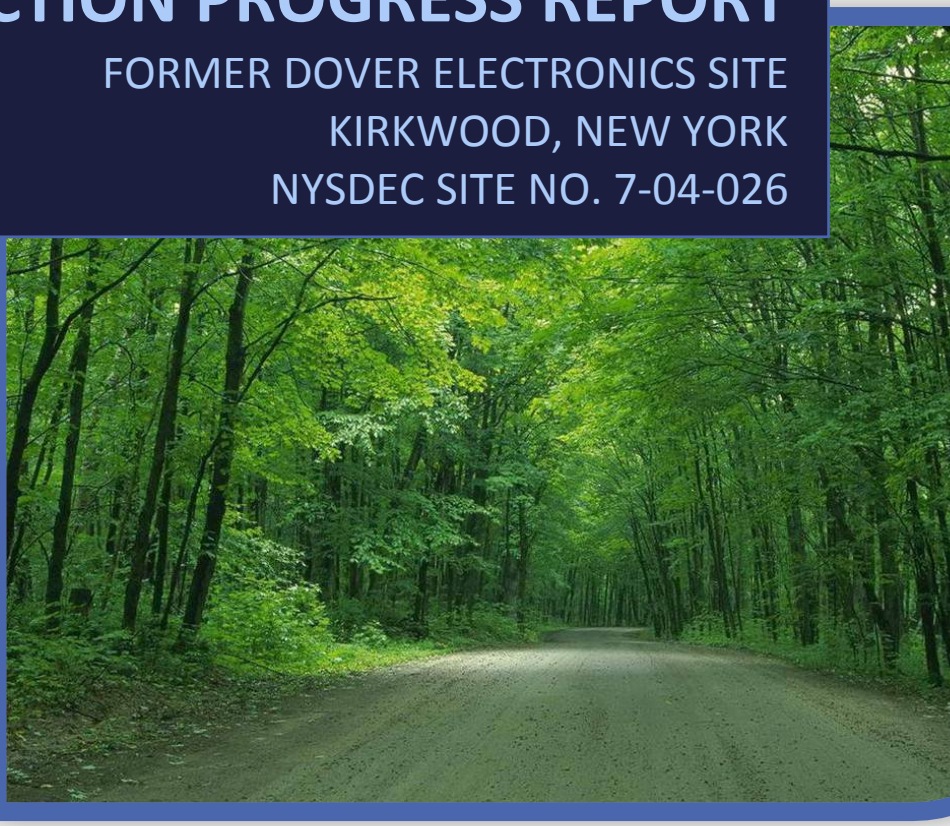
VERINA Engineering, P.C.

2014 REMEDIAL ACTION PROGRESS REPORT

FORMER DOVER ELECTRONICS SITE
KIRKWOOD, NEW YORK
NYSDEC SITE NO. 7-04-026



Verina Engineering, P.C.
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INTRODUCTION

On behalf of Dover Corporation (Dover), Verina Engineering, P.C. (VERINA) has prepared this Remedial Action Progress Report (RAPR) for the remedial activities conducted in 2014 at the former Dover Electronics site in Kirkwood, Broome County, New York (Site No.: 7-04-026). The work was implemented in accordance with the Record of Decision of March 2000; the Order on Consent executed on January 19, 2001; and the Record of Decision Amendment of March 2014.

The remedial activities implemented in 2014 include:

- In-Situ Chemical Oxidation (ISCO) remedial system operation and maintenance (O&M) activities;
- ISCO performance groundwater monitoring;
- Active sub-slab depressurization (ASD) system O&M activities;
- Annual indoor air sampling; and
- Inspection of the engineering controls associated with the environmental Deed Restriction areas.

These activities were implemented in accordance with the scope-of-work in the February 2011 Final ISCO Construction Package submitted by ARCADIS of New York, Inc. (ARCADIS) (ARCADIS 2011a) and subsequent approvals from the New York State Department of Environmental Conservation (NYSDEC).

SITE HISTORY AND BACKGROUND

The former Dover Electronics site is located at 29 Industrial Park Drive, Kirkwood, Broome County, New York. The facility is located on approximately 9.58 acres in an industrial setting and consists of an industrial building with associated parking areas. The site is presently occupied by Modern Marketing Concepts, Inc. (MMC). A regional site location map and a site plan are shown respectively on Figures 1 and 2.

The site had served as one of Universal Instruments Corporation's (UIC) service facilities for product training, research and development, and Odd Form Assembly (OFA), which involves the engineering and assembly of non-standard/specialty circuit boards until 2007. In 2007 the facility was sold to MMC. MMC handles outsourced customer service and product ordering for other companies.

Several remedial investigations (RIs) at the site have been conducted since the 1990s. The RIs indicated that soil, groundwater, surface (storm) water and indoor air have been impacted by volatile organic compounds (VOCs), including tetrachloroethene (PCE), trichloroethene (TCE), cis- and trans-1,2-dichloroethene (1,2-DCE), and vinyl chloride (VC). The RI results have been discussed in the Site Management Plan (SMP) dated February 2011 by ARCADIS (ARCADIS 2011b).

SOIL OPERABLE UNIT

The site soil was remediated in accordance with the NYSDEC-approved Remedial Design (RD) Package prepared by Blasland, Bouck and Lee, Inc. (BBL) in June 2003 (BBL 2003). The following is a summary of the remedial actions performed at the site to address the impacted soil:

- Removal of PCE-impacted soils from seven isolated areas beneath and adjacent to the facility building in June and July 2003;
- Abandonment and replacement of the roof leader from the roof drain system that handles stormwater runoff from the front part of the roof for the original building section of the facility;
- Extension of the stormwater outfall from the southwest catch basin (CB-1547);
- Construction of a soil cap system to eliminate the potential for human contact with fill material and remaining contaminated soil, and eliminate the potential for soil erosion and contaminated soil and storm water runoff from the property;
- Installation of an ASD system in 2003 to address indoor air quality within the facility building;
- Execution and recording of a Deed Restriction for the areas beneath the footprints of the 1978 and 1984 building additions, areas beneath parts of the original building (1973) and the 1982 addition, and for seven additional areas where complete removal of soil to below the NYSDEC criterion for PCE was not achieved. The Deed Restriction also included a restriction on using site groundwater; and
- Development and implementation of a Soil Management Plan for long term management of remaining contamination as required by the Deed Restriction.

GROUNDWATER OPERABLE UNIT

After a former aboveground 5,000-gallon flux tank that contained PCE was dismantled in March 1993, a groundwater extraction program was implemented as an Interim Remedial Measure (IRM). Recovery wells (RW-1 and RW-2) were installed near the former PCE tanks located at the rear of the facility building and the interim groundwater treatment system became operational in August 1994. The system operated on a limited schedule and it was shut down and abandoned in 1996. This IRM may have removed up to 12,000 gallons of groundwater. Another recovery well, RW-3, was installed in 1997 adjacent to monitoring well MW-7A as part of a second IRM groundwater extraction and treatment using granulated activated carbon (GAC). This groundwater extraction and treatment system was in operation from April 1998 through December 1998 and was intended to help control the migration of the dissolved-phase PCE plume. During this time, approximately 41,000 gallons of water were extracted from well RW-3.

The groundwater remediation-by-extraction attempts were unsuccessful because of the tight nature of the subsurface glacial till and the corresponding very low transmissivity across the site. For this reason two field pilot tests were conducted as part of an alternative groundwater remediation field study. These field tests consisted of an enhanced bioremediation field study and an ISCO field pilot testing. Enhanced biodegradation of PCE in the source area was found to have limited overall effectiveness

while ISCO found to be much more effective in remediating the constituents of concern (COCs) in groundwater.

ISCO field testing using sodium permanganate was proposed in the September 2004 Groundwater Bioremediation Progress Report (GBRPR) by BBL for the remaining residual COCs within the central part of the groundwater plume. Sodium permanganate is a proven oxidizer of chlorinated ethenes and has a very high water solubility allowing high dissolved concentrations of the oxidant to be introduced into the aquifer. The field test objective was to reduce the PCE concentration within the area defined by the 1,000 micrograms per liter (µg/L) isoconcentration contour line as presented in the September 2004 report.

Three phases of ISCO field tests were conducted between 2005 and 2008 at the site to evaluate the effectiveness of ISCO using sodium permanganate as a full-scale groundwater remedy. The results of ISCO field tests indicated that the permanganate is effective at reducing the concentration of COCs in groundwater. A full-scale ISCO groundwater remedy using sodium permanganate was implemented in November 2011.

CURRENT REMEDIAL ACTIVITIES

ISCO was proposed as a full-scale remedy for the remaining residual COCs within the central part of the groundwater plume in the October 2007 Final Groundwater Remediation Progress Report (GRPR) submitted by ARCADIS (ARCADIS 2007) and was conceptually approved by NYSDEC in an e-mail to ARCADIS dated March 25, 2009. A full-scale ISCO Design Report (ARCADIS 2010) and ISCO Construction Package (ARCADIS 2011a) were prepared and submitted by ARCADIS to provide detailed scope of work, design, and operation specifications for the full-scale ISCO treatment system. The full-scale ISCO groundwater remedy was initiated in November 2011 and consisted of the injection of a 5% (by weight) solution of sodium permanganate by a gravity-feed system in the source area along with manual injection downgradient of the source area and associated groundwater performance monitoring. In March 2014, Record of Decision Amendment was issued by the NYSDEC including ISCO as the remedy to remediate the residual COCs in groundwater at the site.

In addition, Engineering Controls (EC) and Institutional Controls (IC) for the site have also been incorporated into the remedial program. The ECs include an ASD system and soil capping system to control exposure to remaining COCs in soils at the site and to ensure protection of public health and the environment. The ECs are inspected monthly by VERINA to ensure that they are properly maintained and operated. The IC for the Site, which places restrictions on site use, is a Deed Restriction which was granted by the NYSDEC and recorded with the Broome County Clerk for the Site. The Deed Restriction is in compliance with the approved SMP (ARCADIS 2011b).

At the end of 2013, permanganate solution was found to be leaking from the injection piping network of the ISCO system (VERINA 2014a). After remediating the spill of the permanganate solution at the site and considering the effectiveness of the gravity-feed system, the use of the ISCO gravity-feed system was suspended. With NYSDEC's approval, monthly manual injections at selected injection points within the impacted groundwater area were implemented to continue the ISCO remedy. During 2014, all injection activities were performed via manual injection into select wells utilizing a 10% (by weight) sodium permanganate solution.

ISCO SYSTEM OPERATION, MAINTENANCE, AND MONITORING

As discussed above, the use of the gravity-feed system was suspended in January 2014. In January and February 2014, manual injections were performed at seven wells at the site. Then, following an assessment of an alternative approach to the gravity-feed system, an expanded monthly manual injection program was put into effect at the site. This manual injection program was initiated in March of 2014 consisting of injection of 10% (by weight) permanganate solution into 18 wells/points in the source and Pilot Truck Stop area. The 10% permanganate solution is stored on-site in the 6,500-gallon aboveground storage tank (AST). As outlined in the SMP (ARCADIS 2011b), the effectiveness of the ISCO remediation is being assessed by groundwater monitoring in both the source and downgradient areas.

ISCO INJECTION

This manual injection program utilizes a total of 15 injection wells and points in the source area and three injection points in the Pilot Truck Stop area. A total of 900 to 1,000 gallons of 10% permanganate ISCO solution is injected in these wells on a monthly basis. The injection points and injection activities of 2014 are summarized in Table 1. The manual injection logs are enclosed in Appendix A. Since the November 1, 2011 initiation of the ISCO remediation, approximately 35,500 gallons of sodium permanganate solution have been injected into the subsurface at the Site, including approximately 9,300 gallons injected during 2014.

GROUNDWATER MONITORING PROGRAM

Site-Wide Groundwater Elevation Measurements

Groundwater elevation measurements were to be collected in March and in September 2014, prior to the sampling events, from all accessible on-site monitoring wells and points. However, groundwater elevation measurements were not collected prior to the March 2014 groundwater sampling event because many wells and points were covered by snow and were inaccessible. Therefore, groundwater elevations were measured in June 2014 to assess the groundwater flow scheme at the site. The groundwater elevations from June and September 2014 are summarized in Tables 2 and 3, respectfully. Groundwater elevation isocontour maps for the shallow aquifer for June and September 2014 are presented on Figures 3 and 4, respectfully, while those for the intermediate aquifer for June and September 2014 are presented on Figures 5 and 6, respectively.

The groundwater elevation contour maps indicated the groundwater flow direction for the shallow aquifer within the glacial till to be from the northeast towards the southwest in both June and September 2014, which is consistent with historical measurements. As for the intermediate aquifer, the groundwater flow for both June and September 2014 was also towards the southwest and is consistent with historical measurements.

Well Repair and Abandonment

During the September 2014 groundwater elevation measurement event, several wells were found either damaged or filled with silt/sand/sediment. Based on evaluation of the current groundwater conditions and well construction details, the following well abandonment, repair and redevelopment plan was proposed to NYSDEC on October 14, 2014:

- To abandon three monitoring wells (MW-20, MP-7 and MP-9) by flushing out accumulated material and tremie grouting the well in place in accordance with NYSDEC CP-43;
- To redevelop two monitoring wells (MP-10S and MP-10D) by air lifting, surging and pumping; and
- To remove and replace flush mount well covers at wells MP-10S, MP-10D and IJ-6.

With NYSDEC's approval, Parratt-Wolff, Inc., (PWI), a NY-licensed driller, was onsite for well repair/abandonment on October 29, 2014. However, due to the small diameter of MP-10S and MP-10D (1"-diameter wells) as well as the extent of the accumulated material, these two wells could not be repaired and redeveloped. Therefore, the proposed plan was modified and five wells, including MW-20, MP-7, MP-9, MP-10S and MP-10D, were properly abandoned by PWI. The flush-mount well cover at injection well IJ-6 was removed and replaced with a new concrete box, new well cap and collar. The well decommissioning records prepared by PWI are included in Appendix B.

Baseline Groundwater Monitoring

Prior to the initiation of the ISCO remediation, baseline groundwater conditions were established by the March 2010 site-wide groundwater sampling event (ARCADIS 2011c). The monitoring points MP-11, MP-12, MP-13, and MP-14 and injection well IJ-10 were sampled on October 28, 2011 to be part of the the baseline groundwater conditions as they were installed after March 2010. The baseline groundwater samples were collected in accordance with the final In-Situ Chemical Oxidation Construction Package (ARCADIS 2011a). Details of the baseline groundwater sampling events are provided in the Groundwater Baseline Monitoring Report (ARCADIS 2011c). The baseline groundwater sampling results, as well as other historic results, are summarized in Table 4.

In addition to the groundwater data collected during the baseline groundwater sampling events in March 2010 and October 2011, baseline field parameter data were collected from wells that were anticipated to show the arrival of injection solution within the first 90 days. Monitoring wells and points MP-4, MP-5, MP-6S, MP-6D, MW-7A, and injection wells IJ-1, IJ-4, and IJ-10 were used to establish the site baseline for field parameters. The field parameters collected included ORP, specific conductivity, and pH on October 31 and November 1, 2011 prior to initiation of ISCO infiltration. Field parameters were collected at 2-foot intervals using a down-hole water quality instrument at all selected monitoring wells and injection points except those points with 1" diameter casing. For the 1" diameter monitoring points, field parameters were recorded after one well volume was purged. Given that the water color was clear, no permanganate or manganese testing was conducted in the field. The baseline field parameters are provided in the vertical profiling logs in Appendix C.

Post-Injection Groundwater Monitoring

Groundwater performance monitoring (vertical profiling) is currently performed at a total of 14 monitoring points located in the source area on a quarterly basis. During such monitoring events, pH, ORP, and specific conductivity readings are collected from each monitoring point in two-foot intervals using a downhole water quality meter. Additionally, if a given point or well exhibits a pink or purple coloring, groundwater is also collected for field analysis of permanganate ion concentration by using a Hach DR890 portable colorimeter. The vertical profiling logs are included in Appendix C.

Groundwater sampling was to be occurred at both the source area and the Pilot Truck Stop area semi-annually in March and in September 2014 in accordance with the schedule presented in Table 5. Wells

MW-12, MW-31 and MP-8S were not proposed for the annual groundwater monitoring plan in 2013 RAPR but were sampled during the 2014 annual groundwater event to provide additional data. During the September 2014 sampling event, four monitoring wells, MP-10D, MW-5, MW-17 and MW-38 were not sampled because they either could not be located due to dense vegetation in their general area or were found to be in disrepair and unfit for sampling. Following additional reconnaissance efforts on October 28, 2014, monitoring wells MW-5 and MW-17 were located and were sampled in November 18, 2014. All the groundwater sampling was performed following the same procedures utilized for the baseline groundwater sampling and samples were submitted to ALS Environmental of Rochester, New York for SSPL VOCs analysis. The groundwater sampling logs are presented in Appendix D.

Groundwater Sampling Analytical Results

Analytical results for SSPL VOCs for the baseline through September/November 2014 sampling events are summarized in Table 6 and are presented on Figure 7. The distribution of the PCE concentration in the shallow groundwater and in the intermediate groundwater detected during the September/November 2014 sampling events are shown on Figure 8 and Figure 9, respectively. The total molar concentration of PCE and daughter compounds detected in groundwater during the September/November 2014 sampling events is depicted on Figure 10 for the shallow aquifer and on Figure 11 for the intermediate aquifer. The laboratory data packages for the March, September and November 2014 groundwater sampling events are included in Appendix E. The electronic data deliverables (EDDs) for the groundwater sampling events were previously submitted to NYSDEC and are included under a separate submission.

In comparing the September/November 2014 groundwater PCE plume maps (Figures 8 and Figure 9) and the total molar of PCE and daughter compounds plume maps (Figures 10 and 11) to the baseline sampling plume maps presented in VERINA's 2012 RAPR (VERINA 2013) and to the September 2013 groundwater plume maps presented in VERINA's 2013 RAPR (VERINA 2014b), the following observations are made:

- The lateral extent of the COC plume has decreased since the ISCO implementation at the site for both shallow and intermediate aquifers. The concentrations of residual COCs in groundwater are also decreasing in both shallow and intermediate aquifers. The mass reduction of COCs in shallow and intermediate water zone was estimated at about 50% and 57%, respectively, since the ISCO injection was implemented in November 2011.

- COC concentrations have generally remained stable in the shallow aquifer between 2013 and 2014. However, decreasing concentration trends for PCE and its daughter products were noted between 2013 and 2014 for some source zone shallow aquifer wells, including MW-16, MP-6S, MP-11 and MP-12, and one shallow well, MW-28, located at Pilot Truck Stop area.

- In comparing the 2013 and 2014 COC concentrations for the intermediate aquifer, the plume has decreased in lateral extent. This is evidenced by a decrease in the COC concentrations in wells MW-25, MW-26, and MW-37.

ENGINEERING AND INSTITUTIONAL CONTROLS COMPLIANCE

In accordance with the approved Operations, Maintenance, and Monitoring (OM&M) Plan (ARCADIS 2005), engineering and institutional controls (EC/IC) at the site were inspected monthly from January through December 2014, including

- Inspection of the ASD system operation;
- Inspection of the soil and asphalt caps placed over former excavation areas where residual PCE-affected soils above NYSDEC standards remain; and
- Collection and analysis of annual indoor air samples.

SOIL AND ASPHALT CAP INSPECTIONS

The soil and asphalt caps placed over those areas where PCE-affected soil remains in place above NYSDEC standards (Figure 12) were inspected once per month by VERINA in 2014. The monthly inspections indicated that the engineering controls were in good condition.

The inspection sheets are provided in Appendix F.

ASD SYSTEM MODIFICATIONS

The ASD system was installed in the MMC building in June 2003 to mitigate the adverse effects on indoor air quality caused by vapor intrusion. In December 2014, MMC initiated building renovations which required the relocation of two sub-slab depressurization points (ASD-2 and ASD-3). The proposed modification plan to the ASD system was approved by NYSDEC on December 11, 2014.

The relocation construction work on ASD-2 and ASD-3 was performed by Keystone Materials Testing, LLC of Binghamton, New York on December 17 and 18, 2014. Extraction point ASD-2 was moved about 10 feet to the south of its former location while ASD-3 was moved about 20 feet to the northeast of its former location. The construction work included drilling new extraction points, adding new vertical and horizontal piping runs to connect the new extraction points to the existing header, installing the sampling ports, the manometers and the control valves, and sealing the old extraction points with concrete. Additionally, any cracks observed in the concrete slab during construction work were sealed with caulk. The current configuration of the ASD system is shown on Figure 13.

Upon completion of the ASD modification, vacuum readings were recorded at all eight extraction points and compared with historic readings. The measurements indicated that the modified ASD system was functioning within past operational parameters. The vacuum readings were logged into the ASD Inspection Log, which is included in Appendix G.

ASD SYSTEM INSPECTIONS

The ASD system was checked once per month to verify that the system was running properly and that the system was in good condition. The ASD system was also checked daily by MMC personnel to verify that it was operating. The ASD Inspection Log showing the monthly ASD system inspection and pressure readings is presented in Appendix G.

The monthly inspections indicated that the system is operating as designed and is running satisfactorily. There was no down time for the ASD system in 2014. The ASD system pressure readings collected in 2014 were consistent with the system pressure data collected in 2013. The system operation will continue to be monitored monthly to ensure proper operation of the ASD system.

ANNUAL INDOOR AIR MONITORING

Indoor air sampling was conducted in March 2014 as part of the indoor air monitoring program. The indoor air sampling was conducted in accordance with the approved OM&M Plan (ARCADIS 2005) and Remedial Design Package (BBL 2003).

Indoor air samples were collected at the seven sampling locations within the facility building where facility employees regularly work or where SSPL VOC vapors were detected in previous sub-slab samples. The sampling points were labeled according to location and are shown on Figure 13.

Four sampling points were located in the main building - two sampling points in the primary cubicle area (Office #1 and Office #2) and two points in Hallway and Cafeteria areas (former cafeteria for Universal Instruments Corporation, but now a work area). There were three sampling points in the rear additions - one by the HVAC equipment (A/C Area), one by the electrical switch gear (Electrical Area), and one in the computer server room (Computer Servers). An outdoor background sample was also collected by the buildings HVAC air intakes. Air samples were collected in stainless steel Summa canisters and shipped to Columbia Analytical Services, Simi Valley, California for VOC analysis by USEPA Method TO-15.

The analytical results of the indoor air sampling event are summarized in Table 7. Historical indoor air sampling results are presented in Table 8. A copy of the laboratory data package for the March 2014 sampling event is provided in Appendix H. The EDD for the indoor air sampling event has previously been submitted to the NYSDEC and is included under a separate submission.

Comparison of the historical indoor air sample results (Table 8) indicates that the ASD system has effectively remove VOCs in indoor air to well below the NYSDOH guidance values.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Based on the remediation status to date, the following specific conclusions are made:

- Ongoing groundwater elevation measurements indicate the direction of groundwater flow in both the shallow and intermediation zones remain consistent with the flow direction observed in the past.

- The groundwater monitoring results indicate that the COCs in groundwater continue to be contained at the site without further migration.

- Field parameter measurements and visual observations from well samples suggest that the extent of the oxidizing reactive zones created by the ISCO application gradually reached some downgradient monitoring points.

- Monitoring of the COC concentrations indicate that the ISCO remedy is reducing the COC mass in the source area.

- Although the shallow groundwater PCE plume and the total molar isoconcentration map of PCE and its daughter compounds have generally remained stable in 2014 as compared to the 2013 plumes, these plumes have decreased laterally since the baseline sampling event of March 2010/November 2011.

- Groundwater monitoring results also suggest that the lateral extents of the PCE plume, as well as its daughter compounds, in the intermediate zone are decreasing in size. Overall, these decreases in plume size indicate that the ISCO application is effective for the reduction of COC mass in both the shallow and intermediate zones at the site.

- The ASD system at the site continues to operate as designed and has effectively mitigated the levels of COCs in the site building.

- The EC/ICs at the site continue to be maintained in good condition.

RECOMMENDATIONS FOR ISCO SYSTEM OPERATION

Based on the conclusions presented above and additional analysis of the site conditions, the following recommendations are proposed for the remedial activities in 2015:

- VERINA recommends continuing monthly manual injection events in 2015. The wells selected for manual injection will include: IJ-1, IJ-2, IJ-3, IJ-4, IJ-6, IJ-7, IJ-8, IJ-9, IJ-10, MW-7A, MW-16, MW-24, MW-25, MW-28, MP-5, MP-11, MP-12 and MP-14.

- Based on review of the site data, ISCO injections will continue utilizing a 10% sodium permanganate solution in 2015, mixing and storing the solution in the AST at the site.

RECOMMENDATIONS FOR THE ASD SYSTEM & ENGINEERING CONTROLS

- In 2015, VERINA will continue the monitoring, sampling, and analysis program for the ASD system to assure continued, proper operation; and

- VERINA will continue the monthly inspection of the site engineering controls and will perform maintenance on the soil caps/covers on an as needed basis, if conditions warrant such work.

RECOMMENDATIONS FOR SITE MONITORING & REPORTING

During 2015 VERINA will perform the following sampling and monitoring programs:

- ISCO system performance will continue to be monitored quarterly via field parameter collection at selected wells in the source area and Pilot Truck Stop area. The selected monitoring locations are summarized in Table 9.

- Semi-annual and annual groundwater sampling events at selected monitoring wells to assess the performance of the ISCO system and to aid in defining the extent of the COC plume. The selected wells included in the semi-annual or annual groundwater sampling program are summarized in Table 9.

- Remedial action progress reporting will continue for the site in 2015 as follows:

  - Three quarterly summary reports will be submitted in March, June, and September 2015. These reports will provide a brief update on the site conditions and will identify any significant occurrences. These reports will be submitted via electronic mail; and

  - In January 2016, an annual report will be submitted to NYSDEC capturing all details of the activities performed and data collected in 2015. This report will also include conclusions and recommendations for future activities in 2016.

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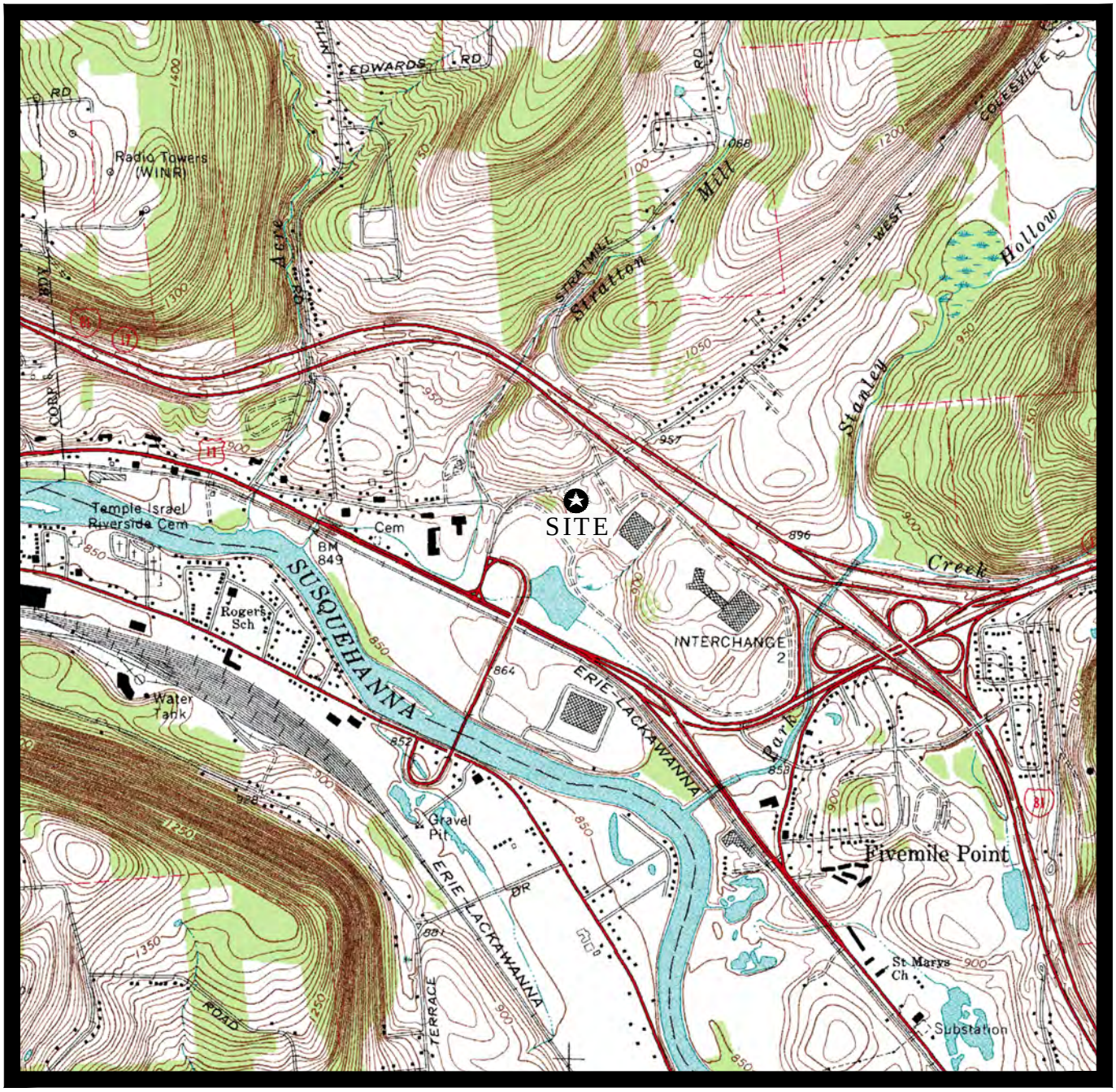
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Figures



BINGHAMTON EAST QUADRANGLE
7.5–MINUTE SERIES

N

0 2000
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

REGIONAL LOCATION MAP

VERINA Engineering, P.C.

1

N

MW-15
MW-21
MW-16
MW-5
MW-2
MW-17
MW-18
MW-26
MW-19
MW-27
MW-37
MW-30
MW-31
MW-35
MW-32
MW-36
MW-33
MW-20
MW-3
MW-22
MW-24
MW-29
MW-9
MW-14
MW-1
MW-23
MW-4
MW-10
MW-13
MW-12
MW-11
MW-7A
MW-7
MW-38
MW-8
MW-6
MW-28
MW-25
MW-34

MP-2 (to approx. 45ft)
MP-1 (to approx. 45ft)
MP-3D (to approx. 75ft)
MP-11
MP-4
MP-12
MP-5
MP-13
MP-14
MP-6S
MP-6D (to approx. 55ft)
MP-7
MP-9
MP-8S
MP-10D (to approx. 55ft)
MP-10S
MP-8D (to approx. 55ft)

IJ-7
IJ-2
IJ-8
IJ-3
IJ-9
IJ-10
IJ-4
IJ-1
IJ-5
IJ-6

BUILDING

GABLE GUIDE RAIL
GRAVEL ROAD
PAVED SHOULDER

EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION SHALLOW OF MONITORING WELL
- MW-6 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND APPROXIMATE LOCATION OF DEEP MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

SITE MAP WITH MONITORING WELL LOCATIONS

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N

MW-15 NM
MW-9 878.74
MW-14
MW-1
MW-23 877.95
MW-4
MW-29 875.52
MW-24 873.23
MW-21
MW-16 864.35
MW-5 NM
MW-10
MW-13 879.74
MW-12
BUILDING
MW-11
MW-7A 876.83
MW-7
MW-2 858.13
MW-17 847.42
MW-38
MW-8
MW-3 855.05
MW-22
MW-18 846.85
MW-26
MW-19 846.80
MW-27 847.39
MW-6
MW-20 NM
MW-37
MW-30 844.64
MW-28 846.98
MW-25
MW-34
MW-31 845.72
MW-35
MW-32 853.45*
MW-33 851.27
MW-36 NM

MP-2 (to approx. 45ft) 887.52*
MP-1 (to approx. 45ft) 875.50
(to approx. 75ft) MP-3D 881.60*
MP-11 868.23
MP-4 876.91 897.66*
MP-12 864.53
MP-10 868.62
MP-5 868.78
MP-13 875.32
MP-14 860.34
MP-6S 863.83
MP-6D (to approx. 55ft)
MP-7 NM
MP-9 NM
MP-8S 844.99*
MP-10D (to approx. 55ft)
MP-10S NM
MP-8D (to approx. 55ft)

IJ-7 IJ-2 IJ-8 IJ-3 IJ-4 907.86* IJ-9 IJ-1 NM IJ-5 NM IJ-6

875.00 870.00 865.00 860.00 855.00 850.00 845.00

CABLE GUIDE RAIL GRAVEL ROAD PAVED SHOULDER

EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION SHALLOW OF MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL
- 876.88 — GROUNDWATER ELEVATION (FT., MSL)

GROUNDWATER ELEVATION ISOCONTOUR INTERVAL IN FT., MSL (DASHED WHERE INFERRED)

ARROW INDICATES GENERALIZED GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL = 5.0 FT., MSL
AVERAGE HYDRAULIC GRADIENT = 0.03 FT/FT

NOTES:
1) FT., MSL = FEET, MEAN SEA LEVEL
2) NM = NOT MEASURED
3) * = INDICATES RESULT NOT INCLUDED

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

SHALLOW GROUNDWATER ELEVATION ISOCONTOURS JUNE 2014

VERINA Engineering, P.C.

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N

EXPLANATION

MW-2 DESIGNATION AND APPROXIMATE LOCATION SHALLOW OF MONITORING WELL

MW-1 DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL

MP-1 DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT

MP-6D DESIGNATION AND APPROXIMATE LOCATION INTERMEDIATE MONITORING POINT

IJ-1 DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL

IJ-2 DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL

IJ-6 DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW-INTERMEDIATE INJECTION WELL

MW-6 DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL

MW-34 DESIGNATION AND LOCATION OF DEEP MONITORING WELL

876.88 GROUNDWATER ELEVATION (FT., MSL)

GROUNDWATER ELEVATION ISOCONTOUR INTERVAL IN FT., MSL (DASHED WHERE INFERRED)

ARROW INDICATES GENERALIZED GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL = 5.0 FT., MSL
AVERAGE HYDRAULIC GRADIENT = 0.03 FT/FT

NOTES:
1) FT., MSL = FEET, MEAN SEA LEVEL
2) NM = NOT MEASURED
3) * = INDICATES RESULT NOT INCLUDED

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

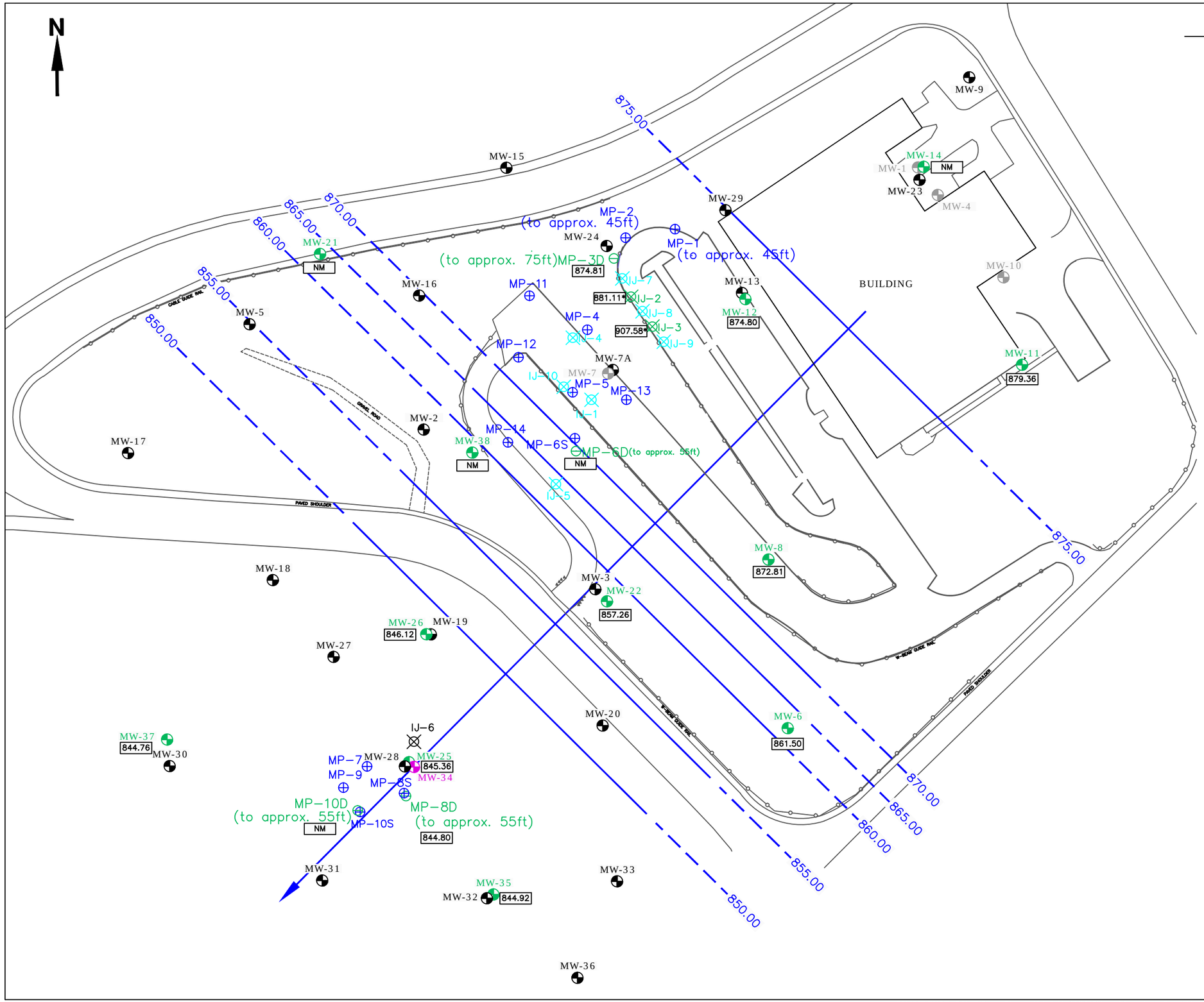
FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

SHALLOW GROUNDWATER ELEVATION ISOCONTOURS SEPTEMBER 2014

VERINA Engineering, P.C.

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EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION SHALLOW OF MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP–1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP–6D — DESIGNATION AND APPROXIMATE LOCATION INTERMEDIATE MONITORING POINT
- IJ–1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ–2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ–6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL

880.04 — GROUNDWATER ELEVATION (FT., MSL)

850.00 — GROUNDWATER ELEVATION ISOCONTOUR INTERVAL IN FT., MSL (DASHED WHERE INFERRED)

CONTOUR INTERVAL = 5.0 FT., MSL
AVERAGE HYDRAULIC GRADIENT = 0.029 FT/FT

NOTES:
1) FT., MSL = FEET, MEAN SEA LEVEL
2) NM = NOT MEASURED
3) * = INDICATES RESULT NOT INCLUDED

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

INTERMEDIATE GROUNDWATER ELEVATION ISOCONTOURS JUNE 2014

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N

875.00
870.00
865.00
860.00
855.00
850.00
845.00

MW-15
MW-21 861.63
MW-16
MW-5
MW-17
MW-2
MW-38 NM
MW-18
MW-26 844.49
MW-19
MW-27
MW-37 843.18
MW-30
MW-28
MW-25 843.81
MW-34
MW-31
MW-32
MW-35 843.37
MW-33
MW-36
MW-20
MW-3
MW-22 856.69
MW-8 871.55
MW-6 859.18
MW-24
MW-29
MW-9
MW-14
MW-1 875.60
MW-23
MW-4
MW-13
MW-12 873.53
MW-10
MW-11 879.01
MW-7A
MW-7

MP-2 (to approx. 45ft)
MP-1 (to approx. 45ft)
MP-3D (to approx. 75ft) 873.58
MP-11
MP-4
MP-12
MP-5
MP-13
MP-14
MP-6S NM
MP-6D (to approx. 55ft) NM
MP-10D (to approx. 55ft) NM
MP-10S
MP-8S
MP-8D (to approx. 55ft) 843.26
MP-7
MP-9

IJ-7
IJ-2 879.60*
IJ-8
IJ-3 907.94*
IJ-9
IJ-4
IJ-10
IJ-1
IJ-5
IJ-6

BUILDING

CABLE GUIDE RAIL
GRAVEL ROAD
PAVED SHOULDER

EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION SHALLOW OF MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL
- 880.04 — GROUNDWATER ELEVATION (FT., MSL)
- 850.00 — GROUNDWATER ELEVATION ISOCONTOUR INTERVAL IN FT., MSL (DASHED WHERE INFERRED)

CONTOUR INTERVAL = 5.0 FT., MSL
AVERAGE HYDRAULIC GRADIENT = 0.029 FT/FT

NOTES:
1) FT., MSL = FEET, MEAN SEA LEVEL
2) NM = NOT MEASURED
3) * = INDICATES RESULT NOT INCLUDED

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

INTERMEDIATE GROUNDWATER ELEVATION ISOCONTOURS SEPTEMBER 2014

VERINA Engineering, P.C.

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MP-4

Sample Date:	3/16/10	12/19/11	2/15/12	4/18/12	6/19/12	9/19/12	12/20/12	3/14/13	9/4/13	3/19/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND
PCE	**9500**	**11000**	**6500**	**6600**	**8200**	**11000 D**	**7700**	**8600 (9000)**	**13000 D**	**11000**	**12000**
TCE	ND	**32 J**	ND	ND	ND	ND	ND	**ND (12 J)**	**26 DJ**	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND

MW-16

Sample Date:	3/17/10	12/21/11	2/15/12	4/19/12	6/21/12	9/20/12	12/18/12	3/13/13	9/4/13	3/18/14	9/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	4.0 J	4.5 J	4.7 J	3.4 J (3.8 DJ)	2.8 J	2.7 J	2.9 J	2.9 DJ	2.0 J	1.9 J	1.3 J
trans-1,2-DCE	ND	ND	ND	ND (ND)	ND	ND	ND	ND	ND	ND	ND
PCE	**260**	**280**	**250**	**200 (190 D)**	**210**	**200**	**180**	**200 D**	**160**	**150**	**140**
TCE	**5.8 J**	**6.5 J**	**5.3 J**	4.0 J (4.3 DJ)	4.4 J	4.5 J	4.3 J	4.2 DJ	3.3 J	3.6 J	2.4 J
VC	ND	ND	ND	ND (ND)	ND	ND	ND	ND	ND	ND	ND

MP-12

Sample Date:	10/28/11	12/20/11	2/15/12	4/19/16	6/19/12	9/19/12	12/18/12	3/14/13	9/4/13	3/18/14	9/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	4.5 J	4.5 J	2.7 J	2.2 J	1.4 J	2.9 J	2.5 J	2.0 J	2.2 J	1.9 J	1.1 J
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**78**	**77**	**51**	**36**	**28**	**79**	**48**	**34**	**49**	**27**	**31**
TCE	4.4 J	3.9 J	2.8 J	2.1 J	1.6 J	3.7 J	2.7 J	1.8 J	2.7 J	1.4 J	1.2 J
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

IJ-10

Sample Date:	10/28/11	12/20/11	2/14/12	4/18/12	6/21/12	9/20/12	12/20/12	3/14/13	9/3/13	3/19/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
1,1-DCE	2.1 J	1.7 J	1.6 J	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-DCE	**380**	**300**	**260**	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-DCE	0.70 J	2.5 J	4.1 J	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**200**	**310**	**230**	ND	ND	ND	ND	ND	2.0 J	0.92 J	1.5 J
TCE	**150**	**110**	**88**	ND	ND	ND	ND	ND	ND	ND	ND
VC	1.1 J	2.0 J	**3.0 J**	ND	ND	ND	ND	ND	ND	ND	ND

MP-5

Sample Date:	3/18/10	12/19/11	2/16/12	4/18/12	6/19/12	9/20/12	12/20/12	3/14/13	9/3/13	3/19/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
1,1-DCE	ND	2.9 J	3.2 DJ	3.1 J	3.3 J	ND (ND)	ND	ND	3.0 J	ND (3.1 J)	ND
cis-1,2-DCE	**31**	**38**	**27 DJ**	**33**	**29**	**21 J (23 J)**	**15 J**	**19 J**	**23 J**	**20 J (20 J)**	**14 J**
trans-1,2-DCE	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND (ND)	ND
PCE	**860**	**1100 D**	**830 D**	**730**	**950**	**710 (750)**	**620**	**920**	**970**	**940 (940)**	**890**
TCE	**28**	**42**	**29 DJ**	**32**	**42**	**29 (31)**	**25**	**28**	**36**	**33 J (33)**	**32**
VC	**6.7 J**	**13 J**	**8.5 DJ**	**11 J**	**6.6 J**	**3.0 J (3.9 J)**	2.0 J	**3.0 J**	**4.1 J**	**4.7 J (5.1 J)**	1.7 J

MW-17

Sample Date:	3/18/10	12/27/12	9/24/13	11/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND
PCE	1.9 J	1.5 J	1.8 J	1.8 J
TCE	ND	ND	0.24 J	0.28 J
VC	ND	ND	ND	ND

MW-2

Sample Date:	3/17/10	12/27/12
VOC (µg/L):	RESULT:	RESULT:
cis-1,2-DCE	1.2 J	3.3 J
trans-1,2-DCE	ND	ND
PCE	**17**	**39**
TCE	2.0 J	**5.3**
VC	ND	ND

MW-18

Sample Date:	3/15/10	12/29/12	9/24/13	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND
PCE	ND	ND	ND	ND
TCE	ND	ND	ND	ND
VC	ND	ND	ND	ND

MP-14

Sample Date:	10/31/11	12/21/11	2/15/12	4/19/12	6/20/12	9/20/12	12/18/12	3/14/13	9/5/13	3/19/14	9/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	0.98 J	1.1 J	1.2 J (1.3 J)	1.1 J	1.2 J	1.1 J	1.2 J	1.6 J	1.2 J	1.9 J	1.2 J
trans-1,2-DCE	ND	ND	ND (ND)	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**30**	**37**	**29 (27)**	**25**	**30**	**30**	**27**	**32**	**32**	**37**	**45**
TCE	1.6 J	2.0 J	1.7 J (1.5 J)	1.2 J	1.6 J	1.6 J	1.5 J	1.6 J	1.5 J	1.9 J	1.9 J
VC	ND	ND	ND (ND)	ND	ND	ND	ND	ND	ND	ND	ND

MW-37

Sample Date:	3/15/12	9/19/14
VOC (µg/L):	RESULT:	RESULT:
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
PCE	ND	**8**
TCE	ND	0.38 J
VC	ND	ND

MW-30

Sample Date:	3/15/10	12/21/11	3/15/12	6/20/12	9/20/12	12/20/12	9/24/13	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	0.32 J	ND	0.30 J	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**7.5**	ND	ND	ND	ND	ND	ND	ND
TCE	ND	0.37 J	ND	0.35 J	0.28 J	0.28 J	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND

MP-10D

Sample Date:	3/15/10	12/20/11	3/15/12	6/20/12	9/21/12	12/19/12	9/23/13	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND
PCE	ND	ND	ND	ND	ND	ND	ND	ND
TCE	ND	ND	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND

MW-31

Sample Date:	3/16/10	12/28/12	9/24/13	11/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	0.73 J	0.85 J	0.42 J	0.38 J (0.37 J)
trans-1,2-DCE	ND	ND	ND	ND
PCE	ND	ND	ND	ND
TCE	ND	0.47 J	0.33 J	0.38 J (0.39 J)
VC	ND	ND	ND	ND

MW-28

Sample Date:	3/15/10	12/20/11	3/15/12	6/20/12	9/21/12	12/19/12	3/15/13	9/4/13	3/20/14	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
1,1-DCE	ND	ND	0.82 J	1.1 J	0.69 J	0.60 J	0.69 J	0.76 J	0.93 J	ND
cis-1,2-DCE	**66**	4.3 J	**53**	**54**	**52**	**40**	**47**	**50**	**55**	**26**
trans-1,2-DCE	ND	ND	3.5 J	3.4 J	2.2 J	1.8 J	2.4 J	3.3 J	2.4 J	0.65 J
PCE	**270**	**340**	**52**	**47**	**180**	**190**	**170**	**110**	**43**	**36**
TCE	**110**	**5.5 J**	**49**	**48**	**77**	**64**	**60**	**53**	**50**	**27**
VC	ND	ND	0.55 J	0.58 J	0.32 J	ND	0.41 J	0.42 J	ND	ND

MW-11

Sample Date:	10/28/11	12/19/11	2/15/12	4/19/12	6/21/12	9/19/12	12/18/12	3/13/13	9/4/13	3/18/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
1,1-DCE	ND	ND	0.29 J	ND	0.31 J	ND	ND	ND	ND	ND	ND
cis-1,2-DCE	**5.4**	**15**	**24**	**30**	**29**	**38**	**50**	**52**	**43 D**	**34**	ND
trans-1,2-DCE	ND	ND	ND	ND	0.23 J	ND	0.35 J	0.36 J	0.80 DJ	ND	ND
PCE	**11**	**25**	**32**	**41**	**52**	**86**	**110**	**170**	**200 D**	**220**	3.1 J
TCE	0.28 J	0.36 J	0.36 J	0.34 J	0.49 J	0.99 J	1.0 J	1.4 J	1.8 DJ	1.6 J	ND
VC	**9.2**	**18**	**22**	**32**	**31**	**32**	**44**	**23**	**26 D**	**17**	ND

MW-24

Sample Date:	3/19/10	12/21/12
VOC (µg/L):	RESULT:	RESULT:
cis-1,2-DCE	4.2 J	ND
trans-1,2-DCE	ND	ND
PCE	**150**	**22**
TCE	5 J	ND
VC	ND	ND

MP-3D

Sample Date:	9/25/13	9/18/14
VOC (µg/L):	RESULT:	RESULT:
cis-1,2-DCE	1.2 J	0.85 J
trans-1,2-DCE	ND	ND
PCE	ND	ND
TCE	ND	ND
VC	0.40 J	ND

MP-2

Sample Date:	3/18/10	12/21/12
VOC (µg/L):	RESULT:	RESULT:
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
PCE	**10**	2.5 J
TCE	ND	ND
VC	ND	ND

MW-29

Sample Date:	3/19/10	12/27/12	9/25/13
VOC (µg/L):	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND
trans-1,2-DCE	ND	ND	ND
PCE	ND	ND	ND
TCE	ND	ND	ND
VC	ND	ND	ND

IJ-4

Sample Date:	12/21/11	2/15/12	4/18/13	6/21/12	9/19/12	12/20/12	3/14/13	9/4/13	3/18/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	**200 J**	**240 J**	ND	2.8 J	ND	ND	ND	ND	0.34 J	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**7300**	**7200**	ND	**1200 D**	ND	ND	ND	ND	**190**	ND
TCE	**100 J**	**120 J**	ND	4.0 J	ND	ND	ND	ND	0.39 J	ND
1,1,1-TCA	ND	ND	ND	0.64 J	0.39 J	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-12

Sample Date:	3/19/10	12/27/12	12/28/12	9/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND
PCE	ND	ND	ND	ND
TCE	ND	ND	ND	ND
VC	ND	ND	ND	ND

MW-11

Sample Date:	9/18/14
VOC (µg/L):	RESULT
cis-1,2-DCE	ND
trans-1,2-DCE	ND
PCE	ND
TCE	ND
VC	ND

MW-7A

Sample Date:	3/16/10	12/19/11	2/14/12	4/18/12	6/19/12	9/20/12	12/20/12	3/15/13	9/4/13	3/18/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND
PCE	**1700**	**2300 D**	**2700**	**2500**	**2700**	**1600**	**1100 (1200)**	**1900 D**	**550 (560 D)**	**240**	**780 D**
TCE	ND	3.7 J	**5.8 J**	ND	ND	ND	ND (ND)	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND

MP-13

Sample Date:	10/28/11	12/19/11	2/15/12	4/18/12	6/19/12	9/20/12	12/21/12	9/25/13	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND
PCE	ND	1.2 J	3.7 J	0.82 J	0.60 J (0.44 J)	ND	0.61 J	ND	ND
TCE	1.2 J	0.9 J	0.5 J	0.38 J	0.50 J (0.51 J)	0.51 J	0.41 J	0.32 J	0.33 J
VC	ND	ND	ND	ND	ND (ND)	ND	ND	ND	ND

IJ-1

Sample Date:	12/20/11	2/14/12	4/18/12	6/21/12	9/20/12	12/20/12	9/3/13	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	1.0 J	1.2 DJ	ND	ND	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**180**	**180 D**	ND	ND	ND	ND	ND	ND
TCE	1.6 J	2.0 DJ	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND

MP-6S

Sample Date:	3/17/10	12/19/11	2/16/12	4/18/12	6/19/12	9/19/12	12/20/12	3/14/13	9/3/13	3/19/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	**5.4 J (4.7 J)**	**5.5 J**	**5.1 J**	3.6 J	4.8 J	3.0 J	3.2 DJ	ND	1.4 J	1.8 J
trans-1,2-DCE	ND	ND (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**1100**	**1500 (1000)**	**1200**	**980**	**970**	**920**	**420**	**750 D**	**590**	**470**	**450**
TCE	ND	**8 J (6.3 J)**	**7.8 J**	**5.9 J**	**6.1 J**	**6.5 J**	4.2 J	4.5 DJ	2.2 J	2.7 J	3.4 J
VC	ND	ND (ND)	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-8

Sample Date:	3/18/10	12/28/12	9/24/13
VOC (µg/L):	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND (ND)
trans-1,2-DCE	ND	ND	ND (ND)
PCE	ND	ND	ND (ND)
TCE	ND	ND	ND (ND)
VC	ND	ND	ND (ND)

MP-6D

Sample Date:	3/17/10	12/19/11	2/16/12	4/18/12	6/19/12	9/20/12	12/21/12	3/14/13	9/5/13	3/20/14	9/17/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	ND	0.28 J	**15**	ND	ND	ND	ND	ND	1.3 J	0.37 J	1.4 J
TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

IJ-5

Sample Date:	12/21/11	2/15/12	4/19/12	6/20/12	9/20/12	12/18/12	3/15/13	9/5/13	3/19/14	9/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	0.90 J	0.44 J	ND	0.22 J	ND	ND	ND	ND	0.32 J	ND
TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-6

Sample Date:	3/18/10	3/14/13	9/24/13	9/18/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND	ND (ND)
trans-1,2-DCE	ND	ND	ND	ND (ND)
PCE	ND	ND	ND	ND (ND)
TCE	ND	ND	ND	ND (ND)
VC	ND	ND	ND	ND (ND)

MW-22

Sample Date:	3/12/10	12/28/12	9/24/13
VOC (µg/L):	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND
trans-1,2-DCE	ND	ND	ND
PCE	ND	ND	ND
TCE	ND	ND	ND
VC	ND	ND	ND

MP-8D

Sample Date:	3/15/10	12/20/11	3/16/12	6/20/12	9/21/12	12/19/12	9/23/13	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND (ND)	ND	ND	ND	ND	ND
trans-1,2-DCE	ND	ND	ND (ND)	ND	ND	ND	ND	ND
PCE	ND	0.45 J	ND (ND)	ND	ND	0.86 J	ND	ND
TCE	ND	ND	ND (ND)	ND	ND	ND	ND	ND
VC	ND	ND	ND (ND)	ND	ND	ND	ND	ND

MP-8S

Sample Date:	3/15/10	12/20/11	3/16/12	6/20/12	9/21/12	12/19/12	3/15/13	9/4/13	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
1,1-DCE	1.4 J	1.3 J	0.95 J	1.1 J	1.3 J	1.4 J	1.3 J	1.2 J	0.88 J
cis-1,2-DCE	**69**	**81**	**64**	**86**	**93**	**79**	**87**	**85**	**81**
trans-1,2-DCE	**6.6**	**7.5**	**5.6**	**5.6**	**9.0**	**7.3**	**7.9**	**7.3**	**6.3**
PCE	**13**	**49**	**31**	**31**	**64**	**51**	**68**	**68**	**65**
TCE	**36**	**51**	**34**	**58**	**63**	**59**	**61**	**61**	**59**
VC	1.5 J	1.9 J	1.5 J	1.7 J	1.7 J	1.8 J	1.9 J	1.2 J	0.84 J

MW-32

Sample Date:	3/12/10	12/28/12
VOC (µg/L):	RESULT:	RESULT:
cis-1,2-DCE	ND	0.38 J
trans-1,2-DCE	ND	ND
PCE	ND	ND
TCE	ND	ND
VC	ND	ND

MW-33

Sample Date:	3/15/10	9/24/13	9/20/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	ND	ND	ND
trans-1,2-DCE	ND	ND	ND
PCE	0.91 J	1.8 J	2.3 J
TCE	ND	0.82 J	0.56 J
VC	ND	ND	ND

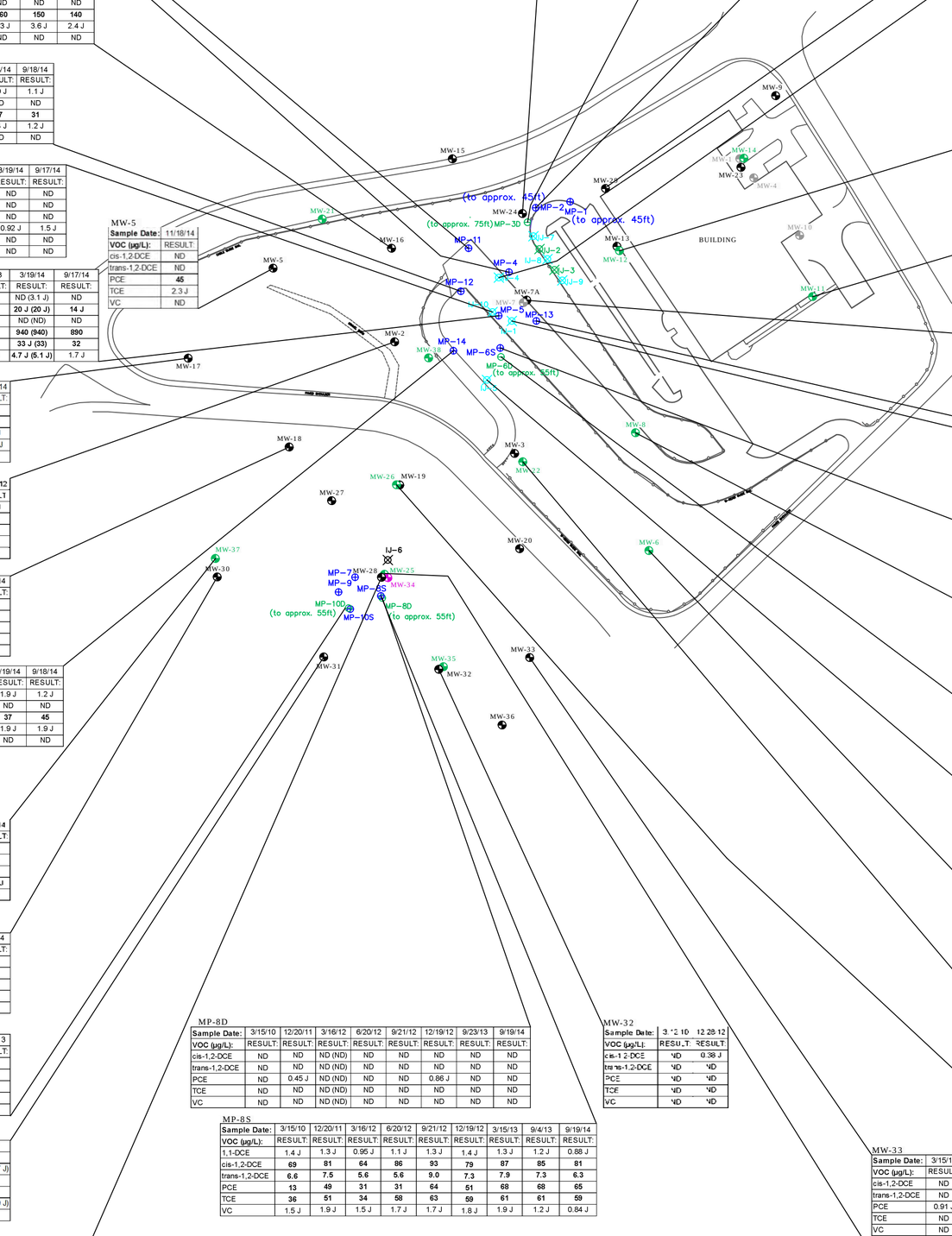
MW-26

Sample Date:	3/12/10	12/29/12	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:
cis-1,2-DCE	**5.3**	**5.9 (6.1)**	**4.0 J**
trans-1,2-DCE	ND	ND (ND)	ND
PCE	**65**	**49 (50)**	**38**
TCE	4.5 J	4.8 J (4.8 J)	3.5 J
VC	ND	ND (ND)	ND

MW-25

Sample Date:	3/17/10	12/20/11	3/15/12	6/20/12	9/21/12	12/19/12	3/15/13	9/4/13	3/20/14	9/19/14
VOC (µg/L):	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:	RESULT:
1,1-DCE	ND	0.97 J	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-DCE	**8.2 J**	**60**	4.8 DJ	4.4 J	4.5 J	**5.1 J**	4.6 J	3.3 J	2.5 J	1.4 J
trans-1,2-DCE	ND	3.9 J	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**450**	**43**	**360 D**	**350**	**400**	**360**	**370**	**350**	**300**	**240**
TCE	**6.5 J**	**44**	**6.5 DJ**	**6.5 J**	**6.0 J**	**6.3 J**	**5.9 J**	**5.4 J**	**5.3 J**	3.0 J
VC	ND	0.82 J	ND	ND	ND	ND	ND	ND	ND	ND

VOC	NYSDEC GWQS (µg/L)
1,1-DCE	5
cis-1,2-DCE	5
trans-1,2-DCE	5
PCE	5
TCE	5
VC	2



N

EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW-INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL

1. ALL CONCENTRATIONS GIVEN IN MICROGRAMS PER LITER (µg/L).
2. BOLDED RESULT INDICATES EXCEEDANCE OF NYSDEC GROUNDWATER QUALITY STANDARD (GWQS).
3. NYSDEC = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
4. ND = NOT DETECTED.
5. VOCs = VOLATILE ORGANIC COMPOUNDS.
6. ( ) INDICATES DUPLICATE SAMPLE
7. D = COMPOUND IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
8. J = ESTIMATED VALUE
9. cis-1,2-DCE = cis-1,2-DICHLOROETHENE
10. trans-1,2-DCE = trans-1,2-DICHLOROETHENE
11. PCE = TETRACHLOROETHENE
12. TCE = TRICHLOROETHENE
13. VC = VINYL CHLORIDE
14. 1,1-DCE = 1,1-DICHLOROETHENE

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE.* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

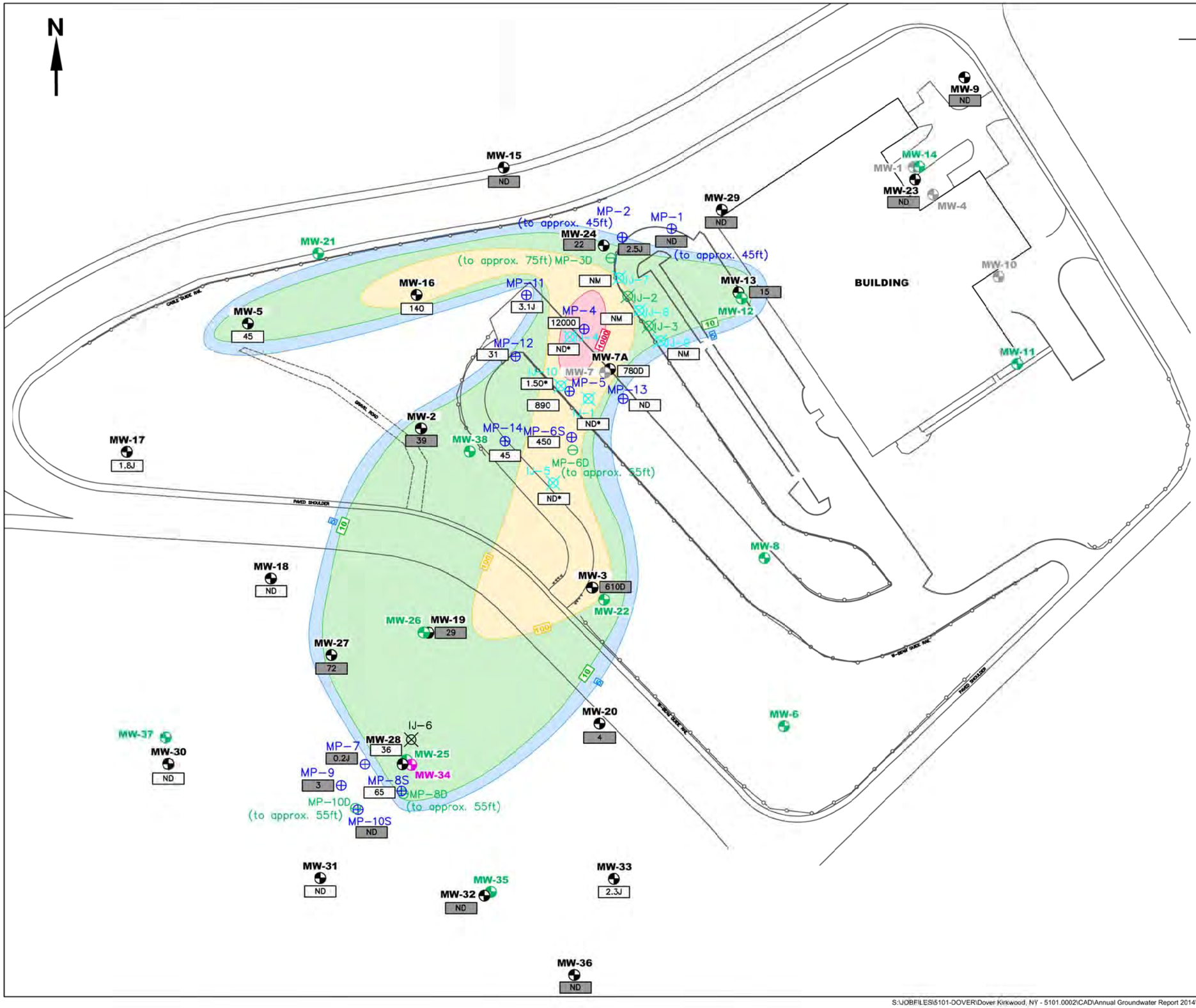
0 150 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

SUMMARY OF VOCs DISTRIBUTION IN GROUNDWATER

VERINA Engineering, P.C.

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EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL
- 17 — PCE CONCENTRATION IN ppb

- PCE > 5 ppb
- PCE > 10 ppb
- PCE > 100 ppb
- PCE > 1000 ppb

NOTES:
1) PCE = TETRACHLOROETHENE
2) ppb = PARTS PER BILLION
3) * = SAMPLED BUT NOT INCLUDED IN ISOCONCENTRATION MAP
4) ND = NOT DETECTED
5) NM = NOT MEASURED
6) D = INDICATES RESULT OBTAINED FROM SAMPLE DILUTION
7) J = INDICATES ESTIMATED VALUE
8) ND INDICATES RESULT OBTAINED FROM HISTORIC DATA

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

ESTIMATED PCE ISOCONCENTRATION MAP SHALLOW AQUIFER SEPTEMBER/NOVEMBER 2014

VERINA Engineering, P.C.

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N

MW-15
MW-21
ND
MW-16
MW-5
MW-17
MW-2
MW-38
190
MW-18
MW-26
38
MW-19
MW-27
MW-37
8.0J
MW-30
MW-28
MW-25
240
MW-34
ND
MW-31
MW-35
ND
MW-32
MW-36
MW-24
ND
MW-29
MW-9
MW-14
ND
MW-1
MW-23
MW-4
MW-10
MW-13
MW-12
ND
BUILDING
MW-11
ND
MW-7A
MW-7
MW-8
ND
MW-3
MW-22
ND
MW-20
MW-6
MW-33

MP-2 (to approx. 45ft)
MP-1 (to approx. 45ft)
(to approx. 75ft) MP-3D
MP-11
MP-4
MP-12
MP-5
MP-13
MP-14
MP-6S
MP-6D (to approx. 55ft)
1.4J
MP-7
MP-9
MP-8S
MP-8D (to approx. 55ft)
ND
MP-10D (to approx. 55ft)
MP-10S
ND

IJ-7
IJ-2
IJ-6
IJ-3
IJ-4
IJ-9
15J*
10*
IJ-10
IJ-1
IJ-5
IJ-6

5
10
100
100
10
5

GRAVEL ROAD
PAVED SHOULDER
GOLF CLUB RD.
PAVED SHOULDER

EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL
- 17 — PCE CONCENTRATION IN ppb

- PCE > 5 ppb
- PCE > 10 ppb
- PCE > 100 ppb

NOTES:
1) PCE = TETRACHLOROETHENE
2) ppb = PARTS PER BILLION
3) * = SAMPLED BUT NOT INCLUDED IN ISOCONCENTRATION MAP
4) ND = NOT DETECTED
5) J = INDICATES ESTIMATED VALUE
6) 10 INDICATES RESULT OBTAINED FROM HISTORIC DATA

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

ESTIMATED PCE ISOCONCENTRATION MAP INTERMEDIATE AQUIFER SEPTEMBER 2014

VERINA Engineering, P.C.

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S:\JOBFILES\5101-DOVER\Dover Kirkwood, NY - 5101.0002\CAD\Annual Groundwater Report 2014\5101.0002-Figure-0009-PCE-INT-00-2014.dwg LAYOUT: PCE SAVED: 1/14/2015 10:56 AM BY: TAMMY YUAN

N

MW-15 ND
MW-21
MW-16 91.59
MW-5 28.89J
MW-17 1.30J
MW-18 ND
MW-2 32.44
MW-38 33.82
MW-24 17.27
MW-29 ND
MW-9 ND
MW-14
MW-1
MW-23 ND
MW-4
MW-10
MW-13 13.05
MW-12
MW-11
MW-7A 510.36
MW-8
MW-3 387.64
MW-22
MW-26
MW-19 44.41
MW-27 51.24J
MW-20 2.49J
MW-6
MW-37
MW-30 ND
MW-28 73.64J
MW-25
MW-34
MW-31 4.68J
MW-32 4.39J
MW-35
MW-33 5.81J
MW-36 ND

MP-2 (to approx. 45ft) 5.51J
MP-1 (to approx. 45ft) ND
(to approx. 75ft) MP-3D
MP-11 5.87J
MP-4 7636.33
MP-12 24.74
MP-5 578.21J
MP-13 4.25J
MP-14 MP-6S 287.61J
MP-6D (to approx. 55ft) ND
MP-7 0.12J
MP-9 2.61J
MP-8S 175.49J
MP-8D (to approx. 55ft)
MP-10D (to approx. 55ft)
MP-10S ND

IJ-7 NM
IJ-2
IJ-8 NM
IJ-3
IJ-4 NM
IJ-1 ND*
IJ-5 ND
IJ-6

1000
100
10

BUILDING

GRAVEL ROAD
PAVED SHOULDER
E-NEW QUAD RD.

EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW–INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL
- 4.0 — MOLAR CONCENTRATION IN (mol x 10^8)/L

NOTES:
1) PCE = TETRACHLOROETHENE
2) DAUGTER COMPOUNDS INCLUDE TCE, 1,2–DCE AND VC
3) TCE = TRICHLOROETHENE
4) 1,2–DCE = 1,2–DICHLOROETHENE
5) * = SAMPLED BUT NOT INCLUDED IN ISOCONCENTRATION MAP
6) J = INDICATES ESTIMATED VALUE
7) NM = NOT MEASURED
8) VC = VINYL CHLORIDE
9) ND = NOT DETECTED
10) UNITS = (mol x 10^8)/L
11) IF RESULT CONCENTRATION IS BELOW REPORTING LIMIT (RL) AND REPORTING LIMIT IS ABOVE GWQS, ½ OF THE REPORTING LIMIT USED IN THE MOLAR CALCULATIONS. IF THE CONCENTRATION IS BELOW THE RL AND RL IS LESS THAN GWQS, 0 WAS USED IN THE CALCULATION.
12) GWQS = NYSDEC's GROUNDWATER QUALITY STANDARDS
13) ND INDICATES RESULT OBTAINED FROM HISTORIC DATA

- MOLAR CONCENTRATION > 10 (mol x 10^8)/L
- MOLAR CONCENTRATION > 100 (mol x 10^8)/L
- MOLAR CONCENTRATION > 1000 (mol x 10^8)/L

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

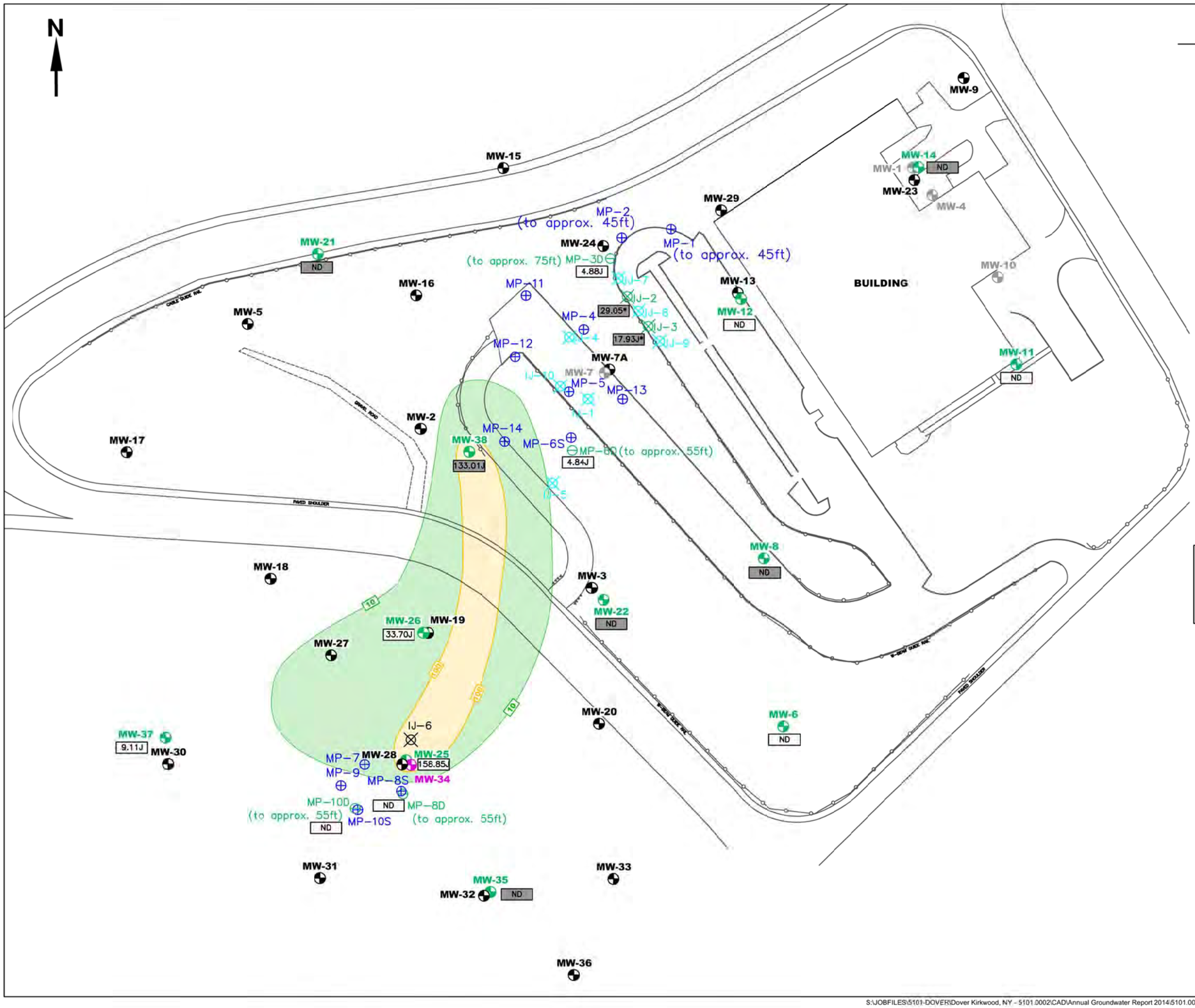
FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

ESTIMATED PCE AND DAUGHTER COMPOUND TOTAL MOLAR ISOCONCENTRATION MAP SHALLOW AQUIFER SEPTEMBER/NOVEMBER 2014

VERINA Engineering, P.C.

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EXPLANATION

- MW-2 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING WELL
- MW-1 — DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL
- MP-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW MONITORING POINT
- MP-6D — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE MONITORING POINT
- IJ-1 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW INJECTION WELL
- IJ-2 — DESIGNATION AND APPROXIMATE LOCATION OF INTERMEDIATE INJECTION WELL
- IJ-6 — DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW-INTERMEDIATE INJECTION WELL
- MW-6 — DESIGNATION AND LOCATION OF INTERMEDIATE MONITORING WELL
- MW-34 — DESIGNATION AND LOCATION OF DEEP MONITORING WELL
- 1.88 — MOLAR CONCENTRATION IN (mol x 10^8)/L

NOTES:
1) PCE = TETRACHLOROETHENE
2) DAUGTER COMPOUNDS INCLUDE TCE, 1,2-DCE AND VC
3) TCE = TRICHLOROETHENE
4) 1,2-DCE = 1,2-DICHLOROETHENE
5) VC = VINYL CHLORIDE
6) * = SAMPLED BUT NOT INCLUDED IN ISOCONCENTRATION MAP
7) ND = NOT DETECTED
8) J = INDICATES ESTIMATED VALUE
9) UNITS = (mol x 10^8)/L
10) IF RESULT CONCENTRATION IS BELOW REPORTING LIMIT (RL) AND REPORTING LIMIT IS ABOVE GWQS, ½ OF THE REPORTING LIMIT USED IN THE MOLAR CALCULATIONS. IF THE CONCENTRATION IS BELOW THE RL AND RL IS LESS THAN GWQS, 0 WAS USED IN THE CALCULATION.
11) GWQS = NYSDEC's GROUNDWATER QUALITY STANDARDS
12) 133.0 INDICATES RESULT OBTAINED FROM HISTORIC DATA

- MOLAR CONCENTRATION > 10 (mol x 10^8)/L
- MOLAR CONCENTRATION > 100 (mol x 10^8)/L

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 110 FT.
APPROXIMATE SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

ESTIMATED PCE AND DAUGHTER COMPOUND TOTAL MOLAR ISOCONCENTRATION MAP INTERMEDIATE AQUIFER SEPTEMBER 2014

VERINA Engineering, P.C.

11

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N

MW-9

MW-14

MW-1

MW-23

MW-4

MW-29

MW-10

BUILDING

MW-13

MW-12

MW-11

EXPLANATION

MW-2 DESIGNATION AND APPROXIMATE LOCATION OF MONITORING WELL

MW-1 DESIGNATION AND APPROXIMATE LOCATION OF ABANDONED MONITORING WELL

BUILDING DEED NOTICE AREAS

EXTERIOR DEED NOTICE AREAS

DEPTH TO PCE-AFFECTED SOIL

1. 4 FEET
2. 6 FEET
3. 8 FEET
4. 8 FEET
5. 5 FEET
6. 7 FEET
7. 3 FEET

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM *BOUNDARY AND TOPOGRAPHIC SURVEY UNIVERSAL INSTRUMENTS CORPORATION 29 INDUSTRIAL PARK DRIVE TOWN OF KIRKWOOD BROOME COUNTY NEW YORK STATE* PREPARED BY HAWK ENGINEERING OF BINGHAMTON, NEW YORK
OCTOBER 7, 1996

0 50 FT.

APPROXIMATE SCALE

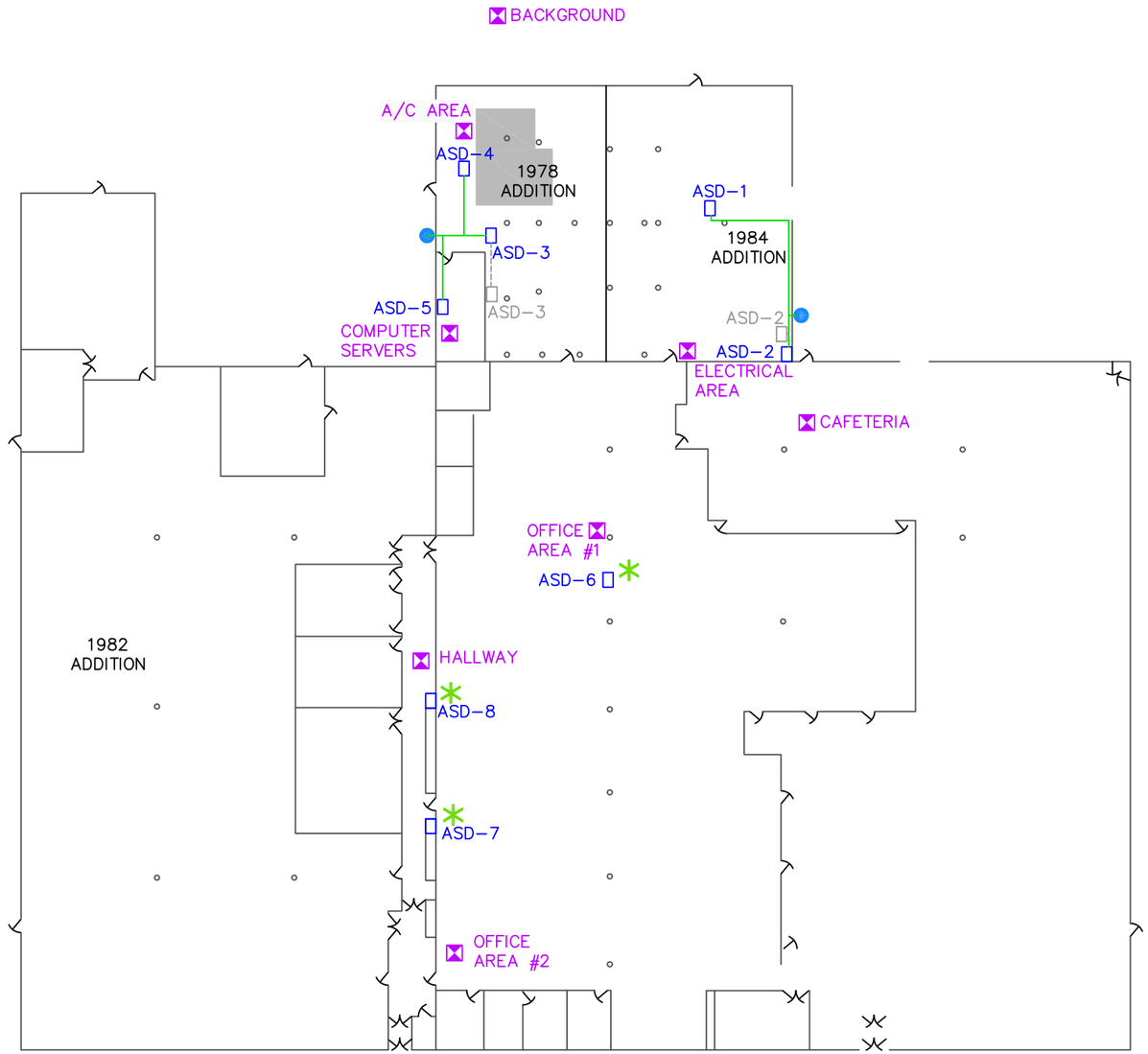
FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

SOIL CAP AREAS

VERINA Engineering, P.C.

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N

EXPLANATION

- EXISTING SUB-SLAB DEPRESSURIZATION POINT LOCATION
- EXISTING ASD PIPING RUN
- PREVIOUS SUB-SLAB DEPRESSURIZATION POINT LOCATION
- PREVIOUS ASD PIPING RUN
- EXTERIOR FAN AND EXHAUST LOCATION
- VERTICAL BUILDING POST
- INACCESSIBLE AREA
- INDOOR AIR SAMPLING LOCATION
- DEDICATED FAN LOCATED ON RISER PIPE

SOURCE:
BUILDING LAYOUT DIGITIZED FROM PHOTOCOPY OF DRAWING FAXED FROM UNIVERSAL INSTRUMENTS CORPORATION FACILITIES DEPARTMENT.
NO FILE NAME OR SCALE PROVIDED.

DRAWING NOT TO SCALE

FORMER DOVER ELECTRONICS FACILITY
KIRKWOOD, NEW YORK

ASD SYSTEM AND INDOOR AIR SAMPLING LOCATIONS

VERINA Engineering, P.C.

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Tables

Table 1 Summary of 2014 ISCO Injection Points and Activities, Former Dover Electronics Site, Kirkwood, New York

Injection Point	Well Diameter (in)	Top of Casing Elevation (ft, msl)	Total Depth (ft, btoc) *	Screened Interval (ft, btoc)	Water Bearing Unit	Injection Type	Injection Area	Injection Schedule
MW-7A	2	882.74	16.24	7-17	Shallow	Manual	Source Area	Monthly
MW-16	2	878.87	30.46	18-28	Shallow		Source Area	
MW-24	2	907.66	41.49	35-45	Shallow		Source Area	
MW-25	2	857.52	39.79	34-39	Intermediate		Pilot Truck Stop Area	
MW-28	2	859.09	25.81	15-25	Shallow		Pilot Truck Stop Area	
MP-5	1	881.66	24.31	14-24	Shallow		Source Area	
MP-11	2	875.80	29.13	20-30	Shallow		Source Area	
MP-12	2	876.60	23.55	15-25	Shallow		Source Area	
MP-14	2	867.8	24.15	15-25	Shallow		Source Area	
IJ-1	6	NA	24.38	15-25	Shallow		Source Area	
IJ-2	6	908.9	44.69	30-45	Intermediate		Source Area	
IJ-3	6	909.4	44.56	30-45	Intermediate		Source Area	
IJ-4	6	NA	24.98	10-25	Shallow		Source Area	
IJ-6	6	NA	38.84	30-40	Shallow-Intermediate		Pilot Truck Stop Area	
IJ-7	6	909.0	42.84	10-25	Shallow		Source Area	
IJ-8	6	909.2	44.82	10-25	Shallow		Source Area	
IJ-9	6	909.5	44.48	10-25	Shallow		Source Area	
IJ-10	6	880.70	23.81	10-24	Shallow		Source Area	

NOTES:

NA = Not available

ft, ml = Feet above mean sea level

ft, btoc = Feet below top of inner well casing

* = Total depth values obtained from gauging event conducted in September 2014

Table 2 Groundwater Elevation Data - June 2014, Former Dover Electronics Site, Kirkwood, New York

Monitoring Well/Point	Top of Casing (ft.)	Date	Depth to Water (ft)	Groundwater Elevation (ft)	Total Depth (ft)	Screened Interval (ft)	Water Bearing Unit
MW-2	863.28	6/17/2014	5.15	858.13	16.57	5-15	Shallow
MW-3	859.16	6/17/2014	4.11	855.05	14.38	5-15	Shallow
MW-5	864.68	6/17/2014	-	-	-	5-20	Shallow
MW-6	863.67	6/17/2014	2.17	861.50	34.77	15-35	Intermediate
MW-7A	882.74	6/17/2014	5.91	876.83	16.35	7-17	Shallow
MW-8	899.21	6/17/2014	26.40	872.81	59.48	30-60	Intermediate
MW-9	923.94	6/17/2014	45.20	878.74	59.82	30-60	Shallow
MW-11	918.87	6/17/2014	39.51	879.36	61.64	52-62	Intermediate
MW-12	912.31	6/17/2014	37.51	874.80	72.65	63-73	Intermediate
MW-13	912.14	6/17/2014	32.40	879.74	48.52	39-49	Shallow
MW-14	915.40	6/17/2014	-	-	-	62-72	Intermediate
MW-15	899.38	6/17/2014	-	-	-	36-46	Shallow
MW-16	878.87	6/17/2014	14.52	864.35	30.59	18-28	Shallow
MW-17	859.29	6/17/2014	11.87	847.42	20.21	8-18	Shallow
MW-18	857.34	6/17/2014	10.49	846.85	15.45	8-18	Shallow
MW-19	859.59	6/17/2014	12.79	846.80	19.15	8-18	Shallow
MW-20*	858.94	6/17/2014	-	-	-	14-24	Shallow
MW-21	883.22	6/17/2014	-	-	-	31-41	Intermediate
MW-22	861.62	6/17/2014	4.36	857.26	21.53	17-22	Intermediate
MW-23	916.62	6/17/2014	38.67	877.95	50.18	40.5-50.5	Shallow
MW-24	907.66	6/17/2014	34.43	873.23	41.64	35-45	Shallow
MW-25	857.52	6/17/2014	12.16	845.36	39.92	34-39	Intermediate
MW-26	859.04	6/17/2014	12.92	846.12	28.16	22.5-27.5	Intermediate
MW-27	860.01	6/17/2014	12.62	847.39	26.86	16.5-26.5	Shallow
MW-28	859.09	6/17/2014	12.11	846.98	25.89	15-25	Shallow
MW-29	917.36	6/17/2014	41.84	875.52	48.8	39-49	Shallow
MW-30	857.66	6/17/2014	13.02	844.64	36.38	15-25	Shallow
MW-31	856.90	6/17/2014	11.18	845.72	21.32	13-23	Shallow
MW-32	861.18	6/17/2014	7.73	853.45	22.62	15.1-25.1	Shallow
MW-33	863.64	6/17/2014	12.37	851.27	22.62	15-25	Shallow
MW-34	857.03	6/17/2014	7.41	849.62	55.83	53-58	Deep
MW-35	856.89	6/17/2014	11.97	844.92	36.77	32-37	Intermediate
MW-36	857.19	6/17/2014	-	-	-	14-24	Shallow
MW-37	857.71	6/17/2014	12.95	844.76	20.48	31-36	Intermediate
MW-38	862.20	6/17/2014	-	-	-	20-25	Intermediate
MP-1	912.63	6/17/2014	37.13	875.50	39.82	31-41	Shallow
MP-2	911.00	6/17/2014	23.48	887.52	36.1	34-44	Shallow
MP-3D	910.59	6/17/2014	35.78	874.81	74.27	46-56	Intermediate
MP-4	883.65	6/17/2014	6.74	876.91	24.29	17-27	Shallow
MP-5	881.66	6/17/2014	12.88	868.78	24.26	14-24	Shallow
MP-6S	875.67	6/17/2014	11.84	863.83	24.71	14-24	Shallow
MP-6D	873.83	6/17/2014	-	-	44.08	39-49	Intermediate
MP-7*	856.48	6/17/2014	-	-	-	8-18	Shallow
MP-8S	857.40	6/17/2014	12.41	844.99	16.7	13-23	Shallow
MP-8D	857.20	6/17/2014	12.40	844.80	44.81	44-54	Intermediate
MP-9*	856.93	6/17/2014	-	-	-	7-17	Shallow
MP-10S*	857.25	6/17/2014	-	-	-	10-20	Shallow
MP-10D	857.31	6/17/2014	-	-	43.37	46-56	Intermediate
MP-11	875.80	6/17/2014	7.57	868.23	29.23	20-30	Shallow
MP-12	876.60	6/17/2014	12.07	864.53	23.57	15-25	Shallow
MP-13	884.30	6/17/2014	8.98	875.32	24.66	15-25	Shallow
MP-14	867.80	6/17/2014	7.46	860.34	44.22	15-25	Shallow
IJ-1	-	6/17/2014	13.43	-	24.5	15-25	Shallow
IJ-2	908.9	6/17/2014	27.79	881.11	44.68	30-45	Intermediate
IJ-3	909.4	6/17/2014	1.82	907.58	44.59	30-45	Intermediate
IJ-4	-	6/17/2014	3.16	-	25.06	10-25	Shallow
IJ-5	-	6/17/2014	2.88	-	44.96	10-25	Shallow
IJ-6	-	6/17/2014	12.10	-	40.13	10-20, 30-40	Shallow-Intermediate
IJ-7	909.00	6/17/2014	27.40	881.60	44.56	10-25	Shallow
IJ-8	909.20	6/17/2014	11.54	897.66	43.91	10-25	Shallow
IJ-9	909.50	6/17/2014	1.64	907.86	44.57	10-25	Shallow
IJ-10	880.70	6/17/2014	12.08	868.62	24.81	10-25	Shallow

Notes:

-: Not Available

* MW-20, MP-7, MP-9, MP-10S were silted up to top of well casing

Table 3 Groundwater Elevation Data - September 2014, Former Dover Electronics Site, Kirkwood, New York

Monitoring Well/Point	Top of Casing (ft.)	Date	Depth to Water (ft, btoc)	Groundwater Elevation (ft, msl)	Total Depth (ft, btoc)	Screened Interval (ft, bgs)	Water Bearing Unit
MW-2	863.28	9/16/2014	7.69	855.59	16.35	5-15	Shallow
MW-3	859.16	9/16/2014	5.46	853.70	14.30	5-15	Shallow
MW-5	864.68	9/16/2014	-	-	-	5-20	Shallow
MW-6	863.67	9/16/2014	4.49	859.18	34.65	15-35	Intermediate
MW-7A	882.74	9/16/2014	6.62	876.12	16.24	7-17	Shallow
MW-8	899.21	9/16/2014	27.66	871.55	59.96	30-60	Intermediate
MW-9	923.94	9/16/2014	46.28	877.66	59.75	30-60	Shallow
MW-11	918.87	9/16/2014	39.86	879.01	61.59	52-62	Intermediate
MW-12	912.31	9/16/2014	38.73	873.58	72.61	63-73	Intermediate
MW-13	912.14	9/16/2014	35.01	877.13	48.41	39-49	Shallow
MW-14	915.40	9/16/2014	39.80	875.60	72.02	62-72	Intermediate
MW-15	899.38	9/16/2014	-	-	-	36-46	Shallow
MW-16	878.87	9/16/2014	16.48	862.39	30.46	18-28	Shallow
MW-17	859.29	9/16/2014	-	-	-	8-18	Shallow
MW-18	857.34	9/16/2014	12.33	845.01	15.34	8-18	Shallow
MW-19	859.59	9/16/2014	14.40	845.19	19.04	8-18	Shallow
MW-20*	858.94	9/16/2014	-	-	-	14-24	Shallow
MW-21	883.22	9/16/2014	21.59	861.63	40.22	31-41	Intermediate
MW-22	861.62	9/16/2014	4.93	856.69	21.44	17-22	Intermediate
MW-23	916.62	9/16/2014	39.41	877.21	50.02	40.5-50.5	Shallow
MW-24	907.66	9/16/2014	35.74	871.92	41.49	35-45	Shallow
MW-25	857.52	9/16/2014	13.71	843.81	39.79	34-39	Intermediate
MW-26	859.04	9/16/2014	14.55	844.49	28.05	22.5-27.5	Intermediate
MW-27	860.01	9/16/2014	13.99	846.02	26.77	16.5-26.5	Shallow
MW-28	859.09	9/16/2014	13.56	845.53	25.81	15-25	Shallow
MW-29	917.36	9/16/2014	43.20	874.16	48.77	39-49	Shallow
MW-30	857.66	9/16/2014	11.98	845.68	20.05	15-25	Shallow
MW-31	856.90	9/16/2014	13.10	843.80	20.99	13-23	Shallow
MW-32	861.18	9/16/2014	8.61	852.57	22.47	15.1-25.1	Shallow
MW-33	863.64	9/16/2014	14.14	849.50	22.55	15-25	Shallow
MW-34	857.03	9/16/2014	-	-	-	53-58	Deep
MW-35	856.89	9/16/2014	13.52	843.37	36.61	32-37	Intermediate
MW-36	857.19	9/16/2014	-	-	-	14-24	Shallow
MW-37	857.71	9/16/2014	14.53	843.18	36.18	31-36	Intermediate
MW-38	862.20	9/16/2014	-	-	-	20-25	Intermediate
MP-1	912.63	9/16/2014	38.34	874.29	39.44	31-41	Shallow
MP-2	911.00	9/16/2014	29.12	881.88	36.01	34-44	Shallow
MP-3D	910.59	9/16/2014	37.01	873.58	73.94	46-56	Intermediate
MP-4	883.65	9/16/2014	7.64	876.01	24.13	17-27	Shallow
MP-5	881.66	9/16/2014	13.65	868.01	24.31	14-24	Shallow
MP-6S	875.67	9/16/2014	12.31	863.36	24.62	14-24	Shallow
MP-6D	873.83	9/16/2014	-	-	-	39-49	Intermediate
MP-7*	856.48	9/16/2014	-	-	-	8-18	Shallow
MP-8S	857.40	9/16/2014	13.91	843.49	16.54	13-23	Shallow
MP-8D	857.20	9/16/2014	13.94	843.26	45.03	44-54	Intermediate
MP-9*	856.93	9/16/2014	-	-	-	7-17	Shallow
MP-10S*	857.25	9/16/2014	-	-	-	10-20	Shallow
MP-10D	857.31	9/16/2014	-	-	-	46-56	Intermediate
MP-11	875.80	9/16/2014	8.93	866.87	29.13	20-30	Shallow
MP-12	876.60	9/16/2014	13.85	862.75	23.55	15-25	Shallow
MP-13	884.30	9/16/2014	9.47	874.83	24.58	15-25	Shallow
MP-14	867.80	9/16/2014	9.63	858.17	24.15	15-25	Shallow
IJ-1	-	9/16/2014	12.80	-	24.38	15-25	Shallow
IJ-2	908.9	9/16/2014	29.30	879.60	44.69	30-45	Intermediate
IJ-3	909.4	9/16/2014	1.46	907.94	44.56	30-45	Intermediate
IJ-4	-	9/16/2014	4.35	-	24.98	10-25	Shallow
IJ-5	-	9/16/2014	5.00	-	24.87	10-25	Shallow
IJ-6	-	9/16/2014	13.60	-	38.84	10-20, 30-40	Shallow-Intermediate
IJ-7	909.00	9/16/2014	28.29	880.71	42.84	10-25	Shallow
IJ-8	909.20	9/16/2014	15.55	893.65	44.82	10-25	Shallow
IJ-9	909.50	9/16/2014	1.33	908.17	44.48	10-25	Shallow
IJ-10	880.70	9/16/2014	12.87	867.83	23.81	10-25	Shallow

Notes:

-: Not Available

* MW-20, MP-7, MP-9, MP-10S were silted up to top of well casing

Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MW-1	11/18/1998	TAL/TCL	170	11	21	8.1
MW-2	11/13/1998	SSPL VOCs	320	3.6J	4.4J	NA
	09/21/2001	SSPL VOCs	22	1J	1J	<1.8
	12/04/2001	SSPL VOCs	150	5	5	<6
	01/29/2002	SSPL VOCs	10	0.3J	0.05J	<0.5
	04/03/2002	SSPL VOCs	7	0.2J	<0.5	<0.5
	09/11/2002	SSPL VOCs	100	6	<3	<3
	03/26/2003	SSPL VOCs	9	0.2J	0.09J	<0.5
	09/17/2003	SSPL VOCs	22	0.75	0.63	<0.5
	04/07/2004	SSPL VOCs	14	0.26J	<0.5	<0.5
	09/21/2004	SSPL VOCs	9.5	1.2	0.8	<0.5
	09/28/2005	SSPL VOCs	160	13	5.4	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/03/2006	SSPL VOCs	6.3	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	9.7	0.66J	<5.0	<5.0
	04/03/2007	SSPL VOCs	10	0.61J	0.33J	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	160	11	3.2J	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	3.0J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	120	8	2.0J	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	16	1.0J	<5.0	<5.0
	09/23/2009	SSPL VOCs	160	11	2.5J	<5.0
	03/17/2010	SSPL VOCs	17.0	2.0J	1.2J	<5.0
	12/27/2012	SSPL VOCs	39	5.3	3.3 J	< 5.0
MW-3	11/12/1998	SSPL VOCs	200	<5	<5	ND
	09/20/2001	SSPL VOCs	11	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	110	3J	5	<2.0
	03/12/2010	SSPL VOCs	610D	7.2	10.0	<5.0
MW-5	11/13/1998	SSPL VOCs	14	<5	<5	ND
	09/21/2001	SSPL VOCs	12	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	13B	0.2J	<0.5	<0.5
	03/18/2010	SSPL VOCs	31	<5.0	<5.0	<5.0
	11/18/2014	SSPL VOCs	45	2.3 J	<5.0	<5.0
MW-6	11/11/1998	SSPL VOCs	<5	<5	<5	ND
	09/21/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.2JB	<0.5	<0.5	<0.5
	03/18/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/14/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/24/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/18/2014	SSPL VOCs	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)
MW-7A	11/16/1998	SSPL VOCs	1,300	<5	<50	ND
	09/19/2001	SSPL VOCs	3,600	<130	<130	<130
	12/04/2001	SSPL VOCs	6,000	<160	<160	<160
	01/28/2002	SSPL VOCs	3,900	<84	<84	<84
	04/02/2002	SSPL VOCs	3,800	38J	<170	<170
	09/11/2002	SSPL VOCs	3,600	<83	<83	<83
	03/25/2003	SSPL VOCs	7,700	53J	<250	<250
	09/17/2003	SSPL VOCs	2,700	9.9J	<83	<83
	04/07/2004	SSPL VOCs	6,200	3.2J	0.6J	<130
	09/24/2004	SSPL VOCs	4,100	<130	<130	<130
	09/28/2005	SSPL VOCs	2,700	2.4	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	2,900D	<50	<50	<50
	03/08/2006			Phase II ISCO Field Test		
	04/03/2006	SSPL VOCs	1,000	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	1,900	<50	3.9J	<50
	04/03/2007	SSPL VOCs	2,400D	4.5J	<50	<50
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	2,000	<100	<100	<100
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	< 5.0	<5.0	< 5.0	< 5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	1,600D	1.8 J	2.2 J	<25
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	2,100D	<50	<50	<50
	09/24/2009	SSPL VOCs	3,700	<100	<100	<100
	03/17/2010	SSPL VOCs	1,700	<50	<50	<50
	12/19/2011	SSPL VOCs	2300 D	3.7 J	< 50	< 100
	02/14/2012	SSPL VOCs	2,700	5.8 J	<100	<100
	04/18/2012	SSPL VOCs	2,500	<100	<100	<100
	06/19/2012	SSPL VOCs	2,700	<100	<100	<100
	09/20/2012	SSPL VOCs	1,600	<50	<50	<50
	12/20/2012	SSPL VOCs	1,100	<50	<50	<50
	03/15/2013	SSPL VOCs	1900 D	<100	<100	<100
	09/04/2013	SSPL VOCs	550	<25	<25	<25
	03/18/2014	SSPL VOCs	240	<10	<10	<10
	09/17/2014	SSPL VOCs	780 D	<25	<25	<25
MW-8	11/16/1998	SSPL VOCs	<5	<5	<5	ND
	09/21/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	03/18/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/28/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/24/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-9	11/18/1998	SSPL VOCs	<5	<5	<5	ND
	09/19/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.07JB	<0.5	<0.5	<0.5
	03/16/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-11	11/13/1998	SSPL VOCs	<5	<5	<5	ND
	09/19/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.1JB	<0.5	<0.5	<0.5
	03/18/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/18/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-12	11/17/1998	SSPL VOCs	<5	<5	<5	ND
	02/02/1999	SSPL VOCs	<5	<5	<5	ND
	09/19/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	12/03/2001	SSPL VOCs	0.09J	<0.5	<0.5	<0.5
	01/28/2002	SSPL VOCs	0.09J	<0.5	<0.5	<0.5
	04/02/2002	SSPL VOCs	<0.5	0.03J	<0.5	<0.5
	09/10/2002	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
	03/25/2003	SSPL VOCs	0.1J	<0.5	<0.5	<0.5
	09/17/2003	SSPL VOCs	0.16J	<0.5	<0.5	<0.5
	04/08/2004	SSPL VOCs	0.26J	<0.5	<0.5	<0.5
	09/24/2004	SSPL VOCs	0.27J	<0.5	<0.5	<0.5
	09/28/2005	SSPL VOCs	<1.0	<1.0	<2.0	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/03/2006	SSPL VOCs	1.1 J	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	0.46J	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	0.55J	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	4.4J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/02/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/25/2009	SSPL VOCs	0.58J	<5.0	<5.0	<5.0
	03/19/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/27/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/18/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0

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Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MW-13	11/12/1998	SSPL VOCs	13	<5	<5	ND
	02/02/1999	SSPL VOCs	9.7	<5	<5	ND
	09/19/2001	SSPL VOCs	13	0.3J	<0.5	<0.5
	12/03/2001	SSPL VOCs	14	0.3J	0.06J	<0.5
	01/28/2002	SSPL VOCs	13	<0.5	<0.5	<0.5
	04/02/2002	SSPL VOCs	8	0.2J	<0.5	<0.5
	09/10/2002	SSPL VOCs	7	0.2J	<0.5	<0.5
	03/25/2003	SSPL VOCs	20	0.5J	0.9	<0.5
	09/17/2003	SSPL VOCs	12	0.25J	<0.5	<0.5
	04/08/2004	SSPL VOCs	23	0.16J	<0.5	<0.5
	09/24/2004	SSPL VOCs	10	0.26J	<0.5	<0.5
	09/28/2005	SSPL VOCs	4	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/03/2006	SSPL VOCs	1.4 J	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	11	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	14	0.31J	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	11	0.32 J	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	3.6J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/02/2008	SSPL VOCs	5.2	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	21	<5.0	<5.0	<5.0
	09/25/2009	SSPL VOCs	13	<5.0	<5.0	<5.0
	03/19/2010	SSPL VOCs	15	<5.0	<5.0	<5.0
MW-14	11/17/1998	SSPL VOCs	<5	<5	<5	ND
	09/19/2001	SSPL VOCs	0.3J	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.5J	<0.5	<0.5	<0.5
	03/18/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-15	02/04/1999	SSPL VOCs	<5	<5	<5	ND
	03/11/1999	SSPL VOCs	<5	<5	<5	ND
	09/26/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	12/03/2001	SSPL VOCs	0.2J	<0.5	0.03J	<0.5
	01/28/2002	SSPL VOCs	<0.5	0.03J	<0.5	<0.5
	04/02/2002	SSPL VOCs	0.2	0.05J	0.08J	NA
	09/12/2002	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
	03/25/2003	SSPL VOCs	0.1J	<0.5	<0.5	<0.5
	09/17/2003	SSPL VOCs	0.023J	0.086J	0.051J	<0.5
	04/08/2004	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/24/2004	SSPL VOCs	0.18J	<0.5	<0.5	<0.5
	09/28/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/21/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/04/2007	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-16	11/12/1998	SSPL VOCs	570	11J	16J	NA
	02/01/1999	SSPL VOCs	470	15J	12J	NA
	09/19/2001	SSPL VOCs	2	<0.5	<0.5	<0.5
	12/03/2001	SSPL VOCs	92	2J	4	<3
	01/28/2002	SSPL VOCs	8	0.3J	0.3J	<0.5
	04/02/2002	SSPL VOCs	180	5J	6J	<6
	09/11/2002	SSPL VOCs	160	7J	6	<0.5
	3/252003	SSPL VOCs	45	1J	1J	<0.5
	09/17/2003	SSPL VOCs	160	4.5J	5.4J	<6.3
	04/07/2004	SSPL VOCs	530	8.7J	11J	<13
	09/24/2004	SSPL VOCs	220	5.1	5.3	<8.3
	09/28/2005	SSPL VOCs	53	1.4	2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	380D	<10	<10	<10
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	23	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	420D	13	10	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	240	5.4J	5.1J	<10.0
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	300	9.1 J	8.4J	< 13.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	NS	NS	NS	NS
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	NS	NS	NS	NS
	09/24/2009	SSPL VOCs	260	6.2J	4.6J	<10
	03/17/2010	SSPL VOCs	260	5.8 J	4.0 J	<10
	12/21/2011	SSPL VOCs	280	6.5 J	4.5 J	< 10
	02/15/2012	SSPL VOCs	250	5.3 J	4.7 J	< 10
	04/19/2012	SSPL VOCs	200	4.3 DJ	3.8 DJ	<10
	06/21/2012	SSPL VOCs	210	4.4 J	2.8 J	<10
	09/20/2012	SSPL VOCs	200	4.5 J	2.7 J	<5.0
	12/18/2012	SSPL VOCs	180	4.3 J	2.9 J	< 5.0
	03/13/2013	SSPL VOCs	200 D	4.2 DJ	2.9 DJ	<13
	09/04/2013	SSPL VOCs	160	3.3 J	2.0 J	<5.0
	03/18/2014	SSPL VOCs	150	3.6 J	1.9 J	<5.0
	09/18/2014	SSPL VOCs	140	2.4 J	1.3 J	<5.0
MW-17	11/11/1998	SSPL VOCs	4.7J	<5	<5	ND
	02/04/1999	SSPL VOCs	3 J	<5	<5	ND
	09/25/2001	SSPL VOCs	3	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	3B	0.2J	0.08J	<0.5
	03/18/2010	SSPL VOCs	1.9	<5.0	<5.0	<5.0
	12/27/2012	SSPL VOCs	1.5 J	<5.0	<5.0	<5.0
	09/24/2013	SSPL VOCs	1.8 J	0.24 J	<5.0	<5.0
	11/18/2014	SSPL VOCs	1.8 J	0.28 J	<5.0	<5.0
MW-18	11/18/1998	SSPL VOCs	<5	<5	<5	ND
	02/03/1999	SSPL VOCs	2.7J	0.81 J	<5	ND
	03/10/1999	SSPL VOCs	2J	<5.0	<5.0	ND
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	3/15/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/29/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	9/24/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	9/19/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-19	11/11/1998	SSPL VOCs	68	8.8	9	NA
	02/05/1999	SSPL VOCs	160	18	17	NA
	03/10/1999	SSPL VOCs	160	17	16	NA
	09/24/2001	SSPL VOCs	88	20	<4.2	<4.2
	09/13/2002	SSPL VOCs	11	4.0	4.0	<0.5
	03/12/2010	SSPL VOCs	29	8.7	15.8	<5.0
MW-20	11/10/1998	SSPL VOCs	9.3	<5	<5	ND
	02/04/1999	SSPL VOCs	12	<5	<5	ND
	03/15/1999	SSPL VOCs	63	1.3J	<5	ND
	09/26/2001	SSPL VOCs	8	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	4	0.1J	<0.5	<0.5
MW-21	02/01/1999	SSPL VOCs	<5	<5	<5	ND
	03/12/1999	SSPL VOCs	<5	<5	<5	ND
	09/26/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.9J	<0.5	<0.5	<0.5
	03/12/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-22	11/13/1998	SSPL VOCs	<5	<5	<5	ND
	02/04/1999	SSPL VOCs	<5	<5	<5	ND
	09/19/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.3J	<0.5	<0.3	<0.5
	03/12/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/28/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/24/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-23	11/18/1998	TAL/TCL	48	<50	<42	NA
	02/05/1999	SSPL VOCs	21	<5	<5	ND
	03/19/1999	SSPL VOCs	13	<5	<5	ND
	09/19/2001	SSPL VOCs	0.3J	2.0	5.0	<0.5
	09/13/2002	SSPL VOCs	2.0	2.0	0.3J	<0.5
	03/17/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0

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Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MW-24	11/13/1998	SSPL VOCs	2,100	8.8J	<5	NA
	02/03/1999	SSPL VOCs	2,700	<100	24J	NA
	09/19/2001	SSPL VOCs	2,500	26J	46J	<84
	12/03/2001	SSPL VOCs	1,600	12J	35J	<42
	01/28/2002	SSPL VOCs	1,500	12J	31J	<42
	04/02/2002	SSPL VOCs	1,600	40J	610	<63
	09/10/2002	SSPL VOCs	660	330	1,200	<36
	03/25/2003	SSPL VOCs	42	23	1,100	42
	09/17/2003	SSPL VOCs	2.5J	0.5J	180	19
	04/07/2004	SSPL VOCs	2.4J	2J	87	22
	09/24/2004	SSPL VOCs	4	2.2	57	37
	09/28/2005	SSPL VOCs	2.1	1.2	23.8	14
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	<50	<50	<50	<50
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	310	17	69	1.8J
	04/03/2007	SSPL VOCs	470D	30	78	6.8J
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	58	<5	<5	<5
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	100	7.6	19.62J	0.99 J
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	NS	NS	NS	NS
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	NS	NS	NS	NS
	09/23/2009	SSPL VOCs	240	11	23	<10
	03/19/2010	SSPL VOCs	150	5.0 J	4.2 J	<5.0
	12/21/2012	SSPL VOCs	22	< 5.0	< 5.0	< 5.0
MW-25	03/19/1999	SSPL VOCs	1,200	6.7J	20J	ND
	04/23/1999	SSPL VOCs	1,100	<50	<33	ND
	09/25/2001	SSPL VOCs	630	<25	<25	<25
	12/05/2001	SSPL VOCs	960	6J	5J	<25
	01/30/2002	SSPL VOCs	250	250	10	<6
	04/04/2002	SSPL VOCs	670	13J	4J	<25
	09/16/2002	SSPL VOCs	610	6J	6J	<25
	03/27/2003	SSPL VOCs	620	7J	11J	<14
	09/17/2003	SSPL VOCs	990	13J	24	<21
	04/07/2004	SSPL VOCs	760	9.7J	24J	<31
	09/24/2004	SSPL VOCs	1,110	14	24	<36
	09/28/2005	SSPL VOCs	770	10	21	<2
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	250D	5.8J	12	<10
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	630D	9.2J	16	<13
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	470	8.4J	14	<13
	04/03/2007	SSPL VOCs	160	140	130	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	390D	6.0J	8.7J	<25.0
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	390D	7.3	9.2	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	400D	7.8	10	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	170D	<5.0	4.0 J	<5.0
	09/22/2009	SSPL VOCs	530	8.2 J	8.5 J	<25
	03/17/2010	SSPL VOCs	450	6.5 J	8.2 J	<13
	12/20/2011	SSPL VOCs	43	44	63.9 J	0.82 J
	03/15/2012	SSPL VOCs	360 D	6.5 DJ	4.8 DJ	<25
	06/20/2012	SSPL VOCs	350	6.5 J	4.4 J	<13
	09/21/2012	SSPL VOCs	400	6.0 J	4.5 J	<13
	12/19/2012	SSPL VOCs	360	6.3 J	5.1 J	< 13
	03/15/2013	SSPL VOCs	370	5.9 J	4.6 J	<13
	09/04/2013	SSPL VOCs	350	5.4 J	3.3 J	<13
	03/20/2014	SSPL VOCs	300	5.3 J	2.5 J	<13
	09/19/2014	SSPL VOCs	240	3.0 J	1.4 J	<13
MW-26	02/05/1999	SSPL VOCs	200	6J	<50	NA
	03/10/1999	SSPL VOCs	150	4.1J	8.9	NA
	09/24/2001	SSPL VOCs	94	5.0	5.0	<5.0
	09/13/2002	SSPL VOCs	11	1.0	0.9	<0.5
	03/06/2006	SSPL VOCs	1.6J	<5.0	<5	<5.0
	03/12/2010	SSPL VOCs	65	4.5 J	5.3	<5.0
	12/29/2012	SSPL VOCs	49	4.8 J	5.9	< 5.0
	09/19/2014	SSPL VOCs	38	3.5 J	4.0 J	<5.0
MW-27	02/03/1999	SSPL VOCs	73	2.5J	5.3	NA
	03/11/1999	SSPL VOCs	100	2.6J	<5	NA
	09/26/2001	SSPL VOCs	56	5.0	6.0	<2.5
	09/13/2002	SSPL VOCs	29	11	10	<1.0
	03/15/2010	SSPL VOCs	72	3.4 J	1.2 J	<5.0
MW-28	02/03/1999	SSPL VOCs	1,200	10J	<5	NA
	03/17/1999	SSPL VOCs	< 5	10J	14J	NA
	09/25/2001	SSPL VOCs	70	1J	3J	<3.6
	12/05/2001	SSPL VOCs	440	5J	10J	<17
	01/30/2002	SSPL VOCs	550	9J	8J	<18
	04/04/2002	SSPL VOCs	930	12J	17J	<31
	09/16/2002	SSPL VOCs	44	39	85	<3
	03/27/2003	SSPL VOCs	140	170	290	<13
	09/17/2003	SSPL VOCs	100	58	89	<3.1
	04/07/2004	SSPL VOCs	110	54	72	<3.6
	09/24/2004	SSPL VOCs	240	2.6	4.6	<8.3
	09/29/2005	SSPL VOCs	6.8	7.4	30	<2
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	160	62	120	<5
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	200D	56	68	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	48	22	39	0.44J
	04/03/2007	SSPL VOCs	480D	7.6J	11	<10
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	410	78	71.5J	<13
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	180	98	97.1J	< 5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	160	57	68.2J	< 5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	280	130	85.8J	<10
	09/25/2009	SSPL VOCs	18	20	37.9J	< 5.0
	03/15/2010	SSPL VOCs	270	110	66	<13
	12/20/2011	SSPL VOCs	340	5.5 J	4.3	<13
	03/15/2012	SSPL VOCs	52	49	58.5 J	0.55 J
	06/20/2012	SSPL VOCs	47	48	57.4 J	0.58 J
	09/21/2012	SSPL VOCs	180	77	57.2 J	0.32 J
	12/19/2012	SSPL VOCs	190	64	41.8 J	< 5.0
	03/15/2013	SSPL VOCs	170	60	49.4 J	0.41 J
	09/04/2013	SSPL VOCs	110	53	53.3 J	0.42 J
	03/20/2014	SSPL VOCs	43	50	57.4 J	<5.0
	09/19/2014	SSPL VOCs	36	27	26.65 J	<5.0
MW-29	02/03/1999	SSPL VOCs	<5	<5	15J	ND
	03/12/1999	SSPL VOCs	<5	<5	< 5	ND
	09/19/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/13/2002	SSPL VOCs	0.1J	<0.5	<0.5	<0.5
	03/19/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/27/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/25/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0

See notes on last page

Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MW-30	03/19/1999	SSPL VOCs	<5	0.8 J	<5	ND
	04/23/1999	SSPL VOCs	<5	0.97 J	<5	ND
	09/26/2001	SSPL VOCs	<0.5	1	0.6	<0.5
	12/05/2001	SSPL VOCs	2	0.4J	0.4J	<0.5
	01/29/2002	SSPL VOCs	0.07J	0.7	0.5	<0.5
	04/04/2002	SSPL VOCs	0.06J	0.6	0.5	<0.5
	09/17/2002	SSPL VOCs	0.1J	0.6	0.5	<0.5
	03/26/2003	SSPL VOCs	0.3J	0.5J	0.4J	<0.5
	09/18/2003	SSPL VOCs	1.7	0.55J	0.49J	<0.5
	04/08/2004	SSPL VOCs	<0.5	0.36J	0.34J	<0.5
	09/24/2004	SSPL VOCs	<0.5	0.51	0.64	<0.5
	09/29/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006	SSPL VOCs	<5.0	0.58J	0.54J	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/21/2006	SSPL VOCs	<5.0	0.43J	0.60J	<5.0
	04/04/2007	SSPL VOCs	1.6J	0.78J	0.58J	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	8.5	0.71 J	0.64 J	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	12	1.0J	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	14	0.65J	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	24	0.89J	<5.0	<5.0
	09/23/2009	SSPL VOCs	18	0.73J	<5.0	<5.0
	03/17/2010	SSPL VOCs	7.5	<5.0	<5.0	<5.0
	12/21/2011	SSPL VOCs	<5.0	0.37 J	0.32 J	<5.0
	03/15/2012	SSPL VOCs	<5.0	< 5.0	<5.0	<5.0
	06/20/2012	SSPL VOCs	<5.0	0.35 J	0.30 J	<5.0
	09/20/2012	SSPL VOCs	<5.0	0.28 J	<5.0	<5.0
	12/20/2012	SSPL VOCs	<5.0	0.28 J	<5.0	<5.0
	09/24/2013	SSPL VOCs	<5.0	< 5.0	<5.0	<5.0
	09/19/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-31	03/18/1999	SSPL VOCs	1.3J	1.9 J	<5	ND
	04/22/1999	SSPL VOCs	<5	1.4 J	<5	ND
	09/26/2001	SSPL VOCs	1	3	1	<0.5
	12/05/2001	SSPL VOCs	0.7	1	0.8	<0.5
	01/31/2002	SSPL VOCs	1	2	1	0.07J
	04/04/2002	SSPL VOCs	1	2	1	<0.5
	09/16/2002	SSPL VOCs	0.7	2	2	<0.5
	03/27/2003	SSPL VOCs	0.9	1.0	2.0	<0.5
	09/18/2003	SSPL VOCs	0.26J	1.5	2..3	<0.5
	04/08/2004	SSPL VOCs	<0.5	0.56	1.3	<0.5
	09/24/2004	SSPL VOCs	<0.5	0.81	1.3	<0.5
	09/29/2005	SSPL VOCs	<1.0	<1.0	<2.0	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	<5.0	0.61 J	1.7 J	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	<5.0	0.56 J	1.4 J	<5.0
	04/04/2007	SSPL VOCs	<5.0	0.33 J	0.42 J	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	<5.0	0.33 J	1.20 J	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	0.75 J	0.67 J	1.1 J	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	<5.0	<5.0	0.97 J	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/18/2009	SSPL VOCs	<5.0	<5.0	1.1 J	<5.0
	09/22/2009	SSPL VOCs	<5.0	<5.0	0.98 J	<5.0
	03/16/2010	SSPL VOCs	<5.0	<5.0	0.73 J	<5.0
	12/28/2012	SSPL VOCs	<5.0	0.47 J	0.85 J	<5.0
	09/24/2013	SSPL VOCs	<5.0	0.33 J	0.42 J	<5.0
	11/18/2014	SSPL VOCs	<5.0 (<5.0)	0.38 J (0.39 J)	0.38 J (0.37 J)	<5.0 (<5.0)
MW-32	03/19/1999	SSPL VOCs	<5.0	<5.0	<5.0	ND
	04/22/1999	SSPL VOCs	<5.0	<5.0	<5.0	ND
	09/25/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	12/05/2001	SSPL VOCs	0.5J	<0.5	0.07J	<0.5
	01/29/2002	SSPL VOCs	<0.5	<0.5	0.2J	<0.5
	04/03/2002	SSPL VOCs	0.4J	0.07J	0.1J	<0.5
	09/13/2002	SSPL VOCs	0.2J	0.03J	<0.5	<0.5
	03/27/2003	SSPL VOCs	0.4J	0.2J	<0.5	<0.5
	09/17/2003	SSPL VOCs	0.33J	0.031J	0.15J	<0.5
	04/07/2004	SSPL VOCs	0.39J	<0.5	<0.5	<0.5
	09/24/2004	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/29/2005	SSPL VOCs	<1.0	<1.0	<2.0	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	<5.0	<5.0	0.32J	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	0.43 J	<5.0	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	1.2 J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	<10	<10	<10	<10
	10/03/2008			Phase III ISCO Field Test		
	03/18/2009	SSPL VOCs	<5.0	<5.0	0.53 J	<5.0
	09/22/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/12/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/28/2012	SSPL VOCs	< 5.0	< 5.0	0.38 J	< 5.0
MW-33	03/18/1999	SSPL VOCs	37	1.1 J	< 5	ND
	04/22/1999	SSPL VOCs	27	0.74 J	< 5	ND
	09/26/2001	SSPL VOCs	13	0.6	0.8	<0.5
	09/13/2002	SSPL VOCs	6	0.8	0.2 J	<0.05
	03/15/2010	SSPL VOCs	0.91 J	<5.0	<5.0	<5.0
	09/24/2013	SSPL VOCs	1.8 J	<5.0	<5.0	<5.0
	09/20/2014	SSPL VOCs	2.3 J	0.56 J	<5.0	<5.0
MW-34	04/21/1999	SSPL VOCs	<5	<5	<5	ND
	09/25/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	12/05/2001	SSPL VOCs	0.05J	<0.5	<0.5	<0.5
	01/30/2002	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	04/04/2002	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
	09/16/2002	SSPL VOCs	0.2J	0.05J	<0.5	<0.5
	03/27/2003	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
	09/17/2003	SSPL VOCs	0.68	0.086J	0.076J	<0.5
	04/07/2004	SSPL VOCs	0.31J	<0.5	<0.5	<0.5
	09/24/2004	SSPL VOCs	0.39J	<0.5	<0.5	<0.5
	09/29/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/22/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/15/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0

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Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MW-35	04/21/1999	SSPL VOCs	<5	<5	<5	ND
	09/25/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	12/05/2001	SSPL VOCs	0.04J	<0.5	0.04J	<0.5
	01/29/2002	SSPL VOCs	<0.5	<0.5	0.09J	<0.5
	04/03/2002	SSPL VOCs	<0.5	<0.5	0.1J	<0.5
	09/16/2002	SSPL VOCs	0.08J	<0.5	<0.5	<0.5
	03/27/2003	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
	09/17/2003	SSPL VOCs	0.17J	<0.5	0.12J	<0.5
	04/07/2004	SSPL VOCs	0.18J	<0.5	1.1	<0.5
	09/24/2004	SSPL VOCs	0.37J	<0.5	<0.5	<0.5
	09/29/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	<2.4	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	0.72J	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	1.5J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/18/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/22/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/12/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MW-36	04/21/1999	SSPL VOCs	<5.0	<5.0	0.97 J	
	09/26/2001	SSPL VOCs	<0.5	<0.5	0.5	<0.5
	09/13/2002	SSPL VOCs	0.07J	<0.5	0.3J	<0.5
	03/16/2010	SSPL VOCs	<13	<13	<13	<13
MW-37	09/28/2001	SSPL VOCs	24	0.7	<0.5	<0.5
	12/05/2001	SSPL VOCs	43	0.9J	0.2J	<2
	01/29/2002	SSPL VOCs	30	1	<0.8	<0.8
	04/03/2002	SSPL VOCs	44	1J	<1	<1
	09/17/2002	SSPL VOCs	16	0.8	0.07J	<0.05
	03/25/2003	SSPL VOCs	40	1	<0.5	<0.5
	09/18/2003	SSPL VOCs	18	0.98	0.026J	<0.5
	04/08/2004	SSPL VOCs	41	1.6	<0.5	<0.5
	09/24/2004	SSPL VOCs	18	0.85	<0.5	<0.5
	09/29/2005	SSPL VOCs	11	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006	SSPL VOCs	15	0.87J	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/21/2006	SSPL VOCs	14	0.92J	<5.0	<5.0
	04/04/2007	SSPL VOCs	36	1.2J	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	19	1.2J	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	0.34J	0.34J	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	0.99J	0.75J	0.85J	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/23/2009	SSPL VOCs	4.1J	<5.0	<5.0	<5.0
	03/16/2010	SSPL VOCs	<13	<13	<13	<13
	09/24/2013	SSPL VOCs	18	0.78 J	<5.0	<5.0
	09/19/2014	SSPL VOCs	8.0	0.38 J	<5.0	<5.0
MW-38	09/28/2001	SSPL VOCs	140	10	10	<6.3
	12/04/2001	SSPL VOCs	330	21	23	<10
	01/29/2002	SSPL VOCs	400	28	19	<8
	04/03/2002	SSPL VOCs	320	21	18	<8
	09/11/2002	SSPL VOCs	350	40	20	<13
	03/26/2003	SSPL VOCs	290	24	15	<13
	09/17/2003	SSPL VOCs	300	23	16	<9.6
	04/07/2004	SSPL VOCs	310	27	16	<13
	09/24/2004	SSPL VOCs	300	20	13	<10
	09/29/2005	SSPL VOCs	330	26	17	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	6.3	<5.0	<5.0	<5.0
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	290	21	9.5J	<10
	04/03/2007	SSPL VOCs	240	19	10J	<10
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	250	20	10	<10
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	180	15	7.8	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	270D	19	8.6	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	6.1	0.69J	<5.0	<5.0
	09/23/2009	SSPL VOCs	250D	20	6.7	<5.0
	03/17/2010	SSPL VOCs	190	13	4.4 J	<5.0
MP-1	03/18/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MP-2	01/28/2002	SSPL VOCs	350	10J	22	<16
	04/02/2002	SSPL VOCs	290	4J	9	<8
	03/25/2003	SSPL VOCs	16	0.3J	0.6	<0.5
	04/08/2004	SSPL VOCs	21	0.49J	0.75J	<0.8
	09/24/2004	SSPL VOCs	30	0.71	0.62	<1.0
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006			Phase II ISCO Field Test		
	04/03/2007	SSPL VOCs	3.5J	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	11/27/2007			Phase III ISCO Field Test		
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/03/2008			Phase III ISCO Field Test		
	03/18/2010	SSPL VOCs	10	<5.0	<5.0	<5.0
	12/21/2012	SSPL VOCs	2.5 J	< 5.0	< 5.0	< 5.0
MP-3D	09/28/2001	SSPL VOCs	1	<0.5	<0.5	<0.5
	12/03/2001	SSPL VOCs	0.1J	0.03J	0.06J	<0.5
	01/28/2002	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
	04/02/2002	SSPL VOCs	0.03J	<0.5	<0.5	<0.5
	09/10/2002	SSPL VOCs	<0.5	<0.5	0.02J	<0.5
	03/25/2003	SSPL VOCs	0.2J	0.06J	0.4J	<0.5
	09/17/2003	SSPL VOCs	1.1	0.062J	0.2J	<0.5
	04/08/2004	SSPL VOCs	0.44J	<0.5	0.94	1.5
	09/24/2004	SSPL VOCs	2.6	<0.5	0.96	<0.5
	09/28/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/03/2006	SSPL VOCs	3.1J	<5.0	<5.0	0.58J
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	0.41J	<5.0	<5.0	0.86J
	04/30/2007	SSPL VOCs	0.46J	<5.0	0.45J	2.0J
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	0.4 J	<5.0	<5.0	1.2 J
	11/27/2007			Phase III ISCO Field Test		
	03/26/2008	SSPL VOCs	<5.0	<5.0	<5.0	0.98J
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/02/2008	SSPL VOCs	<50	<50	<50	<50
	10/03/2008			Phase III ISCO Field Test		
	03/18/2009	SSPL VOCs	<5.0	<5.0	<5.0	0.81J
	09/24/2009	SSPL VOCs	<5.1	<5.0	<5.0	0.72J
	03/18/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/23/2013	SSPL VOCs	< 5.0	< 5.0	1.2 J	0.40 J
	09/18/2014	SSPL VOCs	< 5.0	< 5.0	0.85 J	< 5.0

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Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MP-4	09/27/2001	SSPL VOCs	7,700	<250	<250	<250
	12/04/2001	SSPL VOCs	1,100	4J	3J	<25
	01/29/2002	SSPL VOCs	9,300	47J	<310	<310
	04/02/2002	SSPL VOCs	7,500	82J	13J	<250
	09/11/2002	SSPL VOCs	7,800	23J	<250	<250
	03/25/2003	SSPL VOCs	5,600	<160	<160	<160
	09/17/2003	SSPL VOCs	2,900	22J	10J	<130
	04/08/2004	SSPL VOCs	8,100	4.6J	1.3J	<250
	09/24/2004	SSPL VOCs	9,900	<250	<250	<250
	09/28/2005	SSPL VOCs	6,200	6.1	2.2	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	13,000D	<250	<250	<250
	03/08/2006			Phase II ISCO Field Test		
	04/03/2006	SSPL VOCs	11,000D	<250	<250	<250
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	7,900	<250	<250	<250
	04/03/2007	SSPL VOCs	7,000	<250	<250	<250
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	17,000D	<500	<500	<500
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	3,600	<130	<130	<130
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	9,100 D	<250	<250	<250
	10/03/2008			Phase III ISCO Field Test		
	03/18/2009	SSPL VOCs	9,100	<250	<250	<250
	09/22/2009	SSPL VOCs	17,000D	<100	<100	<100
	03/16/2010	SSPL VOCs	9,700	<250	<250	<250
	02/19/2011	SSPL VOCs	11,000	32	<500	<500
	02/15/2012	SSPL VOCs	6,500	<250	<250	<250
	04/18/2012	SSPL VOCs	6,600	<250	<250	<250
	06/19/2012	SSPL VOCs	8,200	<250	<250	<250
	09/19/2012	SSPL VOCs	11000 D	<500	<500	<500
	12/20/2012	SSPL VOCs	7,700	<250	<250	<250
	03/14/2013	SSPL VOCs	8,600	<250	<250	<250
	09/04/2013	SSPL VOCs	13000D	26 DJ	<500	<500
	03/19/2014	SSPL VOCs	11,000	<500	<500	<500
	09/17/2014	SSPL VOCs	12,000	<500	<500	<500
MP-5	09/27/2001	SSPL VOCs	1,500	<50	<50	<50
	12/04/2001	SSPL VOCs	410	0.8J	1J	<13
	01/29/2002	SSPL VOCs	1,100	4J	11J	<42
	04/02/2002	SSPL VOCs	1,300	100	130	<42
	09/11/2002	SSPL VOCs	1,300	150	150	<36
	03/25/2003	SSPL VOCs	1,200	33	110	<36
	09/17/2003	SSPL VOCs	1,100	33	87	<42
	04/08/2004	SSPL VOCs	1,700	28J	120	<63
	09/24/2004	SSPL VOCs	710	16	67	<31
	5/10 to 6/14/2005			Phase I ISCO Field Test		
	09/28/2005	SSPL VOCs	510	19	95	8.6
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	<10	<10	<10	<10
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006	SSPL VOCs	130	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	830D	33	85	7.9
	04/03/2007	SSPL VOCs	710D	27	98	20
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	880	23.0J	102J	1.6J
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	530	24 J	76	17 J
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	NS	NS	NS	NS
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	720D	13	53	17
	09/24/2009	SSPL VOCs	560	28	66	23J
	03/17/2010	SSPL VOCs	860	28	31	6.7 J
	12/19/2011	SSPL VOCs	1100 D	42	38	13 J
	02/16/2012	SSPL VOCs	830 D	29 DJ	27 DJ	8.5 DJ
	04/18/2012	SSPL VOCs	730	32	33	11 J
	06/19/2012	SSPL VOCs	950	42	29	6.6 J
	09/20/2012	SSPL VOCs	750	31	23 J	3.9 J
	12/20/2012	SSPL VOCs	620	25	15 J	2.0 J
	03/14/2013	SSPL VOCs	920	28	19 J	3.0 J
	09/03/2013	SSPL VOCs	970	36	23 J	4.1 J
	03/19/2014	SSPL VOCs	940 (940)	33 J (33)	20 J (20 J)	4.7 J (5.1 J)
	09/17/2014	SSPL VOCs	890	32	14 J	1.7 J
MP-6S	09/24/2001	SSPL VOCs	120	<5	<5	<5
	12/04/2001	SSPL VOCs	37	<2	0.2J	<2
	01/29/2002	SSPL VOCs	890	50J	9J	<31
	04/03/2002	SSPL VOCs	2,100	39J	100	<84
	09/12/2002	SSPL VOCs	150	6	16	<4
	03/26/2003	SSPL VOCs	1,900	46	110	<63
	09/17/2003	SSPL VOCs	1,500	48	130	<63
	04/07/2004	SSPL VOCs	3,200	43J	110	<83
	09/24/2004	SSPL VOCs	2,400	34	63	<100
	5/10 to 6/14/2005			Phase I ISCO Field Test		
	09/28/2005	SSPL VOCs	2,700	26	34	<2
	02/01/2006			Phase II ISCO Field Test		
	03/06/2006	SSPL VOCs	1,200D	10J	11J	<25
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006	SSPL VOCs	1,800	<50	<50	<50
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	2,100D	20J	15J	<50
	04/03/2007	SSPL VOCs	1,300	<50	<50	<50
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	2,300D	18J	15J	<100
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	NS	NS	NS	NS
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	2,200	11J	9.4J	<100
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	NS	NS	NS	NS
	09/23/2009	SSPL VOCs	1,000	7.2J	6.5J	<50
	03/17/2010	SSPL VOCs	1,100	<50	<50	<50
	12/19/2011	SSPL VOCs	1500 (1000)	8.0 J (6.3 J)	5.4 J (4.7 J)	< 50 (<50)
	02/16/2012	SSPL VOCs	1,200	7.8 J	5.5 J	<50
	04/18/2012	SSPL VOCs	980	5.9 J	5.1 J	<50
	06/19/2012	SSPL VOCs	970	6.1 J	3.6 J	<50
	09/19/2012	SSPL VOCs	920	6.5 J	4.8 J	<25
	12/20/2012	SSPL VOCs	420	4.2 J	3.0 J	< 13
	03/14/2013	SSPL VOCs	750 D	4.5 DJ	3.2 DJ	<25
	09/03/2013	SSPL VOCs	590	2.2 J	<25	<25
	03/19/2014	SSPL VOCs	470	2.7 J	1.4 J	<13
	09/17/2014	SSPL VOCs	450	3.4 J	1.8 J	<13

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Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MP-6D	09/24/2001	SSPL VOCs	2	<0.5	<0.5	<0.5
	12/04/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	01/29/2002	SSPL VOCs	1	0.3J	<0.5	<0.5
	04/03/2002	SSPL VOCs	0.6	<0.5	<0.5	<0.5
	09/12/2002	SSPL VOCs	14	0.06J	<0.5	<0.5
	03/26/2003	SSPL VOCs	0.4J	<0.5	<0.5	<0.5
	09/18/2003	SSPL VOCs	0.81	<0.5	<0.5	<0.5
	04/07/2004	SSPL VOCs	1.3	<0.5	<0.5	<0.5
	09/24/2004	SSPL VOCs	1.1	<0.5	<0.5	<0.5
	5/10 to 6/14/2005			Phase I ISCO Field Test		
	09/28/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/05/2006	SSPL VOCs	0.62J	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/20/2006	SSPL VOCs	0.38J	<5.0	<5.0	<5.0
	04/03/2007	SSPL VOCs	1.2J	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	5.4	<5.0	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/25/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	1.5J	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/19/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/23/2009	SSPL VOCs	140	<5.0	<5.0	<5.0
	03/17/2010	SSPL VOCs	<13	<13	<13	<13
	12/19/2011	SSPL VOCs	0.28 J	<5.0	<5.0	<5.0
	02/16/2012	SSPL VOCs	15	<5.0	<5.0	<5.0
	04/18/2012	SSPL VOCs	< 5.0	< 5.0	< 5.0	< 5.0
	06/19/2012	SSPL VOCs	< 5.0	< 5.0	< 5.0	< 5.0
	09/20/2012	SSPL VOCs	< 5.0	< 5.0	< 5.0	< 5.0
	12/21/2012	SSPL VOCs	< 5.0	< 5.0	< 5.0	< 5.0
	03/14/2013	SSPL VOCs	< 5.0	< 5.0	< 5.0	< 5.0
	09/05/2013	SSPL VOCs	1.3 J	< 5.0	< 5.0	< 5.0
	03/20/2014	SSPL VOCs	0.37 J	<5.0	<5.0	<5.0
	09/17/2014	SSPL VOCs	1.4 J	<5.0	<5.0	<5.0
MP-7	12/06/2001	SSPL VOCs	25	0.5J	2.0	<1.0
	01/31/2002	SSPL VOCs	0.3J	<0.5	<0.5	<0.5
	04/05/2002	SSPL VOCs	0.2J	<0.5	<0.5	<0.5
MP-8S	09/27/2001	SSPL VOCs	150	2.0 J	6.0	0.2J
	12/04/2001	SSPL VOCs	10	1.0	2.0	<0.5
	01/30/2002	SSPL VOCs	100	3.0 J	6.0 J	<3
	04/04/2002	SSPL VOCs	260	7.0 J	12	<8
	09/17/2002	SSPL VOCs	0.02J	<0.5	<0.5	<0.5
	03/26/2003	SSPL VOCs	110	8.0	5.0	<0.5
	09/18/2003	SSPL VOCs	17	6.7	8.4	<0.5
	04/09/2004	SSPL VOCs	72	36	16	<2.8
	09/22/2004	SSPL VOCs	76	22	7.8	<2.8
	09/29/2005	SSPL VOCs	1.6	8.8	16	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	3.0J	12	17	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/21/2006	SSPL VOCs	1.2J	4.2J	6.8	<5.0
	04/04/2007	SSPL VOCs	2.9J	11	15	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	5.5	6.0	14.4 J	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	1.0 J	4.7 J	8.08 J	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	1.6 J	19	43.1J	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	1.1 J	15	27	0.83 J
	09/23/2009	SSPL VOCs	NS	NS	NS	NS
	03/15/2010	SSPL VOCs	13	36	75.6	1.5 J
	12/20/2011	SSPL VOCs	49	51	88.5	1.9 J
	03/16/2012	SSPL VOCs	31	34	69.6	1.5 J
	06/20/2012	SSPL VOCs	31	58	91.6	1.7 J
	09/21/2012	SSPL VOCs	64	63	102	1.7 J
	12/19/2012	SSPL VOCs	51	59	86.3	1.8 J
	03/15/2013	SSPL VOCs	68	61	94.9	1.9 J
	09/04/2013	SSPL VOCs	68	61	92.3	1.2 J
	09/19/2014	SSPL VOCs	65	59	87.3	0.84 J
MP-8D	09/27/2001	SSPL VOCs	2	<0.5	<0.5	<0.5
	12/04/2001	SSPL VOCs	26	0.6J	0.3J	<0.8
	01/30/2002	SSPL VOCs	0.3J	0.03J	<0.5	<0.5
	04/04/2002	SSPL VOCs	0.2J	0.04J	<0.5	<0.5
	09/17/2002	SSPL VOCs	1.0	<0.5	<0.5	<0.5
	03/26/2003	SSPL VOCs	0.7	<0.5	<0.5	<0.5
	09/18/2003	SSPL VOCs	3.2	0.067J	<0.5	<0.5
	04/09/2004	SSPL VOCs	1.6	<0.5	<0.5	<0.5
	09/22/2004	SSPL VOCs	0.8	<0.5	<0.5	<0.5
	09/29/2005	SSPL VOCs	1.5	<1.0	<2.0	<2.0
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/21/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/04/2007	SSPL VOCs	1.6 J	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	12	0.3 J	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	1.9J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	09/30/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/24/2009	SSPL VOCs	8.1	8.6	19.7J	<5.0
	03/15/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/20/2011	SSPL VOCs	0.45 J	< 5.0	< 5.0	< 5.0
	03/16/2012	SSPL VOCs	<5.0	< 5.0	< 5.0	< 5.0
	06/20/2012	SSPL VOCs	<5.0	< 5.0	< 5.0	< 5.0
	09/21/2012	SSPL VOCs	<5.0	< 5.0	< 5.0	< 5.0
	12/19/2012	SSPL VOCs	0.89	< 5.0	< 5.0	< 5.0
	09/23/2013	SSPL VOCs	<5.0	< 5.0	< 5.0	< 5.0
	09/19/2014	SSPL VOCs	<5.0	< 5.0	< 5.0	< 5.0
MP-9	12/06/2001	SSPL VOCs	18	0.3J	2	<0.8
	01/31/2002	SSPL VOCs	5	0.2J	0.7	<0.5
	04/05/2002	SSPL VOCs	3	0.1J	0.7	<0.5
MP-10S	12/06/2001	SSPL VOCs	1	<0.5	0.05J	<0.5
	01/30/2002	SSPL VOCs	1	0.03J	0.03J	<0.5
	04/04/2002	SSPL VOCs	0.8	<0.5	0.06J	<0.5
	09/17/2002	SSPL VOCs	0.4J	<0.5	<0.5	<0.5
	03/27/2003	SSPL VOCs	<0.5	<0.5	<0.5	<0.5

See notes on last page

Table 4 Historical Groundwater Analytical Results - Volatile Organic Compounds, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Sampling Date	Method	PCE (µg/L)	TCE (µg/L)	1,2-DCE Total (µg/L)	Vinyl Chloride (µg/L)
MP-10D	09/27/2001	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	12/06/2002	SSPL VOCs	0.07J	<0.5	<0.5	<0.5
	01/30/2002	SSPL VOCs	0.1J	<0.5	<0.5	<0.5
	04/04/2002	SSPL VOCs	0.3J	0.04J	<0.5	<0.5
	09/17/2002	SSPL VOCs	0.3J	<0.5	<0.5	<0.5
	03/27/2003	SSPL VOCs	0.5	<0.5	<0.5	<0.5
	09/18/2003	SSPL VOCs	1.8	<0.5	<0.5	<0.5
	04/09/2004	SSPL VOCs	<0.5	<0.5	<0.5	<0.5
	09/22/2004	SSPL VOCs	0.83	<0.5	<0.5	<0.5
	09/29/2005	SSPL VOCs	<1	<1	<2	<2
	02/01/2006			Phase II ISCO Field Test		
	03/08/2006			Phase II ISCO Field Test		
	04/04/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/05/2006			Phase II ISCO Field Test		
	09/21/2006	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	04/04/2007	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	06/13/2007			Phase III ISCO Field Test		
	08/29/2007			Phase III ISCO Field Test		
	10/16/2007	SSPL VOCs	2.5J	<5.0	<5.0	<5.0
	11/27/2007			Phase III ISCO Field Test		
	03/27/2008	SSPL VOCs	2.5J	<5.0	<5.0	<5.0
	04/01/2008			Phase III ISCO Field Test		
	07/24/2008			Phase III ISCO Field Test		
	10/01/2008	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	10/03/2008			Phase III ISCO Field Test		
	03/17/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/25/2009	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/15/2010	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/20/2011	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/15/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	06/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/21/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/19/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/23/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
MP-11	10/28/2011	SSPL VOCs	11	0.28 J	5.4	9.2
	12/19/2011	SSPL VOCs	25	0.36 J	15	18
	02/15/2012	SSPL VOCs	32	0.36 J	24	22
	04/19/2012	SSPL VOCs	41	0.34 J	30	32
	06/21/2012	SSPL VOCs	52	0.49 J	23 J	31
	09/19/2012	SSPL VOCs	86	0.99 J	38	32
	12/18/2012	SSPL VOCs	110	1.0 J	50.35 J	44
	03/13/2013	SSPL VOCs	170	1.4 J	52.36 J	23
	09/04/2013	SSPL VOCs	200 D	1.8 DJ	43.80 DJ	26 D
	03/18/2014	SSPL VOCs	220	1.6 J	34	17
	09/17/2014	SSPL VOCs	3.1 J	<5.0	<5.0	<5.0
MP-12	10/28/2011	SSPL VOCs	78	4.4 J	4.5 J	< 5.0
	12/20/2011	SSPL VOCs	77	3.9 J	4.5 J	< 5.0
	02/15/2012	SSPL VOCs	51	2.8 J	2.7 J	< 5.0
	04/19/2012	SSPL VOCs	36	2.1 J	2.2J	< 5.0
	06/19/2012	SSPL VOCs	28	1.6 J	1.4 J	< 5.0
	09/19/2012	SSPL VOCs	79	3.7 J	2.9 J	< 5.0
	12/18/2012	SSPL VOCs	48	2.7 J	2.5 J	< 5.0
	03/14/2013	SSPL VOCs	34	1.8 J	2.0 J	<5.0
	09/04/2013	SSPL VOCs	49	2.7 J	2.2 J	<5.0
	03/18/2014	SSPL VOCs	27	1.4 J	1.9 J	<5.0
	09/18/2014	SSPL VOCs	31	1.2 J	1.1 J	<5.0
MP-13	10/28/2011	SSPL VOCs	< 5.0	1.2 J	< 5.0	< 5.0
	12/19/2011	SSPL VOCs	1.2 J	0.9 J	< 5.0	< 5.0
	02/15/2011	SSPL VOCs	3.7 J	0.50 J	< 5.0	< 5.0
	04/18/2012	SSPL VOCs	0.82 J	0.38 J	< 5.0	< 5.0
	06/19/2012	SSPL VOCs	0.6 J	0.51 J	< 5.0	< 5.0
	09/20/2012	SSPL VOCs	0.51 J	<5.0	< 5.0	<5.0
	12/21/2012	SSPL VOCs	0.61 J	0.41 J	< 5.0	< 5.0
	09/25/2013	SSPL VOCs	< 5.0	0.32 J	< 5.0	< 5.0
	09/17/2014	SSPL VOCs	<5.0	0.33 J	<5.0	<5.0
MP-14	10/31/2011	SSPL VOCs	30	1.6 J	0.98 J	< 5.0
	12/21/2011	SSPL VOCs	37	2.0 J	1.1 J	< 5.0
	02/15/2012	SSPL VOCs	29	1.7 J	1.3 J	<5.0
	04/19/2012	SSPL VOCs	25	1.2 J	1.1 J	<5.0
	06/20/2012	SSPL VOCs	30	1.6 J	1.2 J	<5.0
	09/20/2012	SSPL VOCs	30	1.6 J	1.1 J	<5.0
	12/18/2012	SSPL VOCs	27	1.5 J	1.2 J	< 5.0
	03/14/2013	SSPL VOCs	32	1.6 J	1.6 J	<5.0
	09/05/2013	SSPL VOCs	32	1.5 J	1.2 J	< 5.0
	03/19/2014	SSPL VOCs	37	1.9 J	1.9 J	<5.0
	09/18/2014	SSPL VOCs	45	1.9 J	1.2 J	<5.0
IJ-1	01/30/2006	SSPL VOCs	<50	<50	<50	<50
	12/20/2011	SSPL VOCs	180	1.6 J	1 J	<5
	02/14/2012	SSPL VOCs	180D	2.0 DJ	1.2 DJ	<10
	04/18/2012	SSPL VOCs	<10	<10	<10	<10
	06/21/2012	SSPL VOCs	< 5.0	< 5.0	< 5.0	< 5.0
	09/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/03/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/17/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
IJ-2	01/30/2006	SSPL VOCs	15J	<25	<25	<25
IJ-3	01/30/2006	SSPL VOCs	10	3.5J	<10	<10
IJ-4	01/30/2006	SSPL VOCs	6,700	40J	55J	<250
	12/21/2011	SSPL VOCs	7,300	100 J	200 J	<250
	02/15/2012	SSPL VOCs	7,200	120 J	240 J	<250
	04/18/2012	SSPL VOCs	<10	<10	<10	<10
	06/21/2012	SSPL VOCs	1200 D	4.0 J	2.8 J	<10
	09/19/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/14/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/04/2013	SSPL VOCs	<10	<10	<10	<10
	03/18/2014	SSPL VOCs	190	0.39 J	0.34 J	<5.0
	09/17/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
IJ-5	01/30/2006	SSPL VOCs	<5	6.7	8.5	<5
	12/21/2011	SSPL VOCs	0.90 J	<5.0	<5.0	<5.0
	02/15/2012	SSPL VOCs	0.44 J	<5.0	<5.0	<5.0
	04/19/2012	SSPL VOCs	< 5.0	<5.0	<5.0	<5.0
	06/20/2012	SSPL VOCs	0.22 J	<5.0	<5.0	<5.0
	09/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/18/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/15/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/05/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/19/2014	SSPL VOCs	0.32 J	<5.0	<5.0	<5.0
	09/18/2014	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
IJ-6	01/30/2006	SSPL VOCs	390	4J	9.7J	<13
IJ-10	10/28/2011	SSPL VOCs	200	150	380.7 J	1.1 J
	12/20/2011	SSPL VOCs	310	110	302.5 J	2.0 J
	02/14/2012	SSPL VOCs	230	88	364.1 J	3.0 J
	04/18/2012	SSPL VOCs	<13	<13	<13	<13
	06/21/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	12/20/2012	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	03/14/2013	SSPL VOCs	<5.0	<5.0	<5.0	<5.0
	09/03/2013	SSPL VOCs	2.0 J	<5.0	<5.0	<5.0
	03/19/2014	SSPL VOCs	0.92 J	<5.0	<5.0	<5.0
	09/17/2014	SSPL VOCs	1.5 J	<5.0	<5.0	<5.0

Notes:

= Baseline sample before full-scale ISCO system initiation

J = Estimated concentration.

D = Dilution

1,2 DCE = cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

PCE = Tetrachloroethene

TCE = Trichloroethene

NS = Not Sampled

µg/L = micrograms per kilogram

SSPL VOCs VOCs = Site specific parameter list volatile organic compounds

( ) = Data in parentheses indicate duplicate result

Table 5 2014 Groundwater Monitoring Matrix, Former Dover Electronics Site, Kirkwood, New York

Monitoring Well ID	Water Bearing Unit	Well Included in Quarterly Field Parameter Collection Program	Well Included in Semi-Annual Sampling Program (March)	Well Included in Annual Sampling Program (Sept.) *
MW-2	Shallow			
MW-3	Shallow			
MW-5	Shallow			X
MW-6	Intermediate			X
MW-7A	Shallow	X	X	X
MW-8	Intermediate			
MW-9	Shallow			
MW-11	Intermediate			X
MW-12	Intermediate			
MW-13	Shallow			
MW-14	Intermediate			
MW-15	Shallow			
MW-16	Shallow	X	X	X
MW-17	Shallow			X
MW-18	Shallow			X
MW-19	Shallow			
MW-20	Shallow			
MW-21	Intermediate			
MW-22	Intermediate			
MW-23	Shallow			
MW-24	Shallow			
MW-25	Intermediate		X	X
MW-26	Intermediate			X
MW-27	Shallow			
MW-28	Shallow		X	X
MW-29	Shallow			
MW-30	Shallow			X
MW-31	Shallow			
MW-32	Shallow			
MW-33	Shallow			X
MW-34	Deep			
MW-35	Intermediate			
MW-36	Shallow			
MW-37	Intermediate			X
MW-38	Intermediate			X
MP-1	Shallow			
MP-2	Shallow			
MP-3D	Intermediate			X
MP-4	Shallow	X	X	X
MP-5	Shallow	X	X	X
MP-6S	Shallow	X	X	X
MP-6D	Intermediate	X	X	X
MP-7	Shallow			
MP-8S	Shallow			
MP-8D	Intermediate			X
MP-9	Shallow			
MP-10S	Shallow			
MP-10D	Intermediate			X
MP-11	Shallow	X	X	X
MP-12	Shallow	X	X	X
MP-13	Shallow	X		X
MP-14	Shallow	X	X	X
IJ-1	Shallow	X		X
IJ-2	Intermediate			
IJ-3	Intermediate			
IJ-4	Shallow	X	X	X
IJ-5	Shallow	X	X	X
IJ-6	Shallow-Intermediate			
IJ-7	Shallow			
IJ-8	Shallow			
IJ-9	Shallow			
IJ-10	Shallow	X	X	X

Notes:

X = Well is sampled according to the frequency noted at the top of the respective column.

* = The second semi-annual sampling event will be combined with the annual sampling event in September.

Table 6 Summary of SSPL VOC Groundwater Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location		MP-2		MP-3D			MP-4												
Sampling Date		3/18/2010	12/21/2012	3/18/2010	9/23/2013	9/18/2014 **	3/16/2010	12/19/2011	2/15/2012	4/18/2012	6/19/2012	9/19/2012	12/20/2012	3/14/2013	DUP-031413	9/4/2013	3/19/2014	9/17/2014	
Laboratory ID	NYSDEC	R1001332-048	R1208755-026	R1001332-051	R1207148-002	R1407413-014	R1001332-030	R1107129-004	R1201111-011	R1202511-007	R1203991-003	R1206380-003	R1208755-018	R1301745-008	R1301745-015	R1306560-008	R1402018-009	R1407413-005	
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Volatile Organic Compounds																			
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	250 U	500 U	250 U	250 U	250 U	500 U	500 U	500 U	
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	250 U	500 U	250 U	250 U	250 U	500 U	500 U	500 U	
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	1.2 J	0.85 J	250 U	500 U	250 U	250 U	250 U	500 U	250 U	250 U	250 U	500 U	500 U	500 U	
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	250 U	500 U	250 U	250 U	250 U	500 U	500 U	500 U	
Tetrachloroethene	5	**10.0**	2.5 J	5.0 U	5.0 U	5.0 U	**9500**	**11000**	**6500**	**6600**	**8200**	**11000** D	**7700**	**8600**	**9000**	**13000** D	**11000**	**12000**	
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	250 U	500 U	250 U	250 U	250 U	500 U	500 U	500 U	
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	**32** J	250 U	250 U	250 U	500 U	250 U	250 U	**12** J	**26** DJ	500 U	500 U	
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	0.40 J	5.0 U	250 U	500 U	250 U	250 U	250 U	500 U	250 U	250 U	250 U	500 U	500 U	500 U	

Sample Location		MP-5													MP-6D										
Sampling Date		3/17/2010	12/19/2011	2/16/2012	4/18/2012	6/19/2012	9/20/2012	9/20/2012	12/20/2012	3/14/2013	9/3/2013	3/19/2014	DUP-031914	9/17/2014	3/17/2010	12/19/2011	2/16/2012	4/18/2012	6/19/2012	9/20/2012	12/21/2012	3/14/2013	9/5/2013	3/20/2014	9/17/2014
Laboratory ID	NYSDEC	R1001332-036	R1107129-003	R1201111-015	R1202511-005	R1203991-002	R1206830-011	R1206380-019	R1208755-016	R1301745-006	R1306560-002	R1402018-012	R1402018-015	R1407413-003	R1001332-037	R1107129-002	R1201111-014	R1202511-003	R1203991-005	R1206380-009	R1208755-024	R1301745-012	R1306560-018	R1402018-019	R1407413-009
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																									
1,1-Dichloroethane	5	25 U	25 U	50 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	25 U	2.9 J	3.2 DJ	3.1 J	3.3 J	25 U	25 U	25 U	25 U	3.0 J	50 U	3.1 J	25 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	**31**	**38**	**27** DJ	**33**	**29**	**21** J	**23** J	**15** J	**19** J	**23** J	**20** J	**20** J	**14** J	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	25 U	25 U	50 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	**860**	**1100** D	**830** D	**730**	**950**	**710**	**750**	**620**	**920**	**970**	**940**	**940**	**890**	13 U	0.28 J	**15**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J	0.37 J	1.4 J
1,1,1-Trichloroethane	5	25 U	25 U	50 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	**28**	**42**	**29** DJ	**32**	**42**	**29**	**31**	**25**	**28**	**36**	**33** J	**33**	**32**	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	**6.7**	**13** J	**8.5** DJ	**11** J	**6.6** J	**3.0** J	**3.9** J	2.0 J	**3.0** J	**4.1** J	**4.7** J	**5.1** J	1.7 J	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sample Location		MP-6S													MP-8D									
Sampling Date		3/17/2010	12/19/2011	BD-121911	2/16/2012	4/18/2012	6/19/2012	9/19/2012	12/20/2012	3/14/2013	9/3/2013	3/19/2014	9/17/2014		3/15/2010	12/20/2011	3/16/2012	DUP-031612	6/20/2012	9/21/2012	12/19/2012	9/23/2013	9/19/2014	
Laboratory ID	NYSDEC	R1001332-038	R1107129-001	R1107129-008	R1201111-013	R1202511-002	R1203991-004	R1206380-005	R1208755-021	R1301745-010	R1306560-005	R1402018-014	R1407413-006		R1001332-022	R1107129-011	R1201757-007	R1201757-008	R1203991-017	R1206380-022	R1208755-007	R1307148-004	R1407413-030	
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Volatile Organic Compounds																								
1,1-Dichloroethane	5	50 U	50 U	50 U	50 U	50 U	50 U	25 U	13 U	25 U	25 U	13 U	13 U		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1-Dichloroethene	5	50 U	50 U	50 U	50 U	50 U	50 U	25 U	13 U	25 U	25 U	13 U	13 U		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
cis-1,2-Dichloroethene	5	50 U	**5.4** J	4.7 J	**5.5** J	**5.1** J	3.6 J	4.8 J	3.0 J	3.2 DJ	25 U	1.4 J	1.8 J		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
trans-1,2-Dichloroethene	5	50 U	50 U	50 U	50 U	50 U	50 U	25 U	13 U	25 U	25 U	13 U	13 U		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tetrachloroethene	5	**1100**	**1500**	**1000**	**1200**	**980**	**970**	**920**	**420**	**750** D	**590**	**470**	**450**		5.0 U	0.45 J	5.0 U	5.0 U	5.0 U	5.0 U	0.89 J	5.0 U	5.0 U	
1,1,1-Trichloroethane	5	50 U	50 U	50 U	50 U	50 U	50 U	25 U	13 U	25 U	25 U	13 U	13 U		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloroethene	5	50 U	**8.0** J	**6.3** J	**7.8** J	**5.9** J	**6.1** J	**6.5** J	4.2 J	4.5 DJ	2.2 J	2.7 J	3.4 J		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Vinyl Chloride	2	50 U	50 U	50 U	50 U	50 U	50 U	25 U	13 U	25 U	25 U	13 U	13 U		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	

Sample Location		MP-8S									MP-10D							
Sampling Date		3/15/2010	12/20/2011	3/16/2012	6/20/2012	9/21/2012	12/19/2012	3/15/2013	9/4/2013	9/19/2014	3/15/2010	12/20/2011	3/15/2012	6/20/2012	9/21/2012	12/19/2012	9/23/2013	
Laboratory ID	NYSDEC	R1001332-016	R1107129-012	R1201757-006	R1203991-014	R1206380-021	R1208755-010	R1301745-021	R1306560-012	R1407413-028	R1001332-017	R1107129-013	R1201757-005	R1203991-018	R1206380-025	R1208755-012	R1307148-003	
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Volatile Organic Compounds																		
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1-Dichloroethene	5	1.4 J	1.3 J	0.95 J	1.1 J	1.3 J	1.4 J	1.3 J	1.2 J	0.88 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
cis-1,2-Dichloroethene	5	**69**	**81**	**64**	**86**	**93**	**79**	**87**	**85**	**81**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
trans-1,2-Dichloroethene	5	**6.6**	**7.5**	**5.6**	**5.6**	**9.0**	**7.3**	**7.9**	**7.3**	**6.3**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tetrachloroethene	5	**13**	**49**	**31**	**31**	**64**	**51**	**68**	**68**	**65**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloroethene	5	**36**	**51**	**34**	**58**	**63**	**59**	**61**	**61**	**59**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Vinyl Chloride	2	1.50 J	1.9 J	1.5 J	1.7 J	1.7 J	1.8 J	1.9 J	1.2 J	0.84 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	

Sample Location		MP-11											MP-12											
Sampling Date		10/28/2011	12/19/2011	2/15/2012	4/19/2012	6/21/2012	9/19/2012	12/18/2012	3/13/2013	9/4/2013	3/18/2014	9/17/2014	10/28/2011	12/20/2011	2/15/2012	4/19/2012	6/19/2012	9/19/2012	12/18/2012	3/14/2013	9/4/2013	3/18/2014	9/18/2014	
Laboratory ID	NYSDEC	R1106103-002	R1107129-007	R1201111-005	R1202511-012	R1203991-023	R1206380-004	R1208755-001	R1301745-002	R1306560-013	R1402018-002	R1407413-010	R1106103-001	R1107129-016	R1201111-007	R1202511-014	R1203991-008	R1206380-002	R1208755-002	R1301745-011	R1306560-016	R1402018-005	R1407413-016	
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Volatile Organic Compounds																								
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1-Dichloroethene	5	5.0 U	5.0 U	0.29 J	5.0 U	0.31 J	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
cis-1,2-Dichloroethene	5	**5.4**	**15**	**24**	**30**	**29**	**38**	**50**	**52**	**43** D	**34**	5.0 U	4.5 J	4.5 J	2.7 J	2.2 J	1.4 J	2.9 J	2.5 J	2.0 J	2.2 J	1.9 J	1.1 J	
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	0.23 J	5.0 U	0.35 J	0.36 J	0.80 DJ	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tetrachloroethene	5	**11**	**25**	**32**	**41**	**52**	**86**	**110**	**170**	**200** D	**220**	3.1 J	**78**	**77**	**51**	**36**	**28**	**79**	**48**	**34**	**49**	**27**	**31**	
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloroethene	5	0.28 J	0.36 J	0.36 J	0.34 J	0.49 J	0.99 J	1.0 J	1.4 J	1.8 DJ	1.6 J	5.0 U	4.4 J	3.9 J	2.8 J	2.1 J	1.6 J	3.7 J	2.7 J	1.8 J	2.7 J	1.4 J	1.2 J	
Vinyl Chloride	2	**9.2**	**18**	**22**	**32**	**31**	**32**	**44**	**23**	**26** D	**17**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	

Sample Location		MP-13										MP-14												MW-2		MW-5	
Sampling Date		10/28/2011	12/19/2011	2/15/2012	4/18/2012	6/19/2012	DUP-061912	9/20/2012	12/21/2012	9/25/2013	9/17/2014	10/31/2011	12/21/2011	2/15/2012	DUP-021512	4/19/2012	6/20/2012	9/20/2012	12/18/2012	3/14/2013	9/5/2013	3/19/2014	9/18/2014	3/17/2010	12/27/2012	3/18/2010	11/18/2014
Laboratory ID	NYSDEC	R1106103-004	R1107129-005	R1201111-008	R1202511-009	R1203991-006	R1203991-010	R1206380-008	R1208755-023	R1307148-017	R1407413-012	R1106103-007	R1107129-025	R1201111-009	R120111-019	R1202511-015	R1203991-016	R1206380-010	R1208755-003	R1301745-013	R1306560-019	R1402018-011	R1407413-018	R1001332-034	R1208843-005	R1001332-043	R1409379-002
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																											
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.98 J	1.1 J	1.2 J	1.3 J	1.1 J	1.2 J	1.1 J	1.2 J	1.6 J	1.2 J	1.9 J	1.2 J	1.2 J	3.3 J	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	1.2 J	3.7 J	0.82 J	0.60 J	0.44 J	5.0 U	0.61 J	5.0 U	5.0 U	**30**	**37**	**29**	**27**	**25**	**30**	**30**	**27**	**32**	**32**	**37**	**45**	**17**	**39**	**31**	**45**
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.1 U
Trichloroethene	5	1.2 J	0.90 J	0.50 J	0.38 J	0.50 J	0.51 J	0.51 J	0.41 J	0.32 J	0.33 J	1.6 J	2.0 J	1.7 J	1.5 J	1.2 J	1.6 J	1.6 J	1.5 J	1.6 J	1.5 J	1.9 J	1.9 J	2.0 J	**5.3**	5.0 U	2.3 J
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

See notes on last page.

Table 6 Summary of SSPL VOC Groundwater Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location		MW-6					MW-7A												MW-8				MW-11
Sampling Date		3/18/2010	3/14/2013	9/24/2013	9/18/2014	DUP-091814	3/16/2010	12/19/2011	2/14/2012	4/18/2012	6/19/2012	9/20/2012	12/20/2012	DUP-122012	3/15/2013	9/4/2013	DUP-090413	3/18/2014	9/17/2014	3/18/2010	12/28/2012	9/24/2013	DUP-092413	9/18/2014
Laboratory ID	NYSDEC	R1001332-045	R1301745-005	R1307148-009	R1407413-021	R1407413-022	R1001332-028	R1107129-006	R1201111-003	R1202511-011	R1203991-009	R1206380-015	R1208755-019	R1208755-022	R1301745-017	R1306560-011	R1306560-017	R1402018-006	R1407413-008	R1001332-046	R1208843-008	R1307148-014	R1307148-015	R1407413-019
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																								
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**1700**	**2300** D	**2700**	**2500**	**2700**	**1600**	**1100**	**1200**	**1900** D	**550** D	**560** D	**240** U	**780** D	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	3.7 J	**5.8** J	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	100 U	100 U	100 U	50 U	50 U	50 U	100 U	25 U	25 U	10 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sample Location		MW-12			MW-16												MW-17			MW-18				MW-22		
Sampling Date		3/19/2010	12/27/2012	9/18/2014	3/17/2010	12/21/2011	2/15/2012	4/19/2012	DUP-041912	6/21/2012	9/20/2012	12/18/2012	3/13/2013	9/4/2013	3/18/2014	9/18/2014	3/18/2010	12/27/2012	9/24/2013	11/18/2014	3/15/2010	12/29/2012	9/24/2013	9/19/2014	3/12/2010	12/28/2012	9/24/2013
Laboratory ID	NYSDEC	R1001332-054	R1208843-002	R1407413-013	R1001332-042	R1107129-021	R1201111-010	R1202511-013	R1202511-018	R1203991-024	R1206380-017	R1208755-006	R1301745-003	R1306560-010	R1402018-003	R1407413-015	R1001332-044	R1208843-004	R1307148-013	R1409379-003	R1001332-019	R1208843-012	R1307148-012	R1407413-026	R1001332-001	R1208843-004	R1307148-008
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																										
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	4.0 J	4.5 J	4.7 J	3.4 J	3.8 DJ	2.8 J	2.7 J	2.9 J	2.9 DJ	2.0 J	1.9 J	1.3 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	**260**	**280**	**250**	**200**	**190** D	**210**	**200**	**180**	**200** D	**160**	**150**	**140**	1.9 J	1.5 J	1.8 J	1.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	**5.8** J	**6.5** J	**5.3** J	4.0 J	4.3 DJ	4.4 J	4.5 J	4.3 J	4.2 DJ	3.3 J	3.6 J	2.4 J	5.0 U	5.0 U	0.24 J	0.28 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sample Location		MW-24		MW-25										MW-26			MW-28								
Sampling Date		3/19/2010	12/21/2012	3/15/2010	12/20/2011	3/15/2012	6/20/2012	9/21/2012	12/19/2012	3/15/2013	9/4/2013	3/20/2014	9/19/2014	3/12/2010	12/29/2012	DUP-122912	9/19/2014	3/15/2010	12/20/2011	3/15/2012	6/20/2012	9/21/2012	12/19/2012	3/15/2013	9/4/2013	3/20/2014	9/19/2014
Laboratory ID	NYSDEC	R1001332-056	R1208755-025	R1001332-013	R1107129-014	R1201757-003	R1203991-011	R1206380-020	R1208755-008	R1301745-018	R1306560-014	R1402018-017	R1407413-027	R1001332-006	R1208843-013	R1208843-015	R1407413-025	R1001332-021	R1107129-015	R1201757-004	R1203991-013	R1206380-023	R1208755-009	R1301745-019	R1306560-015	R1402018-016	R1407413-029
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																											
1,1-Dichloroethane	5	5.0 U	5.0 U	13 U	5.0 U	25 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	13 U	0.97 J	25 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	13 U	13 U	0.82 J	1.1 J	0.69 J	0.60 J	0.69 J	0.76 J	0.93 J	5.0 U
cis-1,2-Dichloroethene	5	4.2 J	5.0 U	**8.2** J	**60**	4.8 DJ	4.4 J	4.5 J	**5.1** J	4.6 J	3.3 J	2.5 J	1.4 J	**5.3**	**5.9**	**6.1**	4.0 J	**66**	4.3 J	**53**	**54**	**52**	**40**	**47**	**50**	**55**	**26**
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	13 U	3.9 J	25 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	13 U	13 U	3.5 J	3.4 J	2.2 J	1.8 J	2.4 J	3.3 J	2.4 J	0.65 J
Tetrachloroethene	5	**150**	**22**	**450**	**43**	**360** D	**350**	**400**	**360**	**370**	**350**	**300**	**240**	**65**	**49**	**50**	**38**	**270**	**340**	**52**	**47**	**180**	**190**	**170**	**110**	**43**	**36**
1,1,1-Trichloroethane	5	5.0 U	5.0 U	13 U	5.0 U	25 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 J	5.0 U	**6.5** J	**44**	**6.5** DJ	**6.5** J	**6.0** J	**6.3** J	**5.9** J	**5.4** J	**5.3** J	3.0 J	4.5 J	4.8 J	4.8 J	3.5 J	**110**	**5.5** J	**49**	**48**	**77**	**64**	**60**	**53**	**50**	**27**
Vinyl Chloride	2	5.0 U	5.0 U	13 U	0.82 J	25 U	13 U	13 U	13 U	13 U	13 U	13 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	13 U	13 U	0.55 J	0.58 J	0.32 J	5.0 U	0.41 J	0.42 J	5.0 U	5.0 U

Sample Location		MW-29			MW-30									MW-31					MW-32		MW-33			MW-37		
Sampling Date		3/19/2010	12/27/2012	9/25/2013	3/15/2010	12/21/2011	3/15/2012	6/20/2012	9/20/2012	12/20/2012	9/24/2013	9/19/2014	3/16/2010	12/28/2012	9/24/2013	11/18/2014	DUP-111814	3/12/2010	12/28/2012	3/15/2010	9/24/2013	9/20/2014	3/16/2010	9/24/2013	9/19/2014
Laboratory ID	NYSDEC	R1001332-057	R1208843-003	R1307148-019	R1001332-018	R1107129-022	R1201757-001	R1203991-012	R1206380-013	R1208755-014	R1307148-006	R1407413-024	R1001332-026	R1208843-010	R1307148-011	R1409379-004	R1409379-006	R1001332-008	R1208843-009	R1001332-014	R1307148-010	R1407413-032	R1001332-029	R1307148-007	R1407413-023
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																									
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J	5.0 U	0.30 J	5.0 U	5.0 U	5.0 U	5.0 U	0.73 J	0.85 J	0.42 J	0.38 J	0.37 J	5.0 U	0.38 J	5.0 U	5.0 U	5.0 U	13.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	**7.5**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.91 J	1.8 J	2.3 J	13.0 U	**18**	**8.0**
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	0.37 J	5.0 U	0.35 J	0.28 J	0.28 J	5.0 U	5.0 U	5.0 U	0.47 J	0.33 J	0.38 J	0.39 J	5.0 U	5.0 U	5.0 U	0.82 J	0.56 J	13.0 U	0.78 J	0.38 J
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	5.0 U	5.0 U

Sample Location		IJ-1								IJ-4								
Sampling Date		12/20/2011	2/14/2012	4/18/2012	6/21/2012	9/20/2012	12/20/2012	9/3/2013	9/17/2014	12/21/2011	2/15/2012	4/18/2012	6/21/2012	9/19/2012	12/20/2012	3/14/2013	9/4/2013	3/18/2014	9/17/2014
Laboratory ID	NYSDEC	R1107129-018	R1201111-004	R1202511-004	R1203991-021	R1206380-014	R1208755-015	R1306560-003	R1407413-004	R1107129-023	R1201111-006	R1202511-008	R1203991-022	R1206380-007	R1208755-017	R1301745-009	R1306560-007	R1402018-004	R1407413-007
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																			
1,1-Dichloroethane	5	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	250 U	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 J	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	250 U	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	1.0 J	1.2 DJ	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**200** J	**240** J	10 U	2.8 J	5.0 U	5.0 U	5.0 U	10 U	0.34 J	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	250 U	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U
Tetrachloroethene	5	**180**	**180** D	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**7300**	**7200**	10 U	**1200** D	5.0 U	5.0 U	5.0 U	10 U	**190**	5.0 U
1,1,1-Trichloroethane	5	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	250 U	10 U	0.64 J	0.39 J	5.0 U	5.0 U	10 U	5.0 U	5.0 U
Trichloroethene	5	1.6 J	2.0 DJ	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**100** J	**120** J	10 U	4.0 J	5.0 U	5.0 U	5.0 U	10 U	0.39 J	5.0 U
Vinyl Chloride	2	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	250 U	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U

Sample Location		IJ-5										IJ-10											
Sampling Date		12/21/2011	2/15/2012	4/19/2012	6/20/2012	9/20/2012	12/18/2012	3/15/2013	9/5/2013	3/19/2014	9/18/2014	10/28/2011	12/20/2011	2/14/2012	4/18/2012	6/21/2012	9/20/2012	12/20/2012	3/14/2013	9/3/2013	3/19/2014	9/17/2014
Laboratory ID	NYSDEC	R1107129-024	R1201111-012	R1202511-017	R1203991-015	R1206380-012	R1208755-005	R1301745-016	R1306560-020	R1402018-013	R1407413-017	R1106103-003	R1107129-017	R1201111-001	R1202511-006	R1203991-020	R1206380-016	R1208755-013	R1301745-007	R1306560-004	R1402018-008	R1407413-002
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																						
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	13.0 U	13.0 U	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.1 J	1.7 J	1.6 J	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**380**	**300**	**260**	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.70 J	2.5 J	4.1 J	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	0.90 J	0.44 J	5.0 U	0.22 J	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J	5.0 U	**200**	**310**	**230**	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 J	0.92 J	1.5 J
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13.0 U	13 U	13 U	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**150**	**110**	**88**	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.1 J	2.0 J	**3.0** J	13.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

See notes on last page.

Table 6 Summary of SSPL VOC Groundwater Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location		FB-031110	FB-031210	FB-031510	FB-031610	FB-031710	FB-031810	FB-031910	TB-031110	TB-031210	TB-031510	TB-031610	TB-031710	TB-031810	TB-031910	FB-102811	TRIP BLANK	FB-121911	FB-122011	FB-122111	FB-121911	FB-122011	TB-122111
Sampling Date		3/12/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/12/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	10/28/2011	10/28/2011	12/19/2011	12/20/2011	12/21/2011	12/19/2011	12/20/2011	12/21/2011
Laboratory ID	NYSDEC	R1001332-003	R1001332-010	R1001332-023	R1001332-032	R1001332-040	R1001332-052	R1001332-059	R1001332-004	R1001332-011	R1001332-024	R1001332-033	R1001332-041	R1001332-053	R1001332-060	R1106103-005	R1106103-006	R1107129-009	R1107129-019	R1107129-026	R1107129-010	R1107129-020	R1107129-027
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																							
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sample Location		FB021412	FB021512	FB021612	TRIP BLANK	TRIP BLANK	FB-031512	FB-031612	TRIP BLANK	FB041812	FB041912	TRIP BLANK	FB-061912	FB-062012	FB-062112	TRIP BLANK	FB-091912	FB-092012	FB-092112
Sampling Date		2/14/2012	2/15/2012	2/16/2012	2/14/2012	3/15/2012	3/15/2012	3/16/2012	4/18/2012	4/18/2012	4/19/2012	6/19/2012	6/19/2012	6/20/2012	6/21/2012	9/13/2012	9/19/2012	9/20/2012	9/21/2012
Laboratory ID	NYSDEC	R120111-002	R120111-016	R120111-017	R1201111-018	R1201757-010	R1201757-002	R1201757-009	R1202511-001	R1202511-010	R1202511-016	R1203991-001	R1203991-007	R1203991-019	R1203991-025	R1206380-001	R1206380-006	R1206380-018	R1206380-024
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																			
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sample Location		FB-121812	FB-121912	FB-122012	FB-122112	FB-122712	FB-122812	FB-122912	TRIP BLANK	TRIP BLANK	TRIP BLANK	FB-031313 *	FB-031413	FB-031513	TRIP BLANK	FB-090313	FB-090413	FB-090513	TRIP BLANK	FB-092313	FB-092413	FB-092513
Sampling Date		12/18/2012	12/19/2012	12/20/2012	12/21/2012	12/27/2012	12/28/2012	12/29/2012	12/18/2012	12/26/2012	3/13/2013	3/13/2013	3/14/2013	3/15/2013	9/3/2013	9/3/2013	9/4/2013	9/5/2013	9/23/2013	9/23/2013	9/24/2013	9/25/2013
Laboratory ID	NYSDEC	R1208755-004	R1208755-011	R1208755-020	R1208755-027	R1208843-003	R1208843-011	R1208843-014	R1208755-027	R1208843-0001	R1301745-001	R1301745-004	R1301745-014	R1301745-020	R1306560-001	R1306560-006	R1306560-009	R1306560-021	R1307148-001	R1307148-005	R1307148-016	R1307148-018
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds																						
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Sample Location		TRIP BLANK	FB-031814	FB-031914	FB-032014	TRIP BLANK	FB-091714	FB-091814	FB-091914	FB-092014
Sampling Date		3/18/2014	3/18/2014	3/19/2014	3/20/2014	9/17/2014	9/17/2014	9/18/2014	9/19/2014	9/20/2014
Laboratory ID	NYSDEC	R1402018-001	R1402018-007	R1402018-010	R1402018-018	R1407413-001	R1407413-011	R1407413-020	R1407413-031	R1407413-033
Units	GWQS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Volatile Organic Compounds										
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:
All results presented in micrograms per liter (µg/l).
D = Compound identified in an analysis at a secondary dilution factor
J = Estimated value, reported concentration is less than sample quantitation limit but greater than the method detection limit
U = Constituent analyzed for but not detected above the method detection limit presented
BD-121911 is a blind duplicate of MP-6S
DUP-021512 is a blind duplicate of MP-14
DUP-031612 is a blind duplicate of MP-8D
DUP-041912 is a blind duplicate of MW-16
DUP-061912 is a blind duplicate of MP-13
DUP-092012 is a blind duplicate of MP-5
DUP-122912 is a blind duplicate of MW-26
DUP-031413 is a blind duplicate of MP-4
DUP-122012 is a blind duplicate of MW-7A
DUP-090413 is a blind duplicate of MW-7A
DUP-031914 is a blind duplicate of MP-5
DUP-091814 is a blind duplicate of MW-6
DUP-111814 is a blind duplicate of MW-31
Bold = concentration exceeds NYSDEC GWQS
* Sample FB-031313 is shown as "IB-031313" in laboratory report

Table 7 Indoor Air Sampling Analytical Results - March 18, 2014, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Background				A/C Area				Cafeteria				Electrical Area			
Sampling Date	3/18/2014				3/18/2014				3/18/2014				3/18/2014			
Laboratory ID	P1401201-007				P1401201-008				P1401201-006				P1401201-004			
Units	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q
Volatile Organic Compounds																
Dichlorodifluoromethane (CFC 12)	**0.49**		**2.4**		**0.80**		**3.9**		**0.64**		**3.2**		**0.78**		**3.8**	
Chloromethane	0.40	U	0.84	U	0.39	U	0.80	U	0.42	U	0.87	U	0.43	U	0.88	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	0.12	U	0.84	U	0.11	U	0.80	U	0.12	U	0.87	U	0.13	U	0.88	U
Vinyl Chloride	0.33	U	0.84	U	0.31	U	0.80	U	0.34	U	0.87	U	0.34	U	0.88	U
1,3-Butadiene	0.38	U	0.84	U	0.36	U	0.80	U	0.39	U	0.87	U	0.40	U	0.88	U
Bromomethane	0.22	U	0.84	U	0.20	U	0.80	U	0.22	U	0.87	U	0.23	U	0.88	U
Chloroethane	0.32	U	0.84	U	0.30	U	0.80	U	0.33	U	0.87	U	0.33	U	0.88	U
Ethanol	4.4	U	8.4	U	**140**		**260**		**180**		**340**		**130**		**240**	
Acetonitrile	0.50	U	0.84	U	0.47	U	0.80	U	0.52	U	0.87	U	0.52	U	0.88	U
Acrolein	1.5	U	3.3	U	1.4	U	3.2	U	1.5	U	3.5	U	1.5	U	3.5	U
Acetone	3.5	U	8.4	U	**35**		**83**		**15**		**35**		**24**		**58**	
Trichlorofluoromethane	**0.24**		**1.4**		**2.1**		**12**		**1.6**		**8.8**		**1.7**		**9.6**	
2-Propanol (Isopropyl Alcohol)	3.4	U	8.4	U	**4.4**		**11**		**7.7**		**19**		**4.0**		**9.9**	
Acrylonitrile	0.38	U	0.84	U	0.37	U	0.80	U	0.40	U	0.87	U	0.41	U	0.88	U
1,1-Dichloroethene	0.21	U	0.84	U	0.20	U	0.80	U	0.22	U	0.87	U	0.22	U	0.88	U
Methylene Chloride	0.24	U	0.84	U	0.23	U	0.80	U	0.25	U	0.87	U	0.25	U	0.88	U
3-Chloro-1-propene (Allyl Chloride)	0.27	U	0.84	U	0.25	U	0.80	U	0.28	U	0.87	U	0.28	U	0.88	U
Trichlorotrifluoroethane	0.11	U	0.84	U	0.10	U	0.80	U	0.11	U	0.87	U	0.11	U	0.88	U
Carbon Disulfide	2.7	U	8.4	U	2.6	U	8.0	U	2.8	U	8.7	U	2.8	U	8.8	U
trans-1,2-Dichloroethene	0.21	U	0.84	U	0.20	U	0.80	U	0.22	U	0.87	U	0.22	U	0.88	U
1,1-Dichloroethane	0.21	U	0.84	U	0.20	U	0.80	U	0.22	U	0.87	U	0.22	U	0.88	U
Methyl tert-Butyl Ether	0.23	U	0.84	U	0.22	U	0.80	U	0.24	U	0.87	U	0.24	U	0.88	U
Vinyl Acetate	2.4	U	8.4	U	2.3	U	8.0	U	2.5	U	8.7	U	2.5	U	8.8	U
2-Butanone (MEK)	2.8	U	8.4	U	2.7	U	8.0	U	3.0	U	8.7	U	3.0	U	8.8	U
cis-1,2-Dichloroethene	0.21	U	0.84	U	0.20	U	0.80	U	0.22	U	0.87	U	0.22	U	0.88	U
n-Hexane	0.24	U	0.84	U	0.23	U	0.80	U	0.25	U	0.87	U	0.25	U	0.88	U
Chloroform	0.17	U	0.84	U	0.16	U	0.80	U	0.18	U	0.87	U	0.18	U	0.88	U
1,2-Dichloroethane	0.21	U	0.84	U	0.20	U	0.80	U	0.22	U	0.87	U	0.22	U	0.88	U
1,1,1-Trichloroethane	0.15	U	0.84	U	0.15	U	0.80	U	0.16	U	0.87	U	0.16	U	0.88	U
Benzene	0.26	U	0.84	U	0.25	U	0.80	U	0.27	U	0.87	U	0.28	U	0.88	U
Carbon Tetrachloride	**0.078**		**0.49**		**0.071**		**0.45**		**0.071**		**0.44**		**0.078**		**0.49**	
1,2-Dichloropropane	0.18	U	0.84	U	0.17	U	0.80	U	0.19	U	0.87	U	0.19	U	0.88	U
Bromodichloromethane	0.12	U	0.84	U	0.12	U	0.80	U	0.13	U	0.87	U	0.13	U	0.88	U
Trichloroethene (TCE)	0.031	U	0.17	U	0.030	U	0.16	U	**0.045**		**0.24**		0.033	U	0.18	U
1,4-Dioxane	0.23	U	0.84	U	0.22	U	0.80	U	0.24	U	0.87	U	0.24	U	0.88	U
cis-1,3-Dichloropropene	0.18	U	0.84	U	0.18	U	0.80	U	0.19	U	0.87	U	0.19	U	0.88	U
4-Methyl-2-pentanone	0.20	U	0.84	U	0.19	U	0.80	U	0.21	U	0.87	U	0.21	U	0.88	U
trans-1,3-Dichloropropene	0.18	U	0.84	U	0.18	U	0.80	U	0.19	U	0.87	U	0.19	U	0.88	U
1,1,2-Trichloroethane	0.15	U	0.84	U	0.15	U	0.80	U	0.16	U	0.87	U	0.16	U	0.88	U
Toluene	0.22	U	0.84	U	**0.73**		**2.8**		**0.61**		**2.3**		**0.78**		**2.9**	
2-Hexanone	0.20	U	0.84	U	**0.30**		**1.2**		0.21	U	0.87	U	0.21	U	0.88	U
Dibromochloromethane	0.098	U	0.84	U	0.093	U	0.80	U	0.10	U	0.87	U	0.10	U	0.88	U
1,2-Dibromoethane	0.11	U	0.84	U	0.10	U	0.80	U	0.11	U	0.87	U	0.11	U	0.88	U
n-Butyl Acetate	0.18	U	0.84	U	**0.27**		**1.3**		**0.31**		**1.5**		**0.24**		**1.1**	
Tetrachloroethene (PCE)	0.12	U	0.84	U	**0.41**		**2.8**		**0.41**		**2.8**		**0.40**		**2.7**	
Chlorobenzene	0.18	U	0.84	U	0.17	U	0.80	U	0.19	U	0.87	U	0.19	U	0.88	U
Ethylbenzene	0.19	U	0.84	U	0.18	U	0.80	U	0.20	U	0.87	U	0.20	U	0.88	U
m,p-Xylenes	0.19	U	0.84	U	**0.25**		**1.1**		0.20	U	0.87	U	**0.23**		**0.99**	
Bromoform	0.081	U	0.84	U	0.077	U	0.80	U	0.084	U	0.87	U	0.085	U	0.88	U
Styrene	0.20	U	0.84	U	0.19	U	0.80	U	0.20	U	0.87	U	0.21	U	0.88	U
o-Xylene	0.19	U	0.84	U	0.18	U	0.80	U	0.20	U	0.87	U	0.20	U	0.88	U
n-Nonane	0.16	U	0.84	U	0.15	U	0.80	U	0.17	U	0.87	U	0.17	U	0.88	U
1,1,2,2-Tetrachloroethane	0.12	U	0.84	U	0.12	U	0.80	U	0.13	U	0.87	U	0.13	U	0.88	U
Cumene	0.17	U	0.84	U	0.16	U	0.80	U	0.18	U	0.87	U	0.18	U	0.88	U
alpha-Pinene	0.15	U	0.84	U	**0.31**		**1.7**		**0.19**		**1.1**		**0.50**		**2.8**	
4-Ethyltoluene	0.17	U	0.84	U	0.16	U	0.80	U	0.18	U	0.87	U	0.18	U	0.88	U
1,3,5-Trimethylbenzene	0.17	U	0.84	U	0.16	U	0.80	U	0.18	U	0.87	U	0.18	U	0.88	U
1,2,4-Trimethylbenzene	0.17	U	0.84	U	0.16	U	0.80	U	0.18	U	0.87	U	0.18	U	0.88	U
Benzyl Chloride	0.16	U	0.84	U	0.15	U	0.80	U	0.17	U	0.87	U	0.17	U	0.88	U
1,3-Dichlorobenzene	0.14	U	0.84	U	0.13	U	0.80	U	0.14	U	0.87	U	0.15	U	0.88	U
1,4-Dichlorobenzene	0.14	U	0.84	U	0.13	U	0.80	U	0.14	U	0.87	U	0.15	U	0.88	U
1,2-Dichlorobenzene	0.14	U	0.84	U	0.13	U	0.80	U	0.14	U	0.87	U	0.15	U	0.88	U
d-Limonene	0.15	U	0.84	U	0.14	U	0.80	U	**0.41**		**2.3**		**0.88**		**4.9**	
1,2-Dibromo-3-chloropropane	0.086	U	0.84	U	0.082	U	0.80	U	0.090	U	0.87	U	0.091	U	0.88	U
1,2,4-Trichlorobenzene	0.11	U	0.84	U	0.11	U	0.80	U	0.12	U	0.87	U	0.12	U	0.88	U
Naphthalene	0.16	U	0.84	U	0.15	U	0.80	U	0.17	U	0.87	U	0.17	U	0.88	U
Hexachlorobutadiene	0.078	U	0.84	U	0.075	U	0.80	U	0.082	U	0.87	U	0.083	U	0.88	U

Notes:

Bold = compound detected in sample

Red = compounds of concern

µg/m³ = micrograms per cubic meter

ppbv = parts per billion by volume

Q = Qualifier

U = Constituent not detected above reporting limit given

CAS = Columbia Analytical Services

Gray shading indicates compound exceeds respective NYSDOH Indoor Air Guidance Value

NYSDOH = New York State Department of Health

NYSDOH Indoor Air Guidance Values in µg/m³ are:

Methylene Chloride - 60

PCE - 100

TCE - 5

Table 7 Indoor Air Sampling Analytical Results - March 18, 2014, Former Dover Electronics Site, Kirkwood, New York

Sample Location	Office Area 1				Office Area 2				Hallway				Computer Services			
Sampling Date	3/18/2014				3/18/2014				3/18/2014				3/18/2014			
Laboratory ID	P1401201-003				P1401201-001				P1401201-002				P1401201-005			
Units	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q
Volatile Organic Compounds																
Dichlorodifluoromethane (CFC 12)	**0.64**		**3.1**		**0.37**		**1.9**		**0.63**		**3.1**		**0.75**		**3.7**	
Chloromethane	0.36	U	0.75	U	0.24	U	0.51	U	0.43	U	0.90	U	0.35	U	0.72	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	0.11	U	0.75	U	0.072	U	0.51	U	0.13	U	0.90	U	0.10	U	0.72	U
Vinyl Chloride	0.29	U	0.75	U	0.20	U	0.51	U	0.35	U	0.90	U	0.28	U	0.72	U
1,3-Butadiene	0.34	U	0.75	U	0.23	U	0.51	U	0.40	U	0.90	U	0.33	U	0.72	U
Bromomethane	0.19	U	0.75	U	0.13	U	0.51	U	0.23	U	0.90	U	0.19	U	0.72	U
Chloroethane	0.28	U	0.75	U	0.19	U	0.51	U	0.34	U	0.90	U	0.27	U	0.72	U
Ethanol	**170**		**330**		**100**		**200**		**69**		**130**		**170**		**320**	
Acetonitrile	0.45	U	0.75	U	0.30	U	0.51	U	0.53	U	0.90	U	0.43	U	0.72	U
Acrolein	1.3	U	3.0	U	0.88	U	2.0	U	1.6	U	3.6	U	1.3	U	2.9	U
Acetone	**8.3**		**20**		**7.3**		**17**		**7.2**		**17**		**25**		**60**	
Trichlorofluoromethane	**1.0**		**5.7**		**0.88**		**4.9**		**0.52**		**2.9**		**2.1**		**12**	
2-Propanol (Isopropyl Alcohol)	**5.5**		**13**		**3.2**		**7.9**		3.6	U	9.0	U	**6.5**		**16**	
Acrylonitrile	0.35	U	0.75	U	0.23	U	0.51	U	0.41	U	0.90	U	0.33	U	0.72	U
1,1-Dichloroethene	0.19	U	0.75	U	0.13	U	0.51	U	0.23	U	0.90	U	0.18	U	0.72	U
Methylene Chloride	0.22	U	0.75	U	0.15	U	0.51	U	0.26	U	0.90	U	**0.36**		**1.2**	
3-Chloro-1-propene (Allyl Chloride)	0.24	U	0.75	U	0.16	U	0.51	U	0.29	U	0.90	U	0.23	U	0.72	U
Trichlorotrifluoroethane	**0.11**		**0.84**		0.066	U	0.51	U	0.12	U	0.90	U	**0.10**		**0.77**	
Carbon Disulfide	2.4	U	7.5	U	1.6	U	5.1	U	2.9	U	9.0	U	2.3	U	7.2	U
trans-1,2-Dichloroethene	0.19	U	0.75	U	0.13	U	0.51	U	0.23	U	0.90	U	0.18	U	0.72	U
1,1-Dichloroethane	0.19	U	0.75	U	0.12	U	0.51	U	0.22	U	0.90	U	0.18	U	0.72	U
Methyl tert-Butyl Ether	0.21	U	0.75	U	0.14	U	0.51	U	0.25	U	0.90	U	0.20	U	0.72	U
Vinyl Acetate	2.1	U	7.5	U	1.4	U	5.1	U	2.5	U	9.0	U	2.0	U	7.2	U
2-Butanone (MEK)	2.5	U	7.5	U	1.7	U	5.1	U	3.0	U	9.0	U	2.4	U	7.2	U
cis-1,2-Dichloroethene	0.19	U	0.75	U	0.13	U	0.51	U	0.23	U	0.90	U	0.18	U	0.72	U
n-Hexane	0.21	U	0.75	U	0.14	U	0.51	U	0.25	U	0.90	U	**0.41**		**1.5**	
Chloroform	0.15	U	0.75	U	0.10	U	0.51	U	0.18	U	0.90	U	0.15	U	0.72	U
1,2-Dichloroethane	0.19	U	0.75	U	0.12	U	0.51	U	0.22	U	0.90	U	0.18	U	0.72	U
1,1,1-Trichloroethane	0.14	U	0.75	U	0.093	U	0.51	U	0.16	U	0.90	U	0.13	U	0.72	U
Benzene	0.23	U	0.75	U	0.16	U	0.51	U	0.28	U	0.90	U	**0.63**		**2.0**	
Carbon Tetrachloride	**0.074**		**0.47**		**0.024**		**0.15**		**0.049**		**0.31**		**0.075**		**0.47**	
1,2-Dichloropropane	0.16	U	0.75	U	0.11	U	0.51	U	0.19	U	0.90	U	0.16	U	0.72	U
Bromodichloromethane	0.11	U	0.75	U	0.075	U	0.51	U	0.13	U	0.90	U	0.11	U	0.72	U
Trichloroethene (TCE)	0.028	U	0.15	U	**0.026**		**0.14**		0.033	U	0.18	U	**0.39**		**2.1**	
1,4-Dioxane	0.21	U	0.75	U	0.14	U	0.51	U	0.25	U	0.90	U	0.20	U	0.72	U
cis-1,3-Dichloropropene	0.17	U	0.75	U	0.11	U	0.51	U	0.20	U	0.90	U	0.16	U	0.72	U
4-Methyl-2-pentanone	0.18	U	0.75	U	0.12	U	0.51	U	0.22	U	0.90	U	**0.38**		**1.5**	
trans-1,3-Dichloropropene	0.17	U	0.75	U	0.11	U	0.51	U	0.20	U	0.90	U	0.16	U	0.72	U
1,1,2-Trichloroethane	0.14	U	0.75	U	0.093	U	0.51	U	0.16	U	0.90	U	0.13	U	0.72	U
Toluene	**0.69**		**2.6**		**0.37**		**1.4**		**0.73**		**2.7**		**5.6**		**21**	
2-Hexanone	0.18	U	0.75	U	0.12	U	0.51	U	0.22	U	0.90	U	0.18	U	0.72	U
Dibromochloromethane	0.088	U	0.75	U	0.059	U	0.51	U	0.11	U	0.90	U	0.085	U	0.72	U
1,2-Dibromoethane	0.098	U	0.75	U	0.066	U	0.51	U	0.12	U	0.90	U	0.094	U	0.72	U
n-Butyl Acetate	**0.47**		**2.2**		**0.23**		**1.1**		0.19	U	0.90	U	**0.29**		**1.4**	
Tetrachloroethene (PCE)	**0.24**		**1.6**		**0.19**		**1.3**		0.13	U	0.90	U	**1.6**		**11**	
Chlorobenzene	0.16	U	0.75	U	0.11	U	0.51	U	0.19	U	0.90	U	0.16	U	0.72	U
Ethylbenzene	0.17	U	0.75	U	0.12	U	0.51	U	0.21	U	0.90	U	**0.26**		**1.1**	
m,p-Xylenes	**0.20**		**0.85**		0.12	U	0.51	U	0.21	U	0.90	U	**0.65**		**2.8**	
Bromoform	0.073	U	0.75	U	0.049	U	0.51	U	0.087	U	0.90	U	0.070	U	0.72	U
Styrene	0.18	U	0.75	U	0.12	U	0.51	U	0.21	U	0.90	U	**0.28**		**1.2**	
o-Xylene	0.17	U	0.75	U	0.12	U	0.51	U	0.21	U	0.90	U	**0.27**		**1.2**	
n-Nonane	0.14	U	0.75	U	0.096	U	0.51	U	0.17	U	0.90	U	**0.32**		**1.7**	
1,1,2,2-Tetrachloroethane	0.11	U	0.75	U	0.074	U	0.51	U	0.13	U	0.90	U	0.10	U	0.72	U
Cumene	0.15	U	0.75	U	0.10	U	0.51	U	0.18	U	0.90	U	0.15	U	0.72	U
alpha-Pinene	**0.29**		**1.6**		**0.15**		**0.86**		**0.28**		**1.6**		**0.78**		**4.3**	
4-Ethyltoluene	0.15	U	0.75	U	0.10	U	0.51	U	0.18	U	0.90	U	0.15	U	0.72	U
1,3,5-Trimethylbenzene	0.15	U	0.75	U	0.10	U	0.51	U	0.18	U	0.90	U	0.15	U	0.72	U
1,2,4-Trimethylbenzene	0.15	U	0.75	U	0.10	U	0.51	U	0.18	U	0.90	U	0.15	U	0.72	U
Benzyl Chloride	0.14	U	0.75	U	0.098	U	0.51	U	0.17	U	0.90	U	0.14	U	0.72	U
1,3-Dichlorobenzene	0.12	U	0.75	U	0.084	U	0.51	U	0.15	U	0.90	U	0.12	U	0.72	U
1,4-Dichlorobenzene	0.12	U	0.75	U	0.084	U	0.51	U	0.15	U	0.90	U	0.12	U	0.72	U
1,2-Dichlorobenzene	0.12	U	0.75	U	0.084	U	0.51	U	0.15	U	0.90	U	0.12	U	0.72	U
d-Limonene	**1.3**		**7.3**		**0.99**		**5.5**		**0.52**		**2.9**		**1.8**		**10**	
1,2-Dibromo-3-chloropropane	0.078	U	0.75	U	0.052	U	0.51	U	0.093	U	0.90	U	0.075	U	0.72	U
1,2,4-Trichlorobenzene	0.10	U	0.75	U	0.068	U	0.51	U	0.12	U	0.90	U	0.097	U	0.72	U
Naphthalene	0.14	U	0.75	U	0.096	U	0.51	U	0.17	U	0.90	U	0.14	U	0.72	U
Hexachlorobutadiene	0.070	U	0.75	U	0.047	U	0.51	U	0.084	U	0.90	U	0.068	U	0.72	U

Notes:

Bold = compound detected in sample

Red = compounds of concern

µg/m³ = micrograms per cubic meter

ppbv = parts per billion by volume

Q = Qualifier

U = Constituent not detected above reporting limit given

CAS = Columbia Analytical Services

Gray shading indicates compound exceeds respective NYSDOH Indoor Air Guidance Value

NYSDOH = New York State Department of Health

NYSDOH Indoor Air Guidance Values in µg/m³ are:

Methylene Chloride - 60

PCE - 100

TCE - 5

Table 8 Historical Indoor Air Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location	PCE µg/m3	TCE µg/m3	Cis-1,2-DCE µg/m3	Vinyl Chloride µg/m3
OFFICE #1				
Nov-98	61	-	-	-
Dec-98	35	-	-	-
Mar-99	58	-	-	-
Feb-02	36	-	-	-
Apr-02	68	-	-	-
May-02	27	-	-	-
Sep-02	60	1.3	-	-
Aug-03	20	-	-	-
Sep-03	52	-	-	-
Jan-04	110	1.3	-	-
Apr-04	79	-	-	-
Sep-04	66	-	-	-
Mar-05	51	-	-	-
Sep-05	120	-	-	-
Apr-06	47	0.2	-	-
Sep-06	31	0.9	16	0.8
Mar-07	8.3	-	-	-
Aug-07	11	-	-	-
Mar-08	4.1	-	-	-
Dec-08	6.0	-	-	-
Mar-09	3.9	0.24	-	-
Oct-09	1.7	-	-	-
Mar-10	2.6	-	-	-
Mar-11	4.0	-	-	-
Mar-12	2.8	-	-	-
Mar-13	3.5	-	-	-
Mar-14	1.6	-	-	-
OFFICE #2				
Aug-03	28	-	-	-
Sep-03	24	-	-	-
Jan-04	87	-	-	-
Apr-04	44	-	-	-
Sep-04	41	-	-	-
Mar-05	39	-	-	-
Sep-05	120	-	-	-
Apr-06	40	0.3	-	-
Sep-06	24	0.2	-	-
Mar-07	5.3	-	-	-
Aug-07	2.9	0.1	-	-
Mar-08	2.6	-	-	-
Dec-08	4.9	0.3	-	-
Mar-09	3.0	0.19	-	-
Oct-09	1.2	-	-	-
Mar-10	2.2	-	-	-
Mar-11	3.0	-	-	-
Mar-12	2.4	-	-	-
Mar-13	1.6	-	-	-
Mar-14	1.3	0	-	-

See Notes on last page

Table 8 Historical Indoor Air Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location	PCE µg/m3	TCE µg/m3	Cis-1,2-DCE µg/m3	Vinyl Chloride µg/m3
CAFETERIA				
Aug-03	17	-	-	-
Sep-03	23	-	-	-
Jan-04	110	1.7	3.5	-
Apr-04	43	-	1.5	-
Sep-04	27	-	-	-
Mar-05	40	-	-	-
Sep-05	120	-	-	-
Apr-06	43	0.2	-	-
Sep-06	27	0.7	3.3	-
Mar-07	5.2	-	-	-
Aug-07	8.6	-	-	-
Mar-08	3.0	-	-	-
Dec-08	5.1	-	-	-
Mar-09	3.3	-	-	-
Oct-09	1.9	-	-	-
Mar-10	2.3	-	-	-
Mar-11	3.7	-	-	-
Mar-12	2.9	-	-	-
Mar-13	1.8	0.33	-	-
Mar-14	2.8	0.24	-	-
ELECTRICAL ROOM				
Nov-98	1,017	-	17.8	-
Dec-98	678	-	9.5	-
Mar-99	387	-	6.3	-
Feb-02	186	4.4	6.1	-
Apr-02	406	8.2	14.1	1.6
May-02	165	1.9	4.8	-
Sep-02	124	2.6	3.7	-
Aug-03	64	-	-	-
Sep-03	62	-	-	-
Jan-04	75	-	-	-
Apr-04	88	2.7	2.1	-
Sep-04	70	-	-	-
Mar-05	60	-	-	-
Sep-05	110	-	1.5	-
Apr-06	61	0.5	0.9	-
Sep-06	84	0.6	1.2	-
Mar-07	9.8	-	-	-
Aug-07	14	0.2	-	-
Mar-08	5.8	-	-	-
Dec-08	6.7	-	-	-
Mar-09	5.3	0.17	-	-
Oct-09	5.0	-	-	-
Mar-10	4.1	-	-	-
Mar-11	6.0	-	-	-
Mar-12	4.1	-	-	-
Mar-13	3.8	-	-	-
Mar-14	2.7	-	-	-

See Notes on last page

Table 8 Historical Indoor Air Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location	PCE µg/m3	TCE µg/m3	Cis-1,2-DCE µg/m3	Vinyl Chloride µg/m3
A/C AREA				
Nov-98	482	6.5	15.9	-
Dec-98	244	3.6	7.5	-
Mar-99	183	-	5.6	-
Feb-02	165	4.9	8.1	-
Apr-02	248	4.9	10.5	-
May-02	138	2.1	5.2	-
Sep-02	110	2.6	3.6	-
Aug-03	94	-	1.4	-
Sep-03	88	-	-	-
Jan-04	85	1.7	3.6	-
Apr-04	100	1.4	2.1	-
Sep-04	62	-	-	-
Mar-05	85	-	1.4	-
Sep-05	11	-	-	-
Apr-06	74	0.8	1.5	-
Sep-06	76	0.6	2.1	-
Mar-07	9.7	-	-	-
Aug-07	14	0.3	-	-
Mar-08	4.4	-	-	-
Dec-08	5.3	-	-	-
Mar-09	5.9	0.25	-	-
Oct-09	4.1	-	-	-
Mar-10	3.9	-	-	-
Mar-11	5.9	-	-	-
Mar-12	3.1	-	-	-
Mar-13	2.9	-	-	-
Mar-14	2.8	-	-	-
HALLWAY				
Aug-07	3.9	-	-	-
Mar-08	-	-	-	-
Dec-08	-	-	-	-
Mar-09	1.7	-	-	-
Oct-09	-	-	-	-
Mar-10	1.2	-	-	-
Mar-11	-	-	-	-
Mar-12	1.0	-	-	-
Mar-13	-	-	-	-
Mar-14	-	-	-	-

See Notes on last page

Table 8 Historical Indoor Air Analytical Results, Former Dover Electronics Site, Kirkwood, New York

Sample Location	PCE µg/m3	TCE µg/m3	Cis-1,2-DCE µg/m3	Vinyl Chloride µg/m3
COMPUTER SERVICES				
Aug-07	46	-	-	-
Mar-08	-	-	-	-
Dec-08	34	0.2	-	-
Mar-09	27	0.15	-	-
Oct-09	5.4	-	-	-
Mar-10	20	-	-	-
Mar-11	10	0.37	-	-
Mar-12	6.3	-	-	-
Mar-13	4.1	-	-	-
Mar-14	11.0	2	-	-
BACKGROUND				
Nov-98	-	-	-	-
Dec-98	-	-	-	-
Mar-99	-	-	-	-
Feb-02	-	-	-	-
Apr-02	13	4	-	-
May-02	-	-	-	-
Sep-02	-	-	-	-
Aug-03	-	-	-	-
Sep-03	2.2	-	-	-
Jan-04	-	-	-	-
Apr-04	1.8	-	-	-
Sep-04	-	-	-	-
Mar-05	-	-	-	-
Sep-05	-	-	-	-
Apr-06	-	-	-	-
Sep-06	-	-	-	-
Mar-07	1.1	-	-	-
Aug-07	1.0	-	-	-
Mar-08	-	-	-	-
Dec-08	-	-	-	-
Mar-09	-	0.55	-	-
Oct-09	-	-	-	-
Mar-10	-	-	-	-
Mar-11	-	-	-	-
Mar-12	-	-	-	-
Mar-13	-	-	-	-
Mar-14	-	-	-	-

Notes:

- = non-detect (see Appendix G of this report for March 2014 laboratory analytical data and previous annual operations, maintenance, and monitoring reports for historical laboratory data.)

µg/m³ = micrograms per cubic meter

Table 9 Proposed 2015 Groundwater Monitoring Matrix, Former Dover Electronics Site, Kirkwood, New York

Monitoring Well ID	Water Bearing Unit	Well Included in Quarterly Field Parameter Collection Program	Well Included in Semi-Annual Sampling Program (March)	Well Included in Annual Sampling Program (Sept.) *
MW-2	Shallow			
MW-3	Shallow			X
MW-5	Shallow			X
MW-6	Intermediate			
MW-7A	Shallow	X	X	X
MW-8	Intermediate			
MW-9	Shallow			
MW-11	Intermediate			
MW-12	Intermediate			
MW-13	Shallow			X
MW-14	Intermediate			
MW-15	Shallow			
MW-16	Shallow	X	X	X
MW-17	Shallow			
MW-18	Shallow			
MW-19	Shallow			X
MW-20	Abandoned			
MW-21	Intermediate			
MW-22	Intermediate			
MW-23	Shallow			
MW-24	Shallow			X
MW-25	Intermediate		X	X
MW-26	Intermediate			X
MW-27	Shallow			X
MW-28	Shallow		X	X
MW-29	Shallow			
MW-30	Shallow			X
MW-31	Shallow			X
MW-32	Shallow			X
MW-33	Shallow			
MW-34	Deep			
MW-35	Intermediate			
MW-36	Shallow			
MW-37	Intermediate			X
MW-38	Intermediate			X
MP-1	Shallow			
MP-2	Shallow			
MP-3D	Intermediate			
MP-4	Shallow	X	X	X
MP-5	Shallow	X	X	X
MP-6S	Shallow	X	X	X
MP-6D	Intermediate			X
MP-7	Abandoned			
MP-8S	Shallow			X
MP-8D	Intermediate			X
MP-9	Abandoned			
MP-10S	Abandoned			
MP-10D	Abandoned			
MP-11	Shallow	X	X	X
MP-12	Shallow	X	X	X
MP-13	Shallow	X		X
MP-14	Shallow	X	X	X
IJ-1	Shallow	X		X
IJ-2	Intermediate			
IJ-3	Intermediate			
IJ-4	Shallow	X	X	X
IJ-5	Shallow			
IJ-6	Shallow-Intermediate	X		
IJ-7	Shallow			
IJ-8	Shallow			
IJ-9	Shallow			
IJ-10	Shallow	X	X	X

Notes:

X = Well is sampled according to the frequency noted at the top of the respective column.

* = The second semi-annual sampling event will be combined with the annual sampling event in September.

Appendices

Appendix A

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: light snow, windy, cold, 30° F.

Personnel: MIF, PKL

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	1/15/2014 Volume Injected (gal)	1/16/2014 Volume Injected (gal)	Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments	
MW-7A	8	4			**12**	DTW Before Injection: 5.52' btoc	DTW After Injection: 3.73' btoc
MW-16	5	15			**20**	DTW Before Injection: 13.75' btoc	DTW After Injection: 11.21' btoc
MW-28	20	20			**40**	DTW Before Injection: 11.40' btoc	DTW After Injection: 10.99' btoc
IJ-1	20	15			**35**	DTW Before Injection: 12.31' btoc	DTW After Injection: 4.37' btoc
IJ-6	50	35			**85**	DTW Before Injection: 11.15' btoc	DTW After Injection: 10.12' btoc
IJ-10	20	15			**35**	DTW Before Injection: 11.80' btoc	DTW After Injection: 6.12' btoc
MW-24	0	20			**20**	DTW Before Injection: 34.12' btoc	DTW After Injection: 30.65' btoc
Total Injected Volume	**123**	**124**			**247**		

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: icy rain, windy, cold, 30° F.

Personnel: MIF, PKL

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	2/20/2014 Volume Injected (gal)	Volume Injected (gal)	Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments	
IJ-1	15				**15**	DTW Before Injection: 14.50' btoc	DTW After Injection: 2.09' btoc
IJ-2	35				**35**	DTW Before Injection: 29.20' btoc	DTW After Injection: 5.85' btoc
IJ-3	20				**20**	DTW Before Injection: 20.85' btoc	DTW After Injection: 5.87' btoc
IJ-7	35				**35**	DTW Before Injection: 27.80' btoc	DTW After Injection: 6.71' btoc
IJ-8	20				**20**	DTW Before Injection: 18.85' btoc	DTW After Injection: 5.81' btoc
IJ-9	5				**5**	DTW Before Injection: 8.50' btoc	DTW After Injection: 5.98' btoc
IJ-10	15				**15**	DTW Before Injection: 14.77' btoc	DTW After Injection: 1.89' btoc
Total Injected Volume	**145**				**145**		

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: some snow, windy, cold, 30° F.

Personnel: MIF, KFS

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	3/24/2014 Volume Injected (gal)	3/25/2014 Volume Injected (gal)	3/26/2014 Volume Injected (gal)	3/27/2014 Volume Injected (gal)	Total Injected Volume	Comments	
MW-7A	0	4	4	2	**10**	DTW Before Injection (03/24/14): 6.35' btoc	DTW After Injection (03/25/14): 0.56' btoc
MW-16	20	10	10	5	**45**	DTW Before Injection (03/24/14): 13.55' btoc; DTW Before Injection (03/25/14): 14.69' btoc	DTW After Injection (03/24/14): 5.46' btoc
MW-24	15	10	20	10	**55**	DTW Before Injection (03/24/14): 34.94' btoc	DTW After Injection (03/25/14): 34.84' btoc
MW-25	0	53	50	0	**103**	DTW Before Injection (03/25/14): 12.25' btoc	
MW-28	0	27	15	0	**42**	DTW Before Injection (03/25/14): 12.19' btoc	DTW After Injection (03/24/14): 1.35' btoc
MP-5	0	13	30	10	**53**	DTW Before Injection (03/24/14): 11.76' btoc	DTW After Injection (03/25/14): 8.65' btoc
MP-11	0	4	4	3	**11**	DTW Before Injection (03/24/14): 7.81' btoc	DTW After Injection (03/25/14): 0.11' btoc
MP-12	0	30	30	10	**70**	DTW Before Injection (03/24/14): 11.17' btoc	DTW After Injection (03/25/14): 11.25' btoc
MP-14	0	10	5	5	**20**	DTW Before Injection (03/24/14): 7.11' btoc	DTW After Injection (03/25/14): 2.51' btoc
IJ-1	20	20	25	0	**65**	DTW Before Injection (03/24/14): 13.55' btoc; DTW Before Injection (03/25/14): 12.53' btoc	DTW After Injection (03/24/14): 1.40' btoc
IJ-2	35	0	0	0	**35**	DTW Before Injection (03/24/14): 28.83' btoc	DTW After Injection (03/24/14): 5.46' btoc; DTW After Injection (03/25/14): 7.08' btoc
IJ-3	0	0	0	0	**0**	DTW Before Injection (03/24/14): 1.86' btoc	
IJ-4	0	3	0	0	**3**	DTW Before Injection (03/24/14): 3.14' btoc	DTW After Injection (03/25/14): 0.94' btoc
IJ-6	35	60	25	0	**120**	DTW Before Injection (03/25/14): 12.27' btoc	
IJ-7	25	0	0	0	**25**	DTW Before Injection (03/24/14): 24.25' btoc; DTW Before Injection (03/25/14): 24.25' btoc	DTW After Injection (03/24/14): 6.05' btoc; DTW After Injection (03/25/14): 8.21' btoc
IJ-8	10	0	0	0	**10**	DTW Before Injection (03/24/14): 13.24' btoc	DTW After Injection (03/24/14): 5.06' btoc; DTW After Injection (03/25/14): 5.16' btoc
IJ-9	0	0	0	0	**0**	DTW Before Injection (03/24/14): 1.73' btoc	
IJ-10	20	30	30	15	**95**	DTW Before Injection (03/24/14): 13.55' btoc; DTW Before Injection (03/25/14): 11.90' btoc	DTW After Injection (03/24/14): 1.30' btoc
Total Injected Volume	**180**	**274**	**248**	**60**	**762**		

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: some rain, windy, cold, 50° F.

Personnel: MIF, DLC

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	4/16/2014 Volume Injected (gal)	4/17/2014 Volume Injected (gal)	4/18/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	10	3		**13**	DTW Before Injection (04/16/14): 5.53' btoc
MW-16	0	30	30		**60**	DTW Before Injection (04/16/14): 12.75' btoc
MW-24	10	10	10		**30**	DTW Before Injection (04/16/14): 34.51' btoc
MW-25	50	50	60		**160**	DTW Before Injection (04/16/14): 10.70' btoc
MW-28	15	15	10		**40**	DTW Before Injection (04/16/14): 10.70' btoc
MP-5	0	47.5	0		**47.5**	DTW Before Injection (04/16/14): 12.23' btoc
MP-11	0	2	2		**4**	DTW Before Injection (04/16/14): 6.81' btoc
MP-12	0	30	40		**70**	DTW Before Injection (04/16/14): 8.84' btoc
MP-14	0	10	10		**20**	DTW Before Injection (04/16/14): 4.75' btoc
IJ-1	15	25	10		**50**	DTW Before Injection (04/16/14): 12.70' btoc
IJ-2	30	0	0		**30**	DTW Before Injection (04/16/14): 26.70 btoc
IJ-3	0	0	0		**0**	DTW Before Injection (04/16/14): 1.06' btoc
IJ-4	0	3	0		**3**	DTW Before Injection (04/16/14): 6.35' btoc
IJ-6	25	60	15		**100**	DTW Before Injection (04/16/14): 6.35' btoc
IJ-7	25	0	0		**25**	DTW Before Injection (04/16/14): 24.57' btoc
IJ-8	0	0	0		**0**	DTW Before Injection (04/16/14): 5.71' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (04/16/14): 0.75' btoc
IJ-10	20	25	10		**55**	DTW Before Injection (04/16/14): 11.45' btoc
Total Injected Volume	**190**	**317.5**	**200**		**707.5**	

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: some rain, windy, 70s° F.

