883	61	3711	0.11	ppb(v	96
29) Freon 113	6.244	101	5543	0.11	ppb(v	97
30) Methylene Chloride	5.999	84	3196	0.15	ppb(v	92
31) Carbon Disulfide	6.280	76	7008	0.11	ppb(v	99
32) Ethanol	4.739	45	994	0.12	ppb(v#	88
33) Acrylonitrile	5.577	53	1504	0.09	ppb(v	97
34) 3-Chloropropene	6.103	76	984	0.09	ppb(v#	87
35) trans-1,2-Dichloroethene	6.910	61	3300	0.10	ppb(v	98
36) tert-Butyl Alcohol	5.956	59	4158	0.09	ppb(v#	89
37) Methyl tert-Butyl Ether	7.186	73	7028	0.11	ppb(v	97
38) Vinyl Acetate	7.284	43	4852	0.09	ppb(v#	71
39) 1,1-Dichloroethane	7.112	63	4419	0.11	ppb(v#	92
40) 2-Butanone	7.559	72	676	0.06	ppb(v#	94
41) Hexane	8.214	57	3457	0.10	ppb(v	91
42) cis-1,2-Dichloroethene	7.999	61	3254	0.10	ppb(v	97
43) Di-isopropyl Ether	8.220	87	2081	0.10	ppb(v	94
45) Methyl Acrylate	8.256	55	3144	0.08	ppb(v#	86
46) Chloroform	8.318	83	5868	0.11	ppb(v	99
47) 2,4-Dimethylpentane	9.192	57	4098	0.10	ppb(v	99
48) Tetrahydrofuran	8.807	72	752	0.07	ppb(v	86
49) 1,1,1-Trichloroethane	9.413	97	5884	0.11	ppb(v	96
50) 1,2-Dichloroethane	9.137	62	3427	0.10	ppb(v#	91
51) Benzene	9.945	78	8004	0.11	ppb(v	97
52) Carbon Tetrachloride	10.116	117	5939	0.11	ppb(v	97
53) Cyclohexane	10.257	56	3738	0.11	ppb(v	97
54) 2,3-Dimethylpentane	10.550	71	1648	0.10	ppb(v#	92
56) 2,2,4-Trimethylpentane	11.236	57	11641	0.11	ppb(v	97
57) Heptane	11.578	71	2429	0.10	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08750.D
Acq On : 22 Oct 2018 1:48 pm
Operator : paulcw
Sample : ic335-0.1
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:33:49 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:31:59 2018
Response via : Initial Calibration

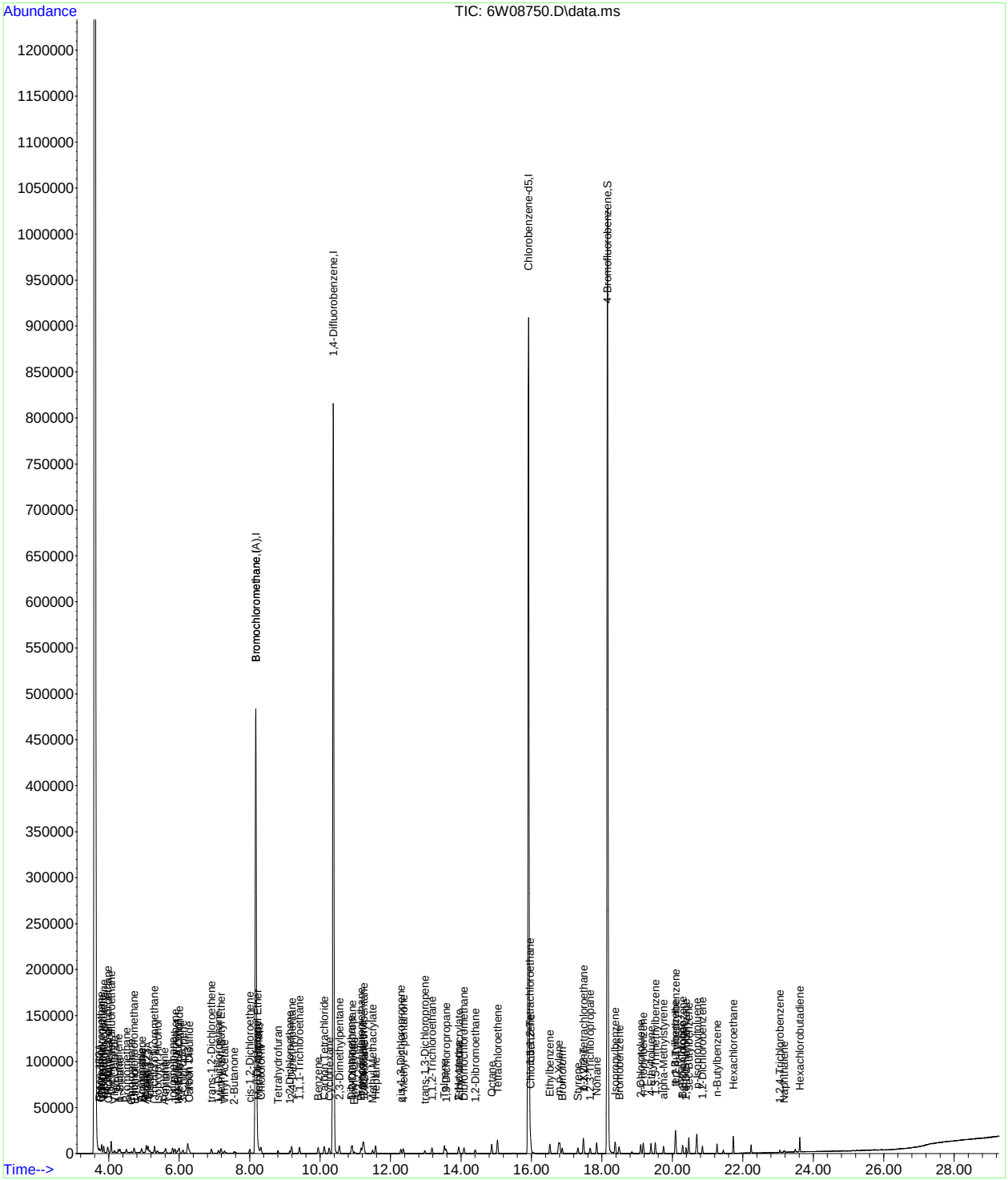
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
58) Trichloroethene	11.205	95	3796	0.11 ppb(v	96
59) 1,2-Dichloropropane	10.918	63	2722	0.11 ppb(v#	90
60) Dibromomethane	10.887	174	4331	0.12 ppb(v	98
61) Ethyl Acrylate	10.967	55	3758	0.08 ppb(v#	75
62) Methyl Methacrylate	11.493	69	2092	0.08 ppb(v	96
63) 1,4-Dioxane	11.254	88	1522	0.09 ppb(v#	61
64) Bromodichloromethane	11.162	83	5682	0.10 ppb(v	98
65) cis-1,3-Dichloropropene	12.288	75	3765	0.09 ppb(v	98
66) 4-Methyl-2-pentanone	12.361	58	1781	0.09 ppb(v	90
67) trans-1,3-Dichloropropene	12.967	75	3003	0.09 ppb(v#	87
68) Toluene	13.524	91	9559	0.11 ppb(v	96
69) 1,1,2-Trichloroethane	13.181	97	3092	0.10 ppb(v	96
70) 1,3-Dichloropropane	13.579	76	4288	0.11 ppb(v	95
71) 2-Hexanone	13.927	58	1859	0.07 ppb(v#	95
72) Ethyl Methacrylate	13.940	69	3429	0.08 ppb(v#	96
73) Dibromochloromethane	14.080	129	5288	0.10 ppb(v#	98
74) Tetrachloroethene	15.041	166	6247	0.12 ppb(v	95
75) 1,2-Dibromoethane	14.405	107	4427	0.10 ppb(v#	97
76) Octane	14.876	43	5166	0.10 ppb(v	96
77) 1,1,1,2-Tetrachloroethane	15.959	131	3990	0.10 ppb(v#	1
79) Chlorobenzene	15.977	112	7975	0.12 ppb(v	96
80) Ethylbenzene	16.521	91	11952	0.11 ppb(v	97
81) m,p-Xylene	16.778	91	18999	0.23 ppb(v	99
82) Styrene	17.317	104	5313	0.10 ppb(v	96
83) Nonane	17.849	43	5219	0.11 ppb(v#	90
84) o-Xylene	17.470	91	9108	0.11 ppb(v	96
85) Bromoform	16.870	173	3942	0.09 ppb(v#	95
86) 1,1,2,2-Tetrachloroethane	17.476	83	5342	0.12 ppb(v#	97
87) 1,2,3-Trichloropropane	17.665	75	4161	0.12 ppb(v	95
88) Isopropylbenzene	18.375	105	13635	0.12 ppb(v	98
89) Bromobenzene	18.491	156	3647	0.11 ppb(v	93
90) 2-Chlorotoluene	19.097	126	2943	0.11 ppb(v	91
91) n-Propylbenzene	19.170	120	3235	0.11 ppb(v	92
93) 4-Ethyltoluene	19.397	105	10905	0.11 ppb(v	98
94) 1,3,5-Trimethylbenzene	19.519	105	9823	0.11 ppb(v	98
95) alpha-Methylstyrene	19.745	118	3547	0.09 ppb(v	96
96) tert-Butylbenzene	20.082	134	2545	0.12 ppb(v	93
97) 1,2,4-Trimethylbenzene	20.094	105	9133	0.11 ppb(v#	80
98) 1,3-Dichlorobenzene	20.290	146	4787	0.11 ppb(v	94
99) Benzyl Chloride	20.284	91	2315	0.06 ppb(v#	84
100) 1,4-Dichlorobenzene	20.388	146	3927	0.10 ppb(v	97
101) sec-Butylbenzene	20.467	134	3003	0.12 ppb(v	93
102) p-Isopropyltoluene	20.700	134	2894	0.11 ppb(v	92
103) 1,2-Dichlorobenzene	20.853	146	4815	0.11 ppb(v	98
104) n-Butylbenzene	21.269	134	1988	0.10 ppb(v	90
105) Hexachloroethane	21.734	201	2662	0.10 ppb(v	96
106) 1,2,4-Trichlorobenzene	23.049	180	1161	0.10 ppb(v	95
107) Naphthalene	23.171	128	2582	0.11 ppb(v#	85
108) Hexachlorobutadiene	23.618	225	3584	0.15 ppb(v	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08750.D
Acq On : 22 Oct 2018 1:48 pm
Operator : paulcw
Sample : ic335-0.1
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:33:49 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:31:59 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
10/23/18 17:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08751.D
Acq On : 22 Oct 2018 2:40 pm
Operator : paulcw
Sample : ic335-0.2
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:31:52 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:30:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	244439	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.373	114	886331	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.916	82	376518	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	244439	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	465894	10.15	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.50%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	2480	0.20	ppb(v	95
4) Chlorodifluoromethane	3.766	67	1157	0.18	ppb(v	99
5) Propene	3.796	41	2818	0.20	ppb(v	98
6) Chlorotrifluoroethene	3.796	116	7386	0.21	ppb(v	98
7) Dichlorodifluoromethane	3.852	85	13107	0.21	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.962	65	10290	0.21	ppb(v#	71
9) Chloromethane	3.986	50	3739	0.21	ppb(v	98
10) Dichlorotetrafluoroethane	4.060	85	13631	0.22	ppb(v	99
11) Vinyl Chloride	4.164	62	4539	0.21	ppb(v#	98
12) 1,3-Butadiene	4.274	54	3169	0.21	ppb(v	99
13) n-Butane	4.310	58	755	0.19	ppb(v#	74
14) Bromomethane	4.494	94	5003	0.22	ppb(v	97
15) Acrolein	5.032	56	1763	0.20	ppb(v#	77
16) Chloroethane	4.635	64	2175	0.19	ppb(v#	95
17) Dichlorofluoromethane	4.714	67	11415	0.22	ppb(v	99
18) Acetonitrile	4.922	41	3358	0.21	ppb(v	91
19) Freon 123	5.063	83	11731	0.22	ppb(v	98
20) Freon 123A	5.112	117	7169	0.21	ppb(v	99
21) Bromoethene	4.934	106	5048	0.21	ppb(v	97
22) Trichlorofluoromethane	5.295	101	13459	0.22	ppb(v	98
23) Acetone	5.155	58	2049	0.21	ppb(v	97
24) Pentane	5.613	57	1022	0.19	ppb(v	91
26) Iodomethane	5.809	142	14537	0.21	ppb(v	99
27) Isopropyl Alcohol	5.375	45	7781	0.21	ppb(v#	92
28) 1,1-Dichloroethene	5.876	61	6758	0.20	ppb(v	97
29) Freon 113	6.237	101	10507	0.21	ppb(v	98
30) Methylene Chloride	5.999	84	5067	0.25	ppb(v	98
31) Carbon Disulfide	6.280	76	12556	0.20	ppb(v	98
32) Ethanol	4.732	45	1788	0.22	ppb(v#	92
33) Acrylonitrile	5.571	53	3168	0.19	ppb(v	97
34) 3-Chloropropene	6.103	76	1938	0.18	ppb(v	97
35) trans-1,2-Dichloroethene	6.910	61	6253	0.20	ppb(v	97
36) tert-Butyl Alcohol	5.944	59	8056	0.18	ppb(v	98
37) Methyl tert-Butyl Ether	7.180	73	12838	0.19	ppb(v	97
38) Vinyl Acetate	7.277	43	9782	0.17	ppb(v	97
39) 1,1-Dichloroethane	7.112	63	8080	0.21	ppb(v#	95
40) 2-Butanone	7.553	72	1686	0.15	ppb(v#	92
41) Hexane	8.207	57	6613	0.20	ppb(v	91
42) cis-1,2-Dichloroethene	7.999	61	6179	0.20	ppb(v	98
43) Di-isopropyl Ether	8.213	87	3966	0.18	ppb(v	95
44) Ethyl Acetate	8.256	61	1001	0.15	ppb(v#	83
45) Methyl Acrylate	8.244	55	6509	0.16	ppb(v	97
46) Chloroform	8.317	83	10725	0.21	ppb(v	99
47) 2,4-Dimethylpentane	9.186	57	7618	0.19	ppb(v	96
48) Tetrahydrofuran	8.789	72	1738	0.17	ppb(v	98
49) 1,1,1-Trichloroethane	9.413	97	10738	0.20	ppb(v	99
50) 1,2-Dichloroethane	9.137	62	6726	0.20	ppb(v#	95
51) Benzene	9.945	78	14474	0.20	ppb(v	99
52) Carbon Tetrachloride	10.116	117	10791	0.20	ppb(v	98
53) Cyclohexane	10.251	56	6755	0.20	ppb(v	99
54) 2,3-Dimethylpentane	10.544	71	3191	0.20	ppb(v	93
56) 2,2,4-Trimethylpentane	11.236	57	21883	0.20	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08751.D
Acq On : 22 Oct 2018 2:40 pm
Operator : paulcw
Sample : ic335-0.2
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:31:52 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:30:12 2018
Response via : Initial Calibration

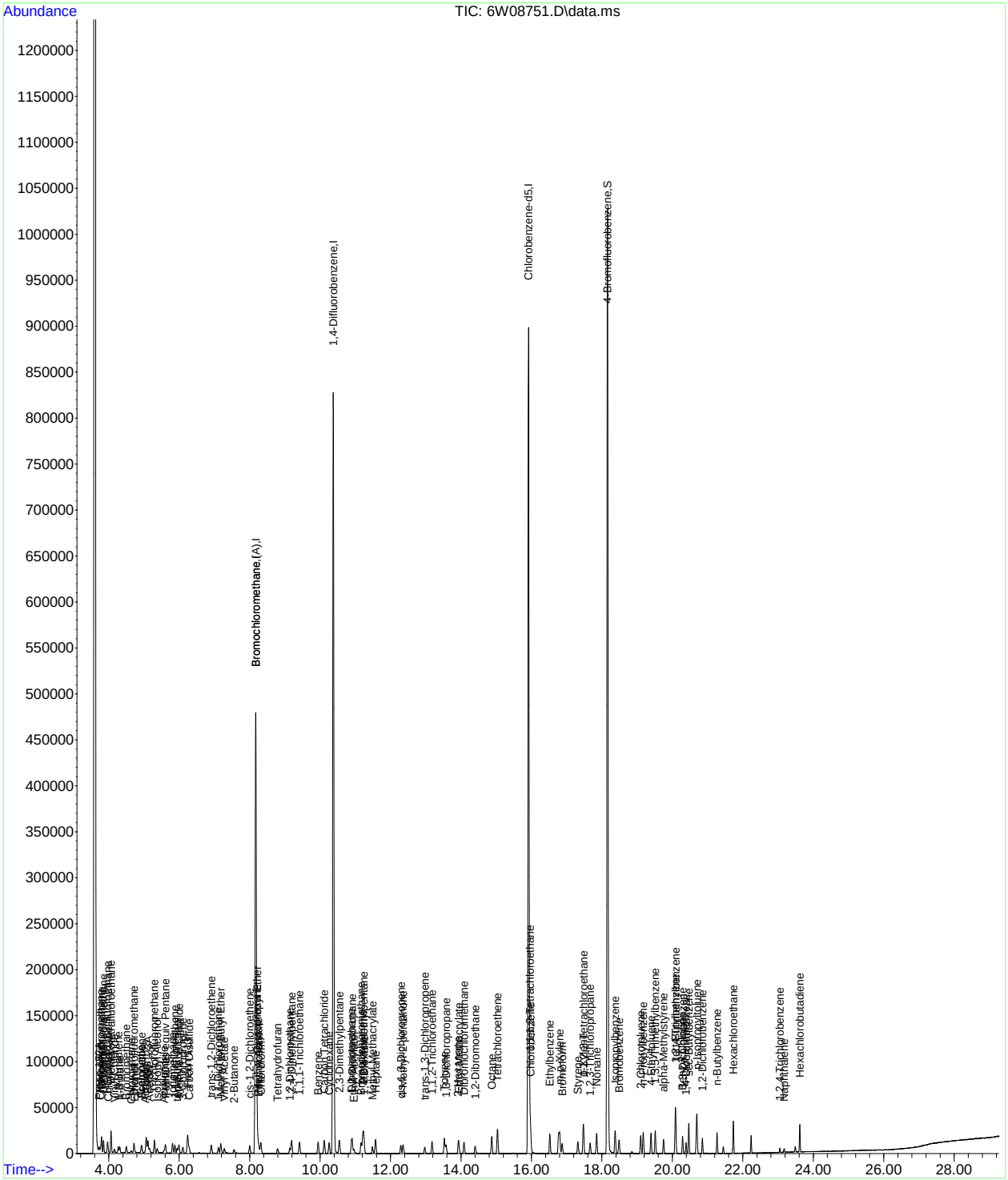
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.578	71	4798	0.19	ppb(v	96
58) Trichloroethene	11.211	95	7035	0.20	ppb(v	95
59) 1,2-Dichloropropane	10.917	63	5143	0.20	ppb(v	97
60) Dibromomethane	10.893	174	7515	0.20	ppb(v	98
61) Ethyl Acrylate	10.960	55	7598	0.15	ppb(v	97
62) Methyl Methacrylate	11.486	69	4148	0.16	ppb(v	94
63) 1,4-Dioxane	11.254	88	2937	0.17	ppb(v#	68
64) Bromodichloromethane	11.162	83	10452	0.19	ppb(v	99
65) cis-1,3-Dichloropropene	12.294	75	7325	0.18	ppb(v	95
66) 4-Methyl-2-pentanone	12.349	58	3386	0.16	ppb(v	91
67) trans-1,3-Dichloropropene	12.973	75	5740	0.16	ppb(v	98
68) Toluene	13.524	91	17745	0.19	ppb(v	97
69) 1,1,2-Trichloroethane	13.181	97	5948	0.19	ppb(v	98
70) 1,3-Dichloropropane	13.573	76	7862	0.19	ppb(v	99
71) 2-Hexanone	13.915	58	3880	0.14	ppb(v	93
72) Ethyl Methacrylate	13.934	69	6770	0.15	ppb(v#	97
73) Dibromochloromethane	14.086	129	9806	0.17	ppb(v	99
74) Tetrachloroethene	15.035	166	11163	0.21	ppb(v	98
75) 1,2-Dibromoethane	14.405	107	8671	0.18	ppb(v#	98
76) Octane	14.876	43	9666	0.19	ppb(v	97
77) 1,1,1,2-Tetrachloroethane	15.958	131	7492	0.19	ppb(v#	1
79) Chlorobenzene	15.977	112	14635	0.23	ppb(v	99
80) Ethylbenzene	16.521	91	22615	0.22	ppb(v	98
81) m,p-Xylene	16.797	91	36063	0.45	ppb(v	100
82) Styrene	17.317	104	10031	0.18	ppb(v	96
83) Nonane	17.849	43	9956	0.22	ppb(v	99
84) o-Xylene	17.470	91	17447	0.22	ppb(v	98
85) Bromoform	16.870	173	7417	0.17	ppb(v	98
86) 1,1,2,2-Tetrachloroethane	17.476	83	9780	0.22	ppb(v#	98
87) 1,2,3-Trichloropropane	17.665	75	7652	0.21	ppb(v	97
88) Isopropylbenzene	18.375	105	24977	0.22	ppb(v	99
89) Bromobenzene	18.485	156	6911	0.20	ppb(v	95
90) 2-Chlorotoluene	19.097	126	5458	0.21	ppb(v	95
91) n-Propylbenzene	19.170	120	6016	0.20	ppb(v	99
93) 4-Ethyltoluene	19.397	105	20243	0.20	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.513	105	18802	0.22	ppb(v	98
95) alpha-Methylstyrene	19.745	118	6721	0.17	ppb(v	99
96) tert-Butylbenzene	20.088	134	4848	0.23	ppb(v	91
97) 1,2,4-Trimethylbenzene	20.094	105	17363	0.21	ppb(v#	78
98) 1,3-Dichlorobenzene	20.290	146	8783	0.19	ppb(v	99
99) Benzyl Chloride	20.284	91	4294	0.11	ppb(v#	95
100) 1,4-Dichlorobenzene	20.388	146	7285	0.17	ppb(v	98
101) sec-Butylbenzene	20.467	134	5653	0.22	ppb(v	94
102) p-Isopropyltoluene	20.700	134	5894	0.23	ppb(v	99
103) 1,2-Dichlorobenzene	20.853	146	8857	0.21	ppb(v	99
104) n-Butylbenzene	21.269	134	4119	0.20	ppb(v	96
105) Hexachloroethane	21.734	201	5070	0.19	ppb(v	96
106) 1,2,4-Trichlorobenzene	23.049	180	2054	0.17	ppb(v	97
107) Naphthalene	23.171	128	4590	0.20	ppb(v	100
108) Hexachlorobutadiene	23.618	225	6453	0.28	ppb(v	99
110) TVHC as equiv Pentane	5.607	TIC	20144m	0.20	ppb(v	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08751.D
Acq On : 22 Oct 2018 2:40 pm
Operator : paulcw
Sample : ic335-0.2
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:31:52 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:30:12 2018
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number:	V6W335-IC335	**Method:**	TO-15
Lab FileID:	6W08751.D	**Analyst approved:**	10/23/18 09:46 Dana Tryon
Injection Time:	10/22/18 14:40	**Supervisor approved:**	10/23/18 17:38 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.61	Missed peak

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
10/23/18 17:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08752.D
Acq On : 22 Oct 2018 3:33 pm
Operator : paulcw
Sample : ic335-0.5
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:29:55 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:27:35 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	244906	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.379	114	884173	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.916	82	378452	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	244906	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	478197	10.46	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 104.60%			
Target Compounds						Qvalue
3) Freon 152A	3.735	65	6183	0.49	ppb(v	96
4) Chlorodifluoromethane	3.772	67	3066	0.49	ppb(v	100
5) Propene	3.797	41	6767	0.49	ppb(v	97
6) Chlorotrifluoroethene	3.803	116	17442	0.50	ppb(v	98
7) Dichlorodifluoromethane	3.852	85	31465	0.51	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.968	65	24527	0.51	ppb(v	95
9) Chloromethane	3.986	50	8944	0.51	ppb(v	97
10) Dichlorotetrafluoroethane	4.066	85	32607	0.52	ppb(v	98
11) Vinyl Chloride	4.164	62	10679	0.50	ppb(v#	98
12) 1,3-Butadiene	4.274	54	7635	0.50	ppb(v	95
13) n-Butane	4.316	58	1974	0.49	ppb(v#	87
14) Bromomethane	4.500	94	11811	0.52	ppb(v	99
15) Acrolein	5.032	56	4195	0.46	ppb(v#	90
16) Chloroethane	4.641	64	5779	0.51	ppb(v	99
17) Dichlorofluoromethane	4.714	67	26843	0.51	ppb(v	99
18) Acetonitrile	4.922	41	7982	0.49	ppb(v	99
19) Freon 123	5.063	83	27383	0.50	ppb(v	99
20) Freon 123A	5.112	117	17320	0.51	ppb(v	99
21) Bromoethene	4.934	106	11979	0.50	ppb(v	95
22) Trichlorofluoromethane	5.301	101	31754	0.51	ppb(v	97
23) Acetone	5.149	58	5031	0.52	ppb(v	93
24) Pentane	5.607	57	2559	0.46	ppb(v	97
26) Iodomethane	5.809	142	34509	0.50	ppb(v	99
27) Isopropyl Alcohol	5.369	45	16887	0.45	ppb(v	97
28) 1,1-Dichloroethene	5.877	61	16421	0.48	ppb(v	99
29) Freon 113	6.237	101	24800	0.50	ppb(v	99
30) Methylene Chloride	5.993	84	10888	0.53	ppb(v	97
31) Carbon Disulfide	6.280	76	29960	0.48	ppb(v	100
32) Ethanol	4.732	45	4332	0.53	ppb(v#	95
33) Acrylonitrile	5.565	53	7474	0.44	ppb(v	98
34) 3-Chloropropene	6.103	76	5065	0.46	ppb(v	97
35) trans-1,2-Dichloroethene	6.910	61	15166	0.48	ppb(v	99
36) tert-Butyl Alcohol	5.925	59	19847	0.43	ppb(v	98
37) Methyl tert-Butyl Ether	7.173	73	31412	0.47	ppb(v	98
38) Vinyl Acetate	7.271	43	24358	0.41	ppb(v	98
39) 1,1-Dichloroethane	7.118	63	19128	0.48	ppb(v	99
40) 2-Butanone	7.541	72	4713	0.41	ppb(v	94
41) Hexane	8.207	57	15965	0.47	ppb(v	92
42) cis-1,2-Dichloroethene	7.999	61	14811	0.47	ppb(v	97
43) Di-isopropyl Ether	8.213	87	10161	0.47	ppb(v	92
44) Ethyl Acetate	8.250	61	2974	0.42	ppb(v	94
45) Methyl Acrylate	8.238	55	17562	0.42	ppb(v	97
46) Chloroform	8.317	83	25356	0.49	ppb(v	97
47) 2,4-Dimethylpentane	9.192	57	18596	0.47	ppb(v	98
48) Tetrahydrofuran	8.776	72	4591	0.43	ppb(v	90
49) 1,1,1-Trichloroethane	9.413	97	25948	0.48	ppb(v	98
50) 1,2-Dichloroethane	9.137	62	15929	0.48	ppb(v	99
51) Benzene	9.945	78	35016	0.48	ppb(v	99
52) Carbon Tetrachloride	10.116	117	25644	0.46	ppb(v	99
53) Cyclohexane	10.257	56	16201	0.47	ppb(v	97
54) 2,3-Dimethylpentane	10.544	71	7529	0.46	ppb(v	96
56) 2,2,4-Trimethylpentane	11.236	57	52644	0.48	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08752.D
Acq On : 22 Oct 2018 3:33 pm
Operator : paulcw
Sample : ic335-0.5
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:29:55 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:27:35 2018
Response via : Initial Calibration

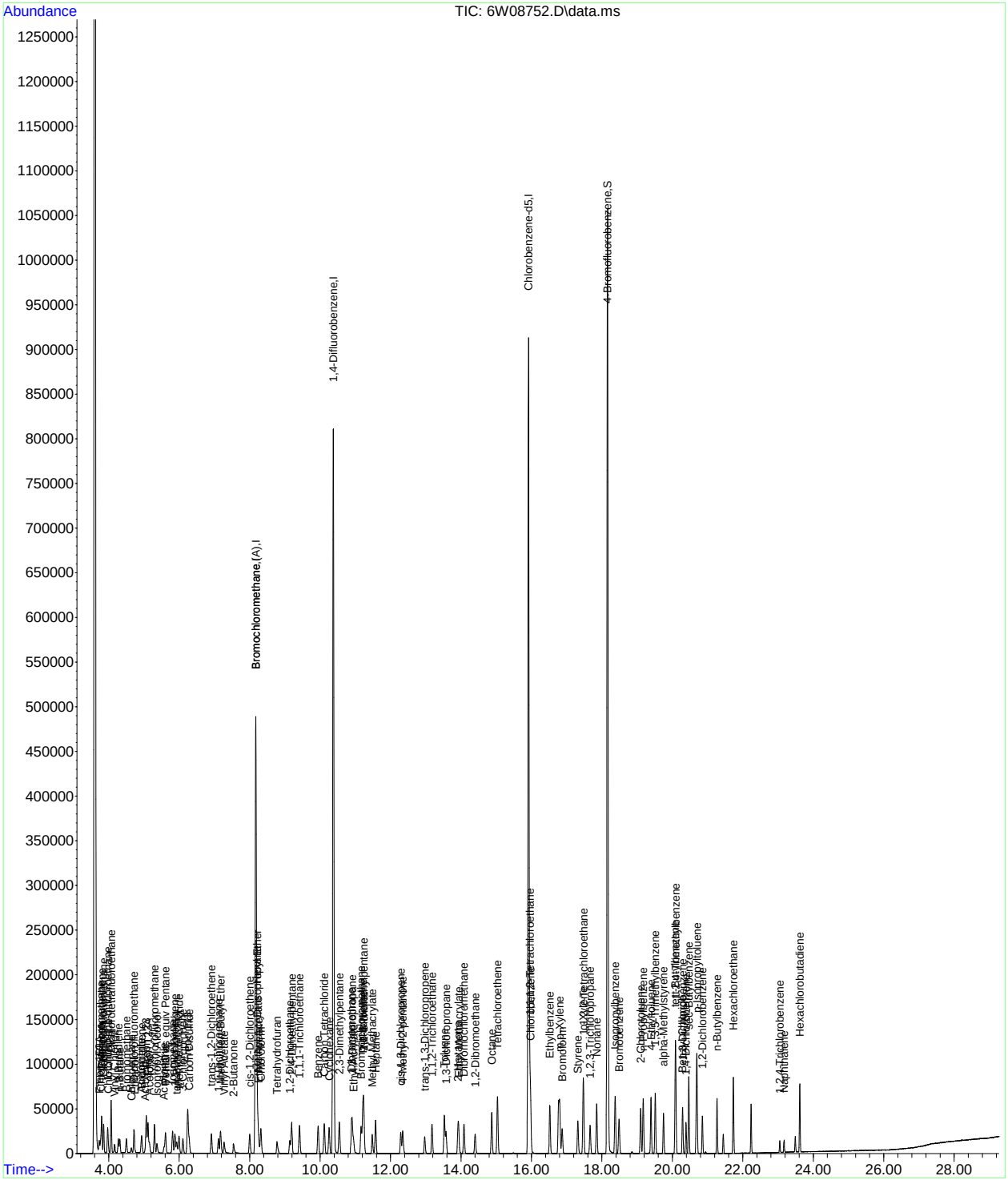
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.578	71	11729	0.46	ppb(v	97
58) Trichloroethene	11.211	95	16831	0.48	ppb(v	98
59) 1,2-Dichloropropane	10.918	63	12502	0.48	ppb(v	98
60) Dibromomethane	10.893	174	18124	0.49	ppb(v	97
61) Ethyl Acrylate	10.954	55	20406	0.39	ppb(v	99
62) Methyl Methacrylate	11.480	69	10989	0.40	ppb(v	95
63) 1,4-Dioxane	11.236	88	7714	0.44	ppb(v#	26
64) Bromodichloromethane	11.162	83	26123	0.46	ppb(v	99
65) cis-1,3-Dichloropropene	12.288	75	18068	0.42	ppb(v	98
66) 4-Methyl-2-pentanone	12.343	58	9215	0.43	ppb(v	98
67) trans-1,3-Dichloropropene	12.973	75	14739	0.39	ppb(v	97
68) Toluene	13.524	91	43303	0.47	ppb(v	99
69) 1,1,2-Trichloroethane	13.181	97	14744	0.47	ppb(v	98
70) 1,3-Dichloropropane	13.573	76	19431	0.47	ppb(v	99
71) 2-Hexanone	13.909	58	10840	0.38	ppb(v	98
72) Ethyl Methacrylate	13.934	69	17860	0.39	ppb(v	99
73) Dibromochloromethane	14.080	129	24718	0.42	ppb(v	98
74) Tetrachloroethene	15.035	166	26423	0.51	ppb(v	98
75) 1,2-Dibromoethane	14.405	107	21335	0.44	ppb(v	100
76) Octane	14.876	43	23677	0.46	ppb(v	98
77) 1,1,1,2-Tetrachloroethane	15.959	131	18340	0.46	ppb(v#	33
79) Chlorobenzene	15.977	112	35144	0.55	ppb(v	99
80) Ethylbenzene	16.521	91	55002	0.54	ppb(v	99
81) m,p-Xylene	16.797	91	89663	1.13	ppb(v	100
82) Styrene	17.317	104	26789	0.46	ppb(v	99
83) Nonane	17.849	43	25134	0.55	ppb(v	100
84) o-Xylene	17.470	91	43400	0.55	ppb(v	99
85) Bromoform	16.870	173	19178	0.42	ppb(v	98
86) 1,1,2,2-Tetrachloroethane	17.476	83	24232	0.54	ppb(v	100
87) 1,2,3-Trichloropropane	17.665	75	18613	0.52	ppb(v	98
88) Isopropylbenzene	18.375	105	62494	0.57	ppb(v	99
89) Bromobenzene	18.485	156	17515	0.51	ppb(v	95
90) 2-Chlorotoluene	19.103	126	14036	0.54	ppb(v	87
91) n-Propylbenzene	19.170	120	15556	0.53	ppb(v	97
93) 4-Ethyltoluene	19.397	105	53507	0.54	ppb(v	99
94) 1,3,5-Trimethylbenzene	19.513	105	47750	0.56	ppb(v	99
95) alpha-Methylstyrene	19.745	118	17750	0.44	ppb(v	99
96) tert-Butylbenzene	20.082	134	12220	0.60	ppb(v	94
97) 1,2,4-Trimethylbenzene	20.094	105	44252	0.55	ppb(v#	78
98) 1,3-Dichlorobenzene	20.290	146	22041	0.47	ppb(v	99
99) Benzyl Chloride	20.278	91	11156	0.26	ppb(v	99
100) 1,4-Dichlorobenzene	20.388	146	18774	0.43	ppb(v	98
101) sec-Butylbenzene	20.467	134	14261	0.57	ppb(v	96
102) p-Isopropyltoluene	20.700	134	15059	0.59	ppb(v	99
103) 1,2-Dichlorobenzene	20.853	146	21692	0.51	ppb(v	99
104) n-Butylbenzene	21.269	134	10711	0.51	ppb(v	95
105) Hexachloroethane	21.734	201	12964	0.49	ppb(v	94
106) 1,2,4-Trichlorobenzene	23.049	180	5066	0.41	ppb(v	93
107) Naphthalene	23.171	128	11851	0.51	ppb(v	98
108) Hexachlorobutadiene	23.618	225	15404	0.74	ppb(v	97
110) TVHC as equiv Pentane	5.607	TIC	55606m	0.57	ppb(v	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08752.D
Acq On : 22 Oct 2018 3:33 pm
Operator : paulcw
Sample : ic335-0.5
Misc : MS30116,V6W335,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 09:29:55 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:27:35 2018
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number:	V6W335-IC335	**Method:**	TO-15
Lab FileID:	6W08752.D	**Analyst approved:**	10/23/18 09:46 Dana Tryon
Injection Time:	10/22/18 15:33	**Supervisor approved:**	10/23/18 17:38 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.61	Missed peak

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08753.D
Acq On : 22 Oct 2018 4:23 pm
Operator : paulcw
Sample : ic335-5
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:26:41 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:26:16 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	247839	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.379	114	893861	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.916	82	390899	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	247839	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	491903	10.57	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 105.70%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	65995	5.26	ppb(v	96
4) Chlorodifluoromethane	3.760	67	33164	5.26	ppb(v	99
5) Propene	3.784	41	73364	5.31	ppb(v	99
6) Chlorotrifluoroethene	3.796	116	186519	5.40	ppb(v	99
7) Dichlorodifluoromethane	3.845	85	330056	5.43	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	259133	5.48	ppb(v	100
9) Chloromethane	3.980	50	94875	5.45	ppb(v	100
10) Dichlorotetrafluoroethane	4.059	85	345461	5.67	ppb(v	99
11) Vinyl Chloride	4.157	62	116155	5.44	ppb(v	100
12) 1,3-Butadiene	4.267	54	82644	5.42	ppb(v	99
13) n-Butane	4.310	58	21544	5.41	ppb(v	98
14) Bromomethane	4.494	94	123859	5.58	ppb(v	99
15) Acrolein	5.026	56	47789	5.22	ppb(v	99
16) Chloroethane	4.634	64	61291	5.44	ppb(v	99
17) Dichlorofluoromethane	4.708	67	286737	5.53	ppb(v	99
18) Acetonitrile	4.916	41	85619	5.25	ppb(v	100
19) Freon 123	5.057	83	293071	5.45	ppb(v	99
20) Freon 123A	5.106	117	183591	5.45	ppb(v	99
21) Bromoethene	4.928	106	128193	5.43	ppb(v	99
22) Trichlorofluoromethane	5.295	101	335725	5.44	ppb(v	99
23) Acetone	5.136	58	52017	5.40	ppb(v	97
24) Pentane	5.607	57	29361	5.30	ppb(v	98
26) Iodomethane	5.803	142	373972	5.47	ppb(v	99
27) Isopropyl Alcohol	5.350	45	194568	5.21	ppb(v	99
28) 1,1-Dichloroethene	5.876	61	181596	5.30	ppb(v	99
29) Freon 113	6.231	101	265982	5.42	ppb(v	99
30) Methylene Chloride	5.993	84	108661	5.34	ppb(v	100
31) Carbon Disulfide	6.274	76	328253	5.31	ppb(v	100
32) Ethanol	4.720	45	43489	5.33	ppb(v	100
33) Acrylonitrile	5.558	53	87181	5.15	ppb(v	100
34) 3-Chloropropene	6.103	76	57642	5.17	ppb(v	97
35) trans-1,2-Dichloroethene	6.904	61	166411	5.22	ppb(v	99
36) tert-Butyl Alcohol	5.901	59	236934	5.06	ppb(v	99
37) Methyl tert-Butyl Ether	7.155	73	349156	5.22	ppb(v	99
38) Vinyl Acetate	7.259	43	301482	5.02	ppb(v	100
39) 1,1-Dichloroethane	7.112	63	208857	5.29	ppb(v	99
40) 2-Butanone	7.516	72	59209	5.10	ppb(v	97
41) Hexane	8.207	57	179839	5.31	ppb(v	95
42) cis-1,2-Dichloroethene	7.993	61	165043	5.24	ppb(v	99
43) Di-isopropyl Ether	8.195	87	114530	5.27	ppb(v	98
44) Ethyl Acetate	8.232	61	37022	5.17	ppb(v	89
45) Methyl Acrylate	8.219	55	215638	5.19	ppb(v	99
46) Chloroform	8.317	83	275427	5.36	ppb(v	98
47) 2,4-Dimethylpentane	9.186	57	210316	5.29	ppb(v	99
48) Tetrahydrofuran	8.746	72	55938	5.16	ppb(v	99
49) 1,1,1-Trichloroethane	9.412	97	282887	5.25	ppb(v	98
50) 1,2-Dichloroethane	9.131	62	176222	5.31	ppb(v	100
51) Benzene	9.945	78	388391	5.31	ppb(v	100
52) Carbon Tetrachloride	10.116	117	290485	5.14	ppb(v	100
53) Cyclohexane	10.251	56	179929	5.24	ppb(v	99
54) 2,3-Dimethylpentane	10.544	71	85443	5.28	ppb(v	99
56) 2,2,4-Trimethylpentane	11.235	57	589738	5.40	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08753.D
Acq On : 22 Oct 2018 4:23 pm
Operator : paulcw
Sample : ic335-5
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:26:41 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:26:16 2018
Response via : Initial Calibration

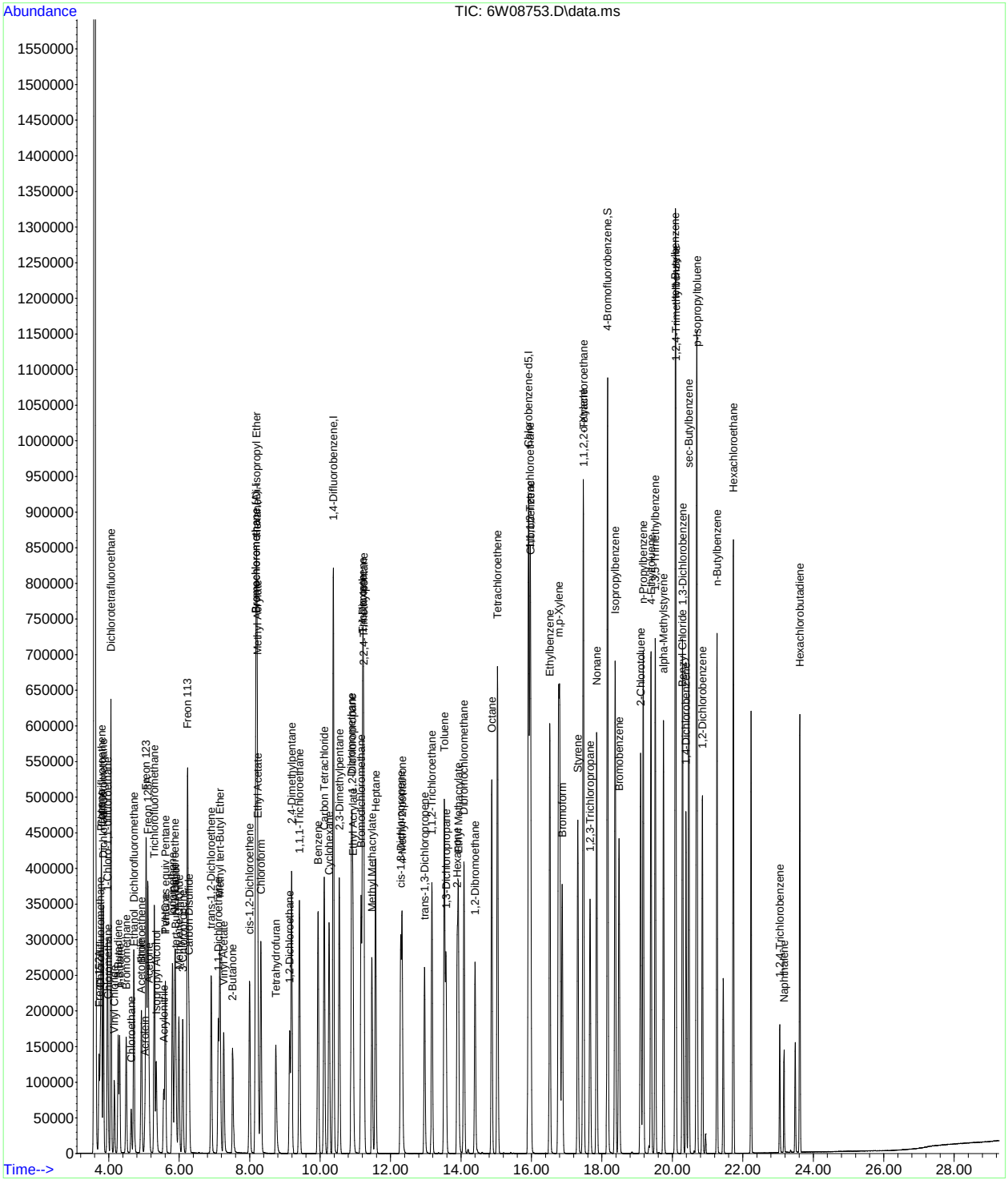
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.578	71	133318	5.24	ppb(v	100
58) Trichloroethene	11.205	95	186935	5.33	ppb(v	99
59) 1,2-Dichloropropane	10.917	63	137326	5.30	ppb(v	99
60) Dibromomethane	10.893	174	197254	5.40	ppb(v	99
61) Ethyl Acrylate	10.936	55	268715	5.02	ppb(v	100
62) Methyl Methacrylate	11.474	69	140016	5.13	ppb(v	97
63) 1,4-Dioxane	11.205	88	91527	5.20	ppb(v	98
64) Bromodichloromethane	11.162	83	295423	5.19	ppb(v	99
65) cis-1,3-Dichloropropene	12.288	75	217386	5.04	ppb(v	100
66) 4-Methyl-2-pentanone	12.324	58	110375	5.11	ppb(v	98
67) trans-1,3-Dichloropropene	12.961	75	187746	4.87	ppb(v	99
68) Toluene	13.524	91	483606	5.28	ppb(v	100
69) 1,1,2-Trichloroethane	13.175	97	162575	5.23	ppb(v	99
70) 1,3-Dichloropropane	13.572	76	215284	5.19	ppb(v	100
71) 2-Hexanone	13.891	58	143677	4.93	ppb(v	98
72) Ethyl Methacrylate	13.927	69	231579	5.02	ppb(v	99
73) Dibromochloromethane	14.080	129	297101	5.06	ppb(v	100
74) Tetrachloroethene	15.035	166	278798	5.44	ppb(v	99
75) 1,2-Dibromoethane	14.398	107	247401	5.09	ppb(v	99
76) Octane	14.876	43	268473	5.23	ppb(v	99
77) 1,1,1,2-Tetrachloroethane	15.958	131	208572	5.28	ppb(v	98
79) Chlorobenzene	15.977	112	375039	5.96	ppb(v	99
80) Ethylbenzene	16.521	91	602433	5.96	ppb(v	99
81) m,p-Xylene	16.772	91	934559	11.96	ppb(v	99
82) Styrene	17.316	104	332702	5.73	ppb(v	99
83) Nonane	17.849	43	266739	5.94	ppb(v	99
84) o-Xylene	17.469	91	468706	6.05	ppb(v	99
85) Bromoform	16.870	173	250324	5.46	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.476	83	265999	6.02	ppb(v	98
87) 1,2,3-Trichloropropane	17.665	75	205855	5.85	ppb(v	100
88) Isopropylbenzene	18.375	105	656306	6.12	ppb(v	99
89) Bromobenzene	18.485	156	196613	5.82	ppb(v	98
90) 2-Chlorotoluene	19.097	126	151907	5.94	ppb(v	99
91) n-Propylbenzene	19.170	120	174268	5.98	ppb(v	98
93) 4-Ethyltoluene	19.397	105	582079	5.99	ppb(v	100
94) 1,3,5-Trimethylbenzene	19.513	105	510683	6.10	ppb(v	99
95) alpha-Methylstyrene	19.745	118	230404	5.80	ppb(v	99
96) tert-Butylbenzene	20.082	134	125039	6.31	ppb(v	95
97) 1,2,4-Trimethylbenzene	20.100	105	478241	6.10	ppb(v	98
98) 1,3-Dichlorobenzene	20.290	146	269000	5.76	ppb(v	100
99) Benzyl Chloride	20.277	91	212390	4.64	ppb(v	99
100) 1,4-Dichlorobenzene	20.388	146	240083	5.52	ppb(v	99
101) sec-Butylbenzene	20.467	134	148765	6.13	ppb(v	97
102) p-Isopropyltoluene	20.700	134	154405	6.27	ppb(v	99
103) 1,2-Dichlorobenzene	20.852	146	246451	5.83	ppb(v	99
104) n-Butylbenzene	21.269	134	122024	5.80	ppb(v	99
105) Hexachloroethane	21.733	201	147638	5.50	ppb(v	98
106) 1,2,4-Trichlorobenzene	23.049	180	59976	4.66	ppb(v	100
107) Naphthalene	23.171	128	115440	4.71	ppb(v	99
108) Hexachlorobutadiene	23.618	225	122376	5.93	ppb(v	99
110) TVHC as equiv Pentane	5.607	TIC	529231	5.48	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08753.D
Acq On : 22 Oct 2018 4:23 pm
Operator : paulcw
Sample : ic335-5
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:26:41 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:26:16 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08754.D
Acq On : 22 Oct 2018 5:14 pm
Operator : paulcw
Sample : icc335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:23:06 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Oct 22 10:32:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	252414	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.379	114	912222	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.916	82	421846	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	252414	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	521581	10.00	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.00%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	130415	10.31	ppb(v	99
4) Chlorodifluoromethane	3.760	67	65225	10.42	ppb(v	98
5) Propene	3.784	41	143765	10.21	ppb(v	100
6) Chlorotrifluoroethene	3.796	116	361968	10.46	ppb(v	100
7) Dichlorodifluoromethane	3.845	85	639631	10.47	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	501257	10.49	ppb(v	100
9) Chloromethane	3.980	50	183487	10.27	ppb(v	99
10) Dichlorotetrafluoroethane	4.059	85	656921	10.53	ppb(v	96
11) Vinyl Chloride	4.157	62	224958	10.28	ppb(v	99
12) 1,3-Butadiene	4.267	54	158889	10.21	ppb(v	99
13) n-Butane	4.310	58	41491	10.14	ppb(v	99
14) Bromomethane	4.494	94	235930	10.40	ppb(v	100
15) Acrolein	5.026	56	94278	10.27	ppb(v	100
16) Chloroethane	4.635	64	117936	10.19	ppb(v	99
17) Dichlorofluoromethane	4.708	67	549377	10.42	ppb(v	99
18) Acetonitrile	4.910	41	168606	9.91	ppb(v	99
19) Freon 123	5.057	83	567711	10.52	ppb(v	100
20) Freon 123A	5.106	117	355927	10.59	ppb(v	99
21) Bromoethene	4.928	106	249378	10.46	ppb(v	99
22) Trichlorofluoromethane	5.289	101	646397	10.60	ppb(v	100
23) Acetone	5.130	58	99765	10.20	ppb(v	97
24) Pentane	5.601	57	56733	9.99	ppb(v	99
26) Iodomethane	5.803	142	723565	10.60	ppb(v	100
27) Isopropyl Alcohol	5.344	45	385787	10.29	ppb(v	99
28) 1,1-Dichloroethene	5.870	61	356196	10.31	ppb(v	99
29) Freon 113	6.231	101	513951	10.41	ppb(v	99
30) Methylene Chloride	5.993	84	211022	10.32	ppb(v	99
31) Carbon Disulfide	6.274	76	644763	10.35	ppb(v	100
32) Ethanol	4.714	45	84334	9.79	ppb(v	99
33) Acrylonitrile	5.552	53	174323	10.07	ppb(v	100
34) 3-Chloropropene	6.097	76	114557	10.28	ppb(v	99
35) trans-1,2-Dichloroethene	6.904	61	329756	10.29	ppb(v	100
36) tert-Butyl Alcohol	5.895	59	478077	10.12	ppb(v	100
37) Methyl tert-Butyl Ether	7.149	73	691174	10.32	ppb(v	98
38) Vinyl Acetate	7.259	43	607530	10.13	ppb(v	100
39) 1,1-Dichloroethane	7.112	63	410022	10.29	ppb(v	100
40) 2-Butanone	7.510	72	118531	10.12	ppb(v	97
41) Hexane	8.207	57	350086	10.16	ppb(v	99
42) cis-1,2-Dichloroethene	7.993	61	325344	10.27	ppb(v	99
43) Di-isopropyl Ether	8.195	87	225125	10.26	ppb(v	98
44) Ethyl Acetate	8.232	61	73486	10.12	ppb(v	85
45) Methyl Acrylate	8.220	55	428000	10.11	ppb(v	99
46) Chloroform	8.317	83	534939	10.42	ppb(v	99
47) 2,4-Dimethylpentane	9.186	57	410352	10.20	ppb(v	99
48) Tetrahydrofuran	8.740	72	110266	10.15	ppb(v	99
49) 1,1,1-Trichloroethane	9.412	97	555229	10.43	ppb(v	98
50) 1,2-Dichloroethane	9.131	62	343416	10.33	ppb(v	99
51) Benzene	9.945	78	759230	10.28	ppb(v	100
52) Carbon Tetrachloride	10.116	117	579079	10.60	ppb(v	100
53) Cyclohexane	10.251	56	354680	10.20	ppb(v	100
54) 2,3-Dimethylpentane	10.544	71	166726	10.17	ppb(v	99
56) 2,2,4-Trimethylpentane	11.236	57	1144908	10.30	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08754.D
Acq On : 22 Oct 2018 5:14 pm
Operator : paulcw
Sample : icc335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:23:06 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Oct 22 10:32:40 2018
Response via : Initial Calibration