Personnel: MIF, PKL

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	5/20/2014 Volume Injected (gal)	5/21/2014 Volume Injected (gal)	5/22/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	10	5		**15**	DTW Before Injection (04/16/14): 5.71' btoc
MW-16	30	50	0		**80**	DTW Before Injection (04/16/14): 12.70' btoc
MW-24	10	30	0		**40**	DTW Before Injection (04/16/14): 33.84' btoc
MW-25	100	100	100		**300**	DTW Before Injection (04/16/14): 10.85' btoc
MW-28	15	30	5		**50**	DTW Before Injection (04/16/14): 10.95' btoc
MP-5	10	40	0		**50**	DTW Before Injection (04/16/14): 12.15' btoc
MP-11	0	2.5	2.5		**5**	DTW Before Injection (04/16/14): 7.10' btoc
MP-12	15	0	65		**80**	DTW Before Injection (04/16/14): 8.87' btoc
MP-14	0	15	15		**30**	DTW Before Injection (04/16/14): 5.33' btoc
IJ-1	20	20	10		**50**	DTW Before Injection (04/16/14): 12.85' btoc
IJ-2	30	0	0		**30**	DTW Before Injection (04/16/14): 28.39 btoc
IJ-3	0	0	0		**0**	DTW Before Injection (04/16/14): 1.82' btoc
IJ-4	0	4	0		**4**	DTW Before Injection (04/16/14): 6.91' btoc
IJ-6	20	75	5		**100**	DTW Before Injection (04/16/14): 10.80' btoc
IJ-7	30	0	0		**30**	DTW Before Injection (04/16/14): 27.65' btoc
IJ-8	5	0	0		**5**	DTW Before Injection (04/16/14): 7.10' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (04/16/14): 1.61' btoc
IJ-10	20	15	15		**50**	DTW Before Injection (04/16/14): 11.40' btoc
Total Injected Volume	**305**	**391.5**	**222.5**		**919**	

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SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: Sun and clouds, 60s-70s, no rain

Personnel: MIF, PKL

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	6/18/2014 Volume Injected (gal)	6/19/2014 Volume Injected (gal)	6/20/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	10	5		**15**	DTW Before Injection (06/17/14): 5.91' btoc
MW-16	40	40	0		**80**	DTW Before Injection (06/17/14): 14.52' btoc
MW-24	20	10	10		**40**	DTW Before Injection (06/17/14): 34.43' btoc
MW-25	95	105	100		**300**	DTW Before Injection (06/17/14): 12.16' btoc
MW-28	10	15	25		**50**	DTW Before Injection (06/17/14): 12.11' btoc
MP-5	0	50	0		**50**	DTW Before Injection (06/17/14): 12.88' btoc
MP-11	0	2.5	2.5		**5**	DTW Before Injection (06/17/14): 7.57' btoc
MP-12	55	25	0		**80**	DTW Before Injection (06/17/14): 12.07' btoc
MP-14	20	10	0		**30**	DTW Before Injection (06/17/14): 7.46' btoc
IJ-1	15	25	10		**50**	DTW Before Injection (06/17/14): 13.43' btoc
IJ-2	30	0	0		**30**	DTW Before Injection (06/17/14): 27.79' btoc
IJ-3	0	0	0		**0**	DTW Before Injection (06/17/14): 1.82' btoc
IJ-4	0	2.5	0		**2.5**	DTW Before Injection (06/17/14): 3.16' btoc
IJ-6	35	60	15		**110**	DTW Before Injection (06/17/14): 12.10' btoc
IJ-7	25	0	0		**25**	DTW Before Injection (06/17/14): 27.40' btoc
IJ-8	10	0	0		**10**	DTW Before Injection (06/17/14): 11.54' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (06/17/14): 1.64' btoc
IJ-10	15	25	15		**55**	DTW Before Injection (06/17/14): 12.08' btoc
Total Injected Volume	**370**	**380**	**182.5**		**932.5**	

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: Hot, humid, 80's

Personnel: MIF, KFS

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	7/23/2014 Volume Injected (gal)	7/24/2014 Volume Injected (gal)	7/25/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	0	15		**15**	DTW Before Injection (07/23/14): 6.75' btoc
MW-16	0	80	0		**80**	DTW Before Injection (07/23/14): 15.87' btoc
MW-24	0	20	20		**40**	DTW Before Injection (07/23/14): 35.01' btoc
MW-25	160	0	140		**300**	DTW Before Injection (07/23/14): 12.91' btoc
MW-28	0	50	0		**50**	DTW Before Injection (07/23/14): 11.74' btoc
MP-5	0	50	0		**50**	DTW Before Injection (07/23/14): 13.34' btoc
MP-11	0	2.5	2.5		**5**	DTW Before Injection (07/23/14): 8.02' btoc
MP-12	0	0	80		**80**	DTW Before Injection (07/23/14): 12.73' btoc
MP-14	0	0	30		**30**	DTW Before Injection (07/23/14): 8.10' btoc
IJ-1	20	20	10		**50**	DTW Before Injection (07/23/14): 13.88' btoc
IJ-2	0	30	0		**30**	DTW Before Injection (07/23/14): 29.16' btoc
IJ-3	0	0	0		**0**	DTW Before Injection (07/23/14): 2.33' btoc
IJ-4	0	0	0		**0**	DTW Before Injection (07/23/14): 3.82' btoc
IJ-6	0	30	70		**100**	DTW Before Injection (07/23/14): 12.82' btoc
IJ-7	0	30	0		**30**	DTW Before Injection (07/23/14): 28.26' btoc
IJ-8	0	15	0		**15**	DTW Before Injection (07/23/14): 14.98' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (07/23/14): 2.33' btoc
IJ-10	20	20	10		**50**	DTW Before Injection (07/23/14): 12.46' btoc
Total Injected Volume	**200**	**347.5**	**377.5**		**925**	

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SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002 Personnel: MIF, KFS
Weather:

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A Volume of Water (gal): N/A
NaMnO4 Concentration (%): 40 Concentration of Injection Solution (%): 10

Injection Well No.	8/18/2014 Volume Injected (gal)	8/19/2014 Volume Injected (gal)	8/20/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	10	5		**15**	DTW Before Injection (8/18/14): 6.64' btoc
MW-16	0	0	80		**80**	DTW Before Injection (8/18/14): 16.04' btoc
MW-24	10	20	10		**40**	DTW Before Injection (8/18/14): 34.71' btoc
MW-25	100	100	100		**300**	DTW Before Injection (8/18/14): 12.57' btoc
MW-28	0	25	25		**50**	DTW Before Injection (8/18/14): 12.59' btoc
MP-5	0	50	0		**50**	DTW Before Injection (8/18/14): 13.43' btoc
MP-11	0	2.5	2.5		**5**	DTW Before Injection (8/18/14): 8.54' btoc
MP-12	0	0	80		**80**	DTW Before Injection (8/18/14): 13.43' btoc
MP-14	0	15	15		**30**	DTW Before Injection (8/18/14): 8.87'
IJ-1	0	35	15		**50**	DTW Before Injection (8/18/14): 13.95' btoc
IJ-2	25	0	0		**25**	DTW Before Injection (8/18/14): 28.30' btoc
IJ-3	0	0	0		**0**	DTW Before Injection (8/18/14): 2.24' btoc
IJ-4	0	5	2.5		**7.5**	DTW Before Injection (8/18/14): 4.03' btoc
IJ-6	20	65	15		**100**	DTW Before Injection (8/18/14): 12.53' btoc
IJ-7	25	0	0		**25**	DTW Before Injection (8/18/14): 27.16' btoc
IJ-8	10	0	0		**10**	DTW Before Injection (8/18/14): 13.72' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (8/18/14): 2.25' btoc
IJ-10	0	35	15		**50**	DTW Before Injection (8/18/14): 12.58' btoc
Total Injected Volume	**190**	**362.5**	**365**		**917.5**	

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: warm 60° F, sunny, dry, light winds

Personnel: MH, KFS

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	9/23/2014 Volume Injected (gal)	9/24/2014 Volume Injected (gal)	9/25/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	3	12	0		**15**	DTW Before Injection (9/23/14): 6.80' btoc
MW-16	0	70	10		**80**	DTW Before Injection (9/23/14): 16.94' btoc
MW-24	0	40	0		**40**	DTW Before Injection (9/23/14): 35.98' btoc
MW-25	168	125	10		**303**	DTW Before Injection (9/23/14): 13.81' btoc
MW-28	0	25	25		**50**	DTW Before Injection (9/23/14): 13.67' btoc
MP-5	20	0	30		**50**	DTW Before Injection (9/23/14): 12.98' btoc
MP-11	0	5	0		**5**	DTW Before Injection (9/23/14): 9.18' btoc
MP-12	2	8	70		**80**	DTW Before Injection (9/23/14): 14.03' btoc
MP-14	0	3	30		**33**	DTW Before Injection (9/23/14): 9.68' btoc
IJ-1	23	19	8		**50**	DTW Before Injection (9/23/14): 14.33' btoc
IJ-2	30	0	10		**40**	DTW Before Injection (9/23/14): 30.05' btoc
IJ-3	10	0	0		**10**	DTW Before Injection (9/23/14): 10.84' btoc
IJ-4	5	4	4		**13**	DTW Before Injection (9/23/14): 3.99' btoc
IJ-6	44	36	20		**100**	DTW Before Injection (9/23/14): 13.77' btoc
IJ-7	35	0	10		**45**	DTW Before Injection (9/23/14): 28.87' btoc
IJ-8	10	0	1		**11**	DTW Before Injection (9/23/14): 16.88' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (9/23/14): 2.67' btoc
IJ-10	30	18	2		**50**	DTW Before Injection (9/23/14): 12.97' btoc
Total Injected Volume	**380**	**365**	**230**		**975**	

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: cool 35-55°F, rain showers, mostly cloudy, windy

Personnel: KFS, PKL

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	10/29/2014 Volume Injected (gal)	10/30/2014 Volume Injected (gal)	Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	10	5			**15**	DTW Before Injection (10/29/14): 6.61' btoc
MW-16	80	0			**80**	DTW Before Injection (10/29/14): 15.48' btoc
MW-24	30	10			**40**	DTW Before Injection (10/29/14): 35.85' btoc
MW-25	50	250			**300**	DTW Before Injection (10/29/14): 13.30' btoc
MW-28	45	5			**50**	DTW Before Injection (10/29/14): 12.78' btoc
MP-5	50	0			**50**	DTW Before Injection (10/29/14): 13.40' btoc
MP-11	5	0			**5**	DTW Before Injection (10/29/14): 8.55' btoc
MP-12	35	45			**80**	DTW Before Injection (10/29/14): 12.76' btoc
MP-14	5	25			**30**	DTW Before Injection (10/29/14): 8.63' btoc
IJ-1	20	30			**50**	DTW Before Injection (10/29/14): 14.15' btoc
IJ-2	20	0			**20**	DTW Before Injection (10/29/14): 20.43' btoc
IJ-3	0	0			**0**	DTW Before Injection (10/29/14): 2.18' btoc
IJ-4	5	5			**10**	DTW Before Injection (10/29/14): 3.70' btoc
IJ-6	0	100			**100**	DTW Before Injection (10/29/14): 12.93' btoc
IJ-7	20	0			**20**	DTW Before Injection (10/29/14): 18.59' btoc
IJ-8	0	0			**0**	DTW Before Injection (10/29/14): 2.51' btoc
IJ-9	0	0			**0**	DTW Before Injection (10/29/14): 2.18' btoc
IJ-10	25	25			**50**	DTW Before Injection (10/29/14): 12.80' btoc
Total Injected Volume	**400**	**500**			**900**	

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: cold 15-32°F, snow showers, mostly cloudy, windy

Personnel: KFS, MIF

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	11/19/2014 Volume Injected (gal)	11/20/2014 Volume Injected (gal)	11/21/2014 Volume Injected (gal)	Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	20	0		**20**	DTW Before Injection (11/19/14): 6.31' btoc
MW-16	100	0	0		**100**	DTW Before Injection (11/19/14): 14.99' btoc
MW-24	20	20	0		**40**	DTW Before Injection (11/19/14): 35.88' btoc
MW-25	125	85	90		**300**	DTW Before Injection (11/19/14): 13.53' btoc
MW-28	25	15	10		**50**	DTW Before Injection (11/19/14): 13.38' btoc
MP-4	1	2	0		**3**	DTW Before Injection (11/19/14): 6.99' btoc
MP-5	0	60	0		**60**	DTW Before Injection (11/19/14): 11.29' btoc
MP-11	5	4	0		**9**	DTW Before Injection (11/19/14): 8.27' btoc
MP-12	0	100	0		**100**	DTW Before Injection (11/19/14): 12.43' btoc
MP-14	0	30	0		**30**	DTW Before Injection (11/19/14): 7.89' btoc
IJ-1	0	25	15		**40**	DTW Before Injection (11/19/14): 13.50' btoc
IJ-2	25	0	0		**25**	DTW Before Injection (11/19/14): 27.22' btoc
IJ-3	0	0	0		**0**	DTW Before Injection (11/19/14): 1.24' btoc
IJ-4	5	5	0		**10**	DTW Before Injection (11/19/14): 2.97' btoc
IJ-6	70	19	15		**104**	DTW Before Injection (11/19/14): 13.50' btoc
IJ-7	24	0	0		**24**	DTW Before Injection (11/19/14): 24.81' btoc
IJ-8	0	0	0		**0**	DTW Before Injection (11/19/14): 1.49' btoc
IJ-9	0	0	0		**0**	DTW Before Injection (11/19/14): 1.11' btoc
IJ-10	0	25	15		**40**	DTW Before Injection (11/19/14): 2.09' btoc
Total Injected Volume	**400**	**410**	**145**		**955**	

VERINA Consulting Group, LLC

SODIUM PERMANGANATE MANUAL INJECTION LOG

Project Number: 5101.0002
Weather: cold, 28-40°F, rain/snow, light wind

Personnel: KFS, MIF

Injection Solution Characteristics:

Volume of $NaMnO_4$ (gal): N/A
NaMnO4 Concentration (%): 40

Volume of Water (gal): N/A
Concentration of Injection Solution (%): 10

Injection Well No.	12/15/2014 Volume Injected (gal)	12/16/2014 Volume Injected (gal)	12/18/2014 Volume Injected (gal)	12/19/2014 Volume Injected (gal)	Total Injected Volume	Comments
MW-7A	0	14	10	0	**24**	DTW Before Injection (12/15/14): 5.37' btoc
MW-16	30	0	100	0	**130**	DTW Before Injection (12/15/14): 12.35' btoc
MW-24	0	20	20	0	**40**	DTW Before Injection (12/15/14): 35.06' btoc
MW-25	50	70	15	30	**165**	DTW Before Injection (12/15/14): 13.02' btoc
MW-28	0	25	15	5	**45**	DTW Before Injection (12/15/14): 12.97' btoc
MP-4	0	2	2	0	**4**	DTW Before Injection (12/15/14): 5.46' btoc
MP-5	0	10	100	0	**110**	DTW Before Injection (12/15/14): 12.05' btoc
MP-11	0	5	0	0	**5**	DTW Before Injection (12/15/14): 7.81' btoc
MP-12	0	60	20	0	**80**	DTW Before Injection (12/15/14): 8.99' btoc
MP-14	0	15	0	15	**30**	DTW Before Injection (12/15/14): 5.37' btoc
IJ-1	10	30	25	0	**65**	DTW Before Injection (12/15/14): 12.98' btoc
IJ-2	0	30	0	0	**30**	DTW Before Injection (12/15/14): 32.23' btoc
IJ-3	0	0	0	0	**0**	DTW Before Injection (12/15/14): 1.09' btoc
IJ-4	0	4	4	0	**8**	DTW Before Injection (12/15/14): 2.81' btoc
IJ-6	0	35	40	0	**75**	DTW Before Injection (12/15/14): 11.61' btoc
IJ-7	0	30	0	0	**30**	DTW Before Injection (12/15/14): 13.97' btoc
IJ-8	0	0	0	0	**0**	DTW Before Injection (12/15/14): 1.37' btoc
IJ-9	0	0	0	0	**0**	DTW Before Injection (12/15/14): 0.62' btoc
IJ-10	10	30	25	0	**65**	DTW Before Injection (12/15/14): 11.33' btoc
Total Injected Volume	**100**	**380**	**376**	**50**	**906**	

Appendix B

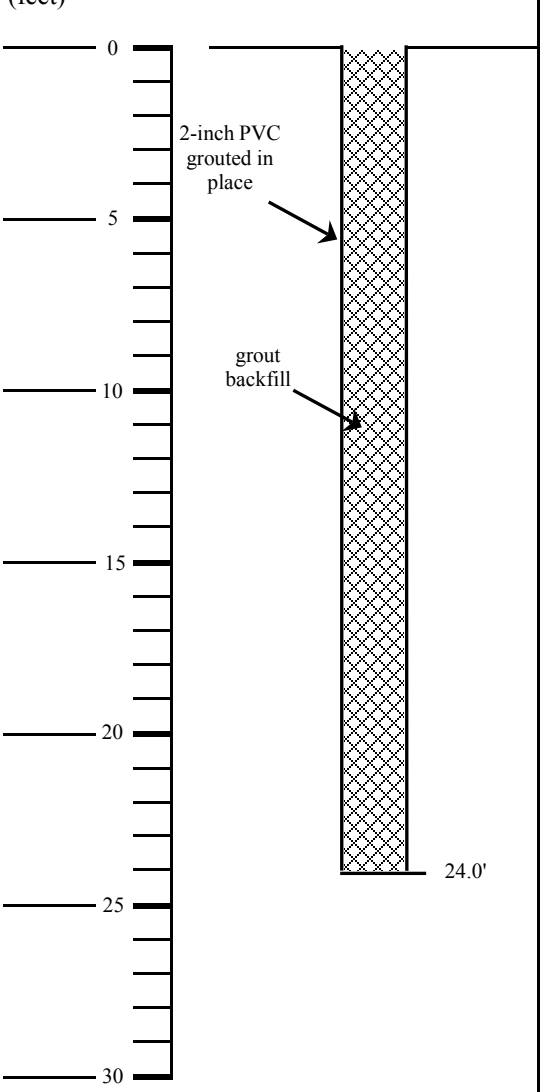
FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: **Former Dover Electronics Site**	Well I.D.: **MW-20**
Site Location: **Kirkwood, New York**	Driller: **Shawn Bodah**
Drilling Co.: **Parratt-Wolff, Inc.**	Inspector:
	Date: **10/29/14**

DECOMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	NA
Drilling Method(s)	NA
Borehole Dia. (in.)	NA
Temporary Casing Installed? (y/n)	N
Depth temporary casing installed	NA
Casing type/dia. (in.)	NA
Method of installing	NA
CASING PULLING	
Method employed	NA
Casing retrieved (feet)	NA
Casing type/dia. (in)	PVC - 2"
CASING PERFORATING	
Equipment used	NA
Number of perforations/foot	NA
Size of perforations	NA
Interval perforated	NA
GROUTING	
Interval grouted (FBLS)	0 - 24.0'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	4
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	0
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	4.5

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

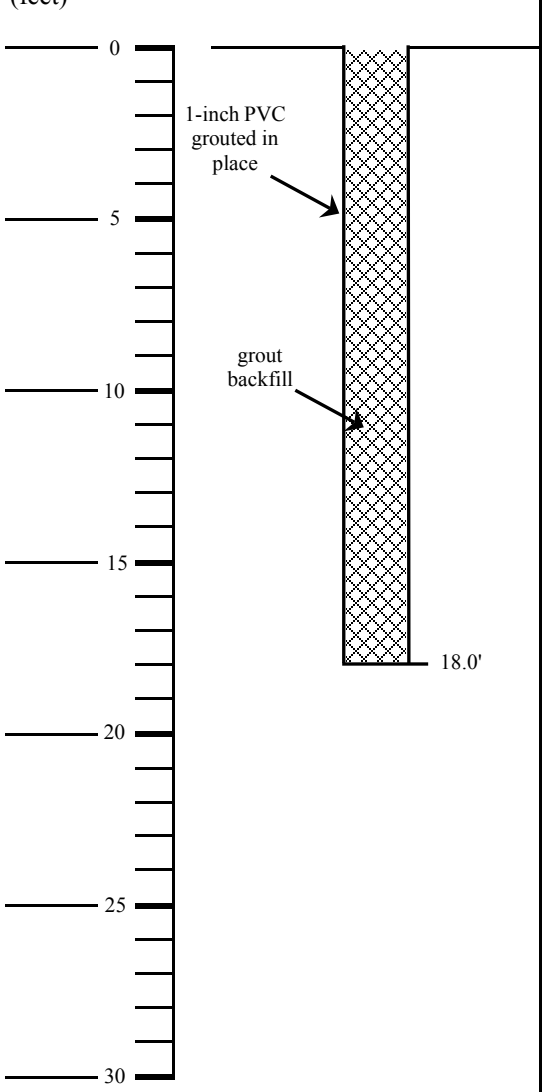
FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: **Former Dover Electronics Site**	Well I.D.: **MP-7**
Site Location: **Kirkwood, New York**	Driller: **Shawn Bodah**
Drilling Co.: **Parratt-Wolff, Inc.**	Inspector:
	Date: **10/29/14**

DECOMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	NA
Drilling Method(s)	NA
Borehole Dia. (in.)	NA
Temporary Casing Installed? (y/n)	N
Depth temporary casing installed	NA
Casing type/dia. (in.)	NA
Method of installing	NA
CASING PULLING	
Method employed	NA
Casing retrieved (feet)	NA
Casing type/dia. (in)	PVC - 1"
CASING PERFORATING	
Equipment used	NA
Number of perforations/foot	NA
Size of perforations	NA
Interval perforated	NA
GROUTING	
Interval grouted (FBLS)	0 - 18.0'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	4
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	0
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	0.75

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

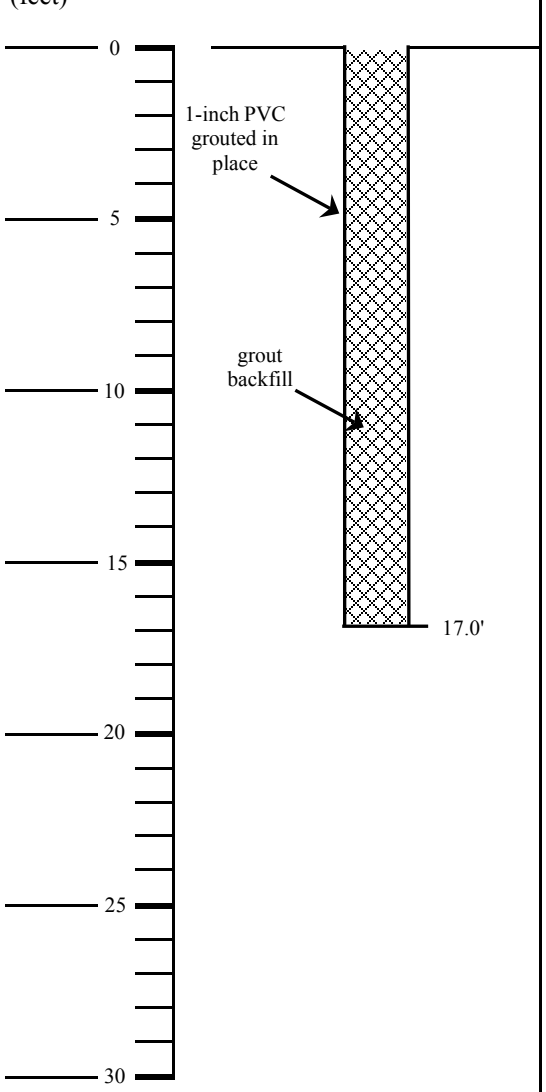
FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: **Former Dover Electronics Site**	Well I.D.: **MP-9**
Site Location: **Kirkwood, New York**	Driller: **Shawn Bodah**
Drilling Co.: **Parratt-Wolff, Inc.**	Inspector:
	Date: **10/29/14**

DECOMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	NA
Drilling Method(s)	NA
Borehole Dia. (in.)	NA
Temporary Casing Installed? (y/n)	N
Depth temporary casing installed	NA
Casing type/dia. (in.)	NA
Method of installing	NA
CASING PULLING	
Method employed	NA
Casing retrieved (feet)	NA
Casing type/dia. (in)	PVC - 1"
CASING PERFORATING	
Equipment used	NA
Number of perforations/foot	NA
Size of perforations	NA
Interval perforated	NA
GROUTING	
Interval grouted (FBLS)	0 - 17.0'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	4
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	0
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	0.75

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

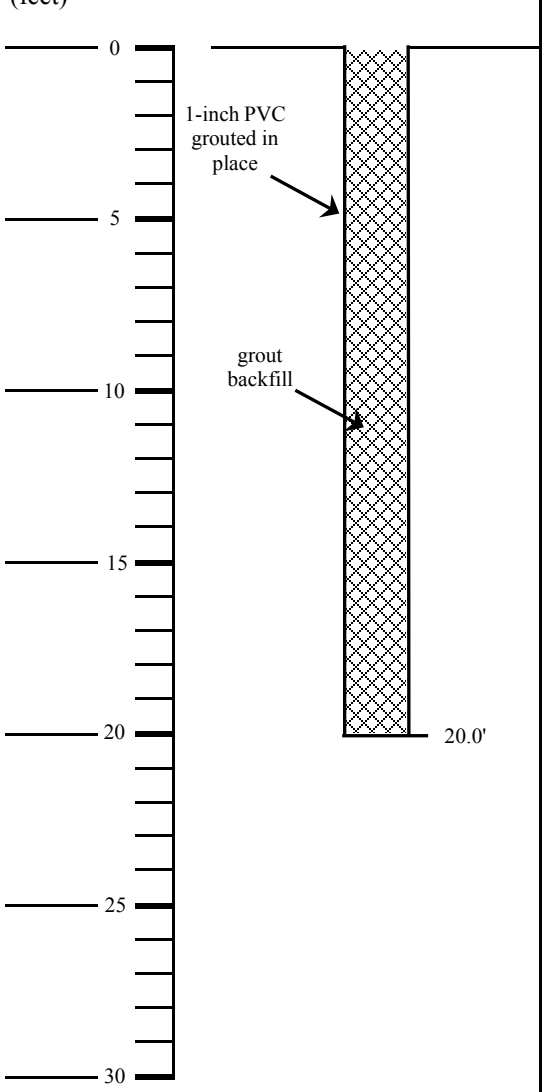
FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: **Former Dover Electronics Site**	Well I.D.: **MP-10S**
Site Location: **Kirkwood, New York**	Driller: **Shawn Bodah**
Drilling Co.: **Parratt-Wolff, Inc.**	Inspector:
	Date: **10/29/14**

DECOMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	NA
Drilling Method(s)	NA
Borehole Dia. (in.)	NA
Temporary Casing Installed? (y/n)	N
Depth temporary casing installed	NA
Casing type/dia. (in.)	NA
Method of installing	NA
CASING PULLING	
Method employed	NA
Casing retrieved (feet)	NA
Casing type/dia. (in)	PVC - 1"
CASING PERFORATING	
Equipment used	NA
Number of perforations/foot	NA
Size of perforations	NA
Interval perforated	NA
GROUTING	
Interval grouted (FBLS)	0 - 20.0'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	4
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	0
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	1

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

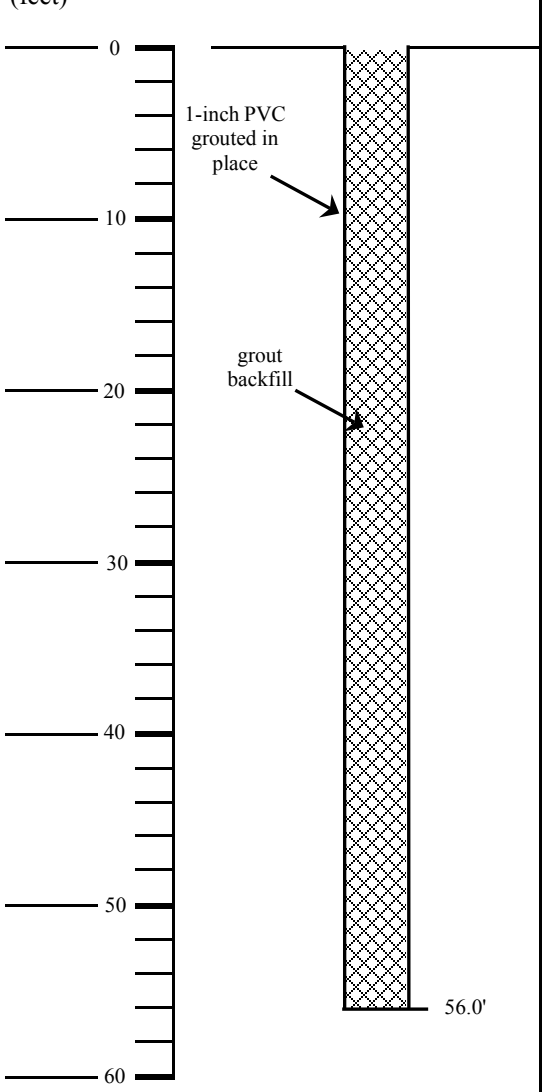
FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: **Former Dover Electronics Site**	Well I.D.: **MP-10D**
Site Location: **Kirkwood, New York**	Driller: **Shawn Bodah**
Drilling Co.: **Parratt-Wolff, Inc.**	Inspector:
	Date: **10/29/14**

DECOMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	NA
Drilling Method(s)	NA
Borehole Dia. (in.)	NA
Temporary Casing Installed? (y/n)	N
Depth temporary casing installed	NA
Casing type/dia. (in.)	NA
Method of installing	NA
CASING PULLING	
Method employed	NA
Casing retrieved (feet)	NA
Casing type/dia. (in)	PVC - 1"
CASING PERFORATING	
Equipment used	NA
Number of perforations/foot	NA
Size of perforations	NA
Interval perforated	NA
GROUTING	
Interval grouted (FBLS)	0 - 56.0'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	4
Quantity of cement used (lbs.)	47
Cement type	Portland
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	0
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	2.5

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

Appendix C

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: IJ-1

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 15 - 25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 — 16 ft TOC			2 — 18 ft TOC			3 — 20 ft TOC			4 — 22 ft TOC			5 — 24 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	10:45	Purple	NA	13.53	7.36	644.3	3.716	7.38	648.2	4.076	7.42	652.2	4.688	7.21	677.2	15.18	7.61	670.8	21.31	
4/11/2013	10:21	Purple	9.60	12.53	9.80	411.5	0.899	9.35	425.3	0.888	8.64	460.1	3.05	8.03	516.4	11.45	7.97	532.7	12.1	
6/13/2013	10:05	Purple	9.70	13.27	7.41	640.7	3.503	7.49	643.1	3.858	7.52	649.9	4.351	7.63	678.5	17.22	7.72	685.3	23.55	
8/6/2013	10:00	Purple	3.00	13.82	8.42	623.2	2.721	8.07	637.2	2.931	7.81	669.7	8.941	7.59	690.5	25.26	7.62	699.3	26.78	
10/1/2013	10:45	Purple	2.10	13.96	7.81	611.8	1.68	7.63	626.7	2.627	7.35	655.4	5.558	6.86	680.7	37.03	7.11	678.3	51.95	
12/11/2013	11:52	Purple	17.6	13.26	8.46	608.6	2.598	8.40	599.5	2.607	8.29	596.5	2.604	7.64	658.6	14.22	7.27	689.6	54.32	
4/16/2014	10:39	Purple	5.00	12.70	8.88	500.5	1.274	8.85	526.5	1.837	8.71	549.8	2.519	8.70	537.3	2.894	7.77	670.1	25.70	
8/18/2014	11:11	Purple	11.8	13.95	7.06	637.1	8.229	7.00	656.9	10.45	7.01	663.2	10.95	7.00	668.1	11.07	7.19	665.5	14.14	
10/27/2014	11:16	Purple	5.5	14.15	6.83	691.2	13.01	6.35	732.7	14.63	6.30	725.8	15.34	6.49	701.3	27.95	6.94	684.6	32.79	
12/15/2014	9:42	Pink	6.3	12.98	7.34	664.9	28.34	7.28	687.1	35.98	7.25	698.6	43.09	7.30	701.2	36.44	7.27	703.0	47.56	

ft TOC = Feet below top o feet from top of casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: IJ-4

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 10 - 25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet)																		NOTES:
					1			2			3			4			5			6			
					10 ft TOC			12 ft TOC			14 ft TOC			16 ft TOC			18 ft TOC			20 ft TOC			
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	10:40	Purple	NA	3.30	7.21	627.8	1.991	7.07	642.4	1.993	6.98	651.6	1.998	6.90	659.3	1.997	6.85	665.2	2.002	6.81	669.2	2.002	
4/11/2013	10:08	Purple	8.0	3.14	6.46	590.3	2.634	6.45	598.9	2.635	6.43	603.2	2.639	6.41	606.7	2.645	6.39	609.9	2.65	6.37	612.2	2.653	
6/13/2013	10:15	Purple	2.2	3.69	7.85	673.1	4.901	7.81	683.7	4.902	7.01	687.5	4.915	6.59	691.3	4.921	6.52	695.2	4.928	6.41	699.1	4.929	
8/6/2013	10:07	Purple	2.0	4.31	9.11	565.5	0.037	7.27	622.1	0.817	7.02	624.8	1.318	6.90	622.7	1.391	6.84	623.1	1.412	6.70	637.2	1.503	
10/1/2013	10:00	Purple	4.7	4.69	6.11	642.7	1.964	6.05	652.5	2.117	6.05	661.2	2.166	6.06	669.1	2.221	6.08	675.1	2.372	6.12	682.9	2.700	
12/11/2013	11:39	Purple	11.2	3.18	6.51	673.0	7.274	6.59	684.9	7.346	6.59	690.8	7.356	6.56	694.9	8.779	6.49	700.1	11.37	6.42	706.3	14.71	
4/16/2014	10:26	Purple	7.8	2.25	6.48	660.0	2.093	6.41	665.4	2.092	6.38	668.1	2.096	6.57	670.0	2.099	6.36	671.3	2.101	6.35	672.8	2.103	
8/18/2014	11:40	Purple	7.7	4.03	6.37	682.6	1.934	6.27	688.4	1.942	6.25	692.8	1.955	6.25	697.4	2.006	6.24	705.3	2.101	6.26	708.1	2.195	
10/27/2014	10:55	Pink	1.1	3.11	6.79	536.1	0.094	7.24	528.3	8.094	8.53	620.7	1.168	6.29	648.6	1.938	6.23	677.4	3.697	6.17	683.9	4.446	
12/15/2014	9:52	Purple	2.0	2.81	6.48	784.9	3.030	6.36	779.2	4.619	6.30	777.3	4.619	6.28	776.4	4.621	6.26	775.7	4.623	6.28	775.6	6.229	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID IJ-5

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 10 - 25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet)																		NOTES:
					1			2			3			4			5			6			
					10 ft TOC			12 ft TOC			14 ft TOC			16 ft TOC			18 ft TOC			20 ft TOC			
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	13:40	Clear	NA	3.43	8.21	423.8	0.495	7.99	436.5	0.496	7.89	444.1	0.497	7.79	451	0.456	7.73	455	0.496	7.67	458.2	0.496	
4/11/2013	11:06	Clear	NA	3.23	6.91	470.3	0.453	6.92	464	0.451	6.93	461.3	0.450	6.94	459.8	0.45	6.95	457.6	0.449	6.96	456.2	0.448	
6/13/2013	10:24	Clear	NA	4.10	6.99	475.2	0.421	7.00	474.2	0.42	7.00	474	0.423	7.01	470.1	0.423	7.01	470	0.422	7.01	469.3	0.422	
8/6/2013	9:40	Clear	NA	5.21	6.58	433.6	0.366	6.67	433.1	0.365	6.72	432.3	0.363	6.75	429.7	0.361	6.77	424.5	0.36	6.78	420.9	0.359	
10/1/2013	9:05	Clear	NA	5.6	6.84	322.4	0.358	6.73	323.4	0.433	6.74	320.8	0.442	6.76	318	0.445	6.76	315.8	0.444	6.76	312.9	0.442	
12/11/2013	11:30	Clear	NA	3.73	7.11	435.7	0.59	7.08	435.2	0.589	7.05	433.5	0.588	7.05	432.6	0.587	7.05	431.7	0.584	7.04	430.5	0.581	
4/16/2014	11:03	Clear	NA	1.17	6.83	498.3	0.862	6.89	491.8	0.860	6.92	488.0	0.855	6.94	485.2	0.849	6.95	483.0	0.839	6.96	481.4	0.833	
8/18/2014	12:49	Clear	NA	4.25	6.72	530.8	0.393	6.79	513.7	0.388	6.81	505.7	0.388	6.84	498.8	0.383	6.86	492.6	0.379	6.87	488.1	0.378	
10/27/2014	14:32	Clear	NA	4.01	6.09	422.7	0.321	5.93	432.8	0.32	5.97	438.1	0.319	5.99	438.2	0.319	6.06	437.8	0.317	6.09	438.6	0.318	
12/15/2014	11:30	Clear	NA	1.61	6.49	624.9	1.186	6.81	616.9	1.158	6.89	609.4	1.152	6.92	607.0	1.149	6.91	605.1	1.145	6.91	603.6	1.139	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: IJ-10

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 10 -25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet)																		NOTES:
					1			2			3			4			5			6			
					14 ft TOC			16 ft TOC			18 ft TOC			20 ft TOC			22 ft TOC			24 ft TOC			
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/19/2013	14:00	Purple	NA	12.10	8.09	513.7	2.888	8.01	499.3	2.901	8.47	527.7	3.075	8.72	533.7	3.501	8.61	581.7	15.998	8.53	661.3	19.35	
4/11/2013	10:15	Purple	9.3	12.00	8.14	475.4	5.443	8.36	459.7	5.575	9.33	415	6.167	9.84	394.4	6.546	9.84	450.1	20.62	9.75	468.7	24.96	
6/13/2013	10:30	Purple	9.4	12.10	9.01	593.2	11.87	8.57	631	12.21	8.02	652.3	12.75	8.50	661.3	13.19	8.52	660.1	22.35	8.77	660.8	25.7	
8/6/2013	9:53	Purple	2.4	12.35	8.36	172.1	2.551	8.43	176.3	2.555	8.33	-14.6	2.569	8.01	-104.3	2.612	9.82	575.8	21.60	10.34	612.1	22.44	
10/1/2013	10:25	Purple	0.6	12.60	7.30	545.7	2.993	8.72	254.9	3.774	9.64	123.6	3.43	10.11	408.6	3.632	9.15	597.5	46.21	9.20	614.2	48.71	
12/11/2013	11:45	Purple	4.0	11.95	6.89	671.6	10.45	6.88	673.6	10.81	6.89	669.8	11.55	6.90	668.7	12.94	7.53	643.5	56.25	7.89	667.7	57.87	
4/16/2014	10:44	Purple	5.0	11.45	9.98	505	2.373	8.87	541.5	3.229	9.04	551.2	3.999	8.46	619.8	5.818	9.12	638.4	22.40	9.75	637.1	23.16	
8/18/2014	11:23	Purple	11.6	12.58	8.84	474.1	0.373	7.55	628.4	2.598	7.24	648.2	4.444	7.20	655.9	5.276	8.89	618.8	10.47	8.14	648.7	10.80	
10/27/2014	11:26	Purple	5.7	13.78	6.29	654.9	4.915	6.69	650.4	8.514	6.96	647.2	7.030	7.24	645.7	9.299	7.69	643.9	7.820	7.51	694.8	7.350	
12/15/2014	10:00	Pink	6.5	11.33	7.76	584.9	2.530	8.25	550.4	2.496	7.74	564.2	2.512	7.31	577.3	2.520	7.69	577.4	4.909	7.46	621.7	36.71	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: MP-4 **Well Total Depth (ft):** 27

Meter Used: YSI-600XLM **Screened Interval (ft):** 17 - 27

(keep units consistent for each measurement round) **Personnel:** KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 ~23 ft TOC			2 ft TOC			3 ft TOC			4 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
4/11/2013	10:15	Clear	NA	6.10	5.82	535.8	1.780	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
6/13/2013	17:00	Clear	NA	7.51	5.37	235.3	1.776	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/6/2013	10:16	Clear	NA	7.83	6.61	625.9	1.874	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/1/2013	9:55	Clear - Turbid	NA	7.60	6.15	314.2	2.114	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/11/2013	5:45	Clear	NA	6.58	6.67	621.2	1.813	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
4/16/2014	11:20	Clear	NA	5.42	6.57	463.2	1.717	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/18/2014	12:45	Clear	NA	7.22	5.91	483.5	2.152	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/27/2014	13:17	Clear	NA	7.18	6.18	424.2	1.834	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/15/2014	12:25	Clear-Turbid	NA	5.46	6.04	484.7	1.780	--	--	--	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters

ft TOC = Feet below top of inner casing
mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well Total Depth (ft): 24

Well ID MP-5

Meter Used: YSI-600XLM

Screened Interval (ft): 14 - 24

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 ~19 ft TOC			2 ft TOC			3 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
4/11/2013	12:03	Clear	NA	12.75	5.99	553.2	2.732	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
6/13/2013	16:45	Clear	NA	13.01	5.96	274.2	2.447	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/6/2013	10:28	Clear	NA	13.35	6.46	586.2	2.145	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/1/2013	9:48	Clear	NA	13.43	5.98	322.6	2.562	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/11/2013	11:59	Clear	NA	12.73	7.91	634.5	1.993	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
4/16/2014	11:30	Clear	NA	12.23	6.58	475.8	3.758	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/18/2014	12:57	Clear	NA	13.43	5.78	461.4	2.904	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/27/2014	13:09	Pink	0.3	13.51	6.05	547.9	2.185	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/15/2014	12:40	Purple	2.8	12.05	6.27	706.9	1.875	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well Total Depth (ft): 24

Well ID MP-6S

Meter Used: YSI-600XLM

Screened Interval (ft): 14 - 24

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 ~19 ft TOC			2 ft TOC			3 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
4/11/2013	11:30	Pink	4.7	11.81	6.75	484.8	2.323	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
6/13/2013	16:00	Pink	4.0	12.37	6.02	485.1	2.261	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/6/2013	10:38	Pink	4.3	12.74	6.04	559.3	2.508	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/1/2013	9:40	Clear	NA	12.18	7.05	321.2	0.602	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/11/2013	12:11	Pink	6.3	11.83	7.03	631.6	2.143	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
4/16/2014	11:40	Pink	2.4	11.01	6.38	706.1	2.467	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/18/2014	13:08	Clear	NA	12.06	6.33	463.1	1.444	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/27/2014	14:52	Clear	NA	0.50	6.14	316.4	1.961	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/15/2014	12:50	Purple	6.0	18.55	6.39	743.6	2.405	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID MP-6D

Meter Used: YSI-600XLM

Well Total Depth (ft): 49

Screened Interval (ft): 39 - 49

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 ~44 ft TOC pH	Redox	Cond.	2 ft TOC pH	Redox	Cond.	3 ft TOC pH	Redox	Cond.	NOTES:
4/11/2013	11:16	Clear	NA	5.98	7.45	406.8	0.153	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
6/13/2013	16:20	Turbid	NA	7.00	6.80	89.2	0.444	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/6/2013	10:50	Turbid	NA	7.20	6.55	429	0.435	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/1/2013	9:35	Some Turbidity	NA	7.60	7.15	327.7	0.178	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/11/2013	12:17	Clear	NA	7.00	7.61	592.7	0.249	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
4/16/2014	11:50	Turbid	NA	5.60	6.64	512.0	0.478	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
8/18/2014	13:15	Clear	NA	3.78	6.72	329.9	0.554	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
10/27/2014	14:50	Turbid	NA	5.68	6.77	261.9	0.410	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters
12/15/2014	13:00	Turbid	NA	0.00	6.60	600.6	0.451	--	--	--	--	--	--	1 well vol. was purged prior to recording parameters

ft TOC = Feet below top of inner casing
mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: MP-11 **Well Total Depth (ft):** 30

Meter Used: YSI-600XLM **Screened Interval (ft):** 20 - 30

(keep units consistent for each measurement round) **Personnel:** KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 – 20 ft TOC			2 – 22 ft TOC			3 – 24 ft TOC			4 – 26 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
4/11/2013	10:00	Clear	NA	7.58	7.00	222.3	0.697	6.87	228.1	0.694	6.81	229.6	0.694	6.78	231	0.694	
6/13/2013	11:00	Clear	NA	8.01	6.75	400.1	0.691	6.61	401.6	0.701	6.59	401.5	0.711	6.50	403.5	0.705	
8/6/2013	8:58	Clear	NA	8.39	6.16	234.1	0.69	6.11	243.4	0.691	6.12	244.7	0.691	6.15	245.4	0.69	
10/1/2013	8:40	Clear	NA	6.09	6.38	227.6	0.839	6.30	225.1	0.843	6.28	224.3	0.842	6.25	224	0.842	
12/11/2013	10:57	Clear	NA	8.51	7.39	390.4	0.738	7.36	391.4	0.749	7.29	390.4	0.747	7.24	388.4	0.746	
4/16/2014	10:22	Purple	8.0	6.81	6.87	607.1	1.480	6.86	614.1	1.482	6.85	617.9	1.482	6.90	616.8	1.880	
8/18/2014	12:13	Clear	NA	8.54	7.62	597.3	0.071	7.48	595.5	0.109	7.24	636.2	0.210	7.11	652.4	0.367	
10/27/2014	10:38	Pink	0.2	8.59	6.81	566.7	0.768	6.92	575.4	0.808	6.95	589.8	1.155	6.99	594.8	1.390	
12/15/2014	11:02	Pink	0.2	7.81	5.74	809.2	0.923	6.19	785.4	0.938	6.41	777.9	1.122	6.60	782.6	2.744	

ft TOC = Feet below top of inner casing
mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID MP-12

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 15 - 25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet)												NOTES:
					1			2			3			4			
					16 ft TOC			18 ft TOC			20 ft TOC			22 ft TOC			
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	9:15	Clear	NA	13.28	7.54	354.3	1.09	7.27	360.8	1.088	7.20	363.4	1.075	7.14	366.1	1.076	
4/11/2013	10:57	Clear	NA	11.67	7.24	461.4	0.973	7.22	467.8	0.967	7.14	473.9	0.968	7.10	477	0.976	
6/13/2013	11:05	Clear	NA	14.11	7.12	507.7	0.881	7.03	515.8	0.875	7.00	525.3	0.871	6.98	528.3	0.87	
8/6/2013	9:28	Clear	NA	15.12	6.63	501.2	0.822	6.57	504.8	0.842	6.52	505.7	0.847	6.50	505.6	0.853	
10/1/2013	9:54	Clear	NA	15.47	6.56	221.2	0.903	6.46	219.7	0.915	6.45	219.1	0.905	6.45	219.4	0.911	
12/11/2013	11:07	Clear	NA	12.84	7.22	453.5	0.835	7.18	450.5	0.876	7.15	449.3	0.882	7.12	448.2	0.886	
4/16/2014	10:50	Pink	0.40	8.84	8.07	613.3	1.391	7.13	620.6	1.386	7.07	619.0	1.379	7.07	653.2	3.344	
8/18/2014	12:23	Clear	NA	13.43	6.95	675.5	0.761	6.87	682.5	0.809	6.93	687.2	0.921	7.16	695.6	4.685	
10/27/2014	14:24	Pink	0.5	12.64	5.89	623.6	0.649	6.05	631.7	0.678	5.94	644.9	0.726	6.25	676.5	9.624	
12/15/2014	11:11	Pink	0.6	8.99	6.83	641.7	0.871	6.96	650.0	0.933	7.19	643.8	0.994	7.22	688.6	9.348	

ft TOC = Feet below top of inner casing
mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID MP-13

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 15 - 25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet)												NOTES:
					1			2			3			4			
					16 ft TOC			18 ft TOC			20 ft TOC			22 ft TOC			
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
4/11/2013	10:26	Clear	NA	8.88	8.13	462.3	1.309	7.95	454.7	1.307	7.84	438.8	1.31	7.80	431.5	1.309	
6/13/2013	10:10	Clear	NA	10.87	6.77	266.1	1.169	6.75	251.7	1.201	6.81	243.8	1.253	6.83	241.3	1.254	
8/6/2013	9:11	Clear	NA	9.11	6.56	20.7	1.197	6.77	10.2	1.259	6.84	5.0	1.276	6.91	-0.9	1.278	
10/1/2013	9:15	Clear	NA	9.30	6.83	273.5	1.497	7.02	244.3	1.539	7.11	231.3	1.551	7.15	190.3	1.55	
12/11/2013	10:46	Clear	NA	9.03	7.19	427.2	1.202	7.22	411.3	1.209	7.29	380.2	1.341	7.30	337.5	1.347	
4/16/2014	10:35	Clear	NA	8.44	7.15	480.7	1.709	7.23	449.2	1.716	7.29	431.2	1.719	7.36	413.9	1.718	
8/18/2014	11:53	Clear	NA	9.22	7.32	415.3	1.424	7.41	393.3	1.443	7.45	381.7	1.459	7.50	367.8	1.476	
10/27/2014	11:09	Clear	NA	9.15	7.05	422.7	1.194	7.02	404.4	1.201	7.02	390.3	1.206	7.05	369.8	1.245	
12/15/2014	11:38	Clear	NA	8.62	7.46	434.7	1.494	7.48	423.3	1.490	7.50	414.6	1.491	7.50	408.3	1.494	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID MW-7A

Meter Used: YSI-600XLM

Well Total Depth (ft): 17

Screened Interval (ft): 7 - 17

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 – 8 ft TOC			2 – 10 ft TOC			3 – 12 ft TOC			4 – 14 ft TOC			5 – 16 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	8:30	Clear	NA	6.27	7.86	516.2	2.099	7.34	538.9	2.106	7.16	548.6	2.108	6.98	556	2.114	6.88	562	2.116	
4/11/2013	10:32	Clear	NA	5.77	7.37	453	3.020	7.15	487.5	3.445	7.00	505.7	3.495	6.88	516.3	3.495	6.79	522.7	3.496	
6/13/2013	10:39	Clear	NA	6.40	6.31	553.7	2.057	6.25	564.2	2.083	6.20	569.7	2.11	6.13	573.8	2.115	6.09	782	2.116	
8/6/2013	9:19	Clear	NA	6.50	6.70	598.1	2.177	6.45	616.8	2.173	6.36	626.1	2.183	6.30	631.4	2.179	6.14	508.9	2.736	
10/1/2013	9:08	Clear	NA	6.61	6.56	440.1	1.561	6.22	466.9	2.193	6.04	464.6	2.208	6.00	493.6	2.228	5.96	506.3	2.735	
12/11/2013	10:40	Clear	NA	4.11	7.22	596.5	2.046	7.21	627.1	2.155	7.11	635.8	2.174	7.05	640.1	2.176	7.02	643.7	2.168	
4/16/2014	10:30	Clear	NA	5.53	6.60	633.1	2.206	6.45	632.6	2.613	6.30	650.3	3.601	6.26	659.3	4.400	6.62	671.7	5.188	
8/18/2014	12:01	Clear	NA	6.64	6.41	678.3	2.489	6.26	694.6	2.768	6.28	716.0	2.853	6.44	741.5	4.415	6.58	745.5	7.144	
10/27/2014	11:02	Pink	0.7	6.53	6.51	603.4	0.986	6.42	621.6	1.087	6.47	623.8	1.091	6.46	680.7	5.753	6.31	691.6	17.98	
12/15/2014	10:50	Light Pink	0.5	5.37	5.60	605.9	1.905	5.94	644.9	2.659	6.20	690.7	2.662	6.23	697.4	2.663	6.33	777.9	17.29	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: MP-14

Meter Used: YSI-600XLM

Well Total Depth (ft): 25

Screened Interval (ft): 15 - 25

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 – 16 ft TOC			2 – 18 ft TOC			3 – 20 ft TOC			4 – 22 ft TOC			5 – 24 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	9:25	Clear	NA	8.13	6.76	427.9	1.409	6.59	430.1	1.414	6.51	431.4	1.42	6.46	431.6	1.425	6.42	433.1	3.229	
4/11/2013	11:01	Clear	NA	7.53	6.68	504.9	1.422	6.49	513	1.434	6.43	516.2	1.436	6.36	519.3	1.434	6.37	513.7	1.806	
6/13/2013	10:30	Clear	NA	8.78	6.37	540.4	1.399	6.32	539.3	1.407	6.27	537.3	1.412	6.25	537.8	1.411	6.21	538.1	1.571	
8/6/2013	9:33	Clear	NA	9.55	6.23	510.8	1.236	6.13	506.6	1.412	6.07	503.2	1.415	6.04	502.3	1.426	6.17	480.3	0.897	
10/1/2013	9:00	Clear	NA	10.01	6.08	346.9	1.752	5.97	351.4	2.018	5.91	353.2	2.057	5.87	354.5	2.051	5.83	355.9	2.051	
12/11/2013	11:23	Clear	NA	8.06	6.87	442.3	1.396	6.73	450.4	1.534	6.66	457.6	1.543	6.62	462.1	1.545	6.59	466.1	1.548	
4/16/2014	11:00	Clear	NA	4.75	6.27	574.3	1.376	6.12	561.6	1.379	6.09	553.7	1.381	6.06	548.7	1.381	6.19	563.6	1.304	
8/18/2014	12:40	Clear	NA	8.87	5.73	603.2	2.080	5.68	602.5	2.130	5.65	596.1	2.117	5.65	593.2	2.130	6.26	612.4	1.734	
10/27/2014	14:28	Clear	NA	8.58	5.45	509.1	1.534	5.42	519.6	1.620	5.40	522.6	1.632	5.40	525.4	1.652	5.93	693.8	2.898	
12/15/2014	11:16	Clear	NA	5.37	6.06	705.1	1.358	5.86	699.7	1.346	5.84	693.2	1.345	5.82	687.1	1.347	NA	NA	NA	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

VERINA Engineering, P.C.

VERTICAL PROFILING MONITORING LOG

Former Dover Electronics Site, Kirkwood, New York (5101.0002)

Well ID: MW-16

Meter Used: YSI-600XLM

Well Total Depth (ft): 28

Screened Interval (ft): 18 - 28

(keep units consistent for each measurement round)

Personnel: KFS, MIF, SJT, DLC

Date	Time	Color	MnO4 Conc. (mg/L)	Water Level (ft TOC)	Interval Depth (feet) 1 — 18 ft TOC			2 — 20 ft TOC			3 — 22 ft TOC			4 — 24 ft TOC			5 — 26 ft TOC			NOTES:
					pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	pH	Redox	Cond.	
2/20/2013	9:40	Clear	NA	15.57	7.75	363	0.669	7.44	367.6	0.677	7.20	371.8	0.682	7.12	373	0.683	7.07	374.2	0.682	
4/11/2013	10:53	Clear	NA	14.63	7.25	430.6	0.647	7.61	438.5	0.645	7.48	446.1	0.645	7.41	451.3	0.645	7.36	455.3	0.645	
6/13/2013	11:30	Clear	NA	15.47	6.8	460.3	0.658	6.73	461.2	0.659	6.62	475.2	0.665	6.59	481.3	0.667	6.55	489.6	0.671	
8/6/2013	9:04	Clear	NA	16.80	6.64	235.6	0.457	6.60	236.1	0.457	6.53	236.8	0.478	6.53	236	0.482	6.54	235.1	0.484	
10/1/2013	8:50	Clear	NA	17.54	6.84	208.9	0.472	6.82	207.5	0.472	6.74	208.1	0.473	6.68	208.9	0.478	6.62	209.5	0.468	
12/11/2013	11:03	Clear	NA	16.14	7.41	371.9	0.432	7.42	375.2	0.437	7.37	382.5	0.467	7.34	395.4	0.52	7.30	402.6	0.525	
4/16/2014	10:00	Clear	NA	12.75	7.18	281.3	0.595	7.10	283.0	0.598	7.01	284.9	0.598	6.98	285.7	0.599	6.995	286.2	0.598	
8/18/2014	12:38	Clear	NA	16.04	7.15	645.4	0.464	6.91	642.7	0.460	6.86	640.3	0.456	6.84	637.5	0.458	6.83	635.4	0.465	
10/27/2014	10:51	Clear	NA	15.52	7.02	476.6	0.351	7.03	507.5	0.350	7.06	510.8	0.356	7.10	506.9	0.366	7.04	511.9	0.370	
12/15/2014	11:05	Clear	NA	12.35	6.11	460.3	0.368	6.29	464.9	0.369	6.49	485.5	0.370	6.56	507.8	0.370	6.64	523.9	0.371	

ft TOC = Feet below top of inner casing

mg/L = Milligrams per liter

Appendix D

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-4	Date:	3/19/2014	
Field Personnel:	MIF	Weather:	Overcast, cold, slight wind, dry	

PRE-PURGE INFO:

Well Depth (ft btoc):	~27	Depth to Water (ft btoc):	6.50
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	17-27
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~22

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MP-4
Final Depth to Water (ft btoc):	7.85	Sample Time:	11:55

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:20	8.78	5.71	1.889	185.1	5.29	62.0	7.60	0.96	75	
11:25	8.69	5.69	1.883	209.7	4.82	74.0	7.85	0.96	75	
11:30	8.72	5.68	1.877	209.8	4.76	59.6	7.85	0.96	75	
11:35	8.70	5.68	1.872	200.6	4.70	33.1	7.85	0.96	75	
11:40	8.71	5.68	1.872	202.4	4.71	22.8	7.85	0.96	75	
11:45	8.52	5.68	1.872	210.2	4.74	20.7	7.85	0.96	75	
11:50	8.54	5.68	1.871	205.3	4.75	21.5	7.85	0.95	75	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-5	Date:	3/19/2014	
Field Personnel:	MIF	Weather:	Cool, 34-42 F, partly cloudy, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	~24	Depth to Water (ft btoc):	13.04
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	14-24
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~19

POST-PURGE INFO:

Color:	Slightly turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MP-5 (DUP-031914)
Final Depth to Water (ft btoc):	13.07	Sample Time:	15:05

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:20	8.71	5.95	3.621	160.3	4.61	54.8	13.15	1.91	75	
14:25	8.65	5.92	3.560	181.7	4.04	45.7	13.15	1.88	75	
14:30	8.61	5.91	3.434	186.0	3.55	35.9	13.15	1.80	75	
14:35	8.55	5.89	3.340	187.2	3.30	22.1	13.15	1.75	75	
14:40	8.42	5.88	3.250	183.5	3.01	17.8	13.15	1.71	75	
14:45	8.39	5.87	3.164	175.3	2.77	12.3	13.15	1.66	75	
14:50	8.32	5.87	3.147	177.8	2.71	9.11	13.15	1.65	75	
14:55	8.28	5.86	3.125	177.7	2.63	6.03	13.15	1.64	75	
15:00	8.19	5.86	3.105	175.8	2.57	4.78	13.15	1.63	75	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-6s	Date:	3/19/2014	
Field Personnel:	MIF	Weather:	Cold, 34-42 F, partly cloudy, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	~24	Depth to Water (ft btoc):	12.51
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	14-24
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~19

POST-PURGE INFO:

Color:	Pink	Mn/MnO4 (mg/L):	0.3/0.6
Volume Purged (gal):	~1.5	Sample ID:	MP-6S
Final Depth to Water (ft btoc):	12.51	Sample Time:	16:55

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
16:00	8.80	6.68	1.579	413.6	0.74	668	12.45	0.81	75	
16:05	8.70	6.43	1.933	502.0	0.56	353	12.45	0.99	75	
16:10	8.66	6.37	2.003	520.5	0.53	32.2	12.45	1.04	75	
16:15	8.69	6.35	2.062	533.5	0.51	27.8	12.45	1.06	75	
16:20	8.74	6.33	2.116	550.3	0.48	28.1	12.45	1.09	75	
16:25	8.76	6.31	2.175	565.3	0.50	17.8	12.45	1.12	75	
16:30	8.79	6.29	2.216	581.3	0.50	16.9	12.45	1.14	75	
16:35	8.75	6.28	2.260	588.1	0.51	11.3	12.45	1.17	75	
16:40	8.79	6.25	2.320	602.1	0.56	7.79	12.45	1.20	75	
16:45	8.81	6.25	2.330	608.8	0.57	5.12	12.45	1.20	75	
16:50	8.78	6.24	2.350	611.4	0.60	4.70	12.45	1.21	75	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics SiteSite, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-6D	Date:	3/20/2014	
Field Personnel:	MIF	Weather:	Partly cloudy, cold, windy, dry	

PRE-PURGE INFO:

Well Depth (ft btoc):	~53	Depth to Water (ft btoc):	6.61
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	39-49
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~44

POST-PURGE INFO:

Color:	Very turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~2	Sample ID:	MP-6D
Final Depth to Water (ft btoc):	6.70	Sample Time:	14:20

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
13:35	8.82	7.26	0.175	106.1	6.87	184	6.75	0.08	100	
13:40	9.44	6.92	0.438	104.6	1.81	575 AU	6.79	0.21	100	
13:45	9.87	6.92	0.454	99.7	0.82	1001 AU	6.79	0.22	100	
13:50	10.35	6.92	0.460	94.2	0.53	2371 AU	6.79	0.22	100	
13:55	10.80	6.91	0.461	86.8	0.36	1180 AU	6.79	0.22	100	
14:00	11.10	6.91	0.460	80.9	0.31	793 AU	6.80	0.22	100	
14:05	11.01	6.91	0.459	75.0	0.27	775 AU	6.80	0.22	100	
14:10	10.92	6.91	0.458	73.3	0.26	761 AU	6.80	0.22	100	
14:15	10.90	6.91	0.457	71.0	0.26	760 AU	6.80	0.22	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-11	Date:	3/18/2014	
Field Personnel:	KFS	Weather:	Cold, 20-35 F, partly cloudy, light winds	

PRE-PURGE INFO:

Well Depth (ft btoc):	~30	Depth to Water (ft btoc):	7.71
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	20-30
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~25

POST-PURGE INFO:

Color:	Clear, slightly turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	MP-11 (MS/MSD)
Final Depth to Water (ft btoc):	13.55	Sample Time:	12:45

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:55	9.03	6.43	0.903	567.1	1.53	107.7	9.55	0.45	200	
12:00	9.14	6.37	0.900	523.3	0.57	44	10.39	0.44	200	
12:05	9.23	6.35	0.882	501.7	0.50	130	11.14	0.43	200	
12:10	9.35	6.34	0.869	486.9	0.41	114	11.75	0.42	200	
12:15	9.48	6.34	0.861	479.5	0.38	78.7	12.22	0.42	200	
12:20	9.47	6.35	0.853	474.0	0.39	35.1	12.53	0.42	200	
12:25	9.46	6.35	0.850	471.0	0.37	21.8	12.81	0.42	200	
12:30	9.65	6.34	0.846	466.7	0.36	15.7	13.15	0.42	200	
12:35	9.78	6.34	0.846	463.4	0.35	9.87	13.36	0.42	200	
12:40	9.86	6.34	0.845	459.2	0.34	4.90	13.59	0.42	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-12	Date:	3/18/2014	
Field Personnel:	MIF	Weather:	Clear skies, cold, slight wind	

PRE-PURGE INFO:

Well Depth (ft btoc):	~25	Depth to Water (ft btoc):	10.77
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	MP-12
Final Depth to Water (ft btoc):	10.80	Sample Time:	15:30

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:55	9.04	6.77	1.720	183.7	8.70	685 AU	10.85	0.87	300	
15:00	9.14	6.53	1.743	208.4	8.64	575 AU	10.85	0.89	300	
15:05	9.13	6.51	1.762	207.6	8.72	294.0	10.85	0.90	300	
15:10	9.08	6.49	1.790	203.5	8.79	215.3	10.85	0.91	300	
15:15	8.98	6.49	1.806	200.6	8.83	96	10.85	0.92	300	
15:20	9.08	6.48	1.817	200.7	8.85	91	10.85	0.93	300	
15:25	9.06	6.48	1.820	199.2	8.86	92	10.85	0.93	300	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-14	Date:	3/19/2014	
Field Personnel:	KFS	Weather:	Cold, 34-42 F, partly cloudy, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	~25	Depth to Water (ft btoc):	6.03
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~2.5	Sample ID:	MP-14
Final Depth to Water (ft btoc):	7.02	Sample Time:	15:00

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:10	8.89	6.19	1.254	517.4	0.83	16	6.95	0.63	200	
14:15	8.72	6.13	1.258	514.9	0.67	41	6.97	0.63	200	
14:20	8.51	6.11	1.262	510.8	0.42	56	6.99	0.63	200	
14:25	8.47	6.10	1.260	510.0	0.42	98.9	7.00	0.63	200	
14:30	8.47	6.10	1.259	509.4	0.41	84.6	7.01	0.63	200	
14:35	8.49	6.10	1.263	508.5	0.39	87.4	7.03	0.63	200	
14:40	8.42	6.10	1.263	507.2	0.40	39.8	7.05	0.63	200	
14:45	8.41	6.10	1.261	506.4	0.41	23.5	7.06	0.63	200	
14:50	8.39	6.10	1.260	505.8	0.41	22.3	7.06	0.63	200	
14:55	8.32	6.09	1.262	505.6	0.40	21.2	7.07	0.63	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-7A	Date:	3/18/2014	
Field Personnel:	KFS	Weather:	Cold, 20-35 F, partly cloudy, light winds	

PRE-PURGE INFO:

Well Depth (ft btoc):	~17	Depth to Water (ft btoc):	5.86
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	7-17
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~12

POST-PURGE INFO:

Color:	Purple/turbid	Mn/MnO4 (mg/L):	1.0/2.1
Volume Purged (gal):	~3	Sample ID:	MW-7A
Final Depth to Water (ft btoc):	7.31	Sample Time:	15:35

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
15:00	7.35	6.37	2.799	717.9	8.60	30.8	6.94	1.45	200	
15:05	6.77	6.32	2.805	723.1	8.60	23.9	7.70	1.46	200	
15:10	6.64	6.30	2.819	725.1	8.51	22.4	7.75	1.46	100	lower flow
15:15	6.83	6.31	2.815	722.9	8.47	21.4	7.86	1.46	100	
15:20	6.87	6.30	2.817	722.1	8.45	19.0	7.94	1.46	100	
15:25	6.94	6.30	2.803	721.8	8.41	13.42	8.02	1.44	100	
15:30	7.23	6.30	2.760	721.0	8.34	10.86	8.17	1.43	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-16	Date:	3/18/2014	
Field Personnel:	MIF	Weather:	Clear skies, cold, slight wind	

PRE-PURGE INFO:

Well Depth (ft btoc):	~30	Depth to Water (ft btoc):	14.69
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	20-30
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~25

POST-PURGE INFO:

Color:	Slightly turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	MW-16
Final Depth to Water (ft btoc):	14.70	Sample Time:	14:15

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
13:40	10.06	7.45	0.655	121.4	8.35	28.5	14.71	0.32	300	
13:45	10.24	7.08	0.649	175.4	7.82	21.3	14.71	0.32	300	
13:50	10.42	6.86	0.646	182.2	7.71	16.9	14.71	0.32	300	
13:55	10.46	6.82	0.645	191.7	7.71	11.8	14.71	0.32	300	
14:00	10.45	6.74	0.645	200.0	7.68	7.77	14.71	0.32	300	
14:05	10.50	6.71	0.644	195.9	7.71	5.12	14.71	0.32	300	
14:10	10.39	6.68	0.645	195.4	7.69	4.73	14.71	0.32	300	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-25	Date:	3/20/2014	
Field Personnel:	MIF	Weather:	Partly cloudy, cold, slight wind, dry	

PRE-PURGE INFO:

Well Depth (ft btoc):	~39	Depth to Water (ft btoc):	12.22
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	34-39
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~36

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	MW-25
Final Depth to Water (ft btoc):	12.22	Sample Time:	11:35

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:00	12.03	6.55	1.418	151.8	1.44	53.0	12.20	0.71	200	
11:05	12.25	6.41	1.409	169.5	1.31	38.0	12.20	0.71	200	
11:10	12.29	6.37	1.419	176.9	1.27	29.7	12.20	0.72	200	
11:15	12.39	6.34	1.432	181.0	1.25	24.3	12.20	0.72	200	
11:20	12.50	6.33	1.439	180.4	1.23	24.0	12.20	0.723	200	
11:25	12.70	6.31	1.449	176.3	1.23	23.4	12.20	0.73	200	
11:30	12.66	6.30	1.453	175.2	1.22	22.9	12.20	0.73	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-28	Date:	3/20/2014	
Field Personnel:	KFS	Weather:	Partly cloudy, cold, snow showers, very windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	~25	Depth to Water (ft btoc):	12.02
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	MW-28
Final Depth to Water (ft btoc):	12.11	Sample Time:	11:30

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:55	11.39	5.97	2.525	2.525	187.0	1139 AU	12.61	1.27	300	
11:00	12.20	5.93	2.067	2.067	182.3	605 AU	12.61	1.06	300	
11:05	12.50	5.92	1.976	1.976	176.3	379	12.61	1.01	300	
11:10	12.62	5.93	1.996	1.996	172.8	151	12.61	1.03	300	
11:15	12.80	5.94	2.057	2.057	169.1	56.6	12.61	1.06	300	
11:20	13.06	5.96	2.080	2.080	164.9	53.7	12.61	1.07	300	
11:25	13.25	5.98	2.115	2.115	160.4	54.1	12.61	1.09	300	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-4	Date:	3/18/2014	
Field Personnel:	KFS	Weather:	Cold, 20-35 F, partly cloudy, light winds	

PRE-PURGE INFO:

Well Depth (ft btoc):	~25	Depth to Water (ft btoc):	2.98
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	10-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~18

POST-PURGE INFO:

Color:	Purple/turbid	Mn/MnO4 (mg/L):	10/20
Volume Purged (gal):	~3	Sample ID:	IJ-4
Final Depth to Water (ft btoc):	5.02	Sample Time:	14:15

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
13:40	8.58	6.20	2.029	732.7	5.89	21.0	3.15	1.04	200	
13:45	8.42	6.21	2.038	735.3	5.43	20.2	3.49	1.04	200	
13:50	8.42	6.21	2.046	736.4	5.35	20.7	3.79	1.05	200	
13:55	8.39	6.21	2.047	737.4	5.29	21.3	4.06	1.05	200	
14:00	8.40	6.21	2.050	738.0	5.23	20.0	4.39	1.05	200	
14:05	8.40	6.21	2.049	738.6	5.20	19.0	4.49	1.05	200	
14:10	8.36	6.21	2.052	739.1	5.20	19.2	4.55	1.05	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-5	Date:	3/19/2014	
Field Personnel:	KFS	Weather:	Cold, 34-42 F, partly cloudy, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	~25	Depth to Water (ft btoc):	2.28
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	10-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~18

POST-PURGE INFO:

Color:	Slightly turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~2.5	Sample ID:	IJ-5
Final Depth to Water (ft btoc):	3.86	Sample Time:	16:20

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
15:35	8.20	6.93	0.820	444.0	2.21	11.0	2.57	0.40	200	
15:40	8.32	6.94	0.803	440.6	0.60	7.85	2.81	0.40	200	
15:45	8.31	6.94	0.801	440.1	0.34	7.27	2.85	0.39	200	
15:50	8.32	6.94	0.801	440.1	0.40	7.39	2.94	0.40	200	
15:55	8.21	6.95	0.800	438.6	1.07	7.44	3.00	0.39	200	change YSI battery
16:00	7.92	6.96	0.800	432.9	1.22	7.57	3.05	0.39	200	
16:05	8.22	6.95	0.800	437.2	0.34	6.12	3.54	0.39	200	
16:10	8.23	6.95	0.799	438.1	0.32	6.09	3.65	0.39	200	
16:15	8.25	6.95	0.798	438.6	0.31	6.08	3.69	0.39	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-10	Date:	3/19/2014	
Field Personnel:	KFS	Weather:	Cold, 34-42 F, partly cloudy, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	~25	Depth to Water (ft btoc):	12.09
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	10-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~19

POST-PURGE INFO:

Color:	Dark purple	Mn/MnO4 (mg/L):	11/22.1
Volume Purged (gal):	~4	Sample ID:	IJ-10
Final Depth to Water (ft btoc):	13.34	Sample Time:	11:35

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:20	8.46	8.13	7.009	573.8	10.13	3030 AU	12.21	3.87	200	
10:25	8.60	7.97	7.027	583.2	9.60	2490 AU	12.36	3.86	200	
10:30	8.52	7.86	6.421	606.8	9.23	1777 AU	12.38	3.46	200	
10:35	8.50	7.78	6.026	609.2	9.05	1235 AU	12.59	3.27	200	
10:40	8.51	7.82	5.790	610.5	8.91	167 NTU	12.71	3.14	200	
10:45	8.54	7.95	5.655	609.5	8.85	NA	12.92	3.06	200	
10:50	8.59	8.25	5.647	603.8	8.81	NA	13.01	3.07	200	
10:55	8.79	8.46	5.673	602.6	8.82	NA	13.03	3.08	200	
11:00	8.76	8.60	5.749	600.6	8.81	NA	13.06	3.13	200	
11:05	8.59	8.79	5.873	596.3	8.81	NA	13.09	3.20	200	Turbidity NA, water too dark purple
11:10	8.73	8.87	5.958	594.5	8.83	NA	13.18	3.26	200	
11:15	8.61	8.93	6.047	594.9	8.86	NA	13.21	3.30	200	
11:20	8.56	8.98	6.114	591.9	8.99	NA	13.29	3.34	200	
11:25	8.57	9.00	6.120	592.4	8.93	NA	13.33	3.47	200	
11:30	8.55	9.01	6.121	592.2	8.94	NA	13.38	3.49	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-3D	Date:	9/18/2014	
Field Personnel:	DLC	Weather:	Foggy, cool, 50s - 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	56	Depth to Water (ft btoc):	36.92
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	46-56
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~51

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MP-3D
Final Depth to Water (ft btoc):	37.05	Sample Time:	9:45

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:35	14.19	6.84	0.435	160.4	1.96	5.50	37.10	0.21	50	
8:40	14.11	6.83	0.434	159.6	1.69	6.23	37.13	0.21	50	
8:45	13.83	6.80	0.434	175.8	1.10	5.89	37.15	0.21	50	
8:50	13.75	6.78	0.433	162.9	0.88	5.36	37.17	0.21	50	
8:55	13.69	6.78	0.432	142.0	0.65	4.07	37.16	0.21	50	
9:00	13.67	6.77	0.432	135.3	0.57	3.83	37.13	0.21	50	
9:05	13.72	6.78	0.432	125.3	0.50	3.60	37.13	0.21	50	
9:10	13.77	6.76	0.431	119.7	0.50	2.94	37.14	0.21	50	
9:15	13.81	6.76	0.431	142.5	0.45	3.28	37.14	0.21	50	
9:20	13.81	6.77	0.431	130.6	0.45	3.28	37.20	0.21	50	
9:25	13.84	6.77	0.431	183.6	0.40	2.57	37.20	0.21	50	
9:30	13.83	6.77	0.431	176.3	0.37	1.69	37.18	0.21	50	
9:35	13.88	6.78	0.431	168.5	0.37	1.59	37.17	0.21	50	
9:40	13.90	6.78	0.431	166.6	0.40	1.58	37.18	0.21	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-4	Date:	9/17/2014	
Field Personnel:	DLC	Weather:	Sunny, clear, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	27	Depth to Water (ft btoc):	7.58
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	17-27
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~22

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~0.5	Sample ID:	MP-4
Final Depth to Water (ft btoc):	8.13	Sample Time:	11:10

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:25	17.73	6.14	0.736	354.5	13.27	16.3	8.25	0.69	50	
10:30	16.61	5.79	1.582	342.1	1.82	13.9	8.35	0.80	50	
10:35	16.57	5.78	1.602	334.3	1.73	8.42	8.35	0.81	50	
10:40	16.65	5.74	1.627	319.1	1.53	5.57	8.36	0.83	50	
10:45	16.63	5.72	1.642	312	1.46	4.00	8.34	0.83	50	
10:50	16.61	5.72	1.652	296.2	1.63	2.47	8.34	0.84	50	
10:55	16.59	5.71	1.657	282.7	1.60	2.47	8.36	0.84	50	
11:00	16.69	5.70	1.659	275.3	1.64	2.25	8.36	0.84	50	
11:05	16.90	5.70	1.658	276.6	1.51	2.21	8.36	0.84	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-5	Date:	9/17/2014	
Field Personnel:	DLC	Weather:	Cloudy, cold, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	24.34	Depth to Water (ft btoc):	13.40
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	14-24
Pump Used:	QED 0.75" bladder pump	Depth of Pump (ft btoc):	~19

POST-PURGE INFO:

Color:	Turbid, brown	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~0.5	Sample ID:	MP-5
Final Depth to Water (ft btoc):	13.44	Sample Time:	9:45

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:50	16.53	6.05	2.603	516.6	4.81	68.9	13.53	1.35	50	
8:55	16.50	5.92	2.615	518.1	3.63	67.2	13.53	1.36	50	
9:00	16.41	5.93	2.622	511.4	3.46	53.9	13.57	1.36	50	
9:05	16.43	5.94	2.620	499.5	3.13	40.3	13.60	1.36	50	
9:10	16.45	5.94	2.611	498.9	2.96	29.6	13.63	1.35	50	
9:15	16.52	5.96	2.579	486.7	2.81	21.9	13.63	1.34	50	
9:20	16.64	5.96	2.555	479.3	2.67	18.6	13.68	1.33	50	
9:25	16.71	5.97	2.538	478.6	2.46	12.9	13.58	1.32	50	
9:30	16.73	5.98	2.525	470.2	2.29	8.88	13.50	1.31	50	
9:35	16.80	5.98	2.514	466.3	2.23	8.71	13.48	1.30	50	
9:40	16.85	5.98	2.508	464.8	2.27	8.59	13.45	1.30	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-6S	Date:	9/17/2014	
Field Personnel:	DLC	Weather:	Sunny, slight breeze, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	24	Depth to Water (ft btoc):	12.22
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	14-24
Pump Used:	QED 0.75" bladder pump	Depth of Pump (ft btoc):	~19

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~0.75	Sample ID:	MP-6S
Final Depth to Water (ft btoc):	12.78	Sample Time:	12:50

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:50	18.29	6.16	2.197	273.7	1.09	29.5	12.72	1.13	50	
11:55	18.17	6.17	2.190	253.5	0.82	28.6	12.72	1.13	50	
12:00	18.16	6.15	2.178	248	0.60	23.8	12.71	1.12	50	
12:05	18.13	6.17	2.172	245.6	0.43	14.6	12.76	1.12	50	
12:10	18.34	6.17	2.162	271.6	0.45	9.86	12.81	1.11	50	
12:15	18.32	6.17	2.157	410.5	0.37	7.40	12.80	1.11	50	
12:20	18.37	6.17	2.158	461.8	0.36	5.62	12.81	1.11	50	
12:25	18.40	6.17	2.159	489.8	0.34	4.50	12.83	1.11	50	
12:30	18.33	6.17	2.159	508.6	0.34	3.47	12.85	1.11	50	
12:35	18.47	6.18	2.158	515.3	0.32	2.85	12.83	1.11	50	
12:40	18.41	6.17	2.165	522.7	0.33	2.90	12.81	1.11	50	
12:45	18.39	6.18	2.161	523.8	0.32	2.80	12.83	1.11	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-6D	Date:	9/17/2014	
Field Personnel:	DLC	Weather:	Sunny, breezy, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	49	Depth to Water (ft btoc):	0.00
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	39-49
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~44

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MP-6D
Final Depth to Water (ft btoc):	8.00	Sample Time:	15:35

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:25	20.54	6.90	0.298	105.2	1.48	17.9	4.93	0.14	50	
14:30	20.31	6.88	0.262	123.0	0.65	50.8	6.98	0.12	50	
14:35	20.08	6.87	0.239	127.4	0.54	50.6	9.06	0.11	50	
14:40	19.87	6.87	0.232	124.8	0.46	44.4	8.31	0.11	50	
14:45	19.45	6.85	0.245	116.6	0.43	44.2	8.55	0.12	50	
14:50	19.15	6.84	0.288	108.1	0.40	68.4	8.46	0.14	50	
14:55	19.13	6.83	0.319	90.3	0.34	102.7	8.46	0.16	50	
15:00	18.97	6.83	0.348	80.7	0.29	1626 AU	8.35	0.17	50	
15:05	19.21	6.83	0.348	75.4	0.24	1650 AU	8.30	0.17	50	
15:10	18.71	6.84	0.349	65.9	0.22	1413 AU	8.25	0.17	50	
15:15	16.77	6.81	0.343	61.1	0.2	1289 AU	8.20	0.16	50	
15:20	16.30	6.79	0.338	58.4	0.19	1141 AU	8.18	0.16	50	
15:25	16.14	6.78	0.335	56.6	0.18	1167 AU	8.19	0.16	50	
15:30	16.13	6.78	0.333	55.0	0.18	1147 AU	8.15	0.16	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-8S	Date:	9/19/2014	
Field Personnel:	DLC	Weather:	Sunny, 50s	

PRE-PURGE INFO:

Well Depth (ft btoc):	16.54	Depth to Water (ft btoc):	14.03
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	13 - 23
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~15

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~0.5	Sample ID:	MP-8S
Final Depth to Water (ft btoc):	14.20	Sample Time:	14:05

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
13:20	18.30	6.22	1.239	24.2	1.01	137	14.20	0.62	50	
13:25	18.02	6.02	1.245	19.8	1.21	85	14.20	0.62	50	
13:30	17.84	6.02	1.248	18.6	1.23	97	14.20	0.62	50	
13:35	17.67	6.02	1.249	16.7	1.17	69.7	14.27	0.63	50	
13:40	17.58	6.02	1.250	15.9	1.15	48.6	14.22	0.63	50	
13:45	17.56	6.01	1.250	18.4	1.14	36.6	14.20	0.63	50	
13:50	17.58	6.02	1.250	19.0	1.14	27.3	14.21	0.63	50	
13:55	17.56	6.02	1.250	20.8	1.13	26.8	14.26	0.63	50	
14:00	17.56	6.01	1.244	20.7	1.11	25.4	14.22	0.63	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-8D	Date:	9/19/2014	
Field Personnel:	DLC	Weather:	Sunny, 50s-60s, breezy	

PRE-PURGE INFO:

Well Depth (ft btoc):	45.03	Depth to Water (ft btoc):	13.92
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	44 - 54
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~44

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MP-8D
Final Depth to Water (ft btoc):	13.89	Sample Time:	15:35

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:50	16.90	7.92	0.122	93.9	1.31	12.7	13.95	0.06	75	
14:55	16.66	7.72	0.154	84.1	0.84	10.18	13.95	0.08	75	
15:00	16.34	7.43	0.295	-14.2	0.53	7.96	14.00	0.12	75	
15:05	16.20	7.34	0.302	-43.0	0.42	4.89	13.95	0.15	75	
15:10	16.15	7.32	0.326	-39.3	0.40	4.13	14.00	0.16	75	
15:15	16.07	7.32	0.340	-36.3	0.33	2.74	13.96	0.16	75	
15:20	16.07	7.31	0.347	-28.6	0.28	2.64	13.96	0.17	75	
15:25	16.23	7.33	0.356	-28.9	0.29	2.56	13.90	0.17	75	
15:30	16.30	7.33	0.360	-24.6	0.26	2.43	13.98	0.17	75	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-11	Date:	9/17/2014	
Field Personnel:	SJT	Weather:	Sun and clouds, 60s - 70s	

PRE-PURGE INFO:

Well Depth (ft btoc):	30	Depth to Water (ft btoc):	8.86
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	20-30
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~25

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1.5	Sample ID:	MP-11
Final Depth to Water (ft btoc):	0.69	Sample Time:	16:35

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
16:00	16.70	6.75	0.942	728.7	3.39		9.22	0.47	200	too dark purple to read turbidity
16:05	15.23	6.70	0.941	742.2	1.27		10.06	0.47	200	
16:10	15.99	6.71	0.942	743.3	1.18		10.42	0.47	100	lower flow
16:15	16.70	6.72	0.953	743.6	1.16	NA	10.55	0.48	100	
16:20	16.66	6.73	0.994	744.5	1.18		10.71	0.49	100	
16:25	16.68	6.73	1.008	745.5	1.12		10.83	0.50	100	
16:30	16.70	6.74	1.019	745.8	1.13		10.94	0.51	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-12	Date:	9/18/2014	
Field Personnel:	SJT	Weather:	Sunny, breezy, 50s - 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	13.86
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	1.8
Volume Purged (gal):	~3.5	Sample ID:	3.9
Final Depth to Water (ft btoc):	13.87	Sample Time:	11:50

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:00	15.47	7.07	2.512	648.8	6.12		13.95	1.35	250	too dark purple to read turbidity
11:05	15.21	7.03	1.310	660.2	3.62	NA	13.97	0.63	250	
11:10	15.38	6.60	0.654	680.9	5.33		13.96	0.32	250	
11:15	15.39	6.59	0.595	683.2	5.48		13.97	0.29	250	
11:20	15.42	6.60	0.563	684.4	5.51	10.07	13.97	0.27	250	
11:25	15.43	6.62	0.548	686	5.52	8.41	13.98	0.27	250	
11:30	15.43	6.62	0.535	686.4	5.53	5.96	13.98	0.27	250	
11:35	15.43	6.63	0.525	687.7	5.59	4.77	13.97	0.25	250	
11:40	15.39	6.62	0.516	689.8	5.55	4.58	13.98	0.25	250	
11:45	15.41	6.62	0.511	690.7	5.65	3.86	13.99	0.25	250	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__	
Monitoring Well:	MP-13	Date:	9/17/2014		
Field Personnel:	DLC &SJT	Weather:	Sun and clouds, 60s - 70s		

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	9.44
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~3.4	Sample ID:	MP-13
Final Depth to Water (ft btoc):	16.79	Sample Time:	17:35

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
16:25	17.21	7.53	1.065	-42.6	3.88	60.9	10.52	0.53	200	
16:30	16.61	7.54	1.064	-61.9	3.06	76.6	11.84	0.53	200	
16:35	16.31	7.53	1.054	-70.2	2.26	79.6	13.17	0.52	200	lower flow
16:40	16.63	7.52	1.043	-66.4	1.92	73.2	13.93	0.52	150	
16:45	16.70	7.50	1.031	-68.1	1.59	40.5	14.73	0.51	150	
16:50	16.86	7.48	1.020	-70.6	1.51	27.4	14.80	0.51	150	
16:55	16.90	7.47	1.016	-61.2	1.28	20.2	15.18	0.50	150	
17:00	16.48	7.44	1.006	-56.3	1.23	15.3	15.25	0.50	150	
17:05	16.41	7.41	0.987	-44.5	1.14	11.5	15.58	0.49	150	
17:10	16.58	7.41	0.982	-31.6	1.01	8.82	15.81	0.49	150	lower flow
17:15	16.47	7.41	0.978	-30.8	0.95	6.68	15.92	0.49	100	
17:20	16.61	7.43	0.982	-24.4	0.81	4.90	16.11	0.49	100	
17:25	16.54	7.46	0.988	-30.5	0.77	4.12	16.22	0.49	100	
17:30	16.51	7.47	0.992	-33.5	0.75	4.86	16.39	0.49	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-14	Date:	9/18/2014	
Field Personnel:	SJT	Weather:	Sunny, breezy, 60s - 70s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	9.51
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	MP-14
Final Depth to Water (ft btoc):	10.31	Sample Time:	13:45

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
12:45	17.72	6.21	1.021	486.8	5.77	NA	9.81	0.57	250	turbidity reading negative values
12:50	16.27	5.89	1.206	526.4	3.01	NA	9.91	0.61	250	
12:55	15.96	5.95	1.225	525	1.87	51.9	10.03	0.61	250	
13:00	15.87	5.95	1.226	522.4	1.48	42.8	10.07	0.61	250	
13:05	15.83	5.96	1.223	520.2	1.19	36.9	10.11	0.61	250	
13:10	15.80	5.97	1.216	518.4	1.02	28.7	10.17	0.61	250	
13:15	15.79	5.98	1.211	516.5	0.90	20.3	10.21	0.61	250	
13:20	15.80	6.00	1.205	514.7	0.83	11.4	10.27	0.60	250	
13:25	15.84	6.01	1.200	512.2	0.76	9.85	10.23	0.60	250	
13:30	15.77	6.02	1.199	511.1	0.72	8.84	10.22	0.60	250	
13:35	15.78	6.05	1.193	509.1	0.67	9.47	10.22	0.60	250	
13:40	15.52	6.08	1.186	506.5	0.68	8.71	10.22	0.59	250	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__	
Monitoring Well:	MW-6	Date:	9/18/2014		
Field Personnel:	SJT	Weather:	Sun and clouds, 70s, breezy		

PRE-PURGE INFO:

Well Depth (ft btoc):	35	Depth to Water (ft btoc):	4.47
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15 - 35
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~2.5	Sample ID:	MW-6 & DUP-091814
Final Depth to Water (ft btoc):	12.66	Sample Time:	16:00

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (us/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:55	15.58	7.39	0.385	223.7	2.01	47	4.76	0.18	200	
15:00	14.21	7.30	0.359	197.9	0.44	29.3	5.96	0.17	200	lower flow
15:05	14.50	7.30	0.351	186.3	0.31	28.1	6.31	0.17	100	
15:10	15.56	7.30	0.349	176	0.28	21.7	6.46	0.17	100	
15:15	16.11	7.30	0.350	167.4	0.31	27.4	6.88	0.17	100	
15:20	15.95	7.30	0.348	119.9	0.25	27.6	7.16	0.17	100	fish-like odor
15:25	16.27	7.29	0.348	117.8	0.27	29.1	7.25	0.17	100	
15:30	16.30	7.30	0.349	113	0.31	28.3	7.81	0.17	100	
15:35	14.73	7.30	0.348	63.2	0.33	28.6	8.27	0.17	150	increase flow, water stopped coming out
15:40	14.41	7.30	0.347	66.1	0.27	27.1	8.98	0.17	150	
15:45	14.30	7.31	0.346	59.7	0.29	26.2	9.86	0.17	150	
15:50	14.40	7.32	0.346	60.3	0.30	25.3	10.56	0.17	150	
15:55	14.46	7.32	0.347	51.6	0.31	24.1	11.35	0.17	150	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__	
Monitoring Well:	MW-7A	Date:	9/17/2014		
Field Personnel:	SJT	Weather:	Sunny, some clouds, 60s - 70s		

PRE-PURGE INFO:

Well Depth (ft btoc):	17	Depth to Water (ft btoc):	6.46
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	7-17
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~12

POST-PURGE INFO:

Color:	Purple, rust color	Mn/MnO4 (mg/L):	1.6/3.1
Volume Purged (gal):	~2.5	Sample ID:	MW-7A
Final Depth to Water (ft btoc):	NA	Sample Time:	15:15

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:25	19.66	6.44	2.298	735.2	5.61		6.84	1.19	250	too dark purple to read turbidity
14:30	18.04	6.34	2.054	745.3	2.92	NA	7.06	1.04	250	
14:35	17.88	6.32	1.941	734.9	2.68		7.39	0.99	250	lower flow
14:40	18.19	6.37	1.876	729.2	3.01		7.71	0.96	200	lower flow
14:45	18.34	6.45	1.839	728.3	3.45	20.6	7.88	0.94	150	
14:50	18.43	6.46	1.855	728.3	3.49	17.5	8.06	0.95	150	
14:55	18.41	6.45	1.884	730.5	3.29	15.1	8.25	0.96	150	
15:00	18.38	6.42	1.911	731.7	2.89	14.8	8.41	NA	150	
15:05	18.34	6.40	1.933	734.8	2.77	13.9	8.58		150	
15:10	18.31	6.43	1.958	737.1	2.69	14.2	8.67		150	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-11	Date:	9/18/2014	
Field Personnel:	DLC	Weather:	Sun and clouds, 60s, breezy	

PRE-PURGE INFO:

Well Depth (ft btoc):	62	Depth to Water (ft btoc):	40.12
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	50 - 62
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~57

POST-PURGE INFO:

Color:	Turbid, brown	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MW-11
Final Depth to Water (ft btoc):	44.90	Sample Time:	15:25

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:50	15.71	7.68	0.428	323.7	9.86	125	39.98	0.21	200	
14:55	15.53	7.68	0.428	325.7	9.85	103.2	40.75	0.21	200	
15:00	15.00	7.63	0.426	328.8	9.92	97.4	41.39	0.21	200	
15:05	15.30	7.61	0.422	330.3	9.34	89.5	41.95	0.20	100	
15:10	15.82	7.60	0.422	332.2	8.98	75.9	42.74	0.20	100	
15:15	16.04	7.58	0.422	333.4	8.72	75.0	42.86	0.20	100	
15:20	15.77	7.54	0.424	335.2	8.59	77.0	43.04	0.20	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-12	Date:	9/18/2014	
Field Personnel:	SJT	Weather:	Sunny, some clouds, 60s - 70s	

PRE-PURGE INFO:

Well Depth (ft btoc):	73	Depth to Water (ft btoc):	38.79
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	63 - 73
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~68

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~2	Sample ID:	MW-12 (MS/MSD)
Final Depth to Water (ft btoc):	40.25	Sample Time:	9:20

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:35	14.97	7.46	0.636	235.8	5.41	16.1	39.36	0.31	150	
8:40	14.57	6.92	0.748	238.1	1.65	14.1	39.38	0.37	150	
8:45	14.58	6.82	0.790	231.0	0.86	9.10	39.35	0.39	150	
8:50	14.57	6.79	0.800	231.1	0.68	7.42	39.38	0.39	150	
8:55	14.57	6.77	0.804	229.1	0.54	5.63	39.38	0.40	150	
9:00	14.56	6.76	0.803	231.0	0.48	4.99	39.39	0.40	150	
9:05	14.56	6.75	0.802	231.5	0.44	4.06	39.39	0.40	150	
9:10	14.56	6.75	0.802	227.7	0.41	3.81	39.38	0.40	150	
9:15	14.55	6.75	0.801	230.5	0.40	3.63	39.38	0.40	150	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-16	Date:	9/18/2014	
Field Personnel:	DLC	Weather:	Sunny, cool, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	30	Depth to Water (ft btoc):	16.39
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	20-30
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~25

POST-PURGE INFO:

Color:	Very light purple	Mn/MnO4 (mg/L):	0.1/0.2
Volume Purged (gal):	~3.5	Sample ID:	MW-16
Final Depth to Water (ft btoc):	16.41	Sample Time:	11:45

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
11:00	13.94	6.91	0.343	541.7	7.71	16.3	16.42	0.17	250	
11:05	14.10	6.83	0.342	570.1	7.66	13.2	16.41	0.16	250	
11:10	14.14	6.79	0.341	581.7	7.46	10.48	16.47	0.16	250	
11:15	14.31	6.76	0.341	594.0	6.76	8.19	16.40	0.16	250	
11:20	14.26	6.75	0.341	602.1	7.2	6.67	16.45	0.16	250	
11:25	14.35	6.75	0.340	606.5	7.38	6.58	16.40	0.16	250	
11:30	14.32	6.75	0.340	609.8	7.32	4.49	16.38	0.16	250	
11:35	14.41	6.74	0.338	613.2	7.18	4.18	16.45	0.16	250	
11:40	14.44	6.74	0.339	615.6	7.35	4.00	16.40	0.16	250	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-18	Date:	9/19/2014	
Field Personnel:	DLC	Weather:	Sunny, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	15.34	Depth to Water (ft btoc):	13.84
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	8-18
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~14

POST-PURGE INFO:

Color:	Very turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~0.5	Sample ID:	MW-18
Final Depth to Water (ft btoc):	13.80	Sample Time:	11:35

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (us/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:50	19.52	7.09	1.538	244.3	3.82	1759 AU	13.94	0.78	50	
10:55	19.36	7.09	1.534	241.0	4.02	1224 AU	14.01	0.77	50	lower flow
11:00	19.53	7.11	1.531	245.2	4.00	716 AU	14.01	0.77	10	
11:05	19.53	7.11	1.528	246.1	3.86	153	13.93	0.77	10	
11:10	19.47	7.12	1.525	247.9	3.88	106	13.85	0.77	10	
11:15	19.49	7.12	1.526	250.3	3.90	120	13.75	0.77	10	
11:20	19.43	7.12	1.528	252.8	3.90	98	13.73	0.77	10	
11:25	19.36	7.12	1.527	255.4	3.95	99	13.68	0.77	10	
11:30	19.28	7.13	1.526	258.7	3.98	98.0	13.64	0.77	10	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-25	Date:	9/19/2014	
Field Personnel:	SJT	Weather:	Sunny, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	39.00	Depth to Water (ft btoc):	13.65
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	34-39
Pump Used:	QED 1.75" bladder pump	Depth of Pump (ft btoc):	~37

POST-PURGE INFO:

Color:	Light purple/pink	Mn/MnO4 (mg/L):	0.6/1.2
Volume Purged (gal):	~1.5	Sample ID:	MW-25
Final Depth to Water (ft btoc):	13.63	Sample Time:	13:49

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
13:14	17.26	7.11	0.874	525.8	3.72	30.8	13.65	0.45	200	
13:19	15.80	6.80	1.084	624.3	1.25	18.4	13.67	0.54	200	
13:24	15.40	6.65	1.167	646.2	0.93	17.6	13.67	0.58	200	
13:29	15.33	6.59	1.179	654.2	0.97	16.0	13.64	0.59	200	
13:34	15.21	6.53	1.188	662.4	1.04	15.3	13.66	0.59	200	
13:39	15.21	6.51	1.190	666.1	1.04	14.7	13.67	0.60	200	
13:44	15.21	6.49	1.192	669.5	0.99	14.1	13.65	0.60	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-26	Date:	9/19/2014	
Field Personnel:	SJT	Weather:	Sun and clouds, 50s - 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	14.58
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	22.5 - 27.5
Pump Used:	QED 1.75" bladder pump	Depth of Pump (ft btoc):	~25

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1.5	Sample ID:	MW-26
Final Depth to Water (ft btoc):	14.56	Sample Time:	11:28

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:33	15.01	9.02	0.331	41.4	2.33	16.7	14.60	0.16	100	
10:38	14.64	8.13	0.364	70.7	1.05	10.45	14.54	0.18	100	
10:43	14.33	7.42	0.425	87.4	0.8	10.77	14.56	0.21	100	
10:48	14.26	7.06	0.504	94.8	0.71	23.6	14.58	0.25	100	
10:53	14.29	6.87	0.585	102	0.98	18.4	14.59	0.29	100	
10:58	14.33	6.79	0.623	105.1	0.71	12.6	14.58	0.31	100	
11:03	14.45	6.72	0.679	110.5	0.68	10.59	14.58	0.33	100	
11:08	14.43	6.68	0.710	111.8	0.58	10.55	14.58	0.35	100	
11:13	14.60	6.67	0.725	112.1	0.57	10.26	14.56	0.36	100	
11:18	14.65	6.66	0.737	113.1	0.56	10.08	14.56	0.36	100	
11:23	14.67	6.65	0.744	114.1	0.53	10.19	14.56	0.37	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-28	Date:	9/19/2014	
Field Personnel:	SJT	Weather:	Sunny, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	13.50
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder pump	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Turbid, slight pink	Mn/MnO4 (mg/L):	2.2/4.7
Volume Purged (gal):	~3	Sample ID:	MW-28
Final Depth to Water (ft btoc):	14.42	Sample Time:	15:20

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:30	16.56	5.87	1.190	682	1.1	1455 AU	14.20	0.60	200	
14:35	15.93	5.87	1.201	657.1	0.54	1360 AU	14.22	0.60	200	
14:40	15.75	5.88	1.216	649.8	0.5	663 AU	14.20	0.61	200	
14:45	15.64	5.89	1.224	658.1	0.49	NA	14.16	0.61	200	
14:50	15.53	5.89	1.229	672.8	0.46	NA	14.14	0.62	200	tubidity reading negative
14:55	15.41	5.89	1.231	685.4	0.42	71	14.11	0.62	200	
15:00	15.37	5.89	1.234	693.2	0.42	72.4	14.10	0.62	200	
15:05	15.33	5.91	1.262	716.5	0.47	70.9	14.04	0.63	200	
15:10	15.32	5.92	1.276	719.7	0.46	69.1	14.10	0.64	200	
15:15	15.26	5.93	1.287	721.1	0.45	65.8	14.07	0.65	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-30	Date:	9/19/2014	
Field Personnel:	SJT	Weather:	Sun and clouds, 50s - 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	14.56
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 0.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MW-30
Final Depth to Water (ft btoc):	NA	Sample Time:	9:41

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:56	15.25	7.62	0.148	-79.2	2.87	30.2	15.01	0.07	50	
9:01	15.13	7.41	0.141	-77.5	1.03	25.9	15.19	0.07	50	
9:06	15.24	7.37	0.139	-84.2	0.75	24.2	15.35	0.07	50	
9:11	15.36	7.34	0.138	-80.4	0.66	26.9	15.48	0.07	50	
9:16	15.49	7.30	0.140	-87.3	0.56	28.5	15.61	0.07	50	
9:21	15.59	7.25	0.143	-109.5	0.45	27.4	15.74	0.07	50	
9:26	15.61	7.24	0.148	-109.1	0.45	26.7	15.82	0.07	50	
9:31	15.63	7.23	0.151	-101.6	0.45	25.9	15.92	0.07	50	
9:36	15.59	7.21	0.152	-99.7	0.46	24.5	16.05	0.07	50	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-33	Date:	9/20/2014	
Field Personnel:	SJT	Weather:	Overcast, 50s-60s, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	14.30
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MW-33
Final Depth to Water (ft btoc):	NA	Sample Time:	9:16

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:31	12.68	6.36	2.164	260	2.08	10.91	14.56	1.12	250	
8:36	11.85	6.15	2.162	267	0.63	6.32	15.15	1.11	250	
8:41	12.34	6.17	2.166	279.1	0.70	4.79	15.06	1.12	150	lower flow
8:46	12.57	6.20	2.189	282.2	0.72	5.12	15.14	1.13	150	
8:51	12.54	6.21	2.203	283.1	0.71	4.67	15.15	1.14	150	
8:56	12.54	6.21	2.218	286.1	0.65	4.11	15.18	1.14	150	
9:01	12.52	6.21	2.230	289.1	0.55	3.22	15.21	1.15	150	
9:06	12.50	6.22	2.236	290.4	0.56	3.17	15.22	1.15	150	
9:11	12.54	6.22	2.240	289.3	0.53	2.9	15.25	1.16	150	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-37	Date:	9/19/2014	
Field Personnel:	DLC	Weather:	Sunny, clear, 50s	

PRE-PURGE INFO:

Well Depth (ft btoc):	30	Depth to Water (ft btoc):	14.63
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	31 - 36
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~33

POST-PURGE INFO:

Color:	Turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1	Sample ID:	MW-37
Final Depth to Water (ft btoc):	16.41	Sample Time:	9:25

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:50	13.71	6.34	1.284	251.0	2.36	11.5	14.68	0.65	100	
8:55	13.63	6.33	1.290	250.7	1.74	11.8	14.63	0.65	100	
9:00	13.91	6.30	1.314	253.8	1.20	25.2	14.65	0.66	100	
9:05	13.95	6.28	1.323	254.8	1.09	41.9	14.65	0.67	100	
9:10	13.99	6.28	1.324	257.7	1.06	62.6	14.64	0.67	100	
9:15	14.02	6.27	1.323	260.6	1.02	68.1	14.64	0.66	100	
9:20	14.24	6.26	1.315	266.6	0.95	64.5	14.66	0.66	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-1	Date:	9/17/2014	
Field Personnel:	SJT	Weather:	Sun and clouds, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	13.87
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	15-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~20

POST-PURGE INFO:

Color:	Light purple	Mn/MnO4 (mg/L):	0.6-1.3
Volume Purged (gal):	~2.5	Sample ID:	IJ-1
Final Depth to Water (ft btoc):	15.15	Sample Time:	11:02

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (us/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:27	16.27	7.86	0.208	600.6	11.91	4.72	13.96	0.10	125	
10:32	15.56	7.56	0.203	619.4	11.11	4.61	14.04	0.10	125	
10:37	15.31	7.46	0.201	628.7	10.97	4.59	14.26	0.10	125	
10:42	15.31	7.45	0.200	630.6	11.01	5.18	14.39	0.10	125	lower flow
10:47	15.37	7.43	0.200	634	10.94	4.49	14.56	0.10	100	
10:52	15.40	7.42	0.201	635.9	10.97	4.54	14.74	0.10	100	
10:57	15.43	7.41	0.202	638.5	10.96	4.18	14.89	0.10	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-4	Date:	9/17/2014	
Field Personnel:	SJT	Weather:	Sunny, 60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	4.81
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	10-25
Pump Used:	QED 1.75" bladder pump	Depth of Pump (ft btoc):	~18

POST-PURGE INFO:

Color:	Purple	Mn/MnO4 (mg/L):	44.5/96.5
Volume Purged (gal):	~3.5	Sample ID:	IJ-4
Final Depth to Water (ft btoc):	6.08	Sample Time:	13:25

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
12:35	17.36	6.31	2.191	748.4	5.59		4.26	1.11	200	too dark purple to read turbidity
12:40	17.37	6.28	2.303	758.2	4.59		4.35	1.20	200	
12:45	15.91	6.27	2.356	759.3	4.52		4.46	1.22	200	
12:50	15.49	6.27	2.353	763.6	4.23		4.84	1.22	200	lower flow
12:55	16.19	6.27	2.308	762	3.91	NA	5.01	1.19	150	
13:00	15.78	6.27	2.256	765.8	3.68		5.38	1.15	150	lower flow
13:05	15.98	6.26	2.212	763.5	3.41		5.56	1.14	100	
13:10	16.41	6.26	2.191	763.6	3.32		5.68	1.13	100	
13:15	16.52	6.27	2.167	763.5	3.25		5.81	1.12	100	
13:20	16.58	6.26	2.146	764.6	3.11		5.95	1.10	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-5	Date:	9/18/2014	
Field Personnel:	DLC	Weather:	Sunny, 60s - 70s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	6.82
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	10-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~18

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~4	Sample ID:	IJ-5
Final Depth to Water (ft btoc):	6.51	Sample Time:	13:30

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
12:45	15.85	7.12	0.281	394.7	0.67	5.26	4.85	0.13	300	
12:50	15.60	7.03	0.277	404.3	0.53	5.40	5.00	0.13	300	
12:55	16.70	7.00	0.280	402.4	0.46	5.13	5.13	0.13	300	
13:00	15.06	6.95	0.276	417.1	0.33	5.38	5.38	0.13	300	
13:05	15.05	6.93	0.274	419.6	0.25	5.56	5.56	0.13	300	
13:10	15.04	6.92	0.273	423.3	0.26	5.74	5.74	0.13	300	
13:15	15.03	6.91	0.272	424.5	0.22	5.96	5.96	0.13	300	
13:20	15.05	6.9	0.272	426.1	0.21	6.15	6.15	0.13	300	
13:25	15.10	6.89	0.271	425.6	0.23	6.26	6.26	0.13	300	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	IJ-10	Date:	9/17/2014	
Field Personnel:	SJT	Weather:	Foggy, overcast, 50s-60s	

PRE-PURGE INFO:

Well Depth (ft btoc):	25	Depth to Water (ft btoc):	12.49
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	10-25
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~18

POST-PURGE INFO:

Color:	Dark purple	Mn/MnO4 (mg/L):	1.2/2.6
Volume Purged (gal):	~3.5	Sample ID:	IJ-10
Final Depth to Water (ft btoc):	13.74	Sample Time:	9:30

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C)	pH (units)	Conductivity (us/cm)	REDOX (Eh-mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft)	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
8:50	15.66	7.80	2.613	598.8	11.12		12.55	1.48	150	too dark purple to read turbidity
8:55	15.35	8.89	3.418	576.9	10.55		12.78	1.81	150	
9:00	15.41	8.88	3.412	585.1	10.60		13.05	1.80	150	
9:05	15.47	8.82	3.366	587.9	10.28		13.16	1.77	100	lower flow
9:10	15.48	8.74	3.344	591.7	10.50	NA	13.30	1.76	100	
9:15	15.49	8.69	3.323	596.1	10.27		13.41	1.75	100	
9:20	15.53	8.63	3.288	600.7	10.25		13.51	1.73	100	
9:25	15.53	8.60	3.281	605.4	10.22		13.60	1.73	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-31	Date:	11/18/2014	
Field Personnel:	KFS, MIF	Weather:	Partly cloudy, 20's, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	21.02	Depth to Water (ft btoc):	12.99
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	13-23
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~18

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~3	Sample ID:	MW-31 & DUP-111814
Final Depth to Water (ft btoc):	13.03	Sample Time:	15:45

WELL PURGE DATA:

Time 5 minute intervals	Temperature (°C) Reading	pH (units) Reading	Conductivity (us/cm) Reading	REDOX (Eh-mV) Reading	DO (mg/L) Reading	Turbidity (NTU) Reading	Depth to Water (ft) Reading	Salinity (PPT)	Pumping Rate (ml/min)	Comment
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
14:55	14.74	6.85	0.485	-68.2	8.04	57.6	13.25	0.24	200	
15:00	15.21	6.53	0.777	-95.4	0.54	43.4	13.22	0.40	200	
15:05	15.31	6.46	0.875	-108.1	0.43	36.5	13.19	0.44	200	
15:10	15.38	6.45	0.980	-119.2	0.39	31.3	13.20	0.49	200	
15:15	15.36	6.41	1.079	-124.0	0.39	27.9	13.18	0.54	200	
15:20	15.34	6.37	1.196	-128.8	0.38	31.1	13.19	0.60	200	
15:25	15.53	6.38	1.281	-131.2	0.38	30.8	13.19	0.65	200	
15:30	15.59	6.33	1.325	-129.0	0.37	29.5	13.20	0.67	200	
15:35	15.60	6.33	1.349	-129.4	0.37	31.3	13.19	0.67	200	
15:40	15.54	6.33	1.352	-129.7	0.36	30.6	13.19	0.68	200	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MW-5	Date:	11/18/2014	
Field Personnel:	KFS, MIF	Weather:	Clear skies, 20's, some winds	

PRE-PURGE INFO:

Well Depth (ft btoc):	9.37	Depth to Water (ft btoc):	7.19
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	5-20
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~13.5

POST-PURGE INFO:

Color:	Slightly turbid	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1.5	Sample ID:	MW-5
Final Depth to Water (ft btoc):	7.26	Sample Time:	11:25

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)**	**pH (units)**	**Conductivity (us/cm)**	**REDOX (Eh-mV)**	**DO (mg/L)**	**Turbidity (NTU)**	**Depth to Water (ft)**	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	Reading	Reading	Reading	Reading	Reading	Reading	Reading			
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
10:45	6.90	6.21	1.442	167.1	7.53	99.3	7.29	0.73	100	
10:50	7.62	6.16	1.430	184.1	1.97	77.4	7.32	0.72	100	
10:55	7.68	6.09	1.436	178.3	1.52	55.2	7.27	0.72	100	
11:00	7.80	6.07	1.437	159.6	1.48	34.1	7.31	0.72	100	
11:05	8.41	6.05	1.427	132.1	1.45	26.4	7.29	0.72	100	
11:10	8.60	6.06	1.431	111.1	1.34	19.2	7.30	0.72	100	
11:15	8.74	6.05	1.432	103.7	1.33	17.7	7.30	0.72	100	
11:20	8.70	6.04	1.435	104.9	1.32	16.1	7.29	0.72	100	

LOW FLOW GROUND WATER PURGE/SAMPLING LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Project Name:	Dover-Kirkwood	Project #:	5101.0002	Page: _1__ of _1__
Monitoring Well:	MP-17	Date:	11/18/2014	
Field Personnel:	KFS, MIF	Weather:	Clear skies, 20's, windy	

PRE-PURGE INFO:

Well Depth (ft btoc):	20.20	Depth to Water (ft btoc):	13.88
PID Beneath PVC Cap (ppm)	NA	Screened/Open Interval (ft btoc):	8-18
Pump Used:	QED 1.75" bladder	Depth of Pump (ft btoc):	~17

POST-PURGE INFO:

Color:	Clear	Mn/MnO4 (mg/L):	NA
Volume Purged (gal):	~1.5	Sample ID:	MW-17
Final Depth to Water (ft btoc):	13.88	Sample Time:	14:15

WELL PURGE DATA:

Time 5 minute intervals	**Temperature (°C)** Reading	**pH (units)** Reading	**Conductivity (us/cm)** Reading	**REDOX (Eh-mV)** Reading	**DO (mg/L)** Reading	**Turbidity (NTU)** Reading	**Depth to Water (ft)** Reading	**Salinity (PPT)**	**Pumping Rate (ml/min)**	**Comment**
	3%	0.1 unit	3%	10 mV	10%	10%	0.3 ft		100 - 500	
13:30	10.01	6.42	1.436	168.3	2.88	100.5	13.95	0.73	100	
13:35	9.91	6.31	1.535	173.4	2.06	74.4	13.92	0.78	100	
13:40	9.91	6.31	1.563	174.1	1.99	61.9	13.92	0.79	100	
13:45	10.03	6.31	1.645	175.5	1.72	65.8	13.92	0.84	100	
13:50	10.08	6.31	1.685	176.5	1.60	54.5	13.91	0.86	100	
13:55	10.09	6.32	1.742	177.7	1.40	47.5	13.90	0.89	100	
14:00	10.29	6.31	1.769	182.9	1.29	39.3	13.92	0.90	100	
14:05	11.49	6.32	1.774	184.3	1.35	35.8	13.91	0.91	100	
14:10	11.55	6.34	1.798	183.4	1.37	37.7	13.91	0.93	100	

Appendix E

1565 Jefferson Rd., Bldg 300, Suite 360
Rochester, NY 14623
T: +1 585 288 5380
F: +1 585 288 8475
www.alsglobal.com

April 8, 2014

Ms. Tammy Yuan
Verina Consulting Group
220 Davidson Avenue
Suite 105
Somerset, NJ 08873

Re: Dover Kirkwood 5101.0002
Service Request #R1402018

Dear Ms. Yuan:

Enclosed is the analytical data report for the above referenced facility. A total of nineteen samples were received by our laboratory on March 22, 2014.

Any problems encountered with this project are addressed in a case narrative section which is presented later in this report.

This report consists of two (2) packages: the sample data package and the sample data summary package. All data presented in this package has been reviewed prior to report submission. If you should have any questions or concerns, please contact me at (585) 288-5380.

Thank you for your continued use of our services.

Sincerely,
ALS Environmental

Janice M. Jaeger
Project Chemist

enc.

This report contains a total of 34 pages.

CASE NARRATIVE

Client:	Verina Consulting	**Service Request:**	R1402018
Project:	Dover – Kirkwood	**Project Number:**	5101.0002
Sample Matrix:	Water	**Date Received:**	03/22/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 03/18-20/14 and received at ALS Rochester on 03/22/14 at a cooler temperature of 3.0 °C in good condition except as noted on the cooler receipt and preservation check form. Soluble Metals were filtered by Field personnel.

Volatile Organics

Water samples were analyzed for a site list of Volatile Organics by Method 8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

The Laboratory Control Sample (LCS) recoveries were all acceptable.

All surrogate standard recoveries were within acceptable limits.

Site specific QC was performed on MP-11 and MP-5. All Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries and RPD's were acceptable.

The Method Blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 5101.0002	Batch Complete: Yes		Date Revised:
Submission: R1402018	Diskette Requested: No		Date Due: 4/14/14
Client: Verina Consulting Group, LLC	Date: 3/24/14		Protocol: SW846
Client Rep: JJAEGER	Custody Seal: Present/Absent:		Shipping No.:
Project: Dover - Kirkwood	Chain of Custody: Present/Absent:		SDG #: MP-11

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402018-001	TRIP BLANK	Water	8260C	3/18/14	3/22/14			
R1402018-002QC	MP-11	Water	8260C	3/18/14	3/22/14			
R1402018-003	MW-16	Water	8260C	3/18/14	3/22/14			
R1402018-004	IJ-4	Water	8260C	3/18/14	3/22/14			
R1402018-005	MP-12	Water	8260C	3/18/14	3/22/14			
R1402018-006	MW-7A	Water	8260C	3/18/14	3/22/14			
R1402018-007	FB-031814	Water	8260C	3/18/14	3/22/14			
R1402018-008	IJ-10	Water	8260C	3/19/14	3/22/14			
R1402018-009	MP-4	Water	8260C	3/19/14	3/22/14			
R1402018-010	FB-031914	Water	8260C	3/19/14	3/22/14			
R1402018-011	MP-14	Water	8260C	3/18/14	3/22/14			
R1402018-012	MP-5	Water	8260C	3/19/14	3/22/14			
R1402018-013	IJ-5	Water	8260C	3/19/14	3/22/14			
R1402018-014	MP-6S	Water	8260C	3/19/14	3/22/14			
R1402018-015	DUP-031914	Water	8260C	3/19/14	3/22/14			
R1402018-016	MW-28	Water	8260C	3/20/14	3/22/14			
R1402018-017	MW-25	Water	8260C	3/20/14	3/22/14			
R1402018-018	FB-032014	Water	8260C	3/20/14	3/22/14			
R1402018-019	MP-6D	Water	8260C	3/20/14	3/22/14			

0003

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 14395

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name	Project Number
Dover - Kirkwood	5101.0002
Project Manager	**Report CC**
Tammy Yuan	
Company/Address	
Verina Consulting Group LLC	
220 Davidson Ave Suite 105	
Somerset, NJ 08873	
Phone #	**Email**
732-412-7576	TYUAN@VCG-LLC.COM
Sampler's Signature	**Sampler's Printed Name**
Mikhail Fradkin, Kevin Soldo	Mikhail Fradkin, Kevin Soldo

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

PRESERVATIVE: 1, 8

NUMBER OF CONTAINERS

GCMS VOAs ○ 8260 ○ 624 ○ CLP | GCMS SVOAs ○ 8270 ○ 625 | GC VOAs ○ 8021 ○ 601/602 | PESTICIDES ○ 8081 ○ 608 | PCBs ○ 8082 ○ 608 | METALS, TOTAL (List in comments below) | METALS, DISSOLVED (List in comments below) | SSPL VOCs

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

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	SSPL VOCs	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		03/10/14	11:30	TB	X	
MP-11 (MS & MSD)		03/18/14	12:45	GW	X	
MW-16			14:15	GW	X	
DD-4	X		14:15	GW	X	
MP-12			15:30	GW	X	
MW-7A	X		15:35	GW	X	
FB-031814		03/18/14	17:00	FB	X	Field Blank
DD-10	X	03/19/14	11:35	GW	X	
MP-4			11:55	GW	X	
FB-031914			14:30	FB	X	Field Blank
MP-14		03/18/14	15:00	GW	X	

SPECIAL INSTRUCTIONS/COMMENTS

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

* Call if you have any questions

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

REQUESTED REPORT DATE: Standard

REPORT REQUIREMENTS

____ I. Results Only

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

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata X Yes ____ No

INVOICE INFORMATION

PO #

BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Mikhail Fradkin	Signature: S Standard	Signature	Signature	Signature	
Printed Name: Mikhail Fradkin	Printed Name: S Standard	Printed Name	Printed Name	Printed Name	
Firm: Verina	Firm: ALS	Firm	Firm	Firm	
Date/Time: 03/21/14 10:15	Date/Time: 3/22/14 0915	Date/Time	Date/Time	Date/Time	Date/Time

R1402018
Verina Consulting Group, LLC
Dover - Kirkwood
5

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

14393

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: Dover-Kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC:
Company/Address: Verina Consulting Group LLC 220 Davidson Ave, Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: TYUAN@VCG-LLC.COM
Sampler's Signature: Mikhail Fradkin, Kevin Sold	Sampler's Printed Name: Mikhail Fradkin, Kevin Sold

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

PRESERVATIVE: 1, 8

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOC's	REMARKS/ ALTERNATE DESCRIPTION
MP-5		03/19/14	15:05	GW		X	
IJ-5			16:20	GW		X	
MP-6S	X		16:55	GW		X	
DUP-031914		03/19/14	~	GW		X	Duplicate
MW-28		03/20/14	11:30	GW		X	
MW-35			11:35	GW		X	
FB-032014			13:00	FB		X	Field Blank
MP-6D		03/20/14	14:20	GW		X	

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

SPECIAL INSTRUCTIONS/COMMENTS

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

* Call if you have any questions

See OAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

REQUESTED REPORT DATE: Standard

REPORT REQUIREMENTS

____ I. Results Only

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

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with

Edata X Yes ____

INVOICE INFORMATION

PO #

BILL TO:

R1402018 5
Verina Consulting Group, LLC
Dover - Kirkwood

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature: M. Fradkin	Signature:	Signature	Signature	Signature	Signature
Printed Name: Mikhail Fradkin	Printed Name: K. Sold	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Verina	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 03/21/14 10:15	Date/Time: 3/22/14 0915	Date/Time	Date/Time	Date/Time	Date/Time

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

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Cooler Receipt and Preservation Check Form

Project/Client Verina Folder Number M4-2018

Cooler received on 3/22 by: JS **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1. Were custody seals on outside of cooler? (YES) NO
2. Were custody papers properly filled out (ink, signed, etc.)? ~~YES~~ (NO) preservation
3. Did all bottles arrive in good condition (unbroken)? (YES) NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES (NO) N/A
5. Were **Ice** or **Ice packs** present? (YES) NO
6. Where did the bottles originate? (ALS/ROC), CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set (N/A)
8. Temperature of cooler(s) upon receipt: 3.0

Is the temperature within 0° - 6° C?: (Y) N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 3/22/14 0955

Thermometer ID: IR GUN#3 / ~~IR GUN#4~~ Reading From: ~~Temp Blank~~ / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location none by JS on 3/22 at 0955

5035 samples placed in storage location ____ by ____ on ____ at ____

PC Secondary Review: ~~JMS 3/24/14~~

Cooler Breakdown: Date: 3/24/14 Time: 1354 by: JS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated ~~N/A~~

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: ____

Bottle lot numbers: client

Other Comments:

PC Secondary Review: JMS 4/7/14

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1130
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 02:21
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1402018-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6978.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/28/14 02:21	
Dibromofluoromethane	98	89-119	3/28/14 02:21	
Toluene-d8	94	87-121	3/28/14 02:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1245
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/24/14 21:47
Sample Name:	MP-11	**Units:**	µg/L
Lab Code:	R1402018-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4161.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	1.2	
127-18-4	Tetrachloroethene (PCE)	**220**		10	0.60	
79-01-6	Trichloroethene (TCE)	**1.6**	J	10	0.44	
75-01-4	Vinyl Chloride	**17**		10	0.64	
156-59-2	cis-1,2-Dichloroethene	**34**		10	0.60	
156-60-5	trans-1,2-Dichloroethene	10	U	10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	3/24/14 21:47	
Dibromofluoromethane	98	89-119	3/24/14 21:47	
Toluene-d8	97	87-121	3/24/14 21:47	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1415
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 04:23
Sample Name:	MW-16	**Units:**	µg/L
Lab Code:	R1402018-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6982.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**150**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**3.6**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.9**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 04:23	
Dibromofluoromethane	98	89-119	3/28/14 04:23	
Toluene-d8	98	87-121	3/28/14 04:23	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1415
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/25/14 14:12
Sample Name:	IJ-4	**Units:**	µg/L
Lab Code:	R1402018-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\U4191.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**190**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.39**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.34**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/25/14 14:12	
Dibromofluoromethane	100	89-119	3/25/14 14:12	
Toluene-d8	99	87-121	3/25/14 14:12	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1530
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 04:53
Sample Name:	MP-12	**Units:**	µg/L
Lab Code:	R1402018-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6983.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**27**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.4**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.9**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/28/14 04:53	
Dibromofluoromethane	98	89-119	3/28/14 04:53	
Toluene-d8	98	87-121	3/28/14 04:53	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1535
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/25/14 14:44
Sample Name:	MW-7A	**Units:**	µg/L
Lab Code:	R1402018-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\J4192.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	1.2	
127-18-4	Tetrachloroethene (PCE)	**240**		10	0.60	
79-01-6	Trichloroethene (TCE)	10	U	10	0.44	
75-01-4	Vinyl Chloride	10	U	10	0.64	
156-59-2	cis-1,2-Dichloroethene	10	U	10	0.60	
156-60-5	trans-1,2-Dichloroethene	10	U	10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/25/14 14:44	
Dibromofluoromethane	100	89-119	3/25/14 14:44	
Toluene-d8	99	87-121	3/25/14 14:44	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1700
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 02:52
Sample Name:	FB-031814	**Units:**	µg/L
Lab Code:	R1402018-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6979.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 02:52	
Dibromofluoromethane	98	89-119	3/28/14 02:52	
Toluene-d8	98	87-121	3/28/14 02:52	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1135
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/24/14 19:38
Sample Name:	IJ-10	**Units:**	µg/L
Lab Code:	R1402018-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4157.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**0.92**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/24/14 19:38	
Dibromofluoromethane	98	89-119	3/24/14 19:38	
Toluene-d8	99	87-121	3/24/14 19:38	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1155
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 05:24
Sample Name:	MP-4	**Units:**	µg/L
Lab Code:	R1402018-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6984.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	57	
127-18-4	Tetrachloroethene (PCE)	11000		500	30	
79-01-6	Trichloroethene (TCE)	500	U	500	22	
75-01-4	Vinyl Chloride	500	U	500	32	
156-59-2	cis-1,2-Dichloroethene	500	U	500	30	
156-60-5	trans-1,2-Dichloroethene	500	U	500	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	3/28/14 05:24	
Dibromofluoromethane	97	89-119	3/28/14 05:24	
Toluene-d8	98	87-121	3/28/14 05:24	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1430
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 03:22
Sample Name:	FB-031914	**Units:**	µg/L
Lab Code:	R1402018-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6980.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 03:22	
Dibromofluoromethane	99	89-119	3/28/14 03:22	
Toluene-d8	98	87-121	3/28/14 03:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/18/14 1500
Date Received: 3/22/14
Date Analyzed: 3/28/14 05:54

Sample Name: MP-14
Lab Code: R1402018-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa10\data\032714\F6985.D\

Analysis Lot: 385666
Instrument Name: R-MS-10
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**37**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.9**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.9**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 05:54	
Dibromofluoromethane	98	89-119	3/28/14 05:54	
Toluene-d8	98	87-121	3/28/14 05:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1505
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 06:25
Sample Name:	MP-5	**Units:**	µg/L
Lab Code:	R1402018-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6986.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	3.6	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	5.7	
127-18-4	Tetrachloroethene (PCE)	**940**		50	3.0	
79-01-6	Trichloroethene (TCE)	**33**	J	50	2.2	
75-01-4	Vinyl Chloride	**4.7**	J	50	3.2	
156-59-2	cis-1,2-Dichloroethene	**20**	J	50	3.0	
156-60-5	trans-1,2-Dichloroethene	50	**U**	50	3.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 06:25	
Dibromofluoromethane	97	89-119	3/28/14 06:25	
Toluene-d8	98	87-121	3/28/14 06:25	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1620
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 06:55
Sample Name:	IJ-5	**Units:**	µg/L
Lab Code:	R1402018-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6987.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**0.32**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/28/14 06:55	
Dibromofluoromethane	97	89-119	3/28/14 06:55	
Toluene-d8	99	87-121	3/28/14 06:55	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1655
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/25/14 15:16
Sample Name:	MP-6S	**Units:**	µg/L
Lab Code:	R1402018-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\J4193.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**470**		13	0.75	
79-01-6	Trichloroethene (TCE)	**2.7**	J	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**1.4**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/25/14 15:16	
Dibromofluoromethane	101	89-119	3/25/14 15:16	
Toluene-d8	100	87-121	3/25/14 15:16	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 07:26
Sample Name:	DUP-031914	**Units:**	µg/L
Lab Code:	R1402018-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6988.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.8	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**3.1**	**J**	25	2.9	
127-18-4	Tetrachloroethene (PCE)	**940**		25	1.5	
79-01-6	Trichloroethene (TCE)	**33**		25	1.1	
75-01-4	Vinyl Chloride	**5.1**	**J**	25	1.6	
156-59-2	cis-1,2-Dichloroethene	**20**	J	25	1.5	
156-60-5	trans-1,2-Dichloroethene	25	U	25	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/28/14 07:26	
Dibromofluoromethane	97	89-119	3/28/14 07:26	
Toluene-d8	98	87-121	3/28/14 07:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1130
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 07:56
Sample Name:	MW-28	**Units:**	µg/L
Lab Code:	R1402018-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6989.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**0.93**	J	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**43**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**50**		5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**55**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**2.4**	J	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 07:56	
Dibromofluoromethane	99	89-119	3/28/14 07:56	
Toluene-d8	99	87-121	3/28/14 07:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1135
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 08:26
Sample Name:	MW-25	**Units:**	µg/L
Lab Code:	R1402018-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6990.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**300**		13	0.75	
79-01-6	Trichloroethene (TCE)	**5.3**	J	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**2.5**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 08:26	
Dibromofluoromethane	97	89-119	3/28/14 08:26	
Toluene-d8	99	87-121	3/28/14 08:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1300
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 03:52
Sample Name:	FB-032014	**Units:**	µg/L
Lab Code:	R1402018-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6981.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 03:52	
Dibromofluoromethane	98	89-119	3/28/14 03:52	
Toluene-d8	98	87-121	3/28/14 03:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1430
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 08:57
Sample Name:	MP-6D	**Units:**	µg/L
Lab Code:	R1402018-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6991.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**0.37**	**J**	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 08:57	
Dibromofluoromethane	100	89-119	3/28/14 08:57	
Toluene-d8	97	87-121	3/28/14 08:57	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/24/14 13:13
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1402678-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4145.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	3/24/14 13:13	
Dibromofluoromethane	98	89-119	3/24/14 13:13	
Toluene-d8	99	87-121	3/24/14 13:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/25/14 13:36
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1402765-08	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\J4190.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/25/14 13:36	
Dibromofluoromethane	98	89-119	3/25/14 13:36	
Toluene-d8	99	87-121	3/25/14 13:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/28/14 01:51
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1403226-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6977.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	3/28/14 01:51	
Dibromofluoromethane	98	89-119	3/28/14 01:51	
Toluene-d8	97	87-121	3/28/14 01:51	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/18/14
Date Received: 3/22/14
Date Analyzed: 3/24/14

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MP-11
Lab Code: R1402018-002

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MP-11MS Matrix Spike RQ1402678-05 Result	Spike Amount	% Rec	MP-11DMS Duplicate Matrix Spike RQ1402678-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	101	100	101	100	100	100	74 - 127	<1	30
1,1-Dichloroethane (1,1-DCA)	ND	99.3	100	99	99.2	100	99	74 - 132	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	114	100	114	117	100	117	72 - 125	2	30
Tetrachloroethene (PCE)	220	320	100	105	325	100	110	78 - 130	2	30
Trichloroethene (TCE)	1.6	104	100	102	105	100	104	68 - 135	1	30
Vinyl Chloride	17	134	100	117	137	100	120	72 - 148	2	30
cis-1,2-Dichloroethene	34	134	100	100	135	100	102	72 - 133	1	30
trans-1,2-Dichloroethene	ND	103	100	103	103	100	103	77 - 125	<1	30

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

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/19/14
Date Received: 3/22/14
Date Analyzed: 3/28/14

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MP-5
Lab Code: R1402018-012

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MP-5MS Matrix Spike RQ1403226-05 Result	Spike Amount	% Rec	MP-5DMS Duplicate Matrix Spike RQ1403226-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	494	500	99	482	500	96	74 - 127	2	30
1,1-Dichloroethane (1,1-DCA)	ND	492	500	98	493	500	99	74 - 132	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	580	500	116	561	500	112	72 - 125	3	30
Tetrachloroethene (PCE)	940	1460	500	104	1450	500	102	78 - 130	<1	30
Trichloroethene (TCE)	33	544	500	102	535	500	100	68 - 135	2	30
Vinyl Chloride	4.7	505	500	100	500	500	99	72 - 148	<1	30
cis-1,2-Dichloroethene	20	513	500	99	510	500	98	72 - 133	<1	30
trans-1,2-Dichloroethene	ND	510	500	102	499	500	100	77 - 125	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/24/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 384987

Analyte Name	Lab Control Sample RQ1402678-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	19.6	20.0	98	67 - 121
1,1-Dichloroethane (1,1-DCA)	19.7	20.0	99	76 - 128
1,1-Dichloroethene (1,1-DCE)	23.3	20.0	117	74 - 135
Tetrachloroethene (PCE)	20.7	20.0	104	71 - 127
Trichloroethene (TCE)	20.7	20.0	104	75 - 122
Vinyl Chloride	23.6	20.0	118	68 - 139
cis-1,2-Dichloroethene	20.5	20.0	102	77 - 123
trans-1,2-Dichloroethene	20.7	20.0	104	72 - 120

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/25/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 385241

Lab Control Sample
RQ1402765-07

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.3	20.0	106	67 - 121
1,1-Dichloroethane (1,1-DCA)	21.4	20.0	107	76 - 128
1,1-Dichloroethene (1,1-DCE)	24.2	20.0	121	74 - 135
Tetrachloroethene (PCE)	20.8	20.0	104	71 - 127
Trichloroethene (TCE)	21.7	20.0	108	75 - 122
Vinyl Chloride	24.3	20.0	122	68 - 139
cis-1,2-Dichloroethene	21.6	20.0	108	77 - 123
trans-1,2-Dichloroethene	21.9	20.0	110	72 - 120

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/28/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 385666

Analyte Name	Lab Control Sample RQ1403226-02 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	18.4	20.0	92	67 - 121
1,1-Dichloroethane (1,1-DCA)	18.9	20.0	94	76 - 128
1,1-Dichloroethene (1,1-DCE)	21.1	20.0	105	74 - 135
Tetrachloroethene (PCE)	19.6	20.0	98	71 - 127
Trichloroethene (TCE)	22.0	20.0	110	75 - 122
Vinyl Chloride	19.3	20.0	96	68 - 139
cis-1,2-Dichloroethene	19.0	20.0	95	77 - 123
trans-1,2-Dichloroethene	19.8	20.0	99	72 - 120

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

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

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April 8, 2014

Ms. Tammy Yuan
Verina Consulting Group
220 Davidson Avenue
Suite 105
Somerset, NJ 08873

Re: Dover Kirkwood 5101.0002
Service Request #R1402018

Dear Ms. Yuan:

Enclosed is the analytical data report for the above referenced facility. A total of nineteen samples were received by our laboratory on March 22, 2014.

Any problems encountered with this project are addressed in a case narrative section which is presented later in this report.

This report consists of two (2) packages: the sample data package and the sample data summary package. All data presented in this package has been reviewed prior to report submission. If you should have any questions or concerns, please contact me at (585) 288-5380.

Thank you for your continued use of our services.

Sincerely,
ALS Environmental

Janice M. Jaeger
Project Chemist

enc.

This report contains a total of 574 pages.

ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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CASE NARRATIVE

Client:	Verina Consulting	**Service Request:**	R1402018
Project:	Dover – Kirkwood	**Project Number:**	5101.0002
Sample Matrix:	Water	**Date Received:**	03/22/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 03/18-20/14 and received at ALS Rochester on 03/22/14 at a cooler temperature of 3.0 °C in good condition except as noted on the cooler receipt and preservation check form. Soluble Metals were filtered by Field personnel.

Volatile Organics

Water samples were analyzed for a site list of Volatile Organics by Method 8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

The Laboratory Control Sample (LCS) recoveries were all acceptable.

All surrogate standard recoveries were within acceptable limits.

Site specific QC was performed on MP-11 and MP-5. All Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries and RPD's were acceptable.

The Method Blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	5101.0002	Batch Complete:	Yes	Date Revised:	
Submission:	R1402018	Diskette Requested:	No	Date Due:	4/14/14
Client:	Verina Consulting Group, LLC	Date:	3/24/14	Protocol:	SW846
Client Rep:	JJAEGER	Custody Seal: Present/Absent:		Shipping No.:	
Project:	Dover - Kirkwood	Chain of Custody: Present/Absent:		SDG #:	MP-11

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402018-001	TRIP BLANK	Water	8260C	3/18/14	3/22/14			
R1402018-002QC	MP-11	Water	8260C	3/18/14	3/22/14			
R1402018-003	MW-16	Water	8260C	3/18/14	3/22/14			
R1402018-004	IJ-4	Water	8260C	3/18/14	3/22/14			
R1402018-005	MP-12	Water	8260C	3/18/14	3/22/14			
R1402018-006	MW-7A	Water	8260C	3/18/14	3/22/14			
R1402018-007	FB-031814	Water	8260C	3/18/14	3/22/14			
R1402018-008	IJ-10	Water	8260C	3/19/14	3/22/14			
R1402018-009	MP-4	Water	8260C	3/19/14	3/22/14			
R1402018-010	FB-031914	Water	8260C	3/19/14	3/22/14			
R1402018-011	MP-14	Water	8260C	3/18/14	3/22/14			
R1402018-012	MP-5	Water	8260C	3/19/14	3/22/14			
R1402018-013	IJ-5	Water	8260C	3/19/14	3/22/14			
R1402018-014	MP-6S	Water	8260C	3/19/14	3/22/14			
R1402018-015	DUP-031914	Water	8260C	3/19/14	3/22/14			
R1402018-016	MW-28	Water	8260C	3/20/14	3/22/14			
R1402018-017	MW-25	Water	8260C	3/20/14	3/22/14			
R1402018-018	FB-032014	Water	8260C	3/20/14	3/22/14			
R1402018-019	MP-6D	Water	8260C	3/20/14	3/22/14			

Folder Comments:

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REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

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

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 14395

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: Dover - Kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC:
Company/Address: Verina Consulting Group LLC 220 Davidson Ave Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: TYUAN@VCG-LLC.COM
Sampler's Signature:	Sampler's Printed Name: Mikhail Fradkin, Kevin Soldo

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1, 8

NUMBER OF CONTAINERS

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	SSPL VOC's	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		03/10/14	11:30	TB	X	
MP-11 (MS & MSD)		03/18/14	12:45	GW	X	
MW-16			14:15	GW	X	
ID-4	X		14:15	GW	X	
MP-12			15:30	GW	X	
MW-7A	X		15:35	GW	X	
FB-031814		03/18/14	17:00	FB	X	Field Blank
ID-10	X	03/19/14	11:35	GW	X	
MP-4			11:55	GW	X	
FB-031914			14:30	FB	X	Field Blank
MP-14		03/19/14	15:00	GW	X	

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

SPECIAL INSTRUCTIONS/COMMENTS

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

* Call if you have any questions

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
___ 1 day ___ 2 day ___ 3 day
___ 4 day ___ 5 day

REQUESTED REPORT DATE: Standard

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

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	
Printed Name: Mikhail Fradkin	Printed Name: S Saward	Printed Name:	Printed Name:	Printed Name:	
Firm: Verina	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 03/21/14 10:15	Date/Time: 3/22/14 0915	Date/Time:	Date/Time:	Date/Time:	

R1402018 5
Verina Consulting Group, LLC
Dover - Kirkwood

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 14393

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: Dover-Kirkwood	Project Number: 5101.0003
Project Manager: Tammy Yuan	Report CC:
Company/Address: Verina Consulting Group LLC 220 Davidson Ave, Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: TYUAN@VCG-LLC.COM
Sampler's Signature: Mikhail Fradkin, Kevin Sold	Sampler's Printed Name: Mikhail Fradkin, Kevin Sold

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1, 8

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOC's	REMARKS/ ALTERNATE DESCRIPTION
MP-5		03/19/14	15:05	GW		X	
ID-5			16:20	GW		X	
MP-6S	X		16:55	GW		X	
DUP-031914		03/19/14	—	GW		X	Duplicate
MW-28		03/20/14	11:30	GW		X	
MW-25			11:35	GW		X	
FB-032014			13:00	FB		X	Field Blank
MP-6D		03/20/14	14:30	GW		X	

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

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

* Call if you have any questions

See OAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE: Standard

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with
Edata X Yes ____

INVOICE INFORMATION
PO #
BILL TO:

R1402018 5
Verina Consulting Group, LLC
Dover - Kirkwood

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature: M. Fradkin	Signature: J. Sold	Signature	Signature	Signature	Signature
Printed Name: Mikhail Fradkin	Printed Name: J. Sold	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Verina	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 03/21/14 10:15	Date/Time: 3/22/14 0915	Date/Time	Date/Time	Date/Time	Date/Time

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

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Cooler Receipt and Preservation Check Form

Project/Client Verina Folder Number M4-2018

Cooler received on 3/22 by: JFS **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO	
2.	Were custody papers properly filled out (ink, signed, etc.)?	~~YES~~	(NO)	preservation
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO	
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	(NO)	N/A
5.	Were **Ice** or **Ice packs** present?	(YES)	NO	
6.	Where did the bottles originate?	(ALS/ROC), CLIENT		
7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	3.0		
	Is the temperature within 0° - 6° C?:	(Y) N	Y N	Y N Y N Y N
	If No, Explain Below Date/Time Temperatures Taken:	3/22/14	0955	
	Thermometer ID: IR GUN#3 / ~~IR GUN#4~~	Reading From: ~~Temp Blank~~ / Sample Bottle		

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location room by JFS on 3/22 at 0955
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: [illegible] 3/24/14

Cooler Breakdown: Date: 3/24/14 Time: 1354 by: JFS

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated ~~N/A~~

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: client

Other Comments:

PC Secondary Review: MM 4/7/14

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

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1402018-001.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-001.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-001.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.01					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.04					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/24/14	1405	In Lab / KRUEST	
		3/24/14	1408	R-001-S12 / KRUEST	
R1402018-002.05					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.06					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.07					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.08					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-002.09					

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-003.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-003.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-003.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-004.01					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/24/14	1405	In Lab / KRUEST	
		3/24/14	1408	R-001-S12 / KRUEST	
R1402018-004.02					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/25/14	1522	In Lab / KRUEST	
		3/25/14	1526	R-001-S12 / KRUEST	
R1402018-004.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-005.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-005.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-005.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-006.01					

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/24/14	1405	In Lab / KRUEST	
		3/24/14	1408	R-001-S12 / KRUEST	
R1402018-006.02					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/25/14	1522	In Lab / KRUEST	
		3/25/14	1526	R-001-S12 / KRUEST	
R1402018-006.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-007.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-007.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-007.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-008.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/24/14	1405	In Lab / KRUEST	
		3/24/14	1408	R-001-S12 / KRUEST	
R1402018-008.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-008.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-009.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-009.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-009.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-010.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-010.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-010.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-011.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-011.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-011.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-012.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-012.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1402018-012.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-013.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-013.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-013.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-014.01					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/24/14	1405	In Lab / KRUEST	
		3/24/14	1408	R-001-S12 / KRUEST	
R1402018-014.02					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/25/14	1522	In Lab / KRUEST	
		3/25/14	1526	R-001-S12 / KRUEST	
R1402018-014.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-015.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-015.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-015.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1402018-016.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-016.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-016.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-017.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-017.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-017.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-018.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-018.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-018.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-019.01					
	8260C				
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
		3/27/14	1713	In Lab / FNAEGLER	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/14	1824	R-001-S10 / FNAEGLER	
R1402018-019.02					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	
R1402018-019.03					
		3/24/14	1335	SMO / JSEWARD	
		3/24/14	1335	R-001 / JSEWARD	

ALS Environmental

VOLATILE ORGANICS
QC SUMMARY

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/18/14
Date Received: 3/22/14
Date Analyzed: 3/24/14

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MP-11
Lab Code: R1402018-002

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MP-11MS Matrix Spike RQ1402678-05 Result	Spike Amount	% Rec	MP-11DMS Duplicate Matrix Spike RQ1402678-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	101	100	101	100	100	100	74 - 127	<1	30
1,1-Dichloroethane (1,1-DCA)	ND	99.3	100	99	99.2	100	99	74 - 132	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	114	100	114	117	100	117	72 - 125	2	30
Tetrachloroethene (PCE)	220	320	100	105	325	100	110	78 - 130	2	30
Trichloroethene (TCE)	1.6	104	100	102	105	100	104	68 - 135	1	30
Vinyl Chloride	17	134	100	117	137	100	120	72 - 148	2	30
cis-1,2-Dichloroethene	34	134	100	100	135	100	102	72 - 133	1	30
trans-1,2-Dichloroethene	ND	103	100	103	103	100	103	77 - 125	<1	30

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

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/19/14
Date Received: 3/22/14
Date Analyzed: 3/28/14

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MP-5
Lab Code: R1402018-012

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MP-5MS Matrix Spike RQ1403226-05 Result	Spike Amount	% Rec	MP-5DMS Duplicate Matrix Spike RQ1403226-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	494	500	99	482	500	96	74 - 127	2	30
1,1-Dichloroethane (1,1-DCA)	ND	492	500	98	493	500	99	74 - 132	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	580	500	116	561	500	112	72 - 125	3	30
Tetrachloroethene (PCE)	940	1460	500	104	1450	500	102	78 - 130	<1	30
Trichloroethene (TCE)	33	544	500	102	535	500	100	68 - 135	2	30
Vinyl Chloride	4.7	505	500	100	500	500	99	72 - 148	<1	30
cis-1,2-Dichloroethene	20	513	500	99	510	500	98	72 - 133	<1	30
trans-1,2-Dichloroethene	ND	510	500	102	499	500	100	77 - 125	2	30

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

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

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

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/24/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 384987

Analyte Name	Lab Control Sample RQ1402678-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	19.6	20.0	98	67 - 121
1,1-Dichloroethane (1,1-DCA)	19.7	20.0	99	76 - 128
1,1-Dichloroethene (1,1-DCE)	23.3	20.0	117	74 - 135
Tetrachloroethene (PCE)	20.7	20.0	104	71 - 127
Trichloroethene (TCE)	20.7	20.0	104	75 - 122
Vinyl Chloride	23.6	20.0	118	68 - 139
cis-1,2-Dichloroethene	20.5	20.0	102	77 - 123
trans-1,2-Dichloroethene	20.7	20.0	104	72 - 120

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/25/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 385241

Lab Control Sample
RQ1402765-07

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.3	20.0	106	67 - 121
1,1-Dichloroethane (1,1-DCA)	21.4	20.0	107	76 - 128
1,1-Dichloroethene (1,1-DCE)	24.2	20.0	121	74 - 135
Tetrachloroethene (PCE)	20.8	20.0	104	71 - 127
Trichloroethene (TCE)	21.7	20.0	108	75 - 122
Vinyl Chloride	24.3	20.0	122	68 - 139
cis-1,2-Dichloroethene	21.6	20.0	108	77 - 123
trans-1,2-Dichloroethene	21.9	20.0	110	72 - 120

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/28/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 385666

Lab Control Sample
RQ1403226-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	18.4	20.0	92	67 - 121
1,1-Dichloroethane (1,1-DCA)	18.9	20.0	94	76 - 128
1,1-Dichloroethene (1,1-DCE)	21.1	20.0	105	74 - 135
Tetrachloroethene (PCE)	19.6	20.0	98	71 - 127
Trichloroethene (TCE)	22.0	20.0	110	75 - 122
Vinyl Chloride	19.3	20.0	96	68 - 139
cis-1,2-Dichloroethene	19.0	20.0	95	77 - 123
trans-1,2-Dichloroethene	19.8	20.0	99	72 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Analyzed: 3/24/14 13:13

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1402678-04
Instrument ID: R-MS-12
File ID: I:\ACQUDATA\MSVOA12\DATA\032414\J4145.D\

Analytical Method: 8260C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1402678-03	I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D\	3/24/14 12:09
MP-11	R1402018-002	I:\ACQUDATA\MSVOA12\DATA\032414\J4161.D\	3/24/14 21:47
MP-11MS	RQ1402678-05	I:\ACQUDATA\MSVOA12\DATA\032414\J4162.D\	3/24/14 22:19
MP-11DMS	RQ1402678-06	I:\ACQUDATA\MSVOA12\DATA\032414\J4163.D\	3/24/14 22:51

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	3/28/14 01:51
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-10
Lab Code:	RQ1403226-01	**File ID:**	I:\ACQUDATA\msvoa10\data\032714\F6977.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1403226-02	I:\ACQUDATA\msvoa10\data\032714\F6975.D\	3/28/14 00:50
TRIP BLANK	R1402018-001	I:\ACQUDATA\msvoa10\data\032714\F6978.D\	3/28/14 02:21
FB-031814	R1402018-007	I:\ACQUDATA\msvoa10\data\032714\F6979.D\	3/28/14 02:52
FB-031914	R1402018-010	I:\ACQUDATA\msvoa10\data\032714\F6980.D\	3/28/14 03:22
FB-032014	R1402018-018	I:\ACQUDATA\msvoa10\data\032714\F6981.D\	3/28/14 03:52
MW-16	R1402018-003	I:\ACQUDATA\msvoa10\data\032714\F6982.D\	3/28/14 04:23
MP-12	R1402018-005	I:\ACQUDATA\msvoa10\data\032714\F6983.D\	3/28/14 04:53
MP-4	R1402018-009	I:\ACQUDATA\msvoa10\data\032714\F6984.D\	3/28/14 05:24
MP-14	R1402018-011	I:\ACQUDATA\msvoa10\data\032714\F6985.D\	3/28/14 05:54
MP-5	R1402018-012	I:\ACQUDATA\msvoa10\data\032714\F6986.D\	3/28/14 06:25
IJ-5	R1402018-013	I:\ACQUDATA\msvoa10\data\032714\F6987.D\	3/28/14 06:55
DUP-031914	R1402018-015	I:\ACQUDATA\msvoa10\data\032714\F6988.D\	3/28/14 07:26
MW-28	R1402018-016	I:\ACQUDATA\msvoa10\data\032714\F6989.D\	3/28/14 07:56
MW-25	R1402018-017	I:\ACQUDATA\msvoa10\data\032714\F6990.D\	3/28/14 08:26
MP-6D	R1402018-019	I:\ACQUDATA\msvoa10\data\032714\F6991.D\	3/28/14 08:57
MP-5MS	RQ1403226-05	I:\ACQUDATA\msvoa10\data\032714\F6992.D\	3/28/14 09:27
MP-5DMS	RQ1403226-06	I:\ACQUDATA\msvoa10\data\032714\F6993.D\	3/28/14 09:57

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	3/24/14 13:13
Sample Matrix:	Water		

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

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1402678-04	**File ID:**	I:\ACQUDATA\MSVOA12\DATA\032414\J4145.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1402678-03	I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D\	3/24/14 12:09
IJ-10	R1402018-008	I:\ACQUDATA\MSVOA12\DATA\032414\J4157.D\	3/24/14 19:38

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	3/25/14 13:36
Sample Matrix:	Water		

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

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1402765-08	**File ID:**	I:\ACQUDATA\msvoa12\Data\032514\J4190.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1402765-07	I:\ACQUDATA\msvoa12\Data\032514\J4188.D\	3/25/14 12:31
IJ-4	R1402018-004	I:\ACQUDATA\msvoa12\Data\032514\J4191.D\	3/25/14 14:12
MW-7A	R1402018-006	I:\ACQUDATA\msvoa12\Data\032514\J4192.D\	3/25/14 14:44
MP-6S	R1402018-014	I:\ACQUDATA\msvoa12\Data\032514\J4193.D\	3/25/14 15:16

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 2/28/14 10:52

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\022814\F6203.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 215799

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	23.44	95613	Pass
75	95	30	60	50.51	206016	Pass
95	95	100	100	100.00	407872	Pass
96	95	5	9	6.59	26888	Pass
173	174	0	2	1.14	3882	Pass
174	95	50	120	83.59	340928	Pass
175	174	5	9	7.89	26888	Pass
176	174	95	101	100.63	343061	Pass
177	176	5	9	6.49	22267	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa10\data\022814\F6205.D\	2/28/14 12:08	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa10\data\022814\F6206.D\	2/28/14 12:39	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa10\data\022814\F6207.D\	2/28/14 13:09	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa10\data\022814\F6208.D\	2/28/14 13:39	
Initial CalibrationICAL	10 ppb	I:\ACQUDATA\msvoa10\data\022814\F6209.D\	2/28/14 14:10	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa10\data\022814\F6210.D\	2/28/14 14:40	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa10\data\022814\F6211.D\	2/28/14 15:10	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa10\data\022814\F6212.D\	2/28/14 15:43	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa10\data\022814\F6213.D\	2/28/14 16:13	

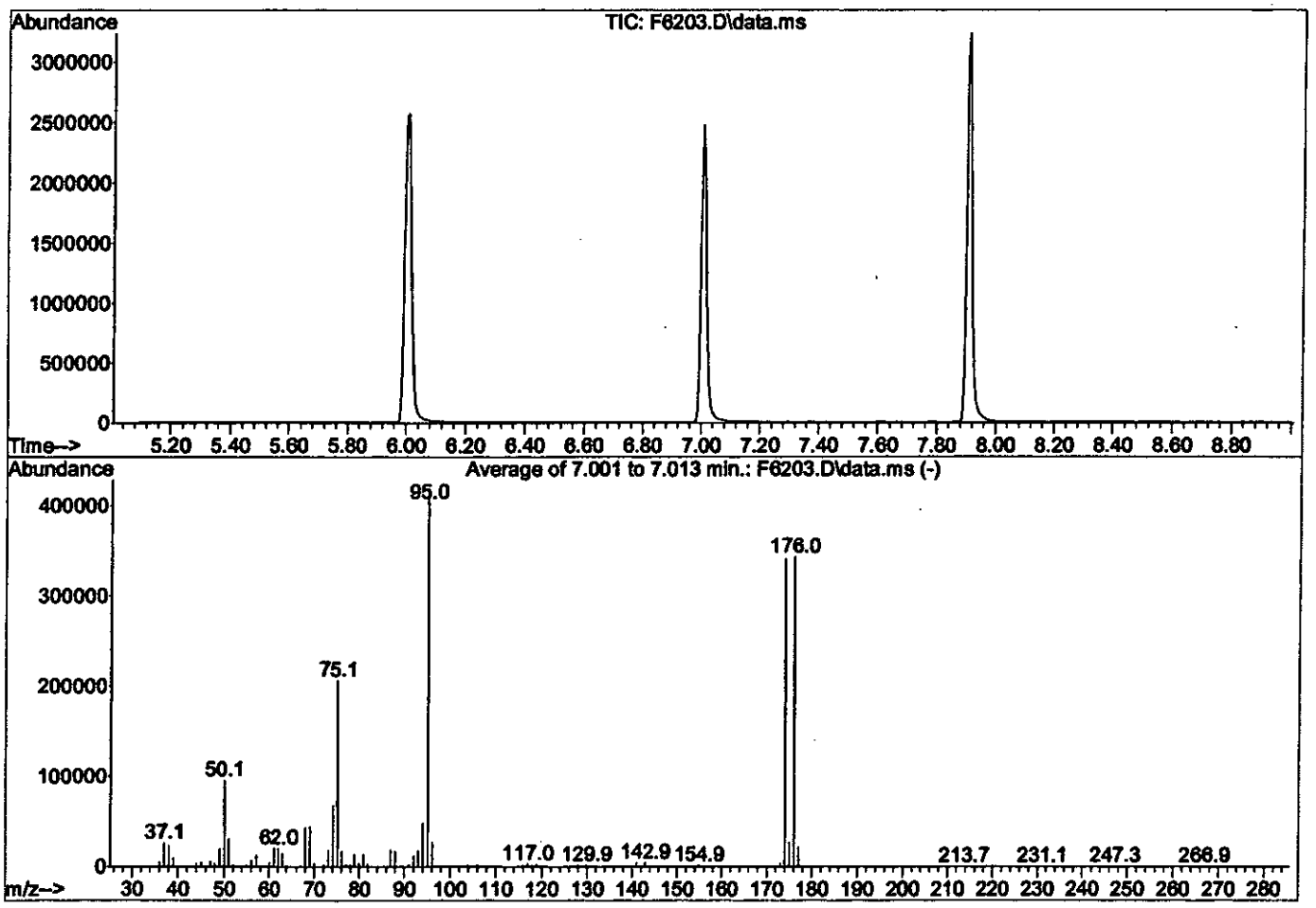
BFB

Data Path : I:\ACQUDATA\msvoa10\data\022814\
Data File : F6203.D
Acq On : 28 Feb 2014 10:52 am
Operator : F.Naegler
Sample : TUNE
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: CPD4.P

FJ 3/3/14

Method : I:\ACQUDATA\MSVOA10\METHODS\T022814.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



AutoFind: Scans 314, 315, 316; Background Corrected with Scan 309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	95613	PASS
75	95	30	60	50.5	206016	PASS
95	95	100	100	100.0	407872	PASS
96	95	5	9	6.6	26888	PASS
173	174	0.00	2	1.1	3882	PASS
174	95	50	120	83.6	340928	PASS
175	174	5	9	7.9	26888	PASS
176	174	95	101	100.6	343061	PASS
177	176	5	9	6.5	22267	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/12/14 09:41

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\031214\U3873.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 215801

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.96	83285	Pass
75	95	30	60	49.54	217600	Pass
95	95	100	100	100.00	439232	Pass
96	95	5	9	6.84	30035	Pass
173	174	0	2	1.18	3907	Pass
174	95	50	120	75.24	330475	Pass
175	174	5	9	7.57	25003	Pass
176	174	95	101	100.37	331712	Pass
177	176	5	9	6.54	21696	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3875.D\	3/12/14 10:45	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3876.D\	3/12/14 11:17	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3877.D\	3/12/14 11:49	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3878.D\	3/12/14 12:21	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3879.D\	3/12/14 12:53	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3880.D\	3/12/14 13:26	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3881.D\	3/12/14 13:58	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\031214\U3882.D\	3/12/14 14:30	

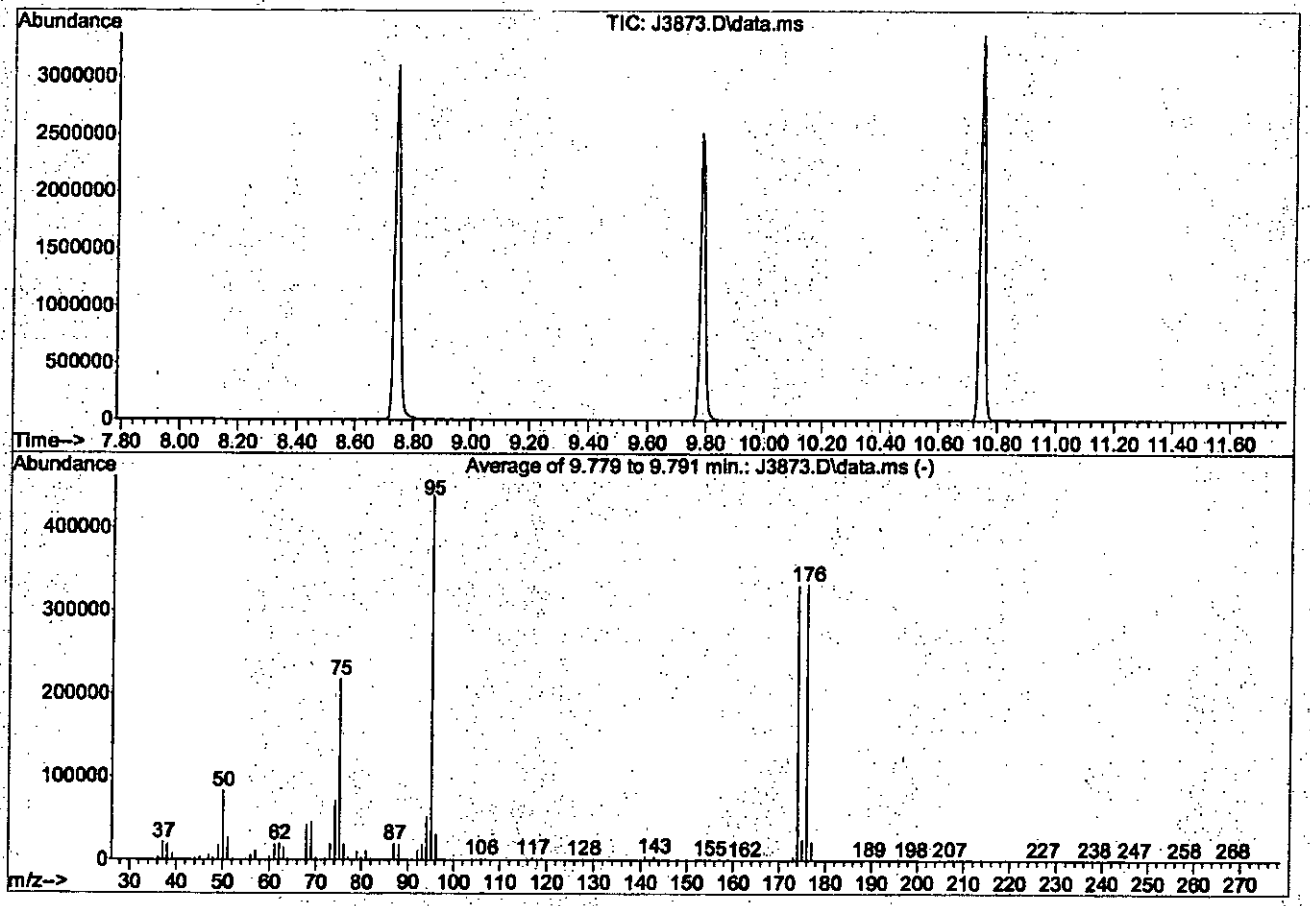
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\031214\
Data File : J3873.D
Acq On : 12 Mar 2014 9:41 am
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

KR 3/12/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Jan 16 12:02:56 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	83285	PASS
75	95	30	60	49.5	217600	PASS
95	95	100	100	100.0	439232	PASS
96	95	5	9	6.8	30035	PASS
173	174	0.00	2	1.2	3907	PASS
174	95	50	120	75.2	330475	PASS
175	174	5	9	7.6	25003	PASS
176	174	95	101	100.4	331712	PASS
177	176	5	9	6.5	21696	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14 11:04

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\U4141.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 384987

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	17.95	78213	Pass
75	95	30	60	48.03	209280	Pass
95	95	100	100	100.00	435712	Pass
96	95	5	9	6.50	28307	Pass
173	174	0	2	0.93	3202	Pass
174	95	50	120	78.99	344149	Pass
175	174	5	9	7.48	25759	Pass
176	174	95	101	97.49	335509	Pass
177	176	5	9	6.65	22328	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1402678-02	I:\ACQUDATA\MSVOA12\DATA\032414\U4142.D\	3/24/14 11:36	
Lab Control Sample	RQ1402678-03	I:\ACQUDATA\MSVOA12\DATA\032414\U4143.D\	3/24/14 12:09	
Method Blank	RQ1402678-04	I:\ACQUDATA\MSVOA12\DATA\032414\U4145.D\	3/24/14 13:13	
MP-11	R1402018-002	I:\ACQUDATA\MSVOA12\DATA\032414\U4161.D\	3/24/14 21:47	
MP-11MS	RQ1402678-05	I:\ACQUDATA\MSVOA12\DATA\032414\U4162.D\	3/24/14 22:19	
MP-11DMS	RQ1402678-06	I:\ACQUDATA\MSVOA12\DATA\032414\U4163.D\	3/24/14 22:51	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14 11:04

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\U4141.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 384987

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	17.95	78213	Pass
75	95	30	60	48.03	209280	Pass
95	95	100	100	100.00	435712	Pass
96	95	5	9	6.50	28307	Pass
173	174	0	2	0.93	3202	Pass
174	95	50	120	78.99	344149	Pass
175	174	5	9	7.48	25759	Pass
176	174	95	101	97.49	335509	Pass
177	176	5	9	6.65	22328	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1402678-02	I:\ACQUDATA\MSVOA12\DATA\032414\U4142.D\	3/24/14 11:36	
Lab Control Sample	RQ1402678-03	I:\ACQUDATA\MSVOA12\DATA\032414\U4143.D\	3/24/14 12:09	
Method Blank	RQ1402678-04	I:\ACQUDATA\MSVOA12\DATA\032414\U4145.D\	3/24/14 13:13	
IJ-10	R1402018-008	I:\ACQUDATA\MSVOA12\DATA\032414\U4157.D\	3/24/14 19:38	

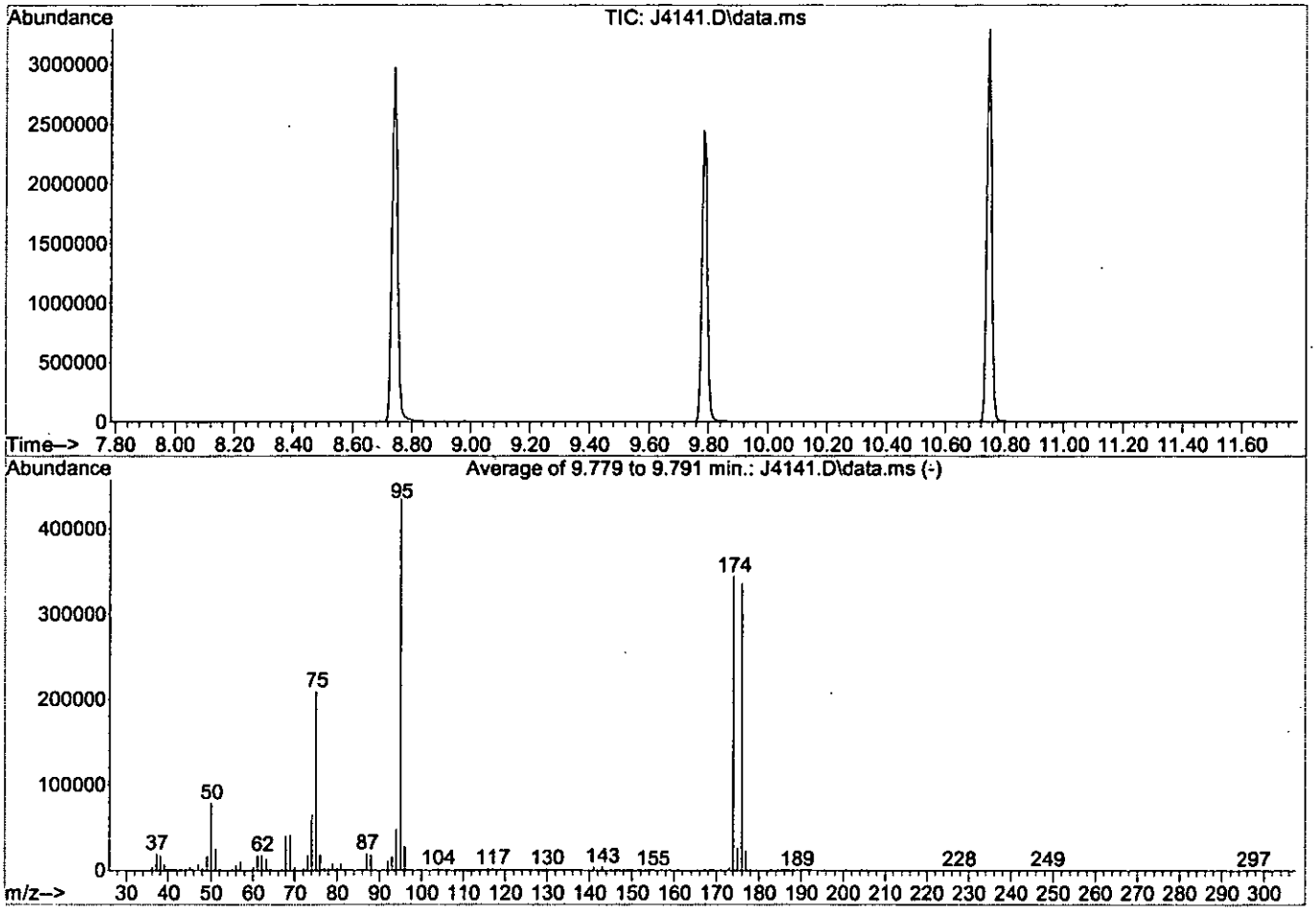
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\032414\
Data File : J4141.D
Acq On : 24 Mar 2014 11:04 am
Operator : K.Ruest
Sample : TUNE RQ1402678 01
Misc :
ALS Vial : 1 Sample Multiplier: 1

KR 3/24/14

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Mar 13 11:21:13 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	78213	PASS
75	95	30	60	48.0	209280	PASS
95	95	100	100	100.0	435712	PASS
96	95	5	9	6.5	28307	PASS
173	174	0.00	2	0.9	3202	PASS
174	95	50	120	79.0	344149	PASS
175	174	5	9	7.5	25759	PASS
176	174	95	101	97.5	335509	PASS
177	176	5	9	6.7	22328	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/25/14 11:22

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\032514\J4186.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 385241

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	19.16	76979	Pass
75	95	30	60	49.26	197931	Pass
95	95	100	100	100.00	401813	Pass
96	95	5	9	6.78	27235	Pass
173	174	0	2	1.15	3625	Pass
174	95	50	120	78.50	315435	Pass
175	174	5	9	7.54	23775	Pass
176	174	95	101	97.52	307627	Pass
177	176	5	9	6.66	20476	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1402765-06	I:\ACQUDATA\msvoa12\Data\032514\J4187.D\	3/25/14 11:57	
Lab Control Sample	RQ1402765-07	I:\ACQUDATA\msvoa12\Data\032514\J4188.D\	3/25/14 12:31	
Method Blank	RQ1402765-08	I:\ACQUDATA\msvoa12\Data\032514\J4190.D\	3/25/14 13:36	
1J-4	R1402018-004	I:\ACQUDATA\msvoa12\Data\032514\J4191.D\	3/25/14 14:12	
MW-7A	R1402018-006	I:\ACQUDATA\msvoa12\Data\032514\J4192.D\	3/25/14 14:44	
MP-6S	R1402018-014	I:\ACQUDATA\msvoa12\Data\032514\J4193.D\	3/25/14 15:16	

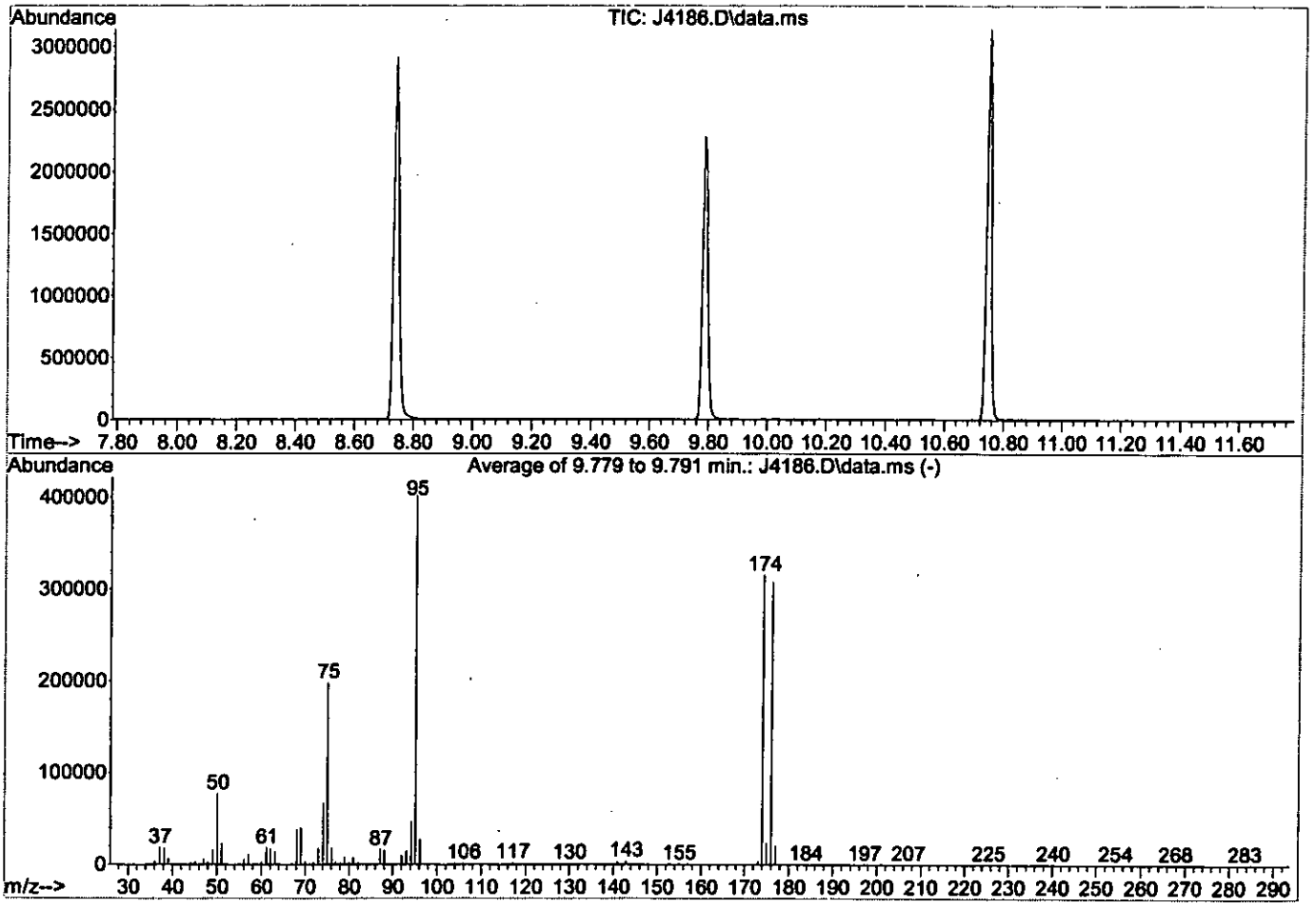
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\032514\
Data File : J4186.D
Acq On : 25 Mar 2014 11:22 am
Operator : K.Ruest
Sample : TUNE RQ1402765-01,05
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

KR 3/25/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Mar 13 11:21:13 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	76979	PASS
75	95	30	60	49.3	197931	PASS
95	95	100	100	100.0	401813	PASS
96	95	5	9	6.8	27235	PASS
173	174	0.00	2	1.1	3625	PASS
174	95	50	120	78.5	315435	PASS
175	174	5	9	7.5	23775	PASS
176	174	95	101	97.5	307627	PASS
177	176	5	9	6.7	20476	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/27/14 23:53

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\032714\F6973.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 385666

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	22.47	99573	Pass
75	95	30	60	47.70	211359	Pass
95	95	100	100	100.00	443120	Pass
96	95	5	9	6.57	29093	Pass
173	174	0	2	0.85	3247	Pass
174	95	50	120	86.19	381909	Pass
175	174	5	9	7.48	28571	Pass
176	174	95	101	96.53	368661	Pass
177	176	5	9	6.36	23438	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1403226-04	I:\ACQUDATA\msvoa10\data\032714\F6974.D\	3/28/14 00:19	
Lab Control Sample	RQ1403226-02	I:\ACQUDATA\msvoa10\data\032714\F6975.D\	3/28/14 00:50	
Method Blank	RQ1403226-01	I:\ACQUDATA\msvoa10\data\032714\F6977.D\	3/28/14 01:51	
TRIP BLANK	R1402018-001	I:\ACQUDATA\msvoa10\data\032714\F6978.D\	3/28/14 02:21	
FB-031814	R1402018-007	I:\ACQUDATA\msvoa10\data\032714\F6979.D\	3/28/14 02:52	
FB-031914	R1402018-010	I:\ACQUDATA\msvoa10\data\032714\F6980.D\	3/28/14 03:22	
FB-032014	R1402018-018	I:\ACQUDATA\msvoa10\data\032714\F6981.D\	3/28/14 03:52	
MW-16	R1402018-003	I:\ACQUDATA\msvoa10\data\032714\F6982.D\	3/28/14 04:23	
MP-12	R1402018-005	I:\ACQUDATA\msvoa10\data\032714\F6983.D\	3/28/14 04:53	
MP-4	R1402018-009	I:\ACQUDATA\msvoa10\data\032714\F6984.D\	3/28/14 05:24	
MP-14	R1402018-011	I:\ACQUDATA\msvoa10\data\032714\F6985.D\	3/28/14 05:54	
MP-5	R1402018-012	I:\ACQUDATA\msvoa10\data\032714\F6986.D\	3/28/14 06:25	
IJ-5	R1402018-013	I:\ACQUDATA\msvoa10\data\032714\F6987.D\	3/28/14 06:55	
DUP-031914	R1402018-015	I:\ACQUDATA\msvoa10\data\032714\F6988.D\	3/28/14 07:26	
MW-28	R1402018-016	I:\ACQUDATA\msvoa10\data\032714\F6989.D\	3/28/14 07:56	
MW-25	R1402018-017	I:\ACQUDATA\msvoa10\data\032714\F6990.D\	3/28/14 08:26	
MP-6D	R1402018-019	I:\ACQUDATA\msvoa10\data\032714\F6991.D\	3/28/14 08:57	
MP-5MS	RQ1403226-05	I:\ACQUDATA\msvoa10\data\032714\F6992.D\	3/28/14 09:27	
MP-5DMS	RQ1403226-06	I:\ACQUDATA\msvoa10\data\032714\F6993.D\	3/28/14 09:57	

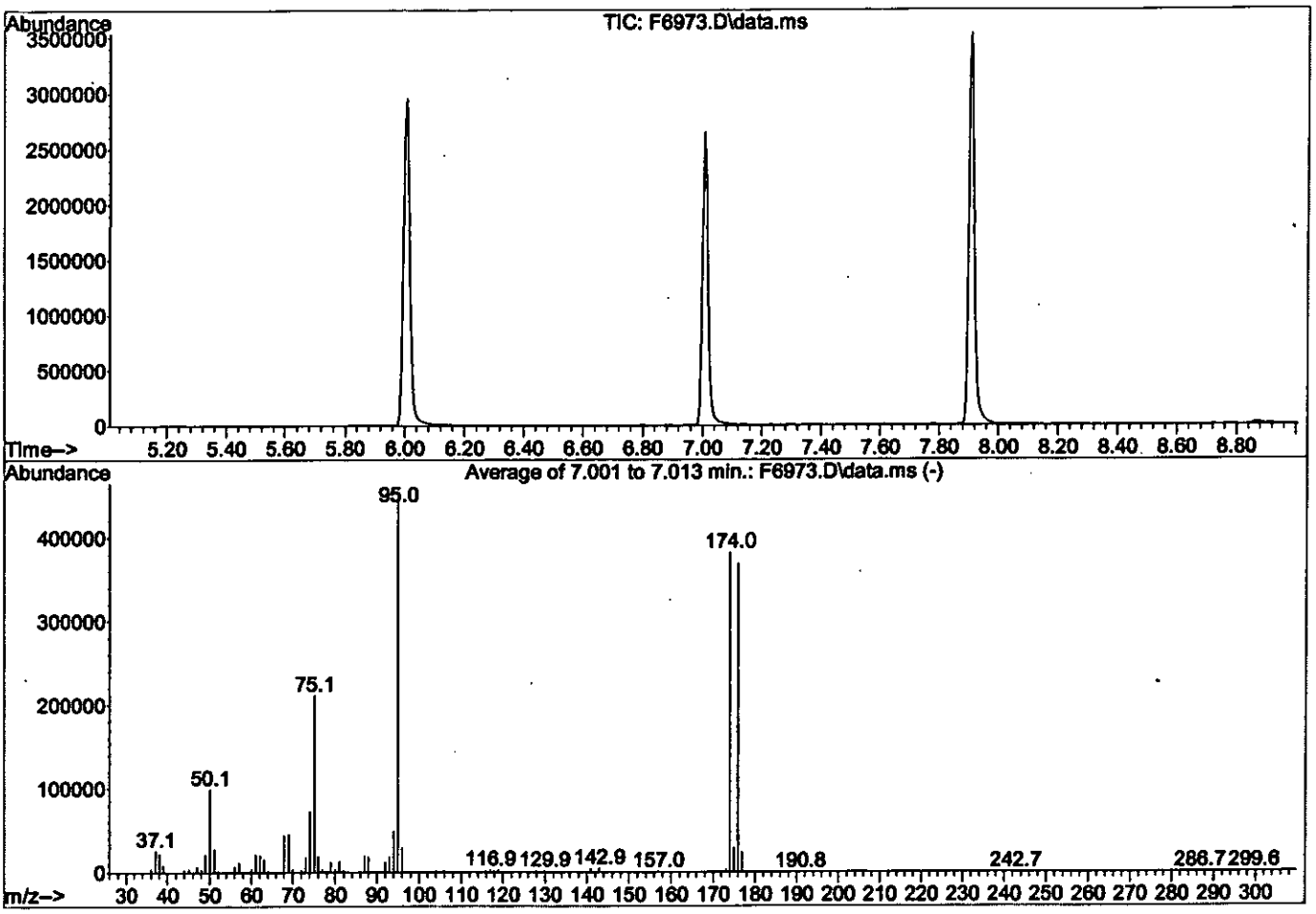
Data Path : I:\ACQUDATA\msvoa10\data\032714\
Data File : F6973.D
Acq On : 27 Mar 2014 11:53 pm
Operator : F.Naegler
Sample : TUNE
Misc :
ALS Vial : 23 Sample Multiplier: 1

RQ1433226-03

FJ 4/5/14

Integration File: CPD4.P

Method : I:\ACQUDATA\MSVOA10\METHODS\T022814.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



AutoFind: Scans 314, 315, 316; Background Corrected with Scan 309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.5	99573	PASS
75	95	30	60	47.7	211359	PASS
95	95	100	100	100.0	443120	PASS
96	95	5	9	6.6	29093	PASS
173	174	0.00	2	0.9	3247	PASS
174	95	50	120	86.2	381909	PASS
175	174	5	9	7.5	28571	PASS
176	174	95	101	96.5	368661	PASS
177	176	5	9	6.4	23438	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14 11:36

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

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1402678-02
Analysis Lot: 384987
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	664,220	10.75	1,422,163	5.44	1,310,598	8.74
	Upper Limit ==>	1,328,440	11.25	2,844,326	5.94	2,621,196	9.24
	Lower Limit ==>	332,110	10.25	711,082	4.94	655,299	8.24
	ICAL Result ==>	670,106	10.75	1,455,324	5.45	1,331,361	8.74
Associated Analyses							
Lab Control Sample	RQ1402678-03	634,005	10.75	1,415,817	5.44	1,290,455	8.74
Method Blank	RQ1402678-04	597,508	10.75	1,403,536	5.44	1,271,095	8.74
MP-11	R1402018-002	555,574	10.75	1,322,100	5.45	1,199,988	8.74
MP-11MS	RQ1402678-05	610,179	10.75	1,315,715	5.45	1,194,927	8.74
MP-11DMS	RQ1402678-06	615,053	10.75	1,334,099	5.45	1,232,967	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14 11:36

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

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1402678-02
Analysis Lot: 384987
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	930,294	4.25
	Upper Limit ==>	1,860,588	4.75
	Lower Limit ==>	465,147	3.75
	ICAL Result ==>	937,657	4.25
Associated Analyses			
Lab Control Sample	RQ1402678-03	920,302	4.24
Method Blank	RQ1402678-04	913,567	4.24
MP-11	R1402018-002	853,557	4.25
MP-11MS	RQ1402678-05	852,990	4.25
MP-11DMS	RQ1402678-06	867,730	4.24

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/28/14 00:19

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

File ID: I:\ACQUDATA\msvoa10\data\032714\F6974.D\
Instrument ID: R-MS-10
Analytical Method: 8260C

Lab Code: RQ1403226-04
Analysis Lot: 385666
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	738,845	10.84	1,340,834	5.61	1,270,938	8.84
	Upper Limit ==>	1,477,690	11.34	2,681,668	6.11	2,541,876	9.34
	Lower Limit ==>	369,423	10.34	670,417	5.11	635,469	8.34
	ICAL Result ==>	676,877	10.83	1,280,918	5.61	1,163,254	8.84
Associated Analyses							
Lab Control Sample	RQ1403226-02	720,728	10.83	1,315,622	5.61	1,252,152	8.84
Method Blank	RQ1403226-01	694,531	10.83	1,323,435	5.62	1,245,534	8.84
TRIP BLANK	R1402018-001	660,119	10.83	1,315,053	5.61	1,250,397	8.84
FB-031814	R1402018-007	670,659	10.83	1,289,690	5.61	1,218,392	8.84
FB-031914	R1402018-010	667,482	10.83	1,282,306	5.61	1,221,776	8.84
FB-032014	R1402018-018	673,675	10.84	1,288,563	5.62	1,211,261	8.84
MW-16	R1402018-003	671,101	10.84	1,288,014	5.62	1,228,218	8.84
MP-12	R1402018-005	677,636	10.83	1,291,447	5.61	1,223,667	8.84
MP-4	R1402018-009	673,699	10.83	1,308,203	5.62	1,239,213	8.84
MP-14	R1402018-011	645,864	10.83	1,252,672	5.62	1,187,161	8.84
MP-5	R1402018-012	666,276	10.83	1,268,229	5.61	1,202,656	8.84
IJ-5	R1402018-013	657,898	10.84	1,259,437	5.62	1,206,302	8.84
DUP-031914	R1402018-015	664,822	10.83	1,297,364	5.62	1,221,928	8.84
MW-28	R1402018-016	665,580	10.83	1,252,193	5.61	1,205,819	8.84
MW-25	R1402018-017	659,174	10.83	1,249,674	5.61	1,198,463	8.84
MP-6D	R1402018-019	661,317	10.83	1,261,302	5.61	1,202,926	8.84
MP-5MS	RQ1403226-05	726,237	10.83	1,340,616	5.61	1,255,571	8.84
MP-5DMS	RQ1403226-06	738,062	10.84	1,340,915	5.61	1,268,229	8.84

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/28/14 00:19

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

File ID: I:\ACQUDATA\msvoa10\data\032714\F6974.D\
Instrument ID: R-MS-10
Analytical Method: 8260C

Lab Code: RQ1403226-04
Analysis Lot: 385666
Signal ID:

		Pentafluorobenzene	
		Area	RT
	Results ==>	930,091	4.41
	Upper Limit ==>	1,860,182	4.91
	Lower Limit ==>	465,046	3.91
	ICAL Result ==>	866,233	4.41
Associated Analyses			
Lab Control Sample	RQ1403226-02	914,092	4.42
Method Blank	RQ1403226-01	914,253	4.42
TRIP BLANK	R1402018-001	902,543	4.41
FB-031814	R1402018-007	878,944	4.42
FB-031914	R1402018-010	877,811	4.42
FB-032014	R1402018-018	870,250	4.42
MW-16	R1402018-003	874,244	4.42
MP-12	R1402018-005	883,696	4.42
MP-4	R1402018-009	884,909	4.42
MP-14	R1402018-011	858,798	4.42
MP-5	R1402018-012	863,001	4.42
IJ-5	R1402018-013	866,515	4.42
DUP-031914	R1402018-015	873,232	4.41
MW-28	R1402018-016	857,518	4.41
MW-25	R1402018-017	852,127	4.42
MP-6D	R1402018-019	859,333	4.41
MP-5MS	RQ1403226-05	911,672	4.41
MP-5DMS	RQ1403226-06	921,247	4.41

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14 11:36

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

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1402678-02
Analysis Lot: 384987
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	664,220	10.75	1,422,163	5.44	1,310,598	8.74
	Upper Limit ==>	1,328,440	11.25	2,844,326	5.94	2,621,196	9.24
	Lower Limit ==>	332,110	10.25	711,082	4.94	655,299	8.24
	ICAL Result ==>	670,106	10.75	1,455,324	5.45	1,331,361	8.74
Associated Analyses							
Lab Control Sample	RQ1402678-03	634,005	10.75	1,415,817	5.44	1,290,455	8.74
Method Blank	RQ1402678-04	597,508	10.75	1,403,536	5.44	1,271,095	8.74
IJ-10	R1402018-008	581,515	10.75	1,318,587	5.45	1,214,975	8.74

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

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14 11:36

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

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1402678-02
Analysis Lot: 384987
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	930,294	4.25
	Upper Limit ==>	1,860,588	4.75
	Lower Limit ==>	465,147	3.75
	ICAL Result ==>	937,657	4.25
Associated Analyses			
Lab Control Sample	RQ1402678-03	920,302	4.24
Method Blank	RQ1402678-04	913,567	4.24
IJ-10	R1402018-008	861,954	4.24

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/25/14 11:57

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

File ID: I:\ACQUDATA\msvoa12\Data\032514\J4187.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1402765-06
Analysis Lot: 385241
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	605,978	10.75	1,302,084	5.45	1,198,773	8.74
	Upper Limit ==>	1,211,956	11.25	2,604,168	5.95	2,397,546	9.24
	Lower Limit ==>	302,989	10.25	651,042	4.95	599,387	8.24
	ICAL Result ==>	670,106	10.75	1,455,324	5.45	1,331,361	8.74
Associated Analyses							
Lab Control Sample	RQ1402765-07	589,465	10.75	1,317,252	5.45	1,205,910	8.74
Method Blank	RQ1402765-08	572,377	10.75	1,286,774	5.45	1,182,406	8.74
IJ-4	R1402018-004	561,961	10.75	1,275,048	5.45	1,177,001	8.74
MW-7A	R1402018-006	558,293	10.75	1,283,816	5.45	1,177,165	8.74
MP-6S	R1402018-014	567,222	10.75	1,271,342	5.45	1,170,179	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/25/14 11:57

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

File ID: I:\ACQUDATA\msvoa12\Data\032514\J4187.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1402765-06
Analysis Lot: 385241
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	835,832	4.25
	Upper Limit ==>	1,671,664	4.75
	Lower Limit ==>	417,916	3.75
	ICAL Result ==>	937,657	4.25
Associated Analyses			
Lab Control Sample	RQ1402765-07	841,442	4.25
Method Blank	RQ1402765-08	826,673	4.25
IJ-4	R1402018-004	824,058	4.25
MW-7A	R1402018-006	826,919	4.25
MP-6S	R1402018-014	821,268	4.25

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

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1130
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 02:21
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1402018-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6978.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/28/14 02:21	
Dibromofluoromethane	98	89-119	3/28/14 02:21	
Toluene-d8	94	87-121	3/28/14 02:21	

Quantitation Report (Not Reviewed)

Sample : R1402018-001|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6978.D Vial: 28
Acq On : 28 Mar 2014 2:21 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 02:34:44 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.409	168	902543	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1315053	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1250397	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	660119	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	419540	48.88	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.76%			
48) surr1,1,2-dichloroetha...	4.860	65	437492	48.45	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.90%			
65) SURR3,Toluene-d8	7.433	98	1449371	47.09	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.18%			
70) SURR2,BFB	9.878	95	617086	48.82	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.64%			
Target Compounds						Qvalue
5) Bromomethane	1.562	94	596	0.32	ug/L #	45
15) Acetone	2.129	43	1199	0.50	ug/L	79
16) 2-Propanol	2.209	45	162	0.49	ug/L	91
17) Iodomethane	2.239	142	404	1.07	ug/L #	40
19) Acetonitrile	2.318	40	810	2.77	ug/L #	1
20) Allyl Chloride	2.276	76	2395	0.60	ug/L #	1
89) Cyclohexanone	9.835	55	237	0.27	ug/L #	51
112) Trielution Dichlorotol...	11.835	125	4002	0.28	ug/L	90
116) Hexachlorobt	12.329	225	1093	0.24	ug/L #	36
119) 2,4,5-Trichlorotoluene	12.932	159	3820	0.76	ug/L	91
120) 2,3,6-Trichlorotoluene	12.993	159	3328	0.69	ug/L	87

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

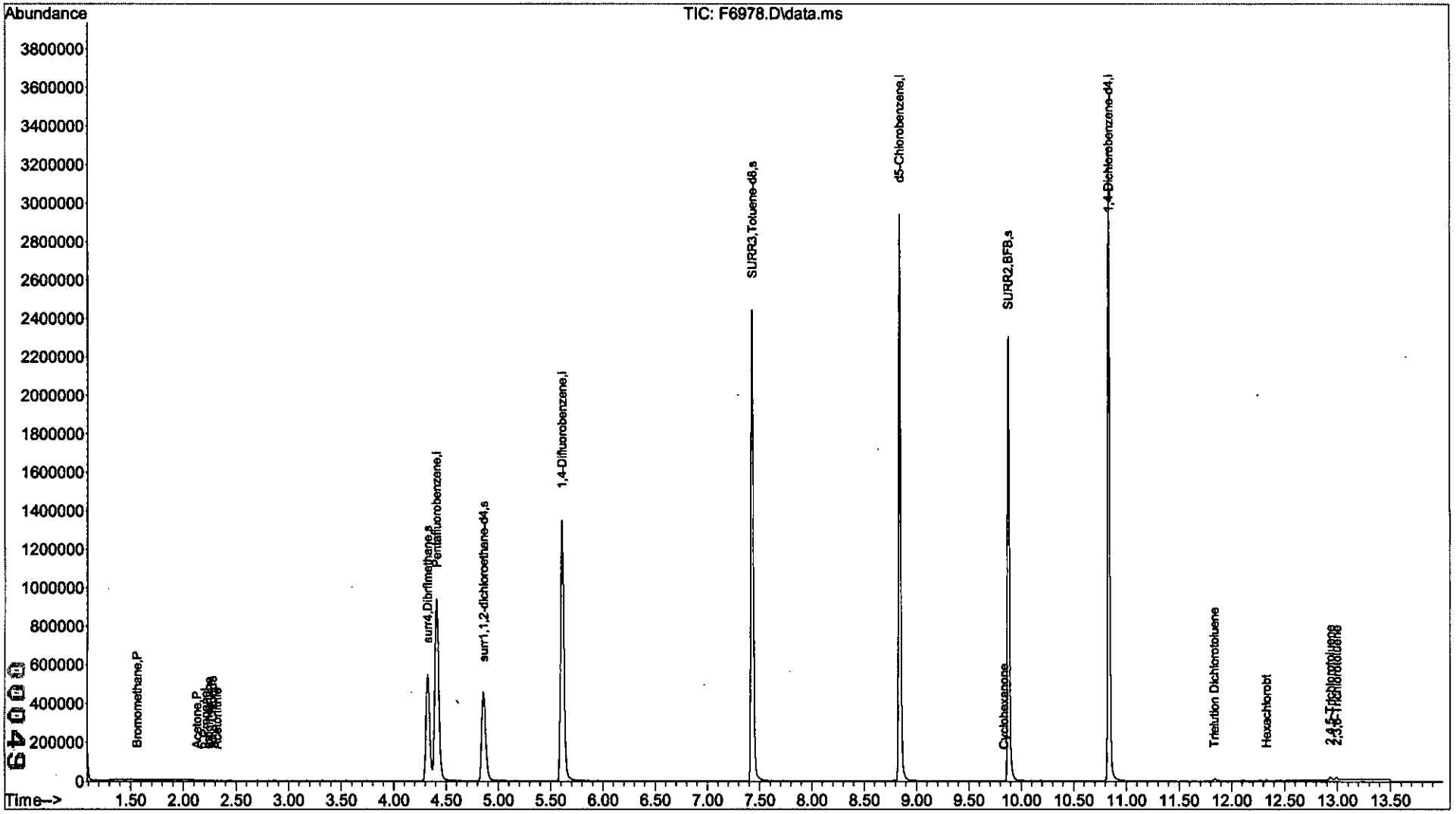
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FW
4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-001|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6978.D Vial: 28
Acq On : 28 Mar 2014 2:21 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 02:34:44 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1245
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/24/14 21:47
Sample Name:	MP-11	**Units:**	µg/L
Lab Code:	R1402018-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\U4161.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	1.2	
127-18-4	Tetrachloroethene (PCE)	**220**		10	0.60	
79-01-6	Trichloroethene (TCE)	**1.6**	J	10	0.44	
75-01-4	Vinyl Chloride	**17**		10	0.64	
156-59-2	cis-1,2-Dichloroethene	**34**		10	0.60	
156-60-5	trans-1,2-Dichloroethene	10	U	10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	3/24/14 21:47	
Dibromofluoromethane	98	89-119	3/24/14 21:47	
Toluene-d8	97	87-121	3/24/14 21:47	

Quantitation Report (Not Reviewed)

Sample : R1402018-002|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4161.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 9:47 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:02:08 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	853557	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1322100	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1199988	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	555574	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	376889	49.24	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.48%				
48) surr1,1,2-dichloroetha...	4.658	65	443037	50.81	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.62%				
65) SURR3,Toluene-d8	7.322	98	1555134	48.35	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.70%				
70) SURR2,BFB	9.785	95	578882	48.24	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.48%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.323	62	67394	8.26	ppb		90
6) Chloroethane	1.567	64	7598	1.56	ppb		81
10) Freon 123a	1.865	67	2429	0.26	ppb		100
14) Freon 113	2.030	101	6293	0.93	ppb		98
~~15) Acetone~~	~~2.048~~	~~43~~	~~2478~~	~~1.46~~	~~ppb~~	~~#~~	~~64~~
~~16) 2-Propanol~~	~~2.115~~	~~45~~	~~530~~	~~1.93~~	~~ppb~~	~~#~~	~~5~~
18) Carbon Disulfide	2.207	76	8158	0.38	ppb		99
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~8071~~	~~1.90~~	~~ppb~~	~~#~~	~~1~~
26) trans-1,2-Dichloroethene	2.585	96	1883	0.24	ppb	#	74
34) cis-1,2-Dichloroethene	3.542	96	145482	16.80	ppb		91
~~52) n Heptane~~	~~5.322~~	~~43~~	~~15887~~	~~1.95~~	~~ppb~~	~~#~~	~~26~~
54) Trichloroethene	5.840	130	6231	0.79	ppb	#	67
72) Tetrachloroethene	7.962	164	667284	107.65	ppb		98
~~90) Cyclohexanone~~	~~9.791~~	~~55~~	~~1299~~	~~2.91~~	~~ppb~~	~~#~~	~~14~~

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

KR 3/25/14

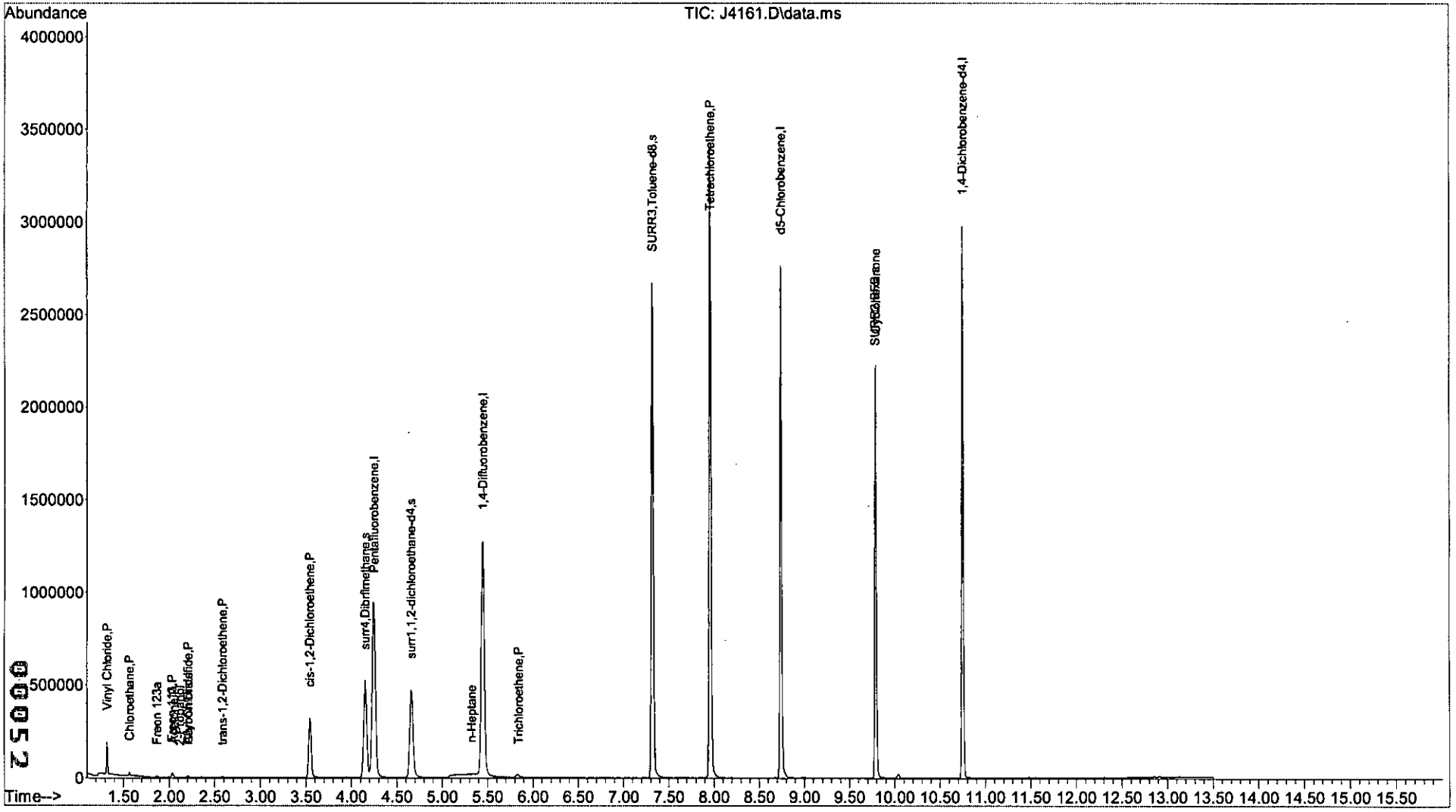
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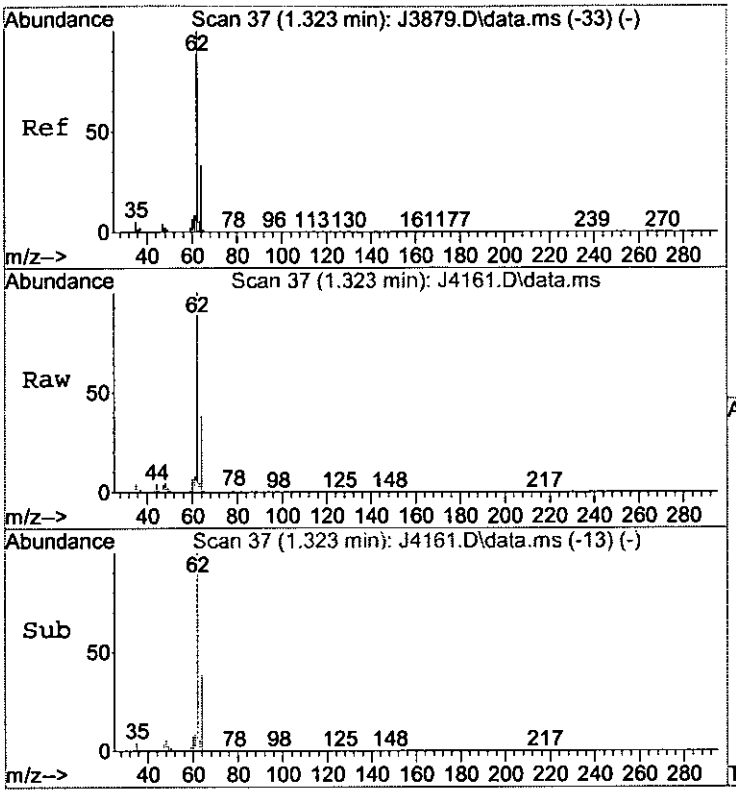
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Quantitation Report (Not Reviewed)

Sample : R1402018-002|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4161.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 9:47 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:02:08 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

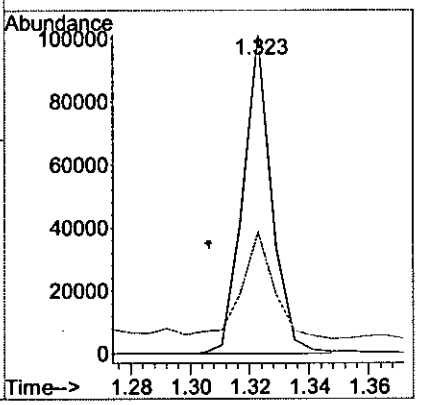


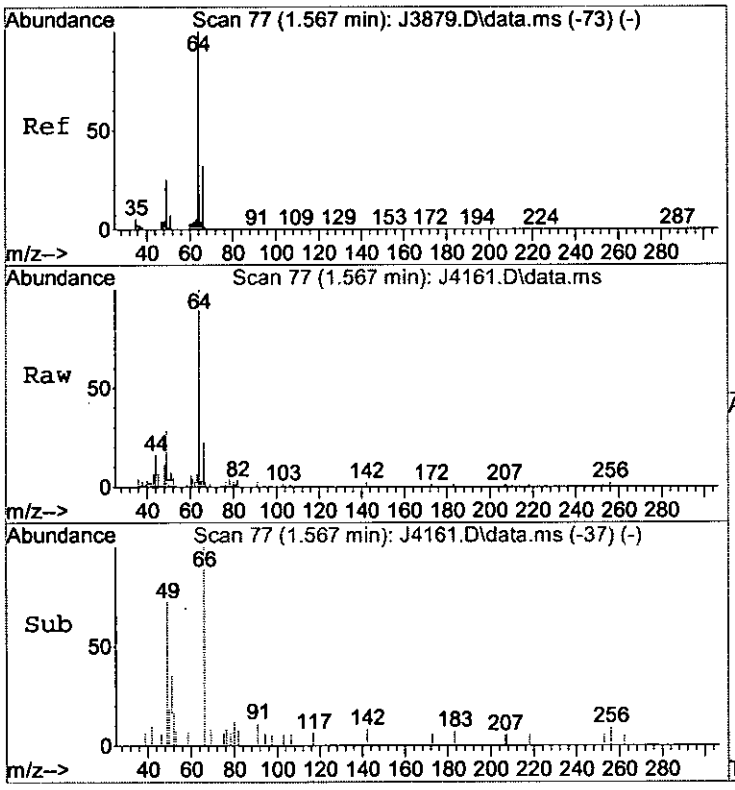


#4
Vinyl Chloride
Concen: 8.26 ppb
RT: 1.323 min Scan# 37
Delta R.T. -0.000 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion: 62 Resp: 67394

Ion	Ratio	Lower	Upper
62	100		
64	38.3	12.9	52.9

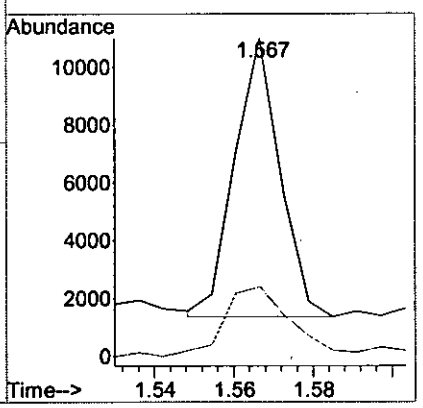


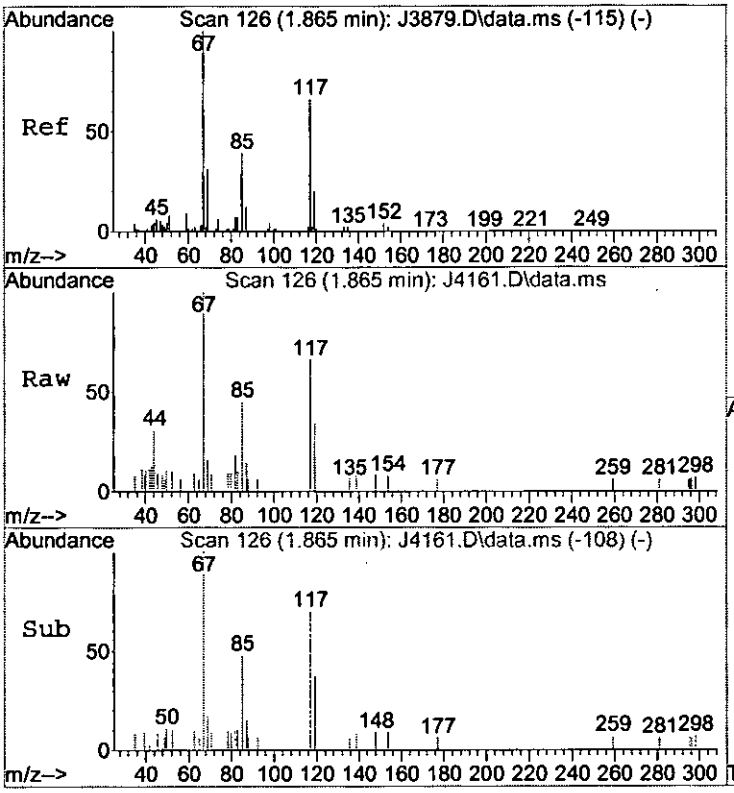


#6
Chloroethane
Concen: 1.56 ppb
RT: 1.567 min Scan# 77
Delta R.T. -0.000 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion: 64 Resp: 7598

Ion	Ratio	Lower	Upper
64	100		
66	21.8	12.2	52.2

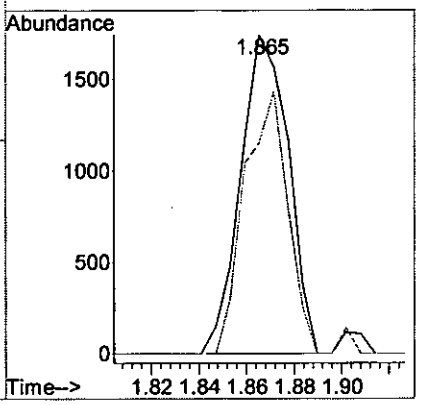


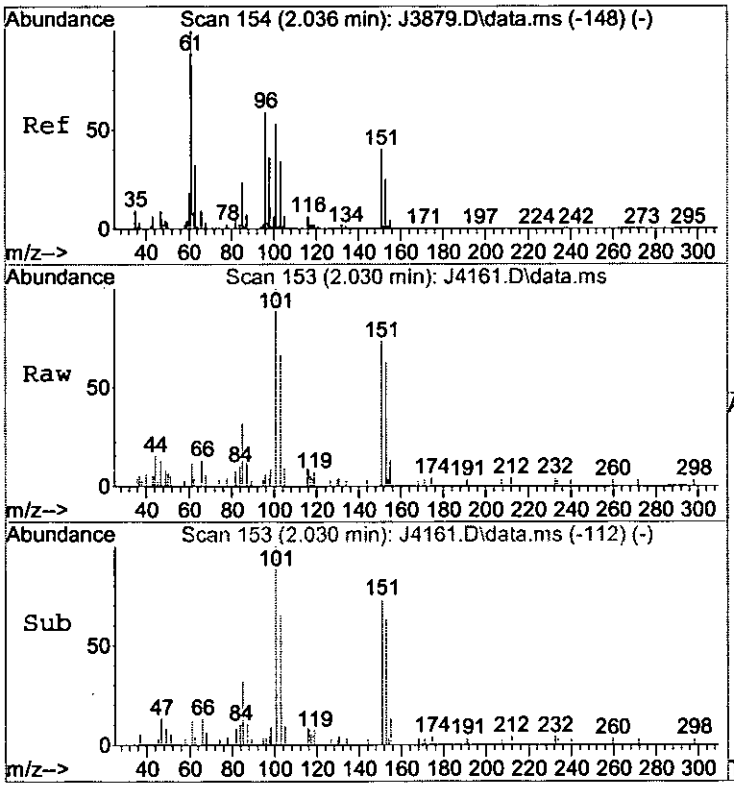


#10
Freon 123a
Concen: 0.26 ppb
RT: 1.865 min Scan# 126
Delta R.T. -0.006 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion: 67 Resp: 2429

Ion	Ratio	Lower	Upper
67	100		
117	66.0	45.9	85.9

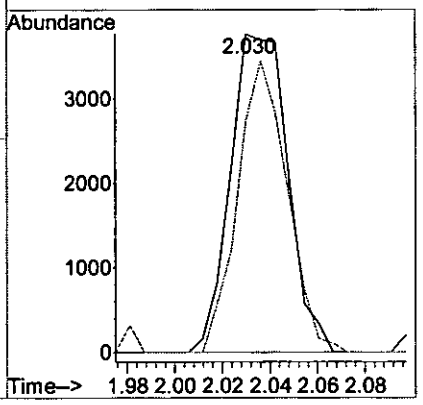


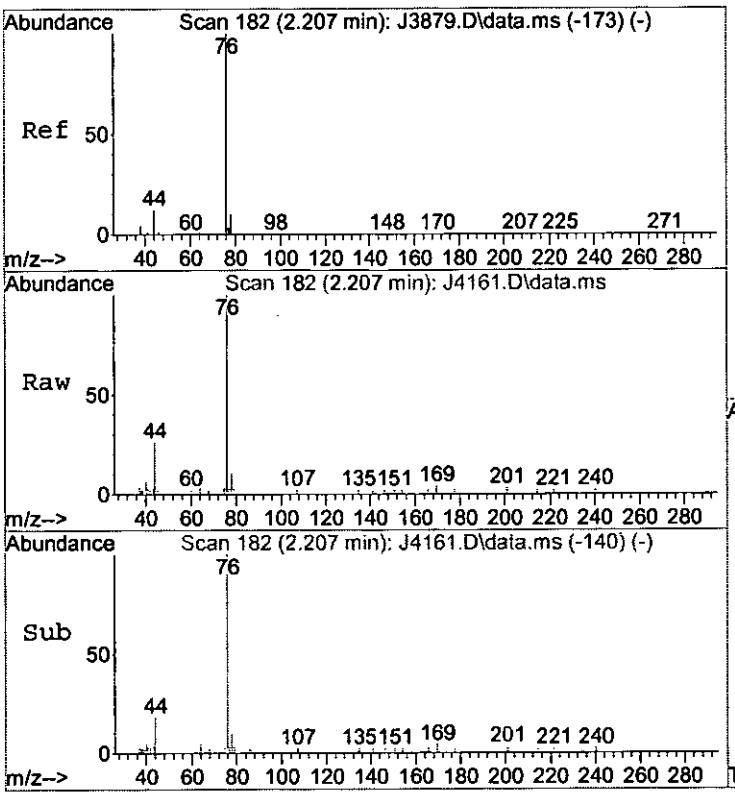


#14
Freon 113
Concen: 0.93 ppb
RT: 2.030 min Scan# 153
Delta R.T. -0.006 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion:101 Resp: 6293

Ion	Ratio	Lower	Upper
101	100		
151	72.6	53.9	93.9

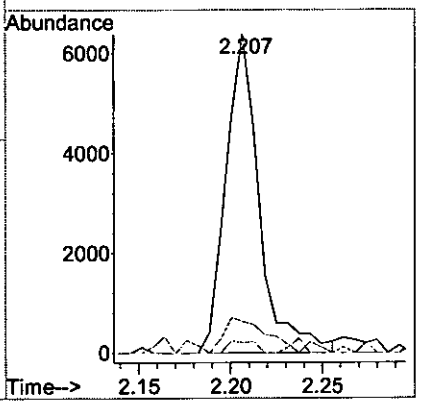


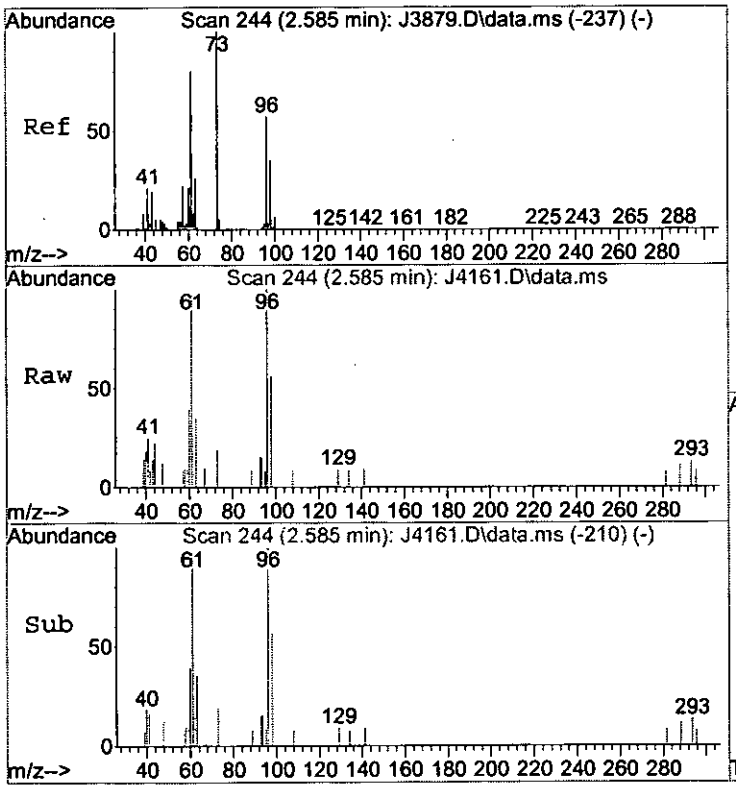


#18
Carbon Disulfide
Concen: 0.38 ppb
RT: 2.207 min Scan# 182
Delta R.T. -0.000 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion: 76 Resp: 8158

Ion	Ratio	Lower	Upper
76	100		
78	9.9	0.0	29.6
77	3.1	0.0	22.6

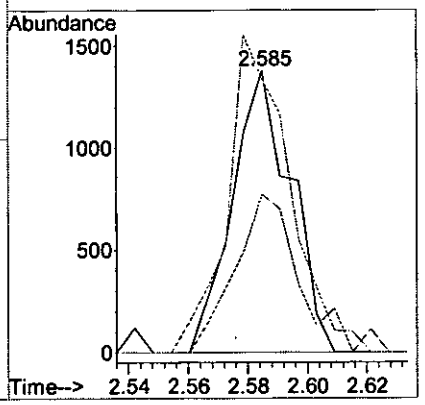


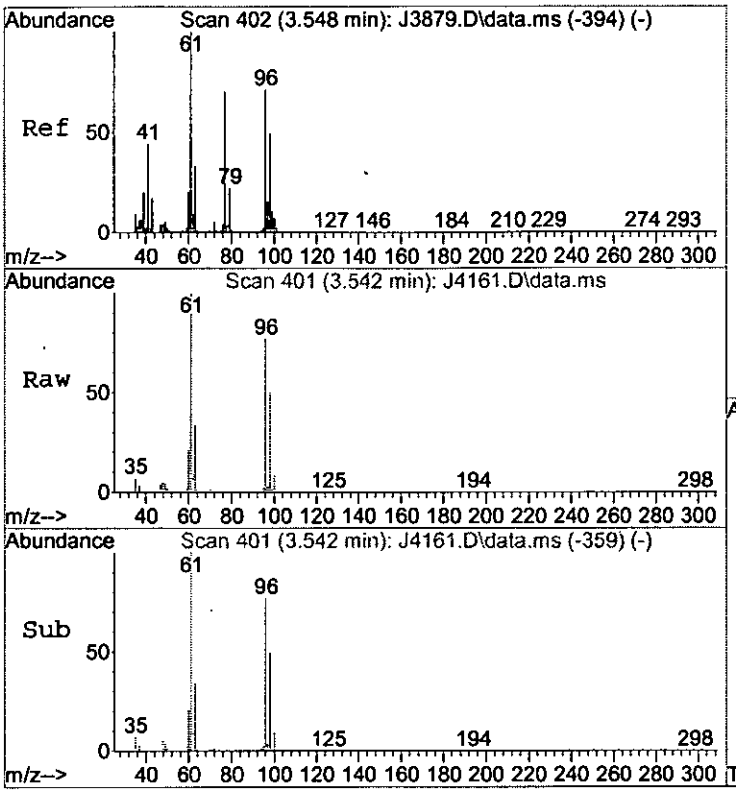


#26
trans-1,2-Dichloroethene
Concen: 0.24 ppb
RT: 2.585 min Scan# 244
Delta R.T. -0.000 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion: 96 Resp: 1883

Ion	Ratio	Lower	Upper
96	100		
98	56.1	41.6	81.6
61	97.1	119.2	159.2#

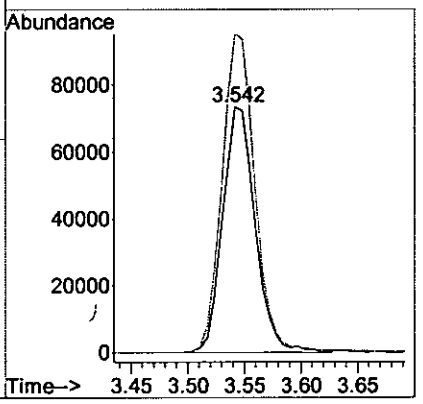


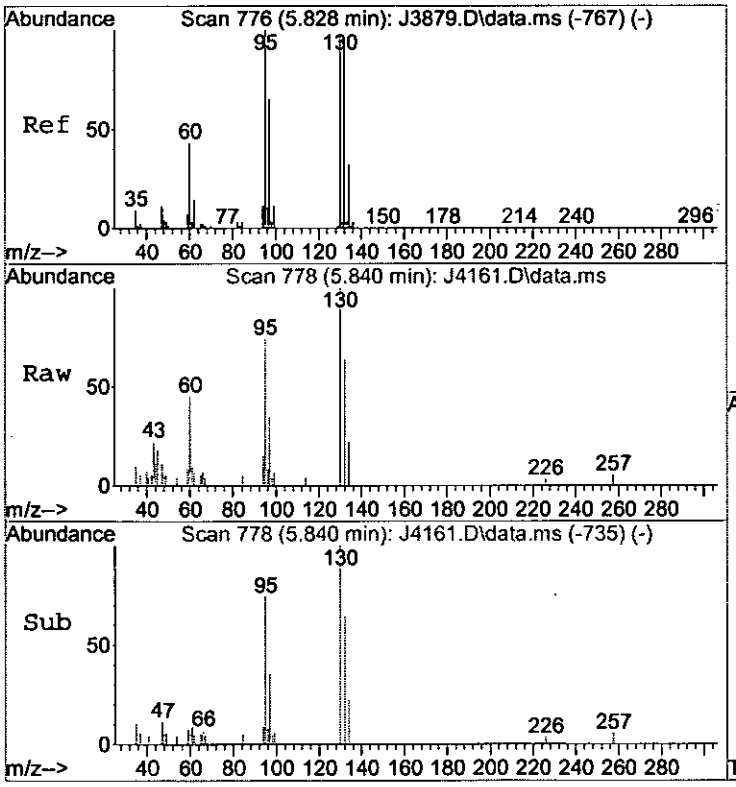


#34
cis-1,2-Dichloroethene
Concen: 16.80 ppb
RT: 3.542 min Scan# 401
Delta R.T. -0.000 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion: 96 Resp: 145482

Ion	Ratio	Lower	Upper
96	100		
61	129.5	120.1	160.1

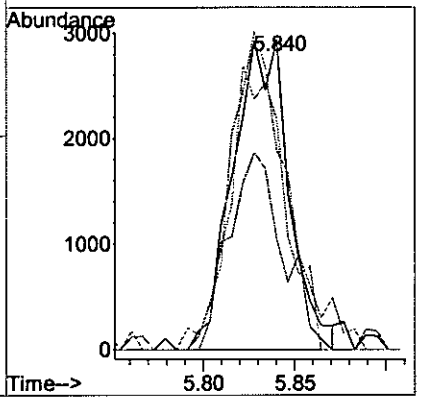


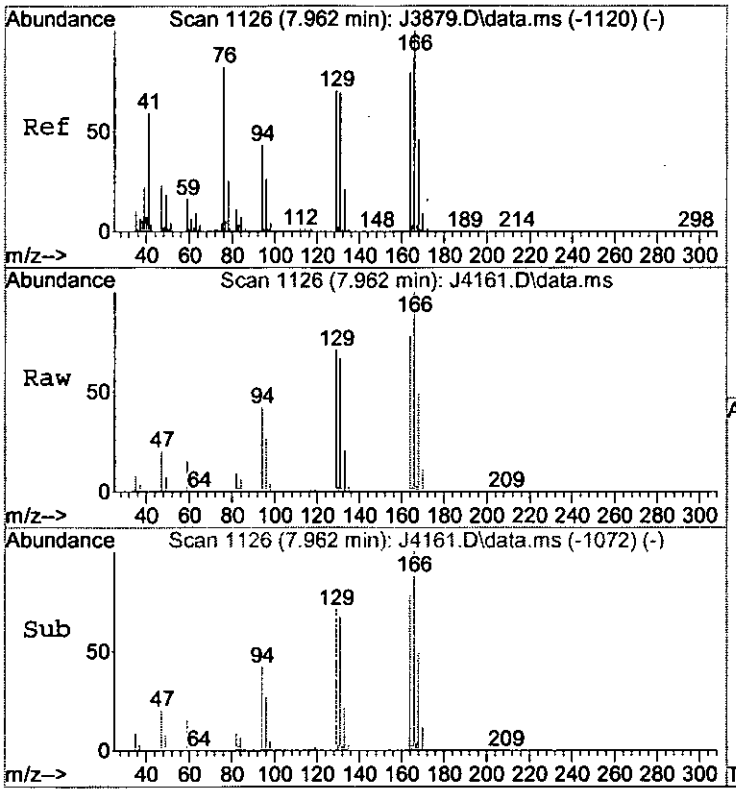


#54
Trichloroethene
Concen: 0.79 ppb
RT: 5.840 min Scan# 778
Delta R.T. 0.012 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion:130 Resp: 6231

Ion	Ratio	Lower	Upper
130	100		
132	64.2	78.3	118.3#
95	74.1	83.0	123.0#
97	35.5	47.3	87.3#

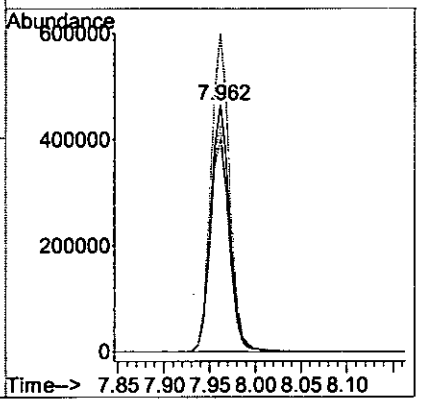




#72
Tetrachloroethene
Concen: 107.65 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.000 min
Lab File: J4161.D
Acq: 24 Mar 2014 9:47 pm

Tgt Ion:164 Resp: 667284

Ion	Ratio	Lower	Upper
164	100		
166	128.9	105.9	145.9
129	91.7	68.6	108.6
131	86.4	66.6	106.6



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1415
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 04:23
Sample Name:	MW-16	**Units:**	µg/L
Lab Code:	R1402018-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6982.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**150**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**3.6**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.9**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 04:23	
Dibromofluoromethane	98	89-119	3/28/14 04:23	
Toluene-d8	98	87-121	3/28/14 04:23	

Quantitation Report (Not Reviewed)

Sample : R1402018-003|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6982.D Vial: 32
Acq On : 28 Mar 2014 4:23 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 04:36:25 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.416	168	874244	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.617	114	1288014	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.842	117	1228218	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	671101	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	409863	48.76	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.52%			
48) surr1,1,2-dichloroetha...	4.861	65	441445	49.91	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.82%			
65) SURR3,Toluene-d8	7.433	98	1471801	48.83	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.66%			
70) SURR2,BFB	9.878	95	617895	49.91	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.82%			
Target Compounds						Qvalue
12) Acrolein	2.026	56	222	0.23	ug/L #	21
15) Acetone	2.136	43	1477	0.64	ug/L	80
19) Acetonitrile	2.312	40	530	1.87	ug/L #	1
20) Allyl Chloride	2.282	76	1234	0.32	ug/L #	1
34) cis-1,2-Dichloroethene	3.696	96	17179	1.94	ug/L #	83
40) Chloroform	4.099	83	10413	0.72	ug/L	90
54) Trichloroethene	5.976	130	31176	3.57	ug/L	88
72) Tetrachloroethene	8.055	164	1088100	150.24	ug/L	98
89) Cyclohexanone	9.884	55	1622	1.88	ug/L #	13
112) Trielution Dichlorotol...	11.853	125	4056	0.28	ug/L	75
119) 2,4,5-Trichlorotoluene	12.938	159	2755	0.54	ug/L #	81
120) 2,3,6-Trichlorotoluene	12.993	159	2131	0.44	ug/L #	80

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

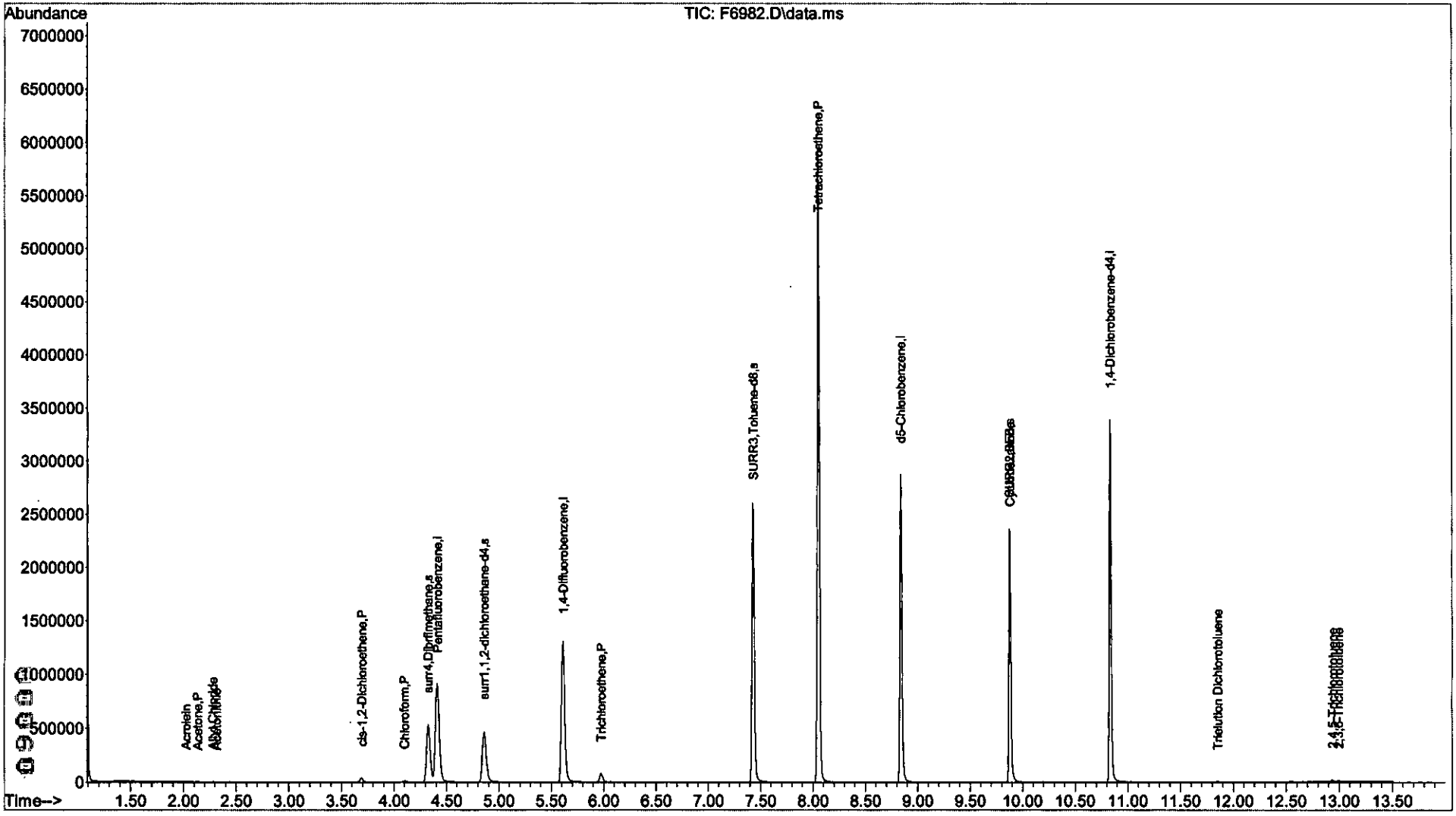
all NT's not evaluated

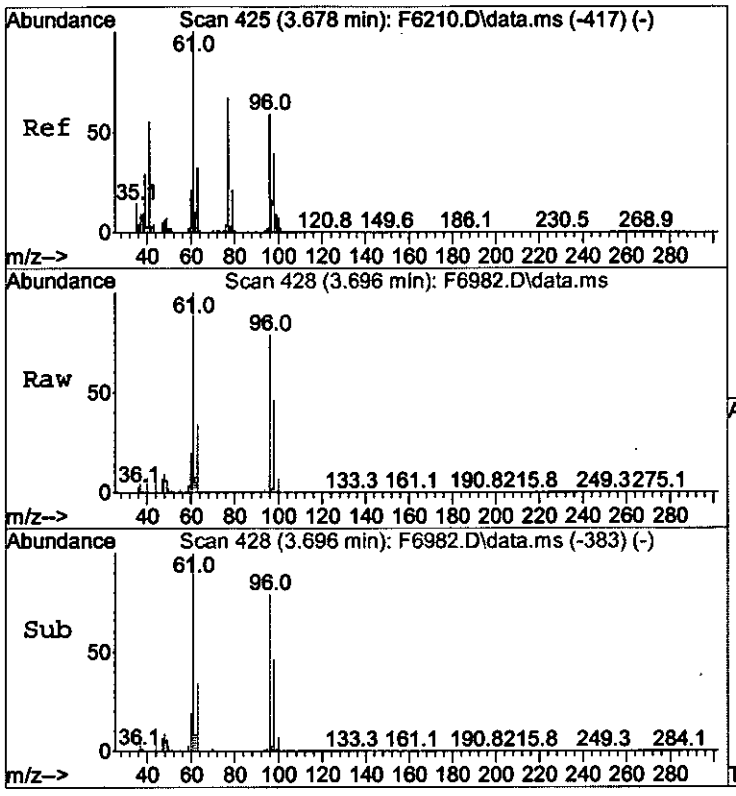
FV
4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-003|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6982.D Vial: 32
Acq On : 28 Mar 2014 4:23 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 04:36:25 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

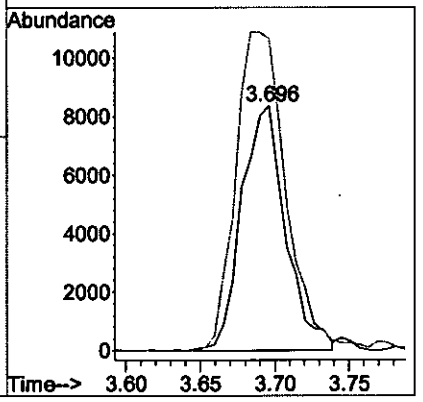


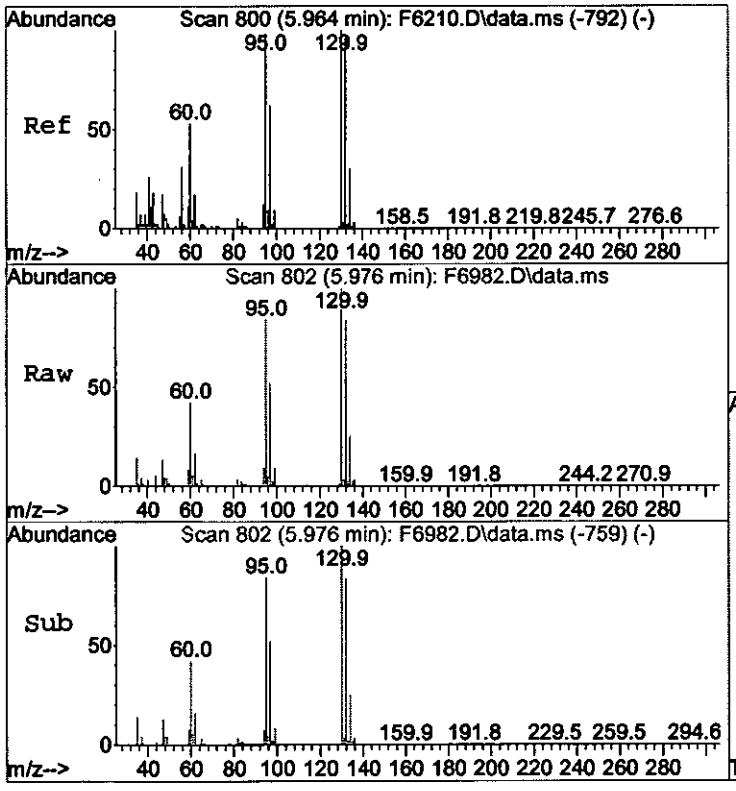


#34
cis-1,2-Dichloroethene
Concen: 1.94 ug/L
RT: 3.696 min Scan# 428
Delta R.T. 0.018 min
Lab File: F6982.D
Acq: 28 Mar 2014 4:23 am

Tgt Ion: 96 Resp: 17179

Ion	Ratio	Lower	Upper
96	100		
61	127.3	128.3	168.3#

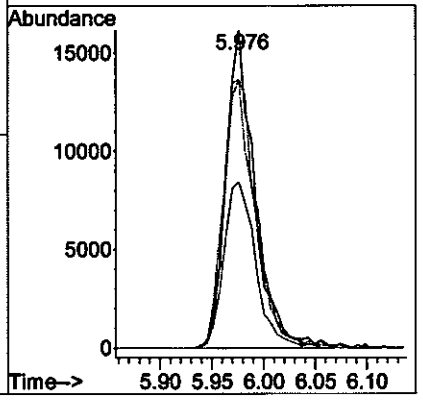


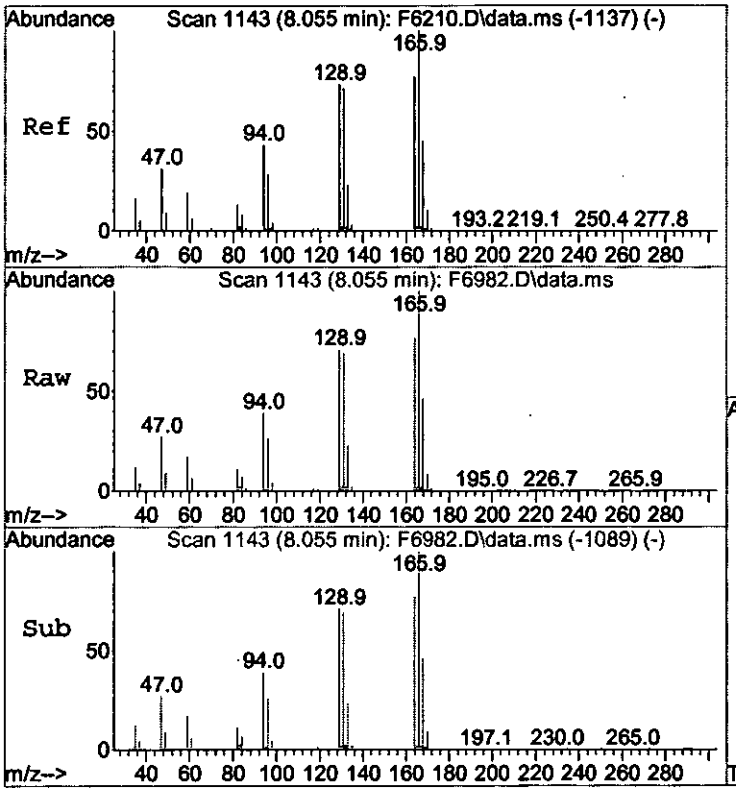


#54
Trichloroethene
Concen: 3.57 ug/L
RT: 5.976 min Scan# 802
Delta R.T. 0.012 min
Lab File: F6982.D
Acq: 28 Mar 2014 4:23 am

Tgt Ion:130 Resp: 31176

Ion	Ratio	Lower	Upper
130	100		
132	84.4	74.1	114.1
95	84.5	76.9	116.9
97	52.1	43.7	83.7

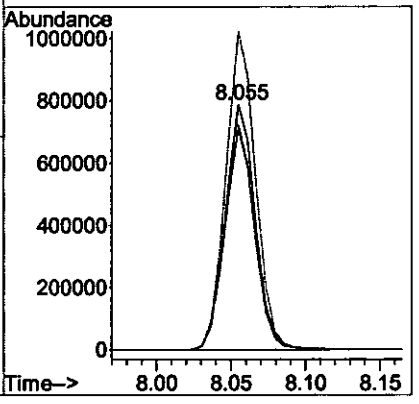




#72
Tetrachloroethene
Concen: 150.24 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. 0.000 min
Lab File: F6982.D
Acq: 28 Mar 2014 4:23 am

Tgt Ion:164 Resp: 1088100

Ion	Ratio	Lower	Upper
164	100		
166	129.8	106.8	146.8
129	92.1	69.6	109.6
131	89.8	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/18/14 1415
Date Received: 3/22/14
Date Analyzed: 3/25/14 14:12

Sample Name: IJ-4
Lab Code: R1402018-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa12\Data\032514\J4191.D\

Analysis Lot: 385241
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**190**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.39**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.34**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	**U**	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/25/14 14:12	
Dibromofluoromethane	100	89-119	3/25/14 14:12	
Toluene-d8	99	87-121	3/25/14 14:12	

Quantitation Report (Not Reviewed)

Sample : R1402018-004|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4191.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 2:12 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 14:27:09 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	824058	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1275048	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1177001	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	561961	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	368237	49.89	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.78%				
48) surr1,1,2-dichloroetha...	4.664	65	432373	51.42	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.84%				
65) SURR3,Toluene-d8	7.322	98	1541533	49.70	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.40%				
70) SURR2,BFB	9.791	95	582543	50.34	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.68%				
Target Compounds							Qvalue
10) Freon 123a	1.872	67	7826	0.88	ppb		90
~~12) Acrolein~~	~~2.048~~	~~56~~	~~302~~	~~0.88~~	~~ppb~~	~~#~~	~~17~~
14) Freon 113	2.036	101	20518	3.14	ppb		78
15) Acetone	2.048	43	8926	5.46	ppb		96
~~16) 2-Propanol~~	~~2.073~~	~~45~~	~~153~~	~~0.58~~	~~ppb~~	~~#~~	~~1~~
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~2568~~	~~0.63~~	~~ppb~~	~~#~~	~~1~~
34) cis-1,2-Dichloroethene	3.554	96	2820	0.34	ppb	#	62
35) 2-Butanone	3.566	43	1780	0.78	ppb		82
40) Chloroform	3.938	83	3514	0.26	ppb		86
41) 1,1,1-Trichloroethane	4.207	97	3840	0.33	ppb	#	1
~~52) n-Heptane~~	~~5.340~~	~~43~~	~~2276~~	~~0.29~~	~~ppb~~	~~#~~	~~35~~
54) Trichloroethene	5.840	130	2963	0.39	ppb	#	88
72) Tetrachloroethene	7.962	164	1129190	185.73	ppb		99
~~90) Cyclohexanone~~	~~9.724~~	~~55~~	~~432~~	~~0.96~~	~~ppb~~		~~77~~
112) Trielution Dichlorotol...	11.736	125	3148	0.29	ppb	#	87
114) Coelution Dichlorotoluene	11.998	125	2321	0.20	ppb	#	93
116) Hexachlorobt	12.266	225	1256	0.35	ppb		79
119) 2,4,5-Trichlorotolene	12.851	159	4513	1.01	ppb		86
120) 2,3,6-Trichlorotoluene	12.912	159	4134	1.01	ppb		93

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

KR 3/25/14

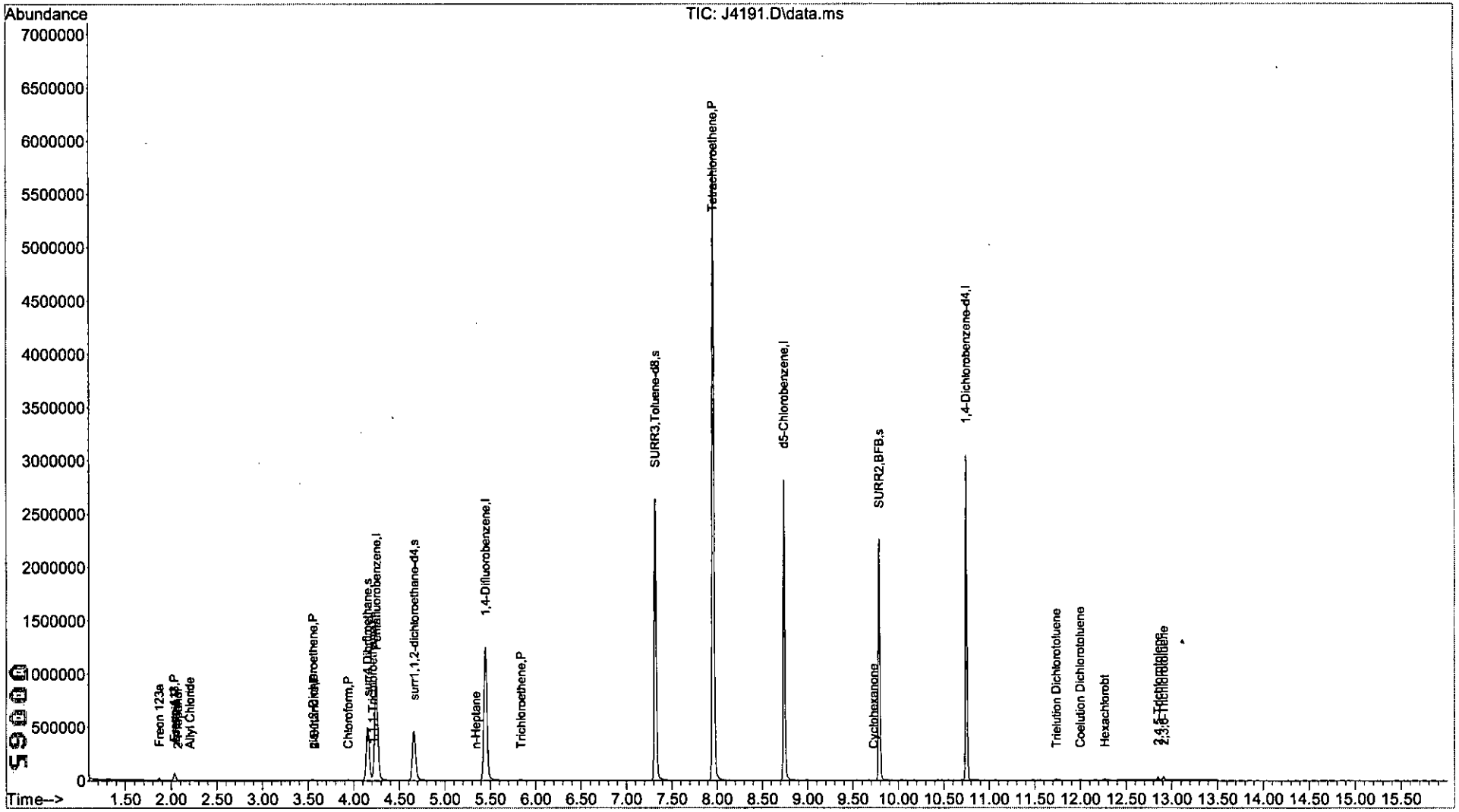
JW 03/27/14

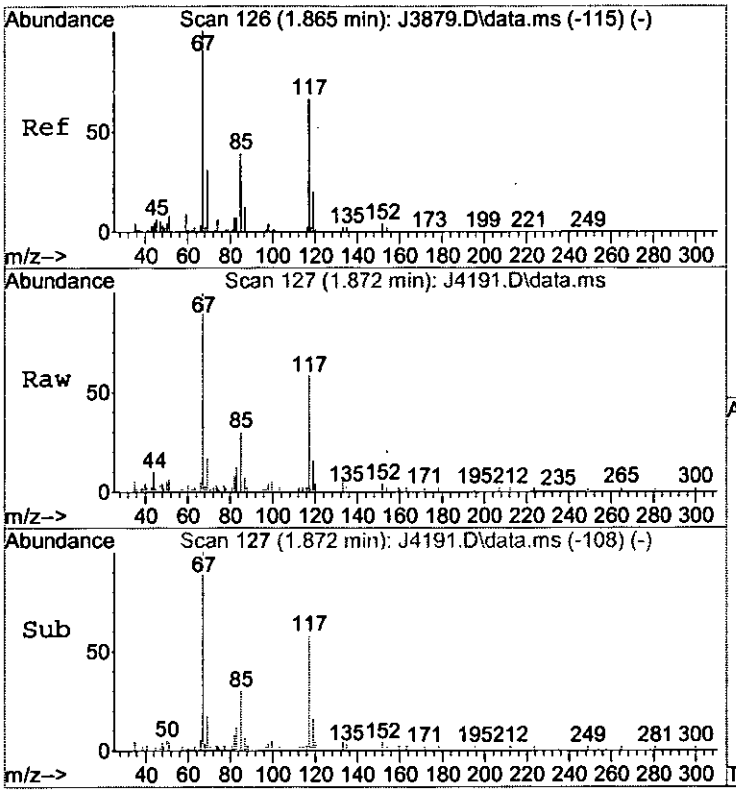
00664

Quantitation Report (Not Reviewed)

Sample : R1402018-004|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4191.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 2:12 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 14:27:09 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

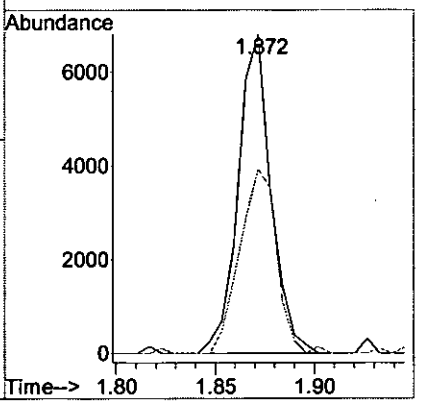


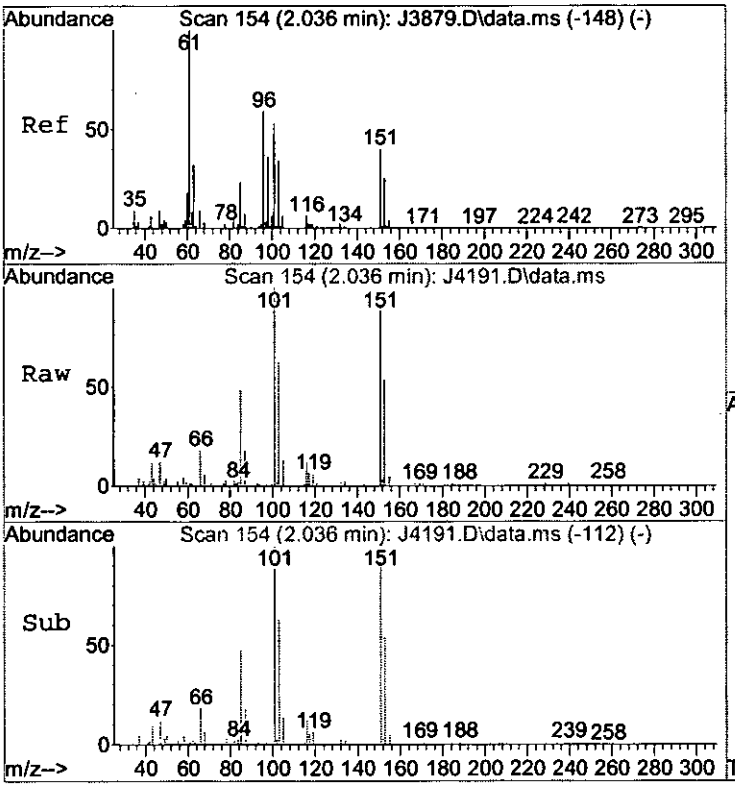


#10
Freon 123a
Concen: 0.88 ppb
RT: 1.872 min Scan# 127
Delta R.T. -0.000 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion: 67 Resp: 7826

Ion	Ratio	Lower	Upper
67	100		
117	57.8	45.9	85.9

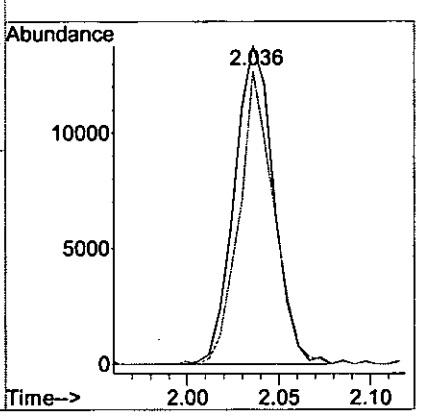


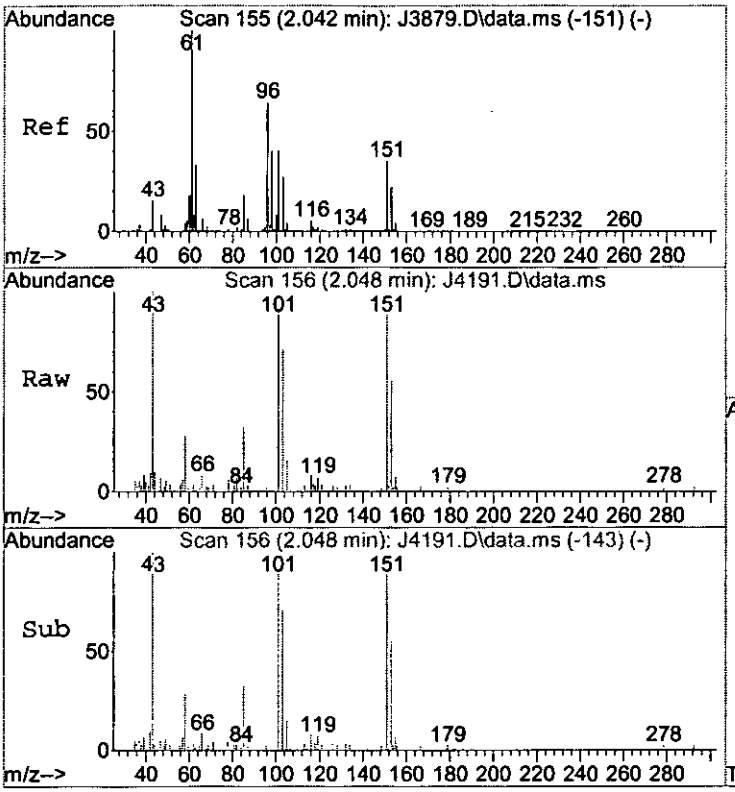


#14
Freon 113
Concen: 3.14 ppb
RT: 2.036 min Scan# 154
Delta R.T. -0.000 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion:101 Resp: 20518

Ion	Ratio	Lower	Upper
101	100		
151	92.3	53.9	93.9

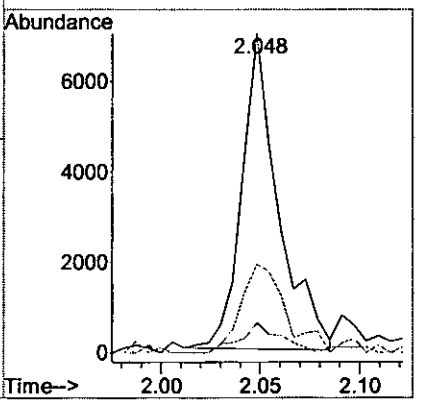


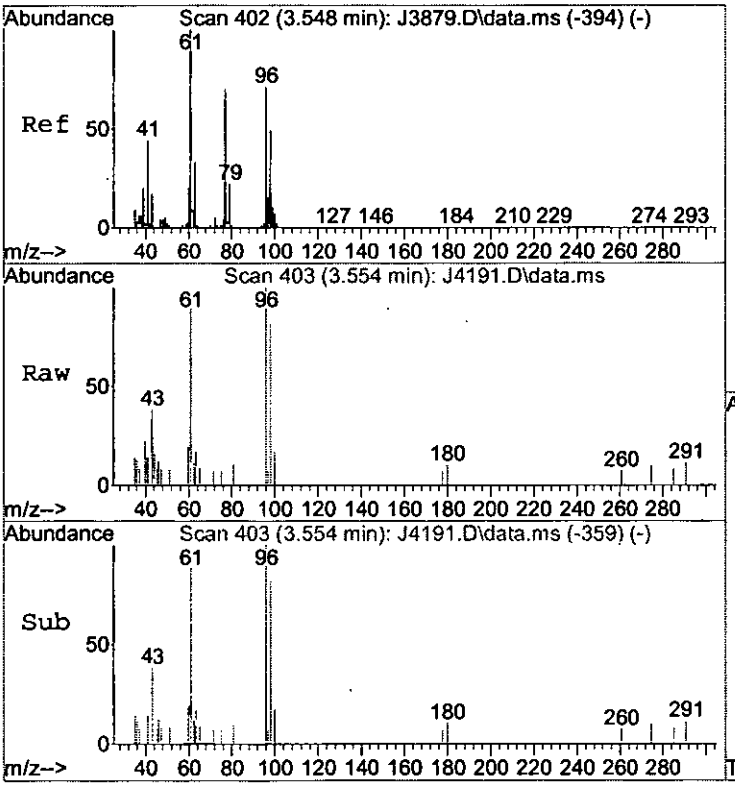


#15
Acetone
Concen: 5.46 ppb
RT: 2.048 min Scan# 156
Delta R.T. 0.006 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion: 43 Resp: 8926

Ion	Ratio	Lower	Upper
43	100		
58	27.7	9.7	49.7
42	9.4	0.0	27.9

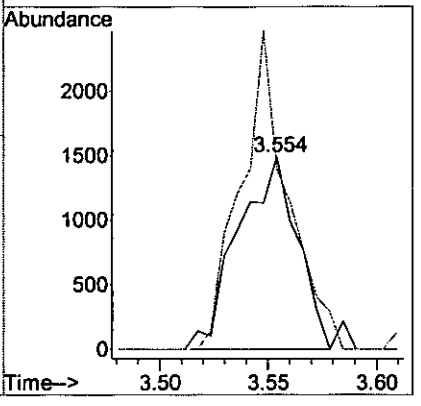


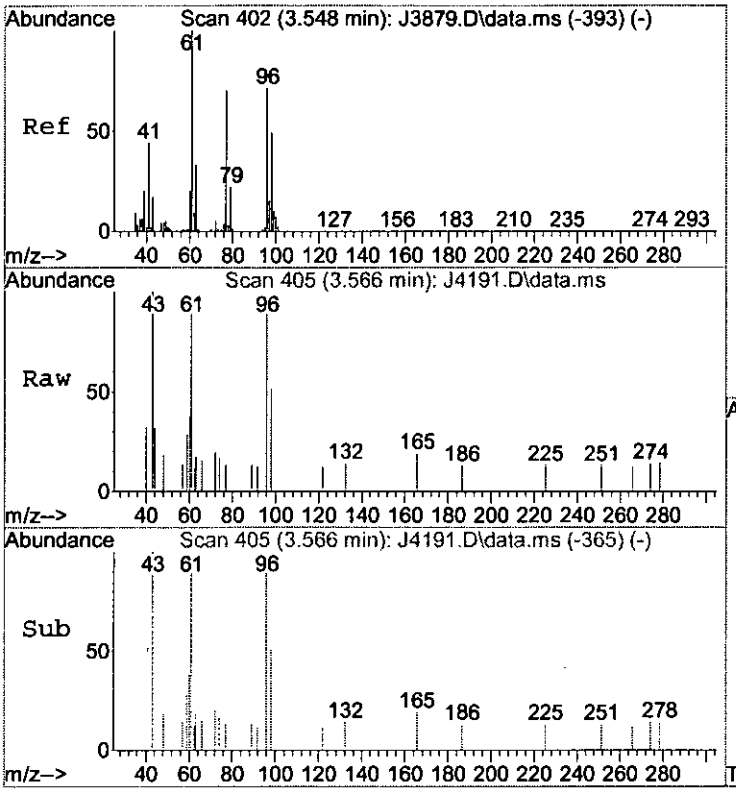


#34
cis-1,2-Dichloroethene
Concen: 0.34 ppb
RT: 3.554 min Scan# 403
Delta R.T. 0.012 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion: 96 Resp: 2820

Ion	Ratio	Lower	Upper
96	100		
61	93.7	120.1	160.1#

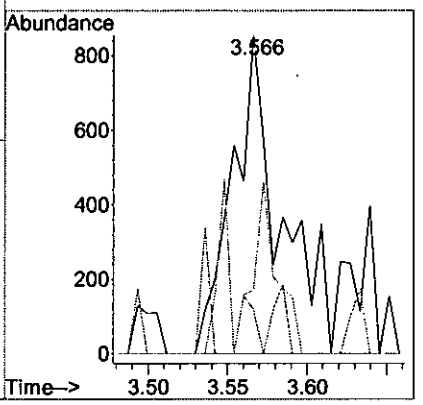


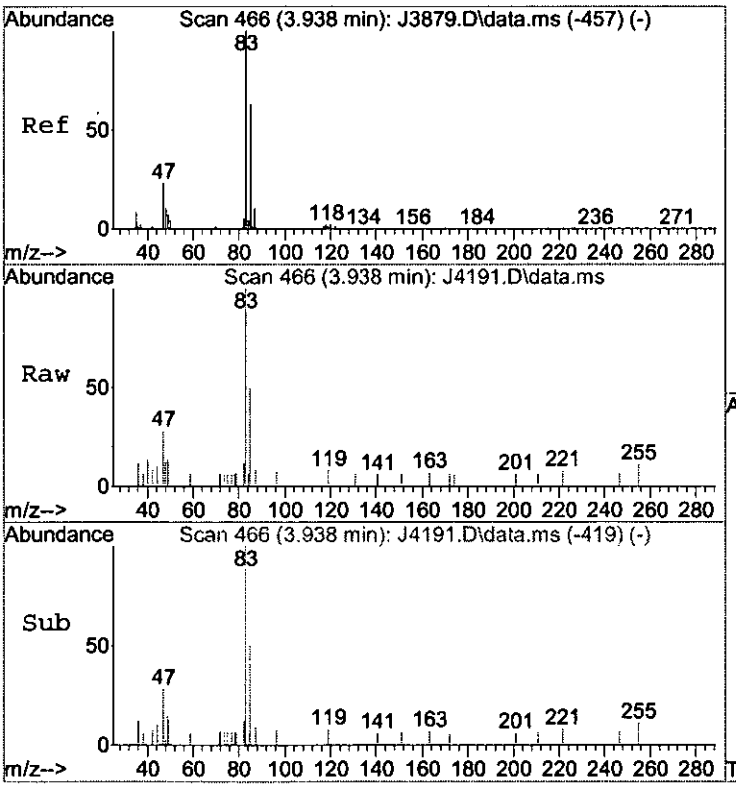


#35
2-Butanone
Concen: 0.78 ppb
RT: 3.566 min Scan# 405
Delta R.T. 0.018 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion: 43 Resp: 1780

Ion	Ratio	Lower	Upper
43	100		
57	13.9	0.0	26.4
72	20.0	8.8	48.8

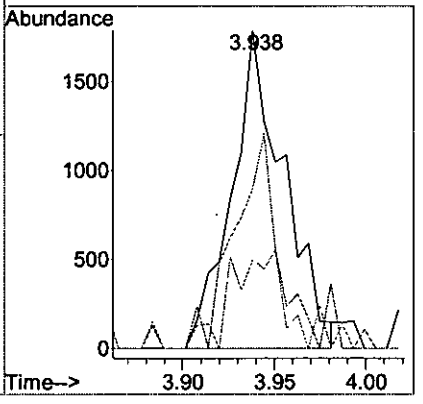


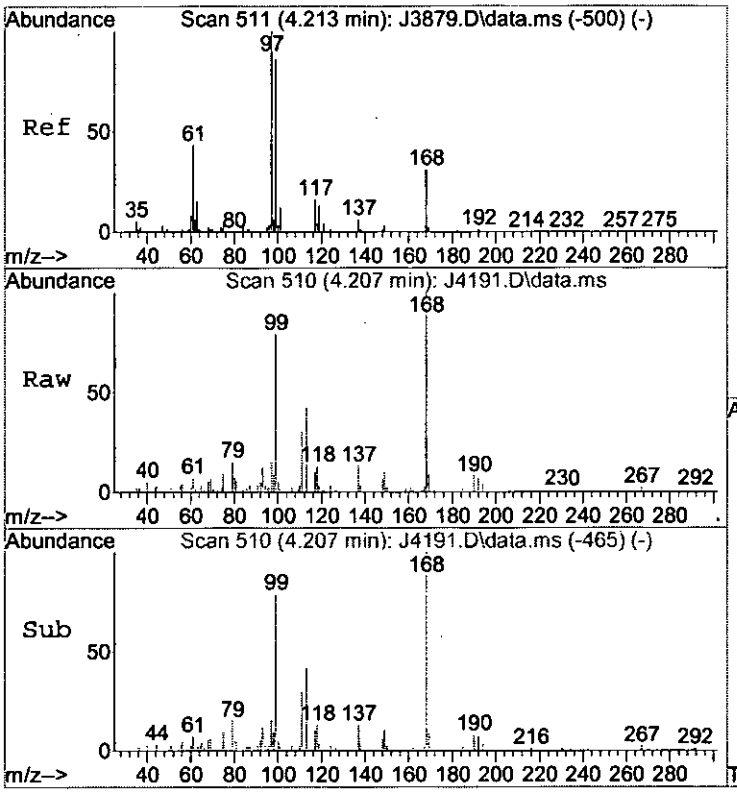


#40
Chloroform
Concen: 0.26 ppb
RT: 3.938 min Scan# 466
Delta R.T. -0.000 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion: 83 Resp: 3514

Ion	Ratio	Lower	Upper
83	100		
85	50.3	42.6	82.6
47	27.9	3.4	43.4

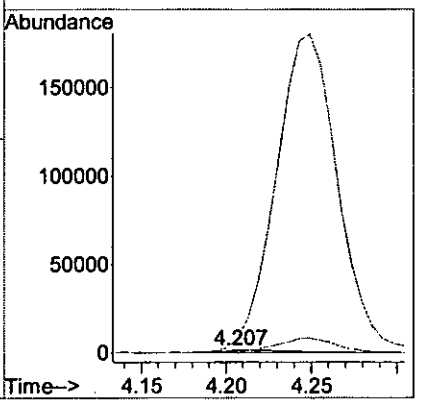


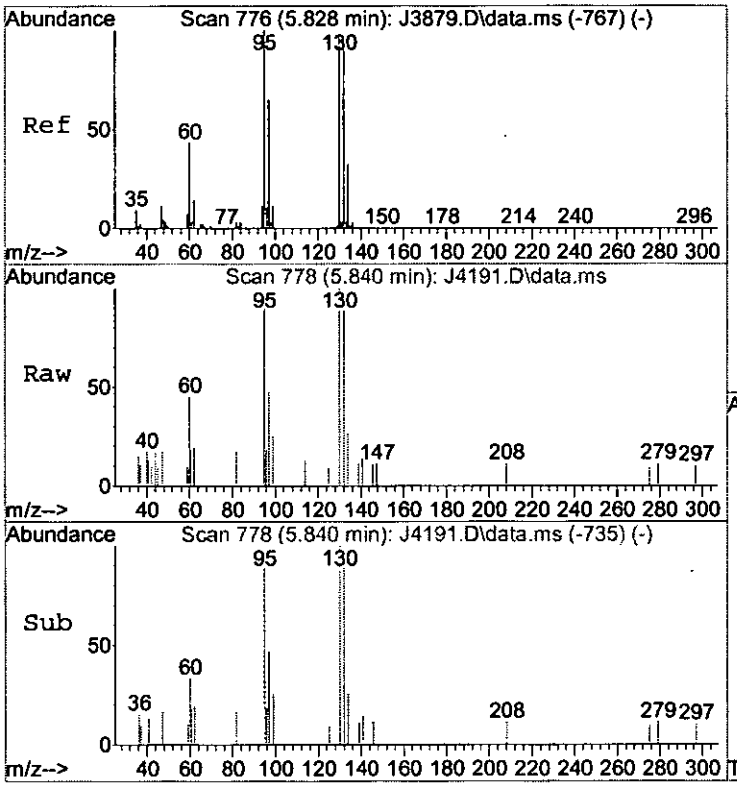


#41
1,1,1-Trichloroethane
Concen: 0.33 ppb
RT: 4.207 min Scan# 510
Delta R.T. -0.006 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion: 97 Resp: 3840

Ion	Ratio	Lower	Upper
97	100		
99	539.6	65.8	105.8#
61	47.9	22.7	62.7

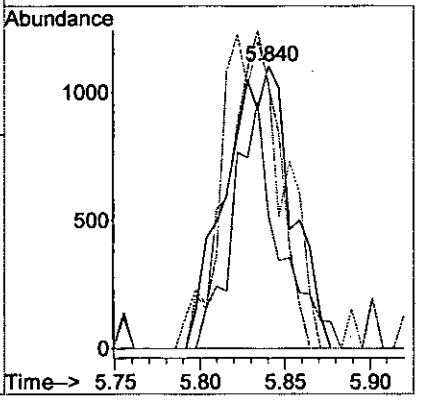


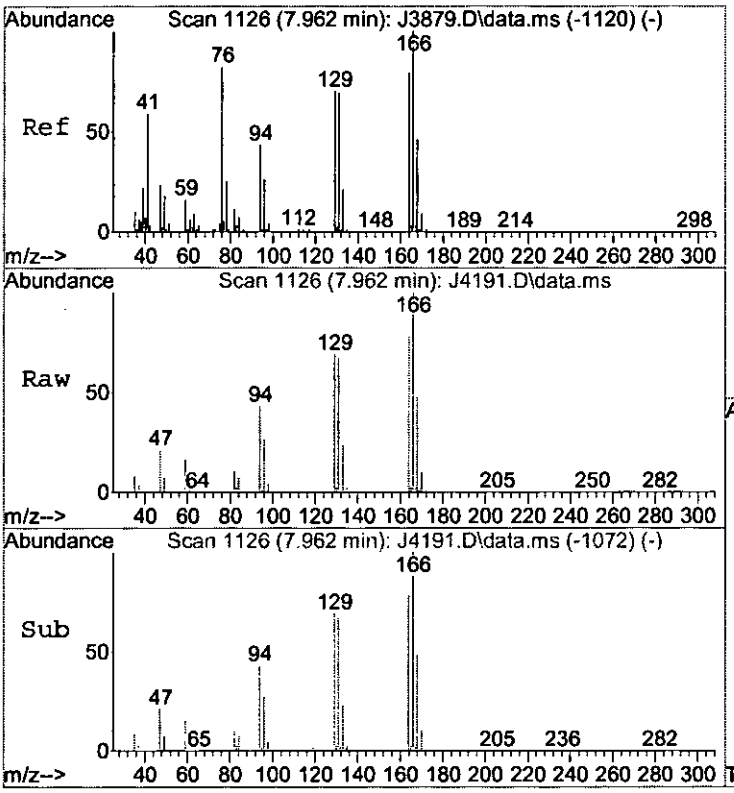


#54
Trichloroethene
Concen: 0.39 ppb
RT: 5.840 min Scan# 778
Delta R.T. 0.012 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion:130 Resp: 2963

Ion	Ratio	Lower	Upper
130	100		
132	92.9	78.3	118.3
95	94.4	83.0	123.0
97	46.8	47.3	87.3#

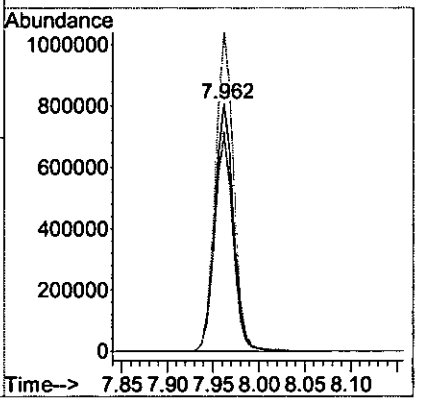


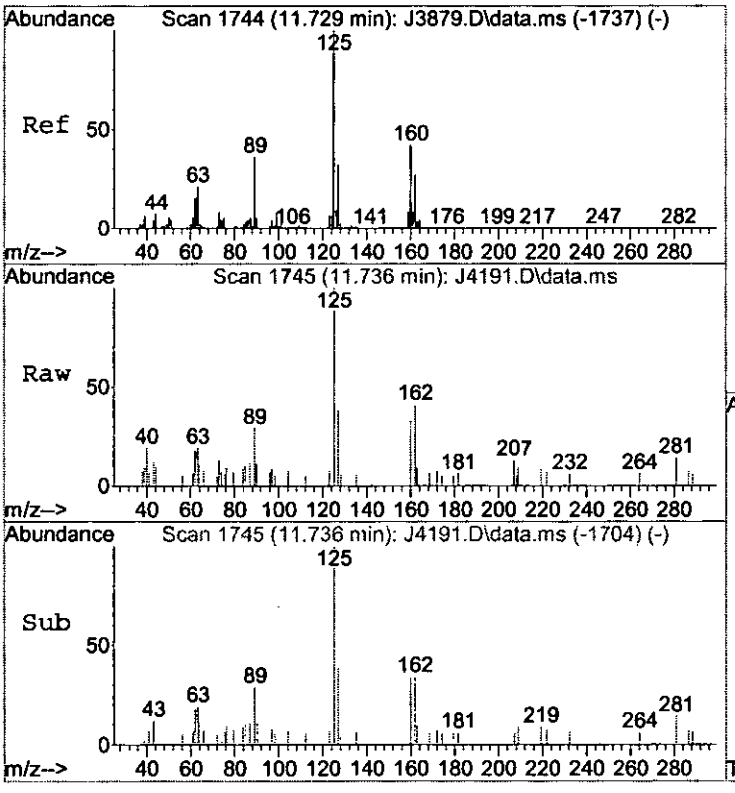


#72
Tetrachloroethene
Concen: 185.73 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.000 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion:164 Resp: 1129190

Ion	Ratio	Lower	Upper
164	100		
166	128.4	105.9	145.9
129	89.0	68.6	108.6
131	86.6	66.6	106.6

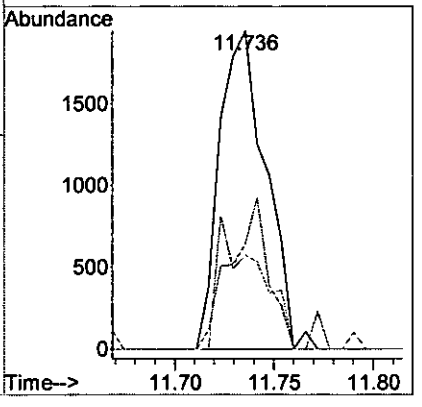




#112
Trielution Dichlorotoluene
Concen: 0.29 ppb
RT: 11.736 min Scan# 1745
Delta R.T. -0.000 min
Lab File: J4191.D
Acq: 25 Mar 2014 2:12 pm

Tgt Ion:125 Resp: 3148

Ion	Ratio	Lower	Upper
125	100		
160	32.8	33.6	50.4#
89	29.4	28.8	43.2



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1530
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 04:53
Sample Name:	MP-12	**Units:**	µg/L
Lab Code:	R1402018-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6983.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**27**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.4**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.9**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/28/14 04:53	
Dibromofluoromethane	98	89-119	3/28/14 04:53	
Toluene-d8	98	87-121	3/28/14 04:53	

Quantitation Report (Not Reviewed)

Sample : R1402018-005|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6983.D Vial: 33
Acq On : 28 Mar 2014 4:53 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 05:06:49 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	883696	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1291447	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1223667	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	677636	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	412665	48.96	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.92%			
48) surr1,1,2-dichloroetha...	4.860	65	441697	49.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.62%			
65) SURR3,Toluene-d8	7.433	98	1486238	49.17	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.34%			
70) SURR2,BFB	9.878	95	607779	48.96	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.92%			
Target Compounds						Qvalue
5) Bromomethane	1.562	94	407	0.25	ug/L	96
15) Acetone	2.123	43	1182	0.50	ug/L	89
16) 2-Propanol	2.208	45	203	0.62	ug/L	74
19) Acetonitrile	2.300	40	575	2.01	ug/L #	1
20) Allyl Chloride	2.276	76	1206	0.31	ug/L #	1
34) cis-1,2-Dichloroethene	3.690	96	16838	1.88	ug/L	94
40) Chloroform	4.117	83	5925	0.40	ug/L	87
54) Trichloroethene	5.982	130	12643	1.44	ug/L	95
72) Tetrachloroethene	8.061	164	195253	27.06	ug/L	93
89) Cyclohexanone	9.884	55	1878	2.19	ug/L #	13
112) Trielution Dichlorotol...	11.841	125	3976	0.27	ug/L #	69
119) 2,4,5-Trichlorotoluene	12.932	159	2815	0.54	ug/L	94
120) 2,3,6-Trichlorotoluene	12.932	159	2815	0.57	ug/L	93

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

all NTG's NOT evaluated

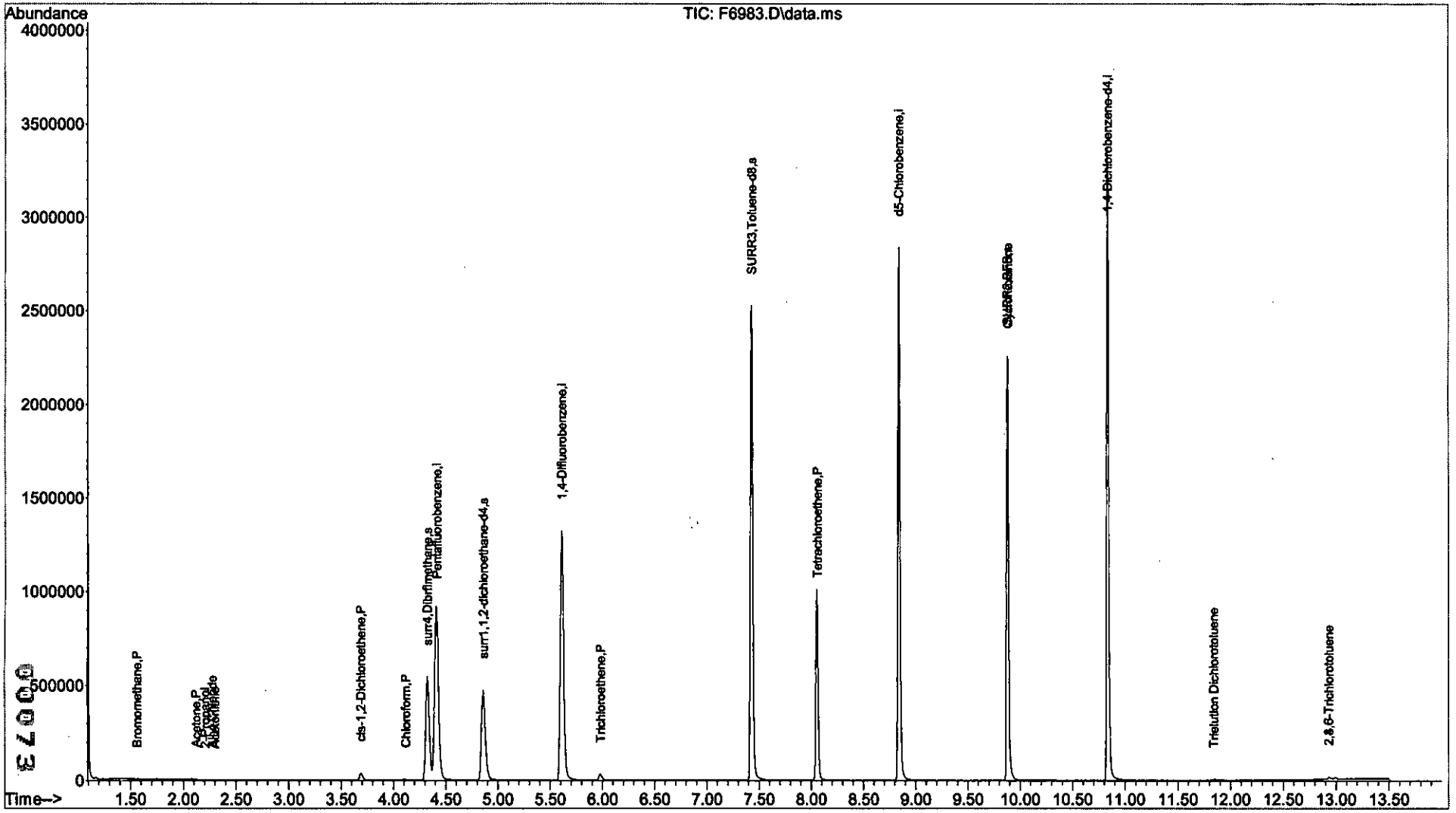
FW 4/5/14

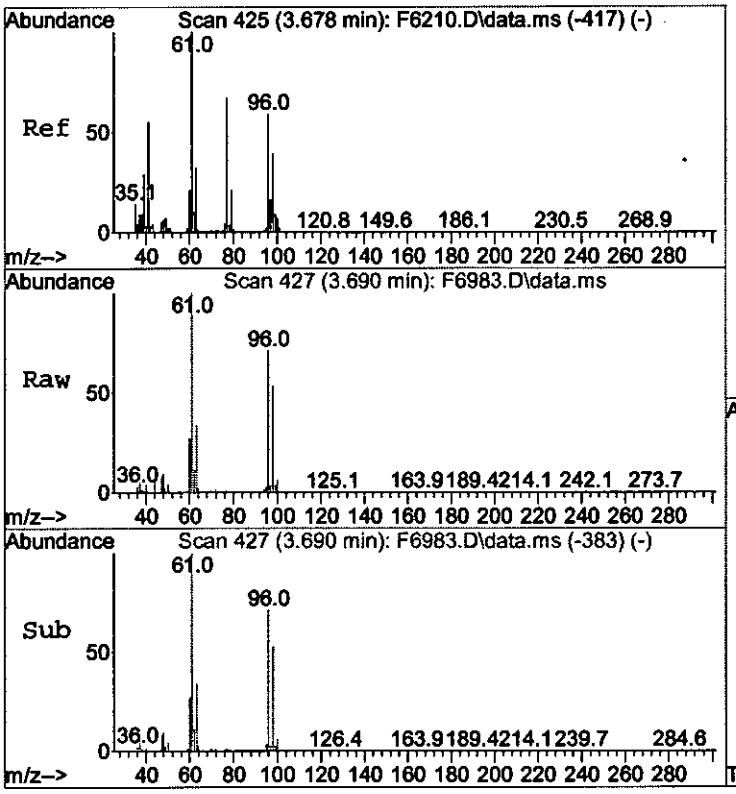
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Quantitation Report (Not Reviewed)

Sample : R1402018-005|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6983.D Vial: 33
Acq On : 28 Mar 2014 4:53 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 05:06:49 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

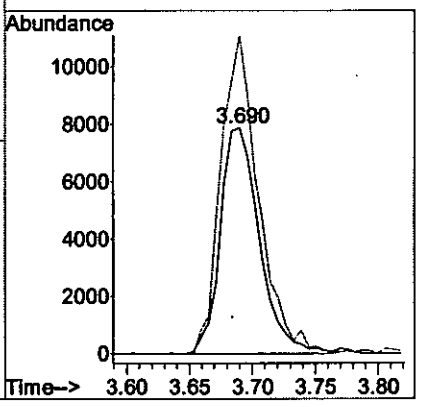


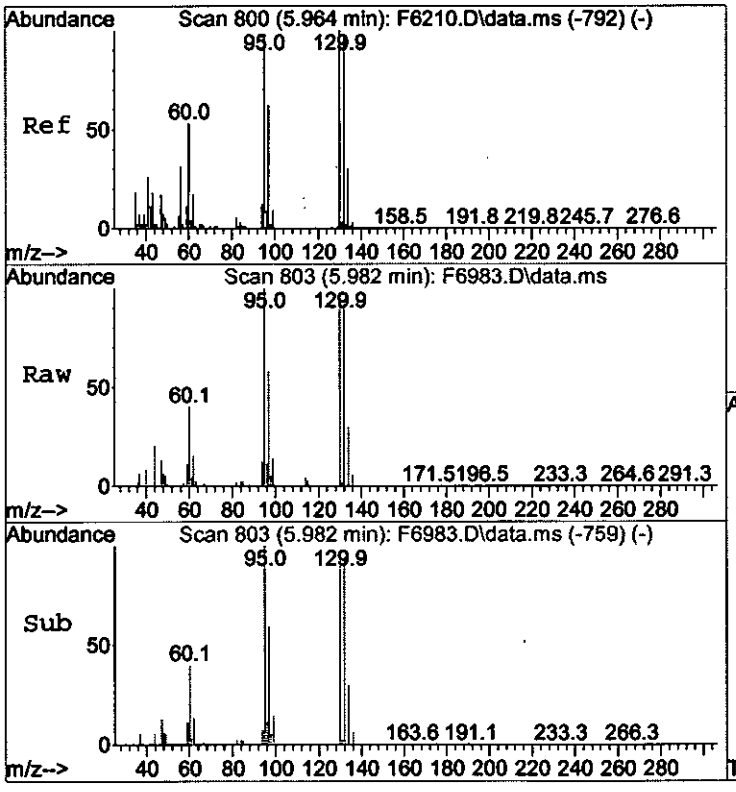


#34
cis-1,2-Dichloroethene
Concen: 1.88 ug/L
RT: 3.690 min Scan# 427
Delta R.T. 0.012 min
Lab File: F6983.D
Acq: 28 Mar 2014 4:53 am

Tgt Ion: 96 Resp: 16838

Ion	Ratio	Lower	Upper
96	100		
61	140.9	128.3	168.3

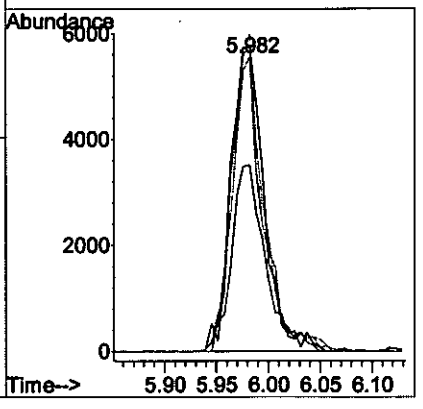


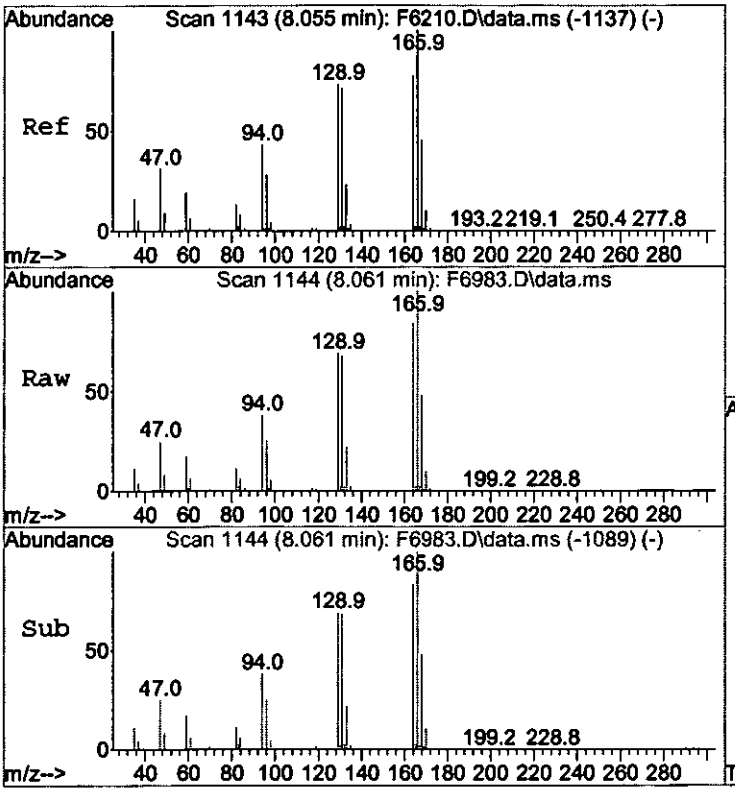


#54
Trichloroethene
Concen: 1.44 ug/L
RT: 5.982 min Scan# 803
Delta R.T. 0.018 min
Lab File: F6983.D
Acq: 28 Mar 2014 4:53 am

Tgt Ion:130 Resp: 12643

Ion	Ratio	Lower	Upper
130	100		
132	96.7	74.1	114.1
95	104.7	76.9	116.9
97	61.1	43.7	83.7

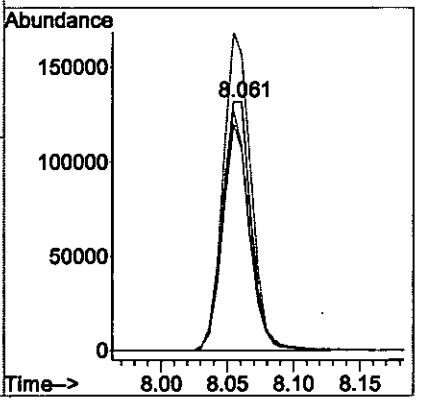




#72
Tetrachloroethene
Concen: 27.06 ug/L
RT: 8.061 min Scan# 1144
Delta R.T. 0.006 min
Lab File: F6983.D
Acq: 28 Mar 2014 4:53 am

Tgt Ion:164 Resp: 195253

Ion	Ratio	Lower	Upper
164	100		
166	119.0	106.8	146.8
129	82.2	69.6	109.6
131	81.1	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1535
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/25/14 14:44
Sample Name:	MW-7A	**Units:**	µg/L
Lab Code:	R1402018-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\J4192.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	1.2	
127-18-4	Tetrachloroethene (PCE)	**240**		10	0.60	
79-01-6	Trichloroethene (TCE)	10	U	10	0.44	
75-01-4	Vinyl Chloride	10	U	10	0.64	
156-59-2	cis-1,2-Dichloroethene	10	U	10	0.60	
156-60-5	trans-1,2-Dichloroethene	10	U	10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/25/14 14:44	
Dibromofluoromethane	100	89-119	3/25/14 14:44	
Toluene-d8	99	87-121	3/25/14 14:44	

Quantitation Report (Not Reviewed)

Sample : R1402018-006|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4192.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 2:44 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 14:59:35 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	826919	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1283816	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1177165	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	558293	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	369960	49.78	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.56%				
48) surr1,1,2-dichloroetha...	4.658	65	435914	51.49	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.98%				
65) SURR3,Toluene-d8	7.322	98	1547221	49.54	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.08%				
70) SURR2,BFB	9.785	95	582754	50.01	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.02%				
Target Compounds							Qvalue
5) Bromomethane	1.512	94	993	0.21	ppb	#	65m
14) Freon 113	2.036	101	1528	0.23	ppb	#	69
15) Acetone	2.048	43	4958	3.02	ppb		88
~~16) 2-Propanol~~	~~2.115~~	~~45~~	~~220~~	~~0.83~~	~~ppb~~	~~#~~	~~3~~
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~2022~~	~~0.49~~	~~ppb~~	~~#~~	~~1~~
72) Tetrachloroethene	7.962	164	742455	122.10	ppb		97
~~90) Cyclohexanone~~	~~9.730~~	~~55~~	~~200~~	~~0.45~~	~~ppb~~	~~#~~	~~14~~
119) 2,4,5-Trichlorotolene	12.851	159	2677	0.60	ppb	#	86m
120) 2,3,6-Trichlorotoluene	12.912	159	2051	0.50	ppb	#	72

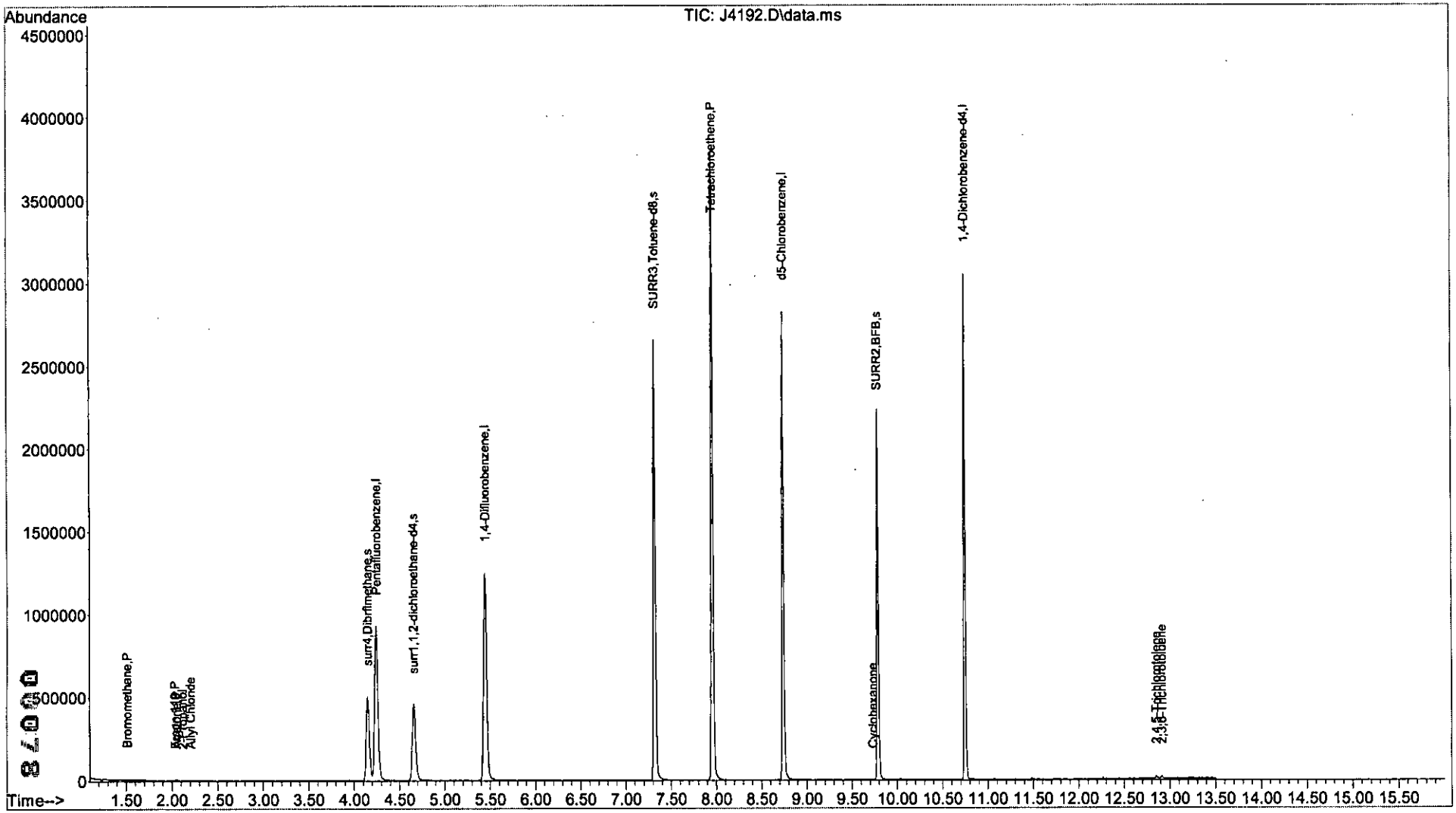
(#) = qualifier out of range (m) = manual integration (+) = signals summed

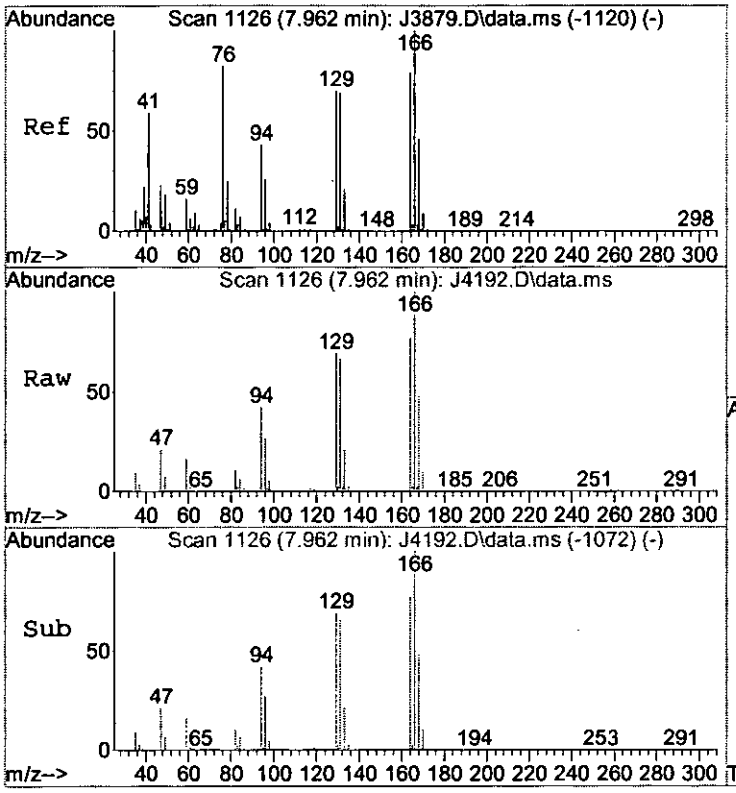
KR 3/25/14

Quantitation Report (Not Reviewed)

Sample : R1402018-006|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4192.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 2:44 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 14:59:35 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

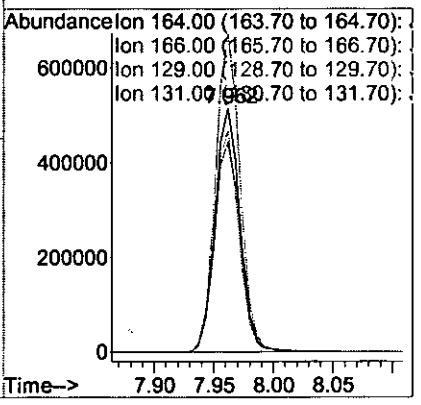




#72
Tetrachloroethene
Concen: 122.10 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.000 min
Lab File: J4192.D
Acq: 25 Mar 2014 2:44 pm

Tgt Ion:164 Resp: 742455

Ion	Ratio	Lower	Upper
164	100		
166	130.5	105.9	145.9
129	90.7	68.6	108.6
131	86.0	66.6	106.6



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1700
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 02:52
Sample Name:	FB-031814	**Units:**	µg/L
Lab Code:	R1402018-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6979.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 02:52	
Dibromofluoromethane	98	89-119	3/28/14 02:52	
Toluene-d8	98	87-121	3/28/14 02:52	

Quantitation Report (Not Reviewed)

Sample : R1402018-007|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6979.D Vial: 29
Acq On : 28 Mar 2014 2:52 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 03:05:10 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	878944	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1289690	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1218392	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	670659	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	410362	48.75	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.50%			
48) surr1,1,2-dichloroetha...	4.860	65	430036	48.56	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.12%			
65) SURR3,Toluene-d8	7.433	98	1474702	48.86	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.72%			
70) SURR2,BFB	9.878	95	613655	49.50	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.00%			
Target Compounds						Qvalue
5) Bromomethane	1.568	94	454	0.27	ug/L	81
15) Acetone	2.135	43	1805	0.78	ug/L	96
16) 2-Propanol	2.184	45	171	0.53	ug/L #	1
19) Acetonitrile	2.270	40	531	1.86	ug/L #	1
20) Allyl Chloride	2.276	76	1593	0.41	ug/L #	1
89) Cyclohexanone	9.878	55	1641	1.92	ug/L #	15
112) Trielution Dichlorotol...	11.841	125	4669	0.33	ug/L	82
119) 2,4,5-Trichlorotoluene	12.938	159	3027	0.59	ug/L	80
120) 2,3,6-Trichlorotoluene	12.993	159	2664	0.55	ug/L	91

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

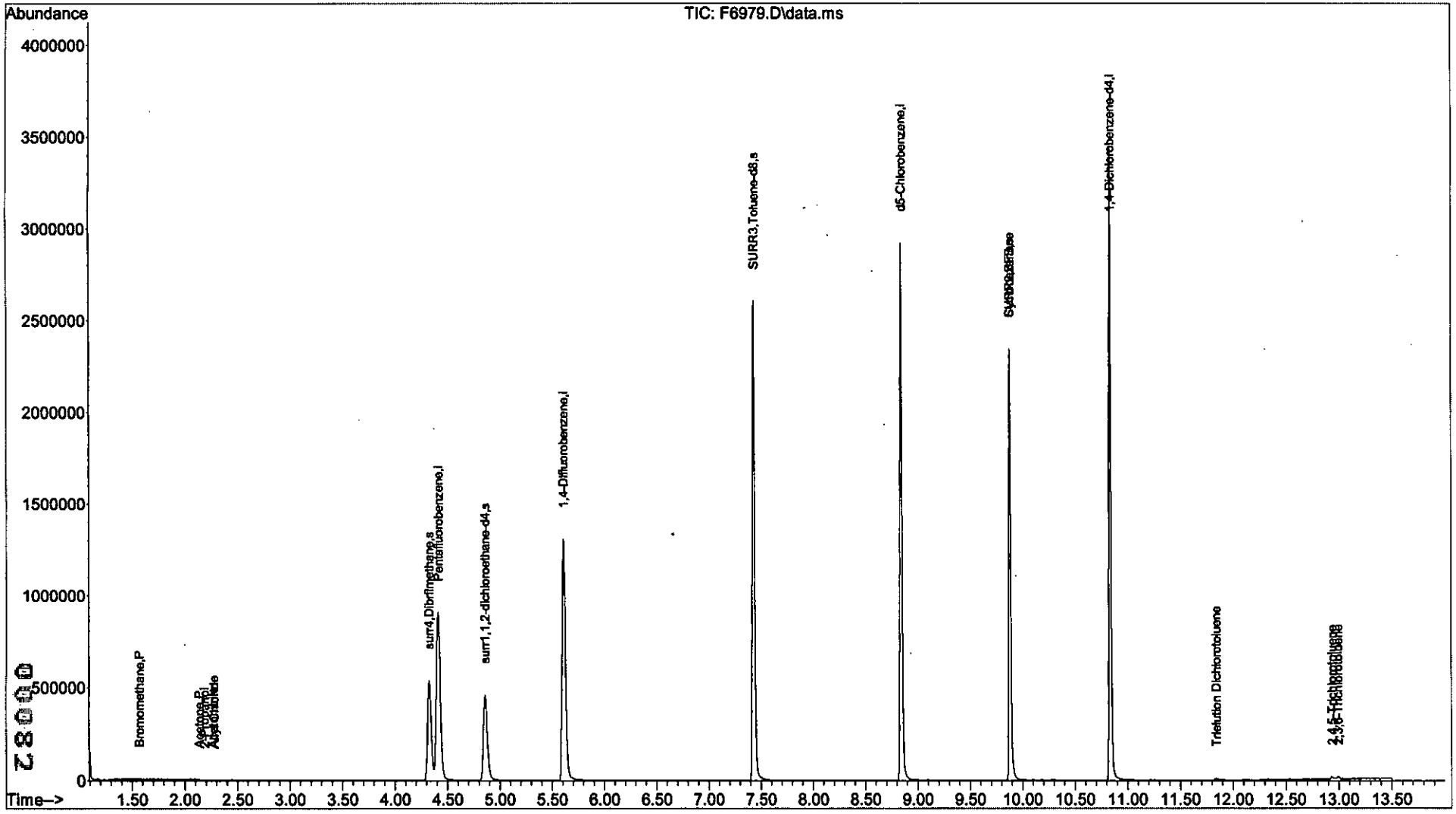
all NTCs not evaluated

FN 4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-007|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6979.D Vial: 29
Acq On : 28 Mar 2014 2:52 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 03:05:10 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1135
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/24/14 19:38
Sample Name:	IJ-10	**Units:**	µg/L
Lab Code:	R1402018-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4157.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**0.92**	**J**	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/24/14 19:38	
Dibromofluoromethane	98	89-119	3/24/14 19:38	
Toluene-d8	99	87-121	3/24/14 19:38	

Quantitation Report (Not Reviewed)

Sample : R1402018-008|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4157.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 7:38 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 19:53:30 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.243	168	861954	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1318587	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1214975	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	581515	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	374310	49.04	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.08%				
48) surr1,1,2-dichloroetha...	4.658	65	441155	50.73	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.46%				
65) SURR3,Toluene-d8	7.322	98	1591658	49.62	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.24%				
70) SURR2,BFB	9.785	95	599349	50.08	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.16%				
Target Compounds							Qvalue
3) Chloromethane	1.262	50	2999	0.34	ppb		95
~~6) Chloroethane~~	~~1.567~~	~~64~~	~~1417~~	~~0.29~~	~~ppb~~		~~94~~
14) Freon 113	2.036	101	2023	0.30	ppb		89
15) Acetone	2.042	43	56278	32.91	ppb		96
~~16) 2 Propanol~~	~~2.109~~	~~45~~	~~200~~	~~0.72~~	~~ppb~~	~~#~~	~~1~~
~~19) Acetonitrile~~	~~2.225~~	~~40~~	~~544~~	~~1.95~~	~~ppb~~		~~94~~
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~2403~~	~~0.56~~	~~ppb~~	~~#~~	~~1~~
23) TBA	2.414	59	1488	3.11	ppb		74
35) 2-Butanone	3.554	43	8272	3.45	ppb		82
40) Chloroform	3.944	83	9223	0.65	ppb		80
49) Benzene	4.780	78	7995	0.25	ppb		87
~~52) n-Heptane~~	~~5.371~~	~~43~~	~~31862~~	~~3.93~~	~~ppb~~	~~#~~	~~24~~
60) Bromodichloromethane	6.480	83	8155	0.84	ppb		96
~~62) 2-Chloroethylvinyl Ether~~	~~6.840~~	~~63~~	~~1405~~	~~0.38~~	~~ppb~~	~~#~~	~~48~~
64) 4-Methyl-2-pentanone	7.212	43	2171	0.43	ppb		95
72) Tetrachloroethene	7.962	164	5799	0.92	ppb	#	89
75) Dibromochloromethane	8.187	129	13729	2.18	ppb		94
87) Bromoform	9.498	173	28106	8.51	ppb		99
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1382~~	~~2.96~~	~~ppb~~	~~#~~	~~39~~
112) Trielution Dichlorotol...	11.729	125	12843	1.16	ppb		94
114) Coelution Dichlorotoluene	11.998	125	3219	0.27	ppb	#	88
119) 2,4,5-Trichlorotolene	12.851	159	7562	1.63	ppb		96
120) 2,3,6-Trichlorotoluene	12.912	159	5195	1.23	ppb		90

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

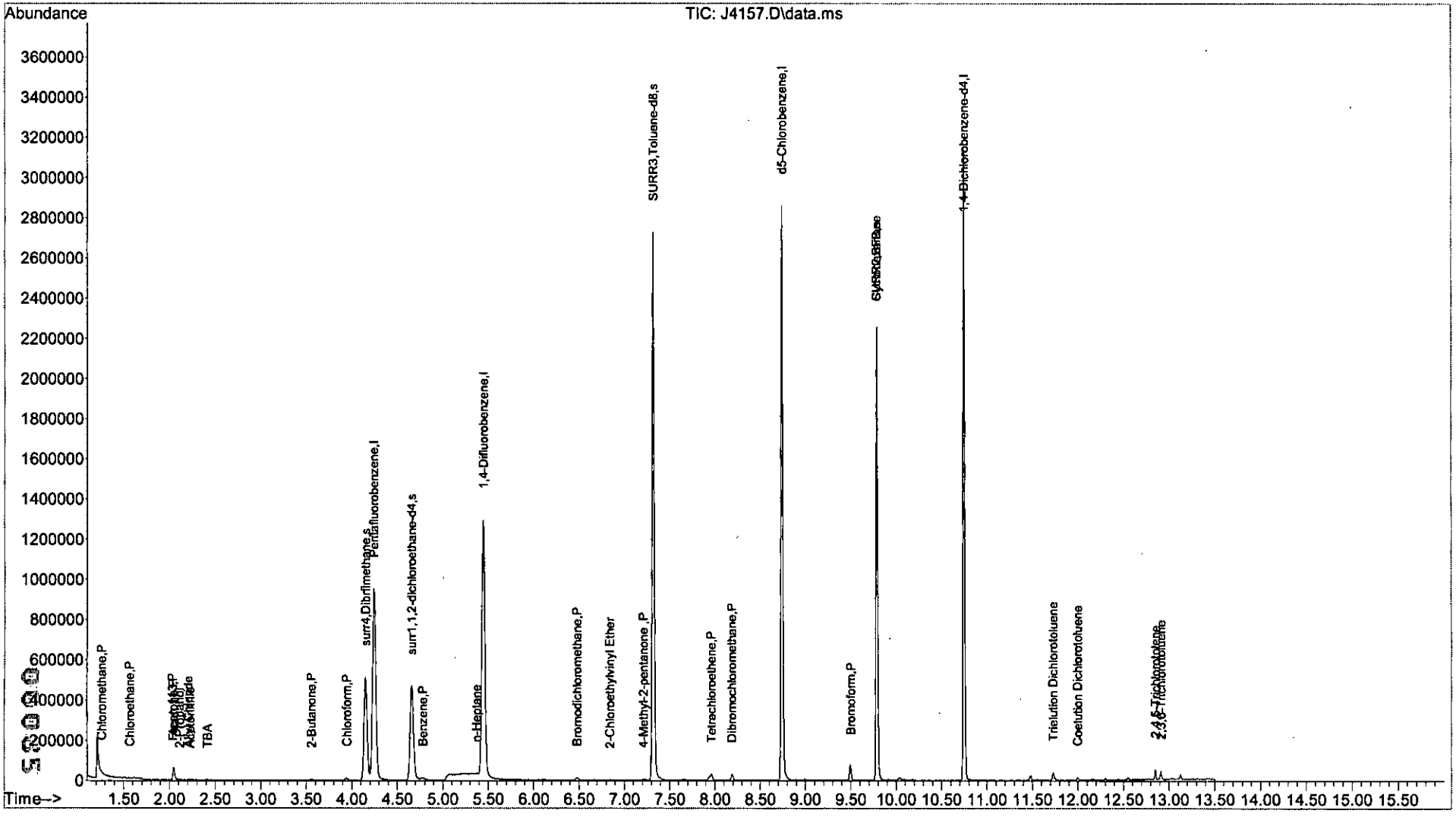
KR 3/25/14

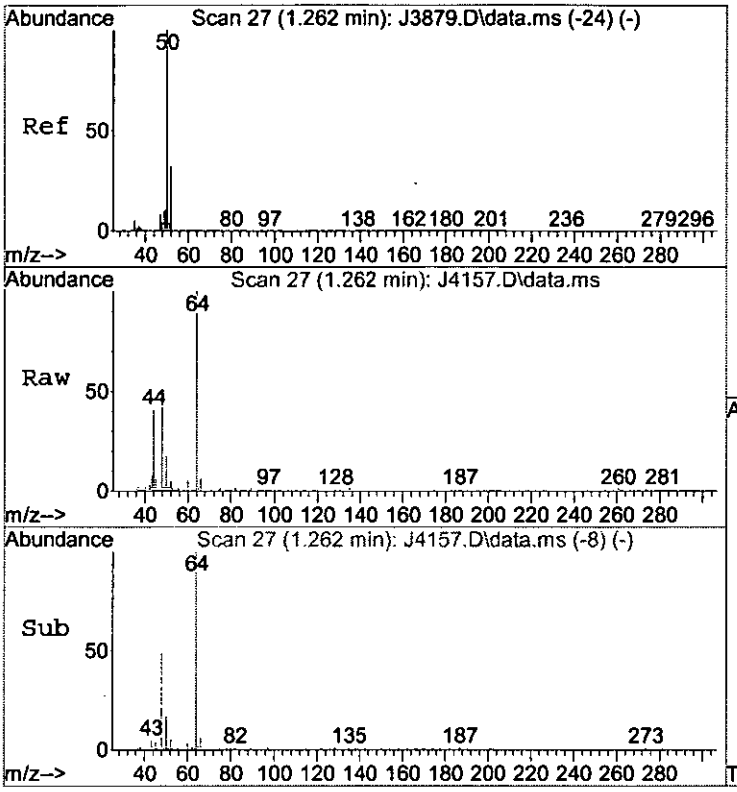
M 3/25

Quantitation Report (Not Reviewed)

Sample : R1402018-008|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4157.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 7:38 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 19:53:30 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

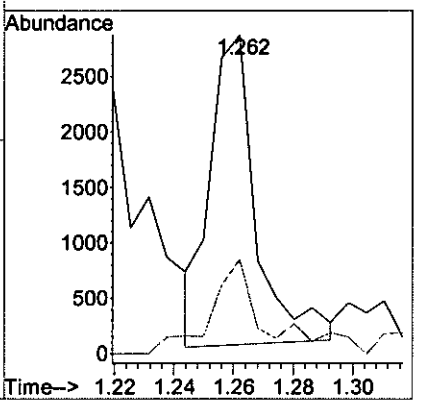


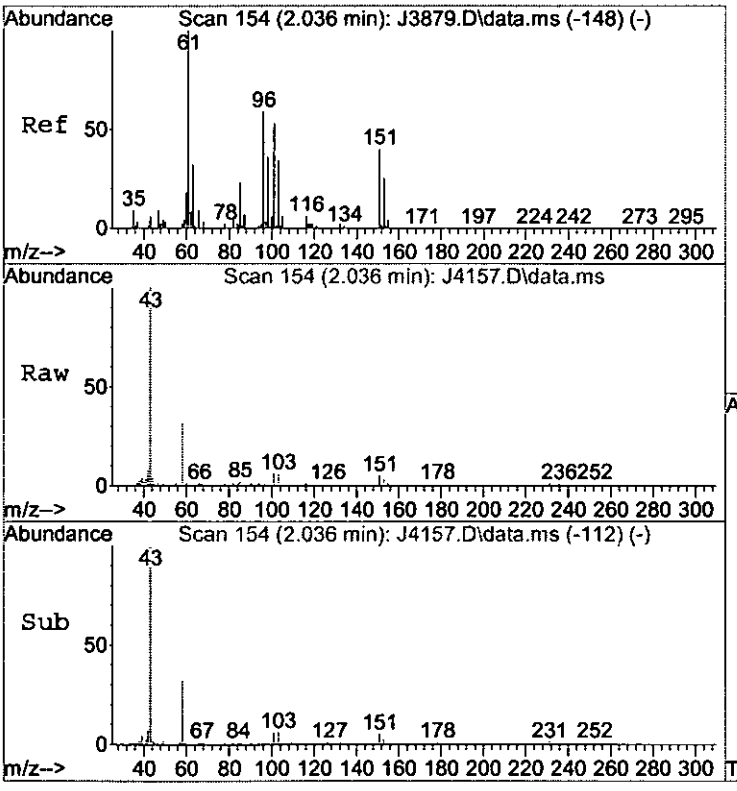


#3
Chloromethane
Concen: 0.34 ppb
RT: 1.262 min Scan# 27
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 50 Resp: 2999

Ion	Ratio	Lower	Upper
50	100		
52	29.6	12.2	52.2

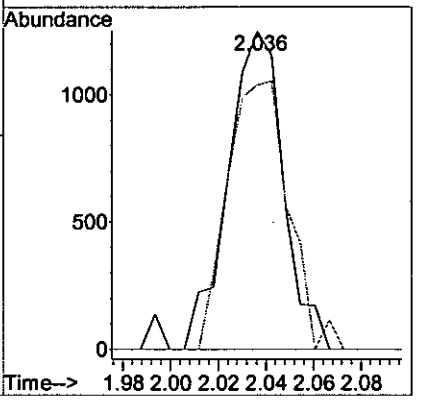


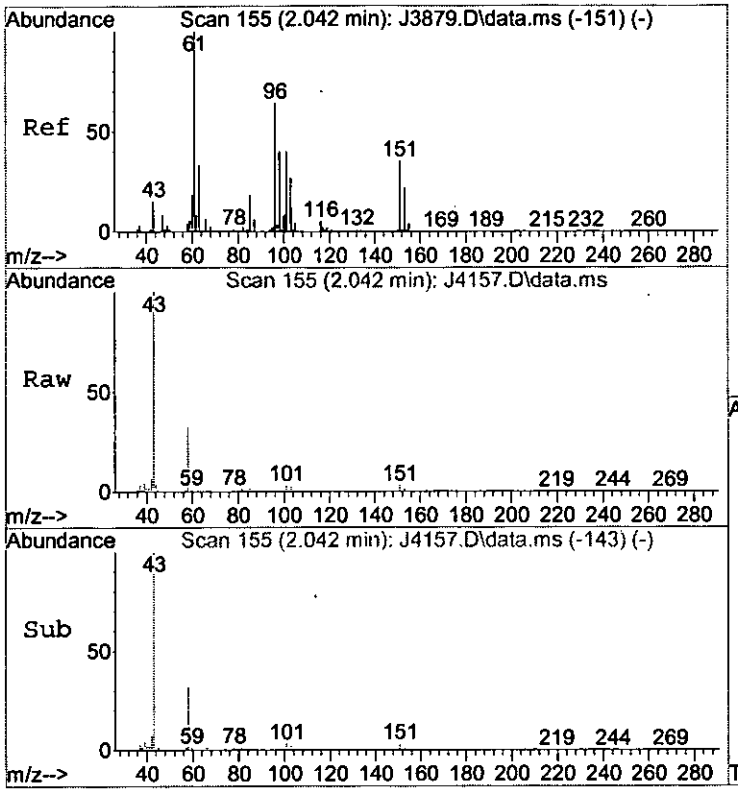


#14
Freon 113
Concen: 0.30 ppb
RT: 2.036 min Scan# 154
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion:101 Resp: 2023

Ion	Ratio	Lower	Upper
101	100		
151	83.0	53.9	93.9

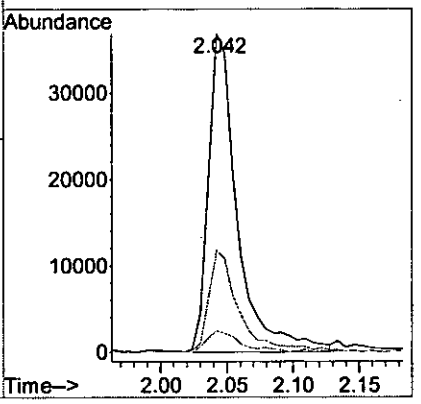


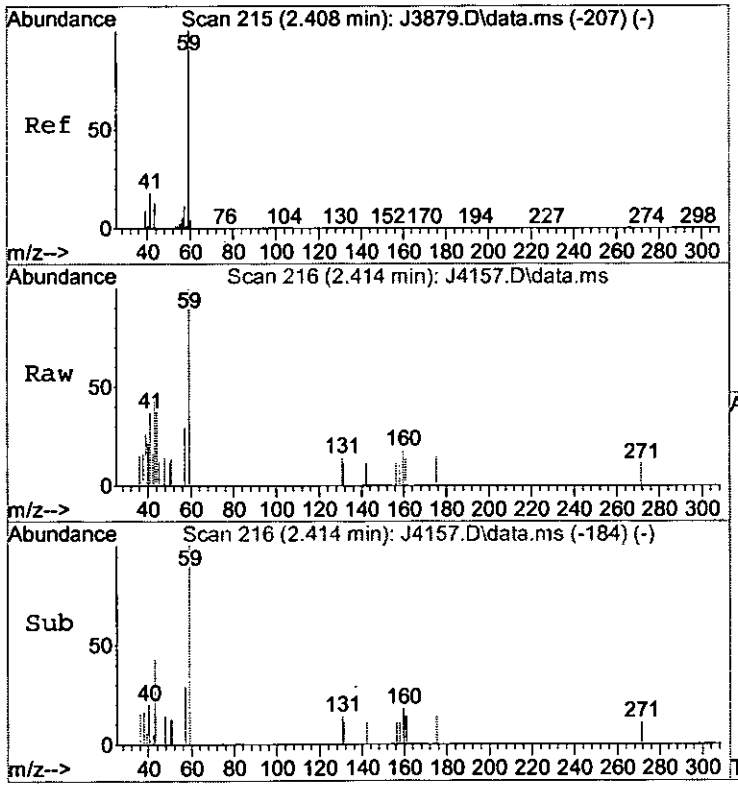


#15
Acetone
Concen: 32.91 ppb
RT: 2.042 min Scan# 155
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 43 Resp: 56278

Ion	Ratio	Lower	Upper
43	100		
58	32.2	9.7	49.7
42	6.7	0.0	27.9

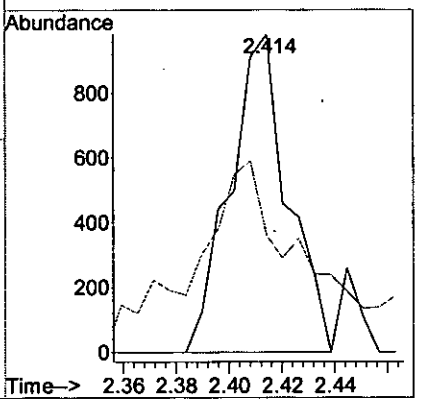


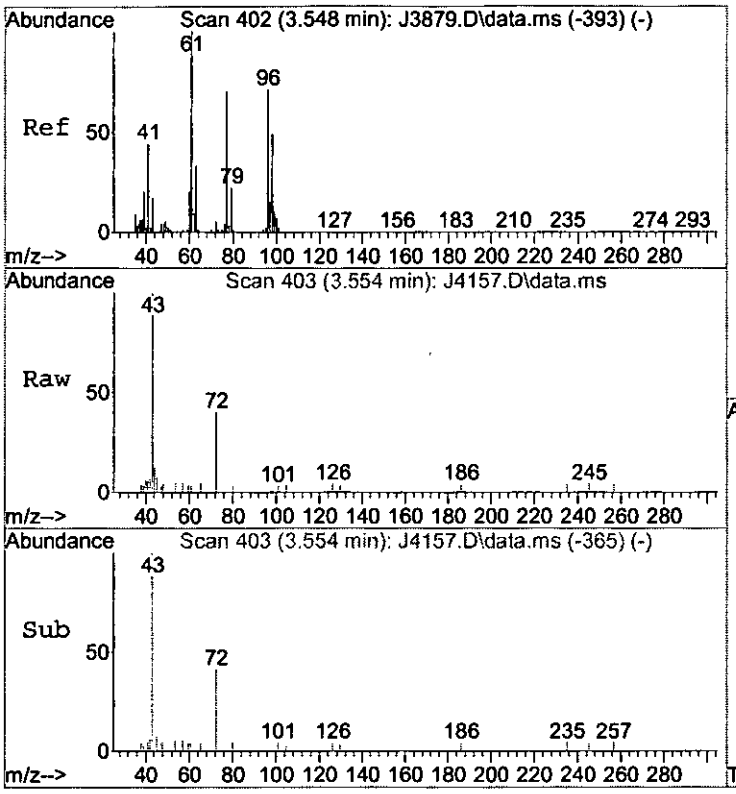


#23
TBA
Concen: 3.11 ppb
RT: 2.414 min Scan# 216
Delta R.T. 0.006 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 59 Resp: 1488

Ion	Ratio	Lower	Upper
59	100		
41	36.7	4.0	44.0

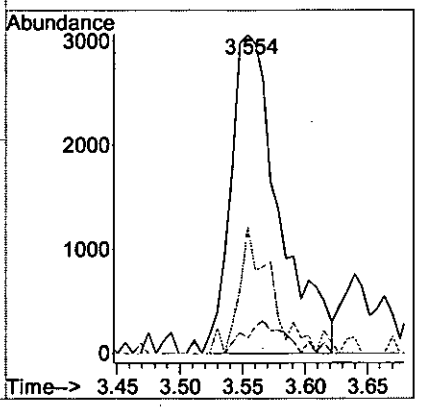


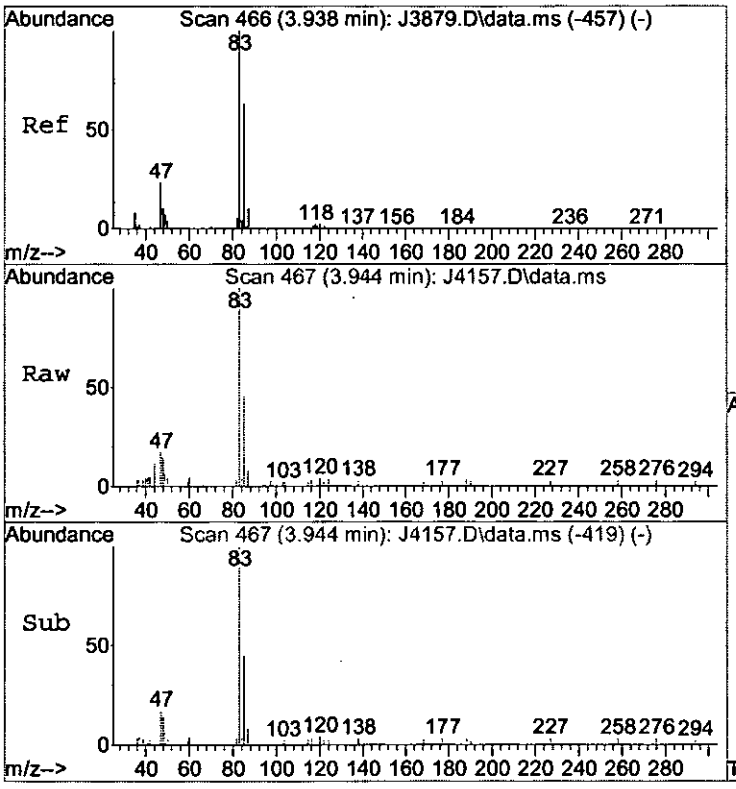


#35
2-Butanone
Concen: 3.45 ppb
RT: 3.554 min Scan# 403
Delta R.T. 0.006 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 43 Resp: 8272

Ion	Ratio	Lower	Upper
43	100		
57	4.7	0.0	26.4
72	39.6	8.8	48.8

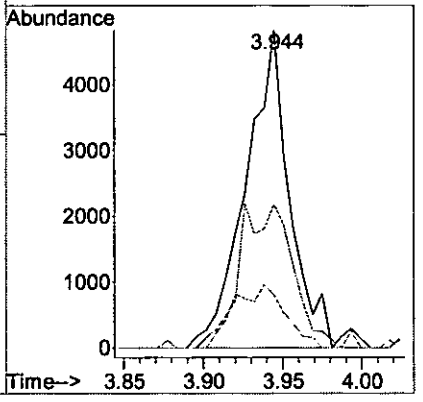


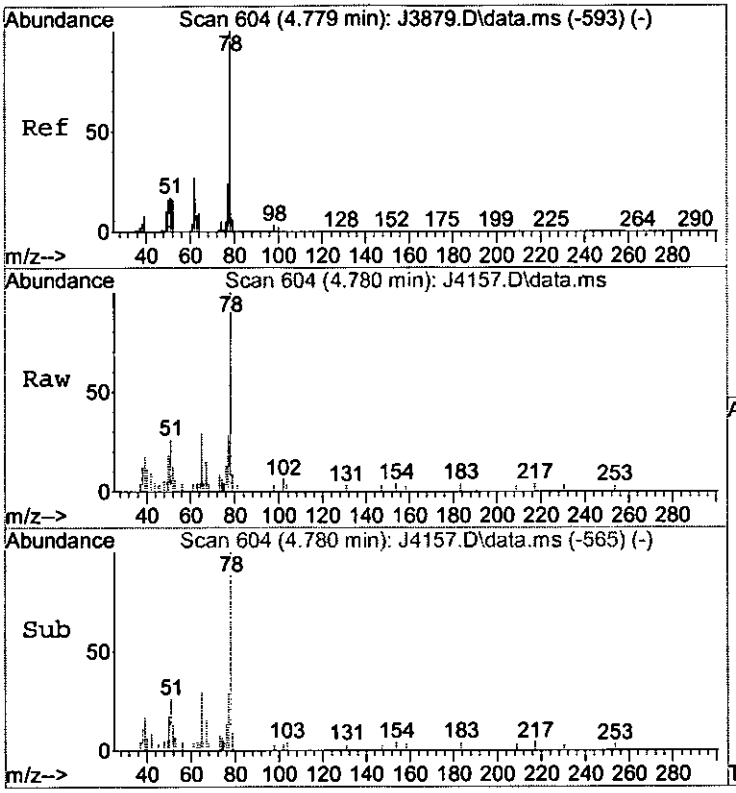


#40
Chloroform
Concen: 0.65 ppb
RT: 3.944 min Scan# 467
Delta R.T. 0.006 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 83 Resp: 9223

Ion	Ratio	Lower	Upper
83	100		
85	45.0	42.6	82.6
47	16.5	3.4	43.4

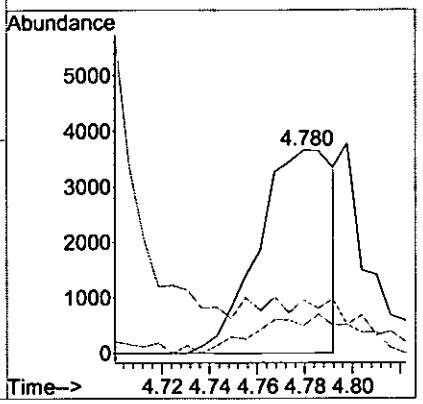


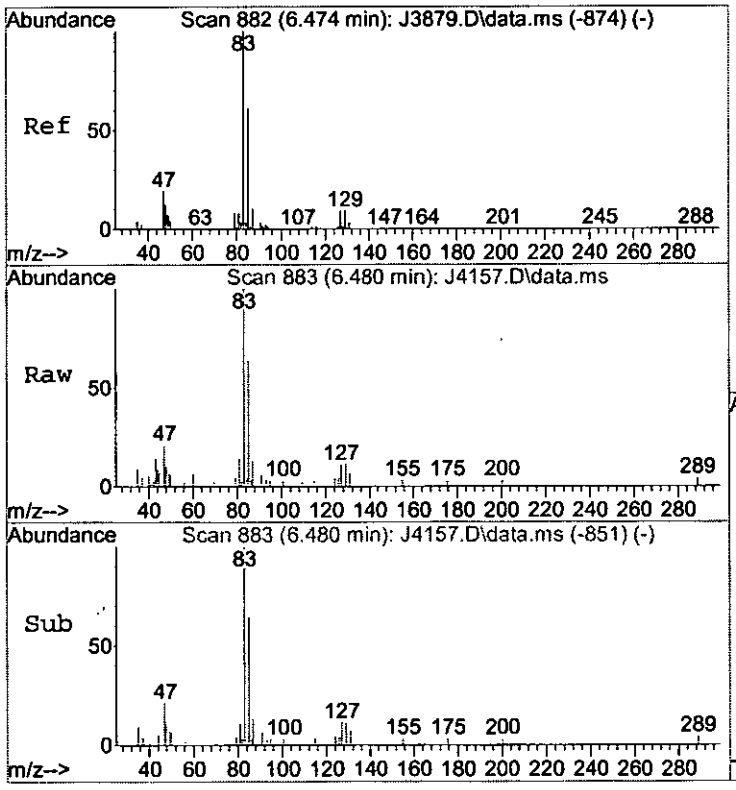


#49
Benzene
Concen: 0.25 ppb
RT: 4.780 min Scan# 604
Delta R.T. -0.006 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 78 Resp: 7995

Ion	Ratio	Lower	Upper
78	100		
51	26.3	0.0	38.2
52	13.4	0.0	36.1

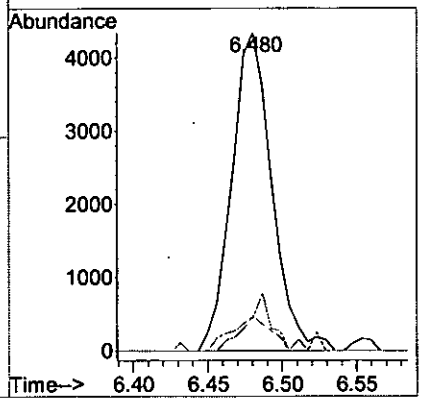


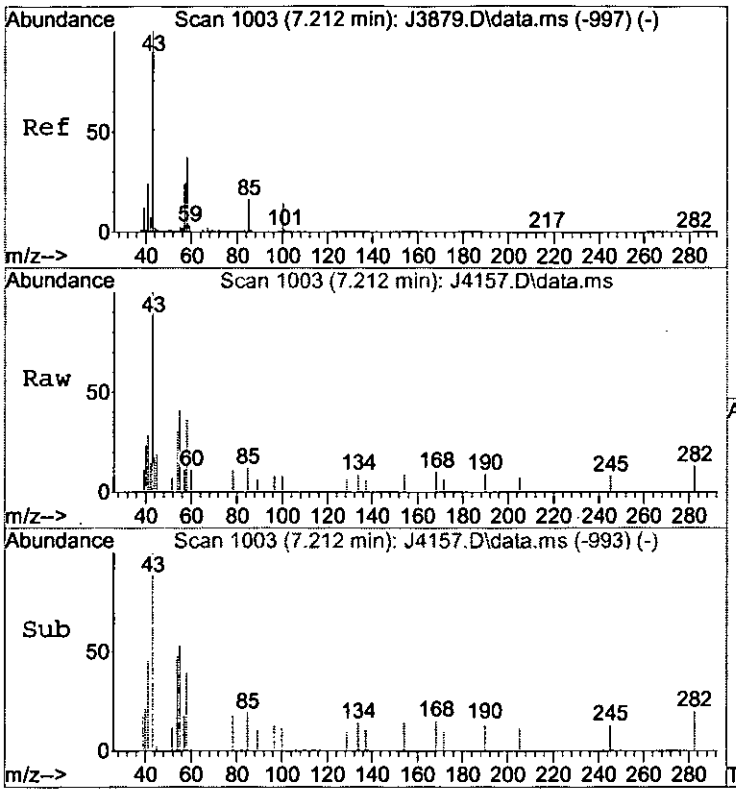


#60
Bromodichloromethane
Concen: 0.84 ppb
RT: 6.480 min Scan# 883
Delta R.T. 0.006 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 83 Resp: 8155

Ion	Ratio	Lower	Upper
83	100		
129	10.6	0.0	29.3
127	10.6	0.0	28.7

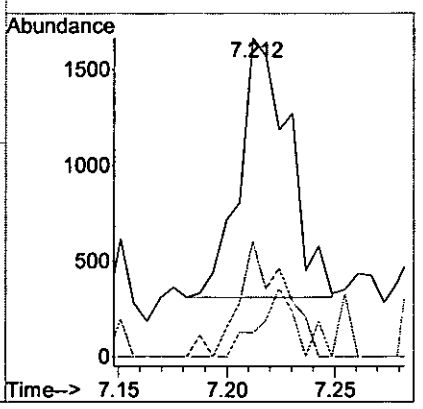


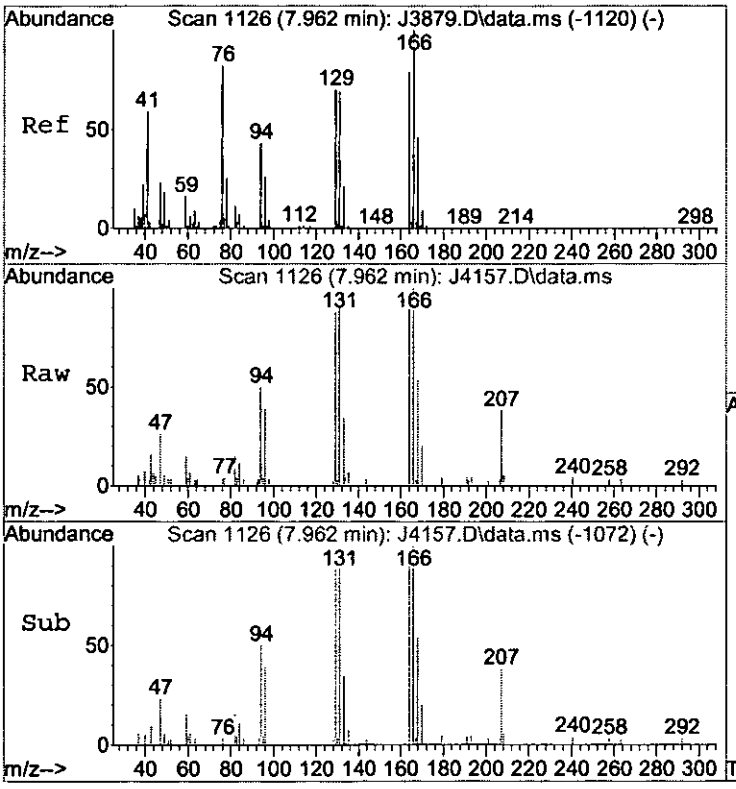


#64
4-Methyl-2-pentanone
Concen: 0.43 ppb
RT: 7.212 min Scan# 1003
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion: 43 Resp: 2171

Ion	Ratio	Lower	Upper
43	100		
58	36.3	17.0	57.0
100	7.6	0.0	34.1

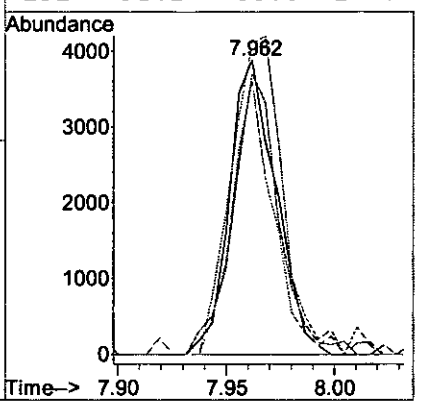


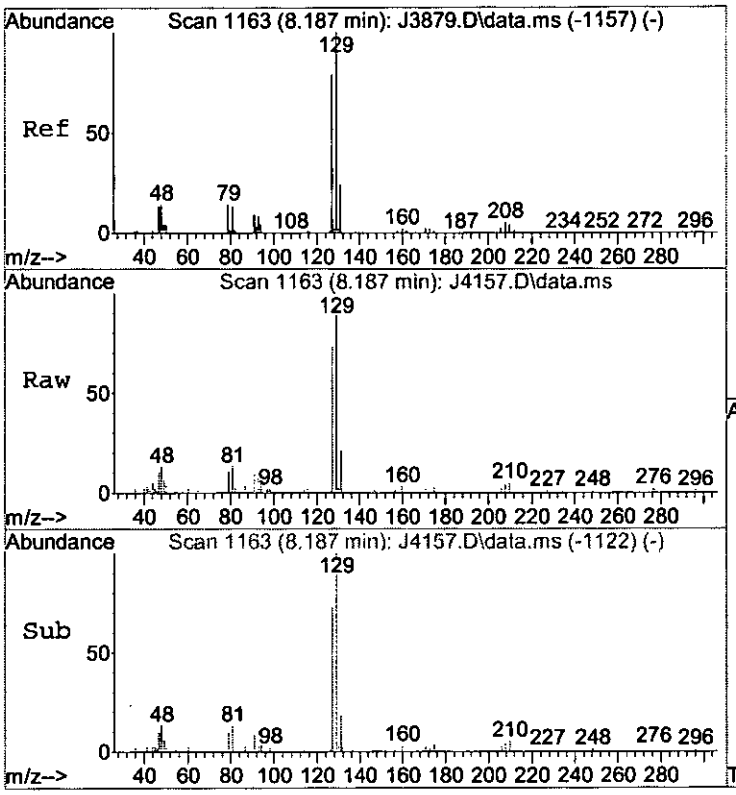


#72
Tetrachloroethene
Concen: 0.92 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion:164 Resp: 5799

Ion	Ratio	Lower	Upper
164	100		
166	105.7	105.9	145.9#
129	93.0	68.6	108.6
131	95.2	66.6	106.6

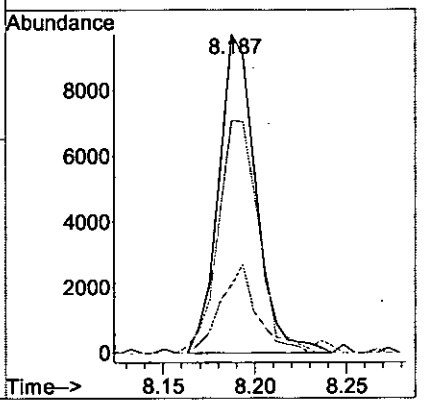


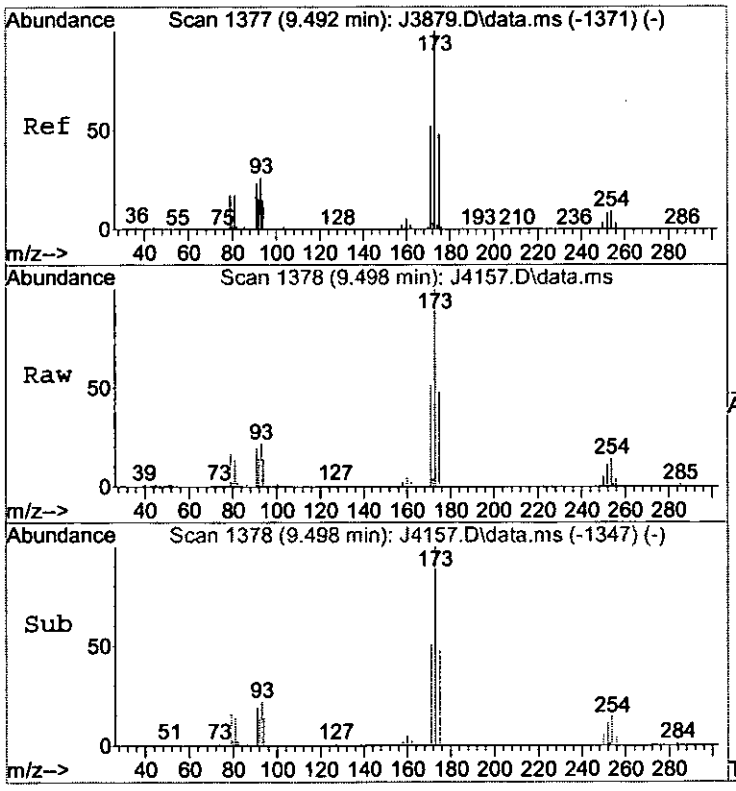


#75
Dibromochloromethane
Concen: 2.18 ppb
RT: 8.187 min Scan# 1163
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion:129 Resp: 13729

Ion	Ratio	Lower	Upper
129	100		
127	73.0	59.1	99.1
131	23.1	4.2	44.2

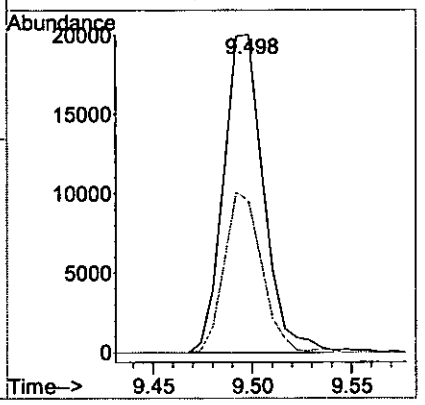




#87
Bromoform
Concen: 8.51 ppb
RT: 9.498 min Scan# 1378
Delta R.T. -0.000 min
Lab File: J4157.D
Acq: 24 Mar 2014 7:38 pm

Tgt Ion:173 Resp: 28106

Ion	Ratio	Lower	Upper
173	100		
175	47.8	28.3	68.3



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1155
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 05:24
Sample Name:	MP-4	**Units:**	µg/L
Lab Code:	R1402018-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6984.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	57	
127-18-4	Tetrachloroethene (PCE)	**11000**		500	30	
79-01-6	Trichloroethene (TCE)	500	U	500	22	
75-01-4	Vinyl Chloride	500	U	500	32	
156-59-2	cis-1,2-Dichloroethene	500	U	500	30	
156-60-5	trans-1,2-Dichloroethene	500	U	500	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	3/28/14 05:24	
Dibromofluoromethane	97	89-119	3/28/14 05:24	
Toluene-d8	98	87-121	3/28/14 05:24	

Quantitation Report (Not Reviewed)

Sample : R1402018-009|100.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6984.D Vial: 34
Acq On : 28 Mar 2014 5:24 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 05:37:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	884909	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.616	114	1308203	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1239213	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	673699	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.330	113	415224	48.63	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.26%			
48) surr1,1,2-dichloroetha...	4.854	65	438452	48.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.62%			
65) SURR3,Toluene-d8	7.433	98	1495400	48.84	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.68%			
70) SURR2,BFB	9.878	95	608867	48.42	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.84%			
Target Compounds						Qvalue
5) Bromomethane	1.562	94	447	0.26	ug/L #	72
15) Acetone	2.135	43	1223	0.52	ug/L	75
16) 2-Propanol	2.215	45	245	0.75	ug/L	85
19) Acetonitrile	2.318	40	1028	3.59	ug/L #	1
20) Allyl Chloride	2.276	76	1234	0.32	ug/L #	1
72) Tetrachloroethene	8.055	164	800207	109.51	ug/L	98
89) Cyclohexanone	9.878	55	1840	2.12	ug/L #	16
112) Trielution Dichlorotol...	11.847	125	3831	0.27	ug/L #	77
119) 2,4,5-Trichlorotoluene	12.932	159	3184	0.62	ug/L	87
120) 2,3,6-Trichlorotoluene	12.993	159	2452	0.50	ug/L	91

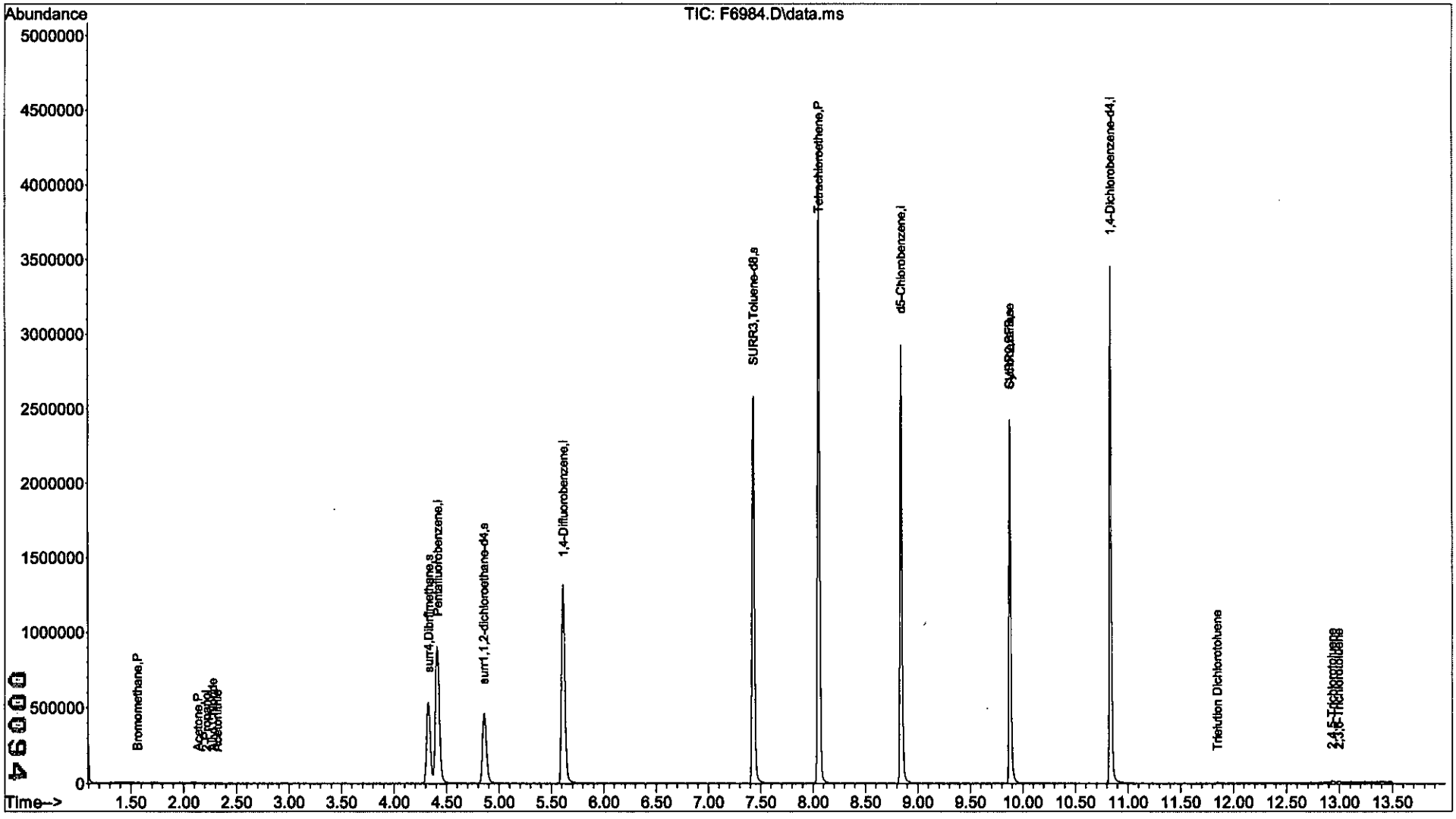
(#) = qualifier out of range (m) = manual integration (+) = signals summed

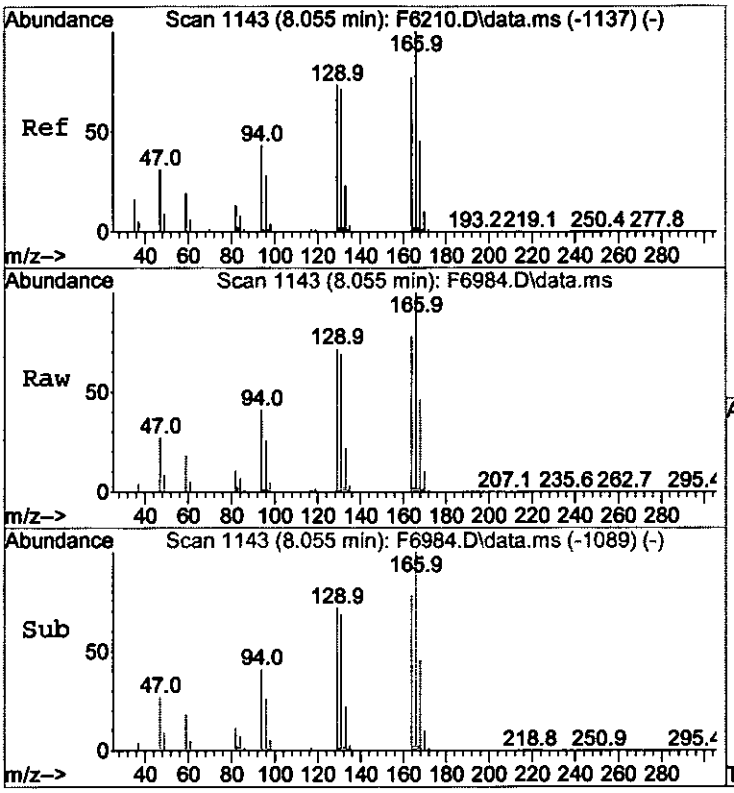
FW 4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-009|100.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6984.D Vial: 34
Acq On : 28 Mar 2014 5:24 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 05:37:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

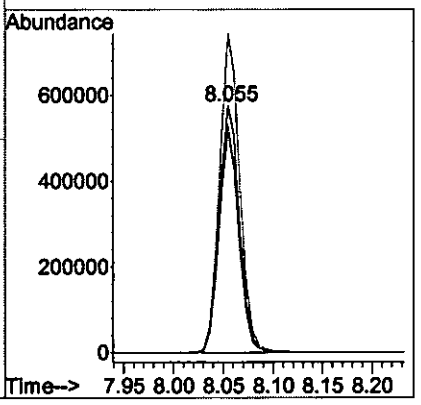




#72
Tetrachloroethene
Concen: 109.51 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. -0.000 min
Lab File: F6984.D
Acq: 28 Mar 2014 5:24 am

Tgt Ion:164 Resp: 800207

Ion	Ratio	Lower	Upper
164	100		
166	129.0	106.8	146.8
129	92.4	69.6	109.6
131	89.1	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1430
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 03:22
Sample Name:	FB-031914	**Units:**	µg/L
Lab Code:	R1402018-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6980.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 03:22	
Dibromofluoromethane	99	89-119	3/28/14 03:22	
Toluene-d8	98	87-121	3/28/14 03:22	

Quantitation Report (Not Reviewed)

Sample : R1402018-010|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6980.D Vial: 30
Acq On : 28 Mar 2014 3:22 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 03:35:37 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	877811	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1282306	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1221776	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	667482	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	414181	49.49	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.98%			
48) surr1,1,2-dichloroetha...	4.860	65	437053	49.64	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.28%			
65) SURR3,Toluene-d8	7.433	98	1469820	48.98	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.96%			
70) SURR2,BFB	9.878	95	613068	49.74	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.48%			
Target Compounds						Qvalue
5) Bromomethane	1.568	94	451	0.27	ug/L #	73
15) Acetone	2.123	43	1365	0.59	ug/L	89
16) 2-Propanol	2.196	45	167	0.51	ug/L #	40
17) Iodomethane	2.227	142	256	1.00	ug/L #	44
19) Acetonitrile	2.306	40	645	2.27	ug/L #	1
20) Allyl Chloride	2.275	76	1216	0.31	ug/L #	1
89) Cyclohexanone	9.884	55	1834	2.14	ug/L #	13
112) Trielution Dichlorotol...	11.847	125	4368	0.31	ug/L	91
119) 2,4,5-Trichlorotoluene	12.993	159	2565	0.50	ug/L	86
120) 2,3,6-Trichlorotoluene	12.993	159	2565	0.53	ug/L	86

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

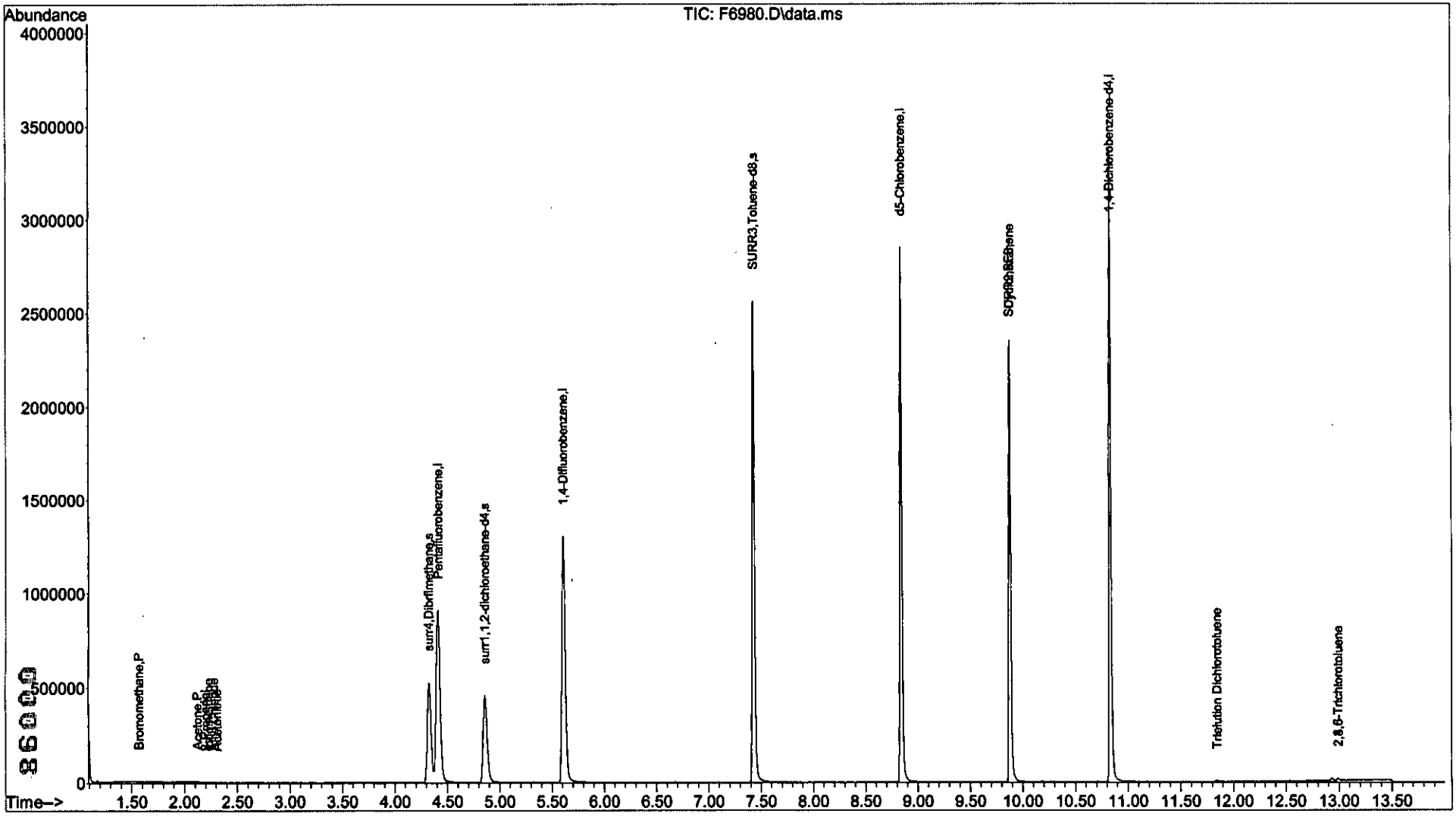
all NT's not evaluated

FD
4/3/14

Quantitation Report (Not Reviewed)

Sample : R1402018-010|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6980.D Vial: 30
Acq On : 28 Mar 2014 3:22 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 03:35:37 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



W022814.M Fri Mar 28 03:35:39 2014 MSVO10 Page: 2

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1500
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 05:54
Sample Name:	MP-14	**Units:**	µg/L
Lab Code:	R1402018-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6985.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**37**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.9**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	1.9	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 05:54	
Dibromofluoromethane	98	89-119	3/28/14 05:54	
Toluene-d8	98	87-121	3/28/14 05:54	

Quantitation Report (Not Reviewed)

Sample : R1402018-011|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6985.D Vial: 35
Acq On : 28 Mar 2014 5:54 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 06:07:49 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.415	168	858798	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.616	114	1252672	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1187161	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	645864	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	401556	49.12	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.24%				
48) surr1,1,2-dichloroetha...	4.860	65	431713	50.19	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.38%				
65) SURR3,Toluene-d8	7.433	98	1436239	48.99	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.98%				
70) SURR2,BFB	9.878	95	597127	49.59	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.18%				
Target Compounds							Qvalue
5) Bromomethane	1.568	94	368	0.24	ug/L	#	61
15) Acetone	2.135	43	1578	0.69	ug/L		92
16) 2-Propanol	2.202	45	181	0.57	ug/L		65
19) Acetonitrile	2.263	40	562	2.02	ug/L	#	1
20) Allyl Chloride	2.269	76	1060	0.28	ug/L	#	1
34) cis-1,2-Dichloroethene	3.696	96	16356	1.88	ug/L	#	70
54) Trichloroethene	5.976	130	15793	1.86	ug/L		89
72) Tetrachloroethene	8.055	164	255897	36.55	ug/L		98
89) Cyclohexanone	9.890	55	1379	1.66	ug/L	#	13
112) Trielution Dichlorotol...	11.853	125	3211	0.23	ug/L	#	80
119) 2,4,5-Trichlorotoluene	12.944	159	2575	0.52	ug/L	#	71
120) 2,3,6-Trichlorotoluene	12.999	159	1960	0.42	ug/L		78

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

ALL NTIs not evaluated

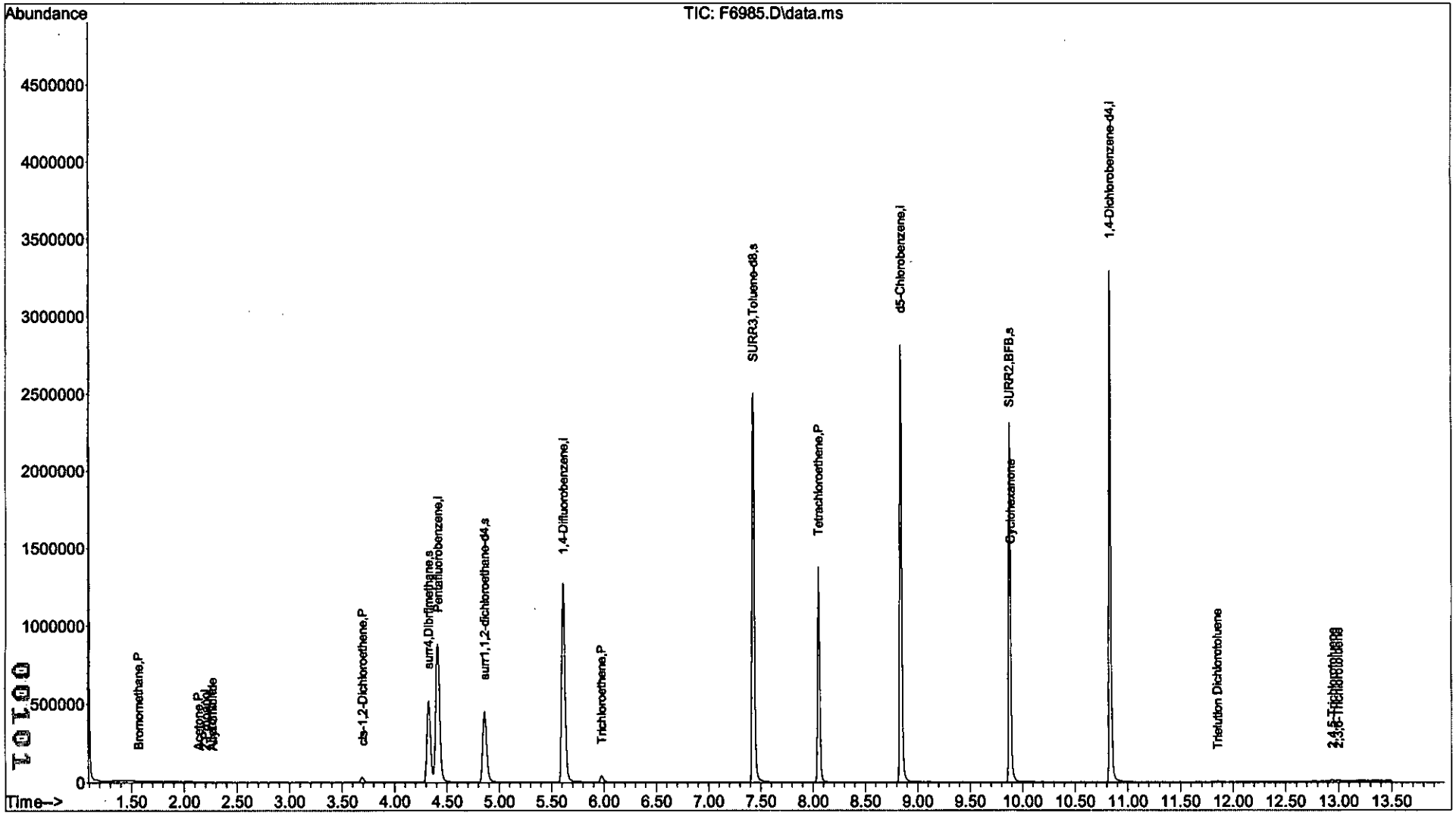
FN
4/5/14

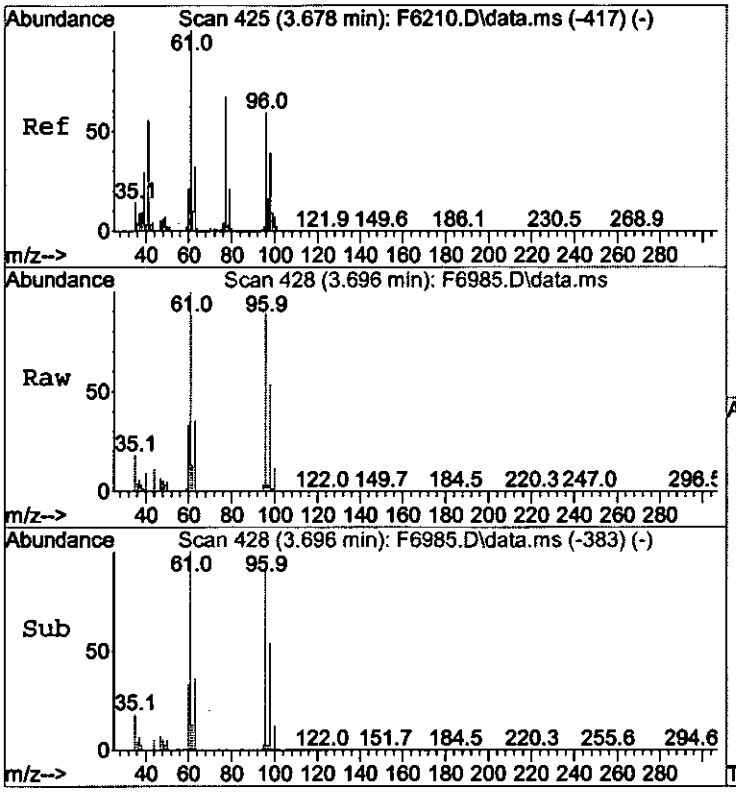
KH 4/7/14

Quantitation Report (Not Reviewed)

Sample : R1402018-011|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6985.D Vial: 35
Acq On : 28 Mar 2014 5:54 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 06:07:49 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

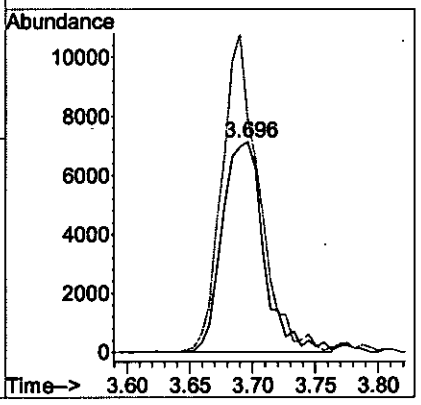


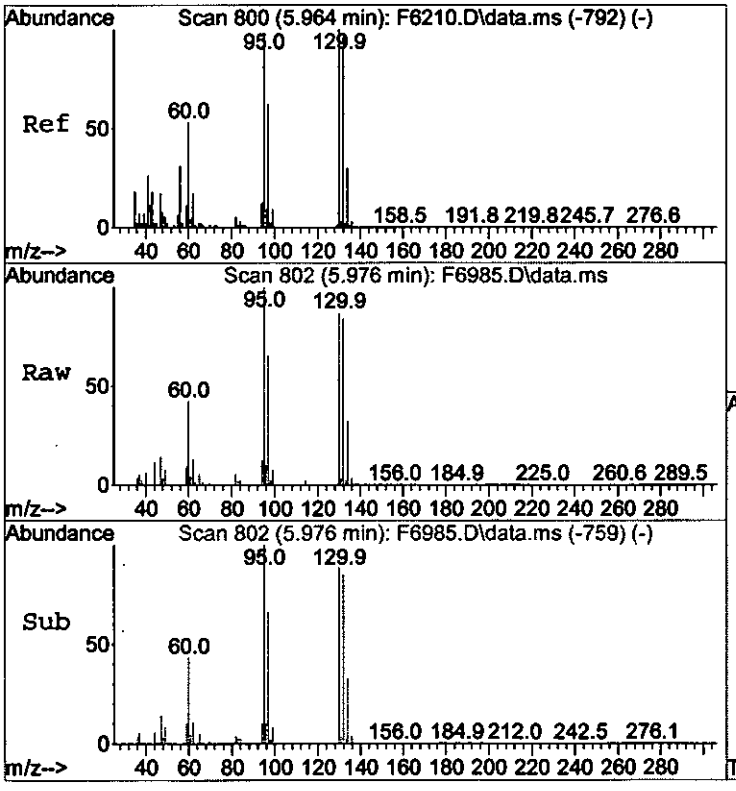


#34
cis-1,2-Dichloroethene
Concen: 1.88 ug/L
RT: 3.696 min Scan# 428
Delta R.T. 0.018 min
Lab File: F6985.D
Acq: 28 Mar 2014 5:54 am

Tgt Ion: 96 Resp: 16356

Ion	Ratio	Lower	Upper
96	100		
61	110.8	128.3	168.3#

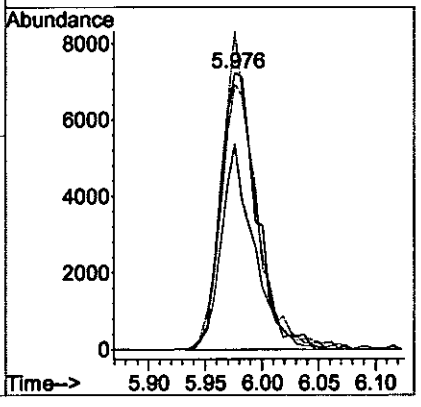


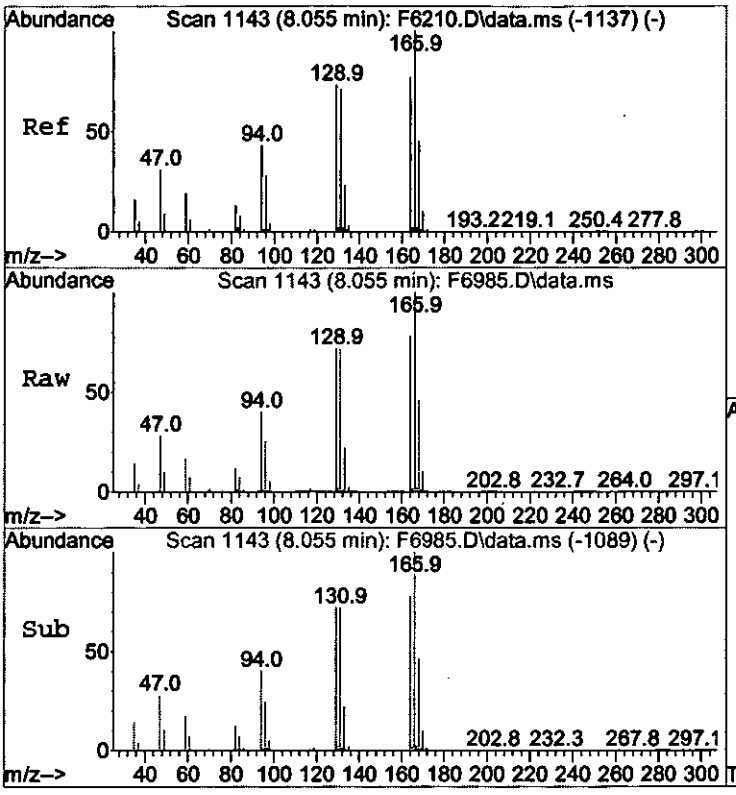


#54
Trichloroethene
Concen: 1.86 ug/L
RT: 5.976 min Scan# 802
Delta R.T. 0.012 min
Lab File: F6985.D
Acq: 28 Mar 2014 5:54 am

Tgt Ion:130 Resp: 15793

Ion	Ratio	Lower	Upper
130	100		
132	96.0	74.1	114.1
95	114.9	76.9	116.9
97	74.3	43.7	83.7

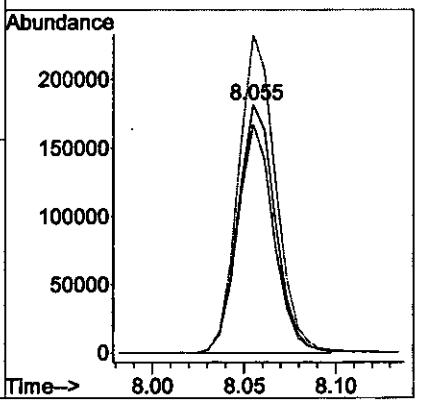




#72
Tetrachloroethene
Concen: 36.55 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. -0.000 min
Lab File: F6985.D
Acq: 28 Mar 2014 5:54 am

Tgt Ion:164 Resp: 255897

Ion	Ratio	Lower	Upper
164	100		
166	128.2	106.8	146.8
129	92.2	69.6	109.6
131	92.0	68.5	108.5



Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1505
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 06:25
Sample Name:	MP-5	**Units:**	µg/L
Lab Code:	R1402018-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6986.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	3.6	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	5.7	
127-18-4	Tetrachloroethene (PCE)	**940**		50	3.0	
79-01-6	Trichloroethene (TCE)	**33**	J	50	2.2	
75-01-4	Vinyl Chloride	**4.7**	J	50	3.2	
156-59-2	cis-1,2-Dichloroethene	**20**	J	50	3.0	
156-60-5	trans-1,2-Dichloroethene	50	U	50	3.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 06:25	
Dibromofluoromethane	97	89-119	3/28/14 06:25	
Toluene-d8	98	87-121	3/28/14 06:25	

Quantitation Report (Not Reviewed)

Sample : R1402018-012|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6986.D Vial: 36
Acq On : 28 Mar 2014 6:25 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 06:38:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene	4.415	168	863001	50.00 ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1268229	50.00 ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1202656	50.00 ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	666276	50.00 ug/L	0.00
System Monitoring Compounds					
45) surr4,Dibrflmethane	4.324	113	399939	48.32 ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.64%		
48) surr1,1,2-dichloroetha...	4.861	65	432611	49.68 ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.36%		
65) SURR3,Toluene-d8	7.433	98	1451938	48.92 ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.84%		
70) SURR2,BFB	9.878	95	603488	49.50 ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.00%		
Target Compounds					Qvalue
4) Vinyl Chloride	1.361	62	4816	0.47 ug/L	93
5) Bromomethane	1.568	94	535	0.31 ug/L #	30
12) Acrolein	2.026	56	227	0.24 ug/L #	74
13) 1,1-Diclethene	2.105	96	1944	0.32 ug/L #	69
16) 2-Propanol	2.209	45	200	0.63 ug/L #	41
19) Acetonitrile	2.282	40	664	2.37 ug/L #	1
20) Allyl Chloride	2.276	76	962	0.25 ug/L #	1
34) cis-1,2-Dichloroethene	3.690	96	17285	1.98 ug/L	95
54) Trichloroethene	5.970	130	27994	3.26 ug/L	90
72) Tetrachloroethene	8.055	164	666272	93.95 ug/L	97
89) Cyclohexanone	9.884	55	1536	1.82 ug/L #	13
112) Trielution Dichlorotol...	11.853	125	3086	0.22 ug/L #	63
119) 2,4,5-Trichlorotoluene	12.944	159	2174	0.43 ug/L	80
120) 2,3,6-Trichlorotoluene	12.944	159	2174	0.45 ug/L	80

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

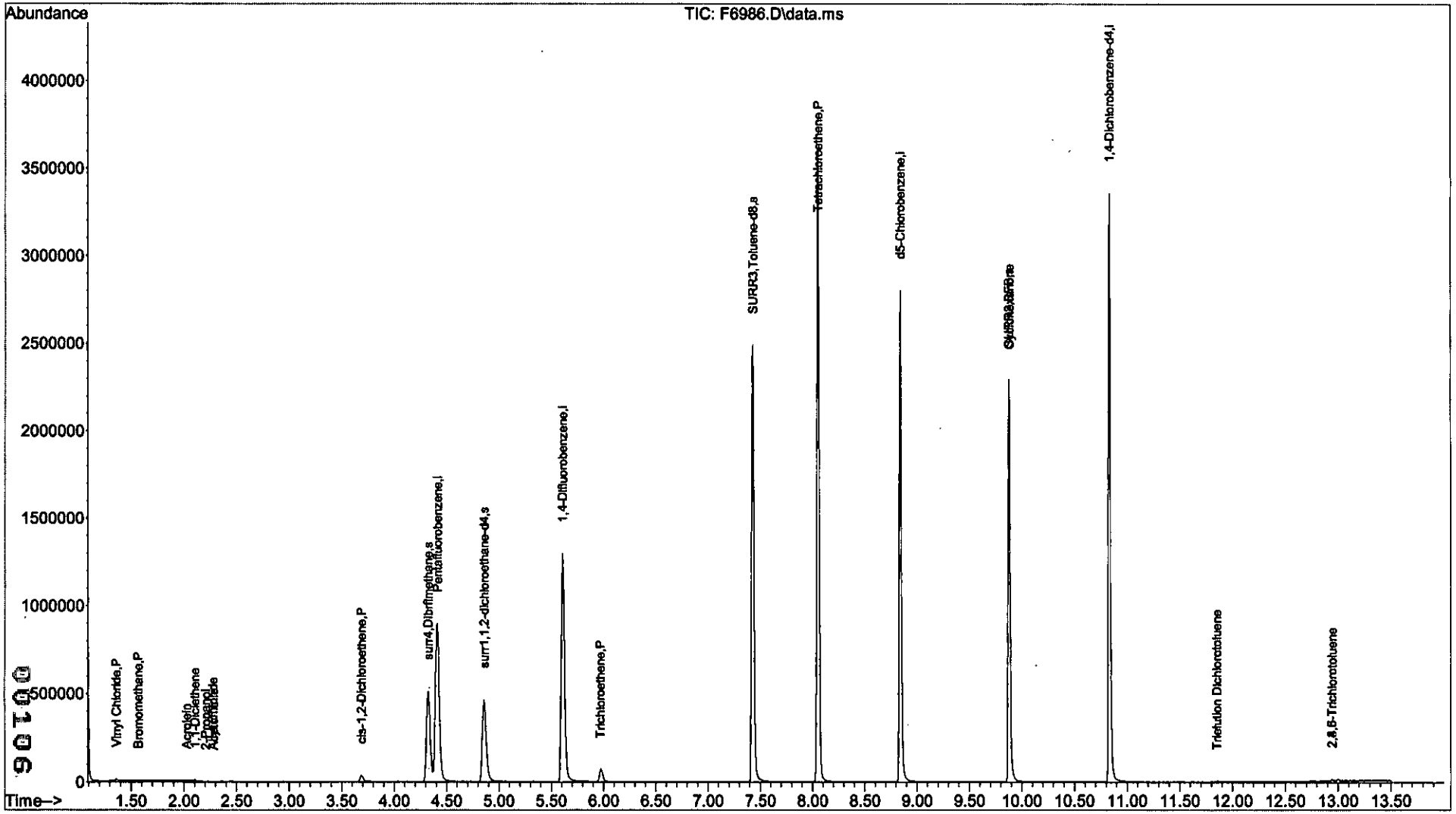
ALL NT's not evaluated

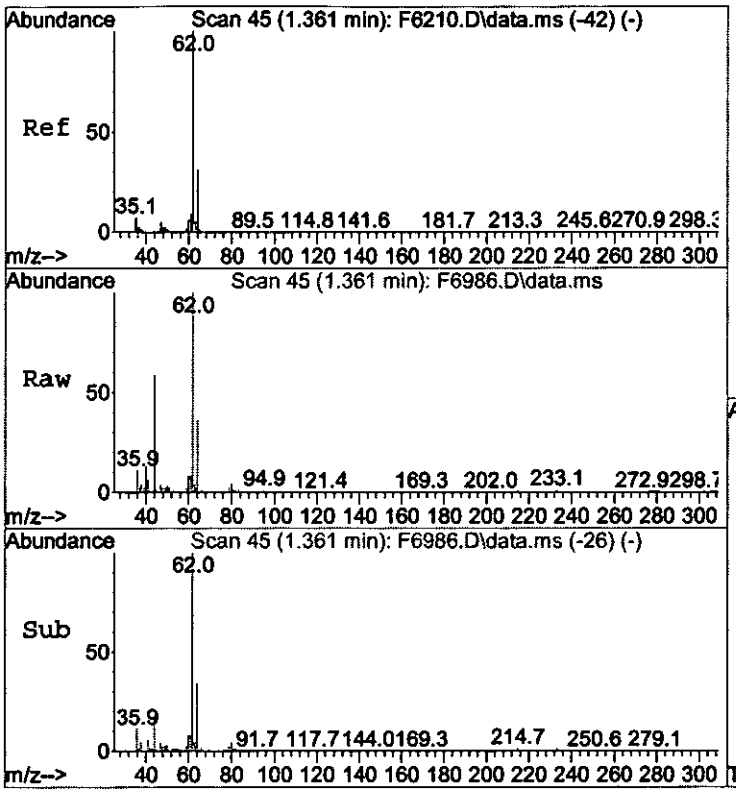
FD
4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-012|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6986.D Vial: 36
Acq On : 28 Mar 2014 6:25 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 06:38:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

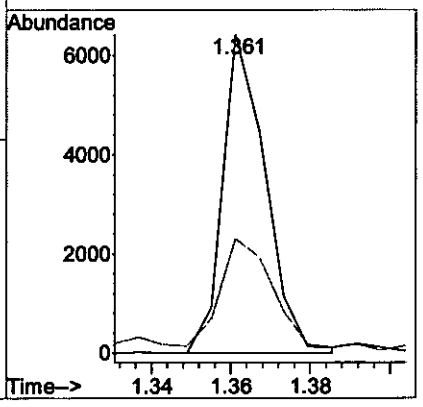


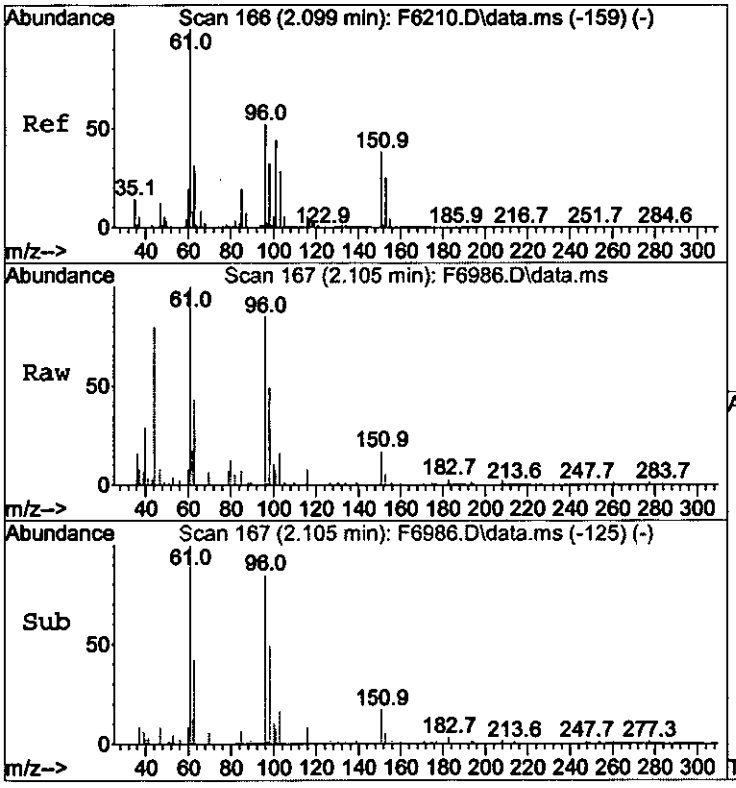


#4
Vinyl Chloride
Concen: 0.47 ug/L
RT: 1.361 min Scan# 45
Delta R.T. -0.000 min
Lab File: F6986.D
Acq: 28 Mar 2014 6:25 am

Tgt Ion: 62 Resp: 4816

Ion	Ratio	Lower	Upper
62	100		
64	35.9	12.0	52.0

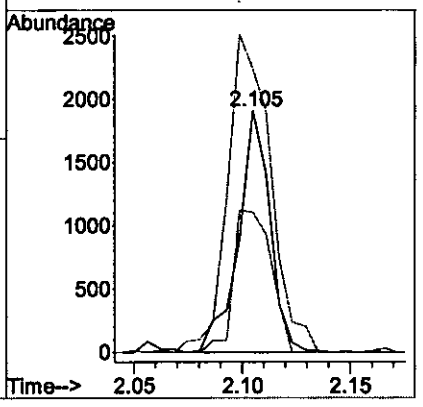


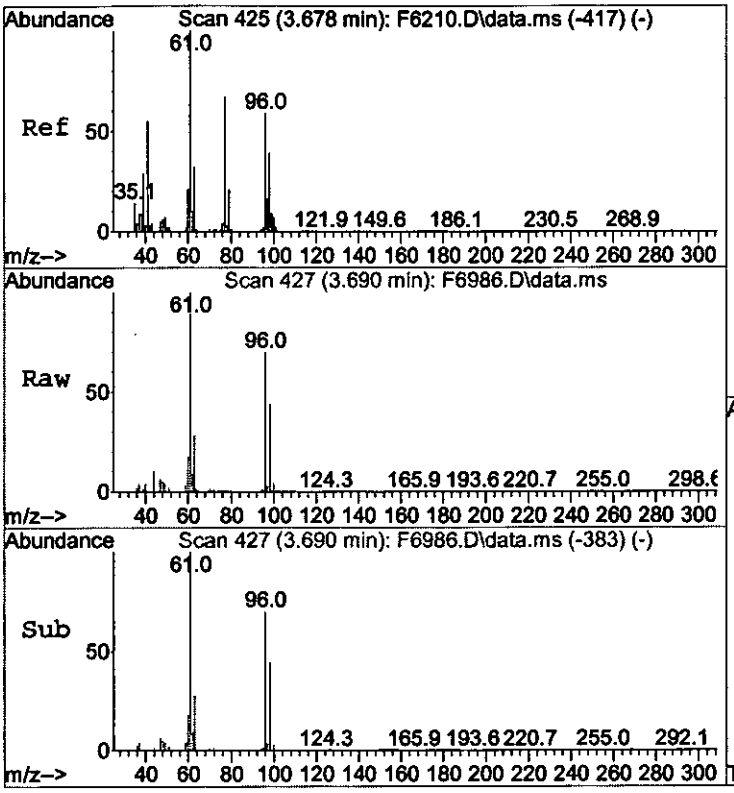


#13
1,1-Diclethene
Concen: 0.32 ug/L
RT: 2.105 min Scan# 167
Delta R.T. 0.006 min
Lab File: F6986.D
Acq: 28 Mar 2014 6:25 am

Tgt Ion: 96 Resp: 1944

Ion	Ratio	Lower	Upper
96	100		
98	57.9	47.5	87.5
61	117.5	149.6	189.6#

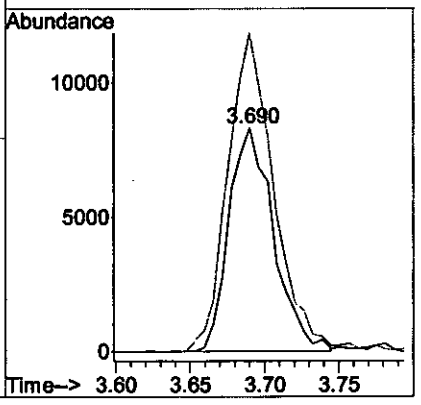


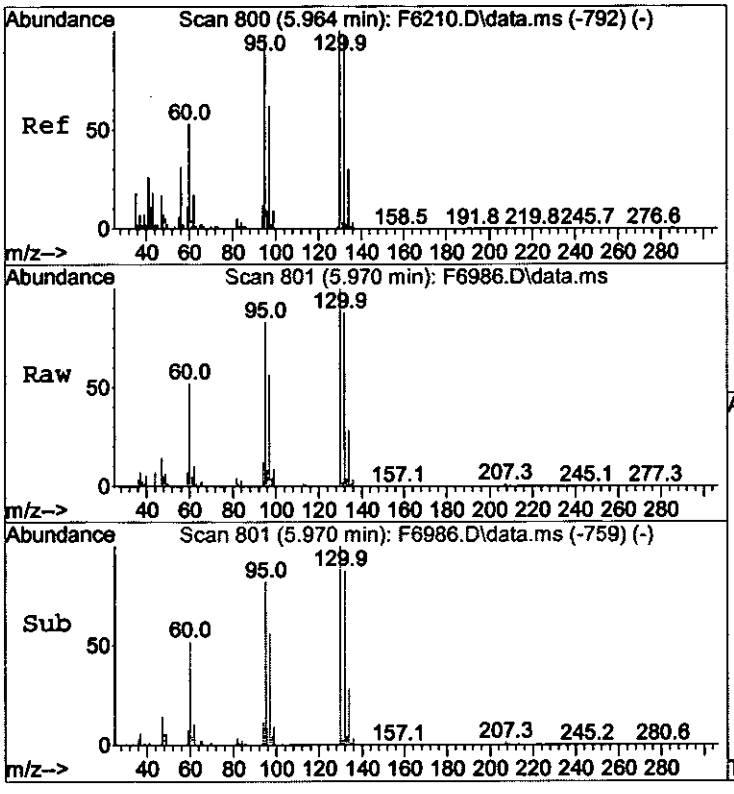


#34
cis-1,2-Dichloroethene
Concen: 1.98 ug/L
RT: 3.690 min Scan# 427
Delta R.T. 0.012 min
Lab File: F6986.D
Acq: 28 Mar 2014 6:25 am

Tgt Ion: 96 Resp: 17285

Ion	Ratio	Lower	Upper
96	100		
61	142.2	128.3	168.3

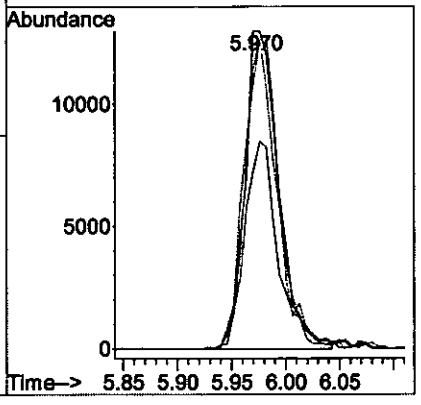


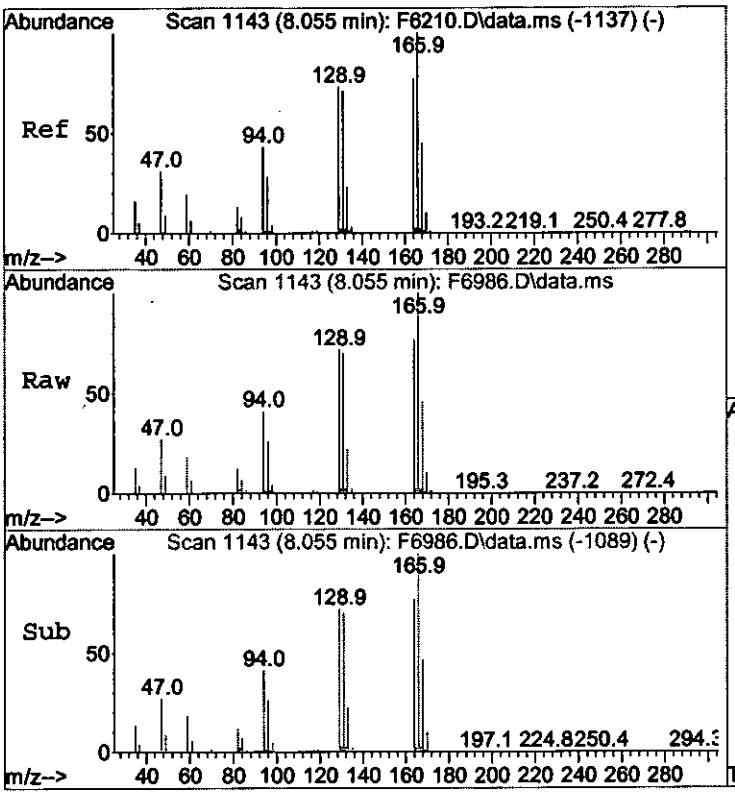


#54
Trichloroethene
Concen: 3.26 ug/L
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: F6986.D
Acq: 28 Mar 2014 6:25 am

Tgt Ion:130 Resp: 27994

Ion	Ratio	Lower	Upper
130	100		
132	88.0	74.1	114.1
95	83.4	76.9	116.9
97	56.0	43.7	83.7

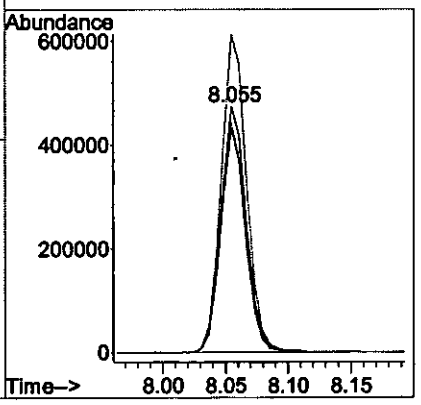




#72
Tetrachloroethene
Concen: 93.95 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. -0.000 min
Lab File: F6986.D
Acq: 28 Mar 2014 6:25 am

Tgt Ion:164 Resp: 666272

Ion	Ratio	Lower	Upper
164	100		
166	129.5	106.8	146.8
129	93.4	69.6	109.6
131	90.9	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1620
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 06:55
Sample Name:	IJ-5	**Units:**	µg/L
Lab Code:	R1402018-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6987.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**0.32**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/28/14 06:55	
Dibromofluoromethane	97	89-119	3/28/14 06:55	
Toluene-d8	99	87-121	3/28/14 06:55	

Quantitation Report (Not Reviewed)

Sample : R1402018-013|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6987.D Vial: 37
Acq On : 28 Mar 2014 6:55 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 07:08:44 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.416	168	866515	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.617	114	1259437	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1206302	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	657898	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.330	113	398279	48.45	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.90%			
48) surr1,1,2-dichloroetha...	4.861	65	429367	49.65	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.30%			
65) SURR3,Toluene-d8	7.433	98	1456760	49.42	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.84%			
70) SURR2,BFB	9.878	95	609357	50.33	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.66%			
Target Compounds						Qvalue
15) Acetone	~~2.129~~	~~43~~	~~846~~	~~0.37~~	~~ug/L #~~	~~57~~
16) 2-Propanol	2.196	45	~~430~~	1.34	ug/L	72
20) Allyl Chloride	~~2.282~~	~~76~~	~~1187~~	~~0.31~~	~~ug/L #~~	~~1~~
72) Tetrachloroethene	8.067	164	2305	0.32	ug/L	92
89) Cyclohexanone	~~9.878~~	~~55~~	~~1478~~	~~1.75~~	~~ug/L #~~	~~13~~
119) 2,4,5-Trichlorotoluene	12.938	159	2070	0.41	ug/L	84
120) 2,3,6-Trichlorotoluene	~~12.999~~	~~159~~	~~2141~~	~~0.45~~	~~ug/L~~	~~94~~

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

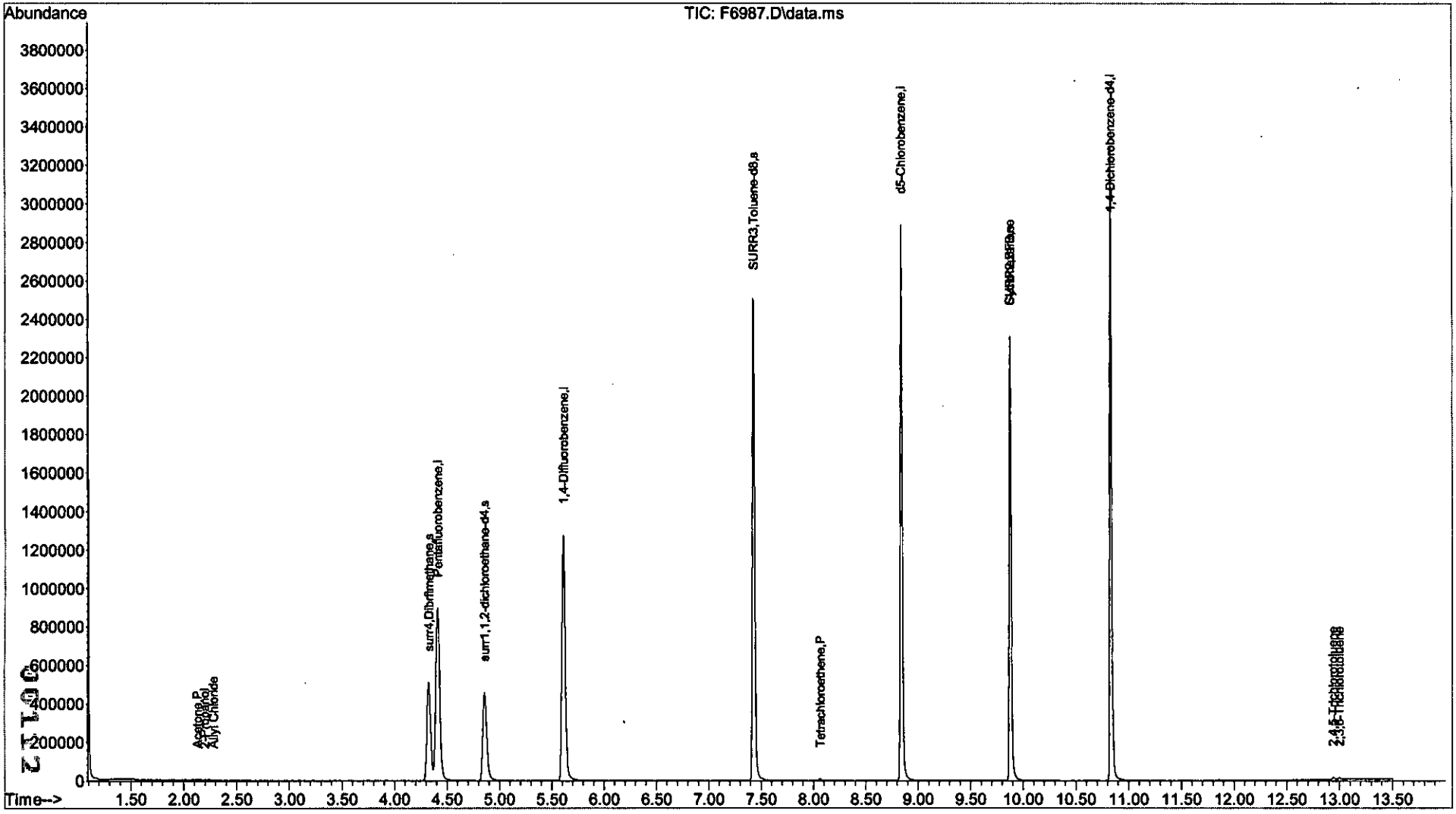
all NT's noted

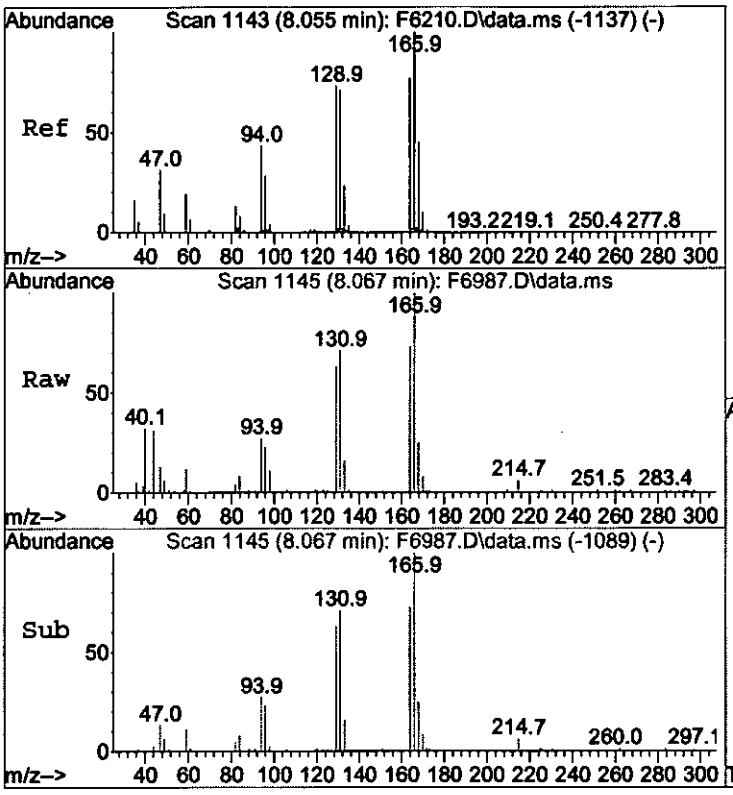
FD
4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-013|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6987.D Vial: 37
Acq On : 28 Mar 2014 6:55 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 07:08:44 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

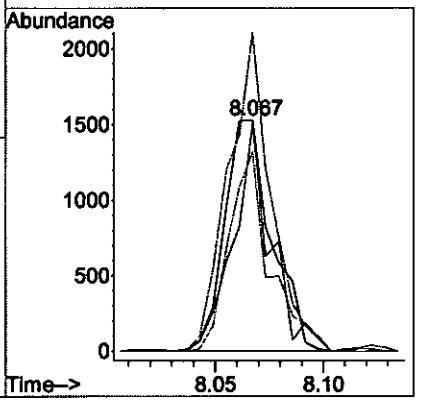




#72
Tetrachloroethene
Concen: 0.32 ug/L
RT: 8.067 min Scan# 1145
Delta R.T. 0.012 min
Lab File: F6987.D
Acq: 28 Mar 2014 6:55 am

Tgt Ion:164 Resp: 2305

Ion	Ratio	Lower	Upper
164	100		
166	137.8	106.8	146.8
129	86.4	69.6	109.6
131	98.5	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1402018
Date Collected: 3/19/14 1655
Date Received: 3/22/14
Date Analyzed: 3/25/14 15:16

Sample Name: MP-6S
Lab Code: R1402018-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa12\Data\032514\J4193.D\

Analysis Lot: 385241
Instrument Name: R-MS-12
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**470**		13	0.75	
79-01-6	Trichloroethene (TCE)	**2.7**	J	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**1.4**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/25/14 15:16	
Dibromofluoromethane	101	89-119	3/25/14 15:16	
Toluene-d8	100	87-121	3/25/14 15:16	

Quantitation Report (Not Reviewed)

Sample : R1402018-014|2.5
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4193.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 3:16 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 15:31:51 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	821268	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1271342	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1170179	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	567222	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	370905	50.40	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.80%				
48) surr1,1,2-dichloroetha...	4.658	65	439221	52.39	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.78%				
65) SURR3,Toluene-d8	7.322	98	1549071	50.09	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.18%				
70) SURR2,BFB	9.791	95	583852	50.60	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.20%				
Target Compounds							Qvalue
15) Acetone	2.054	43	1996	1.22	ppb		79
~~16) 2-Propanol~~	~~2.073~~	~~45~~	~~177~~	~~0.67~~	~~ppb~~	~~#~~	~~1~~
~~19) Acetonitrile~~	~~2.213~~	~~40~~	~~635~~	~~2.38~~	~~ppb~~	~~#~~	~~1~~
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~4009~~	~~0.98~~	~~ppb~~	~~#~~	~~1~~
34) cis-1,2-Dichloroethene	3.554	96	4642	0.56	ppb		97
~~52) n-Heptane~~	~~5.334~~	~~43~~	~~2135~~	~~0.27~~	~~ppb~~	~~#~~	~~32~~
54) Trichloroethene	5.822	130 ~~8207~~	~~4061~~ 1.08	~~0.54~~	ppb m(+)		90
72) Tetrachloroethene	7.962	164	1133191	187.47	ppb		99
~~90) Cyclohexanone~~	~~9.791~~	~~55~~	~~1501~~	~~3.30~~	~~ppb~~	~~#~~	~~14~~
119) 2,4,5-Trichlorotolene	12.851	159	1563	0.35	ppb	#	88 M
120) 2,3,6-Trichlorotoluene	12.912	159	1586	0.38	ppb		93 M

40) chloroform - NT/SP

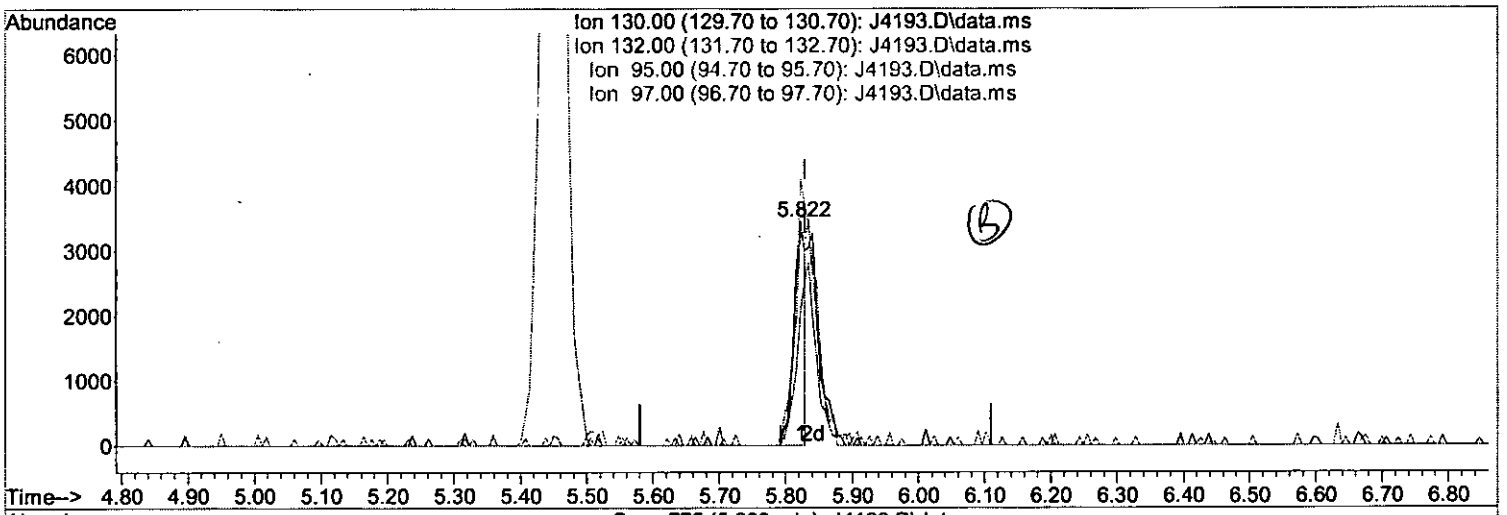
(#) = qualifier out of range (m) = manual integration (+) = signals summed

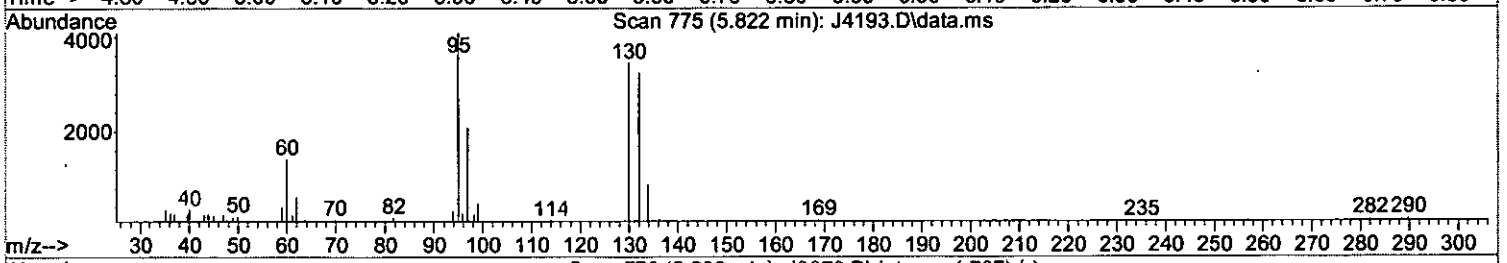
KA 3/25/14

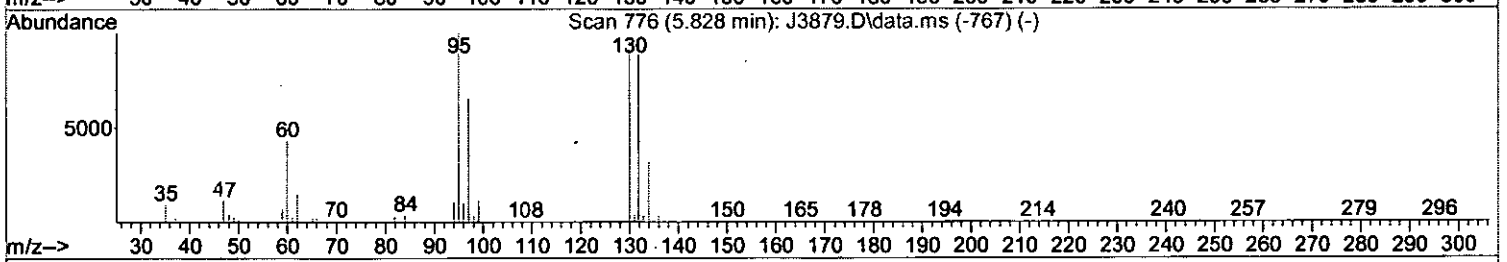
Quantitation Report (Qedit)

Sample : R1402018-014|2.5
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4193.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 3:16 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 15:31:51 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4193.D\data.ms

(54) Trichloroethene (P)

5.822min (-0.006) 0.54 ppb

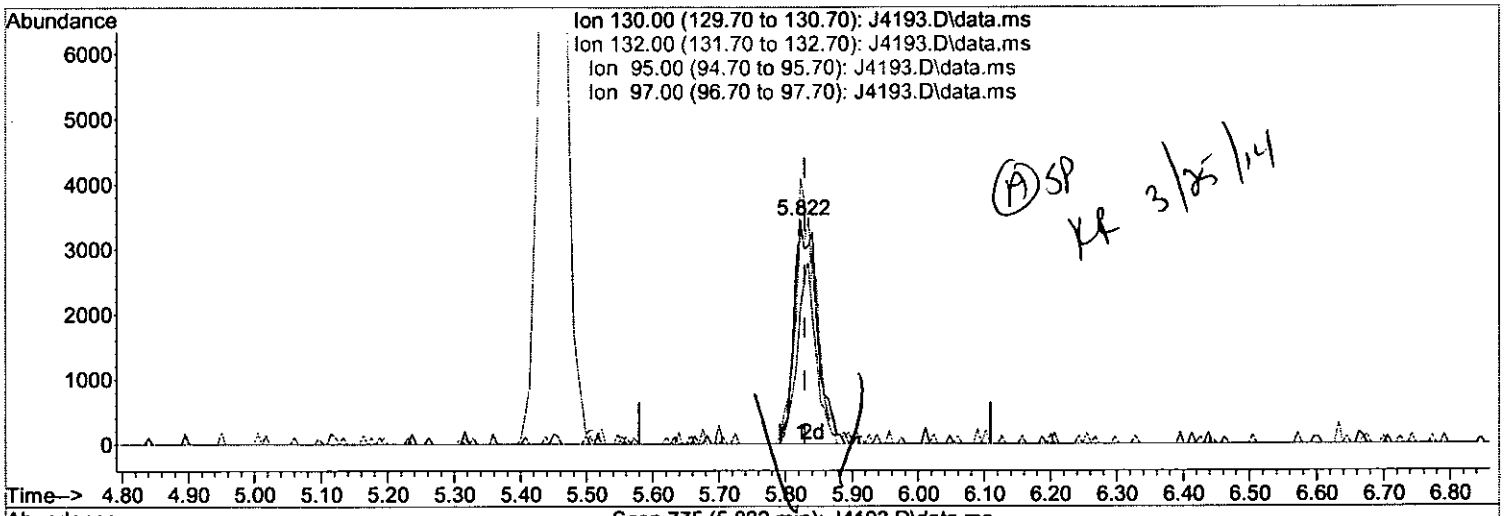
response 4061

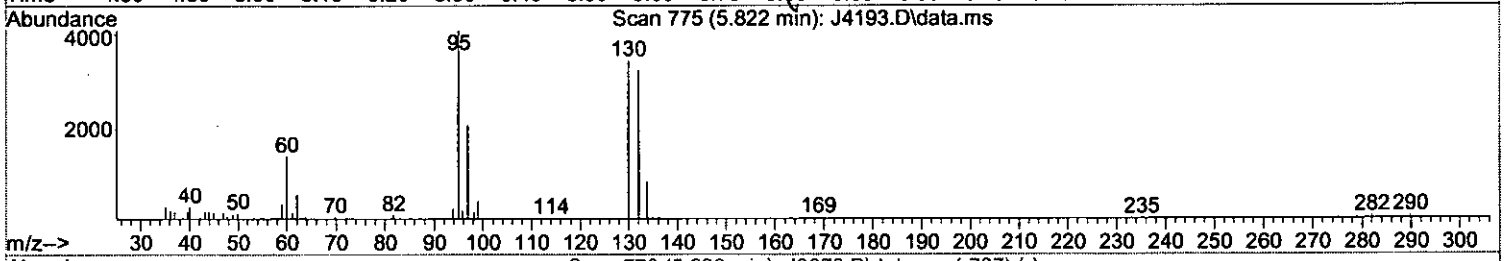
Ion	Exp%	Act%
130.00	100	100
132.00	98.30	94.11
95.00	103.00	118.51
97.00	67.30	60.34

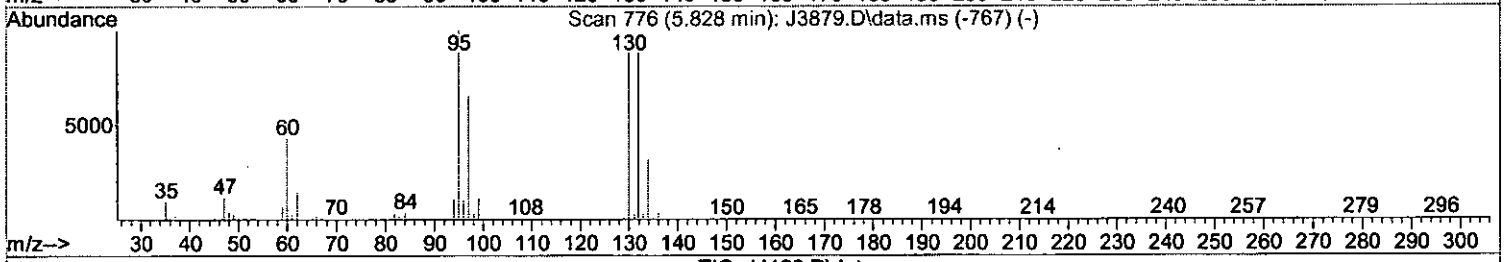
Quantitation Report (Qedit)

Sample : R1402018-014|2.5
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4193.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 3:16 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 15:31:51 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4193.D\data.ms

(54) Trichloroethene (P)

5.822min (-0.006) 1.08 ppb m

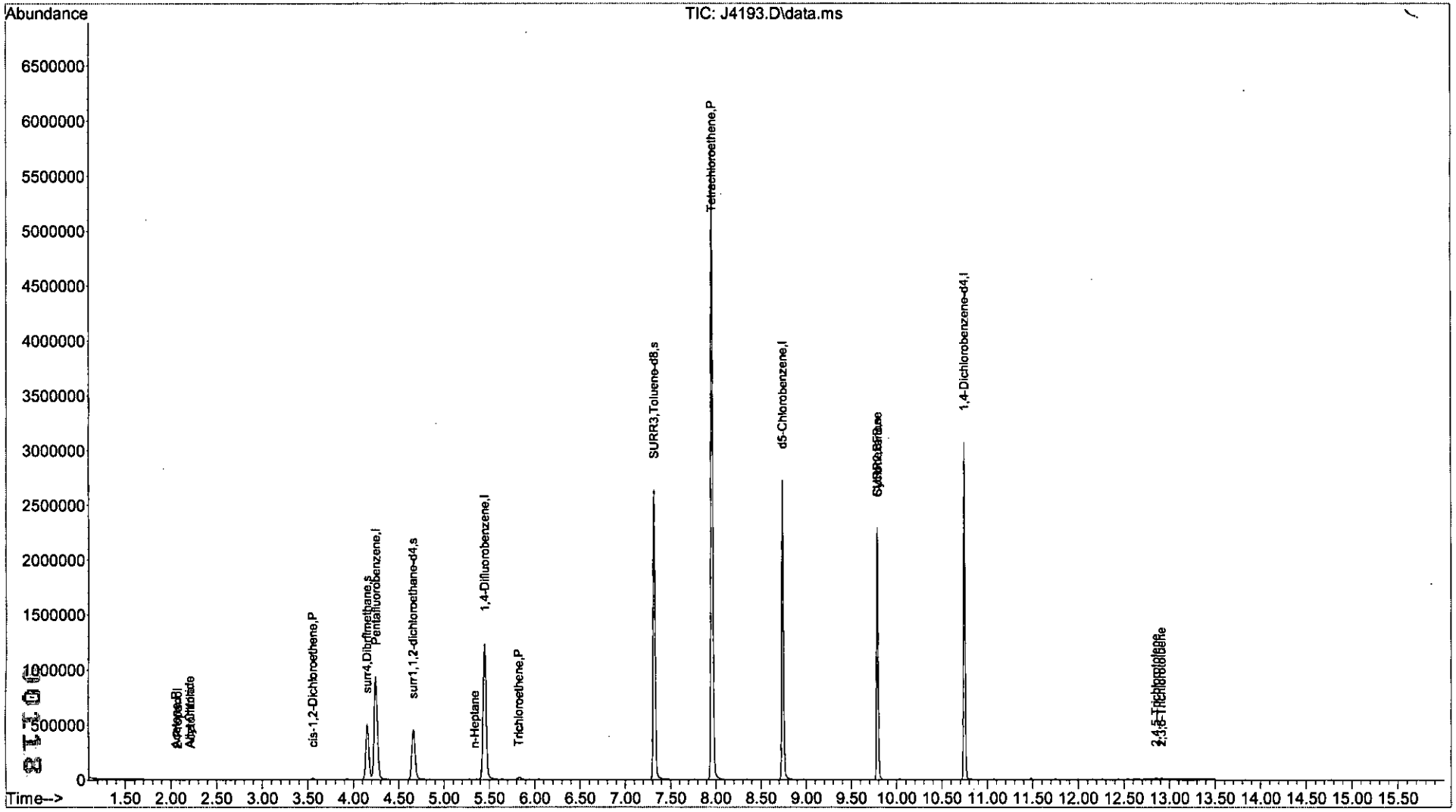
response 8207

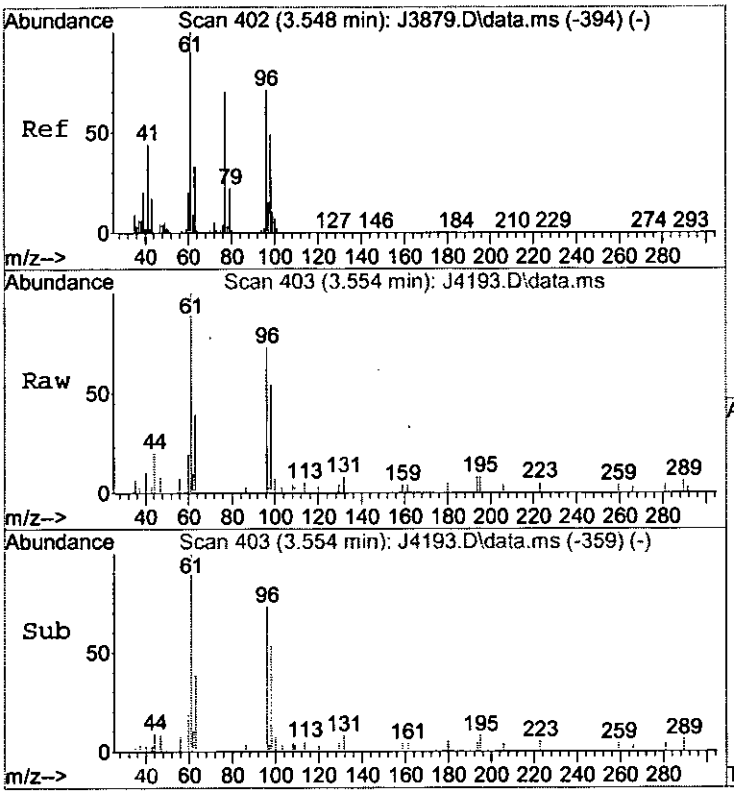
Ion	Exp%	Act%
130.00	100	100
132.00	98.30	94.11
95.00	103.00	118.51
97.00	67.30	60.34

Quantitation Report (Not Reviewed)

Sample : R1402018-014|2.5
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4193.D
Misc : VERINA 7979 T4
Acq On : 25 Mar 2014 3:16 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 15:31:51 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

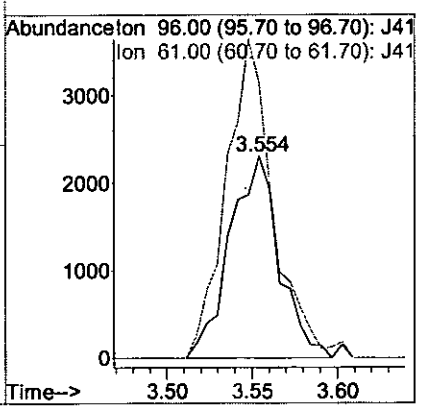


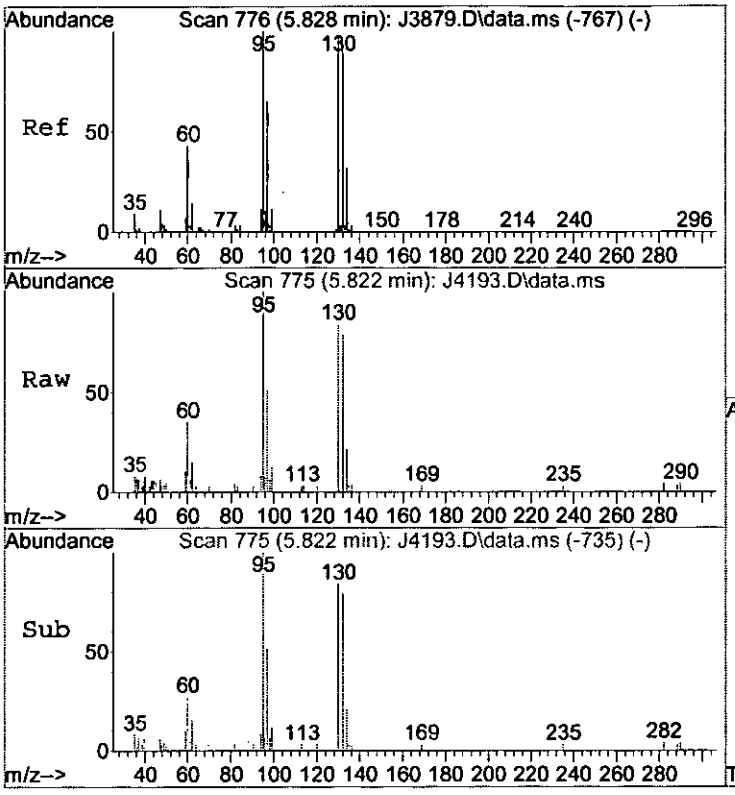


#34
cis-1,2-Dichloroethene
Concen: 0.56 ppb
RT: 3.554 min Scan# 403
Delta R.T. 0.012 min
Lab File: J4193.D
Acq: 25 Mar 2014 3:16 pm

Tgt Ion: 96 Resp: 4642

Ion	Ratio	Lower	Upper
96	100		
61	136.5	120.1	160.1

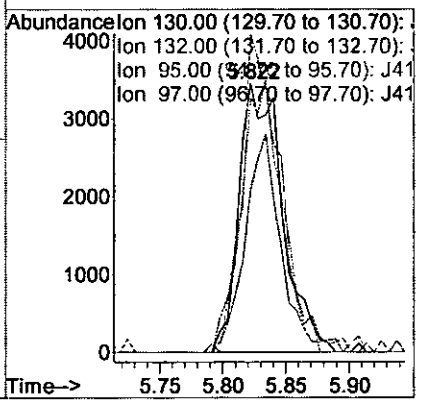


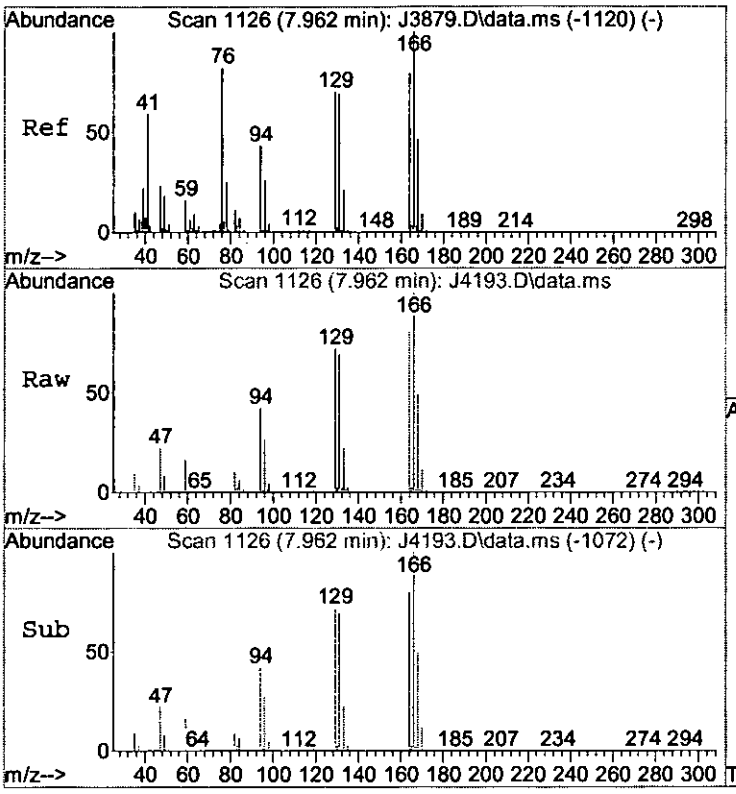


#54
Trichloroethene
Concen: 1.08 ppb m
RT: 5.822 min Scan# 775
Delta R.T. -0.006 min
Lab File: J4193.D
Acq: 25 Mar 2014 3:16 pm

Tgt Ion:130 Resp: 8207

Ion	Ratio	Lower	Upper
130	100		
132	94.1	78.3	118.3
95	118.5	83.0	123.0
97	60.3	47.3	87.3

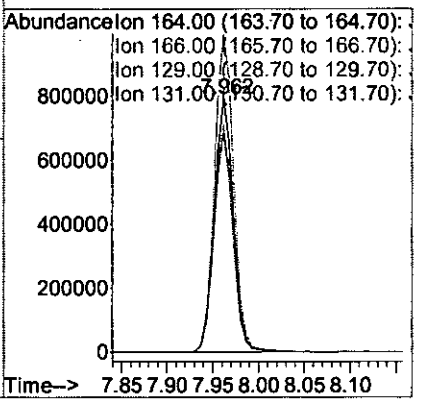




#72
Tetrachloroethene
Concen: 187.47 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.000 min
Lab File: J4193.D
Acq: 25 Mar 2014 3:16 pm

Tgt Ion:164 Resp: 1133191

Ion	Ratio	Lower	Upper
164	100		
166	125.7	105.9	145.9
129	90.0	68.6	108.6
131	86.4	66.6	106.6



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 07:26
Sample Name:	DUP-031914	**Units:**	µg/L
Lab Code:	R1402018-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6988.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.8	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**3.1**	J	25	2.9	
127-18-4	Tetrachloroethene (PCE)	**940**		25	1.5	
79-01-6	Trichloroethene (TCE)	**33**		25	1.1	
75-01-4	Vinyl Chloride	**5.1**	J	25	1.6	
156-59-2	cis-1,2-Dichloroethene	**20**	J	25	1.5	
156-60-5	trans-1,2-Dichloroethene	25	U	25	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/28/14 07:26	
Dibromofluoromethane	97	89-119	3/28/14 07:26	
Toluene-d8	98	87-121	3/28/14 07:26	

Quantitation Report (Not Reviewed)

Sample : R1402018-015|5.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6988.D Vial: 38
Acq On : 28 Mar 2014 7:26 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 07:39:13 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	873232	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.616	114	1297364	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1221928	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	664822	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	409104	48.31	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.62%				
48) surr1,1,2-dichloroetha...	4.861	65	438406	49.21	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.42%				
65) SURR3,Toluene-d8	7.433	98	1481818	48.81	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.62%				
70) SURR2,BFB	9.878	95	610712	48.97	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.94%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.361	62	10502	1.01	ug/L		93
13) 1,1-Diclethene	2.099	96	3694	0.61	ug/L	#	90
15) Acetone	~~2.129~~	~~43~~	~~1067~~	~~0.46~~	~~ug/L~~		~~82~~
19) Acetonitrile	2.355	40	536	1.89	ug/L	#	1
20) Allyl Chloride	~~2.276~~	~~76~~	~~1098~~	~~0.28~~	~~ug/L~~	#	~~1~~
34) cis-1,2-Dichloroethene	3.690	96	35546	4.02	ug/L		96
54) Trichloroethene	5.970	130	58615	6.67	ug/L		88
72) Tetrachloroethene	8.055	164	1354281	187.95	ug/L		99
89) Cyclohexanone	~~9.878~~	~~55~~	~~1500~~	~~1.05~~	~~ug/L~~	#	~~13~~
112) Trielution Dichlorotol...	11.865	125	3232	0.23	ug/L	#	73
119) 2,4,5-Trichlorotoluene	~~12.944~~	~~159~~	~~2368~~	~~0.47~~	~~ug/L~~	#	~~71~~

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

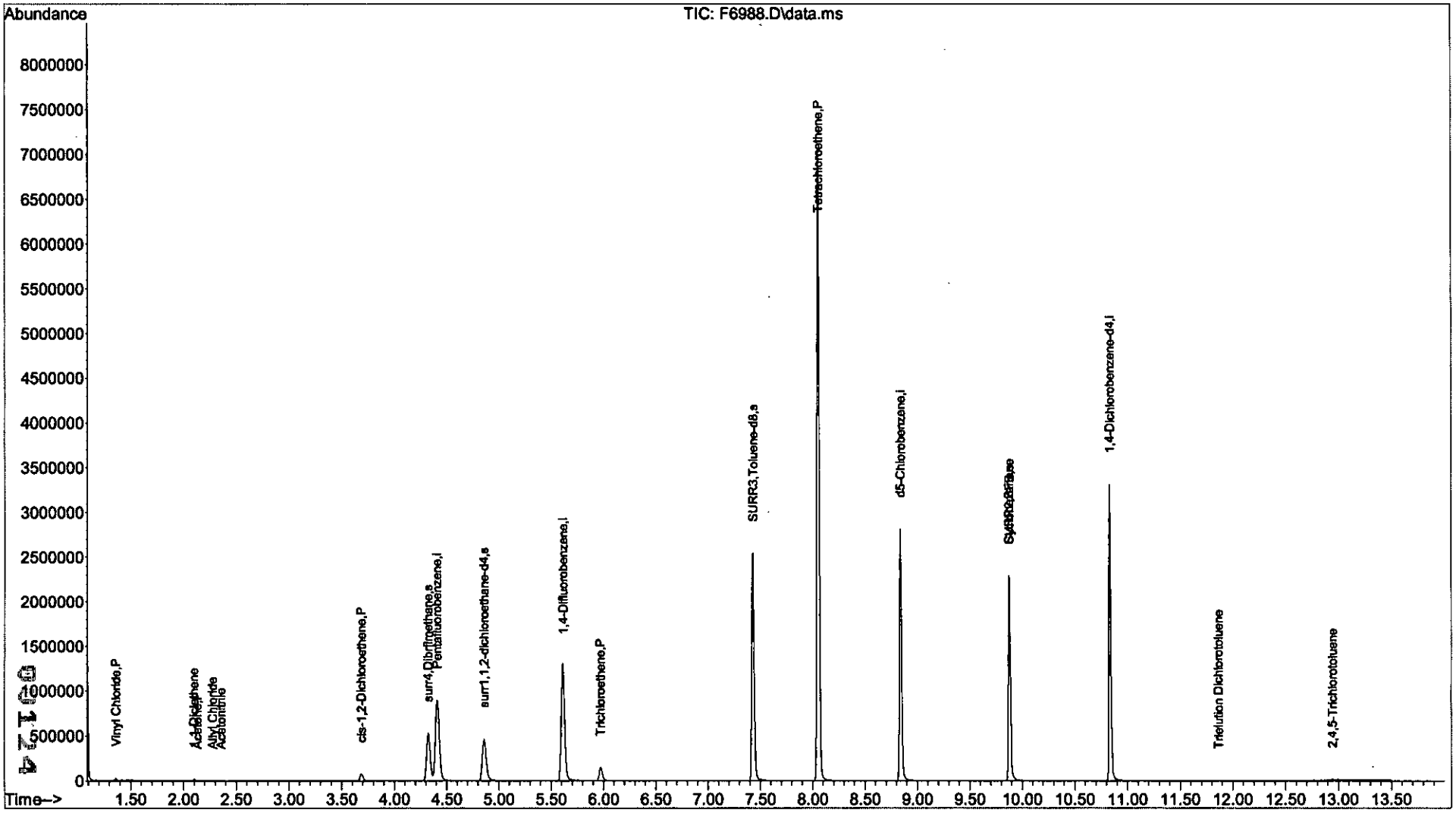
ALL NTBs not evaluated

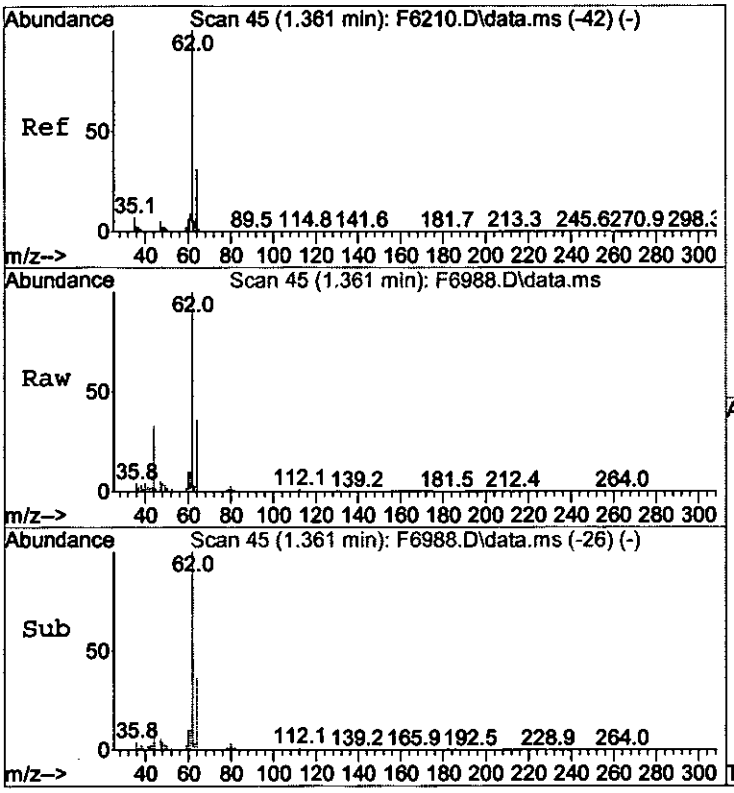
FW
4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-015|5.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6988.D Vial: 38
Acq On : 28 Mar 2014 7:26 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 07:39:13 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

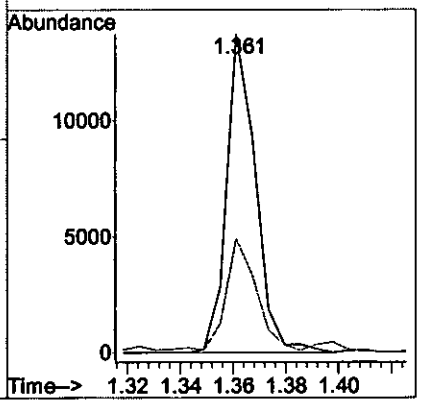


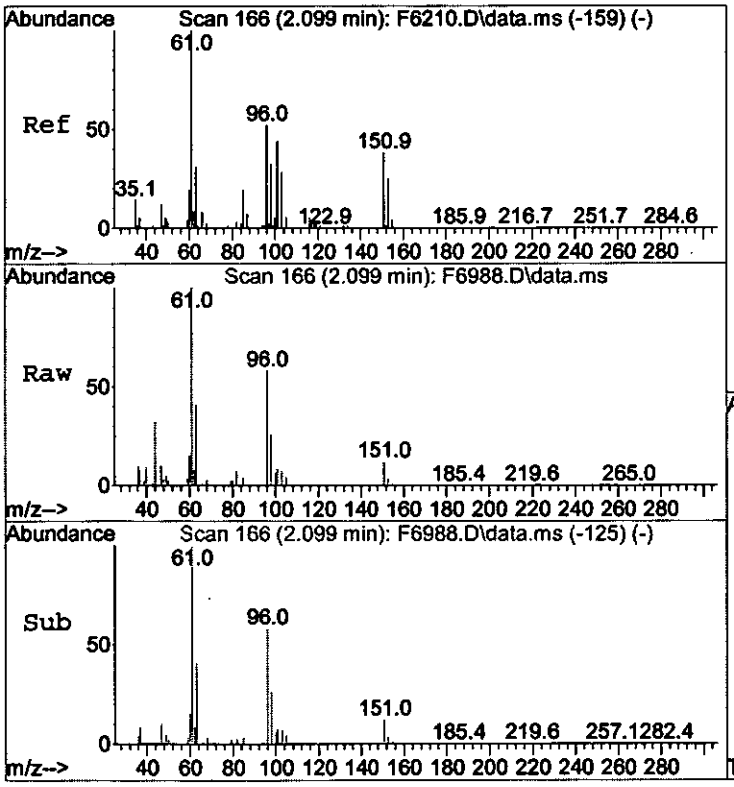


#4
Vinyl Chloride
Concen: 1.01 ug/L
RT: 1.361 min Scan# 45
Delta R.T. -0.000 min
Lab File: F6988.D
Acq: 28 Mar 2014 7:26 am