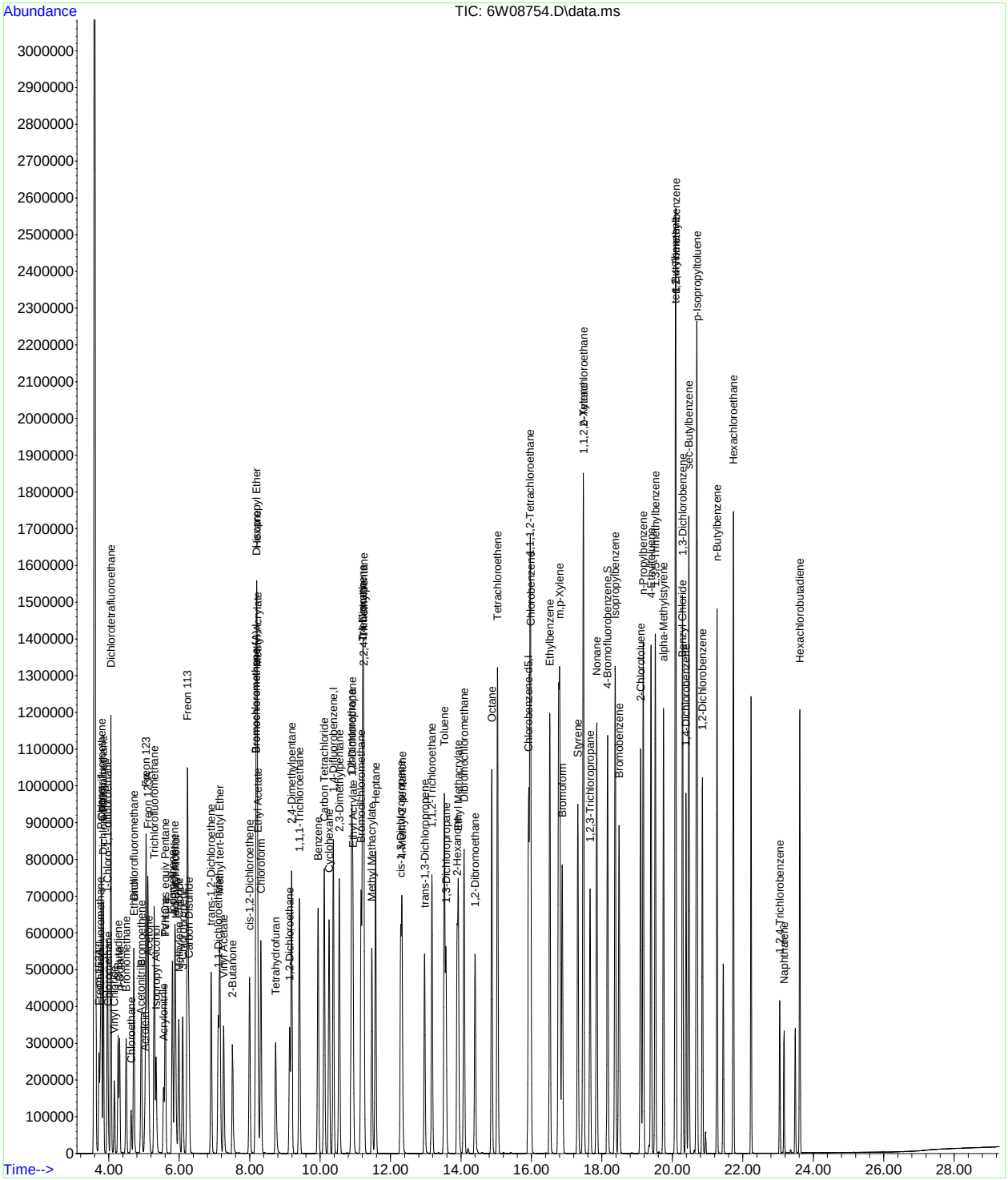
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	Heptane	11.578	71	262876	10.22	ppb(v	99
58)	Trichloroethene	11.205	95	364729	10.42	ppb(v	99
59)	1,2-Dichloropropane	10.917	63	269258	10.28	ppb(v	98
60)	Dibromomethane	10.893	174	383907	10.64	ppb(v	96
61)	Ethyl Acrylate	10.936	55	543387	10.10	ppb(v	100
62)	Methyl Methacrylate	11.468	69	276491	10.08	ppb(v	100
63)	1,4-Dioxane	11.205	88	179942	9.97	ppb(v	96
64)	Bromodichloromethane	11.162	83	583830	10.48	ppb(v	99
65)	cis-1,3-Dichloropropene	12.288	75	438224	10.23	ppb(v	99
66)	4-Methyl-2-pentanone	12.325	58	219200	10.05	ppb(v	98
67)	trans-1,3-Dichloropropene	12.967	75	386591	10.05	ppb(v	99
68)	Toluene	13.524	91	956215	10.43	ppb(v	99
69)	1,1,2-Trichloroethane	13.175	97	321270	10.41	ppb(v	98
70)	1,3-Dichloropropane	13.573	76	429935	10.30	ppb(v	100
71)	2-Hexanone	13.891	58	293512	10.00	ppb(v	100
72)	Ethyl Methacrylate	13.921	69	465924	10.19	ppb(v	100
73)	Dibromochloromethane	14.086	129	605698	10.75	ppb(v	100
74)	Tetrachloroethene	15.035	166	545144	10.77	ppb(v	99
75)	1,2-Dibromoethane	14.398	107	501712	10.40	ppb(v	99
76)	Octane	14.876	43	530486	10.26	ppb(v	99
77)	1,1,1,2-Tetrachloroethane	15.958	131	414243	10.71	ppb(v	97
79)	Chlorobenzene	15.983	112	752307	11.04	ppb(v	98
80)	Ethylbenzene	16.521	91	1192014	10.91	ppb(v	99
81)	m,p-Xylene	16.797	91	1846274	21.89	ppb(v	100
82)	Styrene	17.317	104	670852	10.67	ppb(v	100
83)	Nonane	17.855	43	526969	10.86	ppb(v	99
84)	o-Xylene	17.470	91	922383	11.06	ppb(v	99
85)	Bromoform	16.870	173	523183	11.35	ppb(v	100
86)	1,1,2,2-Tetrachloroethane	17.476	83	523228	11.00	ppb(v	99
87)	1,2,3-Trichloropropane	17.665	75	409946	10.81	ppb(v	100
88)	Isopropylbenzene	18.375	105	1278312	11.08	ppb(v	100
89)	Bromobenzene	18.485	156	391547	10.84	ppb(v	99
90)	2-Chlorotoluene	19.097	126	300636	11.05	ppb(v	98
91)	n-Propylbenzene	19.170	120	342534	11.09	ppb(v	98
93)	4-Ethyltoluene	19.397	105	1147539	11.13	ppb(v	99
94)	1,3,5-Trimethylbenzene	19.519	105	986325	11.14	ppb(v	100
95)	alpha-Methylstyrene	19.745	118	460574	11.03	ppb(v	100
96)	tert-Butylbenzene	20.088	134	241959	11.52	ppb(v	99
97)	1,2,4-Trimethylbenzene	20.100	105	945807	11.44	ppb(v	96
98)	1,3-Dichlorobenzene	20.290	146	545349	11.17	ppb(v	99
99)	Benzyl Chloride	20.278	91	488723	10.91	ppb(v	99
100)	1,4-Dichlorobenzene	20.388	146	495744	10.95	ppb(v	99
101)	sec-Butylbenzene	20.467	134	289538	11.39	ppb(v	96
102)	p-Isopropyltoluene	20.700	134	301112	11.67	ppb(v	98
103)	1,2-Dichlorobenzene	20.853	146	493717	11.30	ppb(v	99
104)	n-Butylbenzene	21.269	134	246000	11.47	ppb(v	99
105)	Hexachloroethane	21.734	201	308799	12.01	ppb(v	96
106)	1,2,4-Trichlorobenzene	23.049	180	137000	10.50	ppb(v	99
107)	Naphthalene	23.171	128	265773	10.39	ppb(v	99
108)	Hexachlorobutadiene	23.618	225	239846	11.56	ppb(v	99
110)	TVHC as equiv Pentane	5.601	TIC	1003809	10.12	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08754.D
Acq On : 22 Oct 2018 5:14 pm
Operator : paulcw
Sample : icc335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:23:06 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Oct 22 10:32:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08755.D
Acq On : 22 Oct 2018 6:07 pm
Operator : paulcw
Sample : ic335-20
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:23:49 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:23:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	255343	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.379	114	913274	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.922	82	451610	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	255343	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	548513	9.82	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.20%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	257637	19.53	ppb(v	99
4) Chlorodifluoromethane	3.760	67	130529	19.78	ppb(v	100
5) Propene	3.784	41	283519	19.49	ppb(v	99
6) Chlorotrifluoroethene	3.796	116	710056	19.39	ppb(v	100
7) Dichlorodifluoromethane	3.845	85	1256424	19.42	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.962	65	980335	19.33	ppb(v	100
9) Chloromethane	3.980	50	357184	19.24	ppb(v	100
10) Dichlorotetrafluoroethane	4.059	85	1263184	19.01	ppb(v	99
11) Vinyl Chloride	4.157	62	438208	19.26	ppb(v	100
12) 1,3-Butadiene	4.267	54	311656	19.39	ppb(v	99
13) n-Butane	4.310	58	81306	19.37	ppb(v	97
14) Bromomethane	4.494	94	456300	19.12	ppb(v	100
15) Acrolein	5.026	56	188737	19.79	ppb(v	99
16) Chloroethane	4.634	64	231536	19.41	ppb(v	99
17) Dichlorofluoromethane	4.708	67	1068216	19.22	ppb(v	100
18) Acetonitrile	4.916	41	333433	19.55	ppb(v	100
19) Freon 123	5.063	83	1108567	19.30	ppb(v	100
20) Freon 123A	5.106	117	694271	19.28	ppb(v	97
21) Bromoethene	4.928	106	485980	19.26	ppb(v	100
22) Trichlorofluoromethane	5.295	101	1268466	19.40	ppb(v	100
23) Acetone	5.130	58	198335	19.65	ppb(v	99
24) Pentane	5.607	57	113828	19.83	ppb(v	97
26) Iodomethane	5.809	142	1408033	19.24	ppb(v	98
27) Isopropyl Alcohol	5.344	45	768779	19.70	ppb(v	99
28) 1,1-Dichloroethene	5.876	61	704707	19.56	ppb(v	98
29) Freon 113	6.231	101	1008073	19.39	ppb(v	99
30) Methylene Chloride	5.993	84	417387	19.55	ppb(v	100
31) Carbon Disulfide	6.274	76	1267857	19.44	ppb(v	99
32) Ethanol	4.720	45	167499	19.63	ppb(v	98
33) Acrylonitrile	5.558	53	347651	19.71	ppb(v	99
34) 3-Chloropropene	6.103	76	229755	19.83	ppb(v	97
35) trans-1,2-Dichloroethene	6.904	61	653795	19.60	ppb(v	99
36) tert-Butyl Alcohol	5.895	59	964638	19.95	ppb(v	99
37) Methyl tert-Butyl Ether	7.155	73	1372281	19.63	ppb(v	99
38) Vinyl Acetate	7.259	43	1238595	20.15	ppb(v	100
39) 1,1-Dichloroethane	7.112	63	808671	19.50	ppb(v	100
40) 2-Butanone	7.510	72	237988	19.85	ppb(v	99
41) Hexane	8.207	57	697366	19.69	ppb(v	99
42) cis-1,2-Dichloroethene	7.999	61	643729	19.56	ppb(v	99
43) Di-isopropyl Ether	8.195	87	447777	19.66	ppb(v	99
44) Ethyl Acetate	8.232	61	147105	19.79	ppb(v	95
45) Methyl Acrylate	8.219	55	854039	19.73	ppb(v	99
46) Chloroform	8.323	83	1054738	19.49	ppb(v	99
47) 2,4-Dimethylpentane	9.192	57	815897	19.65	ppb(v	99
48) Tetrahydrofuran	8.733	72	222965	19.99	ppb(v	99
49) 1,1,1-Trichloroethane	9.412	97	1107102	19.71	ppb(v	99
50) 1,2-Dichloroethane	9.137	62	678037	19.52	ppb(v	99
51) Benzene	9.945	78	1503728	19.58	ppb(v	100
52) Carbon Tetrachloride	10.116	117	1163661	19.86	ppb(v	99
53) Cyclohexane	10.251	56	701669	19.56	ppb(v	99
54) 2,3-Dimethylpentane	10.544	71	333066	19.75	ppb(v	100
56) 2,2,4-Trimethylpentane	11.242	57	2259017	19.71	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08755.D
Acq On : 22 Oct 2018 6:07 pm
Operator : paulcw
Sample : ic335-20
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:23:49 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:23:18 2018
Response via : Initial Calibration

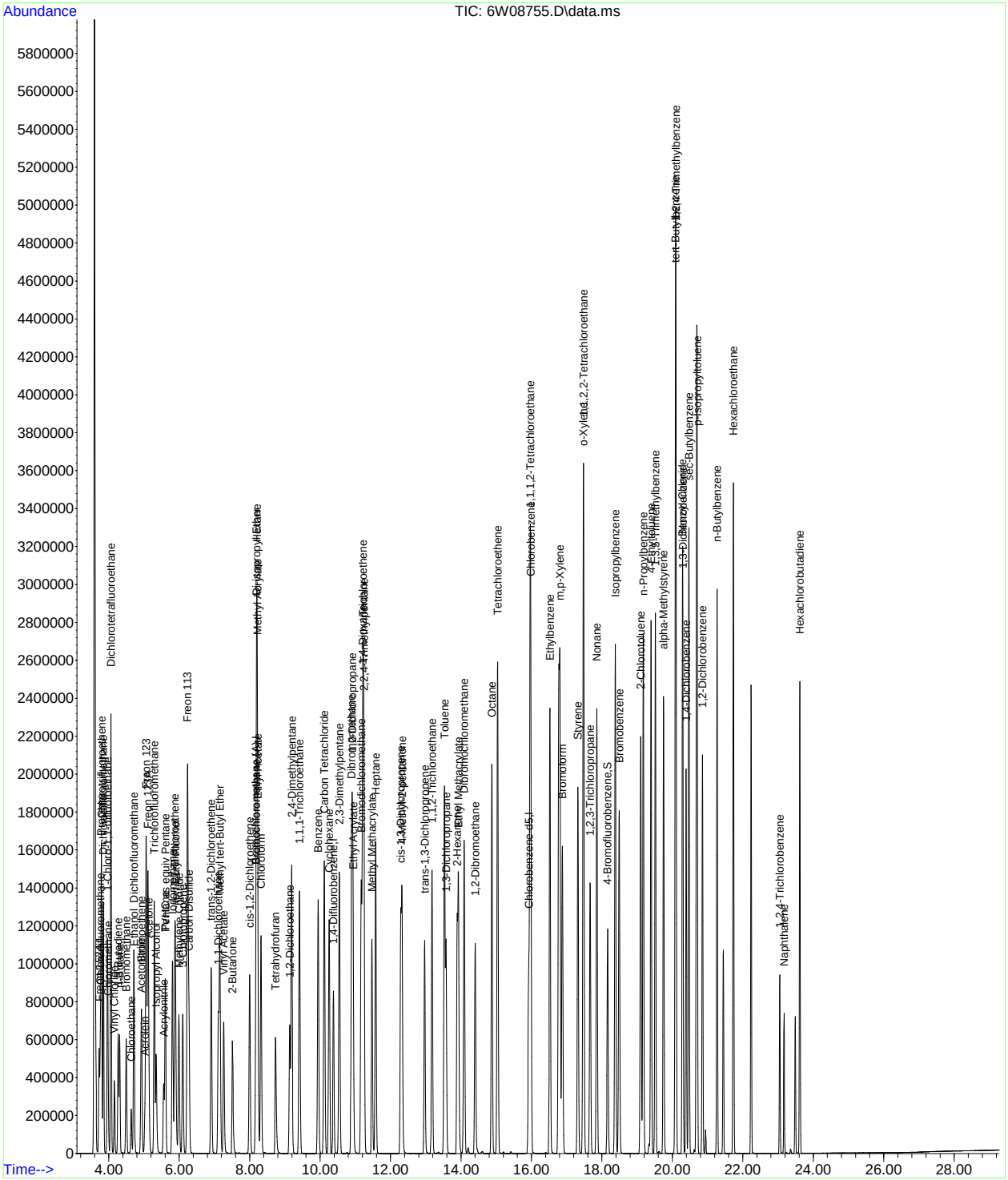
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.578	71	524161	19.92	ppb(v	99
58) Trichloroethene	11.211	95	725144	19.86	ppb(v	100
59) 1,2-Dichloropropane	10.917	63	534303	19.82	ppb(v	99
60) Dibromomethane	10.893	174	754258	19.62	ppb(v	97
61) Ethyl Acrylate	10.942	55	1107741	20.36	ppb(v	100
62) Methyl Methacrylate	11.474	69	561611	20.29	ppb(v	98
63) 1,4-Dioxane	11.205	88	364555	20.24	ppb(v	94
64) Bromodichloromethane	11.168	83	1171618	20.04	ppb(v	99
65) cis-1,3-Dichloropropene	12.288	75	886451	20.20	ppb(v	100
66) 4-Methyl-2-pentanone	12.324	58	445210	20.29	ppb(v	99
67) trans-1,3-Dichloropropene	12.967	75	791874	20.46	ppb(v	99
68) Toluene	13.530	91	1890932	19.75	ppb(v	100
69) 1,1,2-Trichloroethane	13.181	97	637533	19.82	ppb(v	99
70) 1,3-Dichloropropane	13.572	76	854630	19.86	ppb(v	100
71) 2-Hexanone	13.891	58	598632	20.37	ppb(v	99
72) Ethyl Methacrylate	13.927	69	949648	20.36	ppb(v	99
73) Dibromochloromethane	14.086	129	1219679	20.11	ppb(v	99
74) Tetrachloroethene	15.041	166	1061572	19.45	ppb(v	100
75) 1,2-Dibromoethane	14.404	107	1003498	19.98	ppb(v	99
76) Octane	14.876	43	1052774	19.82	ppb(v	99
77) 1,1,1,2-Tetrachloroethane	15.964	131	823840	19.86	ppb(v	97
79) Chlorobenzene	15.983	112	1482081	18.40	ppb(v	98
80) Ethylbenzene	16.527	91	2370445	18.58	ppb(v	99
81) m,p-Xylene	16.803	91	3663482	37.07	ppb(v	100
82) Styrene	17.317	104	1370262	19.08	ppb(v	100
83) Nonane	17.855	43	1047698	18.57	ppb(v	99
84) o-Xylene	17.469	91	1819192	18.42	ppb(v	98
85) Bromoform	16.876	173	1088871	19.44	ppb(v	100
86) 1,1,2,2-Tetrachloroethane	17.476	83	1037291	18.52	ppb(v	99
87) 1,2,3-Trichloropropane	17.665	75	824549	18.79	ppb(v	99
88) Isopropylbenzene	18.381	105	2515673	18.38	ppb(v	99
89) Bromobenzene	18.491	156	797767	19.03	ppb(v	99
90) 2-Chlorotoluene	19.103	126	600819	18.67	ppb(v	100
91) n-Propylbenzene	19.176	120	684171	18.66	ppb(v	96
93) 4-Ethyltoluene	19.397	105	2288403	18.63	ppb(v	100
94) 1,3,5-Trimethylbenzene	19.519	105	1973850	18.69	ppb(v	100
95) alpha-Methylstyrene	19.745	118	936884	19.00	ppb(v	100
96) tert-Butylbenzene	20.088	134	469777	18.14	ppb(v	97
97) 1,2,4-Trimethylbenzene	20.100	105	1856603	18.34	ppb(v	91
98) 1,3-Dichlorobenzene	20.296	146	1109676	19.01	ppb(v	99
99) Benzyl Chloride	20.284	91	1087178	20.78	ppb(v	99
100) 1,4-Dichlorobenzene	20.394	146	1032244	19.45	ppb(v	99
101) sec-Butylbenzene	20.473	134	571288	18.43	ppb(v	91
102) p-Isopropyltoluene	20.706	134	583172	18.09	ppb(v	94
103) 1,2-Dichlorobenzene	20.853	146	996142	18.85	ppb(v	98
104) n-Butylbenzene	21.269	134	493825	18.75	ppb(v	98
105) Hexachloroethane	21.733	201	639854	19.36	ppb(v	98
106) 1,2,4-Trichlorobenzene	23.049	180	299892	20.45	ppb(v	99
107) Naphthalene	23.171	128	573375	20.15	ppb(v	99
108) Hexachlorobutadiene	23.618	225	483312	18.82	ppb(v	100
110) TVHC as equiv Pentane	5.607	TIC	2012804	19.82	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08755.D
Acq On : 22 Oct 2018 6:07 pm
Operator : paulcw
Sample : ic335-20
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:23:49 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:23:18 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08756.D
Acq On : 22 Oct 2018 7:04 pm
Operator : paulcw
Sample : ic335-40
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:25:19 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:24:53 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.183	130	260159	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.385	114	940320	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.922	82	507385	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.183	130	260159	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.167	95	569375	9.16	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 91.60%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	518794	39.06	ppb(v	99
4) Chlorodifluoromethane	3.766	67	258842	38.71	ppb(v	100
5) Propene	3.790	41	571271	39.05	ppb(v	100
6) Chlorotrifluoroethene	3.797	116	1410227	38.38	ppb(v	99
7) Dichlorodifluoromethane	3.852	85	2457727	37.83	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.962	65	1896724	37.34	ppb(v	100
9) Chloromethane	3.986	50	710447	38.29	ppb(v	100
10) Dichlorotetrafluoroethane	4.060	85	2387407	36.16	ppb(v	95
11) Vinyl Chloride	4.164	62	870267	38.25	ppb(v	100
12) 1,3-Butadiene	4.274	54	629633	39.04	ppb(v	99
13) n-Butane	4.317	58	164486	39.08	ppb(v	97
14) Bromomethane	4.500	94	893177	37.56	ppb(v	99
15) Acrolein	5.026	56	380850	39.40	ppb(v	99
16) Chloroethane	4.635	64	462036	38.58	ppb(v	99
17) Dichlorofluoromethane	4.714	67	2088052	37.61	ppb(v	100
18) Acetonitrile	4.916	41	679102	39.52	ppb(v	99
19) Freon 123	5.063	83	2168639	37.72	ppb(v	99
20) Freon 123A	5.112	117	1357654	37.68	ppb(v	99
21) Bromoethene	4.934	106	956762	37.92	ppb(v	99
22) Trichlorofluoromethane	5.295	101	2526316	38.50	ppb(v	100
23) Acetone	5.136	58	396970	38.94	ppb(v	97
24) Pentane	5.607	57	231961	39.83	ppb(v	97
26) Iodomethane	5.809	142	2758069	37.70	ppb(v	97
27) Isopropyl Alcohol	5.351	45	1550612	39.29	ppb(v	99
28) 1,1-Dichloroethene	5.877	61	1412273	38.90	ppb(v	100
29) Freon 113	6.238	101	2009443	38.52	ppb(v	99
30) Methylene Chloride	5.993	84	842784	39.19	ppb(v	99
31) Carbon Disulfide	6.274	76	2538976	38.75	ppb(v	100
32) Ethanol	4.726	45	339173	39.38	ppb(v	99
33) Acrylonitrile	5.559	53	706800	39.62	ppb(v	99
34) 3-Chloropropene	6.103	76	464392	39.50	ppb(v	97
35) trans-1,2-Dichloroethene	6.911	61	1323040	39.32	ppb(v	99
36) tert-Butyl Alcohol	5.901	59	1958252	39.80	ppb(v	99
37) Methyl tert-Butyl Ether	7.155	73	2778272	39.37	ppb(v	99
38) Vinyl Acetate	7.265	43	2537251	40.37	ppb(v	99
39) 1,1-Dichloroethane	7.119	63	1630612	39.08	ppb(v	99
40) 2-Butanone	7.516	72	489584	40.23	ppb(v	97
41) Hexane	8.207	57	1401815	39.15	ppb(v	96
42) cis-1,2-Dichloroethene	7.999	61	1313305	39.60	ppb(v	99
43) Di-isopropyl Ether	8.201	87	897564	39.01	ppb(v	99
44) Ethyl Acetate	8.238	61	299459	39.75	ppb(v	93
45) Methyl Acrylate	8.226	55	1732563	39.55	ppb(v	99
46) Chloroform	8.330	83	2115754	38.87	ppb(v	99
47) 2,4-Dimethylpentane	9.192	57	1651006	39.38	ppb(v	99
48) Tetrahydrofuran	8.734	72	455429	40.08	ppb(v	100
49) 1,1,1-Trichloroethane	9.419	97	2246928	39.55	ppb(v	99
50) 1,2-Dichloroethane	9.137	62	1380853	39.49	ppb(v	99
51) Benzene	9.951	78	3014270	38.93	ppb(v	100
52) Carbon Tetrachloride	10.122	117	2358197	39.65	ppb(v	99
53) Cyclohexane	10.257	56	1432791	39.63	ppb(v	99
54) 2,3-Dimethylpentane	10.551	71	673866	39.46	ppb(v	99
56) 2,2,4-Trimethylpentane	11.242	57	4421458	37.74	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08756.D
Acq On : 22 Oct 2018 7:04 pm
Operator : paulcw
Sample : ic335-40
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:25:19 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:24:53 2018
Response via : Initial Calibration