Tgt Ion: 62 Resp: 10502

Ion	Ratio	Lower	Upper
62	100		
64	35.8	12.0	52.0

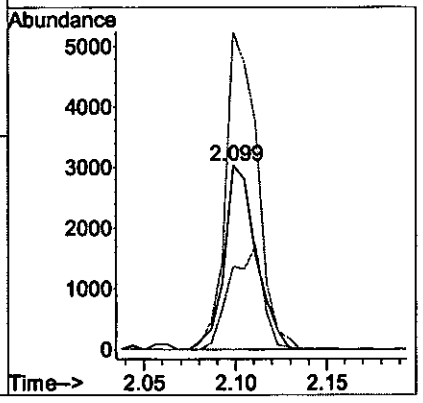


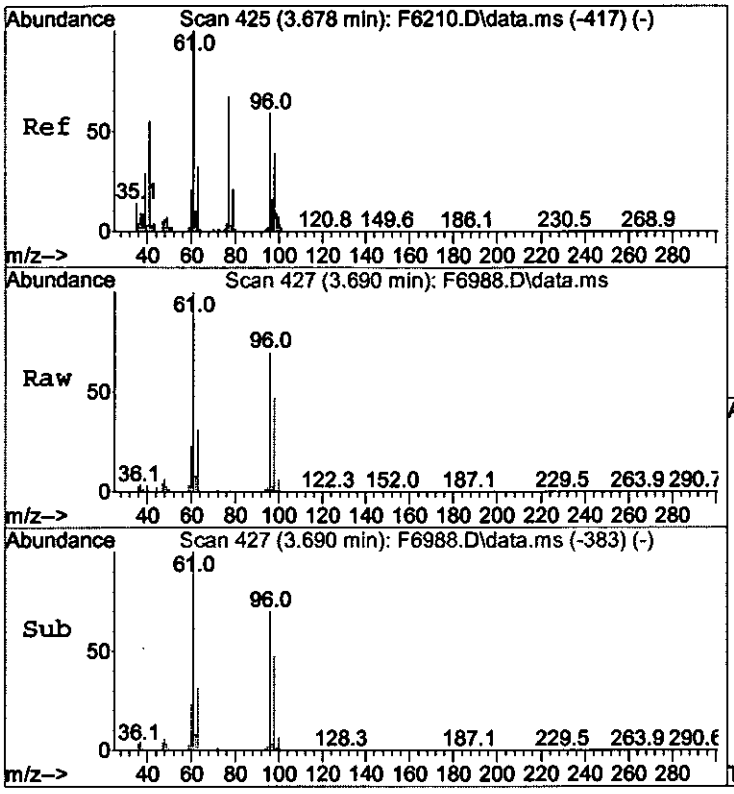


#13
1,1-Diclethene
Concen: 0.61 ug/L
RT: 2.099 min Scan# 166
Delta R.T. -0.000 min
Lab File: F6988.D
Acq: 28 Mar 2014 7:26 am

Tgt Ion: 96 Resp: 3694

Ion	Ratio	Lower	Upper
96	100		
98	45.2	47.5	87.5#
61	172.8	149.6	189.6

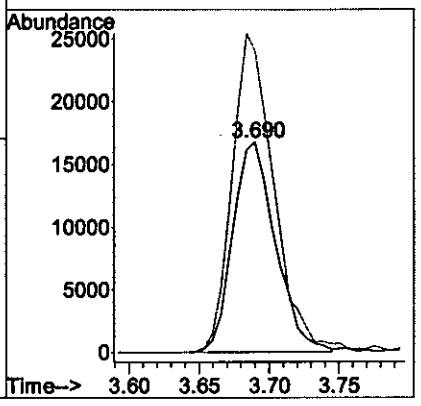


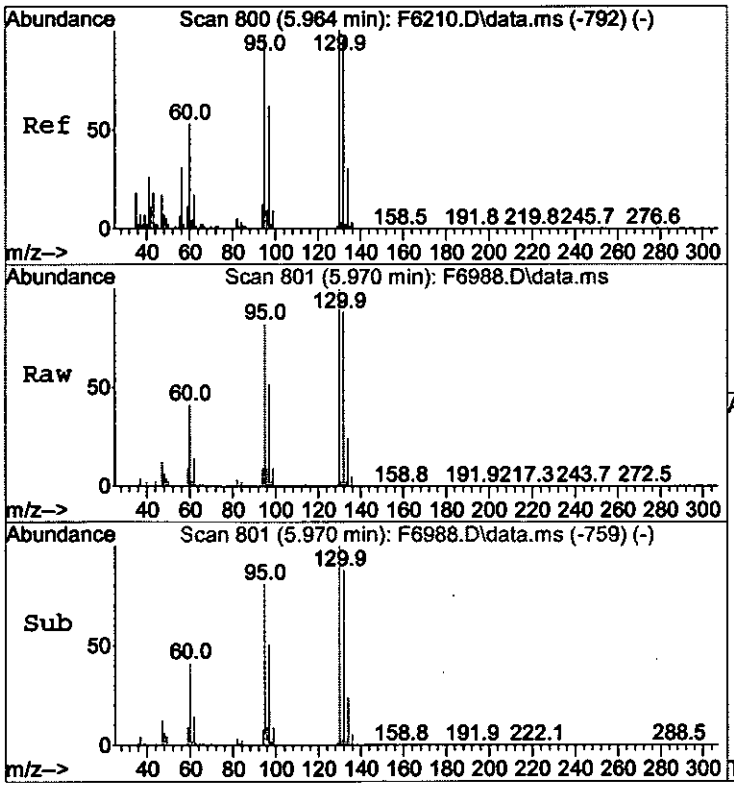


#34
cis-1,2-Dichloroethene
Concen: 4.02 ug/L
RT: 3.690 min Scan# 427
Delta R.T. 0.012 min
Lab File: F6988.D
Acq: 28 Mar 2014 7:26 am

Tgt Ion: 96 Resp: 35546

Ion	Ratio	Lower	Upper
96	100		
61	143.3	128.3	168.3

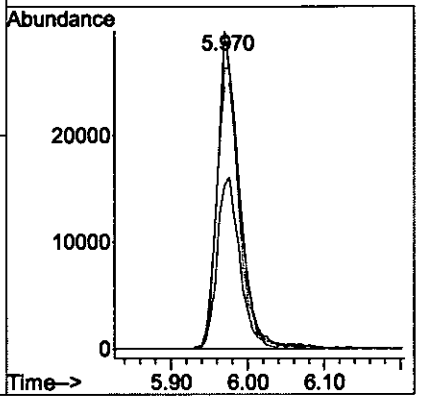


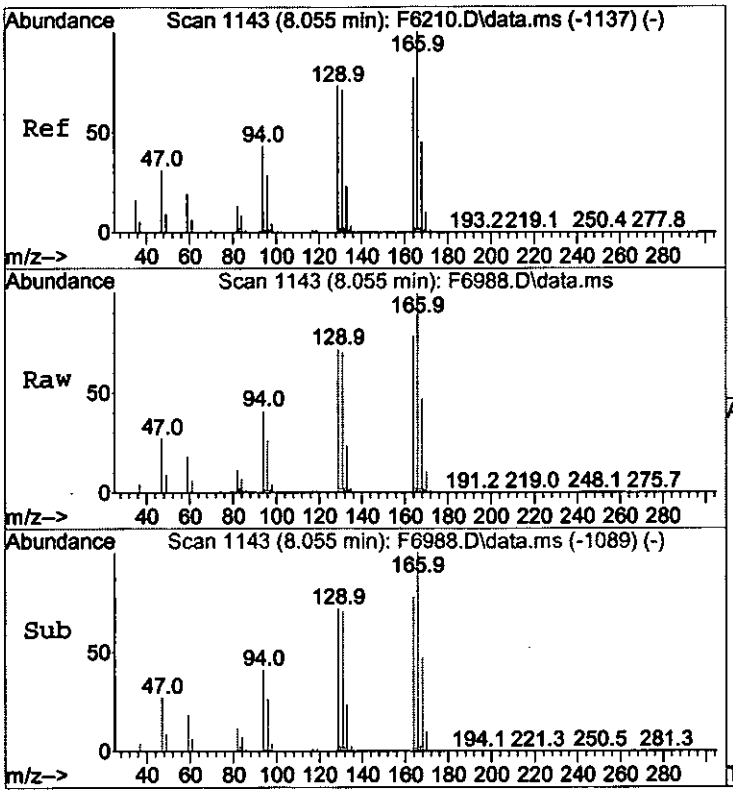


#54
Trichloroethene
Concen: 6.67 ug/L
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: F6988.D
Acq: 28 Mar 2014 7:26 am

Tgt Ion:130 Resp: 58615

Ion	Ratio	Lower	Upper
130	100		
132	88.3	74.1	114.1
95	82.2	76.9	116.9
97	51.4	43.7	83.7

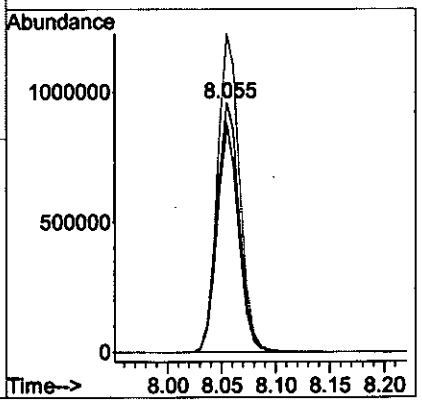




#72
Tetrachloroethene
Concen: 187.95 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. -0.000 min
Lab File: F6988.D
Acq: 28 Mar 2014 7:26 am

Tgt Ion:164 Resp: 1354281

Ion	Ratio	Lower	Upper
164	100		
166	127.5	106.8	146.8
129	92.0	69.6	109.6
131	89.5	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1130
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 07:56
Sample Name:	MW-28	**Units:**	µg/L
Lab Code:	R1402018-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6989.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**0.93**	J	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**43**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**50**		5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**55**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**2.4**	J	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 07:56	
Dibromofluoromethane	99	89-119	3/28/14 07:56	
Toluene-d8	99	87-121	3/28/14 07:56	

Quantitation Report (Not Reviewed)

Sample : R1402018-016|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6989.D Vial: 39
Acq On : 28 Mar 2014 7:56 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 08:09:35 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	857518	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1252193	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1205819	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	665580	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	404792	49.53	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.06%				
48) surr1,1,2-dichloroetha...	4.861	65	428312	49.81	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.62%				
65) SURR3,Toluene-d8	7.427	98	1450661	49.50	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.00%				
70) SURR2,BFB	9.878	95	599015	49.76	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.52%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.361	62	2346	0.23	ug/L		93
5) Bromomethane	~~1.562~~	~~94~~	~~792~~	~~0.42~~	~~ug/L~~		~~99~~
13) 1,1-Diclethene	2.105	96	5567	0.93	ug/L		88
15) Acetone	~~2.123~~	~~43~~	~~7422~~	~~3.27~~	~~ug/L~~		~~81~~
16) 2-Propanol	2.111	45	228	0.72	ug/L	#	1
17) Iodomethane	2.215	142	376	~~1.07~~	ug/L		98
18) Carbon Disulfide	2.276	76	~~6558~~	0.30	ug/L		96
19) Acetonitrile	2.385	~~40~~	704	2.53	ug/L	#	1
20) Allyl Chloride	~~2.276~~	~~76~~	~~6557~~	~~1.73~~	~~ug/L~~	#	~~1~~
26) trans-1,2-Dichloroethene	2.672	96	18398	2.41	ug/L		92
34) cis-1,2-Dichloroethene	3.684	96	478091	55.11	ug/L		95
54) Trichloroethene	5.970	130	421211	49.63	ug/L		98
72) Tetrachloroethene	8.055	164	308935	43.45	ug/L		98
89) Cyclohexanone	~~9.792~~	~~55~~	~~257~~	~~0.30~~	~~ug/L~~	#	~~73~~
112) Trielution Dichlorotol...	11.841	125	3192	~~0.22~~	~~ug/L~~		87
119) 2,4,5-Trichlorotoluene	12.938	159	~~2087~~	0.41	ug/L	#	69
120) 2,3,6-Trichlorotoluene	~~12.993~~	~~159~~	~~2015~~	~~0.42~~	~~ug/L~~	#	~~76~~

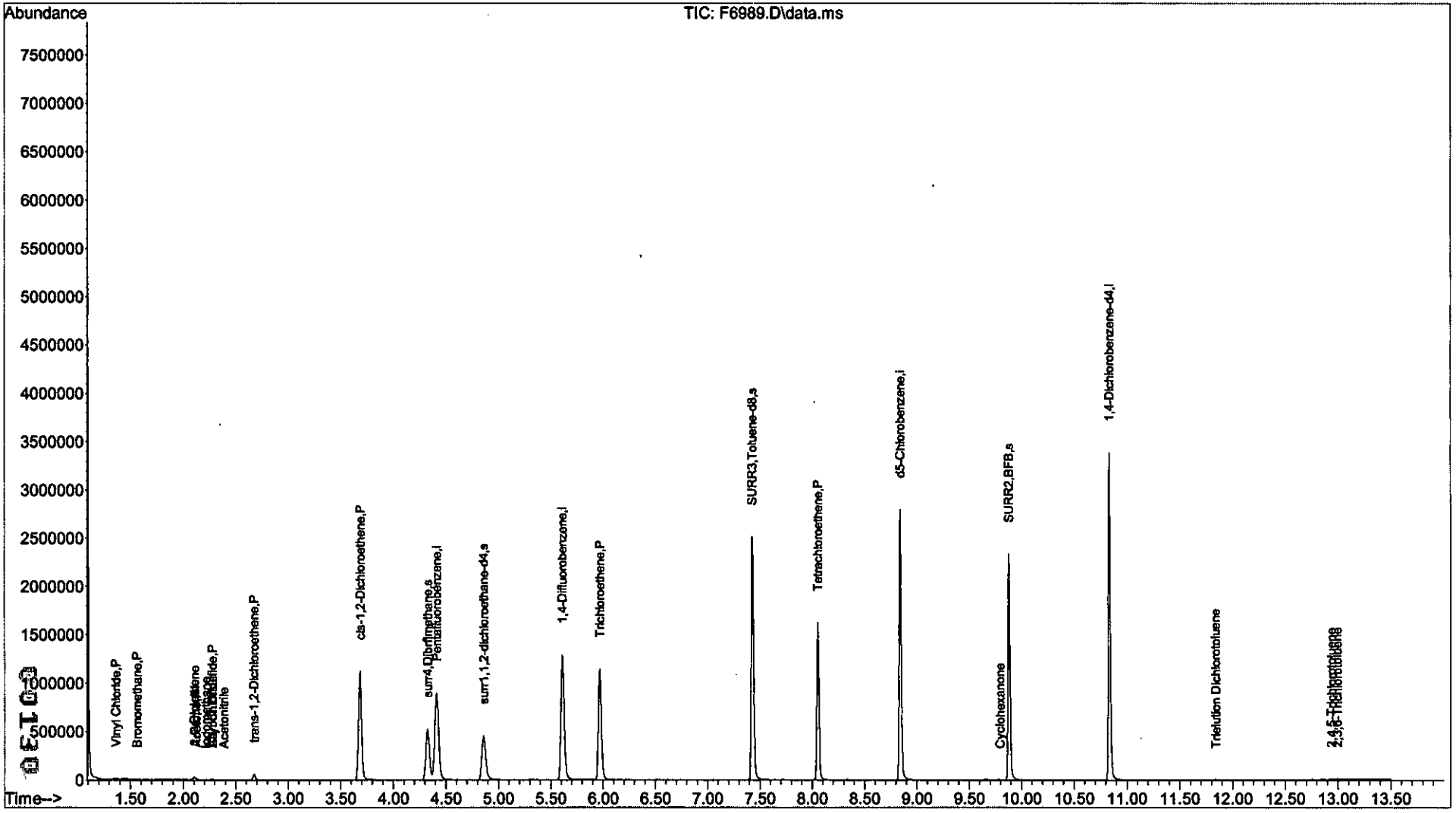
(#) = qualifier out of range (m) = manual integration (+) = signals summed

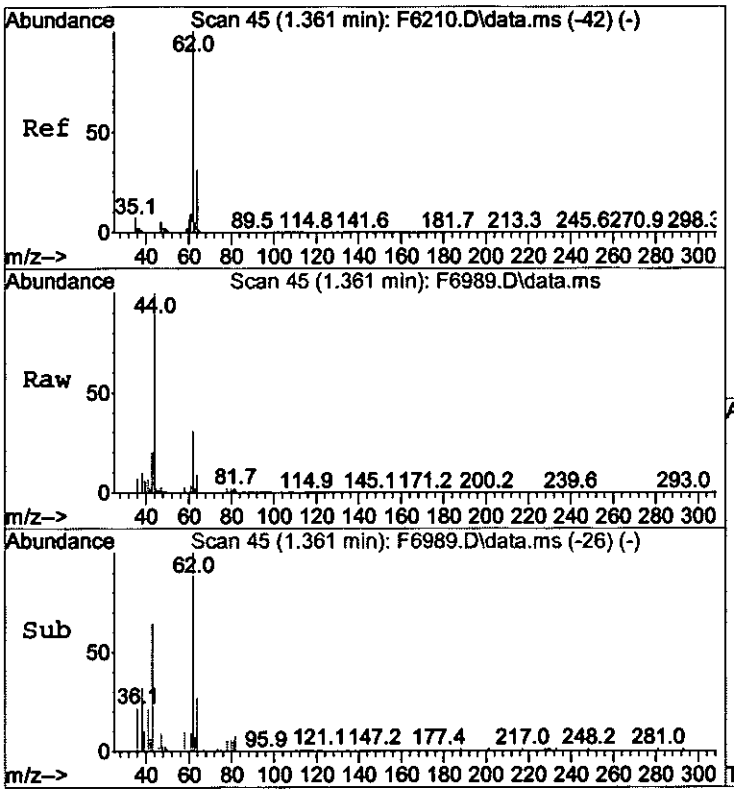
all NT's not evaluated
FJ 4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-016|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6989.D Vial: 39
Acq On : 28 Mar 2014 7:56 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 08:09:35 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

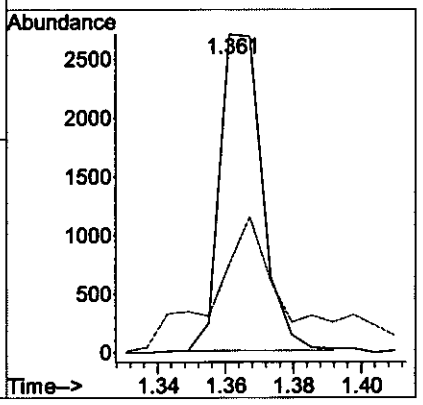


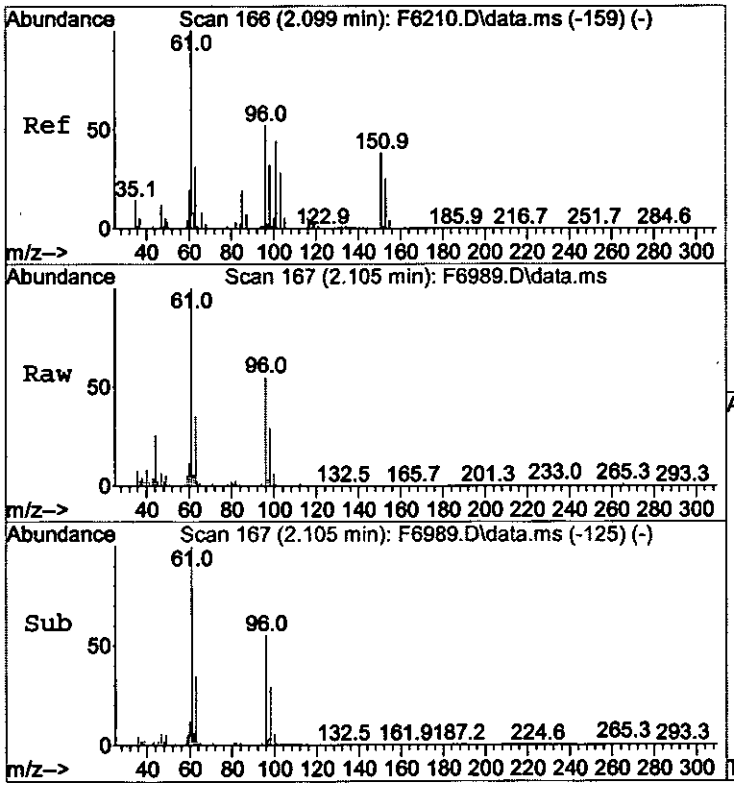


#4
Vinyl Chloride
Concen: 0.23 ug/L
RT: 1.361 min Scan# 45
Delta R.T. -0.000 min
Lab File: F6989.D
Acq: 28 Mar 2014 7:56 am

Tgt Ion: 62 Resp: 2346

Ion	Ratio	Lower	Upper
62	100		
64	27.8	12.0	52.0

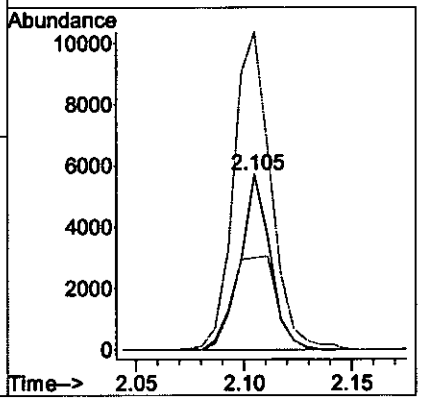


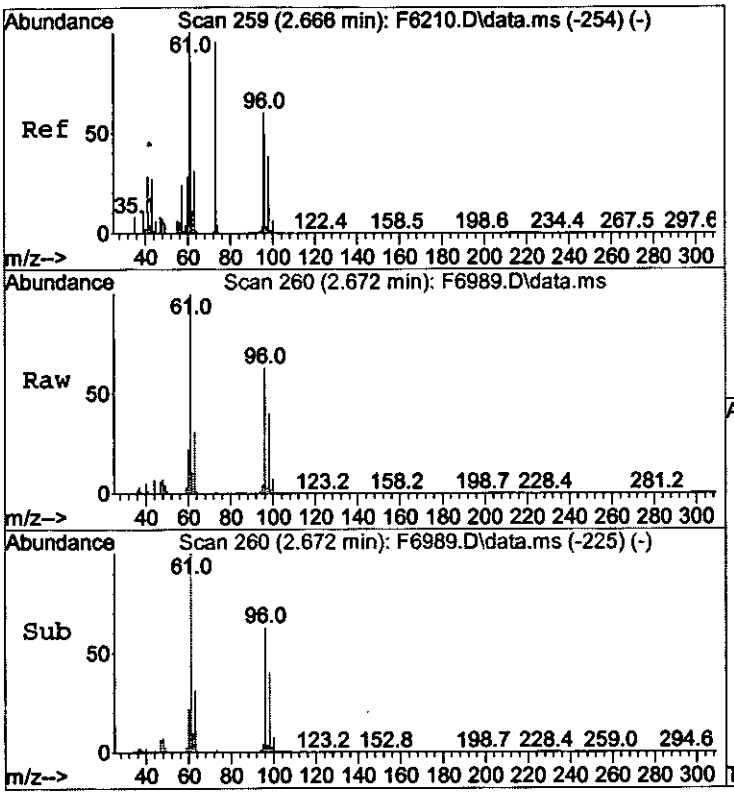


#13
1,1-Diclethene
Concen: 0.93 ug/L
RT: 2.105 min Scan# 167
Delta R.T. 0.006 min
Lab File: F6989.D
Acq: 28 Mar 2014 7:56 am

Tgt Ion: 96 Resp: 5567

Ion	Ratio	Lower	Upper
96	100		
98	52.4	47.5	87.5
61	181.6	149.6	189.6

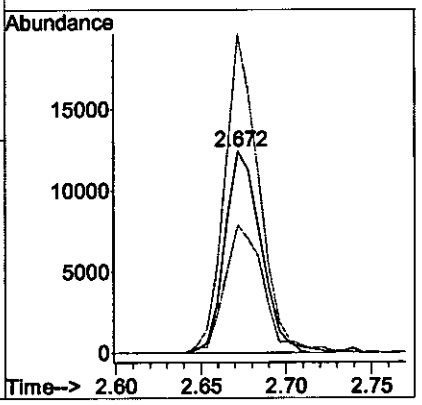


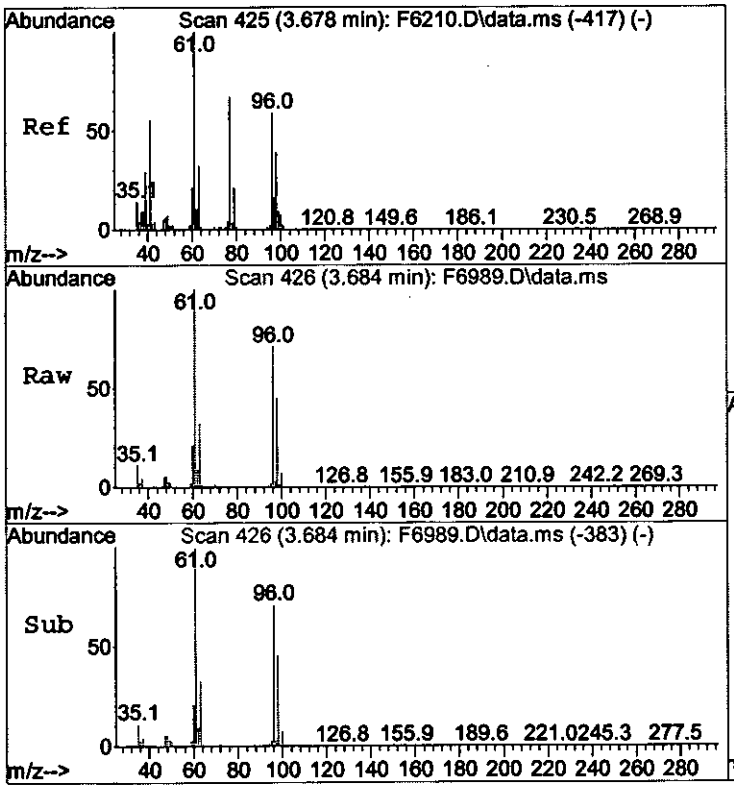


#26
trans-1,2-Dichloroethene
Concen: 2.41 ug/L
RT: 2.672 min Scan# 260
Delta R.T. 0.006 min
Lab File: F6989.D
Acq: 28 Mar 2014 7:56 am

Tgt Ion: 96 Resp: 18398

Ion	Ratio	Lower	Upper
96	100		
98	63.4	44.0	84.0
61	157.8	124.3	164.3

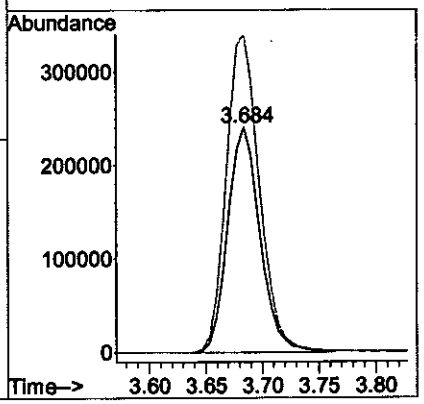


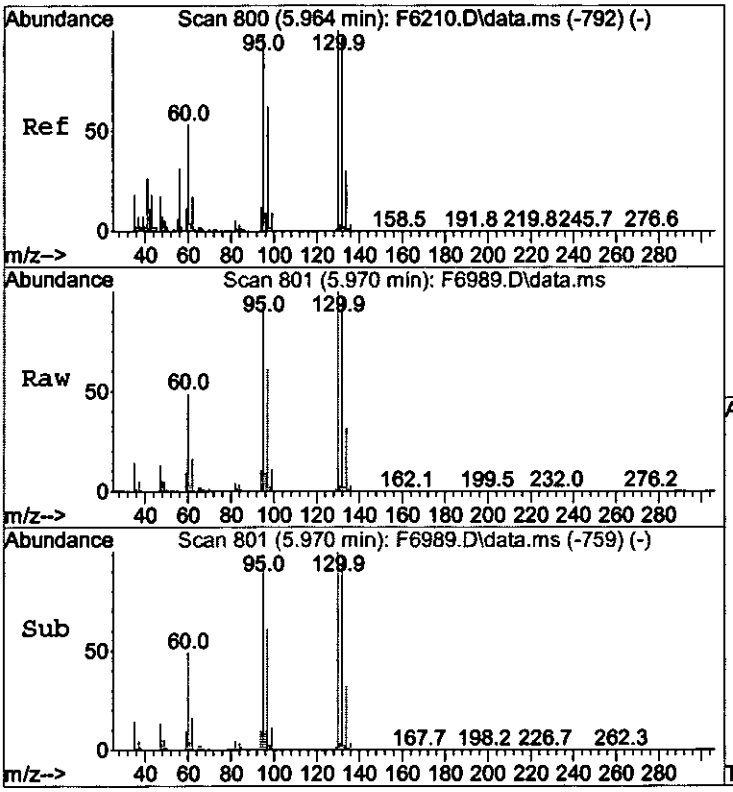


#34
cis-1,2-Dichloroethene
Concen: 55.11 ug/L
RT: 3.684 min Scan# 426
Delta R.T. 0.006 min
Lab File: F6989.D
Acq: 28 Mar 2014 7:56 am

Tgt Ion: 96 Resp: 478091

Ion	Ratio	Lower	Upper
96	100		
61	141.4	128.3	168.3

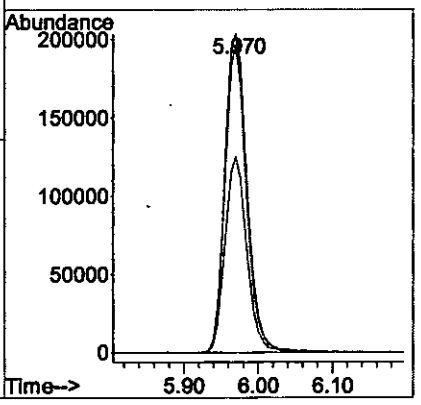


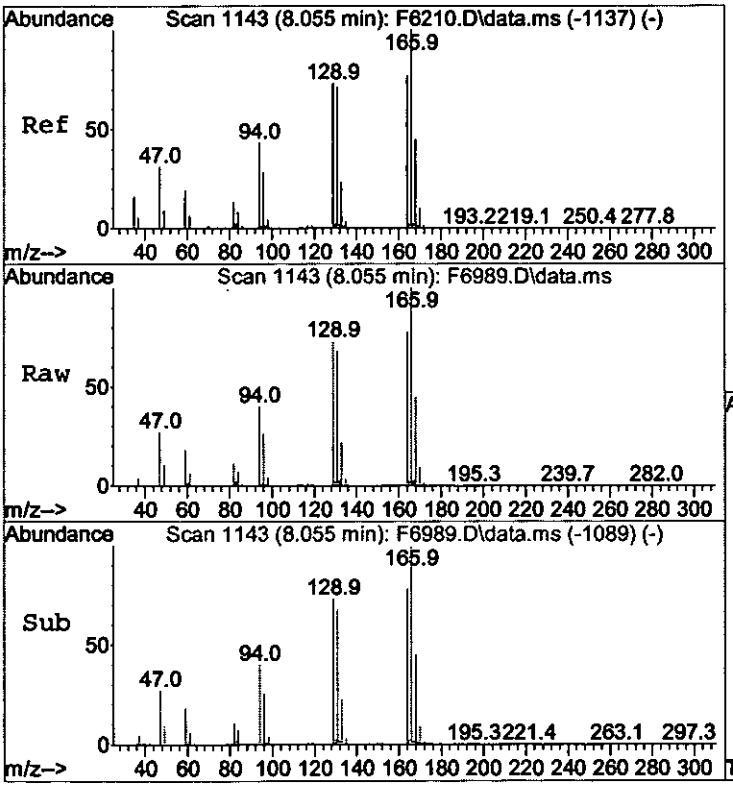


#54
Trichloroethene
Concen: 49.63 ug/L
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: F6989.D
Acq: 28 Mar 2014 7:56 am

Tgt Ion:130 Resp: 421211

Ion	Ratio	Lower	Upper
130	100		
132	96.6	74.1	114.1
95	95.2	76.9	116.9
97	61.5	43.7	83.7

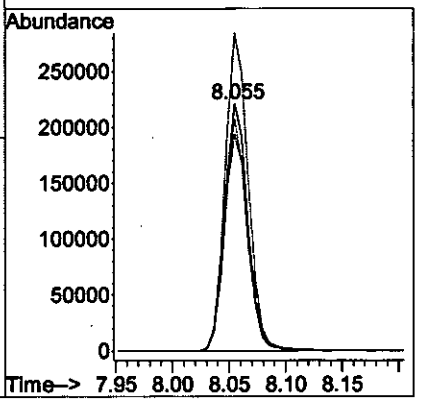




#72
Tetrachloroethene
Concen: 43.45 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. -0.000 min
Lab File: F6989.D
Acq: 28 Mar 2014 7:56 am

Tgt Ion:164 Resp: 308935

Ion	Ratio	Lower	Upper
164	100		
166	128.8	106.8	146.8
129	93.8	69.6	109.6
131	87.7	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1135
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 08:26
Sample Name:	MW-25	**Units:**	µg/L
Lab Code:	R1402018-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6990.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**300**		13	0.75	
79-01-6	Trichloroethene (TCE)	**5.3**	J	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**2.5**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 08:26	
Dibromofluoromethane	97	89-119	3/28/14 08:26	
Toluene-d8	99	87-121	3/28/14 08:26	

Quantitation Report (Not Reviewed)

Sample : R1402018-017|2.5
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6990.D Vial: 40
Acq On : 28 Mar 2014 8:26 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 08:40:04 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	852127	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1249674	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1198463	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	659174	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	394829	48.41	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.82%			
48) surr1,1,2-dichloroetha...	4.860	65	433544	50.52	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.04%			
65) SURR3,Toluene-d8	7.433	98	1451385	49.63	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.26%			
70) SURR2,BFB	9.878	95	598256	49.80	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.60%			
Target Compounds						Qvalue
15) Acetone	~~2.129~~	~~43~~	~~1426~~	~~0.63~~	~~ug/L~~	~~65~~
16) 2-Propanol	2.202	45	1694	5.37	ug/L #	57
19) Acetonitrile	2.288	~~40~~	529	1.92	ug/L #	1
20) Allyl Chloride	~~2.276~~	~~76~~	~~874~~	~~0.23~~	~~ug/L #~~	~~1~~
34) cis-1,2-Dichloroethene	3.690	96	8713	1.01	ug/L #	84
54) Trichloroethene	5.982	130	17786	2.10	ug/L	93
72) Tetrachloroethene	8.055	164	850938	120.41	ug/L	98
89) Cyclohexanone	~~9.878~~	~~55~~	~~1651~~	~~1.96~~	~~ug/L #~~	~~18~~
119) 2,4,5-Trichlorotoluene	12.938	159	2493	0.50	ug/L	89
120) 2,3,6-Trichlorotoluene	~~12.938~~	~~159~~	~~2493~~	~~0.52~~	~~ug/L~~	~~89~~

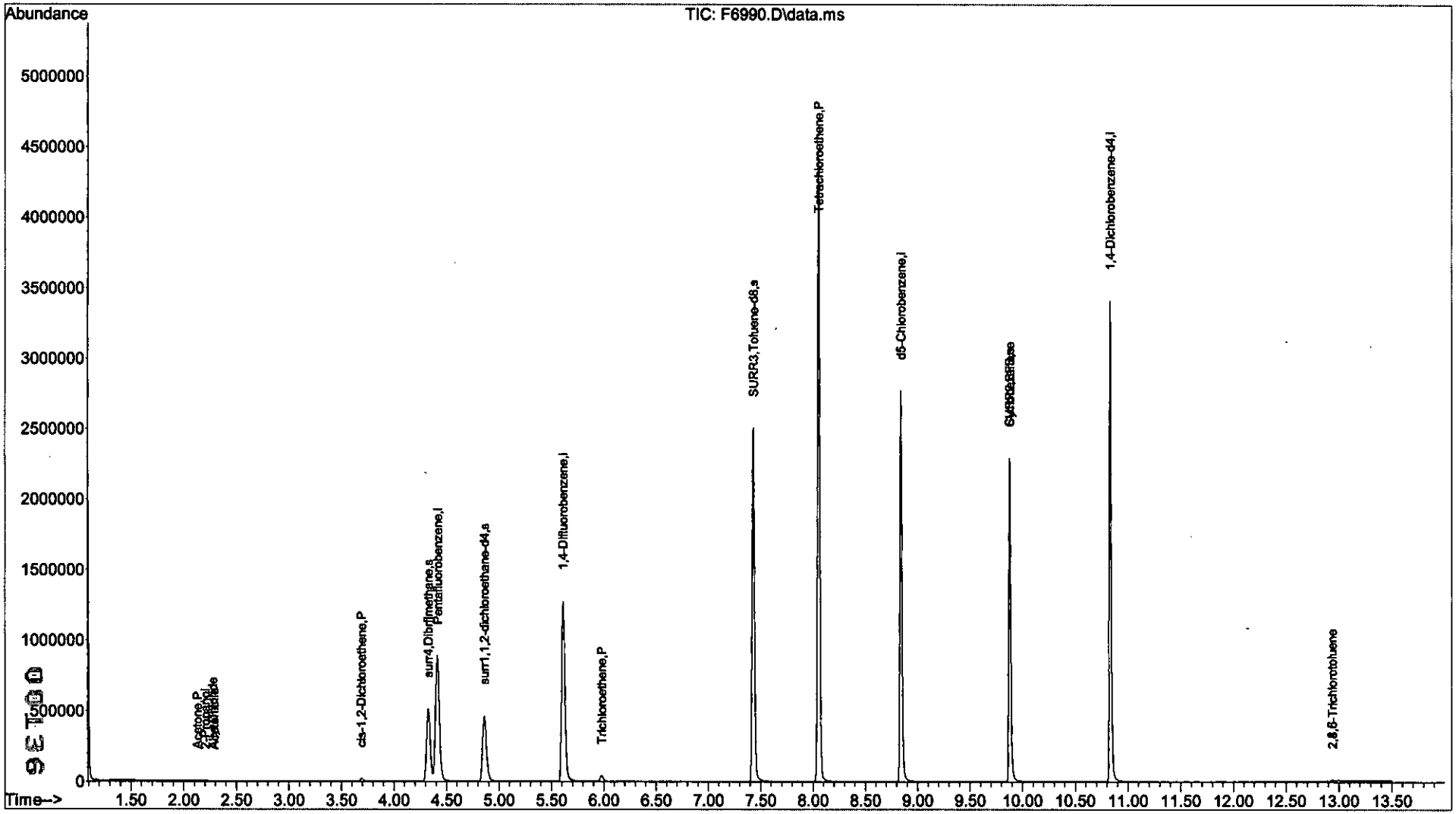
(#) = qualifier out of range (m) = manual integration (+) = signals summed

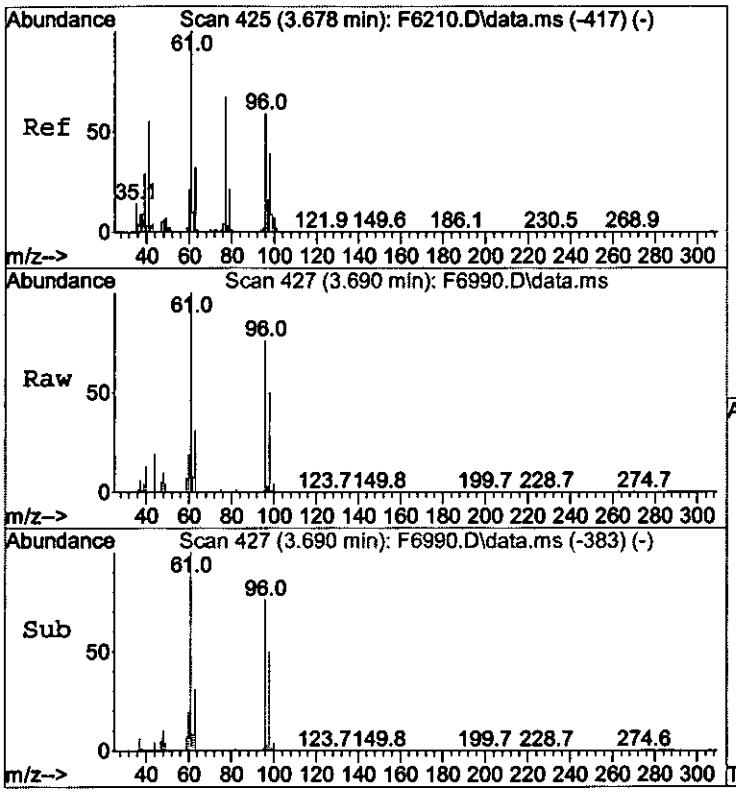
FJ 4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-017|2.5
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6990.D Vial: 40
Acq On : 28 Mar 2014 8:26 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 08:40:04 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

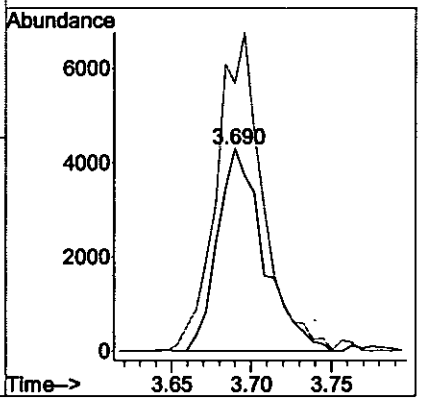


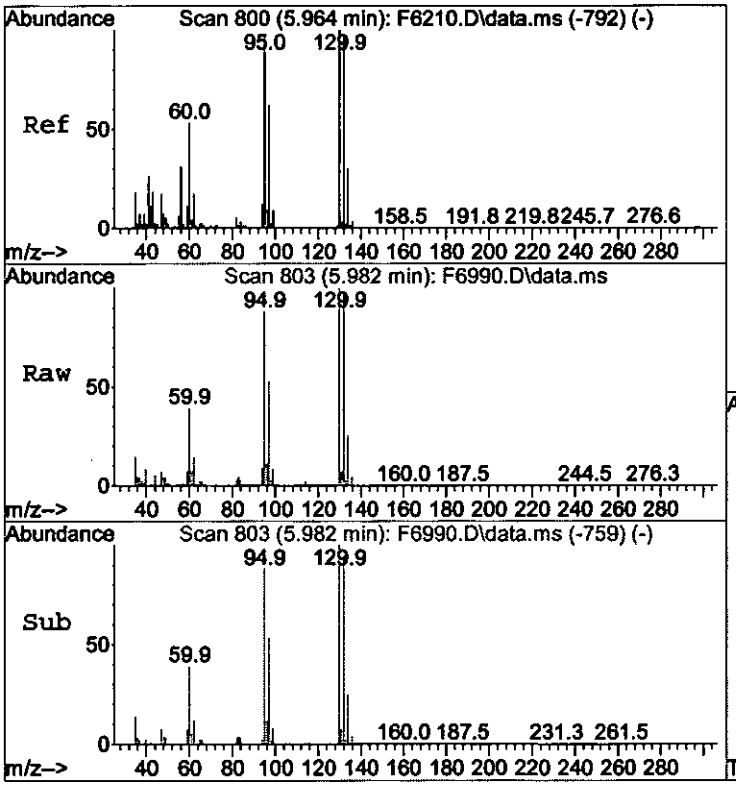


#34
cis-1,2-Dichloroethene
Concen: 1.01 ug/L
RT: 3.690 min Scan# 427
Delta R.T. 0.012 min
Lab File: F6990.D
Acq: 28 Mar 2014 8:26 am

Tgt Ion: 96 Resp: 8713

Ion	Ratio	Lower	Upper
96	100		
61	127.8	128.3	168.3#

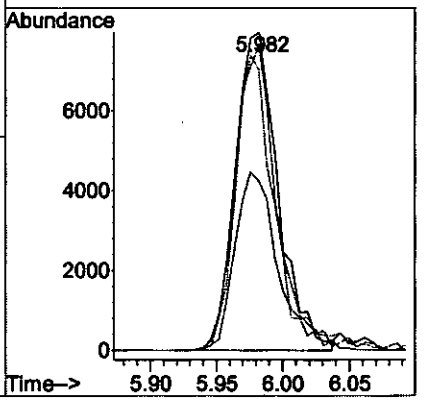


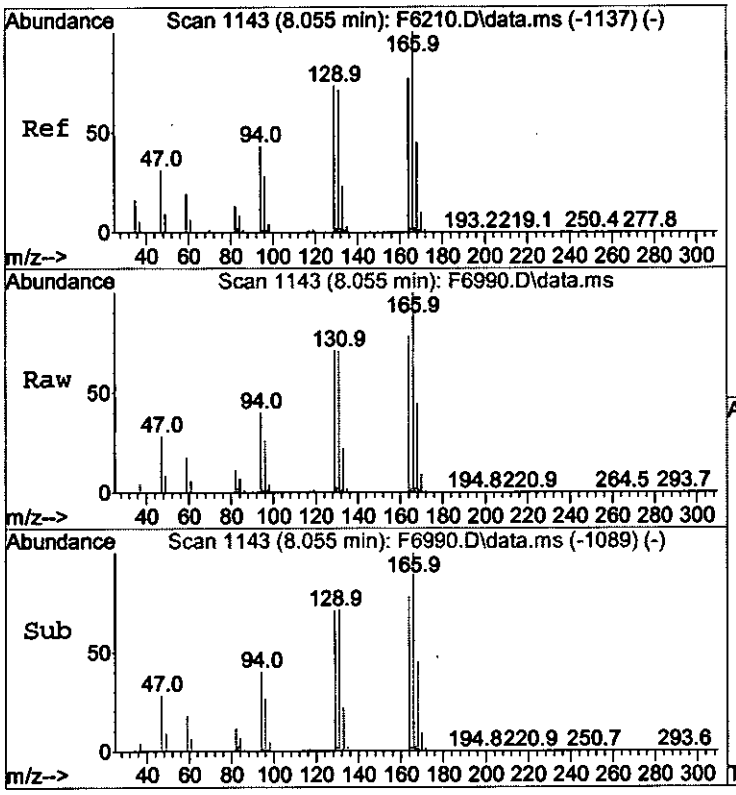


#54
Trichloroethene
Concen: 2.10 ug/L
RT: 5.982 min Scan# 803
Delta R.T. 0.018 min
Lab File: F6990.D
Acq: 28 Mar 2014 8:26 am

Tgt Ion:130 Resp: 17786

Ion	Ratio	Lower	Upper
130	100		
132	95.8	74.1	114.1
95	88.3	76.9	116.9
97	53.1	43.7	83.7

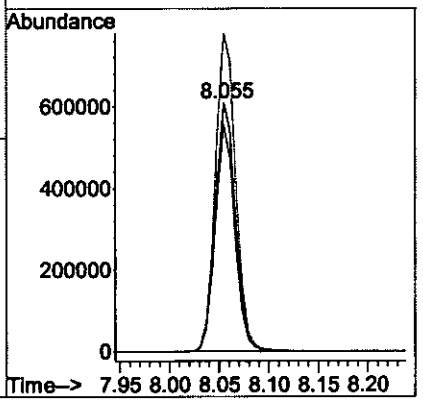




#72
Tetrachloroethene
Concen: 120.41 ug/L
RT: 8.055 min Scan# 1143
Delta R.T. -0.000 min
Lab File: F6990.D
Acq: 28 Mar 2014 8:26 am

Tgt Ion:164 Resp: 850938

Ion	Ratio	Lower	Upper
164	100		
166	128.1	106.8	146.8
129	91.3	69.6	109.6
131	90.4	68.5	108.5



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1300
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 03:52
Sample Name:	FB-032014	**Units:**	µg/L
Lab Code:	R1402018-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6981.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/28/14 03:52	
Dibromofluoromethane	98	89-119	3/28/14 03:52	
Toluene-d8	98	87-121	3/28/14 03:52	

Quantitation Report (Not Reviewed)

Sample : R1402018-018|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6981.D Vial: 31
Acq On : 28 Mar 2014 3:52 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 04:06:05 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.416	168	870250	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.617	114	1288563	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1211261	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	673675	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	412467	49.04	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.08%			
48) surr1,1,2-dichloroetha...	4.861	65	430133	48.61	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.22%			
65) SURR3,Toluene-d8	7.433	98	1475019	48.91	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.82%			
70) SURR2,BFB	9.878	95	617225	49.83	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.66%			
Target Compounds						Qvalue
5) Bromomethane	1.569	94	540	0.31	ug/L #	68
15) Acetone	2.129	43	1799	0.78	ug/L	93
16) 2-Propanol	2.148	45	250	0.78	ug/L #	1
20) Allyl Chloride	2.270	76	1237	0.32	ug/L #	1
89) Cyclohexanone	9.878	55	1684	1.98	ug/L #	17
112) Trielution Dichlorotol...	11.847	125	4674	0.33	ug/L	79
119) 2,4,5-Trichlorotoluene	12.938	159	2824	0.55	ug/L	92
120) 2,3,6-Trichlorotoluene	12.938	159	2024	0.58	ug/L	89

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

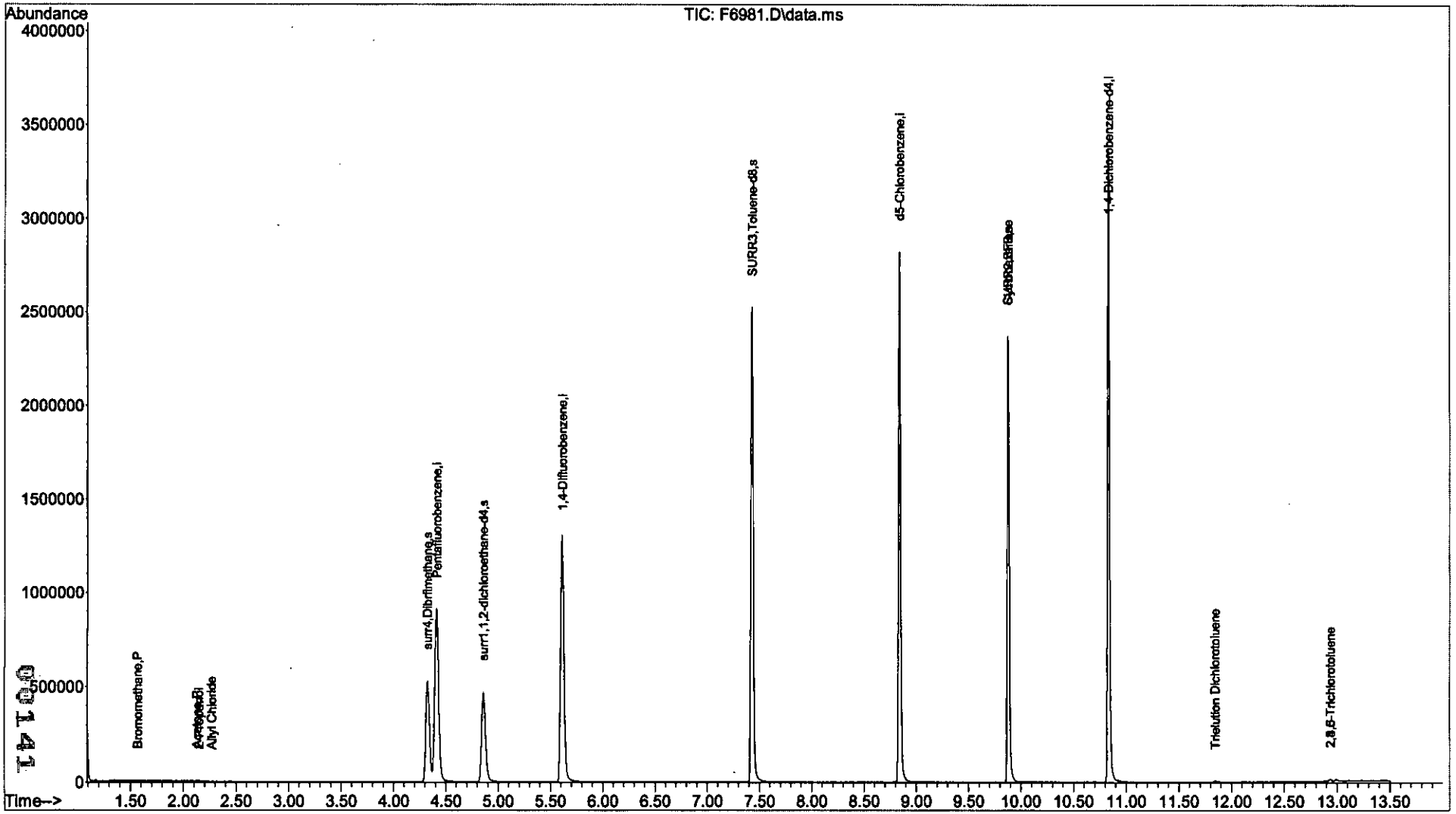
ALL NTS not evaluated

FR
4/5/17

Quantitation Report (Not Reviewed)

Sample : R1402018-018|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6981.D Vial: 31
Acq On : 28 Mar 2014 3:52 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 04:06:05 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/20/14 1430
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 08:57
Sample Name:	MP-6D	**Units:**	µg/L
Lab Code:	R1402018-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6991.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**0.37**	**J**	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 08:57	
Dibromofluoromethane	100	89-119	3/28/14 08:57	
Toluene-d8	97	87-121	3/28/14 08:57	

Quantitation Report (Not Reviewed)

Sample : R1402018-019|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6991.D Vial: 41
Acq On : 28 Mar 2014 8:57 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 09:10:20 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.409	168	859333	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1261302	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1202926	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	661317	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	410200	49.83	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.66%			
48) surr1,1,2-dichloroetha...	4.860	65	425503	49.13	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.26%			
65) SURR3,Toluene-d8	7.433	98	1430484	48.46	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.92%			
70) SURR2,BFB	9.878	95	601379	49.60	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.20%			
Target Compounds						Qvalue
5) Bromomethane	1.562	94	289	0.20	ug/L	82
15) Acetone	2.135	43	753	0.33	ug/L	68
19) Acetonitrile	2.330	40	803	2.88	ug/L #	1
20) Allyl Chloride	2.275	76	941	0.25	ug/L #	1
72) Tetrachloroethene	8.061	164	2606	0.37	ug/L	92
89) Cyclohexanone	9.878	55	1451	1.72	ug/L #	13
119) 2,4,5-Trichlorotoluene	12.938	159	2615	0.52	ug/L	90
120) 2,3,6-Trichlorotoluene	12.993	159	1681	0.35	ug/L	83

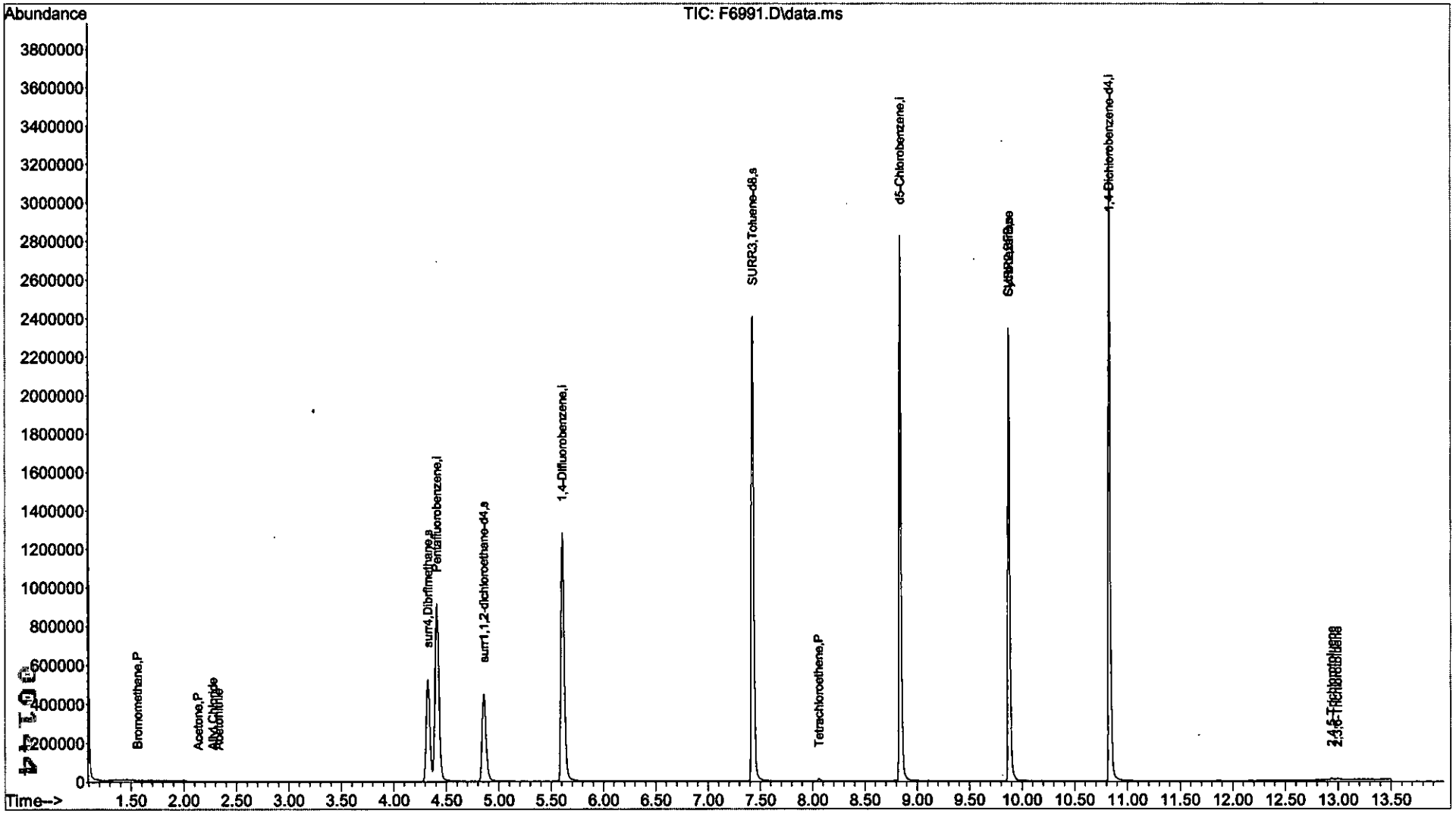
(#) = qualifier out of range (m) = manual integration (+) = signals summed

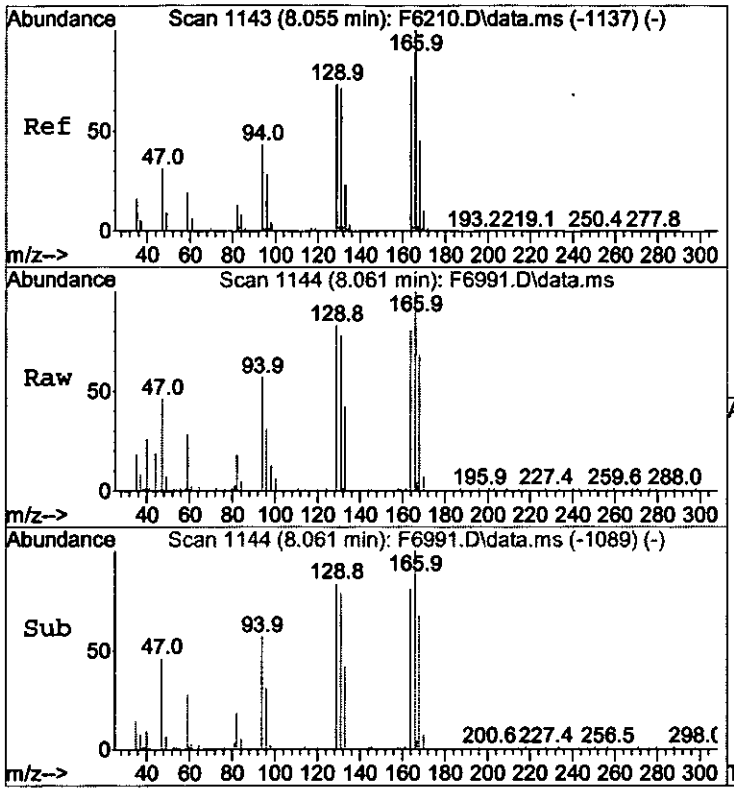
all NT's not evaluated
FJ 4/5/14

Quantitation Report (Not Reviewed)

Sample : R1402018-019|1.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6991.D Vial: 41
Acq On : 28 Mar 2014 8:57 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 09:10:20 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

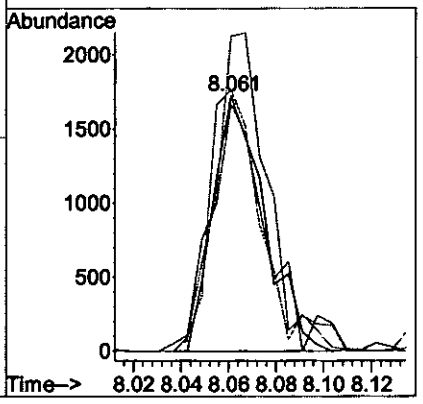




#72
Tetrachloroethene
Concen: 0.37 ug/L
RT: 8.061 min Scan# 1144
Delta R.T. 0.006 min
Lab File: F6991.D
Acq: 28 Mar 2014 8:57 am

Tgt Ion:164 Resp: 2606

Ion	Ratio	Lower	Upper
164	100		
166	123.1	106.8	146.8
129	102.3	69.6	109.6
131	96.4	68.5	108.5



ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
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www.alsglobal.com

Initial Calibration - Summary Report

Calibration ID: RC1400020 2/28/14 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result	
1,1,1,2-Tetrachloroethane	T	Average RF			0.3469	<=20	8.5	
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.7057	<=20	5.7	
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5717	<=20	3.7	
1,1,2-Trichloroethane	T	Average RF		0.100	0.2339	<=20	4.8	
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.4199	<=20	7.6	
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8760	<=20	3.8	
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.3481	<=20	8.0	
1,1-Dichloropropene	T	Average RF			0.3805	<=20	7.5	
1,2,3-Trichlorobenzene	T	Average RF			0.6070	<=20	2.8	
1,2,3-Trichloropropane	T	Average RF			0.1438	<=20	4.4	
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.7628	<=20	6.7	
1,2,4-Trimethylbenzene	T	Average RF			2.194	<=20	8.3	
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.09868	<=20	6.5	
1,2-Dibromoethane	T	Average RF		0.100	0.2554	<=20	5.6	
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.6029	<=20	4.6	
1,2-Dichlorobenzene	T	Average RF		0.400	1.327	<=20	5.5	
1,2-Dichloroethane	T	Average RF		0.100	0.4594	<=20	6.8	
1,2-Dichloropropane	T	Average RF		0.100	0.3276	<=20	7.3	
1,3,5-Trichlorobenzene	T	Average RF			0.9449	<=20	2.9	
1,3,5-Trimethylbenzene	T	Average RF			2.158	<=20	8.1	
1,3-Dichlorobenzene	T	Average RF		0.600	1.419	<=20	4.2	
1,3-Dichloropropane	T	Average RF			0.4313	<=20	2.8	
1,4-Dichlorobenzene	T	Average RF		0.500	1.495	<=20	4.5	
1,4-Dioxane	T	Average RF			0.001701	<=20	9.7	
1-Butanol	T	Quadratic	1/X2		0.004272	>=0.99	0.9911	
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.5051	<=20	7.5	
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6483	<=20	4.4	
2,2-Dichloropropane	T	Average RF			0.6338	<=20	9.5	
2,3,6-Trichlorotoluene	T	Average RF			0.3631	<=20	7.5	
2,4,5-Trichlorotoluene	T	Average RF			0.3818	<=20	9.8	
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			1.067	<=20	6.8	
2,4-Dichlorobenzotrifluoride	T	Average RF			0.6206	<=20	7.1	
2,5-Dichlorobenzotrifluoride	T	Average RF			0.7203	<=20	6.4	
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20		
2-Butanone (MEK)	T	Average RF		0.05	0.1754	<=20	5.3	
2-Chloro-1,3-butadiene	T	Average RF			0.8571	<=20	7.6	
2-Chlorobenzotrifluoride	T	Average RF			0.5331	<=20	10.0	
2-Chloroethyl Vinyl Ether	T	Average RF			0.1469	<=20	12.0	
2-Chlorotoluene	T	Average RF			1.882	<=20	6.5	
2-Hexanone	T	Average RF		0.05	0.1901	<=20	13.3	
2-Methyl-1-propanol	T	Average RF			0.008780	<=20	12.7	
2-Methyl-2-propanol	T	Average RF			0.02780	<=20	8.0	
~~2-Nitropropane~~	~~T~~	~~Average RF~~			~~0.06535~~	~~<=20~~	~~1.7~~	NOT USED
2-Propanol	T	Average RF			0.01850	<=20	9.6	
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			1.110	<=20	6.2	
3,4-Dichlorobenzotrifluoride	T	Average RF			0.6842	<=20	8.1	
3-Chloro-1-propene	T	Average RF			0.2209	<=20	9.4	
3-Chlorobenzotrifluoride	T	Average RF			0.5494	<=20	9.3	
3-Chlorotoluene	T	Average RF			2.057	<=20	5.6	
4-Chlorotoluene	T	Average RF			2.287	<=20	4.7	
4-Isopropyltoluene	T	Average RF			2.142	<=20	9.8	
4-Methyl-2-pentanone	T	Average RF		0.05	0.2364	<=20	10.6	

00147

Initial Calibration - Summary Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Acetone	T	Average RF		0.05	0.1325	<=20	4.5
Acetonitrile	T	Average RF			0.01620	<=20	8.4
Acrolein	T	Average RF			0.05444	<=20	12.8
Acrylonitrile	T	Average RF			0.1202	<=20	6.5
Benzene	T	Average RF		0.500	1.212	<=20	4.2
Bromobenzene	T	Average RF			0.7589	<=20	2.6
Bromochloromethane	T	Average RF			0.2963	<=20	4.3
Bromodichloromethane	T	Average RF		0.200	0.4042	<=20	5.7
Bromoform	T	Average RF		0.100	0.1892	<=20	14.7
Bromomethane	T	Quadratic	1/X2	0.100	0.1740	>=0.99	0.9962
Carbon Disulfide	T	Average RF		0.100	1.278	<=20	3.9
Carbon Tetrachloride	T	Average RF		0.05	0.1307	<=20	9.2
Chlorobenzene	T	Average RF		0.500	0.9784	<=20	3.9
Chloroethane	T	Average RF		0.100	0.3514	<=20	10.7
Chloroform	T	Average RF		0.200	0.8322	<=20	4.2
Chloromethane	T	Average RF		0.100	0.6421	<=20	3.7
Cyclohexane	T	Average RF		0.100	0.3923	<=20	4.8
Cyclohexanone	T	Average RF			0.03508	<=20	16.2
Dibromochloromethane	T	Average RF		0.100	0.3193	<=20	11.4
Dibromomethane	T	Average RF			0.1720	<=20	6.2
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.5497	<=20	8.2
Dichlorofluoromethane (CFC 21)	T	Average RF			0.9725	<=20	4.2
Dichloromethane	T	Average RF		0.100	0.4535	<=20	5.7
Diethyl Ether	T	Average RF			0.3630	<=20	3.5
Diisopropyl Ether	T	Average RF			1.880	<=20	5.4
Ethyl Methacrylate	T	Quadratic	1/X2		0.2712	>=0.99	0.9913
Ethyl tert-Butyl Ether	T	Average RF			1.462	<=20	6.1
Ethylbenzene	T	Average RF		0.100	0.4804	<=20	8.2
Hexachlorobutadiene	T	Average RF			0.3409	<=20	4.6
Iodomethane	T	Quadratic	1/X2		0.2379	>=0.99	0.9983
Isopropylbenzene (Cumene)	T	Average RF		0.100	1.436	<=20	8.2
Methacrylonitrile	T	Average RF			0.1110	<=20	14.2
Methyl Acetate	T	Average RF		0.100	0.2714	<=20	11.4
Methyl Methacrylate	T	Average RF			0.1354	<=20	16.3
Methyl tert-Butyl Ether	T	Average RF		0.100	1.052	<=20	4.8
Methylcyclohexane	T	Average RF		0.100	0.4387	<=20	5.9
Naphthalene	T	Average RF			1.291	<=20	14.1
Propionitrile	T	Quadratic	1/X2		0.03808	>=0.99	0.9972
Styrene	T	Average RF		0.300	0.9587	<=20	14.0
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2948	<=20	8.0
Tetrahydrofuran (THF)	T	Average RF			0.1013	<=20	3.9
Toluene	T	Average RF		0.400	1.300	<=20	6.2
Trichloroethene (TCE)	T	Average RF		0.200	0.3389	<=20	6.7
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.7478	<=20	6.0
Vinyl Acetate	T	Average RF			0.05955	<=20	18.8
Vinyl Chloride	T	Average RF		0.100	0.5981	<=20	5.8
cis-1,2-Dichloroethene	T	Average RF		0.100	0.5059	<=20	4.0
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4366	<=20	12.0
m,p-Xylenes	T	Average RF		0.100	0.5810	<=20	10.0
n-Butyl Acetate	T	Average RF			0.4518	<=20	11.2
n-Butylbenzene	T	Average RF			1.864	<=20	12.5
n-Heptane	T	Average RF			0.3673	<=20	10.1

00148

Initial Calibration - Summary Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Column Name:	1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Propylbenzene	T	Average RF			3.026	<=20	6.4
o-Xylene	T	Average RF		0.300	0.5725	<=20	11.6
sec-Butylbenzene	T	Average RF			2.493	<=20	6.7
tert-Amyl Methyl Ether	T	Average RF			1.104	<=20	6.0
tert-Butylbenzene	T	Average RF			1.808	<=20	7.1
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4454	<=20	6.3
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3592	<=20	14.7
trans-1,4-Dichloro-2-butene	T	Quadratic	1/X2		0.08040	>=0.99	0.9925
1,2-Dichloroethane-d4	S	Average RF			0.3433	<=20	2.7
4-Bromofluorobenzene	S	Average RF			0.4806	<=20	1.8
Dibromofluoromethane	S	Average RF			0.3263	<=20	1.4
Toluene-d8	S	Average RF			1.170	<=20	0.8

00149

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1400020-01	0.5 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6205.D	2/28/14 12:08
02	RC1400020-02	1.0 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6206.D	2/28/14 12:39
03	RC1400020-03	2.0 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6207.D	2/28/14 13:09
04	RC1400020-04	5.0 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6208.D	2/28/14 13:39
05	RC1400020-05	10 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6209.D	2/28/14 14:10
06	RC1400020-06	100 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6211.D	2/28/14 15:10
07	RC1400020-07	150 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6212.D	2/28/14 15:43
08	RC1400020-08	200 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6213.D	2/28/14 16:13
09	RC1400020-09	50 PPB STD	I:\ACQUDATA\msvoa10\data\022814\F6210.D	2/28/14 14:40

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 8.5 Average RF = 0.3469

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3200	02	1.000	0.3148	03	2.000	0.3336	04	5.000	0.3387
05	10.000	0.3116	09	50.000	0.3751	06	100.000	0.3623	07	150.000	0.3842
08	200.000	0.3817									

1,1,1-Trichloroethane (TCA) Average RF RSD = 5.7 Average RF = 0.7057

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6845	02	1.000	0.7230	03	2.000	0.6944	04	5.000	0.7096
05	10.000	0.6210	09	50.000	0.7338	06	100.000	0.6873	07	150.000	0.7590
08	200.000	0.7386									

1,1,2,2-Tetrachloroethane Average RF RSD = 3.7 Average RF = 0.5717

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6143	02	1.000	0.5946	03	2.000	0.5762	04	5.000	0.5606
05	10.000	0.5631	09	50.000	0.5570	06	100.000	0.5752	07	150.000	0.5581
08	200.000	0.5464									

1,1,2-Trichloroethane Average RF RSD = 4.8 Average RF = 0.2339

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2267	02	1.000	0.2108	03	2.000	0.2266	04	5.000	0.2371
05	10.000	0.2351	09	50.000	0.2431	06	100.000	0.2467	07	150.000	0.2441
08	200.000	0.2349									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 7.6 Average RF = 0.4199

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3992	02	1.000	0.4543	03	2.000	0.4118	04	5.000	0.4405
05	10.000	0.3579	09	50.000	0.4441	06	100.000	0.3909	07	150.000	0.4451
08	200.000	0.4350									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 3.8 Average RF = 0.8760

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8684	02	1.000	0.8835	03	2.000	0.9020	04	5.000	0.8769
05	10.000	0.7960	09	50.000	0.9015	06	100.000	0.8678	07	150.000	0.9069
08	200.000	0.8807									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 8.0 Average RF = 0.3481

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3023	02	1.000	0.3424	03	2.000	0.3700	04	5.000	0.3543
05	10.000	0.3063	09	50.000	0.3679	06	100.000	0.3416	07	150.000	0.3795
08	200.000	0.3685									

00150

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

1,1-Dichloropropene Average RF RSD = 7.5 Average RF = 0.3805

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3419	02	1.000	0.4013	03	2.000	0.3975	04	5.000	0.3853
05	10.000	0.3282	09	50.000	0.4025	06	100.000	0.3659	07	150.000	0.4042
08	200.000	0.3978									

1,2,3-Trichlorobenzene Average RF RSD = 2.8 Average RF = 0.6070

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6088	02	1.000	0.6042	03	2.000	0.5961	04	5.000	0.5784
05	10.000	0.5908	09	50.000	0.6157	06	100.000	0.6194	07	150.000	0.6339
08	200.000	0.6156									

1,2,3-Trichloropropane Average RF RSD = 4.4 Average RF = 0.1438

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1459	02	1.000	0.1294	03	2.000	0.1425	04	5.000	0.1424
05	10.000	0.1520	09	50.000	0.1460	06	100.000	0.1488	07	150.000	0.1454
08	200.000	0.1416									

1,2,4-Trichlorobenzene Average RF RSD = 6.7 Average RF = 0.7628

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7902	02	1.000	0.6510	03	2.000	0.7287	04	5.000	0.7531
05	10.000	0.7463	09	50.000	0.8099	06	100.000	0.7794	07	150.000	0.8104
08	200.000	0.7959									

1,2,4-Trimethylbenzene Average RF RSD = 8.3 Average RF = 2.194

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.913	02	1.000	1.945	03	2.000	2.190	04	5.000	2.270
05	10.000	2.080	09	50.000	2.444	06	100.000	2.282	07	150.000	2.383
08	200.000	2.242									

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 6.5 Average RF = 0.09868

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.09044	03	2.000	0.09450	04	5.000	0.09838	05	10.000	0.09233
09	50.000	0.09657	06	100.000	0.1057	07	150.000	0.1074	08	200.000	0.1041

1,2-Dibromoethane Average RF RSD = 5.6 Average RF = 0.2554

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2422	02	1.000	0.2288	03	2.000	0.2591	04	5.000	0.2532
05	10.000	0.2444	09	50.000	0.2675	06	100.000	0.2680	07	150.000	0.2691
08	200.000	0.2663									

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 4.6 Average RF = 0.6029

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5774	02	1.000	0.6619	03	2.000	0.6141	04	5.000	0.6106
05	10.000	0.5640	09	50.000	0.6034	06	100.000	0.5985	07	150.000	0.6079
08	200.000	0.5884									

1,2-Dichlorobenzene Average RF RSD = 5.5 Average RF = 1.327

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.156	02	1.000	1.344	03	2.000	1.323	04	5.000	1.331
05	10.000	1.275	09	50.000	1.385	06	100.000	1.372	07	150.000	1.398
08	200.000	1.355									

00151

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 6.8 Average RF = 0.4594

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5225	02	1.000	0.4922	03	2.000	0.4774	04	5.000	0.4372
05	10.000	0.4402	09	50.000	0.4460	06	100.000	0.4483	07	150.000	0.4406
08	200.000	0.4299									

1,2-Dichloroethane-d4 Average RF RSD = 2.7 Average RF = 0.3433

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	50.000	0.3501	05	50.000	0.3435	06	50.000	0.3421	04	50.000	0.3476
03	50.000	0.3586	08	50.000	0.3273	07	50.000	0.3348	02	50.000	0.3476
09	50.000	0.3384									

1,2-Dichloropropane Average RF RSD = 7.3 Average RF = 0.3276

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3156	02	1.000	0.2755	03	2.000	0.3372	04	5.000	0.3216
05	10.000	0.3136	09	50.000	0.3481	06	100.000	0.3405	07	150.000	0.3514
08	200.000	0.3445									

1,3,5-Trichlorobenzene Average RF RSD = 2.9 Average RF = 0.9449

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9589	02	1.000	0.9330	03	2.000	0.9091	04	5.000	0.9143
05	10.000	0.9636	09	50.000	0.9363	06	100.000	0.9829	07	150.000	0.9785
08	200.000	0.9280									

1,3,5-Trimethylbenzene Average RF RSD = 8.1 Average RF = 2.158

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.932	02	1.000	1.928	03	2.000	2.123	04	5.000	2.228
05	10.000	1.998	09	50.000	2.390	06	100.000	2.231	07	150.000	2.367
08	200.000	2.226									

1,3-Dichlorobenzene Average RF RSD = 4.2 Average RF = 1.419

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.349	02	1.000	1.385	03	2.000	1.396	04	5.000	1.419
05	10.000	1.328	09	50.000	1.490	06	100.000	1.438	07	150.000	1.499
08	200.000	1.463									

1,3-Dichloropropane Average RF RSD = 2.8 Average RF = 0.4313

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4447	02	1.000	0.4159	03	2.000	0.4279	04	5.000	0.4189
05	10.000	0.4142	09	50.000	0.4415	06	100.000	0.4373	07	150.000	0.4441
08	200.000	0.4369									

1,4-Dichlorobenzene Average RF RSD = 4.5 Average RF = 1.495

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.651	02	1.000	1.436	03	2.000	1.493	04	5.000	1.464
05	10.000	1.419	09	50.000	1.509	06	100.000	1.475	07	150.000	1.524
08	200.000	1.481									

1,4-Dioxane Average RF RSD = 9.7 Average RF = 0.001701

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.001432	04	100.000	0.001981	05	200.000	0.001709	09	1000.000	0.001629
06	2000.000	0.001778	07	3000.000	0.001727	08	4000.000	0.001653			

00152

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1-Butanol Quadratic 1/X2 COD = 0.9911 Y = 7.736E-6 X² + 0.004057 X + -0.002959

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	100.000	0.002756	04	250.000	0.003219	05	500.000	0.003515	09	2500.000	0.004557
06	5000.000	0.005370	07	7500.000	0.005235	08	10000.000	0.005255			

1-Chloro-4-(trifluoromethyl)benzene Average RF RSD = 7.5 Average RF = 0.5051

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4275	02	1.000	0.4948	03	2.000	0.4807	04	5.000	0.4901
05	10.000	0.5066	09	50.000	0.5228	06	100.000	0.5302	07	150.000	0.5562
08	200.000	0.5368									

2,2-Dichloro-1,1,1-trifluoroethane (CFC Average RF RSD = 4.4 Average RF = 0.6483

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6519	02	1.000	0.7054	03	2.000	0.6535	04	5.000	0.6368
05	10.000	0.5949	09	50.000	0.6474	06	100.000	0.6499	07	150.000	0.6547
08	200.000	0.6406									

2,2-Dichloropropane Average RF RSD = 9.5 Average RF = 0.6338

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6114	02	1.000	0.6175	03	2.000	0.5831	04	5.000	0.6060
05	10.000	0.5413	09	50.000	0.6817	06	100.000	0.6313	07	150.000	0.7270
08	200.000	0.7051									

2,3,6-Trichlorotoluene Average RF RSD = 7.5 Average RF = 0.3631

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3169	03	2.000	0.3410	04	5.000	0.3511	05	10.000	0.4027
09	50.000	0.3638	06	100.000	0.3760	07	150.000	0.3884	08	200.000	0.3652

2,4,5-Trichlorotoluene Average RF RSD = 9.8 Average RF = 0.3818

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3655	02	1.000	0.3054	03	2.000	0.3803	04	5.000	0.3450
05	10.000	0.3997	09	50.000	0.4018	06	100.000	0.4171	07	150.000	0.4213
08	200.000	0.3996									

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelu Average RF RSD = 6.8 Average RF = 1.067

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.9865	02	3.000	0.9861	03	6.000	0.9950	04	15.000	1.033
05	30.000	1.112	09	150.000	1.119	06	300.000	1.175	07	450.000	1.146
08	600.000	1.049									

2,4-Dichlorobenzotrifluoride Average RF RSD = 7.1 Average RF = 0.6206

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5911	02	1.000	0.5619	03	2.000	0.5598	04	5.000	0.6073
05	10.000	0.6297	09	50.000	0.6344	06	100.000	0.6674	07	150.000	0.6807
08	200.000	0.6531									

2,5-Dichlorobenzotrifluoride Average RF RSD = 6.4 Average RF = 0.7203

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7136	02	1.000	0.6331	03	2.000	0.7500	04	5.000	0.6652
05	10.000	0.7202	09	50.000	0.7167	06	100.000	0.7576	07	150.000	0.7793
08	200.000	0.7469									

2-Butanone (MEK) Average RF RSD = 5.3 Average RF = 0.1754

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1647	04	5.000	0.1689	05	10.000	0.1686	09	50.000	0.1766
06	100.000	0.1866	07	150.000	0.1888	08	200.000	0.1737			

00153

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chloro-1,3-butadiene Average RF RSD = 7.6 Average RF = 0.8571

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7403	02	1.000	0.8182	03	2.000	0.8271	04	5.000	0.8371
05	10.000	0.8387	09	50.000	0.9008	06	100.000	0.8730	07	150.000	0.9632
08	200.000	0.9157									

2-Chlorobenzotrifluoride Average RF RSD = 10.0 Average RF = 0.5331

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4301	02	1.000	0.4760	03	2.000	0.5105	04	5.000	0.5355
05	10.000	0.5458	09	50.000	0.5491	06	100.000	0.5734	07	150.000	0.5985
08	200.000	0.5789									

2-Chloroethyl Vinyl Ether Average RF RSD = 12.0 Average RF = 0.1469

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1404	03	2.000	0.1175	04	5.000	0.1270	05	10.000	0.1459
09	50.000	0.1547	06	100.000	0.1617	07	150.000	0.1666	08	200.000	0.1614

2-Chlorotoluene Average RF RSD = 6.5 Average RF = 1.882

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.641	02	1.000	1.812	03	2.000	1.837	04	5.000	1.927
05	10.000	1.808	09	50.000	2.031	06	100.000	1.935	07	150.000	2.015
08	200.000	1.936									

2-Hexanone Average RF RSD = 13.3 Average RF = 0.1901

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1441	05	10.000	0.1784	09	50.000	0.1964	06	100.000	0.2066
07	150.000	0.2123	08	200.000	0.2027						

2-Methyl-1-propanol Average RF RSD = 12.7 Average RF = 0.008780

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.007397	04	100.000	0.007306	05	200.000	0.008378	09	1000.000	0.009008
06	2000.000	0.009807	07	3000.000	0.01002	08	4000.000	0.009546			

2-Methyl-2-propanol Average RF RSD = 8.0 Average RF = 0.02780

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.02542	02	20.000	0.02399	03	40.000	0.02790	04	100.000	0.02659
05	200.000	0.02797	09	1000.000	0.02787	06	2000.000	0.03028	07	3000.000	0.03103
08	4000.000	0.02916									

2-Nitropropane Average RF RSD = 1.7 Average RF = 0.06535

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	200.000	0.06529	07	300.000	0.06650	08	400.000	0.06424			

2-Propanol Average RF RSD = 9.6 Average RF = 0.01850

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.01542	02	20.000	0.01831	03	40.000	0.01798	04	100.000	0.01649
05	200.000	0.01962	09	1000.000	0.01808	06	2000.000	0.02064	07	3000.000	0.02073
08	4000.000	0.01923									

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 6.2 Average RF = 1.110

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.043	02	2.000	1.038	03	4.000	1.066	04	10.000	1.098
05	20.000	1.180	09	100.000	1.160	06	200.000	1.218	07	300.000	1.150
08	400.000	1.035									

00154

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

3,4-Dichlorobenzotrifluoride Average RF RSD = 8.1 Average RF = 0.6842

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5967	02	1.000	0.6289	03	2.000	0.6645	04	5.000	0.6534
05	10.000	0.6814	09	50.000	0.6924	06	100.000	0.7387	07	150.000	0.7704
08	200.000	0.7310									

3-Chloro-1-propene Average RF RSD = 9.4 Average RF = 0.2209

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2387	02	1.000	0.2262	03	2.000	0.1879	04	5.000	0.2061
05	10.000	0.1916	09	50.000	0.2355	06	100.000	0.2233	07	150.000	0.2440
08	200.000	0.2347									

3-Chlorobenzotrifluoride Average RF RSD = 9.3 Average RF = 0.5494

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4423	02	1.000	0.5343	03	2.000	0.5313	04	5.000	0.5253
05	10.000	0.5497	09	50.000	0.5653	06	100.000	0.5852	07	150.000	0.6176
08	200.000	0.5936									

3-Chlorotoluene Average RF RSD = 5.6 Average RF = 2.057

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.040	02	1.000	1.847	03	2.000	1.948	04	5.000	2.132
05	10.000	2.217	09	50.000	2.069	06	100.000	2.166	07	150.000	2.104
08	200.000	1.987									

4-Bromofluorobenzene Average RF RSD = 1.8 Average RF = 0.4806

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.4663	03	50.000	0.4858	08	50.000	0.4824	07	50.000	0.4849
06	50.000	0.4929	05	50.000	0.4839	01	50.000	0.4686	04	50.000	0.4779
09	50.000	0.4831									

4-Chlorotoluene Average RF RSD = 4.7 Average RF = 2.287

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.290	02	1.000	2.159	03	2.000	2.314	04	5.000	2.298
05	10.000	2.094	09	50.000	2.438	06	100.000	2.320	07	150.000	2.404
08	200.000	2.265									

4-Isopropyltoluene Average RF RSD = 9.8 Average RF = 2.142

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.943	02	1.000	1.822	03	2.000	1.996	04	5.000	2.126
05	10.000	2.050	09	50.000	2.449	06	100.000	2.225	07	150.000	2.401
08	200.000	2.264									

4-Methyl-2-pentanone Average RF RSD = 10.6 Average RF = 0.2364

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.2042	04	5.000	0.2021	05	10.000	0.2310	09	50.000	0.2477
06	100.000	0.2569	07	150.000	0.2650	08	200.000	0.2480			

Acetone Average RF RSD = 4.5 Average RF = 0.1325

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1405	05	10.000	0.1381	09	50.000	0.1251	06	100.000	0.1313
07	150.000	0.1321	08	200.000	0.1276						

Acetonitrile Average RF RSD = 8.4 Average RF = 0.01620

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01662	04	25.000	0.01535	05	50.000	0.01574	09	250.000	0.01432
06	500.000	0.01872	07	750.000	0.01640	08	1000.000	0.01624			

00155

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

Acrolein Average RF RSD = 12.8 Average RF = 0.05444

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.05946	02	5.000	0.06236	03	10.000	0.06375	04	25.000	0.05943
05	50.000	0.05156	09	250.000	0.04927	06	500.000	0.05187	07	750.000	0.04838
08	1000.000	0.04390									

Acrylonitrile Average RF RSD = 6.5 Average RF = 0.1202

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1090	02	5.000	0.1087	03	10.000	0.1174	04	25.000	0.1179
05	50.000	0.1218	09	250.000	0.1243	06	500.000	0.1309	07	750.000	0.1292
08	1000.000	0.1223									

Benzene Average RF RSD = 4.2 Average RF = 1.212

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.142	02	1.000	1.222	03	2.000	1.240	04	5.000	1.238
05	10.000	1.118	09	50.000	1.260	06	100.000	1.195	07	150.000	1.260
08	200.000	1.235									

Bromobenzene Average RF RSD = 2.6 Average RF = 0.7589

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7424	02	1.000	0.7633	03	2.000	0.7265	04	5.000	0.7789
05	10.000	0.7333	09	50.000	0.7709	06	100.000	0.7618	07	150.000	0.7790
08	200.000	0.7742									

Bromochloromethane Average RF RSD = 4.3 Average RF = 0.2963

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2748	02	1.000	0.3107	03	2.000	0.3120	04	5.000	0.3027
05	10.000	0.2855	09	50.000	0.3041	06	100.000	0.2979	07	150.000	0.2946
08	200.000	0.2841									

Bromodichloromethane Average RF RSD = 5.7 Average RF = 0.4042

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3974	02	1.000	0.3905	03	2.000	0.3680	04	5.000	0.3934
05	10.000	0.3818	09	50.000	0.4249	06	100.000	0.4248	07	150.000	0.4354
08	200.000	0.4216									

Bromoform Average RF RSD = 14.7 Average RF = 0.1892

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1563	02	1.000	0.1539	03	2.000	0.1754	04	5.000	0.1760
05	10.000	0.1737	09	50.000	0.2075	06	100.000	0.2158	07	150.000	0.2234
08	200.000	0.2211									

Bromomethane Quadratic 1/X2 COD = 0.9962 $Y = 0.03945 X^2 + 0.1328 X + -1.981E-4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1258	02	1.000	0.1152	03	2.000	0.09455	04	5.000	0.1348
05	10.000	0.1424	09	50.000	0.2038	06	100.000	0.2176	07	150.000	0.2551
08	200.000	0.2768									

Carbon Disulfide Average RF RSD = 3.9 Average RF = 1.278

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.369	02	1.000	1.311	03	2.000	1.251	04	5.000	1.286
05	10.000	1.240	09	50.000	1.244	06	100.000	1.221	07	150.000	1.334
08	200.000	1.250									

00156

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

Carbon Tetrachloride Average RF RSD = 9.2 Average RF = 0.1307

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1112	02	1.000	0.1293	03	2.000	0.1289	04	5.000	0.1322
05	10.000	0.1138	09	50.000	0.1403	06	100.000	0.1314	07	150.000	0.1457
08	200.000	0.1438									

Chlorobenzene Average RF RSD = 3.9 Average RF = 0.9784

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9295	02	1.000	0.9475	03	2.000	1.001	04	5.000	1.005
05	10.000	0.9302	09	50.000	1.031	06	100.000	0.9581	07	150.000	1.012
08	200.000	0.9914									

Chloroethane Average RF RSD = 10.7 Average RF = 0.3514

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3721	02	1.000	0.4277	03	2.000	0.3779	04	5.000	0.3353
05	10.000	0.2964	09	50.000	0.3470	06	100.000	0.3265	07	150.000	0.3476
08	200.000	0.3318									

Chloroform Average RF RSD = 4.2 Average RF = 0.8322

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8298	02	1.000	0.8418	03	2.000	0.8931	04	5.000	0.8272
05	10.000	0.7593	09	50.000	0.8449	06	100.000	0.8232	07	150.000	0.8479
08	200.000	0.8224									

Chloromethane Average RF RSD = 3.7 Average RF = 0.6421

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6441	02	1.000	0.6650	03	2.000	0.6489	04	5.000	0.6259
05	10.000	0.5941	09	50.000	0.6654	06	100.000	0.6269	07	150.000	0.6659
08	200.000	0.6429									

Cyclohexane Average RF RSD = 4.8 Average RF = 0.3923

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4273	02	1.000	0.3976	03	2.000	0.3957	04	5.000	0.3853
05	10.000	0.3544	09	50.000	0.3969	06	100.000	0.3919	07	150.000	0.3917
08	200.000	0.3900									

Cyclohexanone Average RF RSD = 16.2 Average RF = 0.03508

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.02845	02	20.000	0.02486	03	40.000	0.03308	04	100.000	0.03270
05	200.000	0.03713	09	1000.000	0.03869	06	2000.000	0.03945	07	3000.000	0.04186
08	4000.000	0.03946									

Dibromochloromethane Average RF RSD = 11.4 Average RF = 0.3193

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2870	02	1.000	0.2573	03	2.000	0.2949	04	5.000	0.3076
05	10.000	0.3101	09	50.000	0.3479	06	100.000	0.3518	07	150.000	0.3589
08	200.000	0.3578									

Dibromofluoromethane Average RF RSD = 1.4 Average RF = 0.3263

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	50.000	0.3335	04	50.000	0.3249	02	50.000	0.3297	03	50.000	0.3313
06	50.000	0.3259	07	50.000	0.3225	08	50.000	0.3207	05	50.000	0.3275
09	50.000	0.3210									

00157

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte	Curve Fit	Weighting			
Dibromomethane	Average RF		RSD = 6.2	Average RF = 0.1720	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1566	02	1.000	0.1582	03	2.000	0.1924	04	5.000	0.1696
05	10.000	0.1708	09	50.000	0.1747	06	100.000	0.1782	07	150.000	0.1754
08	200.000	0.1720									

Dichlorodifluoromethane (CFC 12)	Average RF		RSD = 8.2	Average RF = 0.5497	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4729	02	1.000	0.5545	03	2.000	0.5307	04	5.000	0.5171
05	10.000	0.5153	09	50.000	0.6092	06	100.000	0.5609	07	150.000	0.6024
08	200.000	0.5841									

Dichlorofluoromethane (CFC 21)	Average RF		RSD = 4.2	Average RF = 0.9725	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.035	02	1.000	0.9739	03	2.000	1.011	04	5.000	1.014
05	10.000	0.9186	09	50.000	0.9654	06	100.000	0.9617	07	150.000	0.9571
08	200.000	0.9161									

Dichloromethane	Average RF		RSD = 5.7	Average RF = 0.4535	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4538	02	1.000	0.4979	03	2.000	0.4794	04	5.000	0.4632
05	10.000	0.4071	09	50.000	0.4467	06	100.000	0.4455	07	150.000	0.4518
08	200.000	0.4360									

Diethyl Ether	Average RF		RSD = 3.5	Average RF = 0.3630	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3389	02	1.000	0.3804	03	2.000	0.3694	04	5.000	0.3678
05	10.000	0.3528	09	50.000	0.3674	06	100.000	0.3721	07	150.000	0.3664
08	200.000	0.3520									

Diisopropyl Ether	Average RF		RSD = 5.4	Average RF = 1.880	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.726	02	1.000	1.748	03	2.000	1.855	04	5.000	1.845
05	10.000	1.844	09	50.000	1.975	06	100.000	2.013	07	150.000	1.976
08	200.000	1.936									

Ethyl Methacrylate	Quadratic	1/X2	COD = 0.9913	$Y = 0.02177 X^2 + 0.2637 X + -8.224E-4$	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2116	02	1.000	0.1763	03	2.000	0.2150	04	5.000	0.2544
05	10.000	0.2762	09	50.000	0.3146	06	100.000	0.3312	07	150.000	0.3374
08	200.000	0.3243									

Ethyl tert-Butyl Ether	Average RF		RSD = 6.1	Average RF = 1.462	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.324	02	1.000	1.378	03	2.000	1.411	04	5.000	1.438
05	10.000	1.403	09	50.000	1.535	06	100.000	1.560	07	150.000	1.560
08	200.000	1.547									

Ethylbenzene	Average RF		RSD = 8.2	Average RF = 0.4804	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4407	02	1.000	0.4536	03	2.000	0.4665	04	5.000	0.4868
05	10.000	0.4204	09	50.000	0.5193	06	100.000	0.4768	07	150.000	0.5315
08	200.000	0.5277									

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte	Curve Fit	Weighting			
Hexachlorobutadiene	Average RF		RSD = 4.6	Average RF = 0.3409	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3493	02	1.000	0.3554	03	2.000	0.3285	04	5.000	0.3358
05	10.000	0.3202	09	50.000	0.3567	06	100.000	0.3171	07	150.000	0.3516
08	200.000	0.3538									

Iodomethane	Quadratic	1/X2	COD = 0.9983	$Y = 0.1452 X^2 + 0.09623 X + -0.001686$	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.06492	04	5.000	0.08102	05	10.000	0.1156	09	50.000	0.2439
06	100.000	0.4030	07	150.000	0.5187						

Isopropylbenzene (Cumene)	Average RF		RSD = 8.2	Average RF = 1.436	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.252	02	1.000	1.380	03	2.000	1.390	04	5.000	1.446
05	10.000	1.316	09	50.000	1.618	06	100.000	1.455	07	150.000	1.582
08	200.000	1.485									

Methacrylonitrile	Average RF		RSD = 14.2	Average RF = 0.1110	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.09401	02	1.000	0.08267	03	2.000	0.1129	04	5.000	0.1029
05	10.000	0.1074	09	50.000	0.1209	06	100.000	0.1257	07	150.000	0.1302
08	200.000	0.1227									

Methyl Acetate	Average RF		RSD = 11.4	Average RF = 0.2714	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3114	02	1.000	0.1972	03	2.000	0.2755	04	5.000	0.2736
05	10.000	0.2701	09	50.000	0.2816	06	100.000	0.2889	07	150.000	0.2798
08	200.000	0.2649									

Methyl Methacrylate	Average RF		RSD = 16.3	Average RF = 0.1354	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.09348	02	1.000	0.1307	03	2.000	0.1227	04	5.000	0.1201
05	10.000	0.1296	09	50.000	0.1495	06	100.000	0.1592	07	150.000	0.1589
08	200.000	0.1547									

Methyl tert-Butyl Ether	Average RF		RSD = 4.8	Average RF = 1.052	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.077	02	1.000	0.9783	03	2.000	1.014	04	5.000	1.024
05	10.000	0.9983	09	50.000	1.071	06	100.000	1.116	07	150.000	1.117
08	200.000	1.074									

Methylcyclohexane	Average RF		RSD = 5.9	Average RF = 0.4387	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4233	02	1.000	0.4302	03	2.000	0.4570	04	5.000	0.4258
05	10.000	0.3828	09	50.000	0.4521	06	100.000	0.4541	07	150.000	0.4589
08	200.000	0.4643									

Naphthalene	Average RF		RSD = 14.1	Average RF = 1.291	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.066	02	1.000	1.059	03	2.000	1.145	04	5.000	1.188
05	10.000	1.289	09	50.000	1.444	06	100.000	1.496	07	150.000	1.511
08	200.000	1.417									

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Propionitrile — Curve Fit: Quadratic — Weighting: 1/X2 — COD = 0.9972 — Y = 9.431E-5 X² + 0.04427 X + -0.001579

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.01322	02	5.000	0.02782	03	10.000	0.03613	04	25.000	0.03913
05	50.000	0.04431	09	250.000	0.04438	06	500.000	0.04614	07	750.000	0.04737
08	1000.000	0.04420									

Styrene — Average RF — RSD = 14.0 — Average RF = 0.9587

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7777	02	1.000	0.8055	03	2.000	0.8664	04	5.000	0.9370
05	10.000	0.8784	09	50.000	1.099	06	100.000	1.058	07	150.000	1.118
08	200.000	1.088									

Tetrachloroethene (PCE) — Average RF — RSD = 8.0 — Average RF = 0.2948

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2753	02	1.000	0.3131	03	2.000	0.2829	04	5.000	0.3045
05	10.000	0.2505	09	50.000	0.3130	06	100.000	0.2799	07	150.000	0.3162
08	200.000	0.3182									

Tetrahydrofuran (THF) — Average RF — RSD = 3.9 — Average RF = 0.1013

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1063	03	2.000	0.1006	04	5.000	0.09469	05	10.000	0.1016
09	50.000	0.09861	06	100.000	0.1040	07	150.000	0.1055	08	200.000	0.09899

Toluene — Average RF — RSD = 6.2 — Average RF = 1.300

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.133	02	1.000	1.335	03	2.000	1.346	04	5.000	1.336
05	10.000	1.210	09	50.000	1.389	06	100.000	1.298	07	150.000	1.361
08	200.000	1.290									

Toluene-d8 — Average RF — RSD = 0.8 — Average RF = 1.170

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	50.000	1.181	03	50.000	1.184	06	50.000	1.161	07	50.000	1.166
08	50.000	1.162	09	50.000	1.162	01	50.000	1.180	02	50.000	1.176
05	50.000	1.159									

Trichloroethene (TCE) — Average RF — RSD = 6.7 — Average RF = 0.3389

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3592	02	1.000	0.3713	03	2.000	0.3183	04	5.000	0.3344
05	10.000	0.2978	09	50.000	0.3460	06	100.000	0.3236	07	150.000	0.3519
08	200.000	0.3477									

Trichlorofluoromethane (CFC 11) — Average RF — RSD = 6.0 — Average RF = 0.7478

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7320	02	1.000	0.7677	03	2.000	0.7864	04	5.000	0.7593
05	10.000	0.6459	09	50.000	0.7926	06	100.000	0.7186	07	150.000	0.7752
08	200.000	0.7524									

Vinyl Acetate — Average RF — RSD = 18.8 — Average RF = 0.05955

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.03608	03	2.000	0.05311	04	5.000	0.05820	05	10.000	0.05903
09	50.000	0.06430	06	100.000	0.06596	07	150.000	0.07171	08	200.000	0.06801

00160

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Vinyl Chloride Average RF RSD = 5.8 Average RF = 0.5981

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5882	02	1.000	0.5870	03	2.000	0.6138	04	5.000	0.6053
05	10.000	0.5215	09	50.000	0.6432	06	100.000	0.5911	07	150.000	0.6290
08	200.000	0.6039									

cis-1,2-Dichloroethene Average RF RSD = 4.0 Average RF = 0.5059

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5301	02	1.000	0.5195	03	2.000	0.5134	04	5.000	0.4857
05	10.000	0.4641	09	50.000	0.5072	06	100.000	0.5030	07	150.000	0.5235
08	200.000	0.5064									

cis-1,3-Dichloropropene Average RF RSD = 12.0 Average RF = 0.4366

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3981	02	1.000	0.3729	03	2.000	0.3831	04	5.000	0.4039
05	10.000	0.4098	09	50.000	0.4778	06	100.000	0.4892	07	150.000	0.5010
08	200.000	0.4938									

m,p-Xylenes Average RF RSD = 10.0 Average RF = 0.5810

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4830	02	2.000	0.5450	03	4.000	0.5489	04	10.000	0.5865
05	20.000	0.5350	09	100.000	0.6575	06	200.000	0.6004	07	300.000	0.6517
08	400.000	0.6205									

n-Butyl Acetate Average RF RSD = 11.2 Average RF = 0.4518

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4541	02	1.000	0.4292	03	2.000	0.3548	04	5.000	0.4020
05	10.000	0.4424	09	50.000	0.4906	06	100.000	0.4967	07	150.000	0.5058
08	200.000	0.4903									

n-Butylbenzene Average RF RSD = 12.5 Average RF = 1.864

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.591	02	1.000	1.547	03	2.000	1.711	04	5.000	1.854
05	10.000	1.727	09	50.000	2.150	06	100.000	2.009	07	150.000	2.150
08	200.000	2.038									

n-Heptane Average RF RSD = 10.1 Average RF = 0.3673

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3515	02	1.000	0.3361	03	2.000	0.3371	04	5.000	0.3426
05	10.000	0.3307	09	50.000	0.4152	06	100.000	0.3622	07	150.000	0.4131
08	200.000	0.4173									

n-Propylbenzene Average RF RSD = 6.4 Average RF = 3.026

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.774	02	1.000	2.997	03	2.000	3.046	04	5.000	3.130
05	10.000	2.832	09	50.000	3.406	06	100.000	3.061	07	150.000	3.128
08	200.000	2.863									

o-Xylene Average RF RSD = 11.6 Average RF = 0.5725

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4554	02	1.000	0.5117	03	2.000	0.5402	04	5.000	0.5669
05	10.000	0.5463	09	50.000	0.6403	06	100.000	0.5987	07	150.000	0.6462
08	200.000	0.6462									

00161

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte	Curve Fit	Weighting

sec-Butylbenzene — Average RF — RSD = 6.7 — Average RF = 2.493

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.298	02	1.000	2.438	03	2.000	2.381	04	5.000	2.489
05	10.000	2.289	09	50.000	2.779	06	100.000	2.535	07	150.000	2.707
08	200.000	2.518									

tert-Amyl Methyl Ether — Average RF — RSD = 6.0 — Average RF = 1.104

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.034	02	1.000	1.014	03	2.000	1.098	04	5.000	1.075
05	10.000	1.047	09	50.000	1.140	06	100.000	1.183	07	150.000	1.179
08	200.000	1.169									

tert-Butylbenzene — Average RF — RSD = 7.1 — Average RF = 1.808

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.648	02	1.000	1.743	03	2.000	1.759	04	5.000	1.844
05	10.000	1.625	09	50.000	1.973	06	100.000	1.804	07	150.000	1.973
08	200.000	1.907									

trans-1,2-Dichloroethene — Average RF — RSD = 6.3 — Average RF = 0.4454

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4762	02	1.000	0.4166	03	2.000	0.4547	04	5.000	0.4485
05	10.000	0.3874	09	50.000	0.4614	06	100.000	0.4383	07	150.000	0.4701
08	200.000	0.4559									

trans-1,3-Dichloropropene — Average RF — RSD = 14.7 — Average RF = 0.3592

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3090	02	1.000	0.2944	03	2.000	0.3073	04	5.000	0.3333
05	10.000	0.3403	09	50.000	0.3925	06	100.000	0.4159	07	150.000	0.4270
08	200.000	0.4131									

trans-1,4-Dichloro-2-butene — Quadratic — 1/X2 — COD = 0.9925 — $Y = 0.007678 X^2 + 0.08040 X + -4.148E-4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.03800	02	1.000	0.06410	03	2.000	0.07025	04	5.000	0.06626
05	10.000	0.07686	09	50.000	0.09502	06	100.000	0.1034	07	150.000	0.1063
08	200.000	0.1034									

00162

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.8	02	1.000	0.91	-9.3	03	2.000	1.92	-3.8
04	5.000	4.88	-2.4	05	10.000	8.98	-10.2	09	50.000	54.07	8.1
06	100.000	104.45	4.4	07	150.000	166.14	10.8	08	200.000	220.05	10.0

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-3.0	02	1.000	1.02	2.5	03	2.000	1.97	-1.6
04	5.000	5.03	0.5	05	10.000	8.80	-12.0	09	50.000	51.99	4.0
06	100.000	97.39	-2.6	07	150.000	161.32	7.5	08	200.000	209.34	4.7

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.5	02	1.000	1.04	4.0	03	2.000	2.02	0.8
04	5.000	4.90	-1.9	05	10.000	9.85	-1.5	09	50.000	48.71	-2.6
06	100.000	100.61	0.6	07	150.000	146.43	-2.4	08	200.000	191.13	-4.4

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.1	02	1.000	0.90	-9.9	03	2.000	1.94	-3.1
04	5.000	5.07	1.3	05	10.000	10.05	0.5	09	50.000	51.97	3.9
06	100.000	105.49	5.5	07	150.000	156.51	4.3	08	200.000	200.87	0.4

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	1.08	8.2	03	2.000	1.96	-1.9
04	5.000	5.25	4.9	05	10.000	8.52	-14.8	09	50.000	52.89	5.8
06	100.000	93.10	-6.9	07	150.000	159.00	6.0	08	200.000	207.21	3.6

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.9	02	1.000	1.01	0.9	03	2.000	2.06	3.0
04	5.000	5.01	0.1	05	10.000	9.09	-9.1	09	50.000	51.46	2.9
06	100.000	99.07	-0.9	07	150.000	155.29	3.5	08	200.000	201.07	0.5

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.2	02	1.000	0.98	-1.6	03	2.000	2.13	6.3
04	5.000	5.09	1.8	05	10.000	8.80	-12.0	09	50.000	52.85	5.7
06	100.000	98.14	-1.9	07	150.000	163.52	9.0	08	200.000	211.75	5.9

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.2	02	1.000	1.05	5.5	03	2.000	2.09	4.5
04	5.000	5.06	1.3	05	10.000	8.62	-13.8	09	50.000	52.89	5.8
06	100.000	96.15	-3.8	07	150.000	159.36	6.2	08	200.000	209.11	4.6

00163

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.00	-0.5	03	2.000	1.96	-1.8
04	5.000	4.76	-4.7	05	10.000	9.73	-2.7	09	50.000	50.71	1.4
06	100.000	102.05	2.0	07	150.000	156.64	4.4	08	200.000	202.85	1.4

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.5	02	1.000	0.90	-10.0	03	2.000	1.98	-0.9
04	5.000	4.95	-1.0	05	10.000	10.57	5.7	09	50.000	50.79	1.6
06	100.000	103.47	3.5	07	150.000	151.65	1.1	08	200.000	196.93	-1.5

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.6	02	1.000	0.85	-14.7	03	2.000	1.91	-4.5
04	5.000	4.94	-1.3	05	10.000	9.78	-2.2	09	50.000	53.09	6.2
06	100.000	102.18	2.2	07	150.000	159.36	6.2	08	200.000	208.67	4.3

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.8	02	1.000	0.89	-11.3	03	2.000	2.00	-0.2
04	5.000	5.17	3.4	05	10.000	9.48	-5.2	09	50.000	55.69	11.4
06	100.000	104.00	4.0	07	150.000	162.89	8.6	08	200.000	204.40	2.2

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.92	-8.3	03	2.000	1.92	-4.2	04	5.000	4.98	-0.3
05	10.000	9.36	-6.4	09	50.000	48.93	-2.1	06	100.000	107.14	7.1
07	150.000	163.20	8.8	08	200.000	211.01	5.5				

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.2	02	1.000	0.90	-10.4	03	2.000	2.03	1.5
04	5.000	4.96	-0.8	05	10.000	9.57	-4.3	09	50.000	52.37	4.7
06	100.000	104.93	4.9	07	150.000	158.03	5.4	08	200.000	208.51	4.3

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.2	02	1.000	1.10	9.8	03	2.000	2.04	1.9
04	5.000	5.06	1.3	05	10.000	9.36	-6.4	09	50.000	50.04	0.1
06	100.000	99.27	-0.7	07	150.000	151.24	0.8	08	200.000	195.19	-2.4

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.8	02	1.000	1.01	1.3	03	2.000	2.00	-0.2
04	5.000	5.02	0.4	05	10.000	9.61	-3.9	09	50.000	52.19	4.4
06	100.000	103.42	3.4	07	150.000	158.12	5.4	08	200.000	204.26	2.1

00164

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	1.07	7.1	03	2.000	2.08	3.9
04	5.000	4.76	-4.8	05	10.000	9.58	-4.2	09	50.000	48.54	-2.9
06	100.000	97.59	-2.4	07	150.000	143.88	-4.1	08	200.000	187.17	-6.4

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	50.000	50.98	2.0	05	50.000	50.02	0.0	06	50.000	49.83	-0.3
04	50.000	50.63	1.3	03	50.000	52.22	4.4	08	50.000	47.67	-4.7
07	50.000	48.76	-2.5	02	50.000	50.62	1.2	09	50.000	49.28	-1.4

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.6	02	1.000	0.84	-15.9	03	2.000	2.06	3.0
04	5.000	4.91	-1.8	05	10.000	9.57	-4.3	09	50.000	53.13	6.3
06	100.000	103.96	4.0	07	150.000	160.93	7.3	08	200.000	210.32	5.2

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.5	02	1.000	0.99	-1.3	03	2.000	1.92	-3.8
04	5.000	4.84	-3.2	05	10.000	10.20	2.0	09	50.000	49.54	-0.9
06	100.000	104.02	4.0	07	150.000	155.32	3.5	08	200.000	196.41	-1.8

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.5	02	1.000	0.89	-10.6	03	2.000	1.97	-1.6
04	5.000	5.16	3.2	05	10.000	9.26	-7.4	09	50.000	55.37	10.7
06	100.000	103.38	3.4	07	150.000	164.51	9.7	08	200.000	206.31	3.2

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	0.98	-2.4	03	2.000	1.97	-1.6
04	5.000	5.00	0.0	05	10.000	9.36	-6.4	09	50.000	52.53	5.1
06	100.000	101.38	1.4	07	150.000	158.56	5.7	08	200.000	206.23	3.1

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.1	02	1.000	0.96	-3.6	03	2.000	1.98	-0.8
04	5.000	4.86	-2.9	05	10.000	9.61	-3.9	09	50.000	51.19	2.4
06	100.000	101.40	1.4	07	150.000	154.46	3.0	08	200.000	202.60	1.3

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.5	02	1.000	0.96	-3.9	03	2.000	2.00	-0.1
04	5.000	4.90	-2.0	05	10.000	9.49	-5.1	09	50.000	50.48	1.0
06	100.000	98.67	-1.3	07	150.000	152.93	2.0	08	200.000	198.17	-0.9

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	33.67	-15.8	04	100.000	116.43	16.4	05	200.000	200.88	0.4
09	1000.000	957.38	-4.3	06	2000.000	2,090.59	4.5	07	3000.000	3,045.79	1.5
08	4000.000	3,886.05	-2.8								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	100.000	103.99	4.0	04	250.000	232.76	-6.9	05	500.000	461.53	-7.7
09	2500.000	2,589.15	3.6	06	5000.000	5,501.08	10.0	07	7500.000	7,543.83	0.6
08	10000.000	9,527.86	-4.7								

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-15.4	02	1.000	0.98	-2.0	03	2.000	1.90	-4.8
04	5.000	4.85	-3.0	05	10.000	10.03	0.3	09	50.000	51.75	3.5
06	100.000	104.98	5.0	07	150.000	165.19	10.1	08	200.000	212.55	6.3

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.5	02	1.000	1.09	8.8	03	2.000	2.02	0.8
04	5.000	4.91	-1.8	05	10.000	9.18	-8.2	09	50.000	49.93	-0.1
06	100.000	100.24	0.2	07	150.000	151.47	1.0	08	200.000	197.62	-1.2

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.5	02	1.000	0.97	-2.6	03	2.000	1.84	-8.0
04	5.000	4.78	-4.4	05	10.000	8.54	-14.6	09	50.000	53.78	7.6
06	100.000	99.60	-0.4	07	150.000	172.05	14.7	08	200.000	222.50	11.3

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.87	-12.7	03	2.000	1.88	-6.1	04	5.000	4.83	-3.3
05	10.000	11.09	10.9	09	50.000	50.08	0.2	06	100.000	103.55	3.5
07	150.000	160.42	6.9	08	200.000	201.16	0.6				

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.3	02	1.000	0.80	-20.0	03	2.000	1.99	-0.4
04	5.000	4.52	-9.6	05	10.000	10.47	4.7	09	50.000	52.63	5.3
06	100.000	109.26	9.3	07	150.000	165.55	10.4	08	200.000	209.37	4.7

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.39	-7.5	02	3.000	2.77	-7.6	03	6.000	5.60	-6.7
04	15.000	14.53	-3.2	05	30.000	31.28	4.3	09	150.000	157.32	4.9
06	300.000	330.32	10.1	07	450.000	483.40	7.4	08	600.000	589.99	-1.7

00166

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.7	02	1.000	0.91	-9.5	03	2.000	1.80	-9.8
04	5.000	4.89	-2.1	05	10.000	10.15	1.5	09	50.000	51.11	2.2
06	100.000	107.54	7.5	07	150.000	164.53	9.7	08	200.000	210.46	5.2

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.9	02	1.000	0.88	-12.1	03	2.000	2.08	4.1
04	5.000	4.62	-7.6	05	10.000	10.00	0.0	09	50.000	49.75	-0.5
06	100.000	105.18	5.2	07	150.000	162.29	8.2	08	200.000	207.40	3.7

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.88	-6.1	04	5.000	4.81	-3.7	05	10.000	9.61	-3.9
09	50.000	50.34	0.7	06	100.000	106.39	6.4	07	150.000	161.41	7.6
08	200.000	198.10	-1.0								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.6	02	1.000	0.95	-4.5	03	2.000	1.93	-3.5
04	5.000	4.88	-2.3	05	10.000	9.78	-2.2	09	50.000	52.55	5.1
06	100.000	101.85	1.9	07	150.000	168.57	12.4	08	200.000	213.66	6.8

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.40	-19.3	02	1.000	0.89	-10.7	03	2.000	1.92	-4.2
04	5.000	5.02	0.5	05	10.000	10.24	2.4	09	50.000	51.50	3.0
06	100.000	107.56	7.6	07	150.000	168.42	12.3	08	200.000	217.18	8.6

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.96	-4.4	03	2.000	1.60	-20.0	04	5.000	4.32	-13.5
05	10.000	9.93	-0.7	09	50.000	52.66	5.3	06	100.000	110.09	10.1
07	150.000	170.13	13.4	08	200.000	219.71	9.9				

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.8	02	1.000	0.96	-3.7	03	2.000	1.95	-2.4
04	5.000	5.12	2.4	05	10.000	9.60	-4.0	09	50.000	53.95	7.9
06	100.000	102.79	2.8	07	150.000	160.57	7.0	08	200.000	205.70	2.8

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	3.79	-24.2	05	10.000	9.38	-6.2	09	50.000	51.66	3.3
06	100.000	108.68	8.7	07	150.000	167.54	11.7	08	200.000	213.27	6.6

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	33.70	-15.7	04	100.000	83.22	-16.8	05	200.000	190.86	-4.6
09	1000.000	1,026.00	2.6	06	2000.000	2,234.01	11.7	07	3000.000	3,422.19	14.1
08	4000.000	4,349.17	8.7								

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	9.14	-8.6	02	20.000	17.26	-13.7	03	40.000	40.14	0.4
04	100.000	95.65	-4.4	05	200.000	201.22	0.6	09	1000.000	1,002.54	0.3
06	2000.000	2,178.17	8.9	07	3000.000	3,348.20	11.6	08	4000.000	4,194.93	4.9

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	200.000	199.84	-0.1	07	300.000	305.32	1.8	08	400.000	393.23	-1.7

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.33	-16.7	02	20.000	19.80	-1.0	03	40.000	38.88	-2.8
04	100.000	89.16	-10.8	05	200.000	212.10	6.0	09	1000.000	977.08	-2.3
06	2000.000	2,230.91	11.5	07	3000.000	3,361.98	12.1	08	4000.000	4,157.22	3.9

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.94	-6.1	02	2.000	1.87	-6.5	03	4.000	3.84	-3.9
04	10.000	9.89	-1.1	05	20.000	21.27	6.3	09	100.000	104.54	4.5
06	200.000	219.54	9.8	07	300.000	310.93	3.6	08	400.000	373.11	-6.7

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.8	02	1.000	0.92	-8.1	03	2.000	1.94	-2.9
04	5.000	4.78	-4.5	05	10.000	9.96	-0.4	09	50.000	50.60	1.2
06	100.000	107.98	8.0	07	150.000	168.90	12.6	08	200.000	213.70	6.9

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.1	02	1.000	1.02	2.4	03	2.000	1.70	-14.9
04	5.000	4.66	-6.7	05	10.000	8.67	-13.3	09	50.000	53.31	6.6
06	100.000	101.10	1.1	07	150.000	165.68	10.5	08	200.000	212.51	6.3

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.40	-19.5	02	1.000	0.97	-2.7	03	2.000	1.93	-3.3
04	5.000	4.78	-4.4	05	10.000	10.01	0.1	09	50.000	51.45	2.9
06	100.000	106.52	6.5	07	150.000	168.62	12.4	08	200.000	216.10	8.0

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.90	-10.2	03	2.000	1.89	-5.3
04	5.000	5.18	3.7	05	10.000	10.78	7.8	09	50.000	50.30	0.6
06	100.000	105.30	5.3	07	150.000	153.46	2.3	08	200.000	193.26	-3.4

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	48.51	-3.0	03	50.000	50.53	1.1	08	50.000	50.18	0.4
07	50.000	50.44	0.9	06	50.000	51.27	2.5	05	50.000	50.33	0.7
01	50.000	48.75	-2.5	04	50.000	49.71	-0.6	09	50.000	50.26	0.5

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.1	02	1.000	0.94	-5.6	03	2.000	2.02	1.2
04	5.000	5.02	0.5	05	10.000	9.15	-8.5	09	50.000	53.31	6.6
06	100.000	101.45	1.4	07	150.000	157.71	5.1	08	200.000	198.09	-1.0

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.3	02	1.000	0.85	-14.9	03	2.000	1.86	-6.8
04	5.000	4.96	-0.7	05	10.000	9.57	-4.3	09	50.000	57.16	14.3
06	100.000	103.88	3.9	07	150.000	168.17	12.1	08	200.000	211.39	5.7

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.73	-13.6	04	5.000	4.28	-14.5	05	10.000	9.77	-2.3
09	50.000	52.39	4.8	06	100.000	108.66	8.7	07	150.000	168.13	12.1
08	200.000	209.83	4.9								

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.31	6.1	05	10.000	10.43	4.3	09	50.000	47.23	-5.5
06	100.000	99.10	-0.9	07	150.000	149.60	-0.3	08	200.000	192.62	-3.7

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	10.26	2.6	04	25.000	23.70	-5.2	05	50.000	48.57	-2.9
09	250.000	221.06	-11.6	06	500.000	577.76	15.6	07	750.000	759.42	1.3
08	1000.000	1,002.60	0.3								

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.73	9.2	02	5.000	5.73	14.5	03	10.000	11.71	17.1
04	25.000	27.29	9.2	05	50.000	47.35	-5.3	09	250.000	226.25	-9.5
06	500.000	476.42	-4.7	07	750.000	666.43	-11.1	08	1000.000	806.45	-19.4

00169

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.27	-9.3	02	5.000	4.52	-9.6	03	10.000	9.77	-2.3
04	25.000	24.53	-1.9	05	50.000	50.68	1.4	09	250.000	258.61	3.4
06	500.000	544.55	8.9	07	750.000	806.28	7.5	08	1000.000	1,017.76	1.8

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.8	02	1.000	1.01	0.8	03	2.000	2.05	2.3
04	5.000	5.11	2.1	05	10.000	9.23	-7.7	09	50.000	51.96	3.9
06	100.000	98.60	-1.4	07	150.000	155.94	4.0	08	200.000	203.73	1.9

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.2	02	1.000	1.01	0.6	03	2.000	1.91	-4.3
04	5.000	5.13	2.6	05	10.000	9.66	-3.4	09	50.000	50.79	1.6
06	100.000	100.38	0.4	07	150.000	153.97	2.6	08	200.000	204.04	2.0

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.2	02	1.000	1.05	4.9	03	2.000	2.11	5.3
04	5.000	5.11	2.2	05	10.000	9.64	-3.6	09	50.000	51.31	2.6
06	100.000	100.55	0.5	07	150.000	149.17	-0.6	08	200.000	191.78	-4.1

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	0.97	-3.4	03	2.000	1.82	-8.9
04	5.000	4.87	-2.7	05	10.000	9.45	-5.5	09	50.000	52.56	5.1
06	100.000	105.09	5.1	07	150.000	161.58	7.7	08	200.000	208.61	4.3

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-17.4	02	1.000	0.81	-18.7	03	2.000	1.85	-7.3
04	5.000	4.65	-7.0	05	10.000	9.18	-8.2	09	50.000	54.82	9.6
06	100.000	114.05	14.0	07	150.000	177.11	18.1	08	200.000	233.67	16.8

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.3	02	1.000	0.94	-6.3	03	2.000	1.49	-25.7
04	5.000	5.00	0.0	05	10.000	10.18	1.8	09	50.000	57.30	14.6
06	100.000	102.07	2.1	07	150.000	151.64	1.1	08	200.000	193.79	-3.1

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.1	02	1.000	1.03	2.5	03	2.000	1.96	-2.2
04	5.000	5.03	0.6	05	10.000	9.70	-3.0	09	50.000	48.67	-2.7
06	100.000	95.52	-4.5	07	150.000	156.55	4.4	08	200.000	195.53	-2.2

00170

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.9	02	1.000	0.99	-1.1	03	2.000	1.97	-1.4
04	5.000	5.06	1.1	05	10.000	8.70	-13.0	09	50.000	53.65	7.3
06	100.000	100.50	0.5	07	150.000	167.20	11.5	08	200.000	220.03	10.0

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-5.0	02	1.000	0.97	-3.2	03	2.000	2.05	2.4
04	5.000	5.13	2.7	05	10.000	9.51	-4.9	09	50.000	52.70	5.4
06	100.000	97.92	-2.1	07	150.000	155.09	3.4	08	200.000	202.66	1.3

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.9	02	1.000	1.22	21.7	03	2.000	2.15	7.6
04	5.000	4.77	-4.6	05	10.000	8.44	-15.6	09	50.000	49.39	-1.2
06	100.000	92.92	-7.1	07	150.000	148.38	-1.1	08	200.000	188.85	-5.6

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.3	02	1.000	1.01	1.2	03	2.000	2.15	7.3
04	5.000	4.97	-0.6	05	10.000	9.12	-8.8	09	50.000	50.77	1.5
06	100.000	98.92	-1.1	07	150.000	152.83	1.9	08	200.000	197.66	-1.2

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.04	3.6	03	2.000	2.02	1.1
04	5.000	4.87	-2.5	05	10.000	9.25	-7.5	09	50.000	51.81	3.6
06	100.000	97.63	-2.4	07	150.000	155.56	3.7	08	200.000	200.26	0.1

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.9	02	1.000	1.01	1.4	03	2.000	2.02	0.9
04	5.000	4.91	-1.8	05	10.000	9.03	-9.7	09	50.000	50.58	1.2
06	100.000	99.90	-0.1	07	150.000	149.77	-0.2	08	200.000	198.79	-0.6

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.11	-18.9	02	20.000	14.17	-29.1	03	40.000	37.73	-5.7
04	100.000	93.22	-6.8	05	200.000	211.69	5.8	09	1000.000	1,103.13	10.3
06	2000.000	2,249.25	12.5	07	3000.000	3,580.55	19.4	08	4000.000	4,500.48	12.5

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.1	02	1.000	0.81	-19.4	03	2.000	1.85	-7.6
04	5.000	4.82	-3.7	05	10.000	9.71	-2.9	09	50.000	54.48	9.0
06	100.000	110.20	10.2	07	150.000	168.62	12.4	08	200.000	224.16	12.1

00171

Initial Calibration - Detailed Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	50.000	51.10	2.2	04	50.000	49.78	-0.4	02	50.000	50.52	1.0
03	50.000	50.76	1.5	06	50.000	49.93	-0.1	07	50.000	49.42	-1.2
08	50.000	49.13	-1.7	05	50.000	50.18	0.4	09	50.000	49.18	-1.6

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-9.0	02	1.000	0.92	-8.0	03	2.000	2.24	11.8
04	5.000	4.93	-1.4	05	10.000	9.93	-0.7	09	50.000	50.80	1.6
06	100.000	103.61	3.6	07	150.000	152.98	2.0	08	200.000	200.02	0.0

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.0	02	1.000	1.01	0.9	03	2.000	1.93	-3.4
04	5.000	4.70	-5.9	05	10.000	9.38	-6.2	09	50.000	55.41	10.8
06	100.000	102.04	2.0	07	150.000	164.40	9.6	08	200.000	212.53	6.3

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.4	02	1.000	1.00	0.1	03	2.000	2.08	3.9
04	5.000	5.21	4.3	05	10.000	9.45	-5.5	09	50.000	49.64	-0.7
06	100.000	98.89	-1.1	07	150.000	147.62	-1.6	08	200.000	188.39	-5.8

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.1	02	1.000	1.10	9.8	03	2.000	2.11	5.7
04	5.000	5.11	2.1	05	10.000	8.98	-10.2	09	50.000	49.25	-1.5
06	100.000	98.23	-1.8	07	150.000	149.43	-0.4	08	200.000	192.29	-3.9

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.7	02	1.000	1.05	4.8	03	2.000	2.04	1.8
04	5.000	5.07	1.3	05	10.000	9.72	-2.8	09	50.000	50.60	1.2
06	100.000	102.51	2.5	07	150.000	151.41	0.9	08	200.000	193.92	-3.0

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.2	02	1.000	0.93	-7.0	03	2.000	1.97	-1.3
04	5.000	4.91	-1.8	05	10.000	9.81	-1.9	09	50.000	52.52	5.0
06	100.000	107.09	7.1	07	150.000	157.65	5.1	08	200.000	205.99	3.0

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.3	02	1.000	0.82	-17.6	03	2.000	1.78	-10.9
04	5.000	4.94	-1.2	05	10.000	10.45	4.5	09	50.000	54.84	9.7
06	100.000	106.89	6.9	07	150.000	153.28	2.2	08	200.000	187.87	-6.1

00172

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.4	02	1.000	0.94	-5.8	03	2.000	1.93	-3.5
04	5.000	4.92	-1.6	05	10.000	9.60	-4.0	09	50.000	52.52	5.0
06	100.000	106.73	6.7	07	150.000	160.09	6.7	08	200.000	211.61	5.8

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.3	02	1.000	0.94	-5.6	03	2.000	1.94	-2.9
04	5.000	5.07	1.3	05	10.000	8.75	-12.5	09	50.000	54.05	8.1
06	100.000	99.26	-0.7	07	150.000	165.97	10.6	08	200.000	219.69	9.8

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	1.04	4.2	03	2.000	1.93	-3.6
04	5.000	4.92	-1.5	05	10.000	9.39	-6.1	09	50.000	52.31	4.6
06	100.000	93.02	-7.0	07	150.000	154.70	3.1	08	200.000	207.55	3.8

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.09	4.7	04	5.000	4.48	-10.4	05	10.000	9.92	-0.8
09	50.000	50.55	1.1	06	100.000	102.52	2.5	07	150.000	148.05	-1.3

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.8	02	1.000	0.96	-3.9	03	2.000	1.94	-3.2
04	5.000	5.03	0.7	05	10.000	9.16	-8.4	09	50.000	56.35	12.7
06	100.000	101.32	1.3	07	150.000	165.21	10.1	08	200.000	206.80	3.4

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-15.3	02	1.000	0.74	-25.6	03	2.000	2.03	1.7
04	5.000	4.63	-7.3	05	10.000	9.68	-3.2	09	50.000	54.44	8.9
06	100.000	113.19	13.2	07	150.000	175.84	17.2	08	200.000	220.90	10.5

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.7	02	1.000	0.73	-27.3	03	2.000	2.03	1.5
04	5.000	5.04	0.8	05	10.000	9.95	-0.5	09	50.000	51.86	3.7
06	100.000	106.43	6.4	07	150.000	154.60	3.1	08	200.000	195.17	-2.4

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.35	-31.0	02	1.000	0.96	-3.5	03	2.000	1.81	-9.4
04	5.000	4.43	-11.3	05	10.000	9.57	-4.3	09	50.000	55.21	10.4
06	100.000	117.57	17.6	07	150.000	176.00	17.3	08	200.000	228.46	14.2

00173

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.93	-7.0	03	2.000	1.93	-3.6
04	5.000	4.87	-2.6	05	10.000	9.49	-5.1	09	50.000	50.91	1.8
06	100.000	106.01	6.0	07	150.000	159.24	6.2	08	200.000	204.13	2.1

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.5	02	1.000	0.98	-1.9	03	2.000	2.08	4.2
04	5.000	4.85	-3.0	05	10.000	8.73	-12.7	09	50.000	51.53	3.1
06	100.000	103.52	3.5	07	150.000	156.90	4.6	08	200.000	211.65	5.8

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-17.4	02	1.000	0.82	-17.9	03	2.000	1.77	-11.3
04	5.000	4.60	-7.9	05	10.000	9.99	-0.1	09	50.000	55.94	11.9
06	100.000	115.93	15.9	07	150.000	175.65	17.1	08	200.000	219.59	9.8

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.53	1.2	02	5.000	4.92	-1.5	03	10.000	9.94	-0.6
04	25.000	23.85	-4.6	05	50.000	51.71	3.4	09	250.000	249.74	-0.1
06	500.000	511.64	2.3	07	750.000	778.42	3.8	08	1000.000	960.68	-3.9

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-18.9	02	1.000	0.84	-16.0	03	2.000	1.81	-9.6
04	5.000	4.89	-2.3	05	10.000	9.16	-8.4	09	50.000	57.31	14.6
06	100.000	110.40	10.4	07	150.000	174.94	16.6	08	200.000	226.96	13.5

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.6	02	1.000	1.06	6.2	03	2.000	1.92	-4.0
04	5.000	5.16	3.3	05	10.000	8.50	-15.0	09	50.000	53.07	6.1
06	100.000	94.92	-5.1	07	150.000	160.87	7.2	08	200.000	215.85	7.9

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.05	5.0	03	2.000	1.99	-0.7	04	5.000	4.67	-6.5
05	10.000	10.03	0.3	09	50.000	48.68	-2.6	06	100.000	102.72	2.7
07	150.000	156.21	4.1	08	200.000	195.45	-2.3				

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.9	02	1.000	1.03	2.7	03	2.000	2.07	3.6
04	5.000	5.14	2.8	05	10.000	9.31	-6.9	09	50.000	53.44	6.9
06	100.000	99.88	-0.1	07	150.000	157.01	4.7	08	200.000	198.41	-0.8

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	50.000	50.45	0.9	03	50.000	50.60	1.2	06	50.000	49.61	-0.8
07	50.000	49.84	-0.3	08	50.000	49.67	-0.7	09	50.000	49.65	-0.7
01	50.000	50.42	0.8	02	50.000	50.24	0.5	05	50.000	49.52	-1.0

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.0	02	1.000	1.10	9.6	03	2.000	1.88	-6.1
04	5.000	4.93	-1.3	05	10.000	8.79	-12.1	09	50.000	51.04	2.1
06	100.000	95.48	-4.5	07	150.000	155.74	3.8	08	200.000	205.20	2.6

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.1	02	1.000	1.03	2.7	03	2.000	2.10	5.2
04	5.000	5.08	1.5	05	10.000	8.64	-13.6	09	50.000	53.00	6.0
06	100.000	96.10	-3.9	07	150.000	155.49	3.7	08	200.000	201.24	0.6

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.61	-39.4	03	2.000	1.78	-10.8	04	5.000	4.89	-2.3
05	10.000	9.91	-0.9	09	50.000	53.99	8.0	06	100.000	110.77	10.8
07	150.000	180.64	20.4	08	200.000	228.41	14.2				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	0.98	-1.9	03	2.000	2.05	2.6
04	5.000	5.06	1.2	05	10.000	8.72	-12.8	09	50.000	53.77	7.5
06	100.000	98.83	-1.2	07	150.000	157.76	5.2	08	200.000	201.94	1.0

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.8	02	1.000	1.03	2.7	03	2.000	2.03	1.5
04	5.000	4.80	-4.0	05	10.000	9.17	-8.3	09	50.000	50.13	0.3
06	100.000	99.43	-0.6	07	150.000	155.22	3.5	08	200.000	200.20	0.1

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.8	02	1.000	0.85	-14.6	03	2.000	1.75	-12.3
04	5.000	4.63	-7.5	05	10.000	9.39	-6.1	09	50.000	54.72	9.4
06	100.000	112.04	12.0	07	150.000	172.11	14.7	08	200.000	226.19	13.1

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.83	-16.9	02	2.000	1.88	-6.2	03	4.000	3.78	-5.5
04	10.000	10.10	1.0	05	20.000	18.42	-7.9	09	100.000	113.17	13.2
06	200.000	206.70	3.4	07	300.000	336.54	12.2	08	400.000	427.23	6.8

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.5	02	1.000	0.95	-5.0	03	2.000	1.57	-21.5
04	5.000	4.45	-11.0	05	10.000	9.79	-2.1	09	50.000	54.30	8.6
06	100.000	109.94	9.9	07	150.000	167.95	12.0	08	200.000	217.06	8.5

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.7	02	1.000	0.83	-17.0	03	2.000	1.84	-8.2
04	5.000	4.97	-0.5	05	10.000	9.27	-7.3	09	50.000	57.67	15.3
06	100.000	107.75	7.7	07	150.000	172.98	15.3	08	200.000	218.66	9.3

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.3	02	1.000	0.91	-8.5	03	2.000	1.84	-8.2
04	5.000	4.66	-6.7	05	10.000	9.00	-10.0	09	50.000	56.52	13.0
06	100.000	98.60	-1.4	07	150.000	168.71	12.5	08	200.000	227.23	13.6

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.3	02	1.000	0.99	-1.0	03	2.000	2.01	0.7
04	5.000	5.17	3.4	05	10.000	9.36	-6.4	09	50.000	56.26	12.5
06	100.000	101.14	1.1	07	150.000	155.06	3.4	08	200.000	189.21	-5.4

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.40	-20.4	02	1.000	0.89	-10.6	03	2.000	1.89	-5.6
04	5.000	4.95	-1.0	05	10.000	9.54	-4.6	09	50.000	55.93	11.9
06	100.000	104.59	4.6	07	150.000	169.33	12.9	08	200.000	225.78	12.9

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.8	02	1.000	0.98	-2.2	03	2.000	1.91	-4.5
04	5.000	4.99	-0.1	05	10.000	9.18	-8.2	09	50.000	55.75	11.5
06	100.000	101.69	1.7	07	150.000	162.91	8.6	08	200.000	202.04	1.0

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.4	02	1.000	0.92	-8.2	03	2.000	1.99	-0.6
04	5.000	4.87	-2.7	05	10.000	9.48	-5.2	09	50.000	51.63	3.3
06	100.000	107.11	7.1	07	150.000	160.19	6.8	08	200.000	211.78	5.9

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.8	02	1.000	0.96	-3.6	03	2.000	1.95	-2.7
04	5.000	5.10	1.9	05	10.000	8.98	-10.2	09	50.000	54.56	9.1
06	100.000	99.75	-0.3	07	150.000	163.64	9.1	08	200.000	210.85	5.4

00176

Initial Calibration - Detailed Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.9	02	1.000	0.94	-6.5	03	2.000	2.04	2.1
04	5.000	5.03	0.7	05	10.000	8.70	-13.0	09	50.000	51.79	3.6
06	100.000	98.39	-1.6	07	150.000	158.30	5.5	08	200.000	204.68	2.3

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.0	02	1.000	0.82	-18.0	03	2.000	1.71	-14.5
04	5.000	4.64	-7.2	05	10.000	9.47	-5.3	09	50.000	54.63	9.3
06	100.000	115.80	15.8	07	150.000	178.32	18.9	08	200.000	229.99	15.0

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.2	02	1.000	1.05	5.3	03	2.000	2.00	-0.1
04	5.000	4.34	-13.1	05	10.000	9.64	-3.6	09	50.000	53.81	7.6
06	100.000	106.96	7.0	07	150.000	153.58	2.4	08	200.000	189.14	-5.4

Quantitation Report (QT Reviewed)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FD 3/3/14
KP 3/3/14

Quant Time: Feb 28 14:53:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	820111	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1201377	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1115652	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	573135	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	400656	52.63	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.26%				
48) surr1,1,2-dichloroetha...	4.860	65	420573	51.92	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 103.84%				
65) SURR3,Toluene-d8	7.427	98	1417506	51.28	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.56%				
70) SURR2,BFB	9.878	95	563022	49.78	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.56%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.196	85	3878	0.48	ug/L		84
3) Chloromethane	1.300	50	5282	0.64	ug/L		94
4) Vinyl Chloride	1.367	62	4824	0.58	ug/L		81
5) Bromomethane	1.568	94	1032	0.36	ug/L	#	54
6) Chloroethane	1.617	64	3052	0.65	ug/L		84
7) Freon 21	1.721	67	8489	0.59	ug/L		98
8) Trichlorofluoromethane	1.770	101	6003	0.52	ug/L		89
9) Diethyl Ether	1.940	59	2779	0.61	ug/L	#	76
10) Freon 123a	1.934	67	4735	0.52	ug/L		86
11) Freon 123	1.971	83	5346	0.54	ug/L		85
12) Acrolein	2.026	56	2438	4.40	ug/L		82
13) 1,1-Diclethene	2.105	96	2479	0.45	ug/L	#	83
14) Freon 113	2.093	101	3274	0.68	ug/L	#	54
15) Acetone	2.135	43	1528	1.01	ug/L		80
16) 2-Propanol	2.196	45	2529	10.05	ug/L		95
17) Iodomethane	2.221	142	699	0.12	ug/L		99
18) Carbon Disulfide	2.276	76	11228	0.57	ug/L		90
20) Allyl Chloride	2.361	76	1958	0.59	ug/L	#	80
21) Methyl Acetate	2.367	43	2554m	0.77	ug/L		
22) Methylene Chloride	2.446	84	3722	0.52	ug/L		91
23) TBA	2.513	59	4170m	9.58	ug/L		
24) Acrylonitrile	2.660	53	4471m	2.90	ug/L		
25) Methyl-t-Butyl Ether	2.666	73	8834m	0.53	ug/L		
26) trans-1,2-Dichloroethene	2.678	96	3905	0.56	ug/L		92
28) 1,1-Diclethane	3.050	63	7122	0.54	ug/L		86
29) Vinyl Acetate	3.129	86	199m	0.21	ug/L		
30) DIPE	3.111	45	14159	0.58	ug/L		89
31) 2-Chloro-1,3-Butadiene	3.153	53	6071	0.51	ug/L	#	67
32) ETBE	3.507	59	10859	0.50	ug/L		88
33) 2,2-Dichloropropane	3.690	77	5014m	0.45	ug/L		
34) cis-1,2-Dichloroethene	3.696	96	4347m	0.56	ug/L		
36) Propionitrile	3.824	54	542m	1.06	ug/L		
37) Bromochloromethane	4.007	130	2254m	0.50	ug/L		
38) Methacrylonitrile	4.025	67	771m	0.42	ug/L		
40) Chloroform	4.104	83	6805	0.51	ug/L		87

00178

Quantitation Report (QT Reviewed)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41)	1,1,1-Trichloroethane	4.348	97	5614	0.50 ug/L		78
42)	TAME	5.202	73	8476m	0.47 ug/L		
44)	Cyclohexane	4.464	41	5134m	0.71 ug/L		
46)	Carbontetrachloride	4.623	121	1336m	0.45 ug/L		
47)	1,1-Dichloropropene	4.629	75	4107	0.45 ug/L		88
49)	Benzene	4.964	78	13714	0.48 ug/L		87
50)	1,2-Dichloroethane	5.013	62	6277	0.65 ug/L		86
52)	n-Heptane	5.464	43	4223m	0.69 ug/L		
54)	Trichloroethene	5.970	130	4315	0.56 ug/L	#	63
55)	Methylcyclohexane	6.214	55	5085	0.59 ug/L	#	69
56)	1,2-Diclpropane	6.269	63	3792	0.51 ug/L		93
57)	Dibromomethane	6.415	93	1881m	0.45 ug/L		
59)	Methyl Methacrylate	6.513	69	1123m	0.33 ug/L		
60)	Bromodichloromethane	6.622	83	4774	0.48 ug/L		84
62)	2-Chloroethylvinyl Ether	7.037	63	1322m	0.40 ug/L		
63)	cis-1,3-Dichloropropene	7.153	75	4783m	0.44 ug/L		
64)	4-Methyl-2-pentanone	7.348	43	2517m	0.57 ug/L		
66)	Toluene	7.506	91	13607	0.45 ug/L		93
67)	trans-1,3-Dichloropropene	7.762	75	3712m	0.42 ug/L		
68)	Ethyl Methacrylate	7.896	69	2542m	0.37 ug/L		
69)	1,1,2-Trichloroethane	7.933	97	2724	0.49 ug/L		91
72)	Tetrachloroethene	8.061	164	3071	0.46 ug/L	#	84
73)	2-Hexanone	8.311	43	1818m	0.53 ug/L		
74)	1,3-Dichloropropane	8.098	76	4961	0.50 ug/L		94
75)	Dibromochloromethane	8.311	129	3202	0.45 ug/L	#	79
76)	N-Butyl Acetate	8.390	43	5066m	0.60 ug/L		
77)	1,2-Dibromoethane	8.409	107	2702m	0.46 ug/L		
78)	3-Chlorobenzotrifluoride	8.884	180	4935	0.40 ug/L		93
79)	Chlorobenzene	8.866	112	10370	0.48 ug/L		96
80)	4-Chlorobenzotrifluoride	8.933	180	4769m	0.42 ug/L		
81)	1,1,1,2-Tetrachloroethane	8.951	131	3570	0.46 ug/L	#	75
82)	Ethylbenzene	8.988	106	4917	0.45 ug/L		96
83)	(m+p)Xylene	9.097	106	10778	0.79 ug/L		98
84)	o-Xylene	9.445	106	5081	0.38 ug/L	#	86
85)	Styrene	9.463	104	8676m	0.40 ug/L		
86)	Bromoform	9.603	173	1744	0.42 ug/L	#	65
87)	2-Chlorobenzotrifluoride	9.670	180	4798	0.39 ug/L		97
88)	Isopropylbenzene	9.762	105	13971	0.43 ug/L		96
89)	Cyclohexanone	9.829	55	6348	9.54 ug/L		92
90)	trans-1,4-Dichloro-2-B...	10.079	53	424m	0.35 ug/L		
92)	1,1,2,2-Tetrachloroethane	10.018	83	3521	0.55 ug/L		81
93)	Bromobenzene	10.006	156	4255	0.47 ug/L		86
94)	1,2,3-Trichloropropane	10.048	110	836	0.50 ug/L	#	79
95)	n-Propylbenzene	10.109	91	15899	0.45 ug/L		95
96)	2-Chlorotoluene	10.176	91	9403	0.42 ug/L		88
97)	3-Chlorotoluene	10.231	91	11693	0.49 ug/L		86
98)	4-Chlorotoluene	10.274	91	13122	0.48 ug/L		91
99)	1,3,5-Trimethylbenzene	10.262	105	11071	0.44 ug/L		95
100)	tert-Butylbenzene	10.524	119	9448	0.45 ug/L		82
101)	1,2,4-Trimethylbenzene	10.567	105	10962	0.42 ug/L		92
102)	3,4-Dichlorobenzotrifl...	10.615	214	3420	0.42 ug/L		93
103)	sec-Butylbenzene	10.701	105	13173	0.45 ug/L		99

Quantitation Report (QT Reviewed)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

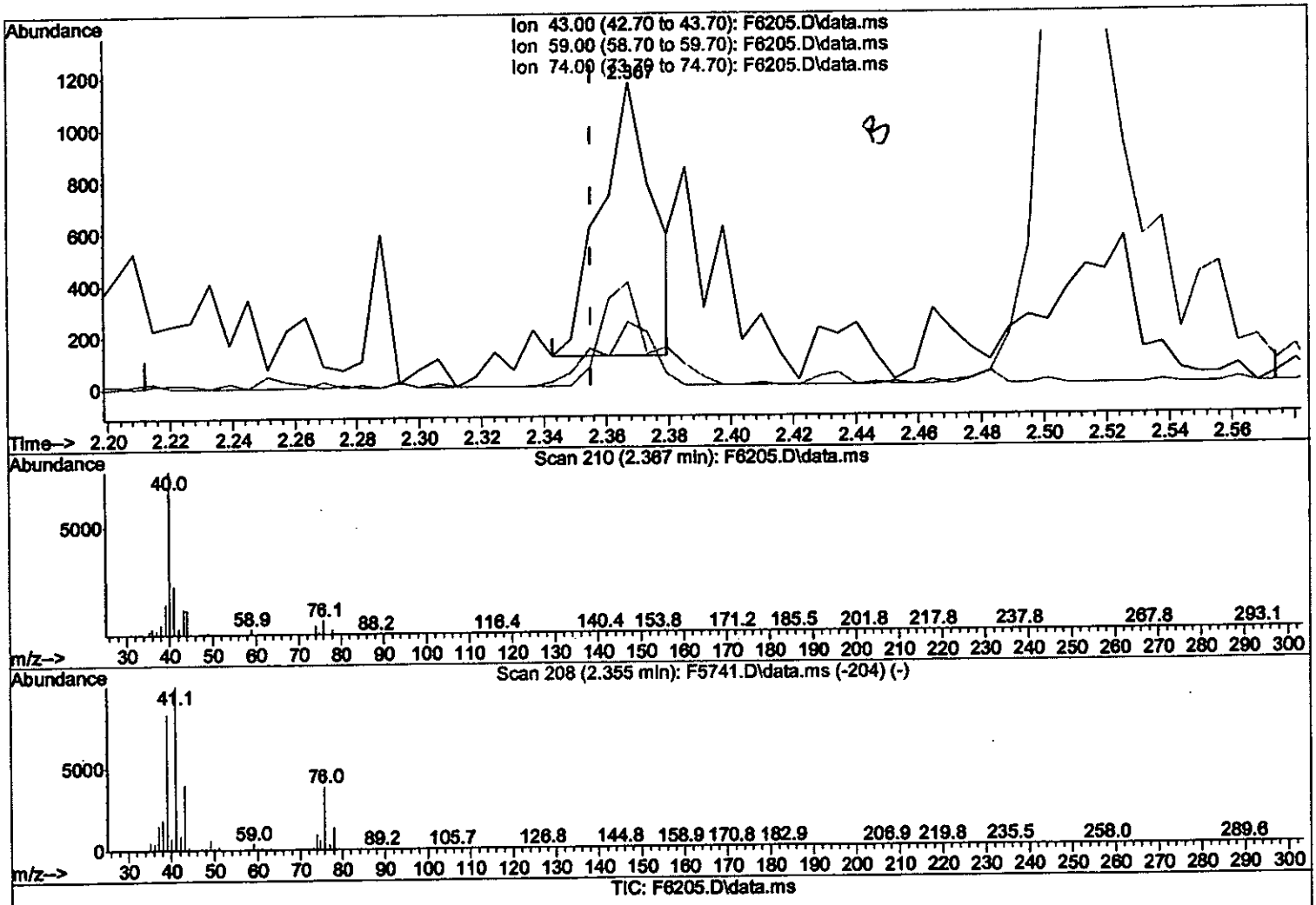
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
104) p-Isopropyltoluene	10.823	119	11138	0.45 ug/L	95
105) 1,3-Dclbenz	10.786	146	7731	0.47 ug/L #	77
106) 1,4-Dclbenz	10.853	146	9462	0.56 ug/L	92
107) 2,4-Dichlorobenzotrifl...	10.914	214	3388	0.47 ug/L	84
108) 2,5-Dichlorobenzotrifl...	10.951	214	4090	0.48 ug/L	84
109) n-Butylbenzene	11.158	91	9118	0.42 ug/L	92
110) 1,2-Dclbenz	11.170	146	6628	0.44 ug/L	85
111) 1,2-Dibromo-3-chloropr...	11.731	157	285	0.28 ug/L	92
112) Trielution Dichlorotol...	11.822	125	16962	1.39 ug/L	89
113) 1,3,5-Trichlorobenzene	11.865	180	5496	0.51 ug/L #	69
114) Coelution Dichlorotoluene	12.091	125	11950	0.97 ug/L	90
115) 1,2,4-Tcbenzene	12.249	180	4529	0.53 ug/L	93
116) Hexachlorobt	12.328	225	2002	0.55 ug/L	89
117) Naphthalen	12.414	128	6107m	0.44 ug/L	
118) 1,2,3-Tclbenzene	12.530	180	3489	0.55 ug/L	89
119) 2,4,5-Trichlorotoluene	12.944	159	2095	0.54 ug/L	88
120) 2,3,6-Trichlorotoluene	12.999	159	2635m	0.70 ug/L	

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

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



(21) Methyl Acetate (P)

2.367min (+0.012) 0.37 ug/L

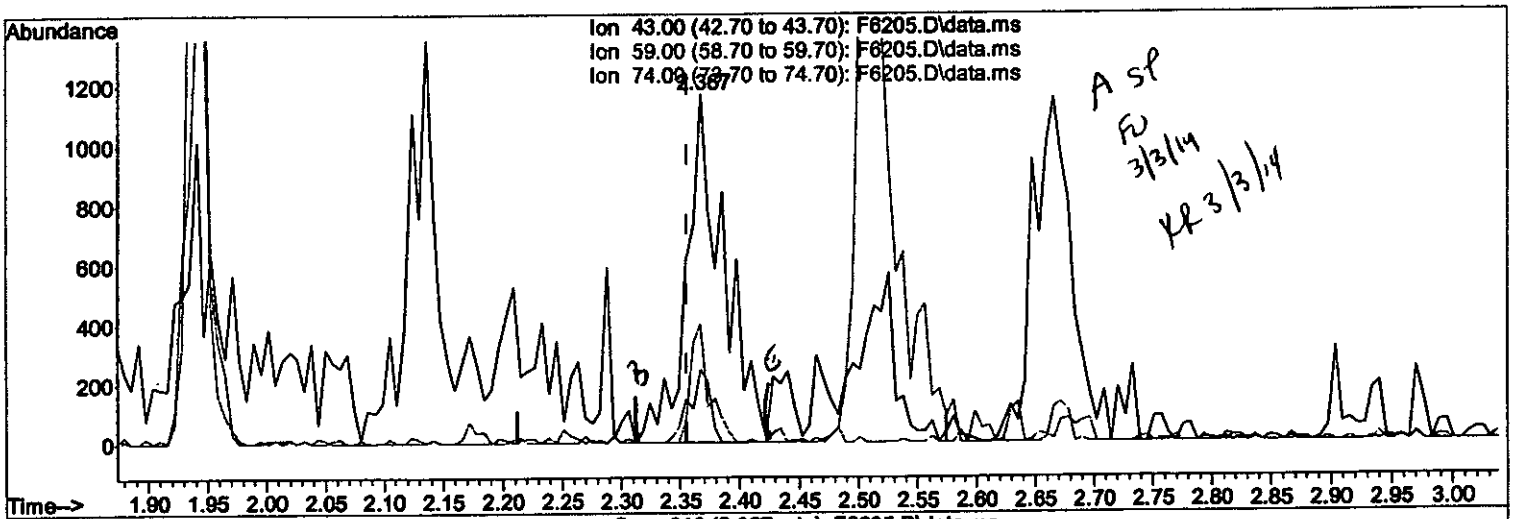
response 1235

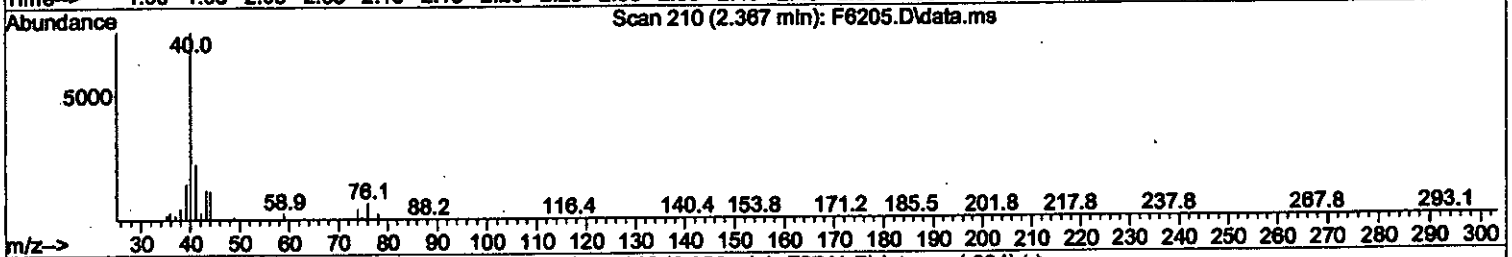
Ion	Exp%	Act%
43.00	100	100
59.00	9.40	21.04
74.00	21.90	34.22
0.00	0.00	0.00

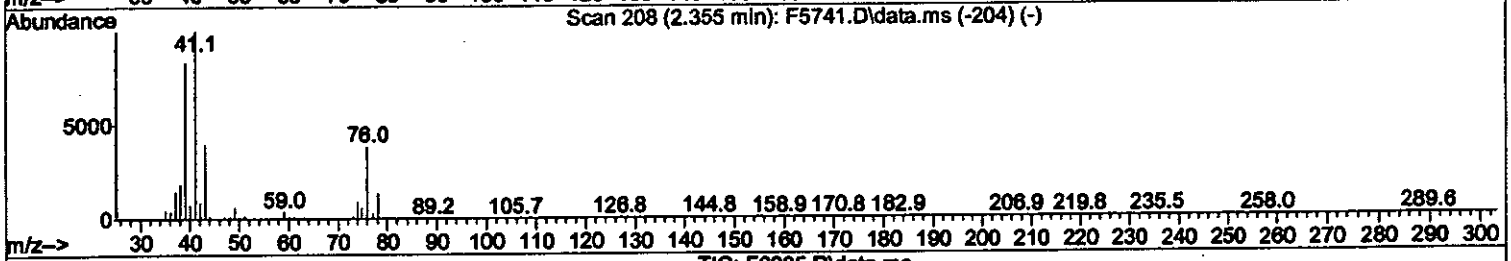
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(21) Methyl Acetate (P)

2.367min (+0.012) 0.77 ug/L m

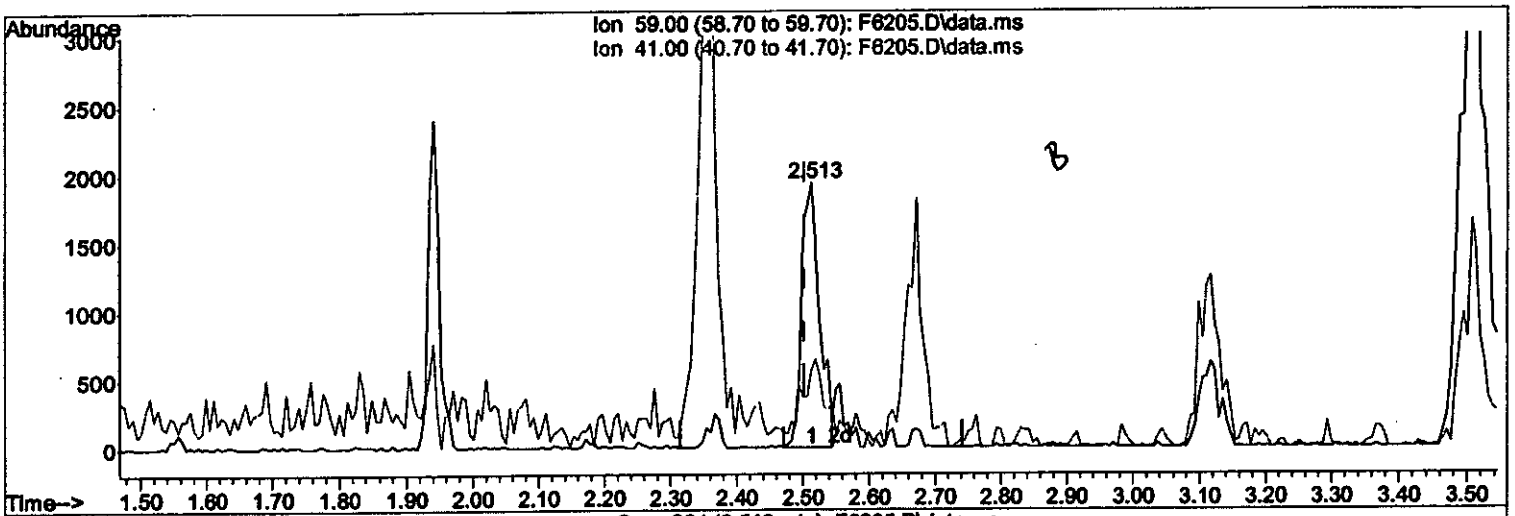
response 2554

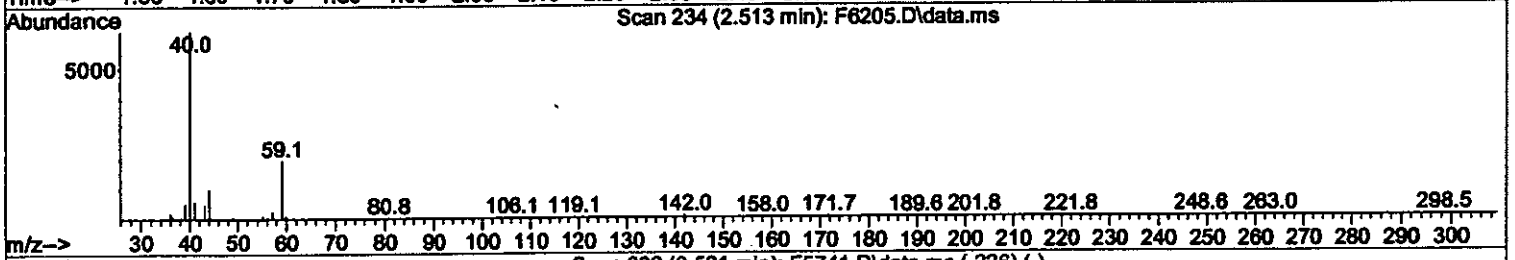
Ion	Exp%	Act%
43.00	100	100
59.00	9.40	21.04
74.00	21.90	34.22
0.00	0.00	0.00

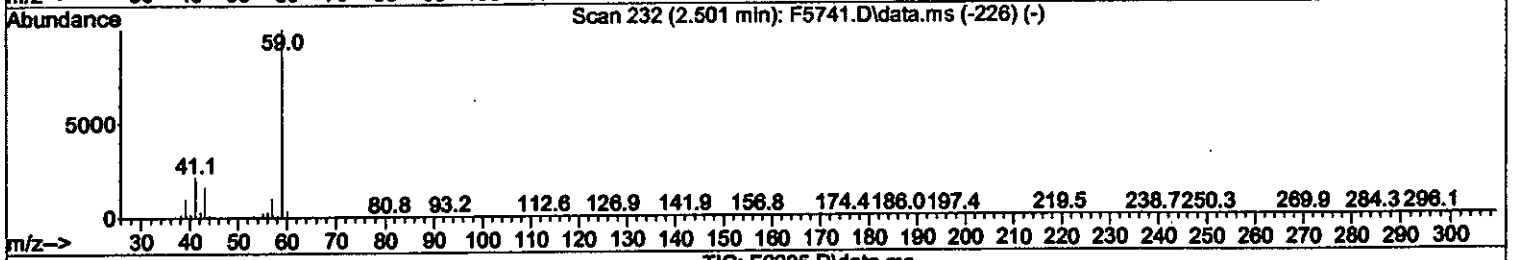
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(23) TBA

2.513min (+0.012) 8.35 ug/L

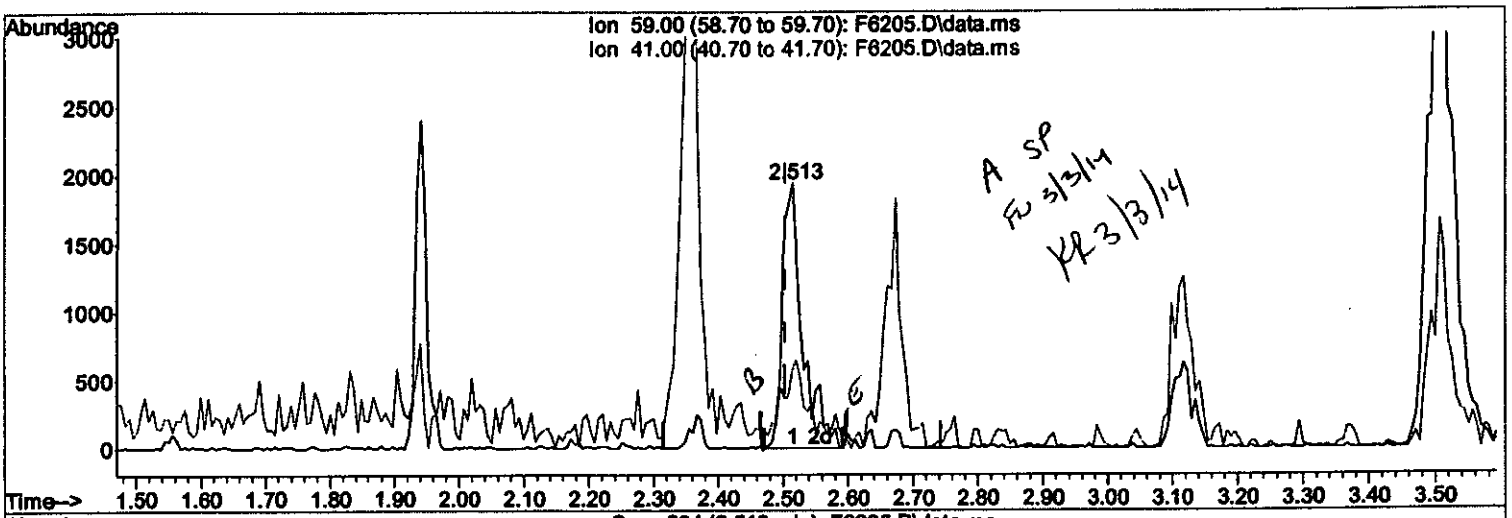
response 3637

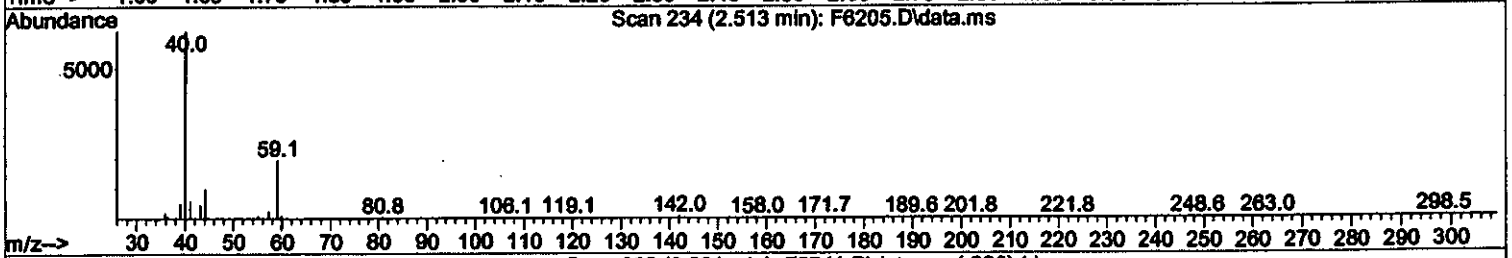
Ion	Exp%	Act%
59.00	100	100
41.00	22.80	29.24
0.00	0.00	0.00
0.00	0.00	0.00

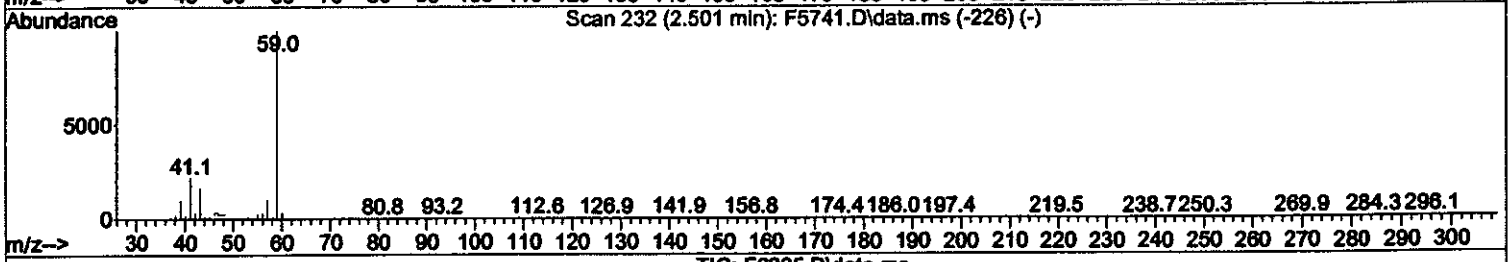
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(23) TBA

2.513min (+0.012) 9.58 ug/L m

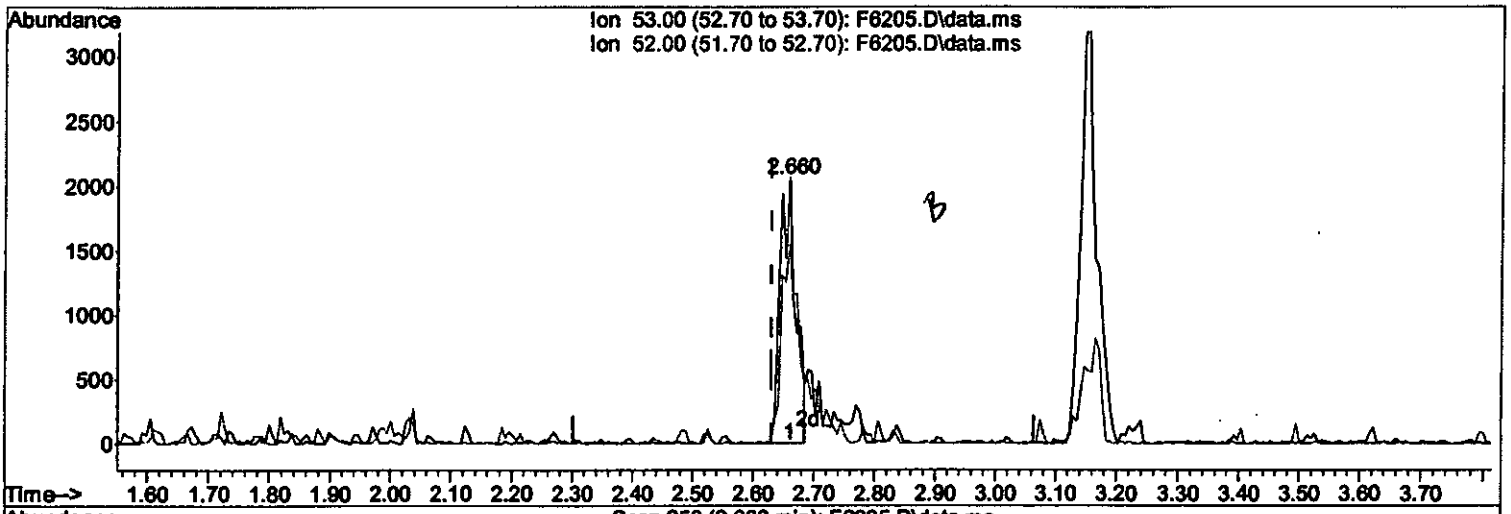
response 4170

Ion	Exp%	Act%
59.00	100	100
41.00	22.80	29.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

(24) Acrylonitrile

2.660min (+0.031) 2.38 ug/L

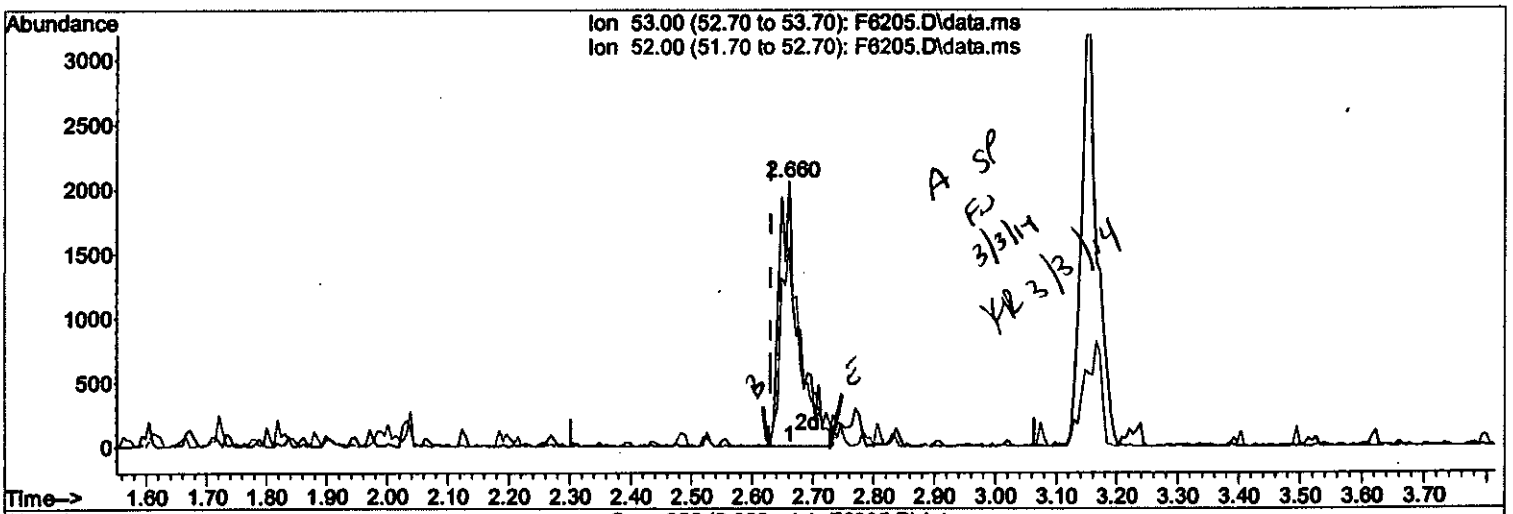
response 3660

Ion	Exp%	Act%
53.00	100	100
52.00	85.70	75.02
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

(24) Acrylonitrile

2.660min (+0.031) 2.90 ug/L m

response 4471

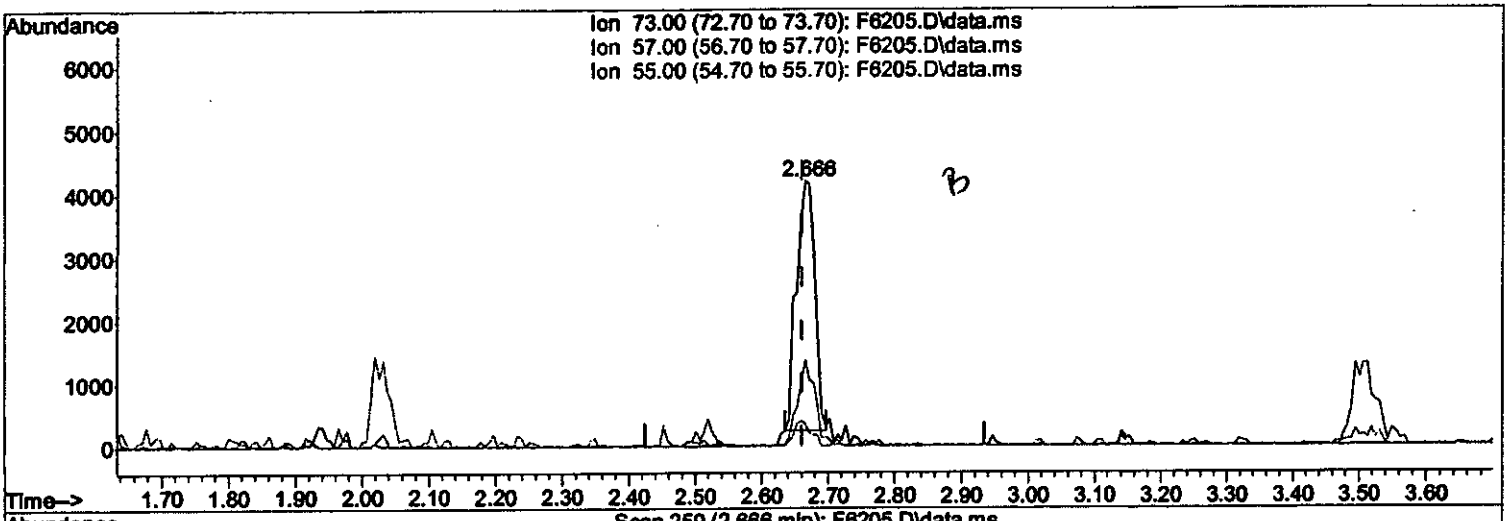
Ion	Exp%	Act%
53.00	100	100
52.00	85.70	75.02
0.00	0.00	0.00
0.00	0.00	0.00

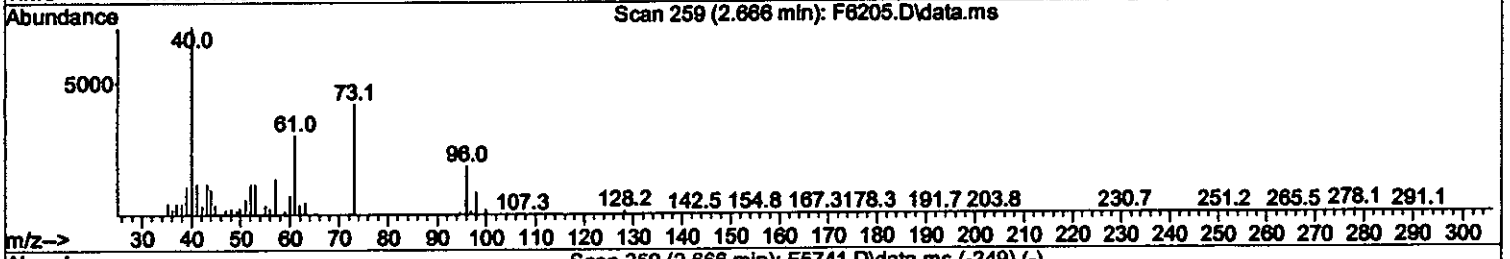
00186

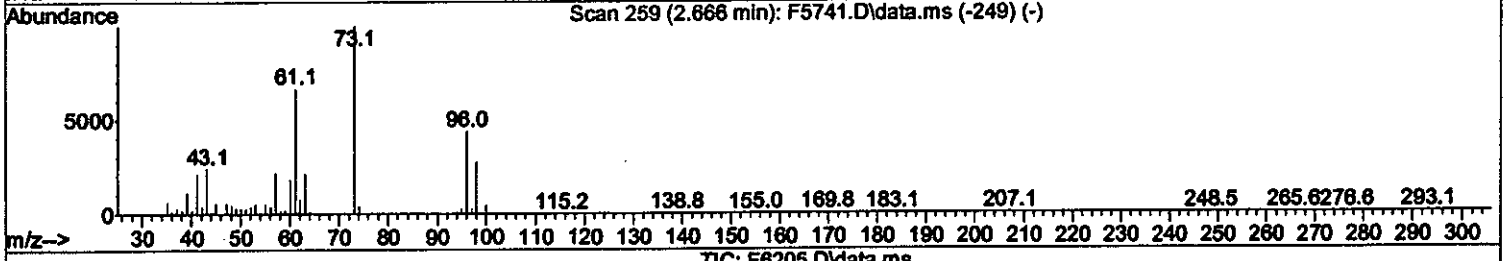
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(25) Methyl-t-Butyl Ether (P)

2.666min (+0.006) 0.45 ug/L

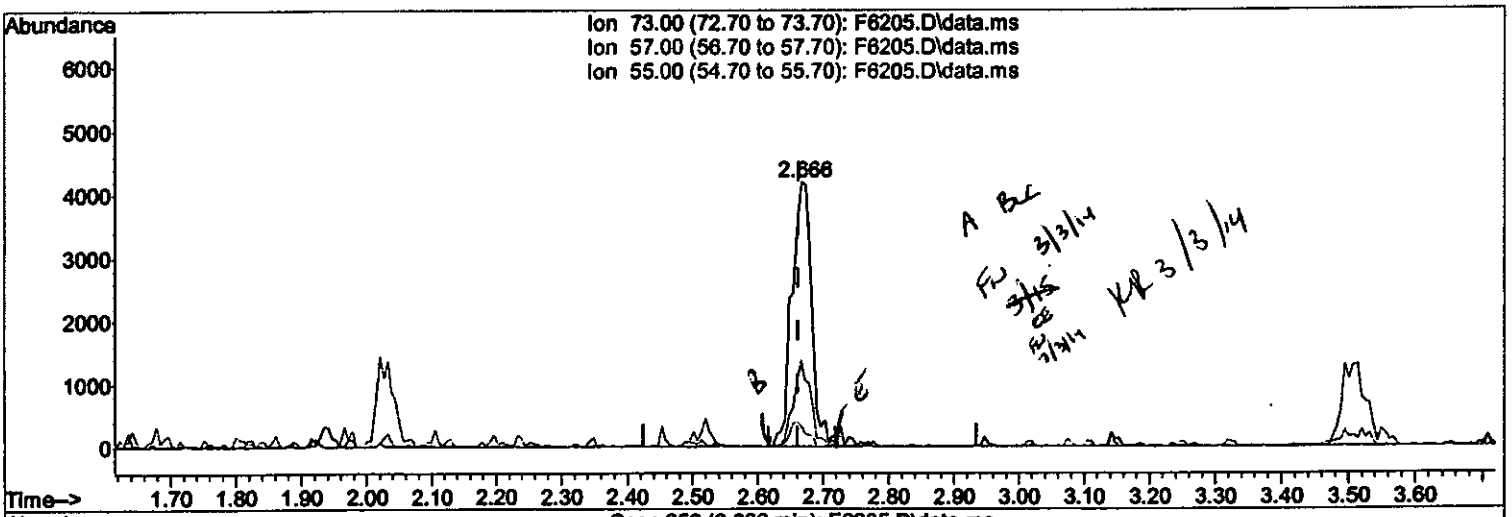
response 7517

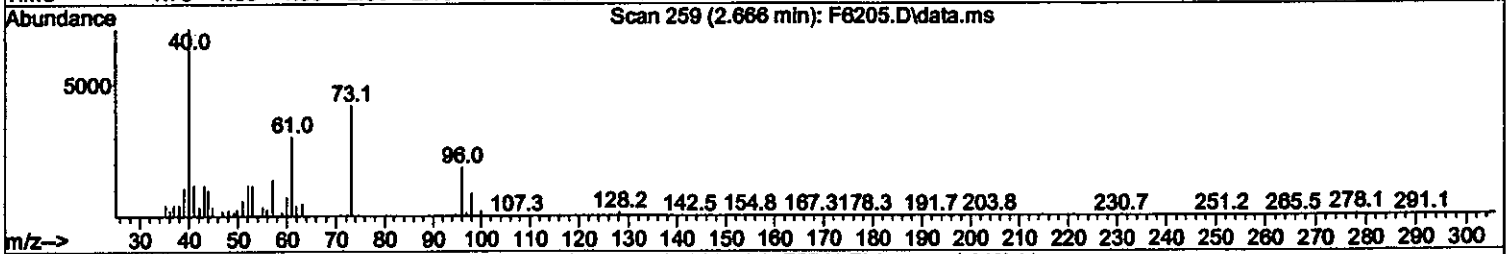
Ion	Exp%	Act%
73.00	100	100
57.00	21.60	32.44
55.00	4.70	8.08
0.00	0.00	0.00

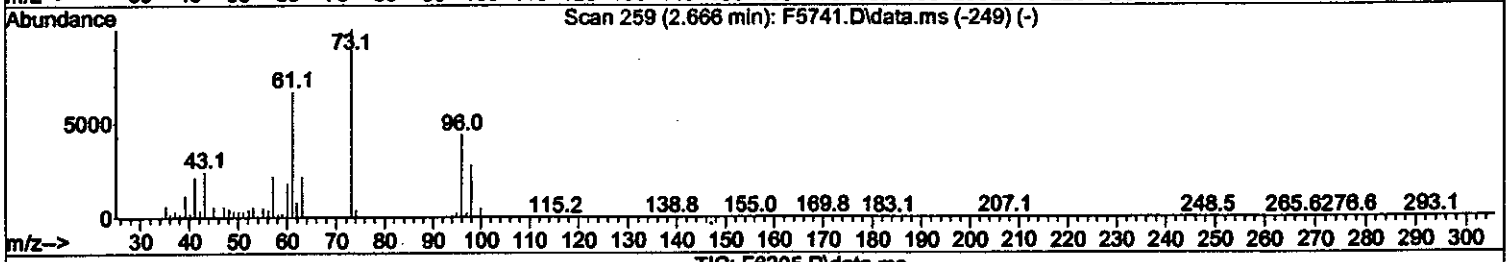
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(25) Methyl-t-Butyl Ether (P)

2.666min (+0.006) 0.53 ug/L m

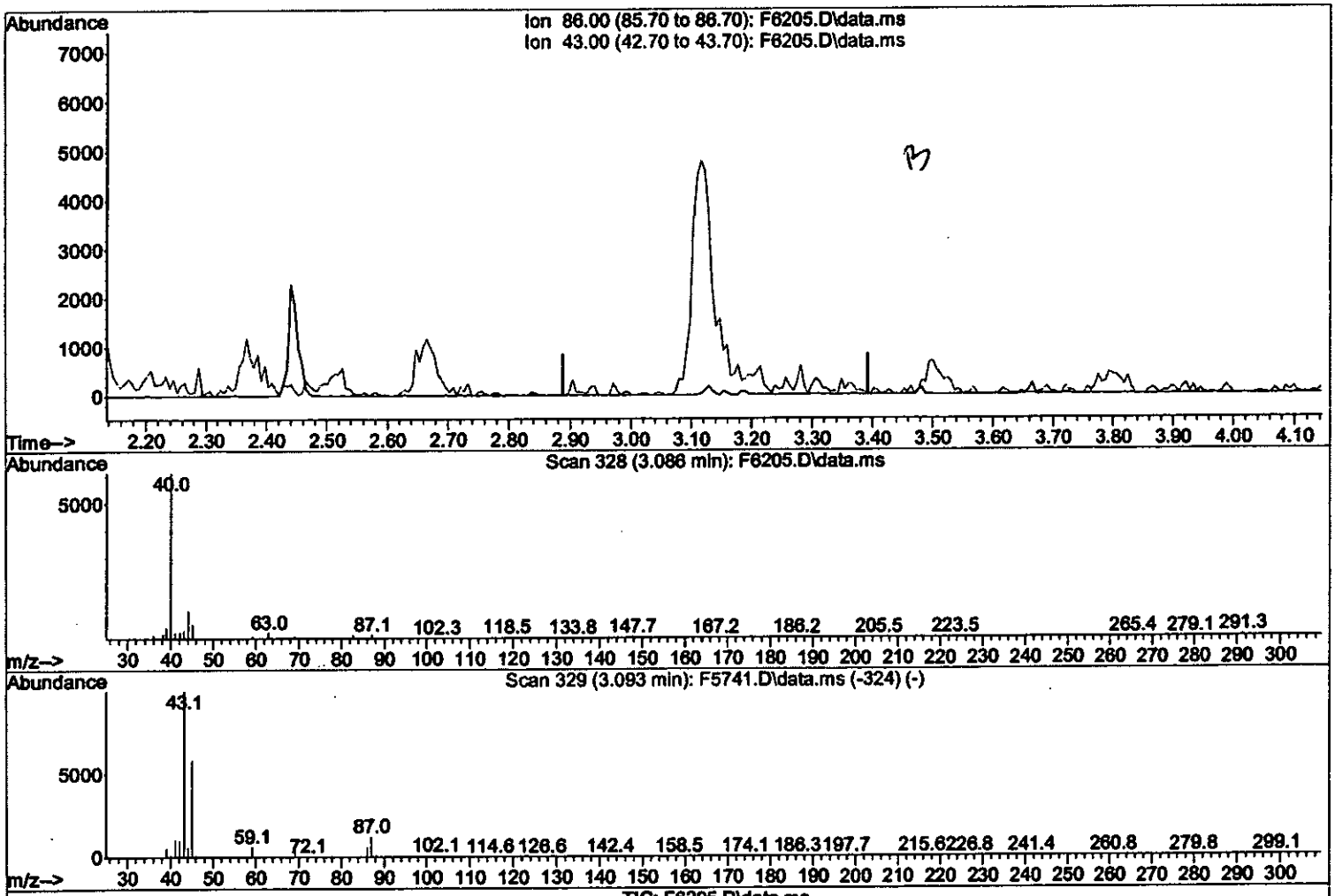
response 8834

Ion	Exp%	Act%
73.00	100	100
57.00	21.60	32.44
55.00	4.70	8.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

(29) Vinyl Acetate

3.086min (-3.086) 0.00 ug/L

response 0

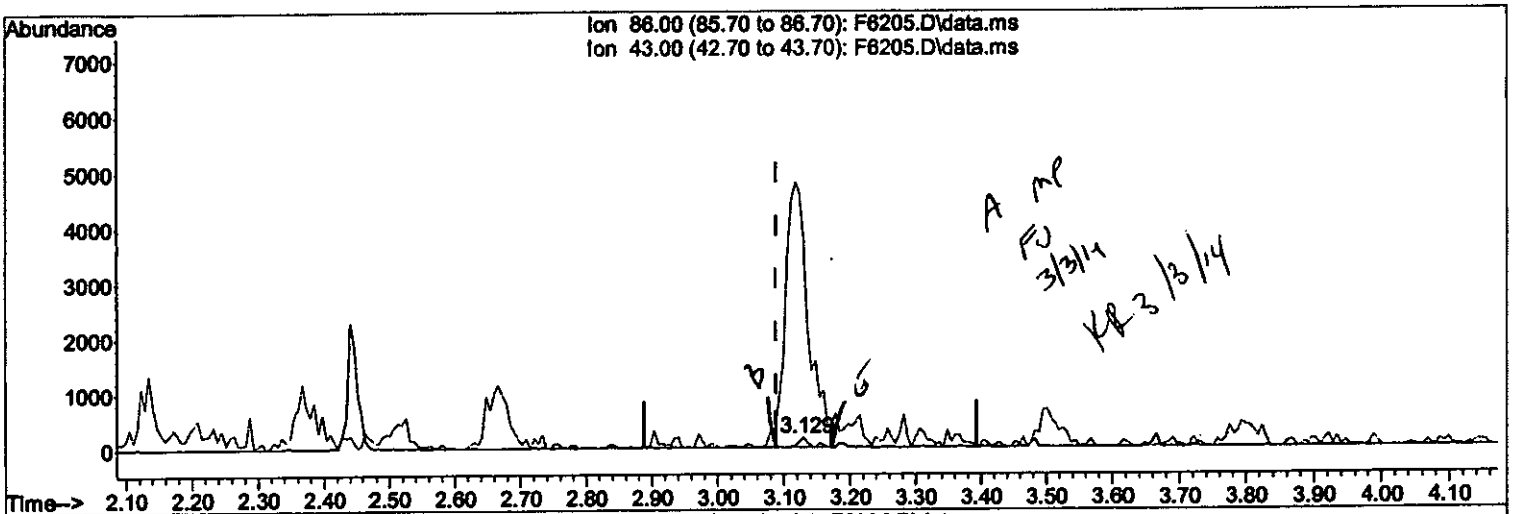
Ion	Exp%	Act%
86.00	100	0.00
43.00	1729.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

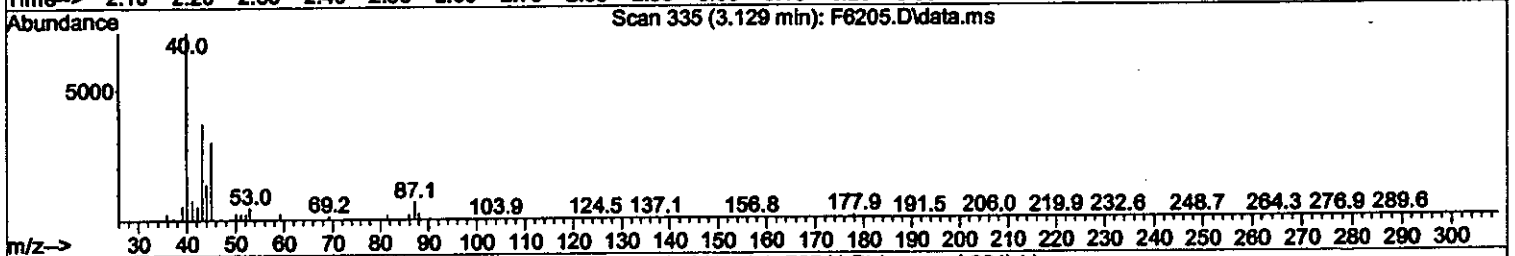
00189

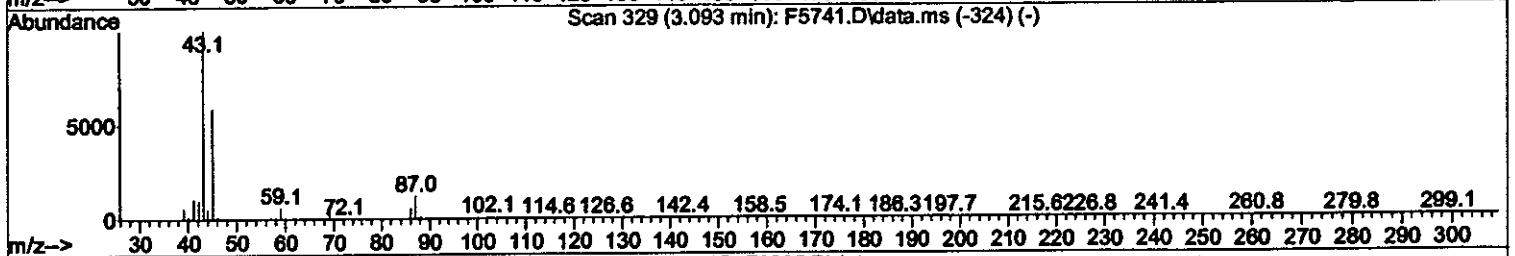
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(29) Vinyl Acetate

3.129min (+0.043) 0.21 ug/L m

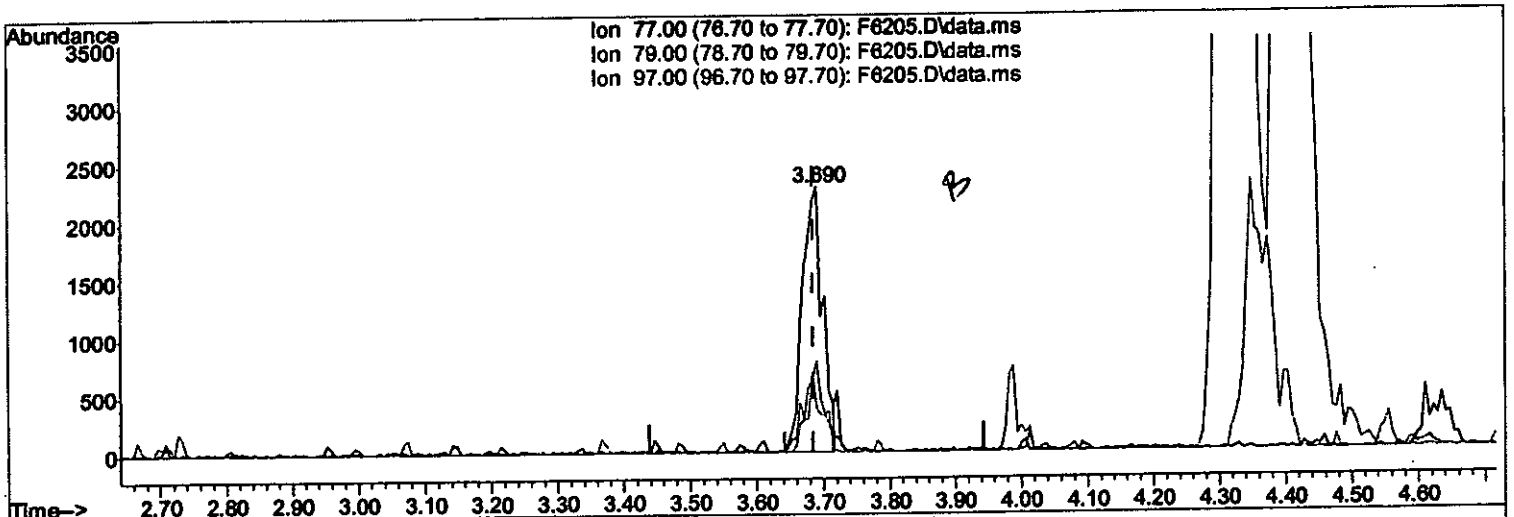
response 199

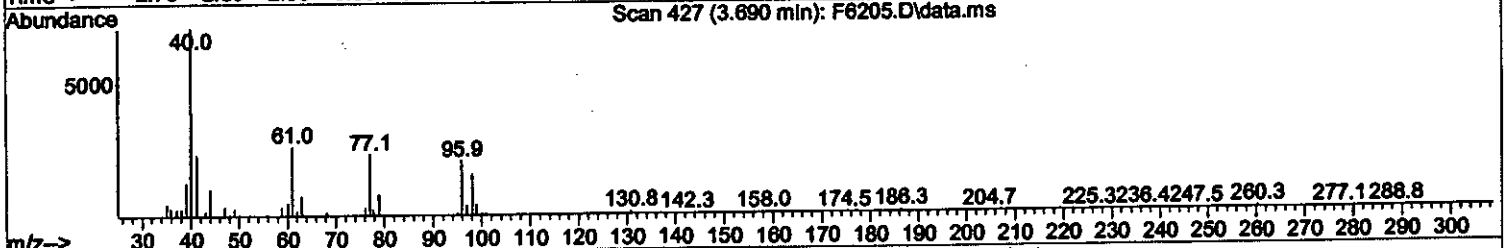
Ion	Exp%	Act%
86.00	100	100
43.00	1729.40	2065.00#
0.00	0.00	0.00
0.00	0.00	0.00

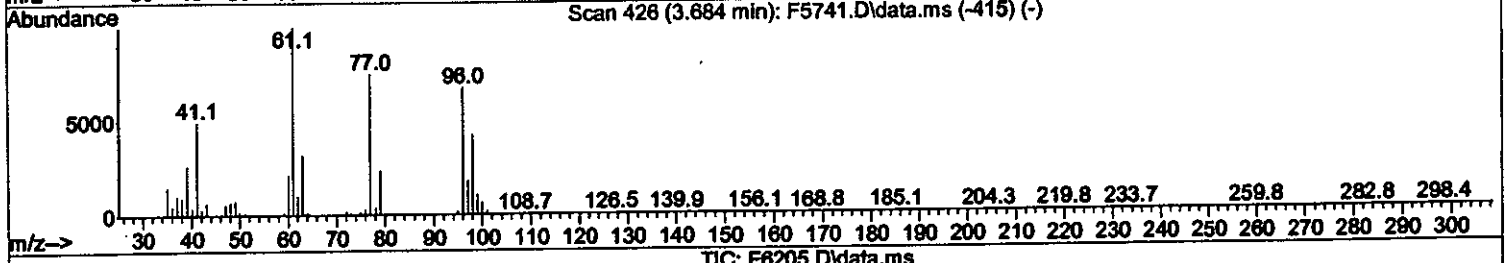
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(33) 2,2-Dichloropropane

3.690min (+0.006) 0.43 ug/L

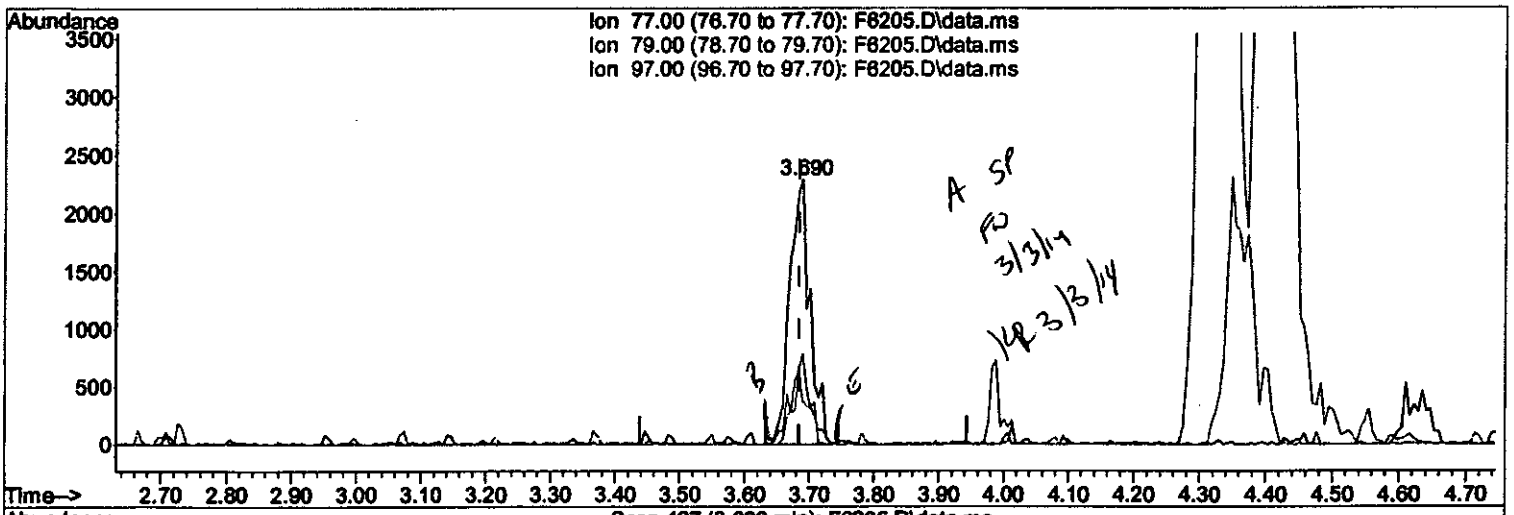
response 4783

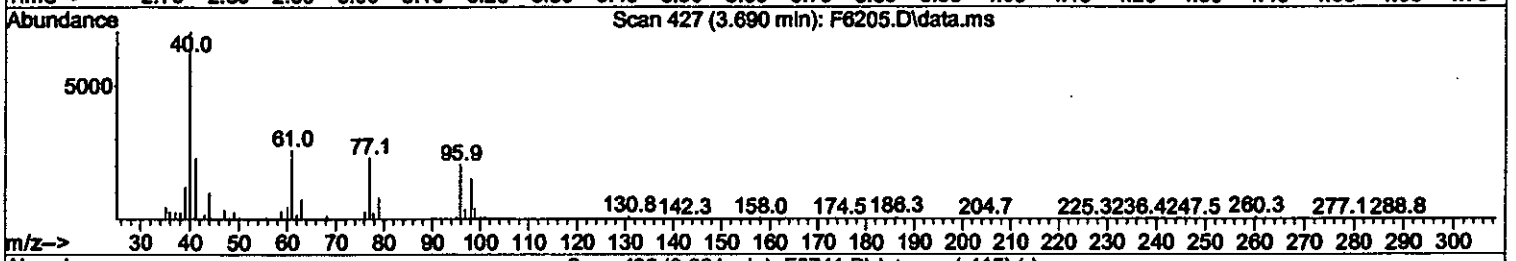
Ion	Exp%	Act%
77.00	100	100
79.00	31.90	34.35
97.00	24.20	16.39
0.00	0.00	0.00

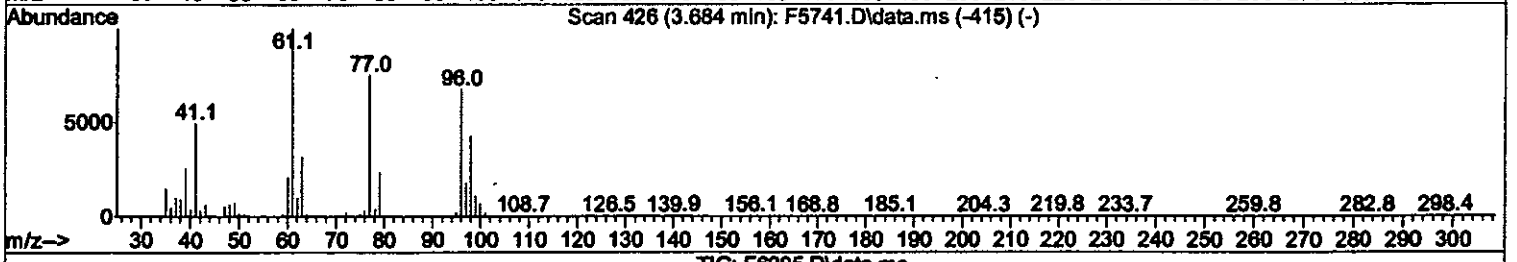
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(33) 2,2-Dichloropropane

3.690min (+0.006) 0.45 ug/L m

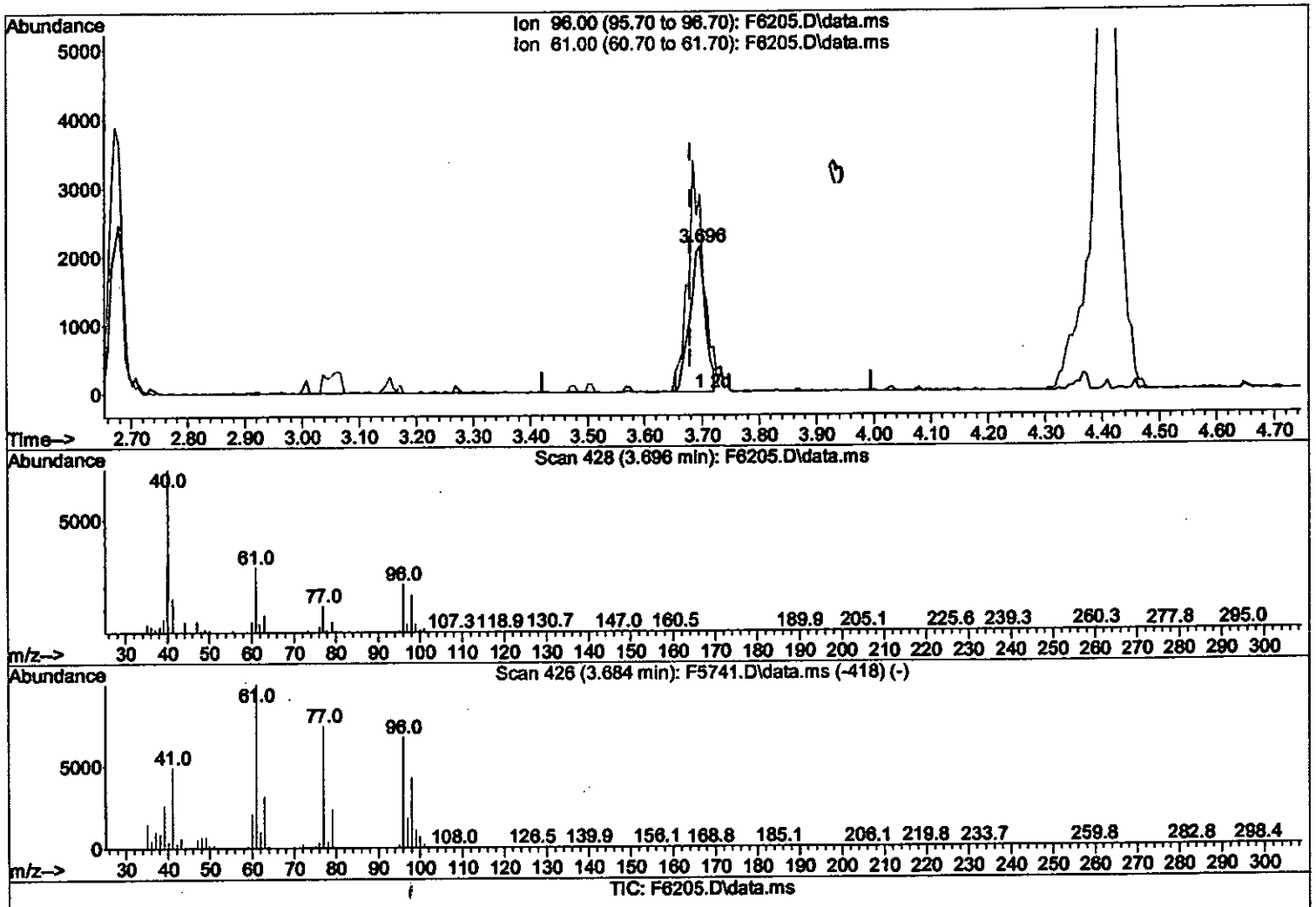
response 5014

Ion	Exp%	Act%
77.00	100	100
79.00	31.90	34.35
97.00	24.20	16.39
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

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

3.696min (+0.018) 0.52 ug/L

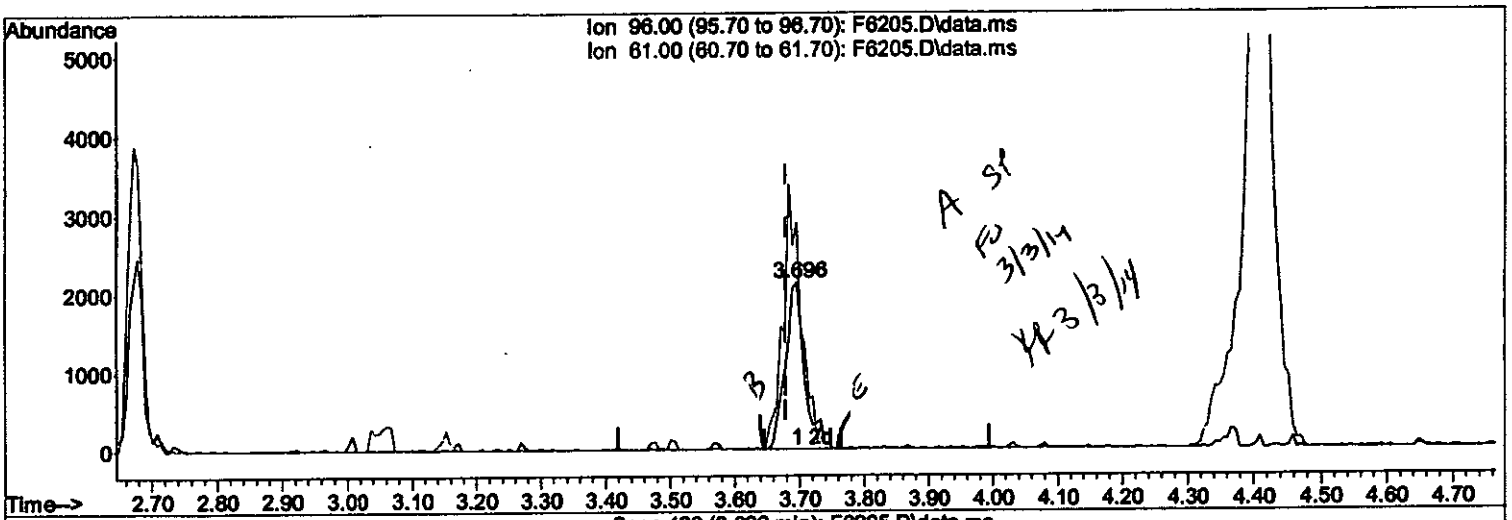
response 4035

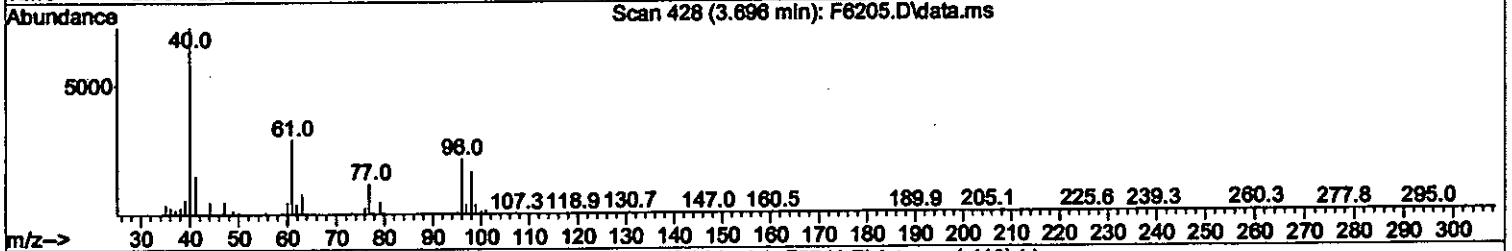
Ion	Exp%	Act%
96.00	100	100
61.00	148.30	135.79
0.00	0.00	0.00
0.00	0.00	0.00

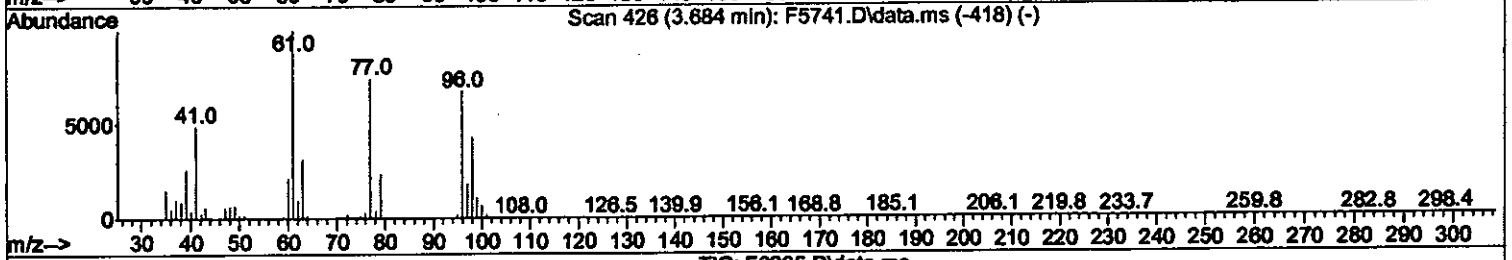
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

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

3.696min (+0.018) 0.56 ug/L m

response 4347

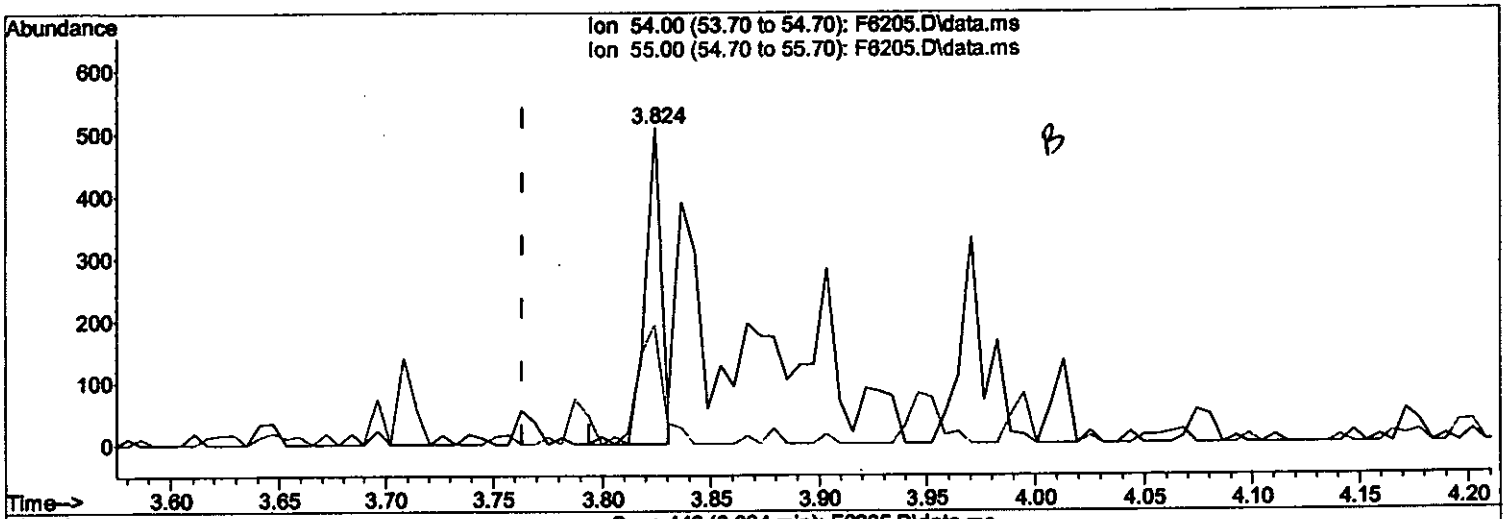
Ion	Exp%	Act%
96.00	100	100
61.00	148.30	135.79
0.00	0.00	0.00
0.00	0.00	0.00

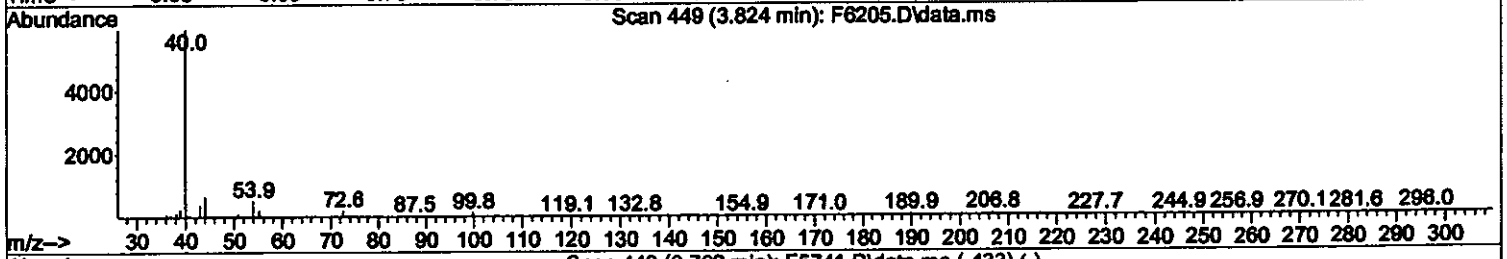
0015

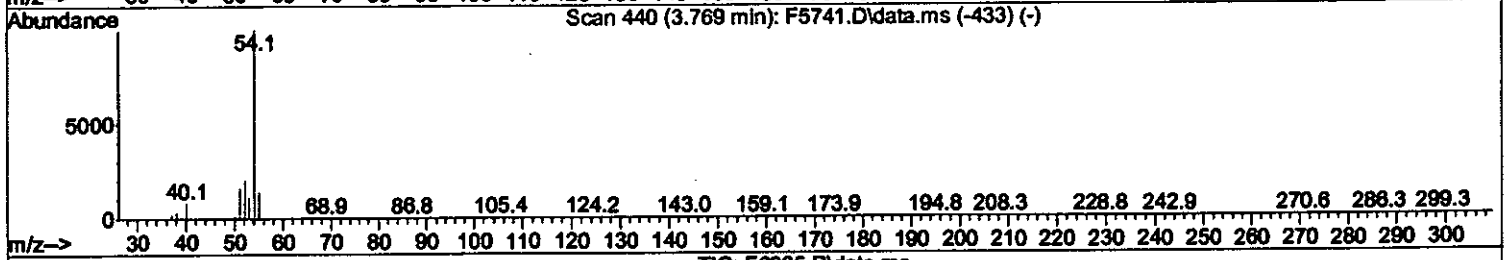
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(36) Propionitrile

3.824min (+0.061) 0.53 ug/L

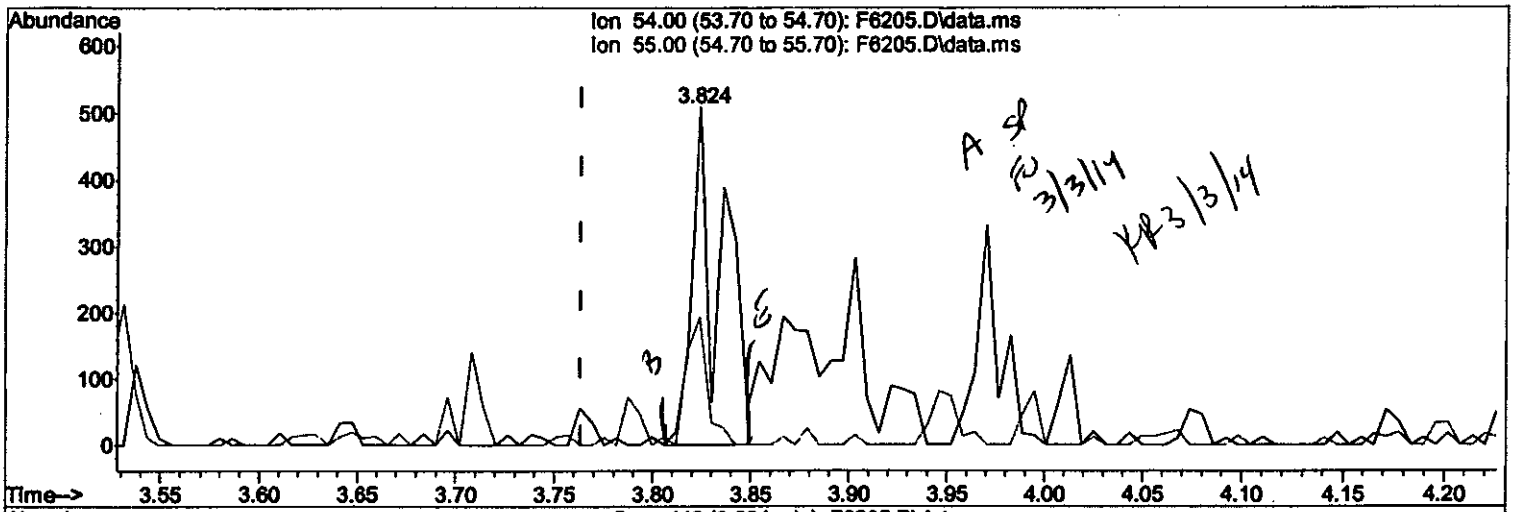
response 271

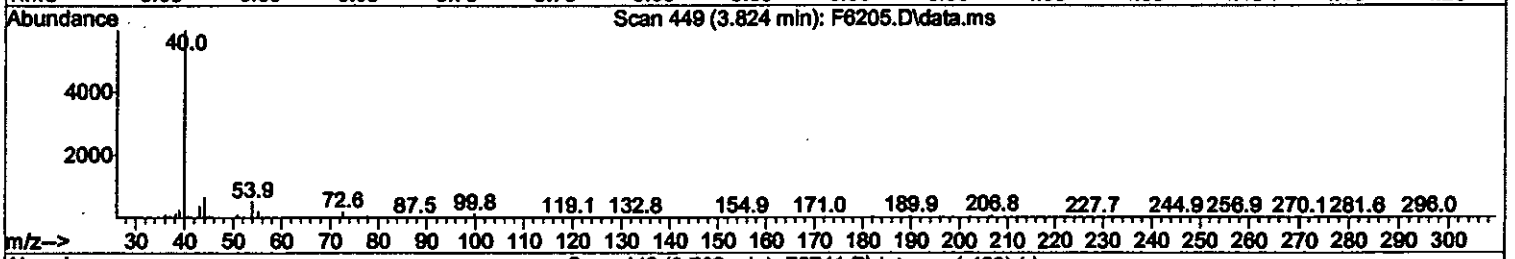
Ion	Exp%	Act%
54.00	100	100
55.00	13.70	37.80#
0.00	0.00	0.00
0.00	0.00	0.00

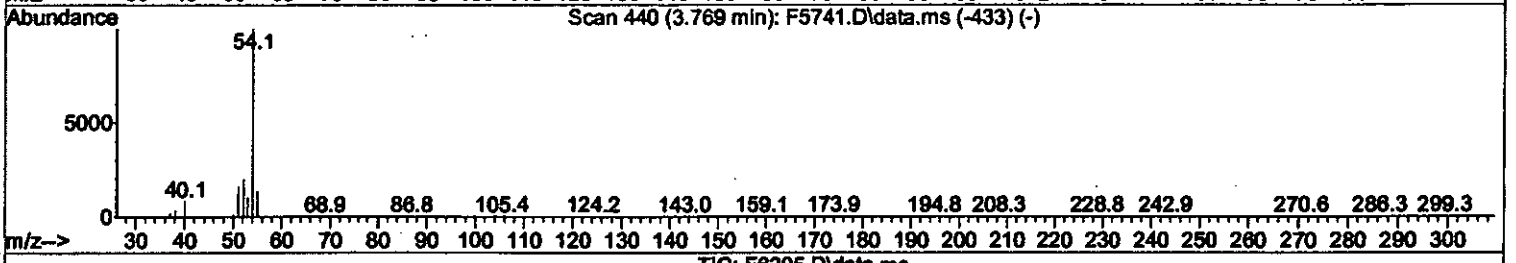
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(36) Propionitrile

3.824min (+0.061) 1.08 ug/L m

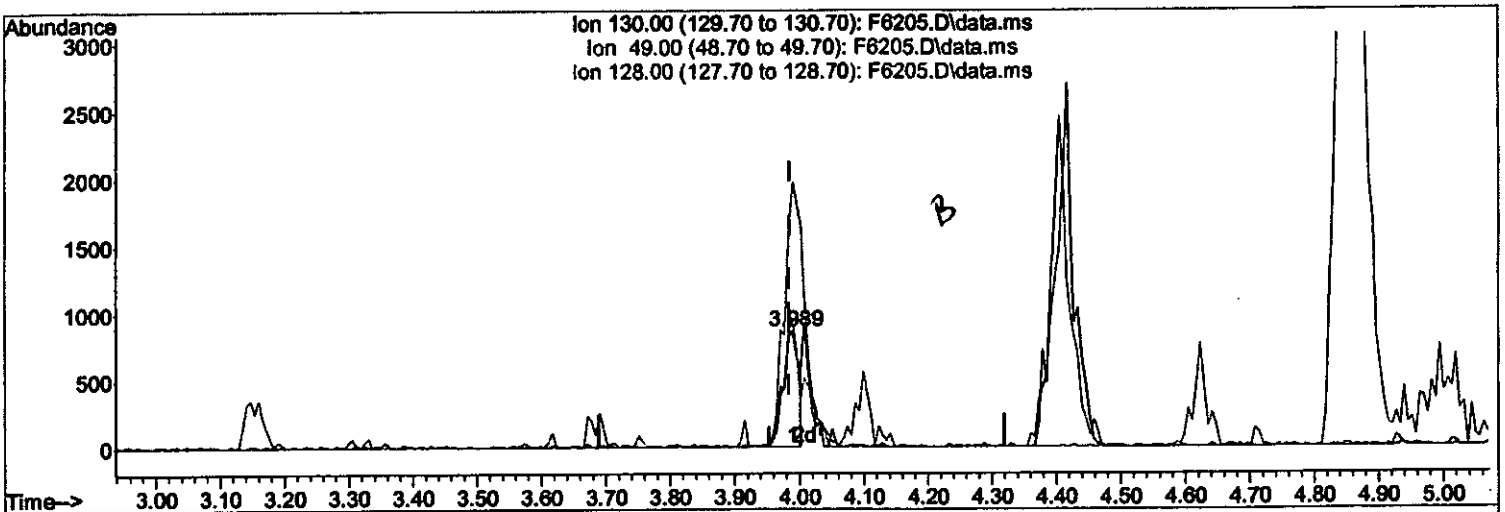
response 542

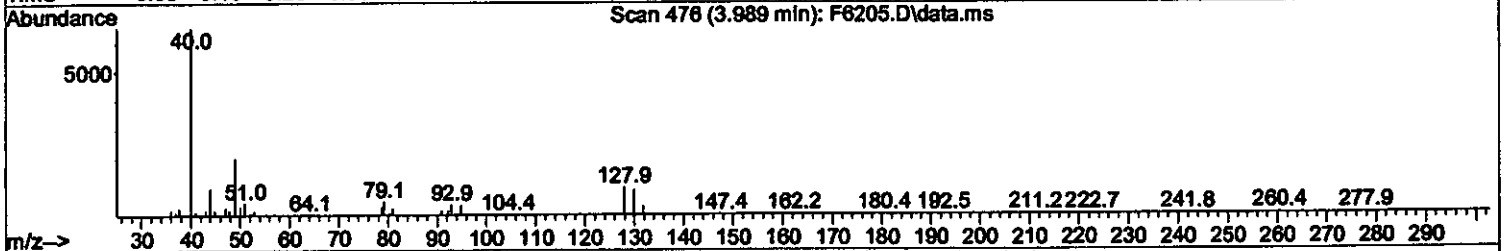
Ion	Exp%	Act%
54.00	100	100
55.00	13.70	37.80#
0.00	0.00	0.00
0.00	0.00	0.00

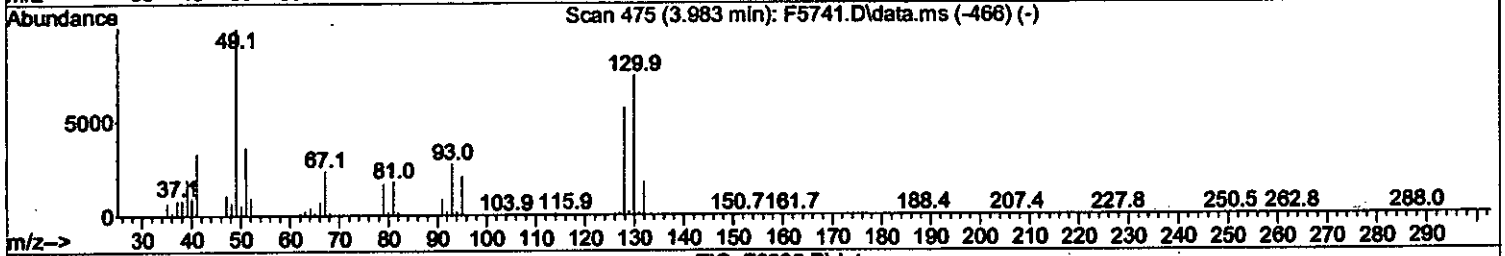
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(37) Bromochloromethane

3.989min (+0.006) 0.33 ug/L

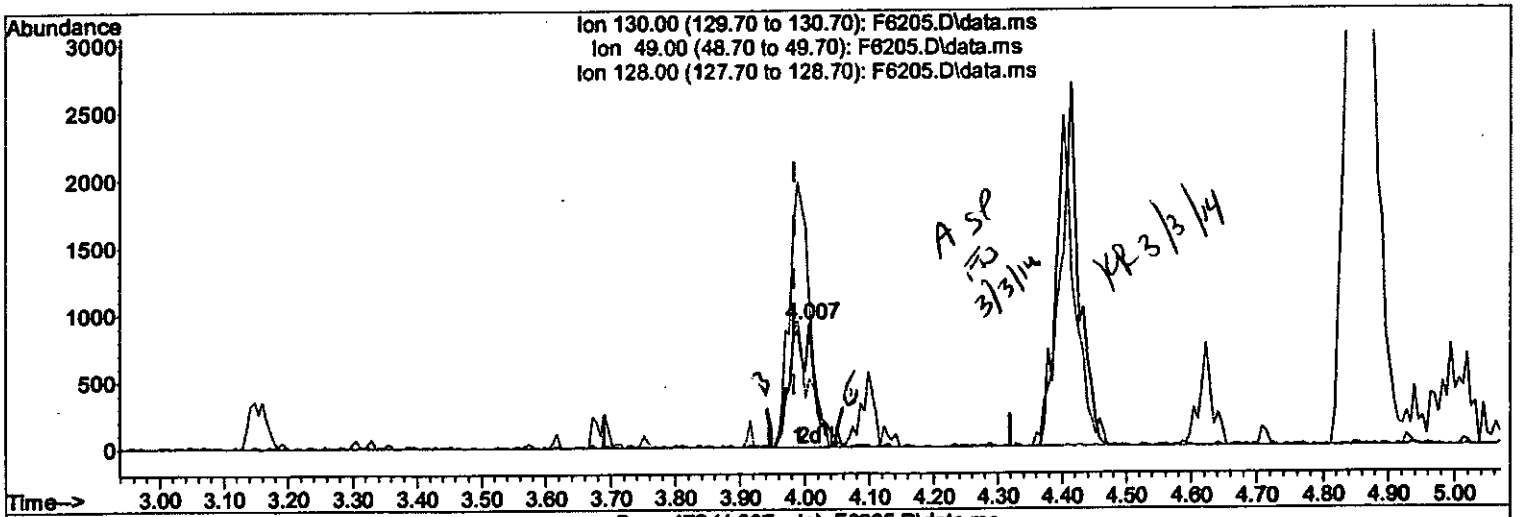
response 1490

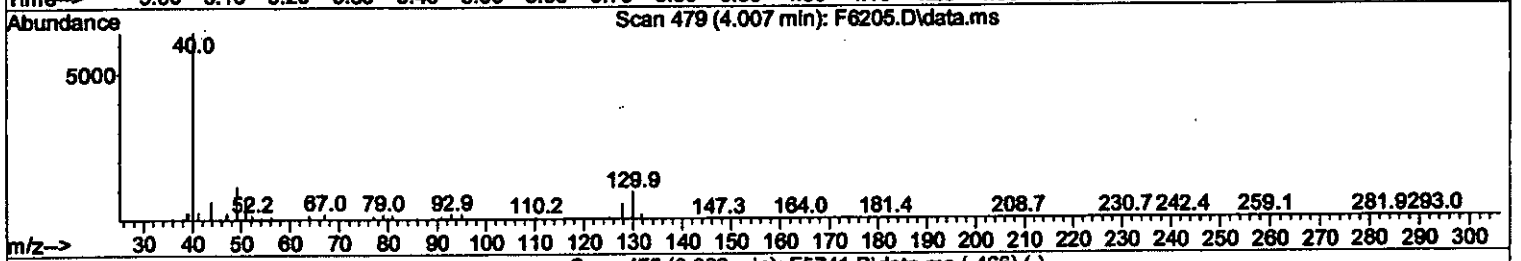
Ion	Exp%	Act%
130.00	100	100
49.00	135.10	227.19#
128.00	77.50	109.10#
0.00	0.00	0.00

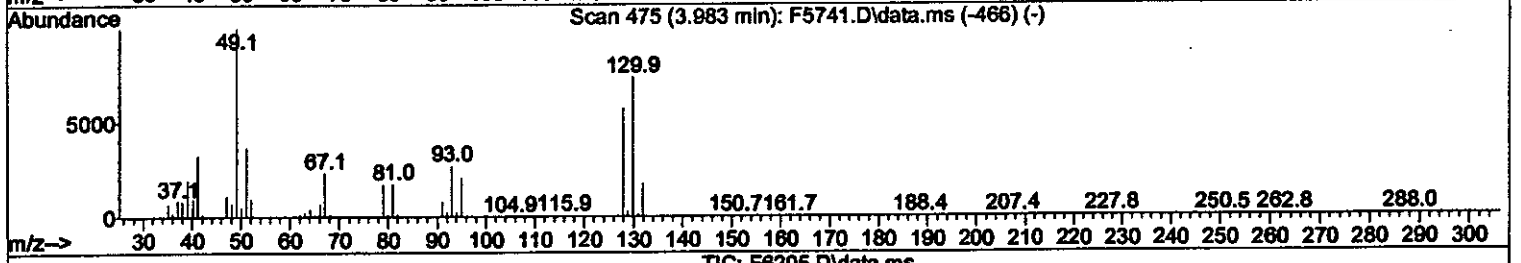
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(37) Bromochloromethane

4.007min (+0.024) 0.50 ug/L m

response 2254

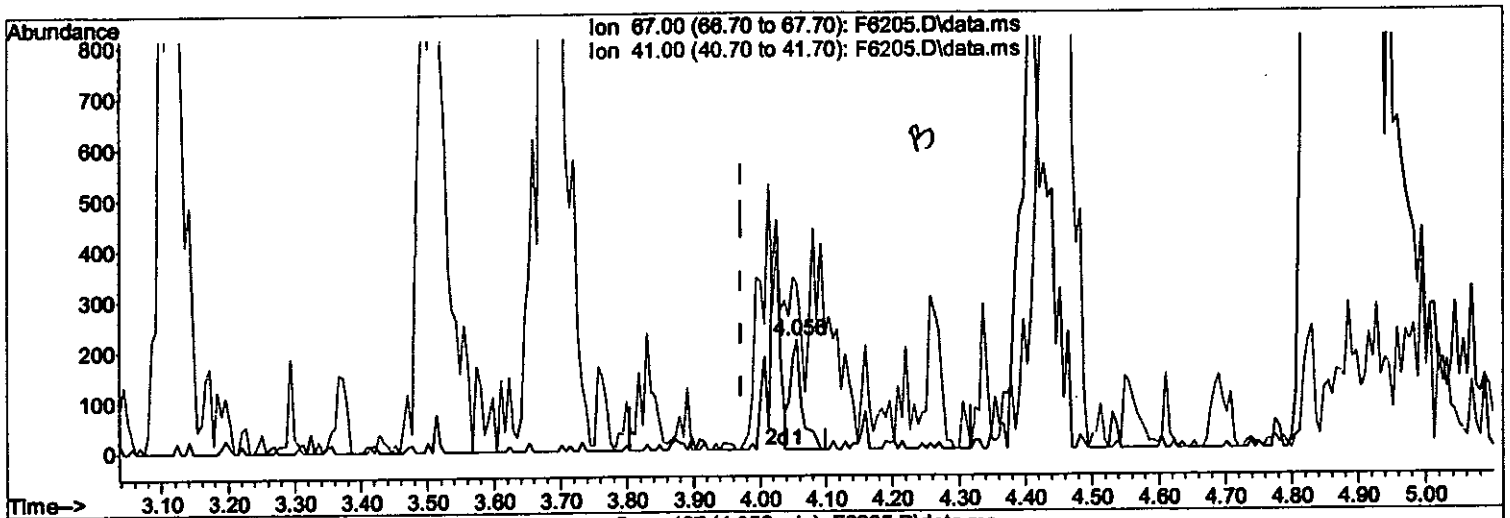
Ion	Exp%	Act%
130.00	100	100
49.00	135.10	121.97
128.00	77.50	55.09#
0.00	0.00	0.00

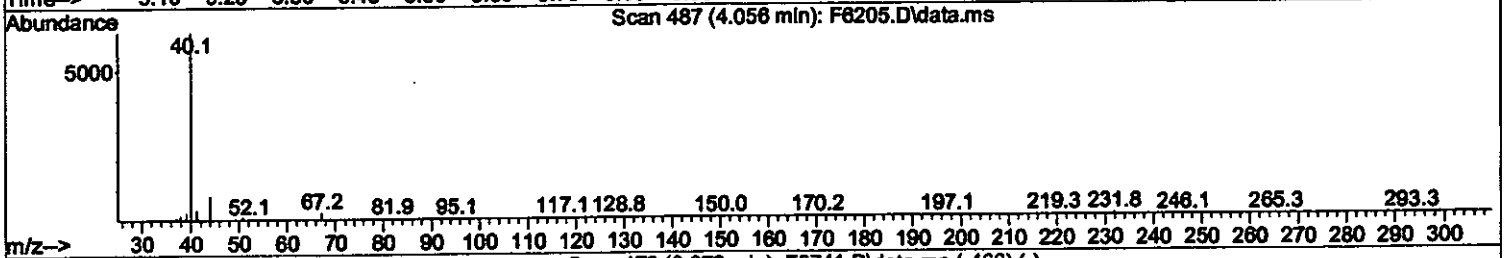
00198

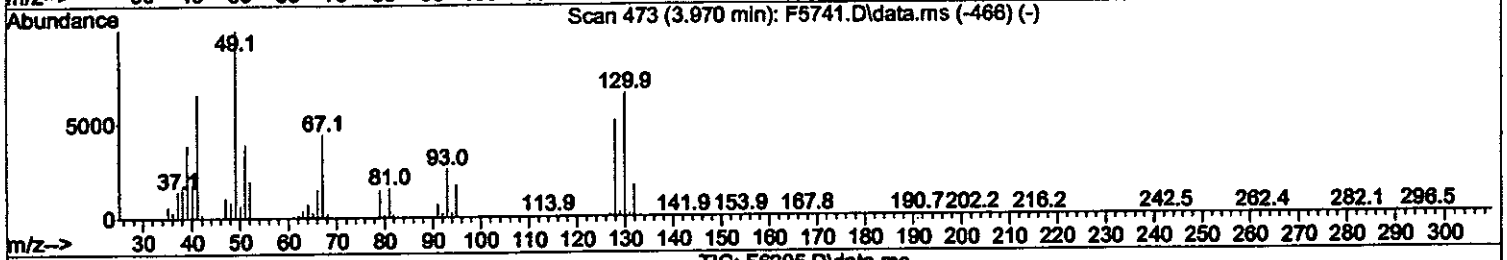
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(38) Methacrylonitrile

4.056min (+0.085) 0.14 ug/L

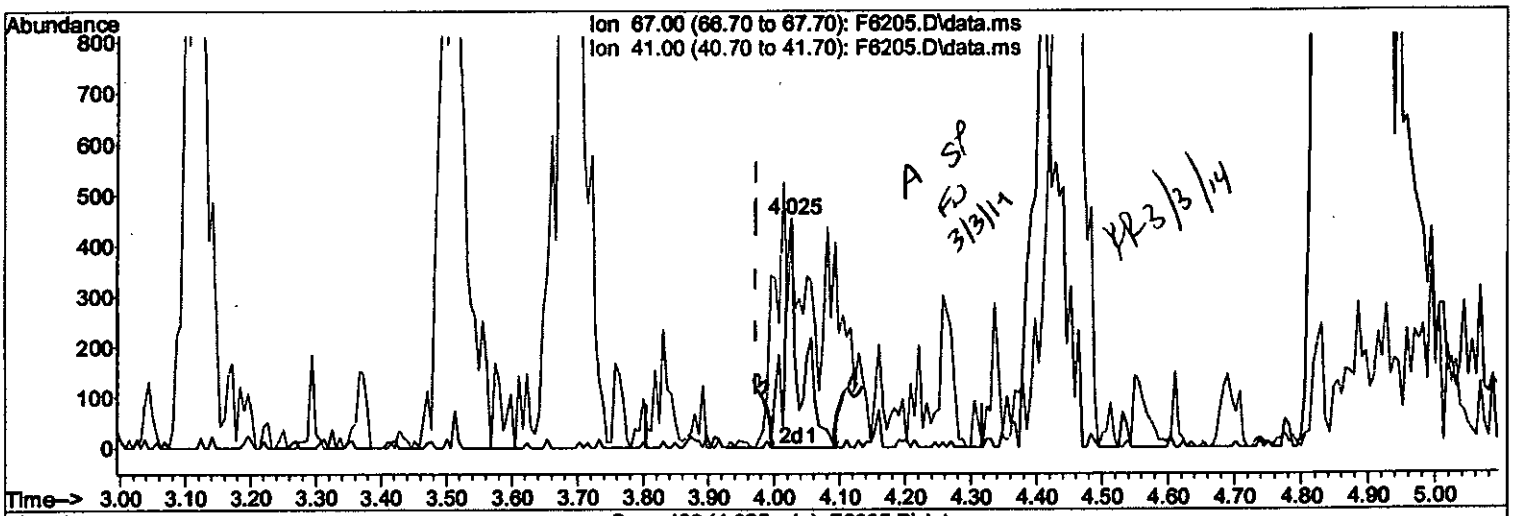
response 262

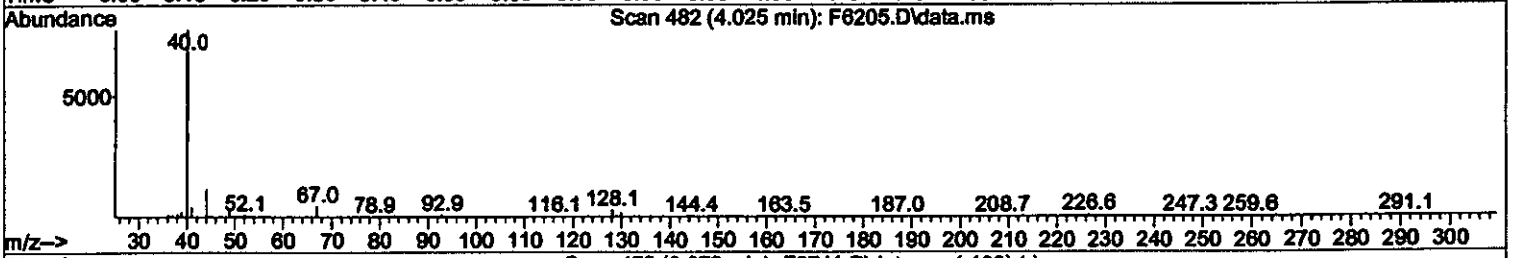
Ion	Exp%	Act%
67.00	100	100
41.00	149.10	151.15
0.00	0.00	0.00
0.00	0.00	0.00

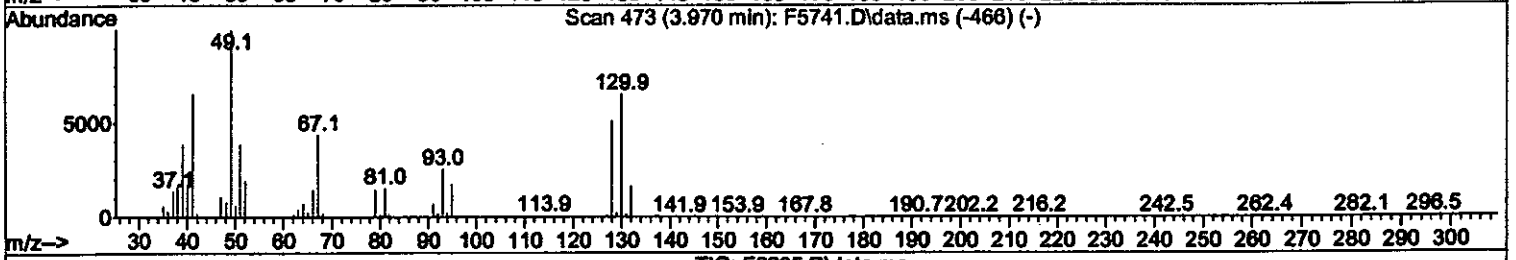
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(38) Methacrylonitrile

4.025min (+0.055) 0.42 ug/L m

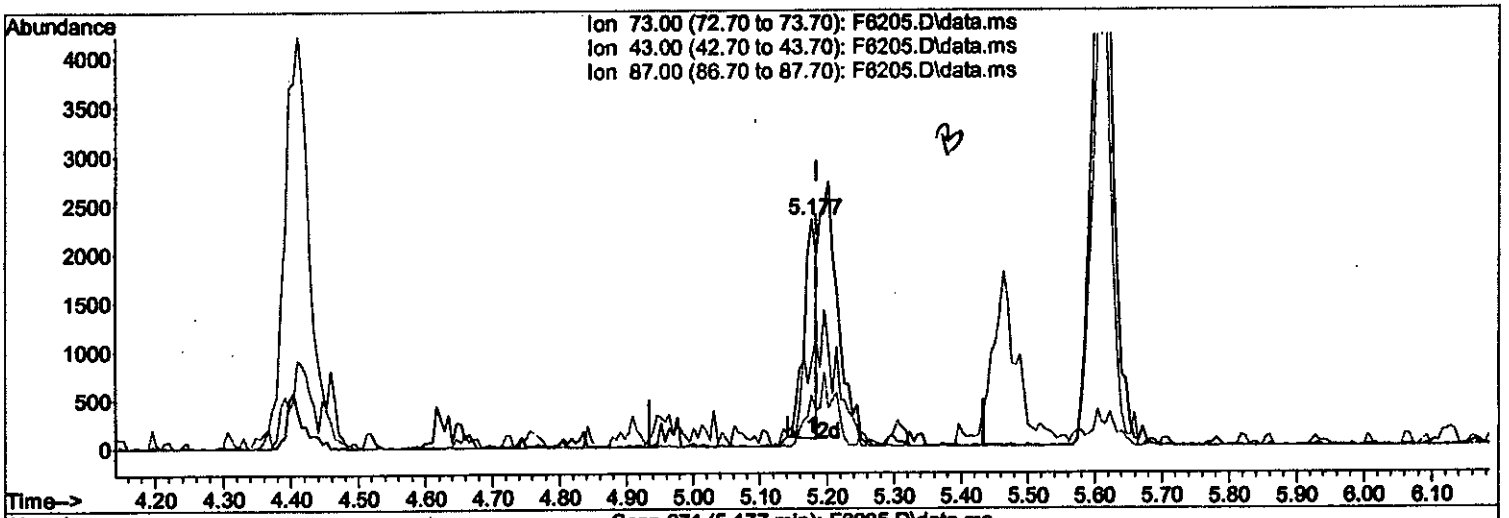
response 771

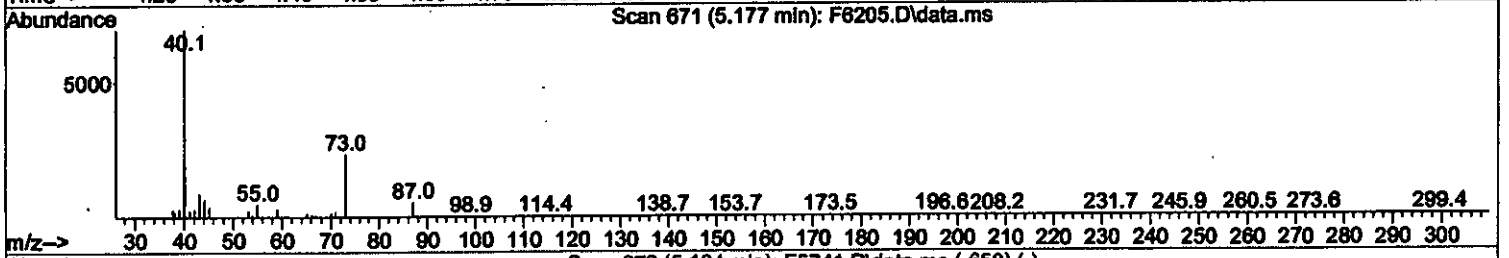
Ion	Exp%	Act%
67.00	100	100
41.00	149.10	67.20#
0.00	0.00	0.00
0.00	0.00	0.00

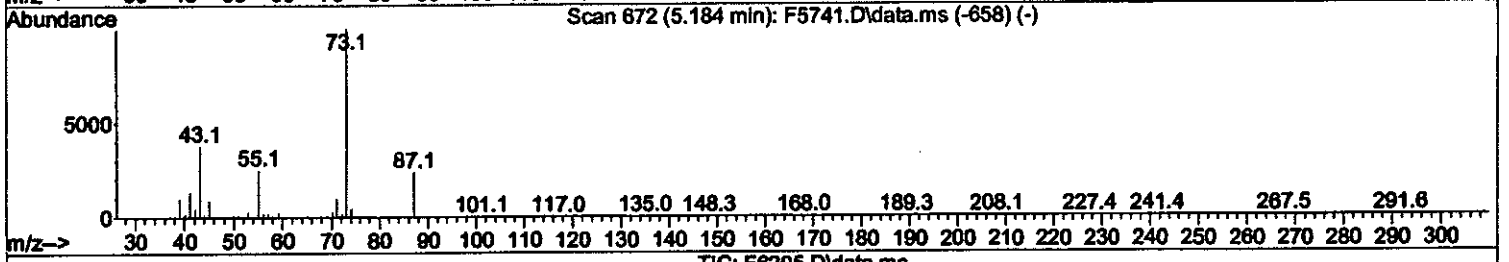
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(42) TAME

5.177min (-0.006) 0.16 ug/L

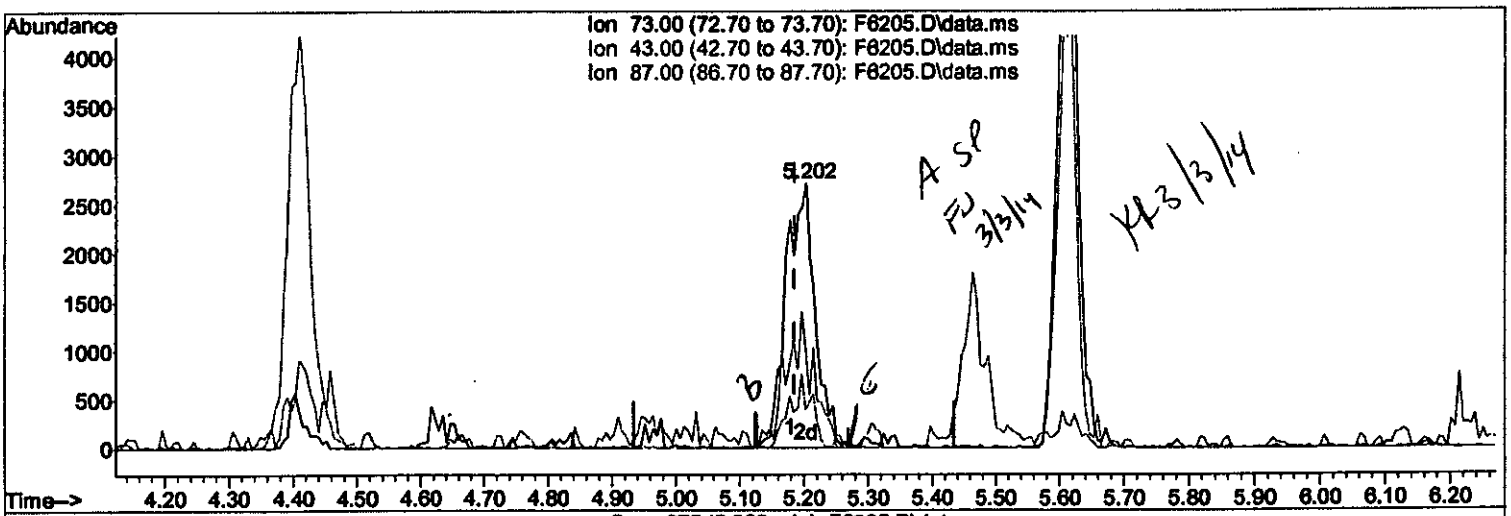
response 2888

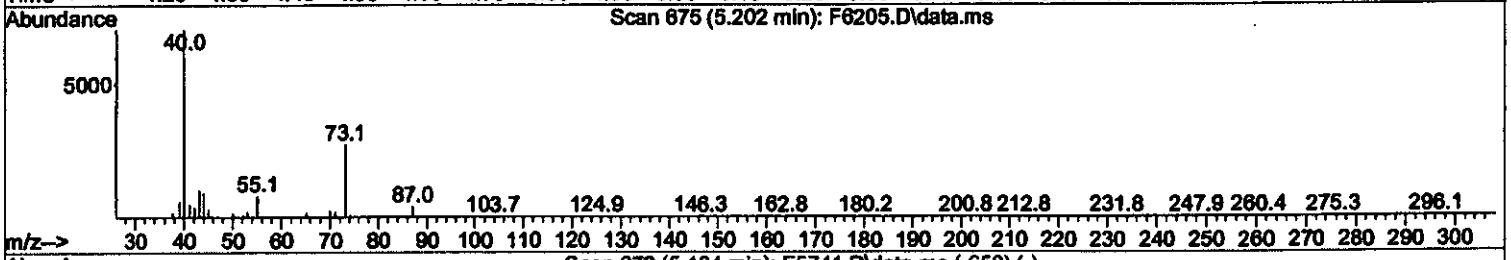
Ion	Exp%	Act%
73.00	100	100
43.00	38.40	37.07
87.00	23.80	22.73
0.00	0.00	0.00

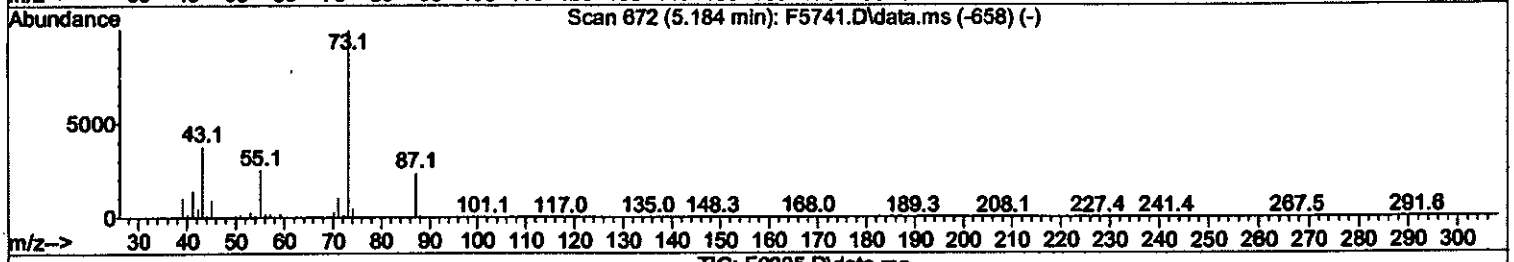
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(42) TAME

5.202min (+0.018) 0.47 ug/L m

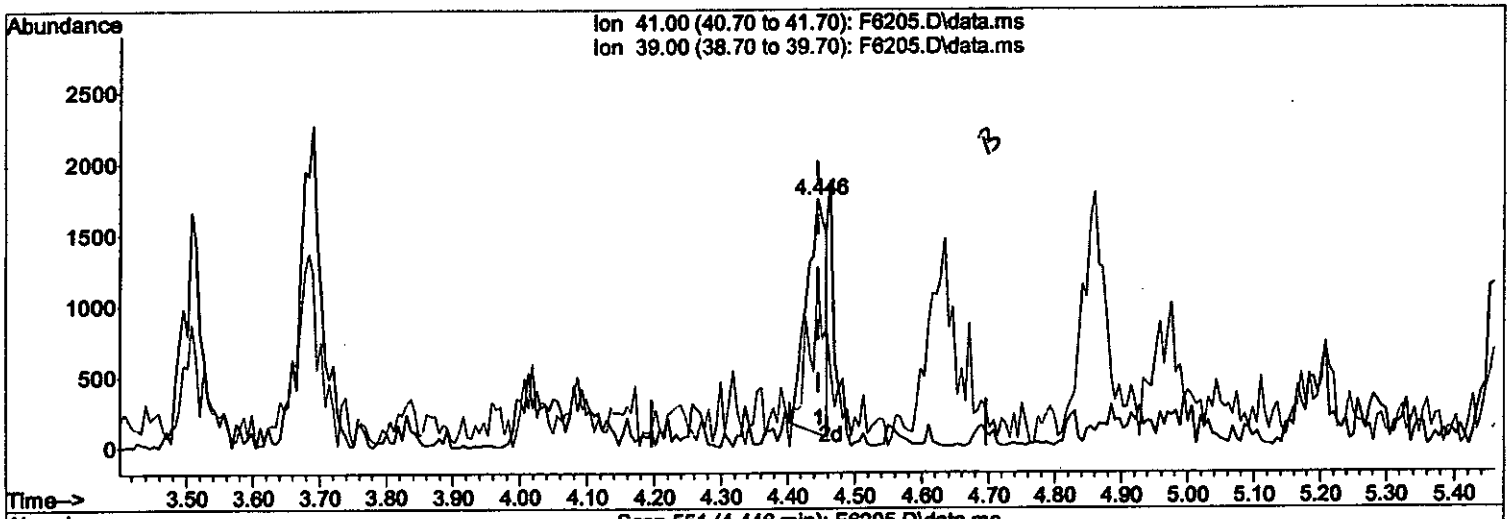
response 8476

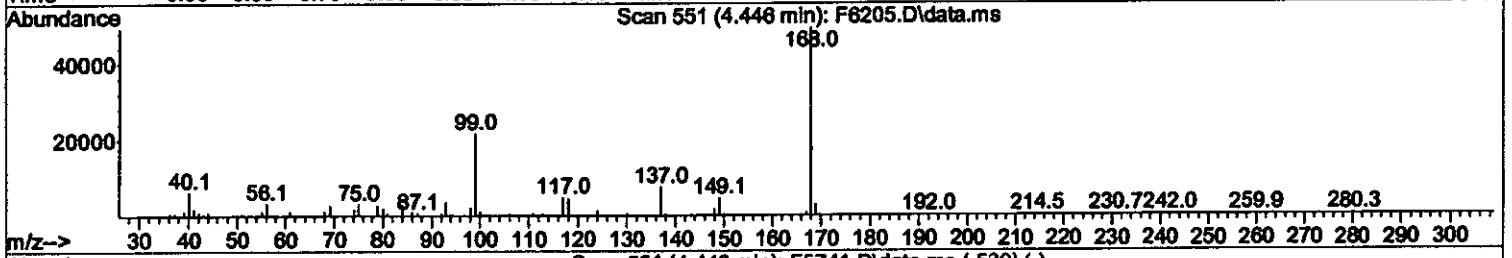
Ion	Exp%	Act%
73.00	100	100
43.00	38.40	37.49
87.00	23.80	14.57
0.00	0.00	0.00

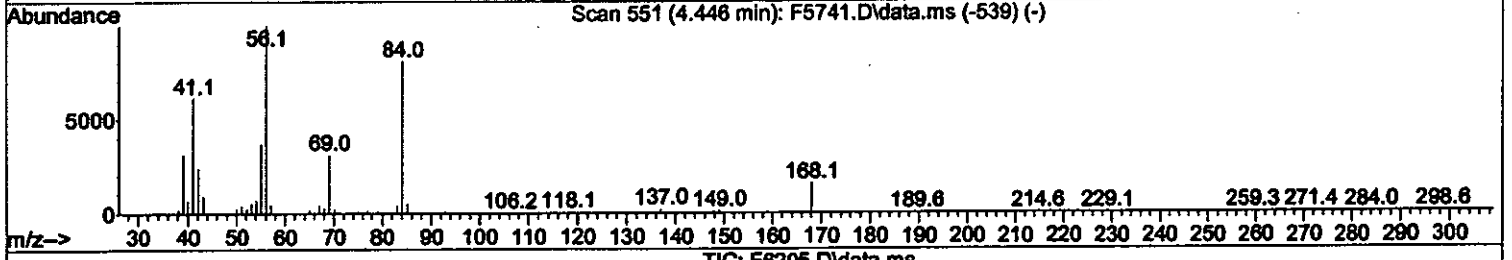
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(44) Cyclohexane (P)

4.446min (+0.000) 0.46 ug/L

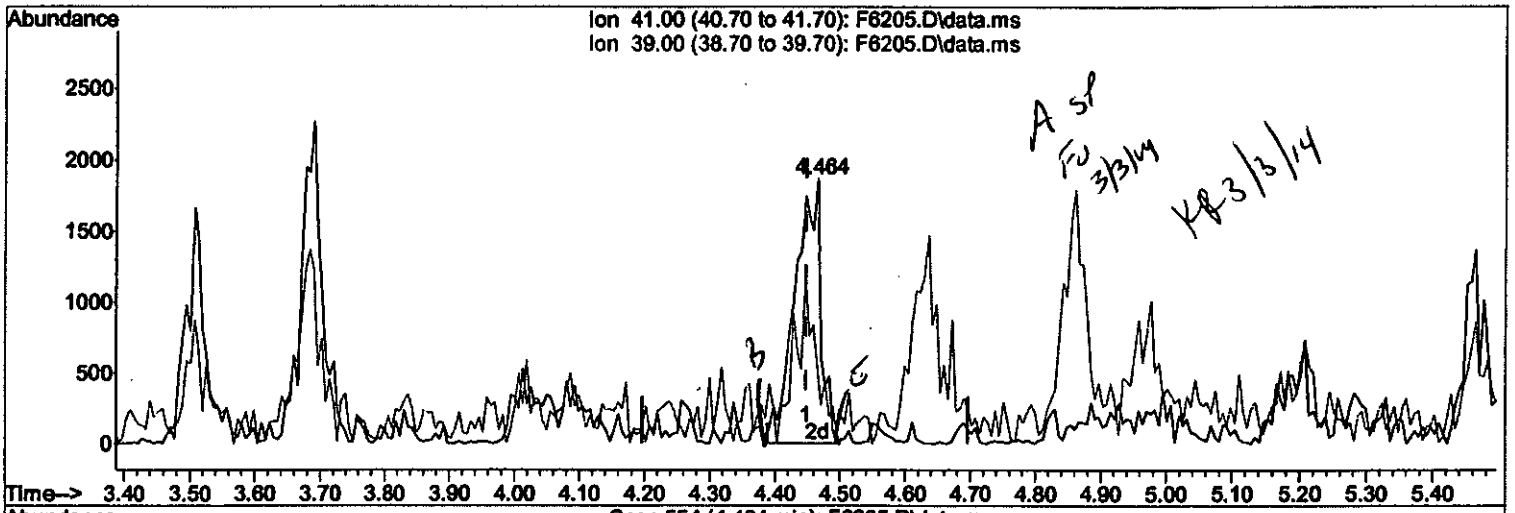
response 3298

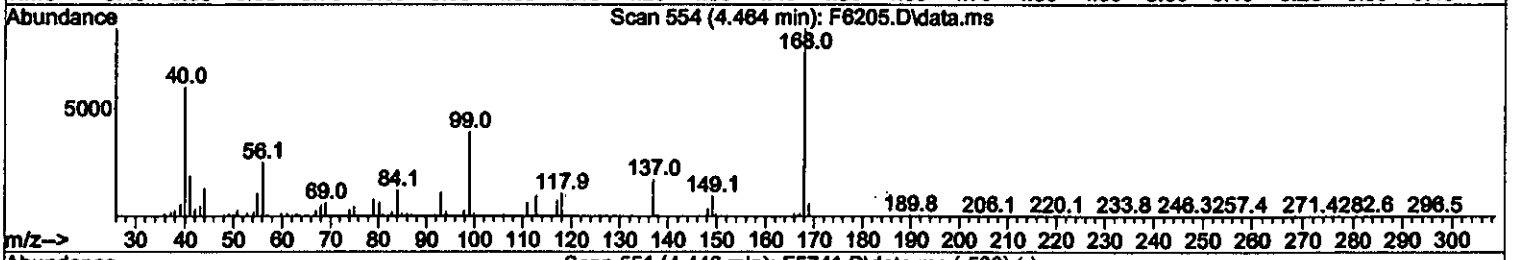
Ion	Exp%	Act%
41.00	100	100
39.00	51.30	66.78
0.00	0.00	0.00
0.00	0.00	0.00

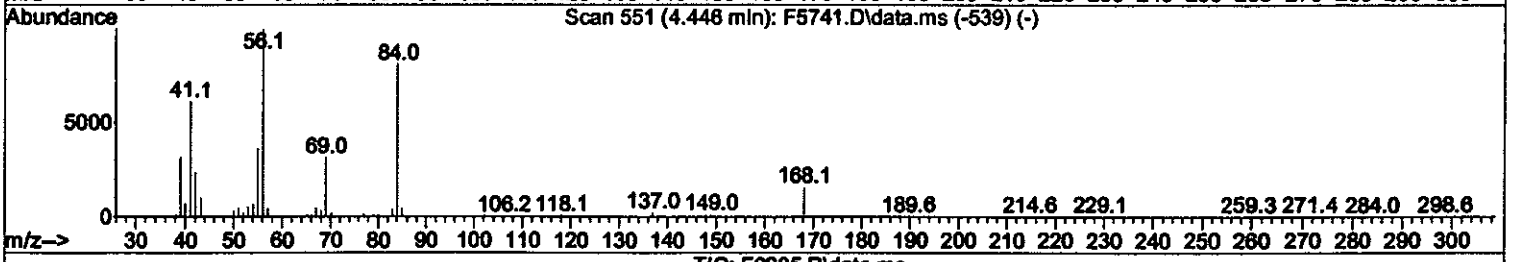
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(44) Cyclohexane (P)

4.464min (+0.016) 0.71 ug/L m

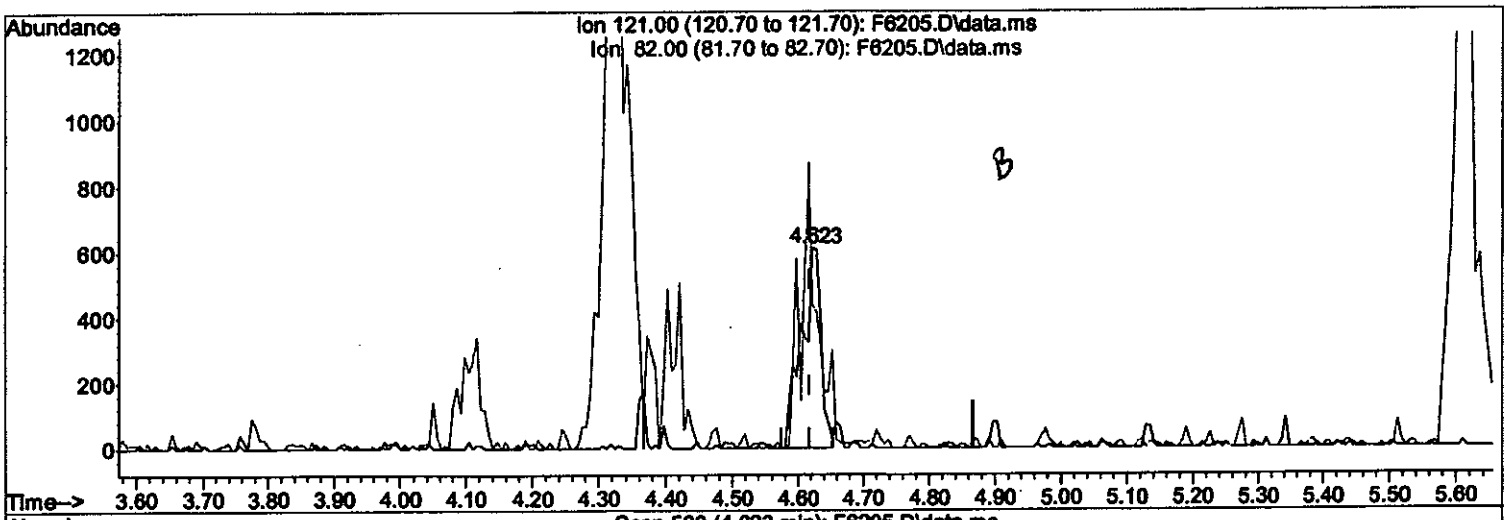
response 5134

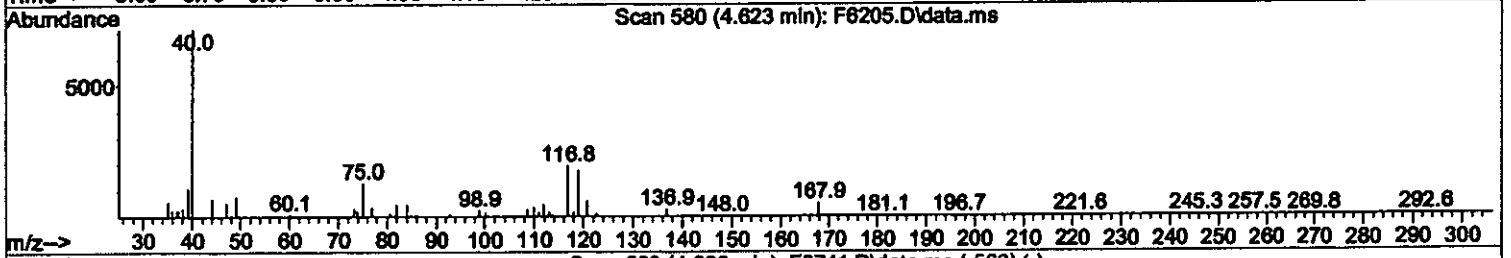
Ion	Exp%	Act%
41.00	100	100
39.00	51.30	28.73#
0.00	0.00	0.00
0.00	0.00	0.00

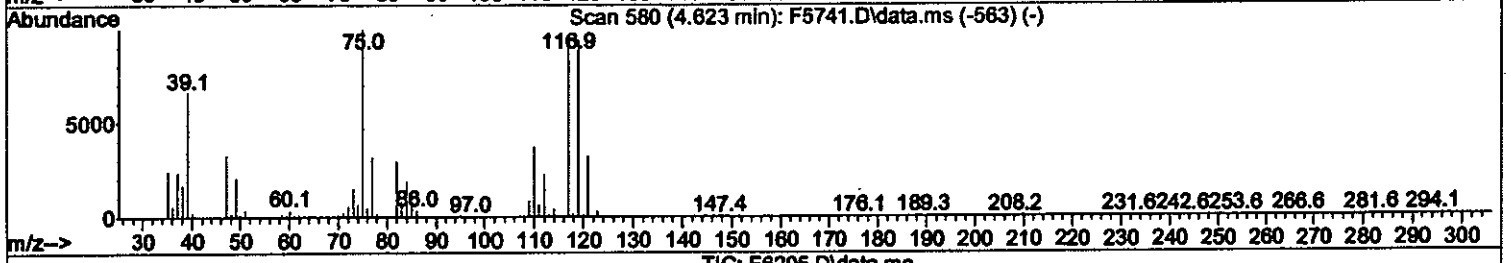
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(46) Carbontetrachloride (P)

4.623min (+0.006) 0.43 ug/L

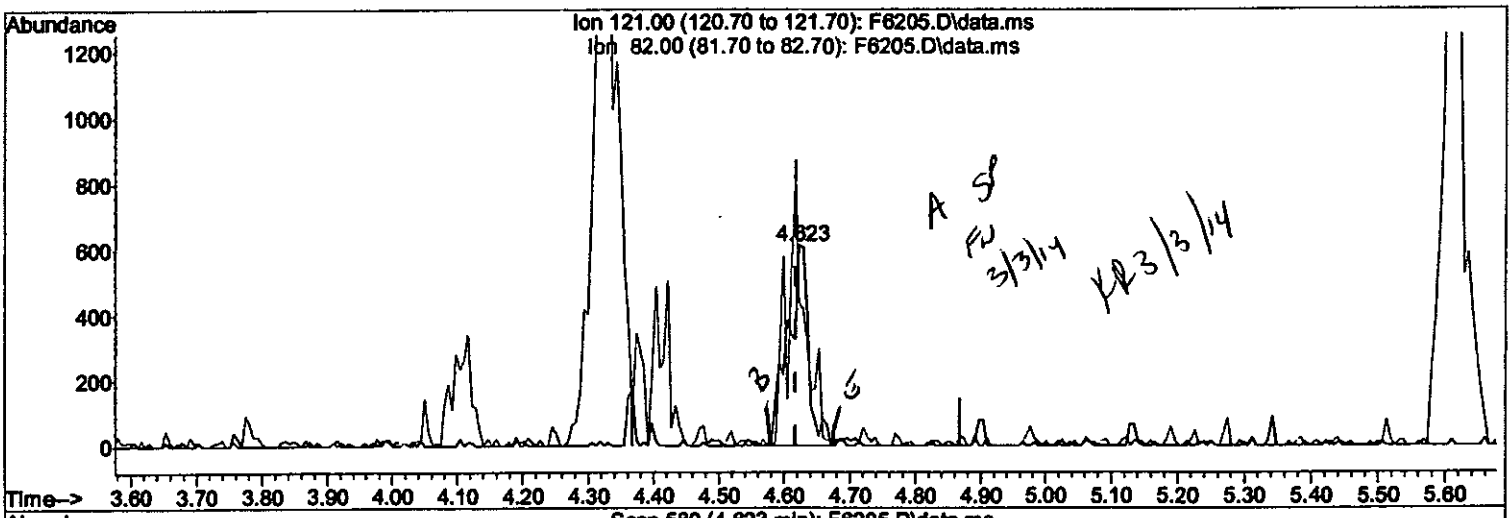
response 1283

Ion	Exp%	Act%
121.00	100	100
82.00	93.30	71.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

(46) Carbontetrachloride (P)

4.623min (+0.006) 0.45 ug/L m

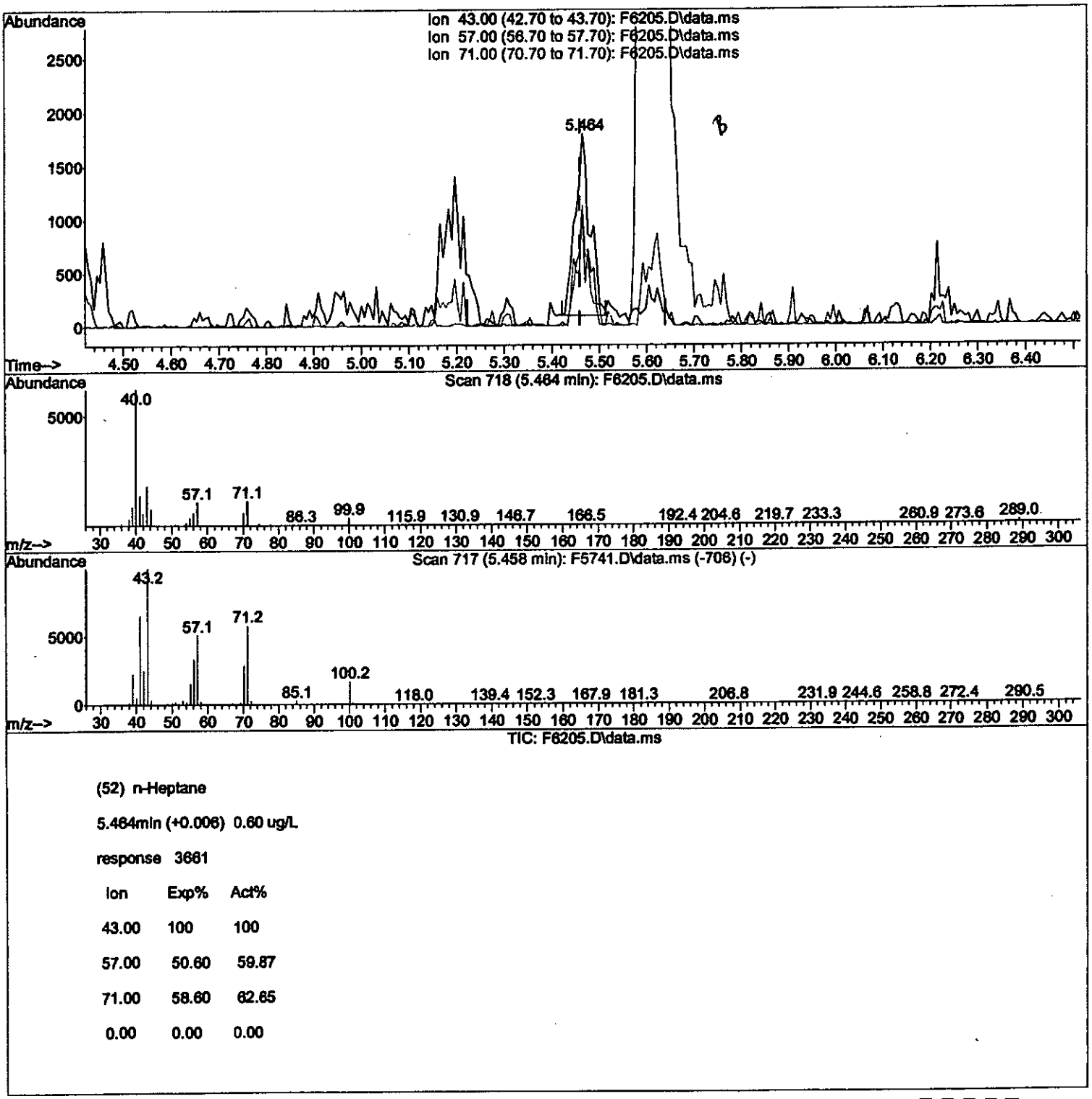
response 1336

Ion	Exp%	Act%
121.00	100	100
82.00	93.30	71.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

(52) n-Heptane

5.464min (+0.006) 0.60 ug/L

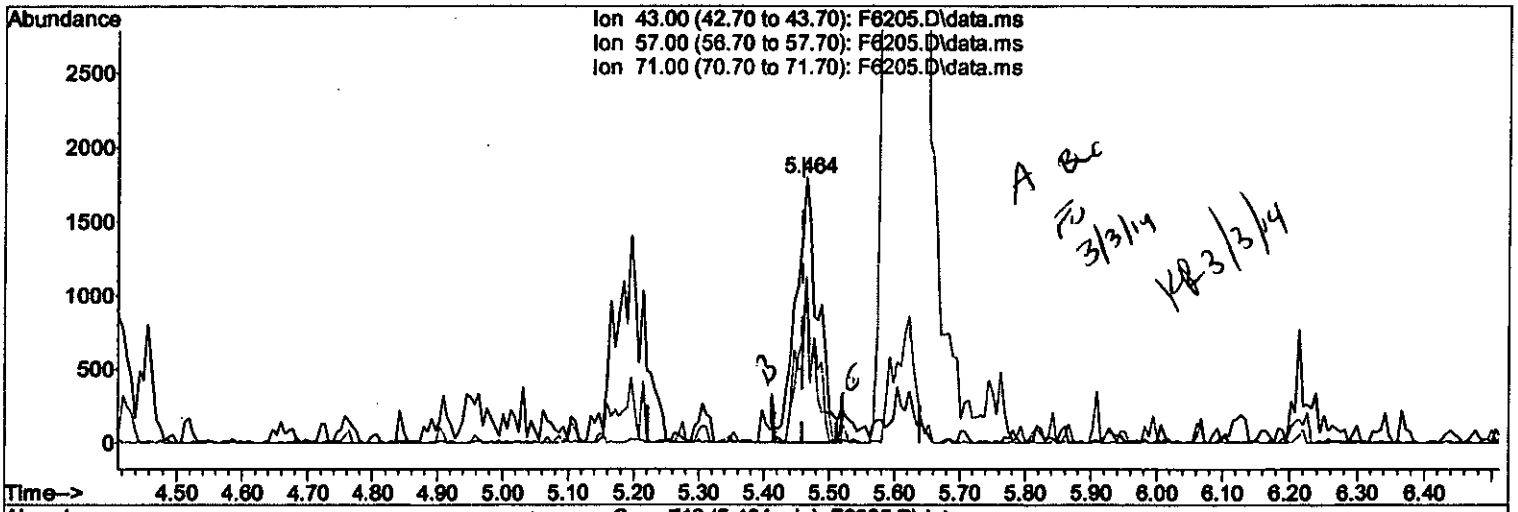
response 3661

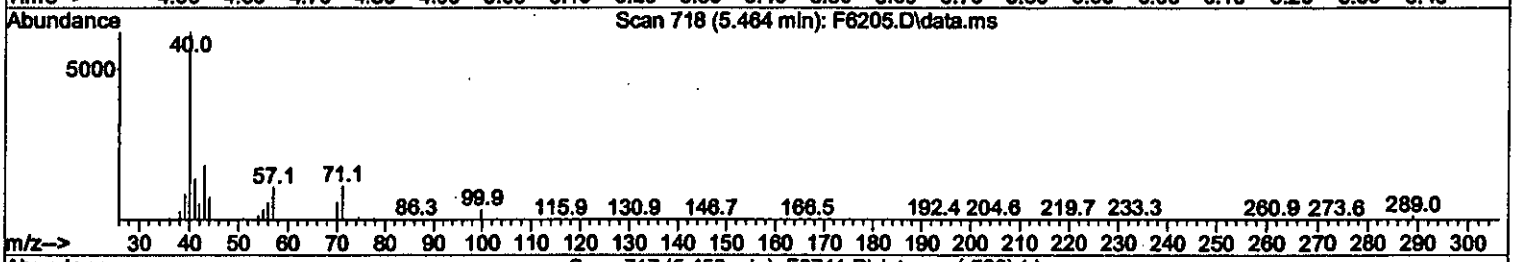
Ion	Exp%	Act%
43.00	100	100
57.00	50.60	59.87
71.00	58.60	62.65
0.00	0.00	0.00

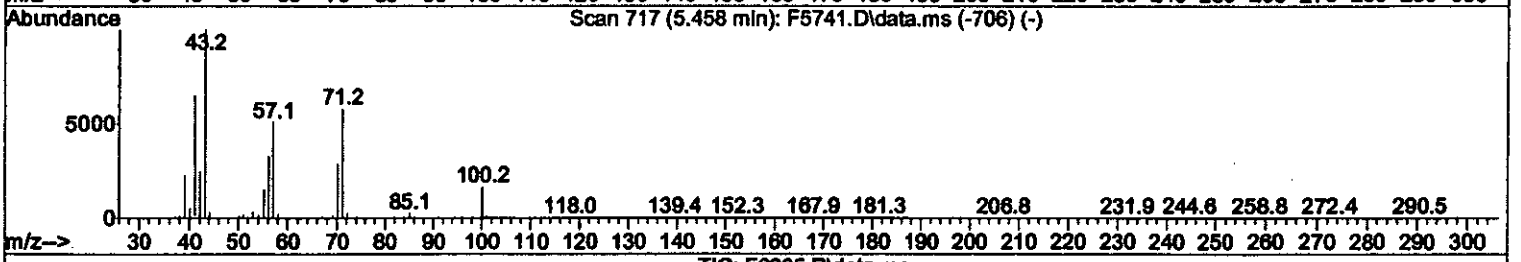
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(52) n-Heptane

5.464min (+0.006) 0.69 ug/L m

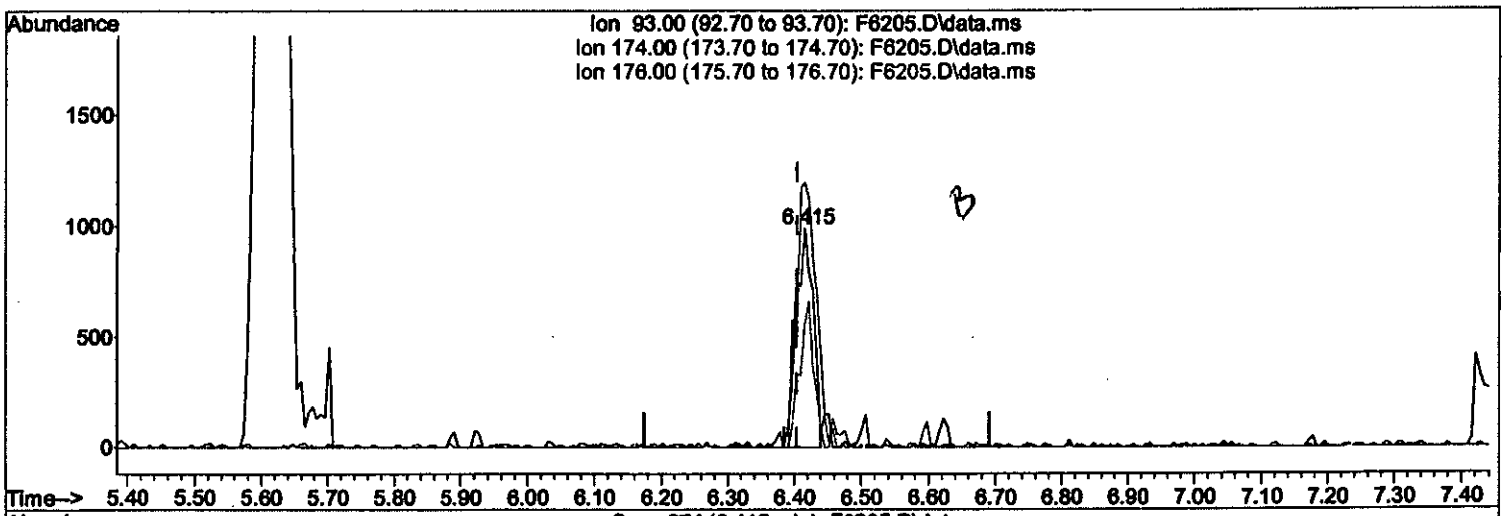
response 4223

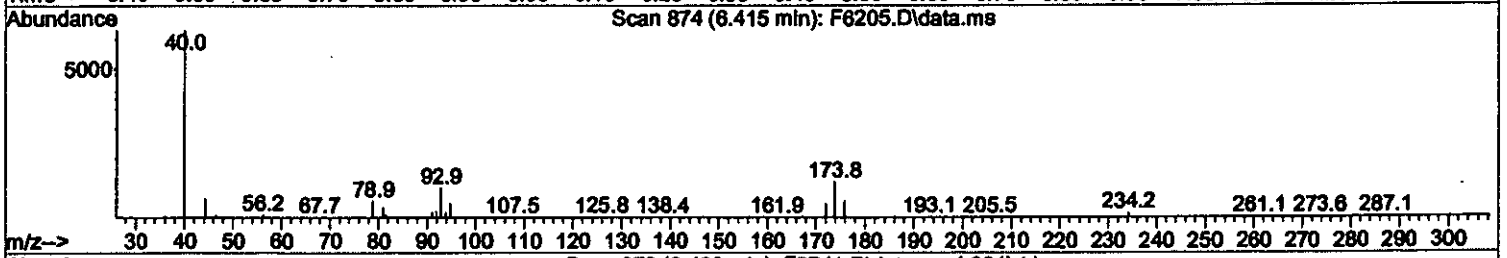
Ion	Exp%	Act%
43.00	100	100
57.00	50.80	59.87
71.00	58.60	62.65
0.00	0.00	0.00

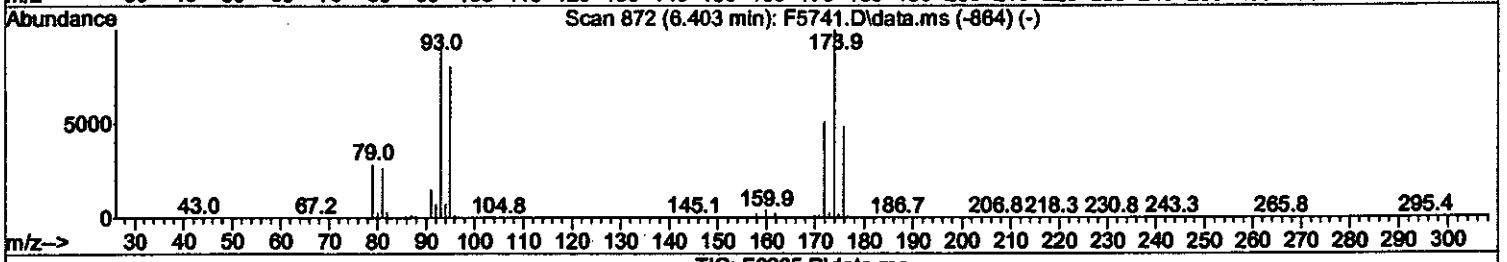
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(57) Dibromomethane

6.415min (+0.012) 0.43 ug/L

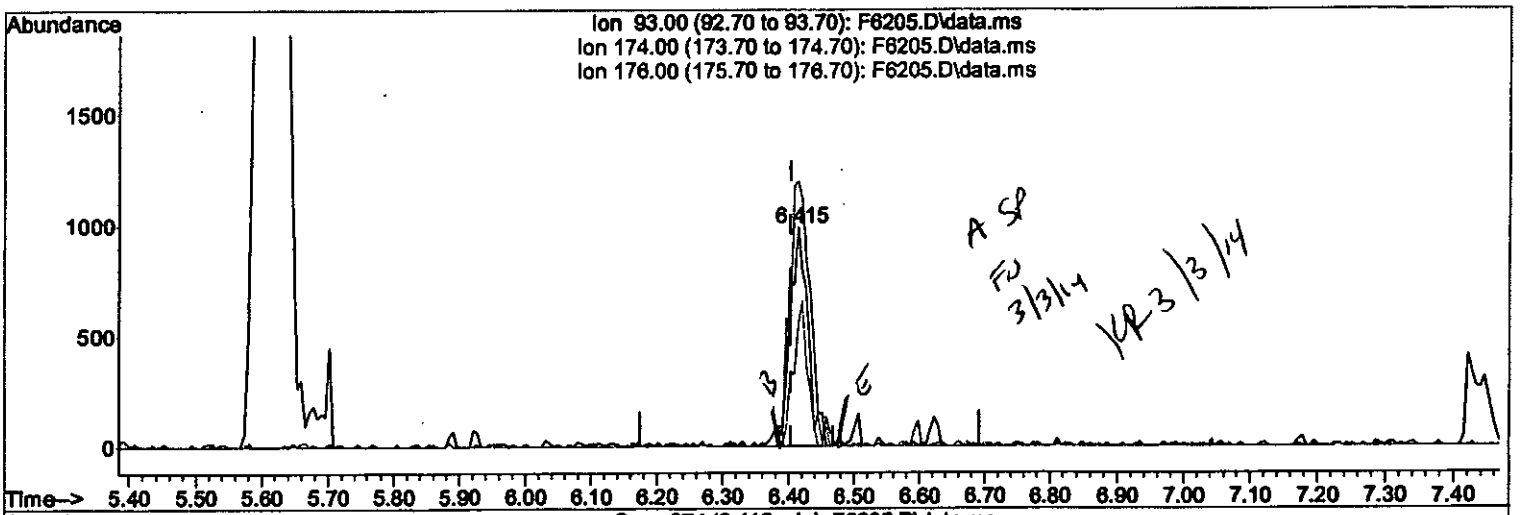
response 1771

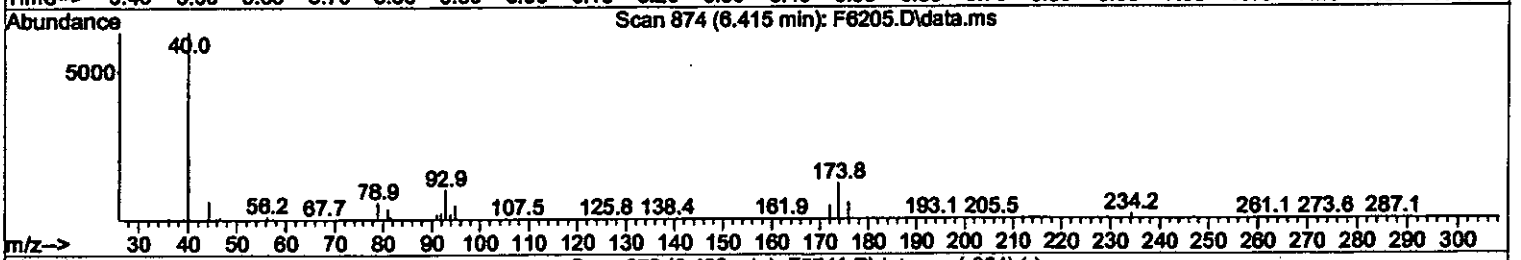
Ion	Exp%	Act%
93.00	100	100
174.00	102.60	121.05
176.00	49.60	54.86
0.00	0.00	0.00

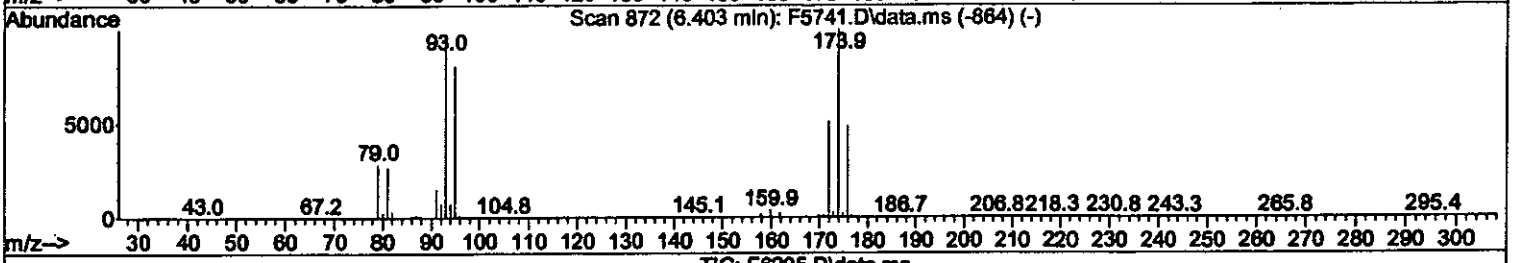
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(57) Dibromomethane

6.415min (+0.012) 0.45 ug/L m

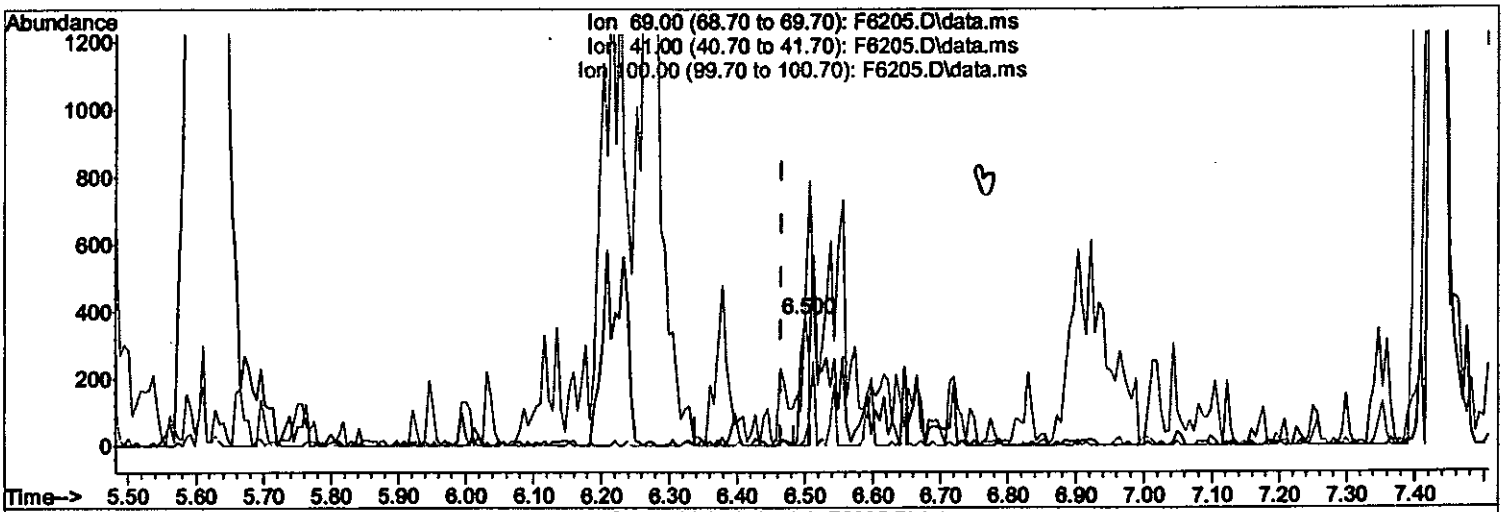
response 1881

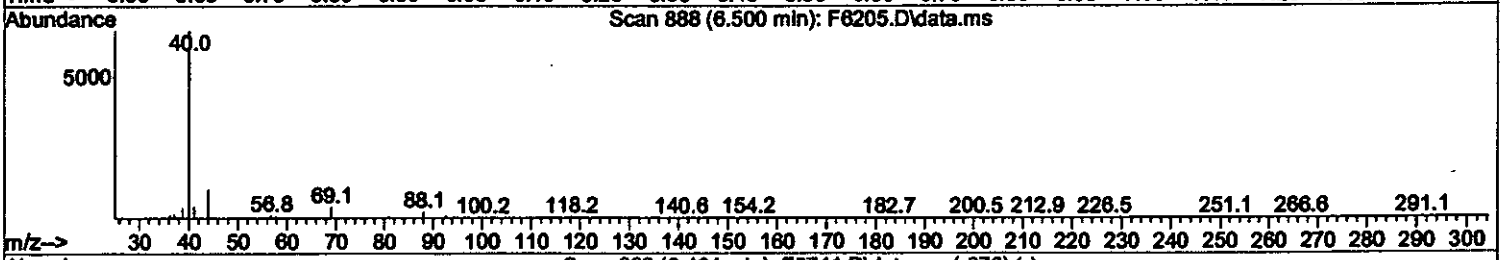
Ion	Exp%	Act%
93.00	100	100
174.00	102.60	121.05
176.00	49.60	54.86
0.00	0.00	0.00

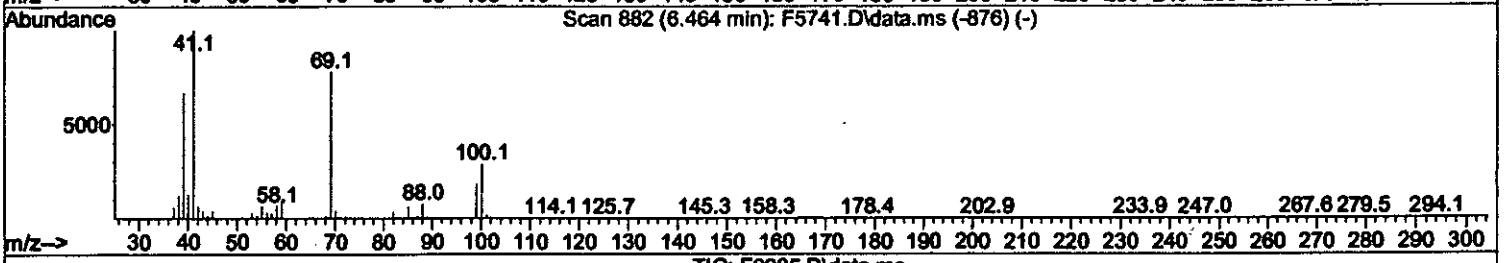
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(59) Methyl Methacrylate

6.500min (+0.037) 0.10 ug/L

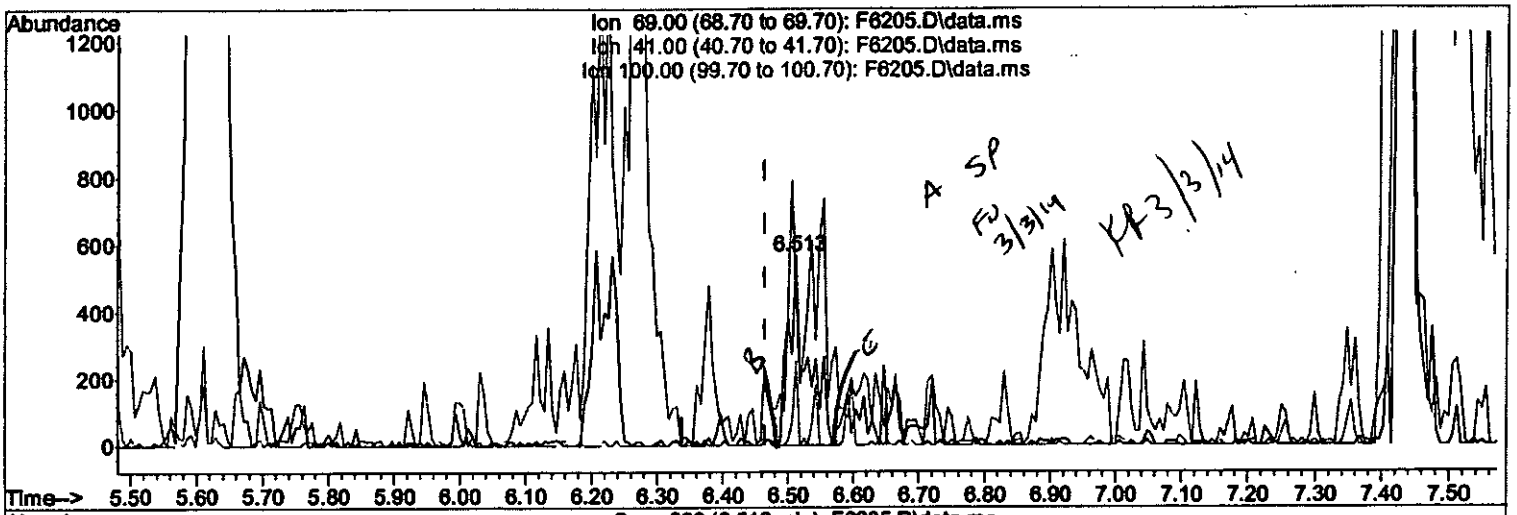
response 339

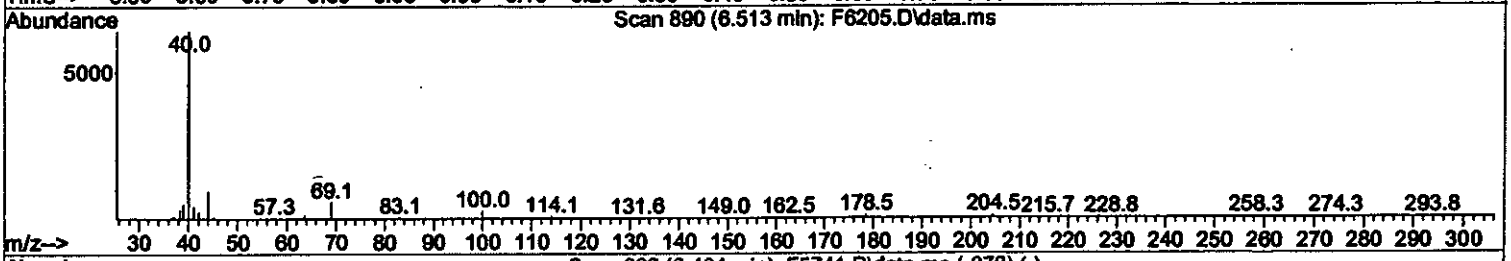
Ion	Exp%	Act%
69.00	100	100
41.00	128.90	102.11#
100.00	36.90	4.47#
0.00	0.00	0.00

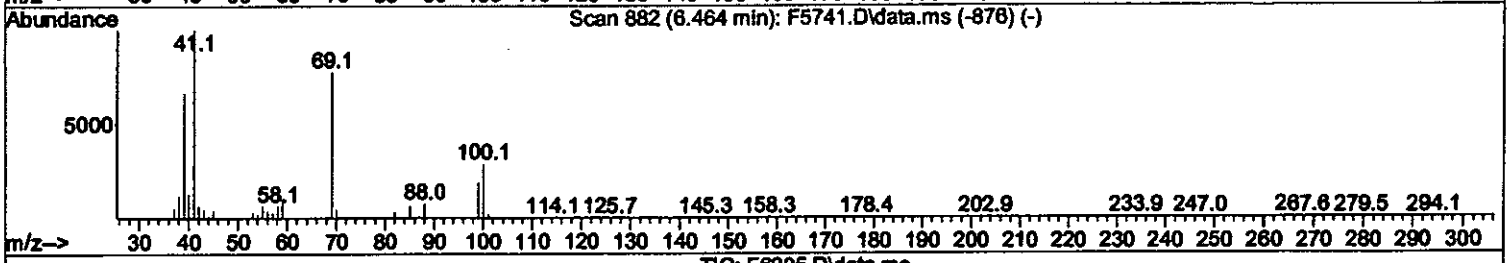
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(59) Methyl Methacrylate

6.513min (+0.050) 0.33 ug/L m

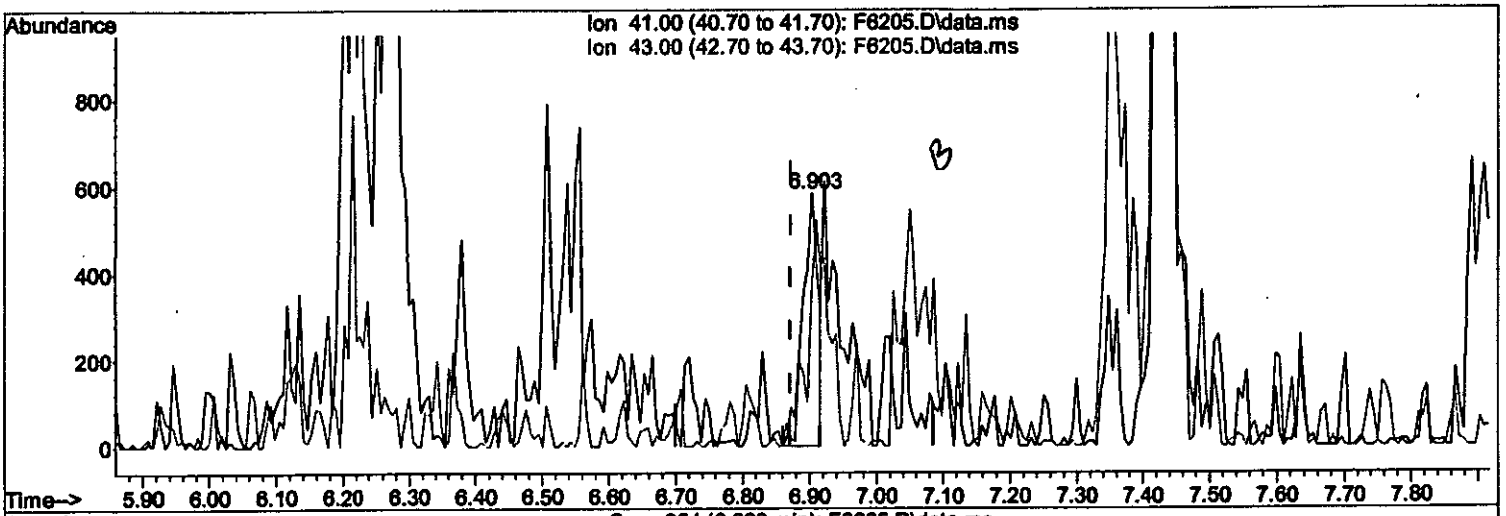
response 1123

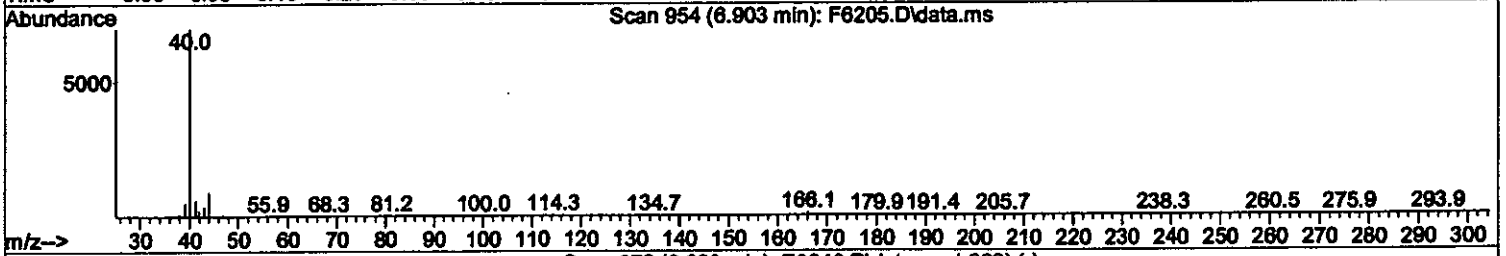
Ion	Exp%	Act%
69.00	100	100
41.00	128.90	72.79#
100.00	38.90	44.88
0.00	0.00	0.00

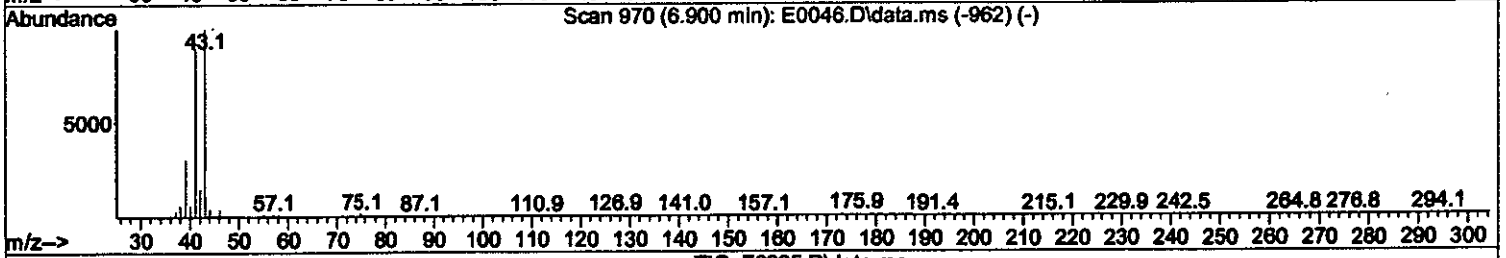
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(61) 2-Nitropropane

6.903min (+0.033) 0.00 ug/L

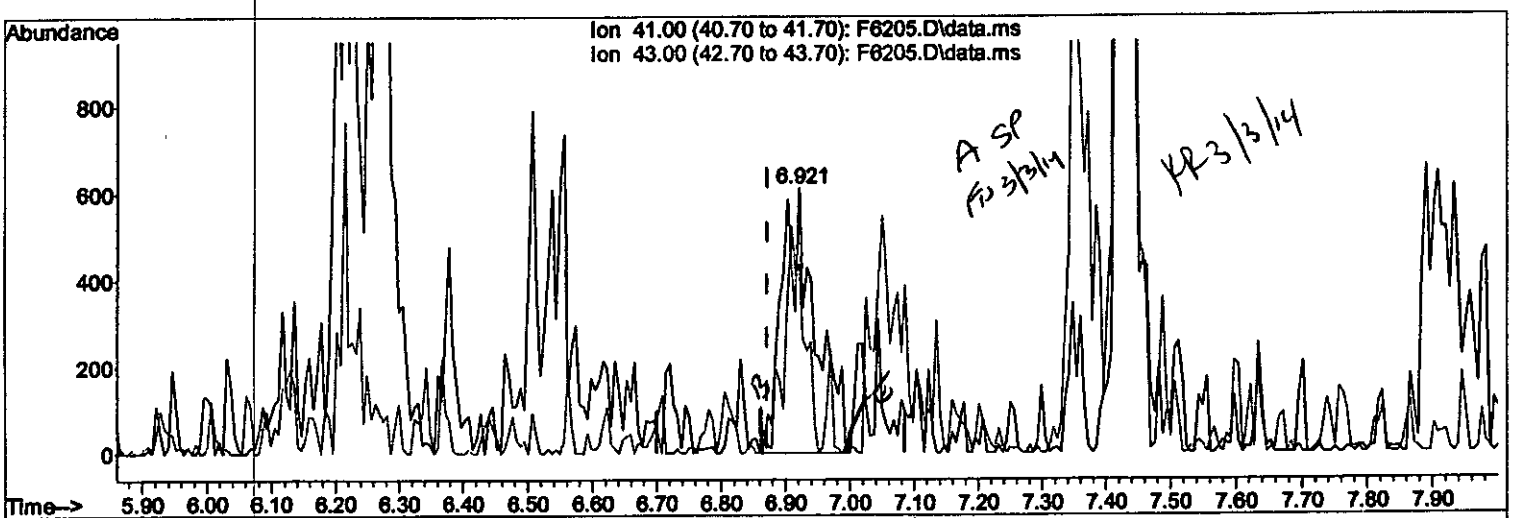
response 914

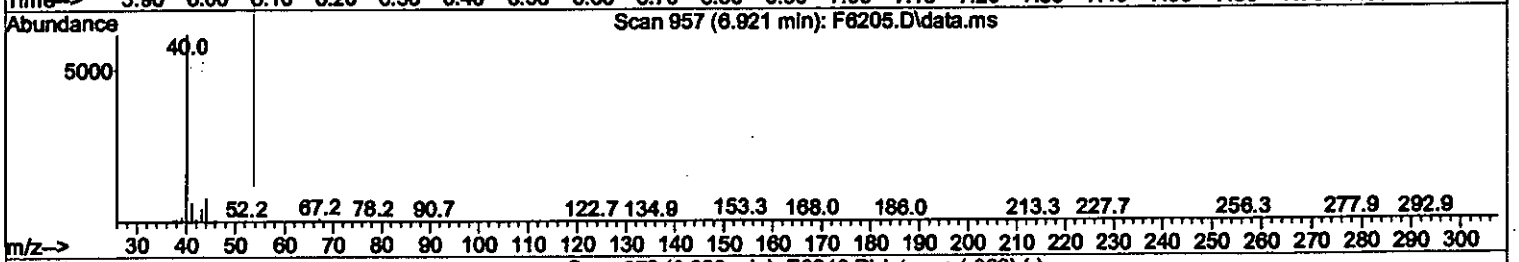
Ion	Exp%	Act%
41.00	100	100
43.00	108.60	60.27#
0.00	0.00	0.00
0.00	0.00	0.00

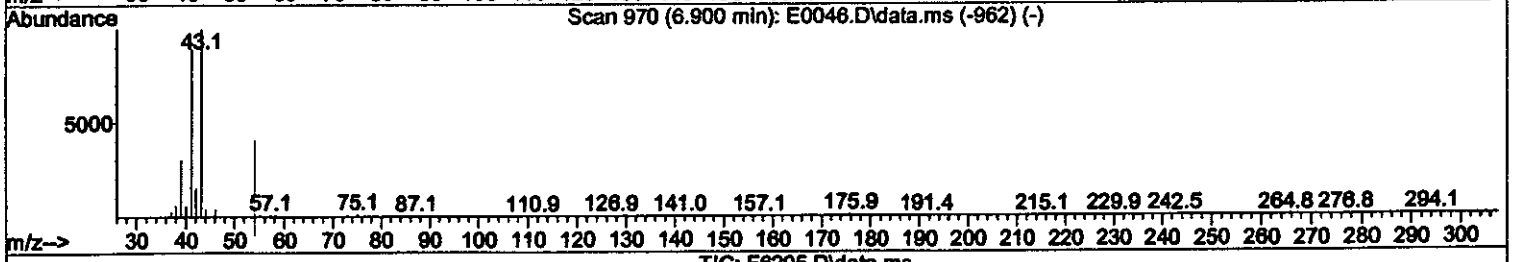
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(61) 2-Nitropropane

6.921min (+0.051) 0.00 ug/L m

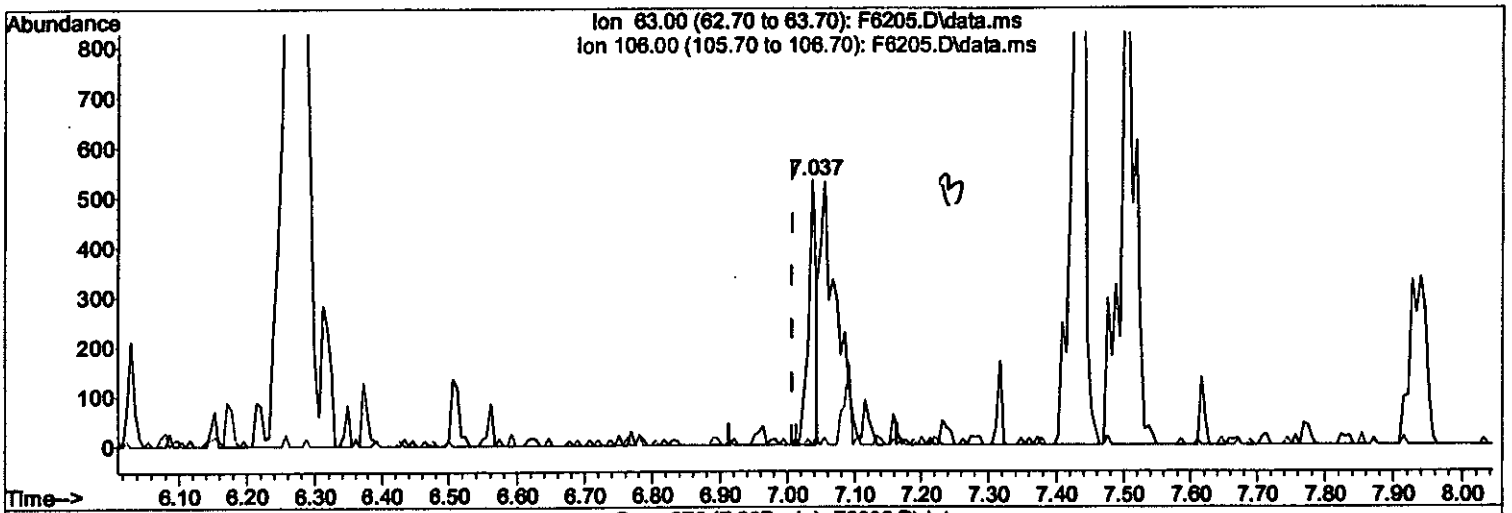
response 2163

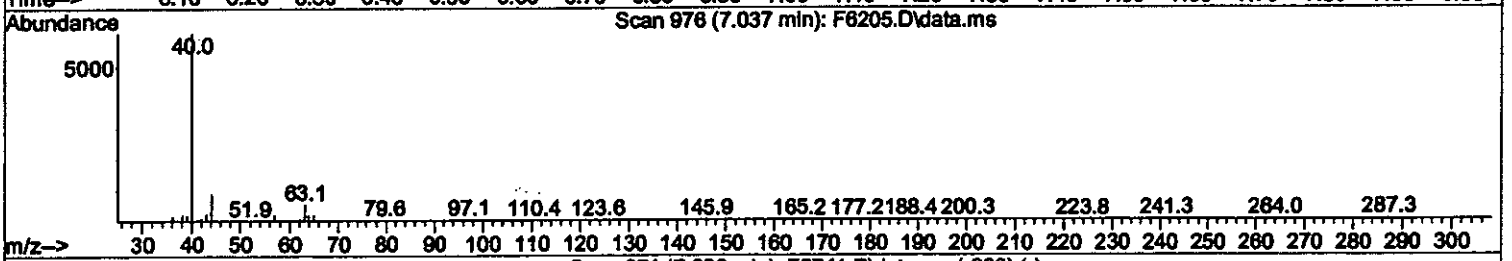
Ion	Exp%	Act%
41.00	100	100
43.00	108.60	70.87#
0.00	0.00	0.00
0.00	0.00	0.00

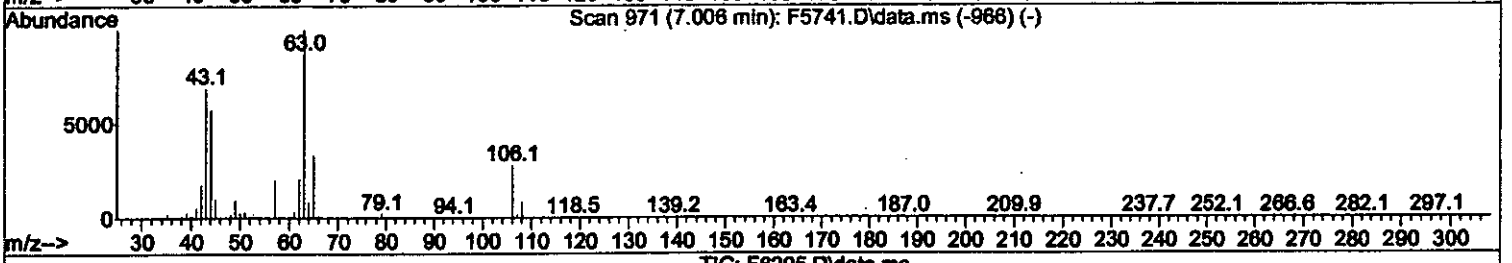
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(62) 2-Chloroethylvinyl Ether

7.037min (+0.031) 0.13 ug/L

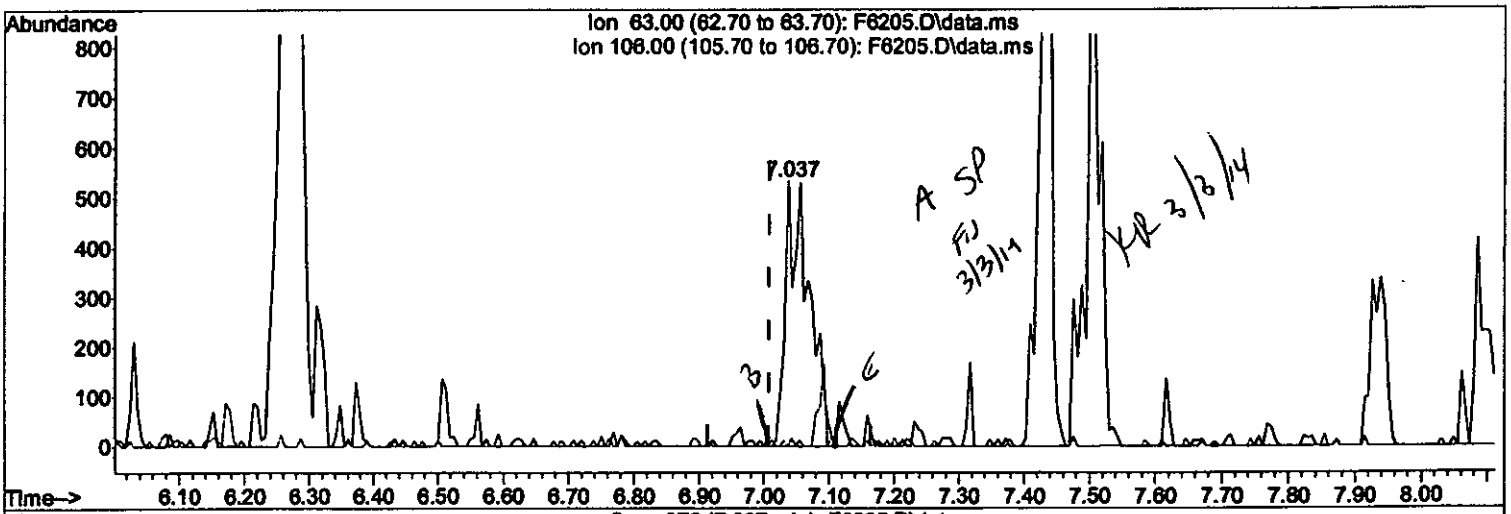
response 428

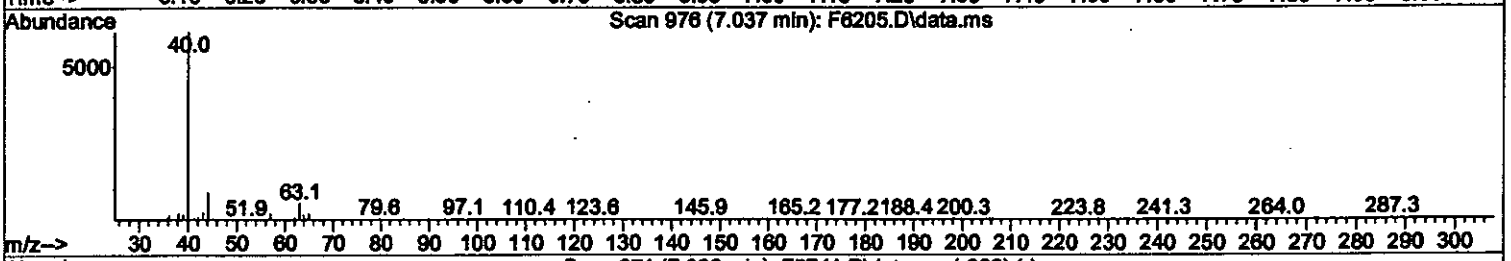
Ion	Exp%	Act%
63.00	100	100
106.00	27.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

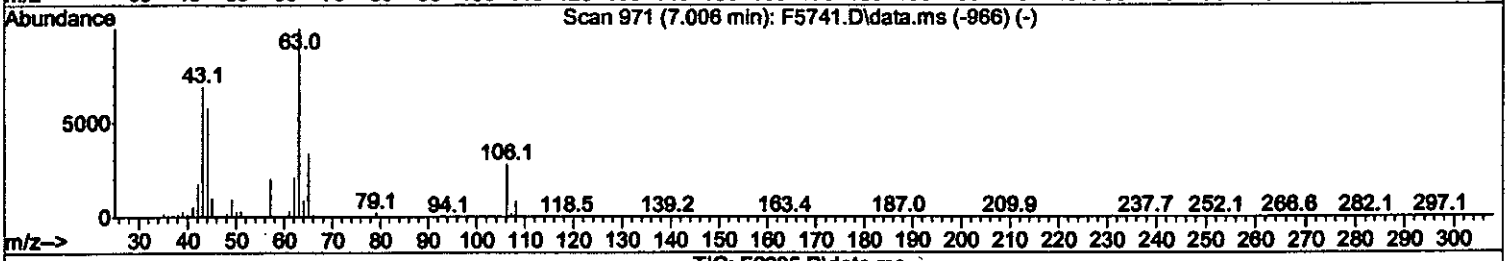
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(62) 2-Chloroethylvinyl Ether

7.037min (+0.031) 0.40 ug/L m

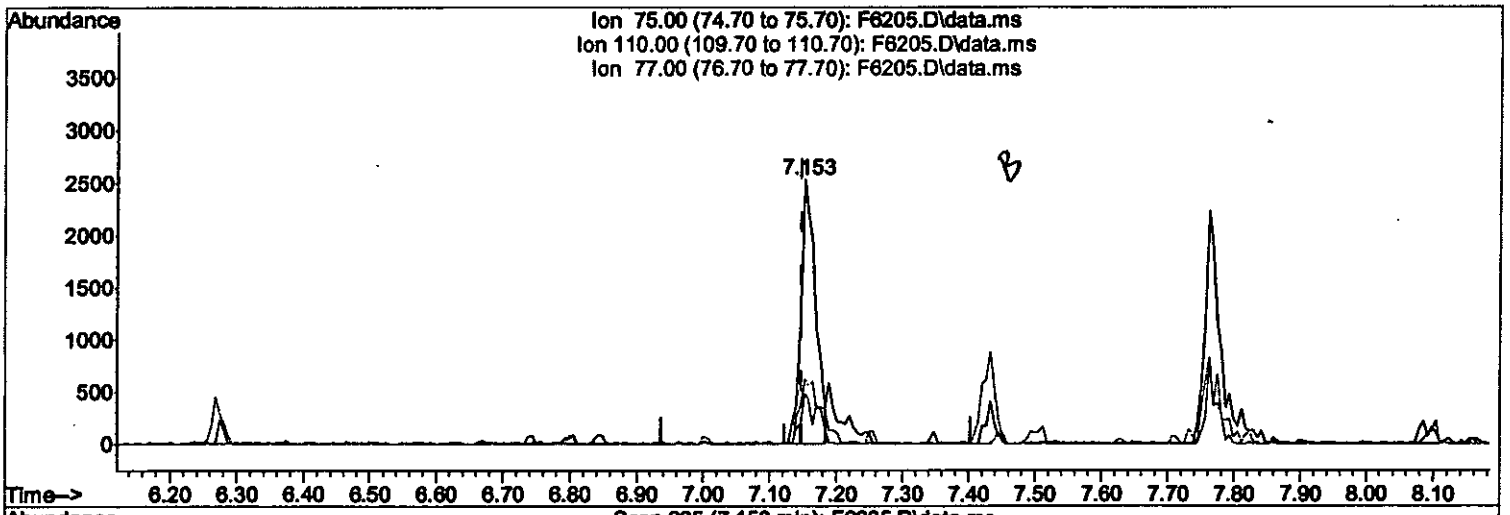
response 1322

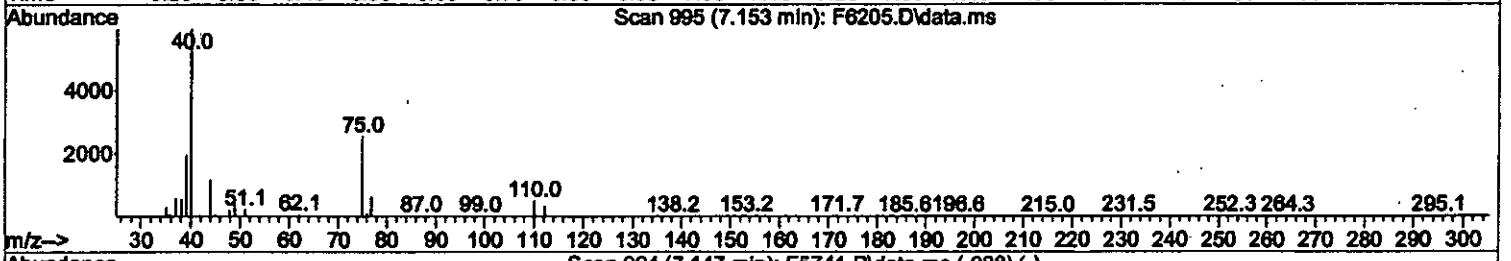
Ion	Exp%	Act%
63.00	100	100
106.00	27.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

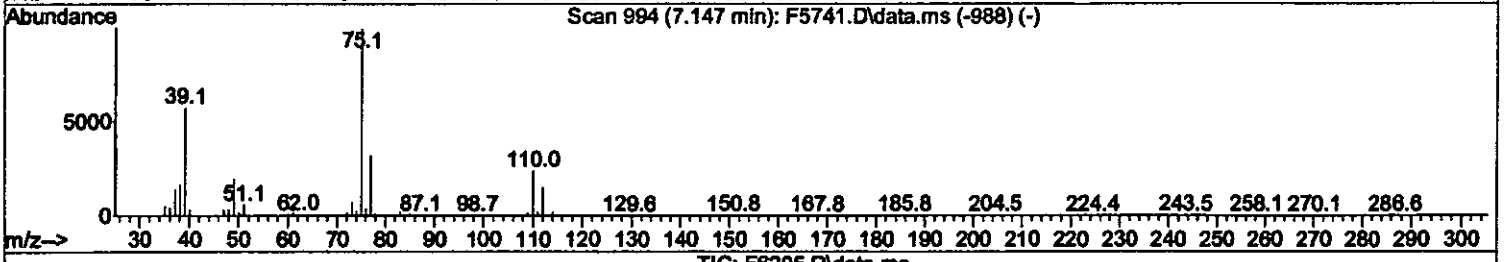
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(63) cis-1,3-Dichloropropene (P)

7.153min (+0.006) 0.36 ug/L

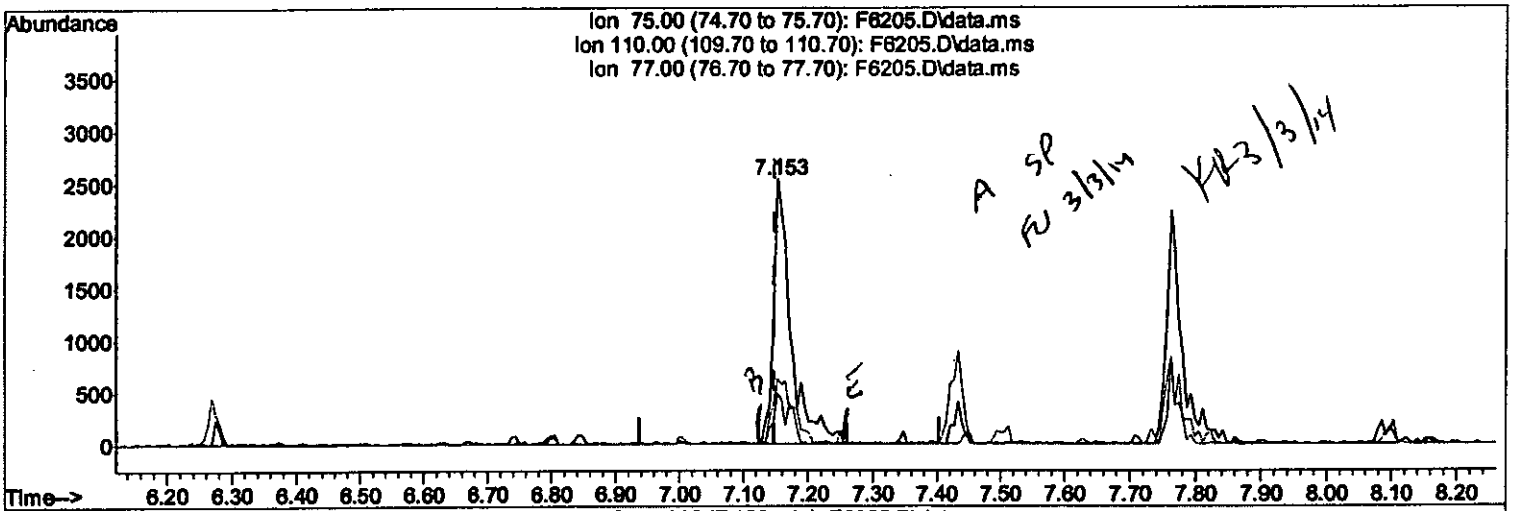
response 3915

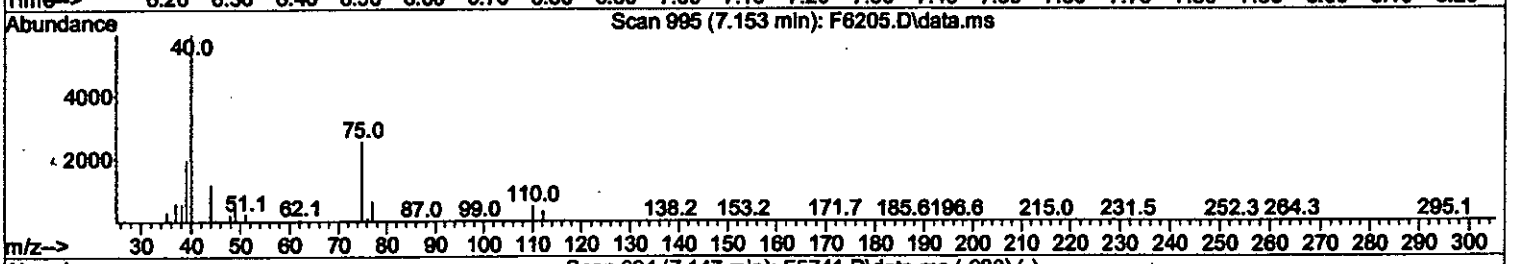
Ion	Exp%	Act%
75.00	100	100
110.00	23.70	19.00
77.00	31.80	24.48
0.00	0.00	0.00

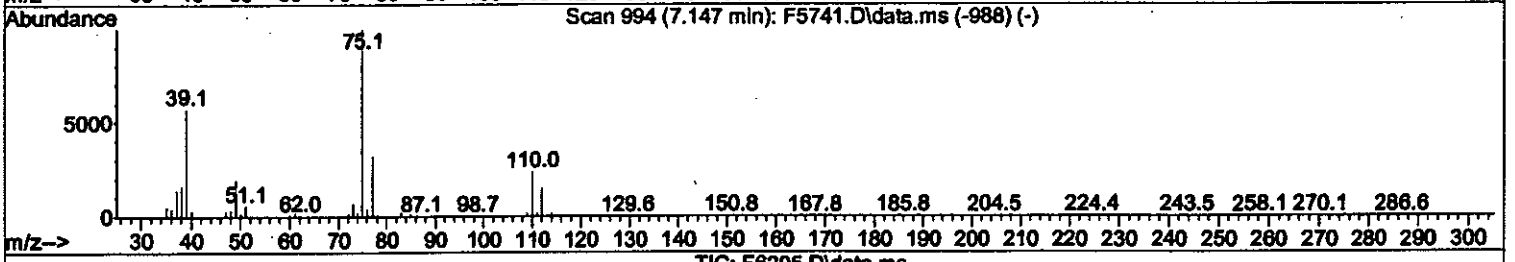
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(63) cis-1,3-Dichloropropene (P)

7.153min (+0.006) 0.44 ug/L m

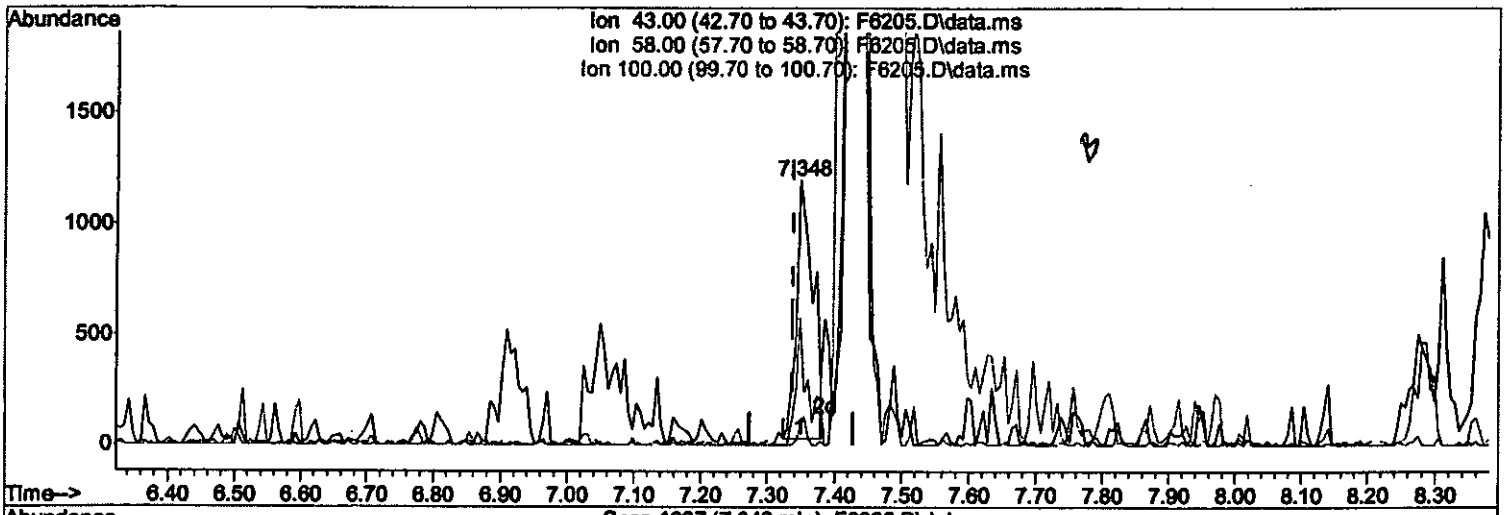
response 4783

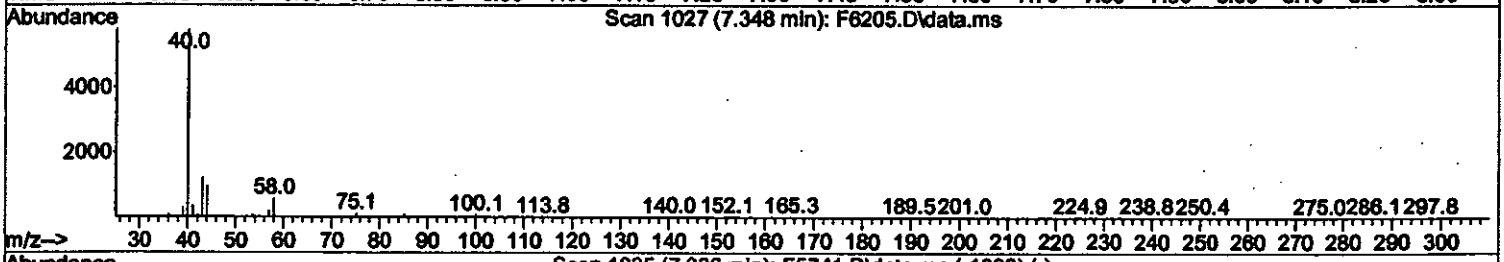
Ion	Exp%	Act%
75.00	100	100
110.00	23.70	19.00
77.00	31.80	24.48
0.00	0.00	0.00

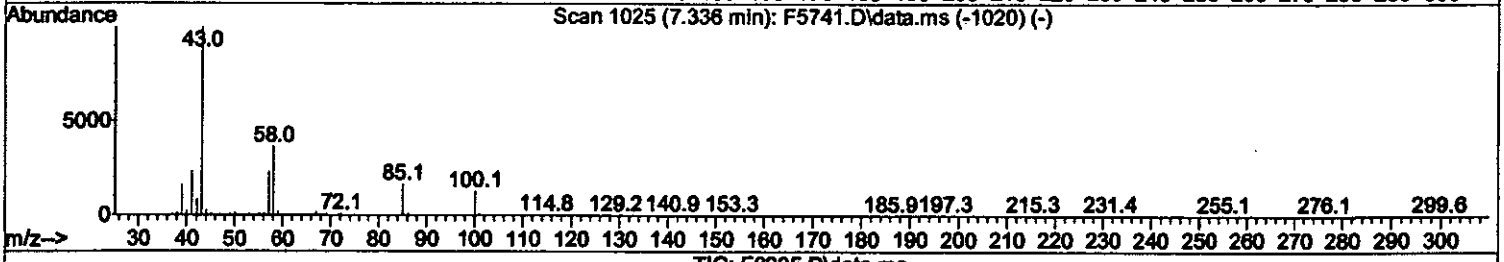
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(64) 4-Methyl-2-pentanone (P)

7.348min (+0.012) 0.44 ug/L

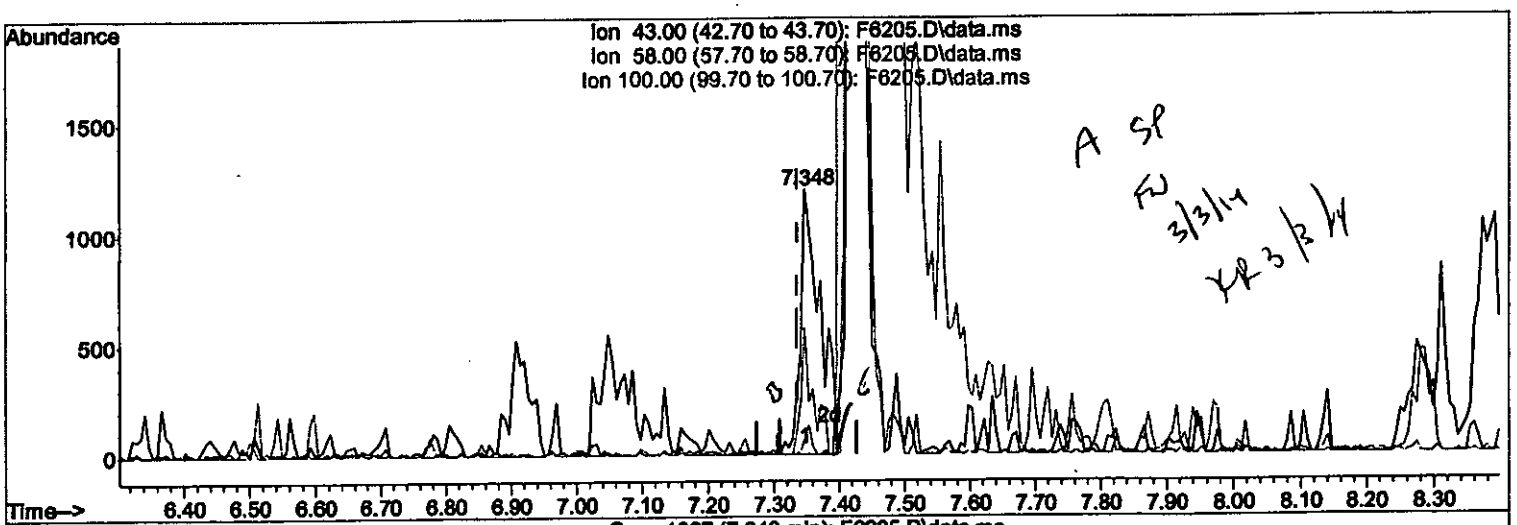
response 1962

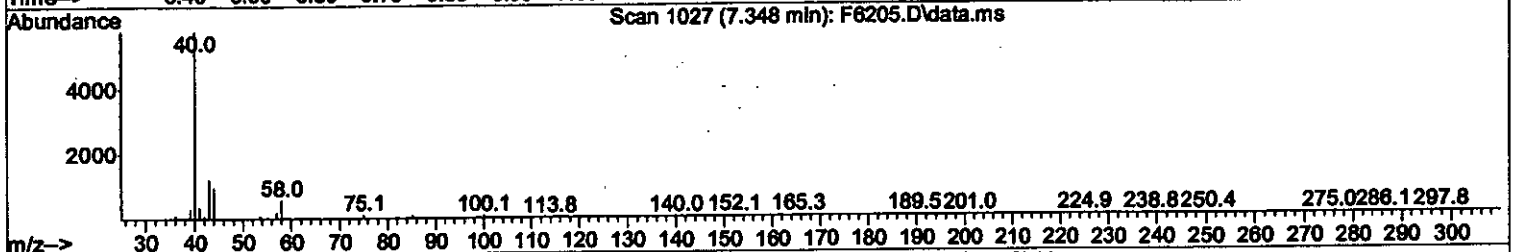
Ion	Exp%	Act%
43.00	100	100
58.00	38.30	47.83
100.00	12.60	5.84
0.00	0.00	0.00

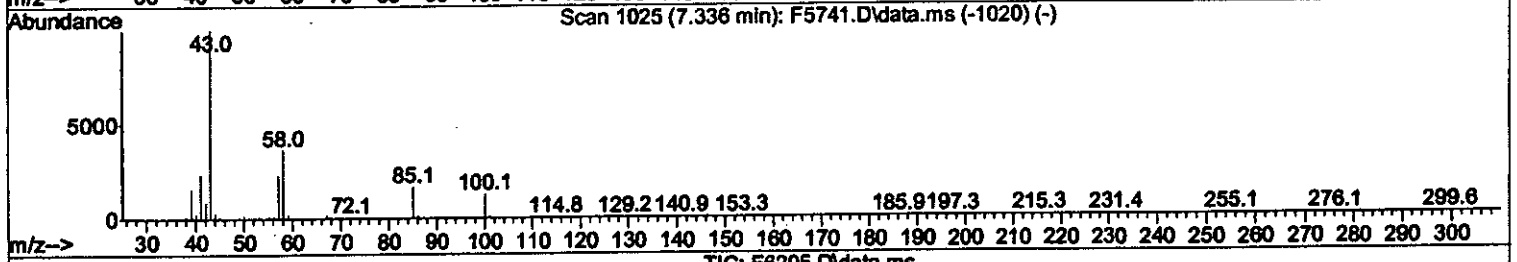
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(64) 4-Methyl-2-pentanone (P)

7.348min (+0.012) 0.57 ug/L m

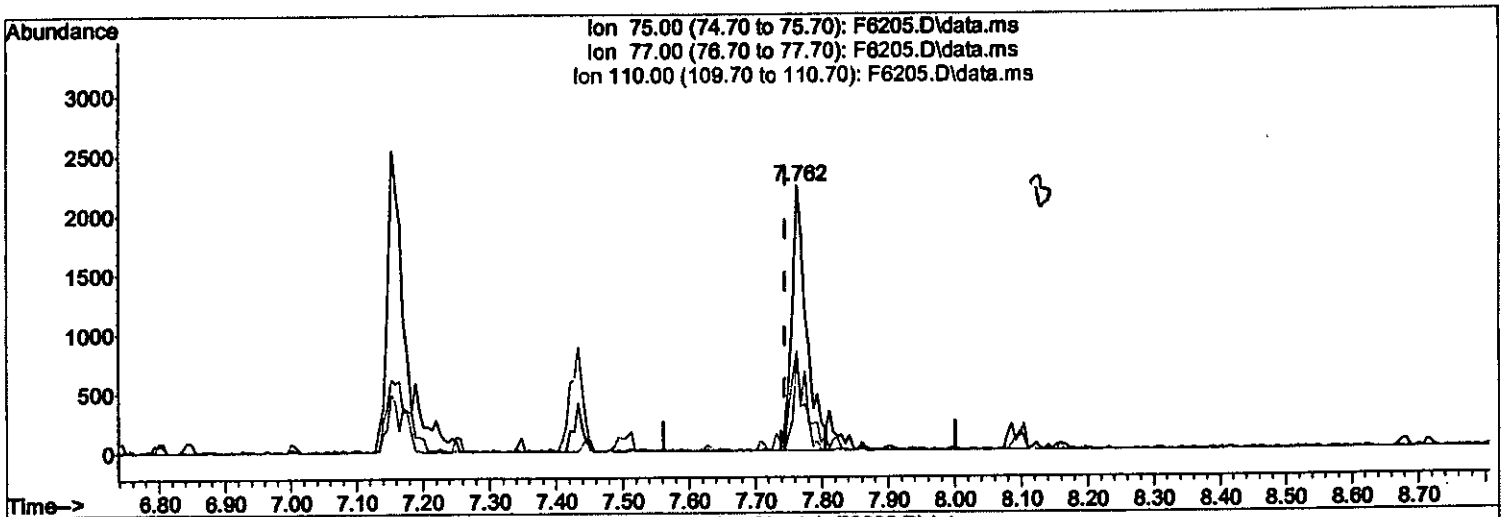
response 2517

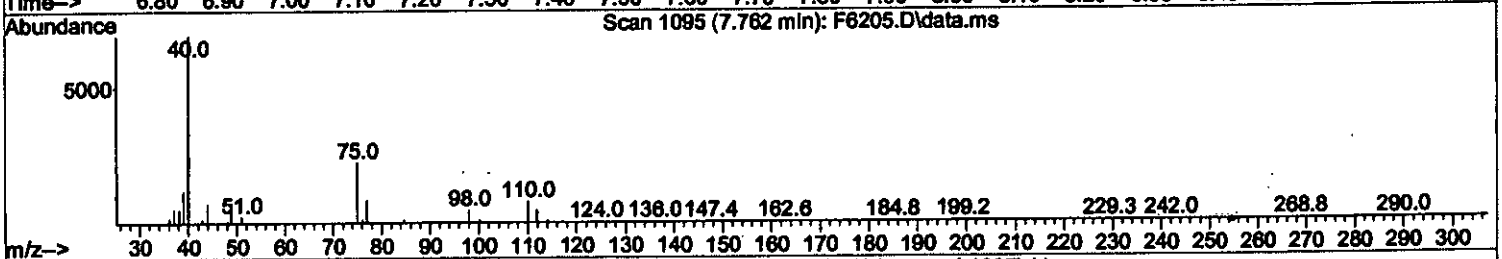
Ion	Exp%	Act%
43.00	100	100
58.00	36.30	47.83
100.00	12.60	5.84
0.00	0.00	0.00

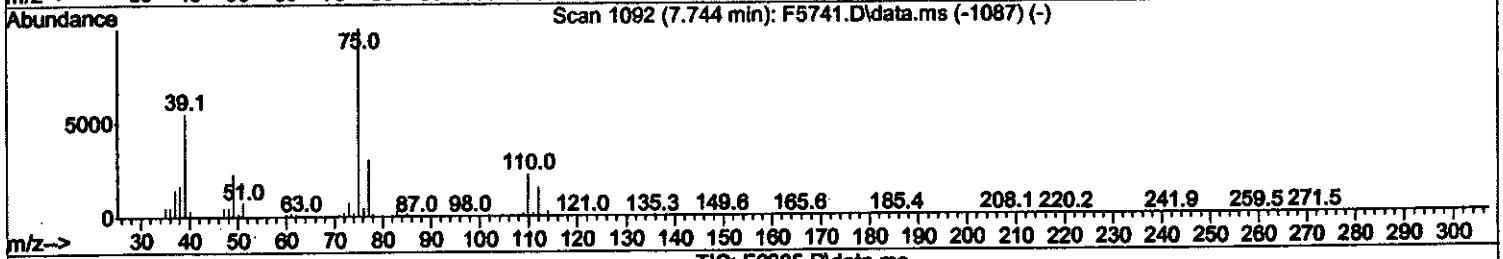
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(67) trans-1,3-Dichloropropene (P)

7.762min (+0.018) 0.38 ug/L

response 3368

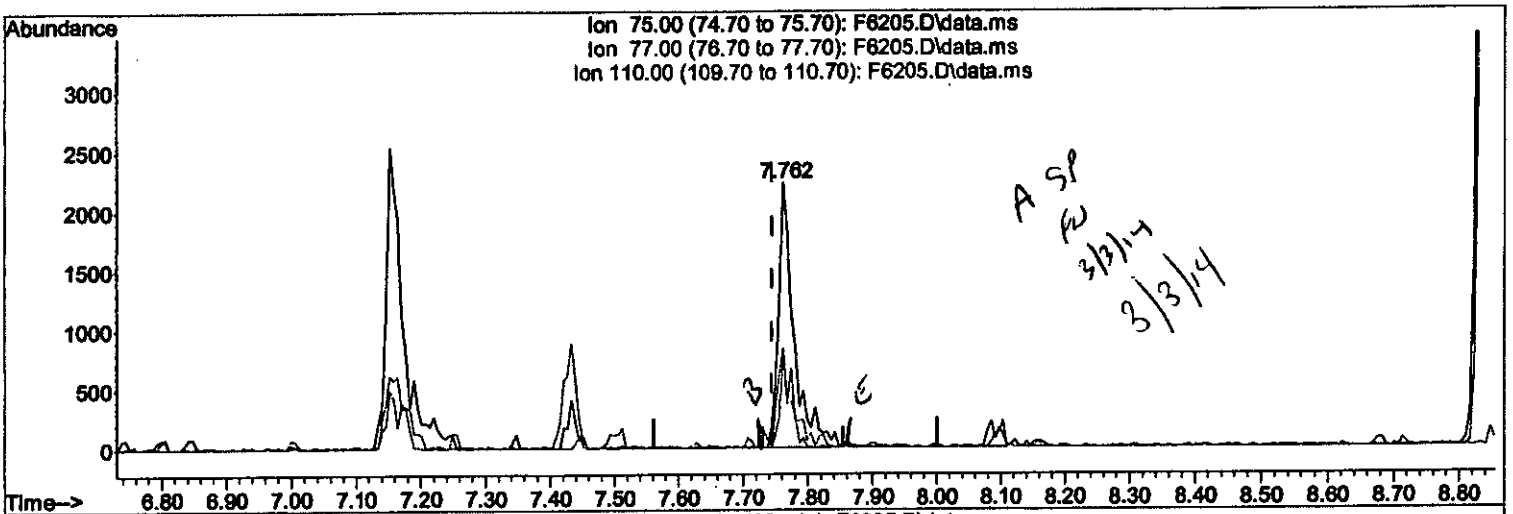
Ion	Exp%	Act%
75.00	100	100
77.00	29.70	37.29
110.00	22.10	34.56
0.00	0.00	0.00

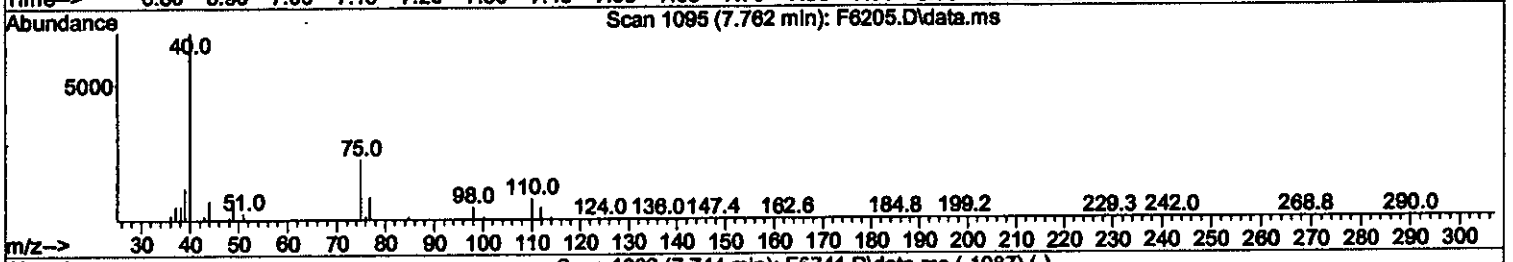
00221

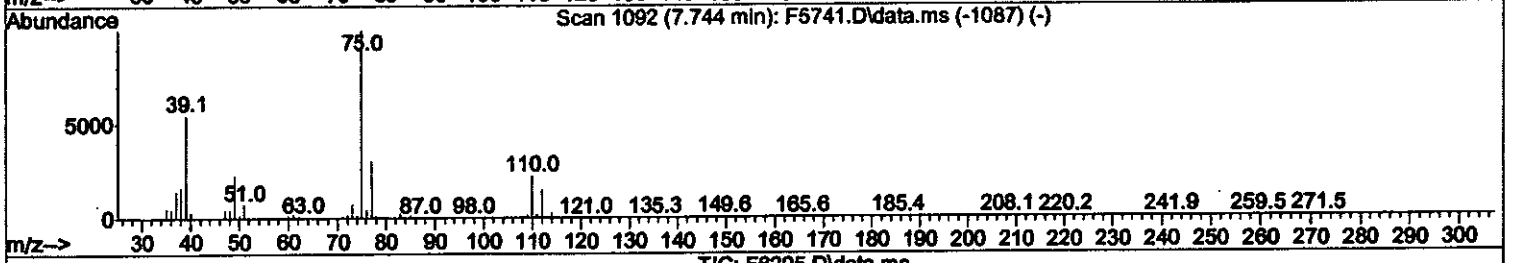
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(67) trans-1,3-Dichloropropene (P)

7.762min (+0.018) 0.42 ug/L m

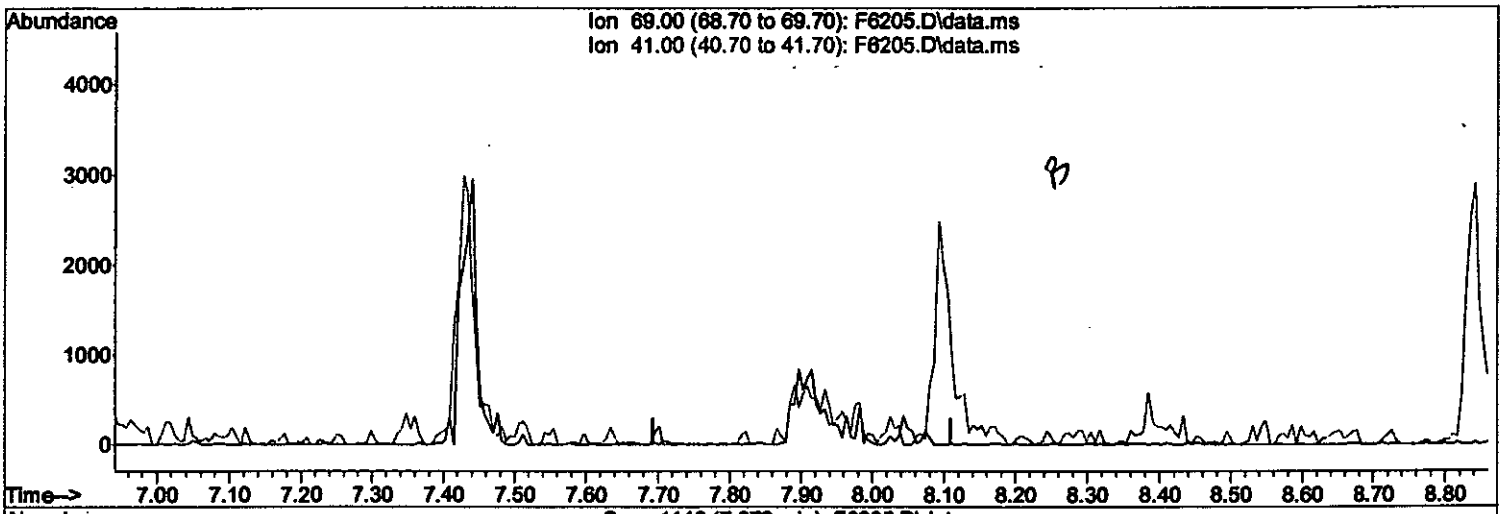
response 3712

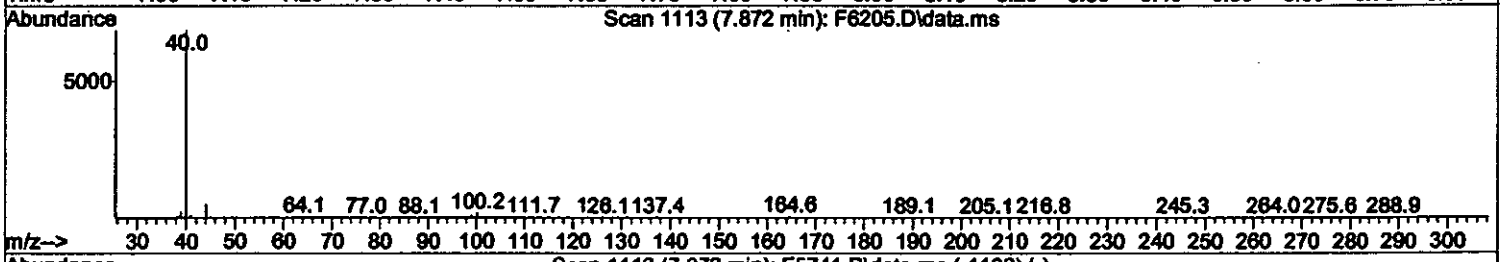
Ion	Exp%	Act%
75.00	100	100
77.00	29.70	37.29
110.00	22.10	34.56
0.00	0.00	0.00

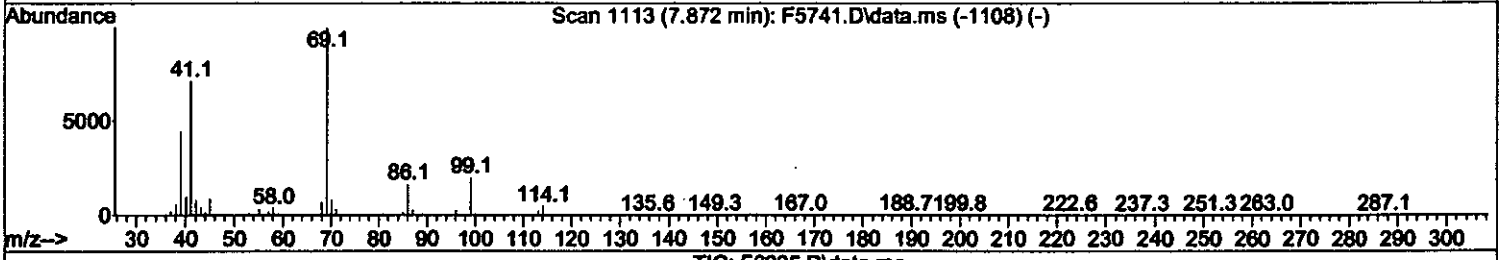
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(68) Ethyl Methacrylate

7.872min (-7.872) 0.00 ug/L

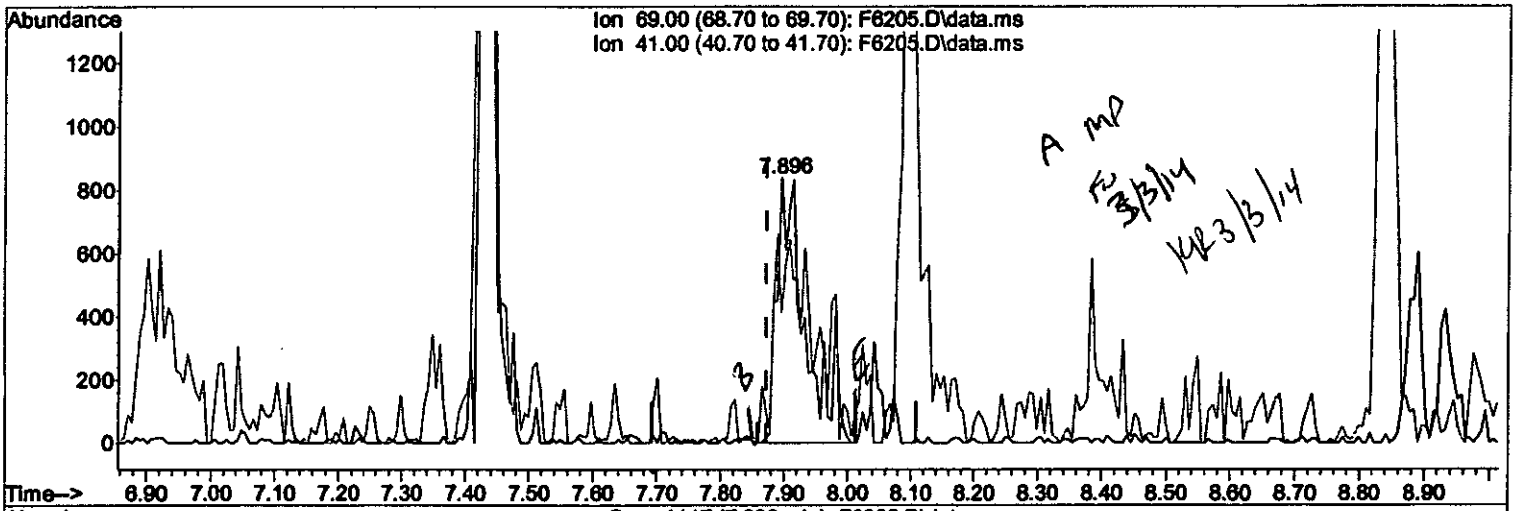
response 0

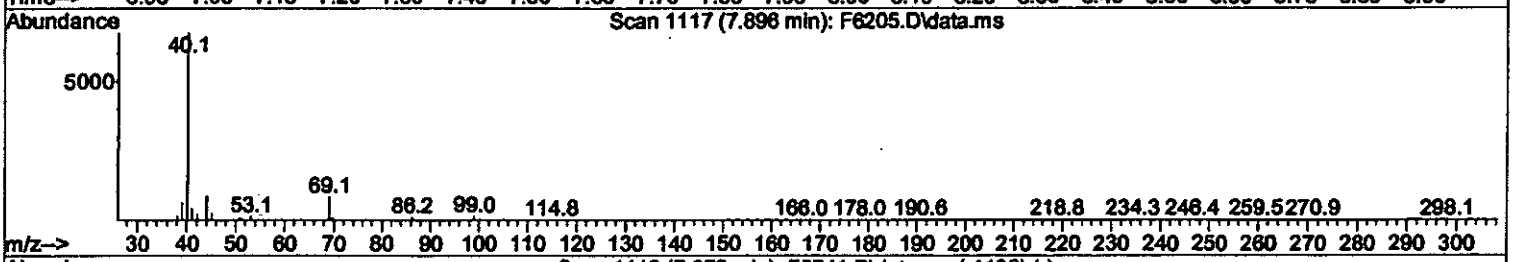
Ion	Exp%	Act%
69.00	100	0.00
41.00	71.50	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

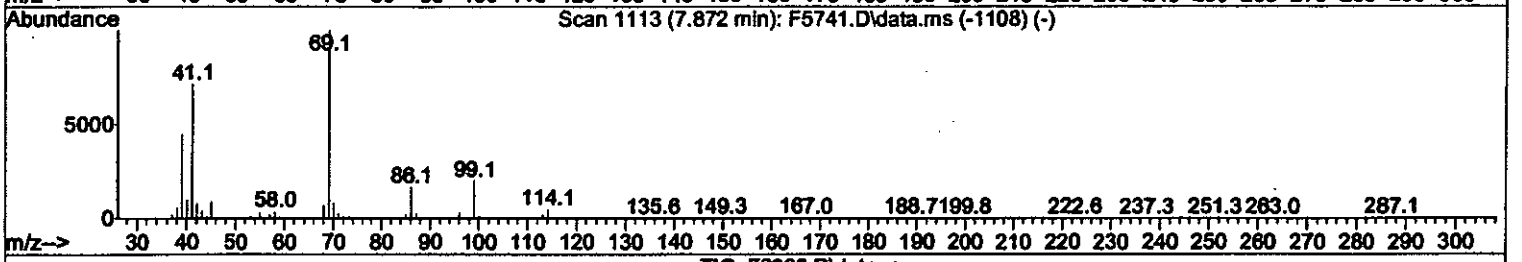
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(68) Ethyl Methacrylate

7.896min (+0.024) 0.37 ug/L m

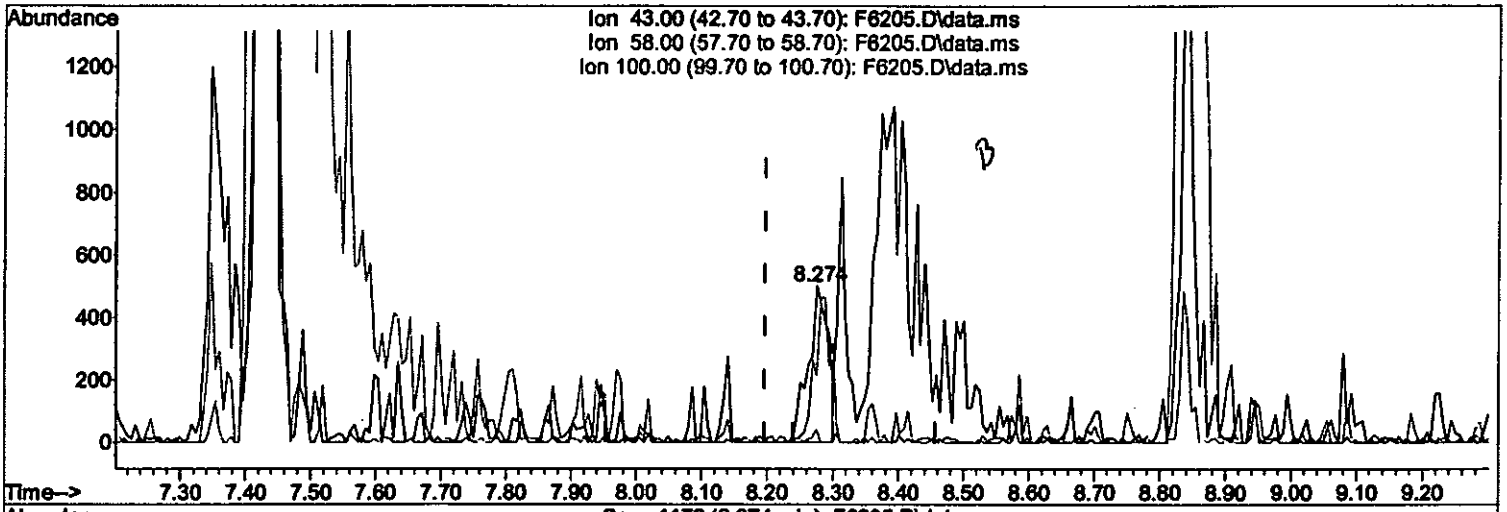
response 2542

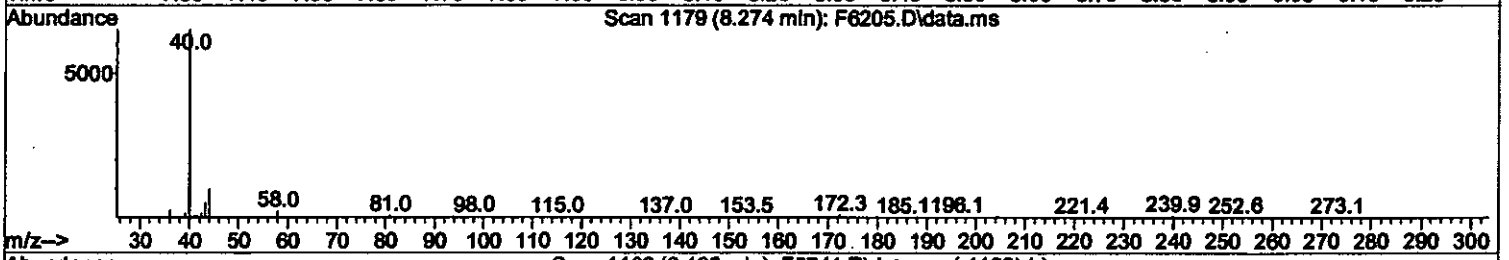
Ion	Exp%	Act%
69.00	100	100
41.00	71.50	49.40#
0.00	0.00	0.00
0.00	0.00	0.00

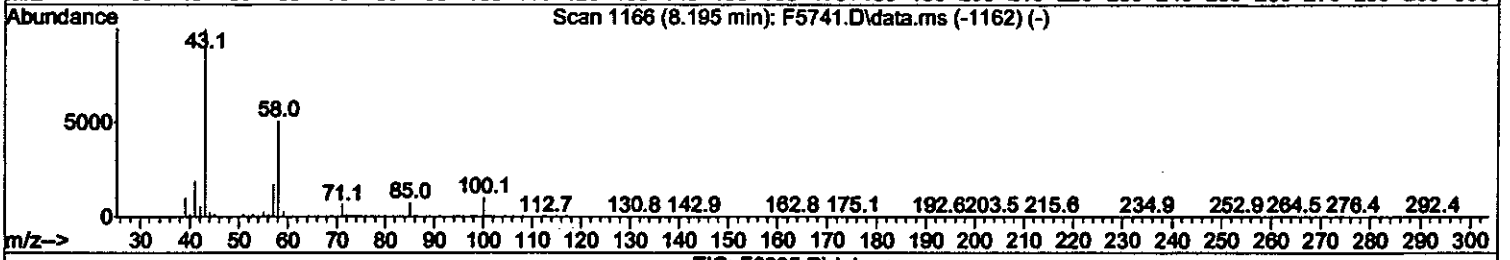
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(73) 2-Hexanone (P)

6.274min (+0.079) 0.30 ug/L

response 1041

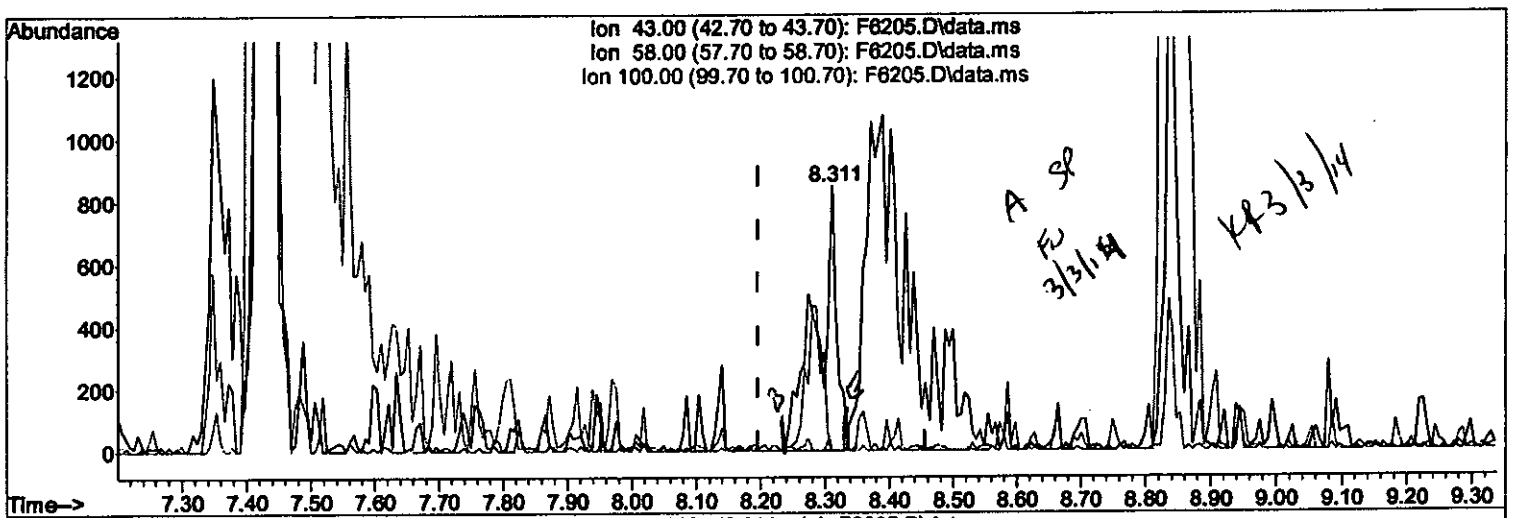
Ion	Exp%	Act%
43.00	100	100
58.00	50.80	42.71
100.00	10.10	6.18
0.00	0.00	0.00

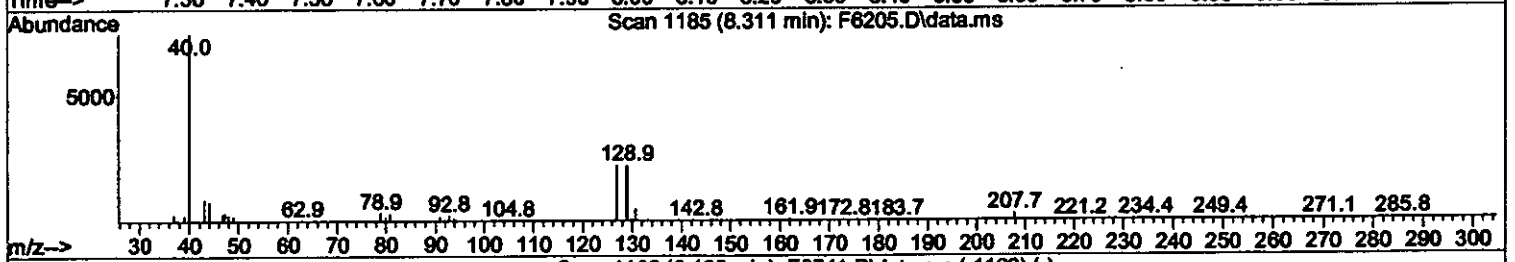
00225

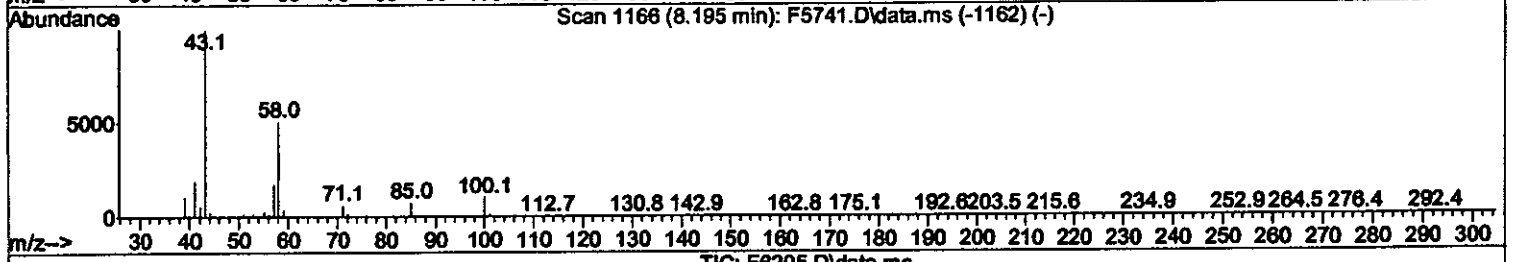
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(73) 2-Hexanone (P)

8.311min (+0.116) 0.53 ug/L m

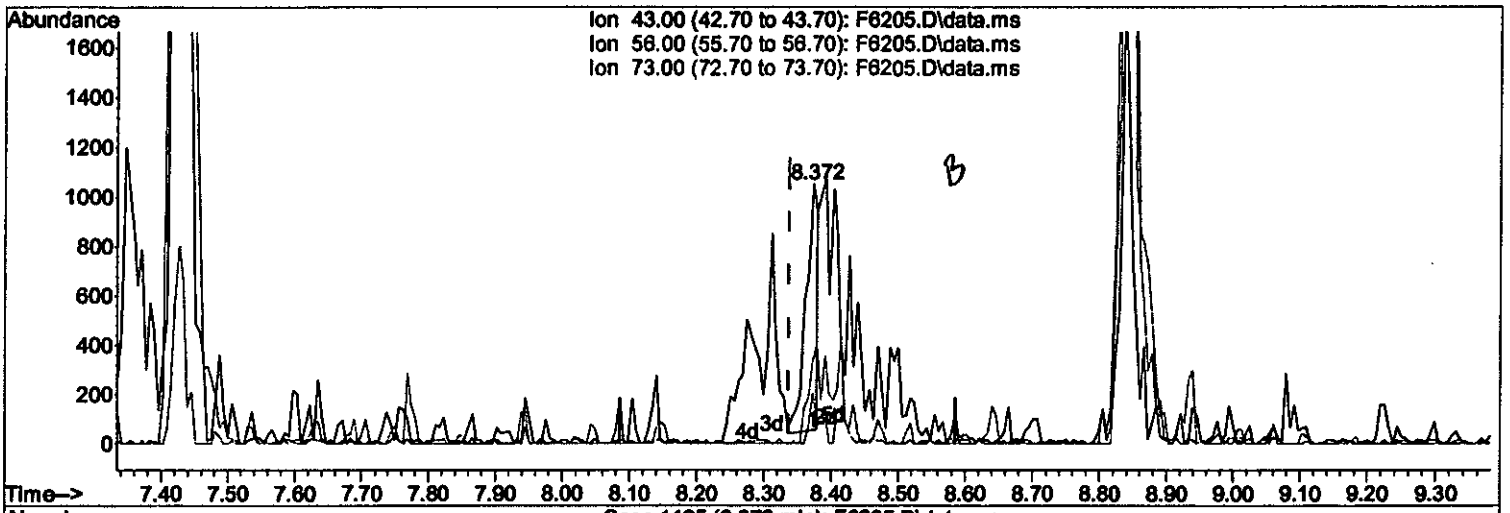
response 1818

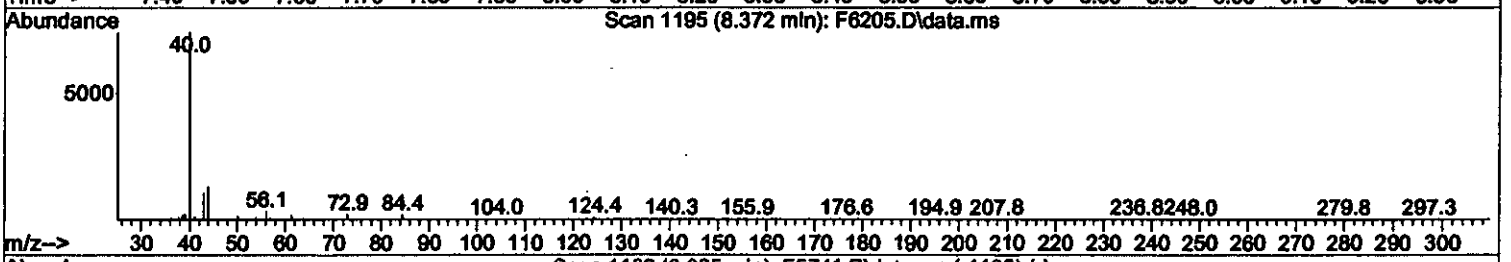
Ion	Exp%	Act%
43.00	100	100
58.00	50.80	0.00#
100.00	10.10	0.00
0.00	0.00	0.00

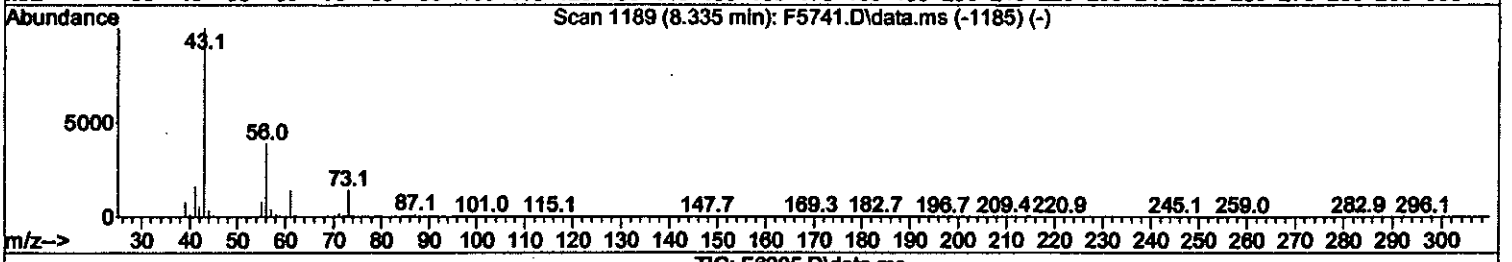
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(76) N-Butyl Acetate

8.372min (+0.037) 0.15 ug/L

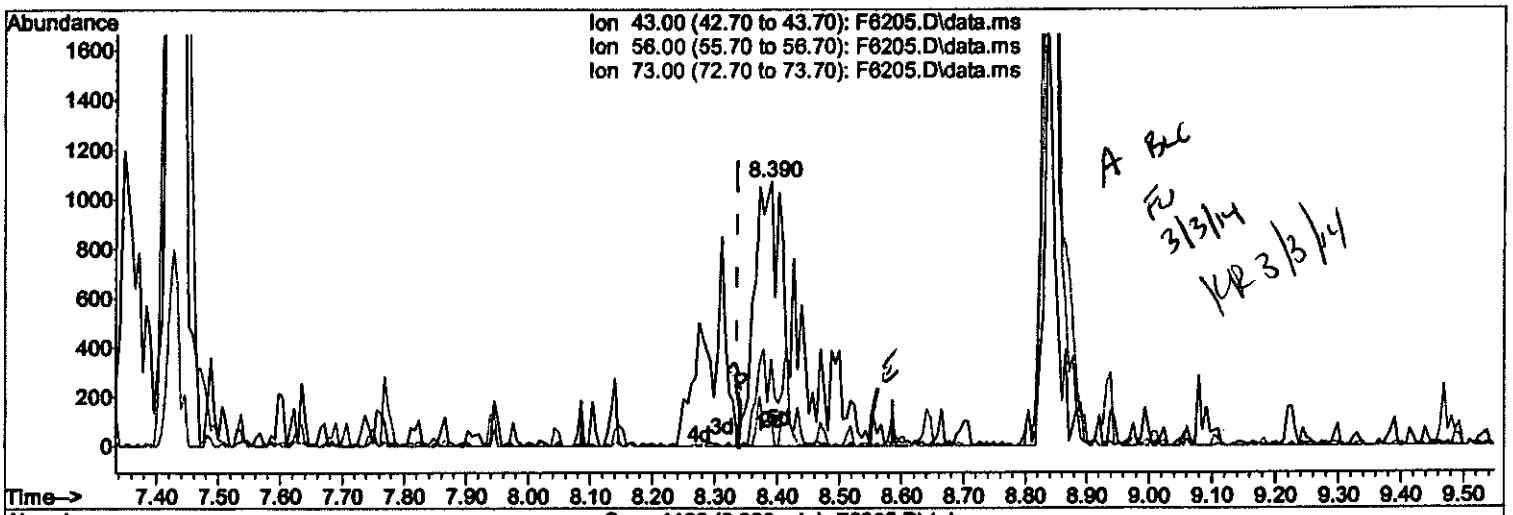
response 1225

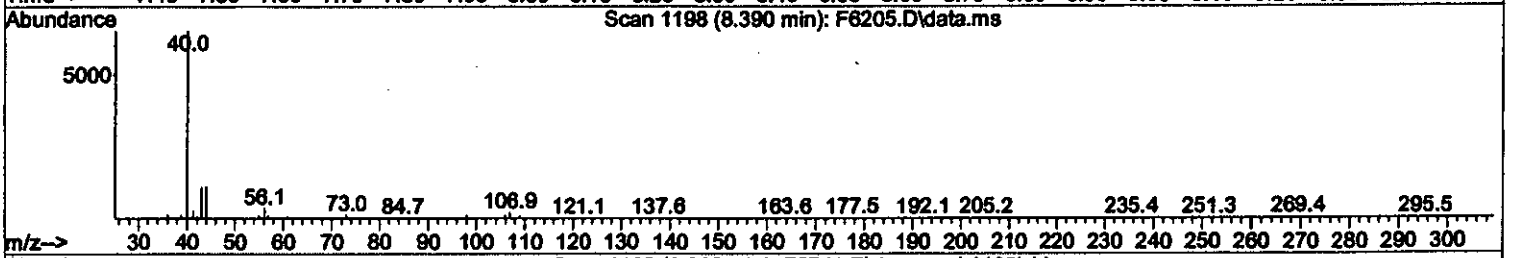
Ion	Exp%	Act%
43.00	100	100
56.00	38.80	31.71
73.00	14.00	19.24
0.00	0.00	0.00

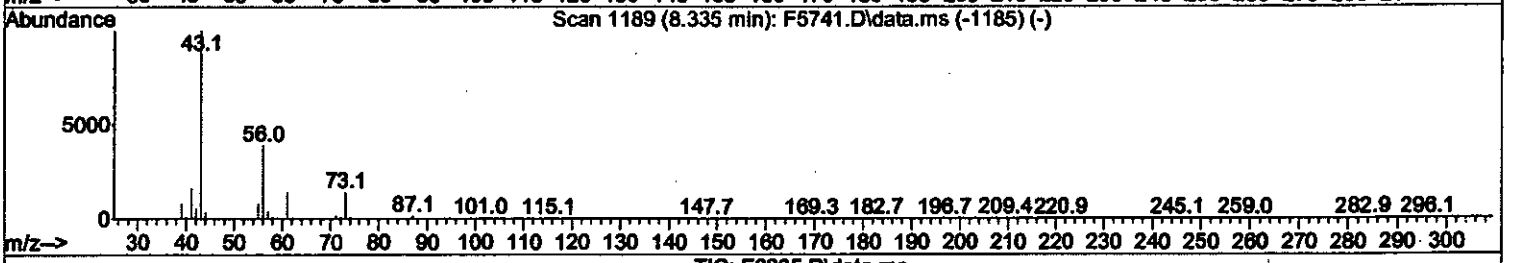
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(76) N-Butyl Acetate

8.390min (+0.055) 0.60 ug/L m

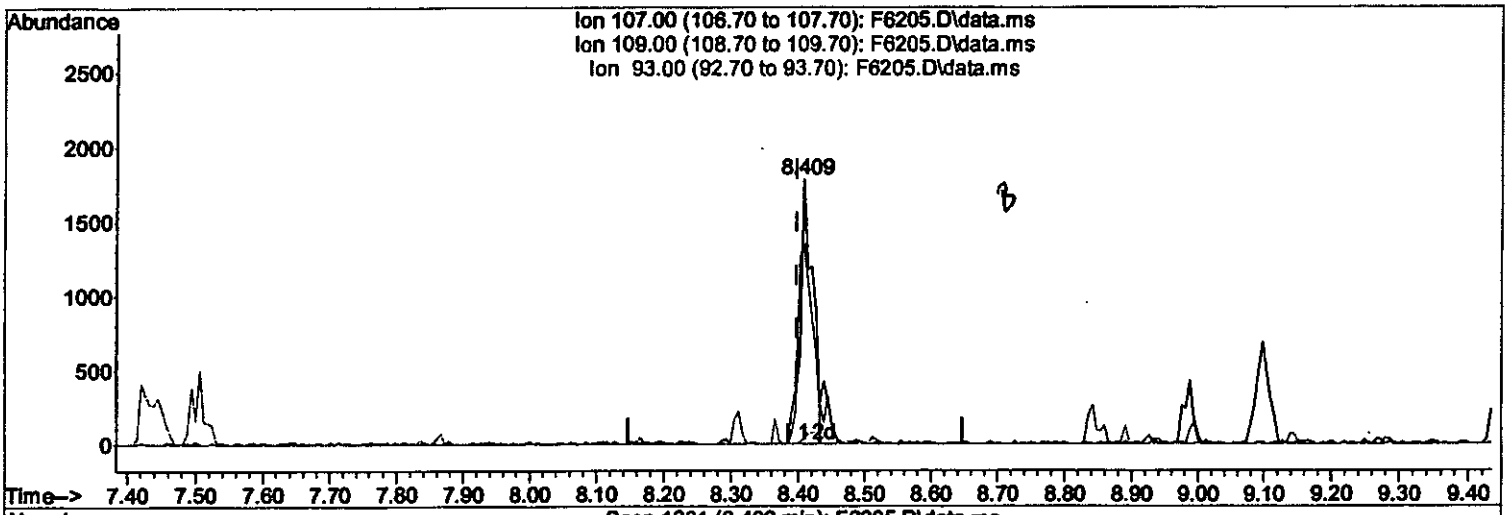
response 5068

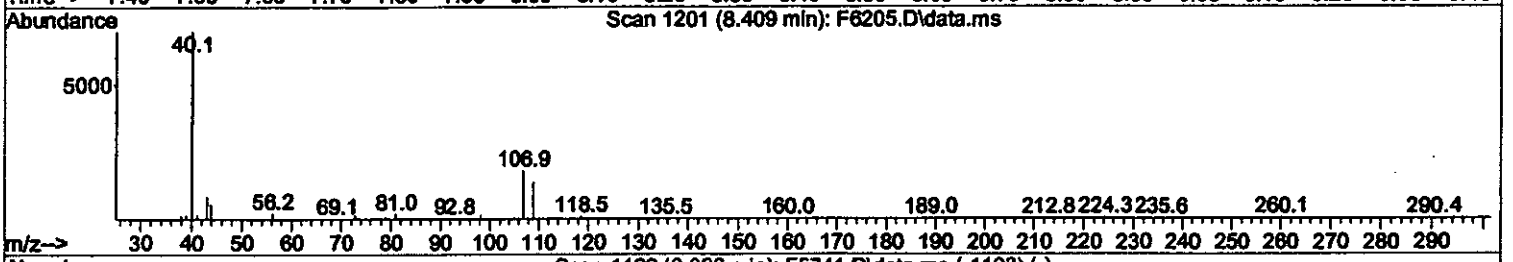
Ion	Exp%	Act%
43.00	100	100
56.00	38.80	32.62
73.00	14.00	11.74
0.00	0.00	0.00

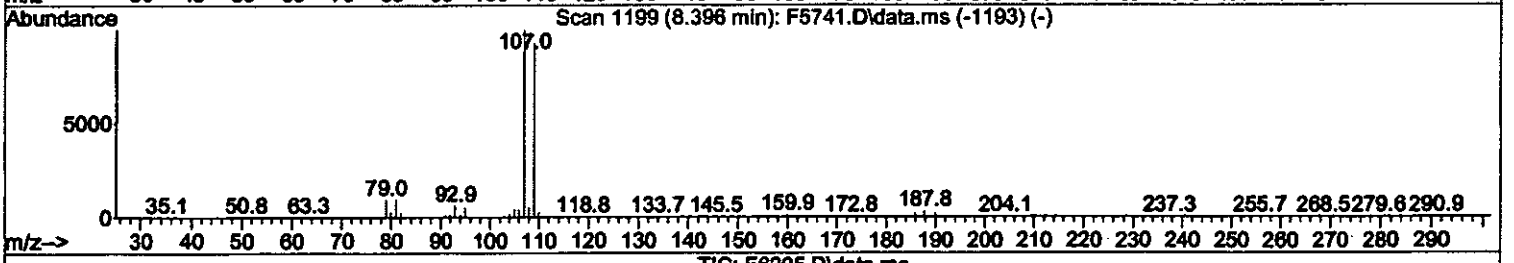
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(77) 1,2-Dibromoethane (P)

8.409min (+0.012) 0.41 ug/L

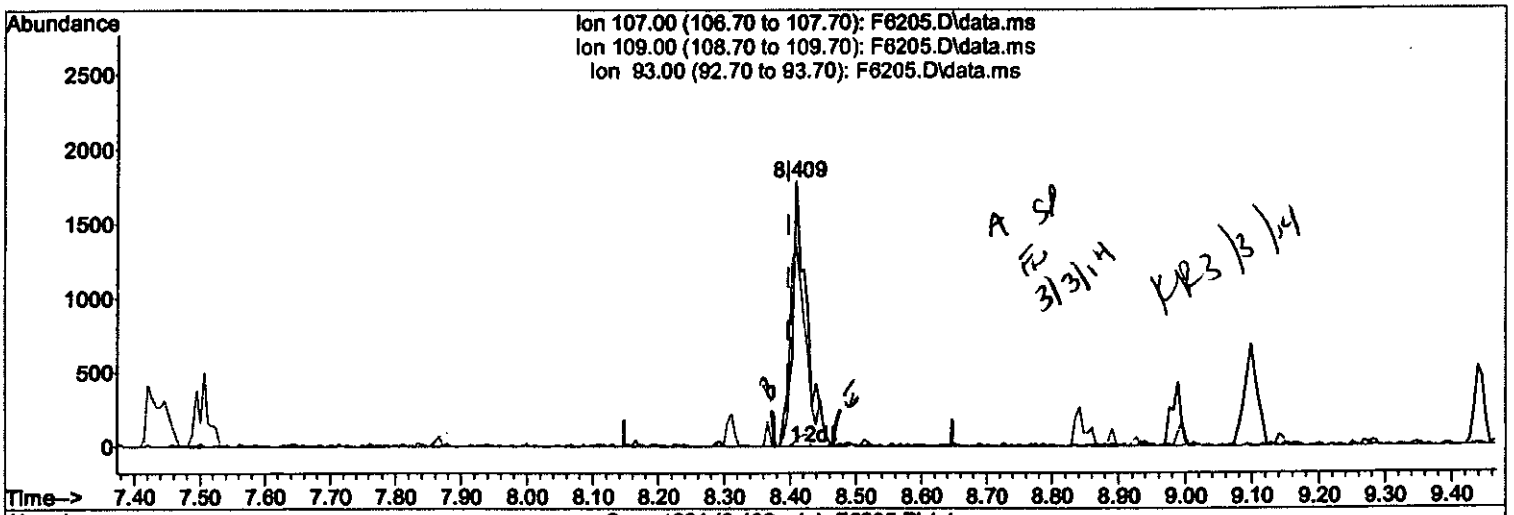
response 2376

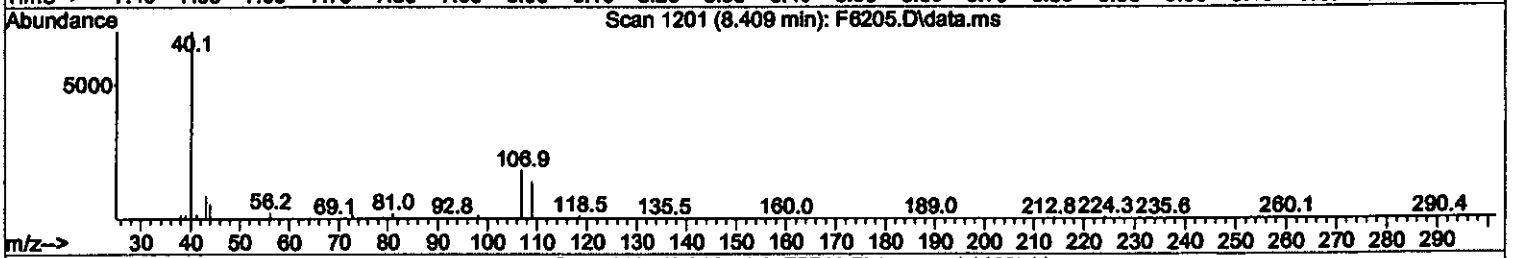
Ion	Exp%	Act%
107.00	100	100
109.00	92.20	75.73
93.00	5.90	2.07
0.00	0.00	0.00

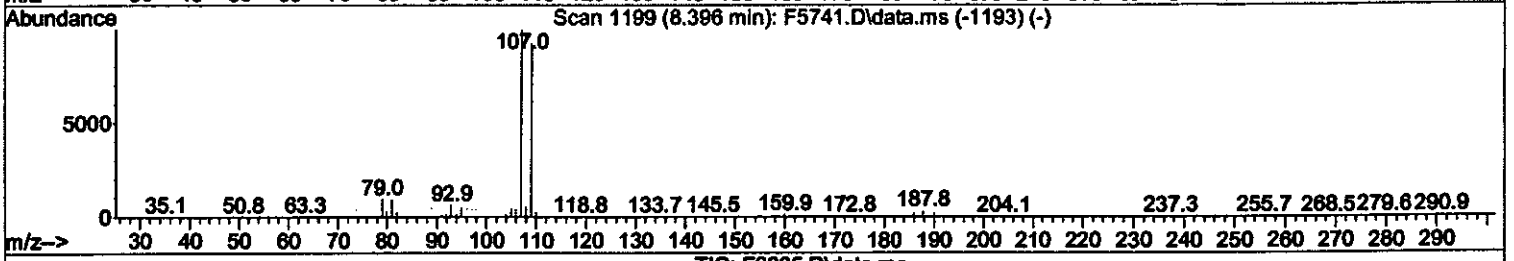
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(77) 1,2-Dibromoethane (P)

8.409min (+0.012) 0.46 ug/L m

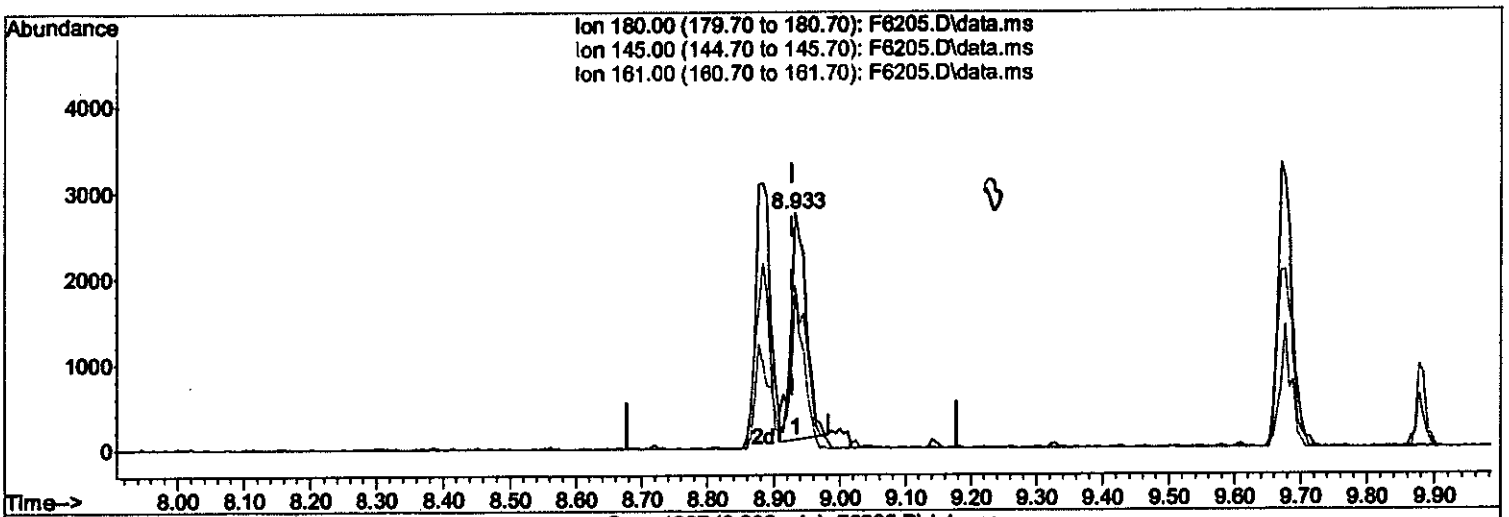
response 2702

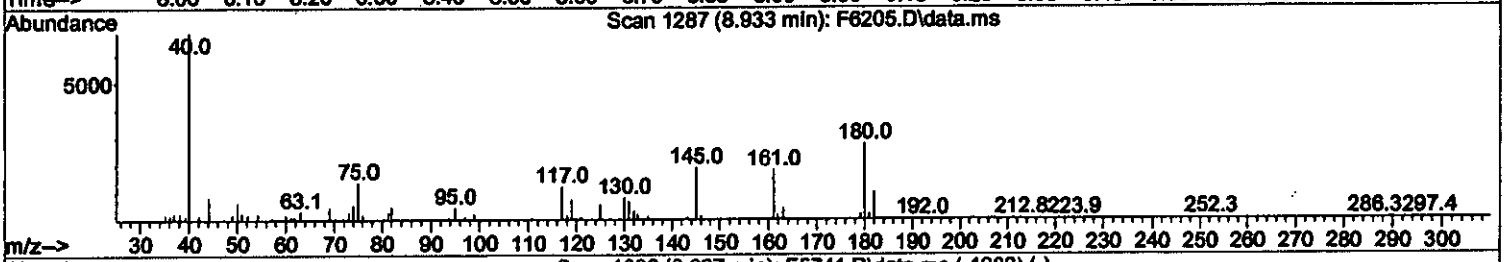
Ion	Exp%	Act%
107.00	100	100
109.00	92.20	75.73
93.00	5.90	2.07
0.00	0.00	0.00

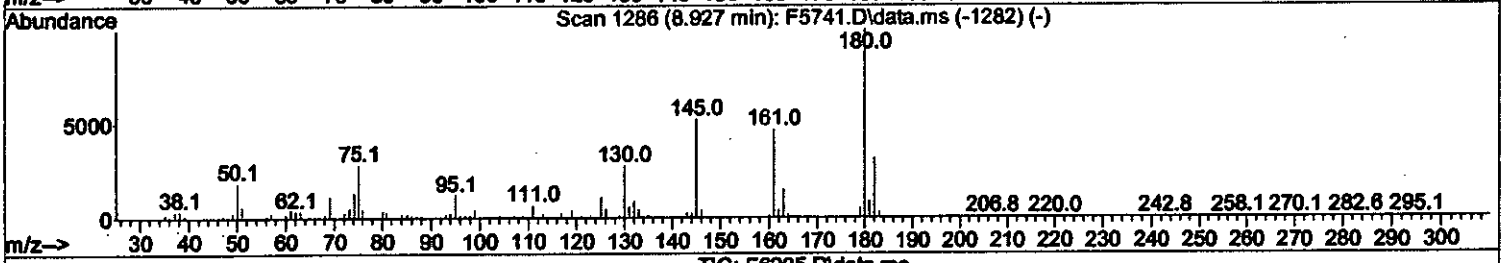
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(80) 4-Chlorobenzotrifluoride

8.933min (+0.006) 0.37 ug/L

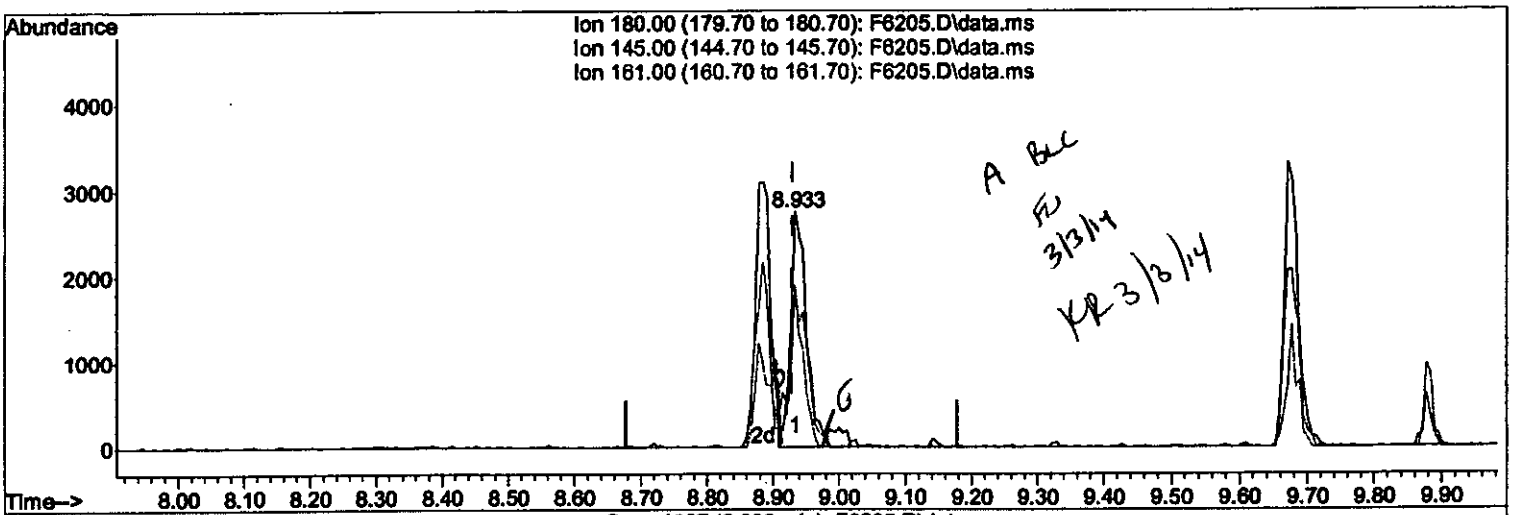
response 4258

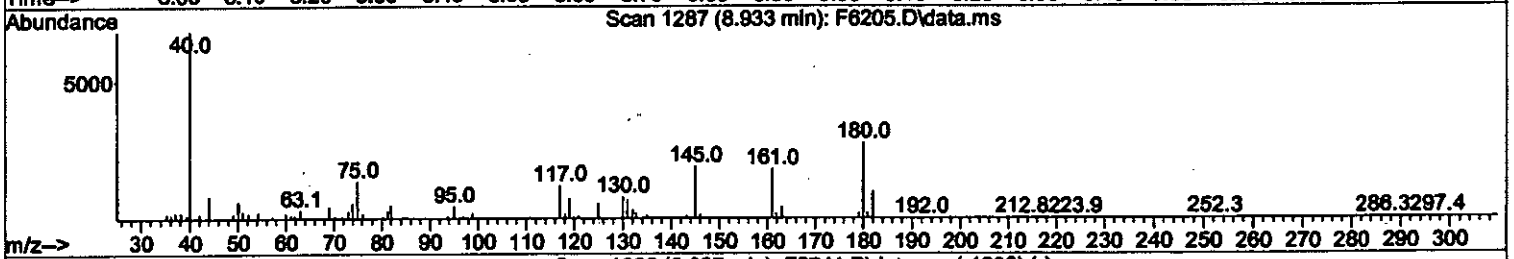
Ion	Exp%	Act%
180.00	100	100
145.00	52.20	68.74
161.00	46.30	65.25
0.00	0.00	0.00

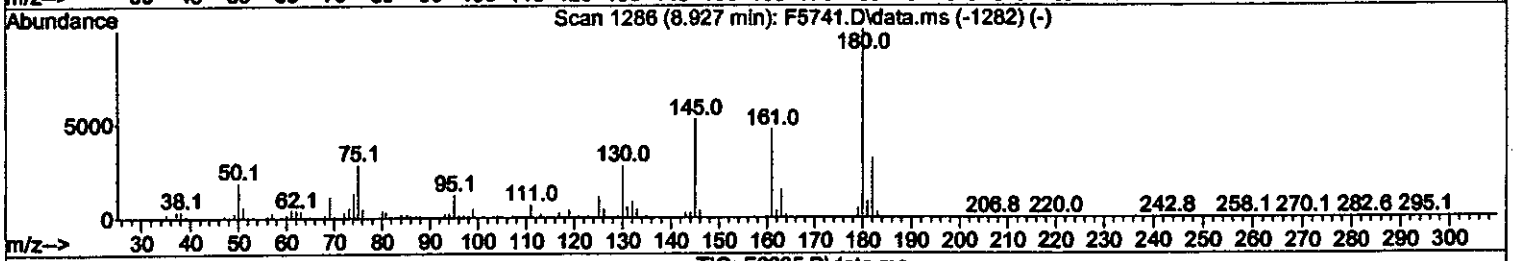
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(80) 4-Chlorobenzotrifluoride

8.933min (+0.006) 0.42 ug/L m

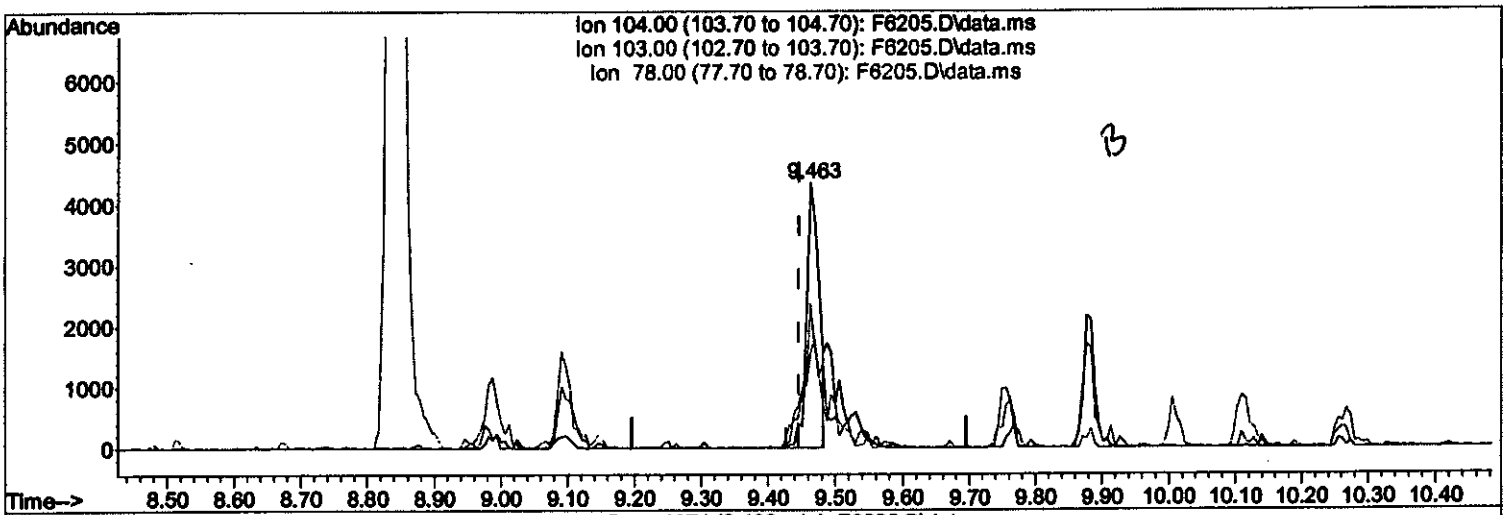
response 4769

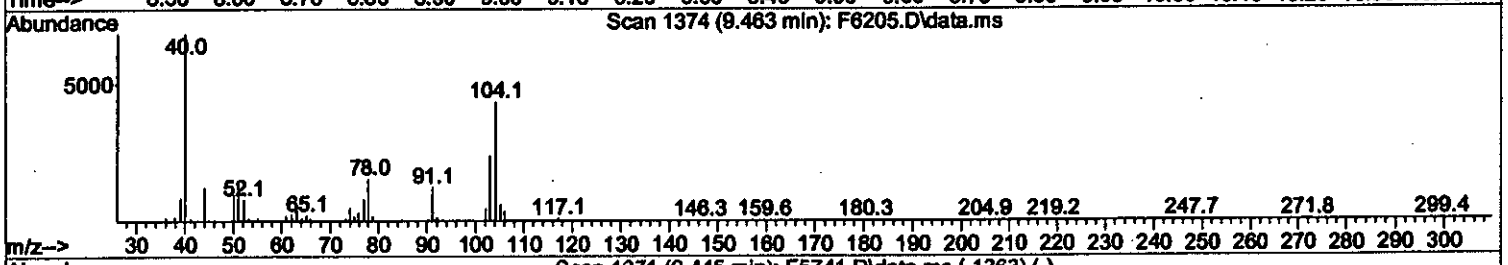
Ion	Exp%	Act%
180.00	100	100
145.00	52.20	68.74
161.00	46.30	65.25
0.00	0.00	0.00

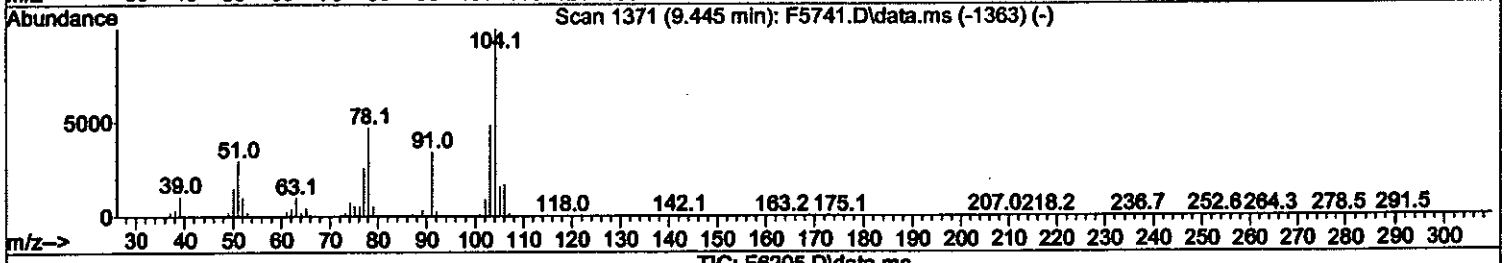
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(85) Styrene (P)

9.463min (+0.018) 0.26 ug/L

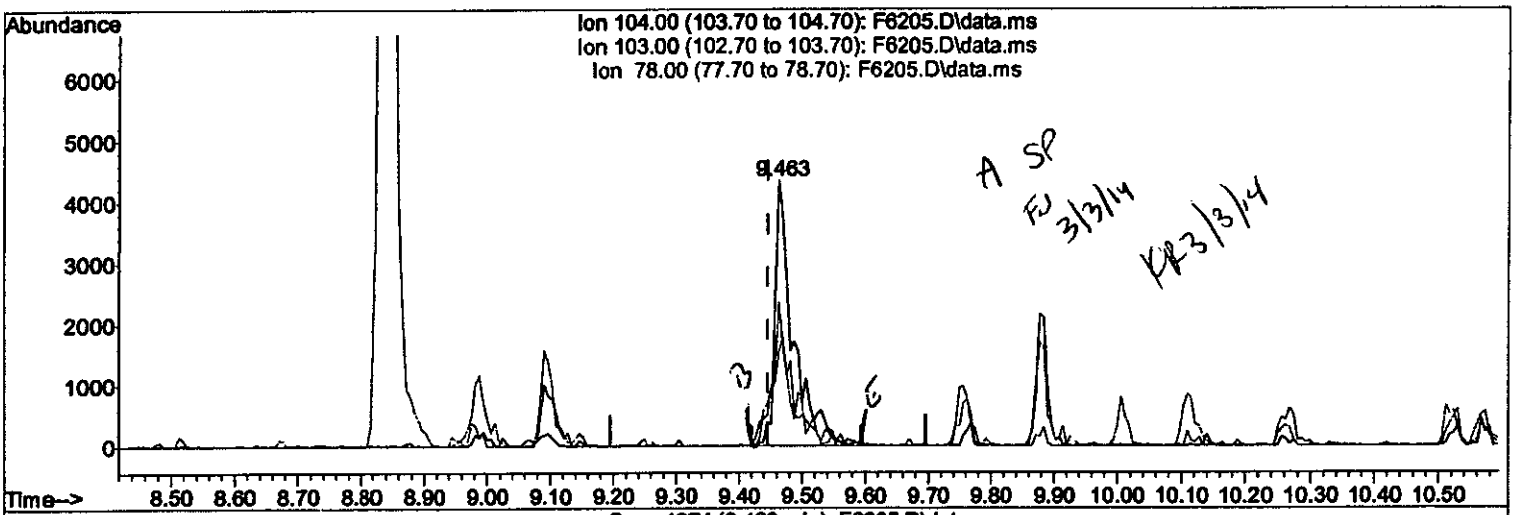
response 5632

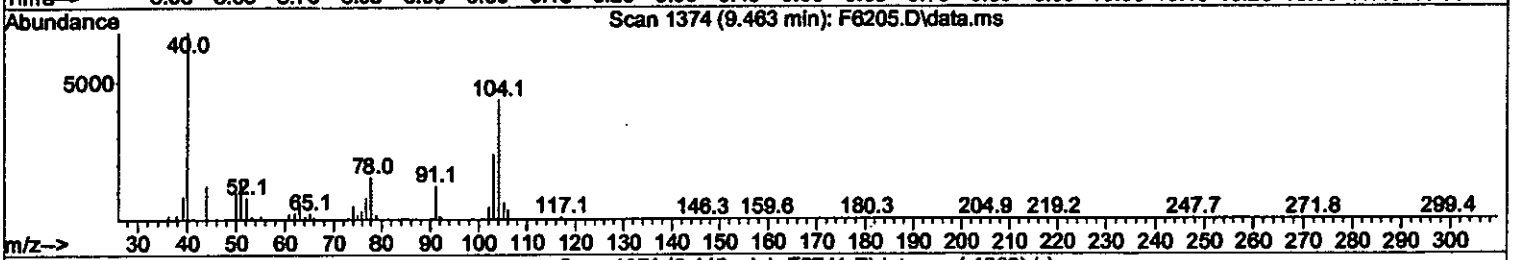
Ion	Exp%	Act%
104.00	100	100
103.00	48.50	54.31
78.00	47.00	35.32
0.00	0.00	0.00

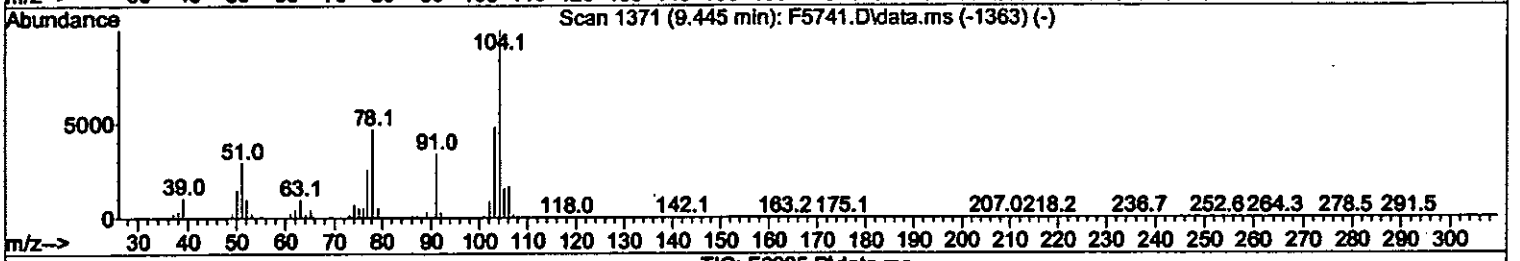
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(85) Styrene (P)

9.463min (+0.018) 0.40 ug/L m

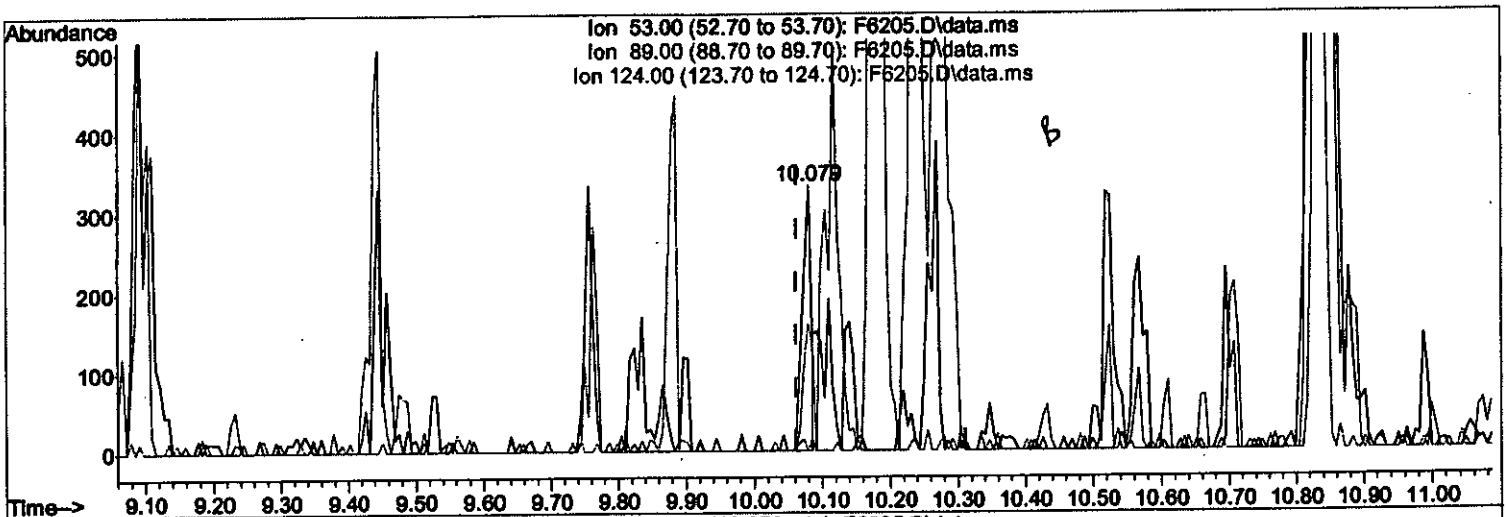
response 8678

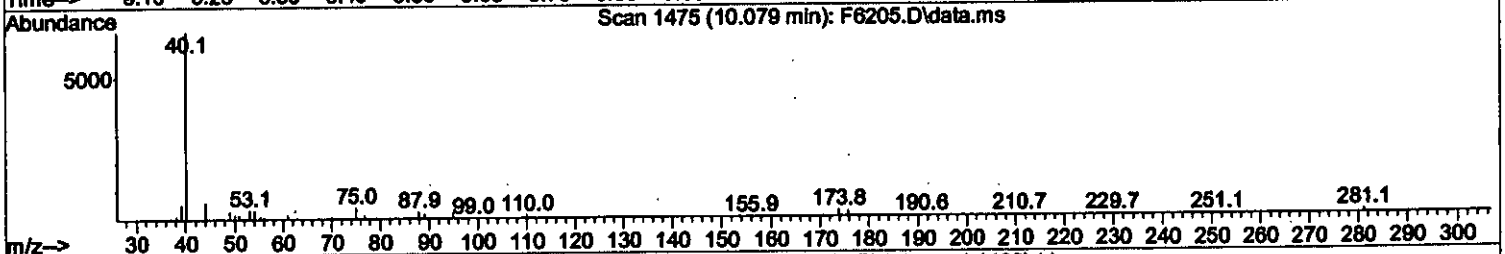
Ion	Exp%	Act%
104.00	100	100
103.00	48.50	54.31
78.00	47.00	35.32
0.00	0.00	0.00

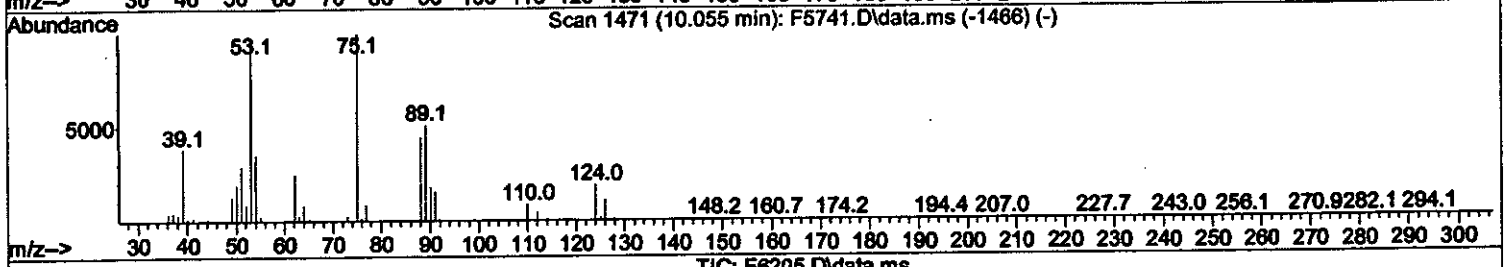
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(90) trans-1,4-Dichloro-2-Butene

10.079min (+0.019) 0.24 ug/L

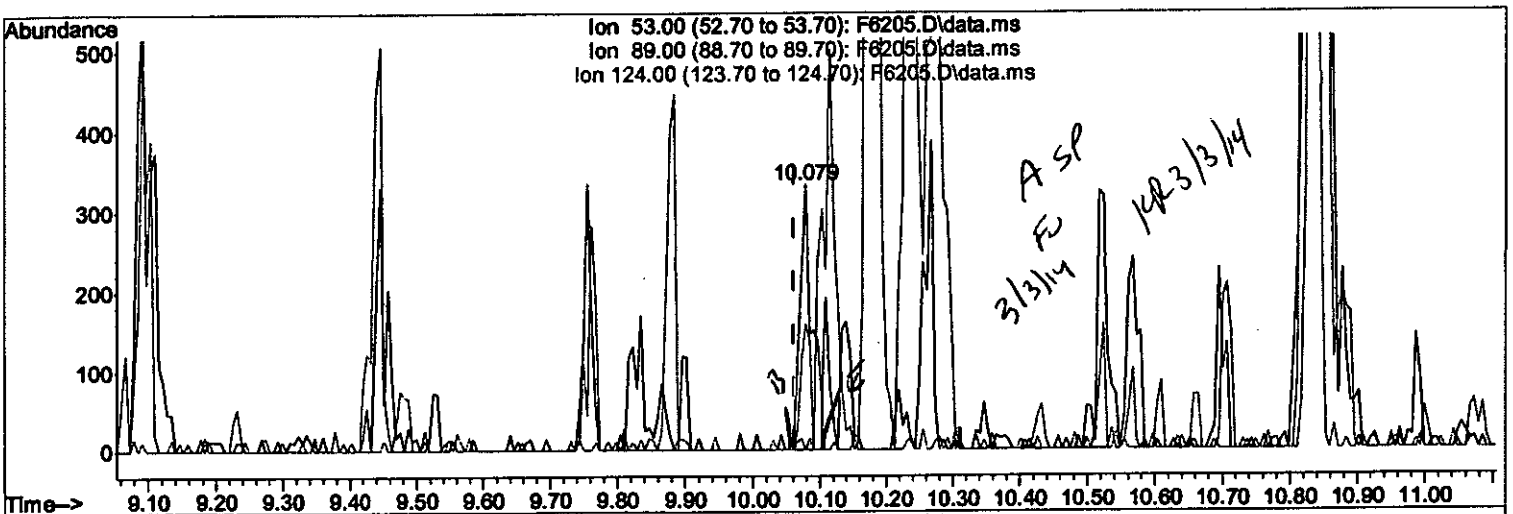
response 294

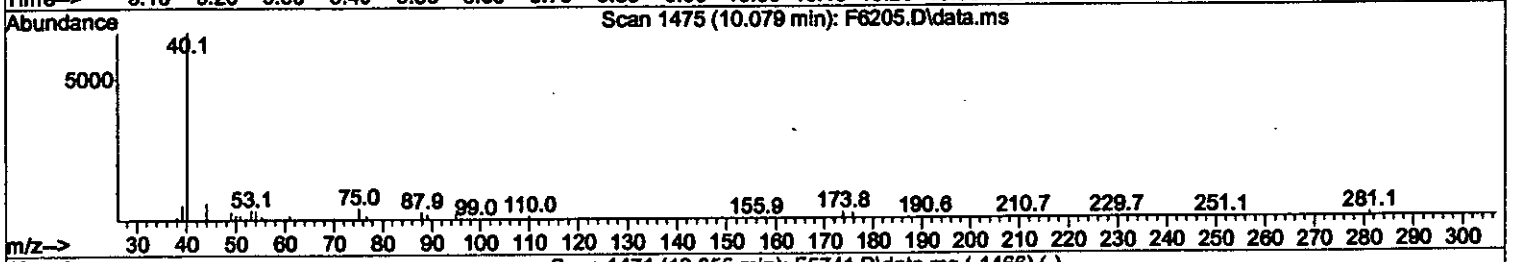
Ion	Exp%	Act%
53.00	100	100
89.00	57.40	47.75
124.00	20.90	0.00#
0.00	0.00	0.00

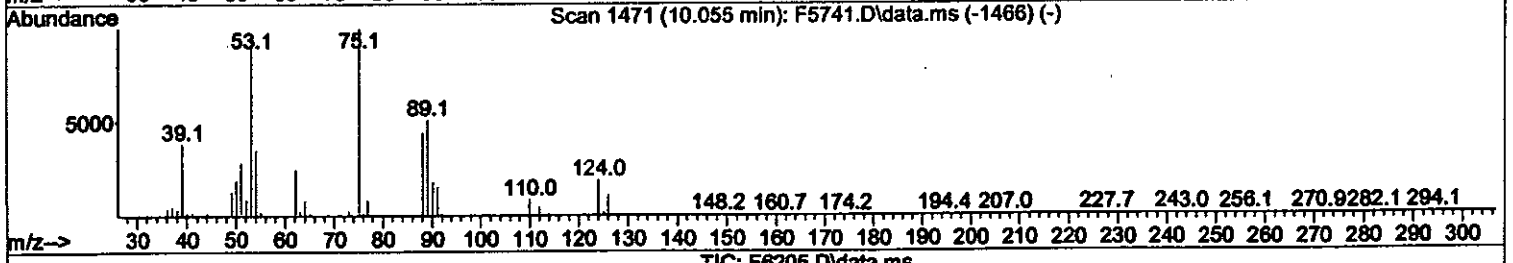
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(90) trans-1,4-Dichloro-2-Butene

10.079min (+0.019) 0.35 ug/L m

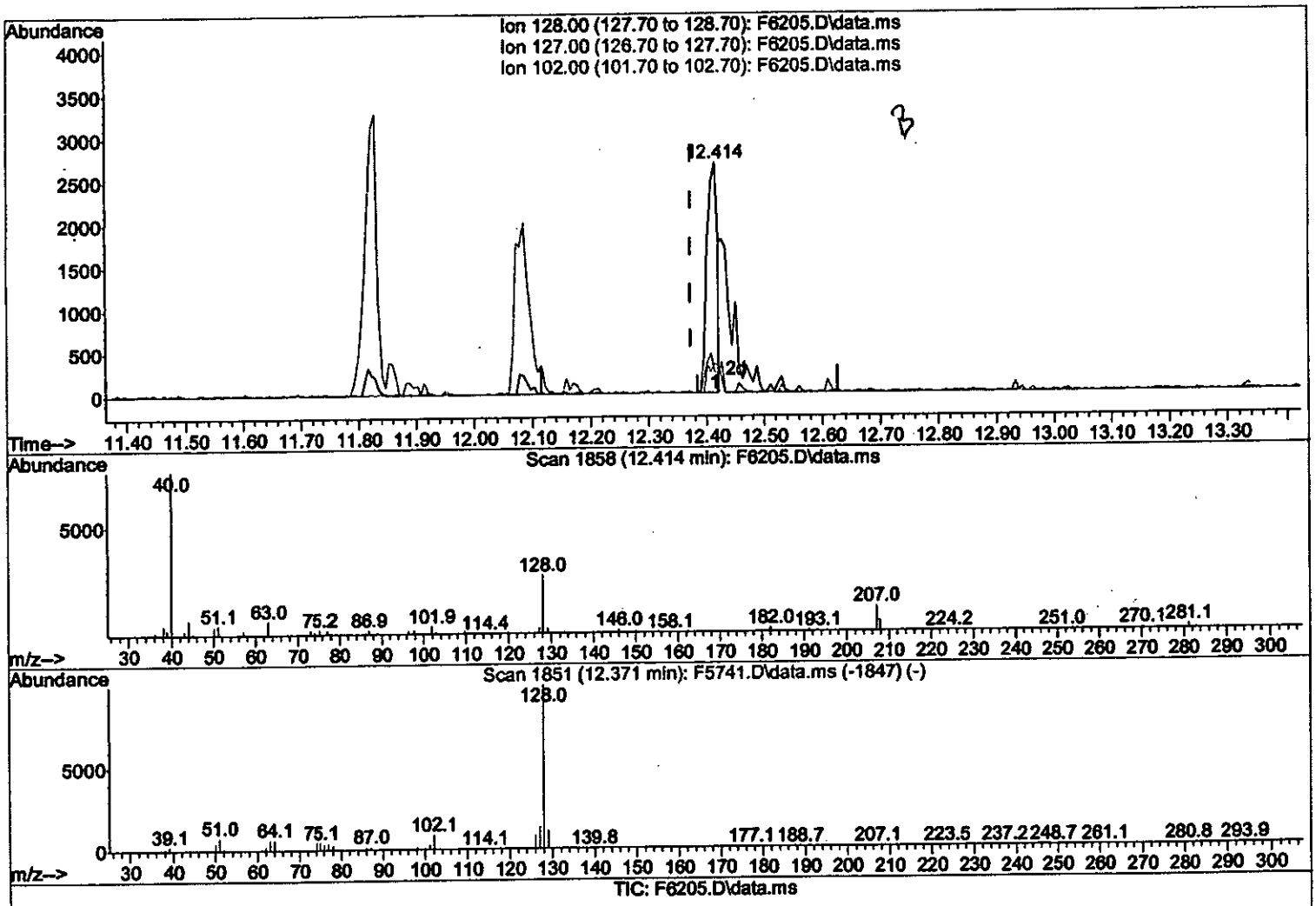
response 424

Ion	Exp%	Act%
53.00	100	100
89.00	57.40	47.75
124.00	20.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