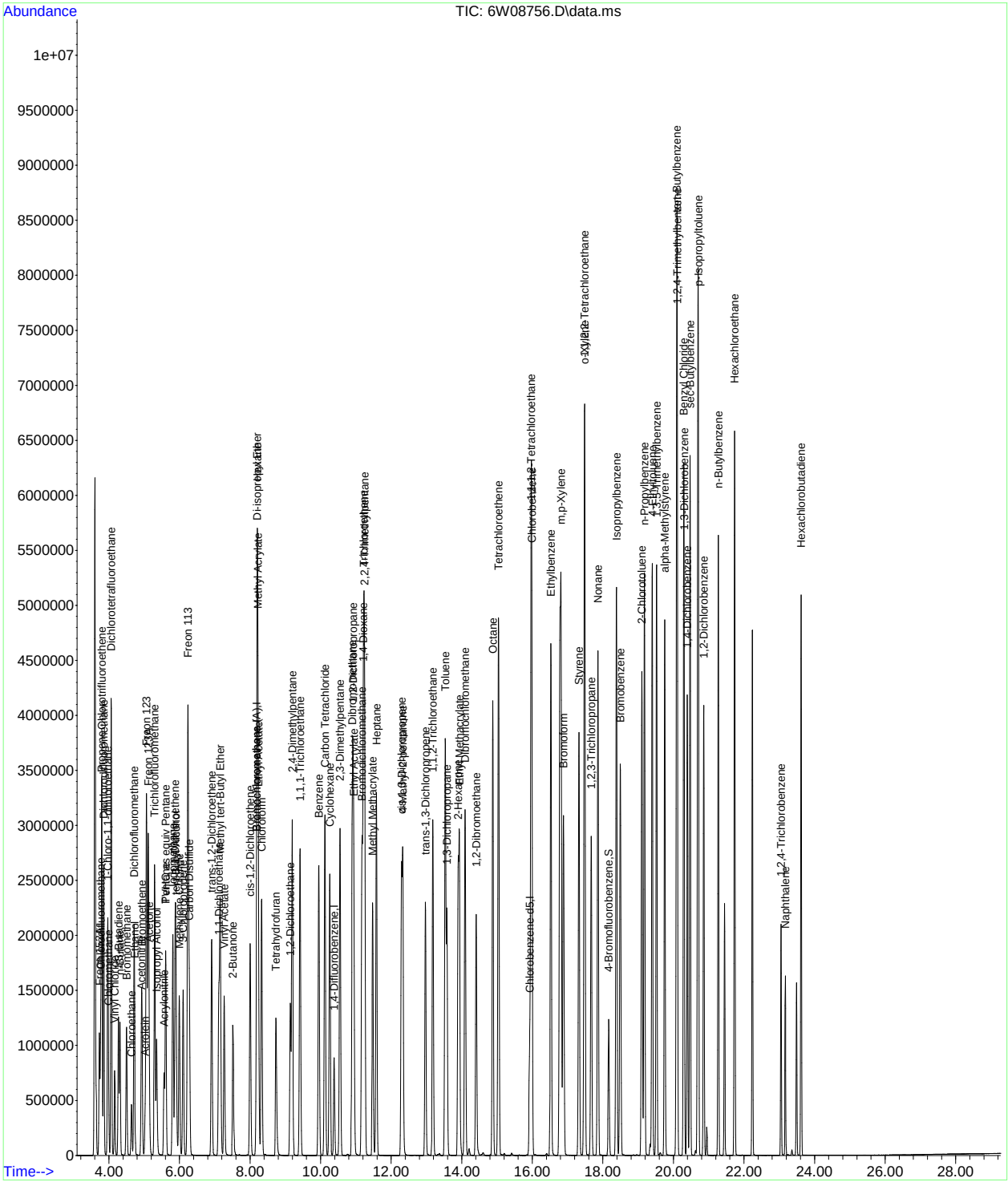
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.584	71	1049573	38.81	ppb(v	99
58) Trichloroethene	11.217	95	1434120	38.28	ppb(v	98
59) 1,2-Dichloropropane	10.924	63	1058796	38.32	ppb(v	100
60) Dibromomethane	10.899	174	1477805	37.70	ppb(v	95
61) Ethyl Acrylate	10.942	55	2232713	39.50	ppb(v	100
62) Methyl Methacrylate	11.474	69	1145803	39.91	ppb(v	99
63) 1,4-Dioxane	11.205	88	728339	39.04	ppb(v#	89
64) Bromodichloromethane	11.168	83	2364202	39.24	ppb(v	100
65) cis-1,3-Dichloropropene	12.294	75	1815038	39.98	ppb(v	100
66) 4-Methyl-2-pentanone	12.331	58	903944	39.72	ppb(v	100
67) trans-1,3-Dichloropropene	12.967	75	1641217	40.72	ppb(v	99
68) Toluene	13.530	91	3723876	38.02	ppb(v	99
69) 1,1,2-Trichloroethane	13.181	97	1285654	39.00	ppb(v	99
70) 1,3-Dichloropropane	13.579	76	1705598	38.63	ppb(v	100
71) 2-Hexanone	13.897	58	1236749	40.50	ppb(v	100
72) Ethyl Methacrylate	13.934	69	1948395	40.21	ppb(v	99
73) Dibromochloromethane	14.093	129	2404427	38.40	ppb(v	99
74) Tetrachloroethene	15.041	166	2038642	36.78	ppb(v	98
75) 1,2-Dibromoethane	14.411	107	2002128	38.73	ppb(v	99
76) Octane	14.882	43	2122513	38.99	ppb(v	99
77) 1,1,1,2-Tetrachloroethane	15.965	131	1585439	37.26	ppb(v	98
79) Chlorobenzene	15.989	112	2853684	32.85	ppb(v	95
80) Ethylbenzene	16.528	91	4684604	33.88	ppb(v	99
81) m,p-Xylene	16.809	91	7235915	67.65	ppb(v	99
82) Styrene	17.323	104	2744291	34.81	ppb(v	98
83) Nonane	17.861	43	2109138	34.51	ppb(v	99
84) o-Xylene	17.476	91	3545925	33.27	ppb(v	98
85) Bromoform	16.882	173	2180043	35.14	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.482	83	2029698	33.49	ppb(v	100
87) 1,2,3-Trichloropropane	17.672	75	1660129	34.72	ppb(v	99
88) Isopropylbenzene	18.387	105	4892207	33.16	ppb(v	99
89) Bromobenzene	18.497	156	1581888	34.42	ppb(v	98
90) 2-Chlorotoluene	19.103	126	1188153	33.99	ppb(v	98
91) n-Propylbenzene	19.177	120	1350556	33.92	ppb(v	95
93) 4-Ethyltoluene	19.403	105	4470984	33.54	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.525	105	3861008	33.65	ppb(v	99
95) alpha-Methylstyrene	19.752	118	1862951	34.49	ppb(v	98
96) tert-Butylbenzene	20.094	134	868008	31.28	ppb(v	93
97) 1,2,4-Trimethylbenzene	20.106	105	3490047	32.01	ppb(v	96
98) 1,3-Dichlorobenzene	20.302	146	2157216	33.73	ppb(v	98
99) Benzyl Chloride	20.290	91	2336945	39.00	ppb(v	100
100) 1,4-Dichlorobenzene	20.394	146	2068801	35.18	ppb(v	98
101) sec-Butylbenzene	20.473	134	1100737	32.90	ppb(v	90
102) p-Isopropyltoluene	20.706	134	1077434	31.24	ppb(v	94
103) 1,2-Dichlorobenzene	20.859	146	1970239	34.16	ppb(v	98
104) n-Butylbenzene	21.275	134	982135	34.26	ppb(v	97
105) Hexachloroethane	21.734	201	1257873	34.42	ppb(v	93
106) 1,2,4-Trichlorobenzene	23.049	180	669782	40.20	ppb(v	98
107) Naphthalene	23.171	128	1252063	39.02	ppb(v	99
108) Hexachlorobutadiene	23.618	225	976395	34.87	ppb(v	100
110) TVHC as equiv Pentane	5.607	TIC	3932403	38.18	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08756.D
Acq On : 22 Oct 2018 7:04 pm
Operator : paulcw
Sample : ic335-40
Misc : MS30116,V6W335,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 09:25:19 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:24:53 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
10/23/18 17:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08758.D
Acq On : 22 Oct 2018 8:45 pm
Operator : paulcw
Sample : icv335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 17:33:37 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.177	130	259004	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.379	114	931380	10.00	ppb(v	0.00
78) Chlorobenzene-d5	15.922	82	437945	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.177	130	259004	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.161	95	537827	10.06	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.60%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	133447	10.00	ppb(v	97
4) Chlorodifluoromethane	3.766	67	66775	10.27	ppb(v	99
5) Propene	3.790	41	150905	9.98	ppb(v	99
6) Chlorotrifluoroethene	3.796	116	369606	9.61	ppb(v	100
7) Dichlorodifluoromethane	3.852	85	663523	9.74	ppb(v	99
8) 1-Chloro-1,1-difluoroe...	3.962	65	478982	8.93	ppb(v	100
9) Chloromethane	3.986	50	188833	9.79	ppb(v	100
10) Dichlorotetrafluoroethane	4.059	85	677424	9.53	ppb(v	97
11) Vinyl Chloride	4.164	62	232307	9.91	ppb(v	99
12) 1,3-Butadiene	4.268	54	165076	10.08	ppb(v	99
13) n-Butane	4.310	58	43174	10.80	ppb(v	97
14) Bromomethane	4.494	94	241014	9.52	ppb(v	99
15) Acrolein	5.026	56	92159	9.65	ppb(v#	94
16) Chloroethane	4.635	64	121866	10.11	ppb(v	100
17) Dichlorofluoromethane	4.714	67	543587	9.29	ppb(v	100
18) Acetonitrile	4.916	41	172717	9.80	ppb(v	100
19) Freon 123	5.063	83	583196	9.64	ppb(v	99
20) Freon 123A	5.112	117	415347	11.07	ppb(v	100
21) Bromoethene	4.934	106	244792	9.49	ppb(v	100
22) Trichlorofluoromethane	5.295	101	670726	9.62	ppb(v	100
23) Acetone	5.136	58	96005	8.89	ppb(v	98
24) Pentane	5.607	57	57157	10.38	ppb(v	96
26) Iodomethane	5.809	142	730986	9.58	ppb(v	99
27) Isopropyl Alcohol	5.344	45	405862m	10.16	ppb(v	
28) 1,1-Dichloroethene	5.876	61	382174	10.28	ppb(v	99
29) Freon 113	6.237	101	541771	9.92	ppb(v	100
30) Methylene Chloride	5.993	84	221404	9.11	ppb(v	99
31) Carbon Disulfide	6.274	76	530730	7.81	ppb(v	100
32) Ethanol	4.720	45	84653	9.29	ppb(v	98
33) Acrylonitrile	5.558	53	177051	10.34	ppb(v	99
34) 3-Chloropropene	6.103	76	115216	10.29	ppb(v	98
35) trans-1,2-Dichloroethene	6.904	61	315476	9.36	ppb(v	99
36) tert-Butyl Alcohol	5.895	59	420753	9.07	ppb(v	100
37) Methyl tert-Butyl Ether	7.155	73	698258	9.87	ppb(v	100
38) Vinyl Acetate	7.265	43	638276	11.01	ppb(v	100
39) 1,1-Dichloroethane	7.112	63	422876	9.67	ppb(v	100
40) 2-Butanone	7.510	72	125557	11.74	ppb(v	98
41) Hexane	8.207	57	346015	9.78	ppb(v	96
42) cis-1,2-Dichloroethene	7.999	61	331590	9.98	ppb(v	99
43) Di-isopropyl Ether	8.195	87	232508	10.64	ppb(v	97
44) Ethyl Acetate	8.232	61	77219	11.09	ppb(v	93
45) Methyl Acrylate	8.220	55	451354	11.27	ppb(v	99
46) Chloroform	8.317	83	550959	9.60	ppb(v	100
47) 2,4-Dimethylpentane	9.192	57	431439	10.41	ppb(v	99
48) Tetrahydrofuran	8.740	72	122342	11.81	ppb(v	100
49) 1,1,1-Trichloroethane	9.412	97	576772	9.96	ppb(v	99
50) 1,2-Dichloroethane	9.131	62	354414	10.06	ppb(v	99
51) Benzene	9.945	78	776880	9.87	ppb(v	100
52) Carbon Tetrachloride	10.116	117	597587	10.14	ppb(v	100
53) Cyclohexane	10.251	56	361671	9.94	ppb(v	99
54) 2,3-Dimethylpentane	10.544	71	173290	10.54	ppb(v	100
56) 2,2,4-Trimethylpentane	11.236	57	1216832	10.41	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08758.D
Acq On : 22 Oct 2018 8:45 pm
Operator : paulcw
Sample : icv335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 17:33:37 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

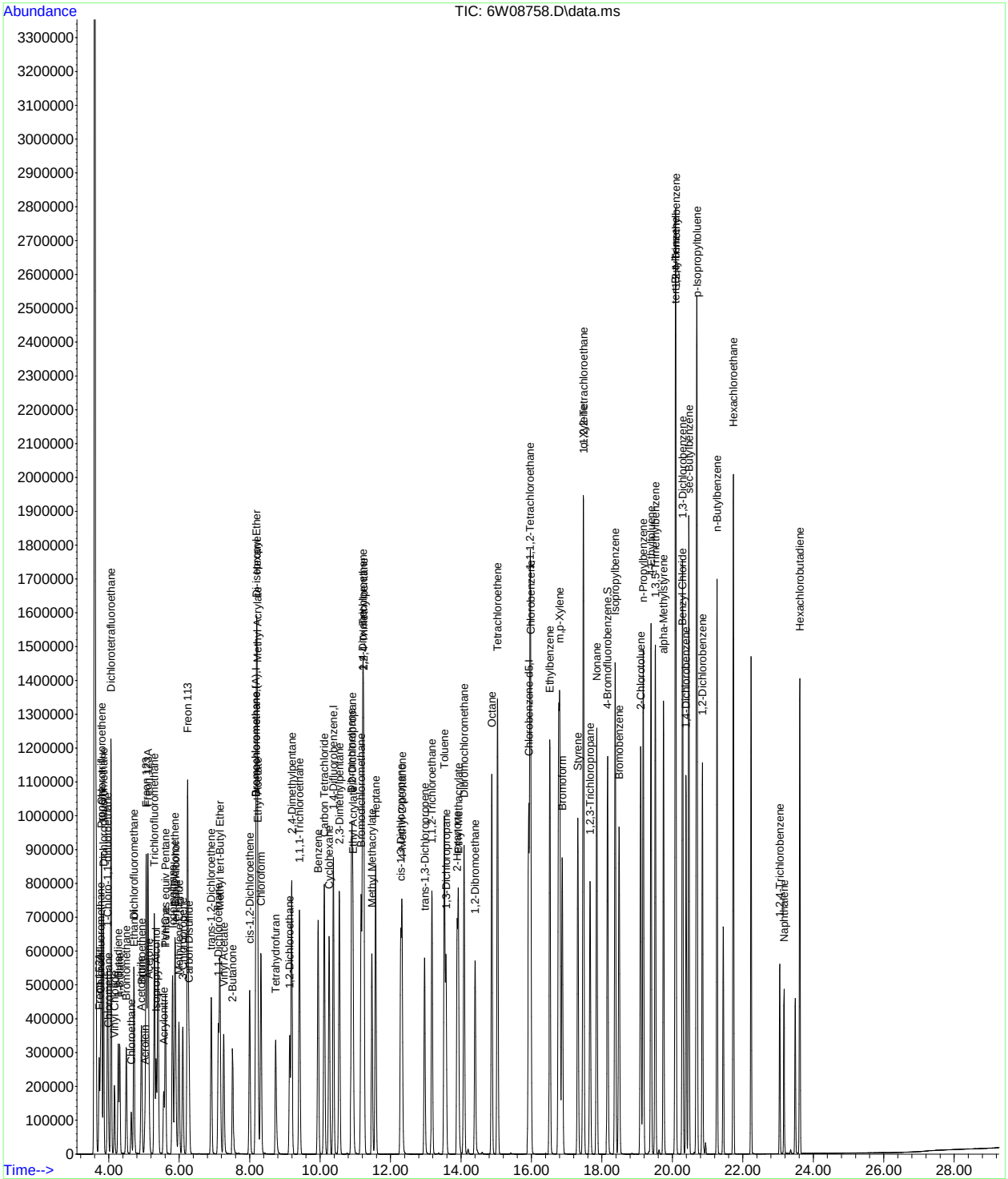
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.578	71	273044	10.54	ppb(v	99
58) Trichloroethene	11.211	95	373668	9.93	ppb(v	98
59) 1,2-Dichloropropane	10.917	63	274004	9.98	ppb(v	100
60) Dibromomethane	10.893	174	397496	9.72	ppb(v	97
61) Ethyl Acrylate	10.936	55	554070	11.22	ppb(v	100
62) Methyl Methacrylate	11.474	69	294726	11.37	ppb(v	99
63) 1,4-Dioxane	11.205	88	199730	11.48	ppb(v	98
64) Bromodichloromethane	11.162	83	626211	10.73	ppb(v	100
65) cis-1,3-Dichloropropene	12.288	75	460515	10.99	ppb(v	99
66) 4-Methyl-2-pentanone	12.325	58	239851	11.47	ppb(v	99
67) trans-1,3-Dichloropropene	12.967	75	415552	11.90	ppb(v	99
68) Toluene	13.524	91	978810	9.99	ppb(v	99
69) 1,1,2-Trichloroethane	13.175	97	330366	10.23	ppb(v	98
70) 1,3-Dichloropropane	13.573	76	449333	10.35	ppb(v	100
71) 2-Hexanone	13.891	58	327210	12.46	ppb(v	99
72) Ethyl Methacrylate	13.927	69	491278	11.40	ppb(v	100
73) Dibromochloromethane	14.086	129	664701	11.60	ppb(v	100
74) Tetrachloroethene	15.035	166	549823	9.32	ppb(v	100
75) 1,2-Dibromoethane	14.398	107	528086	10.90	ppb(v	99
76) Octane	14.876	43	568598	10.67	ppb(v	99
77) 1,1,1,2-Tetrachloroethane	15.958	131	446116	10.94	ppb(v	100
79) Chlorobenzene	15.983	112	777097	9.57	ppb(v	99
80) Ethylbenzene	16.521	91	1232861	9.71	ppb(v	99
81) m,p-Xylene	16.797	91	1901070	19.13	ppb(v	99
82) Styrene	17.317	104	697089	10.87	ppb(v	100
83) Nonane	17.855	43	560870	10.10	ppb(v	99
84) o-Xylene	17.470	91	949017	9.64	ppb(v	99
85) Bromoform	16.870	173	583512	12.10	ppb(v	99
86) 1,1,2,2-Tetrachloroethane	17.476	83	576569	10.26	ppb(v	100
87) 1,2,3-Trichloropropane	17.665	75	460499	10.52	ppb(v	99
88) Isopropylbenzene	18.375	105	1386798	9.92	ppb(v	100
89) Bromobenzene	18.485	156	423019	10.49	ppb(v	99
90) 2-Chlorotoluene	19.103	126	328906	10.52	ppb(v	97
91) n-Propylbenzene	19.170	120	368672	10.60	ppb(v	99
93) 4-Ethyltoluene	19.397	105	1304465	10.94	ppb(v	100
94) 1,3,5-Trimethylbenzene	19.519	105	1057906	9.92	ppb(v	100
95) alpha-Methylstyrene	19.745	118	508209	11.56	ppb(v	99
96) tert-Butylbenzene	20.088	134	263029	10.11	ppb(v	99
97) 1,2,4-Trimethylbenzene	20.100	105	1023437	10.39	ppb(v	99
98) 1,3-Dichlorobenzene	20.290	146	611323	11.10	ppb(v	99
99) Benzyl Chloride	20.278	91	613671	15.76	ppb(v	100
100) 1,4-Dichlorobenzene	20.388	146	567186	11.69	ppb(v	100
101) sec-Butylbenzene	20.473	134	317476	10.26	ppb(v	92
102) p-Isopropyltoluene	20.700	134	335601	10.60	ppb(v	100
103) 1,2-Dichlorobenzene	20.853	146	556611	10.66	ppb(v	99
104) n-Butylbenzene	21.269	134	282840	11.75	ppb(v	98
105) Hexachloroethane	21.734	201	357978	11.97	ppb(v	99
106) 1,2,4-Trichlorobenzene	23.049	180	183299	12.65	ppb(v	100
107) Naphthalene	23.171	128	386044	12.89	ppb(v	99
108) Hexachlorobutadiene	23.618	225	276887	8.46	ppb(v	100
110) TVHC as equiv Pentane	5.607	TIC	1038786	9.77	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W08758.D
Acq On : 22 Oct 2018 8:45 pm
Operator : paulcw
Sample : icv335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 17:33:37 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Manual Integration Approval Summary

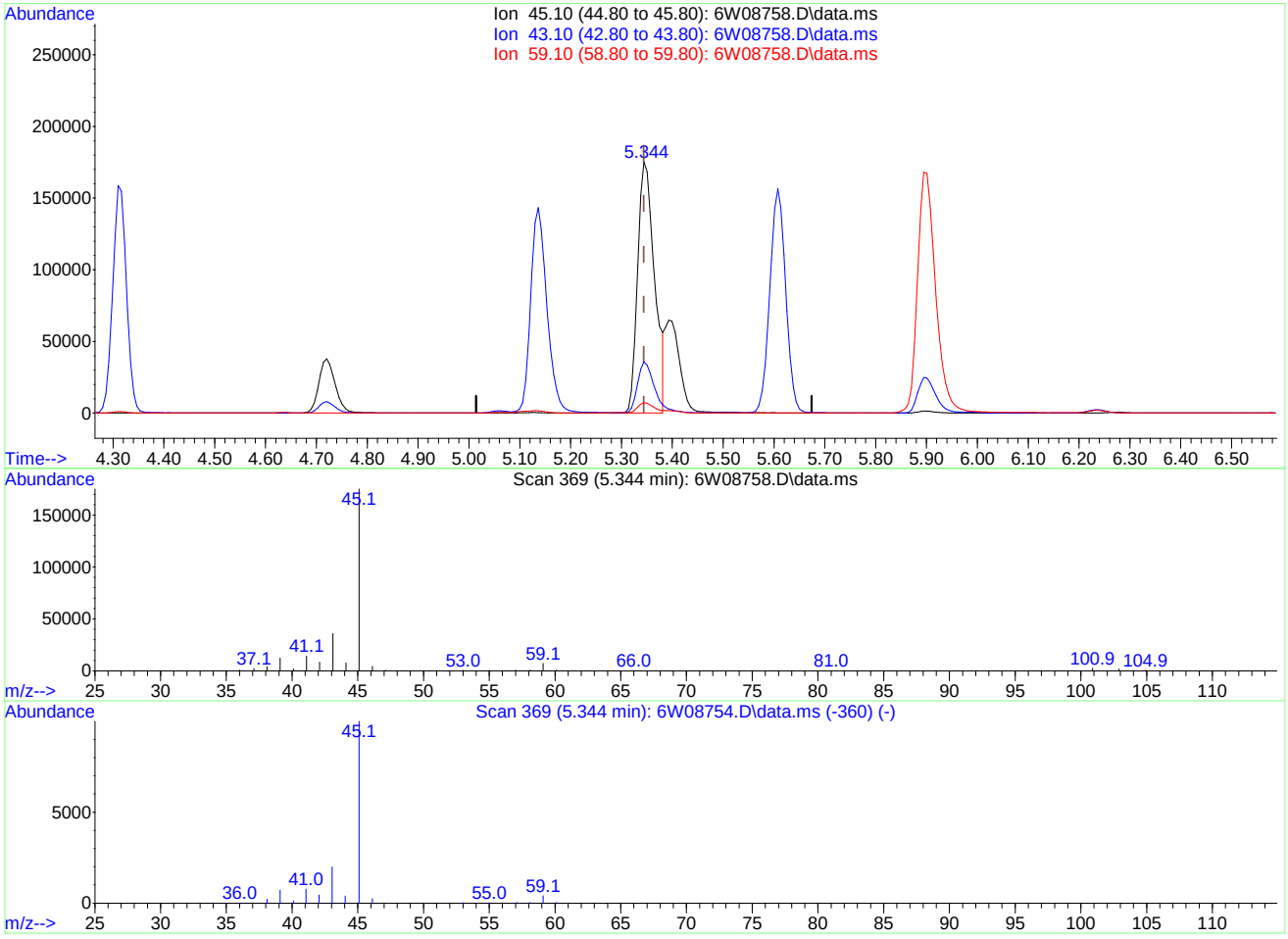
Sample Number:	V6W335-ICV335	**Method:**	TO-15
Lab FileID:	6W08758.D	**Analyst approved:**	10/23/18 17:35 Dana Tryon
Injection Time:	10/22/18 20:45	**Supervisor approved:**	10/23/18 17:38 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.34	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W08758.D
Acq On : 22 Oct 2018 8:45 pm
Operator : paulcw
Sample : icv335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 09:38:57 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:38:51 2018
Response via : Initial Calibration



TIC: 6W08758.D\data.ms

(27) Isopropyl Alcohol

5.344min (+0.000) 10.16ppb(v) m

response 405862

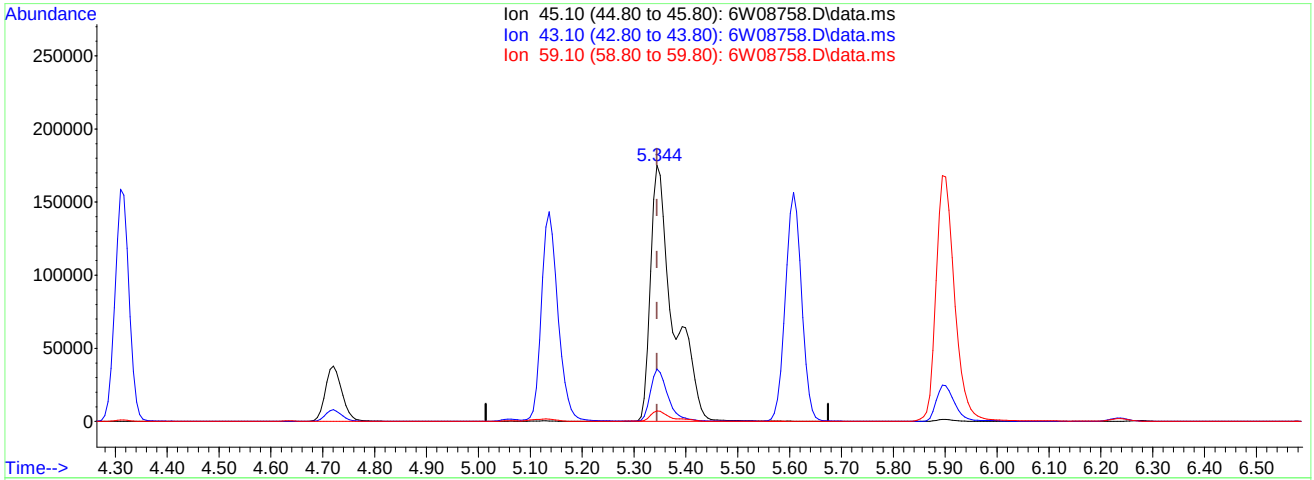
Ion	Exp%	Act%
45.10	100	100
43.10	20.10	20.46
59.10	4.00	4.10
0.00	0.00	0.00

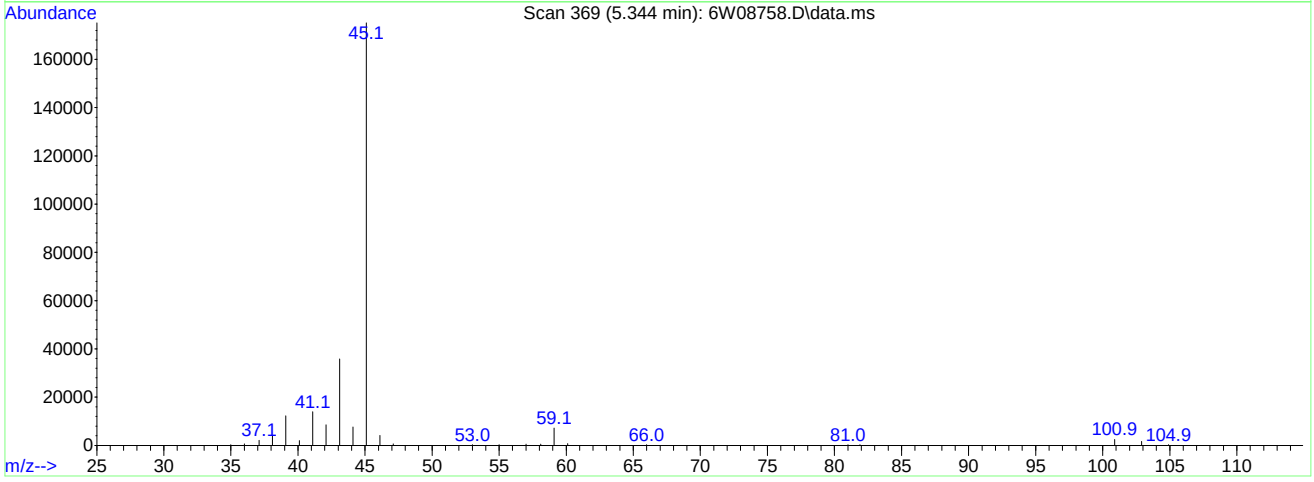
6W08758.D edits: Isopropyl Alcohol

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 6W08758.D
Acq On : 22 Oct 2018 8:45 pm
Operator : paulcw
Sample : icv335-10
Misc : MS30116,V6W335,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 17:33:17 2018
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration





TIC: 6W08758.D\data.ms

(27) Isopropyl Alcohol

5.344min (+0.000) 13.48ppb(v)

response 538310

Ion	Exp%	Act%
45.10	100	100
43.10	20.10	20.46
59.10	4.00	4.10
0.00	0.00	0.00

6W08758.D edits: Isopropyl Alcohol

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11053.D
Acq On : 14 Mar 2019 10:51 am
Operator : thomash
Sample : cc335-10
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:56:31 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.171	130	222218	10.00	ppb(v	0.00
55) 1,4-Difluorobenzene	10.367	114	811042	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.909	82	338206	10.00	ppb(v	0.00
109) Bromochloromethane (A)	8.171	130	222218	10.00	ppb(v	0.00
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.155	95	417339	10.11	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.10%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	127885	11.17	ppb(v	86
4) Chlorodifluoromethane	3.766	67	44498	7.98	ppb(v	98
5) Propene	3.790	41	153458	11.83	ppb(v	94
6) Chlorotrifluoroethene	3.796	116	315169	9.55	ppb(v	98
7) Dichlorodifluoromethane	3.851	85	476217	8.14	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	327201	7.11	ppb(v#	96
9) Chloromethane	3.986	50	174891	10.57	ppb(v	99
10) Dichlorotetrafluoroethane	4.059	85	559227	9.17	ppb(v	98
11) Vinyl Chloride	4.157	62	213239	10.61	ppb(v#	99
12) 1,3-Butadiene	4.267	54	153159	10.90	ppb(v	97
13) n-Butane	4.310	58	40478	11.80	ppb(v	98
14) Bromomethane	4.494	94	223028	10.27	ppb(v	98
15) Acrolein	5.026	56	96281	11.75	ppb(v#	93
16) Chloroethane	4.635	64	112727	10.90	ppb(v	98
17) Dichlorofluoromethane	4.708	67	473570	9.44	ppb(v	99
18) Acetonitrile	4.916	41	181890	12.03	ppb(v	97
19) Freon 123	5.057	83	516548	9.95	ppb(v	99
20) Freon 123A	5.106	117	302540	9.40	ppb(v	93
21) Bromoethene	4.928	106	230007	10.40	ppb(v#	96
22) Trichlorofluoromethane	5.289	101	475796	7.96	ppb(v	100
23) Acetone	5.136	58	103145	11.14	ppb(v	82
24) Pentane	5.601	57	56293	11.91	ppb(v	88
26) Iodomethane	5.803	142	648833	9.91	ppb(v	88
27) Isopropyl Alcohol	5.350	45	387213	11.30	ppb(v	94
28) 1,1-Dichloroethene	5.870	61	303693	9.52	ppb(v	98
29) Freon 113	6.231	101	440131	9.40	ppb(v	99
30) Methylene Chloride	5.987	84	192350	9.22	ppb(v	96
31) Carbon Disulfide	6.268	76	611922	10.50	ppb(v	100
32) Ethanol	4.720	45	87068	11.13	ppb(v	96
33) Acrylonitrile	5.558	53	178839	12.18	ppb(v	95
34) 3-Chloropropene	6.097	76	109656	11.41	ppb(v	83
35) trans-1,2-Dichloroethene	6.898	61	293197	10.14	ppb(v	99
36) tert-Butyl Alcohol	5.901	59	429684	10.79	ppb(v	95
37) Methyl tert-Butyl Ether	7.155	73	579812	9.56	ppb(v	96
38) Vinyl Acetate	7.259	43	609097	12.24	ppb(v	98
39) 1,1-Dichloroethane	7.106	63	376808	10.04	ppb(v	99
40) 2-Butanone	7.516	72	111068	12.11	ppb(v	91
41) Hexane	8.201	57	341840	11.26	ppb(v	88
42) cis-1,2-Dichloroethene	7.987	61	286581	10.06	ppb(v	99
43) Di-isopropyl Ether	8.195	87	197081	10.51	ppb(v	80
44) Ethyl Acetate	8.232	61	73743	12.34	ppb(v	91
45) Methyl Acrylate	8.219	55	411843	11.99	ppb(v	97
46) Chloroform	8.311	83	435108	8.84	ppb(v	98
47) 2,4-Dimethylpentane	9.180	57	403954	11.36	ppb(v	98
48) Tetrahydrofuran	8.746	72	103901	11.69	ppb(v	92
49) 1,1,1-Trichloroethane	9.406	97	420640	8.46	ppb(v	99
50) 1,2-Dichloroethane	9.125	62	249256	8.25	ppb(v	98
51) Benzene	9.932	78	688993	10.20	ppb(v	98
52) Carbon Tetrachloride	10.104	117	451720	8.94	ppb(v	99
53) Cyclohexane	10.244	56	347768	11.14	ppb(v	94
54) 2,3-Dimethylpentane	10.532	71	156347	11.09	ppb(v	97
56) 2,2,4-Trimethylpentane	11.223	57	1127183	11.07	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11053.D
Acq On : 14 Mar 2019 10:51 am
Operator : thomash
Sample : cc335-10
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:56:31 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