(117) Naphthalen

12.414min (+0.043) 0.24 ug/L

response 3340

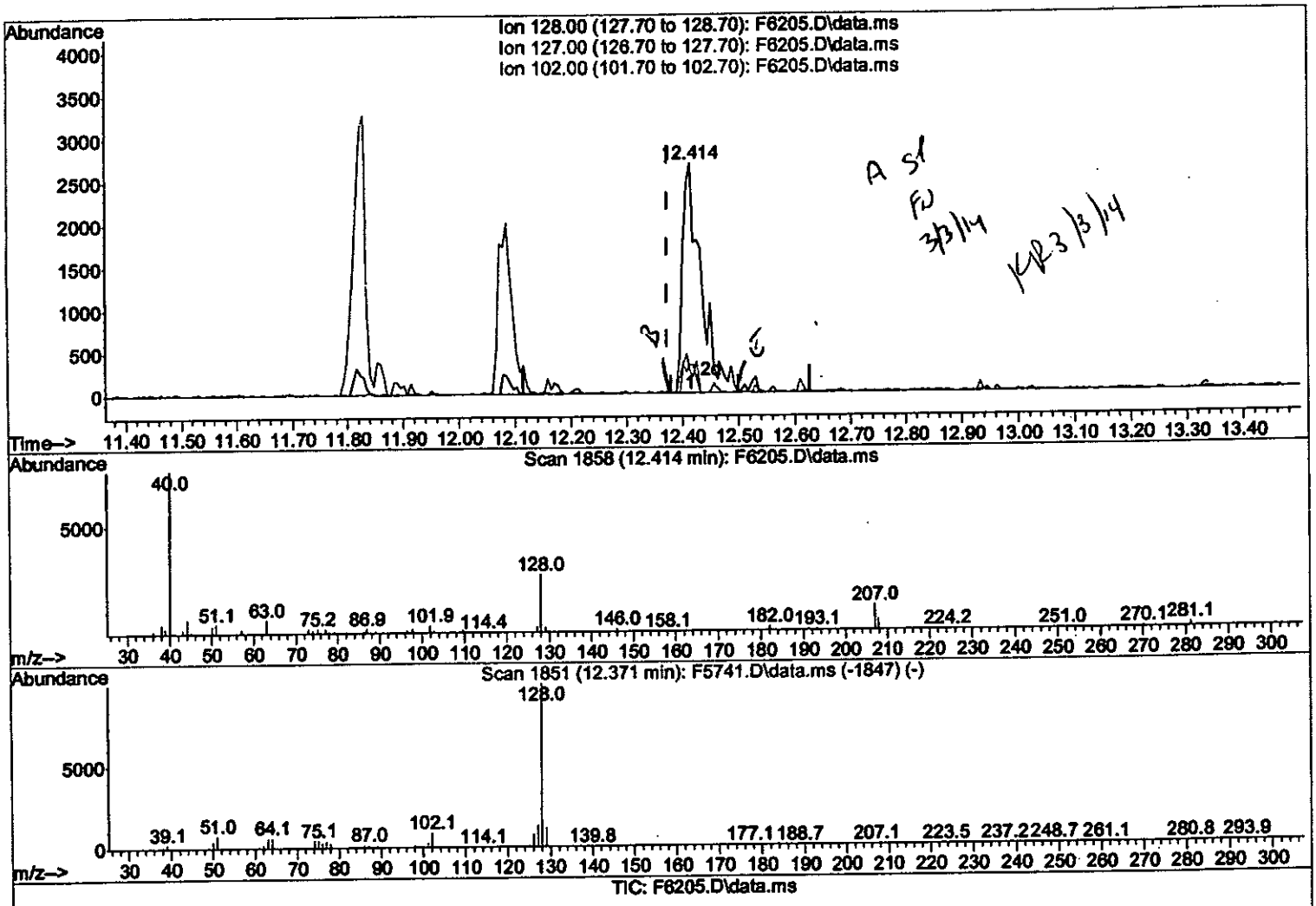
Ion	Exp%	Act%
128.00	100	100
127.00	12.90	9.39
102.00	8.70	12.33
0.00	0.00	0.00

00237

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



(117) Naphthalen

12.414min (+0.043) 0.44 ug/L m

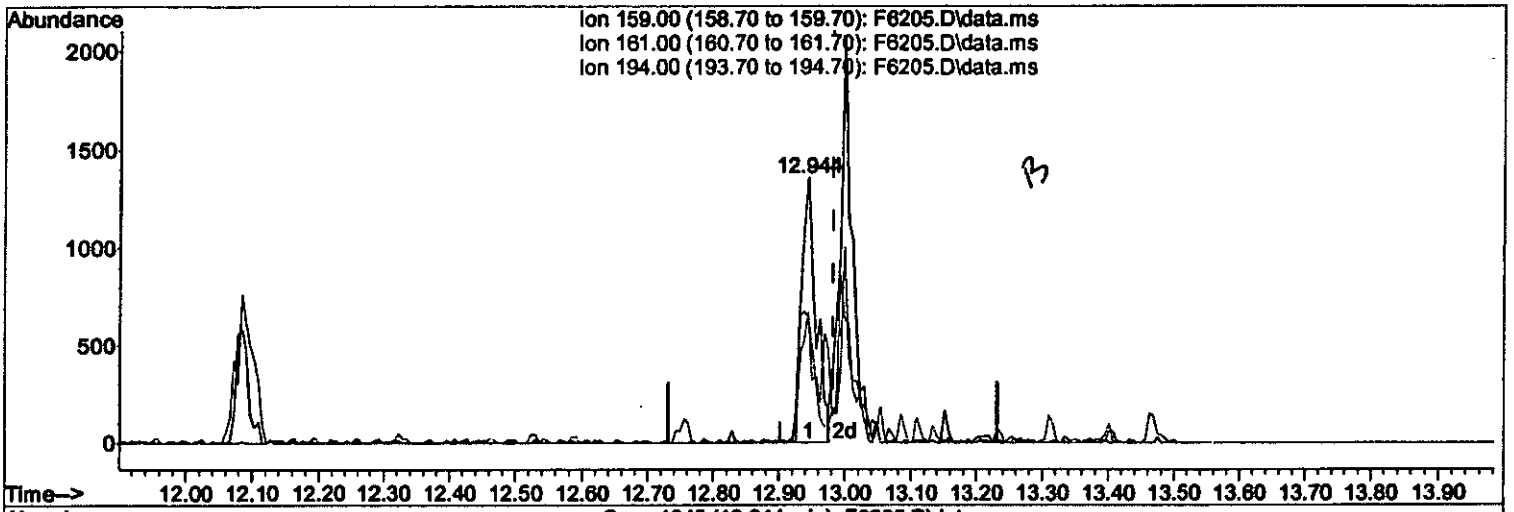
response 6107

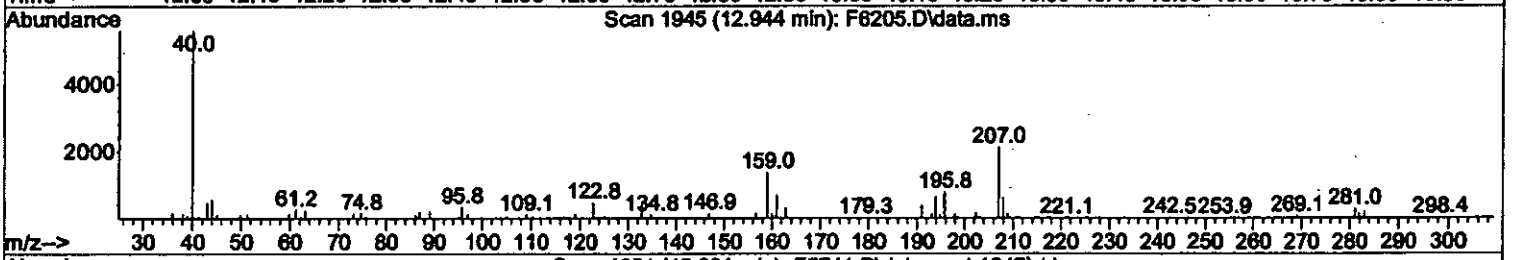
Ion	Exp%	Act%
128.00	100	100
127.00	12.90	9.39
102.00	8.70	12.33
0.00	0.00	0.00

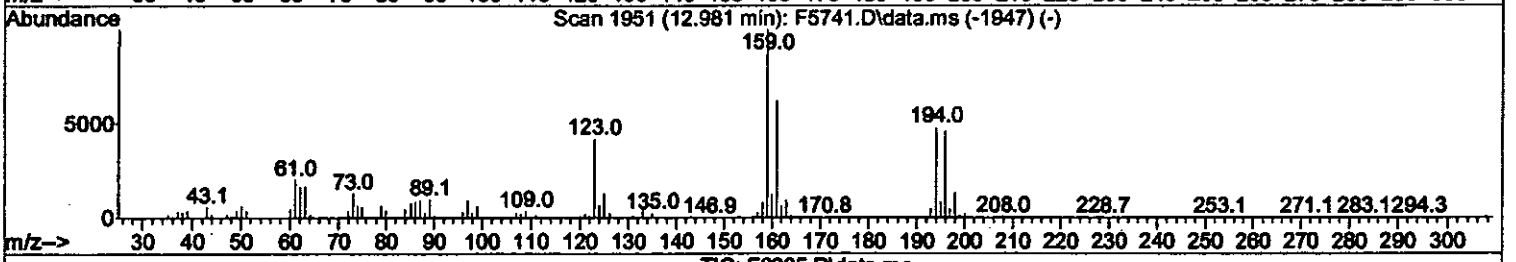
Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6205.D\data.ms

(120) 2,3,6-Trichlorotoluene

12.944min (-0.037) 0.56 ug/L

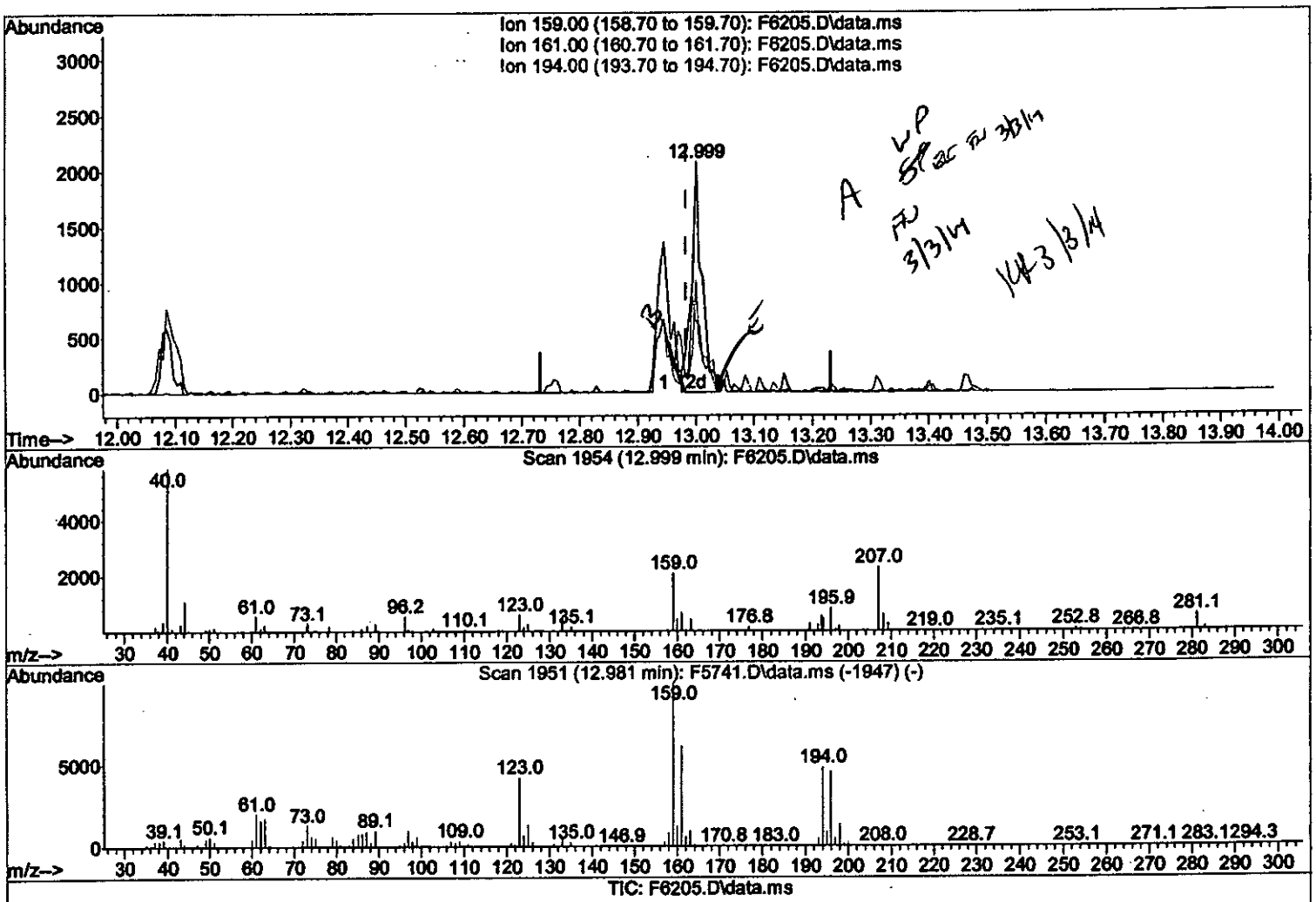
response 2095

Ion	Exp%	Act%
159.00	100	100
161.00	61.90	49.26
194.00	48.10	47.12
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:22:11 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6205.D\data.ms

(120) 2,3,6-Trichlorotoluene

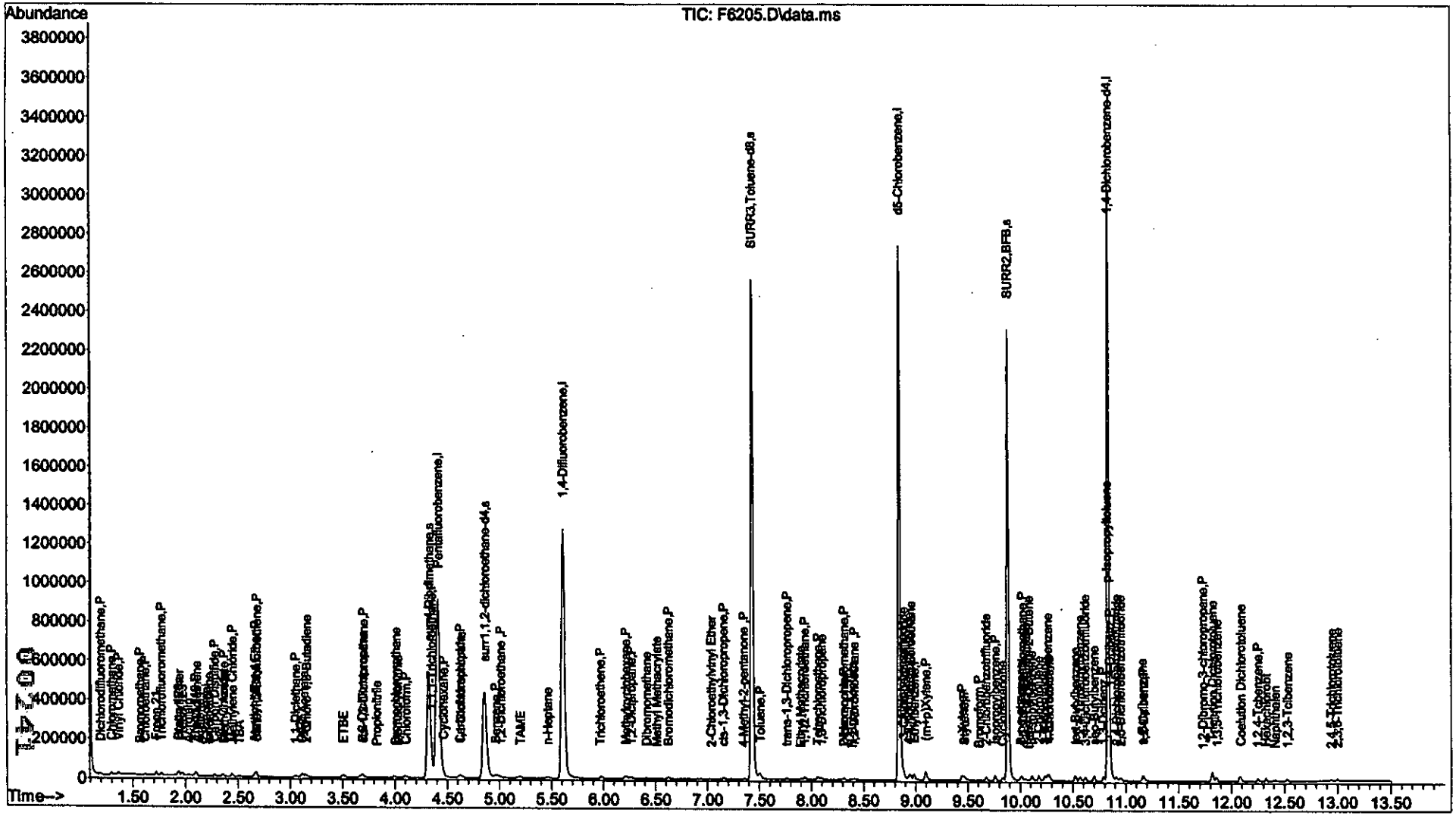
12.999min (+0.018) 0.70 ug/L m

response 2635

Ion	Exp%	Act%
159.00	100	100
161.00	61.90	30.80#
194.00	48.10	25.79#
0.00	0.00	0.00

Sample : 0.5 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6205.D Vial: 3
Acq On : 28 Feb 2014 12:08 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FW 3/3/14

Quant Time: Mar 03 08:53:56 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	813504	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1205854	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.842	117	1098366	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	588763	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	397609	52.04	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.08%				
48) surr1,1,2-dichloroetha...	4.861	65	419134	51.55	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 103.10%				
65) SURR3,Toluene-d8	7.427	98	1417731	51.10	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.20%				
70) SURR2,BFB	9.878	95	562335	49.53	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.06%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.197	85	9021	1.12	ug/L		92
3) Chloromethane	1.300	50	10819	1.33	ug/L		82
4) Vinyl Chloride	1.361	62	9550	1.16	ug/L		86
5) Bromomethane	1.562	94	1875	0.66	ug/L		91
6) Chloroethane	1.617	64	6958	1.50	ug/L		83
7) Freon 21	1.721	67	15845	1.12	ug/L		99
8) Trichlorofluoromethane	1.770	101	12491	1.08	ug/L		94
9) Diethyl Ether	1.940	59	6189	1.36	ug/L		87
10) Freon 123a	1.934	67	10769	1.18	ug/L		88
11) Freon 123	1.971	83	11477	1.16	ug/L		93
12) Acrolein	2.032	56	5073	9.23	ug/L		96
13) 1,1-Diclethene	2.105	96	5571	1.02	ug/L	#	82
14) Freon 113	2.099	101	7392	1.54	ug/L		83
15) Acetone	2.129	43	2528	1.68	ug/L		87
16) 2-Propanol	2.203	45	5959	23.87	ug/L		85
17) Iodomethane	2.215	142	1310	0.23	ug/L	#	60
18) Carbon Disulfide	2.276	76	21324	1.09	ug/L		98
19) Acetonitrile	2.325	40	1822	10.00	ug/L	#	1
20) Allyl Chloride	2.361	76	3680	1.12	ug/L	#	90
21) Methyl Acetate	2.367	43	3209	0.98	ug/L		76
22) Methylene Chloride	2.446	84	8101	1.15	ug/L		95
23) TBA	2.507	59	7807	18.07	ug/L		86
24) Acrylonitrile	2.648	53	8839	5.78	ug/L		99
25) Methyl-t-Butyl Ether	2.672	73	15917	0.96	ug/L		98
26) trans-1,2-Dichloroethene	2.672	96	6778	0.98	ug/L		84
28) 1,1-Diclethane	3.056	63	14374	1.11	ug/L		89
29) Vinyl Acetate	3.105	86	587m	0.62	ug/L		
30) DIPE	3.111	45	28443	1.17	ug/L	#	70
31) 2-Chloro-1,3-Butadiene	3.154	53	13312	1.13	ug/L		77
32) ETBE	3.507	59	22415	1.04	ug/L		91
33) 2,2-Dichloropropane	3.684	77	10047	0.91	ug/L		87
34) cis-1,2-Dichloroethene	3.690	96	8452	1.09	ug/L		88
36) Propionitrile	3.824	54	2263m	4.45	ug/L		
37) Bromochloromethane	3.983	130	5055m	1.12	ug/L		
38) Methacrylonitrile	4.025	67	1345m	0.74	ug/L		

Quantitation Report (QT Reviewed)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:53:56 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	4.111	42	1730	1.37	ug/L	#	51
40)	Chloroform	4.105	83	13696	1.04	ug/L		97
41)	1,1,1-Trichloroethane	4.361	97	11764	1.05	ug/L		86
42)	TAME	5.184	73	16494m	0.93	ug/L		
44)	Cyclohexane	4.446	41	9590	1.33	ug/L		77
46)	Carbontetrachloride	4.617	121	3118m	1.05	ug/L		
47)	1,1-Dichloropropene	4.629	75	9679	1.06	ug/L		91
49)	Benzene	4.964	78	29461	1.03	ug/L		90
50)	1,2-Dichloroethane	5.001	62	11870	1.22	ug/L		97
52)	n-Heptane	5.464	43	8105	1.32	ug/L	#	63
54)	Trichloroethene	5.976	130	8954	1.15	ug/L		86
55)	Methylcyclohexane	6.220	55	10375	1.20	ug/L	#	71
56)	1,2-Diclpropane	6.269	63	6645	0.89	ug/L		91
57)	Dibromomethane	6.415	93	3815m	0.92	ug/L		
58)	1,4-Dioxane	6.488	88	308	6.90	ug/L	#	13
59)	Methyl Methacrylate	6.501	69	3152m	0.93	ug/L		
60)	Bromodichloromethane	6.622	83	9418	0.95	ug/L		92
62)	2-Chloroethylvinyl Ether	7.031	63	3385m	1.03	ug/L		
63)	cis-1,3-Dichloropropene	7.159	75	8994m	0.83	ug/L		
64)	4-Methyl-2-pentanone	7.354	43	4645m	1.04	ug/L		
66)	Toluene	7.506	91	32206	1.05	ug/L		90
67)	trans-1,3-Dichloropropene	7.762	75	7101	0.80	ug/L		94
68)	Ethyl Methacrylate	7.897	69	4253	0.61	ug/L	#	67
69)	1,1,2-Trichloroethane	7.933	97	5083	0.91	ug/L		98
72)	Tetrachloroethene	8.061	164	6878	1.06	ug/L	#	88
73)	2-Hexanone	8.250	43	3083m	0.91	ug/L		
74)	1,3-Dichloropropane	8.098	76	9136	0.93	ug/L		91
75)	Dibromochloromethane	8.305	129	5652	0.81	ug/L		91
76)	N-Butyl Acetate	8.366	43	9428m	1.14	ug/L		
77)	1,2-Dibromoethane	8.409	107	5026	0.87	ug/L		81
78)	3-Chlorobenzotrifluoride	8.878	180	11738	0.97	ug/L		93
79)	Chlorobenzene	8.872	112	20814	0.98	ug/L		86
80)	4-Chlorobenzotrifluoride	8.939	180	10869	0.96	ug/L		95
81)	1,1,1,2-Tetrachloroethane	8.951	131	6915	0.90	ug/L		95
82)	Ethylbenzene	8.988	106	9965	0.92	ug/L	#	86
83)	(m+p)Xylene	9.091	106	23946	1.79	ug/L	#	86
84)	o-Xylene	9.439	106	11241	0.85	ug/L	#	82
85)	Styrene	9.463	104	17694	0.84	ug/L		87
86)	Bromoform	9.610	173	3381	0.82	ug/L		92
87)	2-Chlorobenzotrifluoride	9.671	180	10457	0.87	ug/L		95
88)	Isopropylbenzene	9.756	105	30319	0.95	ug/L		94
89)	Cyclohexanone	9.829	55	10921	16.67	ug/L		87
90)	trans-1,4-Dichloro-2-B...	10.073	53	1408	1.19	ug/L	#	49
92)	1,1,2,2-Tetrachloroethane	10.012	83	7002	1.06	ug/L		93
93)	Bromobenzene	10.006	156	8988	0.97	ug/L		98
94)	1,2,3-Trichloropropane	10.049	110	1524	0.88	ug/L	#	91
95)	n-Propylbenzene	10.110	91	35287	0.97	ug/L		95
96)	2-Chlorotoluene	10.177	91	21338	0.93	ug/L		98
97)	3-Chlorotoluene	10.225	91	21754	0.89	ug/L		95
98)	4-Chlorotoluene	10.268	91	25419	0.91	ug/L		94
99)	1,3,5-Trimethylbenzene	10.256	105	22706	0.88	ug/L		97
100)	tert-Butylbenzene	10.524	119	20525	0.95	ug/L		93

Quantitation Report (QT Reviewed)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:53:56 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

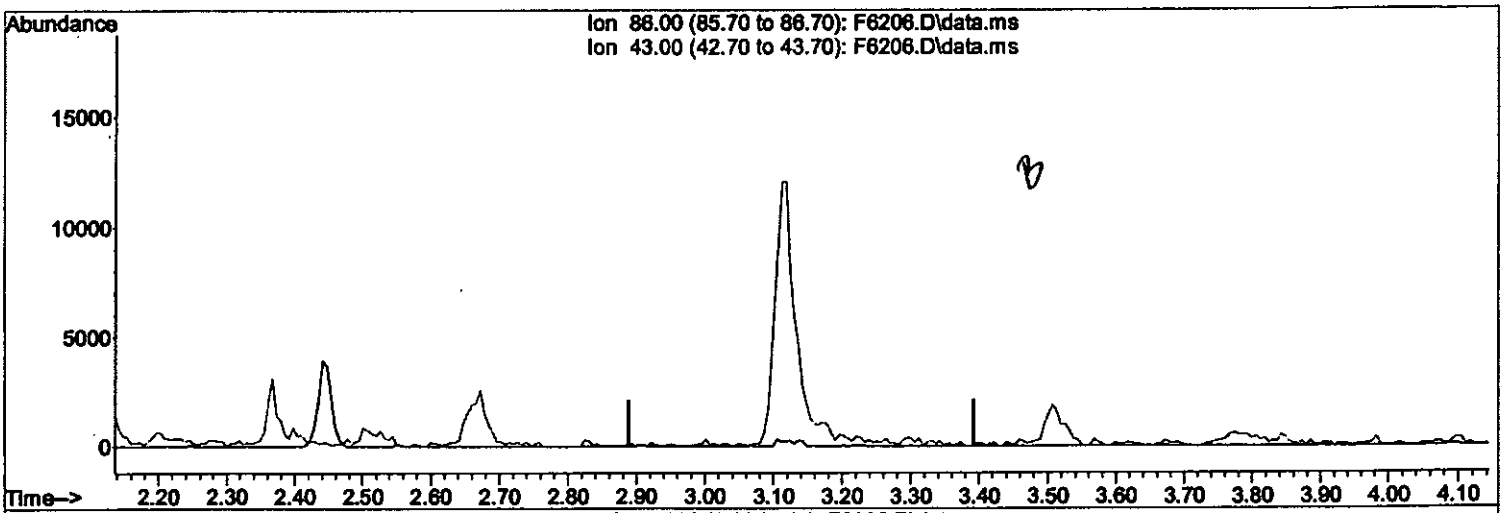
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
101) 1,2,4-Trimethylbenzene	10.567	105	22906	0.85	ug/L		95
102) 3,4-Dichlorobenzotrifl...	10.622	214	7405	0.88	ug/L		87
103) sec-Butylbenzene	10.701	105	28705	0.96	ug/L		94
104) p-Isopropyltoluene	10.817	119	21457	0.85	ug/L		95
105) 1,3-Dclbenz	10.786	146	16309	0.97	ug/L		94
106) 1,4-Dclbenz	10.853	146	16907	0.98	ug/L		89
107) 2,4-Dichlorobenzotrifl...	10.908	214	6616	0.89	ug/L		96
108) 2,5-Dichlorobenzotrifl...	10.951	214	7455	0.85	ug/L		91
109) n-Butylbenzene	11.152	91	18216	0.81	ug/L		88
110) 1,2-Dclbenz	11.158	146	15822	1.03	ug/L		91
111) 1,2-Dibromo-3-chloropr...	11.725	157	1065	1.02	ug/L	#	55
112) Trielution Dichlorotol...	11.810	125	34835	2.78	ug/L		90
113) 1,3,5-Trichlorobenzene	11.853	180	10986	0.99	ug/L		91
114) Coelution Dichlorotoluene	12.079	125	24446	1.94	ug/L		97
115) 1,2,4-Tcbenzene	12.243	180	7666	0.88	ug/L		88
116) Hexachlorobt	12.329	225	4185	1.11	ug/L		91
117) Naphthalen	12.396	128	12472m	0.88	ug/L		
118) 1,2,3-Tclbenzene	12.524	180	7115m	1.10	ug/L		
119) 2,4,5-Trichlorotoluene	12.932	159	3596	0.91	ug/L		84
120) 2,3,6-Trichlorotoluene	12.993	159	3732	0.97	ug/L		79

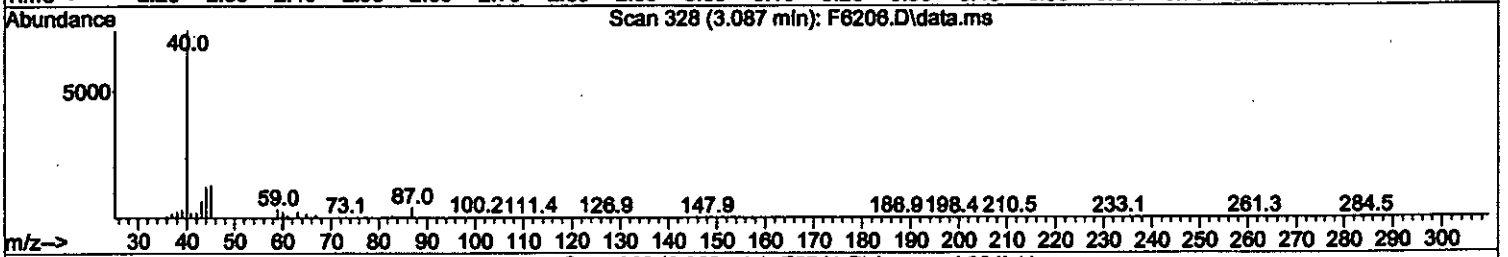
(#) = qualifier out of range (m) = manual integration (+) = signals summed

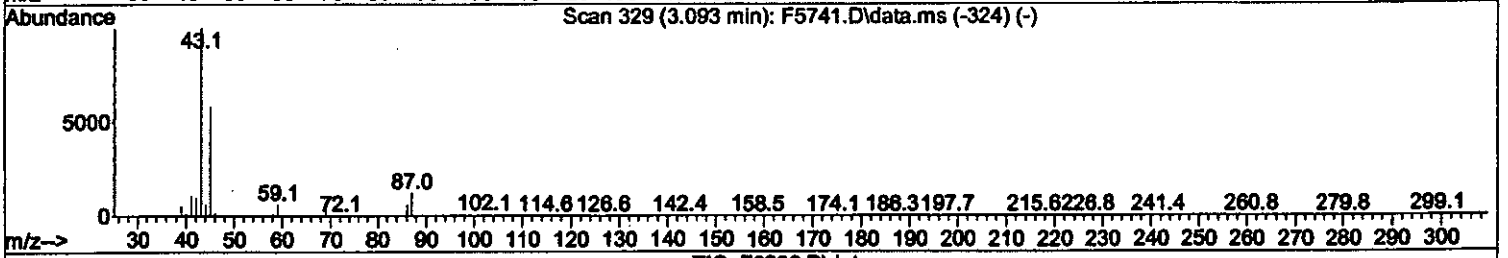
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(29) Vinyl Acetate

3.088min (-3.086) 0.00 ug/L

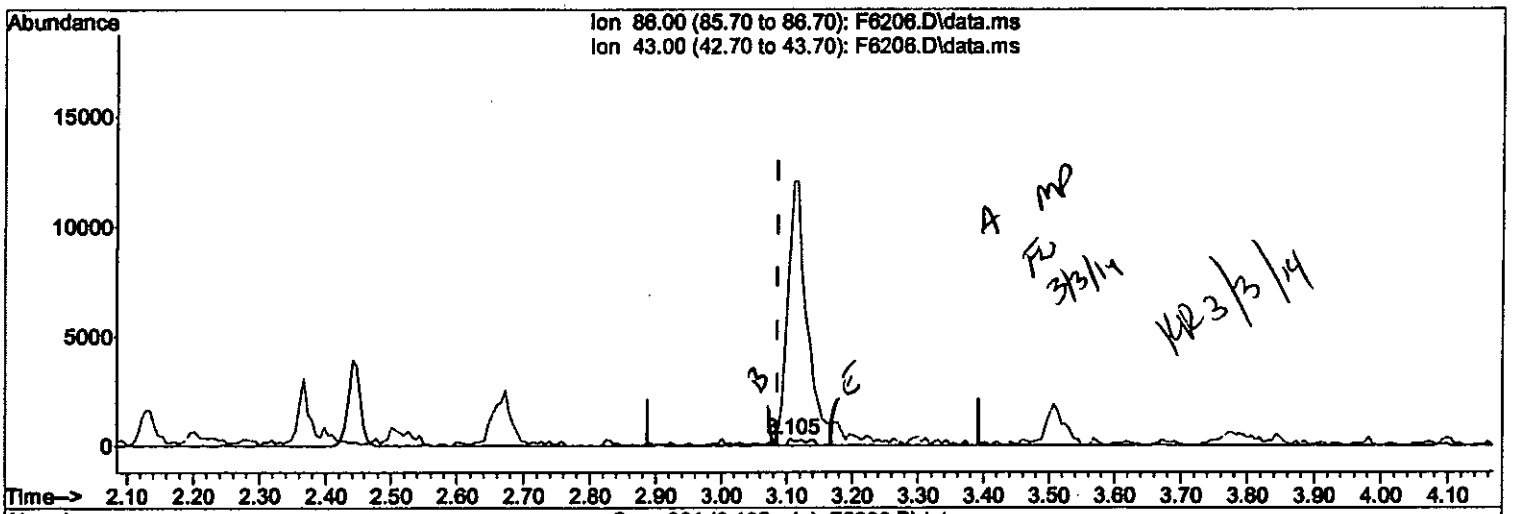
response 0

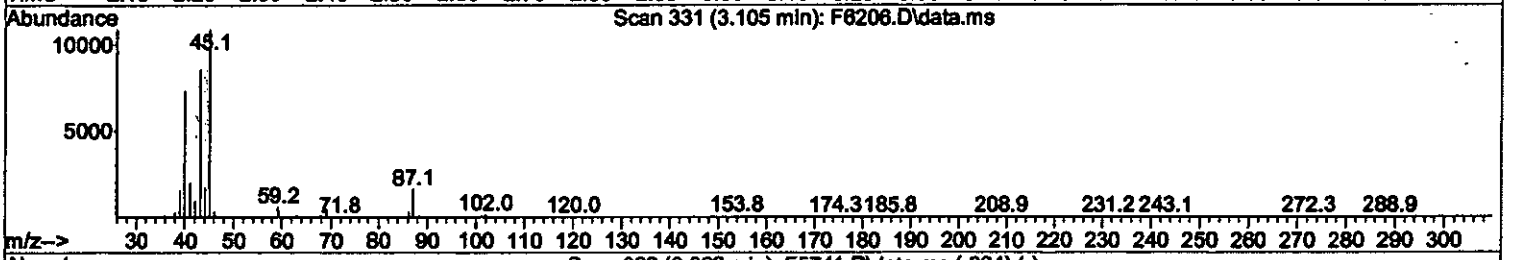
Ion	Exp%	Act%
86.00	100	0.00
43.00	1729.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

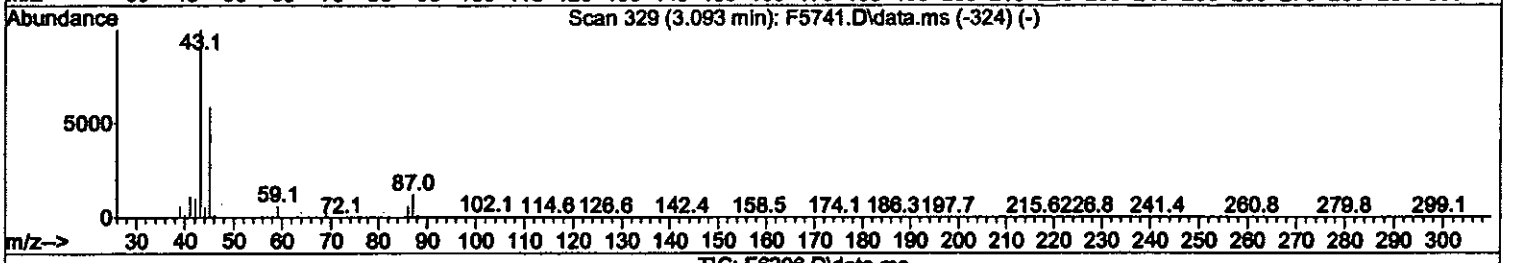
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(29) Vinyl Acetate

3.105min (+0.019) 0.62 ug/L m

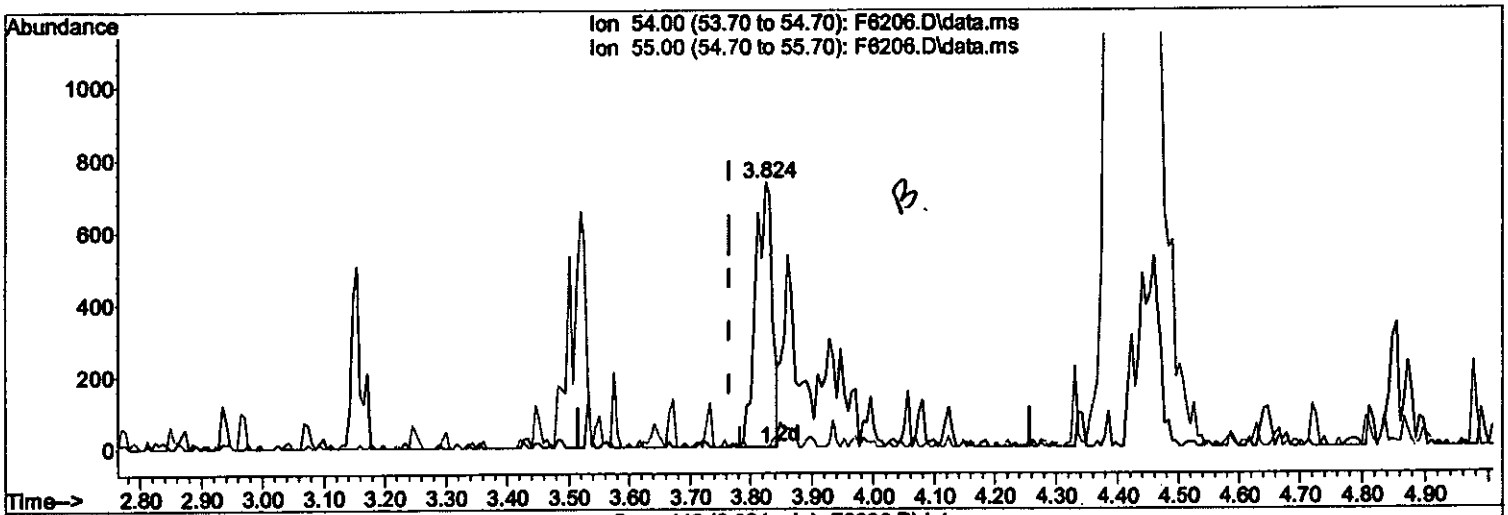
response 587

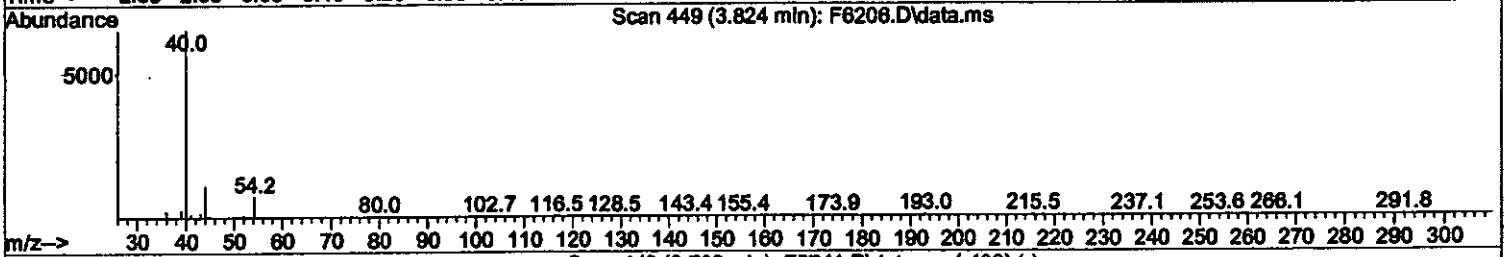
Ion	Exp%	Act%
86.00	100	100
43.00	1729.40	2709.18#
0.00	0.00	0.00
0.00	0.00	0.00

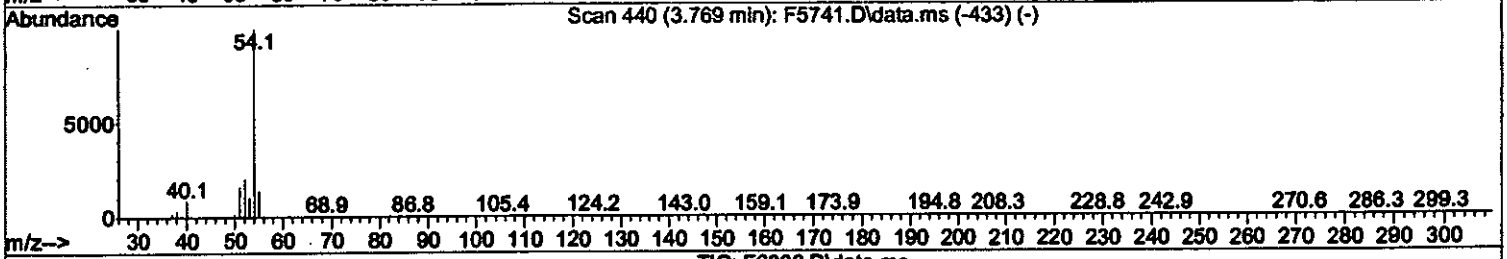
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(36) Propionitrile

3.824min (+0.061) 2.71 ug/L

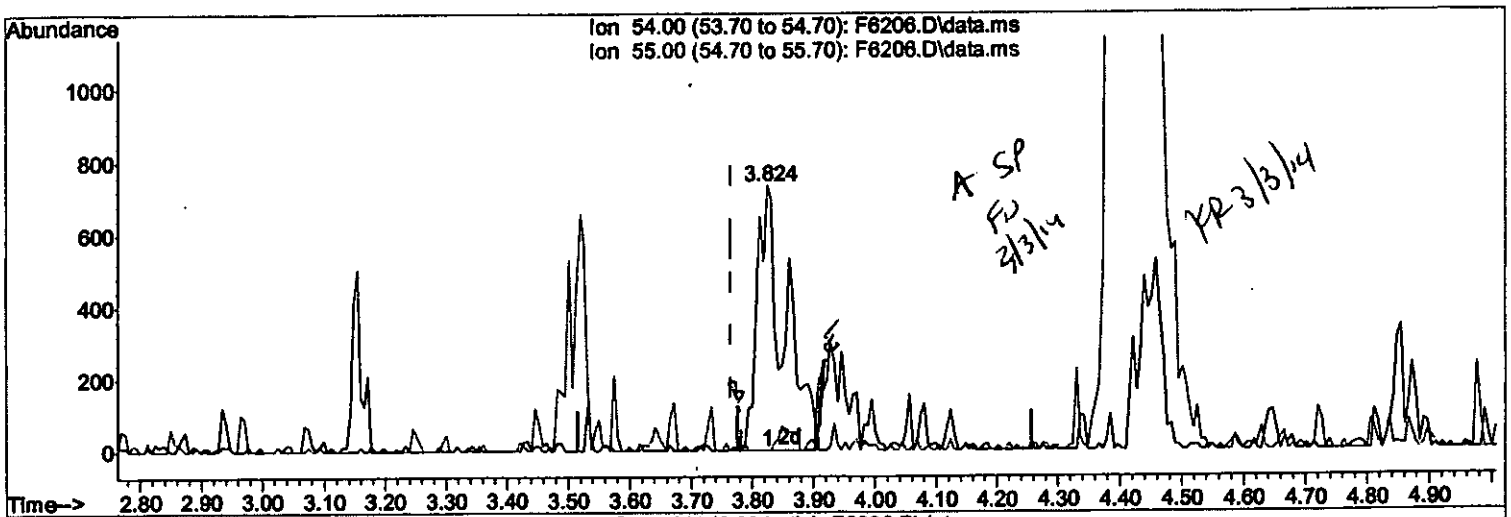
response 1380

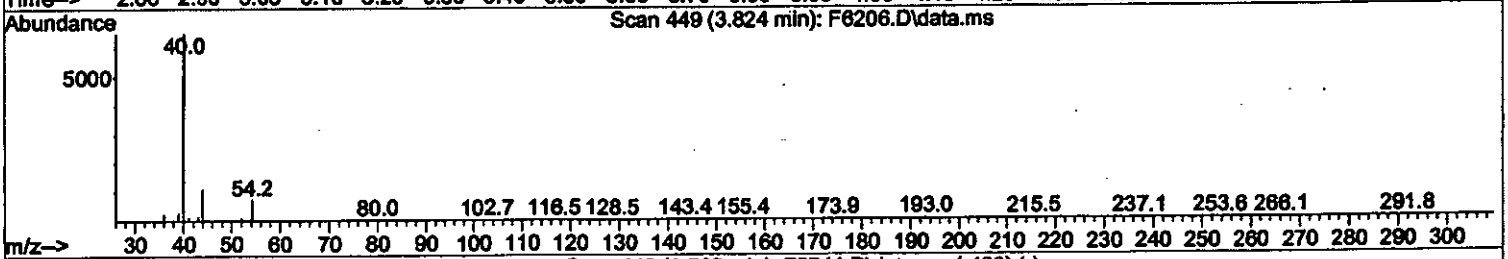
Ion	Exp%	Act%
54.00	100	100
55.00	13.70	0.00
0.00	0.00	0.00
0.00	0.00	0.00

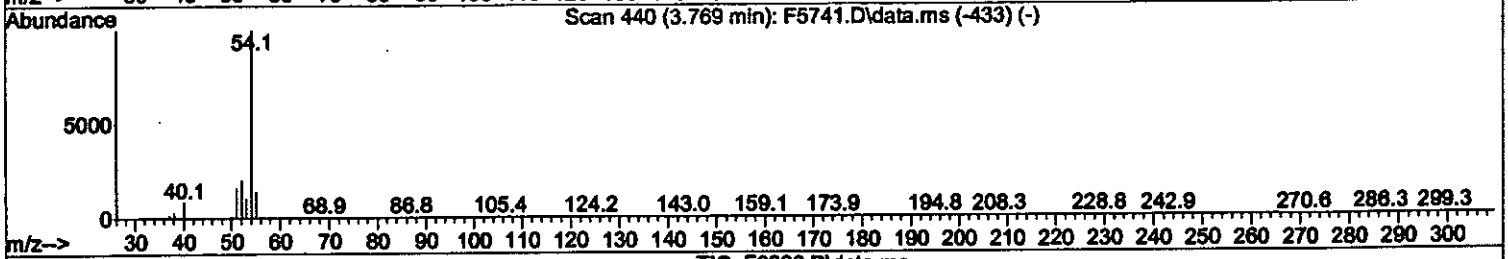
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(36) Propionitrile

3.824min (+0.061) 4.45 ug/L m

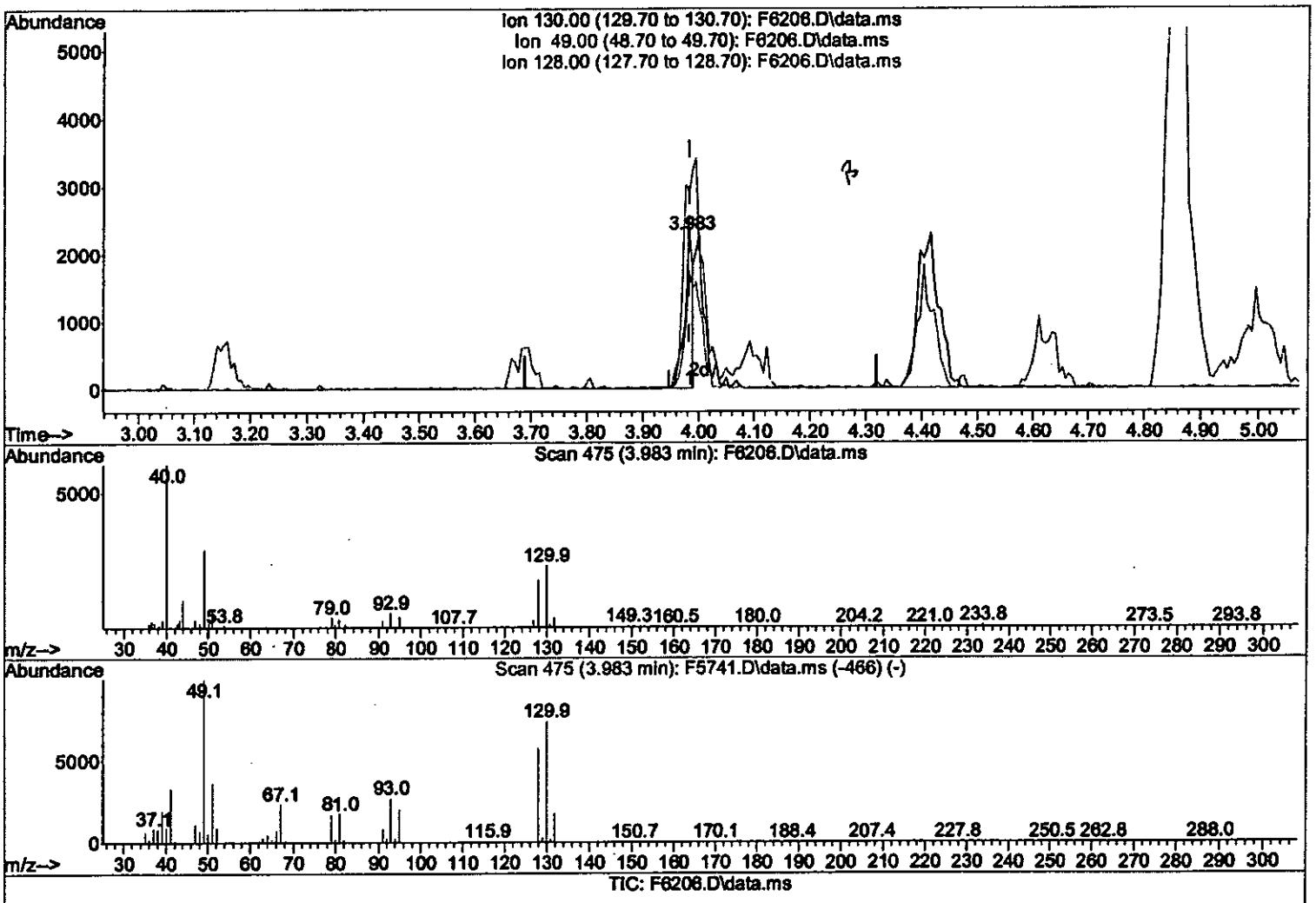
response 2263

Ion	Exp%	Act%
54.00	100	100
55.00	13.70	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6206.D\data.ms

(37) Bromochloromethane

3.983min (+0.000) 0.52 ug/L

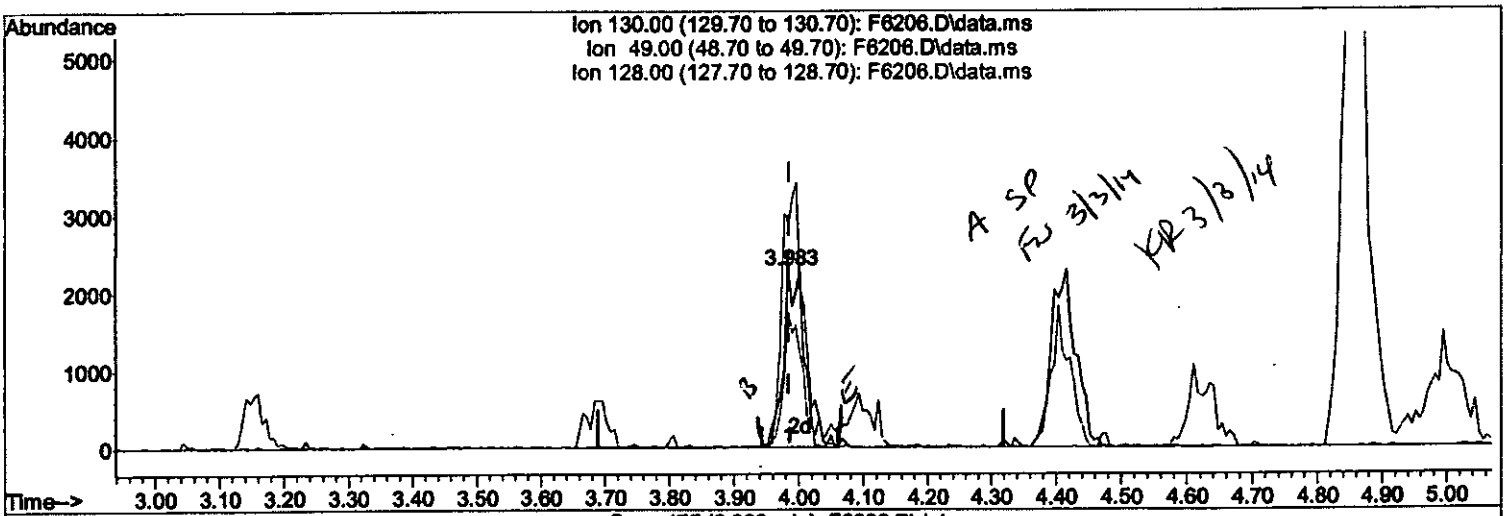
response 2319

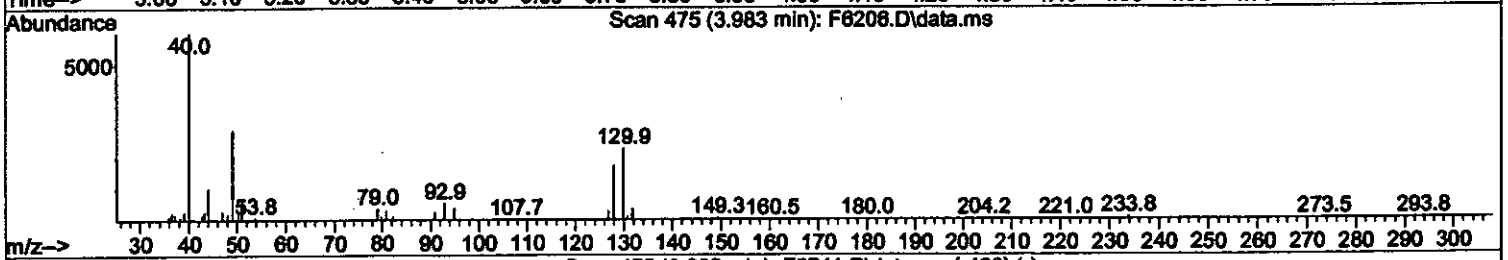
Ion	Exp%	Act%
130.00	100	100
49.00	135.10	120.09
128.00	77.50	72.86
0.00	0.00	0.00

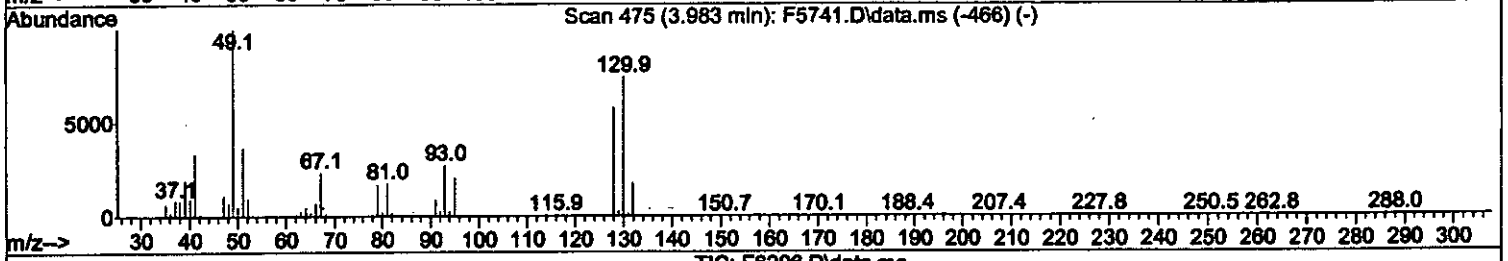
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(37) Bromochloromethane

3.983min (+0.000) 1.12 ug/L m

response 5055

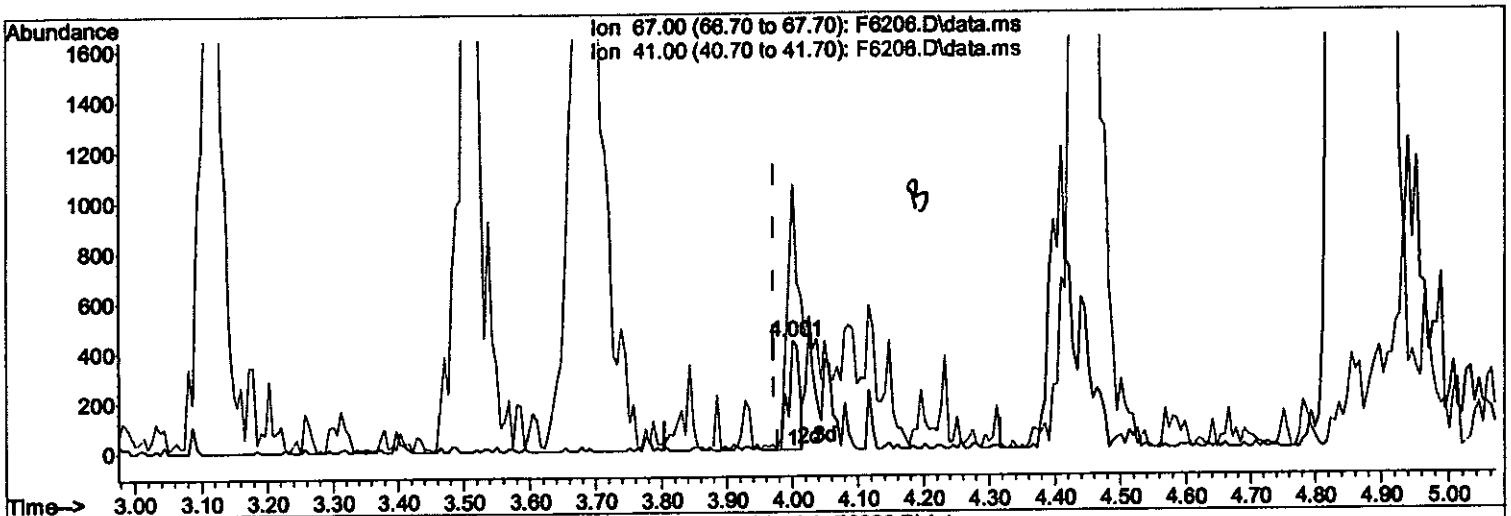
Ion	Exp%	Act%
130.00	100	100
49.00	135.10	125.75
128.00	77.50	76.30
0.00	0.00	0.00

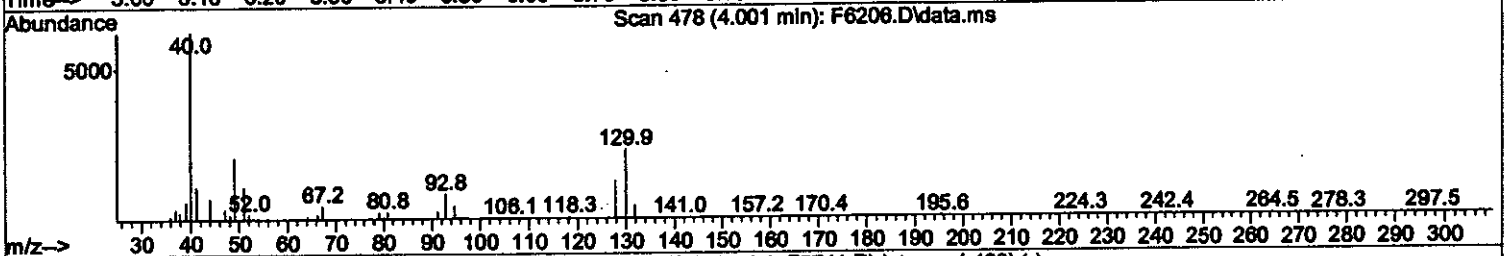
0025B

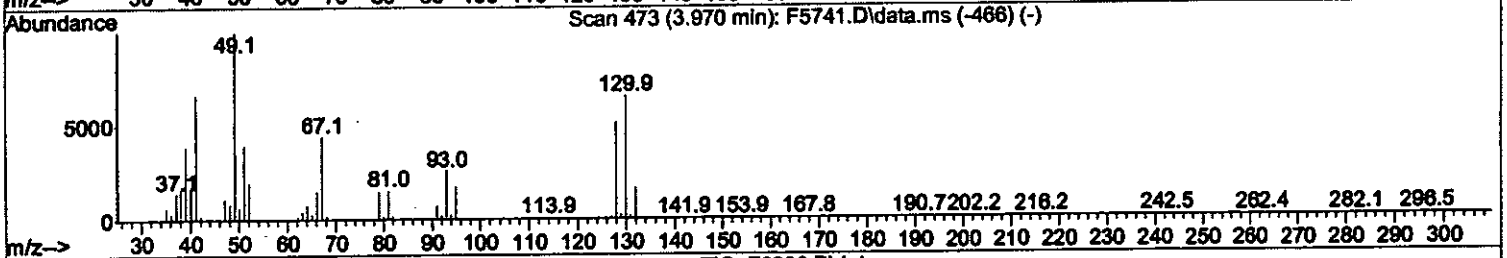
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(38) Methacrylonitrile

4.001min (+0.031) 0.28 ug/L

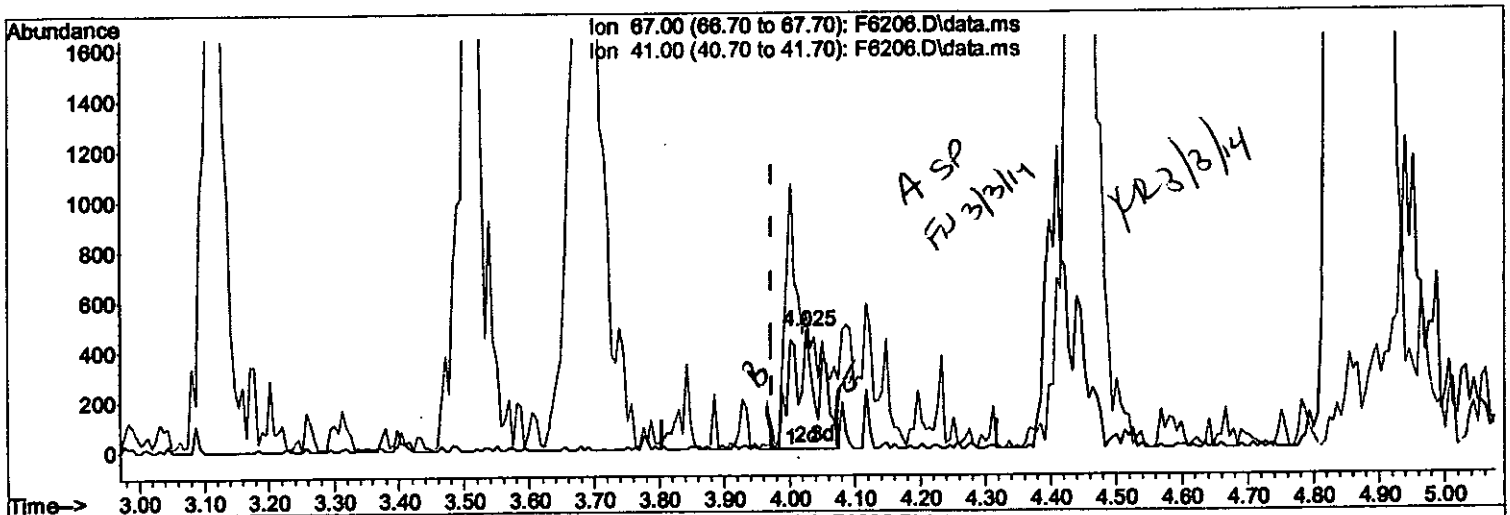
response 504

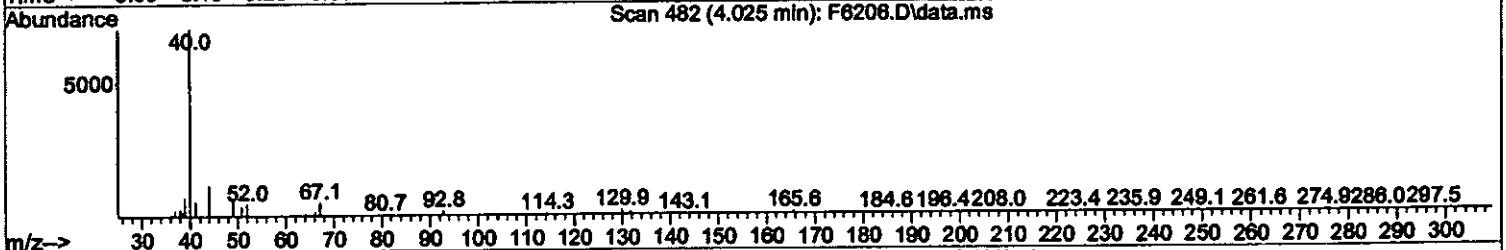
Ion	Exp%	Act%
67.00	100	100
41.00	149.10	242.99#
0.00	0.00	0.00
0.00	0.00	0.00

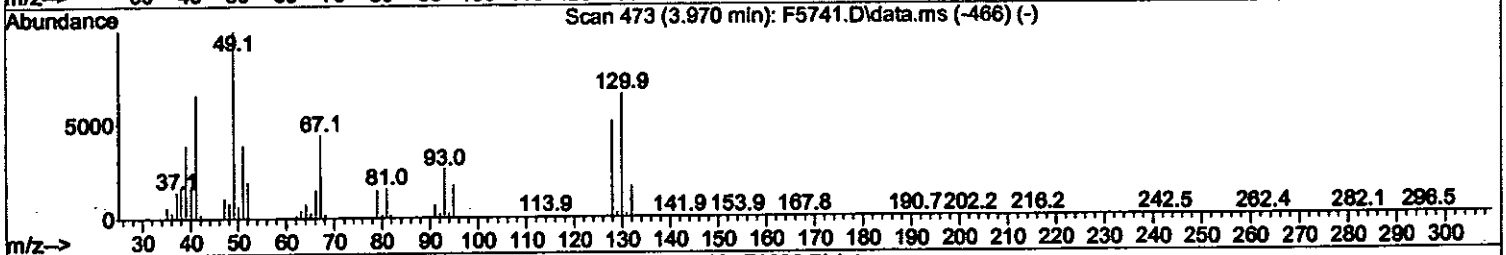
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(38) Methacrylonitrile

4.025min (+0.055) 0.74 ug/L m

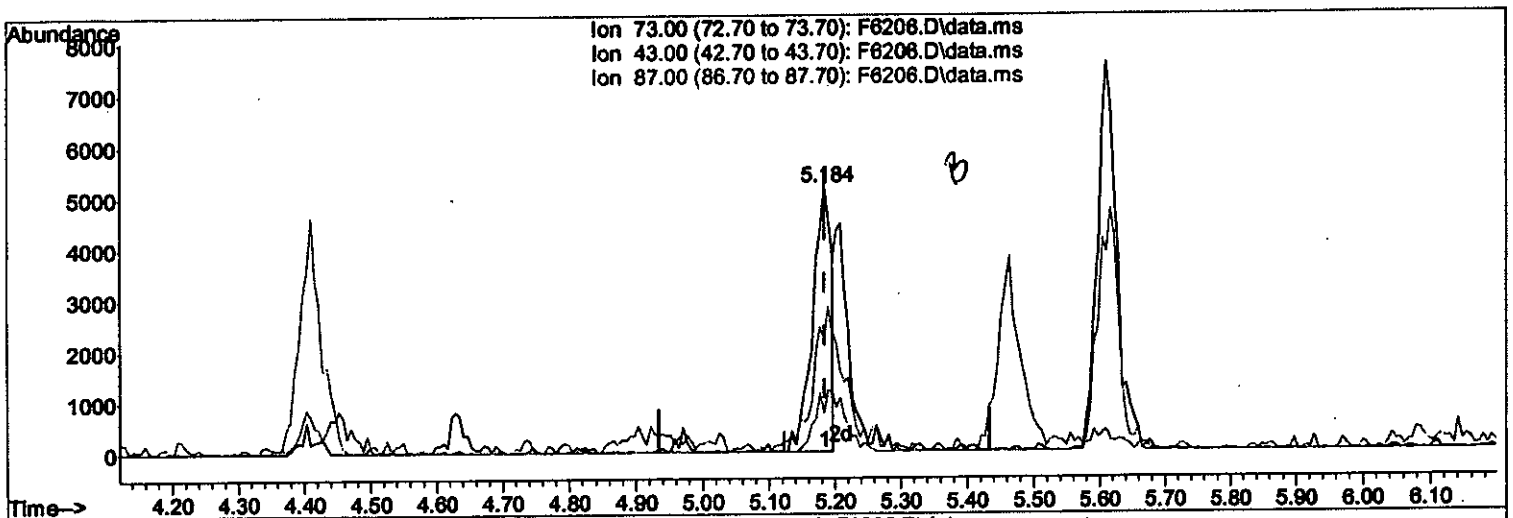
response 1345

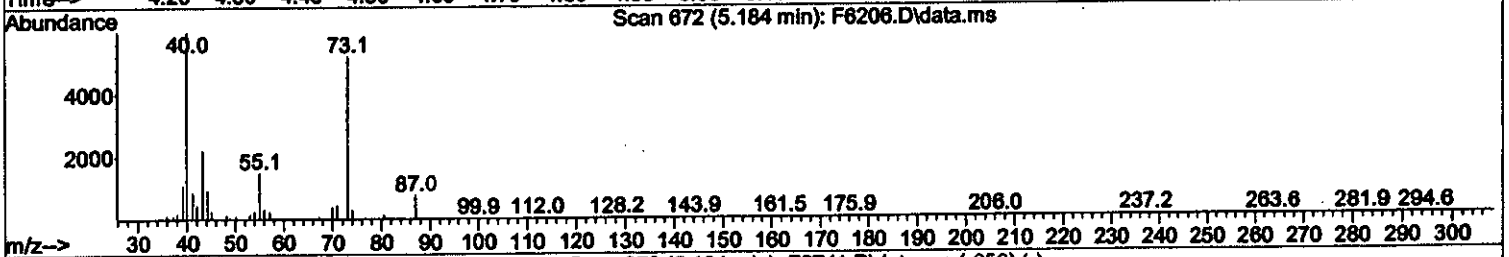
Ion	Exp%	Act%
67.00	100	100
41.00	149.10	113.77#
0.00	0.00	0.00
0.00	0.00	0.00

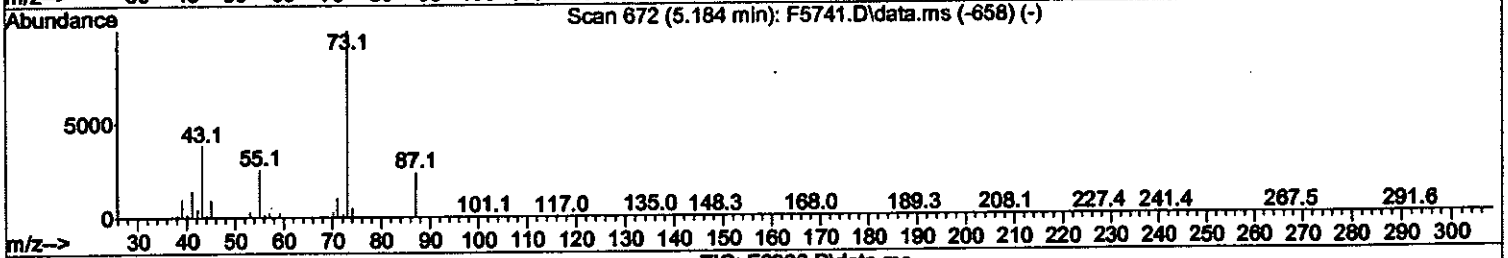
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(42) TAME

5.184min (+0.000) 0.57 ug/L

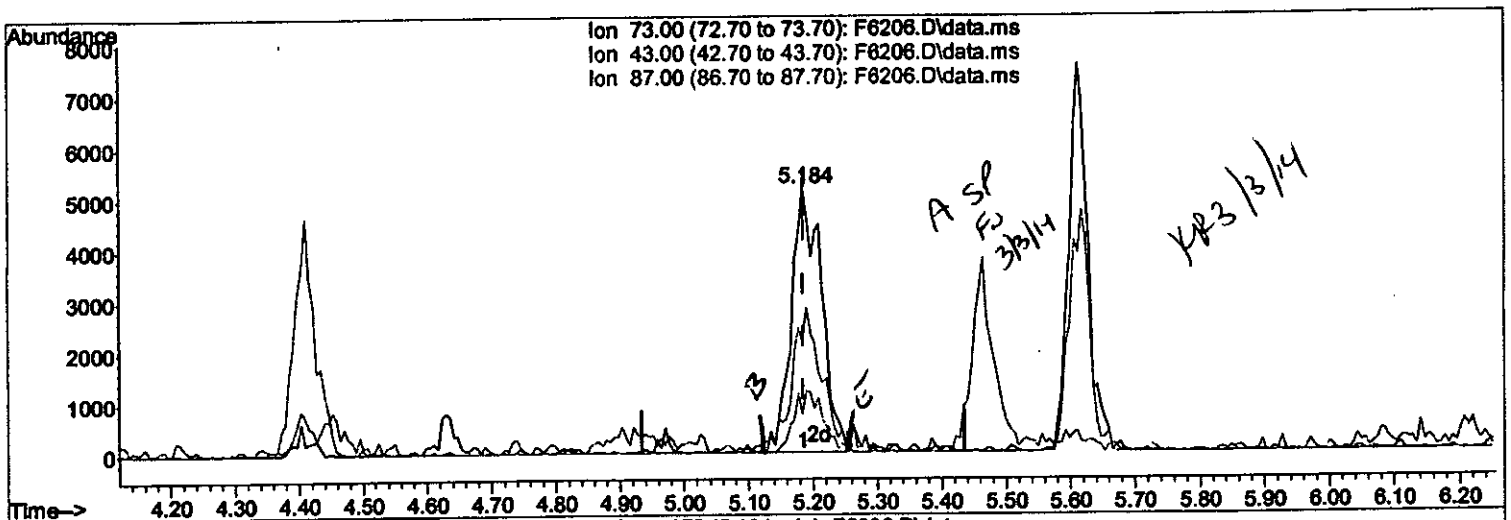
response 10105

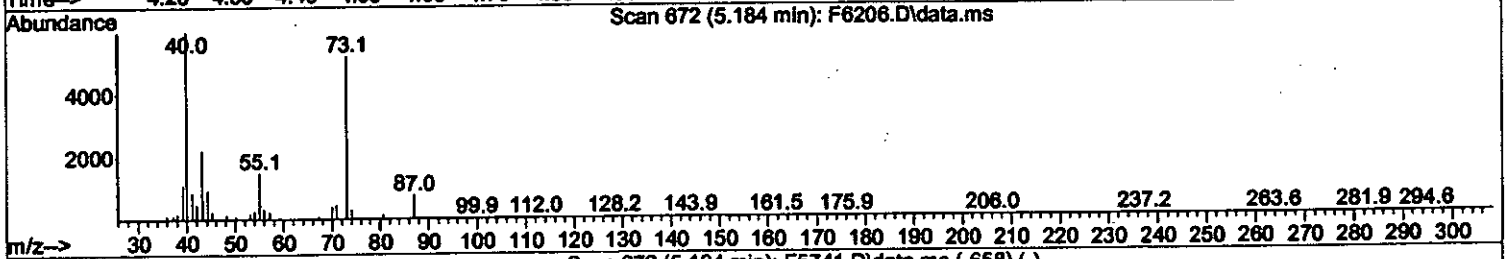
Ion	Exp%	Act%
73.00	100	100
43.00	38.40	42.45
87.00	23.80	14.38
0.00	0.00	0.00

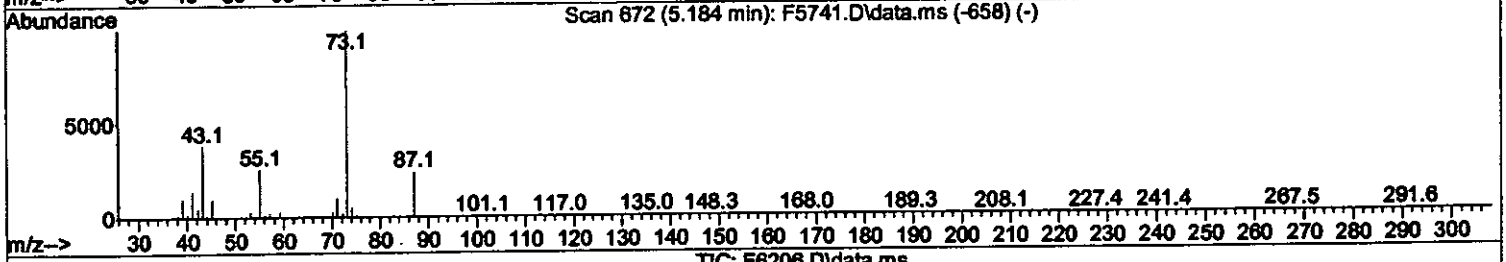
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(42) TAME

5.184min (+0.000) 0.83 ug/L m

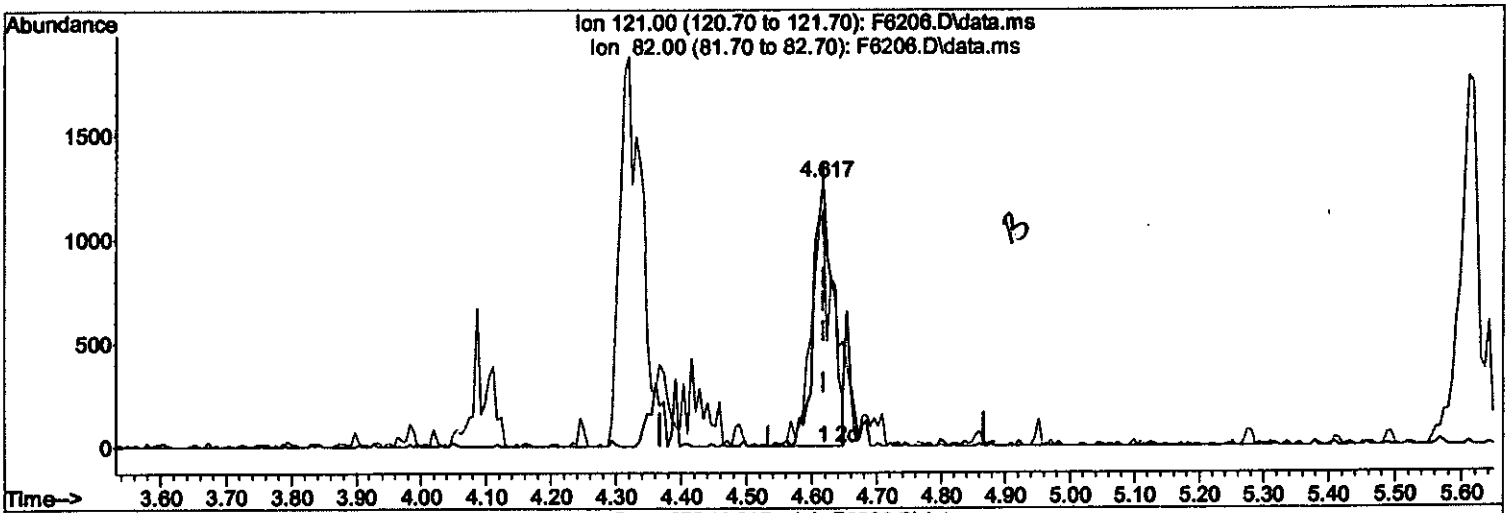
response 16494

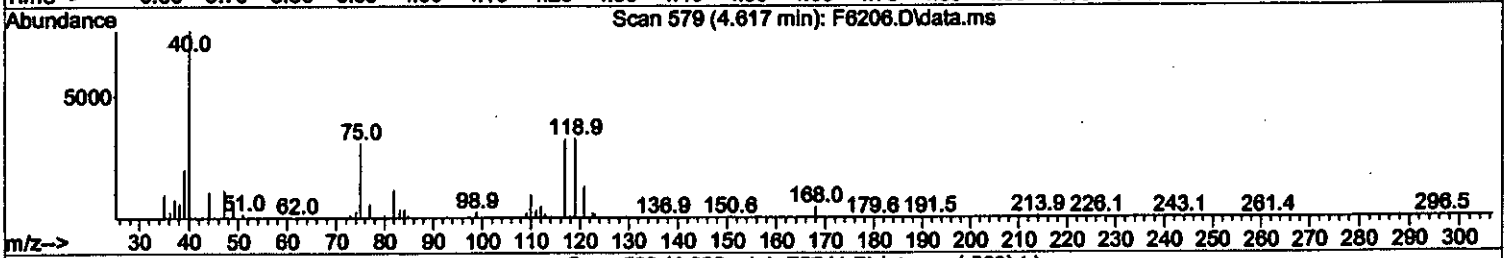
Ion	Exp%	Act%
73.00	100	100
43.00	38.40	42.45
87.00	23.80	14.36
0.00	0.00	0.00

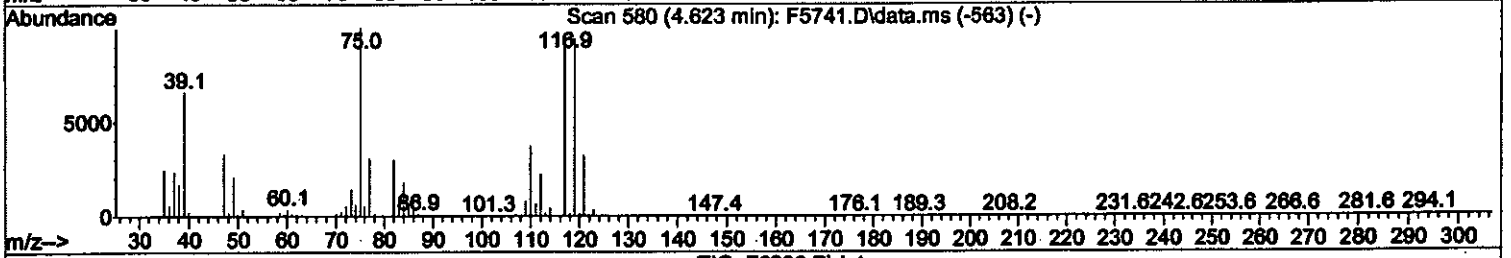
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(46) Carbontetrachloride (P)

4.617min (+0.000) 0.88 ug/L

response 2637

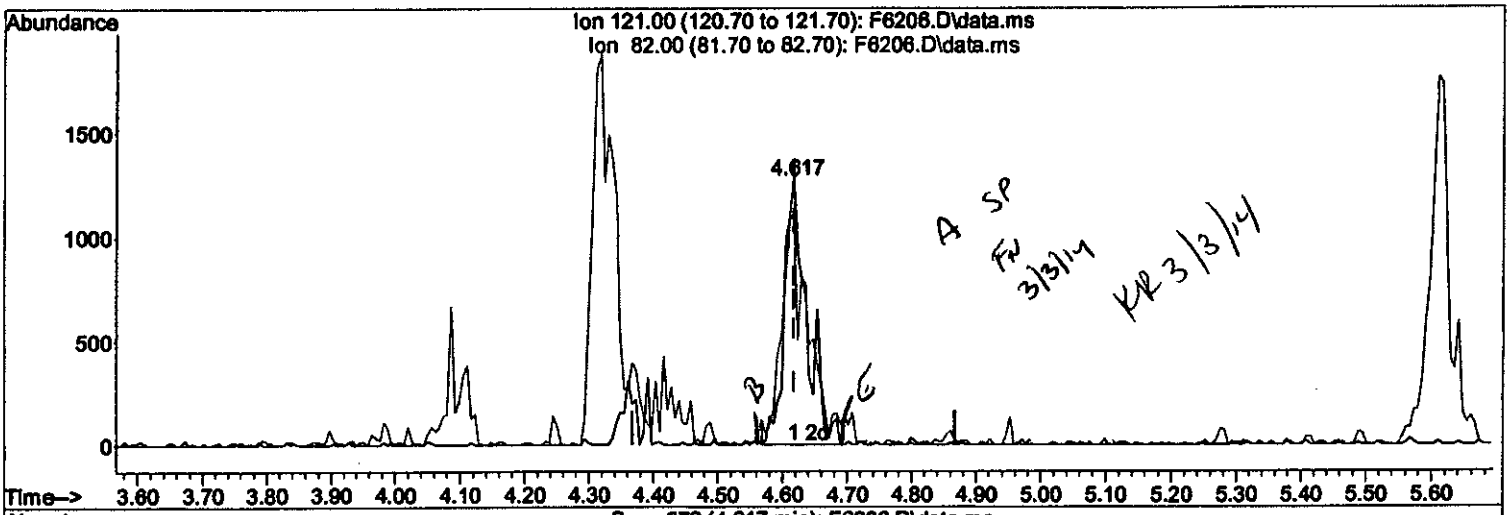
Ion	Exp%	Act%
121.00	100	100
82.00	93.30	89.09
0.00	0.00	0.00
0.00	0.00	0.00

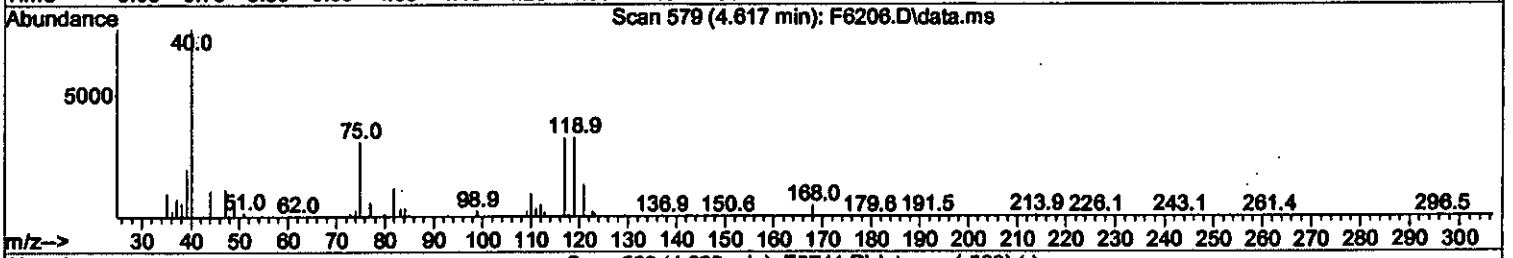
00255

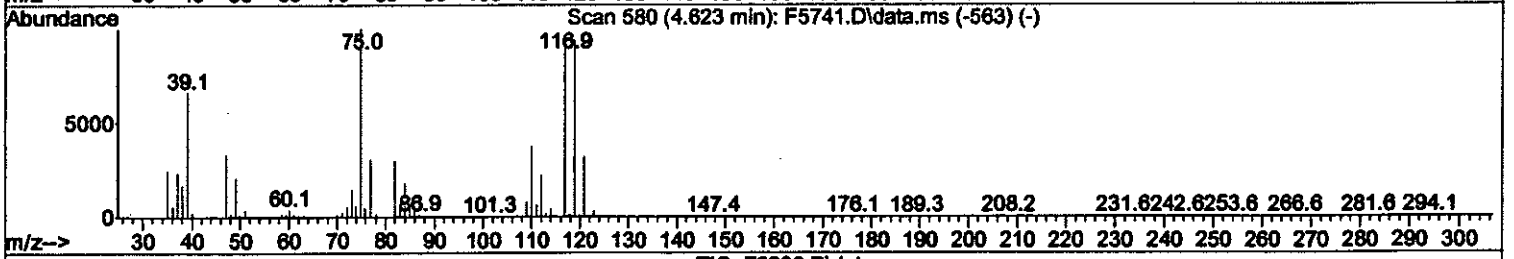
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(46) Carbontetrachloride (P)

4.617min (+0.000) 1.05 ug/L m

response 3118

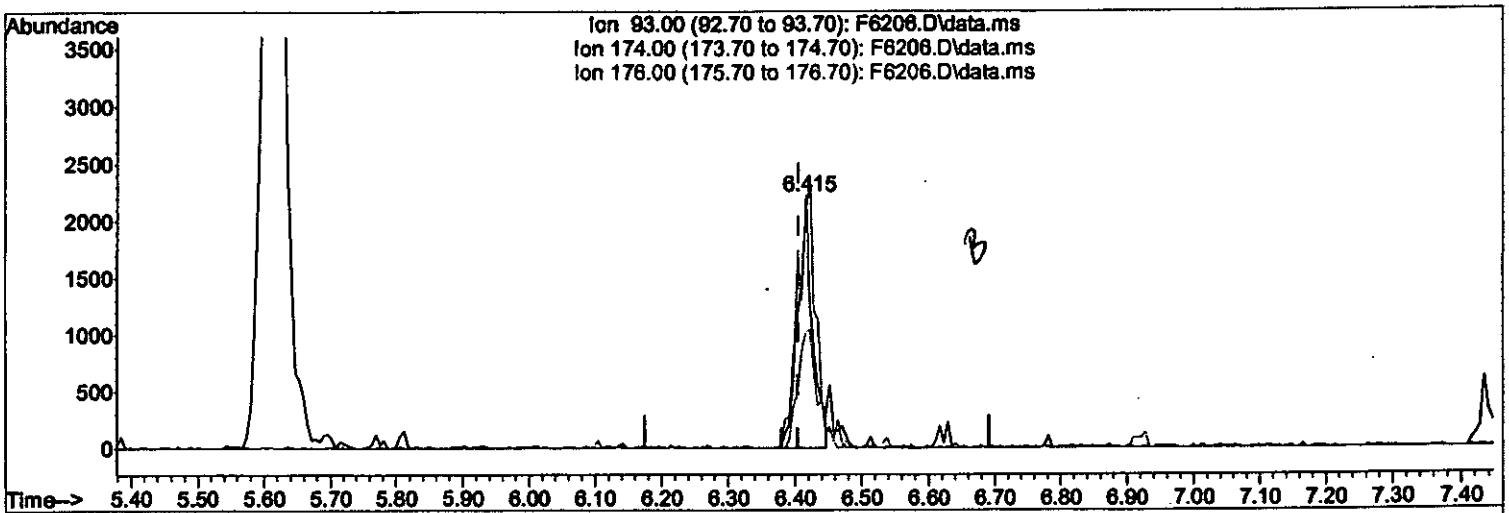
Ion	Exp%	Act%
121.00	100	100
82.00	93.30	89.09
0.00	0.00	0.00
0.00	0.00	0.00

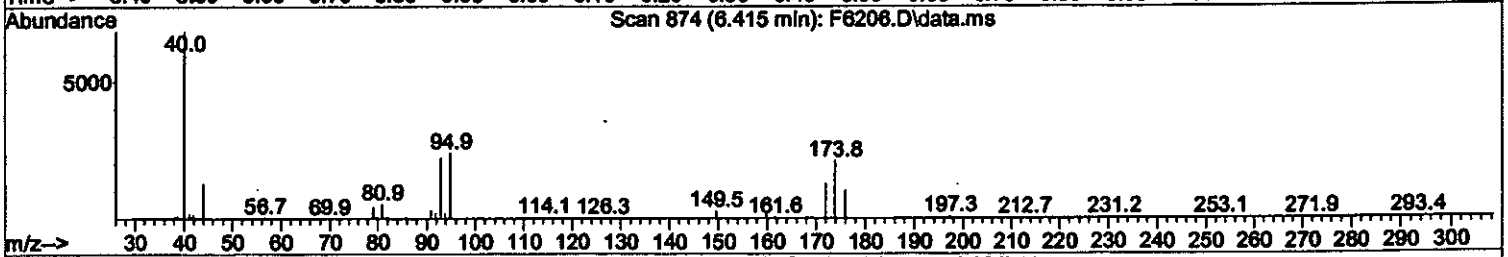
00256

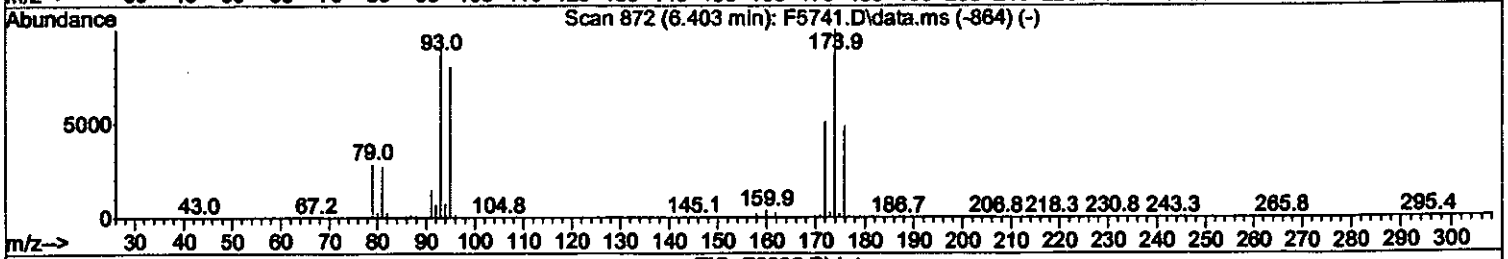
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(57) Dibromomethane

6.415min (+0.012) 0.83 ug/L

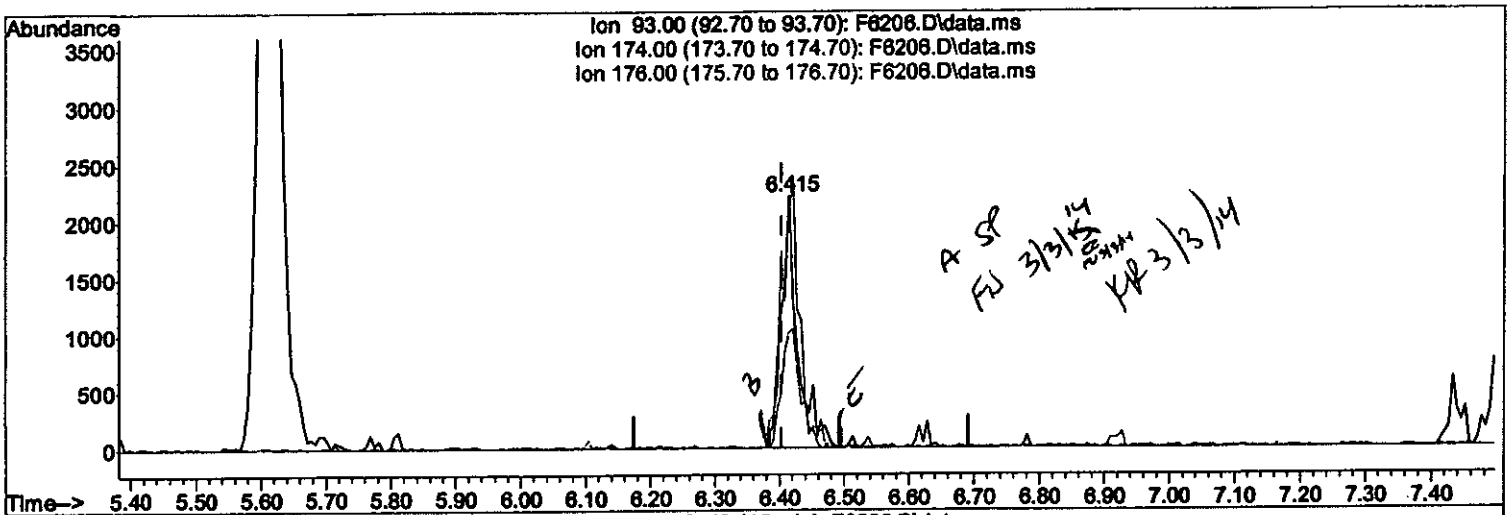
response 3440

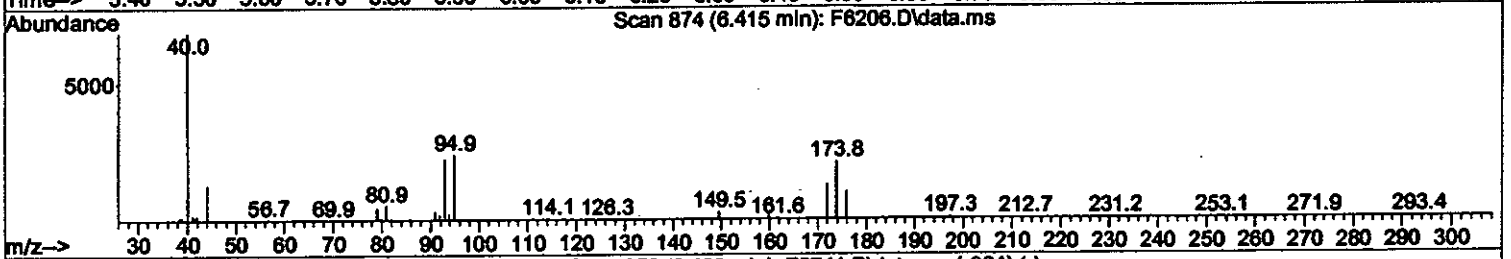
Ion	Exp%	Act%
93.00	100	100
174.00	102.60	94.27
176.00	49.60	45.98
0.00	0.00	0.00

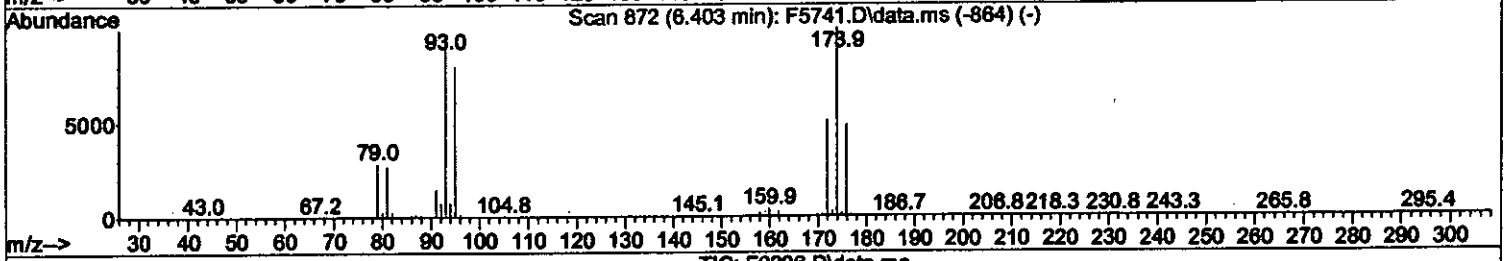
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(57) Dibromomethane

6.415min (+0.012) 0.92 ug/L m

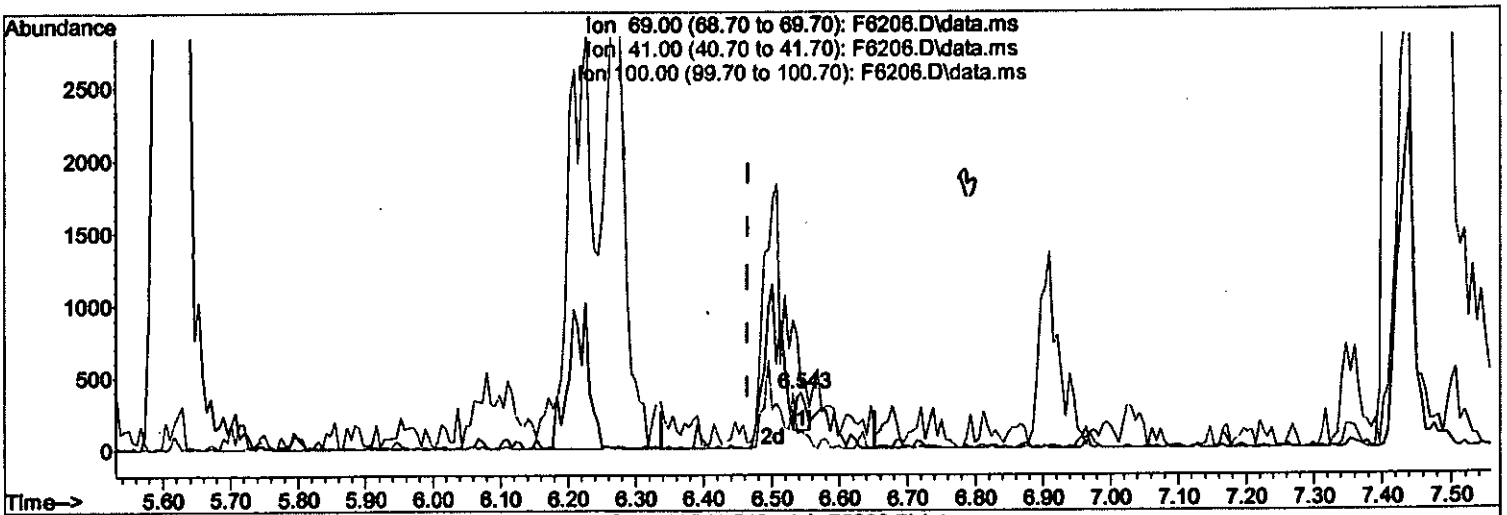
response 3815

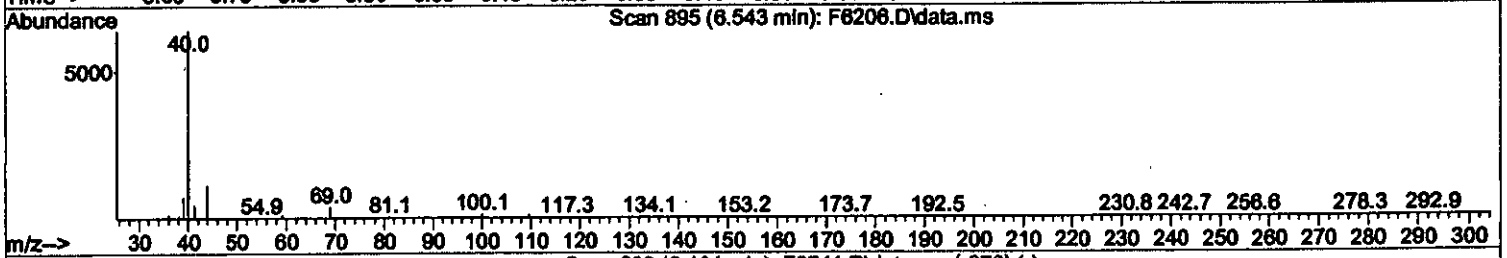
Ion	Exp%	Act%
93.00	100	100
174.00	102.60	94.27
176.00	49.60	45.40
0.00	0.00	0.00

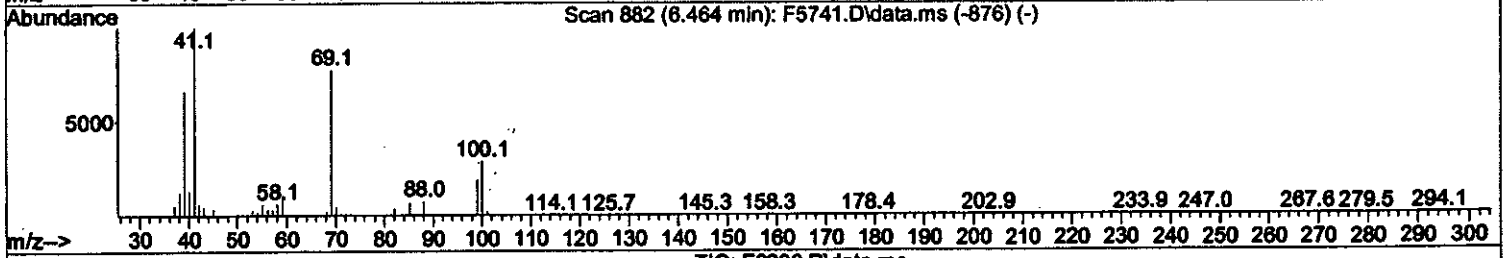
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(59) Methyl Methacrylate

6.543min (+0.080) 0.08 ug/L

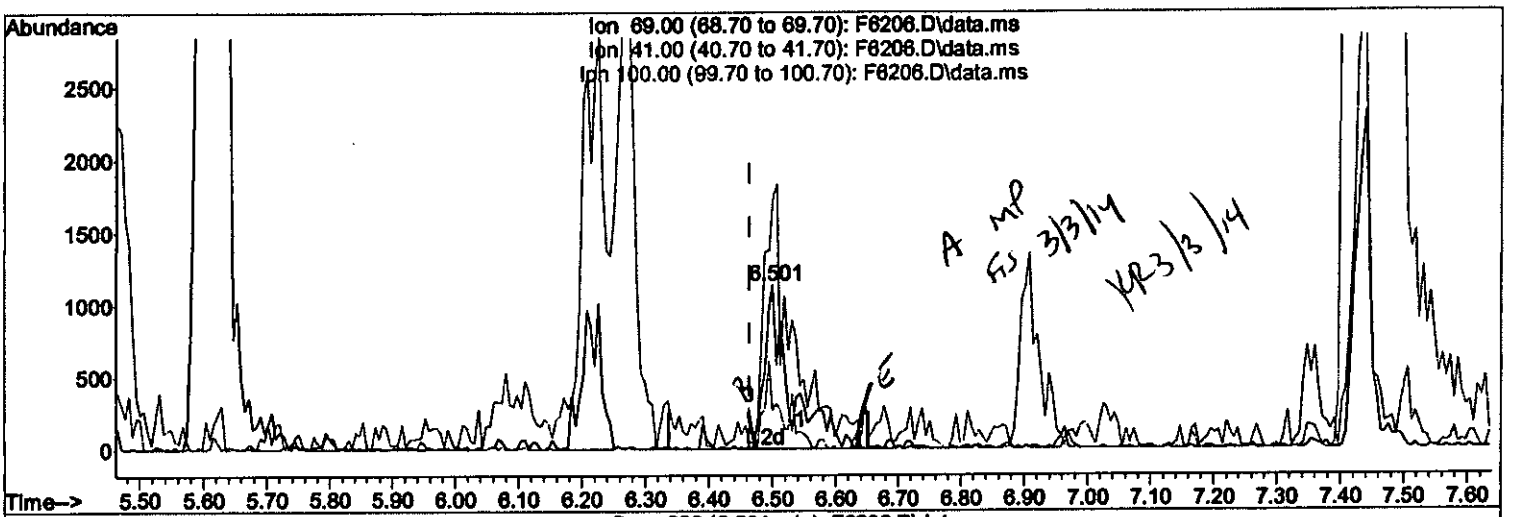
response 267

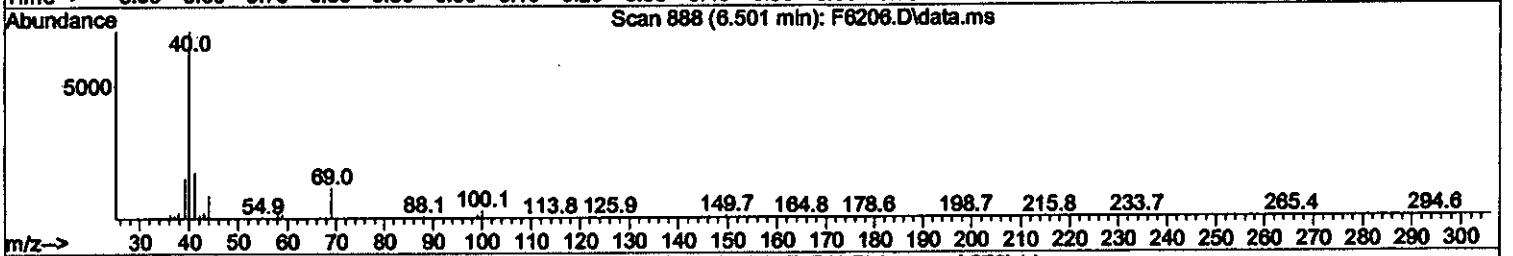
Ion	Exp%	Act%
69.00	100	100
41.00	128.90	112.99
100.00	36.90	30.91
0.00	0.00	0.00

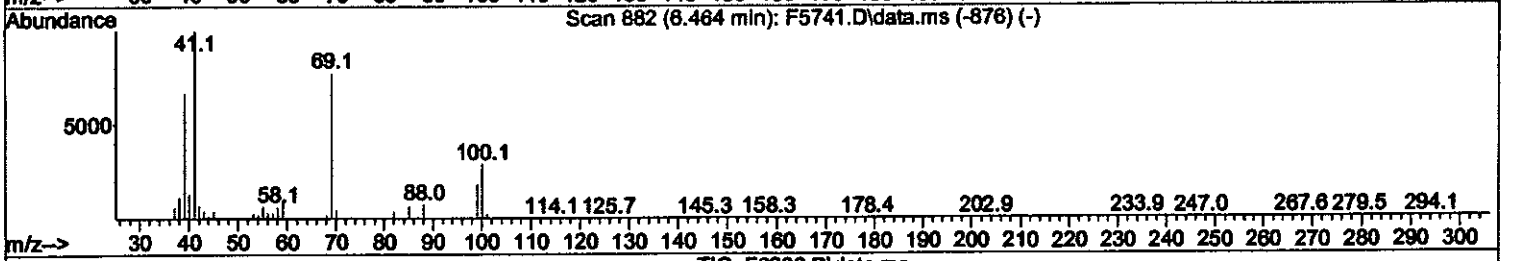
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(59) Methyl Methacrylate

6.501min (+0.038) 0.93 ug/L m

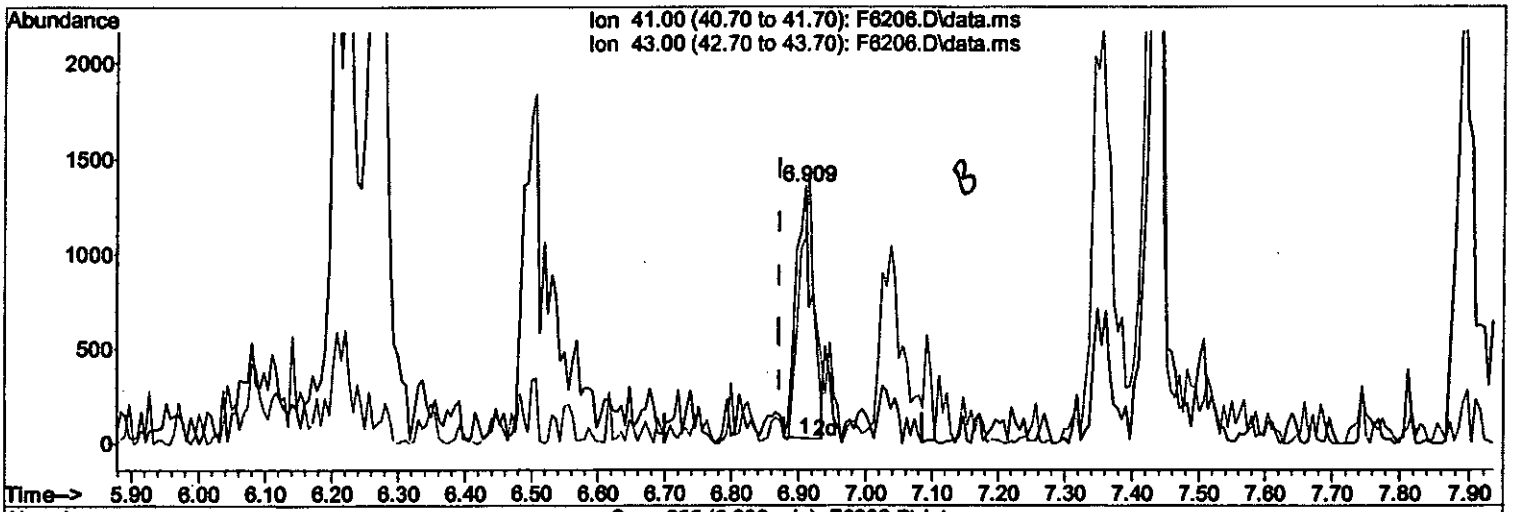
response 3152

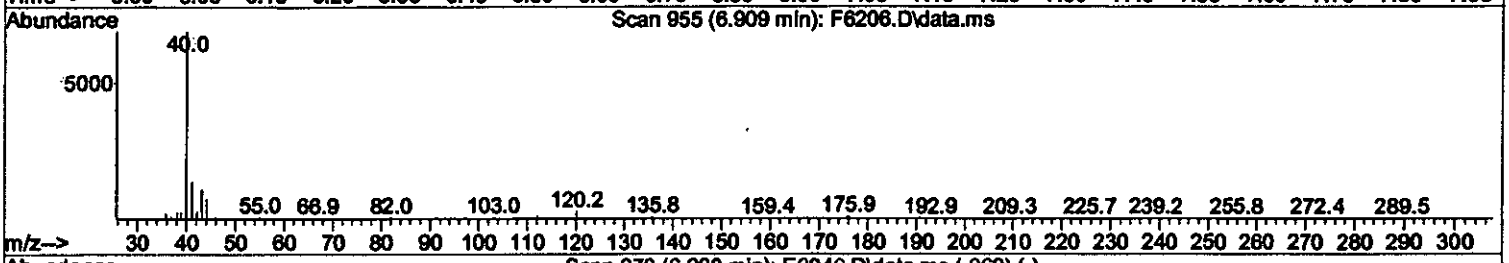
Ion	Exp%	Act%
69.00	100	100
41.00	126.90	151.72#
100.00	36.90	23.61
0.00	0.00	0.00

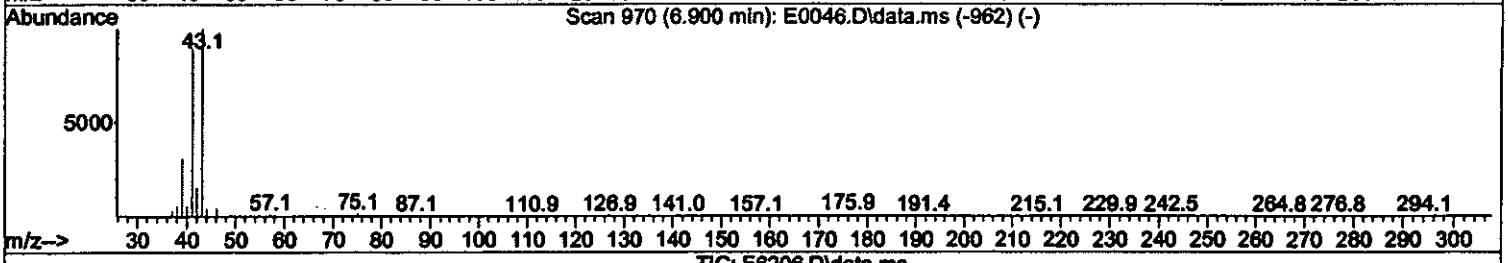
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(61) 2-Nitropropane

6.909min (+0.039) 0.00 ug/L

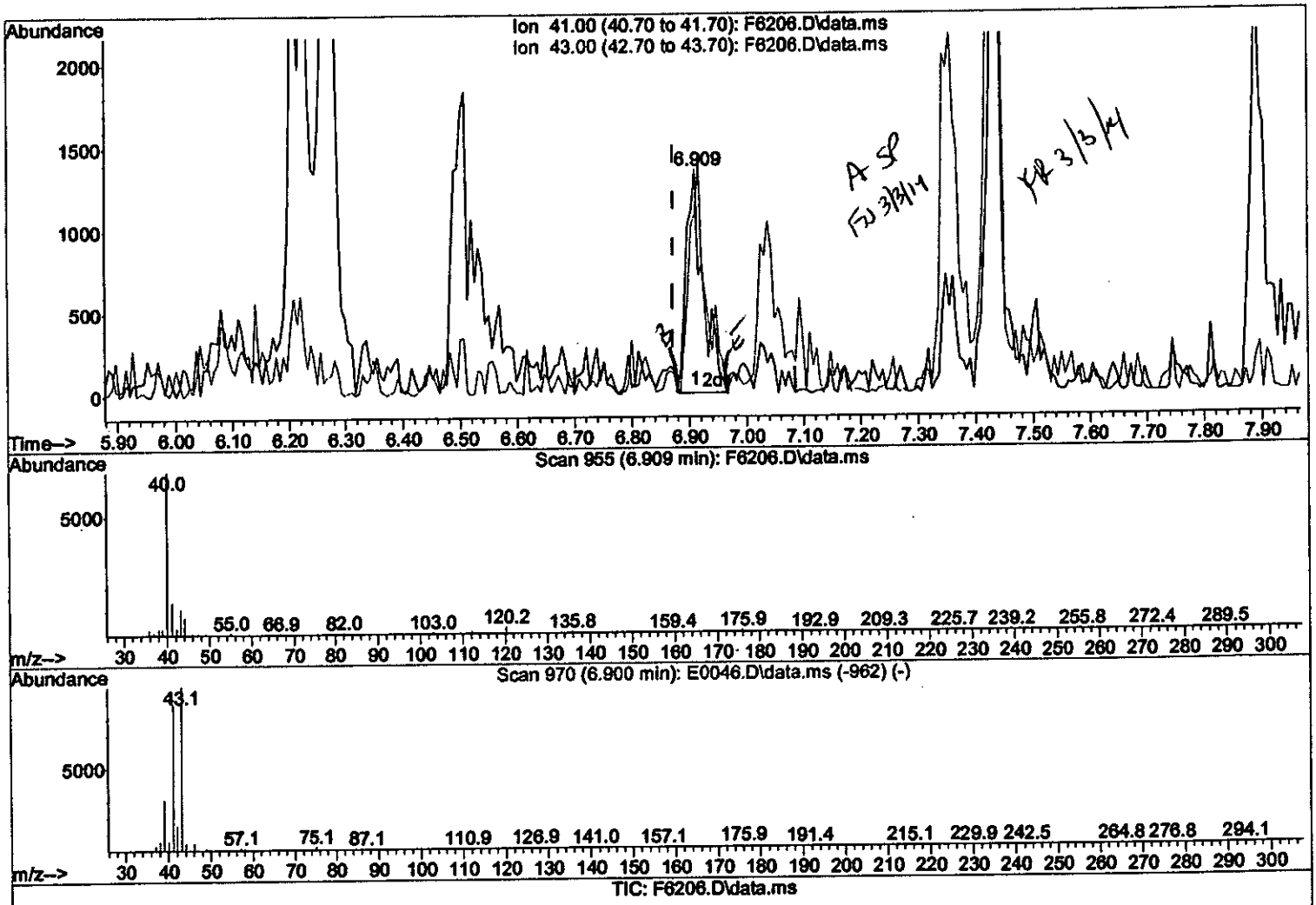
response 2232

Ion	Exp%	Act%
41.00	100	100
43.00	108.60	79.48#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6206.D\data.ms

(61) 2-Nitropropane

6.909min (+0.039) 0.00 ug/L m

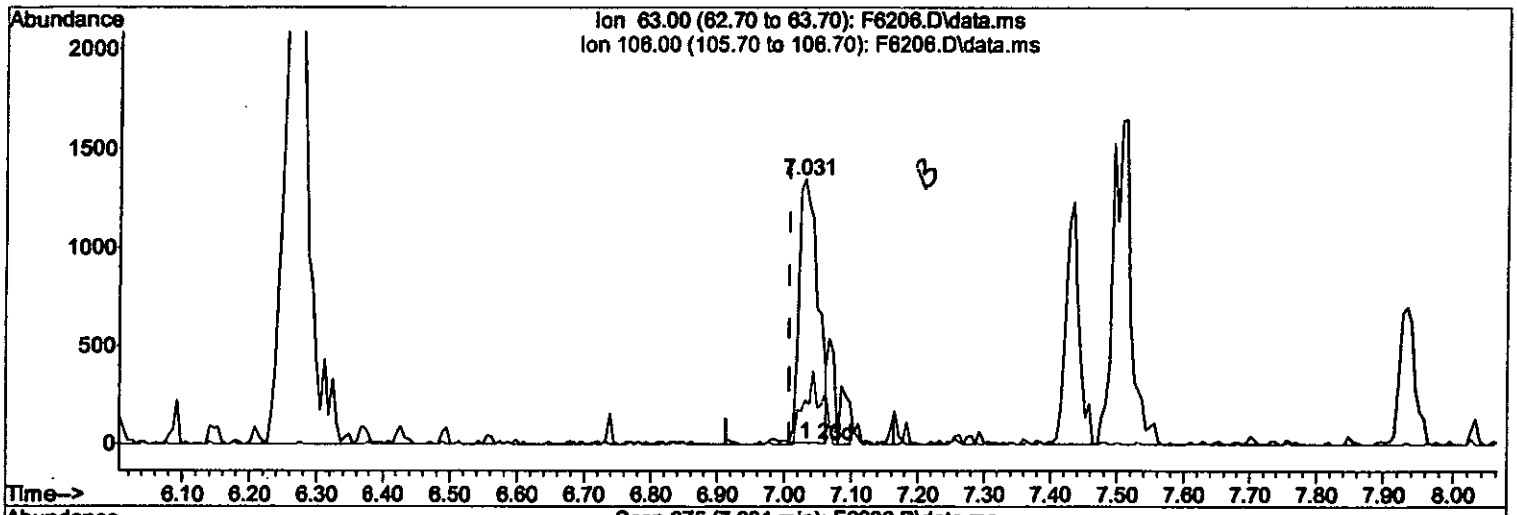
response 2709

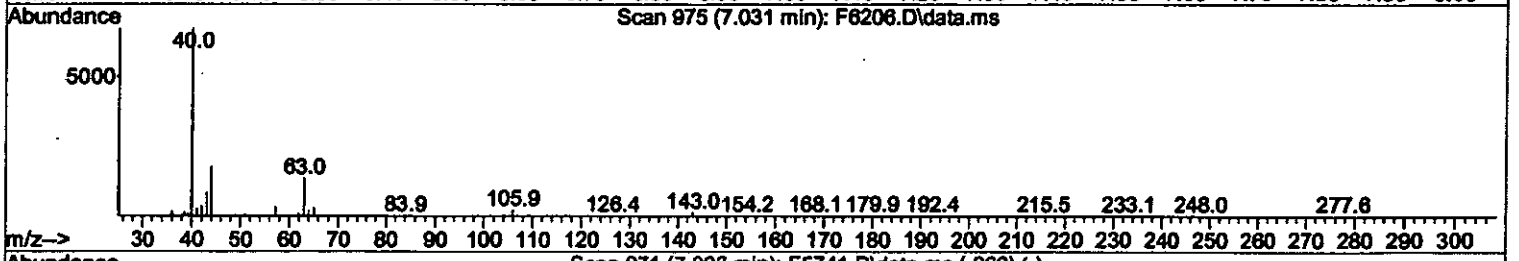
Ion	Exp%	Act%
41.00	100	100
43.00	108.60	79.48#
0.00	0.00	0.00
0.00	0.00	0.00

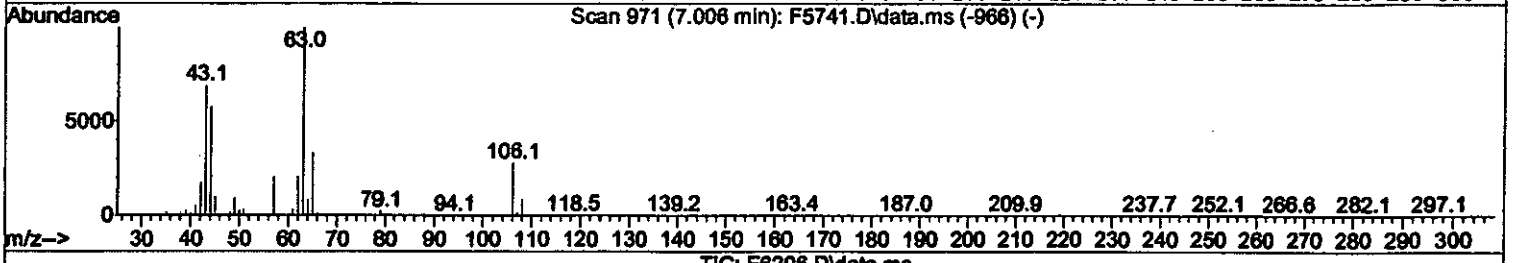
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(62) 2-Chloroethylvinyl Ether

7.031min (+0.025) 0.81 ug/L

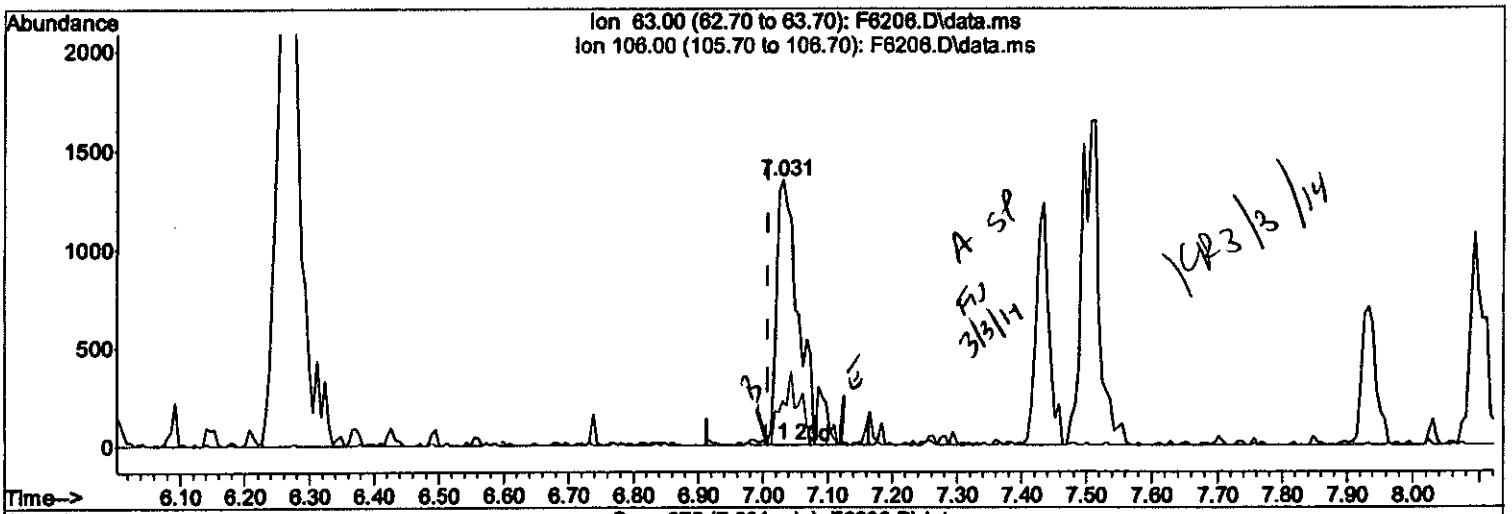
response 2652

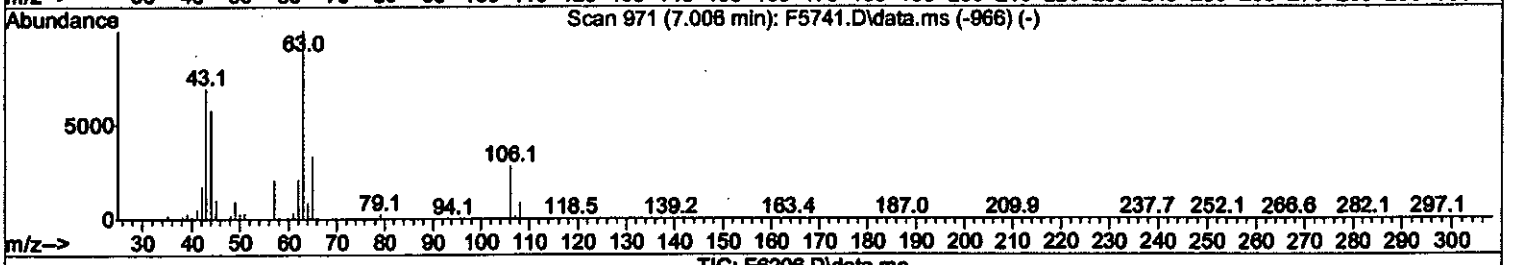
Ion	Exp%	Act%
63.00	100	100
106.00	27.80	16.51
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration





TIC: F6206.D\data.ms

(62) 2-Chloroethylvinyl Ether

7.031min (+0.025) 1.03 ug/L m

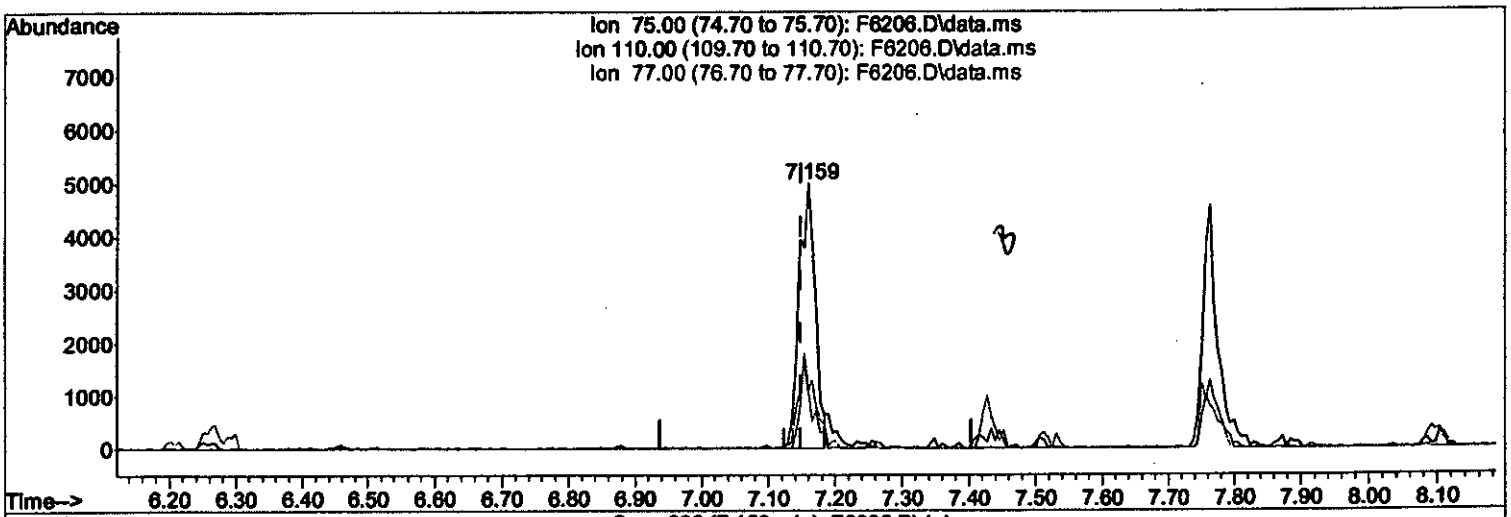
response 3385

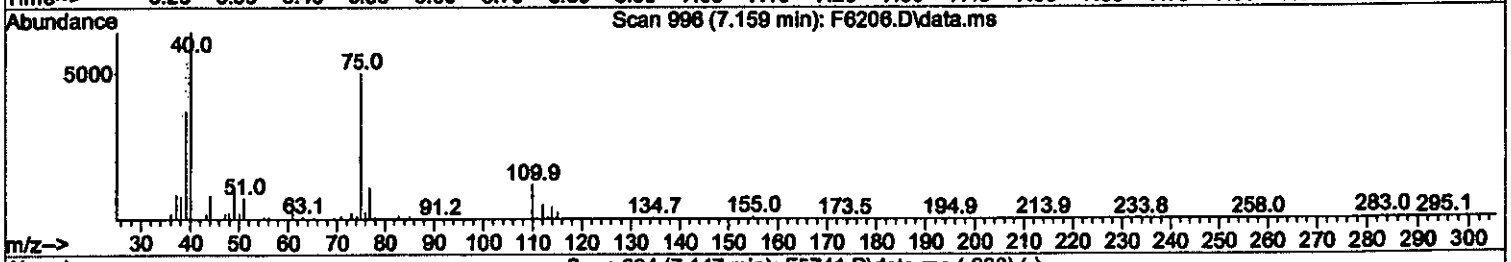
Ion	Exp%	Act%
63.00	100	100
106.00	27.80	16.51
0.00	0.00	0.00
0.00	0.00	0.00

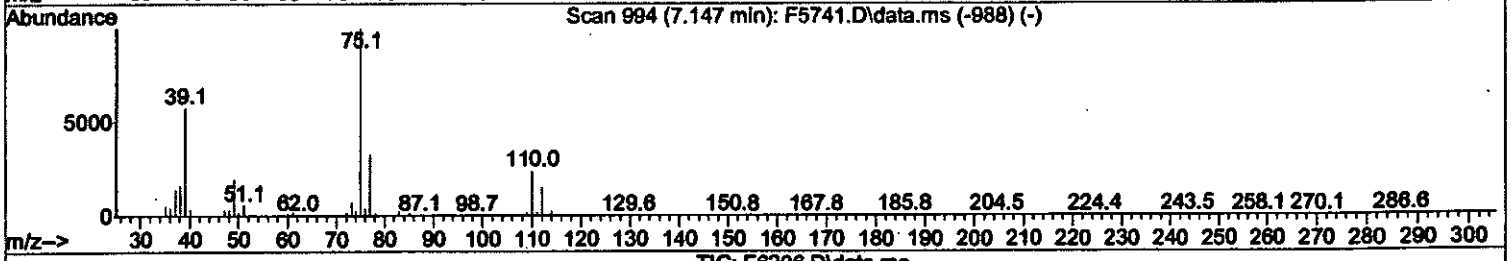
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(63) cis-1,3-Dichloropropene (P)

7.159min (+0.012) 0.78 ug/L

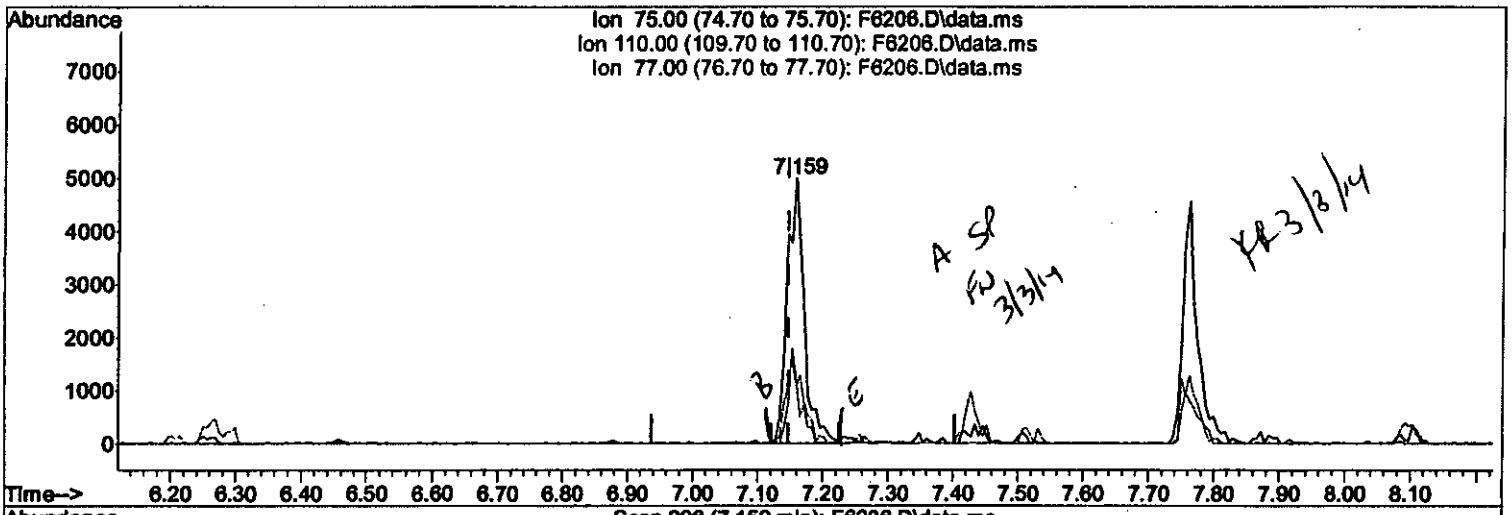
response 8389

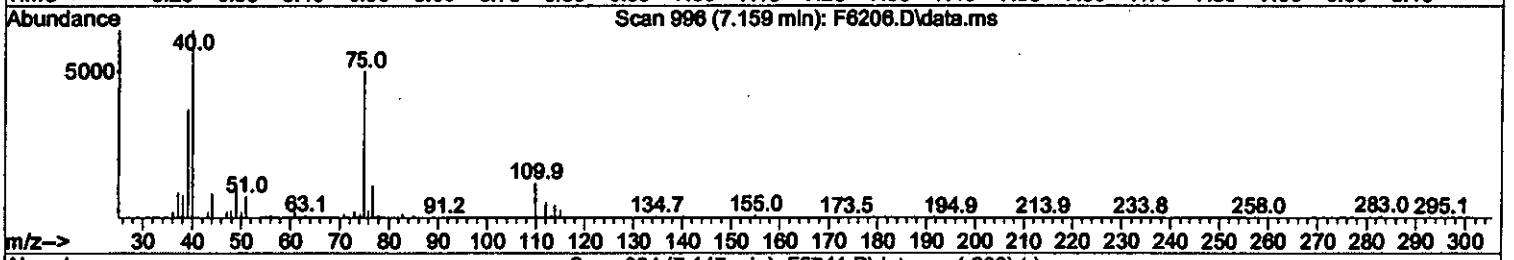
Ion	Exp%	Act%
75.00	100	100
110.00	23.70	23.84
77.00	31.80	21.45
0.00	0.00	0.00

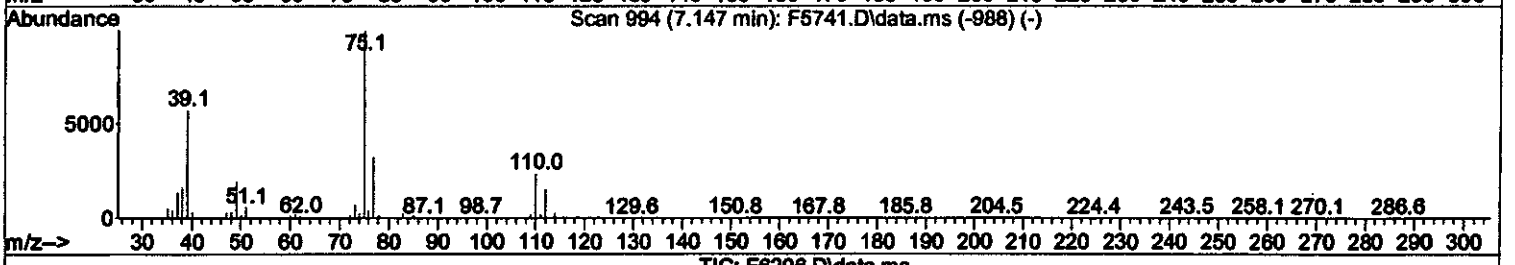
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(63) cis-1,3-Dichloropropene (P)

7.159min (+0.012) 0.83 ug/L m

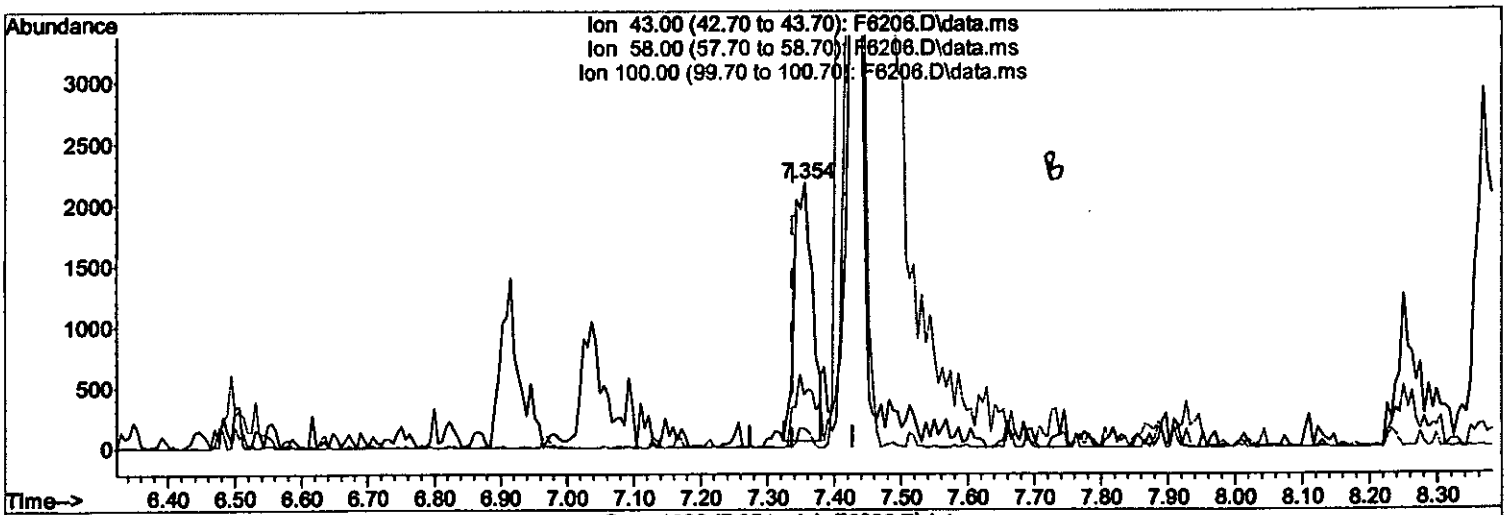
response 6994

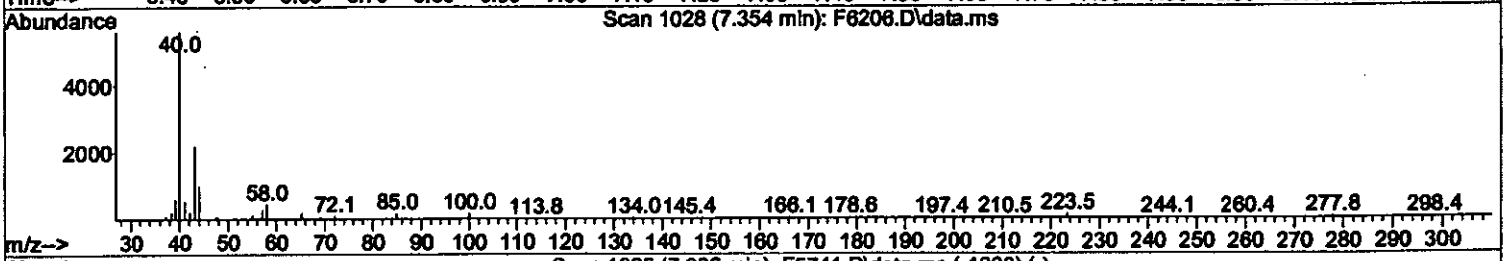
Ion	Exp%	Act%
75.00	100	100
110.00	23.70	23.84
77.00	31.80	21.45
0.00	0.00	0.00

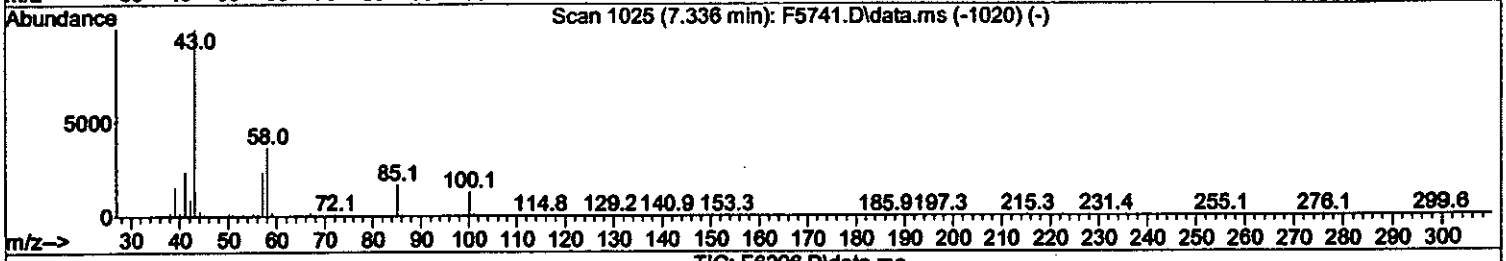
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(64) 4-Methyl-2-pentanone (P)

7.354min (+0.019) 0.90 ug/L

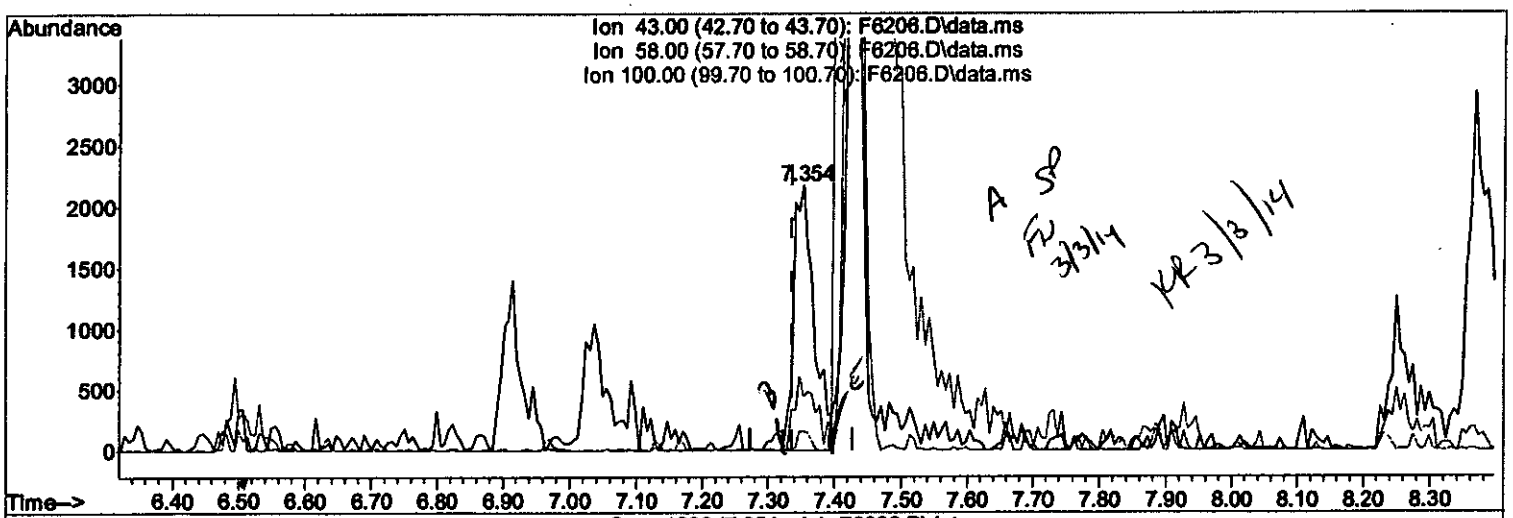
response 4003

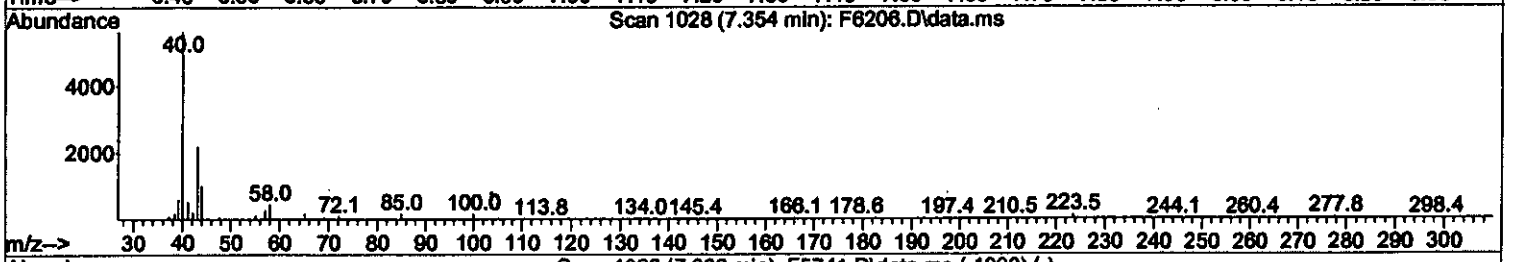
Ion	Exp%	Act%
43.00	100	100
58.00	36.30	20.10
100.00	12.60	7.13
0.00	0.00	0.00

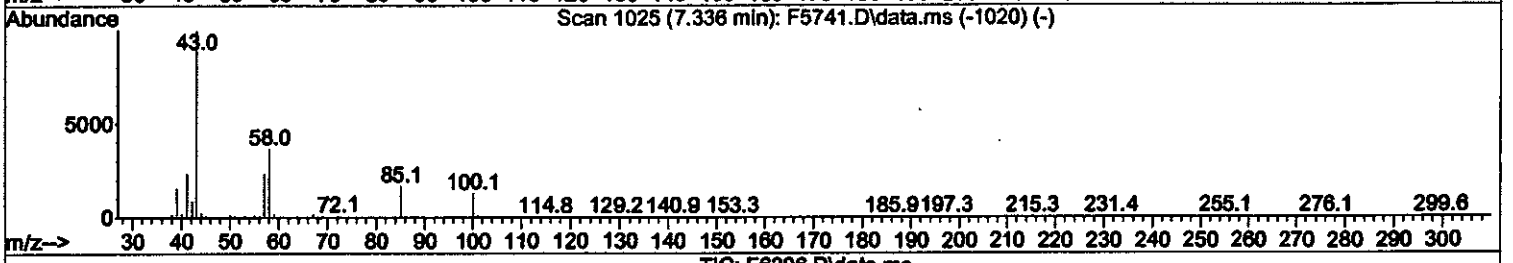
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(64) 4-Methyl-2-pentanone (P)

7.354min (+0.019) 1.04 ug/L m

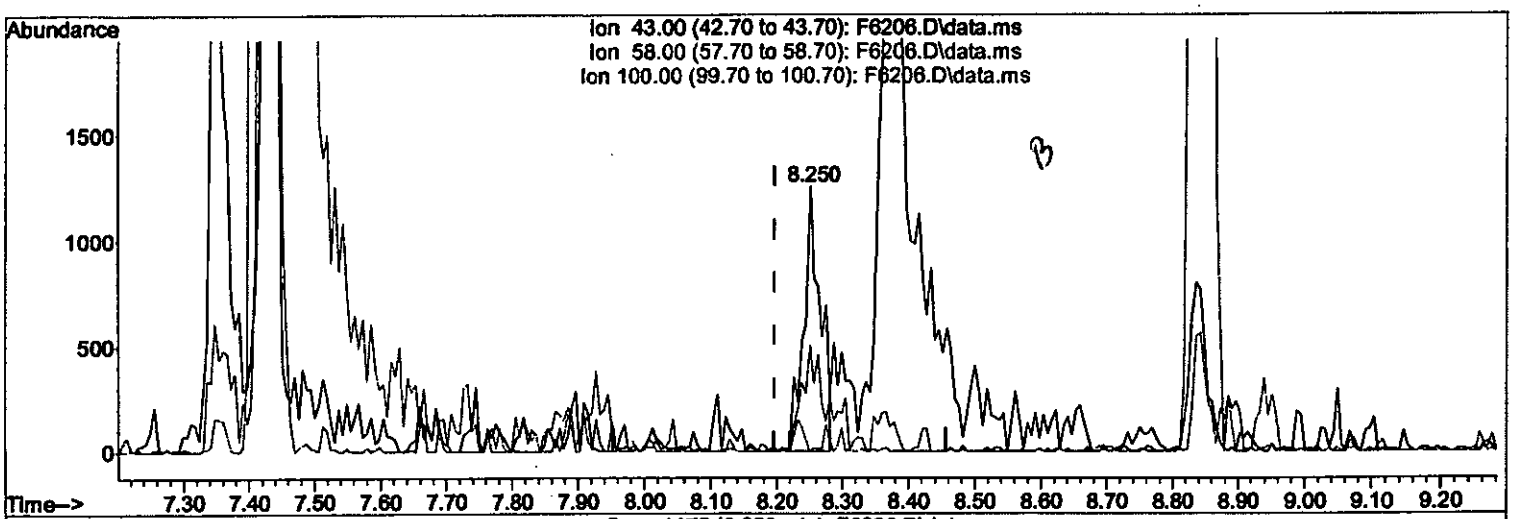
response 4645

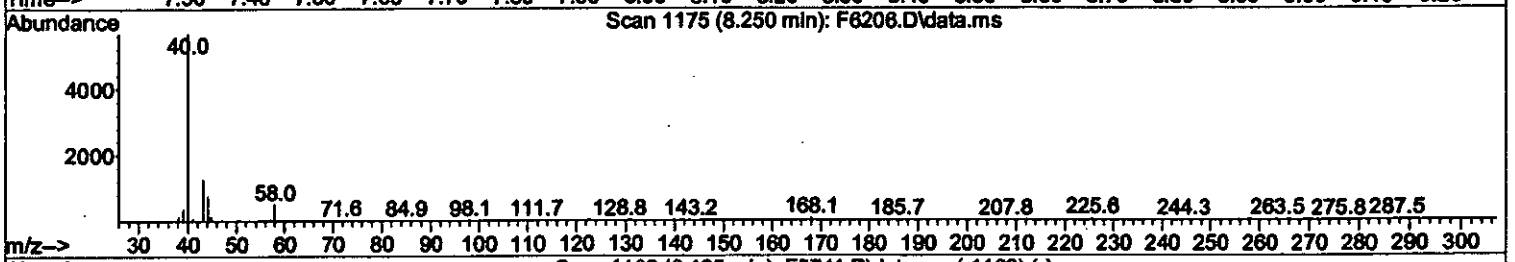
Ion	Exp%	Act%
43.00	100	100
58.00	36.30	20.10
100.00	12.60	7.13
0.00	0.00	0.00

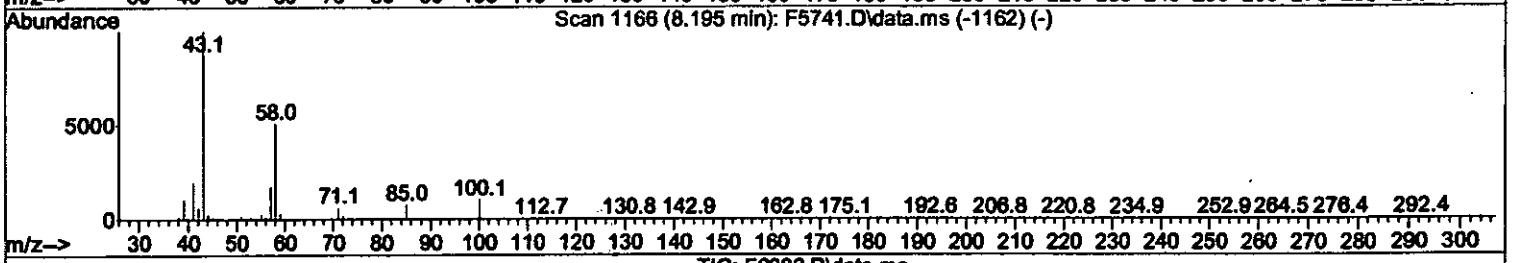
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(73) 2-Hexanone (P)

8.250min (+0.055) 0.68 ug/L

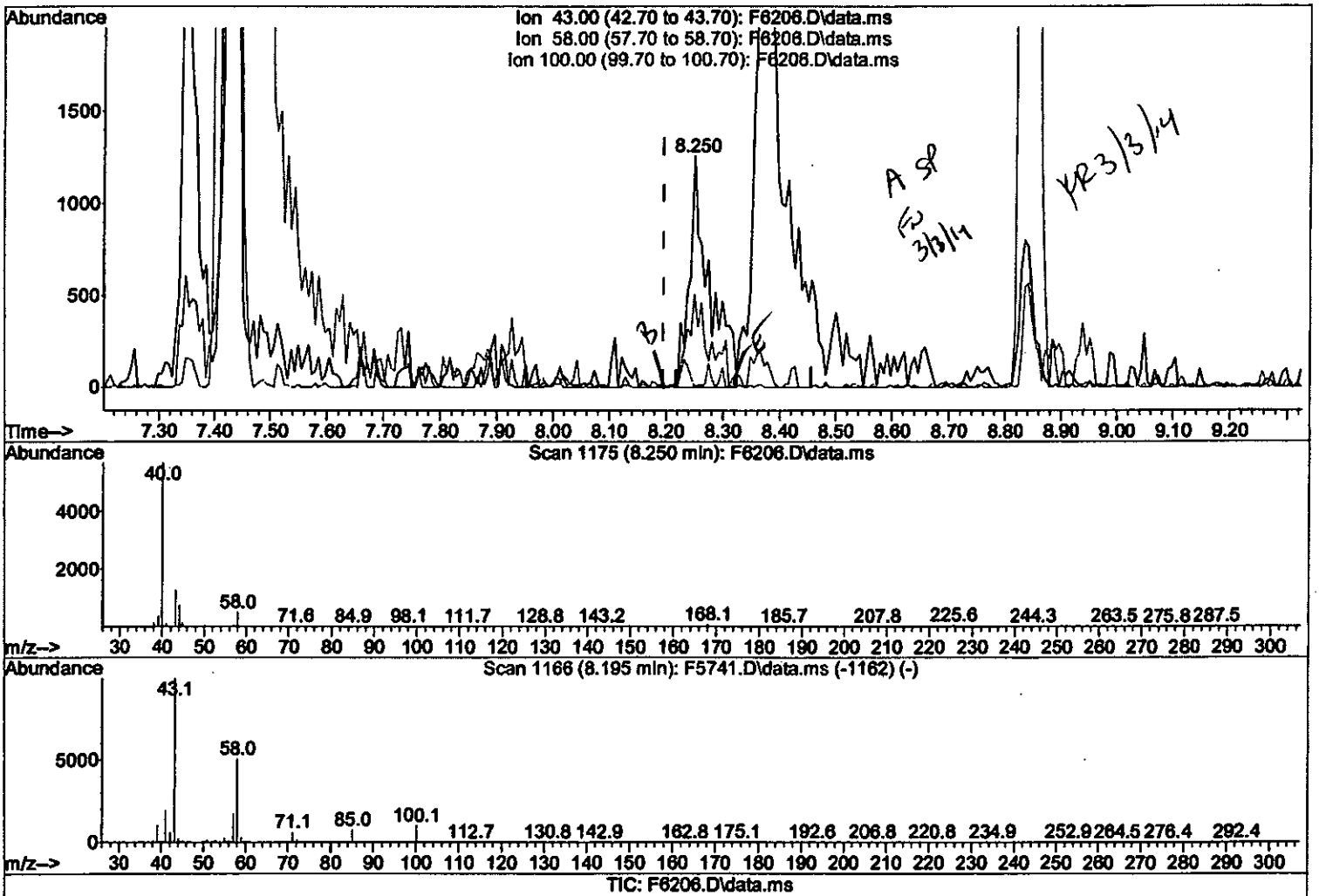
response 2224

Ion	Exp%	Act%
43.00	100	100
58.00	50.80	40.08
100.00	10.10	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6206.D\data.ms

(73) 2-Hexanone (P)

8.250min (+0.055) 0.91 ug/L m

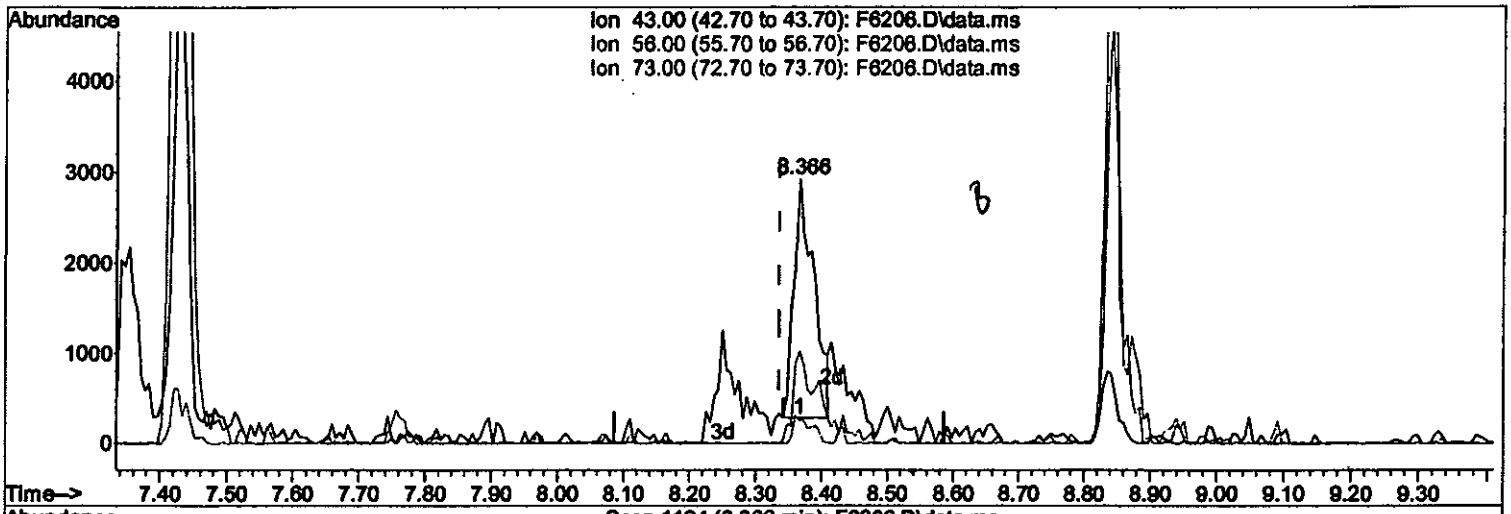
response 3083

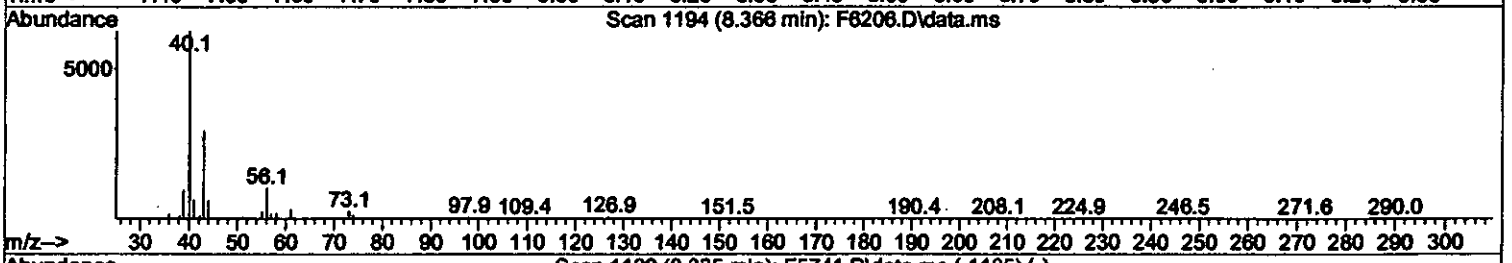
Ion	Exp%	Act%
43.00	100	100
58.00	50.80	40.08
100.00	10.10	0.00
0.00	0.00	0.00

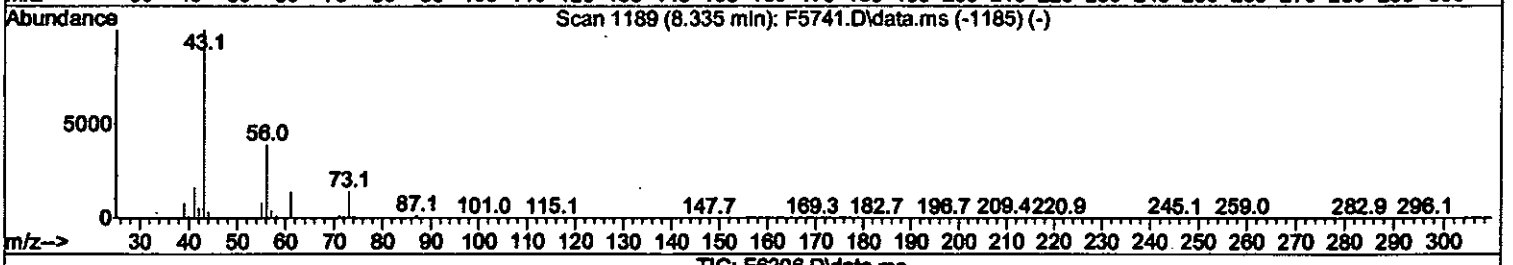
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(76) N-Butyl Acetate

8.366min (+0.031) 0.67 ug/L

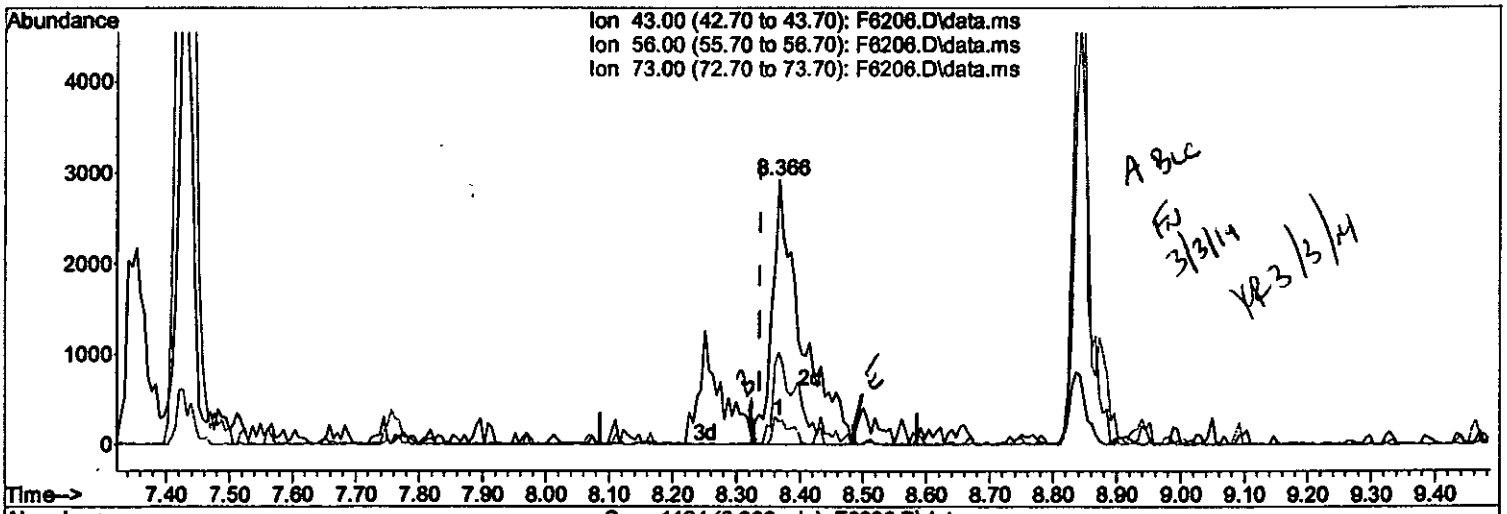
response 5563

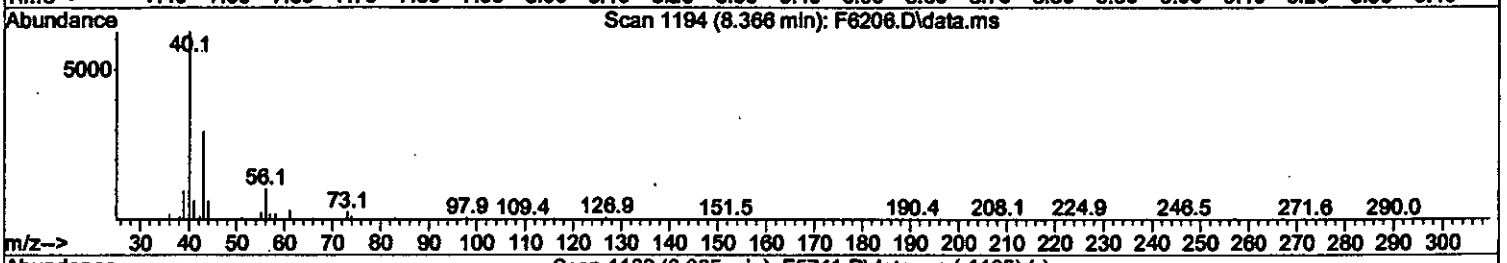
Ion	Exp%	Act%
43.00	100	100
56.00	38.80	34.95
73.00	14.00	8.61
0.00	0.00	0.00

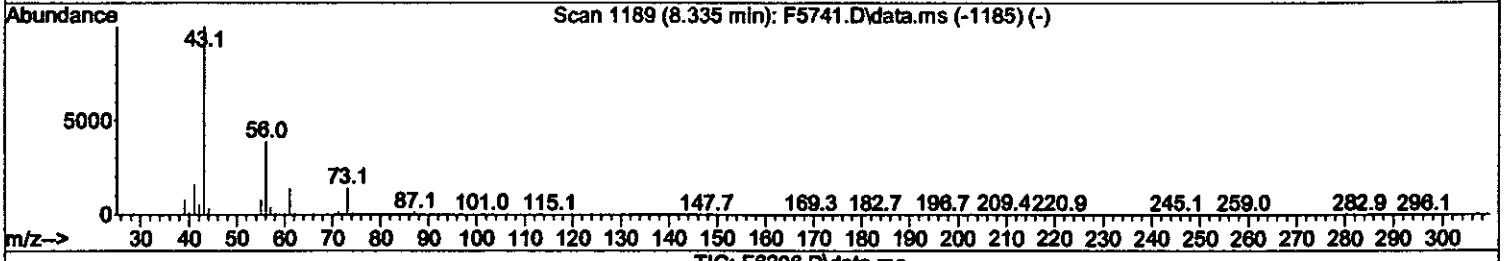
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(76) N-Butyl Acetate

8.366min (+0.031) 1.14 ug/L m

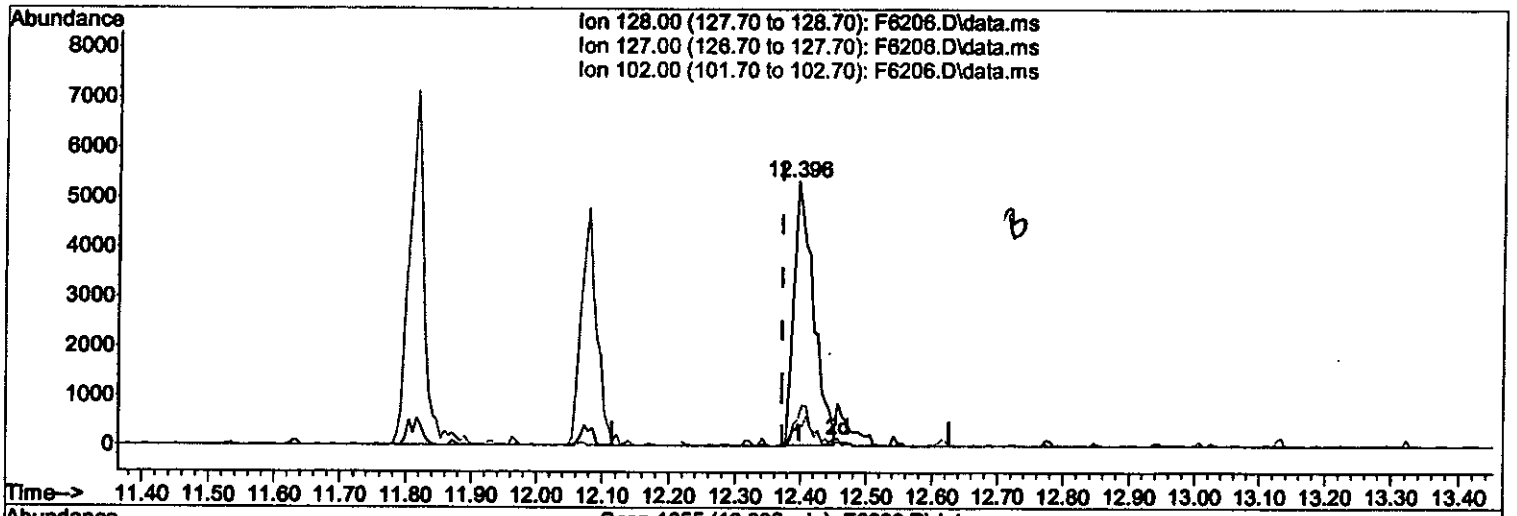
response 9428

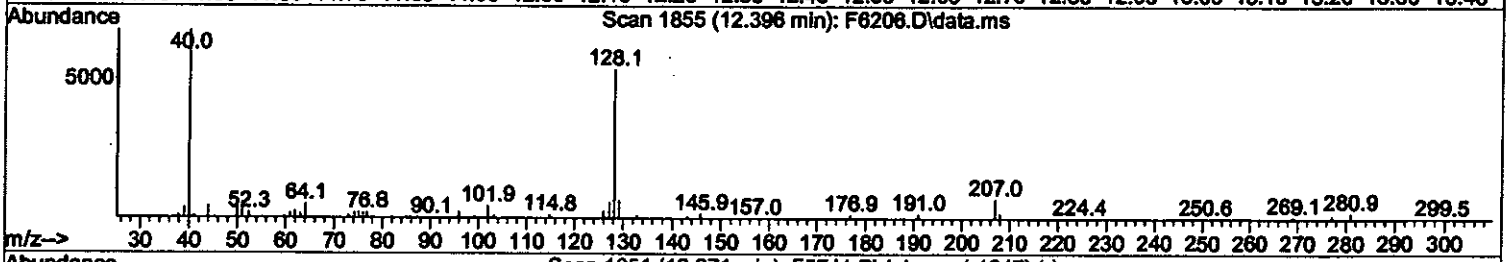
Ion	Exp%	Act%
43.00	100	100
56.00	38.80	34.95
73.00	14.00	8.81
0.00	0.00	0.00

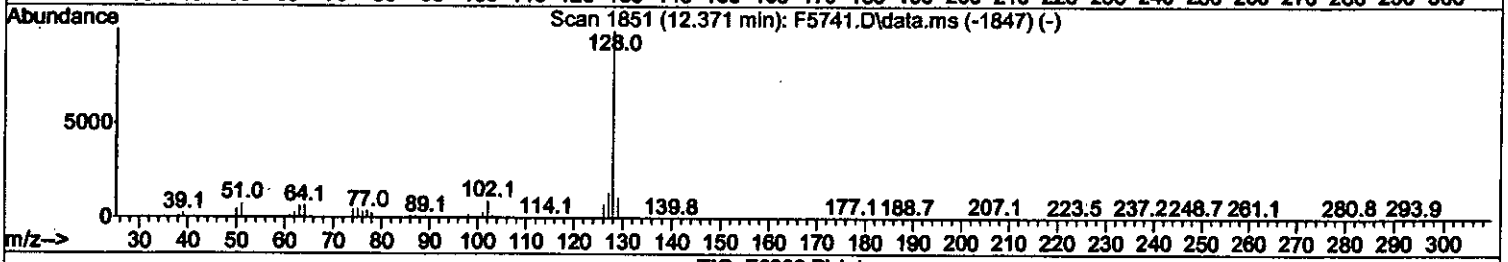
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:03:10 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(117) Naphthalen

12.396min (+0.025) 0.79 ug/L

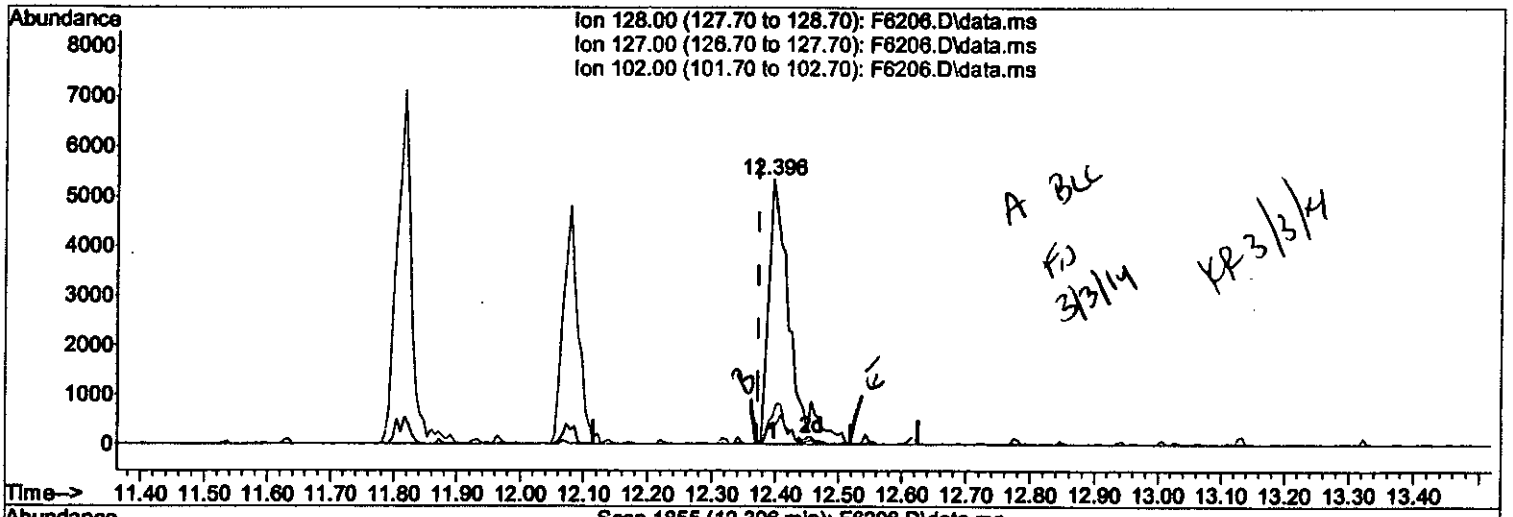
response 11083

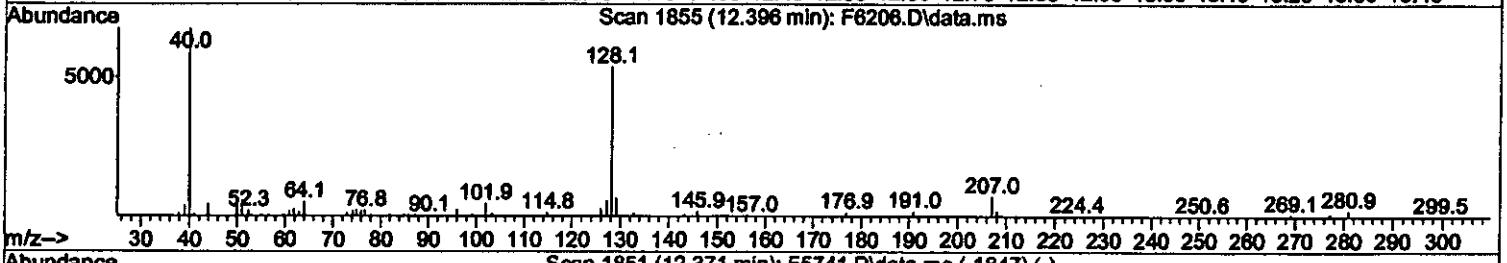
Ion	Exp%	Act%
128.00	100	100
127.00	12.90	10.42
102.00	6.70	6.23
0.00	0.00	0.00

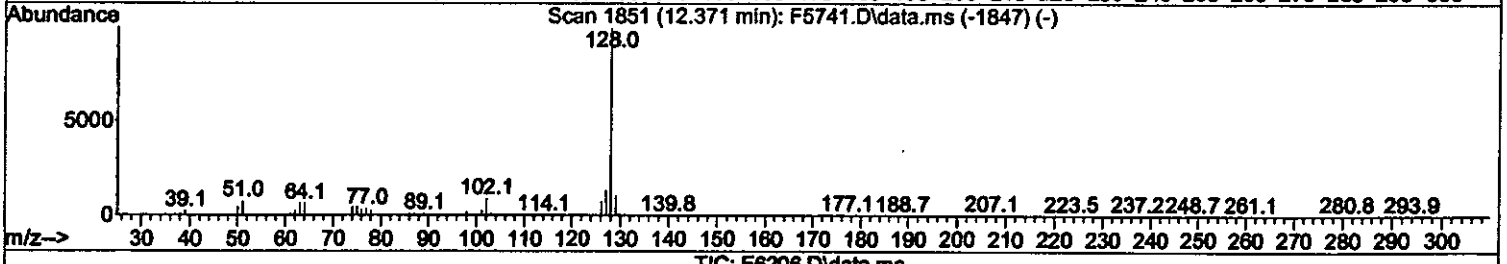
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:03:10 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(117) Naphthalen

12.396min (+0.025) 0.88 ug/L m

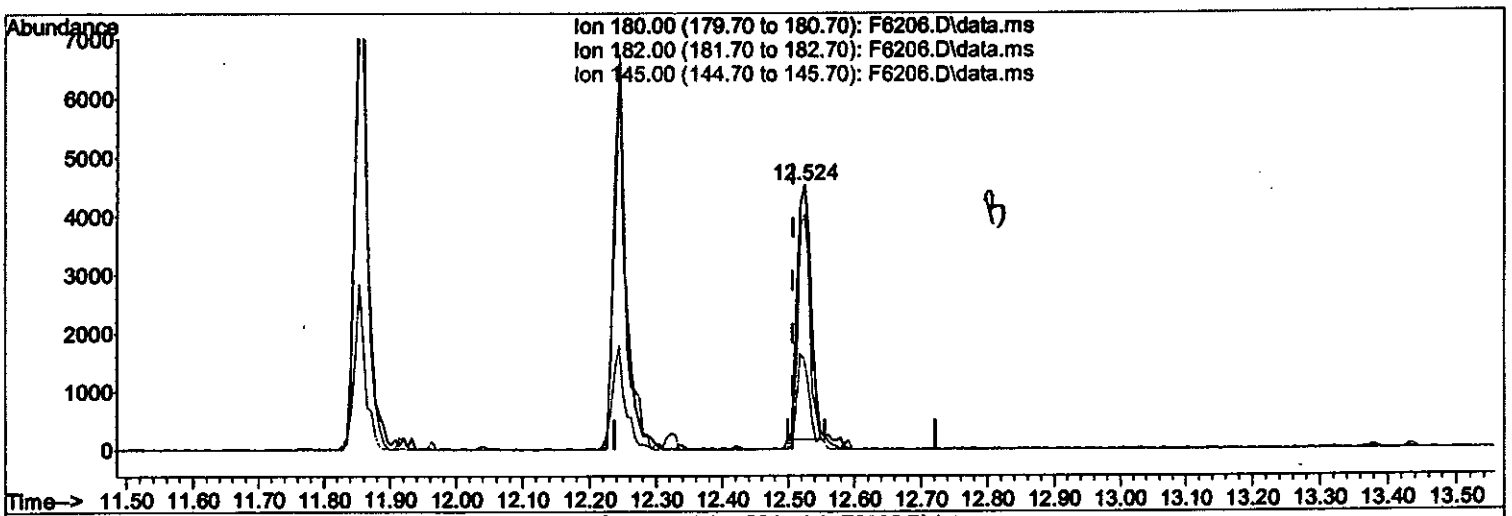
response 12472

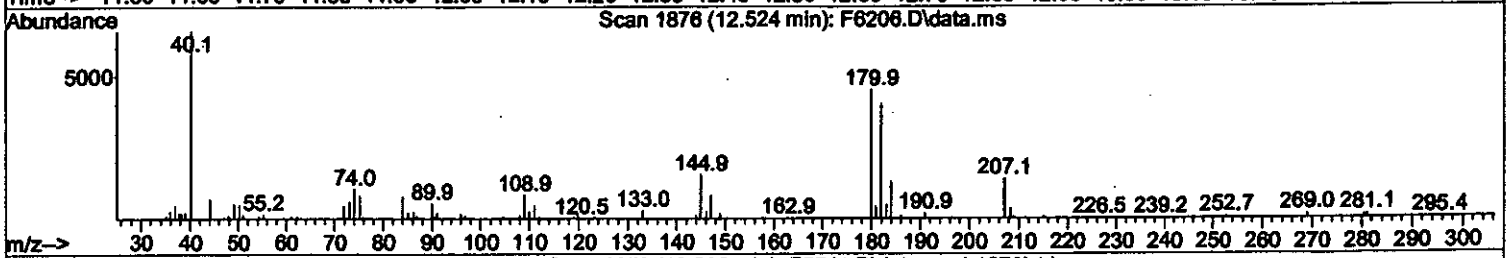
Ion	Exp%	Act%
128.00	100	100
127.00	12.90	10.42
102.00	8.70	8.23
0.00	0.00	0.00

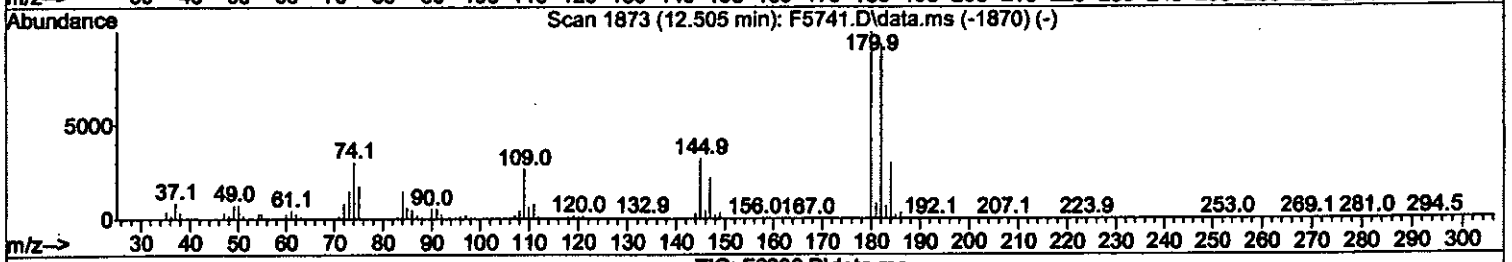
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(118) 1,2,3-Tcibenzene

12.524min (+0.019) 0.96 ug/L

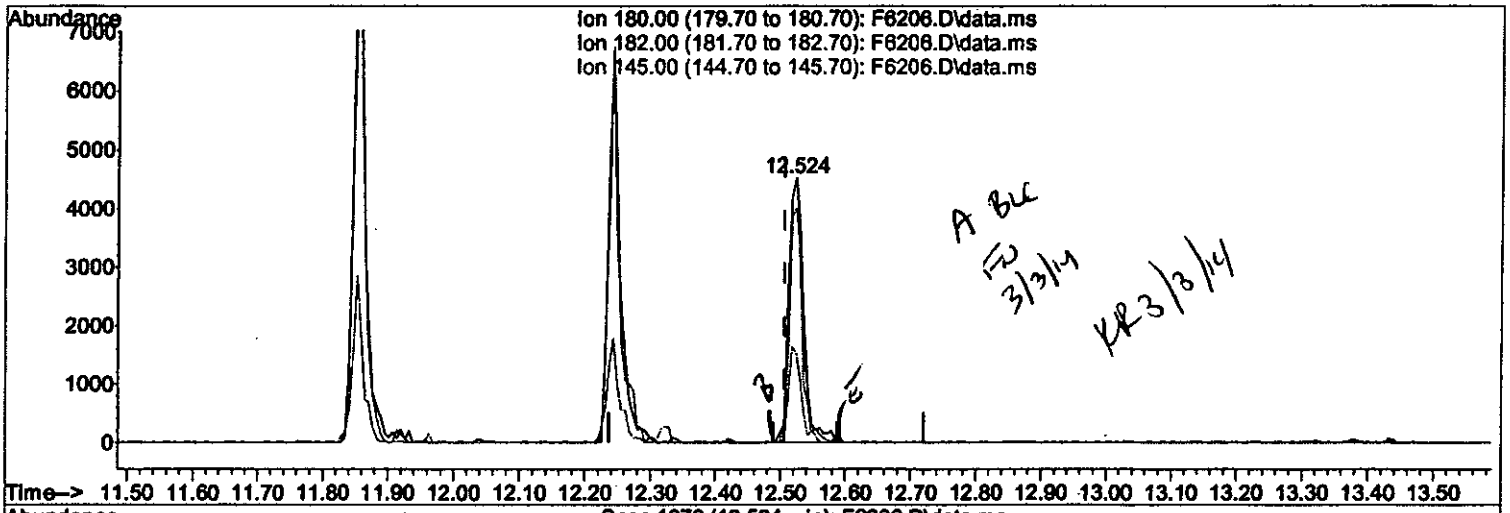
response 6194

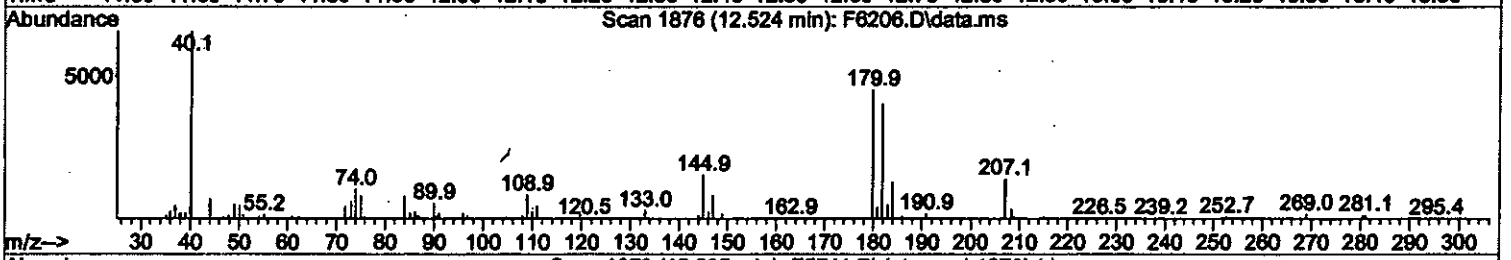
Ion	Exp%	Act%
180.00	100	100
182.00	92.80	88.84
145.00	32.20	33.87
0.00	0.00	0.00

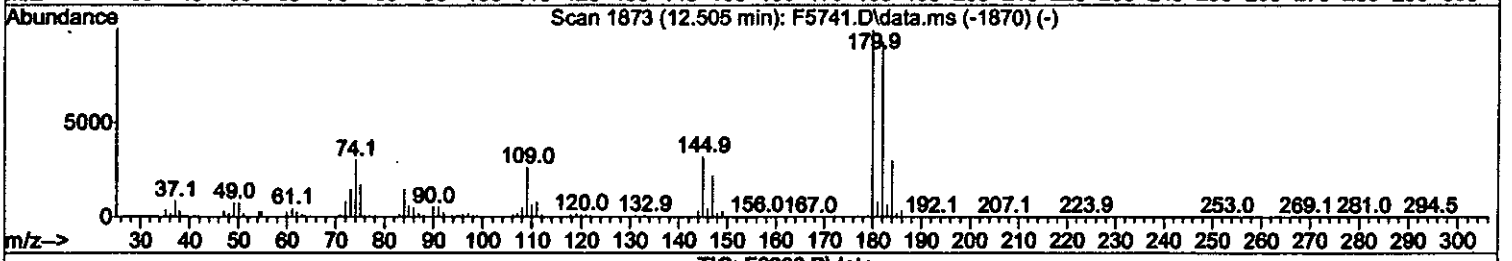
Quantitation Report (Qedit)

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 12:52:24 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6206.D\data.ms

(118) 1,2,3-Tclbenzene

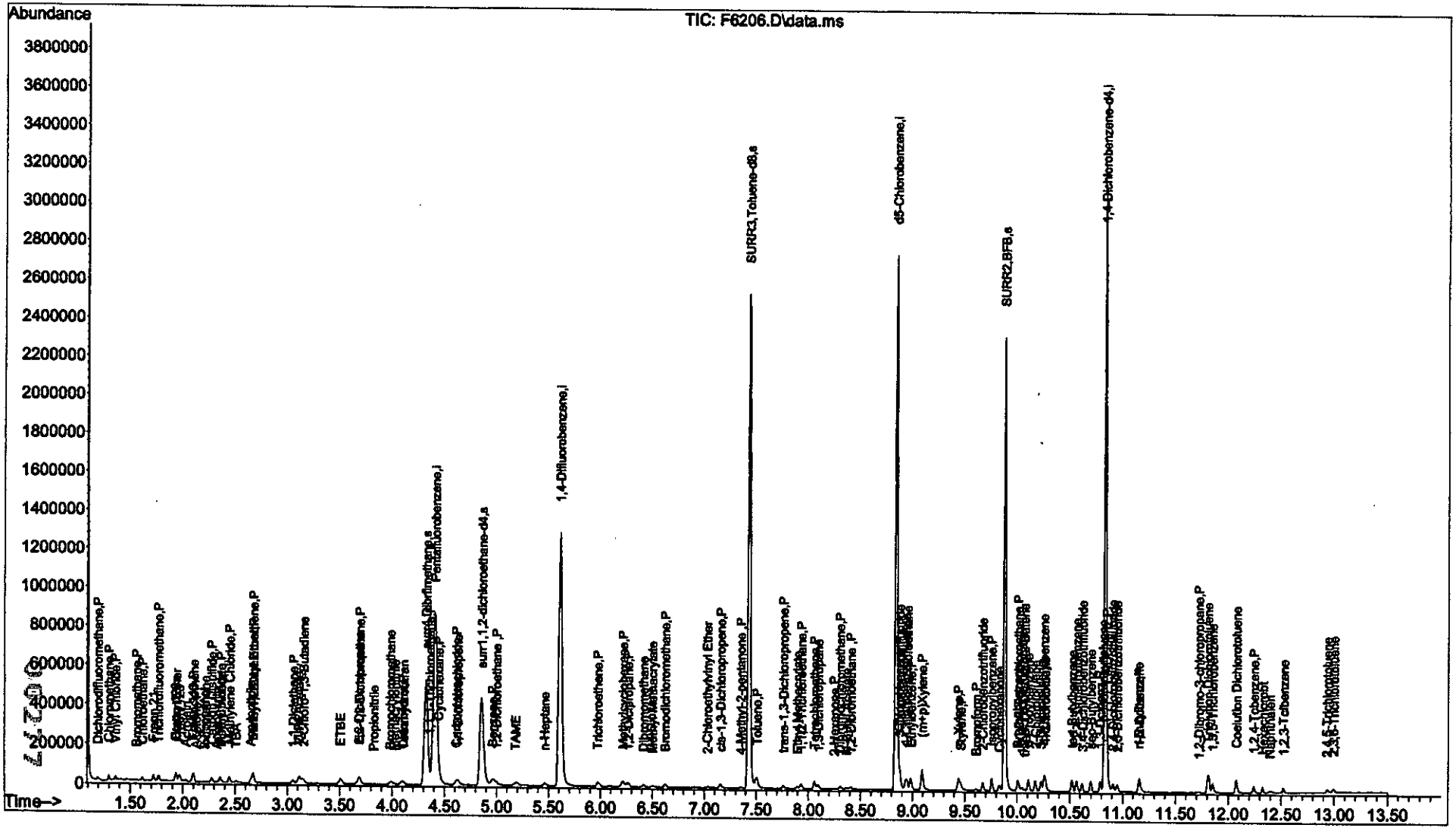
12.524min (+0.019) 1.10 ug/L m

response 7115

Ion	Exp%	Act%
180.00	100	100
182.00	92.80	88.84
145.00	32.20	33.87
0.00	0.00	0.00

Sample : 1.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6206.D Vial: 4
Acq On : 28 Feb 2014 12:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:53:56 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FJ 3/3/14

Quant Time: Mar 03 08:55:15 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	804057	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.610	114	1180889	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1086839	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	599497	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	391226	52.29	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.58%			
48) surr1,1,2-dichloroetha...	4.861	65	423441	53.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.38%			
65) SURR3,Toluene-d8	7.427	98	1398480	51.47	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.94%			
70) SURR2,BFB	9.878	95	573632	51.59	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.197	85	17070	2.14	ug/L	90
3) Chloromethane	1.300	50	20870	2.59	ug/L	89
4) Vinyl Chloride	1.361	62	19740	2.43	ug/L	99
5) Bromomethane	1.562	94	3041	1.08	ug/L	88
6) Chloroethane	1.617	64	12155	2.65	ug/L	100
7) Freon 21	1.721	67	32506	2.32	ug/L	97
8) Trichlorofluoromethane	1.770	101	25294	2.22	ug/L	98
9) Diethyl Ether	1.940	59	11881	2.64	ug/L	94
10) Freon 123a	1.934	67	19750	2.19	ug/L	94
11) Freon 123	1.971	83	21018	2.15	ug/L	100
12) Acrolein	2.032	56	10252	18.87	ug/L	87
13) 1,1-Diclethene	2.105	96	11901	2.21	ug/L	94
14) Freon 113	2.093	101	13245	2.80	ug/L	95
15) Acetone	2.123	43	5426	3.65	ug/L	96
16) 2-Propanol	2.202	45	11568	46.88	ug/L	92
17) Iodomethane	2.221	142	2088	0.37	ug/L	96
18) Carbon Disulfide	2.276	76	40221	2.08	ug/L	98
19) Acetonitrile	2.318	40	2672m	14.84	ug/L	
20) Allyl Chloride	2.355	76	6044	1.87	ug/L #	18
21) Methyl Acetate	2.361	43	8861	2.73	ug/L	88
22) Methylene Chloride	2.440	84	15420	2.22	ug/L	90
23) TBA	2.513	59	17947	42.04	ug/L	79
24) Acrylonitrile	2.641	53	18886	12.50	ug/L	93
25) Methyl-t-Butyl Ether	2.666	73	32618	1.98	ug/L	84
26) trans-1,2-Dichloroethene	2.672	96	14623	2.14	ug/L	96
28) 1,1-Diclethane	3.050	63	29011	2.26	ug/L	99
29) Vinyl Acetate	3.105	86	1708	1.83	ug/L #	31
30) DIPE	3.111	45	59661	2.49	ug/L #	76
31) 2-Chloro-1,3-Butadiene	3.147	53	26602	2.28	ug/L	75
32) ETBE	3.507	59	45394	2.13	ug/L	94
33) 2,2-Dichloropropane	3.684	77	18755	1.73	ug/L	94
34) cis-1,2-Dichloroethene	3.690	96	16512	2.16	ug/L #	81
35) 2-Butanone	3.769	43	5298m	2.58	ug/L	
36) Propionitrile	3.800	54	5810	11.55	ug/L	86
37) Bromochloromethane	3.989	130	10035	2.26	ug/L	89

Quantitation Report (QT Reviewed)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:55:15 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
38) Methacrylonitrile	4.007	67	3632	2.02 ug/L	#	76
39) Tetrahydrofuran	4.074	42	3234	2.59 ug/L		72
40) Chloroform	4.092	83	28724	2.21 ug/L		90
41) 1,1,1-Trichloroethane	4.361	97	22334	2.01 ug/L		96
42) TAME	5.184	73	35307	2.00 ug/L		98
44) Cyclohexane	4.446	41	18693	2.64 ug/L		83
46) Carbontetrachloride	4.629	121	6090	2.08 ug/L	#	58
47) 1,1-Dichloropropene	4.629	75	18775	2.11 ug/L		81
49) Benzene	4.964	78	58584	2.09 ug/L		92
50) 1,2-Dichloroethane	4.995	62	22550	2.38 ug/L		86
51) Iso-Butyl Alcohol	4.885	43	6988m	41.92 ug/L		
52) n-Heptane	5.458	43	15924	2.64 ug/L	#	84
53) 1-Butanol	6.007	56	6509m	78.09 ug/L		
54) Trichloroethene	5.970	130	15037	1.98 ug/L	#	85
55) Methylcyclohexane	6.214	55	21586	2.54 ug/L	#	74
56) 1,2-Diclpropane	6.263	63	15929	2.17 ug/L		99
57) Dibromomethane	6.415	93	9086	2.23 ug/L	#	83
58) 1,4-Dioxane	6.488	88	1353m	30.97 ug/L		
59) Methyl Methacrylate	6.482	69	5798	1.74 ug/L		90
60) Bromodichloromethane	6.622	83	17385	1.79 ug/L		95
62) 2-Chloroethylvinyl Ether	7.025	63	5548	1.72 ug/L		99
63) cis-1,3-Dichloropropene	7.153	75	18097	1.71 ug/L		98
64) 4-Methyl-2-pentanone	7.348	43	9644	2.21 ug/L		89
66) Toluene	7.506	91	63590	2.12 ug/L		97
67) trans-1,3-Dichloropropene	7.756	75	14514	1.67 ug/L		87
68) Ethyl Methacrylate	7.884	69	10157	1.49 ug/L		87
69) 1,1,2-Trichloroethane	7.927	97	10705	1.96 ug/L		95
72) Tetrachloroethene	8.055	164	12300	1.91 ug/L		94
73) 2-Hexanone	8.226	43	6146	1.83 ug/L		87
74) 1,3-Dichloropropane	8.092	76	18603	1.92 ug/L	#	79
75) Dibromochloromethane	8.305	129	12820	1.86 ug/L		94
76) N-Butyl Acetate	8.354	43	15425	1.89 ug/L		96
77) 1,2-Dibromoethane	8.409	107	11265	1.98 ug/L		92
78) 3-Chlorobenzotrifluoride	8.878	180	23097	1.93 ug/L		97
79) Chlorobenzene	8.866	112	43536	2.07 ug/L		96
80) 4-Chlorobenzotrifluoride	8.933	180	20897	1.87 ug/L		93
81) 1,1,1,2-Tetrachloroethane	8.951	131	14501	1.91 ug/L		94
82) Ethylbenzene	8.982	106	20282	1.90 ug/L		97
83) (m+p)Xylene	9.091	106	47728	3.61 ug/L		99
84) o-Xylene	9.439	106	23484	1.80 ug/L		96
85) Styrene	9.451	104	37665	1.80 ug/L		95
86) Bromoform	9.603	173	7624	1.87 ug/L		85
87) 2-Chlorobenzotrifluoride	9.671	180	22193	1.86 ug/L		94
88) Isopropylbenzene	9.756	105	60424	1.90 ug/L		98
89) Cyclohexanone	9.829	55	28765	44.36 ug/L		95
90) trans-1,4-Dichloro-2-B...	10.067	53	3054	2.60 ug/L	#	71
92) 1,1,2,2-Tetrachloroethane	10.012	83	13817	2.06 ug/L		94
93) Bromobenzene	10.006	156	17421	1.85 ug/L		97
94) 1,2,3-Trichloropropane	10.042	110	3418	1.94 ug/L		95
95) n-Propylbenzene	10.103	91	73049	1.98 ug/L		98
96) 2-Chlorotoluene	10.170	91	44040	1.88 ug/L		93
97) 3-Chlorotoluene	10.225	91	46705	1.87 ug/L		98

Quantitation Report (QT Reviewed)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:55:15 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

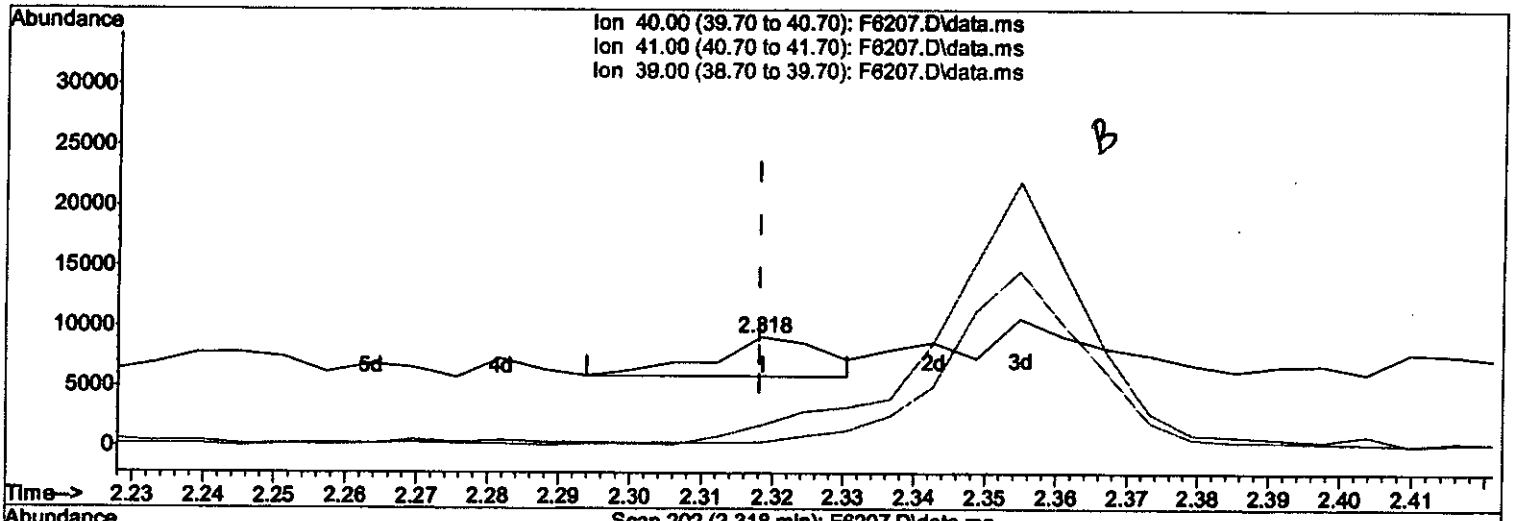
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
98)	4-Chlorotoluene	10.262	91	55492	1.95	ug/L		95
99)	1,3,5-Trimethylbenzene	10.256	105	50904	1.94	ug/L		93
100)	tert-Butylbenzene	10.518	119	42192	1.92	ug/L		97
101)	1,2,4-Trimethylbenzene	10.561	105	52510	1.91	ug/L		96
102)	3,4-Dichlorobenzotrifl...	10.615	214	15934	1.87	ug/L		90
103)	sec-Butylbenzene	10.701	105	57094	1.87	ug/L		95
104)	p-Isopropyltoluene	10.817	119	47871	1.87	ug/L		98
105)	1,3-Dclbenz	10.786	146	33472	1.96	ug/L		96
106)	1,4-Dclbenz	10.853	146	35804	2.04	ug/L		91
107)	2,4-Dichlorobenzotrifl...	10.908	214	13425	1.77	ug/L		83
108)	2,5-Dichlorobenzotrifl...	10.945	214	17984	2.02	ug/L		98
109)	n-Butylbenzene	11.146	91	41041	1.80	ug/L		98
110)	1,2-Dclbenz	11.158	146	31736	2.03	ug/L		96
111)	1,2-Dibromo-3-chloropr...	11.713	157	2266	2.12	ug/L	#	71
112)	Trielution Dichlorotol...	11.810	125	71579	5.62	ug/L		95
113)	1,3,5-Trichlorobenzene	11.853	180	21799	1.94	ug/L		93
114)	Coelution Dichlorotoluene	12.073	125	51132	3.98	ug/L		98
115)	1,2,4-Tcbenzene	12.237	180	17475	1.97	ug/L		96
116)	Hexachlorobt	12.322	225	7878	2.05	ug/L		86
117)	Naphthalen	12.383	128	27462	1.91	ug/L		93
118)	1,2,3-Tclbenzene	12.518	180	14295	2.17	ug/L		95
119)	2,4,5-Trichlorotoluene	12.926	159	9120	2.27	ug/L		84
120)	2,3,6-Trichlorotoluene	12.987	159	8176	2.09	ug/L		95

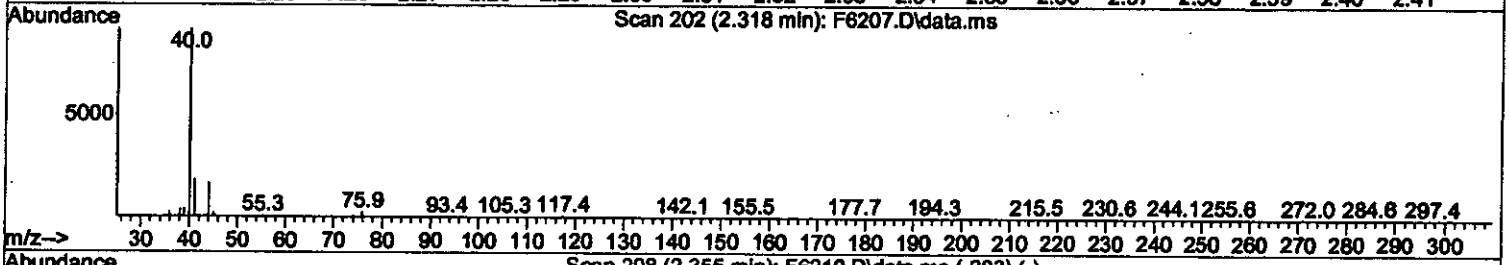
(#) = qualifier out of range (m) = manual integration (+) = signals summed

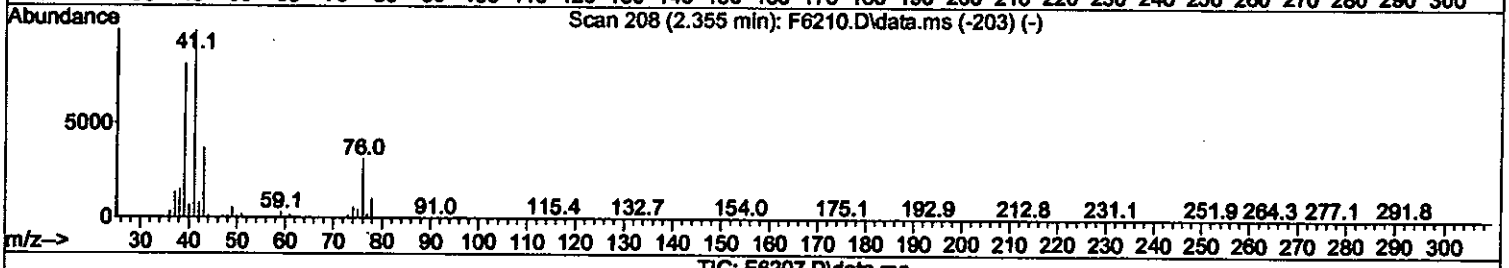
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:07:18 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(19) Acetonitrile

2.318min (+0.000) 20.70 ug/L

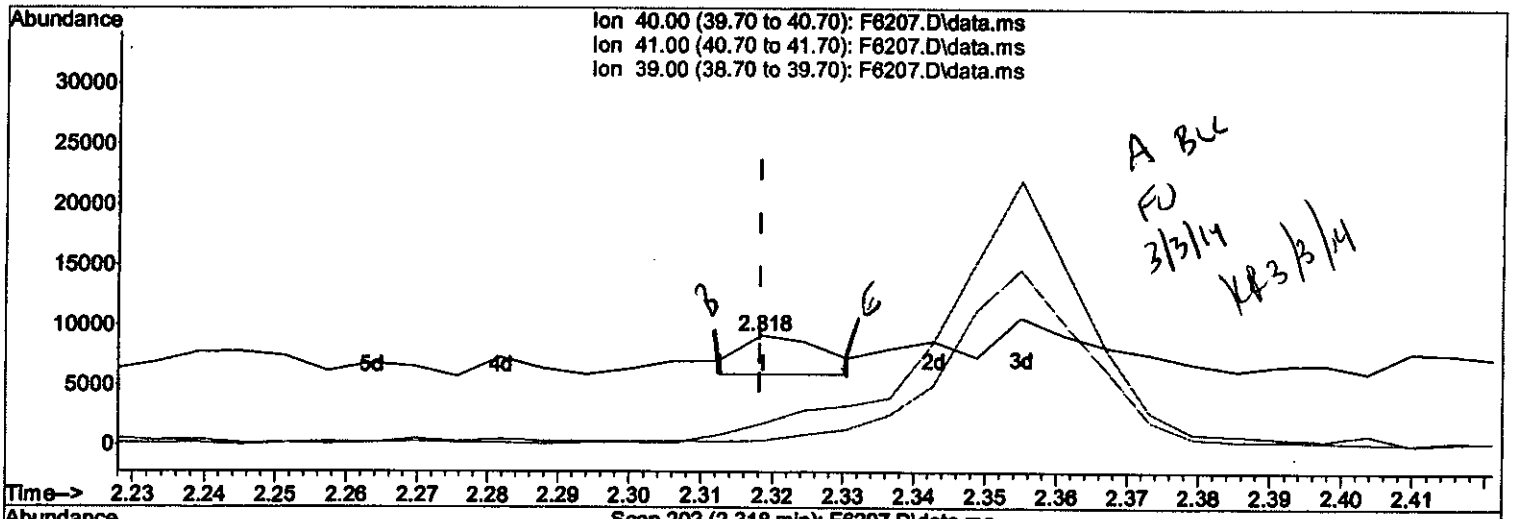
response 3726

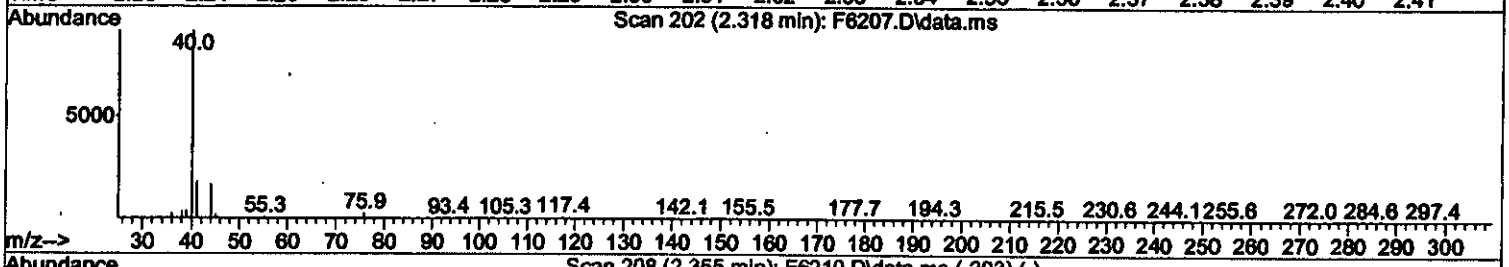
Ion	Exp%	Act%
40.00	100	100
41.00	182.70	19.49#
39.00	36.00	4.01#
0.00	0.00	0.00

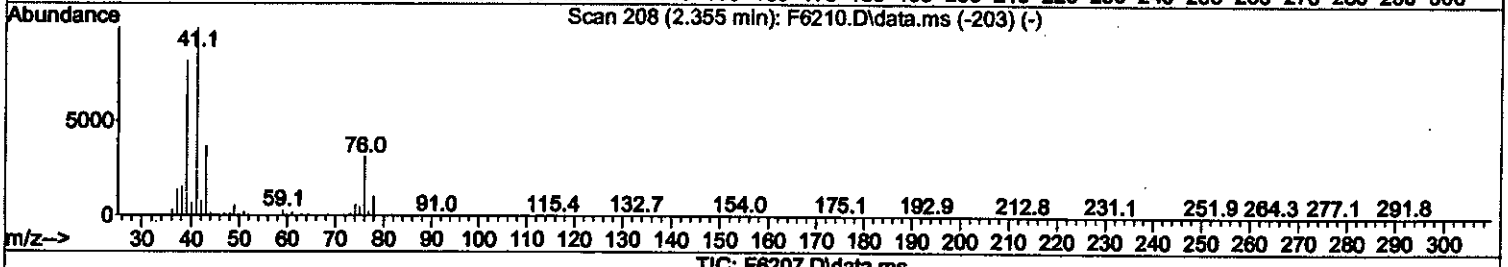
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:07:18 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(19) Acetonitrile

2.318min (+0.000) 14.84 ug/L m

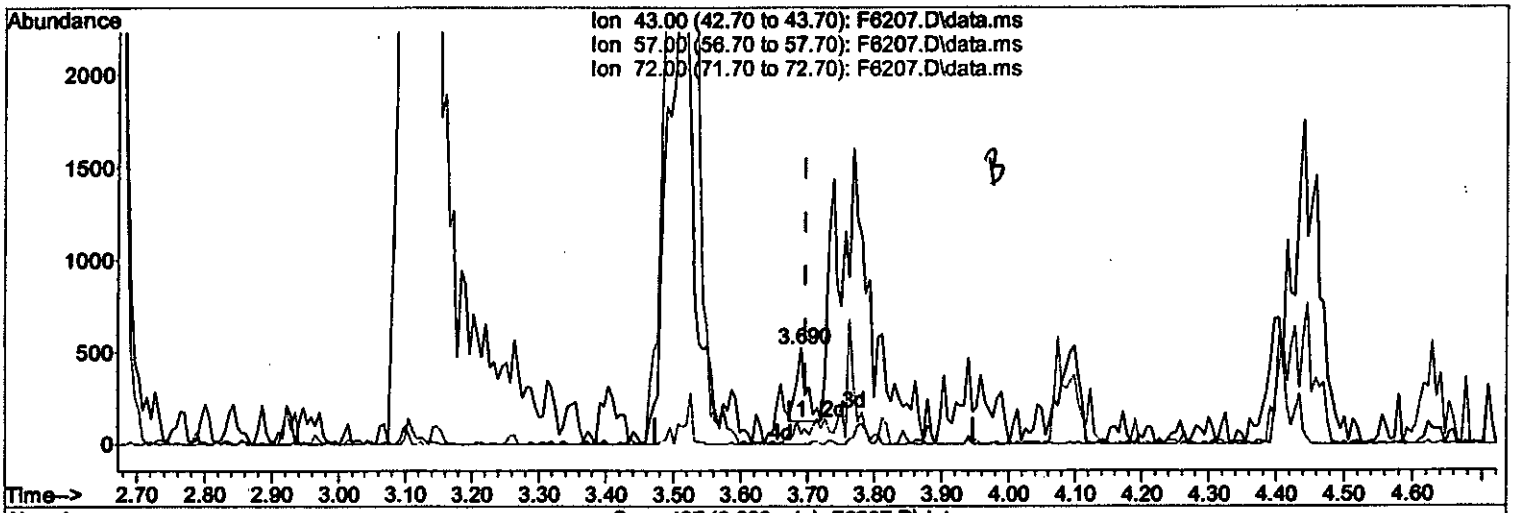
response 2672

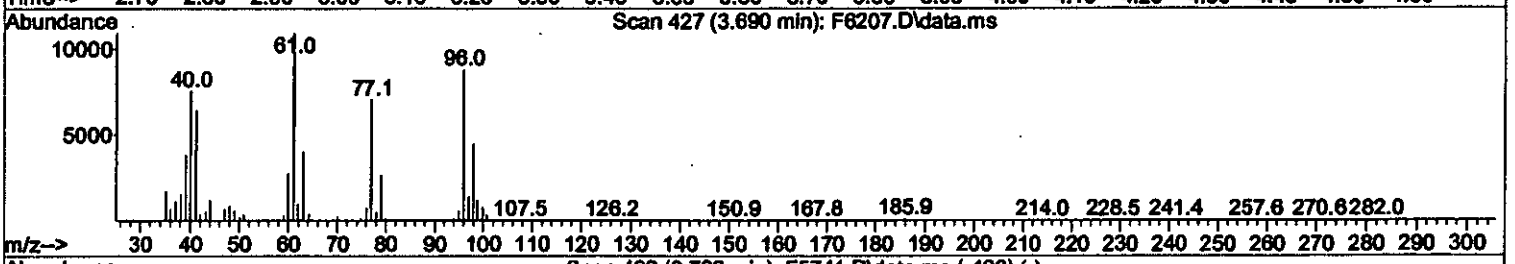
Ion	Exp%	Act%
40.00	100	100
41.00	182.70	19.49#
39.00	36.00	4.01#
0.00	0.00	0.00