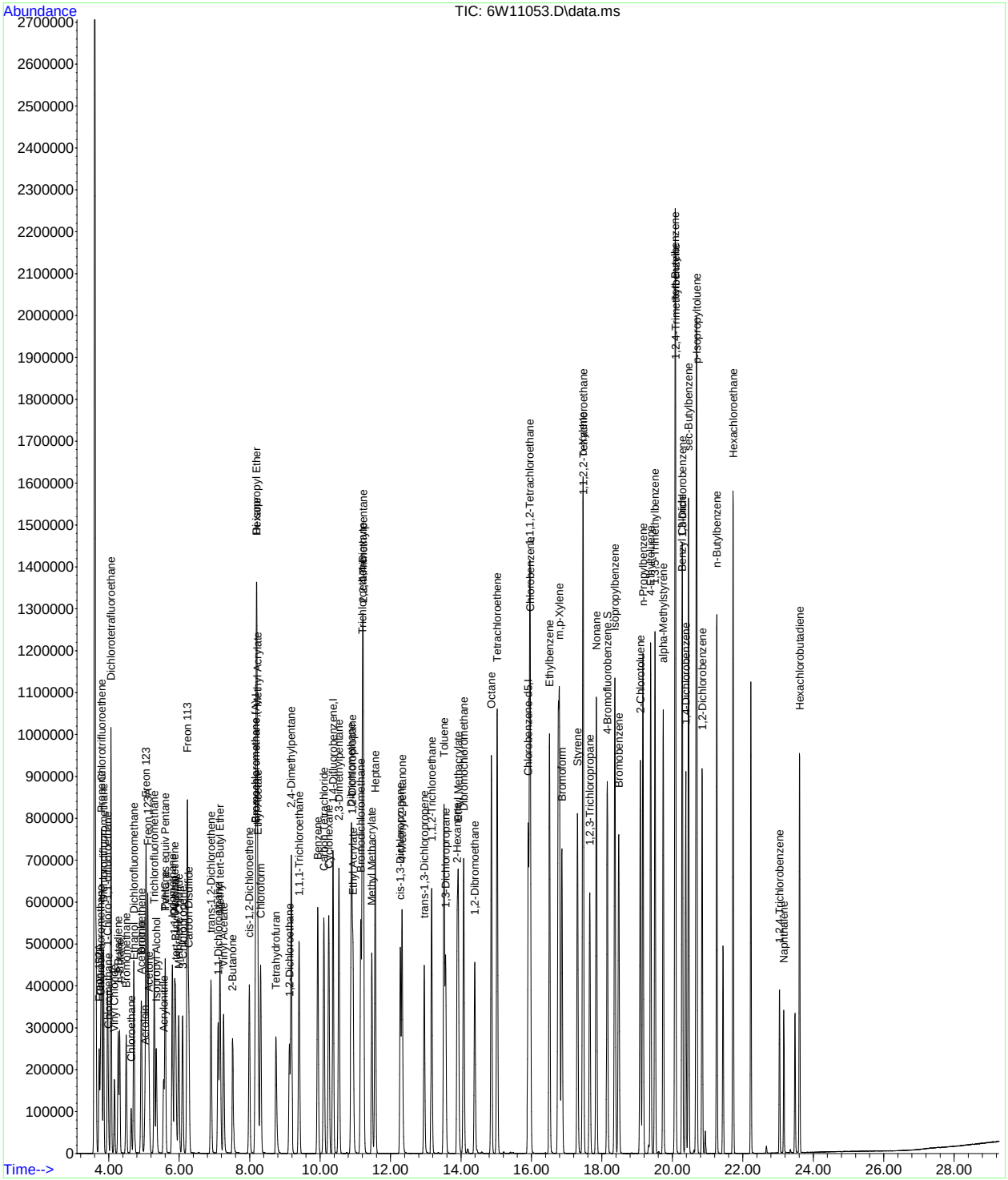
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57)	Heptane	11.566	71	244788	10.85	ppb(v	96
58)	Trichloroethene	11.199	95	306900	9.36	ppb(v	95
59)	1,2-Dichloropropane	10.905	63	264532	11.06	ppb(v	91
60)	Dibromomethane	10.881	174	339500	9.53	ppb(v	100
61)	Ethyl Acrylate	10.936	55	521531	12.13	ppb(v	98
62)	Methyl Methacrylate	11.468	69	260770	11.56	ppb(v	97
63)	1,4-Dioxane	11.205	88	165979	10.96	ppb(v#	74
64)	Bromodichloromethane	11.156	83	476814	9.38	ppb(v	99
65)	cis-1,3-Dichloropropene	12.276	75	397235	10.89	ppb(v	99
66)	4-Methyl-2-pentanone	12.324	58	214988	11.80	ppb(v	97
67)	trans-1,3-Dichloropropene	12.955	75	340966	11.21	ppb(v	100
68)	Toluene	13.517	91	833699	9.77	ppb(v	99
69)	1,1,2-Trichloroethane	13.169	97	284537	10.12	ppb(v	99
70)	1,3-Dichloropropane	13.560	76	389882	10.32	ppb(v	97
71)	2-Hexanone	13.891	58	287487	12.57	ppb(v	94
72)	Ethyl Methacrylate	13.921	69	428354	11.41	ppb(v	97
73)	Dibromochloromethane	14.074	129	536144	10.74	ppb(v	99
74)	Tetrachloroethene	15.028	166	481033	9.36	ppb(v	97
75)	1,2-Dibromoethane	14.392	107	440947	10.46	ppb(v	98
76)	Octane	14.863	43	541551	11.67	ppb(v	92
77)	1,1,1,2-Tetrachloroethane	15.952	131	367772	10.36	ppb(v	99
79)	Chlorobenzene	15.971	112	670830	10.70	ppb(v	99
80)	Ethylbenzene	16.515	91	1032804	10.53	ppb(v	99
81)	m,p-Xylene	16.790	91	1568570	20.44	ppb(v	97
82)	Styrene	17.304	104	604128	12.20	ppb(v	98
83)	Nonane	17.843	43	543414	12.67	ppb(v	96
84)	o-Xylene	17.457	91	792284	10.42	ppb(v	99
85)	Bromoform	16.864	173	509063	13.67	ppb(v	99
86)	1,1,2,2-Tetrachloroethane	17.469	83	536021	12.35	ppb(v	100
87)	1,2,3-Trichloropropane	17.659	75	391172	11.57	ppb(v	98
88)	Isopropylbenzene	18.369	105	1121481	10.39	ppb(v	97
89)	Bromobenzene	18.479	156	363489	11.67	ppb(v	96
90)	2-Chlorotoluene	19.091	126	277357	11.49	ppb(v	90
91)	n-Propylbenzene	19.164	120	313808	11.68	ppb(v	96
93)	4-Ethyltoluene	19.384	105	1028381	11.17	ppb(v	98
94)	1,3,5-Trimethylbenzene	19.507	105	880212	10.69	ppb(v	97
95)	alpha-Methylstyrene	19.739	118	427472	12.59	ppb(v	98
96)	tert-Butylbenzene	20.076	134	226095	11.25	ppb(v	87
97)	1,2,4-Trimethylbenzene	20.094	105	844352	11.11	ppb(v	94
98)	1,3-Dichlorobenzene	20.284	146	531303	12.49	ppb(v	97
99)	Benzyl Chloride	20.271	91	521587	17.34	ppb(v	97
100)	1,4-Dichlorobenzene	20.381	146	485857	12.97	ppb(v	97
101)	sec-Butylbenzene	20.461	134	271985	11.38	ppb(v	95
102)	p-Isopropyltoluene	20.693	134	283883	11.61	ppb(v	91
103)	1,2-Dichlorobenzene	20.846	146	478800	11.87	ppb(v	97
104)	n-Butylbenzene	21.262	134	228362	12.28	ppb(v	96
105)	Hexachloroethane	21.727	201	341700	14.80	ppb(v	92
106)	1,2,4-Trichlorobenzene	23.043	180	139049	12.43	ppb(v	99
107)	Naphthalene	23.165	128	281550	12.18	ppb(v	100
108)	Hexachlorobutadiene	23.612	225	209102	8.28	ppb(v	98
110)	TVHC as equiv Pentane	5.601	TIC	985032	10.80	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11053.D
Acq On : 14 Mar 2019 10:51 am
Operator : thomash
Sample : cc335-10
Misc : MS32960,V6W443,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 16:56:31 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



6w335.M Fri Mar 15 17:24:11 2019 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11377.D
Acq On : 3 Apr 2019 2:20 pm
Operator : gabriep
Sample : cc335-10
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:02:30 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.165	130	214828	10.00	ppb(v	-0.01
55) 1,4-Difluorobenzene	10.367	114	781405	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.904	82	349576	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.165	130	214828	10.00	ppb(v	-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	443226	10.39	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.90%			
Target Compounds						Qvalue
3) Freon 152A	3.729	65	120520	10.89	ppb(v	86
4) Chlorodifluoromethane	3.766	67	42038	7.79	ppb(v	99
5) Propene	3.790	41	147908	11.79	ppb(v	95
6) Chlorotrifluoroethene	3.797	116	291345	9.13	ppb(v	99
7) Dichlorodifluoromethane	3.846	85	459026	8.12	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	316889	7.13	ppb(v#	95
9) Chloromethane	3.980	50	169692	10.61	ppb(v	99
10) Dichlorotetrafluoroethane	4.060	85	527809	8.95	ppb(v	98
11) Vinyl Chloride	4.158	62	203459	10.47	ppb(v#	99
12) 1,3-Butadiene	4.268	54	146769	10.81	ppb(v	98
13) n-Butane	4.310	58	38969	11.75	ppb(v	96
14) Bromomethane	4.494	94	209702	9.99	ppb(v	98
15) Acrolein	5.020	56	81548	10.30	ppb(v#	93
16) Chloroethane	4.629	64	106983	10.70	ppb(v	98
17) Dichlorofluoromethane	4.708	67	452965	9.34	ppb(v	99
18) Acetonitrile	4.910	41	154414	10.56	ppb(v	96
19) Freon 123	5.057	83	488379	9.73	ppb(v	99
20) Freon 123A	5.100	117	285670	9.18	ppb(v	91
21) Bromoethene	4.928	106	215954	10.10	ppb(v#	97
22) Trichlorofluoromethane	5.289	101	454361	7.86	ppb(v	100
23) Acetone	5.136	58	87649	9.79	ppb(v	77
24) Pentane	5.595	57	54892	12.01	ppb(v	88
26) Iodomethane	5.797	142	599895	9.47	ppb(v	89
27) Isopropyl Alcohol	5.344	45	316176	9.55	ppb(v	95
28) 1,1-Dichloroethene	5.870	61	291954	9.46	ppb(v	98
29) Freon 113	6.225	101	410378	9.06	ppb(v	100
30) Methylene Chloride	5.987	84	181363	9.00	ppb(v	95
31) Carbon Disulfide	6.268	76	576286	10.23	ppb(v	100
32) Ethanol	4.720	45	64198	8.49	ppb(v	99
33) Acrylonitrile	5.552	53	156152	11.00	ppb(v	98
34) 3-Chloropropene	6.091	76	102131	11.00	ppb(v	82
35) trans-1,2-Dichloroethene	6.898	61	277405	9.92	ppb(v	98
36) tert-Butyl Alcohol	5.901	59	384041	9.98	ppb(v	95
37) Methyl tert-Butyl Ether	7.155	73	544796	9.29	ppb(v	96
38) Vinyl Acetate	7.259	43	547452	11.38	ppb(v	97
39) 1,1-Dichloroethane	7.100	63	357566	9.86	ppb(v	99
40) 2-Butanone	7.516	72	90972	10.26	ppb(v	88
41) Hexane	8.195	57	326324	11.12	ppb(v	88
42) cis-1,2-Dichloroethene	7.981	61	271116	9.84	ppb(v	97
43) Di-isopropyl Ether	8.195	87	181729	10.02	ppb(v	74
44) Ethyl Acetate	8.232	61	63958	11.07	ppb(v	87
45) Methyl Acrylate	8.220	55	349497	10.52	ppb(v	96
46) Chloroform	8.305	83	410037	8.61	ppb(v	99
47) 2,4-Dimethylpentane	9.174	57	379445	11.04	ppb(v	98
48) Tetrahydrofuran	8.746	72	91815	10.69	ppb(v	89
49) 1,1,1-Trichloroethane	9.400	97	398405	8.29	ppb(v	98
50) 1,2-Dichloroethane	9.125	62	235130	8.05	ppb(v	99
51) Benzene	9.933	78	646052	9.90	ppb(v	98
52) Carbon Tetrachloride	10.104	117	423390	8.66	ppb(v	99
53) Cyclohexane	10.239	56	330743	10.96	ppb(v	92
54) 2,3-Dimethylpentane	10.532	71	146587	10.75	ppb(v	92
56) 2,2,4-Trimethylpentane	11.224	57	1065211	10.86	ppb(v	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11377.D
Acq On : 3 Apr 2019 2:20 pm
Operator : gabriep
Sample : cc335-10
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:02:30 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

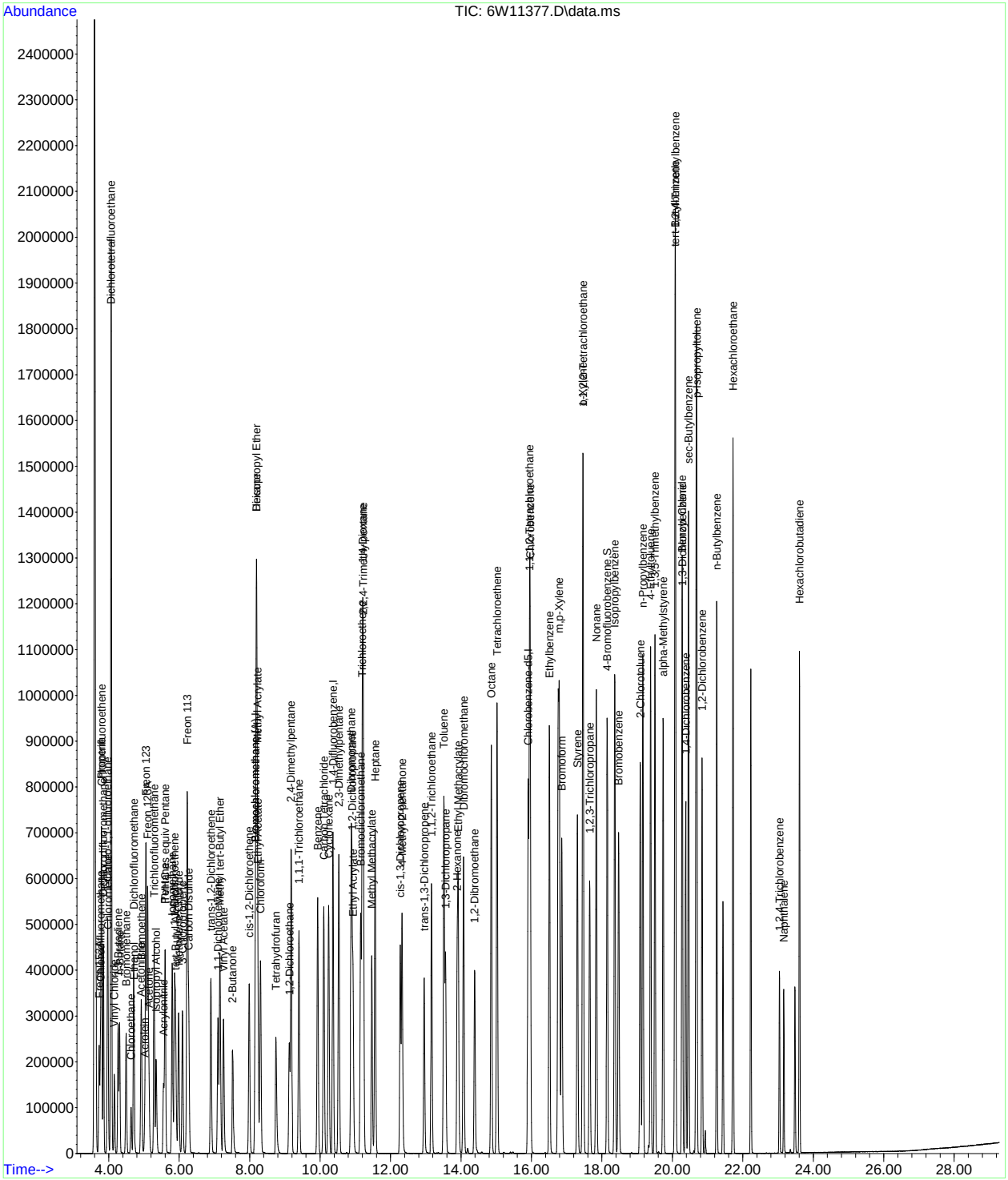
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.566	71	231314	10.64	ppb(v	96
58) Trichloroethene	11.193	95	283352	8.97	ppb(v	96
59) 1,2-Dichloropropane	10.905	63	250758	10.89	ppb(v	91
60) Dibromomethane	10.881	174	298309	8.69	ppb(v	98
61) Ethyl Acrylate	10.936	55	444466	10.73	ppb(v	97
62) Methyl Methacrylate	11.468	69	231277	10.64	ppb(v	98
63) 1,4-Dioxane	11.205	88	132379	9.07	ppb(v#	55
64) Bromodichloromethane	11.150	83	450042	9.19	ppb(v	99
65) cis-1,3-Dichloropropene	12.276	75	363209	10.33	ppb(v	98
66) 4-Methyl-2-pentanone	12.325	58	193311	11.02	ppb(v	96
67) trans-1,3-Dichloropropene	12.955	75	296848	10.13	ppb(v	99
68) Toluene	13.512	91	774599	9.42	ppb(v	99
69) 1,1,2-Trichloroethane	13.163	97	265782	9.81	ppb(v	98
70) 1,3-Dichloropropane	13.560	76	362173	9.95	ppb(v	98
71) 2-Hexanone	13.891	58	228365	10.36	ppb(v	97
72) Ethyl Methacrylate	13.921	69	379455	10.49	ppb(v	96
73) Dibromochloromethane	14.074	129	495852	10.31	ppb(v	99
74) Tetrachloroethene	15.023	166	432098	8.73	ppb(v	97
75) 1,2-Dibromoethane	14.386	107	385394	9.49	ppb(v	98
76) Octane	14.864	43	516435	11.55	ppb(v	91
77) 1,1,1,2-Tetrachloroethane	15.946	131	342238	10.00	ppb(v	98
79) Chlorobenzene	15.965	112	610152	9.42	ppb(v	100
80) Ethylbenzene	16.509	91	953857	9.41	ppb(v	99
81) m,p-Xylene	16.784	91	1449924	18.28	ppb(v	98
82) Styrene	17.305	104	540434	10.56	ppb(v	97
83) Nonane	17.843	43	512401	11.55	ppb(v	94
84) o-Xylene	17.457	91	732024	9.31	ppb(v	99
85) Bromoform	16.858	173	478774	12.44	ppb(v	100
86) 1,1,2,2-Tetrachloroethane	17.464	83	531074	11.83	ppb(v	99
87) 1,2,3-Trichloropropane	17.653	75	370361	10.60	ppb(v	97
88) Isopropylbenzene	18.363	105	1025596	9.19	ppb(v	99
89) Bromobenzene	18.473	156	320773	9.96	ppb(v	99
90) 2-Chlorotoluene	19.091	126	247968	9.94	ppb(v	92
91) n-Propylbenzene	19.158	120	278329	10.02	ppb(v	97
93) 4-Ethyltoluene	19.385	105	916358	9.63	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.507	105	784615	9.22	ppb(v	98
95) alpha-Methylstyrene	19.739	118	381733	10.88	ppb(v	98
96) tert-Butylbenzene	20.076	134	203317	9.79	ppb(v	91
97) 1,2,4-Trimethylbenzene	20.088	105	760811	9.68	ppb(v	89
98) 1,3-Dichlorobenzene	20.284	146	456170	10.38	ppb(v	97
99) Benzyl Chloride	20.272	91	472474	15.20	ppb(v	97
100) 1,4-Dichlorobenzene	20.382	146	409360	10.57	ppb(v	97
101) sec-Butylbenzene	20.461	134	245368	9.93	ppb(v	94
102) p-Isopropyltoluene	20.694	134	258237	10.21	ppb(v	92
103) 1,2-Dichlorobenzene	20.841	146	438561	10.52	ppb(v	98
104) n-Butylbenzene	21.263	134	210548	10.95	ppb(v	95
105) Hexachloroethane	21.721	201	322021	13.49	ppb(v	99
106) 1,2,4-Trichlorobenzene	23.043	180	139107	12.03	ppb(v	98
107) Naphthalene	23.165	128	299677	12.54	ppb(v	99
108) Hexachlorobutadiene	23.606	225	229381	8.78	ppb(v	99
110) TVHC as equiv Pentane	5.601	TIC	1329343	15.07	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11377.D
Acq On : 3 Apr 2019 2:20 pm
Operator : gabriep
Sample : cc335-10
Misc : MS33500,V6W457,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 10:02:30 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11402.D
Acq On : 4 Apr 2019 12:34 pm
Operator : gabriep
Sample : cc335-10
Misc : MS33500,V6W458,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:37:53 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.164	130	198984	10.00	ppb(v	#-0.01
55) 1,4-Difluorobenzene	10.367	114	722563	10.00	ppb(v	-0.01
78) Chlorobenzene-d5	15.903	82	324613	10.00	ppb(v	-0.01
109) Bromochloromethane (A)	8.164	130	198984	10.00	ppb(v	#-0.01
System Monitoring Compounds						
92) 4-Bromofluorobenzene	18.149	95	411139	10.37	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.70%			
Target Compounds						Qvalue
3) Freon 152A	3.723	65	123151	12.01	ppb(v	90
4) Chlorodifluoromethane	3.760	67	44449	8.90	ppb(v	99
5) Propene	3.790	41	152755	13.15	ppb(v	95
6) Chlorotrifluoroethene	3.796	116	301470	10.20	ppb(v	98
7) Dichlorodifluoromethane	3.845	85	471681	9.01	ppb(v	100
8) 1-Chloro-1,1-difluoroe...	3.962	65	332627	8.08	ppb(v	96
9) Chloromethane	3.980	50	173878	11.74	ppb(v	100
10) Dichlorotetrafluoroethane	4.053	85	544438	9.97	ppb(v	98
11) Vinyl Chloride	4.157	62	209969	11.66	ppb(v#	98
12) 1,3-Butadiene	4.267	54	150824	11.99	ppb(v	99
13) n-Butane	4.310	58	40152	13.07	ppb(v	99
14) Bromomethane	4.488	94	214623	11.04	ppb(v	99
15) Acrolein	5.020	56	92132	12.56	ppb(v#	93
16) Chloroethane	4.628	64	110280	11.90	ppb(v	98
17) Dichlorofluoromethane	4.702	67	467309	10.40	ppb(v	99
18) Acetonitrile	4.910	41	179952	13.29	ppb(v	97
19) Freon 123	5.057	83	495441	10.66	ppb(v	99
20) Freon 123A	5.099	117	294371	10.21	ppb(v	90
21) Bromoethene	4.928	106	218313	11.02	ppb(v#	97
22) Trichlorofluoromethane	5.289	101	470459	8.78	ppb(v	99
23) Acetone	5.136	58	100341	12.10	ppb(v	79
24) Pentane	5.595	57	55134	13.03	ppb(v	89
26) Iodomethane	5.797	142	608846	10.38	ppb(v	91
27) Isopropyl Alcohol	5.344	45	379655	12.37	ppb(v	93
28) 1,1-Dichloroethene	5.864	61	300872	10.53	ppb(v	99
29) Freon 113	6.225	101	416260	9.92	ppb(v	99
30) Methylene Chloride	5.987	84	182698	9.78	ppb(v	94
31) Carbon Disulfide	6.268	76	582165	11.15	ppb(v	99
32) Ethanol	4.720	45	87029	12.43	ppb(v	99
33) Acrylonitrile	5.552	53	172331	13.10	ppb(v	96
34) 3-Chloropropene	6.091	76	102863	11.96	ppb(v	82
35) trans-1,2-Dichloroethene	6.892	61	280281	10.82	ppb(v	96
36) tert-Butyl Alcohol	5.895	59	418764	11.75	ppb(v	97
37) Methyl tert-Butyl Ether	7.155	73	556101	10.24	ppb(v	97
38) Vinyl Acetate	7.253	43	595355	13.36	ppb(v	97
39) 1,1-Dichloroethane	7.100	63	359094	10.69	ppb(v	99
40) 2-Butanone	7.516	72	104502	12.72	ppb(v	87
41) Hexane	8.195	57	328155	12.07	ppb(v	91
42) cis-1,2-Dichloroethene	7.981	61	276485	10.84	ppb(v	96
43) Di-isopropyl Ether	8.195	87	184509	10.99	ppb(v	71
44) Ethyl Acetate	8.232	61	70281	13.14	ppb(v	87
45) Methyl Acrylate	8.220	55	395812	12.87	ppb(v	97
46) Chloroform	8.305	83	420793	9.54	ppb(v	99
47) 2,4-Dimethylpentane	9.174	57	383545	12.05	ppb(v	97
48) Tetrahydrofuran	8.746	72	98319	12.35	ppb(v	89
49) 1,1,1-Trichloroethane	9.400	97	408496	9.18	ppb(v	98
50) 1,2-Dichloroethane	9.119	62	245952	9.09	ppb(v	99
51) Benzene	9.932	78	643920	10.65	ppb(v	99
52) Carbon Tetrachloride	10.104	117	436161	9.63	ppb(v	99
53) Cyclohexane	10.238	56	332163	11.88	ppb(v	93
54) 2,3-Dimethylpentane	10.532	71	148366	11.75	ppb(v	96
56) 2,2,4-Trimethylpentane	11.223	57	1085154	11.96	ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11402.D
Acq On : 4 Apr 2019 12:34 pm
Operator : gabriep
Sample : cc335-10
Misc : MS33500,V6W458,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:37:53 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration