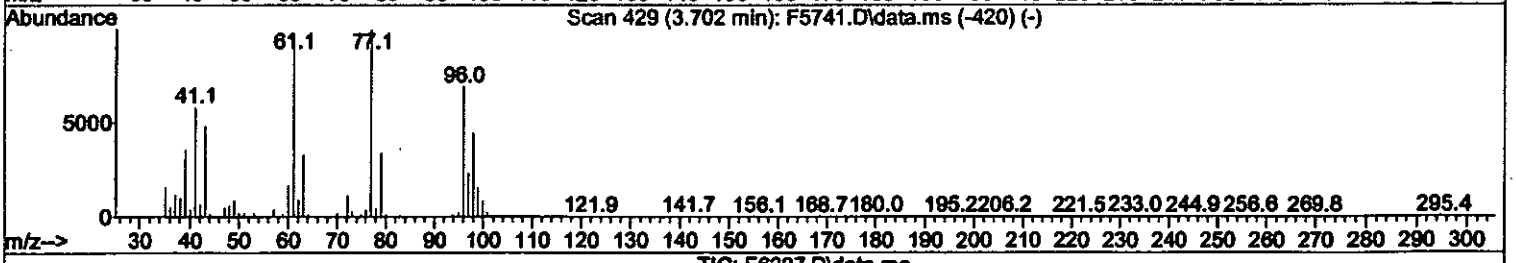
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(35) 2-Butanone (P)

3.690min (-0.006) 0.21 ug/L

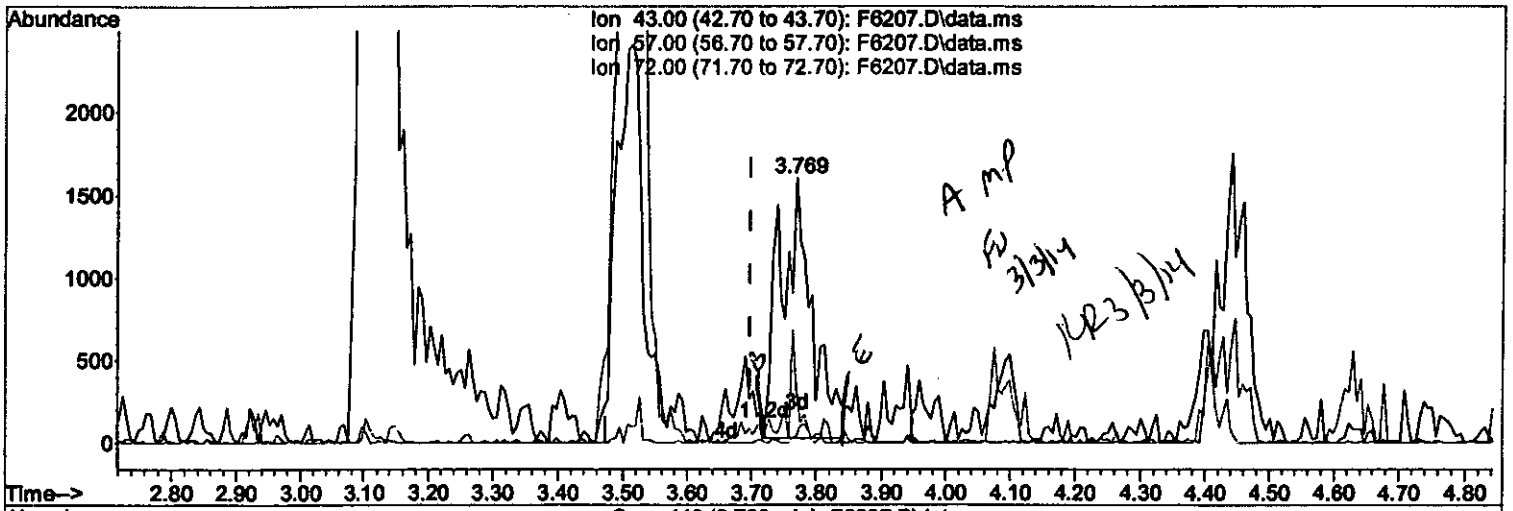
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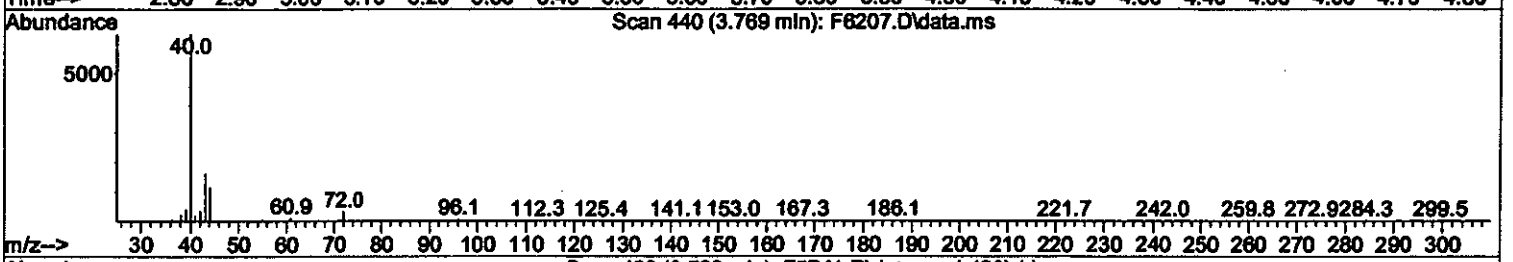
Ion	Exp%	Act%
43.00	100	100
57.00	8.30	0.00
72.00	23.50	9.56
0.00	0.00	0.00

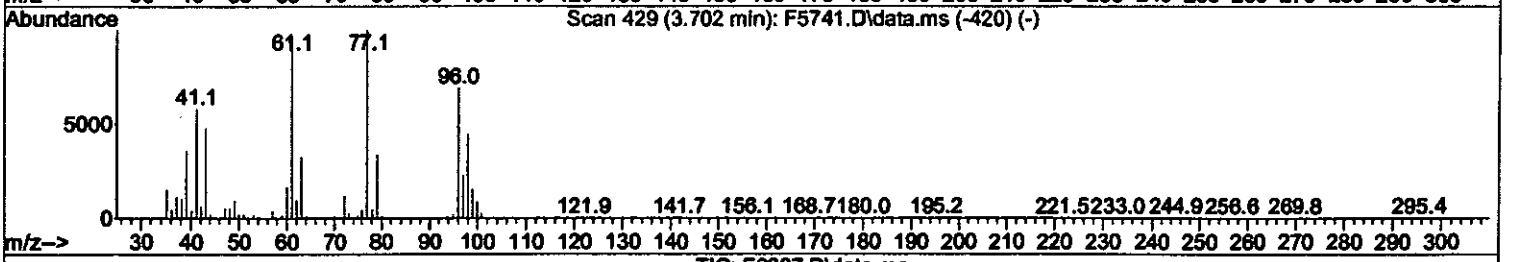
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(35) 2-Butanone (P)

3.769min (+0.073) 2.58 ug/L m

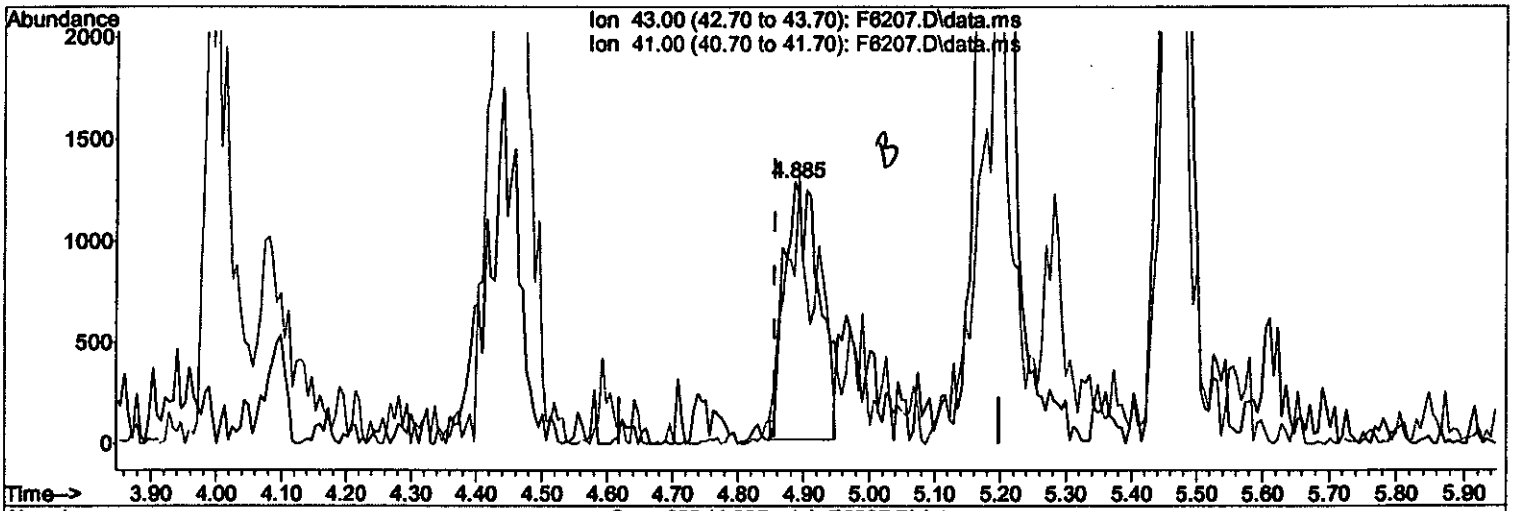
response 5298

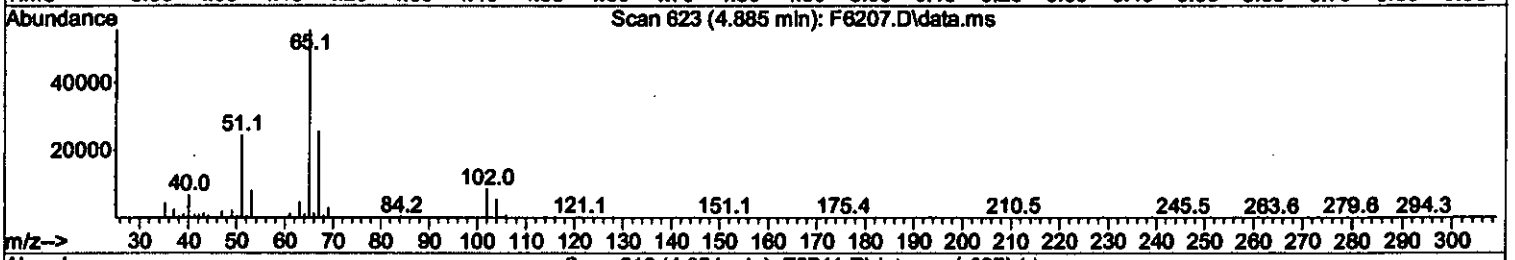
Ion	Exp%	Act%
43.00	100	100
57.00	8.30	1.43
72.00	23.50	20.32
0.00	0.00	0.00

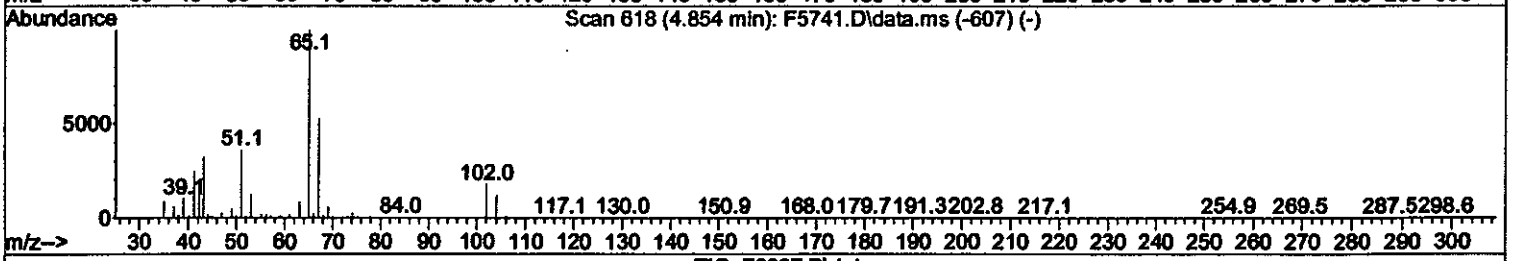
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(51) Iso-Butyl Alcohol

4.885min (+0.031) 27.80 ug/L

response 4634

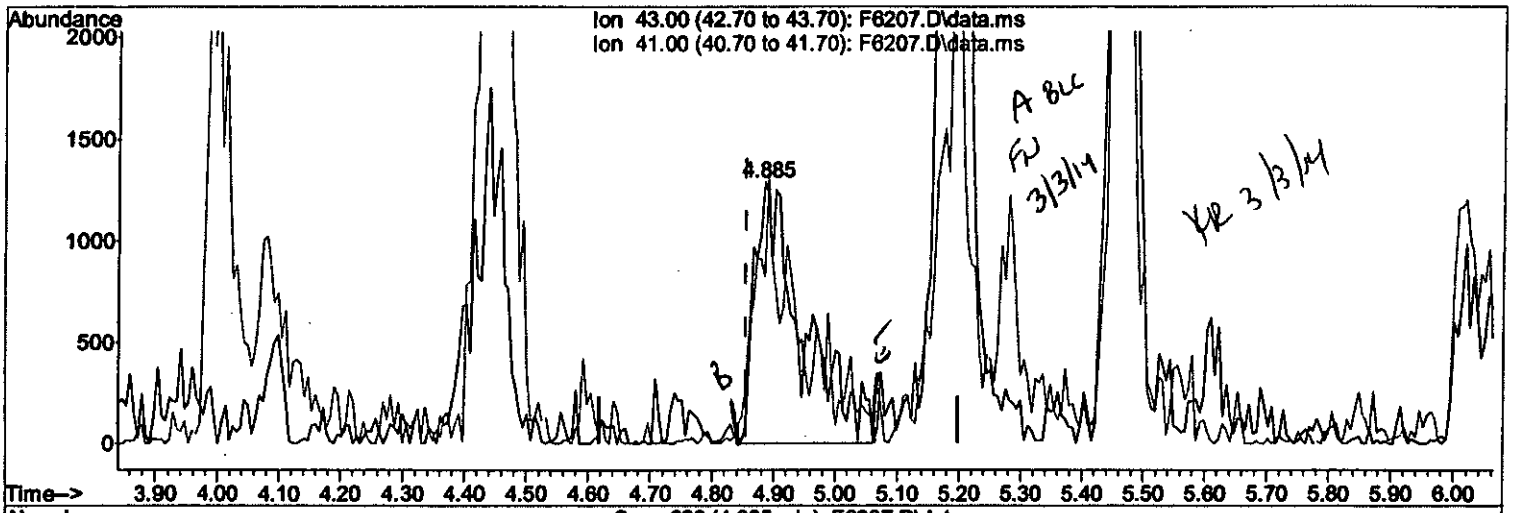
Ion	Exp%	Act%
43.00	100	100
41.00	76.40	64.11
0.00	0.00	0.00
0.00	0.00	0.00

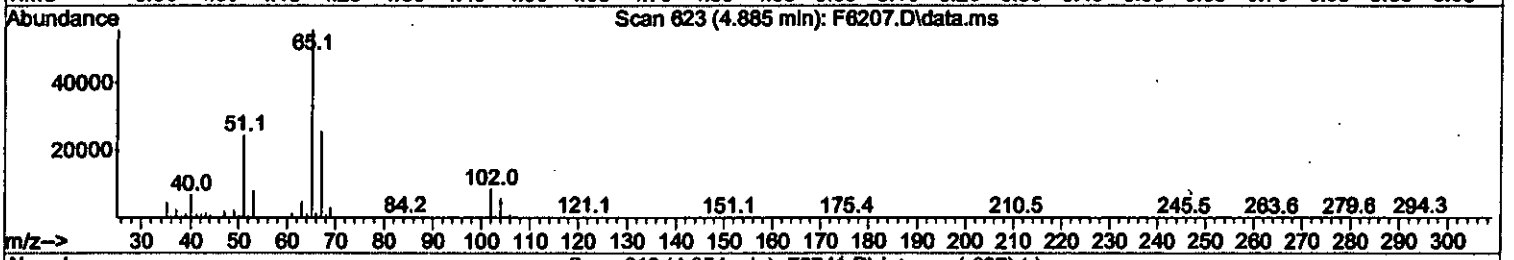
00285

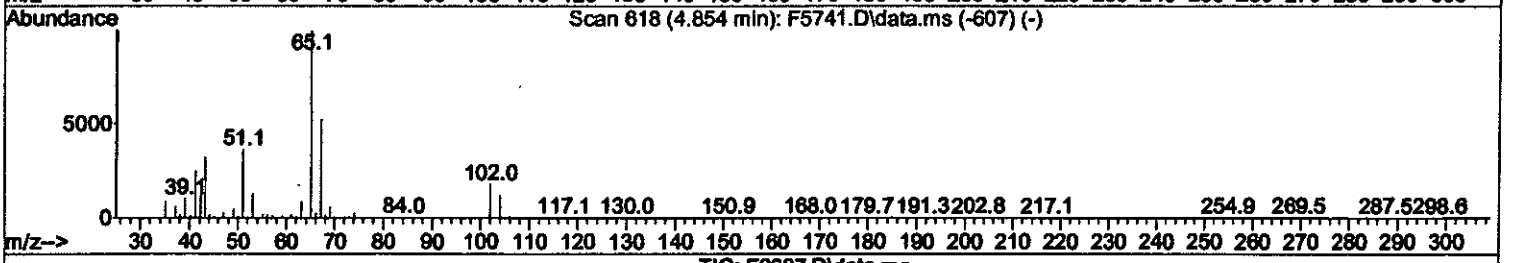
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(51) Iso-Butyl Alcohol

4.885min (+0.031) 41.92 ug/L m

response 6988

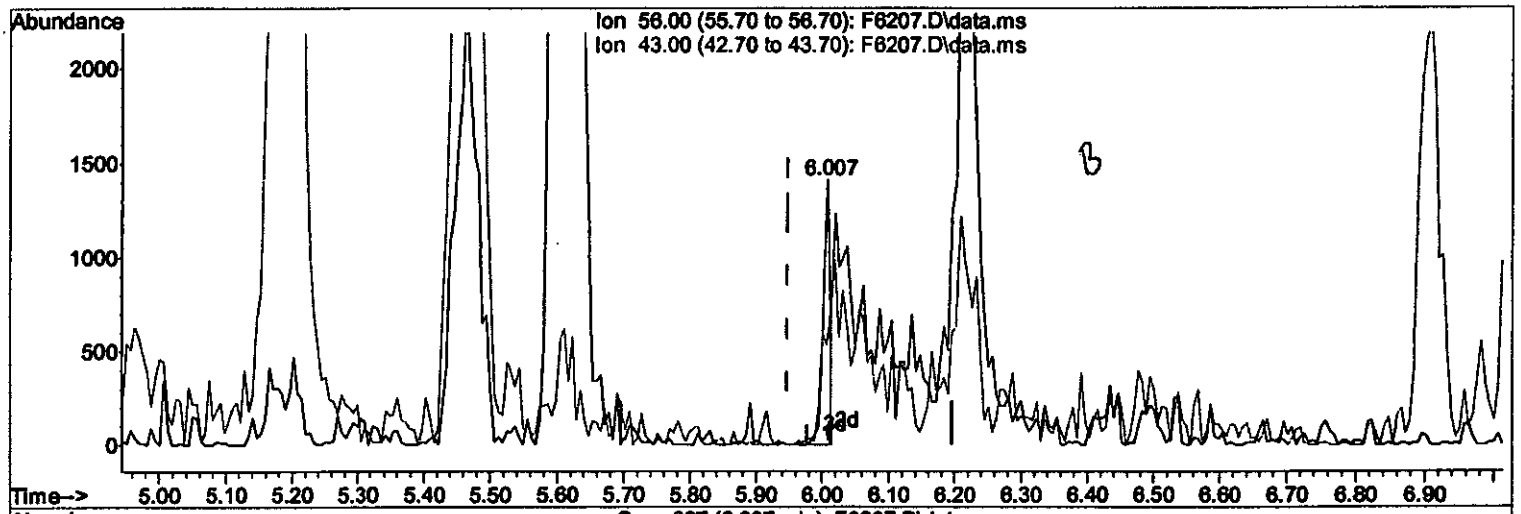
Ion	Exp%	Act%
43.00	100	100
41.00	76.40	64.11
0.00	0.00	0.00
0.00	0.00	0.00

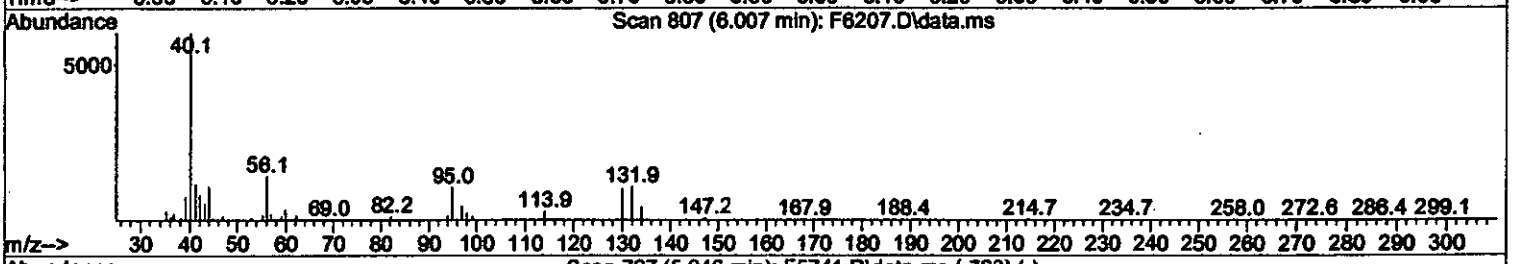
00286

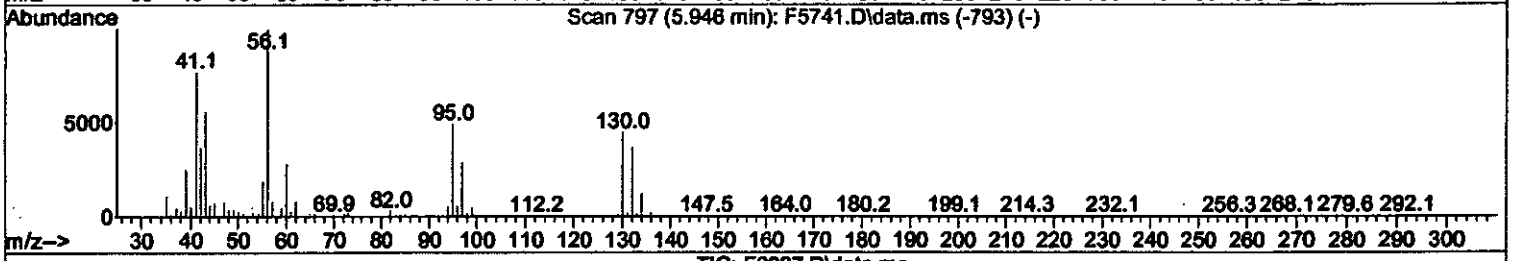
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(53) 1-Butanol

6.007min (+0.062) 12.45 ug/L

response 1038

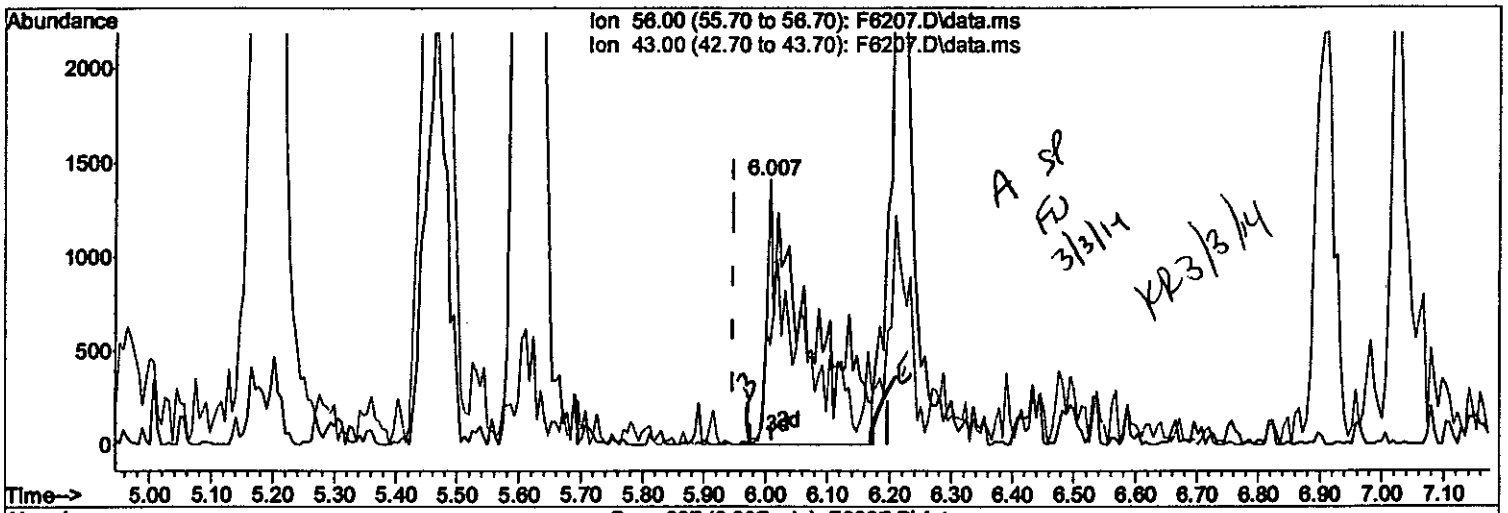
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	37.59
0.00	0.00	0.00
0.00	0.00	0.00

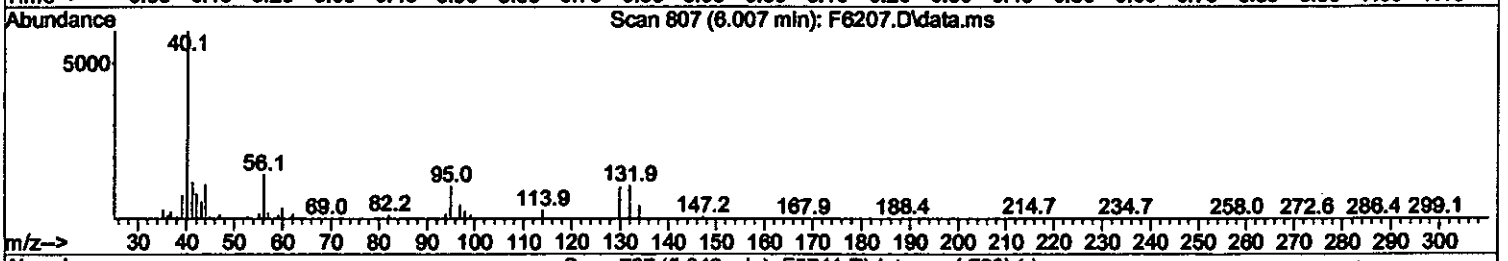
00287

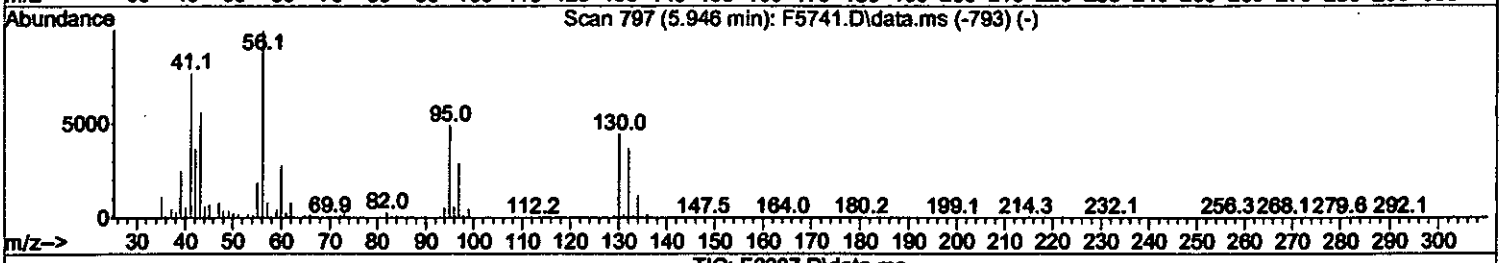
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(53) 1-Butanol

6.007min (+0.062) 78.09 ug/L m

response 6509

Ion	Exp%	Act%
56.00	100	100
43.00	56.20	37.59
0.00	0.00	0.00
0.00	0.00	0.00

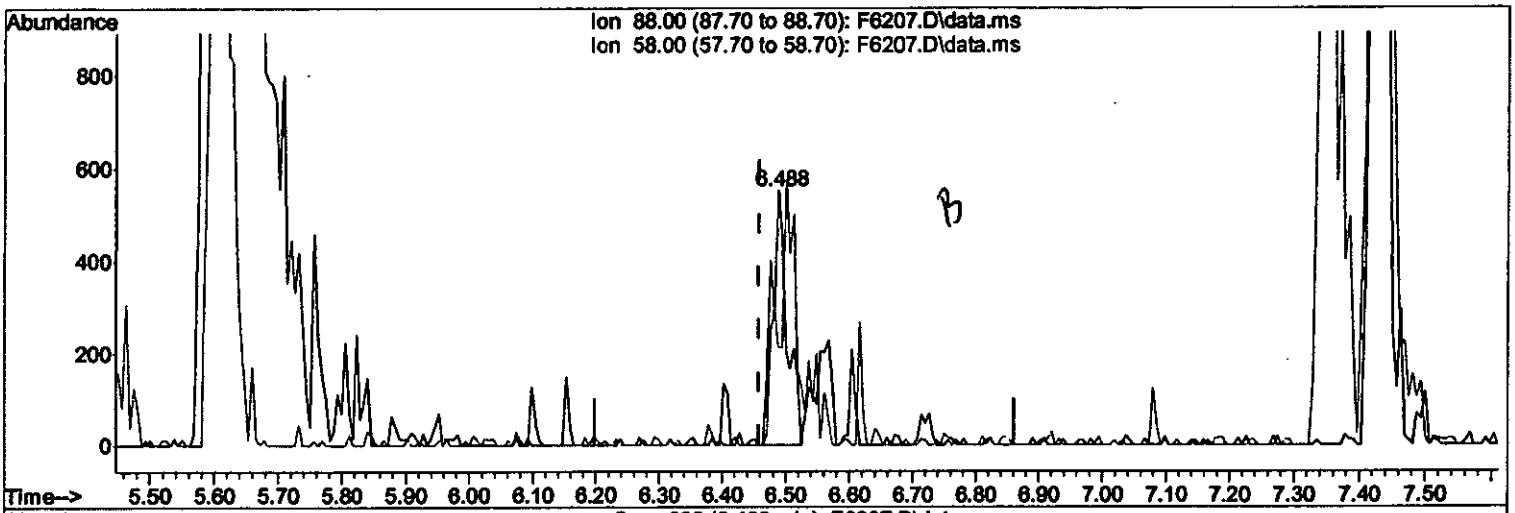
A sl FW 3/3/14 KP 3/3/14

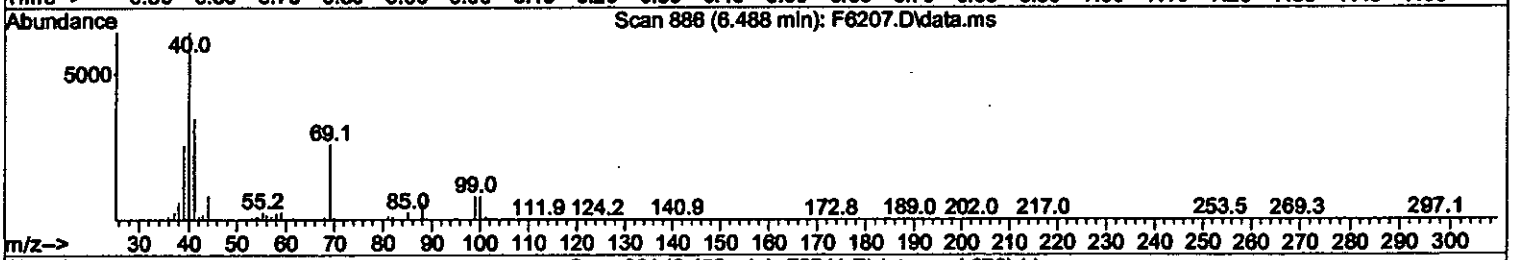
00288

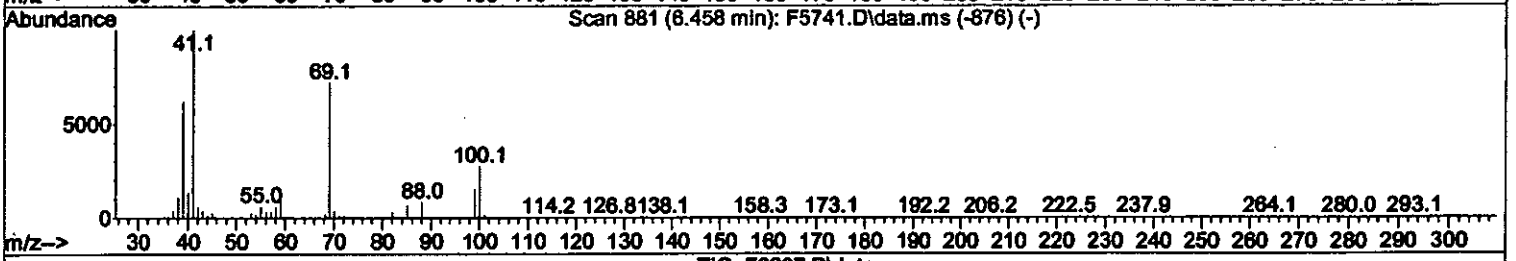
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(58) 1,4-Dioxane

6.488min (+0.031) 21.36 ug/L

response 933

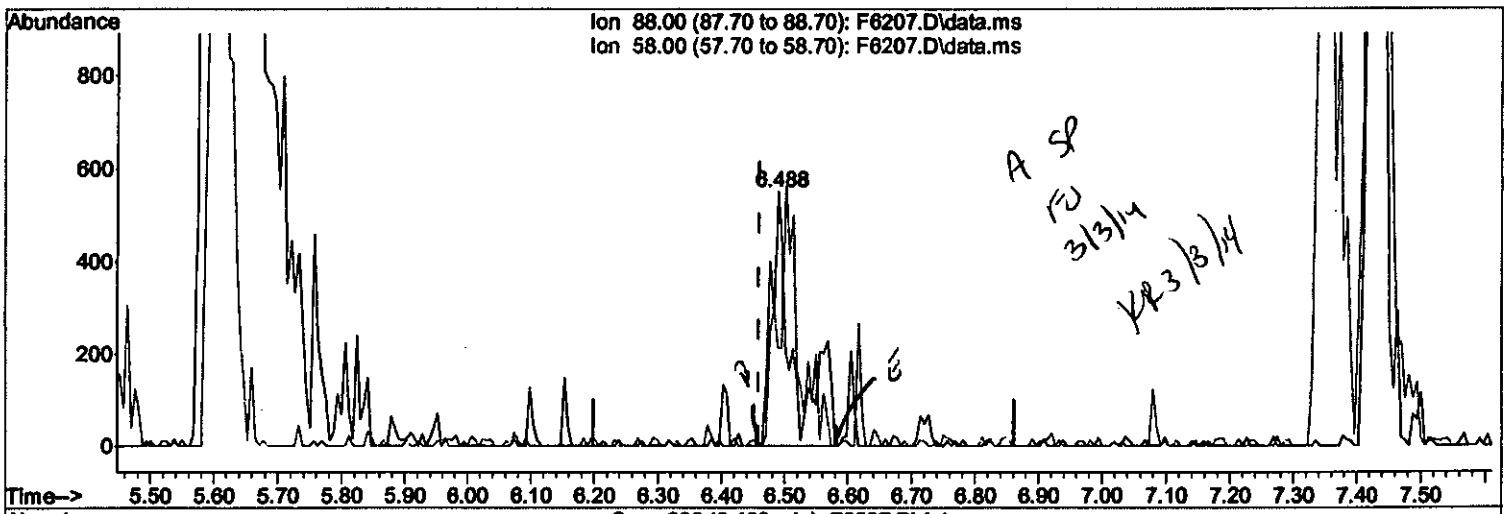
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	38.59#
0.00	0.00	0.00
0.00	0.00	0.00

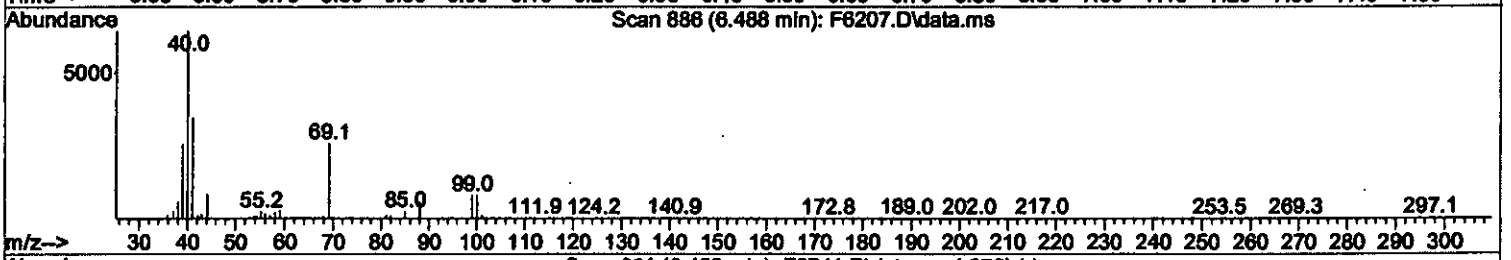
00289

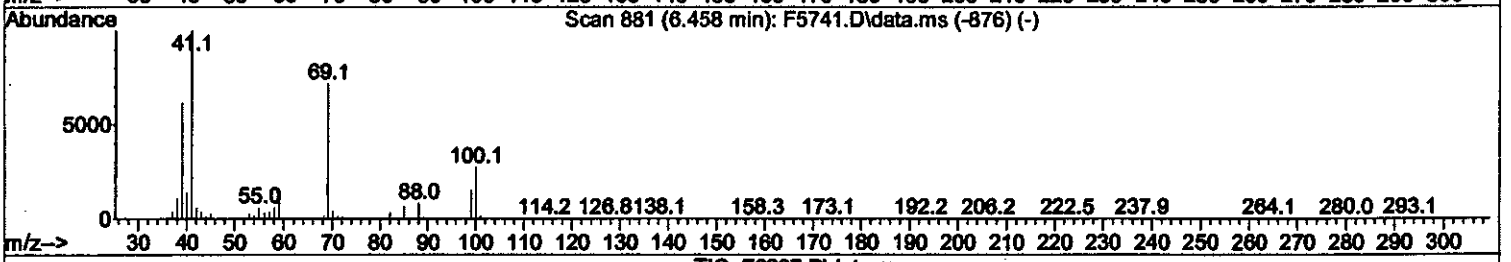
Quantitation Report (Qedit)

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:22:50 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6207.D\data.ms

(58) 1,4-Dioxane

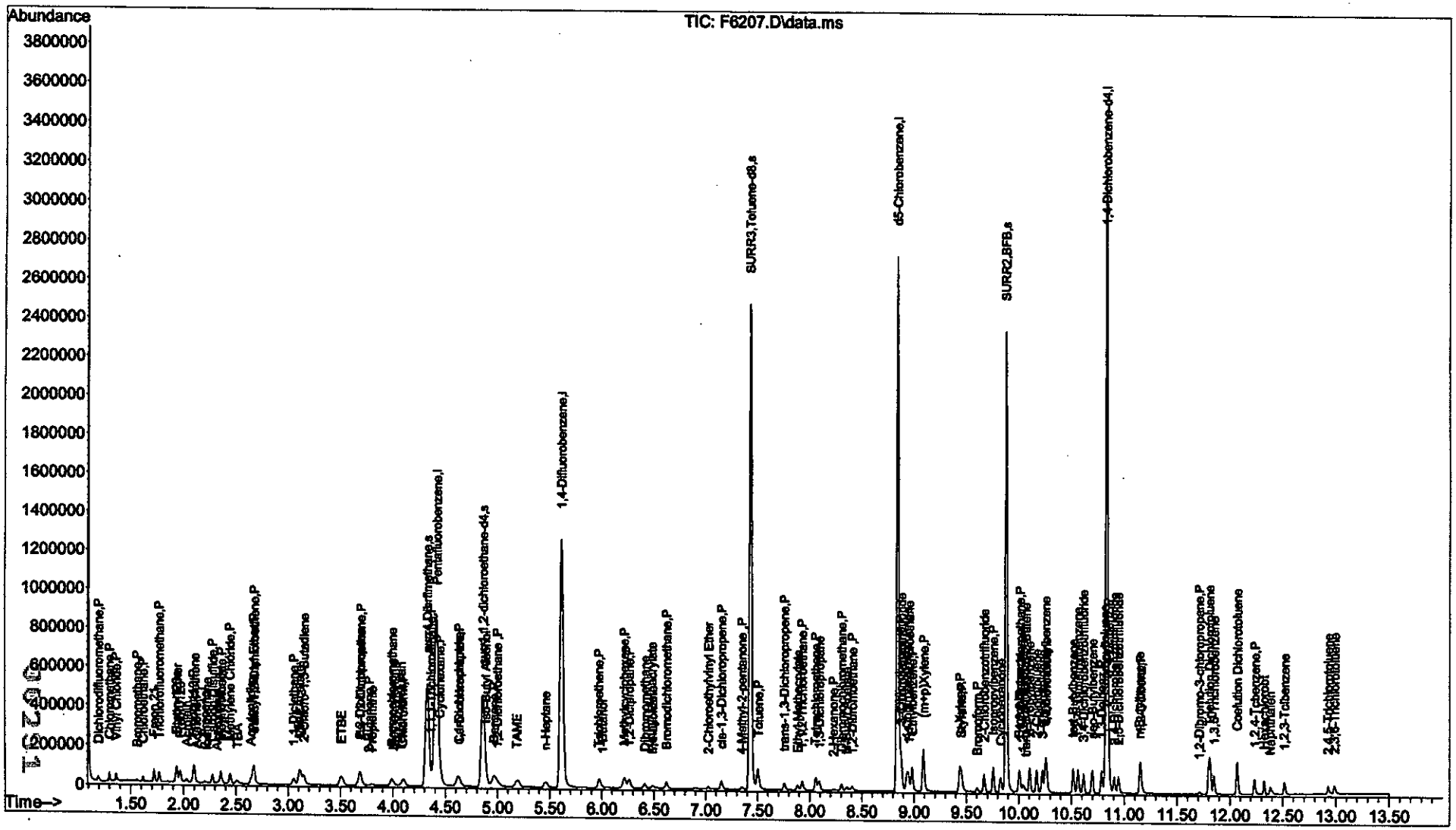
6.488min (+0.031) 30.97 ug/L m

response 1353

Ion	Exp%	Act%
88.00	100	100
58.00	73.00	38.59#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6207.D Vial: 5
Acq On : 28 Feb 2014 1:09 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:55:15 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FJ 3/3/14

Quant Time: Mar 03 08:56:31 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	815474	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1213623	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1110416	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	611910	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	394296	51.28	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.56%				
48) surr1,1,2-dichloroetha...	4.860	65	421885	51.56	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 103.12%				
65) SURR3,Toluene-d8	7.427	98	1432895	51.32	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.64%				
70) SURR2,BFB	9.878	95	579963	50.76	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.52%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.190	85	42168	5.22	ug/L		93
3) Chloromethane	1.300	50	51040	6.25	ug/L		93
4) Vinyl Chloride	1.361	62	49363	5.99	ug/L		96
5) Bromomethane	1.562	94	10991	3.85	ug/L	#	73
6) Chloroethane	1.617	64	27340	5.87	ug/L		93
7) Freon 21	1.721	67	82685	5.81	ug/L		99
8) Trichlorofluoromethane	1.770	101	61915	5.35	ug/L		100
9) Diethyl Ether	1.940	59	29992	6.57	ug/L		91
10) Freon 123a	1.928	67	49790	5.45	ug/L		93
11) Freon 123	1.971	83	51928	5.24	ug/L		98
12) Acrolein	2.026	56	24230	43.98	ug/L		96
13) 1,1-Diclethene	2.105	96	28894	5.28	ug/L		93
14) Freon 113	2.093	101	35921	7.48	ug/L		82
15) Acetone	2.129	43	11461	7.60	ug/L		87
16) 2-Propanol	2.202	45	26901	107.49	ug/L		89
17) Iodomethane	2.221	142	6607	1.16	ug/L		97
18) Carbon Disulfide	2.276	76	104863	5.36	ug/L		100
19) Acetonitrile	2.324	40	6260	34.29	ug/L	#	23
20) Allyl Chloride	2.355	76	16805	5.11	ug/L	#	42
21) Methyl Acetate	2.361	43	22312	6.77	ug/L		100
22) Methylene Chloride	2.440	84	37774	5.35	ug/L	#	80
23) TBA	2.501	59	43370	100.16	ug/L		74
24) Acrylonitrile	2.641	53	48072	31.37	ug/L		97
25) Methyl-t-Butyl Ether	2.666	73	83545	5.00	ug/L		97
26) trans-1,2-Dichloroethene	2.672	96	36574	5.27	ug/L	#	86
28) 1,1-Diclethane	3.050	63	71512	5.50	ug/L		97
29) Vinyl Acetate	3.099	86	4746	5.03	ug/L	#	76
30) DIPE	3.111	45	150475	6.18	ug/L		82
31) 2-Chloro-1,3-Butadiene	3.147	53	68264	5.76	ug/L		84
32) ETBE	3.501	59	117267	5.44	ug/L		93
33) 2,2-Dichloropropane	3.684	77	49421	4.49	ug/L		95
34) cis-1,2-Dichloroethene	3.684	96	39605	5.12	ug/L		89
35) 2-Butanone	3.733	43	13772m	6.61	ug/L		
36) Propionitrile	3.787	54	15954	31.28	ug/L		96
37) Bromochloromethane	3.989	130	24687	5.48	ug/L	#	86

Quantitation Report (QT Reviewed)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:56:31 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.983	67	8394	4.60 ug/L #	84
39) Tetrahydrofuran	4.080	42	7722	6.10 ug/L	82
40) Chloroform	4.098	83	67456	5.12 ug/L	88
41) 1,1,1-Trichloroethane	4.361	97	57862	5.13 ug/L	93
42) TAME	5.184	73	87631	4.90 ug/L	88
44) Cyclohexane	4.446	41	46764	6.42 ug/L	99
46) Carbontetrachloride	4.629	121	16044	5.34 ug/L	91
47) 1,1-Dichloropropene	4.623	75	46763	5.10 ug/L	95
49) Benzene	4.958	78	150217	5.22 ug/L	93
50) 1,2-Dichloroethane	4.995	62	53061	5.44 ug/L	90
51) Iso-Butyl Alcohol	4.873	43	17734	103.52 ug/L	99
52) n-Heptane	5.458	43	41577	6.71 ug/L	76
53) 1-Butanol	5.982	56	19532m	228.01 ug/L	
54) Trichloroethene	5.976	130	40578	5.19 ug/L	94
55) Methylcyclohexane	6.214	55	51671	5.93 ug/L	85
56) 1,2-Diclpropane	6.263	63	39026	5.17 ug/L	100
57) Dibromomethane	6.409	93	20580	4.92 ug/L	96
58) 1,4-Dioxane	6.476	88	4808m	107.08 ug/L	
59) Methyl Methacrylate	6.476	69	14573	4.27 ug/L #	79
60) Bromodichloromethane	6.622	83	47749	4.79 ug/L	99
62) 2-Chloroethylvinyl Ether	7.012	63	15415m	4.66 ug/L	
63) cis-1,3-Dichloropropene	7.147	75	49020	4.51 ug/L	95
64) 4-Methyl-2-pentanone	7.342	43	24532	5.46 ug/L	92
66) Toluene	7.500	91	162166	5.25 ug/L	97
67) trans-1,3-Dichloropropene	7.750	75	40448	4.52 ug/L	94
68) Ethyl Methacrylate	7.878	69	30880	4.42 ug/L	78
69) 1,1,2-Trichloroethane	7.927	97	28769	5.11 ug/L	87
72) Tetrachloroethene	8.055	164	33817	5.14 ug/L	95
73) 2-Hexanone	8.213	43	16005	4.66 ug/L	96
74) 1,3-Dichloropropane	8.085	76	46516	4.70 ug/L #	76
75) Dibromochloromethane	8.305	129	34156	4.85 ug/L	96
76) N-Butyl Acetate	8.348	43	44644	5.34 ug/L	90
77) 1,2-Dibromoethane	8.402	107	28120	4.83 ug/L	97
78) 3-Chlorobenzotrifluoride	8.878	180	58327	4.77 ug/L	98
79) Chlorobenzene	8.866	112	111557	5.20 ug/L	98
80) 4-Chlorobenzotrifluoride	8.933	180	54427	4.77 ug/L	96
81) 1,1,1,2-Tetrachloroethane	8.945	131	37605	4.85 ug/L	98
82) Ethylbenzene	8.982	106	54060	4.95 ug/L	97
83) (m+p)Xylene	9.085	106	130249	9.63 ug/L	97
84) o-Xylene	9.433	106	62951	4.73 ug/L	90
85) Styrene	9.451	104	104043	4.86 ug/L	95
86) Bromoform	9.597	173	19543	4.69 ug/L	90
87) 2-Chlorobenzotrifluoride	9.670	180	59462	4.89 ug/L	96
88) Isopropylbenzene	9.756	105	160570	4.95 ug/L	98
89) Cyclohexanone	9.829	55	72612	109.61 ug/L	94
90) trans-1,4-Dichloro-2-B...	10.061	53	7358	6.13 ug/L #	74
92) 1,1,2,2-Tetrachloroethane	10.012	83	34303	5.02 ug/L	97
93) Bromobenzene	10.006	156	47661	4.96 ug/L	91
94) 1,2,3-Trichloropropane	10.042	110	8713	4.85 ug/L #	87
95) n-Propylbenzene	10.103	91	191541	5.08 ug/L	99
96) 2-Chlorotoluene	10.170	91	117928	4.93 ug/L	97
97) 3-Chlorotoluene	10.219	91	130451	5.12 ug/L	99

Quantitation Report (QT Reviewed)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:56:31 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

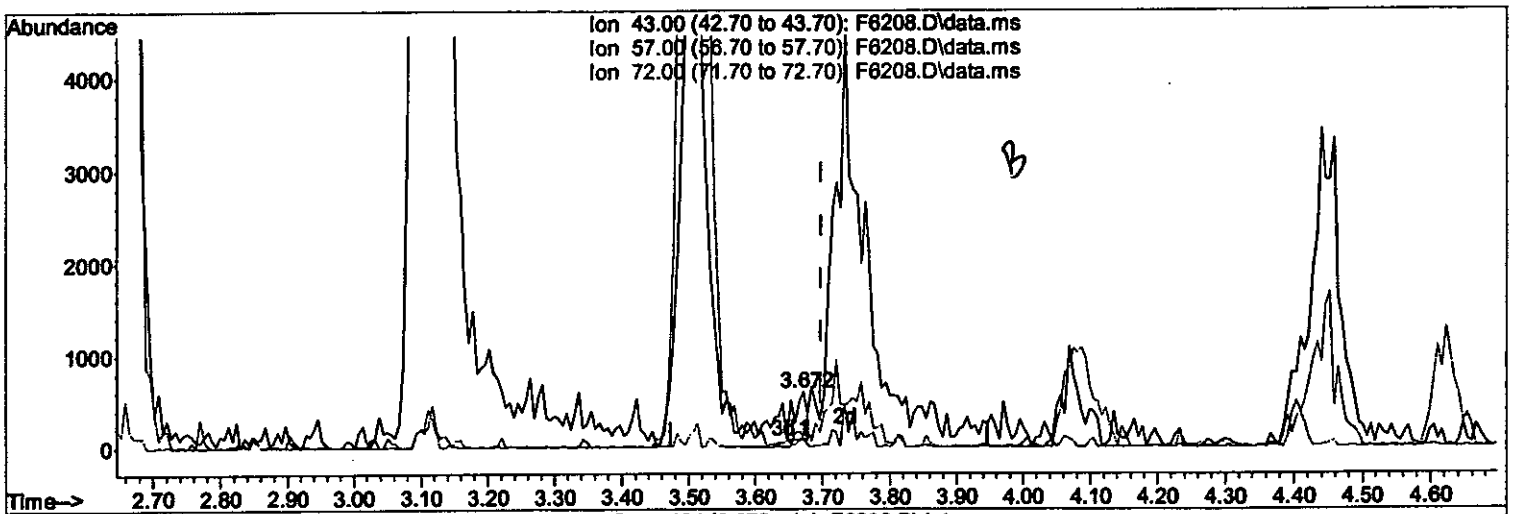
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
98)	4-Chlorotoluene	10.262	91	140610	4.83	ug/L		97
99)	1,3,5-Trimethylbenzene	10.256	105	136310	5.08	ug/L		93
100)	tert-Butylbenzene	10.518	119	112808	5.04	ug/L		99
101)	1,2,4-Trimethylbenzene	10.561	105	138888	4.94	ug/L		96
102)	3,4-Dichlorobenzotrifl...	10.615	214	39985	4.59	ug/L		94
103)	sec-Butylbenzene	10.695	105	152324	4.90	ug/L		98
104)	p-Isopropyltoluene	10.817	119	130082	4.97	ug/L		100
105)	1,3-Dclbenz	10.786	146	86812	4.98	ug/L		97
106)	1,4-Dclbenz	10.853	146	89612	5.00	ug/L		96
107)	2,4-Dichlorobenzotrifl...	10.902	214	37160	4.80	ug/L		97
108)	2,5-Dichlorobenzotrifl...	10.945	214	40705	4.48	ug/L		96
109)	n-Butylbenzene	11.146	91	113443	4.87	ug/L		96
110)	1,2-Dclbenz	11.152	146	81463	5.10	ug/L		94
111)	1,2-Dibromo-3-chloropr...	11.707	157	6020	5.53	ug/L	#	73
112)	Trielution Dichlorotol...	11.804	125	189644	14.57	ug/L		96
113)	1,3,5-Trichlorobenzene	11.847	180	55945	4.87	ug/L		94
114)	Coelution Dichlorotoluene	12.066	125	134403	10.26	ug/L		97
115)	1,2,4-Tcbenzene	12.231	180	46086	5.09	ug/L		96
116)	Hexachlorobt	12.328	225	20549	5.24	ug/L		98
117)	Naphthalen	12.377	128	72713	4.96	ug/L		98
118)	1,2,3-Tclbenzene	12.517	180	35391	5.25	ug/L		98
119)	2,4,5-Trichlorotoluene	12.926	159	21113	5.14	ug/L		97
120)	2,3,6-Trichlorotoluene	12.987	159	21485	5.38	ug/L		93

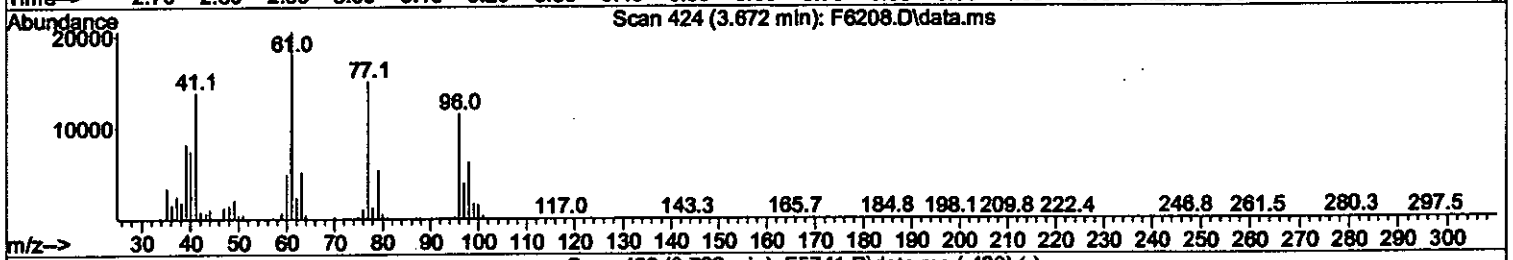
(#) = qualifier out of range (m) = manual integration (+) = signals summed

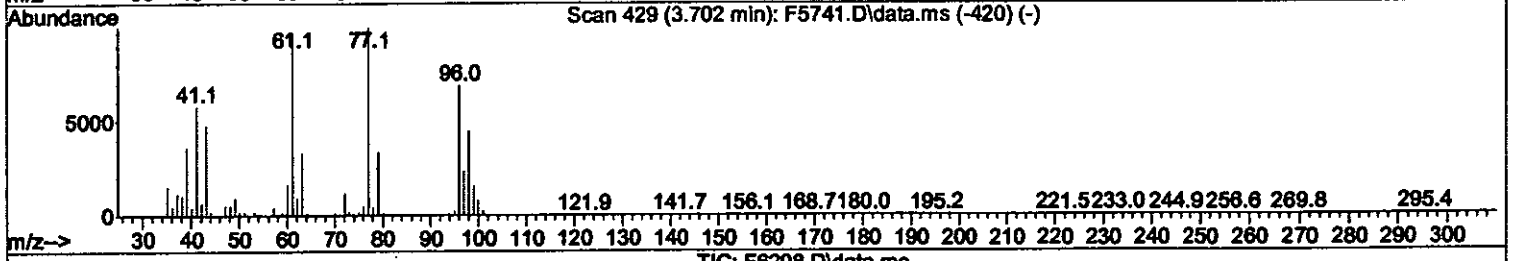
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:53:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(35) 2-Butanone (P)

3.672min (-0.024) 0.33 ug/L

response 680

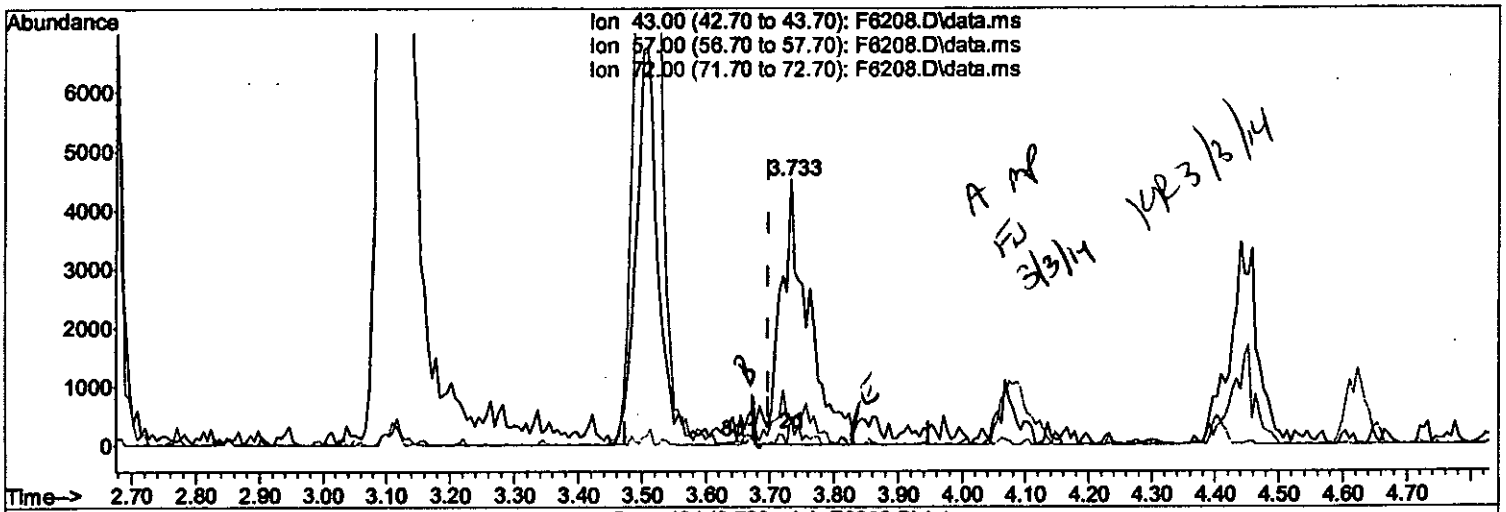
Ion	Exp%	Act%
43.00	100	100
57.00	8.30	19.28
72.00	23.50	20.60
0.00	0.00	0.00

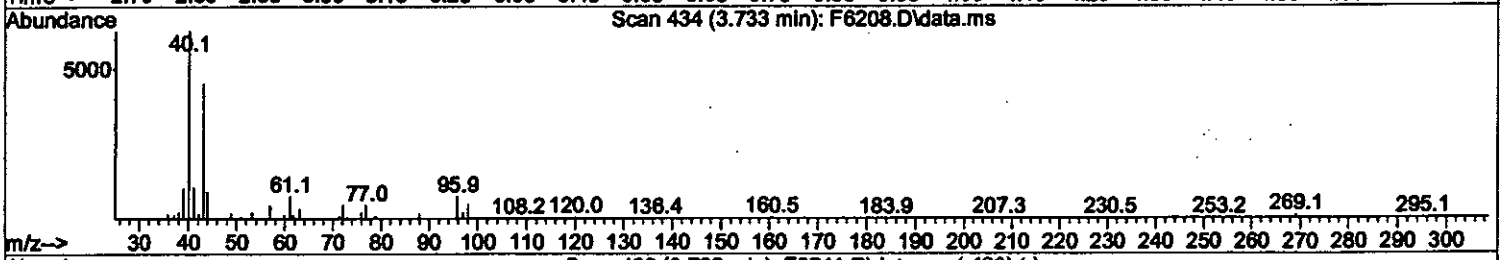
00295

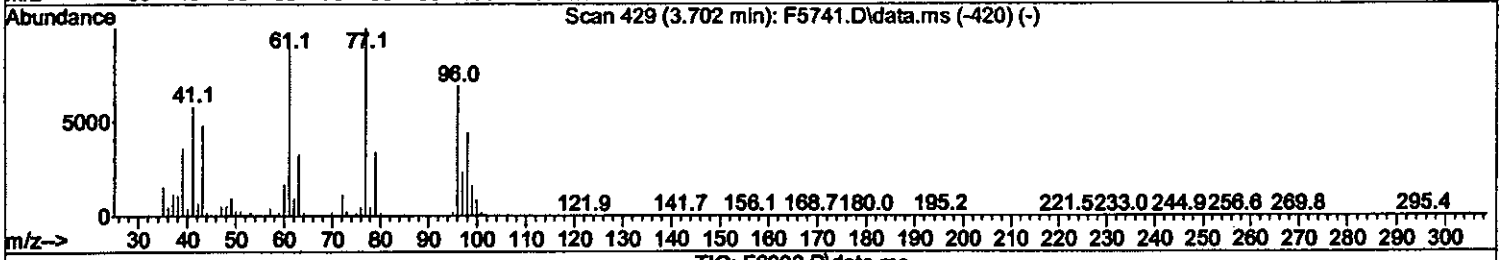
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:53:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(35) 2-Butanone (P)

3.733min (+0.037) 6.61 ug/L m

response 13772

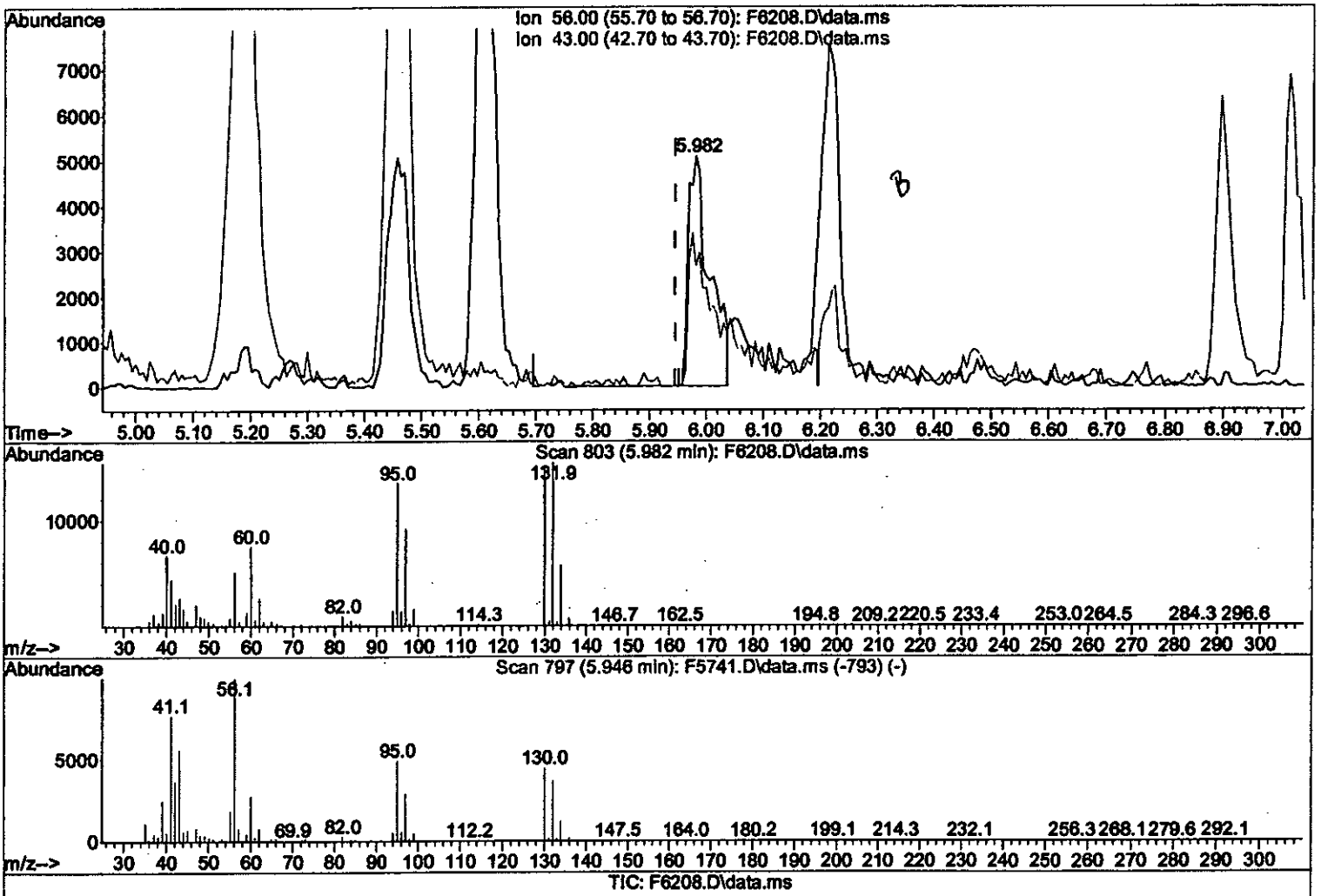
Ion	Exp%	Act%
43.00	100	100
57.00	8.30	9.77
72.00	23.50	10.14
0.00	0.00	0.00

00296

Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:53:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6208.D\data.ms

(53) 1-Butanol

5.982min (+0.037) 155.54 ug/L

response 13324

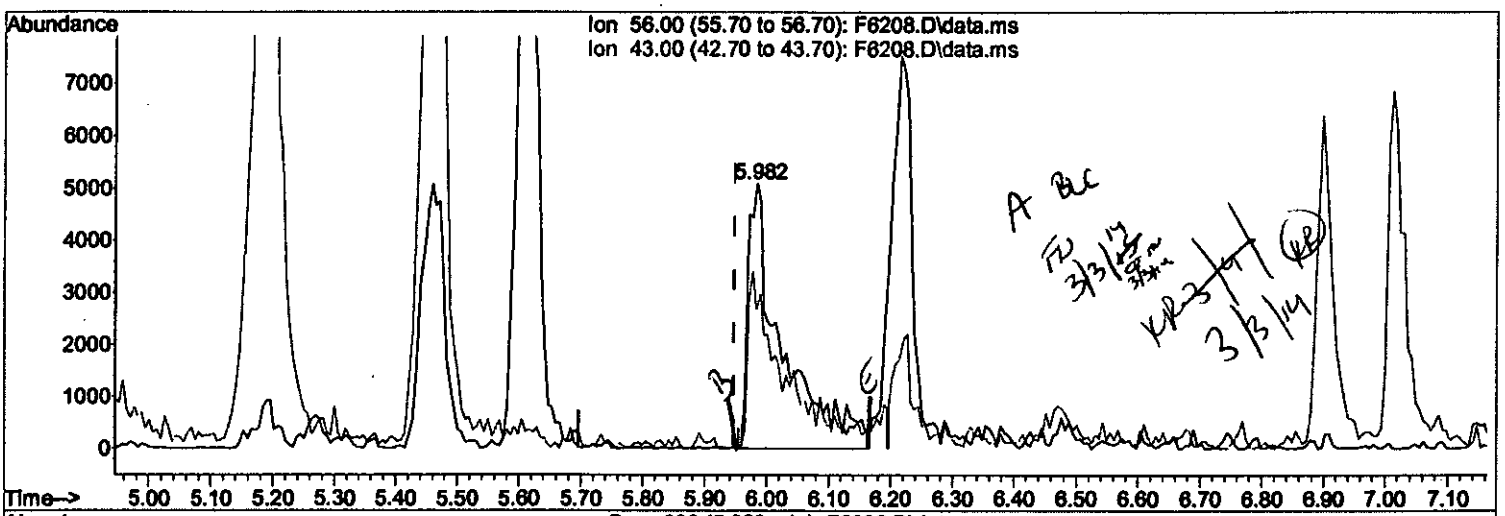
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	52.24
0.00	0.00	0.00
0.00	0.00	0.00

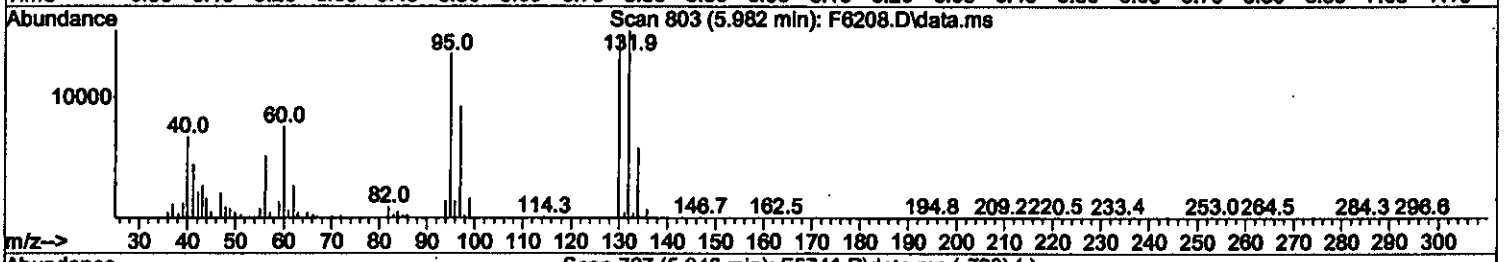
00297

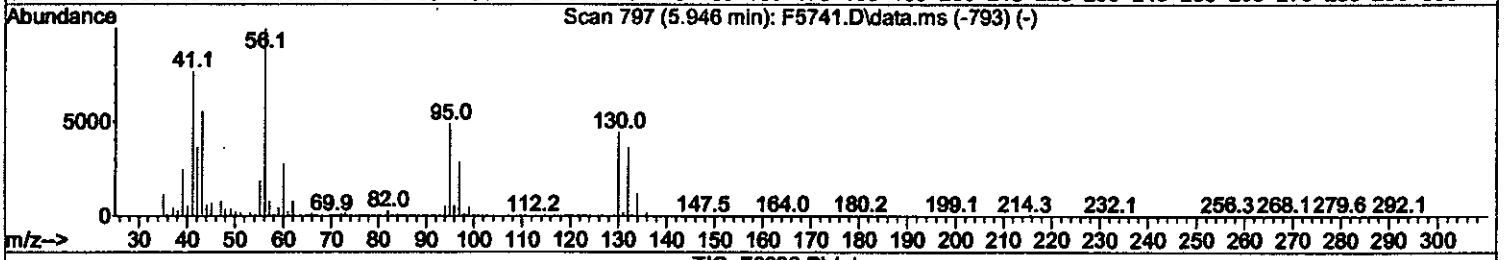
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:53:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(53) 1-Butanol

5.982min (+0.037) 228.01 ug/L m

response 19532

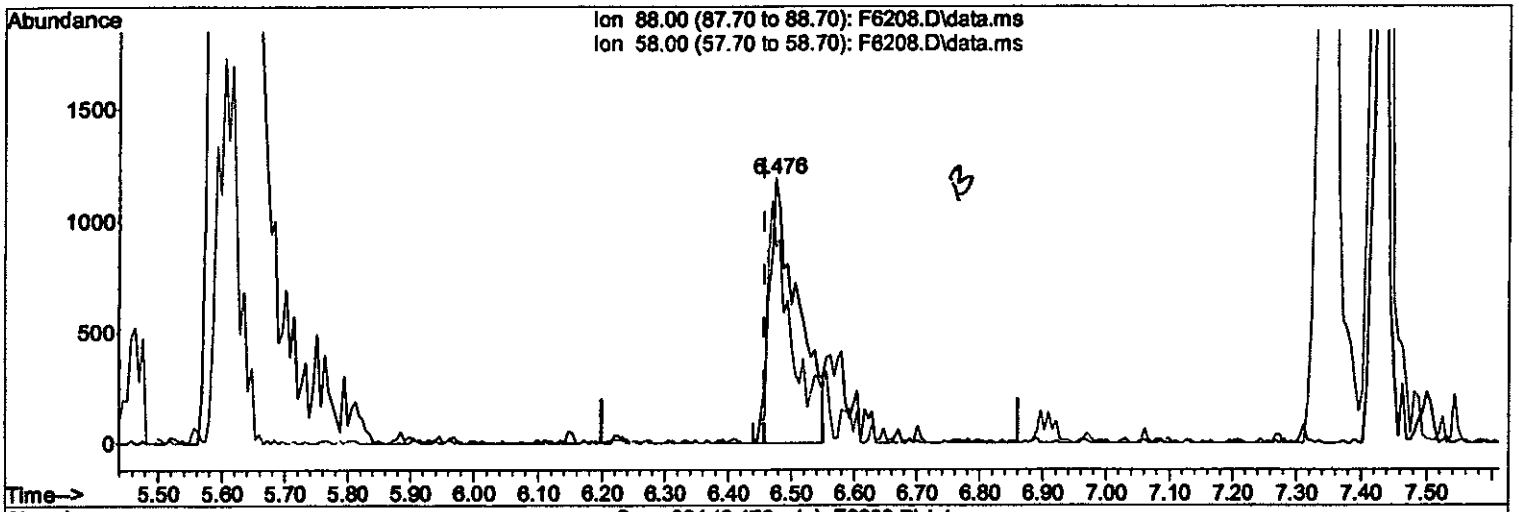
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	52.24
0.00	0.00	0.00
0.00	0.00	0.00

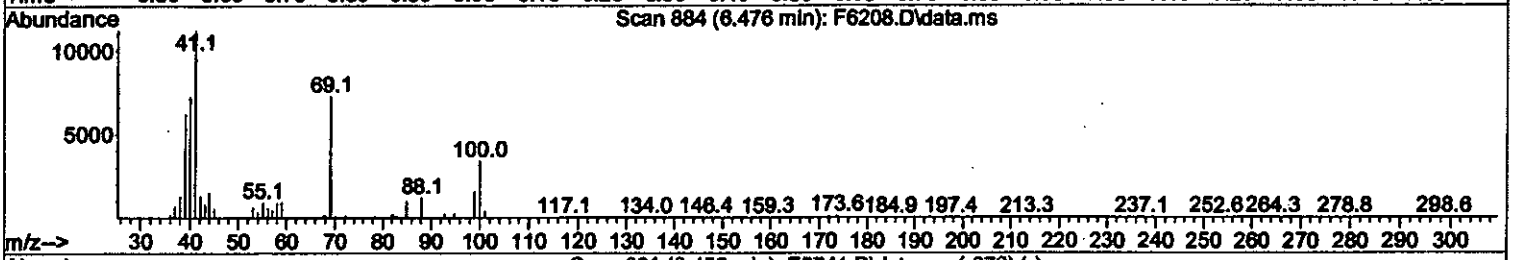
00298

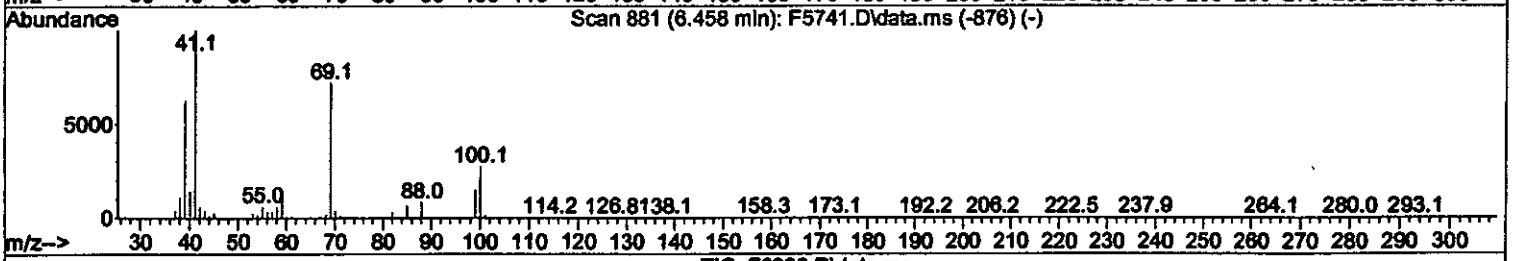
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:53:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(58) 1,4-Dioxane

6.476min (+0.019) 81.98 ug/L

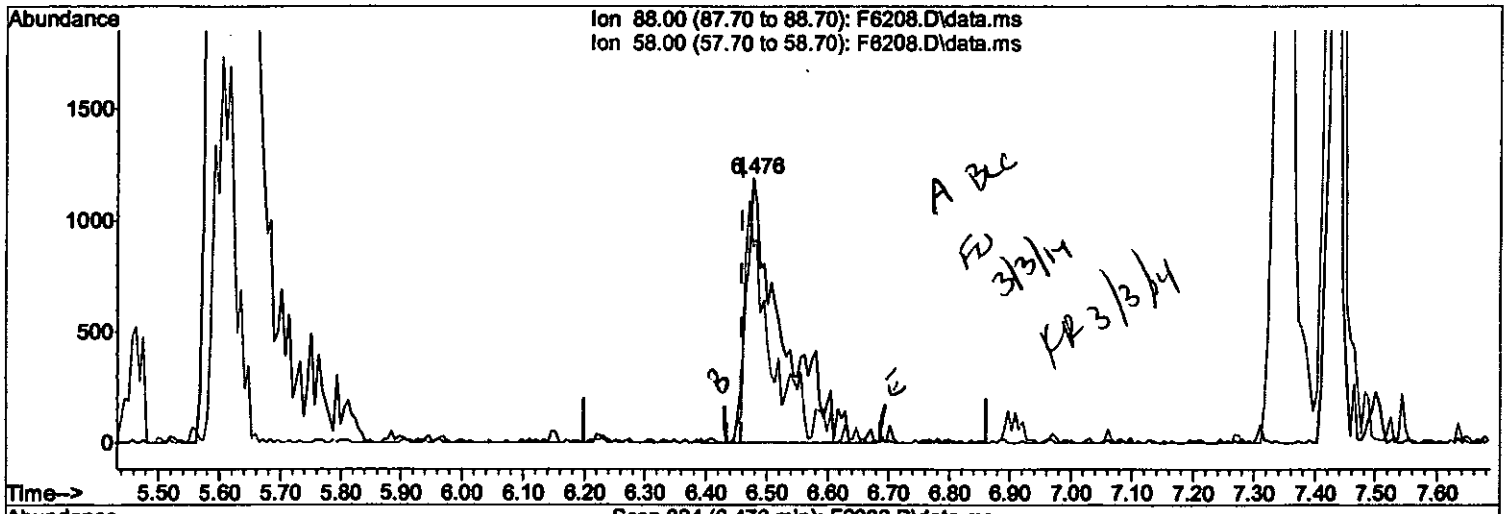
response 3681

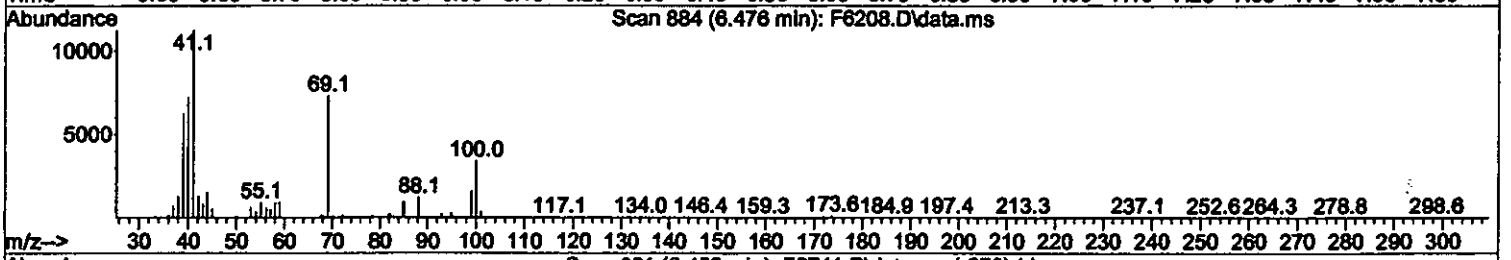
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	74.29
0.00	0.00	0.00
0.00	0.00	0.00

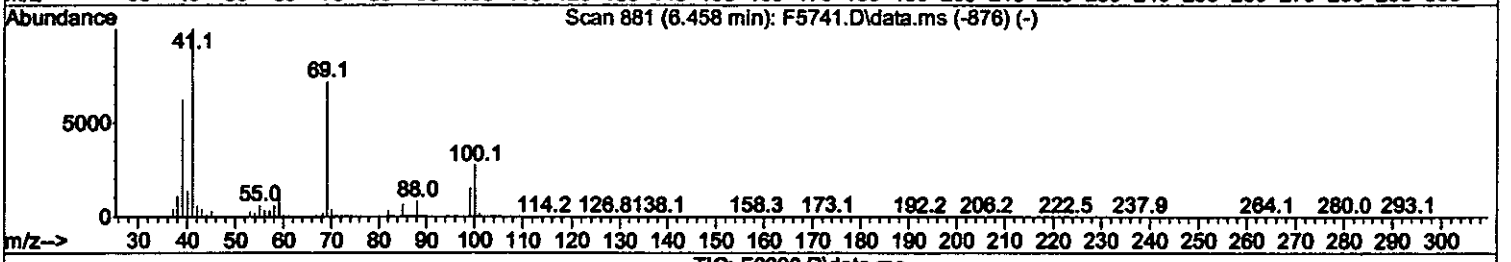
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 13:53:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(58) 1,4-Dioxane

6.476min (+0.019) 107.08 ug/L m

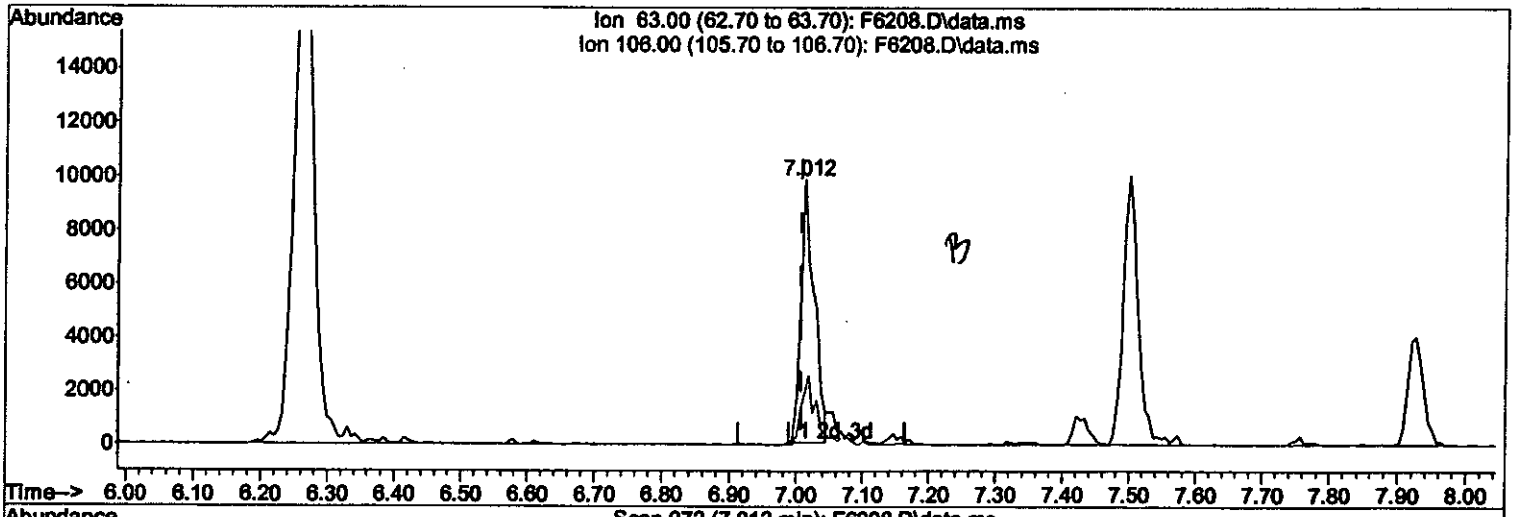
response 4808

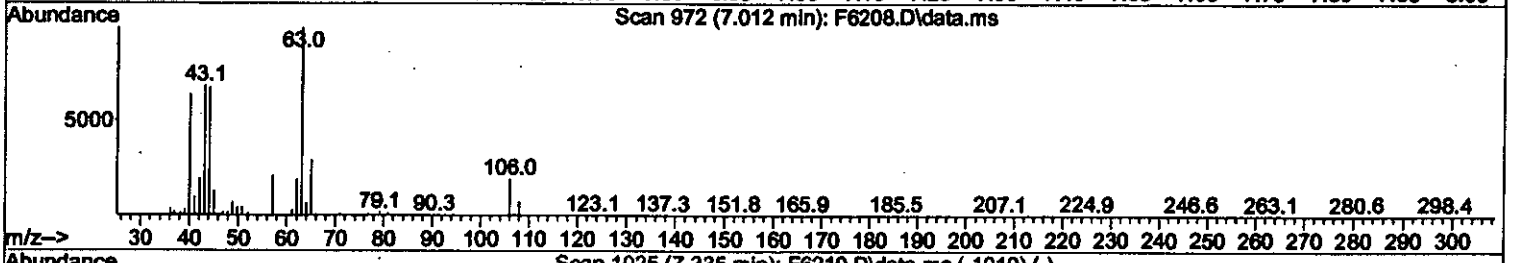
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	74.29
0.00	0.00	0.00
0.00	0.00	0.00

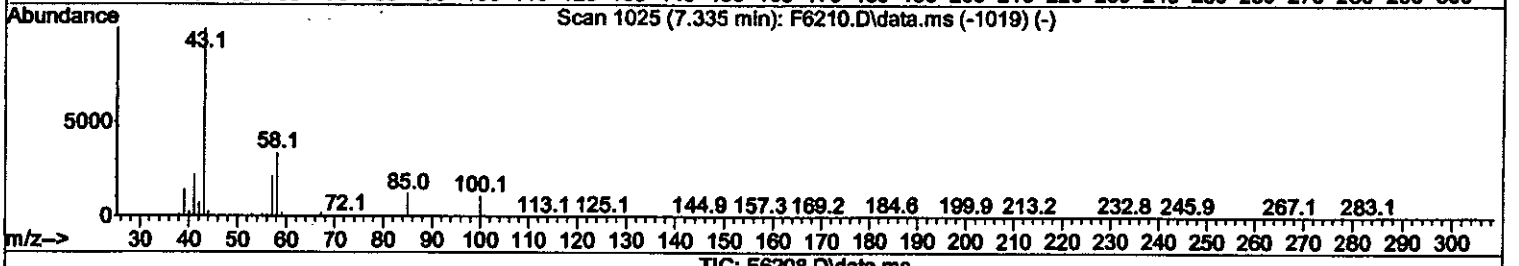
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:10:19 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(62) 2-Chloroethylvinyl Ether

7.012min (+0.006) 4.11 ug/L

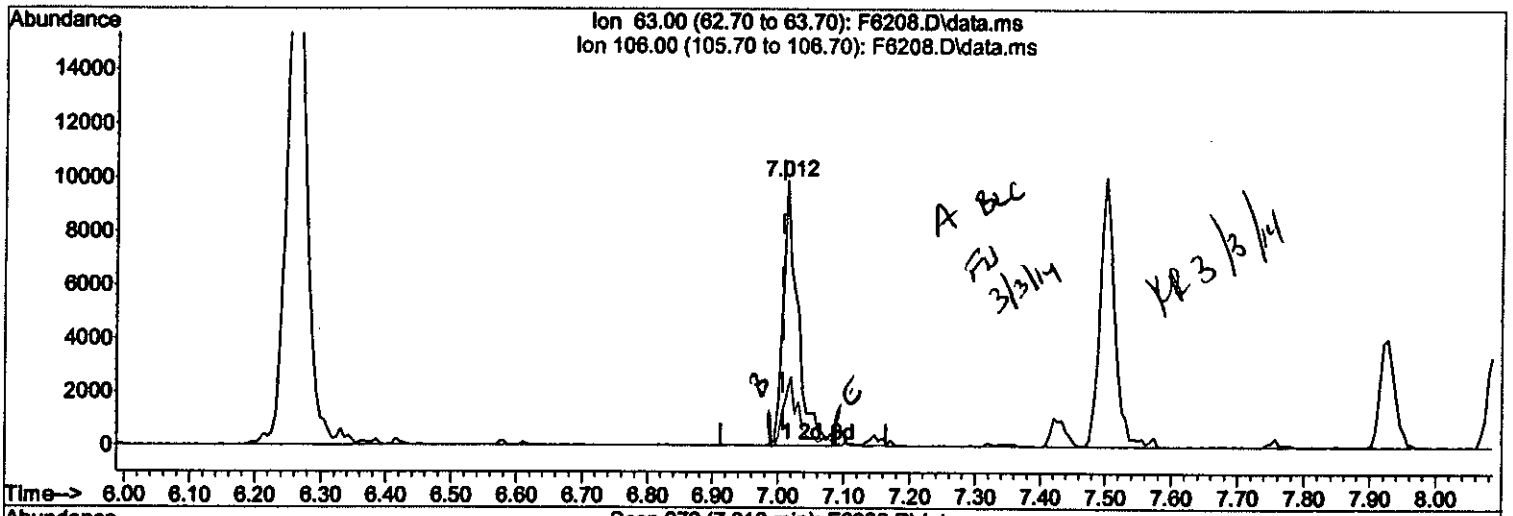
response 13574

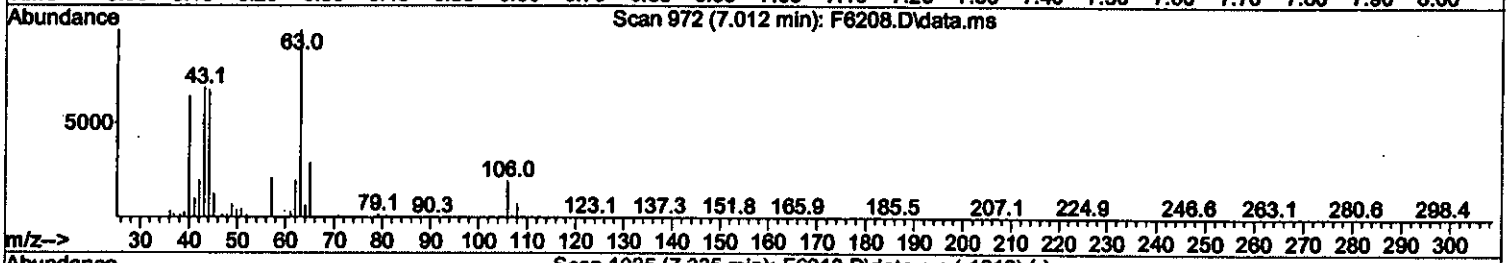
Ion	Exp%	Act%
63.00	100	100
106.00	27.80	19.45
0.00	0.00	0.00
0.00	0.00	0.00

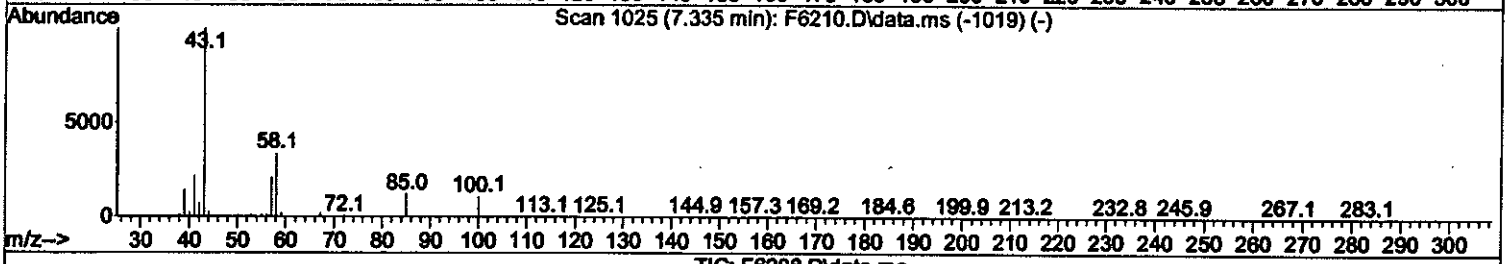
Quantitation Report (Qedit)

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:56:31 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6208.D\data.ms

(62) 2-Chloroethylvinyl Ether

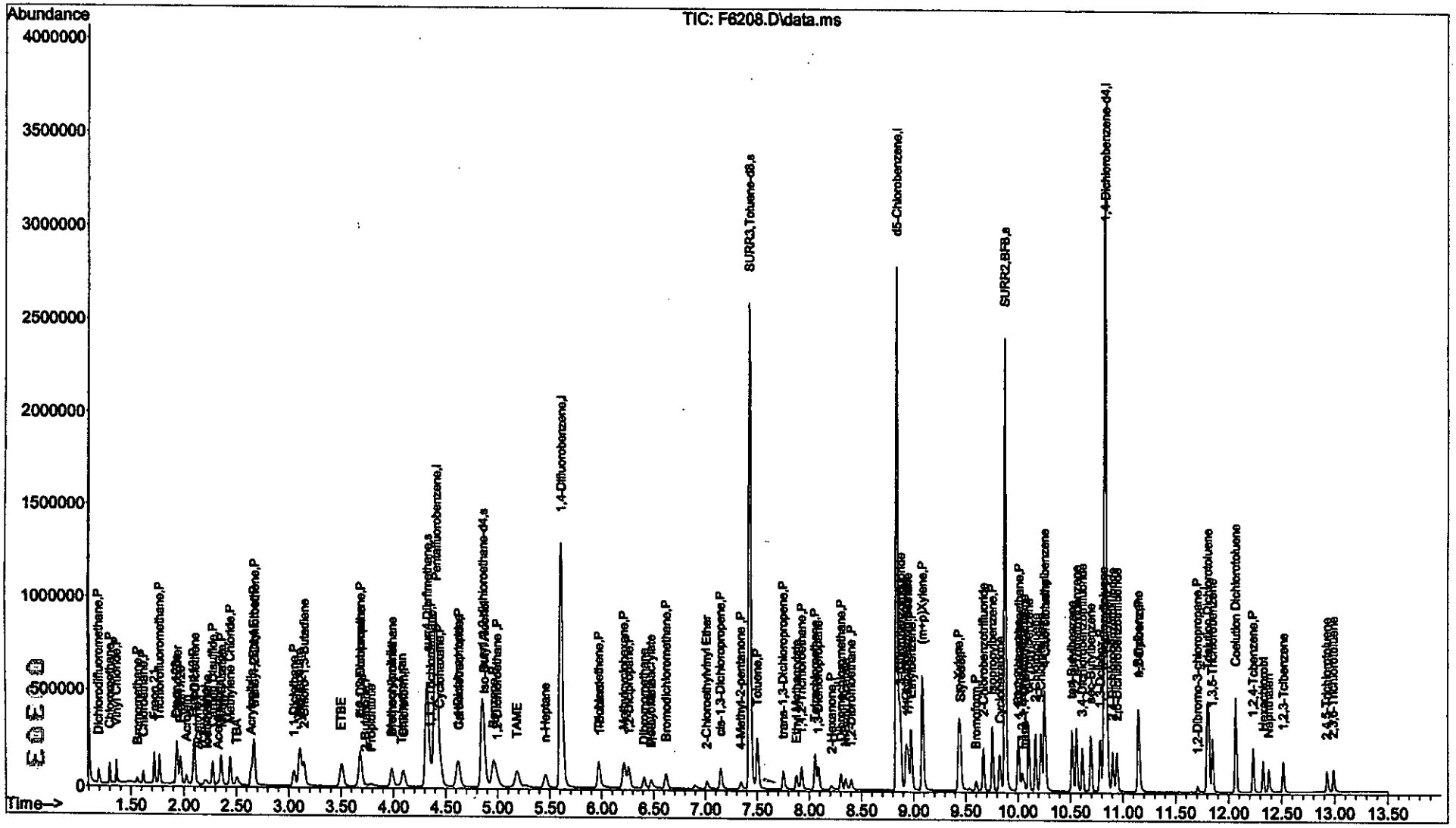
7.012min (+0.006) 4.66 ug/L m

response 15415

Ion	Exp%	Act%
63.00	100	100
106.00	27.80	19.45
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 5.0 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6208.D Vial: 6
Acq On : 28 Feb 2014 1:39 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 08:56:31 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FD 3/3/14

Quant Time: Feb 28 15:12:37 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	826382	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1215918	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1128651	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	620676	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	398233	51.69	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.38%				
48) surr1,1,2-dichloroetha...	4.860	65	417610	50.94	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.88%				
65) SURR3,Toluene-d8	7.427	98	1409089	50.37	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.74%				
70) SURR2,BFB	9.878	95	588328	51.39	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.78%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.190	85	85173	10.40	ug/L		96
3) Chloromethane	1.300	50	98187	11.87	ug/L		96
4) Vinyl Chloride	1.361	62	86192	10.32	ug/L		99
5) Bromomethane	1.562	94	23536	8.14	ug/L		99
6) Chloroethane	1.617	64	48994	10.39	ug/L		100
7) Freon 21	1.721	67	151830	10.52	ug/L		98
8) Trichlorofluoromethane	1.769	101	106747	9.10	ug/L		99
9) Diethyl Ether	1.940	59	58313	12.60	ug/L		89
10) Freon 123a	1.934	67	93223	10.06	ug/L		98
11) Freon 123	1.971	83	98321	9.79	ug/L		98
12) Acrolein	2.026	56	42608	76.32	ug/L		98
13) 1,1-Diclethene	2.105	96	50620	9.13	ug/L		90
14) Freon 113	2.099	101	59145	12.15	ug/L		98
15) Acetone	2.123	43	22832	14.93	ug/L		93
16) 2-Propanol	2.202	45	64850	255.70	ug/L		93
17) Iodomethane	2.215	142	19112	3.32	ug/L		89
18) Carbon Disulfide	2.275	76	204898	10.33	ug/L		99
19) Acetonitrile	2.324	40	13004	70.29	ug/L	#	48
20) Allyl Chloride	2.355	76	31669	9.51	ug/L	#	63
21) Methyl Acetate	2.361	43	44640	13.36	ug/L		93
22) Methylene Chloride	2.446	84	67284	9.41	ug/L		91
23) TBA	2.507	59	92462	210.73	ug/L		90
24) Acrylonitrile	2.635	53	100663	64.83	ug/L		94
25) Methyl-t-Butyl Ether	2.666	73	164992	9.75	ug/L		95
26) trans-1,2-Dichloroethene	2.672	96	64035	9.11	ug/L	#	85
28) 1,1-Diclethane	3.050	63	131553	9.99	ug/L		98
29) Vinyl Acetate	3.099	86	9756	10.19	ug/L	#	50
30) DIPE	3.111	45	304782	12.36	ug/L		90
31) 2-Chloro-1,3-Butadiene	3.147	53	138611	11.54	ug/L		88
32) ETBE	3.507	59	231860	10.61	ug/L		95
33) 2,2-Dichloropropane	3.684	77	89457	8.02	ug/L		98
34) cis-1,2-Dichloroethene	3.684	96	76706	9.78	ug/L		93
35) 2-Butanone	3.714	43	27861	13.20	ug/L		92
36) Propionitrile	3.775	54	36619	70.84	ug/L		94
37) Bromochloromethane	3.982	130	47194	10.34	ug/L		86

00384

Quantitation Report (QT Reviewed)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:12:37 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.970	67	17758	9.61 ug/L #	75
39) Tetrahydrofuran	4.068	42	16796	13.10 ug/L	76
40) Chloroform	4.098	83	125487	9.40 ug/L	98
41) 1,1,1-Trichloroethane	4.360	97	102643	8.99 ug/L	97
42) TAME	5.190	73	173109	9.56 ug/L	93
44) Cyclohexane	4.452	41	86184	11.81 ug/L	94
46) Carbontetrachloride	4.610	121	27669	9.20 ug/L	88
47) 1,1-Dichloropropene	4.623	75	79810	8.69 ug/L	92
49) Benzene	4.958	78	271982	9.44 ug/L	90
50) 1,2-Dichloroethane	4.988	62	107056	10.95 ug/L	93
51) Iso-Butyl Alcohol	4.860	43	40749	237.42 ug/L	91
52) n-Heptane	5.458	43	80425	12.96 ug/L #	81
53) 1-Butanol	5.964	56	42735m	497.93 ug/L	
54) Trichloroethene	5.970	130	72423	9.25 ug/L	90
55) Methylcyclohexane	6.214	55	93086	10.66 ug/L	91
56) 1,2-Diclpropane	6.256	63	76256	10.09 ug/L	99
57) Dibromomethane	6.409	93	41542	9.92 ug/L	100
58) 1,4-Dioxane	6.464	88	8311m	184.75 ug/L	
59) Methyl Methacrylate	6.464	69	31512m	9.21 ug/L	
60) Bromodichloromethane	6.616	83	92852	9.30 ug/L	97
62) 2-Chloroethylvinyl Ether	7.012	63	35477	10.71 ug/L	88
63) cis-1,3-Dichloropropene	7.146	75	99657	9.15 ug/L	99
64) 4-Methyl-2-pentanone	7.342	43	56170	12.48 ug/L	95
66) Toluene	7.500	91	294342	9.52 ug/L	98
67) trans-1,3-Dichloropropene	7.750	75	82757	9.24 ug/L	97
68) Ethyl Methacrylate	7.872	69	67164	9.60 ug/L	76
69) 1,1,2-Trichloroethane	7.921	97	57172	10.15 ug/L	90
72) Tetrachloroethene	8.055	164	56540	8.45 ug/L	97
73) 2-Hexanone	8.201	43	40267	11.54 ug/L	93
74) 1,3-Dichloropropane	8.085	76	93507	9.30 ug/L #	81
75) Dibromochloromethane	8.305	129	69994	9.78 ug/L	96
76) N-Butyl Acetate	8.341	43	99866	11.75 ug/L	92
77) 1,2-Dibromoethane	8.402	107	55169	9.32 ug/L	98
78) 3-Chlorobenzotrifluoride	8.878	180	124088	9.98 ug/L	97
79) Chlorobenzene	8.866	112	209963	9.63 ug/L	95
80) 4-Chlorobenzotrifluoride	8.927	180	114349	9.85 ug/L	98
81) 1,1,1,2-Tetrachloroethane	8.945	131	70347	8.94 ug/L	94
82) Ethylbenzene	8.975	106	94886	8.55 ug/L	94
83) (m+p)Xylene	9.085	106	241514	17.57 ug/L	100
84) o-Xylene	9.433	106	123327	9.12 ug/L	94
85) Styrene	9.451	104	198291	9.11 ug/L	98
86) Bromoform	9.597	173	39214	9.27 ug/L	91
87) 2-Chlorobenzotrifluoride	9.670	180	123207	9.96 ug/L	98
88) Isopropylbenzene	9.756	105	297066	9.02 ug/L	99
89) Cyclohexanone	9.823	55	167607	248.92 ug/L	92
90) trans-1,4-Dichloro-2-B...	10.061	53	17350	14.22 ug/L	85
92) 1,1,2,2-Tetrachloroethane	10.012	83	69901	10.08 ug/L	99
93) Bromobenzene	10.006	156	91030	9.33 ug/L #	88
94) 1,2,3-Trichloropropane	10.042	110	18871	10.36 ug/L #	86
95) n-Propylbenzene	10.103	91	351563	9.19 ug/L	99
96) 2-Chlorotoluene	10.170	91	224435	9.25 ug/L	96
97) 3-Chlorotoluene	10.219	91	275210	10.65 ug/L	99

Quantitation Report (QT Reviewed)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:12:37 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

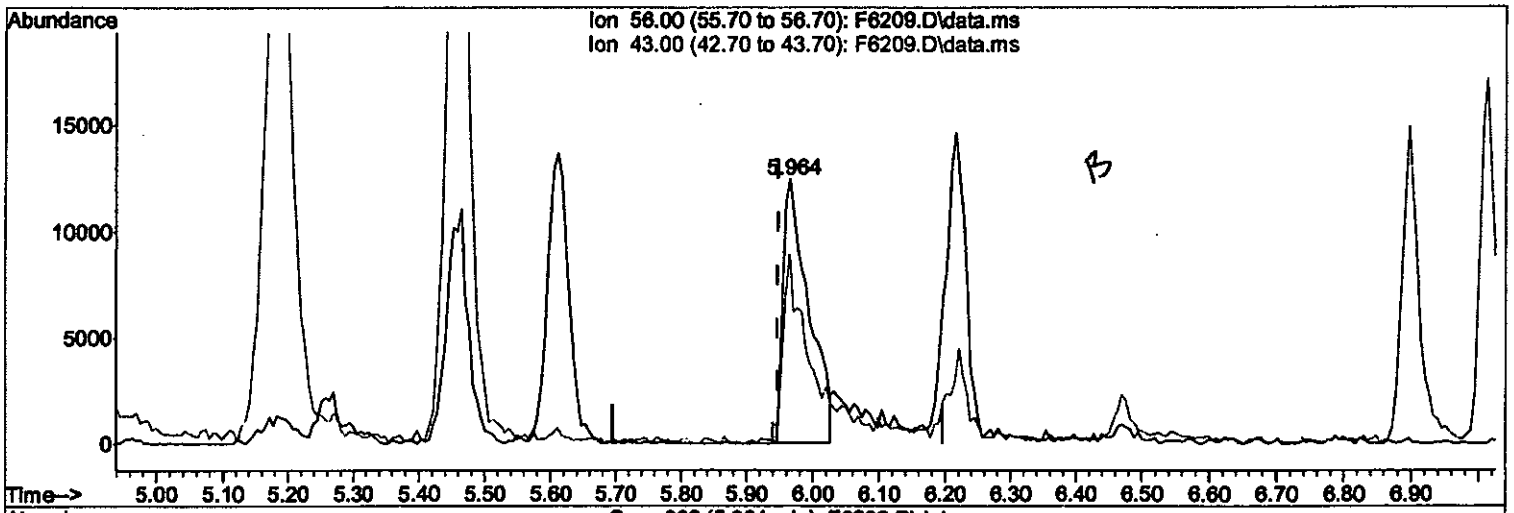
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	4-Chlorotoluene	10.262	91	259882	8.80 ug/L	97
99)	1,3,5-Trimethylbenzene	10.250	105	248041	9.12 ug/L	97
100)	tert-Butylbenzene	10.518	119	201697	8.88 ug/L	99
101)	1,2,4-Trimethylbenzene	10.560	105	258152	9.05 ug/L	94
102)	3,4-Dichlorobenzotrifl...	10.615	214	84580	9.58 ug/L	96
103)	sec-Butylbenzene	10.695	105	284154	9.01 ug/L	98
104)	p-Isopropyltoluene	10.817	119	254491	9.59 ug/L	99
105)	1,3-Dclbenz	10.786	146	164825	9.32 ug/L	98
106)	1,4-Dclbenz	10.853	146	176093	9.69 ug/L	99
107)	2,4-Dichlorobenzotrifl...	10.902	214	78171	9.95 ug/L	96
108)	2,5-Dichlorobenzotrifl...	10.945	214	89401	9.69 ug/L	98
109)	n-Butylbenzene	11.146	91	214407	9.08 ug/L	97
110)	1,2-Dclbenz	11.152	146	158242	9.76 ug/L	98
111)	1,2-Dibromo-3-chloropr...	11.707	157	11461	10.38 ug/L	88
112)	Trielution Dichlorotol...	11.804	125	414196	31.38 ug/L	97
113)	1,3,5-Trichlorobenzene	11.847	180	119611	10.27 ug/L	96
114)	Coelution Dichlorotoluene	12.066	125	293005	22.04 ug/L	99
115)	1,2,4-Tcbenzene	12.231	180	92638	10.08 ug/L	100
116)	Hexachlorobt	12.328	225	39743	9.99 ug/L	96
117)	Naphthalen	12.377	128	160027	10.76 ug/L	98
118)	1,2,3-Tclbenzene	12.511	180	73337	10.73 ug/L	96
119)	2,4,5-Trichlorotoluene	12.926	159	49615	11.91 ug/L	97
120)	2,3,6-Trichlorotoluene	12.987	159	49992	12.33 ug/L	96

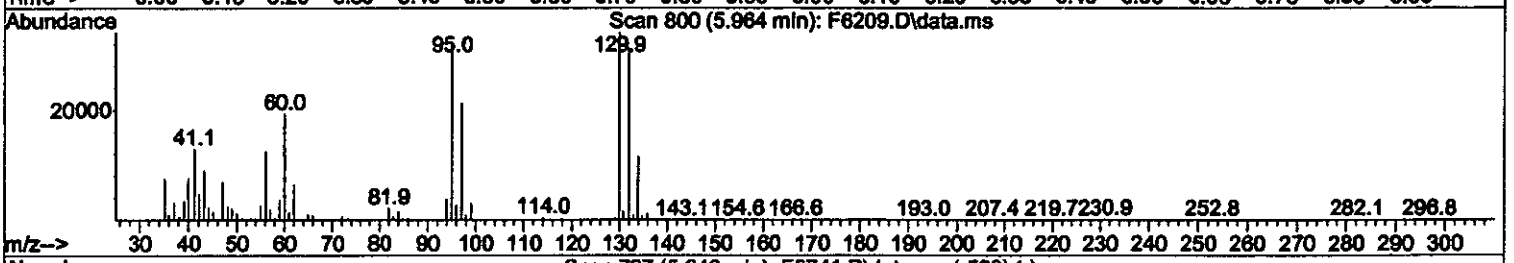
(#) = qualifier out of range (m) = manual integration (+) = signals summed

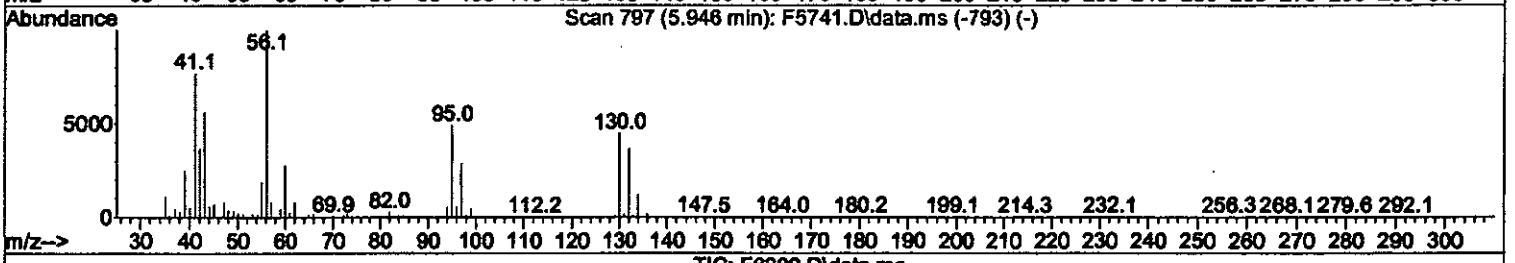
Quantitation Report (Qedit)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:23:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6209.D\data.ms

(53) 1-Butanol

5.964min (+0.019) 380.85 ug/L

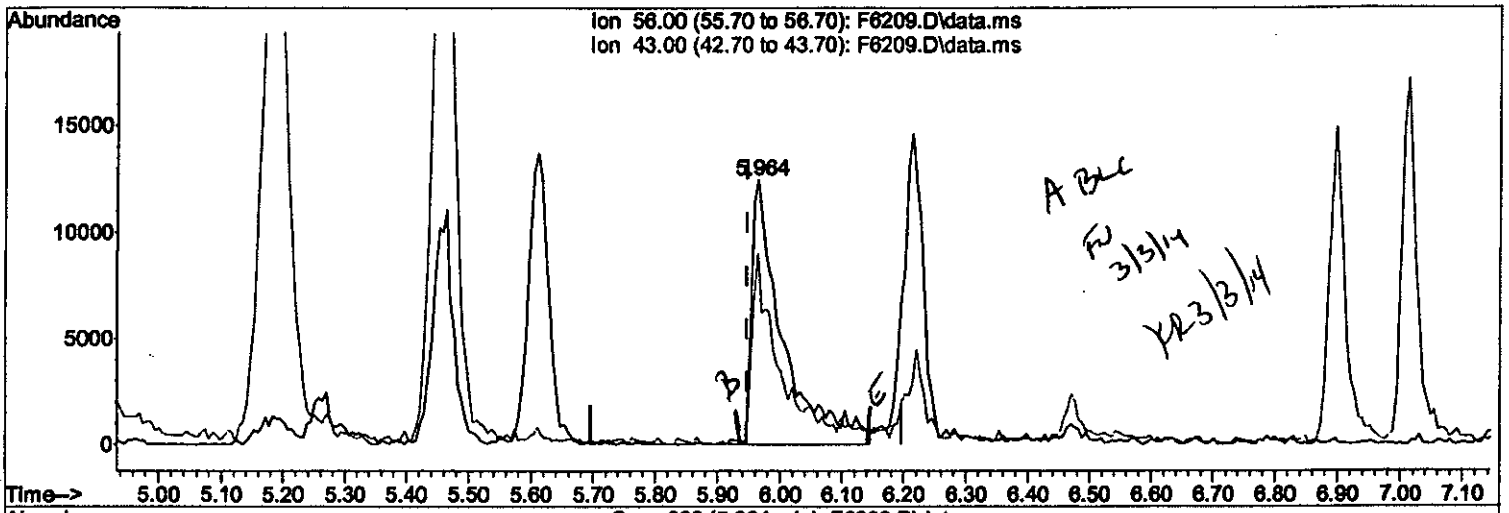
response 32687

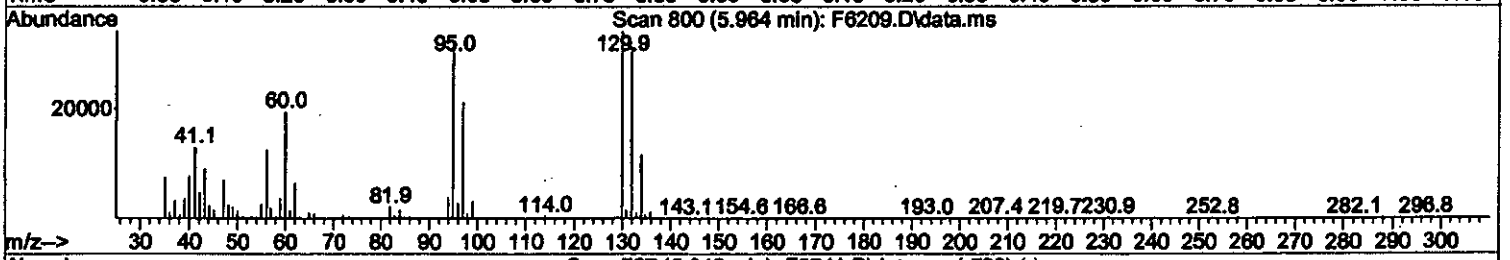
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	72.10
0.00	0.00	0.00
0.00	0.00	0.00

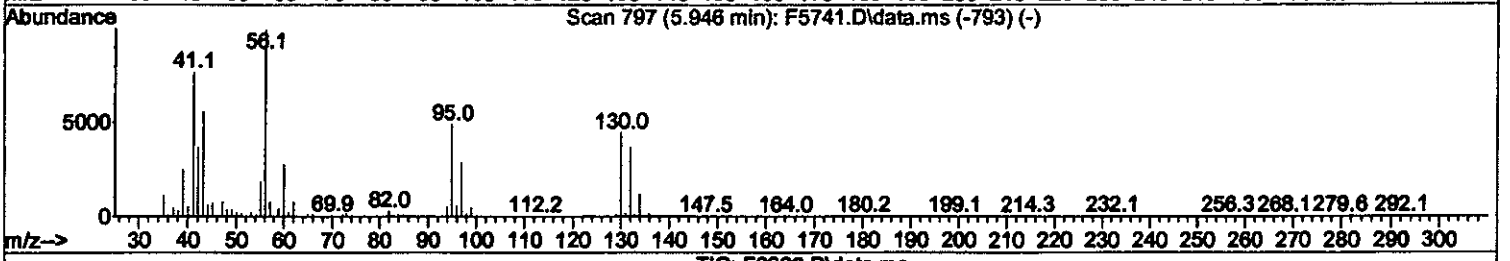
Quantitation Report (Qedit)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:23:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6209.D\data.ms

(53) 1-Butanol

5.964min (+0.019) 497.93 ug/L m

response 42735

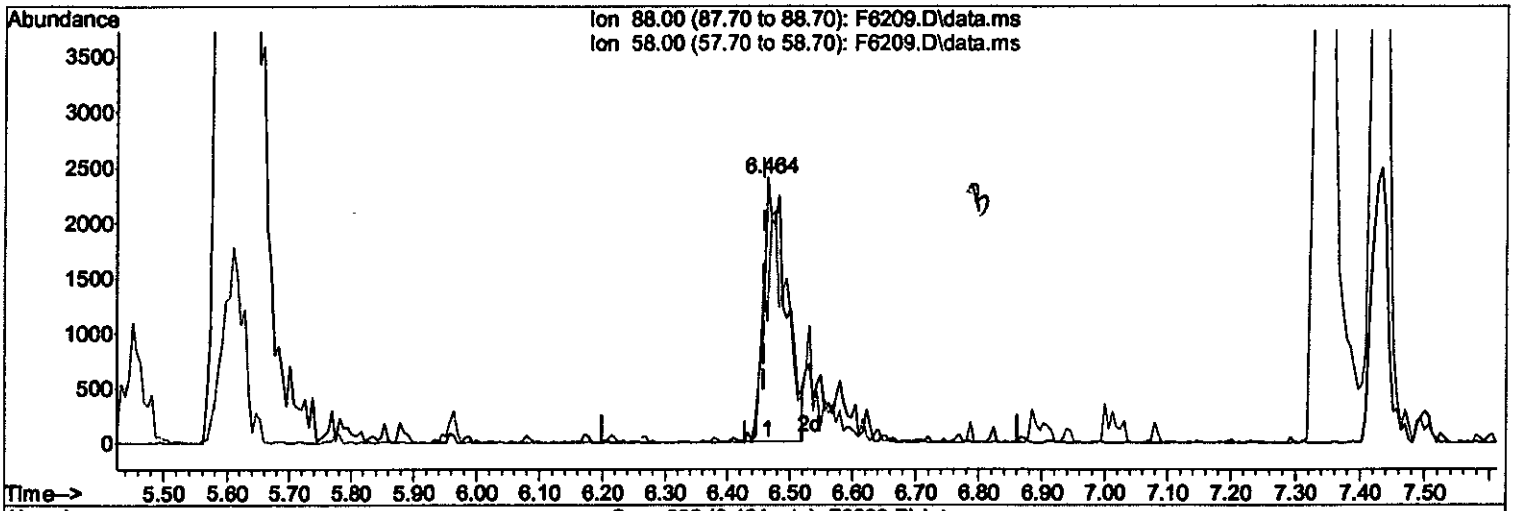
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	72.10
0.00	0.00	0.00
0.00	0.00	0.00

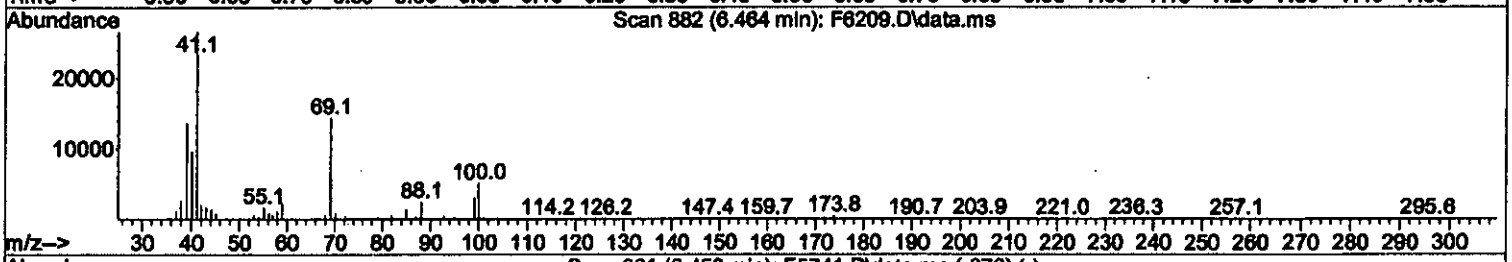
W022814.M Fri Feb 28 15:12:00 2014 MSVO10

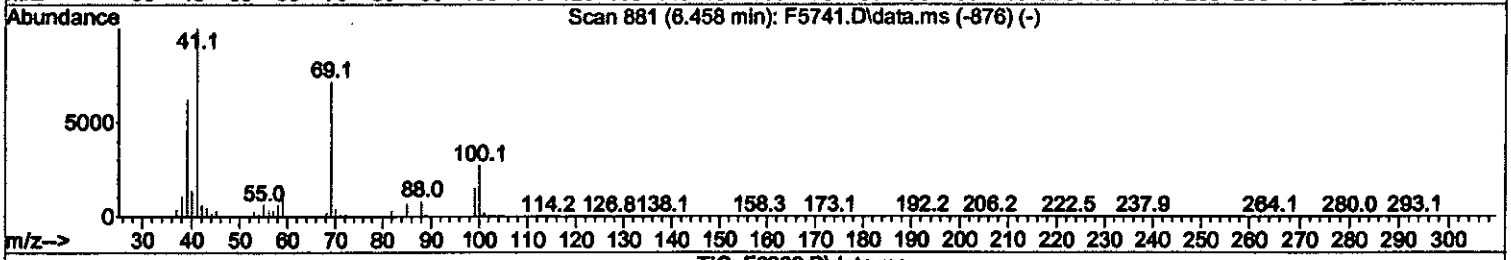
Quantitation Report (Qedit)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:23:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6209.D\data.ms

(58) 1,4-Dioxane

6.464min (+0.007) 128.13 ug/L

response 5764

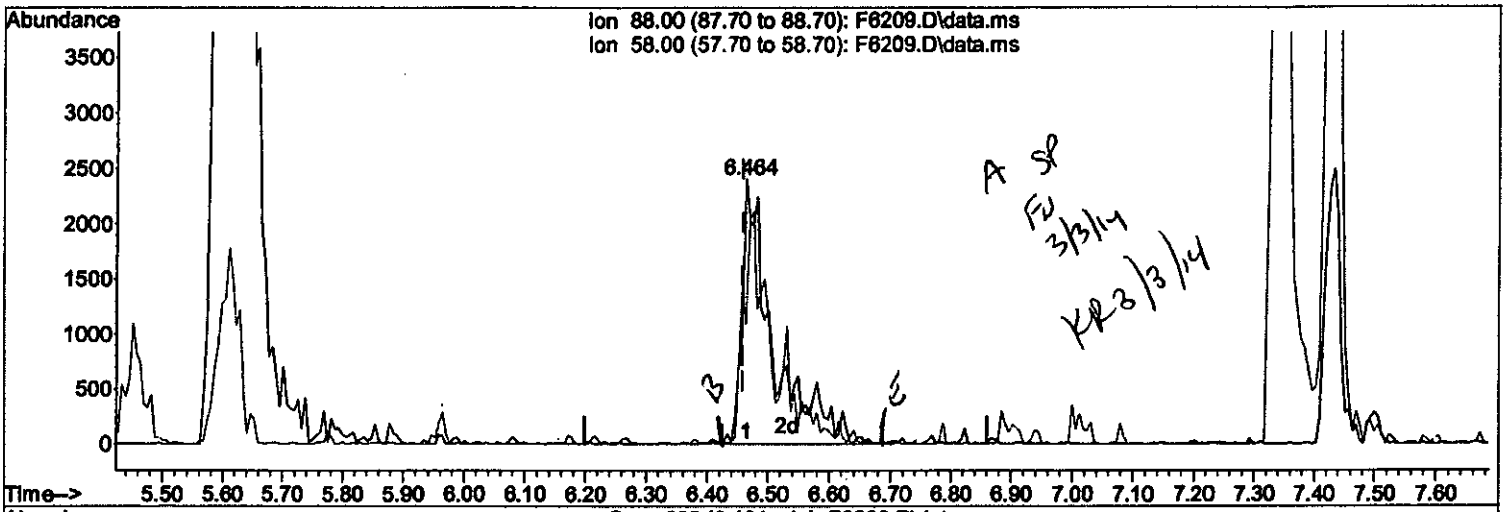
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	45.55#
0.00	0.00	0.00
0.00	0.00	0.00

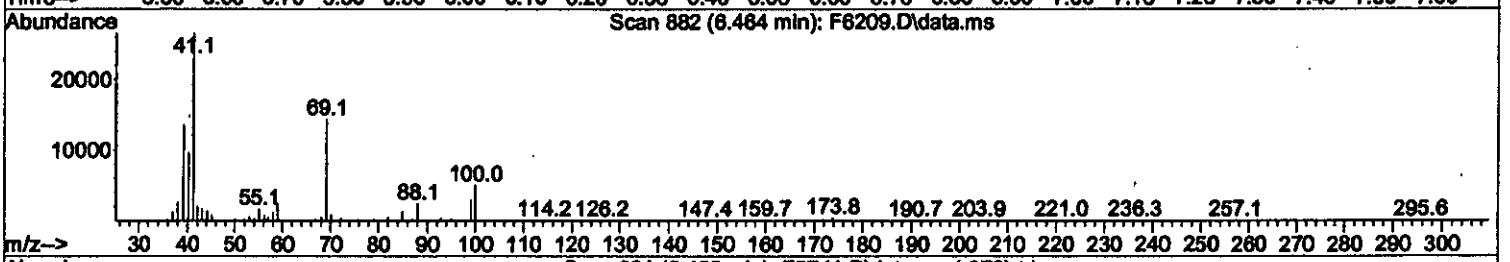
00309

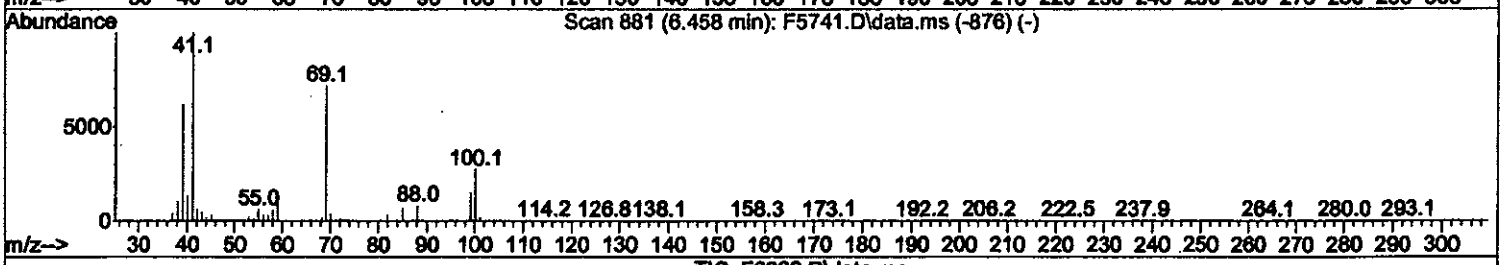
Quantitation Report (Qedit)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:23:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6209.D\data.ms

(58) 1,4-Dioxane

6.464min (+0.007) 184.75 ug/L m

response 8311

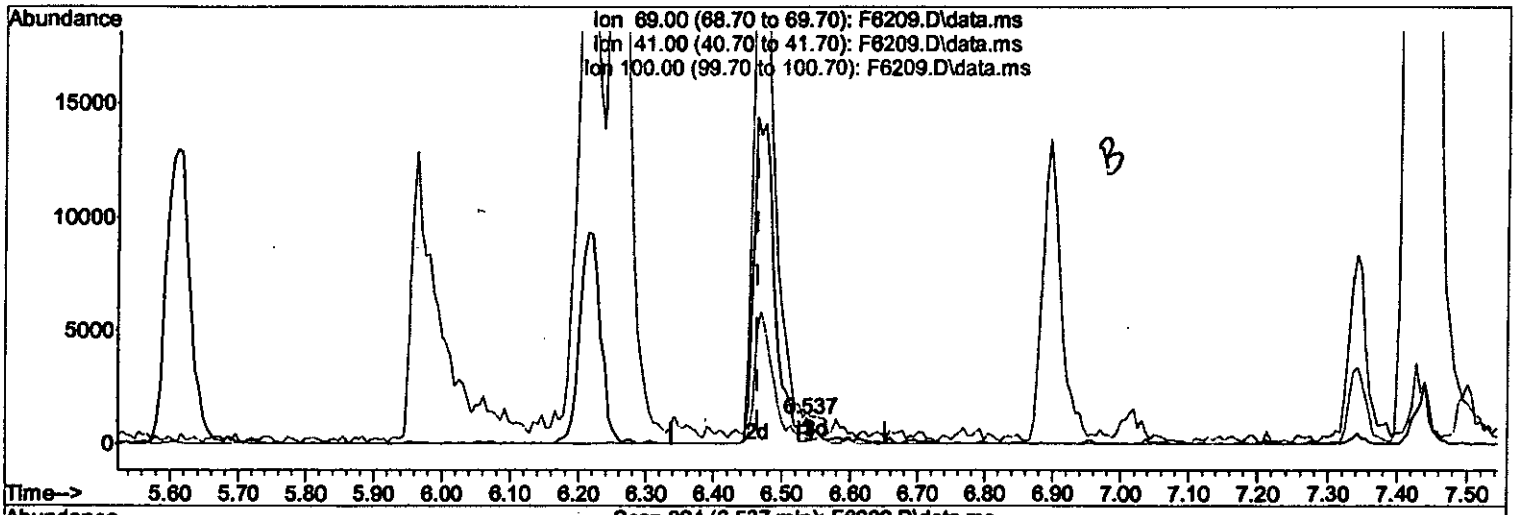
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	45.55#
0.00	0.00	0.00
0.00	0.00	0.00

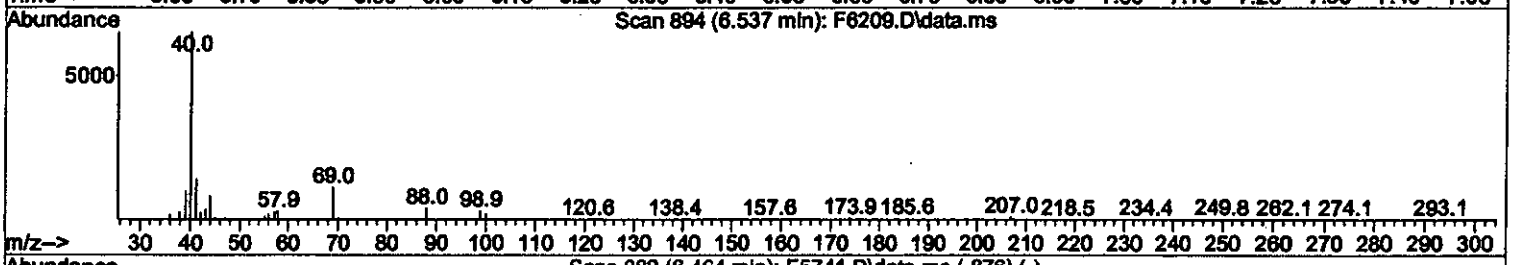
00310

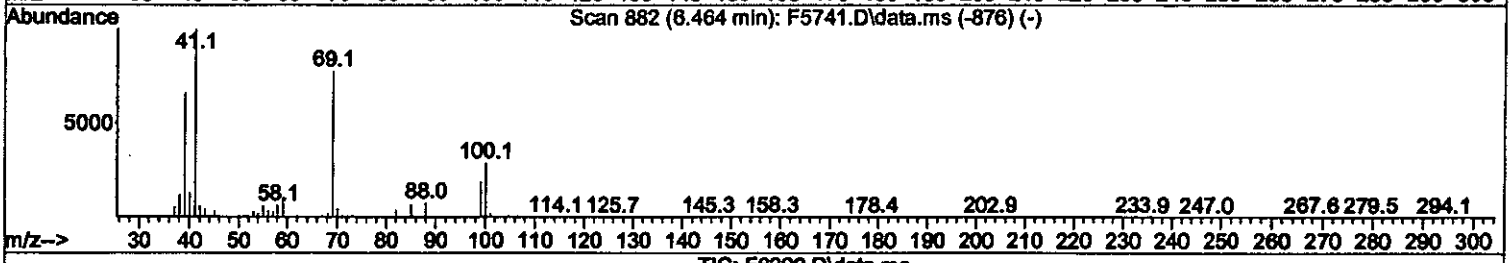
Quantitation Report (Qedit)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:23:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6209.D\data.ms

(59) Methyl Methacrylate

6.537min (+0.074) 0.21 ug/L

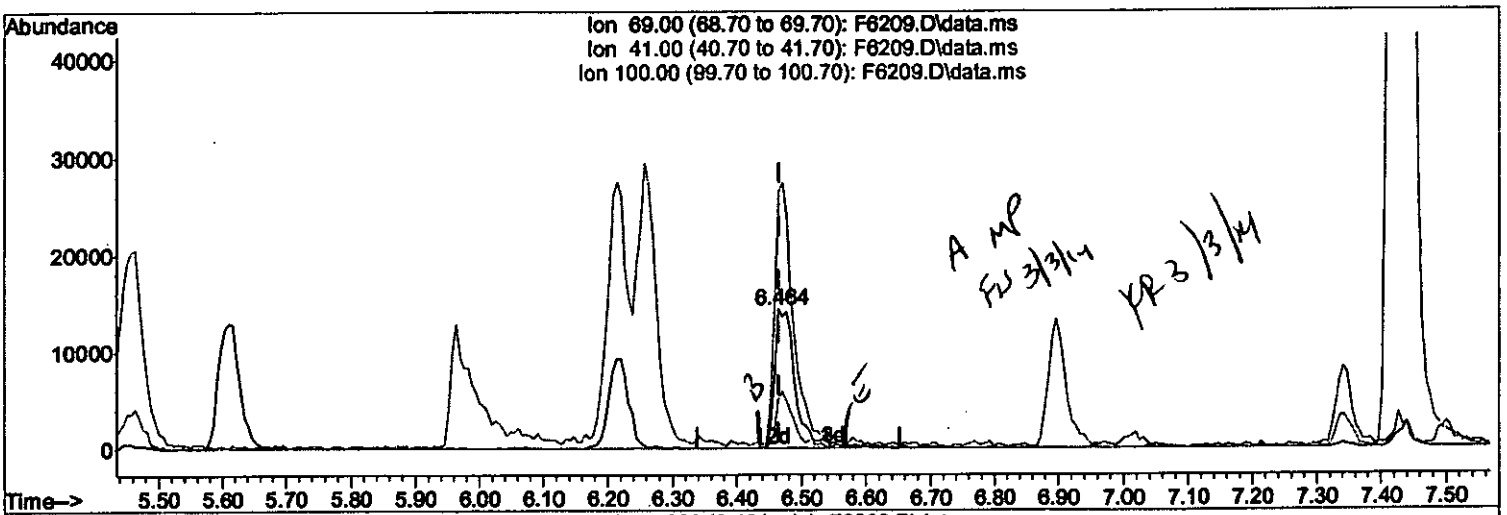
response 720

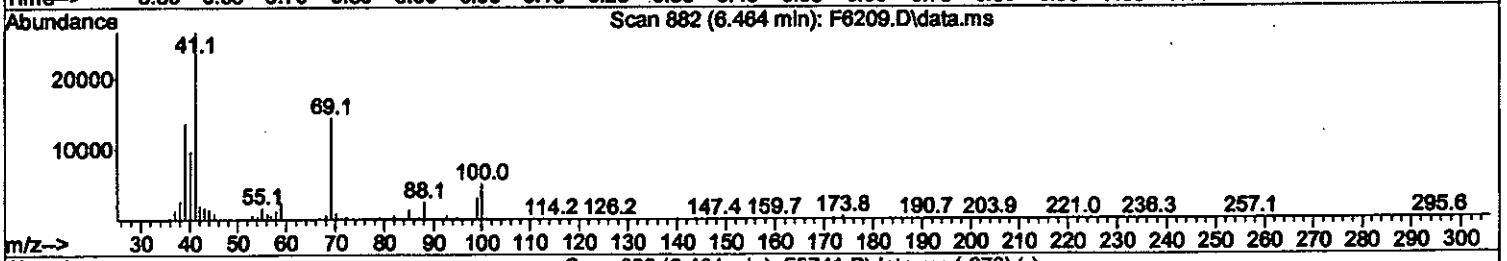
Ion	Exp%	Act%
69.00	100	100
41.00	128.90	124.49
100.00	36.90	17.87
0.00	0.00	0.00

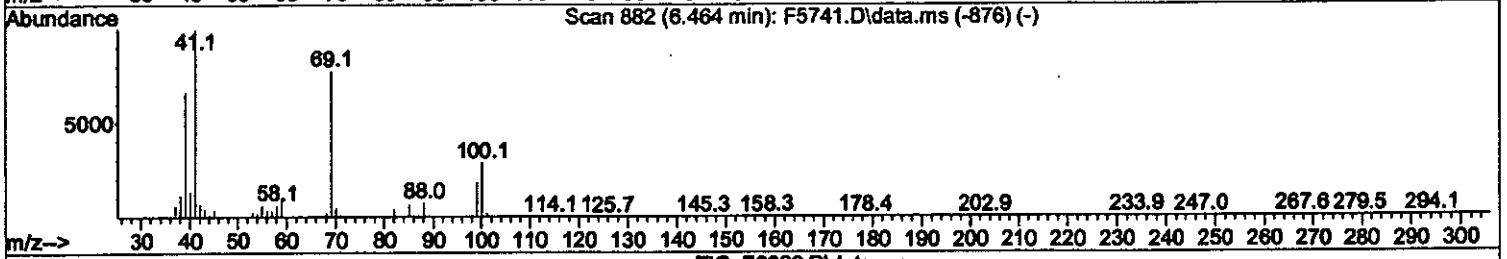
Quantitation Report (Qedit)

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:23:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6209.D\data.ms

(59) Methyl Methacrylate

6.464min (+0.001) 9.21 ug/L m

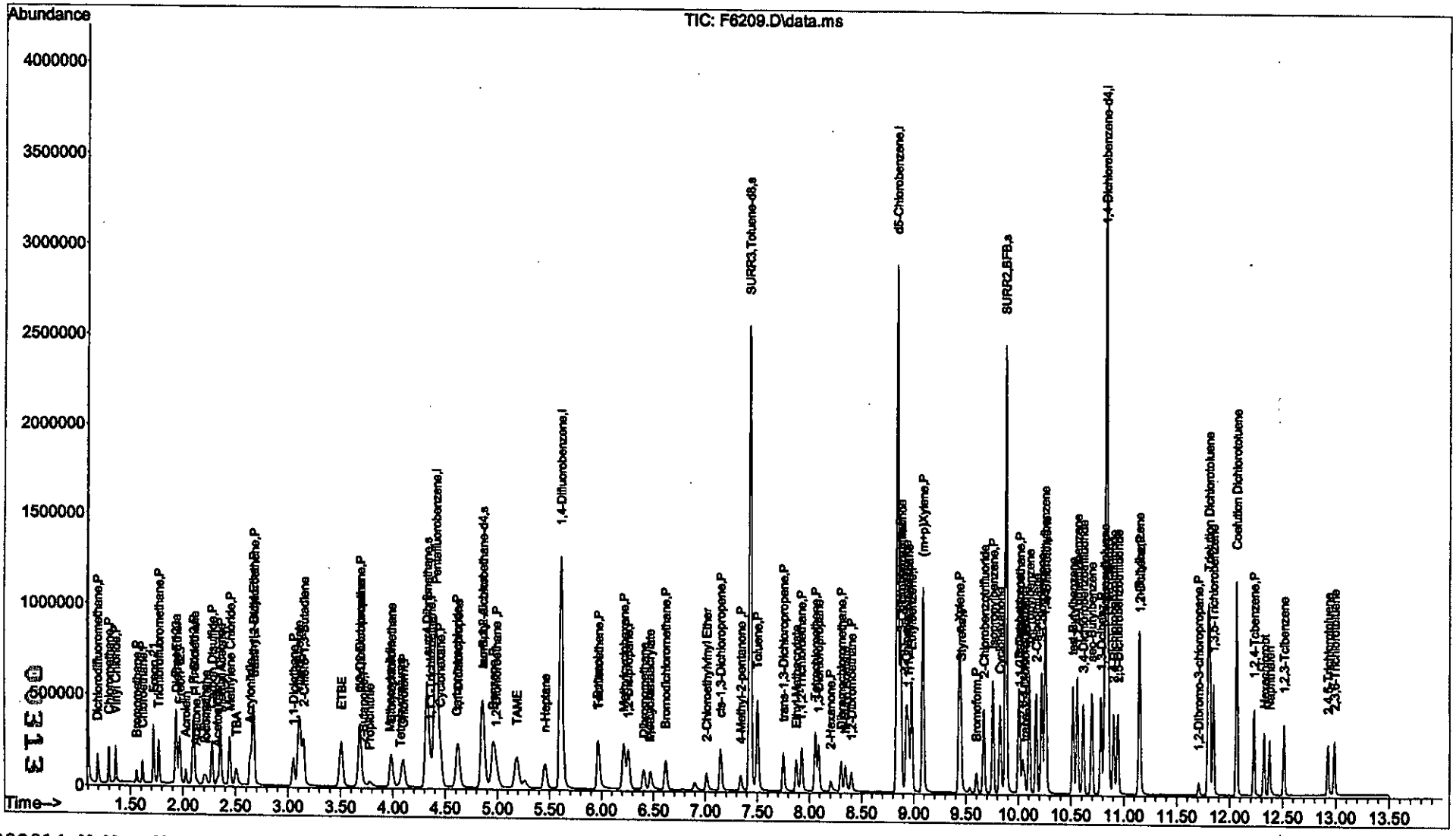
response 31512

Ion	Exp%	Act%
69.00	100	100
41.00	128.90	184.86#
100.00	36.90	34.79
0.00	0.00	0.00

00312

Sample : 10 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6209.D Vial: 7
Acq On : 28 Feb 2014 2:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:12:37 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:14:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

FJ 3/3/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	866233	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1280918	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1163254	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	676877	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	411178	50.66	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.32%				
48) surr1,1,2-dichloroetha...	4.860	65	433470	50.19	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.38%				
65) SURR3,Toluene-d8	7.427	98	1488439	50.51	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.02%				
70) SURR2,BFB	9.878	95	618835	51.31	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.62%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.190	85	527667	61.47	ug/L		95
3) Chloromethane	1.294	50	576366	66.49	ug/L		98
4) Vinyl Chloride	1.361	62	557190	63.65	ug/L		98
5) Bromomethane	1.556	94	176537	58.24	ug/L		98
6) Chloroethane	1.617	64	300625	60.79	ug/L		95
7) Freon 21	1.721	67	836263	55.30	ug/L		98
8) Trichlorofluoromethane	1.770	101	686608	55.86	ug/L		99
9) Diethyl Ether	1.934	59	318240	65.60	ug/L		88
10) Freon 123a	1.928	67	522726	53.83	ug/L		96
11) Freon 123	1.965	83	560777	53.28	ug/L		98
12) Acrolein	2.026	56	213398	364.65	ug/L		97
13) 1,1-Diclethene	2.099	96	318715	54.83	ug/L	#	87
14) Freon 113	2.093	101	384701	75.41	ug/L		100
15) Acetone	2.123	43	108390	67.63	ug/L		96
16) 2-Propanol	2.196	45	313157	1177.96	ug/L		100
17) Iodomethane	2.215	142	211311	34.98	ug/L		97
18) Carbon Disulfide	2.276	76	1077909	51.85	ug/L		98
19) Acetonitrile	2.318	40	62035	319.88	ug/L		90
20) Allyl Chloride	2.355	76	204010	58.46	ug/L	#	66
21) Methyl Acetate	2.355	43	243896	69.65	ug/L		89
22) Methylene Chloride	2.440	84	386926	51.62	ug/L	#	86
23) TBA	2.501	59	482880	1049.88	ug/L		91
24) Acrylonitrile	2.629	53	538402	330.78	ug/L		98
25) Methyl-t-Butyl Ether	2.660	73	928090	52.34	ug/L		93
26) trans-1,2-Dichloroethene	2.666	96	399678	54.24	ug/L	#	88
28) 1,1-Diclethane	3.050	63	780939	56.56	ug/L		98
29) Vinyl Acetate	3.092	86	55695	55.52	ug/L	#	61
30) DIPE	3.105	45	1710633	66.17	ug/L		90
31) 2-Chloro-1,3-Butadiene	3.141	53	780267	61.99	ug/L		85
32) ETBE	3.501	59	1330095	58.04	ug/L		93
33) 2,2-Dichloropropane	3.684	77	590522	50.48	ug/L		99
34) cis-1,2-Dichloroethene	3.678	96	439357	53.44	ug/L	#	83
35) 2-Butanone	3.696	43	152971	69.15	ug/L		93
36) Propionitrile	3.763	54	192227	354.78	ug/L		93
37) Bromochloromethane	3.982	130	263395	55.05	ug/L	#	86

Quantitation Report (QT Reviewed)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:14:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.970	67	104741	54.09 ug/L #	51
39) Tetrahydrofuran	4.050	42	85422	63.55 ug/L	77
40) Chloroform	4.092	83	731888	52.28 ug/L	96
41) 1,1,1-Trichloroethane	4.360	97	635684	53.10 ug/L	97
42) TAME	5.183	73	987875	52.03 ug/L	93
44) Cyclohexane	4.440	41	508418	66.14 ug/L	92
46) Carbontetrachloride	4.617	121	179676	56.71 ug/L	99
47) 1,1-Dichloropropene	4.617	75	515541	53.31 ug/L	96
49) Benzene	4.958	78	1613631	53.16 ug/L	93
50) 1,2-Dichloroethane	4.988	62	571274	55.48 ug/L	97
51) Iso-Butyl Alcohol	4.854	43	230767	1276.29 ug/L	96
52) n-Heptane	5.452	43	531899	81.33 ug/L	88
53) 1-Butanol	5.946	56	291867	3228.13 ug/L	91
54) Trichloroethene	5.964	130	443146	53.70 ug/L	99
55) Methylcyclohexane	6.214	55	579151	62.94 ug/L	85
56) 1,2-Diclpropane	6.256	63	445858	56.02 ug/L	100
57) Dibromomethane	6.403	93	223831	50.72 ug/L	99
58) 1,4-Dioxane	6.458	88	41727m	880.50 ug/L	
59) Methyl Methacrylate	6.464	69	191555m	53.12 ug/L	
60) Bromodichloromethane	6.616	83	544304	51.73 ug/L	98
62) 2-Chloroethylvinyl Ether	7.006	63	198136	56.78 ug/L	92
63) cis-1,3-Dichloropropene	7.140	75	612066	53.34 ug/L	99
64) 4-Methyl-2-pentanone	7.335	43	317301	66.93 ug/L	96
66) Toluene	7.500	91	1779705	54.62 ug/L	99
67) trans-1,3-Dichloropropene	7.744	75	502715	53.26 ug/L	96
68) Ethyl Methacrylate	7.872	69	402962	54.65 ug/L	81
69) 1,1,2-Trichloroethane	7.921	97	311441	52.46 ug/L	98
72) Tetrachloroethene	8.055	164	364042	52.80 ug/L	96
73) 2-Hexanone	8.195	43	228434	63.53 ug/L	95
74) 1,3-Dichloropropane	8.085	76	513583	49.57 ug/L #	81
75) Dibromochloromethane	8.299	129	404671	54.85 ug/L	97
76) N-Butyl Acetate	8.335	43	570742	65.18 ug/L	94
77) 1,2-Dibromoethane	8.396	107	311193	50.98 ug/L	99
78) 3-Chlorobenzotrifluoride	8.878	180	657644	51.30 ug/L	99
79) Chlorobenzene	8.866	112	1199583	53.38 ug/L	98
80) 4-Chlorobenzotrifluoride	8.927	180	608128	50.83 ug/L	98
81) 1,1,1,2-Tetrachloroethane	8.945	131	436320	53.77 ug/L	98
82) Ethylbenzene	8.975	106	604102	52.83 ug/L	98
83) (m+p)Xylene	9.085	106	1529643	107.95 ug/L	98
84) o-Xylene	9.433	106	744828	53.45 ug/L	99
85) Styrene	9.445	104	1278146	56.97 ug/L	98
86) Bromoform	9.597	173	241341	55.33 ug/L	95
87) 2-Chlorobenzotrifluoride	9.664	180	638702	50.10 ug/L	92
88) Isopropylbenzene	9.756	105	1882639	55.45 ug/L	99
89) Cyclohexanone	9.823	55	900188	1297.15 ug/L	98
90) trans-1,4-Dichloro-2-B...	10.054	53	110529	87.89 ug/L	89
92) 1,1,2,2-Tetrachloroethane	10.006	83	377029	49.88 ug/L	97
93) Bromobenzene	10.000	156	521771	49.04 ug/L	98
94) 1,2,3-Trichloropropane	10.036	110	98853	49.76 ug/L	98
95) n-Propylbenzene	10.103	91	2305122	55.23 ug/L	99
96) 2-Chlorotoluene	10.164	91	1374872	51.97 ug/L	98
97) 3-Chlorotoluene	10.219	91	1400602	49.69 ug/L	98

Quantitation Report (QT Reviewed)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:14:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration

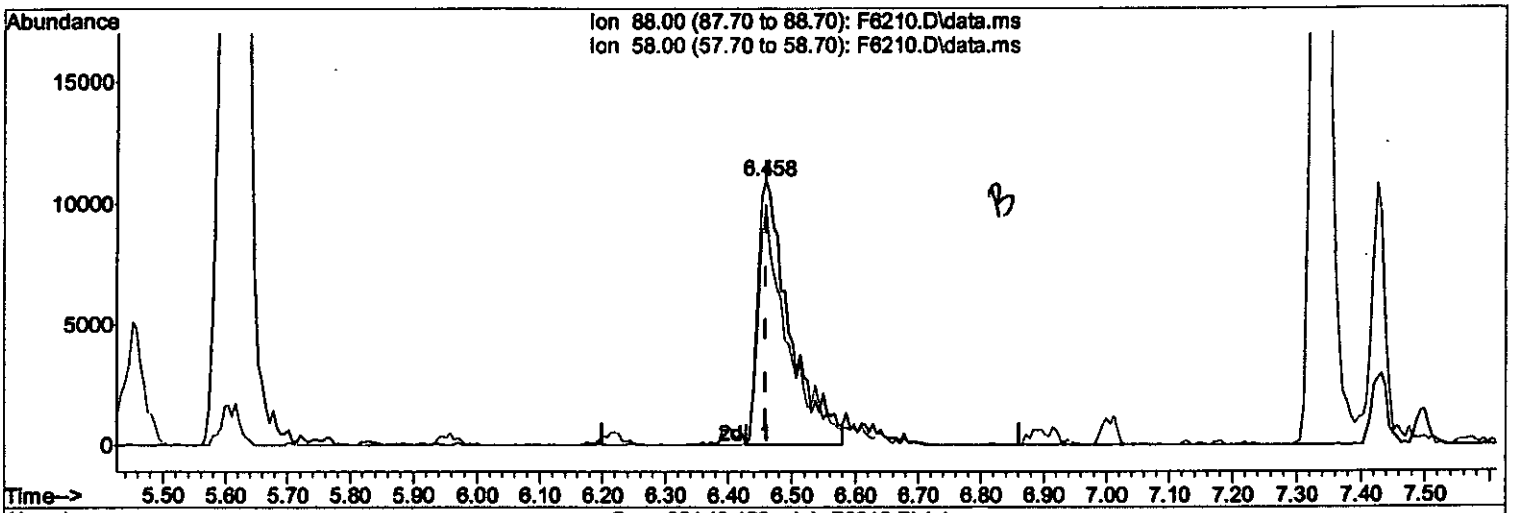
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	4-Chlorotoluene	10.256	91	1650303	51.24	ug/L	100
99)	1,3,5-Trimethylbenzene	10.250	105	1617584	54.55	ug/L	98
100)	tert-Butylbenzene	10.518	119	1335688	53.95	ug/L	99
101)	1,2,4-Trimethylbenzene	10.560	105	1654109	53.16	ug/L	96
102)	3,4-Dichlorobenzotrifl...	10.615	214	468684	48.66	ug/L	99
103)	sec-Butylbenzene	10.695	105	1881329	54.70	ug/L	99
104)	p-Isopropyltoluene	10.817	119	1657370	57.25	ug/L	98
105)	1,3-Dclbenz	10.780	146	1008755	52.33	ug/L	98
106)	1,4-Dclbenz	10.853	146	1021366	51.51	ug/L	99
107)	2,4-Dichlorobenzotrifl...	10.902	214	429444	50.11	ug/L	99
108)	2,5-Dichlorobenzotrifl...	10.945	214	485118	48.24	ug/L	97
109)	n-Butylbenzene	11.140	91	1455407	56.51	ug/L	100
110)	1,2-Dclbenz	11.152	146	937256	53.02	ug/L	97
111)	1,2-Dibromo-3-chloropr...	11.707	157	65366	54.27	ug/L	95
112)	Trielution Dichlorotol...	11.804	125	2272139	157.86	ug/L	97
113)	1,3,5-Trichlorobenzene	11.847	180	633761	49.91	ug/L	97
114)	Coelution Dichlorotoluene	12.066	125	1570891	108.37	ug/L	98
115)	1,2,4-Tcbenzene	12.225	180	548218	54.72	ug/L	98
116)	Hexachlorobt	12.322	225	241409	55.66	ug/L	98
117)	Naphthalen	12.371	128	977461	60.26	ug/L	99
118)	1,2,3-Tclbenzene	12.511	180	416726	55.93	ug/L	97
119)	2,4,5-Trichlorotoluene	12.920	159	271990	59.87	ug/L	95
120)	2,3,6-Trichlorotoluene	12.981	159	246218	55.70	ug/L	96

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

Quantitation Report (Qedit)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:42 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



TIC: F6210.D\data.ms

(58) 1,4-Dioxane

6.458min (+0.001) 802.57 ug/L

response 38034

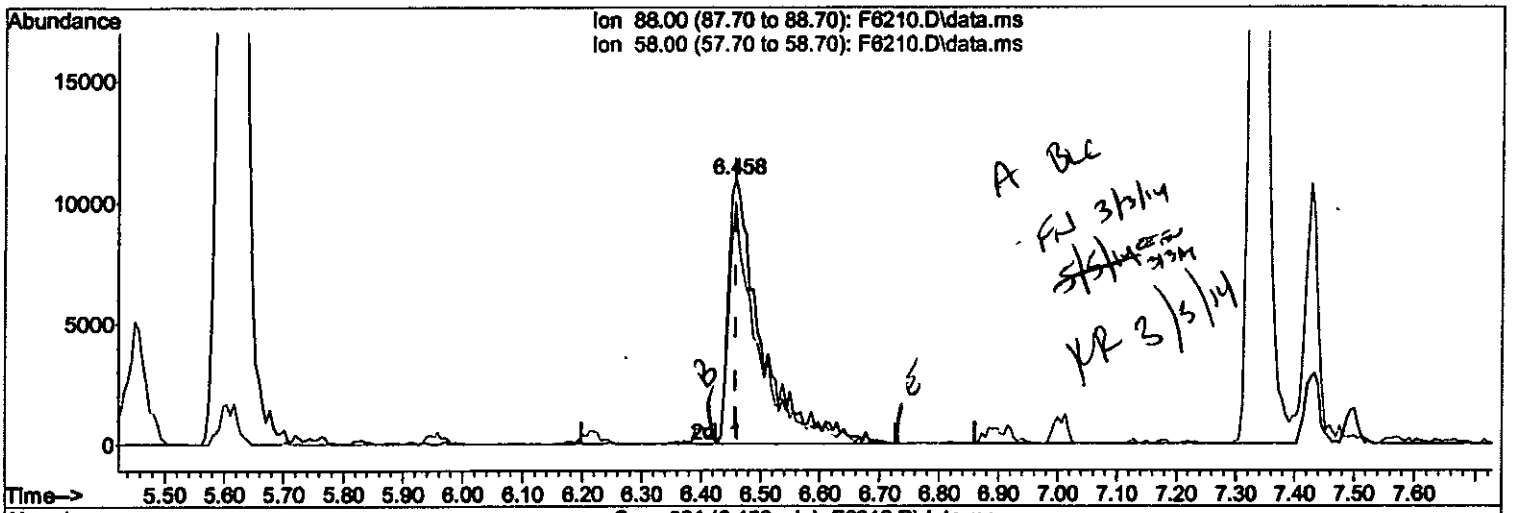
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	91.08
0.00	0.00	0.00
0.00	0.00	0.00

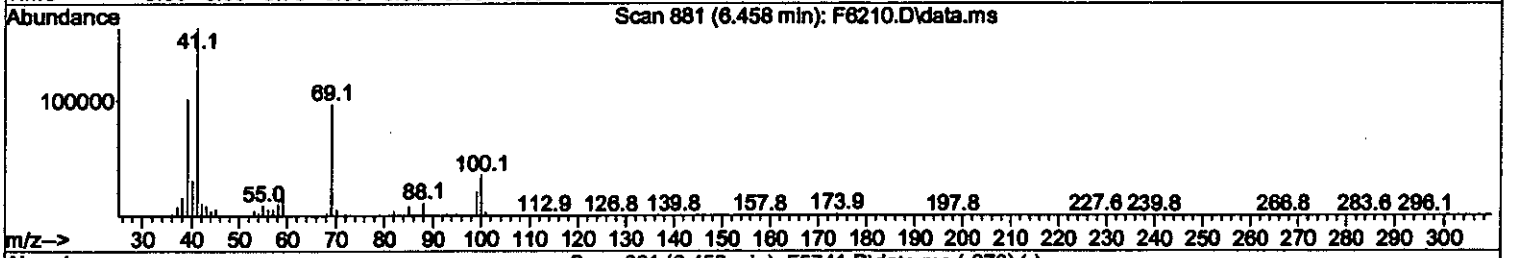
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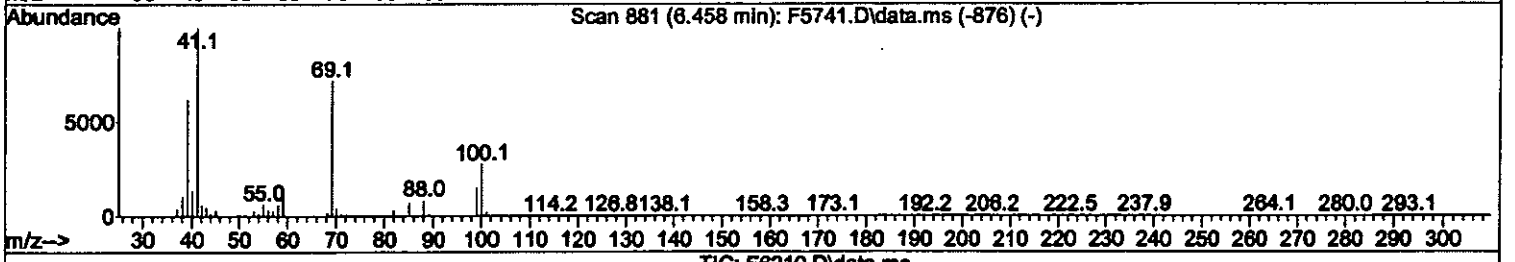
Quantitation Report (Qedit)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:42 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6210.D\data.ms

(58) 1,4-Dioxane

6.458min (+0.001) 880.50 ug/L m

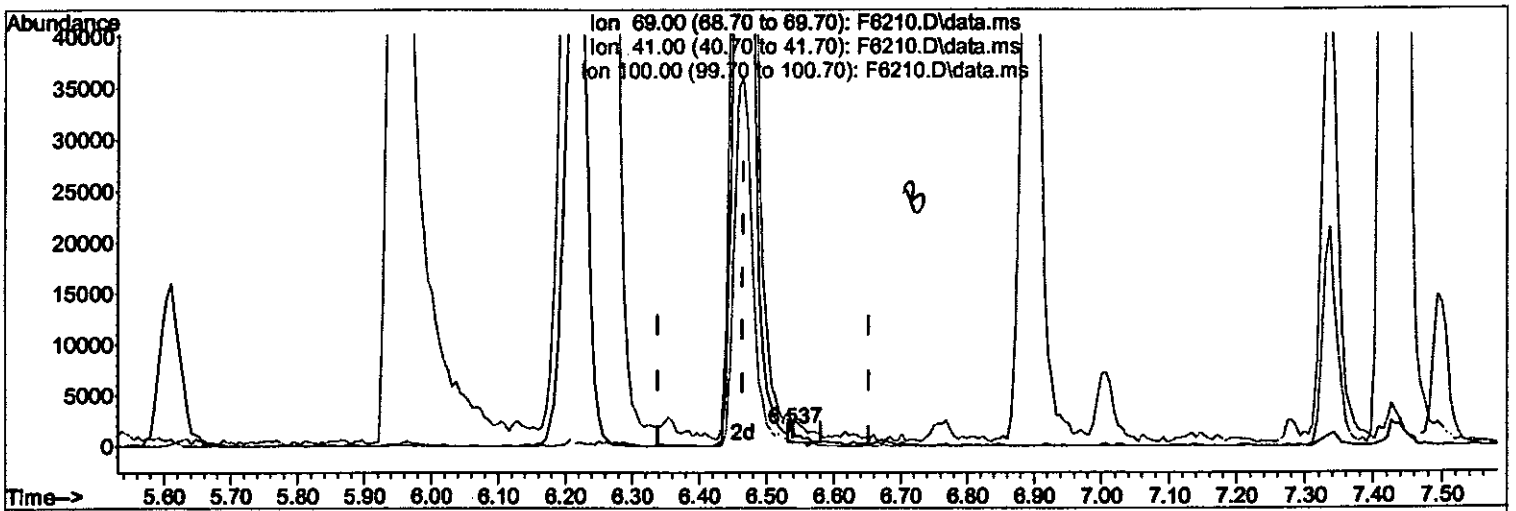
response 41727

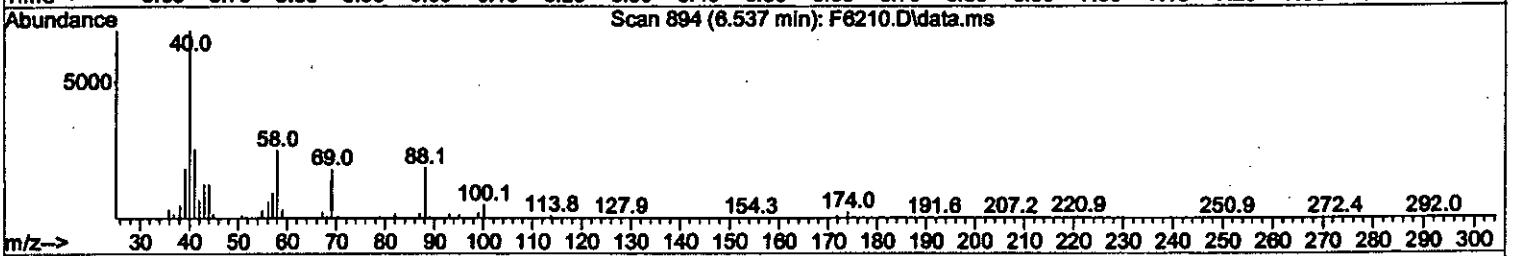
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	91.08
0.00	0.00	0.00
0.00	0.00	0.00

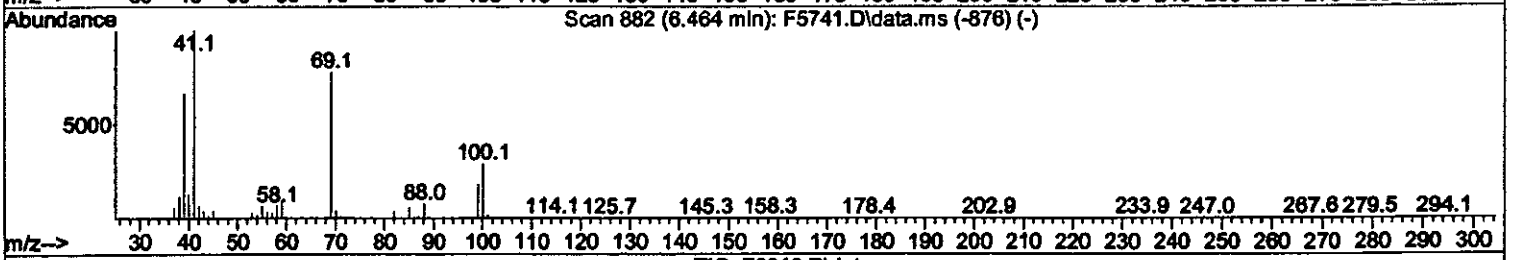
Quantitation Report (Qedit)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:42 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6210.D\data.ms

(59) Methyl Methacrylate

6.537min (+0.074) 0.37 ug/L

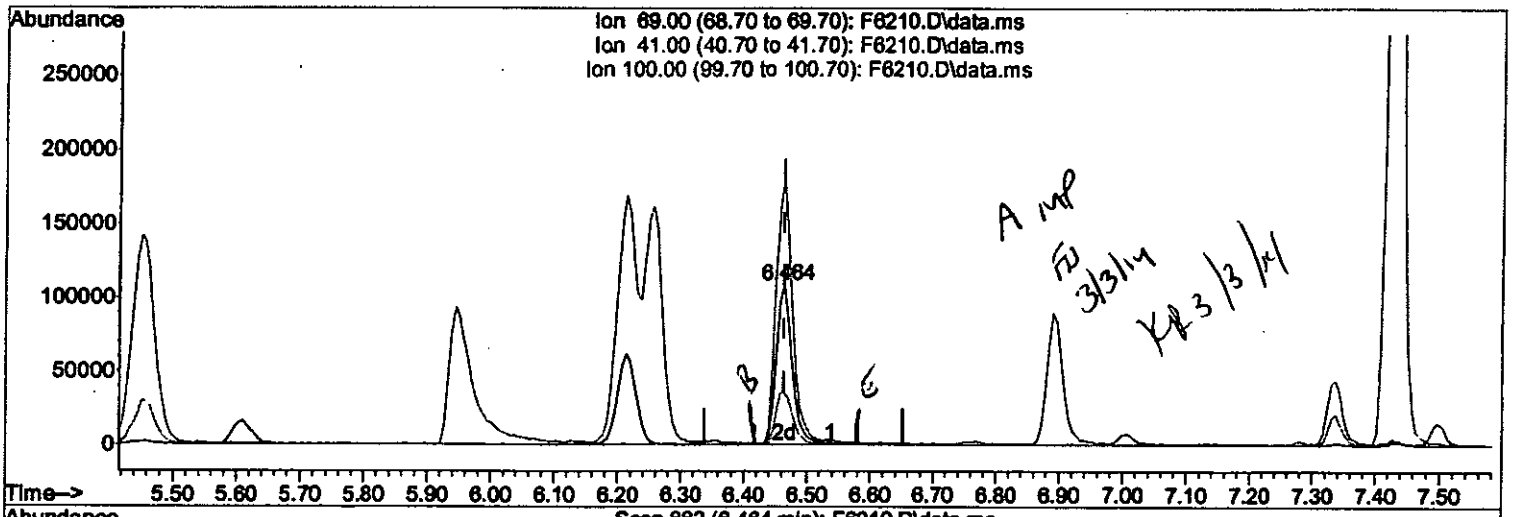
response 1334

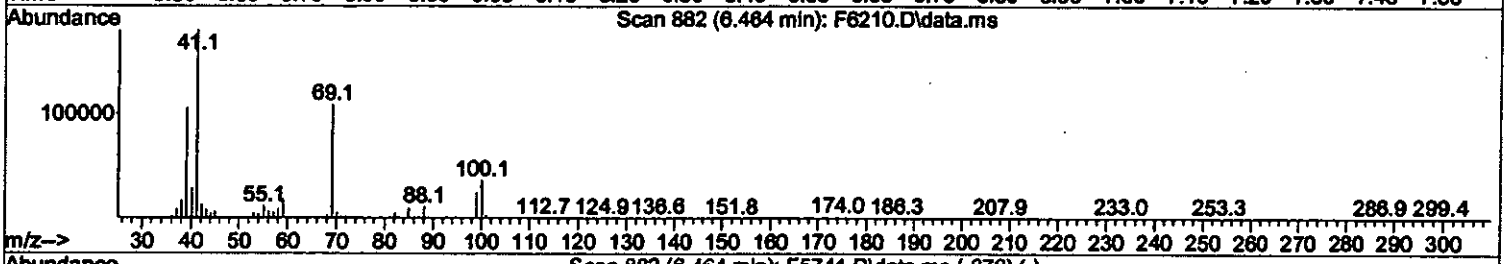
Ion	Exp%	Act%
69.00	100	100
41.00	128.90	140.64
100.00	36.90	27.45
0.00	0.00	0.00

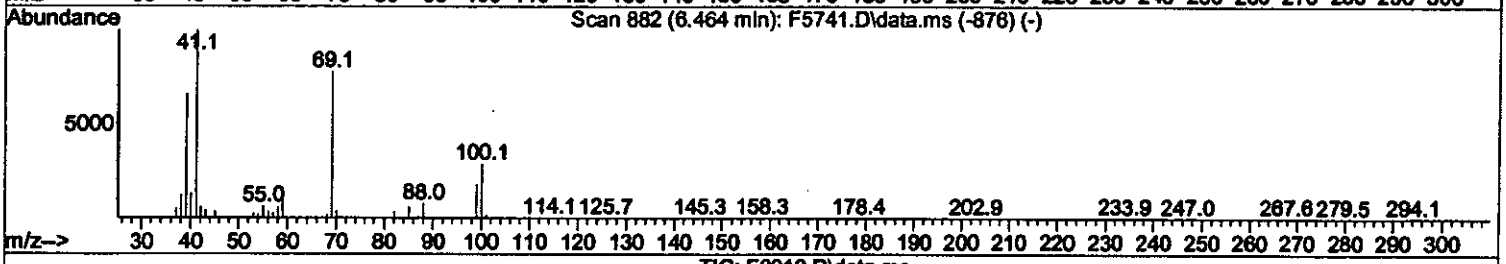
Quantitation Report (Qedit)

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 14:53:42 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration







TIC: F6210.D\data.ms

(59) Methyl Methacrylate

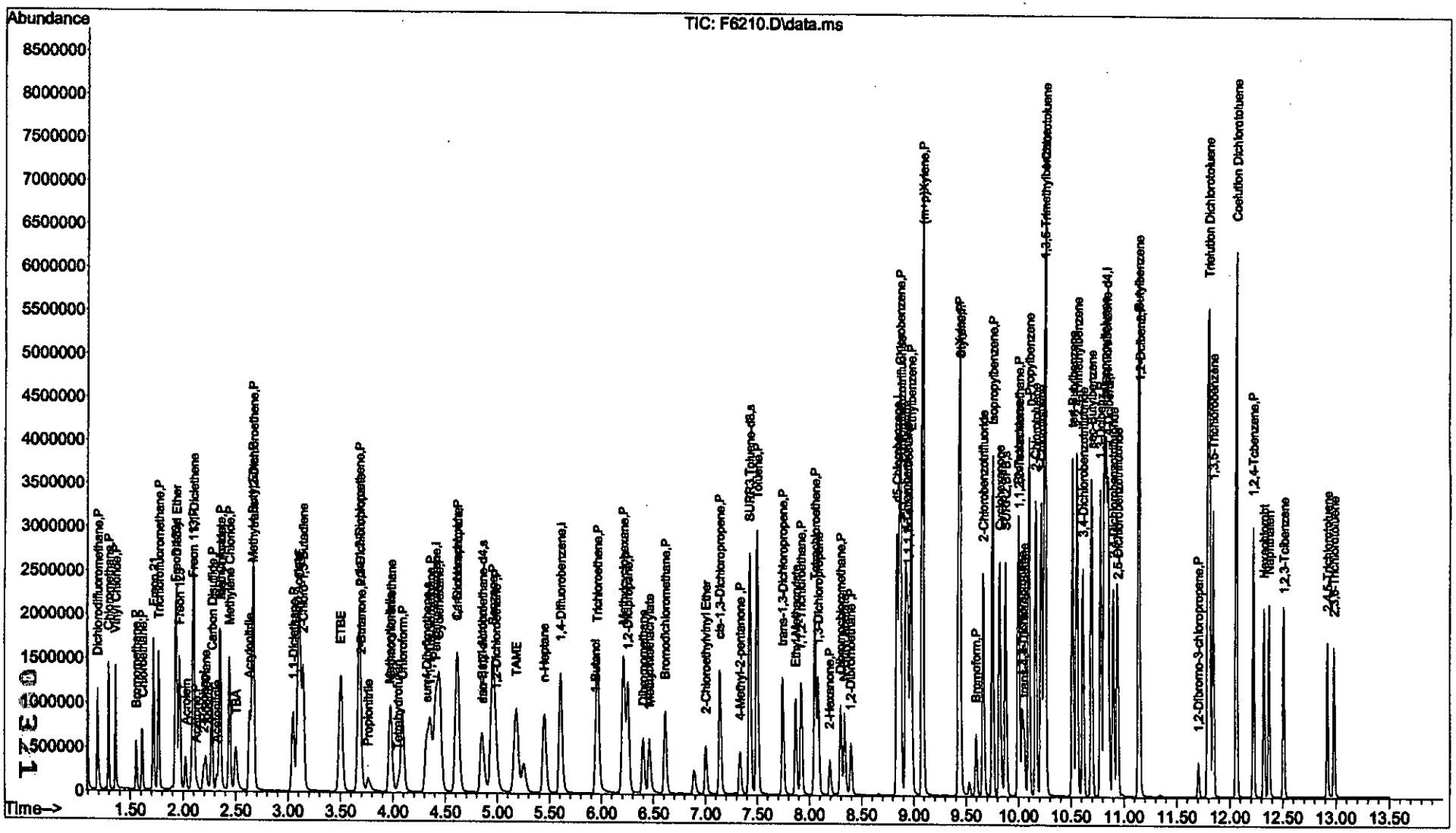
6.464min (+0.001) 53.12 ug/L m

response 191555

Ion	Exp%	Act%
69.00	100	100
41.00	128.90	165.18#
100.00	36.90	33.10
0.00	0.00	0.00

Sample : 50 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6210.D Vial: 8
Acq On : 28 Feb 2014 2:40 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:14:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Feb 27 14:34:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 100 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6211.D Vial: 9
Acq On : 28 Feb 2014 3:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FJ 3/3/14

Quant Time: Feb 28 15:26:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:15:37 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	881452	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1307919	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1223972	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	698649	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	426218	50.23	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.46%				
48) surr1,1,2-dichloroetha...	4.854	65	447493	50.05	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.10%				
65) SURR3,Toluene-d8	7.427	98	1518553	49.86	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.72%				
70) SURR2,BFB	9.878	95	644618	51.43	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.190	85	988778	104.97	ug/L		96
3) Chloromethane	1.294	50	1105099	104.75	ug/L		98
4) Vinyl Chloride	1.361	62	1042100	104.75	ug/L		98
5) Bromomethane	1.556	94	383646	127.66	ug/L		99
6) Chloroethane	1.617	64	575558	97.36	ug/L		97
7) Freon 21	1.721	67	1695358	102.34	ug/L		100
8) Trichlorofluoromethane	1.770	101	1266844	97.04	ug/L		99
9) Diethyl Ether	1.934	59	656046	112.18	ug/L		89
10) Freon 123a	1.928	67	1055142	102.98	ug/L		93
11) Freon 123	1.965	83	1145719	102.45	ug/L		100
12) Acrolein	2.026	56	457244	534.27	ug/L		97
13) 1,1-Diclethene	2.099	96	602283	100.32	ug/L	#	85
14) Freon 113	2.093	101	689146	103.21	ug/L		100
15) Acetone	2.123	43	231416	99.69	ug/L		98
16) 2-Propanol	2.196	45	727577	2405.03	ug/L		98
17) Iodomethane	2.215	142	710409	172.29	ug/L		97
18) Carbon Disulfide	2.276	76	2152590	97.08	ug/L		99
19) Acetonitrile	2.318	40	164984	593.29	ug/L		95
20) Allyl Chloride	2.355	76	393711	104.88	ug/L	#	74
21) Methyl Acetate	2.355	43	509283	116.49	ug/L		91
22) Methylene Chloride	2.440	84	785299	98.76	ug/L	#	88
23) TBA	2.501	59	1067562	2251.31	ug/L		91
24) Acrylonitrile	2.629	53	1153610	587.92	ug/L		96
25) Methyl-t-Butyl Ether	2.660	73	1966637	107.97	ug/L		92
26) trans-1,2-Dichloroethene	2.666	96	772593	99.74	ug/L	#	86
28) 1,1-Diclethane	3.050	63	1529842	101.88	ug/L		99
29) Vinyl Acetate	3.086	86	116281	120.75	ug/L	#	65
30) DIPE	3.111	45	3548958	117.61	ug/L		91
31) 2-Chloro-1,3-Butadiene	3.141	53	1538965	108.06	ug/L		84
32) ETBE	3.501	59	2750574	112.33	ug/L		94
33) 2,2-Dichloropropane	3.684	77	1112866	98.05	ug/L		99
34) cis-1,2-Dichloroethene	3.678	96	886680	100.57	ug/L		87
35) 2-Butanone	3.696	43	329009	121.25	ug/L		94
36) Propionitrile	3.763	54	406659	658.60	ug/L		92
37) Bromochloromethane	3.983	130	525167	102.12	ug/L		89

Quantitation Report (QT Reviewed)

Sample : 100 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6211.D Vial: 9
Acq On : 28 Feb 2014 3:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:26:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:15:37 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.970	67	221577	115.12 ug/L #	63
39) Tetrahydrofuran	4.056	42	183425	114.44 ug/L	84
40) Chloroform	4.092	83	1451147	98.94 ug/L	94
41) 1,1,1-Trichloroethane	4.361	97	1211572	97.49 ug/L	95
42) TAME	5.184	73	2085175	108.46 ug/L	94
44) Cyclohexane	4.446	41	1025250	107.51 ug/L	96
46) Carbontetrachloride	4.617	121	343698	101.58 ug/L	97
47) 1,1-Dichloropropene	4.617	75	957042	95.91 ug/L	98
49) Benzene	4.958	78	3126596	98.70 ug/L	94
50) 1,2-Dichloroethane	4.989	62	1172642	99.63 ug/L	96
51) Iso-Butyl Alcohol	4.854	43	513065	2459.29 ug/L	97
52) n-Heptane	5.452	43	947448	111.83 ug/L	87
53) 1-Butanol	5.946	56	702379	7372.75 ug/L	92
54) Trichloroethene	5.964	130	846456	96.44 ug/L	98
55) Methylcyclohexane	6.214	55	1187965	110.41 ug/L	87
56) 1,2-Diclpropane	6.257	63	890776	106.64 ug/L	99
57) Dibromomethane	6.403	93	466120	103.49 ug/L	95
58) 1,4-Dioxane	6.458	88	93038	2203.91 ug/L	88
59) Methyl Methacrylate	6.464	69	416535m	118.93 ug/L	
60) Bromodichloromethane	6.616	83	1111165	104.10 ug/L	98
61) 2-Nitropropane	6.891	41	341594	225.78 ug/L	94
62) 2-Chloroethylvinyl Ether	7.006	63	422968	119.19 ug/L	94
63) cis-1,3-Dichloropropene	7.141	75	1279655	111.48 ug/L	98
64) 4-Methyl-2-pentanone	7.336	43	671965	122.81 ug/L	99
66) Toluene	7.500	91	3396138	100.95 ug/L	100
67) trans-1,3-Dichloropropene	7.744	75	1088057	114.71 ug/L	96
68) Ethyl Methacrylate	7.872	69	866438	122.52 ug/L	82
69) 1,1,2-Trichloroethane	7.921	97	645436	105.85 ug/L	98
72) Tetrachloroethene	8.055	164	685084	94.12 ug/L	99
73) 2-Hexanone	8.195	43	505670	127.35 ug/L	95
74) 1,3-Dichloropropane	8.085	76	1070477	99.81 ug/L	84
75) Dibromochloromethane	8.299	129	861266	109.68 ug/L	98
76) N-Butyl Acetate	8.335	43	1215819	117.48 ug/L	96
77) 1,2-Dibromoethane	8.396	107	656007	103.28 ug/L	99
78) 3-Chlorobenzotrifluoride	8.878	180	1432631	107.47 ug/L	99
79) Chlorobenzene	8.866	112	2345263	98.06 ug/L	99
80) 4-Chlorobenzotrifluoride	8.927	180	1298020	105.72 ug/L	98
81) 1,1,1,2-Tetrachloroethane	8.945	131	886919	103.68 ug/L	99
82) Ethylbenzene	8.976	106	1167300	98.14 ug/L	95
83) (m+p)Xylene	9.085	106	2939623	206.25 ug/L	95
84) o-Xylene	9.433	106	1465636	103.57 ug/L	99
85) Styrene	9.445	104	2590873	109.66 ug/L	98
86) Bromoform	9.597	173	528312	112.59 ug/L	99
87) 2-Chlorobenzotrifluoride	9.664	180	1403610	108.01 ug/L	90
88) Isopropylbenzene	9.756	105	3561817	101.07 ug/L	99
89) Cyclohexanone	9.823	55	1931261	2399.21 ug/L	96
90) trans-1,4-Dichloro-2-B...	10.055	53	253013	150.18 ug/L	93
92) 1,1,2,2-Tetrachloroethane	10.006	83	803770	99.44 ug/L	99
93) Bromobenzene	10.000	156	1064462	98.90 ug/L	99
94) 1,2,3-Trichloropropane	10.036	110	207859	101.89 ug/L	99
95) n-Propylbenzene	10.103	91	4277020	100.95 ug/L	98
96) 2-Chlorotoluene	10.164	91	2703591	101.36 ug/L	99

Quantitation Report (QT Reviewed)

Sample : 100 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6211.D Vial: 9
Acq On : 28 Feb 2014 3:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:26:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:15:37 2014
Response via : Initial Calibration

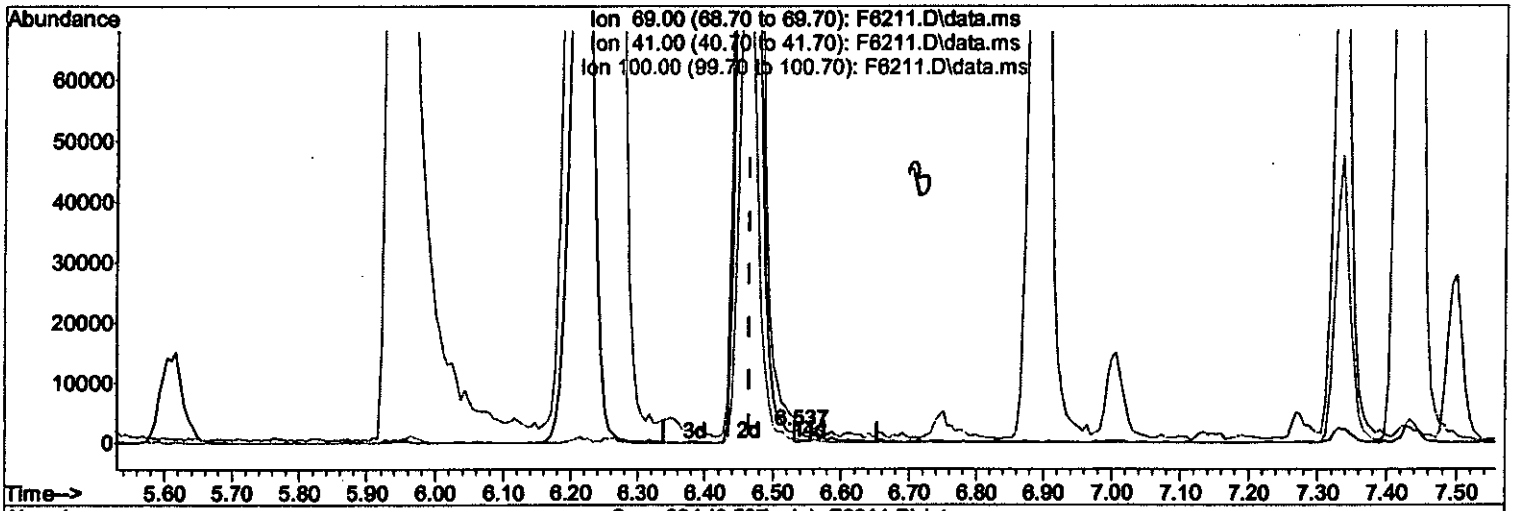
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.219	91	3026164	105.15	ug/L	98
98)	4-Chlorotoluene	10.256	91	3241595	100.61	ug/L	99
99)	1,3,5-Trimethylbenzene	10.250	105	3117341	102.82	ug/L	97
100)	tert-Butylbenzene	10.518	119	2520484	99.44	ug/L	100
101)	1,2,4-Trimethylbenzene	10.555	105	3188707	102.91	ug/L	98
102)	3,4-Dichlorobenzotrifl...	10.615	214	1032220	107.78	ug/L	99
103)	sec-Butylbenzene	10.695	105	3542298	101.18	ug/L	99
104)	p-Isopropyltoluene	10.817	119	3108985	104.30	ug/L	98
105)	1,3-Dclbenz	10.780	146	2009566	100.98	ug/L	98
106)	1,4-Dclbenz	10.853	146	2060602	98.45	ug/L	99
107)	2,4-Dichlorobenzotrifl...	10.902	214	932579	107.15	ug/L	100
108)	2,5-Dichlorobenzotrifl...	10.945	214	1058564	104.78	ug/L	98
109)	n-Butylbenzene	11.140	91	2806494	108.04	ug/L	99
110)	1,2-Dclbenz	11.152	146	1917018	103.57	ug/L	99
111)	1,2-Dibromo-3-chloropr...	11.707	157	147727	114.06	ug/L	93
112)	Trielution Dichlorotol...	11.798	125	4923975	334.98	ug/L	94
113)	1,3,5-Trichlorobenzene	11.847	180	1373452	104.23	ug/L	95
114)	Coelution Dichlorotoluene	12.066	125	3404880	223.10	ug/L	97
115)	1,2,4-Tcbenzene	12.225	180	1089090	102.55	ug/L	95
116)	Hexachlorobt	12.322	225	443116	93.70	ug/L	99
117)	Naphthalen	12.371	128	2090811	120.72	ug/L	99
118)	1,2,3-Tclbenzene	12.505	180	865483	103.84	ug/L	98
119)	2,4,5-Trichlorotoluene	12.920	159	582811	116.22	ug/L	95
120)	2,3,6-Trichlorotoluene	12.981	159	525428	106.51	ug/L	97

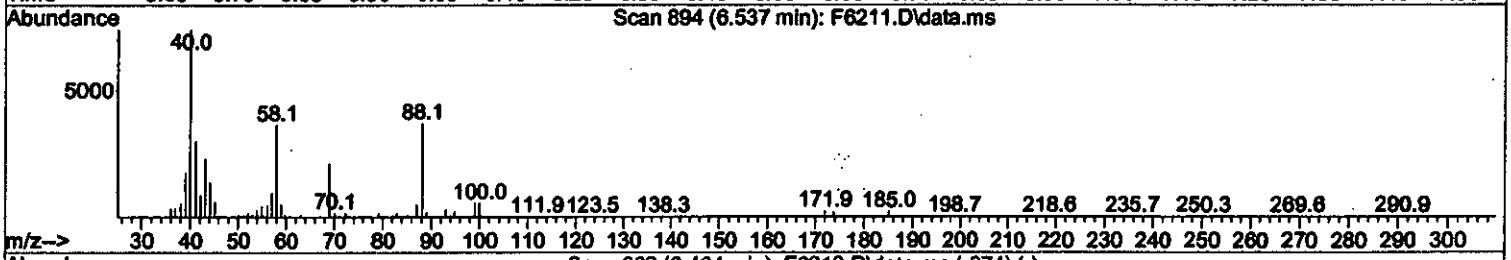
(#) = qualifier out of range (m) = manual integration (+) = signals summed

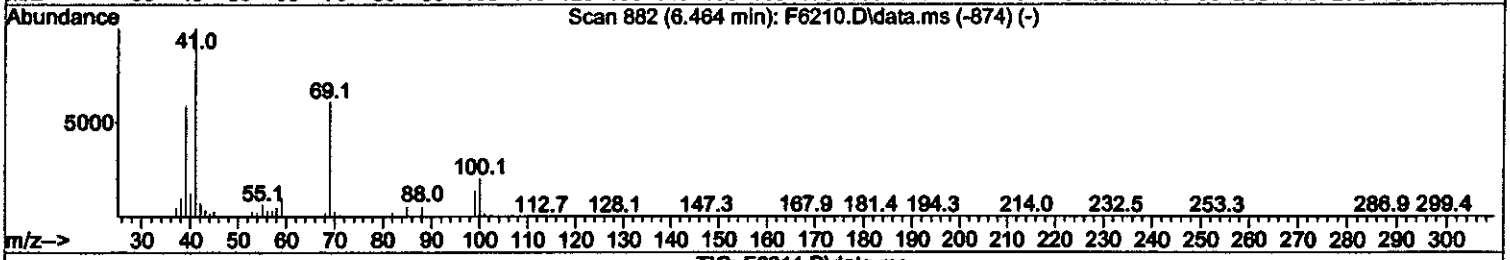
Quantitation Report (Qedit)

Sample : 100 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6211.D Vial: 9
Acq On : 28 Feb 2014 3:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:23:53 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:15:37 2014
Response via : Initial Calibration







TIC: F6211.D\data.ms

(59) Methyl Methacrylate

6.537min (+0.073) 0.47 ug/L

response 1641

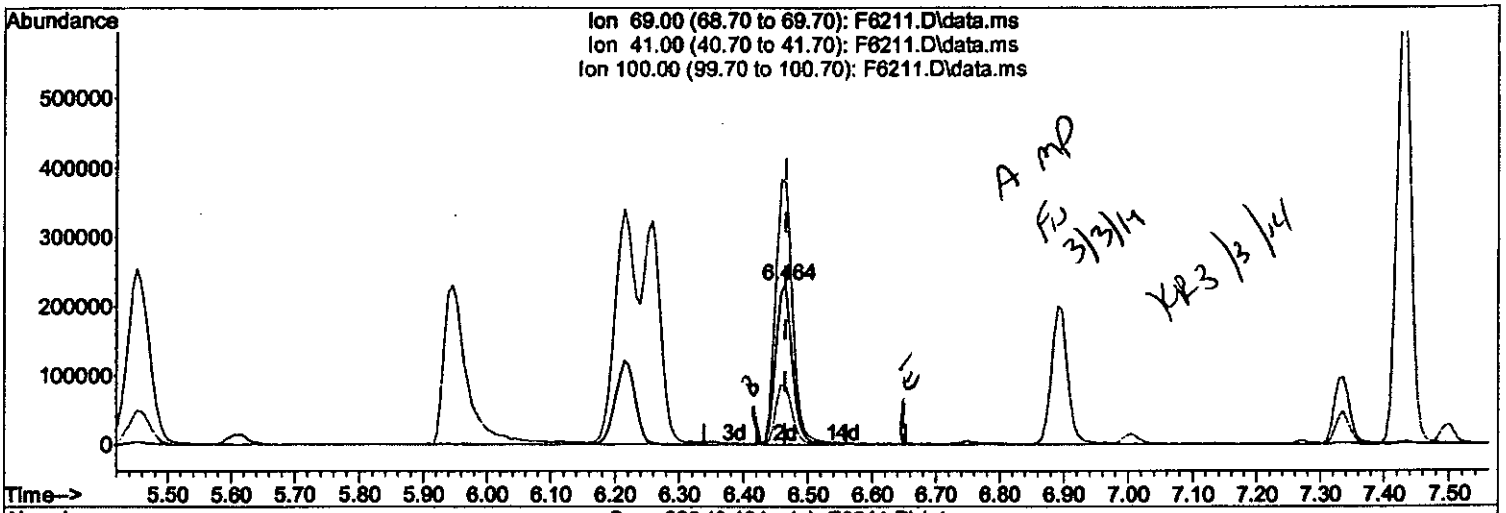
Ion	Exp%	Act%
69.00	100	100
41.00	128.90	142.44
100.00	36.90	26.47
0.00	0.00	0.00

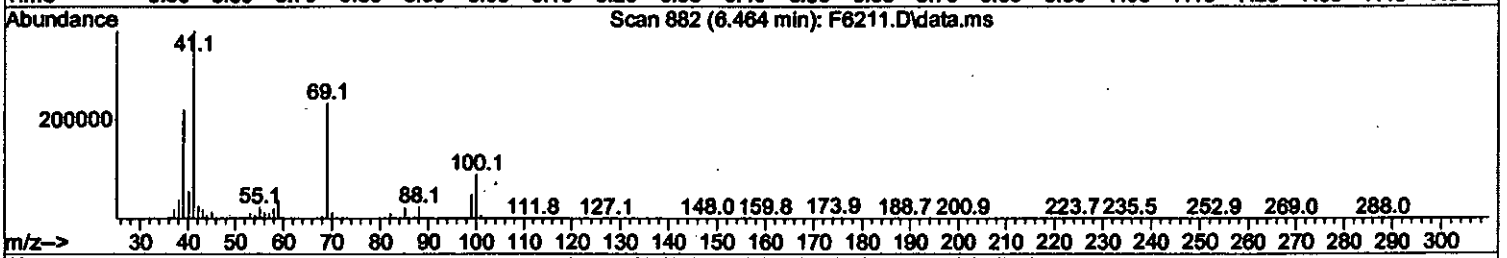
00325

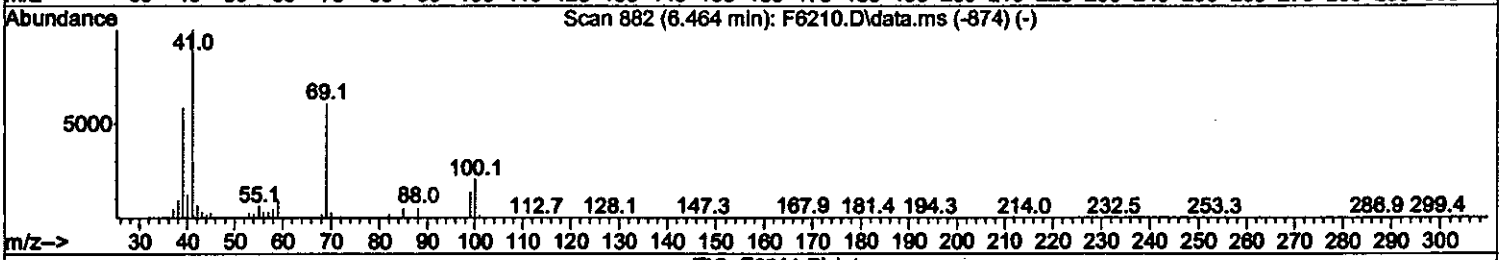
Quantitation Report (Qedit)

Sample : 100 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6211.D Vial: 9
Acq On : 28 Feb 2014 3:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:23:53 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:15:37 2014
Response via : Initial Calibration







TIC: F6211.D\data.ms

(59) Methyl Methacrylate

6.464min (+0.000) 118.93 ug/L m

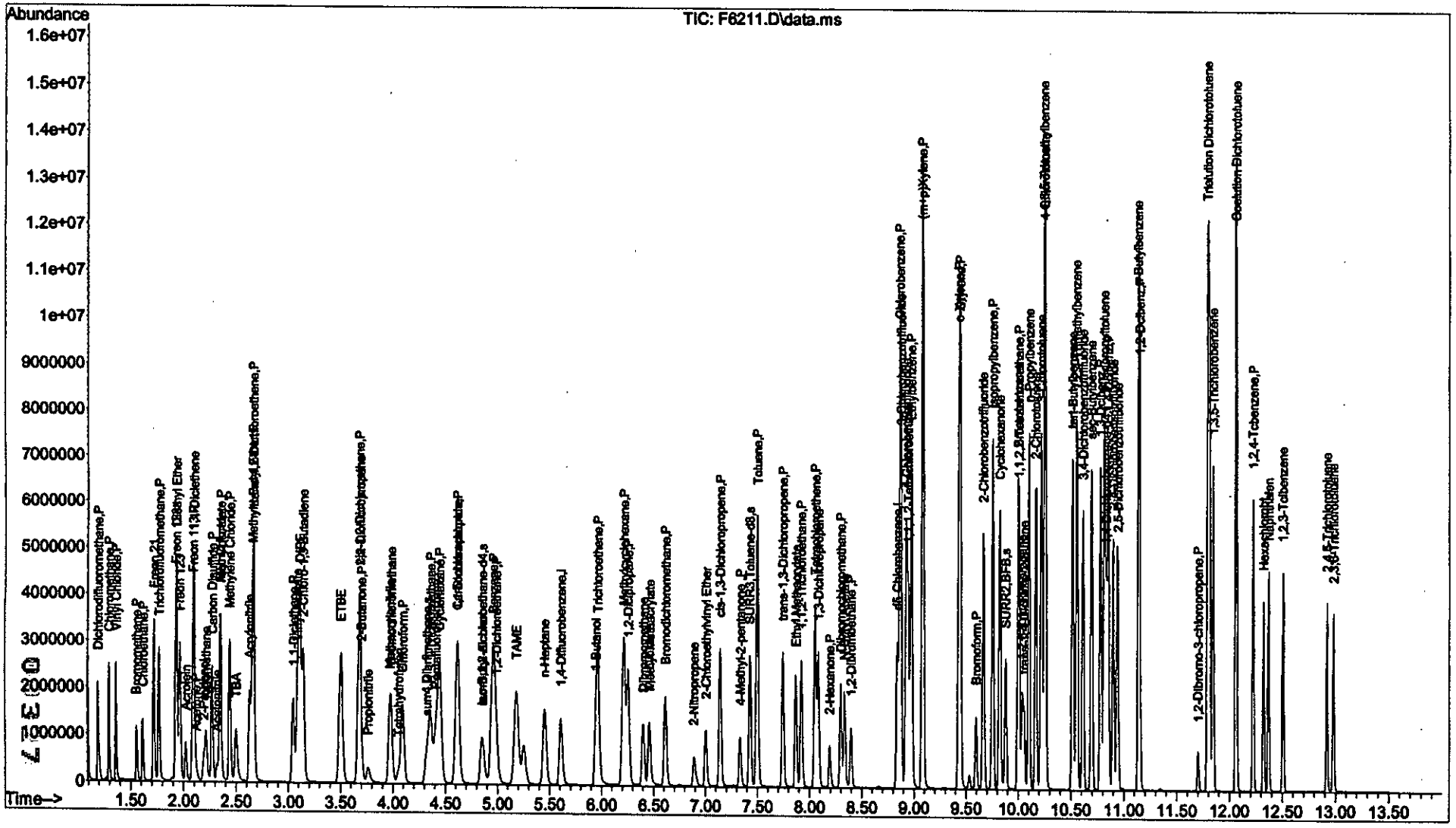
response 416535

Ion	Exp%	Act%
69.00	100	100
41.00	128.90	162.54#
100.00	36.90	38.00
0.00	0.00	0.00

00326

Sample : 100 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6211.D Vial: 9
Acq On : 28 Feb 2014 3:10 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:26:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:15:37 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 150 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6212.D Vial: 10
Acq On : 28 Feb 2014 3:43 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

FV 3/3/14

Quant Time: Feb 28 15:56:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:27:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	910296	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1357591	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1253350	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	730988	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	437848	49.63	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.26%				
48) surr1,1,2-dichloroetha...	4.854	65	454518	48.87	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.74%				
65) SURR3,Toluene-d8	7.427	98	1583613	50.03	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.06%				
70) SURR2,BFB	9.878	95	658292	50.45	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.191	85	1645171	167.24	ug/L		97
3) Chloromethane	1.294	50	1818499	162.77	ug/L		95
4) Vinyl Chloride	1.361	62	1717857	163.72	ug/L		99
5) Bromomethane	1.556	94	696697	222.26	ug/L		99
6) Chloroethane	1.611	64	949153	152.87	ug/L		95
7) Freon 21	1.721	67	2613666	151.17	ug/L		100
8) Trichlorofluoromethane	1.770	101	2116902	156.23	ug/L		100
9) Diethyl Ether	1.934	59	1000667	160.27	ug/L		88
10) Freon 123a	1.928	67	1660151	155.18	ug/L		94
11) Freon 123	1.965	83	1787852	153.83	ug/L		98
12) Acrolein	2.026	56	660547	716.06	ug/L		99
13) 1,1-Diclethene	2.099	96	1036331	165.91	ug/L	#	87
14) Freon 113	2.093	101	1215423	170.84	ug/L		100
15) Acetone	2.123	43	360782	144.44	ug/L		98
16) 2-Propanol	2.196	45	1132337	3520.02	ug/L		95
17) Iodomethane	2.215	142	1416440	338.88	ug/L		97
18) Carbon Disulfide	2.270	76	3643663	158.96	ug/L		99
19) Acetonitrile	2.318	40	223955	731.42	ug/L		99
20) Allyl Chloride	2.349	76	666313	169.93	ug/L	#	62
21) Methyl Acetate	2.355	43	763985	163.44	ug/L		91
22) Methylene Chloride	2.440	84	1233756	149.65	ug/L		90
23) TBA	2.501	59	1694716	3416.77	ug/L		94
24) Acrylonitrile	2.629	53	1763951	846.65	ug/L		98
25) Methyl-t-Butyl Ether	2.660	73	3050750	161.04	ug/L		94
26) trans-1,2-Dichloroethene	2.666	96	1283752	159.65	ug/L		90
28) 1,1-Diclethane	3.050	63	2476538	158.00	ug/L		100
29) Vinyl Acetate	3.087	86	195841	196.79	ug/L	#	92
30) DIPE	3.111	45	5395432	167.82	ug/L		92
31) 2-Chloro-1,3-Butadiene	3.141	53	2630513	176.14	ug/L		86
32) ETBE	3.501	59	4260767	165.99	ug/L		94
33) 2,2-Dichloropropane	3.684	77	1985352	170.61	ug/L		98
34) cis-1,2-Dichloroethene	3.678	96	1429549	156.28	ug/L		88
35) 2-Butanone	3.696	43	515475	174.99	ug/L		94
36) Propionitrile	3.763	54	646818	986.58	ug/L		95
37) Bromochloromethane	3.983	130	804614	150.36	ug/L		91

Quantitation Report (QT Reviewed)

Sample : 150 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6212.D Vial: 10
Acq On : 28 Feb 2014 3:43 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:56:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:27:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.964	67	355507	178.05 ug/L #	65
39) Tetrahydrofuran	4.056	42	288074	167.76 ug/L	82
40) Chloroform	4.092	83	2315494	152.64 ug/L	96
41) 1,1,1-Trichloroethane	4.361	97	2072642	161.54 ug/L	98
42) TAME	5.184	73	3220692	161.82 ug/L	94
44) Cyclohexane	4.446	41	1595429	157.22 ug/L	93
46) Carbontetrachloride	4.617	121	593511	168.35 ug/L	96
47) 1,1-Dichloropropene	4.617	75	1646402	159.31 ug/L	98
49) Benzene	4.958	78	5132551	156.09 ug/L	93
50) 1,2-Dichloroethane	4.989	62	1794578	145.44 ug/L	96
51) Iso-Butyl Alcohol	4.854	43	815792	3624.68 ug/L	98
52) n-Heptane	5.452	43	1682605	184.26 ug/L	88
53) 1-Butanol	5.946	56	1066009	10422.52 ug/L	91
54) Trichloroethene	5.964	130	1433092	156.95 ug/L	98
55) Methylcyclohexane	6.214	55	1868937	163.96 ug/L	85
56) 1,2-Diclpropane	6.257	63	1431292	163.65 ug/L	99
57) Dibromomethane	6.403	93	714359	152.55 ug/L	97
58) 1,4-Dioxane	6.458	88	140695	3215.81 ug/L	89
59) Methyl Methacrylate	6.458	69	647244	176.96 ug/L #	73
60) Bromodichloromethane	6.616	83	1773391	160.35 ug/L	97
61) 2-Nitropropane	6.891	41	541708	338.71 ug/L	93
62) 2-Chloroethylvinyl Ether	7.000	63	678493	182.36 ug/L	93
63) cis-1,3-Dichloropropene	7.141	75	2040514	171.43 ug/L	98
64) 4-Methyl-2-pentanone	7.336	43	1079209	184.48 ug/L	98
66) Toluene	7.500	91	5541567	158.44 ug/L	98
67) trans-1,3-Dichloropropene	7.744	75	1739085	177.04 ug/L	96
68) Ethyl Methacrylate	7.872	69	1374148	186.82 ug/L	79
69) 1,1,2-Trichloroethane	7.921	97	994016	156.50 ug/L	99
72) Tetrachloroethene	8.055	164	1188954	160.34 ug/L	97
73) 2-Hexanone	8.195	43	798288	190.46 ug/L	97
74) 1,3-Dichloropropane	8.086	76	1669799	152.87 ug/L	85
75) Dibromochloromethane	8.299	129	1349384	167.78 ug/L	99
76) N-Butyl Acetate	8.335	43	1902019	175.65 ug/L	95
77) 1,2-Dibromoethane	8.396	107	1011719	156.26 ug/L	99
78) 3-Chlorobenzotrifluoride	8.878	180	2322232	170.60 ug/L	98
79) Chlorobenzene	8.866	112	3803618	155.46 ug/L	99
80) 4-Chlorobenzotrifluoride	8.927	180	2091378	166.74 ug/L	96
81) 1,1,1,2-Tetrachloroethane	8.945	131	1444620	165.52 ug/L	99
82) Ethylbenzene	8.976	106	1998574	165.10 ug/L #	85
83) (m+p)Xylene	9.085	106	4900996	337.53 ug/L #	80
84) o-Xylene	9.433	106	2429804	168.66 ug/L	93
85) Styrene	9.445	104	4203996	174.81 ug/L	98
86) Bromoform	9.597	173	840154	175.52 ug/L	98
87) 2-Chlorobenzotrifluoride	9.671	180	2250517	169.66 ug/L	96
88) Isopropylbenzene	9.756	105	5947114	165.64 ug/L	96
89) Cyclohexanone	9.823	55	3148137	3712.00 ug/L	97
90) trans-1,4-Dichloro-2-B...	10.055	53	399806	219.16 ug/L	96
92) 1,1,2,2-Tetrachloroethane	10.006	83	1223957	145.16 ug/L	98
93) Bromobenzene	10.000	156	1708359	152.68 ug/L	98
94) 1,2,3-Trichloropropane	10.042	110	318754	150.08 ug/L	97
95) n-Propylbenzene	10.103	91	6860561	155.58 ug/L	92
96) 2-Chlorotoluene	10.170	91	4418826	159.52 ug/L	95

Quantitation Report (QT Reviewed)

Sample : 150 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6212.D Vial: 10
Acq On : 28 Feb 2014 3:43 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

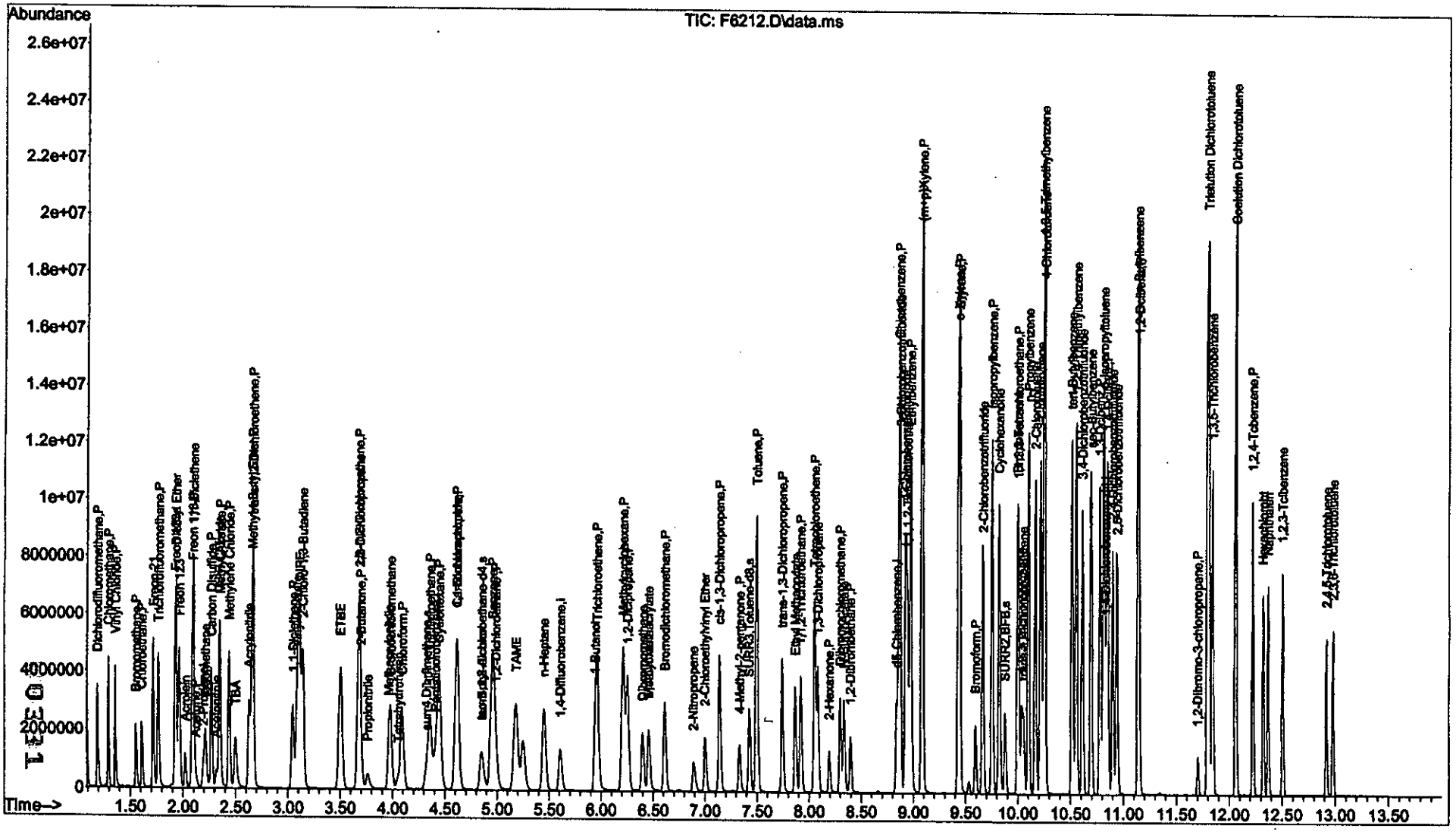
Quant Time: Feb 28 15:56:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:27:33 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.219	91	4614268	154.00	ug/L	96
98)	4-Chlorotoluene	10.262	91	5272702	157.59	ug/L	92
99)	1,3,5-Trimethylbenzene	10.250	105	5190286	164.70	ug/L	95
100)	tert-Butylbenzene	10.518	119	4326433	163.89	ug/L	98
101)	1,2,4-Trimethylbenzene	10.561	105	5225414	162.40	ug/L	92
102)	3,4-Dichlorobenzotrifl...	10.616	214	1689421	169.45	ug/L	98
103)	sec-Butylbenzene	10.701	105	5937269	163.12	ug/L	95
104)	p-Isopropyltoluene	10.817	119	5265988	169.43	ug/L	97
105)	1,3-Dclbenz	10.780	146	3288258	158.30	ug/L	96
106)	1,4-Dclbenz	10.853	146	3341521	153.04	ug/L	98
107)	2,4-Dichlorobenzotrifl...	10.902	214	1492837	164.65	ug/L	97
108)	2,5-Dichlorobenzotrifl...	10.945	214	1708950	162.49	ug/L	98
109)	n-Butylbenzene	11.140	91	4714206	174.02	ug/L	95
110)	1,2-Dclbenz	11.152	146	3066742	158.53	ug/L	98
111)	1,2-Dibromo-3-chloropr...	11.707	157	235442	173.29	ug/L	92
112)	Trielution Dichlorotol...	11.804	125	7539581	489.60	ug/L	96
113)	1,3,5-Trichlorobenzene	11.847	180	2145757	155.82	ug/L	95
114)	Coelution Dichlorotoluene	12.066	125	5045565	314.66	ug/L	95
115)	1,2,4-Tcbenzene	12.225	180	1777108	159.72	ug/L	96
116)	Hexachlorobt	12.323	225	771059	155.61	ug/L	100
117)	Naphthalen	12.371	128	3314448	181.21	ug/L	100
118)	1,2,3-Tclbenzene	12.505	180	1390049	158.35	ug/L	97
119)	2,4,5-Trichlorotoluene	12.920	159	923964	172.13	ug/L	99
120)	2,3,6-Trichlorotoluene	12.981	159	851695	161.79	ug/L	99

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

Sample : 150 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6212.D Vial: 10
Acq On : 28 Feb 2014 3:43 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 15:56:30 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 15:27:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 200 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6213.D Vial: 11
Acq On : 28 Feb 2014 4:13 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 16:26:52 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 16:03:46 2014
Response via : Initial Calibration

FV 3/3/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	961859	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1413930	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1278324	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	751207	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	453428	49.24	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.48%				
48) surr1,1,2-dichloroetha...	4.854	65	462793	47.64	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.28%				
65) SURR3,Toluene-d8	7.427	98	1643442	49.77	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.54%				
70) SURR2,BFB	9.878	95	682024	50.18	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.36%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.191	85	2247305	214.31	ug/L		97
3) Chloromethane	1.294	50	2473657	204.68	ug/L		95
4) Vinyl Chloride	1.361	62	2323522	205.75	ug/L		99
5) Bromomethane	1.556	94	1064835	321.27	ug/L		99
6) Chloroethane	1.611	64	1276480	191.64	ug/L		96
7) Freon 21	1.721	67	3524477	190.60	ug/L		97
8) Trichlorofluoromethane	1.770	101	2894905	201.86	ug/L		100
9) Diethyl Ether	1.934	59	1354210	198.90	ug/L		88
10) Freon 123a	1.928	67	2263952	197.33	ug/L		94
11) Freon 123	1.965	83	2464732	199.17	ug/L		100
12) Acrolein	2.020	56	844605	830.05	ug/L		97
13) 1,1-Diclethene	2.099	96	1417958	213.62	ug/L		88
14) Freon 113	2.093	101	1673654	214.64	ug/L		98
15) Acetone	2.123	43	490833	179.26	ug/L		98
16) 2-Propanol	2.196	45	1479489	4204.18	ug/L		95
17) Iodomethane	2.215	142	1934149	435.25	ug/L		98
18) Carbon Disulfide	2.270	76	4808585	196.71	ug/L		99
19) Acetonitrile	2.318	40	312416	926.95	ug/L		97
20) Allyl Chloride	2.349	76	903067	215.31	ug/L	#	61
21) Methyl Acetate	2.355	43	1019141	199.38	ug/L		93
22) Methylene Chloride	2.440	84	1677549	192.30	ug/L		90
23) TBA	2.501	59	2243564	4193.06	ug/L		94
24) Acrylonitrile	2.629	53	2352740	1036.58	ug/L		99
25) Methyl-t-Butyl Ether	2.660	73	4132301	204.53	ug/L		94
26) trans-1,2-Dichloroethene	2.666	96	1753928	205.50	ug/L	#	88
28) 1,1-Diclethane	3.050	63	3388305	202.81	ug/L		99
29) Vinyl Acetate	3.087	86	261656	244.71	ug/L	#	93
30) DIPE	3.111	45	7449378	212.24	ug/L		93
31) 2-Chloro-1,3-Butadiene	3.141	53	3522919	217.67	ug/L		85
32) ETBE	3.501	59	5950965	215.02	ug/L		95
33) 2,2-Dichloropropane	3.684	77	2712959	221.68	ug/L		98
34) cis-1,2-Dichloroethene	3.678	96	1948194	200.77	ug/L		86
35) 2-Butanone	3.690	43	668484	203.81	ug/L		93
36) Propionitrile	3.763	54	850194	1182.83	ug/L		93
37) Bromochloromethane	3.983	130	1093066	192.21	ug/L		90