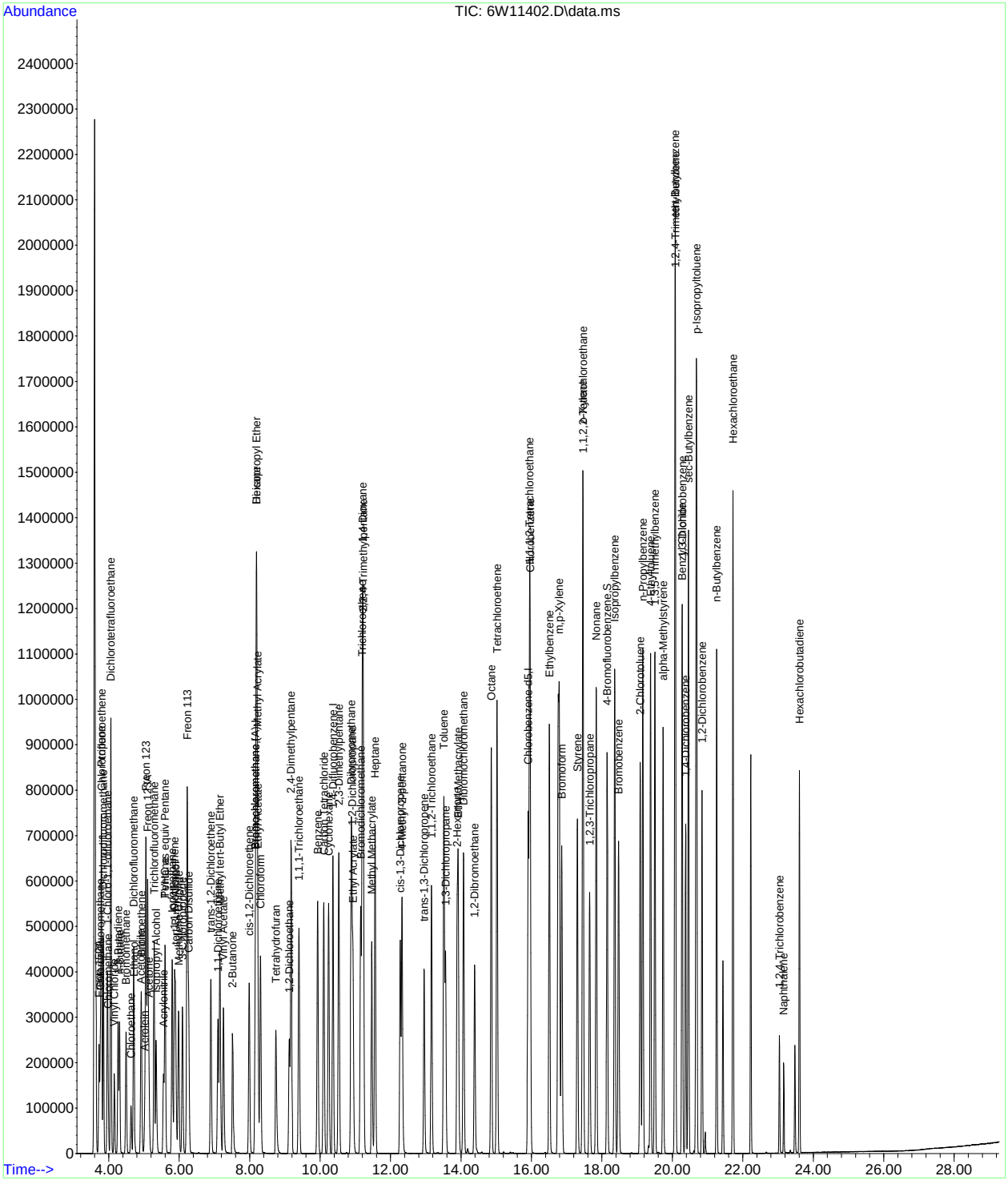
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Heptane	11.560	71	232596	11.57	ppb(v	95
58) Trichloroethene	11.193	95	285451	9.77	ppb(v	96
59) 1,2-Dichloropropane	10.905	63	253566	11.90	ppb(v	91
60) Dibromomethane	10.881	174	305688	9.63	ppb(v	99
61) Ethyl Acrylate	10.936	55	496644	12.96	ppb(v	97
62) Methyl Methacrylate	11.468	69	247239	12.30	ppb(v	97
63) 1,4-Dioxane	11.205	88	155317	11.51	ppb(v#	59
64) Bromodichloromethane	11.150	83	459295	10.14	ppb(v	99
65) cis-1,3-Dichloropropene	12.276	75	370285	11.39	ppb(v	99
66) 4-Methyl-2-pentanone	12.324	58	206717	12.74	ppb(v	96
67) trans-1,3-Dichloropropene	12.948	75	310490	11.46	ppb(v	98
68) Toluene	13.511	91	776790	10.22	ppb(v	99
69) 1,1,2-Trichloroethane	13.163	97	263407	10.51	ppb(v	98
70) 1,3-Dichloropropane	13.560	76	365292	10.85	ppb(v	99
71) 2-Hexanone	13.891	58	269389	13.22	ppb(v	98
72) Ethyl Methacrylate	13.921	69	405370	12.12	ppb(v	97
73) Dibromochloromethane	14.068	129	499103	11.22	ppb(v	99
74) Tetrachloroethene	15.022	166	433998	9.48	ppb(v	98
75) 1,2-Dibromoethane	14.386	107	394249	10.49	ppb(v	100
76) Octane	14.863	43	524988	12.69	ppb(v	90
77) 1,1,1,2-Tetrachloroethane	15.946	131	340996	10.78	ppb(v	99
79) Chlorobenzene	15.964	112	606437	10.08	ppb(v	99
80) Ethylbenzene	16.509	91	957751	10.18	ppb(v	99
81) m,p-Xylene	16.784	91	1450236	19.69	ppb(v	99
82) Styrene	17.304	104	530745	11.17	ppb(v	98
83) Nonane	17.837	43	526122	12.78	ppb(v	93
84) o-Xylene	17.457	91	732963	10.04	ppb(v	99
85) Bromoform	16.858	173	464101	12.99	ppb(v	100
86) 1,1,2,2-Tetrachloroethane	17.463	83	486346	11.67	ppb(v	99
87) 1,2,3-Trichloropropane	17.653	75	356389	10.98	ppb(v	97
88) Isopropylbenzene	18.363	105	1031964	9.96	ppb(v	99
89) Bromobenzene	18.473	156	311957	10.43	ppb(v	99
90) 2-Chlorotoluene	19.085	126	246096	10.62	ppb(v	95
91) n-Propylbenzene	19.158	120	281446	10.91	ppb(v	98
93) 4-Ethyltoluene	19.384	105	921009	10.42	ppb(v	98
94) 1,3,5-Trimethylbenzene	19.507	105	781913	9.89	ppb(v	97
95) alpha-Methylstyrene	19.733	118	371594	11.40	ppb(v	98
96) tert-Butylbenzene	20.076	134	202314	10.49	ppb(v	91
97) 1,2,4-Trimethylbenzene	20.088	105	752281	10.31	ppb(v	94
98) 1,3-Dichlorobenzene	20.277	146	439614	10.77	ppb(v	98
99) Benzyl Chloride	20.271	91	416073	14.41	ppb(v	96
100) 1,4-Dichlorobenzene	20.375	146	387917	10.79	ppb(v	98
101) sec-Butylbenzene	20.461	134	241873	10.54	ppb(v	93
102) p-Isopropyltoluene	20.687	134	249547	10.63	ppb(v	94
103) 1,2-Dichlorobenzene	20.840	146	399269	10.31	ppb(v	98
104) n-Butylbenzene	21.256	134	189523	10.62	ppb(v	93
105) Hexachloroethane	21.721	201	303903	13.71	ppb(v	98
106) 1,2,4-Trichlorobenzene	23.037	180	90156	8.39	ppb(v	99
107) Naphthalene	23.159	128	165502	7.46	ppb(v	99
108) Hexachlorobutadiene	23.606	225	173722	7.16	ppb(v	99
110) TVHC as equiv Pentane	5.595	TIC	1011859	12.39	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 6W11402.D
Acq On : 4 Apr 2019 12:34 pm
Operator : gabriep
Sample : cc335-10
Misc : MS33500,V6W458,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 16:37:53 2019
Quant Method : C:\msdchem\1\methods\6w335.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Tue Oct 23 09:39:19 2018
Response via : Initial Calibration



SGS

TO-15

Batch ID: V5W 1449

Date: 3/12/19

Analyst Signature:

Columns: RTX-624 x 0.25mm x 1.4µm

Method: 5WTO15

Seq. File: 190312 5

Initial Cal. Method: V5W1449

AS Data

Method: TO15 CTO3

Standard Data

Lot #	Description	Conc.
AS8594	TO15 LCS (A968)	40 ppbv

Standard Data

Lot #	Description	Conc.
AS8082	Int Std	100 ppbv
AS8401	TO15 Std (A969)	40 ppbv
AS8402	TO15 Std (A974)	0.4 ppbv
AS8403	TO15 Std (A978)	0.4 ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteri of SGS SOP EQA044.

Supervisor Signature: Date: 3/15/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W35520	BFB		A974	A9						
1	5W35521	IC1449-0.04		A974						OU	time 1200
1	5W35522	IC1449 -0.1		A974						122	room air
1	5W35523	IC1449 -0.2		A974							contaminated
1	5W35524	IC1449 -0.5		A974							T-Remake Std
2	5W35525	IC1449 -5		A969				✓	✓	OU	
2	5W35526	IC1449-10		A969				✓	✓	OU	
2	5W35527	IC1449 -25		A969				✓	✓	OU	
2	5W35528	IC1449 -40		A969				✓	✓	OU	
4	5W35529	ICB		A959							
3	5W35530	IC1449 -0.04		A978				✓	✓	OU	
3	5W35531	IC1449 -0.1		A978				✓	✓	OU	
3	5W35532	IC1449 -0.2		A978				✓	✓	OU	
3	5W35533	IC1449 -0.5		A971				✓	✓	OU	
5	5W35534	ICV1449 -10		A968				✓	✓	OU	
4	5W35535	ICB		A959							map ↑

3/15/19

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

SGS

TO-15

Batch ID: V5W1468

Date: 3/25/19

Analyst Signature:

Columns: RTX-1 60mx0.32mmx1um

Method: SW 7015

Seq. File: 192325.S

Initial Cal. Method: M5W1449

AS Data

Method: 7015. CFD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS8082	Int / Surr.	100ppbv
AS8401	7015 STD (A969)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criter of SGS SOP EQA044.

Supervisor Signature: Date: 3/26/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
2	SW35729	BFB		open Bottom	400			✓	✓	dy	time ok
3	SW35730	CC1449-10		A969	100			✓	✓	dy	
3	SW35731	BS		A969	100			✓	✓	dy	
3	SW35732	BSD		A969	100			✓	✓	dy	VC ↑
3	SW35733	BSD		A969	100			✓	✓	dy	
4	SW35734	IB		A959	100			✓	✓	dy	
4	SW35735	MB		A959	400			✓	✓	dy	
5	SW35736	SCC CP10286		A377	400			✓	✓	dy	Reclean batch Acetone OC 67
6	SW35737	SCC CP10288		M232	400			✓	✓	dy	
7	SW35738	JC84926-9	SC1 M535396	A714	100	1		✓	✓	dy	
7	SW35739	JC84926-9DUP	✓	A714	100	1		✓	✓	dy	
8	SW35740	JC84716-1	SC1 M535313	A1131	100	1		✓	✓	dy	
9	SW35741	JC84716-2	✓	A517	100	1		✓	✓	dy	
10	SW35742	JC84716-3	✓	A617	100	1		✓	✓	dy	
11	SW35743	JC84716-4	✓	A1134	100	1		✓	✓	dy	
12	SW35744	JC84716-5	✓	A686	100	1		✓	✓	dy	
13	SW35745	JC84716-6	✓	A1128	100	1		✓	✓	dy	
14	SW35746	JC84716-7	✓	A808	100	1		✓	✓	dy	
15	SW35747	JC84716-8	✓	M201	100	1		✓	✓	dy	
16	SW35748	JC84716-9	✓	A408	100	1		✓	✓	dy	
1	SW35749	JC84716-10	✓	A602	100	1		✓	✓	dy	
2	SW35750	JC84716-11	✓	A400	158	1.58		✓	✓	dy	
3	SW35751	JC84716-12	✓	A554	100	1		✓	✓	dy	

3/26/19

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

SGS

TO-14/TO-15

Batch ID: V6W335

Date: 10/22/18

Analyst Signature:

Columns: RTX1-60mX0.32mmX1.0

Method: 6W TO15

Seq. File: 6W 20181022.S

Initial Cal. Method: M6W335

AS Data

Method: TO15 CTOS

Standard Data

Lot #	Description	Conc.
AS8262	Int/Surr	100 ppbV

Standard Data

Lot #	Description	Conc.
AS8260	TO15 Std (A970)	40 ppbV
AS8261	TO15 Std (A974)	160 ppbV
AS8262	TO15 Std (A969)	0.4 ppbV
AS8258	TO15 LCS (A965)	40 ppbV

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 10/23/18

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
SP 12 10/24/12	6W08748	BFB		A967	40			✓	✓	ok	time 12:00
82	6W08749	IC335-0.04		A967	40			✓	✓	ok	
82	6W08750	IC335-0.1		A974	40			✓	✓	ok	
82	6W08751	IC335-0.2		A974	80			✓	✓	ok	
82	6W08752	IC335-0.5		A974	200			✓	✓	ok	
84	6W08753	IC335-1.5		A970	50			✓	✓	ok	
84	6W08754	IC335-10		A970	100			✓	✓	ok	
84	6W08755	IC335-20		A970	200			✓	✓	ok	
84	6W08756	IC335-40		A970	400			✓	✓	ok	
1	6W08757	ID		A963	100					ok	
5	6W08758	ICV335-R		A965	100			✓	✓	ok	
1	6W08759	ID		A963	100					ok	

10/23/18

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

Form: AT008-05
Rev. Date: 10/20/09

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SGS

TO-15

Batch ID: V6W443

Date: 3/14/19

Analyst Signature:

Columns: RTX-1 60m x.32 mm x1.0um
Method: 6WJ015
Seq. File: 6WJ20190314.S
Initial Cal. Method: M6W335M

AS Data

Method: TO15.CTD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS8482	Int/Surr	100ppbv
AS8577	TO15 STD (A976)	4ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criter of SGS SOP EQA044.

Supervisor Signature: Date: 3/15/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	6w11052	BFB		open position	400					OK	
2	6w11053	CC385-10		A976	100			✓	✓	OK	
2	6w11054	BS		A976	100			✓	✓	OK	
2	6w11055	BSD		A776	100			✓	✓	OK	
3	6w11056	IB		A963	100					—	
3	6w11057	MB		A963	400		+	✓	✓	OK	
4	6w11058	JC83753-1	STD,NAP MS32201	A376	100	1.52		✓	✓	OK/DL	
5	6w11059	JC83753-2	✓	A359	20	1.48		✓	✓	OK/DL	
6	6w11060	JC83753-3	✓	A970	20	1.52		✓	✓	OK/DL	
1	6w11061	JC83753-4	✓	A1160	608	1.52		✓	✓	OK/DL	
7	6w11062	JC83753-4	✓	A1160	20	1.52		✓	✓	OK/DL	
8	6w11063	JC83753-5 TH	✓	A1004	400	1		✓	✓	~~not OK/DL~~ not used	~~Data rejected~~ TH 3/15/19
8	6w11064	JC83753-6 TH	–	A1004	20	1		✓	✓	OK	
9	6w11065	JC83753-6	✓	A256	400	1		✓	✓	not used	not needed
9	6w11066	JC83753-6	✓	A256	20	1		✓	✓	OK	
10	6w11067	JC84155-1	STD, MS33661	A764	400	1		✓	✓	not used	
10	6w11068	JC84155-1 DUP	✓	A761	400	1	+	✓	✓	OK	
11	6w11069	JC84155-2	✓	A1028	400	1	+	✓	✓	OK	
12	6w11070	JC84155-3	✓	A256	400	1	+	✓	✓	OK	
13	6w11071	JC84155-4	✓	M147	400	1	+	✓	✓	OK	
14	6w11072	JC84155-5	✓	A353	400	1	+	✓	✓	OK	
15	6w11073	see CP16276		A814	400			✓	✓	OK	
16	6w11074										
1 TH	6w11075										
									TH	3/15/19	

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

SGS

TO-15

Batch ID: V6W457

Date: 4/3/2019

Analyst Signature:

Columns: RTX-624 w/0.32mm ID Column

Method: 6WTO15

Seq. File: 6W20190403.S

Initial Cal. Method: V6W335.M

AS Data

Method: TO15-STD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description		Conc.
AS58058	Int/surr		NOppbv
AS58059			
AS58049	TO15 STD	A974	40ppbv
AS58406	TO15 STD	A969	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criter of SGS SOP EQA044.

Supervisor Signature: Date: 4/5/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	6w11371	BFB		OPEN	400					Unused	
2	6w11372	CC335-10		A976	100						refint MW4
1	6w11373	BFB		OPEN	400						
2	6w11374	CC335-10		A976	100						
2	6w11375	BFB		A974	100					NG/RR	components
2	6w11376	CC335-10		A	100					ok	
2	6w11377	CC335-10		A969	100					RR	IDW
2	6w11378	BS		A969	100			✓	✓	ok	Ranzy Chloride Dichlorodifluoromethane Bromomethane Dichlorotetrafluoroethane Benzyl Chloride Dibromochloromethane MW4
2	6w11379	BSD		A969	100			✓	✓	ok	
3	6w11380	IB		A963	100			✓	✓	ok	"
3	6w11381	MB MB		A963	400					-	
3	6w11382	MB		A963	400			✓	✓	ok	
4	6w11383	JC84958-1	NULL MS33489	M235	500	1.7				NOTRun	
5	6w11384	JC84962-1	SL MS33440	M320	100	1		✓	✓	ok	6w11382
6	6w11385	JC84962-2	✓	A524	100	1		✓	✓	ok	6w11383
6	6w11386	JC84962-2.Dup	✓	A524	100	1		✓	✓	ok	6w11384
7	6w11387	JC85469-5	STD MS33642	M190	100	1		✓	✓	ok	6w11385
8	6w11388	JC85469-6	✓	M177	100	1		✓	✓	ok	6w11386
9	6w11389	JC85469-7	✓	A538	100	1		✓	✓	ok	6w11387 MW4 Bromoform
10	6w11390	JC85165-1	NULL MS33561	A878	200 500	1.9		✓	✓	ok	6w11388
11	6w11391	JC85165-4	✓	M242	500	1					6w11389
12	6w11392	JC85165-5	✓	A832	500 500	1.9					6w11390 DE Acetone
13	6w11393	JC84750-1	STD MS33560	A1040	400	1					6w11391
14	6w11394	JC84750-2	MS33560	A2260	620	1.55					6w11392
16	6w11395	JC84750-3		A7447	400	1					6w11393
16	6w11396	SCC CP10309		A258	400	1					6w11394
1	6w11397	SCC CP10302		A995	400	1		✓	✓	ok	6w11395
2	6w11398	SCC CP10305		A795	400	1		✓	✓	ok	6w11396
3	6w11399	SCC CP10307		A1233	400	1		✓	✓	ok	6w11397
										MW4	

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

SGS

TO-15

Batch ID: V6W458

Date: 4/4/19

Analyst Signature: [signature]

Columns: Rtx-1 60m x 0.32mm x 1.0u

Method: 6WTO15

Seq. File: 6W2019 04 04-S

Initial Cal. Method: M6W335-H

AS Data

Method: TO15CTD3

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A58082	Int/Sur	100ppbv
A58	TO15 STD A974	400ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criter of SGS SOP EQA044.

Supervisor Signature: [signature] Date: 4/5/19

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
2	6W11398	BFB		open position	400					NotUsed	
3	6W11399	CC335-10		A974	100					↓	
3	6W11400	CC335-10		A974	100					RR	Pause 219ion
2	6W11401	BFB		open position	400					ok	
3	6W11402	CC335-10		A974	100			✓	✓	ok	SL only
3	6W11403	BS		A974	100			✓	✓	ok	2-hexanone; Benzyl chloride; Vinyl acetate; Ethyl acetate;
3	6W11404	BSD		A974	100			✓	✓	ok	hexachlorobutadiene; Benzyl Chloride;
4	6W11405	IB		A963	400					—	
4	6W11406	MB		A963	400			✓	✓	ok	
5	6W11407	SOC CP10307		A1233	400	1		✓	✓	ok	
2	6W11408	JC85165-4	NJLL MS33561	M242	100	1.		✓	✓	ok/DL	
6	6W11409	JC85477-1	SL MS33615	A866	400	1		✓	✓	ok	
6	6W11410	JC85477-1DUP	✓	A866	400	1		✓	✓	ok	
7	6W11411	JC85477-2	✓	M227	400	1		✓	✓	ok	
8	6W11412	JC85477-3	✓	A326	400	1		✓	✓	ok	
9	6W11413	JC85477-4	✓	A442	400	1		✓	✓	ok	
10	6W11414	JC85477-5	✓	A457	400	1		✓	✓	ok	
11	6W11415	JC85477-6	✓	M118	400	1		✓	✓	ok	
12	6W11416	JC85477-~~16~~ 7	✓	A1167	400	1		✓	✓	ok	
13	6W~~11416~~ 11417	JC85477-8	✓	A1654	400	1		✓	✓	ok	
14	6W11418	JC~~85469-6~~ 854958-1	NJLL MS33439	M235	500	1.7		✓	✓	ok	For Nap
15	6W11419	JC85469-6	MS33642	A538	100	1		✓	✓	ok	For Bromoform

TH 4/8/19

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

DAYT-AIR-0006-06-FORM-TO15 Instrument Log

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1/9/18

APPENDIX E DATA USABILITY REPORTS

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: 25 Melville Park Road, Melville, New York

Lab: SGS - Dayton, New Jersey

Job No: JC85165 Date: April 26, 2019

EDS Sample ID	Client Sample ID	Lab Sample ID	Matrix
01	10MPR-IA-01-032319	JC85165-1	Indoor Air
02	10MPR-SS-01-032319	JC85165-2	Soil Vapor
03	10MPR-SS-02-032319	JC85165-3	Soil Vapor
04	10MPR-OA-01-032319	JC85165-4	Ambient Air
05	DUP032319	JC85165-5	Indoor Air

Note (s): The lab reports positively identified results between the reporting limit (RL) and the method detection limit (MDL) with a "J" on their Form Is. These results are considered estimated, however still valid and useable for project objectives.

The lab reports non-detects as "ND" on their Form Is. Any qualification that requires non-detects to be qualified as estimated ("UJ") will be presented as "ND J".

VOLATILE ORGANIC COMPOUNDS (VOCs)

Compendium Method TO-15

The samples were analyzed following "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition 1997, EPA/625/R-96/010B", Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry *(GC/MS)*". The data have been evaluated according to the protocols and quality control (QC) requirements of the analytical method, the NYSDEC ASP, the USEPA CLP National Functional Guidelines for Superfund Organic Methods Data Review (January 2017), the USEPA Region 2 Data Review Standard Operating Procedure (SOP) Number HW-31, Revision 6, September 2016: Validating Volatile Organic Compounds in Air Contained in Cannisters by Method TO-15, and the reviewer's professional judgment.

Chain-of-Custody (COC) - No discrepancies were identified.

Holding Time (HT) - All HT criteria were met.

Canister Certification Blanks - No discrepancies were identified.

Canister and Flow Controller Receipt - A review of the final canister pressures and a pre/post flow controller calibration check by the lab upon sample receipt indicated samples were acceptable.

Surrogates - All percent recovery (%R) criteria were met.

Blank Spike/Blank Spike Duplicate (BS/BSD) - All BS/BSD applicable to the analytical samples exhibited %R and relative percent differences (RPDs) within QC criteria except for the following.

BS/BSD ID	Compound	%D	Qualifier	Affected Samples
V6W457-BS/BSD	Bromoform	132%/131%/Ok	None	All non-detect
	Benzyl chloride	166%/166%/Ok	None	All non-detect

Method Blank (MB) - The MBs contained no positively identified target compounds.

GC/MS Tuning - All tuning criteria were met.

Initial Calibration (ICAL) - The ICAL exhibited acceptable percent relative standard deviation (%RSD) and mean relative response factor (RRF) values.

Continuing Calibration Verifications (CCVs) - The CCVs exhibited acceptable percent difference (%D) and RRF values except for the following.

CCAL Date	Compound	%D	Qualifier	Affected Samples
04/3/19 (1420)	Benzyl Chloride	52.1%	UJ	1, 4, 5

Internal Standard (IS) Area Performance - All IS met response and retention time (RT) criteria.

RLs/Compound Identification - All criteria were met.

Blind Field Duplicate - One blind field duplicate sample was collected with this data set; EDS ID 01 was collected from EDS ID 05. All results matched well.

Data Qualifier	Definition
None	The compound was positively identified at the associated numerical value which is the concentration of the compound in the sample.
U (ND)	Non-Detect. The compound was analyzed for, but not detected. The associated numerical value is the RL. The value is usable as a non-detect at the RL.
J	Estimated value. The compound was detected at a concentration below the RL but greater than the MDL. The value is usable as an estimated result.

Raw Data: 6W11389.D

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

4.1 4

Client Sample ID:	10MPR-IA-01-032319		
Lab Sample ID:	JC85165-1	Date Sampled:	03/24/19
Matrix:	AIR - Indoor Air Comp. Summa ID: A878	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6W11389.D	1.9	04/04/19 00:10	GP	n/a	n/a	V6W457
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	3.5	0.30	0.17	ppbv		8.3	0.71	0.40	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.30	0.070	ppbv		ND	0.66	0.15	ug/m3
71-43-2	78.11	Benzene	ND	0.30	0.018	ppbv		ND	0.96	0.058	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.15	0.041	ppbv		ND	1.0	0.27	ug/m3
75-25-2	252.8	Bromoform	ND	0.061	0.057	ppbv		ND	0.63	0.59	ug/m3
74-83-9	94.94	Bromomethane	ND	0.30	0.033	ppbv		ND	1.2	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.30	0.033	ppbv		ND	1.3	0.14	ug/m3
100-44-7	126	Benzyl Chloride [a]	ND	0.30	0.086	ppbv		ND	1.5	0.44	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.30	0.036	ppbv		ND	0.93	0.11	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.30	0.040	ppbv		ND	1.4	0.18	ug/m3
75-00-3	64.52	Chloroethane	ND	0.30	0.074	ppbv		ND	0.79	0.20	ug/m3
67-66-3	119.4	Chloroform	ND	0.30	0.030	ppbv		ND	1.5	0.15	ug/m3
74-87-3	50.49	Chloromethane	0.71	0.30	0.023	ppbv		1.5	0.62	0.047	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.30	0.060	ppbv		ND	0.94	0.19	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.30	0.038	ppbv		ND	1.6	0.20	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.061	0.036	ppbv		ND	0.38	0.23	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.30	0.033	ppbv		ND	1.0	0.11	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.30	0.018	ppbv		ND	1.2	0.073	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.061	0.025	ppbv		ND	0.24	0.099	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.15	0.027	ppbv		ND	1.2	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.30	0.032	ppbv		ND	1.2	0.13	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.30	0.029	ppbv		ND	1.4	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.30	0.079	ppbv		ND	1.1	0.28	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.56	0.30	0.025	ppbv		2.8	1.5	0.12	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.15	0.051	ppbv		ND	1.3	0.43	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.30	0.011	ppbv		ND	1.2	0.044	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.061	0.018	ppbv		ND	0.24	0.071	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.15	0.029	ppbv		ND	0.90	0.17	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.061	0.033	ppbv		ND	0.37	0.20	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.15	0.027	ppbv		ND	0.90	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 4/22/19

Report of Analysis

Client Sample ID:	10MPR-IA-01-032319		
Lab Sample ID:	JC85165-1	Date Sampled:	03/24/19
Matrix:	AIR - Indoor Air Comp. Summa ID: A878	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	6.7	0.76	0.33	ppbv		13	1.4	0.62	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.30	0.023	ppbv		ND	1.3	0.10	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.30	0.057	ppbv		ND	1.1	0.21	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.30	0.045	ppbv		ND	1.5	0.22	ug/m3
76-13-1	187.4	Freon 113	ND	0.15	0.026	ppbv		ND	1.1	0.20	ug/m3
76-14-2	170.9	Freon 114	ND	0.15	0.029	ppbv		ND	1.0	0.20	ug/m3
142-82-5	100.2	Heptane	ND	0.30	0.027	ppbv		ND	1.2	0.11	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.14	0.069	ppbv		ND	1.5	0.74	ug/m3
110-54-3	86.17	Hexane	ND	0.30	0.016	ppbv		ND	1.1	0.056	ug/m3
591-78-6	100	2-Hexanone	ND	0.30	0.055	ppbv		ND	1.2	0.22	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.49	0.30	0.098	ppbv		1.2	0.74	0.24	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.30	0.022	ppbv		ND	1.0	0.076	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.30	0.064	ppbv		ND	0.88	0.19	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.30	0.055	ppbv		ND	1.2	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.30	0.029	ppbv		ND	1.1	0.10	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.30	0.050	ppbv		ND	1.2	0.20	ug/m3
115-07-1	42	Propylene	ND	0.76	0.024	ppbv		ND	1.3	0.041	ug/m3
100-42-5	104.1	Styrene	ND	0.30	0.029	ppbv		ND	1.3	0.12	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.15	0.050	ppbv		ND	0.82	0.27	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.15	0.041	ppbv		ND	1.0	0.28	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.15	0.046	ppbv		ND	0.82	0.25	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.15	0.13	ppbv		ND	1.1	0.97	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.30	0.050	ppbv		ND	1.5	0.25	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.30	0.051	ppbv		ND	1.5	0.25	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.30	0.033	ppbv		ND	1.4	0.15	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.30	0.021	ppbv		ND	0.91	0.064	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.12	0.061	0.047	ppbv		0.81	0.41	0.32	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.30	0.076	ppbv		ND	0.88	0.22	ug/m3
108-88-3	92.14	Toluene	ND	0.30	0.022	ppbv		ND	1.1	0.083	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.061	0.029	ppbv		ND	0.33	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.23	0.15	0.043	ppbv		1.3	0.84	0.24	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.061	0.034	ppbv		ND	0.16	0.087	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.30	0.052	ppbv		ND	1.1	0.18	ug/m3
	106.2	m,p-Xylene	ND	0.30	0.052	ppbv		ND	1.3	0.23	ug/m3
95-47-6	106.2	o-Xylene	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 4/22/19

Raw Data: 5W35994.D

2

SGS LabLink@1036093 10:35 15-Apr-2019

Report of Analysis

4.2.4

Client Sample ID:	10MPR-SS-01-032319		
Lab Sample ID:	JC85165-2	Date Sampled:	03/24/19
Matrix:	AIR - Soil Vapor Comp. Summa ID: A271	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W35994.D	1	04/06/19 14:38	GP	n/a	n/a	V5W1468
Run #2							

	Initial Volume
Run #1	80.0 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	5.8	1.0	0.56	ppbv		14	2.4	1.3	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	1.0	0.23	ppbv		ND	2.2	0.51	ug/m3
71-43-2	78.11	Benzene	ND	1.0	0.060	ppbv		ND	3.2	0.19	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.50	0.13	ppbv		ND	3.3	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.19	ppbv		ND	2.1	2.0	ug/m3
74-83-9	94.94	Bromomethane	ND	1.0	0.11	ppbv		ND	3.9	0.43	ug/m3
593-60-2	106.9	Bromoethene	ND	1.0	0.11	ppbv		ND	4.4	0.48	ug/m3
100-44-7	126	Benzyl Chloride	ND	1.0	0.28	ppbv		ND	5.2	1.4	ug/m3
75-15-0	76.14	Carbon disulfide	ND	1.0	0.12	ppbv		ND	3.1	0.37	ug/m3
108-90-7	112.6	Chlorobenzene	ND	1.0	0.13	ppbv		ND	4.6	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	1.0	0.24	ppbv		ND	2.6	0.63	ug/m3
67-66-3	119.4	Chloroform	ND	1.0	0.10	ppbv		ND	4.9	0.49	ug/m3
74-87-3	50.49	Chloromethane	ND	1.0	0.077	ppbv		ND	2.1	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	1.0	0.20	ppbv		ND	3.1	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	1.0	0.13	ppbv		ND	5.2	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.12	ppbv		ND	1.3	0.75	ug/m3
110-82-7	84.16	Cyclohexane	ND	1.0	0.11	ppbv		ND	3.4	0.38	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	1.0	0.058	ppbv		ND	4.0	0.23	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.084	ppbv		ND	0.79	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.50	0.089	ppbv		ND	3.8	0.68	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	1.0	0.10	ppbv		ND	4.0	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	1.0	0.096	ppbv		ND	4.6	0.44	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	1.0	0.26	ppbv		ND	3.6	0.94	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.65	1.0	0.083	ppbv	J	3.2	4.9	0.41	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.50	0.17	ppbv		ND	4.3	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	1.0	0.037	ppbv		ND	4.0	0.15	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.059	ppbv		ND	0.79	0.23	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	1.0	0.098	ppbv		ND	4.5	0.44	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.50	0.095	ppbv		ND	3.0	0.57	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.11	ppbv		ND	1.2	0.66	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.50	0.088	ppbv		ND	3.0	0.53	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	1.0	0.098	ppbv		ND	4.5	0.44	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 4/22/19

Report of Analysis

Client Sample ID:	10MPR-SS-01-032319		
Lab Sample ID:	JC85165-2	Date Sampled:	03/24/19
Matrix:	AIR - Soil Vapor Comp. Summa ID: A271	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

4.2.4

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	19.0	2.5	1.1	ppbv		35.8	4.7	2.1	ug/m3
100-41-4	106.2	Ethylbenzene	ND	1.0	0.076	ppbv		ND	4.3	0.33	ug/m3
141-78-6	88	Ethyl Acetate	1.5	1.0	0.19	ppbv		5.4	3.6	0.68	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	1.0	0.15	ppbv		ND	4.9	0.74	ug/m3
76-13-1	187.4	Freon 113	ND	0.50	0.086	ppbv		ND	3.8	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.50	0.096	ppbv		ND	3.5	0.67	ug/m3
142-82-5	100.2	Heptane	ND	1.0	0.088	ppbv		ND	4.1	0.36	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.45	0.23	ppbv		ND	4.8	2.5	ug/m3
110-54-3	86.17	Hexane	0.67	1.0	0.053	ppbv	J	2.4	3.5	0.19	ug/m3
591-78-6	100	2-Hexanone	ND	1.0	0.18	ppbv		ND	4.1	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	3.3	1.0	0.32	ppbv		8.1	2.5	0.79	ug/m3
75-09-2	84.94	Methylene chloride	ND	1.0	0.073	ppbv		ND	3.5	0.25	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	1.0	0.21	ppbv		ND	2.9	0.62	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	1.0	0.18	ppbv		ND	4.1	0.74	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	1.0	0.096	ppbv		ND	3.6	0.35	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	1.0	0.16	ppbv		ND	4.1	0.66	ug/m3
115-07-1	42	Propylene	ND	2.5	0.080	ppbv		ND	4.3	0.14	ug/m3
100-42-5	104.1	Styrene	ND	1.0	0.095	ppbv		ND	4.3	0.40	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.50	0.17	ppbv		ND	2.7	0.93	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.50	0.14	ppbv		ND	3.4	0.96	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.50	0.15	ppbv		ND	2.7	0.82	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.50	0.44	ppbv		ND	3.7	3.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	1.0	0.17	ppbv		ND	4.9	0.84	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	1.0	0.17	ppbv		ND	4.9	0.84	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	1.0	0.11	ppbv		ND	4.7	0.51	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	1.0	0.069	ppbv		ND	3.0	0.21	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.5	0.20	0.15	ppbv		10	1.4	1.0	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	1.0	0.25	ppbv		ND	2.9	0.74	ug/m3
108-88-3	92.14	Toluene	1.1	1.0	0.072	ppbv		4.1	3.8	0.27	ug/m3
79-01-6	131.4	Trichloroethylene	1.4	0.20	0.095	ppbv		7.5	1.1	0.51	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.50	0.50	0.14	ppbv		2.8	2.8	0.79	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.11	ppbv		ND	0.51	0.28	ug/m3
108-05-4	86	Vinyl Acetate	ND	1.0	0.17	ppbv		ND	3.5	0.60	ug/m3
	106.2	m,p-Xylene	ND	1.0	0.17	ppbv		ND	4.3	0.74	ug/m3
95-47-6	106.2	o-Xylene	ND	1.0	0.085	ppbv		ND	4.3	0.37	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	1.0	0.085	ppbv		ND	4.3	0.37	ug/m3

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

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 4/22/19

Raw Data: 5W35995.D

SGS LabLink@1036093 10:35 15-Apr-2019

3

Report of Analysis

4.3.4

Client Sample ID:	10MPR-SS-02-032319		
Lab Sample ID:	JC85165-3	Date Sampled:	03/24/19
Matrix:	AIR - Soil Vapor Comp. Summa ID: A905	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W35995.D	1	04/06/19 15:24	GP	n/a	n/a	V5W1468
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	7.4	0.80	0.45	ppbv		18	1.9	1.1	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.18	ppbv		ND	1.8	0.40	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.048	ppbv		ND	2.6	0.15	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.40	0.11	ppbv		ND	2.7	0.74	ug/m3
75-25-2	252.8	Bromoform	ND	0.16	0.15	ppbv		ND	1.7	1.6	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.088	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.088	ppbv		ND	3.5	0.38	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.23	ppbv		ND	4.1	1.2	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.094	ppbv		ND	2.5	0.29	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.10	ppbv		ND	3.7	0.46	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.19	ppbv		ND	2.1	0.50	ug/m3
67-66-3	119.4	Chloroform	0.41	0.80	0.080	ppbv	J	2.0	3.9	0.39	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.061	ppbv		ND	1.7	0.13	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.16	ppbv		ND	2.5	0.50	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.16	0.094	ppbv		ND	1.0	0.59	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.088	ppbv		ND	2.8	0.30	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.046	ppbv		ND	3.2	0.19	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.16	0.067	ppbv		ND	0.63	0.27	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.40	0.071	ppbv		ND	3.1	0.55	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.083	ppbv		ND	3.2	0.34	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.077	ppbv		ND	3.7	0.36	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.21	ppbv		ND	2.9	0.76	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.83	0.80	0.066	ppbv		4.1	4.0	0.33	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.40	0.13	ppbv		ND	3.4	1.1	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.029	ppbv		ND	3.2	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.16	0.047	ppbv		ND	0.63	0.19	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.078	ppbv		ND	3.6	0.35	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.40	0.076	ppbv		ND	2.4	0.46	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.16	0.087	ppbv		ND	0.96	0.52	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.40	0.070	ppbv		ND	2.4	0.42	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.078	ppbv		ND	3.6	0.35	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 4/22/19

Report of Analysis

Client Sample ID:	10MPR-SS-02-032319		
Lab Sample ID:	JC85165-3	Date Sampled:	03/24/19
Matrix:	AIR - Soil Vapor Comp. Summa ID: A905	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

4.3

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VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	27.2	2.0	0.87	ppbv		51.3	3.8	1.6	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.060	ppbv		ND	3.5	0.26	ug/m3
141-78-6	88	Ethyl Acetate	1.2	0.80	0.15	ppbv		4.3	2.9	0.54	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
76-13-1	187.4	Freon 113	ND	0.40	0.068	ppbv		ND	3.1	0.52	ug/m3
76-14-2	170.9	Freon 114	ND	0.40	0.076	ppbv		ND	2.8	0.53	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.070	ppbv		ND	3.3	0.29	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.36	0.18	ppbv		ND	3.8	1.9	ug/m3
110-54-3	86.17	Hexane	ND	0.80	0.042	ppbv		ND	2.8	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.15	ppbv		ND	3.3	0.61	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.26	ppbv		ND	2.0	0.64	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.058	ppbv		ND	2.8	0.20	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.14	ppbv		ND	3.3	0.57	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.077	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	0.53	ug/m3
115-07-1	42	Propylene	ND	2.0	0.064	ppbv		ND	3.4	0.11	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.076	ppbv		ND	3.4	0.32	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.40	0.13	ppbv		ND	2.2	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.40	0.11	ppbv		ND	2.7	0.76	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.40	0.12	ppbv		ND	2.2	0.65	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.40	0.35	ppbv		ND	3.0	2.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.13	ppbv		ND	3.9	0.64	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.13	ppbv		ND	3.9	0.64	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.087	ppbv		ND	3.7	0.41	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.055	ppbv		ND	2.4	0.17	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.3	0.16	0.12	ppbv		8.8	1.1	0.81	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.20	ppbv		ND	2.4	0.59	ug/m3
108-88-3	92.14	Toluene	2.0	0.80	0.058	ppbv		7.5	3.0	0.22	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.076	ppbv		ND	0.86	0.41	ug/m3
75-69-4	137.4	Trichlorofluoromethane	1.1	0.40	0.11	ppbv		6.2	2.2	0.62	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.16	0.089	ppbv		ND	0.41	0.23	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.14	ppbv		ND	2.8	0.49	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.14	ppbv		ND	3.5	0.61	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.068	ppbv		ND	3.5	0.30	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.068	ppbv		ND	3.5	0.30	ug/m3

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

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 4/22/19

Raw Data: 6W11390.D 6W11408.D

SGS LabLink@1036093 10:35 15-Apr-2019

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Report of Analysis

4.4 4

Client Sample ID:	10MPR-OA-01-032319		
Lab Sample ID:	JC85165-4	Date Sampled:	03/24/19
Matrix:	AIR - Ambient Air Comp. Summa ID: M242	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6W11390.D	1	04/04/19 01:07	GP	n/a	n/a	V6W457
Run #2	6W11408.D	1	04/04/19 17:56	GP	n/a	n/a	V6W458

	Initial Volume
Run #1	500 ml
Run #2	100 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	109 [a]	0.80	0.45	ppbv		259 [a]	1.9	1.1	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.16	0.037	ppbv		ND	0.35	0.082	ug/m3
71-43-2	78.11	Benzene	0.41	0.16	0.0095	ppbv		1.3	0.51	0.030	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.080	0.021	ppbv		ND	0.54	0.14	ug/m3
75-25-2	252.8	Bromoform	ND	0.032	0.030	ppbv		ND	0.33	0.31	ug/m3
74-83-9	94.94	Bromomethane	ND	0.16	0.018	ppbv		ND	0.62	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.16	0.018	ppbv		ND	0.70	0.079	ug/m3
100-44-7	126	Benzyl Chloride [b]	ND J	0.16	0.045	ppbv		ND J	0.82	0.23	ug/m3
75-15-0	76.14	Carbon disulfide	0.36	0.16	0.019	ppbv		1.1	0.50	0.059	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.16	0.021	ppbv		ND	0.74	0.097	ug/m3
75-00-3	64.52	Chloroethane	ND	0.16	0.039	ppbv		ND	0.42	0.10	ug/m3
67-66-3	119.4	Chloroform	ND	0.16	0.016	ppbv		ND	0.78	0.078	ug/m3
74-87-3	50.49	Chloromethane	0.78	0.16	0.012	ppbv		1.6	0.33	0.025	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.16	0.032	ppbv		ND	0.50	0.10	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.16	0.020	ppbv		ND	0.83	0.10	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.032	0.019	ppbv		ND	0.20	0.12	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.16	0.018	ppbv		ND	0.55	0.062	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.16	0.0093	ppbv		ND	0.65	0.038	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.032	0.013	ppbv		ND	0.13	0.052	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.080	0.014	ppbv		ND	0.61	0.11	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.16	0.017	ppbv		ND	0.65	0.069	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.16	0.015	ppbv		ND	0.74	0.069	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.16	0.042	ppbv		ND	0.58	0.15	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.43	0.16	0.013	ppbv		2.1	0.79	0.064	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.080	0.027	ppbv		ND	0.68	0.23	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.16	0.0058	ppbv		ND	0.63	0.023	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.032	0.0094	ppbv		ND	0.13	0.037	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.16	0.016	ppbv		ND	0.73	0.073	ug/m3
541-73-1	147	m-Dichlorobenzene	0.13	0.080	0.015	ppbv		0.78	0.48	0.090	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.032	0.017	ppbv		ND	0.19	0.10	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.080	0.014	ppbv		ND	0.48	0.084	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.16	0.016	ppbv		ND	0.73	0.073	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 4/22/19

Report of Analysis

Client Sample ID:	10MPR-OA-01-032319		
Lab Sample ID:	JC85165-4	Date Sampled:	03/24/19
Matrix:	AIR - Ambient Air Comp. Summa ID: M242	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	22.1	0.40	0.17	ppbv		41.6	0.75	0.32	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.16	0.012	ppbv		ND	0.69	0.052	ug/m3
141-78-6	88	Ethyl Acetate	1.4	0.16	0.030	ppbv		5.0	0.58	0.11	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.16	0.024	ppbv		ND	0.79	0.12	ug/m3
76-13-1	187.4	Freon 113	ND	0.080	0.014	ppbv		ND	0.61	0.11	ug/m3
76-14-2	170.9	Freon 114	ND	0.080	0.015	ppbv		ND	0.56	0.10	ug/m3
142-82-5	100.2	Heptane	0.13	0.16	0.014	ppbv	J	0.53	0.66	0.057	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.072	0.036	ppbv		ND	0.77	0.38	ug/m3
110-54-3	86.17	Hexane	0.19	0.16	0.0085	ppbv		0.67	0.56	0.030	ug/m3
591-78-6	100	2-Hexanone	ND	0.16	0.029	ppbv		ND	0.65	0.12	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.2	0.16	0.052	ppbv		2.9	0.39	0.13	ug/m3
75-09-2	84.94	Methylene chloride	0.18	0.16	0.012	ppbv		0.63	0.56	0.042	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.5	0.16	0.034	ppbv		13	0.47	0.10	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.16	0.029	ppbv		ND	0.66	0.12	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.16	0.015	ppbv		ND	0.58	0.054	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.16	0.026	ppbv		ND	0.66	0.11	ug/m3
115-07-1	42	Propylene	5.3	0.40	0.013	ppbv		9.1	0.69	0.022	ug/m3
100-42-5	104.1	Styrene	ND	0.16	0.015	ppbv		ND	0.68	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.080	0.027	ppbv		ND	0.44	0.15	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.080	0.022	ppbv		ND	0.55	0.15	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.080	0.024	ppbv		ND	0.44	0.13	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.080	0.071	ppbv		ND	0.59	0.53	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.16	0.026	ppbv		ND	0.79	0.13	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.16	0.027	ppbv		ND	0.79	0.13	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.16	0.017	ppbv		ND	0.75	0.079	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	3.8	0.16	0.011	ppbv		12	0.49	0.033	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.032	0.025	ppbv		ND	0.22	0.17	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.16	0.040	ppbv		ND	0.47	0.12	ug/m3
108-88-3	92.14	Toluene	0.20	0.16	0.012	ppbv		0.75	0.60	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.032	0.015	ppbv		ND	0.17	0.081	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.20	0.080	0.022	ppbv		1.1	0.45	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.032	0.018	ppbv		ND	0.082	0.046	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.16	0.027	ppbv		ND	0.56	0.095	ug/m3
	106.2	m,p-Xylene	0.14	0.16	0.027	ppbv	J	0.61	0.69	0.12	ug/m3
95-47-6	106.2	o-Xylene	ND	0.16	0.014	ppbv		ND	0.69	0.061	ug/m3
1330-20-7	106.2	Xylenes (total)	0.14	0.16	0.014	ppbv	J	0.61	0.69	0.061	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%	99%	65-128%

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

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

MW 4/22/19

Raw Data: 6W11391.D

SGS LabLink@1036093 10:35 15-Apr-2019

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Report of Analysis

4.5 4

Client Sample ID:	DUP032319		
Lab Sample ID:	JC85165-5	Date Sampled:	03/24/19
Matrix:	AIR - Indoor Air Comp. Summa ID: A832	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6W11391.D	1.9	04/04/19 02:01	GP	n/a	n/a	V6W457
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	3.7	0.30	0.17	ppbv		8.8	0.71	0.40	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.30	0.070	ppbv		ND	0.66	0.15	ug/m3
71-43-2	78.11	Benzene	ND	0.30	0.018	ppbv		ND	0.96	0.058	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.15	0.041	ppbv		ND	1.0	0.27	ug/m3
75-25-2	252.8	Bromoform	ND	0.061	0.057	ppbv		ND	0.63	0.59	ug/m3
74-83-9	94.94	Bromomethane	ND	0.30	0.033	ppbv		ND	1.2	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.30	0.033	ppbv		ND	1.3	0.14	ug/m3
100-44-7	126	Benzyl Chloride [a]	ND J	0.30	0.086	ppbv		ND J	1.5	0.44	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.30	0.036	ppbv		ND	0.93	0.11	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.30	0.040	ppbv		ND	1.4	0.18	ug/m3
75-00-3	64.52	Chloroethane	ND	0.30	0.074	ppbv		ND	0.79	0.20	ug/m3
67-66-3	119.4	Chloroform	ND	0.30	0.030	ppbv		ND	1.5	0.15	ug/m3
74-87-3	50.49	Chloromethane	0.66	0.30	0.023	ppbv		1.4	0.62	0.047	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.30	0.060	ppbv		ND	0.94	0.19	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.30	0.038	ppbv		ND	1.6	0.20	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.061	0.036	ppbv		ND	0.38	0.23	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.30	0.033	ppbv		ND	1.0	0.11	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.30	0.018	ppbv		ND	1.2	0.073	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.061	0.025	ppbv		ND	0.24	0.099	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.15	0.027	ppbv		ND	1.2	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.30	0.032	ppbv		ND	1.2	0.13	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.30	0.029	ppbv		ND	1.4	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.30	0.079	ppbv		ND	1.1	0.28	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.54	0.30	0.025	ppbv		2.7	1.5	0.12	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.15	0.051	ppbv		ND	1.3	0.43	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.30	0.011	ppbv		ND	1.2	0.044	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.061	0.018	ppbv		ND	0.24	0.071	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.15	0.029	ppbv		ND	0.90	0.17	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.061	0.033	ppbv		ND	0.37	0.20	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.15	0.027	ppbv		ND	0.90	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.30	0.030	ppbv		ND	1.4	0.14	ug/m3

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

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

MW 4/22/19

Report of Analysis

Client Sample ID:	DUP032319		
Lab Sample ID:	JC85165-5	Date Sampled:	03/24/19
Matrix:	AIR - Indoor Air Comp. Summa ID: A832	Date Received:	03/25/19
Method:	TO-15	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	6.6	0.76	0.33	ppbv		12	1.4	0.62	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.30	0.023	ppbv		ND	1.3	0.10	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.30	0.057	ppbv		ND	1.1	0.21	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.30	0.045	ppbv		ND	1.5	0.22	ug/m3
76-13-1	187.4	Freon 113	ND	0.15	0.026	ppbv		ND	1.1	0.20	ug/m3
76-14-2	170.9	Freon 114	ND	0.15	0.029	ppbv		ND	1.0	0.20	ug/m3
142-82-5	100.2	Heptane	ND	0.30	0.027	ppbv		ND	1.2	0.11	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.14	0.069	ppbv		ND	1.5	0.74	ug/m3
110-54-3	86.17	Hexane	ND	0.30	0.016	ppbv		ND	1.1	0.056	ug/m3
591-78-6	100	2-Hexanone	ND	0.30	0.055	ppbv		ND	1.2	0.22	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.55	0.30	0.098	ppbv		1.4	0.74	0.24	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.30	0.022	ppbv		ND	1.0	0.076	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.16	0.30	0.064	ppbv	J	0.47	0.88	0.19	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.30	0.055	ppbv		ND	1.2	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.30	0.029	ppbv		ND	1.1	0.10	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.30	0.050	ppbv		ND	1.2	0.20	ug/m3
115-07-1	42	Propylene	ND	0.76	0.024	ppbv		ND	1.3	0.041	ug/m3
100-42-5	104.1	Styrene	ND	0.30	0.029	ppbv		ND	1.3	0.12	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.15	0.050	ppbv		ND	0.82	0.27	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.15	0.041	ppbv		ND	1.0	0.28	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.15	0.046	ppbv		ND	0.82	0.25	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.15	0.13	ppbv		ND	1.1	0.97	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.30	0.050	ppbv		ND	1.5	0.25	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.30	0.051	ppbv		ND	1.5	0.25	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.30	0.033	ppbv		ND	1.4	0.15	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.30	0.021	ppbv		ND	0.91	0.064	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.11	0.061	0.047	ppbv		0.75	0.41	0.32	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.30	0.076	ppbv		ND	0.88	0.22	ug/m3
108-88-3	92.14	Toluene	ND	0.30	0.022	ppbv		ND	1.1	0.083	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.061	0.029	ppbv		ND	0.33	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.23	0.15	0.043	ppbv		1.3	0.84	0.24	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.061	0.034	ppbv		ND	0.16	0.087	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.30	0.052	ppbv		ND	1.1	0.18	ug/m3
	106.2	m,p-Xylene	ND	0.30	0.052	ppbv		ND	1.3	0.23	ug/m3
95-47-6	106.2	o-Xylene	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.30	0.026	ppbv		ND	1.3	0.11	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

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

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

MW 4/22/19

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT (DUSR)

Client: ERM, Melville, New York

Site: 25 Melville Park Road, Melville, New York

Lab: SGS Accutest Laboratories - Dayton, New Jersey

Job No: JC95050 Date: October 15, 2019

VOC			
EDS Sample ID	Client Sample ID	Lab Sample ID	Matrix
01	ERM-MW-01-091219	JC95050-1	Aqueous
02	ERM-MW-02-091219	JC95050-2	Aqueous
03	ERM-MW-02D-091219	JC95050-3	Aqueous
04	ERM-MW-05-091219	JC95050-4	Aqueous
05	ERM-MW-09-091219	JC95050-5	Aqueous
06	ERM-MW-11S-091219	JC95050-6	Aqueous
07	ERM-MW-11M-091219	JC95050-7	Aqueous
08	ERM-MW-11D-091219	JC95050-8	Aqueous
09	ERM-MW-12S-091219	JC95050-9	Aqueous
10	ERM-MW-12D-091219	JC95050-10	Aqueous
11	ERM-MW-13S-091219	JC95050-11	Aqueous
12	ERM-MW-13D-091219	JC95050-12	Aqueous
13	ERM-MW-14D-091219	JC95050-13	Aqueous
14	DUP091219	JC95050-14	Aqueous
15	TB091219	JC95050-15	Aqueous

Note (s): The lab reports positively identified results for organics between the reporting limit (RL) and the method detection limit (MDL) with a "J". These results are considered estimated, however valid and useable for project objectives.

The lab reports non-detects as "ND" on their Form Is. Any qualification that requires non-detects to be qualified as estimated ("UJ") will be presented as "ND J".

VOLATILE ORGANIC COMPOUNDS (VOCs)

USEPA SW-846 Method 8260C

The analytical method, the USEPA CLP National Functional Guidelines for Organic Data Review (January 2017), and the reviewer's professional judgment were used in evaluating the data in this summary report.

Holding Times (HT) - All HT criteria were met.

Surrogates - All surrogate percent recoveries (%R) met QC criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - All %R and relative percent difference (RPD) met QC criteria except for the following.

MS/MSD Sample ID	Compound	MS %R/MSD %R/ RPD	Qualifier
2	Bromomethane	OK/OK/15	None for RPD alone
	Chloroethane	OK/OK/16	
	Chloromethane	OK/OK/17	
	Cyclohexane	OK/OK/17	
	Trichlorofluoromethane	OK/OK/15	
	Vinyl Chloride	OK/OK/16	

Laboratory Control Sample (LCS/LCSD) - All %R and RPD values met QC criteria except for the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
V2C7649-BS	Bromoform	133%	None	All Associated ND
	Dibromochloromethane	129%	None	
	cis-1,3-Dichloropropene	121%	None	
	trans-1,3-Dichloropropene	136%	None	
	1,1,2,2-Tetrachloroethane	122%	None	
V2C7651-BS	Bromoform	133%	None	All Associated ND
	Dibromochloromethane	130%	None	
	cis-1,3-Dichloropropene	125%	None	
	trans-1,3-Dichloropropene	140%	None	
	1,1,2,2-Tetrachloroethane	121%	None	

Method Blank (MB) - The MBs exhibited no target compounds.

Field Blank (FB) - FB samples were not collected.

Trip Blank (TB) - TB091219 exhibited no target compounds.

Initial Calibration (ICAL) - The ICAL exhibited acceptable %RSD and mean relative response factor (RRF) values.

Continuing Calibration (CCV) - The CCVs exhibited acceptable percent difference (%D) and RRF values except for the following.

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
09/18/2019	trans-1,3-Dichloropropene	28.7%	J/UJ	1-13, 15
	Dibromochloromethane	20.8%	J/UJ	
09/19/2019	trans-1,3-Dichloropropene	29.9%	UJ	14

Note: The laboratory denotes several compounds with an (a, b and/or c) indicating they were outside of method QC limits. However, these compounds passed data validation criteria, so no action is required.

Internal Standard (IS) Area Performance - All IS met QC criteria.

Blind Field Duplicate - One blind field duplicate sample was collected with this data set; EDS ID 14 was collected from EDS ID 05. All results matched well.

Sample Analysis - All criteria were met.

Data Qualifier	Definition
None	The compound was positively identified at the associated numerical value which is the concentration of the compound in the sample.
U (ND)	Non-Detect. The compound was analyzed for, but not detected. The associated numerical value is the RL. The value is usable as a non-detect at the RL.
J	Estimated value. The compound was detected at a concentration below the RL but greater than the MDL. The value is usable as an estimated result.

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-01-091219		
Lab Sample ID:	JC95050-1	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170157.D	1	09/18/19 11:35	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.8	10	6.0	ug/l	J
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	2.2	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	2.2	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	106	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.82	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 10/15/19

Client Sample ID:	ERM-MW-01-091219		
Lab Sample ID:	JC95050-1	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	5.7	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW10151119

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SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-02-091219		
Lab Sample ID:	JC95050-2	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170156.D	1	09/18/19 11:07	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	2.2	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	J
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

NW 10/15/19

Client Sample ID:	ERM-MW-02-091219		
Lab Sample ID:	JC95050-2	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

4.2
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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 10/15/19

Raw Data: 2C170158.D

3

SGS North America Inc.

Report of Analysis

Client Sample ID:	ERM-MW-02D-091219		
Lab Sample ID:	JC95050-3	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170158.D	1	09/18/19 12:04	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	J
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW 10/15/19

Report of Analysis

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Client Sample ID:	ERM-MW-02D-091219		
Lab Sample ID:	JC95050-3	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 10/15/19

SGS North America Inc.

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Report of Analysis

Client Sample ID:	ERM-MW-05-091219		
Lab Sample ID:	JC95050-4	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170164.D	1	09/18/19 14:56	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.2	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	4.3	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.4	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	48.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	8.0	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	J
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW 10/15/19

Report of Analysis

Client Sample ID:	ERM-MW-05-091219		
Lab Sample ID:	JC95050-4	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	1.0	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	15.0	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	106%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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SGS North America Inc.

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Report of Analysis

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Client Sample ID:	ERM-MW-09-091219		
Lab Sample ID:	JC95050-5	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170165.D	1	09/18/19 15:24	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.5	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	0.75	1.0	0.73	ug/l	J
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.80	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	40.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.2	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW10/15/19

Report of Analysis

Client Sample ID:	ERM-MW-09-091219		
Lab Sample ID:	JC95050-5	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	8.0	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	1.3	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW.01.5.19

SGS North America Inc.

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Report of Analysis

Client Sample ID:	ERM-MW-11S-091219		
Lab Sample ID:	JC95050-6	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170166.D	1	09/18/19 15:53	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	17.6	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	2.1	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	1.3	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	31.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.71	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

J

J

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

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

NW 10/15/19

Report of Analysis

Client Sample ID:	ERM-MW-11S-091219		
Lab Sample ID:	JC95050-6	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	61.4	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	46.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 10/15/19

Raw Data: 2C170167.D

SGS North America Inc.

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Report of Analysis

4.7

4

Client Sample ID:	ERM-MW-11M-091219		
Lab Sample ID:	JC95050-7	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170167.D	1	09/18/19 16:22	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.74	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

J

J

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

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

mw 10/15/19

Report of Analysis

Client Sample ID:	ERM-MW-11M-091219		
Lab Sample ID:	JC95050-7	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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4

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	8.9	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

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

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

MW 10/15/19

Raw Data: 2C170168.D

SGS North America Inc.

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Report of Analysis

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Client Sample ID:	ERM-MW-11D-091219		
Lab Sample ID:	JC95050-8	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170168.D	1	09/18/19 16:50	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.3	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.5	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	3.2	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	29.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.57	1.0	0.54	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW 10/15/19

Report of Analysis

Client Sample ID:	ERM-MW-11D-091219		
Lab Sample ID:	JC95050-8	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	29.9	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	1.0	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	26.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

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

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

MW 10/15/19

Raw Data: 2C170169.D

SGS North America Inc.

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Report of Analysis

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Client Sample ID:	ERM-MW-12S-091219		
Lab Sample ID:	JC95050-9	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170169.D	1	09/18/19 17:18	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	18.7	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	J
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW-01-5-19

Report of Analysis

Client Sample ID:	ERM-MW-12S-091219		
Lab Sample ID:	JC95050-9	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 10/15/19

Raw Data: 2C170170.D

SGS North America Inc.

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Report of Analysis

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Client Sample ID:	ERM-MW-12D-091219		
Lab Sample ID:	JC95050-10	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170170.D	1	09/18/19 17:47	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.2	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	1.6	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	J
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW 10/15/19

Report of Analysis

4.10

4

Client Sample ID:	ERM-MW-12D-091219		
Lab Sample ID:	JC95050-10	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	4.8	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW10151519

Raw Data: 2C170171.D

SGS North America Inc.

11

Report of Analysis

4.11

4

Client Sample ID:	ERM-MW-13S-091219		
Lab Sample ID:	JC95050-11	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170171.D	1	09/18/19 18:15	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.8	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.6	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	2.9	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	11.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW 10/15/19

Report of Analysis

Client Sample ID:	ERM-MW-13S-091219		
Lab Sample ID:	JC95050-11	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

4.11

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VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	18.6	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.58	1.0	0.54	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	17.9	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 10/15/19

Raw Data: 2C170172.D

SGS North America Inc.

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Report of Analysis

4.12 4

Client Sample ID:	ERM-MW-13D-091219		
Lab Sample ID:	JC95050-12	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170172.D	1	09/18/19 18:44	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.6	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.76	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	1.9	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	7.1	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

NW 10/15/19

Client Sample ID:	ERM-MW-13D-091219		
Lab Sample ID:	JC95050-12	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

4.12

4

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	14.4	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.85	1.0	0.54	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	21.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

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

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

MW.01.5.19

SGS North America Inc.

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Report of Analysis

Client Sample ID:	ERM-MW-14D-091219		
Lab Sample ID:	JC95050-13	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170173.D	1	09/18/19 19:12	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.2	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	2.3	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND J	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	0.73	1.0	0.59	ug/l	J
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND J	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

MW 10/15/19

Report of Analysis

4.13

4

Client Sample ID:	ERM-MW-14D-091219		
Lab Sample ID:	JC95050-13	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	5.7	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	6.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 10/15/19

SGS North America Inc.

14

Report of Analysis

Client Sample ID:	DUP091219		
Lab Sample ID:	JC95050-14	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170185.D	1	09/19/19 10:02	ED	n/a	n/a	V2C7651
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	21.1	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	0.86	1.0	0.73	ug/l	J
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.75	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	41.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.3	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND J	1.0	0.43	ug/l	
123-91-1	1,4-Dioxane [d]	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

MW 10/15/19

Report of Analysis

Client Sample ID:	DUP091219		
Lab Sample ID:	JC95050-14	Date Sampled:	09/12/19
Matrix:	AQ - Ground Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

4.14

4

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	8.9	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	1.4	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

NW 10/15/19

Raw Data: 2C170163.D

SGS North America Inc.

15

Report of Analysis

4.15 4

Client Sample ID:	TB091219		
Lab Sample ID:	JC95050-15	Date Sampled:	09/12/19
Matrix:	AQ - Trip Blank Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C170163.D	1	09/18/19 14:27	ED	n/a	n/a	V2C7649
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [b]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [c]	ND	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene [c]	ND	1.0	0.43	ug/l	J
123-91-1	1,4-Dioxane	ND	130	69	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	

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

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

NW 10/15/19

Report of Analysis

4.15

4

Client Sample ID:	TB091219		
Lab Sample ID:	JC95050-15	Date Sampled:	09/12/19
Matrix:	AQ - Trip Blank Water	Date Received:	09/12/19
Method:	SW846 8260C	Percent Solids:	n/a
Project:	New York Twist Drill, Melville Park Road, Melville, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane [d]	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
(d) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
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N = Indicates presumptive evidence of a compound

MW01sl19

APPENDIX F RESULTS OF WELL RECORDS REVIEW

Reference No: W056145-073119
Contact E-Mail: eric.marcus@erm.com

Dear Eric:

Thank you for your Freedom of Information Law (FOIL) request. Your request has been received and is being processed. Your request was received in this office on 7/31/2019 and given the reference number FOIL **#W056145-073119** for tracking purposes. You may expect the Department's response to your request no later than **8/28/2019**.

Record Requested: **Well Installation Records from 2018-current. Search area is in Melville. South of Melville Park Road and North of Ruland Road. East of Route 110 and West of Pinelawn Road. Please see figure attached for search area boundary outlined in PINK.**

You can monitor the progress of your request at the link below and you'll receive an email when your request has been completed. Again, thank you for using the FOIL Center.

https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx

New York State Department of Environmental Conservation, Record Access Office

FORMER NYTC SITE

ERM-MW-02

ERM-MW-01

ERM-MW-02D

SCDHS-MPR-01

ERM-MW-06

ERM-MW-05

ERM-MW-09

ERM-MW-04

ERM-MW-07

ERM-MW-07D

ERM-MW-08

ERM-MW-10

ERM-MW-03

ERM-MW-11S

ERM-MW-11M

ERM-MW-11D

ERM-MW-12S

ERM-MW-12M

MELVILLE PARK ROAD

MAXESS ROAD

BAYLIS ROAD

DURYEA ROAD

RULAND ROAD

80 RULAND ROAD

Legend

- Monitoring Well Location
- Proposed Vertical Profile/Monitoring Well Location

0 400' 800'

GRAPHIC SCALE IN FEET

N

TITLE

NYTD OU2 BOUNDARY

PREPARED FOR

RESPONDANTS ORDER ON CONSENT
NO. W1-0998-04-04

Environmental Resources Management

FIGURE 1

DRAWN BY	SCALE	DATE	JOB NO.
GKS/EMF	AS SHOWN	10/16/15	0300219

R:\Scout\Projects\NY Twist Drill\CAD\2015 October\2015-10 - NY Twist Drill - GW MW Network.dwg (10/16/2015 - 3:44pm Melville)

Karen Pickering

From: New York DEC Support <newyorkdec@mycusthelp.net>
Sent: Wednesday, August 14, 2019 3:54 PM
To: Eric Marcus
Subject: Freedom of Information Law Request :: W056145-073119

--- Please respond above this line ---

Region 1 - Stony Brook
P: 631 444-0202 | F:
www.dec.ny.gov

RE: PUBLIC RECORDS REQUEST of 7/31/2019, Reference # W056145-073119

Date: 08/14/2019

Dear Eric Marcus,

I write in response to your Freedom of Information Law (FOIL) request seeking:

> *Well Installation Records from 2018-current. Search area is in Melville. South of Melville Park Road and North of Ruland Road. East of Route 110 and West of Pinelawn Road. Please see figure attached for search area boundary outlined in PINK.*

Please be advised that a diligent search of the files maintained by DEC produced no responsive records.

If you believe you have been unlawfully denied access to responsive records, you have the right to appeal. Any such appeal must be submitted in writing and within thirty (30) days of the date of this email. Appeals must be directed to:

FOIL Appeals Officer
Office of General Counsel
New York State Department of Environmental Conservation
625 Broadway, 14th Floor
Albany, NY 12233-1500

Your FOIL request is now closed. If I can be of further assistance, please contact me at 631 444-0202 and reference FOIL #W056145-073119, or simply reply to this email. Thank you.

Sincerely,

Region 1 FOIL Coordinator

APPENDIX G LETTER TO PROPERTY OWNER REGAURDING VI RESULTS

ERM

105 Maxess Road
Suite 316
Melville, New York
11747

Telephone: +1 631 756 8900
Fax: +1 631 756 8901

www.erm.com

8 May 2019

Mr. David Fornieri
Melville Industrial Associates
445 Broad Hollow Road
Melville, NY 11747

Via email dfornieri@levine.com

Reference: 0372902.02

Subject: Vapor Intrusion Sampling Test Results – 10 Melville Park Road

Dear Mr. Fornieri:

Thank you for providing access to ERM Consulting and Engineering, Inc. (ERM) to collect indoor, outdoor and sub-slab samples from your property at 10 Melville Park Road. This letter transmits the validated sampling results from the samples collected on 24 March 2019.

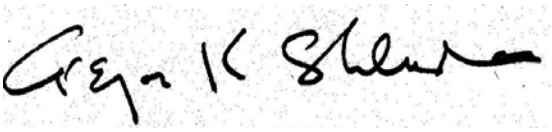
In accordance with the Site Management Plan for the OU-2 Off-Site Area, vapor intrusion sampling is required annually to ensure that soil vapor VOC concentrations are decreasing as a result of the continuing On-Site clean up at 25 Melville Park Road and that Indoor VOC concentrations are below New York Department of Health (NYSDOH) Guidance Values. The attached Table1 presents the outdoor (10MPR-OA-01), indoor air (10MPR-IA-01) and field duplicate (10MPR-IA-01 Duplicate), and sub-slab vapor (10MPR-SS-01 and 10MPR-SS-02) sampling results from the samples collected in March 2019 at your property. A figure showing sampling location is also attached.

The sampling data were evaluated using the New York State Department of Health (NYSDOH) October, 2006, document entitled “Guidance for Evaluating Soil Vapor Intrusion in the State of New York, a copy of which is available on the NYSDOH website at https://www.health.ny.gov/environmental/investigations/soil_gas/svi_guidance/. The test results indicate that indoor air concentrations of tetrachloroethene (“PCE”) and trichloroethene (“TCE”, a degradation product of PCE) at your property are below the NYSDOH indoor air guidelines of 30 micrograms per cubic meter (μg/m3) and 2 μg/m3, respectively.

If you have any questions concerning these results, contact Dawn Hettrick of NYSDOH at 518.402.7860 (BEEI@health.ny.gov) or Brian Jankauskas of the NYSDEC at 518.402.9620 (brian.jankauskas@dec.ny.gov).

We appreciate your cooperation in this investigation.

Very truly yours,
Yours sincerely,



Gregory K. Shkuda, PhD
Principal Consultant

Enc.

C: F. Eisenbud, Esq. - Campolo, Middleton, McCormic
L. Bromberg, Esq. – Porzio, Bromberg& Newman
B. Jankauskas – NYSDEC
D. Hettrick - NYSDOH

Table 1
Indoor Air, System Air and Outdoor Ambient Air Summary Table
New York Twist Drill Facility
Melville, New York

Location ID	10MPR-IA-01	10MPR-IA-01	10MPR-OA-01	10MPR-SS-01	10MPR-SS-02
Sample Date	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19
Sample Type	N	FD	N	N	N
Lab Sample ID	JC85165-1	JC85165-5	JC85165-4	JC85165-2	JC85165-3
Analyte					
Method TO-15, µg/m3					
1,1,1-Trichloroethane	0.82 U	0.82 U	0.44 U	2.7 U	2.2 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	0.55 U	3.4 U	2.7 U
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 11	1.1 U	1.1 U	0.61 U	3.8 U	3.1 U
1,1,2-Trichloroethane	0.82 U	0.82 U	0.44 U	2.7 U	2.2 U
1,1-Dichloroethane	1.2 U	1.2 U	0.65 U	4.0 U	3.2 U
1,1-Dichloroethene	0.24 U	0.24 U	0.13 U	0.79 U	0.63 U
1,2,4-Trichlorobenzene	1.1 U	1.1 U	0.59 U	3.7 U	3.0 U
1,2,4-Trimethylbenzene	1.5 U	1.5 U	0.79 U	4.9 U	3.9 U
1,2-dichloro-1,1,2,2-tetrafluoroethane (Freon 1	1.0 U	1.0 U	0.56 U	3.5 U	2.8 U
1,2-Dichlorobenzene	0.37 U	0.37 U	0.19 U	1.2 U	0.96 U
1,2-Dichloroethane	1.2 U	1.2 U	0.65 U	4.0 U	3.2 U
1,2-Dichloropropane	1.4 U	1.4 U	0.74 U	4.6 U	3.7 U
1,3,5-Trimethylbenzene	1.5 U	1.5 U	0.79 U	4.9 U	3.9 U
1,3-Butadiene	0.66 U	0.66 U	0.35 U	2.2 U	1.8 U
1,3-Dichlorobenzene	0.90 U	0.90 U	0.78	3.0 U	2.4 U
1,4-Dichlorobenzene	0.90 U	0.90 U	0.48 U	3.0 U	2.4 U
1,4-Dioxane	1.1 U	1.1 U	0.58 U	3.6 U	2.9 U
2,2,4-Trimethylpentane	1.4 U	1.4 U	0.75 U	4.7 U	3.7 U
2-Butanone	0.88 U	0.47 J	13	2.9 U	2.4 U
2-Hexanone	1.2 U	1.2 U	0.65 U	4.1 U	3.3 U
4-Ethyltoluene	1.5 U	1.5 U	0.79 U	4.9 U	3.9 U
4-Methyl-2-pentanone	1.2 U	1.2 U	0.66 U	4.1 U	3.3 U
Acetone	8.3	8.8	259	14	18
Allyl chloride	0.94 U	0.94 U	0.50 U	3.1 U	2.5 U
Benzene	0.96 U	0.96 U	1.3	3.2 U	2.6 U
Benzyl chloride	1.5 UJ	1.5 U	0.82 UJ	5.2 U	4.1 UJ
Bromodichloromethane	1.0 U	1.0 U	0.54 U	3.3 U	2.7 U
Bromoform	0.63 U	0.63 U	0.33 U	2.1 U	1.7 U
Carbon disulfide	0.93 U	0.93 U	1.1	3.1 U	2.5 U
Carbon tetrachloride	0.38 U	0.38 U	0.20 U	1.3 U	1.0 U
Chlorobenzene	1.4 U	1.4 U	0.74 U	4.6 U	3.7 U
Chloroethane	0.79 U	0.79 U	0.42 U	2.6 U	2.1 U
Chloroform	1.5 U	1.5 U	0.78 U	4.9 U	2.0 J
cis-1,2-Dichloroethene	0.24 U	0.24 U	0.13 U	0.79 U	0.63 U
cis-1,3-Dichloropropene	1.4 U	1.4 U	0.73 U	4.5 U	3.6 U
Cyclohexane	1.0 U	1.0 U	0.55 U	3.4 U	2.8 U
Dibromochloromethane	1.3 U	1.3 U	0.68 U	4.3 U	3.4 U
Dichlorodifluoromethane (Freon 12)	2.8	2.7	2.1	3.2 J	4.1
Ethanol	13	12	41.6	35.8	51.3
Ethyl acetate	1.1 U	1.1 U	5.0	5.4	4.3
Ethylbenzene	1.3 U	1.3 U	0.69 U	4.3 U	3.5 U
Ethylene dibromide	1.2 U	1.2 U	0.61 U	3.8 U	3.1 U
Heptane	1.2 U	1.2 U	0.53 J	4.1 U	3.3 U
Hexachlorobutadiene	1.5 U	1.5 U	0.77 U	4.8 U	3.8 U
Isopropyl alcohol	1.2	1.4	2.9	8.1	2.0 U
m,p-Xylenes	1.3 U	1.3 U	0.61 J	4.3 U	3.5 U
Methyl bromide	1.2 U	1.2 U	0.62 U	3.9 U	3.1 U
Methyl chloride	1.5	1.4	1.6	2.1 U	1.7 U
Methyl methacrylate	1.2 U	1.2 U	0.66 U	4.1 U	3.3 U
Methyl tert-butyl ether	1.1 U	1.1 U	0.58 U	3.6 U	2.9 U
Methylene chloride	1.0 U	1.0 U	0.63	3.5 U	2.8 U
n-Hexane	1.1 U	1.1 U	0.67	2.4 J	2.8 U
o-Chlorotoluene (2-chlorotoluene)	1.6 U	1.6 U	0.83 U	5.2 U	4.1 U
o-Xylene	1.3 U	1.3 U	0.69 U	4.3 U	3.5 U
Propylene	1.3 U	1.3 U	9.1	4.3 U	3.4 U
Styrene	1.3 U	1.3 U	0.68 U	4.3 U	3.4 U
tert-Butyl alcohol	0.91 U	0.91 U	12	3.0 U	2.4 U
Tetrachloroethene	0.81	0.75	0.22 U	10	8.8
Tetrahydrofuran	0.88 U	0.88 U	0.47 U	2.9 U	2.4 U
Toluene	1.1 U	1.1 U	0.75	4.1	7.5
trans-1,2-Dichloroethene	1.2 U	1.2 U	0.63 U	4.0 U	3.2 U
trans-1,3-Dichloropropene	1.4 U	1.4 U	0.73 U	4.5 U	3.6 U
Trichloroethene	0.33 U	0.33 U	0.17 U	7.5	0.86 U
Trichlorofluoromethane (Freon 11)	1.3	1.3	1.1	2.8	6.2

Analyte	Location ID	10MPR-IA-01	10MPR-IA-01	10MPR-OA-01	10MPR-SS-01	10MPR-SS-02
	Sample Date	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19	24-Mar-19
	Sample Type	N	FD	N	N	N
	Lab Sample ID	JC85165-1	JC85165-5	JC85165-4	JC85165-2	JC85165-3
Vinyl acetate		1.1 U	1.1 U	0.56 U	3.5 U	2.8 U
Vinyl bromide		1.3 U	1.3 U	0.70 U	4.4 U	3.5 U
Vinyl chloride		0.16 U	0.16 U	0.082 U	0.51 U	0.41 U
Xylene, Total		1.3 U	1.3 U	0.61 J	4.3 U	3.5 U

Notes:

= Compound not detected at concentrations above the laboratory reporting detection limit.
The laboratory reporting detection limit is shown.
Empty cells = Not analyzed
Units are in µg/m3 = micrograms per cubic meter

Qualifiers - Organic:
J = The analyte was positively identified; associated numerical value is the approximate concentration of the analyte in the sample
U
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.
All analyses performed by Accutest, NJ.

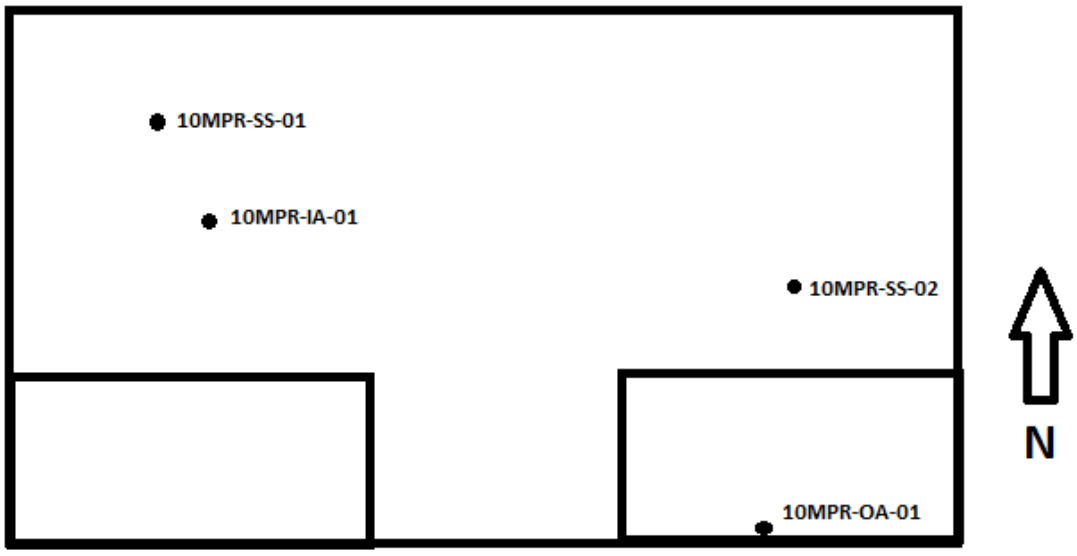
Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

LOWEST BUILDING LEVEL LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the lowest building level .
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sket
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Greg Shkuda

From: Greg Shkuda
Sent: Wednesday, May 08, 2019 2:13 PM
To: dfornieri@levine.com
Cc: 'feisenbud@cmmllp.com' (feisenbud@cmmllp.com); Lisa M. Bromberg (lmbromberg@pbnlaw.com); 'Brian Jankauskas (brian.jankauskas@dec.ny.gov)'; Dawn Hettrick (beei@health.state.ny.us); Karen Pickering
Subject: Vapor Sampling 10 Melville Park Road
Attachments: 10 MPR VI Data Transmittal 5-8-2019.pdf

Dear Mr. Fornieri –

The results of the vapor sampling conducted at 10 Melville Road on March 23-24, 2019 are presented in the attached latter. Please call if you have any questions.

Thank you for your help.

Greg Shkuda

Gregory K Shkuda, PhD | Principal Consultant | ERM
105 Maxess Road, Suite 316, Melville, New York 11747
Tel: 631-756-8947 | Main: 631-756-8900 | Cell 516-652-6412
greg.shkuda@erm.com | www.erm.com

APPENDIX H NYSDEC IC/EC VERIFICATION FORM

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 152169

Site Name New York Twist Drill (Loading Dock Area)

Site Address: 25 Melville Park Road Zip Code: 11747
City/Town: Melville
County: Suffolk
Site Acreage: 0.190

Reporting Period: September 27, 2018 to September 27, 2019

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Unrestricted, Residential, Restricted-Residential, Commercial, and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

SITE NO. 152169 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
400.268-1-4	WHCS Melville LLC	Monitoring Plan Site Management Plan

1. Complete two vertical profile borings and install monitoring wells.
2. Monitoring of groundwater to assess the performance and effectiveness of the on-site remedy.
3. Monitoring of sub-slab vapor in one off-site building.
4. Determine if new private wells are identified within or near the off-site contamination, sample of groundwater will be collected and evaluated to determine if there are potential exposures to site contamination.
5. Site monitoring activities will evaluate on- and off-site conditions and determine if corrective actions are warranted.

Box 4

Description of Engineering Controls

None Required

Not Applicable/No EC's

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☐	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Gregory K Shkuda
Signature of Owner, Remedial Party or Designated Representative

1-24-2020
Date

IC CERTIFICATIONS
SITE NO. 152169

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gregory Shkuda (print name) at ERM, 105 Maxess Raod, Melville, NY 11747 (print business address),

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Gregory Shkuda — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

1-24-2020 — Date

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