Quantitation Report (QT Reviewed)

Sample : 200 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6213.D Vial: 11
Acq On : 28 Feb 2014 4:13 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 16:26:52 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 16:03:46 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.964	67	471903	220.66 ug/L #	67
39) Tetrahydrofuran	4.050	42	380844	200.66 ug/L	82
40) Chloroform	4.092	83	3164262	197.38 ug/L	96
41) 1,1,1-Trichloroethane	4.361	97	2841868	209.47 ug/L	98
42) TAME	5.184	73	4499073	212.15 ug/L	94
44) Cyclohexane	4.446	41	2205555	203.80 ug/L	95
46) Carbontetrachloride	4.617	121	813446	221.15 ug/L	94
47) 1,1-Dichloropropene	4.617	75	2250115	209.30 ug/L	99
49) Benzene	4.958	78	6983605	204.08 ug/L	93
50) 1,2-Dichloroethane	4.989	62	2431331	187.98 ug/L	96
51) Iso-Butyl Alcohol	4.854	43	1079794	4424.42 ug/L	96
52) n-Heptane	5.452	43	2360380	237.83 ug/L	88
53) 1-Butanol	5.946	56	1486056	13489.91 ug/L	91
54) Trichloroethene	5.964	130	1966543	206.17 ug/L	99
55) Methylcyclohexane	6.214	55	2625718	216.68 ug/L #	84
56) 1,2-Diclpropane	6.257	63	1948190	212.07 ug/L	100
57) Dibromomethane	6.403	93	972809	199.43 ug/L	96
58) 1,4-Dioxane	6.458	88	186959	4110.05 ug/L	80
59) Methyl Methacrylate	6.458	69	875028	227.96 ug/L #	73
60) Bromodichloromethane	6.616	83	2384586	207.69 ug/L	97
61) 2-Nitropropane	6.891	41	726647	429.31 ug/L	92
62) 2-Chloroethylvinyl Ether	7.000	63	912575	230.99 ug/L	92
63) cis-1,3-Dichloropropene	7.141	75	2792864	225.68 ug/L	99
64) 4-Methyl-2-pentanone	7.336	43	1402840	221.66 ug/L	98
66) Toluene	7.500	91	7293234	199.50 ug/L	94
67) trans-1,3-Dichloropropene	7.744	75	2336104	228.38 ug/L	96
68) Ethyl Methacrylate	7.872	69	1834427	238.00 ug/L	79
69) 1,1,2-Trichloroethane	7.921	97	1328657	200.27 ug/L	98
72) Tetrachloroethene	8.055	164	1627112	215.94 ug/L	99
73) 2-Hexanone	8.195	43	1036421	234.50 ug/L	97
74) 1,3-Dichloropropane	8.086	76	2233849	201.19 ug/L	85
75) Dibromochloromethane	8.299	129	1829668	223.28 ug/L	99
76) N-Butyl Acetate	8.335	43	2507071	220.67 ug/L	96
77) 1,2-Dibromoethane	8.396	107	1361528	206.95 ug/L	99
78) 3-Chlorobenzotrifluoride	8.878	180	3035437	217.51 ug/L	98
79) Chlorobenzene	8.866	112	5069453	203.17 ug/L	98
80) 4-Chlorobenzotrifluoride	8.927	180	2744605	213.70 ug/L	97
81) 1,1,1,2-Tetrachloroethane	8.945	131	1951504	219.61 ug/L	98
82) Ethylbenzene	8.982	106	2698164	219.36 ug/L #	72
83) (m+p)Xylene	9.085	106	6345546	428.42 ug/L #	70
84) o-Xylene	9.433	106	3304431	225.75 ug/L #	86
85) Styrene	9.445	104	5562803	227.30 ug/L	94
86) Bromoform	9.597	173	1130539	231.69 ug/L	96
87) 2-Chlorobenzotrifluoride	9.665	180	2959971	218.04 ug/L	90
88) Isopropylbenzene	9.756	105	7592372	207.38 ug/L	91
89) Cyclohexanone	9.823	55	4035813	4540.44 ug/L	97
90) trans-1,4-Dichloro-2-B...	10.055	53	528731	268.44 ug/L	95
92) 1,1,2,2-Tetrachloroethane	10.012	83	1641812	189.61 ug/L	97
93) Bromobenzene	10.000	156	2326445	203.12 ug/L	98
94) 1,2,3-Trichloropropane	10.042	110	425386	195.17 ug/L	98
95) n-Propylbenzene	10.103	91	8603207	189.78 ug/L	87
96) 2-Chlorotoluene	10.171	91	5817333	205.34 ug/L	92

Quantitation Report (QT Reviewed)

Sample : 200 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6213.D Vial: 11
Acq On : 28 Feb 2014 4:13 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

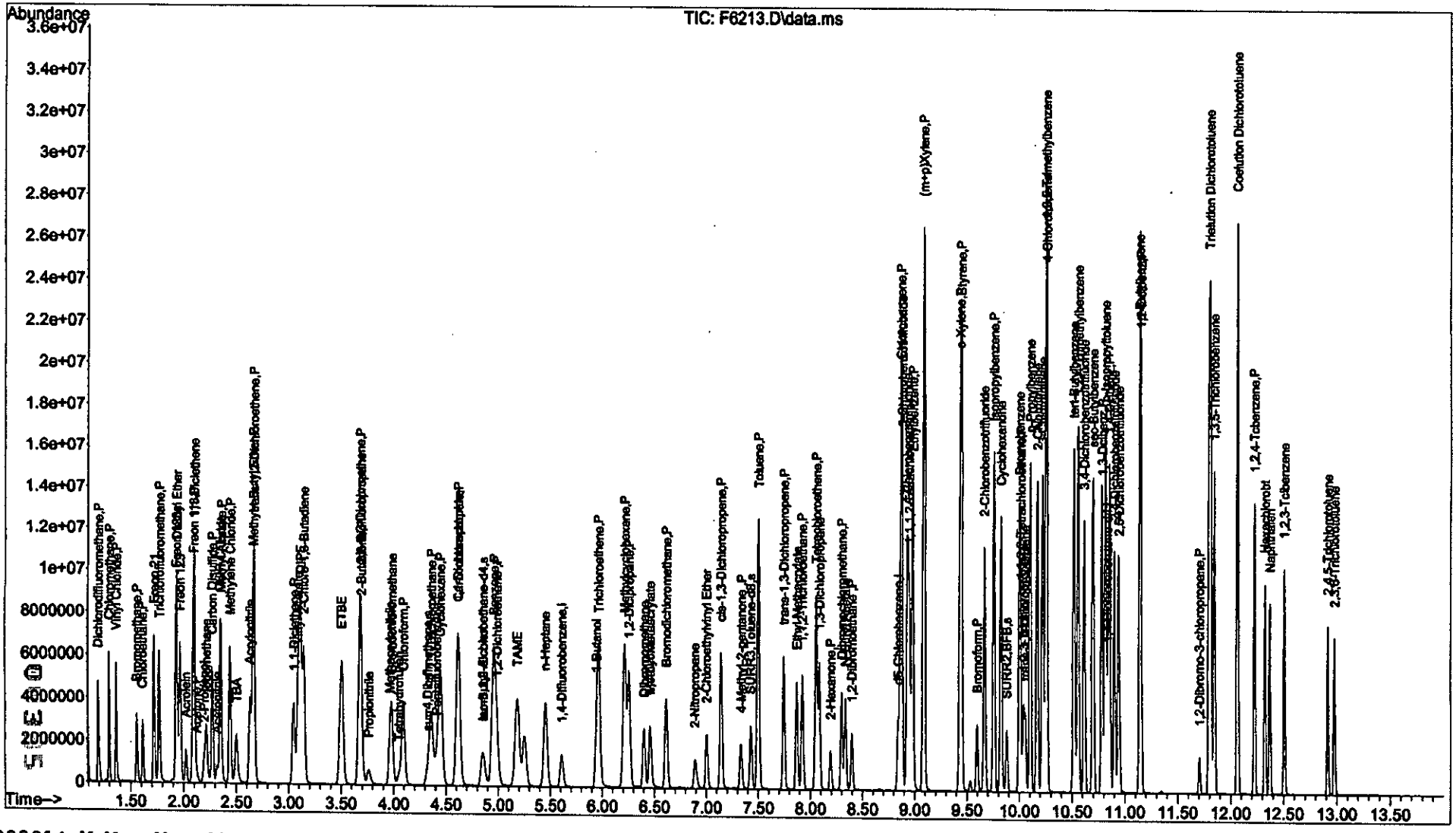
Quant Time: Feb 28 16:26:52 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 16:03:46 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.219	91	5971834	193.87	ug/L	94
98)	4-Chlorotoluene	10.262	91	6805877	198.30	ug/L	90
99)	1,3,5-Trimethylbenzene	10.256	105	6688997	206.77	ug/L	89
100)	tert-Butylbenzene	10.518	119	5728717	211.15	ug/L	96
101)	1,2,4-Trimethylbenzene	10.561	105	6738292	204.40	ug/L	87
102)	3,4-Dichlorobenzotrifl...	10.616	214	2196597	213.89	ug/L	97
103)	sec-Butylbenzene	10.701	105	7567026	202.42	ug/L	90
104)	p-Isopropyltoluene	10.817	119	6802250	212.33	ug/L	92
105)	1,3-Dclbenz	10.786	146	4395212	206.16	ug/L	96
106)	1,4-Dclbenz	10.853	146	4449763	198.20	ug/L	97
107)	2,4-Dichlorobenzotrifl...	10.902	214	1962355	210.54	ug/L	99
108)	2,5-Dichlorobenzotrifl...	10.945	214	2244433	207.48	ug/L	97
109)	n-Butylbenzene	11.140	91	6123923	219.66	ug/L	91
110)	1,2-Dclbenz	11.152	146	4071059	204.43	ug/L	97
111)	1,2-Dibromo-3-chloropr...	11.707	157	312836	221.76	ug/L	93
112)	Trielution Dichlorotol...	11.804	125	9456587	593.03	ug/L	95
113)	1,3,5-Trichlorobenzene	11.847	180	2788377	196.31	ug/L	95
114)	Coelution Dichlorotoluene	12.066	125	6221948	374.55	ug/L	90
115)	1,2,4-Tcbenzene	12.225	180	2391417	208.41	ug/L	95
116)	Hexachlorobt	12.323	225	1063097	208.65	ug/L	99
117)	Naphthalen	12.371	128	4258261	222.76	ug/L	99
118)	1,2,3-Tclbenzene	12.505	180	1849881	202.91	ug/L	98
119)	2,4,5-Trichlorotoluene	12.914	159	1200857	211.87	ug/L	96
120)	2,3,6-Trichlorotoluene	12.975	159	1097492	197.79	ug/L	96

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

Sample : 200 PPB STD
Data File : I:\ACQUDATA\msvoa10\data\022814\F6213.D Vial: 11
Acq On : 28 Feb 2014 4:13 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Feb 28 16:26:52 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Feb 28 16:03:46 2014
Response via : Initial Calibration



Initial Calibration Verification Summary Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1400020-10	T	Average RF	50	52.50	ppm	5.0	<=30
1,1,1-Trichloroethane (TCA)	RC1400020-10	T	Average RF	50	50.77	ppm	1.5	<=30
1,1,2,2-Tetrachloroethane	RC1400020-10	T	Average RF	50	47.71	ppm	-4.6	<=30
1,1,2-Trichloroethane	RC1400020-10	T	Average RF	50	50.07	ppm	0.1	<=30
1,1,2-Trichlorotrifluoroethane	RC1400020-10	T	Average RF	50	47.58	ppm	-4.8	<=30
1,1-Dichloroethane (1,1-DCA)	RC1400020-10	T	Average RF	50	49.99	ppm	0.0	<=30
1,1-Dichloroethene (1,1-DCE)	RC1400020-10	T	Average RF	50	58.42	ppm	16.8	<=30
1,1-Dichloropropene	RC1400020-10	T	Average RF	50	56.80	ppm	13.6	<=30
1,2,3-Trichlorobenzene	RC1400020-10	T	Average RF	50	51.26	ppm	2.5	<=30
1,2,3-Trichloropropane	RC1400020-10	T	Average RF	50	50.71	ppm	1.4	<=30
1,2,4-Trichlorobenzene	RC1400020-10	T	Average RF	50	53.58	ppm	7.2	<=30
1,2,4-Trimethylbenzene	RC1400020-10	T	Average RF	50	54.26	ppm	8.5	<=30
1,2-Dibromo-3-chloropropane (DBCP)	RC1400020-10	T	Average RF	50	51.93	ppm	3.9	<=30
1,2-Dibromoethane	RC1400020-10	T	Average RF	50	52.72	ppm	5.4	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1400020-10	T	Average RF	50	56.45	ppm	12.9	<=30
1,2-Dichlorobenzene	RC1400020-10	T	Average RF	50	52.25	ppm	4.5	<=30
1,2-Dichloroethane	RC1400020-10	T	Average RF	50	47.71	ppm	-4.6	<=30
1,2-Dichloropropane	RC1400020-10	T	Average RF	50	51.88	ppm	3.8	<=30
1,3,5-Trichlorobenzene	RC1400020-10	T	Average RF	50	51.06	ppm	2.1	<=30
1,3,5-Trimethylbenzene	RC1400020-10	T	Average RF	50	54.47	ppm	8.9	<=30
1,3-Dichlorobenzene	RC1400020-10	T	Average RF	50	52.09	ppm	4.2	<=30
1,3-Dichloropropane	RC1400020-10	T	Average RF	50	51.06	ppm	2.1	<=30
1,4-Dichlorobenzene	RC1400020-10	T	Average RF	50	50.52	ppm	1.0	<=30
1,4-Dioxane	RC1400020-10	T	Average RF	1000	971.2	ppm	-2.9	<=30
1-Butanol	RC1400020-10	T	Quadratic	2500	2519	ppm	0.7	<=30
1-Chloro-4-(trifluoromethyl)benzene	RC1400020-10	T	Average RF	50	53.21	ppm	6.4	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1400020-10	T	Average RF	50	54.42	ppm	8.8	<=30
2,2-Dichloropropane	RC1400020-10	T	Average RF	50	51.54	ppm	3.1	<=30
2,3,6-Trichlorotoluene	RC1400020-10	T	Average RF	50	51.20	ppm	2.4	<=30
2,4,5-Trichlorotoluene	RC1400020-10	T	Average RF	50	53.63	ppm	7.3	<=30
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1400020-10	T	Average RF	150	161.7	ppm	7.8	<=30
2,4-Dichlorobenzotrifluoride	RC1400020-10	T	Average RF	50	52.51	ppm	5.0	<=30
2,5-Dichlorobenzotrifluoride	RC1400020-10	T	Average RF	50	51.92	ppm	3.8	<=30
2-Butanone (MEK)	RC1400020-10	T	Average RF	50	49.76	ppm	-0.5	<=30
2-Chloro-1,3-butadiene	RC1400020-10	T	Average RF	50	55.16	ppm	10.3	<=30
2-Chlorobenzotrifluoride	RC1400020-10	T	Average RF	50	54.07	ppm	8.1	<=30
2-Chloroethyl Vinyl Ether	RC1400020-10	T	Average RF	50	57.73	ppm	15.5	<=30
2-Chlorotoluene	RC1400020-10	T	Average RF	50	52.85	ppm	5.7	<=30
2-Hexanone	RC1400020-10	T	Average RF	50	52.91	ppm	5.8	<=30
2-Methyl-1-propanol	RC1400020-10	T	Average RF	1000	1030	ppm	3.0	<=30
2-Methyl-2-propanol	RC1400020-10	T	Average RF	1000	1041	ppm	4.1	<=30
~~2-Nitropropane~~	~~RC1400020-10~~	~~T~~	~~Average RF~~	~~100~~	~~87.83~~	~~ppm~~	~~12.2~~	~~<=30~~ NOT USED
2-Propanol	RC1400020-10	T	Average RF	1000	1051	ppm	5.1	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1400020-10	T	Average RF	100	108.3	ppm	8.3	<=30
3,4-Dichlorobenzotrifluoride	RC1400020-10	T	Average RF	50	52.37	ppm	4.7	<=30
3-Chloro-1-propene	RC1400020-10	T	Average RF	50	51.82	ppm	3.6	<=30
3-Chlorobenzotrifluoride	RC1400020-10	T	Average RF	50	53.99	ppm	8.0	<=30
3-Chlorotoluene	RC1400020-10	T	Average RF	50	51.65	ppm	3.3	<=30
4-Chlorotoluene	RC1400020-10	T	Average RF	50	52.97	ppm	5.9	<=30
4-Isopropyltoluene	RC1400020-10	T	Average RF	50	56.21	ppm	12.4	<=30
4-Methyl-2-pentanone	RC1400020-10	T	Average RF	50	56.18	ppm	12.4	<=30

00336

Initial Calibration Verification Summary Report

Calibration ID:	RC1400020	**Instrument ID:**	R-MS-10
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1400020-10	T	Average RF	50	40.70	ppm	-18.6	<=30
Acetonitrile	RC1400020-10	T	Average RF	250	243.5	ppm	-2.6	<=30
Acrolein	RC1400020-10	T	Average RF	100	114.0	ppm	14.0	<=30
Acrylonitrile	RC1400020-10	T	Average RF	250	261.6	ppm	4.6	<=30
Benzene	RC1400020-10	T	Average RF	50	50.19	ppm	0.4	<=30
Bromobenzene	RC1400020-10	T	Average RF	50	50.68	ppm	1.4	<=30
Bromochloromethane	RC1400020-10	T	Average RF	50	50.90	ppm	1.8	<=30
Bromodichloromethane	RC1400020-10	T	Average RF	50	51.46	ppm	2.9	<=30
Bromoform	RC1400020-10	T	Average RF	50	53.91	ppm	7.8	<=30
Bromomethane	RC1400020-10	T	Quadratic	50	64.22	ppm	28.4	<=30
Carbon Disulfide	RC1400020-10	T	Average RF	50	52.51	ppm	5.0	<=30
Carbon Tetrachloride	RC1400020-10	T	Average RF	50	52.94	ppm	5.9	<=30
Chlorobenzene	RC1400020-10	T	Average RF	50	51.20	ppm	2.4	<=30
Chloroethane	RC1400020-10	T	Average RF	50	45.46	ppm	-9.1	<=30
Chloroform	RC1400020-10	T	Average RF	50	49.91	ppm	-0.2	<=30
Chloromethane	RC1400020-10	T	Average RF	50	46.15	ppm	-7.7	<=30
Cyclohexane	RC1400020-10	T	Average RF	50	49.31	ppm	-1.4	<=30
Cyclohexanone	RC1400020-10	T	Average RF	1000	1115	ppm	11.5	<=30
Dibromochloromethane	RC1400020-10	T	Average RF	50	54.22	ppm	8.4	<=30
Dibromomethane	RC1400020-10	T	Average RF	50	50.14	ppm	0.3	<=30
Dichlorodifluoromethane (CFC 12)	RC1400020-10	T	Average RF	50	42.54	ppm	-14.9	<=30
Dichlorofluoromethane (CFC 21)	RC1400020-10	T	Average RF	50	51.79	ppm	3.6	<=30
Dichloromethane	RC1400020-10	T	Average RF	50	48.98	ppm	-2.0	<=30
Diethyl Ether	RC1400020-10	T	Average RF	50	51.99	ppm	4.0	<=30
Diisopropyl Ether	RC1400020-10	T	Average RF	50	47.36	ppm	-5.3	<=30
Ethyl Methacrylate	RC1400020-10	T	Quadratic	50	54.56	ppm	9.1	<=30
Ethyl tert-Butyl Ether	RC1400020-10	T	Average RF	50	48.06	ppm	-3.9	<=30
Ethylbenzene	RC1400020-10	T	Average RF	50	53.15	ppm	6.3	<=30
Hexachlorobutadiene	RC1400020-10	T	Average RF	50	48.61	ppm	-2.8	<=30
Iodomethane	RC1400020-10	T	Quadratic	50	55.83	ppm	11.7	<=30
Isopropylbenzene (Cumene)	RC1400020-10	T	Average RF	50	55.50	ppm	11.0	<=30
Methacrylonitrile	RC1400020-10	T	Average RF	50	56.16	ppm	12.3	<=30
Methyl Acetate	RC1400020-10	T	Average RF	50	50.81	ppm	1.6	<=30
Methyl Methacrylate	RC1400020-10	T	Average RF	50	54.80	ppm	9.6	<=30
Methyl tert-Butyl Ether	RC1400020-10	T	Average RF	50	52.79	ppm	5.6	<=30
Methylcyclohexane	RC1400020-10	T	Average RF	50	50.83	ppm	1.7	<=30
Naphthalene	RC1400020-10	T	Average RF	50	57.95	ppm	15.9	<=30
Propionitrile	RC1400020-10	T	Quadratic	250	251.9	ppm	0.8	<=30
Styrene	RC1400020-10	T	Average RF	50	55.71	ppm	11.4	<=30
Tetrachloroethene (PCE)	RC1400020-10	T	Average RF	50	52.98	ppm	6.0	<=30
Tetrahydrofuran (THF)	RC1400020-10	T	Average RF	50	51.93	ppm	3.9	<=30
Toluene	RC1400020-10	T	Average RF	50	50.74	ppm	1.5	<=30
Trichloroethene (TCE)	RC1400020-10	T	Average RF	50	51.07	ppm	2.1	<=30
Trichlorofluoromethane (CFC 11)	RC1400020-10	T	Average RF	50	48.05	ppm	-3.9	<=30
Vinyl Acetate	RC1400020-10	T	Average RF	50	43.10	ppm	-13.8	<=30
Vinyl Chloride	RC1400020-10	T	Average RF	50	47.72	ppm	-4.6	<=30
cis-1,2-Dichloroethene	RC1400020-10	T	Average RF	50	49.51	ppm	-1.0	<=30
cis-1,3-Dichloropropene	RC1400020-10	T	Average RF	50	51.88	ppm	3.8	<=30
m,p-Xylenes	RC1400020-10	T	Average RF	100	110.4	ppm	10.4	<=30
n-Butyl Acetate	RC1400020-10	T	Average RF	50	55.40	ppm	10.8	<=30
n-Butylbenzene	RC1400020-10	T	Average RF	50	56.93	ppm	13.9	<=30

00337

Initial Calibration Verification Summary Report

Calibration ID: RC1400020 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1400020-10	T	Average RF	50	51.33	ppm	2.7	<=30
n-Propylbenzene	RC1400020-10	T	Average RF	50	54.75	ppm	9.5	<=30
o-Xylene	RC1400020-10	T	Average RF	50	55.36	ppm	10.7	<=30
sec-Butylbenzene	RC1400020-10	T	Average RF	50	54.30	ppm	8.6	<=30
tert-Amyl Methyl Ether	RC1400020-10	T	Average RF	50	48.98	ppm	-2.0	<=30
tert-Butylbenzene	RC1400020-10	T	Average RF	50	53.51	ppm	7.0	<=30
trans-1,2-Dichloroethene	RC1400020-10	T	Average RF	50	50.94	ppm	1.9	<=30
trans-1,3-Dichloropropene	RC1400020-10	T	Average RF	50	52.72	ppm	5.4	<=30
trans-1,4-Dichloro-2-butene	RC1400020-10	T	Quadratic	50	53.70	ppm	7.4	<=30
1,2-Dichloroethane-d4	RC1400020-10	S	Average RF	50	48.42	ppm	-3.2	<=30
4-Bromofluorobenzene	RC1400020-10	S	Average RF	50	50.36	ppm	0.7	<=30
Dibromofluoromethane	RC1400020-10	S	Average RF	50	48.49	ppm	-3.0	<=30
Toluene-d8	RC1400020-10	S	Average RF	50	49.31	ppm	-1.4	<=30

00338

Quantitation Report (Not Reviewed)

Sample : 50 PPB ICV
Data File : I:\ACQUDATA\msvoa10\data\022814\F6216.D Vial: 14
Acq On : 28 Feb 2014 5:44 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 10:13:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 10:12:23 2014
Response via : Initial Calibration

FD 3/3/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	902243	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1345424	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1204939	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	699872	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	425797	48.49	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.98%				
48) surr1,1,2-dichloroetha...	4.860	65	447339	48.42	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.84%				
65) SURR3,Toluene-d8	7.427	98	1552686	49.31	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.62%				
70) SURR2,BFB	9.878	95	651338	50.36	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.196	85	421979	42.54	ug/L		97
3) Chloromethane	1.300	50	534722	46.15	ug/L		97
4) Vinyl Chloride	1.361	62	515046	47.72	ug/L		98
5) Bromomethane	1.562	94	212397	64.22	ug/L		100
6) Chloroethane	1.617	64	288231	45.46	ug/L		97
7) Freon 21	1.721	67	908769	51.79	ug/L		100
8) Trichlorofluoromethane	1.770	101	648342	48.05	ug/L		100
9) Diethyl Ether	1.940	59	340585	51.99	ug/L		92
10) Freon 123a	1.934	67	614175	56.45	ug/L		100
11) Freon 123	1.971	83	636628	54.42	ug/L		99
12) Acrolein	2.026	56	111964	113.97	ug/L		95
13) 1,1-Diclethene	2.105	96	366973	58.42	ug/L		93
14) Freon 113	2.093	101	360505	47.58	ug/L		99
15) Acetone	2.123	43	97285	40.70	ug/L		94
16) 2-Propanol	2.196	45	350754	1050.71	ug/L		97
17) Iodomethane	2.221	142	258686	55.83	ug/L		99
18) Carbon Disulfide	2.276	76	1211280	52.51	ug/L		100
19) Acetonitrile	2.324	40	71169	243.49	ug/L	#	87
20) Allyl Chloride	2.355	76	206554	51.82	ug/L	#	68
21) Methyl Acetate	2.355	43	248875	50.81	ug/L		94
22) Methylene Chloride	2.440	84	400827	48.98	ug/L	#	84
23) TBA	2.501	59	522180	1040.86	ug/L		92
24) Acrylonitrile	2.635	53	567220	261.58	ug/L		96
25) Methyl-t-Butyl Ether	2.666	73	1002351	52.79	ug/L		95
26) trans-1,2-Dichloroethene	2.672	96	409440	50.94	ug/L		92
28) 1,1-Diclethane	3.050	63	790178	49.99	ug/L		99
29) Vinyl Acetate	3.092	86	46310	43.10	ug/L	#	40
30) DIPE	3.111	45	1606679	47.36	ug/L		94
31) 2-Chloro-1,3-Butadiene	3.147	53	853086	55.16	ug/L		86
32) ETBE	3.507	59	1267700	48.06	ug/L		96
33) 2,2-Dichloropropane	3.684	77	589442	51.54	ug/L		97
34) cis-1,2-Dichloroethene	3.684	96	451917	49.51	ug/L		92
35) 2-Butanone	3.702	43	157521	49.76	ug/L		92
36) Propionitrile	3.769	54	201999	251.92	ug/L		96
37) Bromochloromethane	3.983	130	272136	50.90	ug/L		92

Quantitation Report (Not Reviewed)

Sample : 50 PPB ICV
Data File : I:\ACQUDATA\msvoa10\data\022814\F6216.D Vial: 14
Acq On : 28 Feb 2014 5:44 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 10:13:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 10:12:23 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	Methacrylonitrile	3.970	67	112532	56.16	ug/L	#	71
39)	Tetrahydrofuran	4.056	42	94921	51.93	ug/L		76
40)	Chloroform	4.098	83	749422	49.91	ug/L		95
41)	1,1,1-Trichloroethane	4.360	97	646559	50.77	ug/L		98
42)	TAME	5.184	73	976007	48.98	ug/L		97
44)	Cyclohexane	4.446	41	520586	49.31	ug/L		99
46)	Carbontetrachloride	4.617	121	186235	52.94	ug/L		91
47)	1,1-Dichloropropene	4.623	75	581615	56.80	ug/L		99
49)	Benzene	4.958	78	1637055	50.19	ug/L		92
50)	1,2-Dichloroethane	4.995	62	589745	47.71	ug/L		96
51)	Iso-Butyl Alcohol	4.854	43	243307	1029.89	ug/L		93
52)	n-Heptane	5.458	43	507333	51.33	ug/L		86
53)	1-Butanol	5.952	56	297354	2518.53	ug/L		93
54)	Trichloroethene	5.970	130	465759	51.07	ug/L		98
55)	Methylcyclohexane	6.214	55	600002	50.83	ug/L	#	83
56)	1,2-Diclpropane	6.256	63	457308	51.88	ug/L		99
57)	Dibromomethane	6.403	93	232028	50.14	ug/L		98
58)	1,4-Dioxane	6.464	88	44462	971.23	ug/L		96
59)	Methyl Methacrylate	6.464	69	199719	54.80	ug/L	#	77
60)	Bromodichloromethane	6.616	83	559763	51.46	ug/L		97
61)	2-Nitropropane	6.890	41	154433	101.34	ug/L		96
62)	2-Chloroethylvinyl Ether	7.006	63	228186	57.73	ug/L		93
63)	cis-1,3-Dichloropropene	7.140	75	609579	51.88	ug/L		97
64)	4-Methyl-2-pentanone	7.336	43	357377	56.18	ug/L		98
66)	Toluene	7.500	91	1774640	50.74	ug/L		98
67)	trans-1,3-Dichloropropene	7.744	75	509567	52.72	ug/L		96
68)	Ethyl Methacrylate	7.872	69	420942	54.56	ug/L	#	75
69)	1,1,2-Trichloroethane	7.921	97	315161	50.07	ug/L		98
72)	Tetrachloroethene	8.055	164	376442	52.98	ug/L		98
73)	2-Hexanone	8.195	43	242347	52.91	ug/L		94
74)	1,3-Dichloropropane	8.085	76	530628	51.06	ug/L		85
75)	Dibromochloromethane	8.299	129	417158	54.22	ug/L		100
76)	N-Butyl Acetate	8.335	43	603145	55.40	ug/L		97
77)	1,2-Dibromoethane	8.396	107	324510	52.72	ug/L		99
78)	3-Chlorobenzotrifluoride	8.878	180	714783	53.99	ug/L		98
79)	Chlorobenzene	8.866	112	1207284	51.20	ug/L		97
80)	4-Chlorobenzotrifluoride	8.927	180	647648	53.21	ug/L		97
81)	1,1,1,2-Tetrachloroethane	8.945	131	438856	52.50	ug/L		98
82)	Ethylbenzene	8.975	106	615306	53.15	ug/L		98
83)	(m+p)Xylene	9.085	106	1546223	110.44	ug/L		100
84)	o-Xylene	9.433	106	763749	55.36	ug/L		99
85)	Styrene	9.445	104	1287152	55.71	ug/L		98
86)	Bromoform	9.597	173	245837	53.91	ug/L		94
87)	2-Chlorobenzotrifluoride	9.670	180	694573	54.07	ug/L		96
88)	Isopropylbenzene	9.756	105	1920671	55.50	ug/L		99
89)	Cyclohexanone	9.823	55	942581	1115.12	ug/L		97
90)	trans-1,4-Dichloro-2-B...	10.055	53	114214	53.70	ug/L		89
92)	1,1,2,2-Tetrachloroethane	10.006	83	381841	47.71	ug/L		100
93)	Bromobenzene	10.000	156	538377	50.68	ug/L		98
94)	1,2,3-Trichloropropane	10.036	110	102053	50.71	ug/L		98
95)	n-Propylbenzene	10.103	91	2319300	54.75	ug/L		100
96)	2-Chlorotoluene	10.164	91	1392619	52.85	ug/L		99

Quantitation Report (Not Reviewed)

Sample : 50 PPB ICV
Data File : I:\ACQUDATA\msvoa10\data\022814\F6216.D Vial: 14
Acq On : 28 Feb 2014 5:44 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

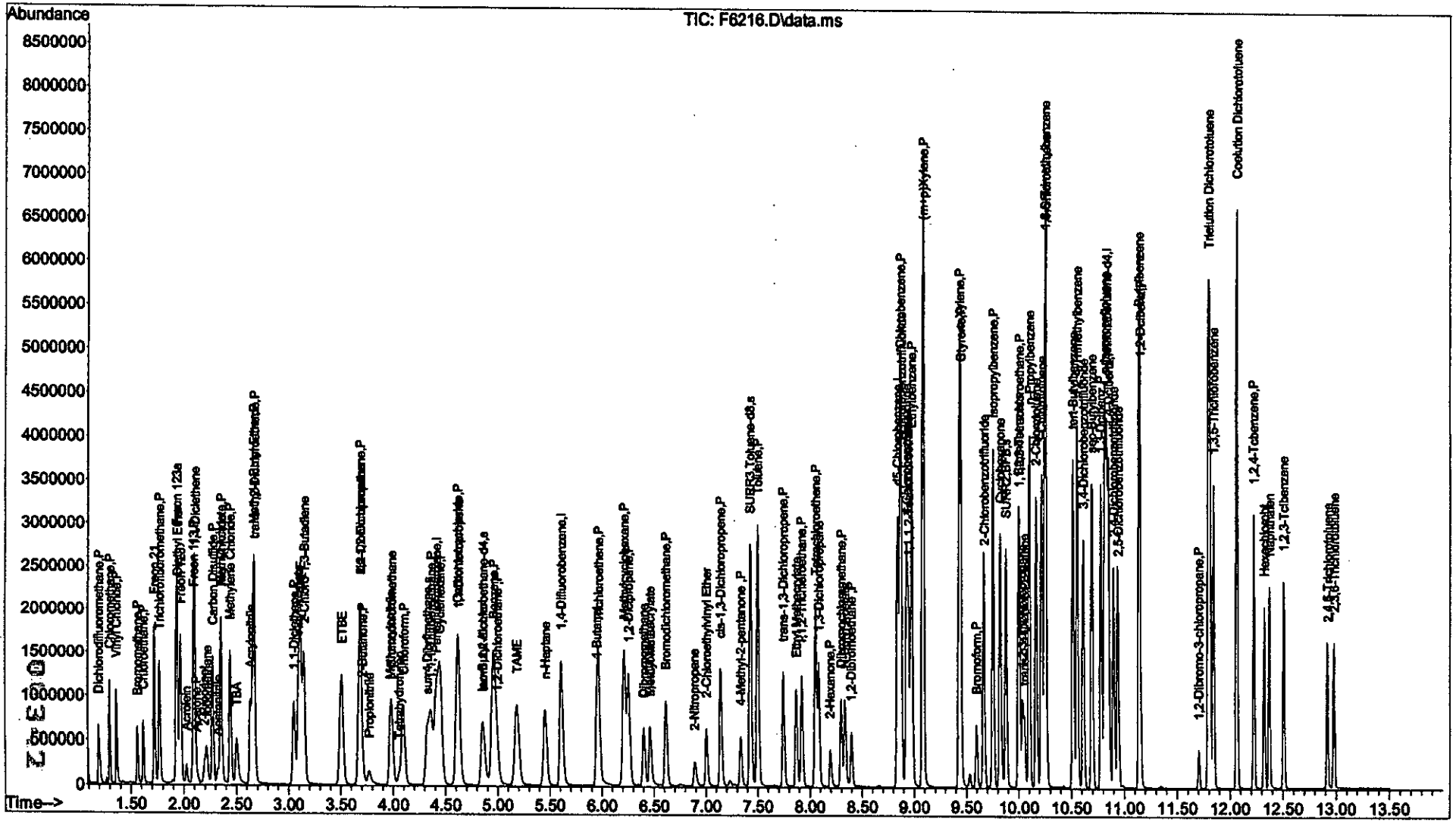
Quant Time: Mar 03 10:13:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 10:12:23 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.219	91	1486818	51.65	ug/L	100
98)	4-Chlorotoluene	10.256	91	1695574	52.97	ug/L	100
99)	1,3,5-Trimethylbenzene	10.250	105	1645296	54.47	ug/L	99
100)	tert-Butylbenzene	10.518	119	1354420	53.51	ug/L	100
101)	1,2,4-Trimethylbenzene	10.554	105	1666648	54.26	ug/L	96
102)	3,4-Dichlorobenzotrifl...	10.615	214	501505	52.37	ug/L	97
103)	sec-Butylbenzene	10.695	105	1894798	54.30	ug/L	99
104)	p-Isopropyltoluene	10.817	119	1685169	56.21	ug/L	98
105)	1,3-Dclbenz	10.780	146	1034210	52.09	ug/L	98
106)	1,4-Dclbenz	10.853	146	1056835	50.52	ug/L	99
107)	2,4-Dichlorobenzotrifl...	10.902	214	456133	52.51	ug/L	98
108)	2,5-Dichlorobenzotrifl...	10.945	214	523454	51.92	ug/L	98
109)	n-Butylbenzene	11.140	91	1485447	56.93	ug/L	100
110)	1,2-Dclbenz	11.152	146	970304	52.25	ug/L	98
111)	1,2-Dibromo-3-chloropr...	11.707	157	71721	51.93	ug/L	92
112)	Trielution Dichlorotol...	11.798	125	2414605	161.70	ug/L	94
113)	1,3,5-Trichlorobenzene	11.847	180	675401	51.06	ug/L	94
114)	Coelution Dichlorotoluene	12.066	125	1682647	108.30	ug/L	97
115)	1,2,4-Tcbenzene	12.225	180	572019	53.58	ug/L	97
116)	Hexachlorobt	12.322	225	231982	48.61	ug/L	100
117)	Naphthalen	12.371	128	1046873	57.95	ug/L	99
118)	1,2,3-Tclbenzene	12.505	180	435521	51.26	ug/L	98
119)	2,4,5-Trichlorotoluene	12.920	159	286590	53.63	ug/L	100
120)	2,3,6-Trichlorotoluene	12.981	159	260277	51.20	ug/L	96

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

Sample : 50 PPB ICV
Data File : I:\ACQUDATA\msvoa10\data\022814\F6216.D Vial: 14
Acq On : 28 Feb 2014 5:44 pm
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 03 10:13:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 10:12:23 2014
Response via : Initial Calibration



Initial Calibration - Summary Report

KF 3/13/14

Calibration ID: RC1400023 W031214 8260 Waters

Instrument ID: R-MS-12

Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.3058	<=20	7.3
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.7112	<=20	2.2
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5726	<=20	5.4
1,1,2-Trichloroethane	T	Average RF		0.100	0.2220	<=20	5.6
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3971	<=20	1.9
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8461	<=20	3.1
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.3628	<=20	3.7
1,1-Dichloropropene	T	Average RF			0.3693	<=20	4.9
1,2,3-Trichlorobenzene	T	Average RF			0.6036	<=20	8.2
1,2,3-Trichloropropane	T	Average RF			0.1713	<=20	7.2
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.7372	<=20	6.4
1,2,4-Trimethylbenzene	T	Average RF			2.167	<=20	7.0
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.08773	<=20	12.9
1,2-Dibromoethane	T	Average RF		0.100	0.2312	<=20	5.1
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5388	<=20	4.7
1,2-Dichlorobenzene	T	Average RF		0.400	1.206	<=20	3.3
1,2-Dichloroethane	T	Average RF		0.100	0.3737	<=20	3.9
1,2-Dichloropropane	T	Average RF		0.100	0.3148	<=20	4.5
1,3,5-Trichlorobenzene	T	Average RF			0.8315	<=20	4.0
1,3,5-Trimethylbenzene	T	Average RF			2.106	<=20	6.0
1,3-Dichlorobenzene	T	Average RF		0.600	1.252	<=20	4.2
1,3-Dichloropropane	T	Average RF			0.4501	<=20	2.3
1,4-Dichlorobenzene	T	Average RF		0.500	1.332	<=20	8.0
1,4-Dioxane	T	Average RF			0.002062	<=20	6.8
1-Butanol	T	Average RF			0.004645	<=20	18.2
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3856	<=20	7.0
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6154	<=20	3.4
2,2-Dichloropropane	T	Average RF			0.6713	<=20	3.9
2,3,6-Trichlorotoluene	T	Average RF			0.3641	<=20	7.5
2,4,5-Trichlorotoluene	T	Average RF			0.3978	<=20	7.2
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.9535	<=20	5.8
2,4-Dichlorobenzotrifluoride	T	Average RF			0.5359	<=20	4.0
2,5-Dichlorobenzotrifluoride	T	Average RF			0.6128	<=20	3.4
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1390	<=20	1.9
2-Chloro-1,3-butadiene	T	Average RF			0.7288	<=20	7.9
2-Chlorobenzotrifluoride	T	Average RF			0.8330	<=20	4.8
2-Chloroethyl Vinyl Ether	T	Average RF			0.1412	<=20	5.8
2-Chlorotoluene	T	Average RF			1.896	<=20	5.7
2-Hexanone	T	Average RF		0.05	0.1416	<=20	9.6
2-Methyl-1-propanol	T	Average RF			0.008458	<=20	8.6
2-Methyl-2-propanol	T	Average RF			0.02773	<=20	8.6
2-Nitropropane	T	Average RF			0.03954	<=20	10.8
2-Propanol	T	Average RF			0.01610	<=20	13.7
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			1.010	<=20	7.1
3,4-Dichlorobenzotrifluoride	T	Average RF			0.6160	<=20	4.0
3-Chloro-1-propene	T	Average RF			0.2488	<=20	4.3
3-Chlorobenzotrifluoride	T	Average RF			0.4304	<=20	7.2
3-Chlorotoluene	T	Average RF			1.973	<=20	5.3
4-Chlorotoluene	T	Average RF			2.236	<=20	8.4
4-Isopropyltoluene	T	Average RF			2.086	<=20	6.7
4-Methyl-2-pentanone	T	Average RF		0.05	0.1899	<=20	6.0

00343

Initial Calibration - Summary Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Acetone	T	Average RF		0.05	0.09920	<=20	6.0
Acetonitrile	T	Average RF			0.01622	<=20	13.2
Acrolein	T	Quadratic	1/X2		0.01717	>=0.99	0.9978
Acrylonitrile	T	Average RF			0.1111	<=20	5.0
Benzene	T	Average RF		0.500	1.231	<=20	2.6
Bromobenzene	T	Average RF			0.7355	<=20	3.3
Bromochloromethane	T	Average RF			0.2832	<=20	8.2
Bromodichloromethane	T	Average RF		0.200	0.3677	<=20	5.4
Bromoform	T	Average RF		0.100	0.2840	<=20	15.6
Bromomethane	T	Average RF		0.100	0.2881	<=20	6.8
Carbon Disulfide	T	Average RF		0.100	1.262	<=20	4.8
Carbon Tetrachloride	T	Average RF		0.05	0.1199	<=20	6.9
Chlorobenzene	T	Average RF		0.500	0.8701	<=20	2.8
Chloroethane	T	Average RF		0.100	0.2851	<=20	8.6
Chloroform	T	Average RF		0.200	0.8292	<=20	4.7
Chloromethane	T	Average RF		0.100	0.5146	<=20	2.8
Cyclohexane	T	Average RF		0.100	0.2705	<=20	5.1
Cyclohexanone	T	Average RF			0.04011	<=20	5.9
Dibromochloromethane	T	Average RF		0.100	0.2588	<=20	11.9
Dibromomethane	T	Average RF			0.1497	<=20	3.1
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.5939	<=20	7.1
Dichlorofluoromethane (CFC 21)	T	Average RF			0.7211	<=20	4.4
Dichloromethane	T	Average RF		0.100	0.4753	<=20	5.4
Diethyl Ether	T	Average RF			0.3614	<=20	6.8
Diisopropyl Ether	T	Average RF			1.648	<=20	5.1
Ethyl Methacrylate	T	Average RF			0.2861	<=20	15.5
Ethyl tert-Butyl Ether	T	Average RF			1.379	<=20	4.3
Ethylbenzene	T	Average RF		0.100	0.4636	<=20	3.9
Hexachlorobutadiene	T	Average RF			0.3218	<=20	5.3
Iodomethane	T	Average RF			0.4820	<=20	15.6
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.581	<=20	6.3
Methacrylonitrile	T	Average RF			0.1295	<=20	10.3
Methyl Acetate	T	Average RF		0.100	0.2234	<=20	6.0
Methyl Methacrylate	T	Average RF			0.1481	<=20	9.0
Methyl tert-Butyl Ether	T	Average RF		0.100	1.153	<=20	3.5
Methylcyclohexane	T	Average RF		0.100	0.3206	<=20	5.3
Naphthalene	T	Average RF			1.327	<=20	6.2
Propionitrile	T	Average RF			0.04013	<=20	8.9
Styrene	T	Average RF		0.300	0.8888	<=20	9.8
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2583	<=20	7.1
Tetrahydrofuran (THF)	T	Average RF			0.09716	<=20	4.0
Toluene	T	Average RF		0.400	1.269	<=20	4.0
Trichloroethene (TCE)	T	Average RF		0.200	0.2982	<=20	2.1
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.7340	<=20	4.6
Vinyl Acetate	T	Average RF			0.07534	<=20	7.4
Vinyl Chloride	T	Average RF		0.100	0.4781	<=20	2.7
cis-1,2-Dichloroethene	T	Average RF		0.100	0.5073	<=20	2.9
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4363	<=20	8.8
m,p-Xylenes	T	Average RF		0.100	0.5448	<=20	5.7
n-Butyl Acetate	T	Average RF			0.3502	<=20	8.0
n-Butylbenzene	T	Average RF			1.881	<=20	7.7
n-Heptane	T	Average RF			0.3075	<=20	4.6

Initial Calibration - Summary Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Propylbenzene	T	Average RF			3.020	<=20	7.6
o-Xylene	T	Average RF		0.300	0.5559	<=20	4.6
sec-Butylbenzene	T	Average RF			2.467	<=20	7.2
tert-Amyl Methyl Ether	T	Average RF			1.164	<=20	4.4
tert-Butylbenzene	T	Average RF			1.773	<=20	4.3
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4546	<=20	2.9
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3517	<=20	12.9
trans-1,4-Dichloro-2-butene	T	Average RF			0.1346	<=20	13.1
1,2-Dichloroethane-d4	S	Average RF			0.3297	<=20	1.6
4-Bromofluorobenzene	S	Average RF			0.4538	<=20	1.8
Dibromofluoromethane	S	Average RF			0.2895	<=20	0.8
Toluene-d8	S	Average RF			1.216	<=20	0.5

KR 3/13/14

Initial Calibration - Detailed Report

Calibration ID: RC1400023 WO3214 8260 waters
Instrument ID: R-MS-12
Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1400023-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\031214\J3875.D	3/12/14 10:45
02	RC1400023-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\031214\J3876.D	3/12/14 11:17
03	RC1400023-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\031214\J3877.D	3/12/14 11:49
04	RC1400023-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\031214\J3878.D	3/12/14 12:21
05	RC1400023-05	20ppb	I:\ACQUDATA\msvoa12\Data\031214\J3879.D	3/12/14 12:53
06	RC1400023-06	50ppb	I:\ACQUDATA\msvoa12\Data\031214\J3880.D	3/12/14 13:26
07	RC1400023-07	100ppb	I:\ACQUDATA\msvoa12\Data\031214\J3881.D	3/12/14 13:58
08	RC1400023-08	200ppb	I:\ACQUDATA\msvoa12\Data\031214\J3882.D	3/12/14 14:30

Analyte — **Curve Fit:** Average RF — **Weighting:**

1,1,1,2-Tetrachloroethane

Average RF = 0.3058 — RSD = 7.3

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2983	02	1.000	0.2715	03	2.000	0.2857	04	5.000	0.2953
05	20.000	0.3181	06	50.000	0.3125	07	100.000	0.3237	08	200.000	0.3409

1,1,1-Trichloroethane (TCA)

Average RF = 0.7112 — RSD = 2.2

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7063	02	1.000	0.6868	03	2.000	0.7026	04	5.000	0.7079
05	20.000	0.7266	06	50.000	0.7019	07	100.000	0.7348	08	200.000	0.7228

1,1,2,2-Tetrachloroethane

Average RF = 0.5726 — RSD = 5.4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5677	02	1.000	0.6326	03	2.000	0.5516	04	5.000	0.5900
05	20.000	0.5885	06	50.000	0.5657	07	100.000	0.5510	08	200.000	0.5336

1,1,2-Trichloroethane

Average RF = 0.2220 — RSD = 5.6

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2390	02	1.000	0.2102	03	2.000	0.2004	04	5.000	0.2220
05	20.000	0.2356	06	50.000	0.2226	07	100.000	0.2210	08	200.000	0.2255

1,1,2-Trichlorotrifluoroethane

Average RF = 0.3971 — RSD = 1.9

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3985	02	1.000	0.4016	03	2.000	0.3970	04	5.000	0.3992
05	20.000	0.4053	06	50.000	0.3807	07	100.000	0.4011	08	200.000	0.3932

1,1-Dichloroethane (1,1-DCA)

Average RF = 0.8461 — RSD = 3.1

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8237	02	1.000	0.8387	03	2.000	0.8602	04	5.000	0.8635
05	20.000	0.8933	06	50.000	0.8250	07	100.000	0.8497	08	200.000	0.8151

1,1-Dichloroethene (1,1-DCE)

Average RF = 0.3628 — RSD = 3.7

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3377	02	1.000	0.3500	03	2.000	0.3712	04	5.000	0.3711
05	20.000	0.3724	06	50.000	0.3567	07	100.000	0.3750	08	200.000	0.3686

1,1-Dichloropropene

Average RF = 0.3693 — RSD = 4.9

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3820	02	1.000	0.3361	03	2.000	0.3482	04	5.000	0.3787
05	20.000	0.3890	06	50.000	0.3660	07	100.000	0.3762	08	200.000	0.3780

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** Weighting

1,2,3-Trichlorobenzene Average RF RSD = 8.2 Average RF = 0.6036

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7120	02	1.000	0.5898	03	2.000	0.6049	04	5.000	0.6154
05	20.000	0.6087	06	50.000	0.5765	07	100.000	0.5812	08	200.000	0.5407

1,2,3-Trichloropropane Average RF RSD = 7.2 Average RF = 0.1713

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1594	02	1.000	0.1952	03	2.000	0.1804	04	5.000	0.1712
05	20.000	0.1757	06	50.000	0.1662	07	100.000	0.1640	08	200.000	0.1587

1,2,4-Trichlorobenzene Average RF RSD = 6.4 Average RF = 0.7372

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8384	02	1.000	0.7195	03	2.000	0.7193	04	5.000	0.7561
05	20.000	0.7459	06	50.000	0.7248	07	100.000	0.7187	08	200.000	0.6751

1,2,4-Trimethylbenzene Average RF RSD = 7.0 Average RF = 2.167

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.954	02	1.000	2.105	03	2.000	2.150	04	5.000	2.333
05	20.000	2.369	06	50.000	2.219	07	100.000	2.224	08	200.000	1.979

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 12.9 Average RF = 0.08773

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.08527	03	2.000	0.06938	04	5.000	0.07609	05	20.000	0.09250
06	50.000	0.09478	07	100.000	0.09971	08	200.000	0.09639			

1,2-Dibromoethane Average RF RSD = 5.1 Average RF = 0.2312

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2119	02	1.000	0.2166	03	2.000	0.2300	04	5.000	0.2285
05	20.000	0.2450	06	50.000	0.2376	07	100.000	0.2391	08	200.000	0.2411

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 4.7 Average RF = 0.5388

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5609	02	1.000	0.5284	03	2.000	0.5735	04	5.000	0.5565
05	20.000	0.5532	06	50.000	0.5082	07	100.000	0.5150	08	200.000	0.5148

1,2-Dichlorobenzene Average RF RSD = 3.3 Average RF = 1.206

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.165	02	1.000	1.167	03	2.000	1.163	04	5.000	1.250
05	20.000	1.266	06	50.000	1.199	07	100.000	1.231	08	200.000	1.203

1,2-Dichloroethane Average RF RSD = 3.9 Average RF = 0.3737

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3944	02	1.000	0.3897	03	2.000	0.3680	04	5.000	0.3712
05	20.000	0.3872	06	50.000	0.3620	07	100.000	0.3583	08	200.000	0.3591

1,2-Dichloroethane-d4 Average RF RSD = 1.6 Average RF = 0.3297

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	50.000	0.3313	01	50.000	0.3343	04	50.000	0.3305	02	50.000	0.3375
03	50.000	0.3311	08	50.000	0.3218	06	50.000	0.3278	07	50.000	0.3236

1,2-Dichloropropane Average RF RSD = 4.5 Average RF = 0.3148

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3353	02	1.000	0.2940	03	2.000	0.3243	04	5.000	0.3023
05	20.000	0.3306	06	50.000	0.3099	07	100.000	0.3114	08	200.000	0.3104

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

1,3,5-Trichlorobenzene — Average RF — RSD = 4.0 — Average RF = 0.8315

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8430	02	1.000	0.8020	03	2.000	0.8458	04	5.000	0.8426
05	20.000	0.8737	06	50.000	0.8561	07	100.000	0.8199	08	200.000	0.7691

1,3,5-Trimethylbenzene — Average RF — RSD = 6.0 — Average RF = 2.106

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.951	02	1.000	2.012	03	2.000	2.092	04	5.000	2.238
05	20.000	2.297	06	50.000	2.125	07	100.000	2.170	08	200.000	1.961

1,3-Dichlorobenzene — Average RF — RSD = 4.2 — Average RF = 1.252

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.191	02	1.000	1.211	03	2.000	1.210	04	5.000	1.307
05	20.000	1.338	06	50.000	1.240	07	100.000	1.287	08	200.000	1.232

1,3-Dichloropropane — Average RF — RSD = 2.3 — Average RF = 0.4501

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4445	02	1.000	0.4607	03	2.000	0.4426	04	5.000	0.4577
05	20.000	0.4682	06	50.000	0.4441	07	100.000	0.4414	08	200.000	0.4419

1,4-Dichlorobenzene — Average RF — RSD = 8.0 — Average RF = 1.332

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.577	02	1.000	1.283	03	2.000	1.282	04	5.000	1.332
05	20.000	1.369	06	50.000	1.267	07	100.000	1.303	08	200.000	1.246

1,4-Dioxane — Average RF — RSD = 6.8 — Average RF = 0.002062

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.001810	04	100.000	0.002154	05	400.000	0.002159	06	1000.000	0.001977
07	2000.000	0.002122	08	4000.000	0.002147						

1-Butanol — Average RF — RSD = 18.2 — Average RF = 0.004645

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.003924	03	100.000	0.003663	04	250.000	0.003764	05	1000.000	0.004882
06	2500.000	0.005182	07	5000.000	0.005452	08	10000.000	0.005652			

1-Chloro-4-(trifluoromethyl)benzene — Average RF — RSD = 7.0 — Average RF = 0.3856

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4167	02	1.000	0.3463	03	2.000	0.3464	04	5.000	0.3768
05	20.000	0.4086	06	50.000	0.3969	07	100.000	0.3909	08	200.000	0.4026

2,2-Dichloro-1,1,1-trifluoroethane (CFC — Average RF — RSD = 3.4 — Average RF = 0.6154

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6207	02	1.000	0.6330	03	2.000	0.6327	04	5.000	0.6228
05	20.000	0.6351	06	50.000	0.5779	07	100.000	0.5931	08	200.000	0.6081

2,2-Dichloropropane — Average RF — RSD = 3.9 — Average RF = 0.6713

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6675	02	1.000	0.6452	03	2.000	0.6422	04	5.000	0.6446
05	20.000	0.6968	06	50.000	0.6701	07	100.000	0.7082	08	200.000	0.6961

2,3,6-Trichlorotoluene — Average RF — RSD = 7.5 — Average RF = 0.3641

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3875	03	2.000	0.3415	04	5.000	0.3913	05	20.000	0.3742
06	50.000	0.3804	07	100.000	0.3565	08	200.000	0.3172			

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

2,4,5-Trichlorotoluene Average RF RSD = 7.2 Average RF = 0.3978

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4329	03	2.000	0.3944	04	5.000	0.4078	05	20.000	0.4165
06	50.000	0.4041	07	100.000	0.3861	08	200.000	0.3424			

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut Average RF RSD = 5.8 Average RF = 0.9535

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.9770	02	3.000	0.9010	03	6.000	0.9234	04	15.000	0.9868
05	60.000	1.023	06	150.000	0.9986	07	300.000	0.9600	08	600.000	0.8584

2,4-Dichlorobenzotrifluoride Average RF RSD = 4.0 Average RF = 0.5359

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5110	02	1.000	0.5339	03	2.000	0.5084	04	5.000	0.5409
05	20.000	0.5693	06	50.000	0.5540	07	100.000	0.5471	08	200.000	0.5228

2,5-Dichlorobenzotrifluoride Average RF RSD = 3.4 Average RF = 0.6128

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5718	02	1.000	0.6247	03	2.000	0.6037	04	5.000	0.6225
05	20.000	0.6361	06	50.000	0.6241	07	100.000	0.6228	08	200.000	0.5964

2-Butanone (MEK) Average RF RSD = 1.9 Average RF = 0.1390

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1352	04	5.000	0.1415	05	20.000	0.1414	06	50.000	0.1412
07	100.000	0.1376	08	200.000	0.1370						

2-Chloro-1,3-butadiene Average RF RSD = 7.9 Average RF = 0.7288

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6913	02	1.000	0.6222	03	2.000	0.7311	04	5.000	0.7347
05	20.000	0.8048	06	50.000	0.7974	07	100.000	0.7220	08	200.000	0.7268

2-Chlorobenzotrifluoride Average RF RSD = 4.8 Average RF = 0.8330

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9100	02	1.000	0.7769	03	2.000	0.8291	04	5.000	0.8420
05	20.000	0.8570	06	50.000	0.8319	07	100.000	0.8212	08	200.000	0.7957

2-Chloroethyl Vinyl Ether Average RF RSD = 5.8 Average RF = 0.1412

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1322	03	2.000	0.1312	04	5.000	0.1351	05	20.000	0.1468
06	50.000	0.1488	07	100.000	0.1433	08	200.000	0.1509			

2-Chlorotoluene Average RF RSD = 5.7 Average RF = 1.896

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.848	02	1.000	1.801	03	2.000	1.996	04	5.000	2.046
05	20.000	1.995	06	50.000	1.865	07	100.000	1.892	08	200.000	1.729

2-Hexanone Average RF RSD = 9.6 Average RF = 0.1416

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1254	04	5.000	0.1240	05	20.000	0.1460	06	50.000	0.1528
07	100.000	0.1465	08	200.000	0.1549						

2-Methyl-1-propanol Average RF RSD = 8.6 Average RF = 0.008458

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.008567	03	40.000	0.007652	04	100.000	0.007321	05	400.000	0.008520
06	1000.000	0.008757	07	2000.000	0.009084	08	4000.000	0.009309			

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Methyl-2-propanol Average RF RSD = 8.6 Average RF = 0.02773

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.02497	02	20.000	0.02534	03	40.000	0.02495	04	100.000	0.02725
05	400.000	0.03012	06	1000.000	0.02929	07	2000.000	0.03011	08	4000.000	0.02980

2-Nitropropane Average RF RSD = 10.8 Average RF = 0.03954

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.03696	03	4.000	0.03746	04	10.000	0.03400	05	40.000	0.03718
06	100.000	0.04155	07	200.000	0.04375	08	400.000	0.04587			

2-Propanol Average RF RSD = 13.7 Average RF = 0.01610

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.01427	03	40.000	0.01247	04	100.000	0.01533	05	400.000	0.01663
06	1000.000	0.01714	07	2000.000	0.01837	08	4000.000	0.01848			

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 7.1 Average RF = 1.010

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9169	02	2.000	1.022	03	4.000	1.034	04	10.000	1.049
05	40.000	1.078	06	100.000	1.071	07	200.000	1.025	08	400.000	0.8819

3,4-Dichlorobenzotrifluoride Average RF RSD = 4.0 Average RF = 0.6160

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6560	02	1.000	0.5832	03	2.000	0.5958	04	5.000	0.5956
05	20.000	0.6406	06	50.000	0.6265	07	100.000	0.6205	08	200.000	0.6097

3-Chloro-1-propene Average RF RSD = 4.3 Average RF = 0.2488

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2545	02	1.000	0.2473	03	2.000	0.2453	04	5.000	0.2512
05	20.000	0.2640	06	50.000	0.2506	07	100.000	0.2510	08	200.000	0.2265

3-Chlorobenzotrifluoride Average RF RSD = 7.2 Average RF = 0.4304

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4930	02	1.000	0.4036	03	2.000	0.3943	04	5.000	0.4118
05	20.000	0.4381	06	50.000	0.4241	07	100.000	0.4325	08	200.000	0.4460

3-Chlorotoluene Average RF RSD = 5.3 Average RF = 1.973

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.001	02	1.000	1.930	03	2.000	1.972	04	5.000	2.097
05	20.000	2.101	06	50.000	1.984	07	100.000	1.919	08	200.000	1.777

4-Bromofluorobenzene Average RF RSD = 1.8 Average RF = 0.4538

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4590	03	50.000	0.4407	08	50.000	0.4674	07	50.000	0.4608
04	50.000	0.4514	05	50.000	0.4534	02	50.000	0.4484	01	50.000	0.4493

4-Chlorotoluene Average RF RSD = 8.4 Average RF = 2.236

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.971	02	1.000	2.210	03	2.000	2.368	04	5.000	2.461
05	20.000	2.434	06	50.000	2.215	07	100.000	2.253	08	200.000	1.976

4-Isopropyltoluene Average RF RSD = 6.7 Average RF = 2.086

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.941	02	1.000	1.967	03	2.000	2.058	04	5.000	2.230
05	20.000	2.299	06	50.000	2.107	07	100.000	2.167	08	200.000	1.919

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte — **Curve Fit** — **Weighting**

4-Methyl-2-pentanone — Average RF — RSD = 6.0 — Average RF = 0.1899

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1760	04	5.000	0.1760	05	20.000	0.1895	06	50.000	0.2006
07	100.000	0.1966	08	200.000	0.2005						

Acetone — Average RF — RSD = 6.0 — Average RF = 0.09920

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1085	05	20.000	0.09976	06	50.000	0.09387	07	100.000	0.09976
08	200.000	0.09415									

Acetonitrile — Average RF — RSD = 13.2 — Average RF = 0.01622

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01228	04	25.000	0.01658	05	100.000	0.01837	06	250.000	0.01583
07	500.000	0.01782	08	1000.000	0.01645						

Acrolein — Quadratic — 1/X2 — COD = 0.9978 — $Y = 0.001887 X^2 + 0.006327 X + 2.544E-4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.009244	03	10.000	0.007990	04	25.000	0.006781	05	100.000	0.01026
06	250.000	0.01513	07	500.000	0.02775	08	1000.000	0.04302			

Acrylonitrile — Average RF — RSD = 5.0 — Average RF = 0.1111

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1077	02	5.000	0.1122	03	10.000	0.1002	04	25.000	0.1111
05	100.000	0.1195	06	250.000	0.1138	07	500.000	0.1144	08	1000.000	0.1102

Benzene — Average RF — RSD = 2.6 — Average RF = 1.231

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.221	02	1.000	1.217	03	2.000	1.225	04	5.000	1.254
05	20.000	1.300	06	50.000	1.211	07	100.000	1.224	08	200.000	1.195

Bromobenzene — Average RF — RSD = 3.3 — Average RF = 0.7355

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7129	02	1.000	0.7415	03	2.000	0.7707	04	5.000	0.7655
05	20.000	0.7457	06	50.000	0.7029	07	100.000	0.7271	08	200.000	0.7180

Bromochloromethane — Average RF — RSD = 8.2 — Average RF = 0.2832

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3308	02	1.000	0.2864	03	2.000	0.2904	04	5.000	0.2917
05	20.000	0.2808	06	50.000	0.2647	07	100.000	0.2644	08	200.000	0.2567

Bromodichloromethane — Average RF — RSD = 5.4 — Average RF = 0.3677

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3523	02	1.000	0.3364	03	2.000	0.3520	04	5.000	0.3636
05	20.000	0.3899	06	50.000	0.3744	07	100.000	0.3831	08	200.000	0.3898

Bromoform — Average RF — RSD = 15.6 — Average RF = 0.2840

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2211	02	1.000	0.2672	03	2.000	0.2277	04	5.000	0.2700
05	20.000	0.3081	06	50.000	0.3125	07	100.000	0.3291	08	200.000	0.3360

Bromomethane — Average RF — RSD = 6.8 — Average RF = 0.2881

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3114	02	1.000	0.3113	03	2.000	0.3091	04	5.000	0.2746
05	20.000	0.2750	06	50.000	0.2618	07	100.000	0.2769	08	200.000	0.2848

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12 **Signal ID:** 1

Analyte **Curve Fit** Average RF **Weighting** 1/x

Carbon Disulfide Average RF RSD = 4.8 Average RF = 1.262

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.321	02	1.000	1.229	03	2.000	1.255	04	5.000	1.251
05	20.000	1.345	06	50.000	1.316	07	100.000	1.214	08	200.000	1.165

Carbon Tetrachloride Average RF RSD = 6.9 Average RF = 0.1199

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1354	02	1.000	0.1124	03	2.000	0.1161	04	5.000	0.1107
05	20.000	0.1197	06	50.000	0.1149	07	100.000	0.1233	08	200.000	0.1266

Chlorobenzene Average RF RSD = 2.8 Average RF = 0.8701

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8993	02	1.000	0.8337	03	2.000	0.8881	04	5.000	0.8811
05	20.000	0.8966	06	50.000	0.8431	07	100.000	0.8626	08	200.000	0.8563

Chloroethane Average RF RSD = 8.6 Average RF = 0.2851

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3345	02	1.000	0.2800	03	2.000	0.3023	04	5.000	0.2604
05	20.000	0.2953	06	50.000	0.2692	07	100.000	0.2737	08	200.000	0.2659

Chloroform Average RF RSD = 4.7 Average RF = 0.8292

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9097	02	1.000	0.8178	03	2.000	0.8517	04	5.000	0.8211
05	20.000	0.8358	06	50.000	0.7809	07	100.000	0.8189	08	200.000	0.7975

Chloromethane Average RF RSD = 2.8 Average RF = 0.5146

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4949	02	1.000	0.4996	03	2.000	0.5223	04	5.000	0.5099
05	20.000	0.5393	06	50.000	0.5065	07	100.000	0.5248	08	200.000	0.5198

Cyclohexane Average RF RSD = 5.1 Average RF = 0.2705

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2907	02	1.000	0.2754	03	2.000	0.2782	04	5.000	0.2787
05	20.000	0.2755	06	50.000	0.2513	07	100.000	0.2524	08	200.000	0.2620

Cyclohexanone Average RF RSD = 5.9 Average RF = 0.04011

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.03932	02	20.000	0.04338	03	40.000	0.03616	04	100.000	0.04035
05	400.000	0.04332	06	1000.000	0.03960	07	2000.000	0.03940	08	4000.000	0.03932

Dibromochloromethane Average RF RSD = 11.9 Average RF = 0.2588

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2176	02	1.000	0.2186	03	2.000	0.2418	04	5.000	0.2536
05	20.000	0.2761	06	50.000	0.2780	07	100.000	0.2876	08	200.000	0.2973

Dibromofluoromethane Average RF RSD = 0.8 Average RF = 0.2895

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	50.000	0.2865	04	50.000	0.2929	05	50.000	0.2925	03	50.000	0.2876
07	50.000	0.2897	06	50.000	0.2889	02	50.000	0.2871	08	50.000	0.2905

Dibromomethane Average RF RSD = 3.1 Average RF = 0.1497

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1523	02	1.000	0.1548	03	2.000	0.1407	04	5.000	0.1454
05	20.000	0.1530	06	50.000	0.1495	07	100.000	0.1494	08	200.000	0.1529

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

Dichlorodifluoromethane (CFC 12) Average RF RSD = 7.1 Average RF = 0.5939

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6564	02	1.000	0.5571	03	2.000	0.5697	04	5.000	0.5297
05	20.000	0.6394	06	50.000	0.6016	07	100.000	0.6140	08	200.000	0.5832

Dichlorofluoromethane (CFC 21) Average RF RSD = 4.4 Average RF = 0.7211

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7556	02	1.000	0.6951	03	2.000	0.7583	04	5.000	0.7429
05	20.000	0.7444	06	50.000	0.6873	07	100.000	0.6945	08	200.000	0.6902

Dichloromethane Average RF RSD = 5.4 Average RF = 0.4753

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5085	02	1.000	0.5094	03	2.000	0.4869	04	5.000	0.4756
05	20.000	0.4769	06	50.000	0.4443	07	100.000	0.4568	08	200.000	0.4445

Diethyl Ether Average RF RSD = 6.8 Average RF = 0.3614

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4086	02	1.000	0.3830	03	2.000	0.3609	04	5.000	0.3461
05	20.000	0.3686	06	50.000	0.3426	07	100.000	0.3471	08	200.000	0.3343

Diisopropyl Ether Average RF RSD = 5.1 Average RF = 1.648

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.729	02	1.000	1.591	03	2.000	1.636	04	5.000	1.690
05	20.000	1.772	06	50.000	1.654	07	100.000	1.605	08	200.000	1.507

Ethyl Methacrylate Average RF RSD = 15.5 Average RF = 0.2861

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2214	02	1.000	0.2595	03	2.000	0.2383	04	5.000	0.2676
05	20.000	0.3183	06	50.000	0.3215	07	100.000	0.3296	08	200.000	0.3324

Ethyl tert-Butyl Ether Average RF RSD = 4.3 Average RF = 1.379

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.331	02	1.000	1.327	03	2.000	1.322	04	5.000	1.427
05	20.000	1.484	06	50.000	1.412	07	100.000	1.390	08	200.000	1.339

Ethylbenzene Average RF RSD = 3.9 Average RF = 0.4636

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4482	02	1.000	0.4359	03	2.000	0.4451	04	5.000	0.4764
05	20.000	0.4791	06	50.000	0.4624	07	100.000	0.4794	08	200.000	0.4820

Hexachlorobutadiene Average RF RSD = 5.3 Average RF = 0.3218

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3384	02	1.000	0.3239	03	2.000	0.3162	04	5.000	0.3323
05	20.000	0.3461	06	50.000	0.3150	07	100.000	0.3098	08	200.000	0.2924

Iodomethane Average RF RSD = 15.6 Average RF = 0.4820

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3823	03	2.000	0.4095	04	5.000	0.4186	05	20.000	0.5370
06	50.000	0.5636	07	100.000	0.5381	08	200.000	0.5244			

Isopropylbenzene (Cumene) Average RF RSD = 6.3 Average RF = 2.581

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.502	02	1.000	2.497	03	2.000	2.636	04	5.000	2.757
05	20.000	2.786	06	50.000	2.599	07	100.000	2.599	08	200.000	2.274

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12 **Signal ID:** 1

Analyte **Curve Fit** **Weighting**

Methacrylonitrile Average RF RSD = 10.3 Average RF = 0.1295

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1006	03	2.000	0.1396	04	5.000	0.1260	05	20.000	0.1361
06	50.000	0.1347	07	100.000	0.1355	08	200.000	0.1337			

Methyl Acetate Average RF RSD = 6.0 Average RF = 0.2234

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2217	03	2.000	0.2075	04	5.000	0.2513	05	20.000	0.2242
06	50.000	0.2221	07	100.000	0.2205	08	200.000	0.2164			

Methyl Methacrylate Average RF RSD = 9.0 Average RF = 0.1481

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1473	02	1.000	0.1523	03	2.000	0.1206	04	5.000	0.1367
05	20.000	0.1542	06	50.000	0.1553	07	100.000	0.1575	08	200.000	0.1609

Methyl tert-Butyl Ether Average RF RSD = 3.5 Average RF = 1.153

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.207	02	1.000	1.153	03	2.000	1.131	04	5.000	1.188
05	20.000	1.196	06	50.000	1.120	07	100.000	1.134	08	200.000	1.097

Methylcyclohexane Average RF RSD = 5.3 Average RF = 0.3206

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3497	02	1.000	0.3166	03	2.000	0.3314	04	5.000	0.3258
05	20.000	0.3280	06	50.000	0.2955	07	100.000	0.3050	08	200.000	0.3126

Naphthalene Average RF RSD = 6.2 Average RF = 1.327

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.282	02	1.000	1.208	03	2.000	1.290	04	5.000	1.337
05	20.000	1.433	06	50.000	1.412	07	100.000	1.404	08	200.000	1.252

Propionitrile Average RF RSD = 8.9 Average RF = 0.04013

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.03731	02	5.000	0.03607	03	10.000	0.03612	04	25.000	0.03788
05	100.000	0.04399	06	250.000	0.04311	07	500.000	0.04402	08	1000.000	0.04254

Styrene Average RF RSD = 9.8 Average RF = 0.8888

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7897	02	1.000	0.7703	03	2.000	0.8089	04	5.000	0.8868
05	20.000	0.9769	06	50.000	0.9522	07	100.000	0.9751	08	200.000	0.9503

Tetrachloroethene (PCE) Average RF RSD = 7.1 Average RF = 0.2583

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2988	02	1.000	0.2495	03	2.000	0.2623	04	5.000	0.2415
05	20.000	0.2595	06	50.000	0.2416	07	100.000	0.2508	08	200.000	0.2622

Tetrahydrofuran (THF) Average RF RSD = 4.0 Average RF = 0.09716

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1013	04	5.000	0.09869	05	20.000	0.1010	06	50.000	0.09666
07	100.000	0.09237	08	200.000	0.09300						

Toluene Average RF RSD = 4.0 Average RF = 1.269

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.205	02	1.000	1.271	03	2.000	1.311	04	5.000	1.307
05	20.000	1.336	06	50.000	1.268	07	100.000	1.262	08	200.000	1.193

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

Toluene-d8 — Average RF — RSD = 0.5 — Average RF = 1.216

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	50.000	1.204	06	50.000	1.220	08	50.000	1.221	07	50.000	1.213
05	50.000	1.220	03	50.000	1.218	02	50.000	1.221	04	50.000	1.214

Trichloroethene (TCE) — Average RF — RSD = 2.1 — Average RF = 0.2982

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2923	02	1.000	0.2995	03	2.000	0.3063	04	5.000	0.2926
05	20.000	0.3006	06	50.000	0.2890	07	100.000	0.2996	08	200.000	0.3055

Trichlorofluoromethane (CFC 11) — Average RF — RSD = 4.6 — Average RF = 0.7340

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7891	02	1.000	0.6969	03	2.000	0.7375	04	5.000	0.7530
05	20.000	0.7674	06	50.000	0.7080	07	100.000	0.7178	08	200.000	0.7019

Vinyl Acetate — Average RF — RSD = 7.4 — Average RF = 0.07534

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.07194	03	2.000	0.06926	04	5.000	0.07091	05	20.000	0.07224
06	50.000	0.08228	07	100.000	0.07850	08	200.000	0.08228			

Vinyl Chloride — Average RF — RSD = 2.7 — Average RF = 0.4781

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4876	02	1.000	0.4588	03	2.000	0.4759	04	5.000	0.4785
05	20.000	0.5000	06	50.000	0.4710	07	100.000	0.4854	08	200.000	0.4672

cis-1,2-Dichloroethene — Average RF — RSD = 2.9 — Average RF = 0.5073

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5046	02	1.000	0.5269	03	2.000	0.4837	04	5.000	0.5042
05	20.000	0.5261	06	50.000	0.4971	07	100.000	0.5129	08	200.000	0.5029

cis-1,3-Dichloropropene — Average RF — RSD = 8.8 — Average RF = 0.4363

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4197	02	1.000	0.3855	03	2.000	0.3916	04	5.000	0.4116
05	20.000	0.4720	06	50.000	0.4630	07	100.000	0.4716	08	200.000	0.4751

m,p-Xylenes — Average RF — RSD = 5.7 — Average RF = 0.5448

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5131	02	2.000	0.4867	03	4.000	0.5378	04	10.000	0.5580
05	40.000	0.5792	06	100.000	0.5587	07	200.000	0.5735	08	400.000	0.5512

n-Butyl Acetate — Average RF — RSD = 8.0 — Average RF = 0.3502

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3279	03	2.000	0.3075	04	5.000	0.3315	05	20.000	0.3613
06	50.000	0.3756	07	100.000	0.3653	08	200.000	0.3822			

n-Butylbenzene — Average RF — RSD = 7.7 — Average RF = 1.881

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.692	02	1.000	1.717	03	2.000	1.958	04	5.000	1.989
05	20.000	2.081	06	50.000	1.909	07	100.000	1.964	08	200.000	1.737

n-Heptane — Average RF — RSD = 4.6 — Average RF = 0.3075

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3265	02	1.000	0.3132	03	2.000	0.3120	04	5.000	0.2963
05	20.000	0.3264	06	50.000	0.2915	07	100.000	0.2994	08	200.000	0.2950

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

n-Propylbenzene — Average RF — RSD = 7.6 — Average RF = 3.020

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.002	02	1.000	2.968	03	2.000	3.195	04	5.000	3.243
05	20.000	3.234	06	50.000	3.001	07	100.000	2.987	08	200.000	2.527

o-Xylene — Average RF — RSD = 4.6 — Average RF = 0.5559

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5120	02	1.000	0.5633	03	2.000	0.5236	04	5.000	0.5596
05	20.000	0.5829	06	50.000	0.5560	07	100.000	0.5740	08	200.000	0.5761

sec-Butylbenzene — Average RF — RSD = 7.2 — Average RF = 2.467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.329	02	1.000	2.417	03	2.000	2.554	04	5.000	2.693
05	20.000	2.671	06	50.000	2.428	07	100.000	2.485	08	200.000	2.157

tert-Amyl Methyl Ether — Average RF — RSD = 4.4 — Average RF = 1.164

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.073	02	1.000	1.129	03	2.000	1.131	04	5.000	1.168
05	20.000	1.233	06	50.000	1.200	07	100.000	1.201	08	200.000	1.179

tert-Butylbenzene — Average RF — RSD = 4.3 — Average RF = 1.773

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.737	02	1.000	1.773	03	2.000	1.823	04	5.000	1.856
05	20.000	1.857	06	50.000	1.734	07	100.000	1.773	08	200.000	1.627

trans-1,2-Dichloroethene — Average RF — RSD = 2.9 — Average RF = 0.4546

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4714	02	1.000	0.4543	03	2.000	0.4433	04	5.000	0.4407
05	20.000	0.4725	06	50.000	0.4404	07	100.000	0.4632	08	200.000	0.4510

trans-1,3-Dichloropropene — Average RF — RSD = 12.9 — Average RF = 0.3517

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2943	02	1.000	0.3052	03	2.000	0.3144	04	5.000	0.3292
05	20.000	0.3845	06	50.000	0.3833	07	100.000	0.3985	08	200.000	0.4039

trans-1,4-Dichloro-2-butene — Average RF — RSD = 13.1 — Average RF = 0.1346

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1173	02	1.000	0.1068	03	2.000	0.1274	04	5.000	0.1249
05	20.000	0.1488	06	50.000	0.1511	07	100.000	0.1497	08	200.000	0.1507

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.4	02	1.000	0.89	-11.2	03	2.000	1.87	-6.5
04	5.000	4.83	-3.4	05	20.000	20.81	4.1	06	50.000	51.10	2.2
07	100.000	105.88	5.9	08	200.000	223.01	11.5				

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.7	02	1.000	0.97	-3.4	03	2.000	1.98	-1.2
04	5.000	4.98	-0.5	05	20.000	20.43	2.2	06	50.000	49.34	-1.3
07	100.000	103.32	3.3	08	200.000	203.25	1.6				

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	1.10	10.5	03	2.000	1.93	-3.7
04	5.000	5.15	3.0	05	20.000	20.56	2.8	06	50.000	49.40	-1.2
07	100.000	96.23	-3.8	08	200.000	186.37	-6.8				

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.6	02	1.000	0.95	-5.3	03	2.000	1.81	-9.7
04	5.000	5.00	0.0	05	20.000	21.22	6.1	06	50.000	50.13	0.3
07	100.000	99.52	-0.5	08	200.000	203.16	1.6				

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.4	02	1.000	1.01	1.1	03	2.000	2.00	0.0
04	5.000	5.03	0.5	05	20.000	20.41	2.1	06	50.000	47.94	-4.1
07	100.000	101.02	1.0	08	200.000	198.05	-1.0				

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.6	02	1.000	0.99	-0.9	03	2.000	2.03	1.7
04	5.000	5.10	2.0	05	20.000	21.11	5.6	06	50.000	48.75	-2.5
07	100.000	100.42	0.4	08	200.000	192.67	-3.7				

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.9	02	1.000	0.96	-3.5	03	2.000	2.05	2.3
04	5.000	5.11	2.3	05	20.000	20.53	2.6	06	50.000	49.15	-1.7
07	100.000	103.36	3.4	08	200.000	203.15	1.6				

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	0.91	-9.0	03	2.000	1.89	-5.7
04	5.000	5.13	2.5	05	20.000	21.07	5.4	06	50.000	49.56	-0.9
07	100.000	101.88	1.9	08	200.000	204.71	2.4				

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.9	02	1.000	0.98	-2.3	03	2.000	2.00	0.2
04	5.000	5.10	1.9	05	20.000	20.17	0.8	06	50.000	47.75	-4.5
07	100.000	96.28	-3.7	08	200.000	179.15	-10.4				

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-7.0	02	1.000	1.14	13.9	03	2.000	2.11	5.3
04	5.000	5.00	-0.1	05	20.000	20.51	2.5	06	50.000	48.51	-3.0
07	100.000	95.69	-4.3	08	200.000	185.19	-7.4				

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	0.98	-2.4	03	2.000	1.95	-2.4
04	5.000	5.13	2.6	05	20.000	20.24	1.2	06	50.000	49.15	-1.7
07	100.000	97.49	-2.5	08	200.000	183.13	-8.4				

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.8	02	1.000	0.97	-2.9	03	2.000	1.98	-0.8
04	5.000	5.38	7.7	05	20.000	21.87	9.3	06	50.000	51.22	2.4
07	100.000	102.65	2.7	08	200.000	182.67	-8.7				

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.97	-2.8	03	2.000	1.58	-20.9	04	5.000	4.34	-13.3
05	20.000	21.09	5.4	06	50.000	54.02	8.0	07	100.000	113.65	13.7
08	200.000	219.74	9.9								

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.3	02	1.000	0.94	-6.3	03	2.000	1.99	-0.5
04	5.000	4.94	-1.2	05	20.000	21.19	5.9	06	50.000	51.38	2.8
07	100.000	103.39	3.4	08	200.000	208.54	4.3				

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.1	02	1.000	0.98	-1.9	03	2.000	2.13	6.4
04	5.000	5.16	3.3	05	20.000	20.53	2.7	06	50.000	47.16	-5.7
07	100.000	95.58	-4.4	08	200.000	191.07	-4.5				

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.3	02	1.000	0.97	-3.2	03	2.000	1.93	-3.5
04	5.000	5.18	3.7	05	20.000	21.00	5.0	06	50.000	49.72	-0.6
07	100.000	102.13	2.1	08	200.000	199.61	-0.2				

Initial Calibration - Detailed Report

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Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.5	02	1.000	1.04	4.3	03	2.000	1.97	-1.5
04	5.000	4.97	-0.7	05	20.000	20.72	3.6	06	50.000	48.43	-3.1
07	100.000	95.88	-4.1	08	200.000	192.18	-3.9				

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	50.000	50.24	0.5	01	50.000	50.69	1.4	04	50.000	50.11	0.2
02	50.000	51.17	2.3	03	50.000	50.20	0.4	08	50.000	48.80	-2.4
06	50.000	49.71	-0.6	07	50.000	49.07	-1.9				

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	0.93	-6.6	03	2.000	2.06	3.0
04	5.000	4.80	-4.0	05	20.000	21.01	5.0	06	50.000	49.23	-1.5
07	100.000	98.93	-1.1	08	200.000	197.23	-1.4				

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.4	02	1.000	0.96	-3.5	03	2.000	2.03	1.7
04	5.000	5.07	1.3	05	20.000	21.02	5.1	06	50.000	51.48	3.0
07	100.000	98.60	-1.4	08	200.000	184.97	-7.5				

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.4	02	1.000	0.96	-4.5	03	2.000	1.99	-0.7
04	5.000	5.31	6.3	05	20.000	21.82	9.1	06	50.000	50.45	0.9
07	100.000	103.05	3.1	08	200.000	186.29	-6.9				

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	0.97	-3.3	03	2.000	1.93	-3.3
04	5.000	5.22	4.4	05	20.000	21.37	6.9	06	50.000	49.50	-1.0
07	100.000	102.83	2.8	08	200.000	196.81	-1.6				

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.3	02	1.000	1.02	2.3	03	2.000	1.97	-1.7
04	5.000	5.08	1.7	05	20.000	20.80	4.0	06	50.000	49.33	-1.3
07	100.000	98.06	-1.9	08	200.000	196.34	-1.8				

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.4	02	1.000	0.96	-3.7	03	2.000	1.92	-3.8
04	5.000	5.00	0.0	05	20.000	20.55	2.7	06	50.000	47.54	-4.9
07	100.000	97.81	-2.2	08	200.000	187.07	-6.5				

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Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	35.12	-12.2	04	100.000	104.49	4.5	05	400.000	418.98	4.7
06	1000.000	959.13	-4.1	07	2000.000	2,058.38	2.9	08	4000.000	4,165.10	4.1

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	42.23	-15.5	03	100.000	78.84	-21.2	04	250.000	202.55	-19.0
05	1000.000	1,050.85	5.1	06	2500.000	2,788.88	11.6	07	5000.000	5,867.93	17.4
08	10000.000	12,167.14	21.7								

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.1	02	1.000	0.90	-10.2	03	2.000	1.80	-10.2
04	5.000	4.89	-2.3	05	20.000	21.19	5.9	06	50.000	51.46	2.9
07	100.000	101.37	1.4	08	200.000	208.77	4.4				

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.9	02	1.000	1.03	2.9	03	2.000	2.06	2.8
04	5.000	5.06	1.2	05	20.000	20.64	3.2	06	50.000	46.95	-6.1
07	100.000	96.38	-3.6	08	200.000	197.61	-1.2				

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.6	02	1.000	0.96	-3.9	03	2.000	1.91	-4.3
04	5.000	4.80	-4.0	05	20.000	20.76	3.8	06	50.000	49.91	-0.2
07	100.000	105.49	5.5	08	200.000	207.38	3.7				

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.06	6.4	03	2.000	1.88	-6.2	04	5.000	5.37	7.5
05	20.000	20.56	2.8	06	50.000	52.24	4.5	07	100.000	97.93	-2.1
08	200.000	174.22	-12.9								

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.09	8.8	03	2.000	1.98	-0.8	04	5.000	5.13	2.5
05	20.000	20.94	4.7	06	50.000	50.79	1.6	07	100.000	97.07	-2.9
08	200.000	172.15	-13.9								

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.54	2.5	02	3.000	2.84	-5.5	03	6.000	5.81	-3.2
04	15.000	15.52	3.5	05	60.000	64.35	7.3	06	150.000	157.11	4.7
07	300.000	302.05	0.7	08	600.000	540.19	-10.0				

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.7	02	1.000	1.00	-0.4	03	2.000	1.90	-5.1
04	5.000	5.05	0.9	05	20.000	21.25	6.2	06	50.000	51.68	3.4
07	100.000	102.08	2.1	08	200.000	195.09	-2.5				

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.7	02	1.000	1.02	1.9	03	2.000	1.97	-1.5
04	5.000	5.08	1.6	05	20.000	20.76	3.8	06	50.000	50.93	1.9
07	100.000	101.64	1.6	08	200.000	194.66	-2.7				

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.95	-2.7	04	5.000	5.09	1.8	05	20.000	20.35	1.7
06	50.000	50.79	1.6	07	100.000	99.04	-1.0	08	200.000	197.13	-1.4

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.1	02	1.000	0.85	-14.6	03	2.000	2.01	0.3
04	5.000	5.04	0.8	05	20.000	22.09	10.4	06	50.000	54.71	9.4
07	100.000	99.07	-0.9	08	200.000	199.45	-0.3				

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	0.93	-6.7	03	2.000	1.99	-0.5
04	5.000	5.05	1.1	05	20.000	20.58	2.9	06	50.000	49.93	-0.1
07	100.000	98.59	-1.4	08	200.000	191.05	-4.5				

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.94	-6.3	03	2.000	1.86	-7.1	04	5.000	4.78	-4.3
05	20.000	20.79	4.0	06	50.000	52.70	5.4	07	100.000	101.53	1.5
08	200.000	213.74	6.9								

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.5	02	1.000	0.95	-5.0	03	2.000	2.10	5.2
04	5.000	5.39	7.9	05	20.000	21.04	5.2	06	50.000	49.16	-1.7
07	100.000	99.77	-0.2	08	200.000	182.32	-8.8				

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.77	-11.4	04	5.000	4.38	-12.4	05	20.000	20.62	3.1
06	50.000	53.96	7.9	07	100.000	103.46	3.5	08	200.000	218.80	9.4

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
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Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.26	1.3	03	40.000	36.19	-9.5	04	100.000	86.55	-13.5
05	400.000	402.89	0.7	06	1000.000	1,035.32	3.5	07	2000.000	2,147.81	7.4
08	4000.000	4,402.14	10.1								

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	9.01	-9.9	02	20.000	18.28	-8.6	03	40.000	35.99	-10.0
04	100.000	98.27	-1.7	05	400.000	434.45	8.6	06	1000.000	1,056.46	5.6
07	2000.000	2,171.61	8.6	08	4000.000	4,298.58	7.5				

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.87	-6.5	03	4.000	3.79	-5.3	04	10.000	8.60	-14.0
05	40.000	37.61	-6.0	06	100.000	105.09	5.1	07	200.000	221.31	10.7
08	400.000	464.07	16.0								

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	17.73	-11.3	03	40.000	30.98	-22.6	04	100.000	95.25	-4.8
05	400.000	413.14	3.3	06	1000.000	1,064.76	6.5	07	2000.000	2,281.69	14.1
08	4000.000	4,592.40	14.8								

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.91	-9.2	02	2.000	2.02	1.2	03	4.000	4.10	2.4
04	10.000	10.39	3.9	05	40.000	42.72	6.8	06	100.000	106.06	6.1
07	200.000	203.02	1.5	08	400.000	349.39	-12.7				

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	0.95	-5.3	03	2.000	1.93	-3.3
04	5.000	4.83	-3.3	05	20.000	20.80	4.0	06	50.000	50.85	1.7
07	100.000	100.73	0.7	08	200.000	197.96	-1.0				

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.3	02	1.000	0.99	-0.6	03	2.000	1.97	-1.4
04	5.000	5.05	1.0	05	20.000	21.22	6.1	06	50.000	50.37	0.7
07	100.000	100.89	0.9	08	200.000	182.08	-9.0				

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.5	02	1.000	0.94	-6.2	03	2.000	1.83	-8.4
04	5.000	4.78	-4.3	05	20.000	20.35	1.8	06	50.000	49.26	-1.5
07	100.000	100.49	0.5	08	200.000	207.26	3.6				

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.4	02	1.000	0.98	-2.2	03	2.000	2.00	0.0
04	5.000	5.31	6.3	05	20.000	21.30	6.5	06	50.000	50.29	0.6
07	100.000	97.29	-2.7	08	200.000	180.14	-9.9				

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	50.57	1.1	03	50.000	48.55	-2.9	08	50.000	51.50	3.0
07	50.000	50.78	1.6	04	50.000	49.74	-0.5	05	50.000	49.96	-0.1
02	50.000	49.40	-1.2	01	50.000	49.50	-1.0				

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.8	02	1.000	0.99	-1.2	03	2.000	2.12	5.9
04	5.000	5.50	10.1	05	20.000	21.77	8.8	06	50.000	49.53	-0.9
07	100.000	100.78	0.8	08	200.000	176.70	-11.6				

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.9	02	1.000	0.94	-5.7	03	2.000	1.97	-1.3
04	5.000	5.34	6.9	05	20.000	22.04	10.2	06	50.000	50.51	1.0
07	100.000	103.87	3.9	08	200.000	184.01	-8.0				

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.85	-7.3	04	5.000	4.63	-7.3	05	20.000	19.96	-0.2
06	50.000	52.83	5.7	07	100.000	103.54	3.5	08	200.000	211.20	5.6

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.47	9.3	05	20.000	20.11	0.6	06	50.000	47.31	-5.4
07	100.000	100.57	0.6	08	200.000	189.81	-5.1				

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	7.57	-24.3	04	25.000	25.55	2.2	05	100.000	113.23	13.2
06	250.000	244.00	-2.4	07	500.000	549.38	9.9	08	1000.000	1,014.22	1.4

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	5.14	2.8	03	10.000	10.02	0.2	04	25.000	21.92	-12.3
05	100.000	100.21	0.2	06	250.000	243.13	-2.7	07	500.000	528.00	5.6
08	1000.000	986.83	-1.3								

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Initial Calibration - Detailed Report

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Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.42	-3.1	02	5.000	5.05	1.0	03	10.000	9.02	-9.8
04	25.000	24.98	-0.1	05	100.000	107.48	7.5	06	250.000	256.05	2.4
07	500.000	514.53	2.9	08	1000.000	991.85	-0.8				

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.99	-1.1	03	2.000	1.99	-0.5
04	5.000	5.09	1.9	05	20.000	21.13	5.6	06	50.000	49.18	-1.6
07	100.000	99.46	-0.5	08	200.000	194.13	-2.9				

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.1	02	1.000	1.01	0.8	03	2.000	2.10	4.8
04	5.000	5.20	4.1	05	20.000	20.28	1.4	06	50.000	47.78	-4.4
07	100.000	98.85	-1.1	08	200.000	195.22	-2.4				

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.8	02	1.000	1.01	1.1	03	2.000	2.05	2.5
04	5.000	5.15	3.0	05	20.000	19.83	-0.9	06	50.000	46.72	-6.6
07	100.000	93.36	-6.6	08	200.000	181.24	-9.4				

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.2	02	1.000	0.91	-8.5	03	2.000	1.91	-4.3
04	5.000	4.94	-1.1	05	20.000	21.21	6.0	06	50.000	50.92	1.8
07	100.000	104.18	4.2	08	200.000	212.04	6.0				

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.39	-22.1	02	1.000	0.94	-5.9	03	2.000	1.60	-19.8
04	5.000	4.75	-4.9	05	20.000	21.70	8.5	06	50.000	55.02	10.0
07	100.000	115.90	15.9	08	200.000	236.66	18.3				

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.1	02	1.000	1.08	8.0	03	2.000	2.15	7.3
04	5.000	4.77	-4.7	05	20.000	19.09	-4.5	06	50.000	45.43	-9.1
07	100.000	96.11	-3.9	08	200.000	197.68	-1.2				

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.7	02	1.000	0.97	-2.6	03	2.000	1.99	-0.6
04	5.000	4.96	-0.9	05	20.000	21.31	6.6	06	50.000	52.12	4.2
07	100.000	96.23	-3.8	08	200.000	184.69	-7.7				

Initial Calibration - Detailed Report

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Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.9	02	1.000	0.94	-6.3	03	2.000	1.94	-3.1
04	5.000	4.62	-7.7	05	20.000	19.97	-0.1	06	50.000	47.92	-4.2
07	100.000	102.86	2.9	08	200.000	211.15	5.6				

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	0.96	-4.2	03	2.000	2.04	2.1
04	5.000	5.06	1.3	05	20.000	20.61	3.0	06	50.000	48.45	-3.1
07	100.000	99.14	-0.9	08	200.000	196.84	-1.6				

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.3	02	1.000	0.98	-1.8	03	2.000	2.12	6.0
04	5.000	4.57	-8.7	05	20.000	20.71	3.6	06	50.000	47.20	-5.6
07	100.000	95.98	-4.0	08	200.000	186.51	-6.7				

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.7	02	1.000	0.99	-1.4	03	2.000	2.05	2.7
04	5.000	4.95	-1.0	05	20.000	20.16	0.8	06	50.000	47.09	-5.8
07	100.000	98.76	-1.2	08	200.000	192.36	-3.8				

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.8	02	1.000	0.97	-2.9	03	2.000	2.03	1.5
04	5.000	4.95	-0.9	05	20.000	20.96	4.8	06	50.000	49.21	-1.6
07	100.000	101.97	2.0	08	200.000	201.99	1.0				

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.5	02	1.000	1.02	1.8	03	2.000	2.06	2.9
04	5.000	5.15	3.0	05	20.000	20.37	1.8	06	50.000	46.44	-7.1
07	100.000	93.29	-6.7	08	200.000	193.68	-3.2				

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	9.80	-2.0	02	20.000	21.63	8.2	03	40.000	36.06	-9.9
04	100.000	100.61	0.6	05	400.000	432.04	8.0	06	1000.000	987.46	-1.3
07	2000.000	1,964.96	-1.8	08	4000.000	3,921.50	-2.0				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-15.9	02	1.000	0.84	-15.6	03	2.000	1.87	-6.6
04	5.000	4.90	-2.0	05	20.000	21.34	6.7	06	50.000	53.71	7.4
07	100.000	111.12	11.1	08	200.000	229.69	14.8				

Initial Calibration - Detailed Report

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Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	50.000	49.49	-1.0	04	50.000	50.59	1.2	05	50.000	50.53	1.1
03	50.000	49.68	-0.6	07	50.000	50.04	0.1	06	50.000	49.90	-0.2
02	50.000	49.59	-0.8	08	50.000	50.18	0.4				

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.7	02	1.000	1.03	3.3	03	2.000	1.88	-6.0
04	5.000	4.86	-2.9	05	20.000	20.44	2.2	06	50.000	49.91	-0.2
07	100.000	99.77	-0.2	08	200.000	204.16	2.1				

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.5	02	1.000	0.94	-6.2	03	2.000	1.92	-4.1
04	5.000	4.46	-10.8	05	20.000	21.53	7.7	06	50.000	50.65	1.3
07	100.000	103.38	3.4	08	200.000	196.42	-1.8				

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.8	02	1.000	0.96	-3.6	03	2.000	2.10	5.2
04	5.000	5.15	3.0	05	20.000	20.65	3.2	06	50.000	47.66	-4.7
07	100.000	96.32	-3.7	08	200.000	191.44	-4.3				

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	7.0	02	1.000	1.07	7.2	03	2.000	2.05	2.4
04	5.000	5.00	0.1	05	20.000	20.07	0.3	06	50.000	46.73	-6.5
07	100.000	96.09	-3.9	08	200.000	187.03	-6.5				

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.1	02	1.000	1.06	6.0	03	2.000	2.00	-0.1
04	5.000	4.79	-4.2	05	20.000	20.40	2.0	06	50.000	47.40	-5.2
07	100.000	96.03	-4.0	08	200.000	184.99	-7.5				

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.9	02	1.000	0.97	-3.4	03	2.000	1.99	-0.7
04	5.000	5.13	2.6	05	20.000	21.50	7.5	06	50.000	50.17	0.3
07	100.000	97.38	-2.6	08	200.000	182.91	-8.5				

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.39	-22.6	02	1.000	0.91	-9.3	03	2.000	1.67	-16.7
04	5.000	4.68	-6.5	05	20.000	22.25	11.3	06	50.000	56.19	12.4
07	100.000	115.22	15.2	08	200.000	232.41	16.2				

Initial Calibration - Detailed Report

Calibration ID: RC1400023 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.5	02	1.000	0.96	-3.8	03	2.000	1.92	-4.2
04	5.000	5.17	3.4	05	20.000	21.53	7.6	06	50.000	51.19	2.4
07	100.000	100.82	0.8	08	200.000	194.19	-2.9				

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.3	02	1.000	0.94	-6.0	03	2.000	1.92	-4.0
04	5.000	5.14	2.8	05	20.000	20.67	3.4	06	50.000	49.88	-0.2
07	100.000	103.42	3.4	08	200.000	207.95	4.0				

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.2	02	1.000	1.01	0.7	03	2.000	1.97	-1.7
04	5.000	5.16	3.3	05	20.000	21.51	7.6	06	50.000	48.95	-2.1
07	100.000	96.30	-3.7	08	200.000	181.73	-9.1				

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.79	-20.7	03	2.000	1.70	-15.0	04	5.000	4.34	-13.2
05	20.000	22.28	11.4	06	50.000	58.48	17.0	07	100.000	111.66	11.7
08	200.000	217.63	8.8								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.1	02	1.000	0.97	-3.3	03	2.000	2.04	2.1
04	5.000	5.34	6.8	05	20.000	21.58	7.9	06	50.000	50.35	0.7
07	100.000	100.68	0.7	08	200.000	176.21	-11.9				

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.78	-22.3	03	2.000	2.16	7.8	04	5.000	4.87	-2.7
05	20.000	21.02	5.1	06	50.000	52.02	4.0	07	100.000	104.67	4.7
08	200.000	206.57	3.3								

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.99	-0.8	03	2.000	1.86	-7.1	04	5.000	5.62	12.5
05	20.000	20.07	0.4	06	50.000	49.71	-0.6	07	100.000	98.72	-1.3
08	200.000	193.74	-3.1								

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	1.03	2.8	03	2.000	1.63	-18.6
04	5.000	4.62	-7.7	05	20.000	20.83	4.1	06	50.000	52.44	4.9
07	100.000	106.30	6.3	08	200.000	217.30	8.7				

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.7	02	1.000	1.00	0.0	03	2.000	1.96	-1.9
04	5.000	5.15	3.0	05	20.000	20.75	3.7	06	50.000	48.54	-2.9
07	100.000	98.35	-1.7	08	200.000	190.27	-4.9				

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.1	02	1.000	0.99	-1.2	03	2.000	2.07	3.4
04	5.000	5.08	1.6	05	20.000	20.46	2.3	06	50.000	46.09	-7.8
07	100.000	95.15	-4.8	08	200.000	195.02	-2.5				

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.4	02	1.000	0.91	-9.0	03	2.000	1.94	-2.8
04	5.000	5.04	0.8	05	20.000	21.59	7.9	06	50.000	53.18	6.4
07	100.000	105.76	5.8	08	200.000	188.67	-5.7				

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.32	-7.0	02	5.000	4.49	-10.1	03	10.000	9.00	-10.0
04	25.000	23.60	-5.6	05	100.000	109.63	9.6	06	250.000	268.54	7.4
07	500.000	548.49	9.7	08	1000.000	1,059.97	6.0				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.1	02	1.000	0.87	-13.3	03	2.000	1.82	-9.0
04	5.000	4.99	-0.2	05	20.000	21.98	9.9	06	50.000	53.57	7.1
07	100.000	109.72	9.7	08	200.000	213.85	6.9				

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.7	02	1.000	0.97	-3.4	03	2.000	2.03	1.6
04	5.000	4.67	-6.5	05	20.000	20.09	0.5	06	50.000	46.76	-6.5
07	100.000	97.11	-2.9	08	200.000	203.04	1.5				

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.08	4.2	04	5.000	5.08	1.6	05	20.000	20.78	3.9
06	50.000	49.74	-0.5	07	100.000	95.07	-4.9	08	200.000	191.44	-4.3

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.0	02	1.000	1.00	0.1	03	2.000	2.07	3.3
04	5.000	5.15	3.0	05	20.000	21.05	5.3	06	50.000	49.96	-0.1
07	100.000	99.46	-0.5	08	200.000	187.96	-6.0				

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	50.000	49.50	-1.0	06	50.000	50.17	0.3	08	50.000	50.19	0.4
07	50.000	49.84	-0.3	05	50.000	50.14	0.3	03	50.000	50.08	0.2
02	50.000	50.18	0.4	04	50.000	49.89	-0.2				

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	1.00	0.4	03	2.000	2.05	2.7
04	5.000	4.91	-1.9	05	20.000	20.16	0.8	06	50.000	48.46	-3.1
07	100.000	100.49	0.5	08	200.000	204.93	2.5				

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.5	02	1.000	0.95	-5.0	03	2.000	2.01	0.5
04	5.000	5.13	2.6	05	20.000	20.91	4.6	06	50.000	48.23	-3.5
07	100.000	97.79	-2.2	08	200.000	191.27	-4.4				

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.95	-4.5	03	2.000	1.84	-8.1	04	5.000	4.71	-5.9
05	20.000	19.18	-4.1	06	50.000	54.60	9.2	07	100.000	104.19	4.2
08	200.000	218.41	9.2								

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.0	02	1.000	0.96	-4.0	03	2.000	1.99	-0.4
04	5.000	5.00	0.1	05	20.000	20.92	4.6	06	50.000	49.26	-1.5
07	100.000	101.54	1.5	08	200.000	195.46	-2.3				

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	1.04	3.9	03	2.000	1.91	-4.7
04	5.000	4.97	-0.6	05	20.000	20.74	3.7	06	50.000	49.00	-2.0
07	100.000	101.10	1.1	08	200.000	198.26	-0.9				

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.8	02	1.000	0.88	-11.6	03	2.000	1.80	-10.2
04	5.000	4.72	-5.7	05	20.000	21.64	8.2	06	50.000	53.07	6.1
07	100.000	108.11	8.1	08	200.000	217.79	8.9				

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.94	-5.8	02	2.000	1.79	-10.7	03	4.000	3.95	-1.3
04	10.000	10.24	2.4	05	40.000	42.53	6.3	06	100.000	102.56	2.6
07	200.000	210.55	5.3	08	400.000	404.74	1.2				

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.94	-6.4	03	2.000	1.76	-12.2	04	5.000	4.73	-5.3
05	20.000	20.64	3.2	06	50.000	53.63	7.3	07	100.000	104.33	4.3
08	200.000	218.28	9.1								

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.1	02	1.000	0.91	-8.7	03	2.000	2.08	4.1
04	5.000	5.29	5.8	05	20.000	22.12	10.6	06	50.000	50.75	1.5
07	100.000	104.42	4.4	08	200.000	184.71	-7.6				

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.2	02	1.000	1.02	1.8	03	2.000	2.03	1.5
04	5.000	4.82	-3.6	05	20.000	21.23	6.1	06	50.000	47.40	-5.2
07	100.000	97.34	-2.7	08	200.000	191.82	-4.1				

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.6	02	1.000	0.98	-1.7	03	2.000	2.12	5.8
04	5.000	5.37	7.4	05	20.000	21.42	7.1	06	50.000	49.69	-0.6
07	100.000	98.92	-1.1	08	200.000	167.40	-16.3				

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.9	02	1.000	1.01	1.3	03	2.000	1.88	-5.8
04	5.000	5.03	0.7	05	20.000	20.97	4.8	06	50.000	50.01	0.0
07	100.000	103.24	3.2	08	200.000	207.27	3.6				

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.6	02	1.000	0.98	-2.0	03	2.000	2.07	3.5
04	5.000	5.46	9.2	05	20.000	21.65	8.3	06	50.000	49.21	-1.6
07	100.000	100.74	0.7	08	200.000	174.91	-12.5				

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.9	02	1.000	0.97	-3.0	03	2.000	1.94	-2.8
04	5.000	5.02	0.3	05	20.000	21.17	5.9	06	50.000	51.52	3.0
07	100.000	103.19	3.2	08	200.000	202.60	1.3				

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	1.00	0.0	03	2.000	2.06	2.8
04	5.000	5.23	4.7	05	20.000	20.95	4.8	06	50.000	48.91	-2.2
07	100.000	100.05	0.1	08	200.000	183.63	-8.2				

Initial Calibration - Detailed Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.7	02	1.000	1.00	-0.1	03	2.000	1.95	-2.5
04	5.000	4.85	-3.1	05	20.000	20.79	3.9	06	50.000	48.44	-3.1
07	100.000	101.89	1.9	08	200.000	198.42	-0.8				

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-16.3	02	1.000	0.87	-13.2	03	2.000	1.79	-10.6
04	5.000	4.68	-6.4	05	20.000	21.87	9.3	06	50.000	54.50	9.0
07	100.000	113.32	13.3	08	200.000	229.69	14.8				

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.8	02	1.000	0.79	-20.6	03	2.000	1.89	-5.3
04	5.000	4.64	-7.2	05	20.000	22.12	10.6	06	50.000	56.13	12.3
07	100.000	111.21	11.2	08	200.000	223.88	11.9				

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:11:48 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	911333	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1438759	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1294400	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	612947	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4 Dibrflmethane	4.152	113	412193	49.49	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.98%				
48) surr1,1,2-dichloroetha	4.664	65	480981	50.69	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.38%				
65) SURR3,Toluene-d8	7.322	98	1732405	49.50	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.00%				
70) SURR2,BFB	9.791	95	646398	49.50	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	5982	0.55	ppb		93
3) Chloromethane	1.262	50	4510	0.48	ppb		84
4) Vinyl Chloride	1.323	62	4444	0.51	ppb		74
5) Bromomethane	1.512	94	2838	0.54	ppb		85
6) Chloroethane	1.567	64	3048m	0.56	ppb		
7) Freon 21	1.664	67	6886	0.52	ppb		94
8) Trichlorofluoromethane	1.719	101	7191	0.54	ppb		85
9) Diethyl Ether	1.884	59	3724	0.57	ppb		89
10) Freon 123a	1.866	67	5112	0.52	ppb		94
11) Freon 123	1.902	83	5657	0.50	ppb		98
13) 1,1-Diclethene	2.036	96	3078	0.47	ppb	#	80
14) Freon 113	2.036	101	3632	0.50	ppb		84
16) 2-Propanol	2.116	45	3340m	11.20	ppb		
17) Iodomethane	2.146	142	3362	0.38	ppb		92
18) Carbon Disulfide	2.207	76	12036	0.52	ppb		99
19) Acetonitrile	2.231	40	1554	5.26	ppb	#	32
20) Allyl Chloride	2.274	76	2319	0.51	ppb	#	84
21) Methyl Acetate	2.274	43	2240	0.55	ppb		93
22) Methylene Chloride	2.359	84	4634	0.53	ppb	#	76
23) TBA	2.408	59	4551	9.01	ppb		73
24) Acrylonitrile	2.530	53	4907	2.42	ppb	#	76
25) Methyl-t-Butyl Ether	2.579	73	11002	0.52	ppb		96
26) trans-1,2-Dichloroethene	2.585	96	4296	0.52	ppb	#	89
28) 1,1-Dicletheane	2.939	63	7507	0.49	ppb		88
29) Vinyl Acetate	2.981	86	707	0.51	ppb	#	1
30) DIPE	3.018	45	15755	0.52	ppb		78
31) 2-Chloro-1,3-Butadiene	3.042	53	6300	0.47	ppb		99
32) ETBE	3.402	59	12134	0.48	ppb		89
33) 2,2-Dichloropropane	3.554	77	6083	0.50	ppb		92
34) cis-1,2-Dichloroethene	3.548	96	4599	0.50	ppb		92
36) Propionitrile	3.609	54	1700m	2.39	ppb		
37) Bromochloromethane	3.829	130	3015	0.58	ppb	#	73
38) Methacrylonitrile	3.810	67	1375	0.58	ppb	#	74
39) Tetrahydrofuran	3.932	42	1275	0.72	ppb		97
40) Chloroform	3.938	83	8290	0.55	ppb		93

KR 3/13/14

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:11:48 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,1,1-Trichloroethane	4.207	97	6437	0.50	ppb	#	1
42) TAME	5.036	73	9777	0.46	ppb		89
44) Cyclohexane	4.310	41	4183	0.54	ppb		90
46) Carbontetrachloride	4.463	121	1948m	0.56	ppb		
47) 1,1-Dichloropropene	4.463	75	5496m	0.52	ppb		
49) Benzene	4.780	78	17569m	0.50	ppb		
50) 1,2-Dichloroethane	4.792	62	5674	0.53	ppb		88
52) n-Heptane	5.328	43	4698	0.53	ppb		96
53) 1-Butanol	5.792	56	3060m	22.75	ppb		
54) Trichloroethene	5.828	130	4205m	0.49	ppb		
55) Methylcyclohexane	6.109	55	5031	0.55	ppb		94
56) 1,2-Diclpropane	6.121	63	4824	0.53	ppb		74
57) Dibromomethane	6.261	93	2191	0.51	ppb	#	84
59) Methyl Methacrylate	6.340	69	2120m	0.50	ppb		
60) Bromodichloromethane	6.474	83	5069	0.48	ppb		92
62) 2-Chloroethylvinyl Ether	6.889	63	1661m	0.41	ppb		
63) cis-1,3-Dichloropropene	7.029	75	6038	0.48	ppb		88
66) Toluene	7.395	91	17343	0.47	ppb		88
67) trans-1,3-Dichloropropene	7.639	75	4234	0.42	ppb	#	48
68) Ethyl Methacrylate	7.779	69	3186	0.39	ppb		99
69) 1,1,2-Trichloroethane	7.810	97	3438	0.54	ppb		91
72) Tetrachloroethene	7.962	164	3868	0.58	ppb		88
74) 1,3-Dichloropropane	7.974	76	5753	0.49	ppb		90
75) Dibromochloromethane	8.188	129	2817	0.42	ppb		89
76) N-Butyl Acetate	8.255	43	3648m	0.40	ppb		
77) 1,2-Dibromoethane	8.291	107	2743	0.46	ppb		94
78) Chlorobenzene	8.773	112	11641	0.52	ppb		92
79) 3-CBTF	8.785	180	6381	0.57	ppb	#	93
80) 4-CBTF	8.840	180	5394	0.54	ppb		89
81) 1,1,1,2-Tetrachloroethane	8.852	131	3861	0.49	ppb		97
82) Ethylbenzene	8.889	106	5801	0.48	ppb		91
83) (m+p)Xylene	8.998	106	13282	0.94	ppb		98
84) o-Xylene	9.346	106	6627	0.46	ppb	#	70
85) Styrene	9.358	104	10222	0.44	ppb		98
87) Bromoform	9.498	173	1355	0.39	ppb		78
88) 2-CBTF	9.578	180	5578	0.55	ppb	#	90
89) Isopropylbenzene	9.675	105	15336	0.48	ppb		98
90) Cyclohexanone	9.724	55	4820	9.81	ppb		81
91) trans-1,4-Dichloro-2-B...	9.962	53	719	0.44	ppb	#	58
92) 1,1,2,2-Tetrachloroethane	9.913	83	3480	0.50	ppb		84
93) Bromobenzene	9.913	156	4370	0.48	ppb		93
94) 1,2,3-Trichloropropane	9.943	110	977	0.47	ppb	#	55
95) n-Propylbenzene	10.023	91	18398	0.50	ppb		95
96) 2-Chlorotoluene	10.084	91	11329	0.49	ppb		92
97) 3-Chlorotoluene	10.132	91	12265	0.51	ppb		98
98) 4-Chlorotoluene	10.175	91	12083	0.44	ppb		91
99) 1,3,5-Trimethylbenzene	10.169	105	11958	0.46	ppb		96
100) tert-Butylbenzene	10.443	119	10646	0.49	ppb		98
101) 1,2,4-Trimethylbenzene	10.480	105	11976	0.45	ppb		81
102) 3,4-DCBTF	10.535	214	4021	0.53	ppb	#	89
103) sec-Butylbenzene	10.620	105	14277	0.47	ppb		96
104) p-Isopropyltoluene	10.742	119	11898	0.47	ppb		78

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:11:48 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

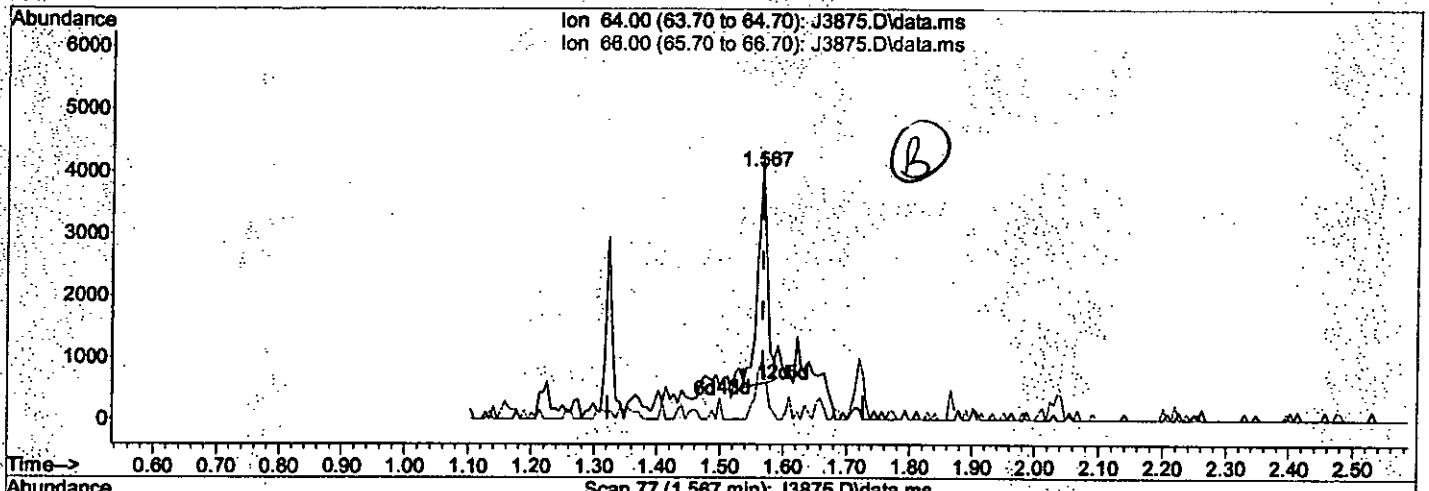
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	10.699	146	7301	0.48	ppb		80
106) 1,4-Dclbenz	10.766	146	9668	0.59	ppb		95
107) 2,4-DCBTF	10.821	214	3132	0.48	ppb	#	74
108) 2,5-DCBTF	10.864	214	3505	0.47	ppb		90
109) n-Butylbenzene	11.071	91	10369	0.45	ppb		96
110) 1,2-Dclbenz	11.065	146	7143	0.48	ppb		99
111) 1,2-Dibromo-3-chloropr...	11.626	157	705	0.66	ppb	#	83
112) Trielution Dichlorotol...	11.736	125	17965	1.54	ppb		99
113) 1,3,5 Trichlorobenzene	11.778	180	5167	0.51	ppb		95
114) Coelution Dichlorotoluene	11.998	125	11240	0.91	ppb		97
115) 1,2,4-Tcbenzene	12.162	180	5139	0.57	ppb		96
116) Hexachlorobt	12.266	225	2074	0.53	ppb		95
117) Naphthalen	12.303	128	7858	0.48	ppb		93
118) 1,2,3-Tclbenzene	12.443	180	4364	0.59	ppb		80
119) 2,4,5-Trichlorotolene	12.851	159	2375m	0.49	ppb		
120) 2,3,6-Trichlorotoluene	12.912	159	2541	0.57	ppb	#	87

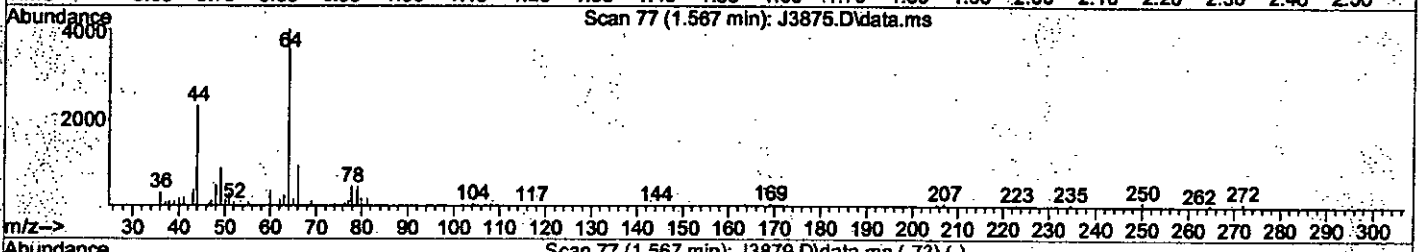
(#) = qualifier out of range (m) = manual integration (+) = signals summed

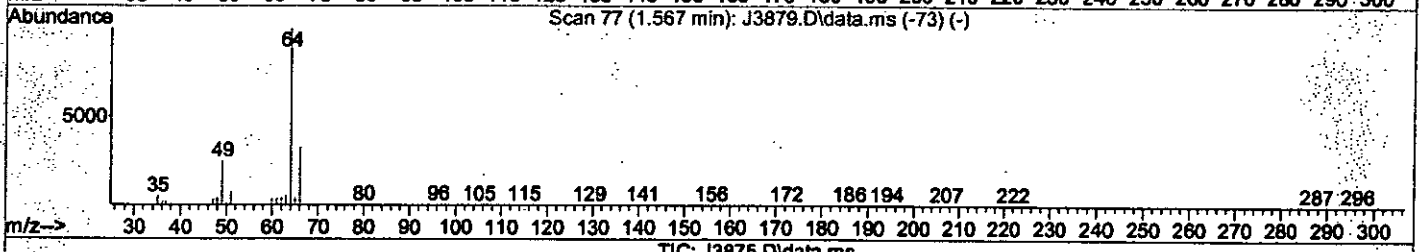
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(6) Chloroethane (P)

1.567min (+0.000) 0.66 ppb

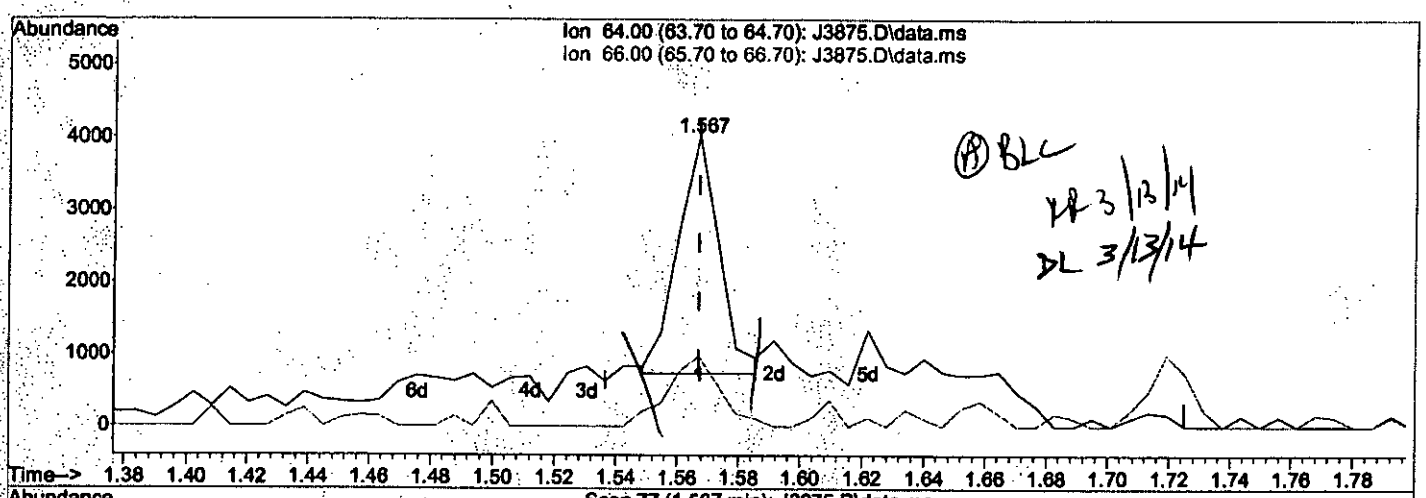
response 3602

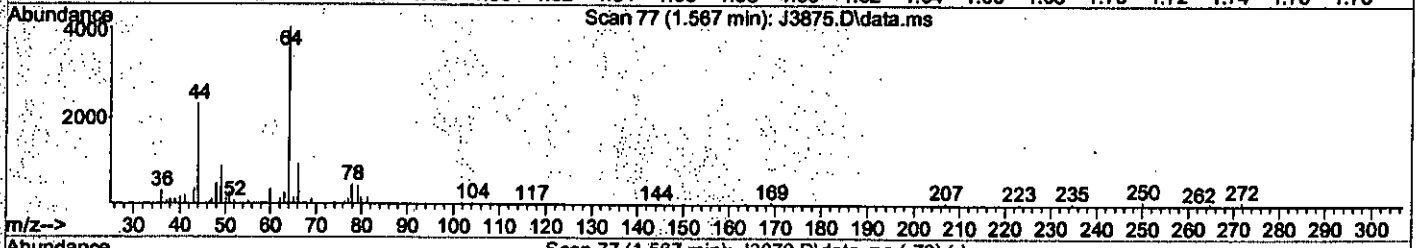
Ion	Exp%	Act%
64.00	100	100
66.00	32.20	24.20
0.00	0.00	0.00
0.00	0.00	0.00

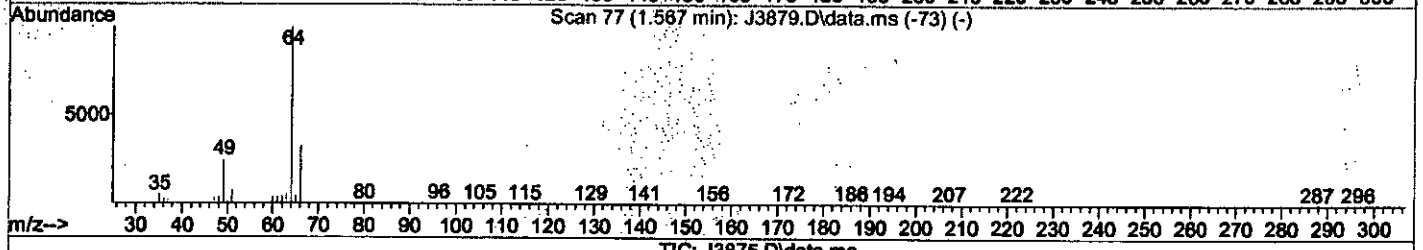
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(6) Chloroethane (P)

1.567min (+0.000) 0.56 ppb m

response 3048

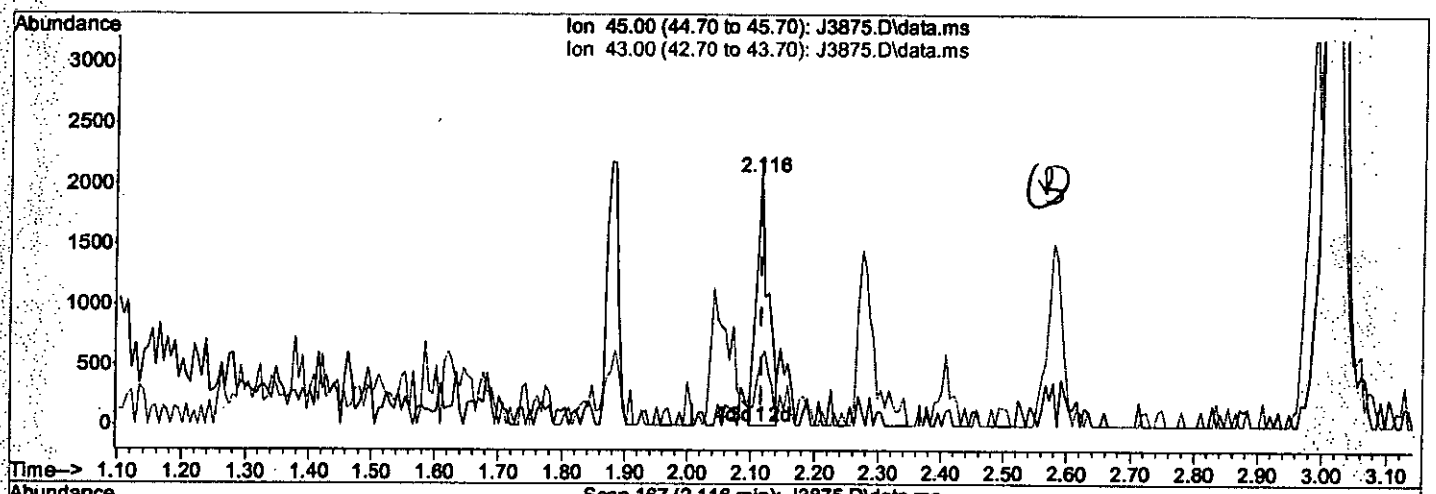
Ion	Exp%	Act%
64.00	100	100
66.00	32.20	24.20
0.00	0.00	0.00
0.00	0.00	0.00

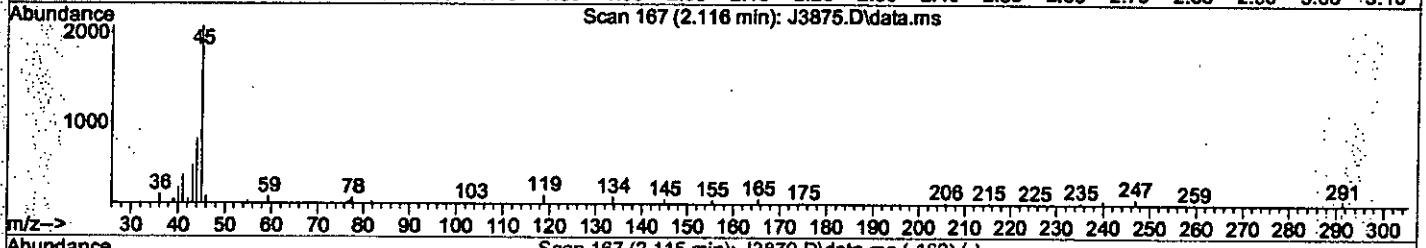
00376

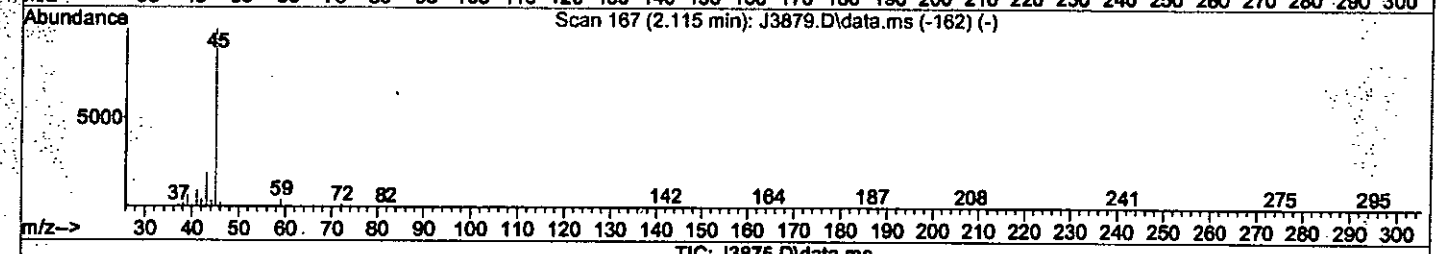
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(16) 2-Propanol

2.116min (+0.000) 8.89 ppb

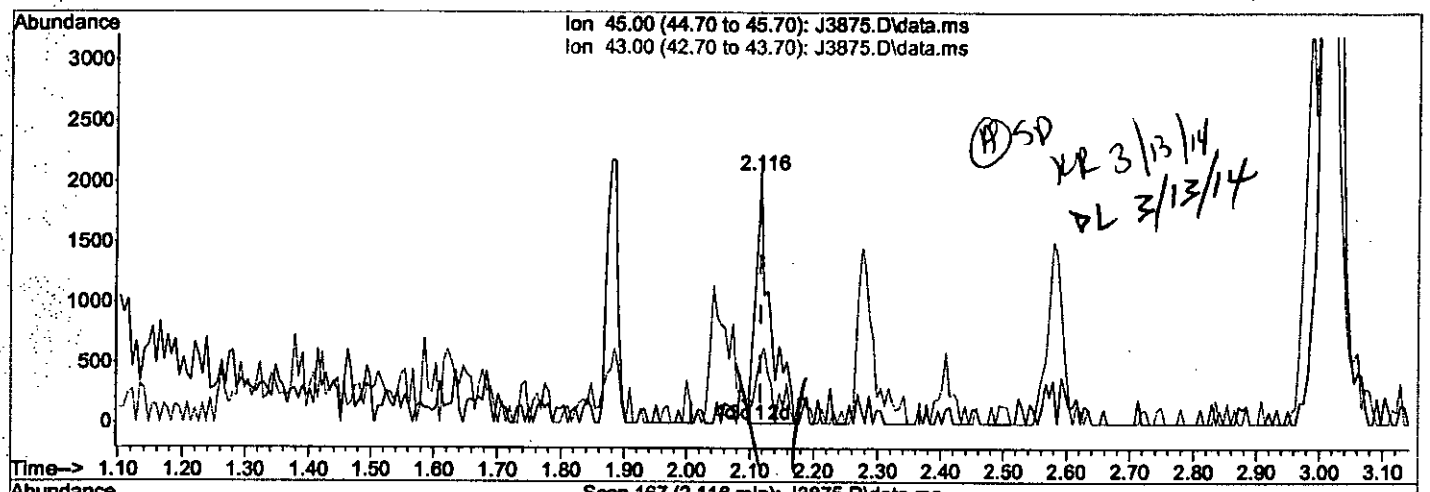
response 2651

Ion	Exp%	Act%
45.00	100	100
43.00	21.30	25.30
0.00	0.00	0.00
0.00	0.00	0.00

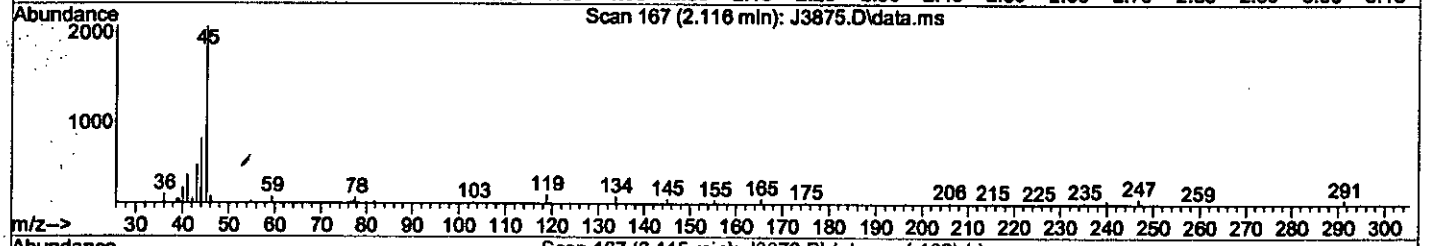
Quantitation Report (Qedit)

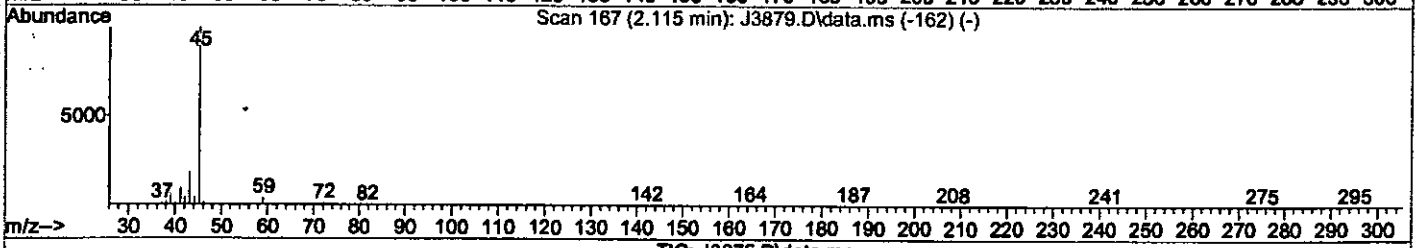
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



(A) SD KR 3/13/14 DL 3/13/14





TIC: J3875.D\data.ms

(16) 2-Propanol

2.116min (+0.000) 11.20 ppb m

response 3340

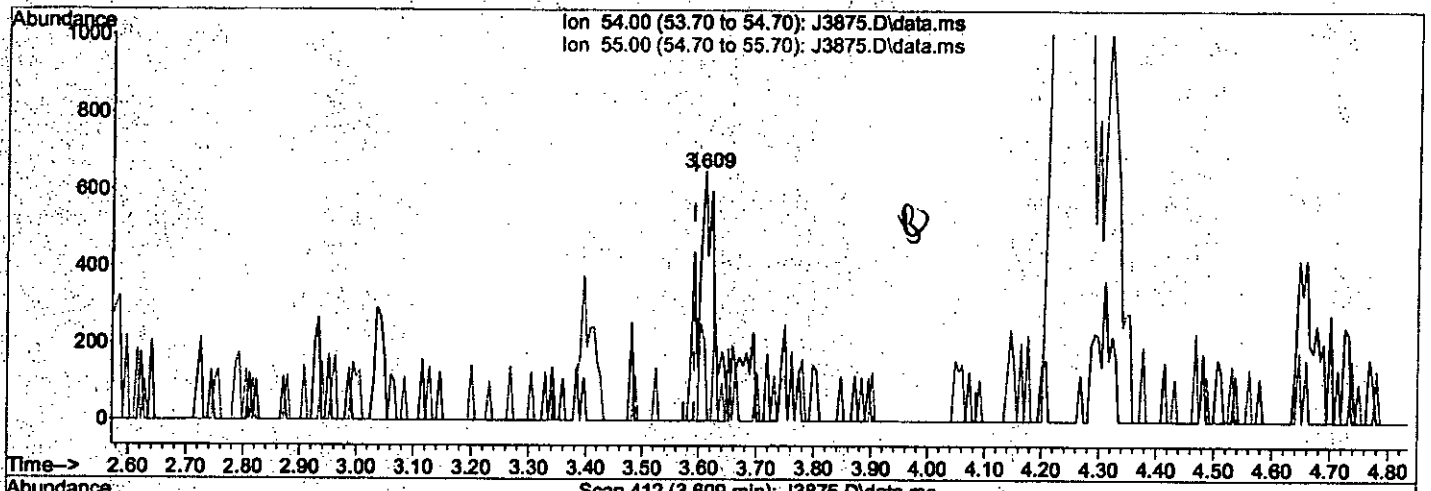
Ion	Exp%	Act%
45.00	100	100
43.00	21.30	25.30
0.00	0.00	0.00
0.00	0.00	0.00

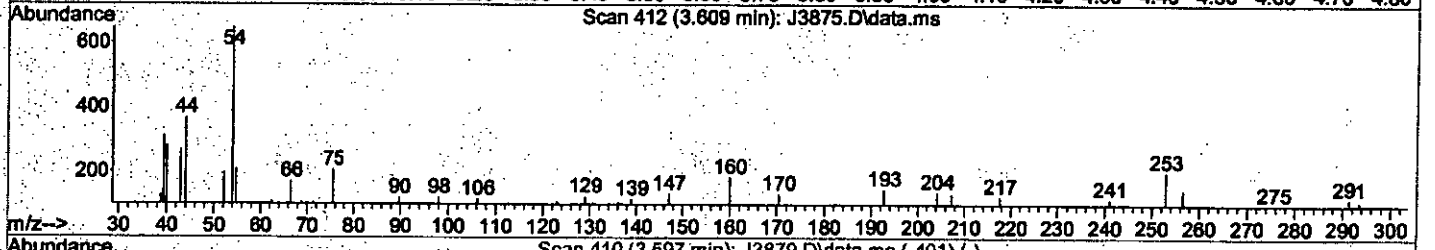
00378

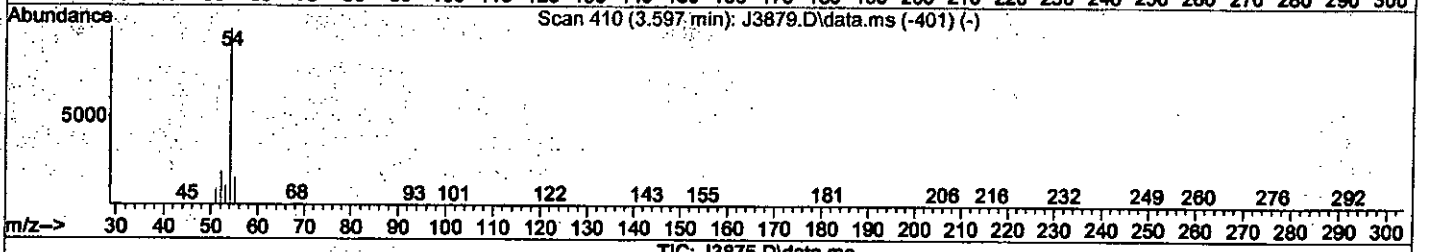
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(38) Propionitrile

3.609min (+0.018) 1.79 ppb

response 1271

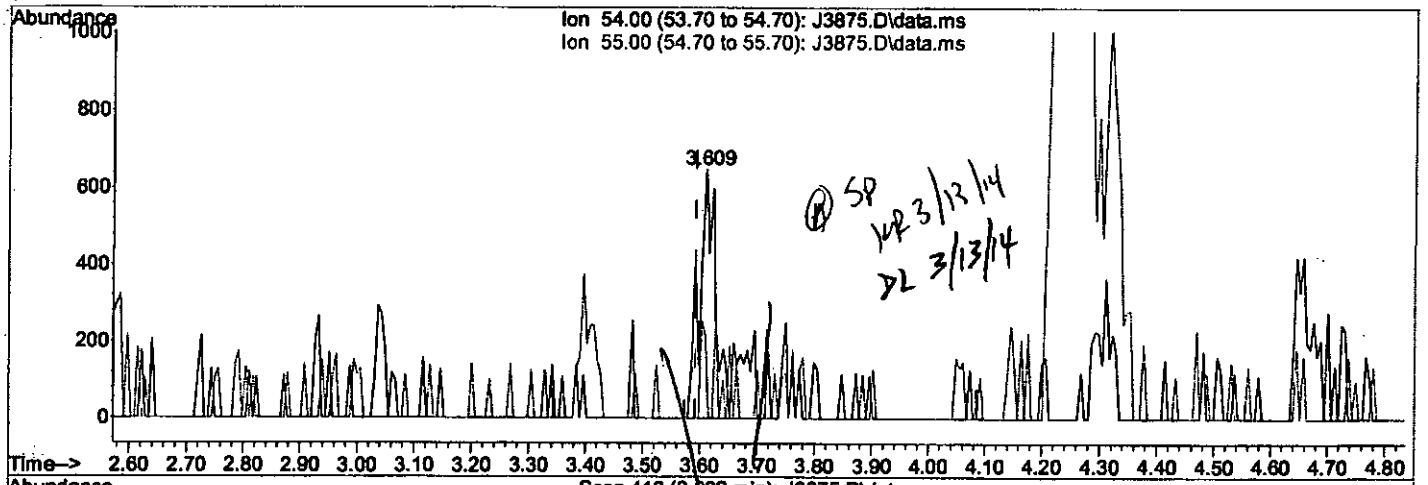
Ion	Exp%	Act%
54.00	100	100
55.00	16.00	32.10
0.00	0.00	0.00
0.00	0.00	0.00

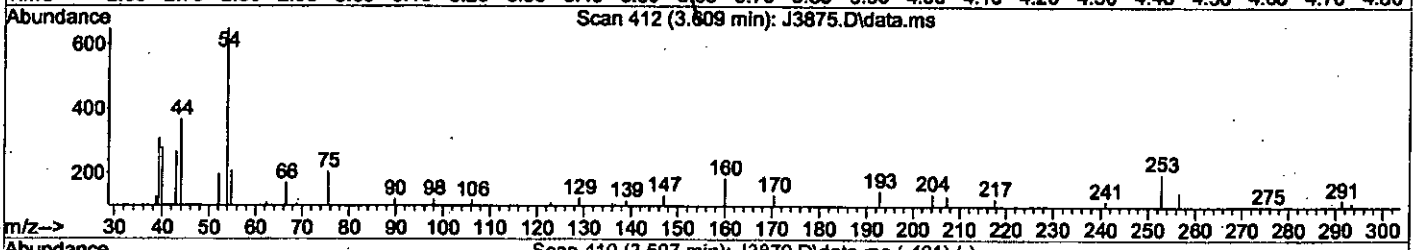
03379

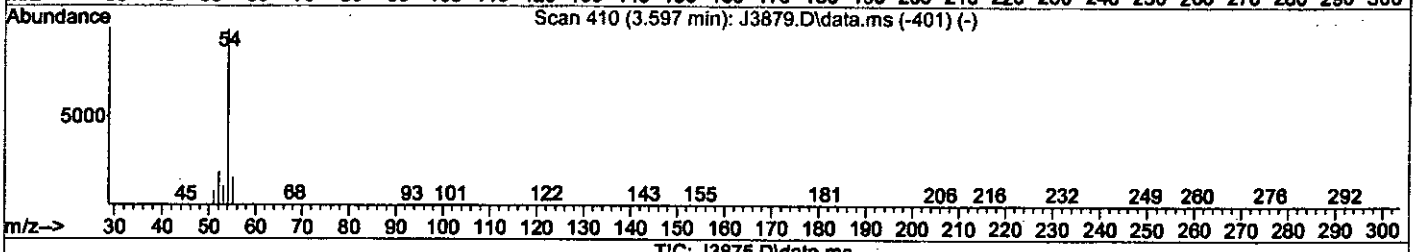
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(36) Propionitrile

3.609min (+0.018) 2.39 ppb m

response 1700

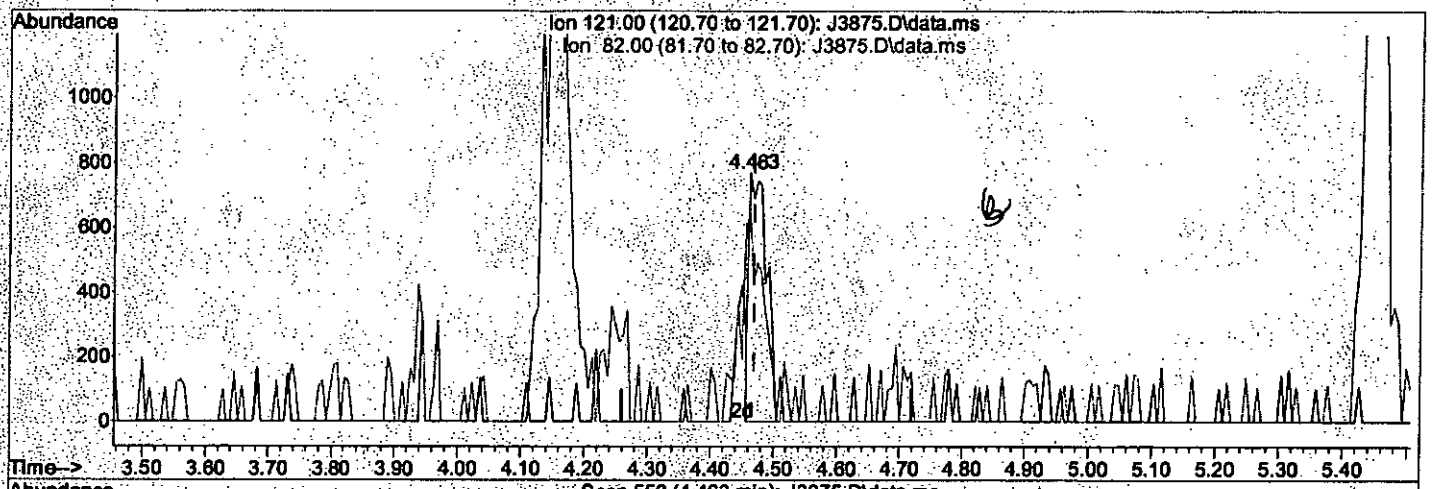
Ion	Exp%	Act%
54.00	100	100
55.00	16.00	32.10
0.00	0.00	0.00
0.00	0.00	0.00

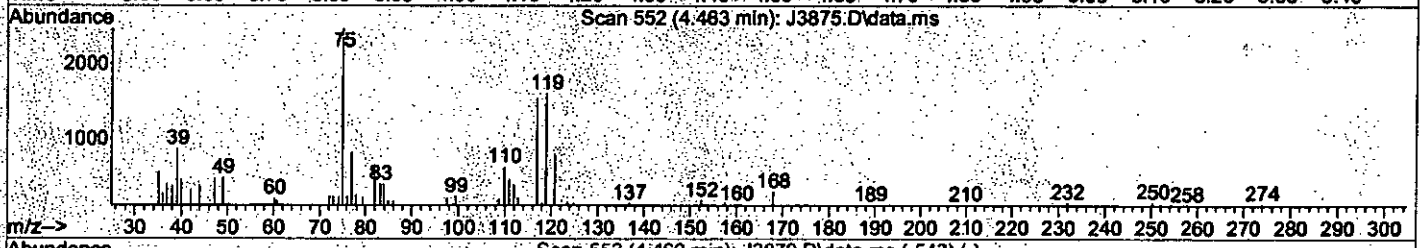
00380

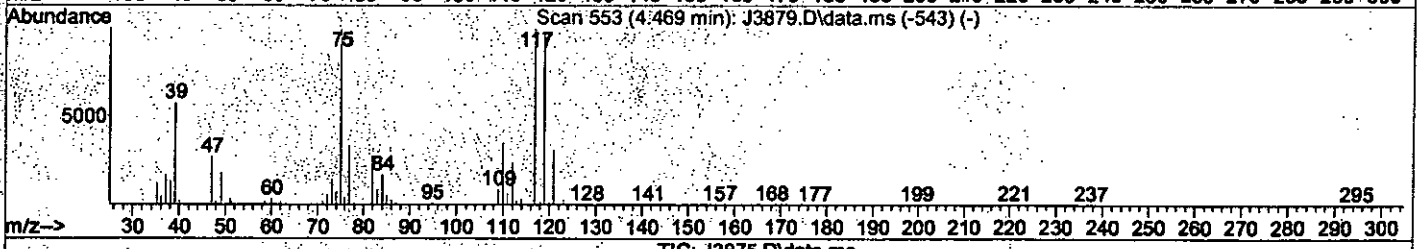
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(46) Carbontetrachloride (P)

4.463min (-0.006) 0.43 ppb

response 1497

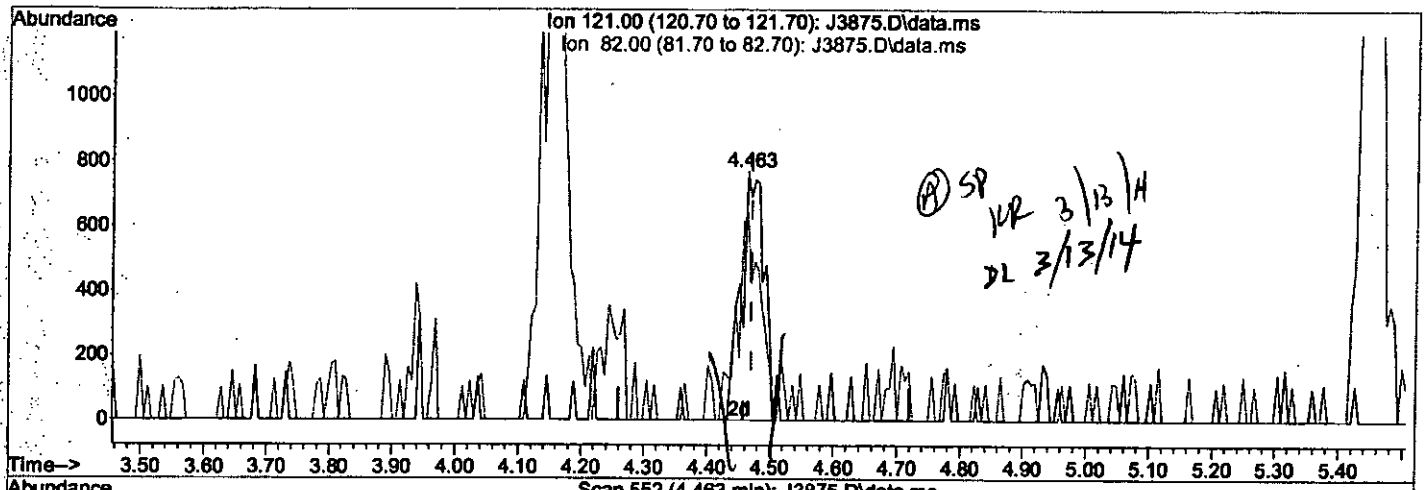
Ion	Exp%	Act%
121.00	100	100
82.00	87.50	83.12
0.00	0.00	0.00
0.00	0.00	0.00

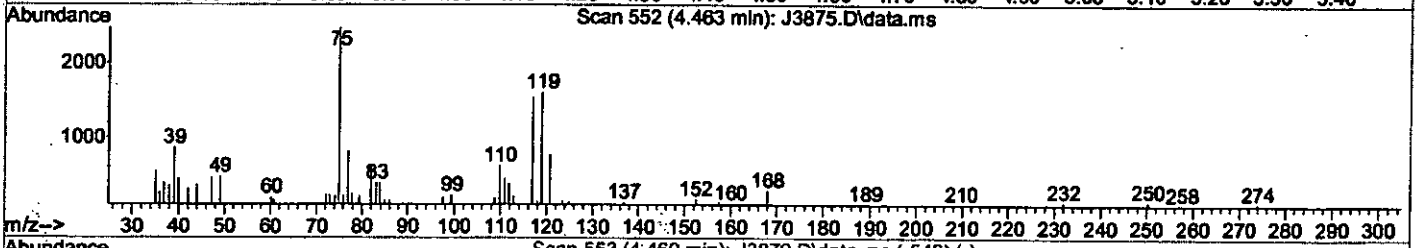
00381

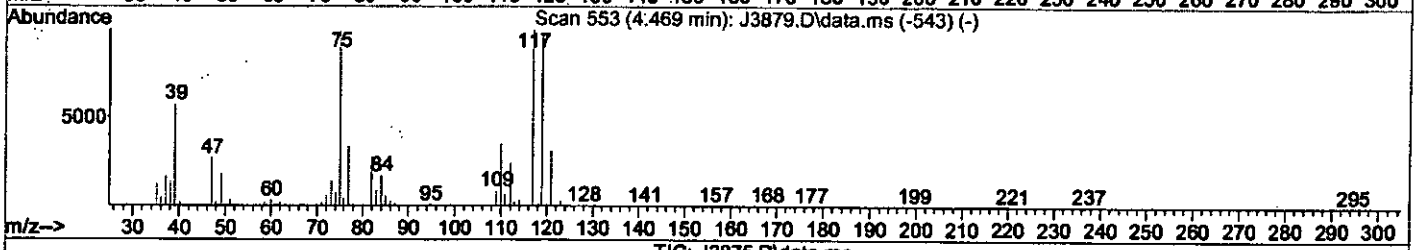
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(46) Carbontetrachloride (P)

4.463min (-0.006) 0.56 ppb m

response 1948

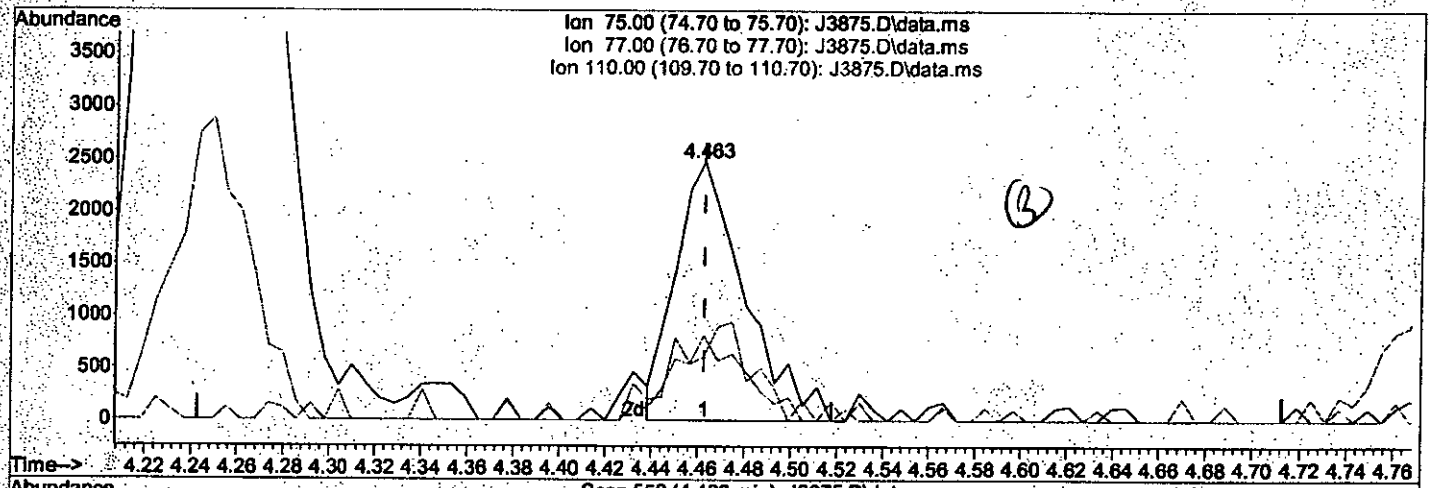
Ion	Exp%	Act%
121.00	100	100
82.00	87.50	83.12
0.00	0.00	0.00
0.00	0.00	0.00

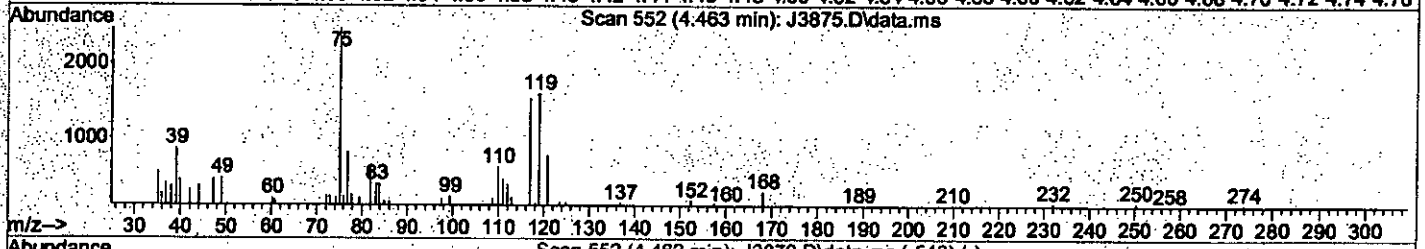
00382

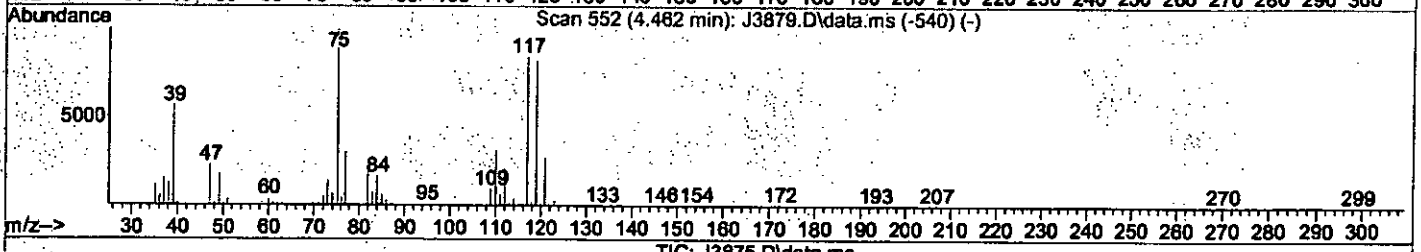
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(47) 1,1-Dichloropropene

4.463min (+0.000) 0.49 ppb

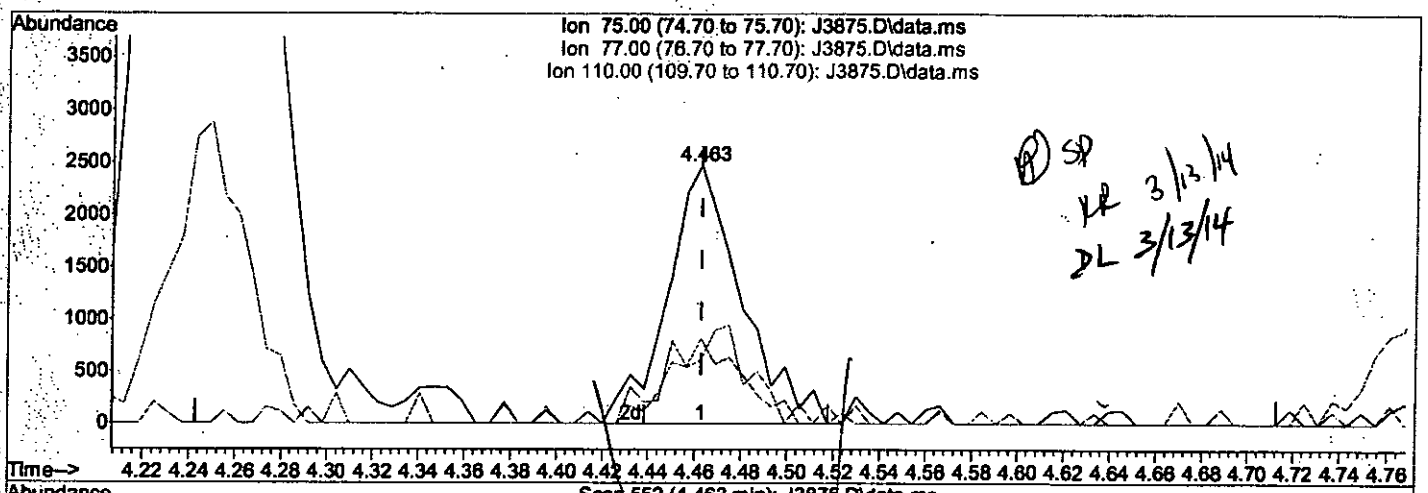
response 5116

Ion	Exp%	Act%
75.00	100	100
77.00	29.90	32.96
110.00	30.90	24.83
0.00	0.00	0.00

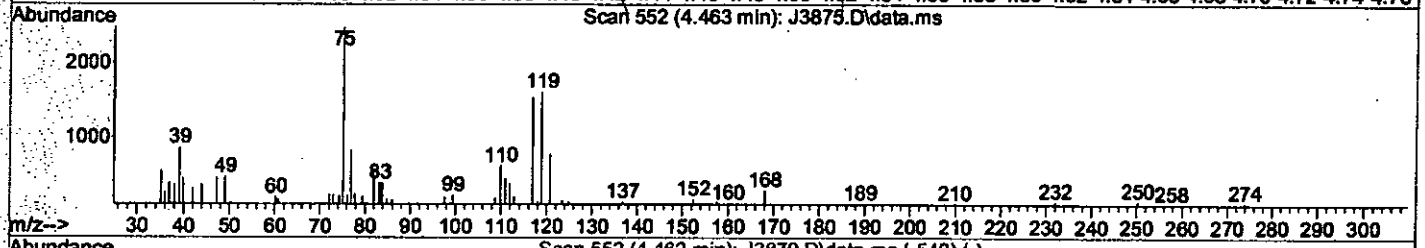
Quantitation Report (Qedit)

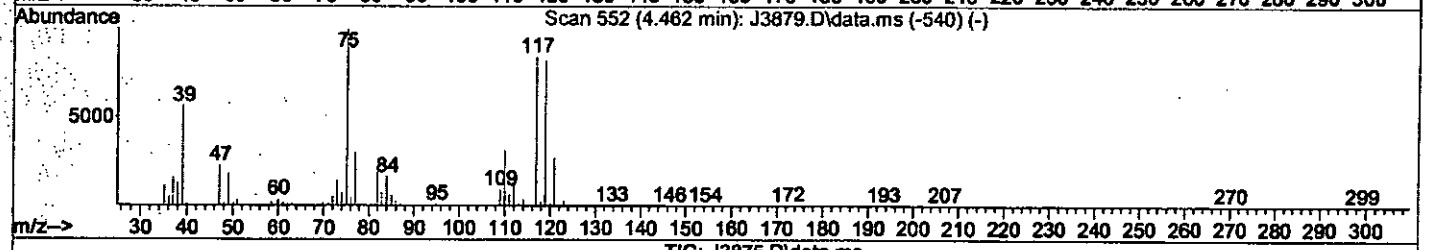
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



SP 3/13/14
KR 3/13/14
DL 3/13/14





TIC: J3875.D\data.ms

(47) 1,1-Dichloropropene

4.463min (+0.000) 0.52 ppb m

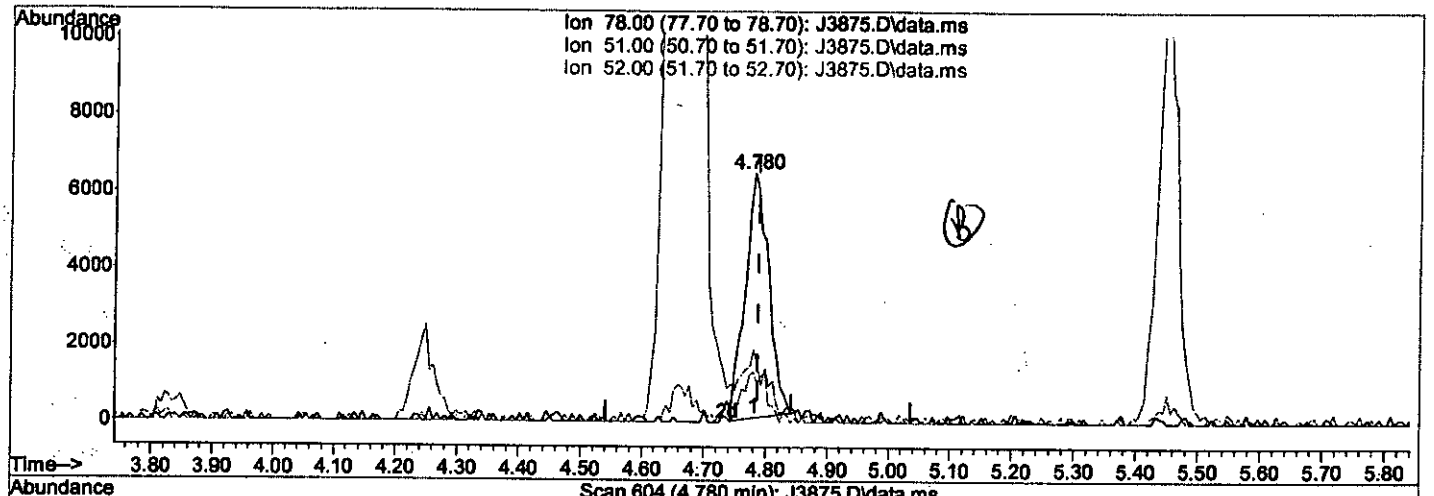
response 5496

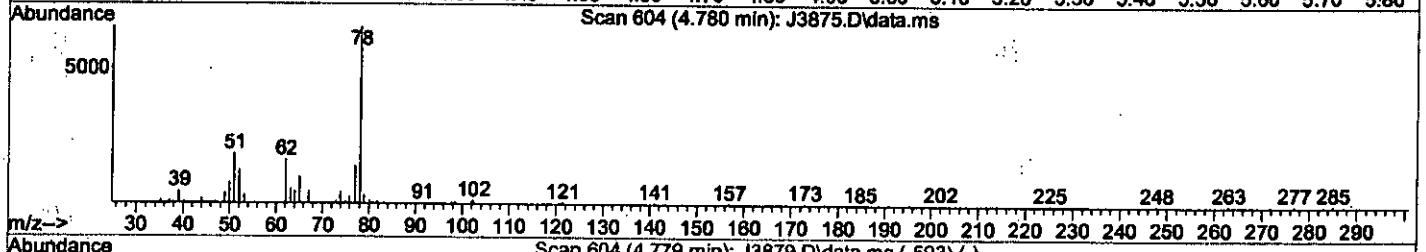
Ion	Exp%	Act%
75.00	100	100
77.00	29.90	32.98
110.00	30.90	24.83
0.00	0.00	0.00

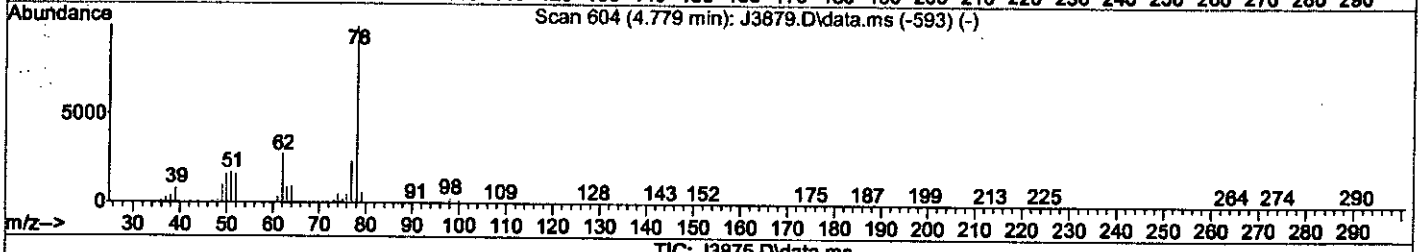
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(49) Benzene (P)

4.780min (-0.006) 0.47 ppb

response 16749

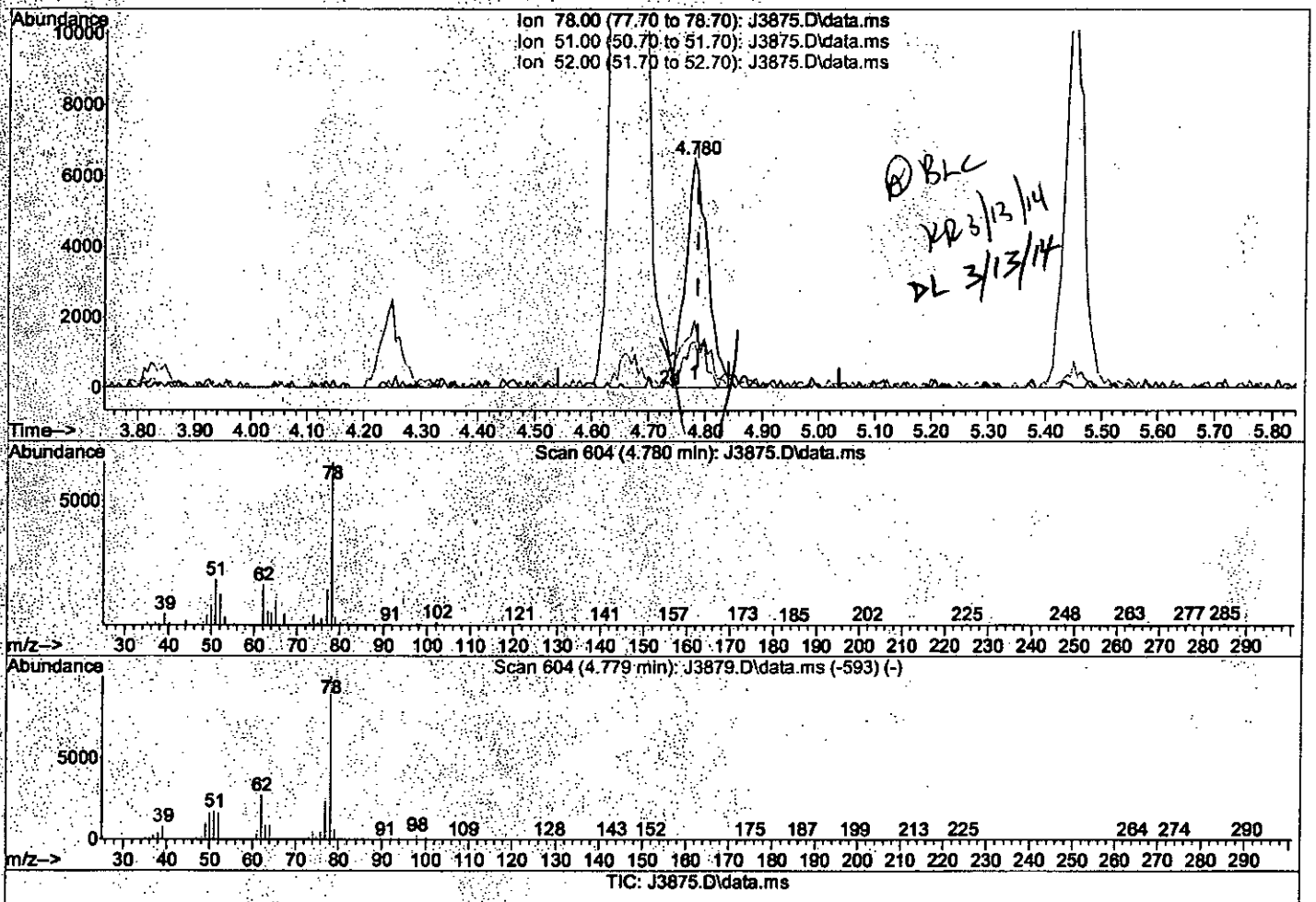
Ion	Exp%	Act%
78.00	100	100
51.00	18.20	29.35
52.00	16.10	20.11
0.00	0.00	0.00

00385

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(49) Benzene (P)

4.780min (-0.006) 0.50 ppb m

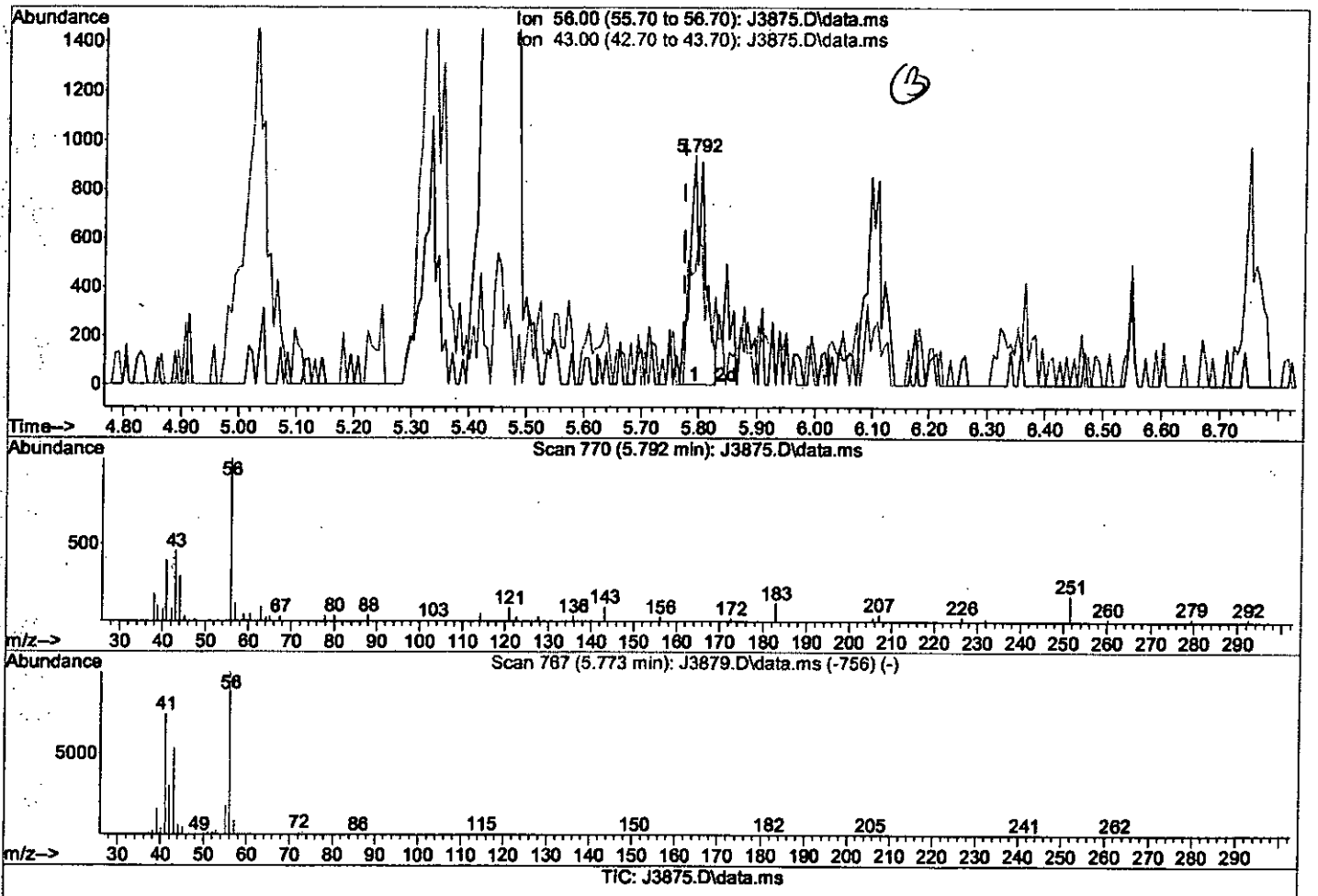
response 17569

Ion	Exp%	Act%
78.00	100	100
51.00	18.20	29.35
52.00	16.10	20.11
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(53) 1-Butanol

5.792min (+0.018) 12.55 ppb

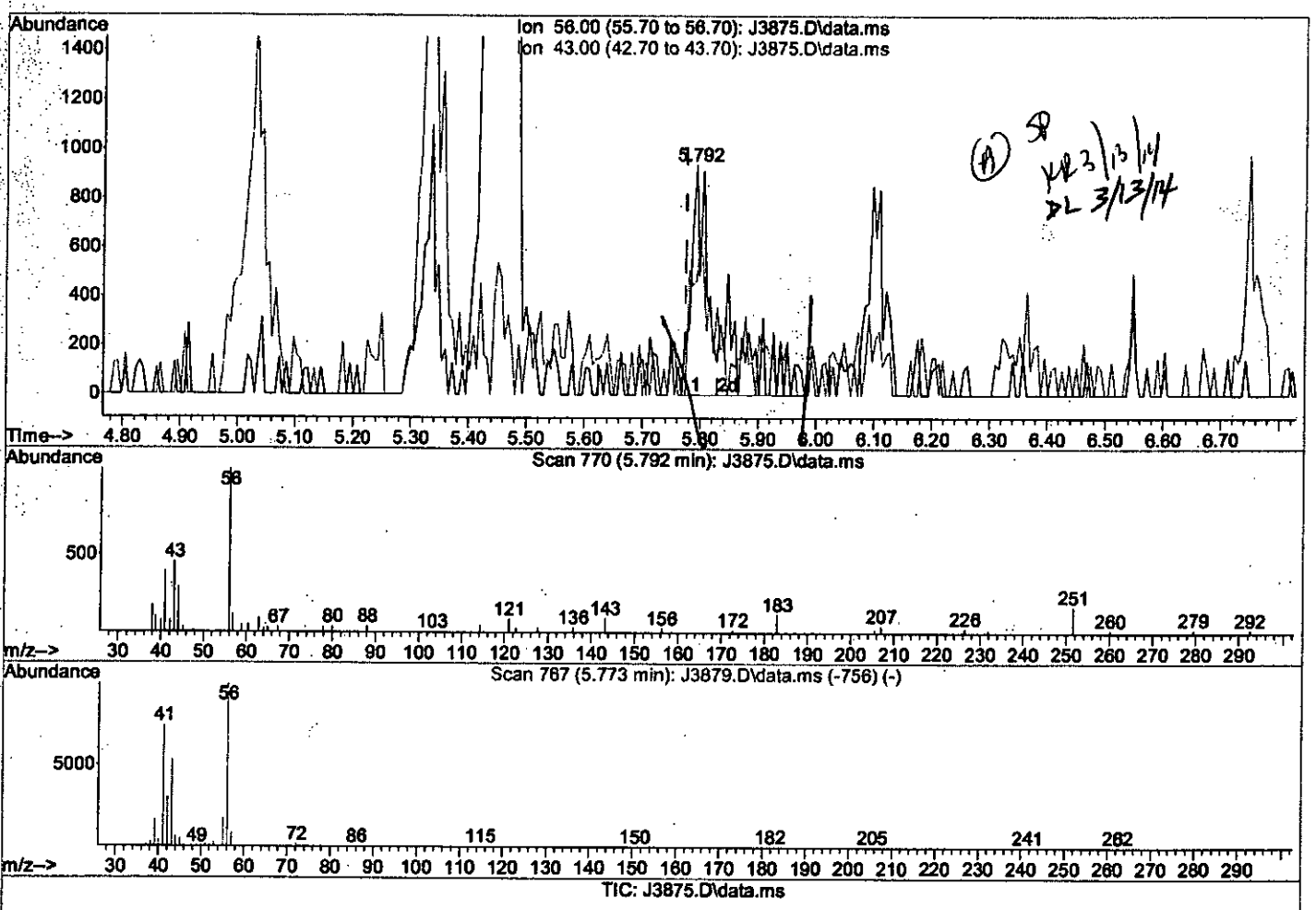
response 1688

Ion	Exp%	Act%
56.00	100	100
43.00	55.80	90.17#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(53) 1-Butanol

5.792min (+0.018) 22.75 ppb m

response 3060

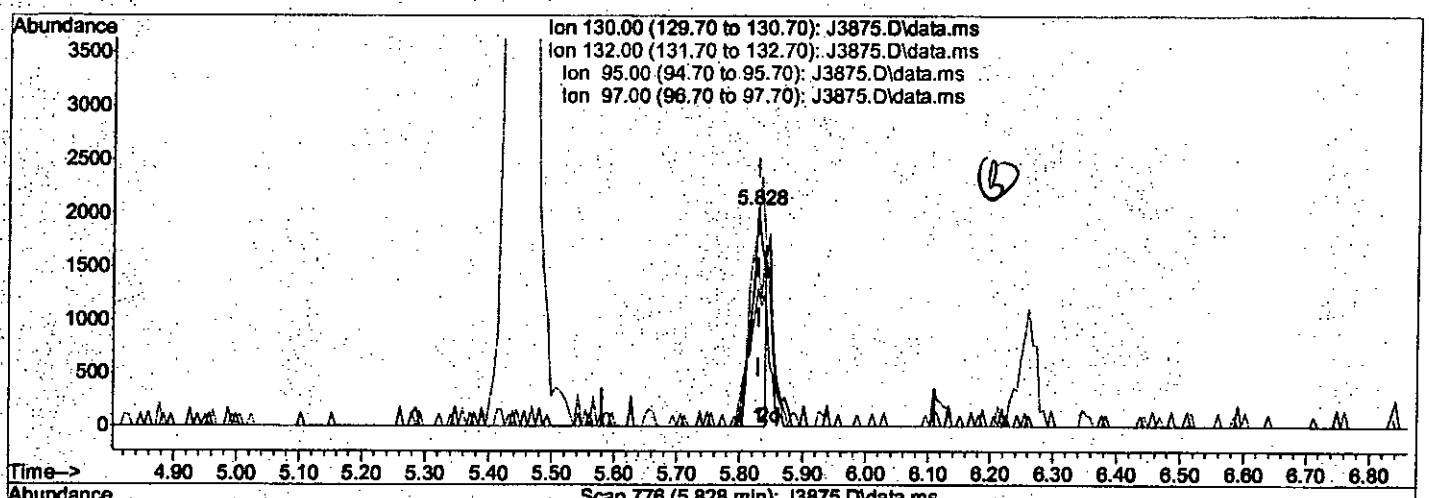
Ion	Exp%	Act%
56.00	100	100
43.00	55.60	49.74
0.00	0.00	0.00
0.00	0.00	0.00

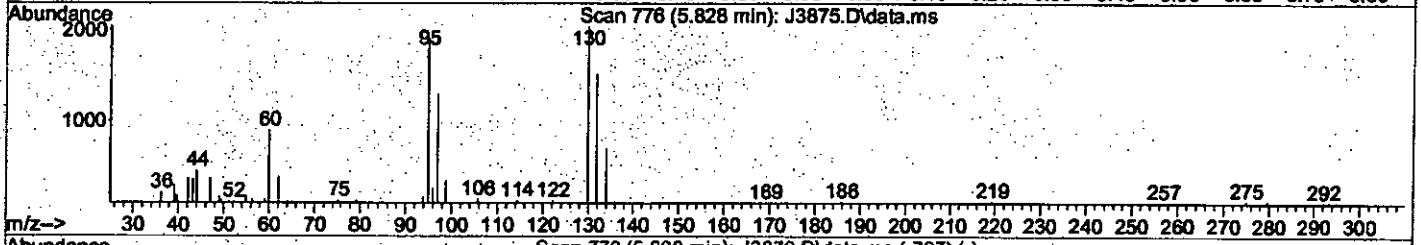
00388

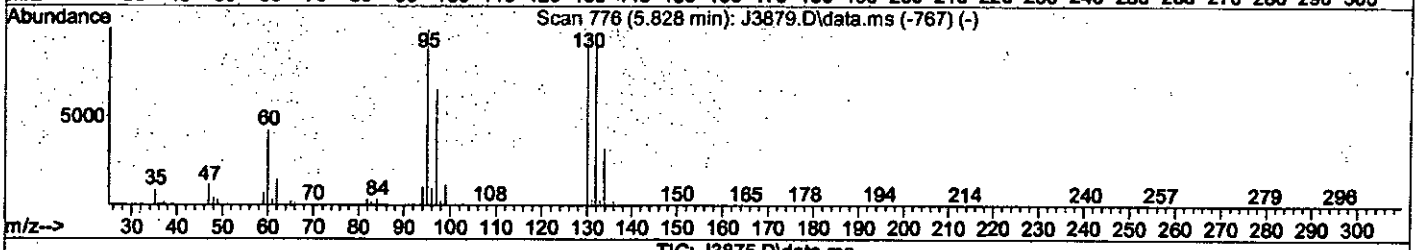
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(54) Trichloroethene (P)

5.828min (+0.000) 0.34 ppb

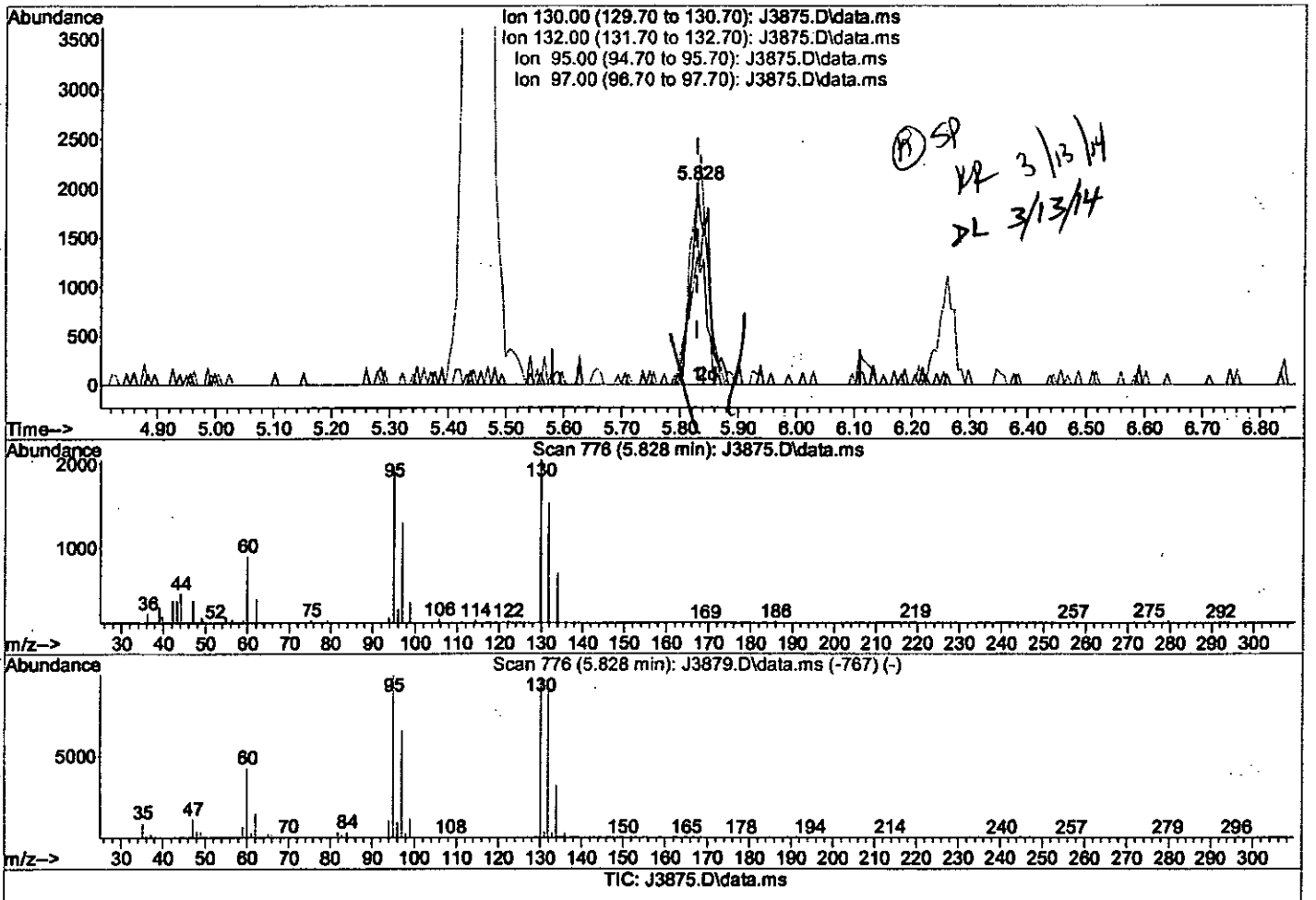
response 2913

Ion	Exp%	Act%
130.00	100	100
132.00	98.30	74.47#
95.00	103.00	93.24
97.00	67.30	63.20

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



(54) Trichloroethene (P)

5.828min (+0.000) 0.49 ppb m

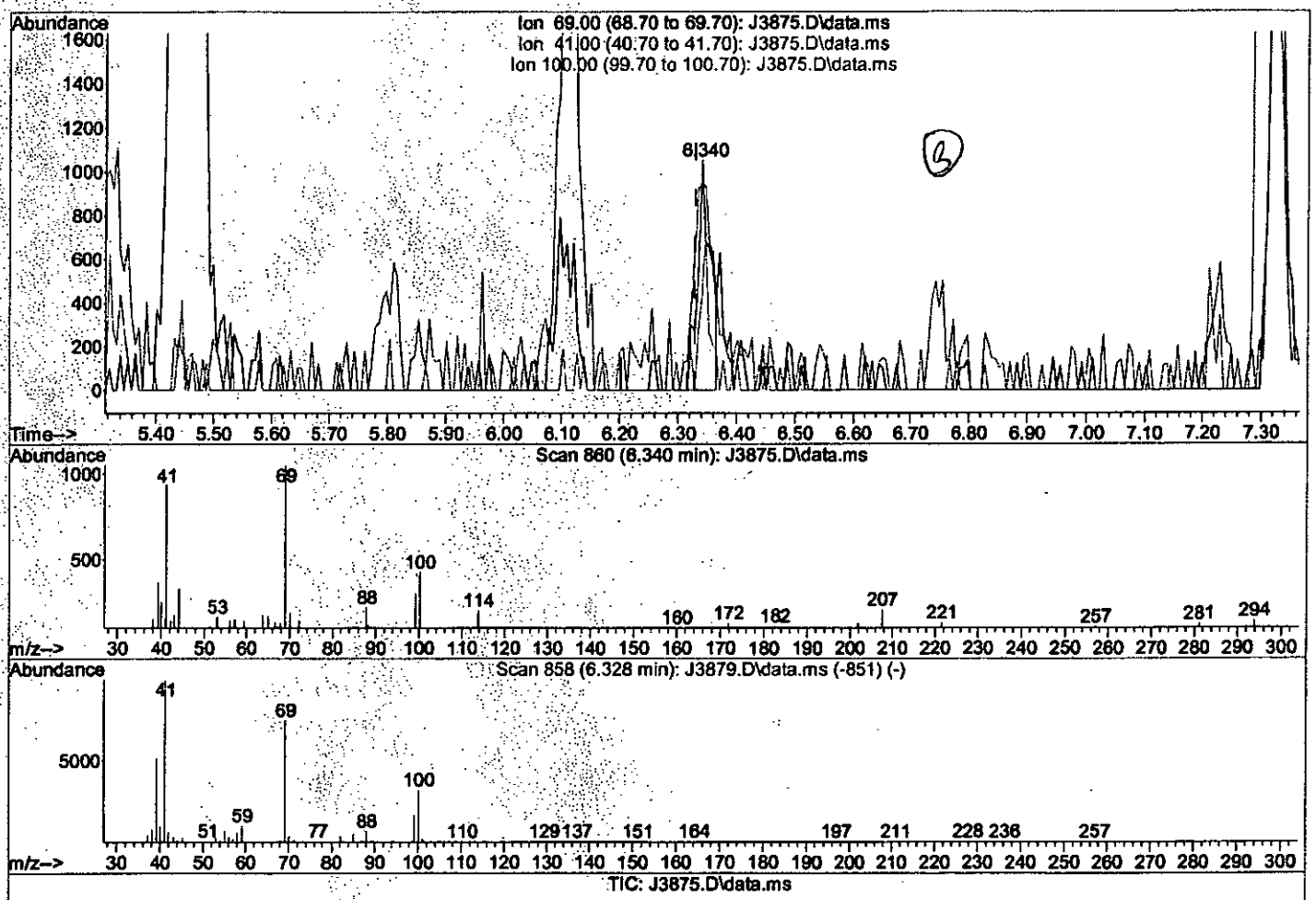
response 4205

Ion	Exp%	Act%
130.00	100	100
132.00	98.30	74.47#
95.00	103.00	93.24
97.00	67.30	63.20

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(59) Methyl Methacrylate

6.340min (+0.012) 0.38 ppb

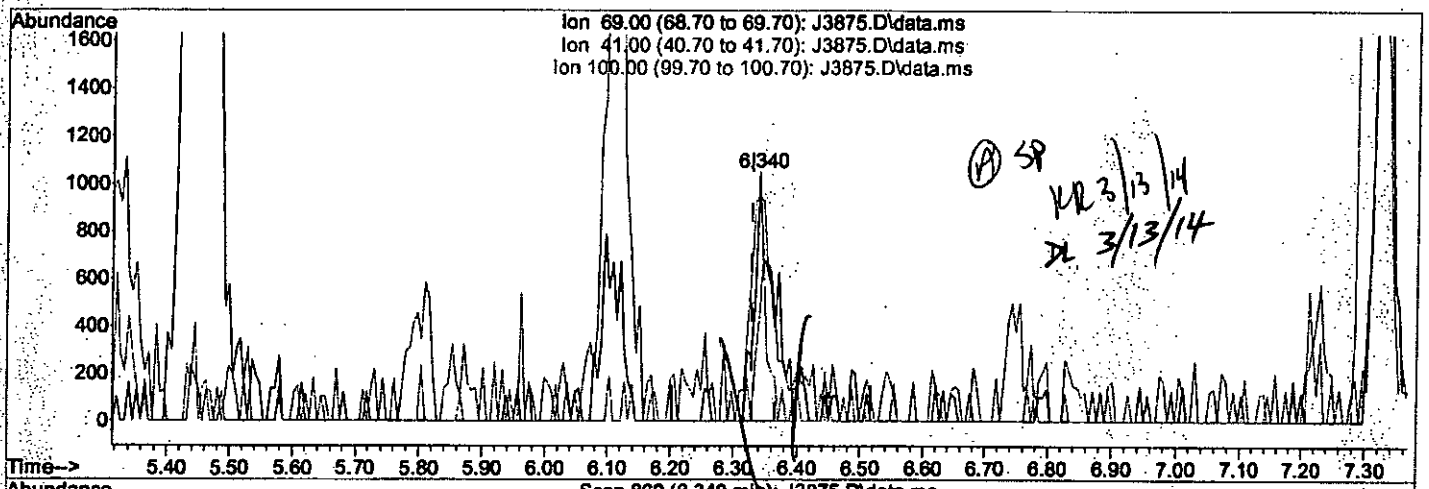
response 1630

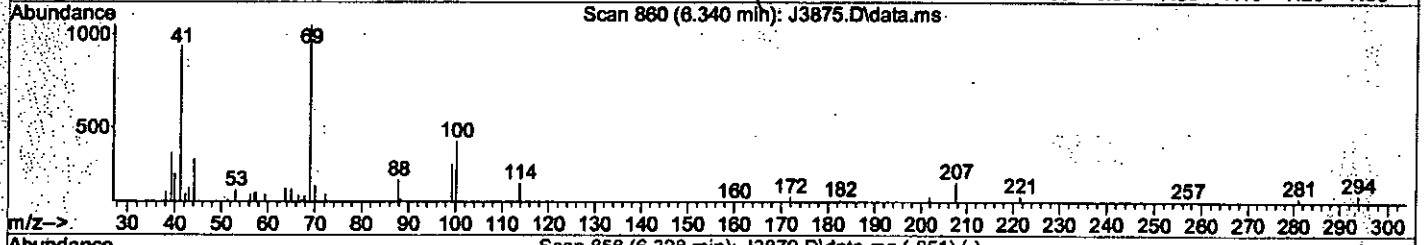
Ion	Exp%	Act%
69.00	100	100
41.00	134.40	89.33#
100.00	42.90	40.48
0.00	0.00	0.00

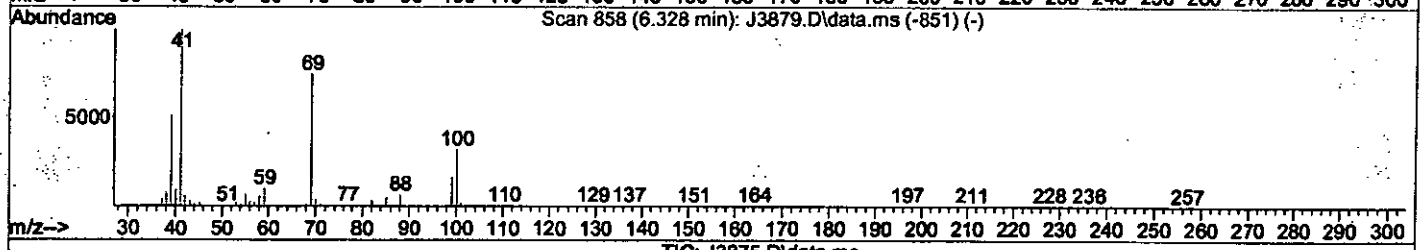
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(59) Methyl Methacrylate

6.340min (+0.012) 0.50 ppb m

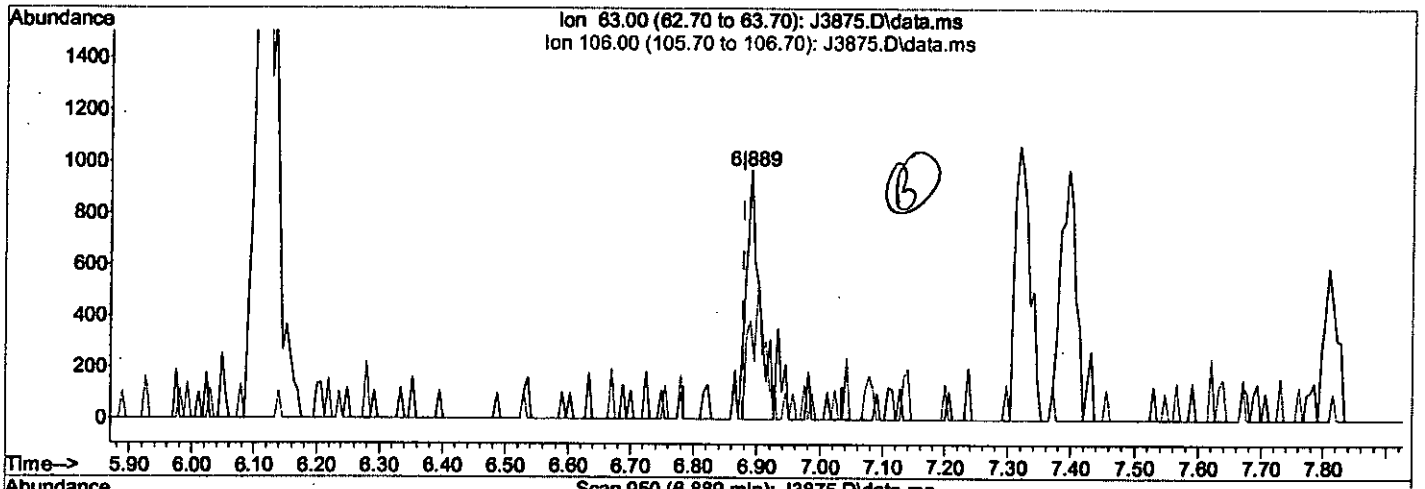
response 2120

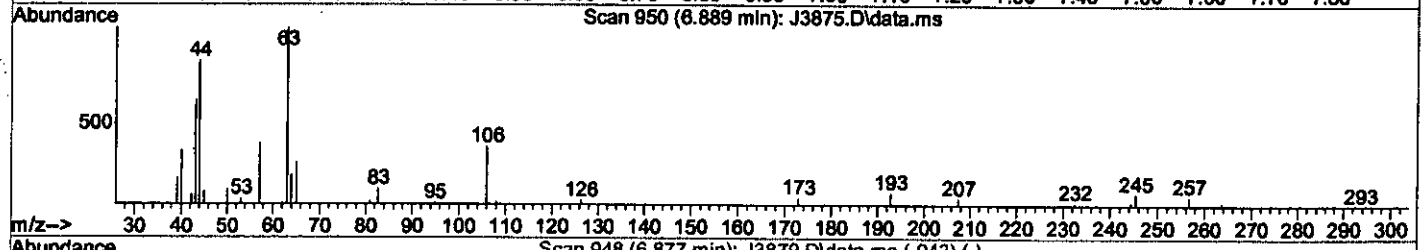
Ion	Exp%	Act%
69.00	100	100
41.00	134.40	89.33#
100.00	42.90	40.48
0.00	0.00	0.00

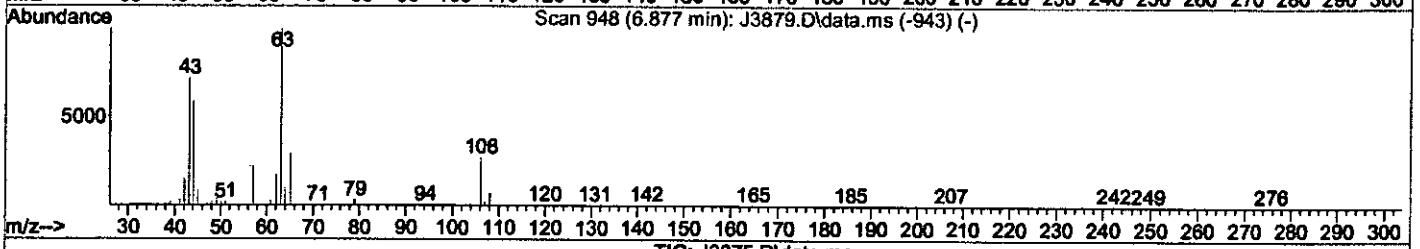
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(62) 2-Chloroethylvinyl Ether

6.889min (+0.012) 0.35 ppb

response 1414

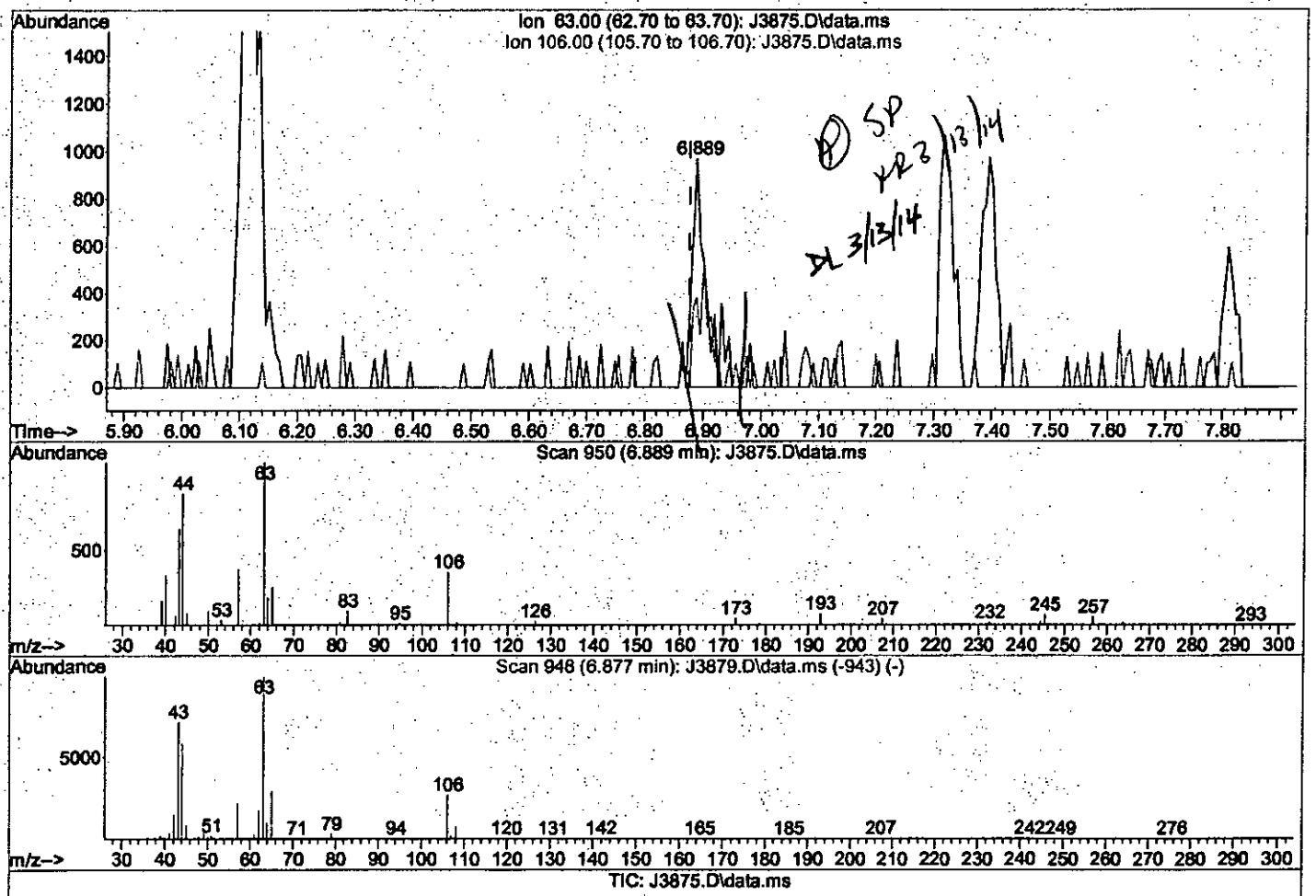
Ion	Exp%	Act%
63.00	100	100
106.00	27.00	39.53
0.00	0.00	0.00
0.00	0.00	0.00

00393

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(62) 2-Chloroethylvinyl Ether

6.889min (+0.012) 0.41 ppb m

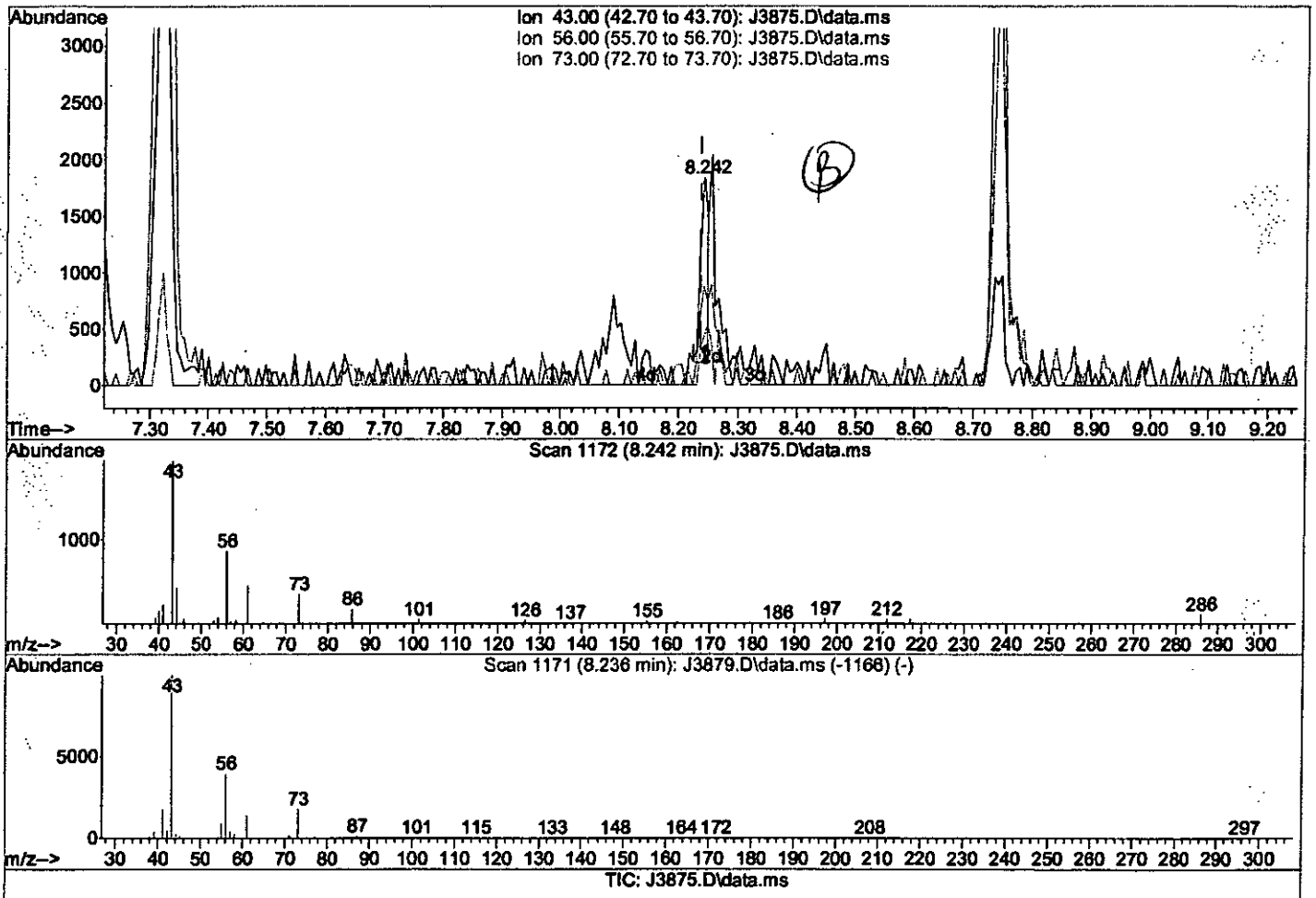
response 1681

Ion	Exp%	Act%
63.00	100	100
106.00	27.00	39.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(76) N-Butyl Acetate

8.242min (+0.006) 0.17 ppb

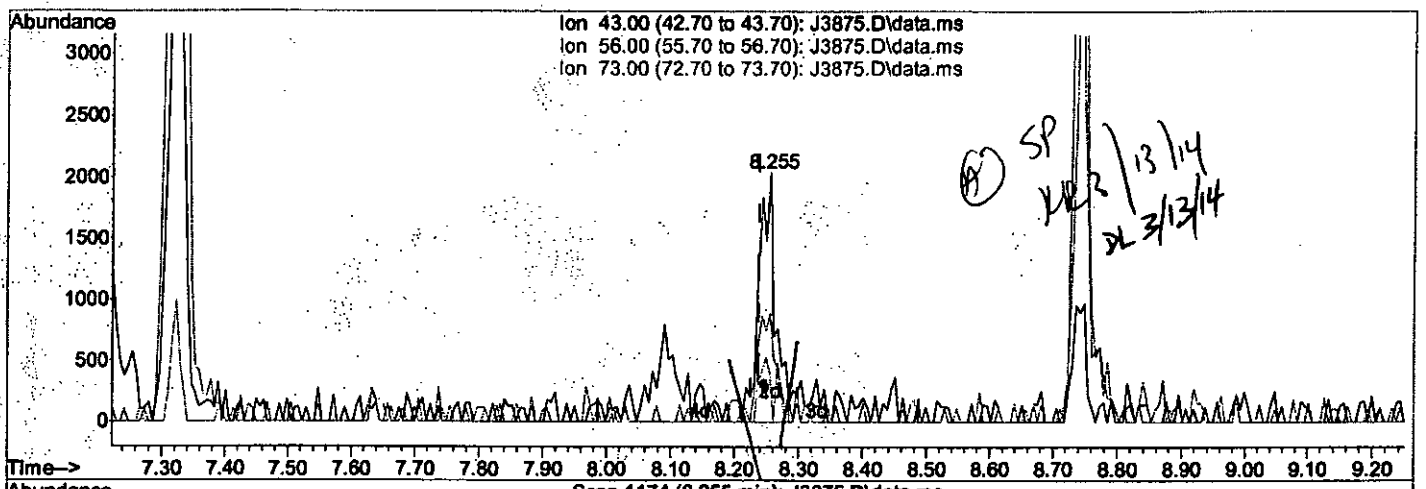
response 1498

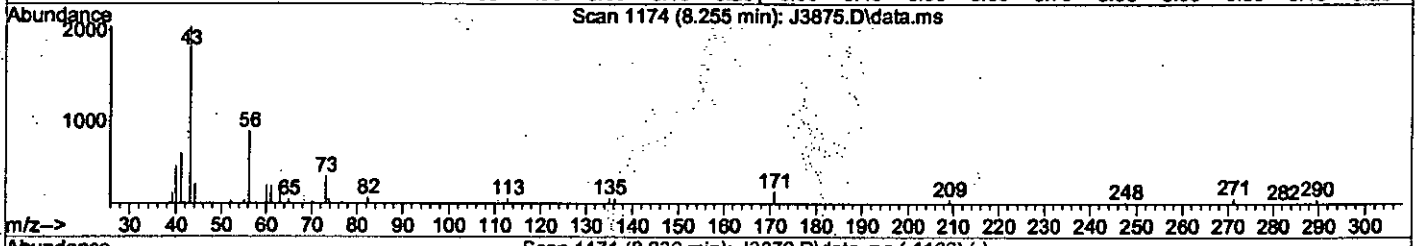
Ion	Exp%	Act%
43.00	100	100
58.00	39.70	47.57
73.00	17.70	22.58
0.00	0.00	0.00

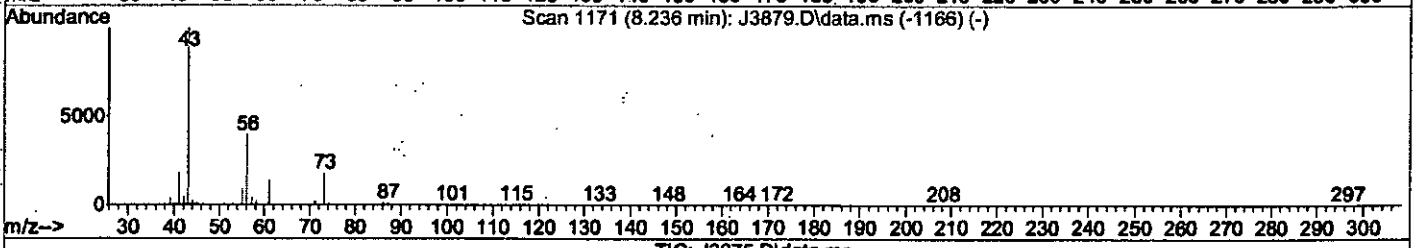
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3875.D\data.ms

(76) N-Butyl Acetate

8.255min (+0.018) 0.40 ppb m

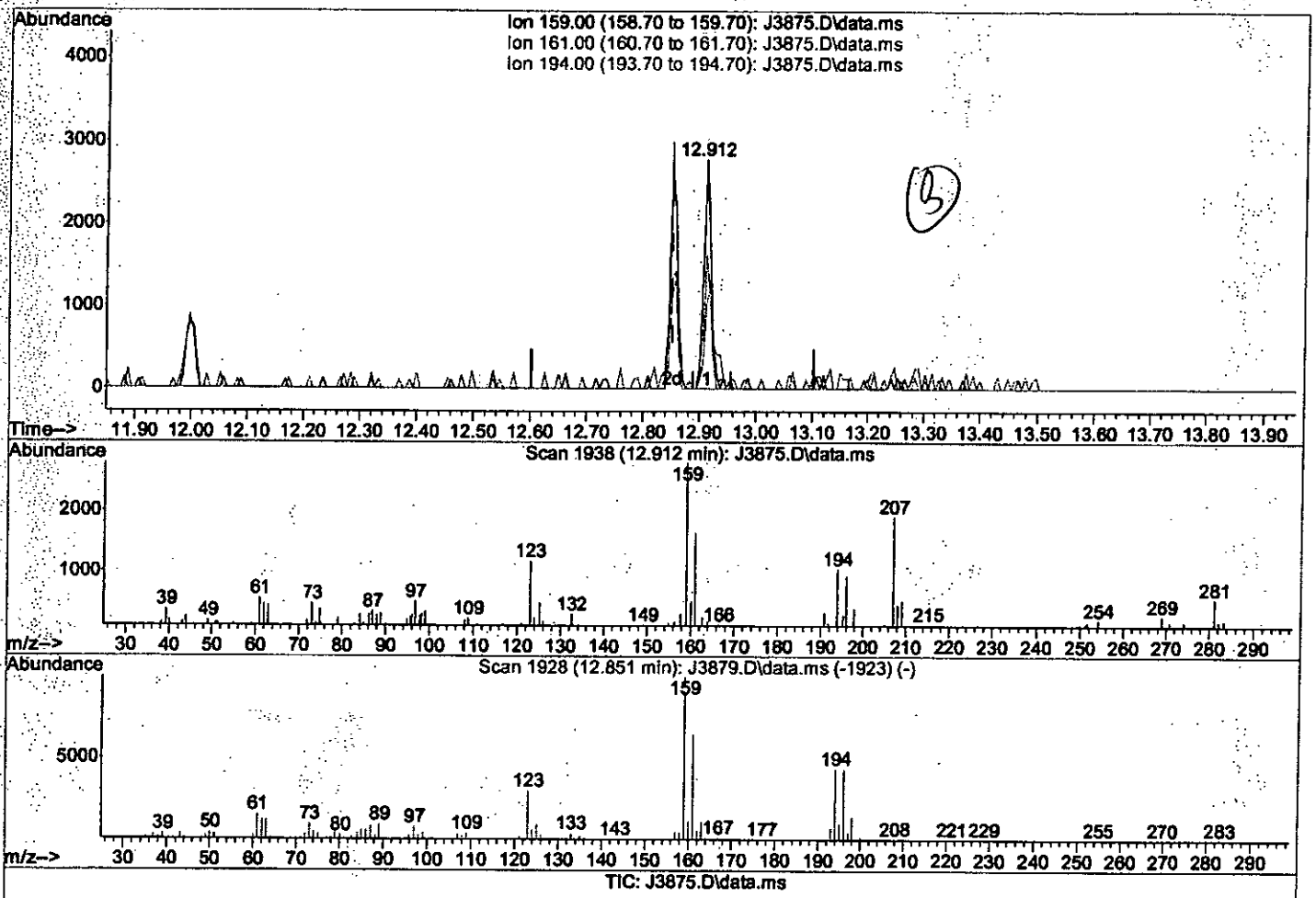
response 3648

Ion	Exp%	Act%
43.00	100	100
56.00	39.70	43.69
73.00	17.70	19.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(119) 2,4,5-Trichlorotolene

12.912min (+0.061) 0.52 ppb

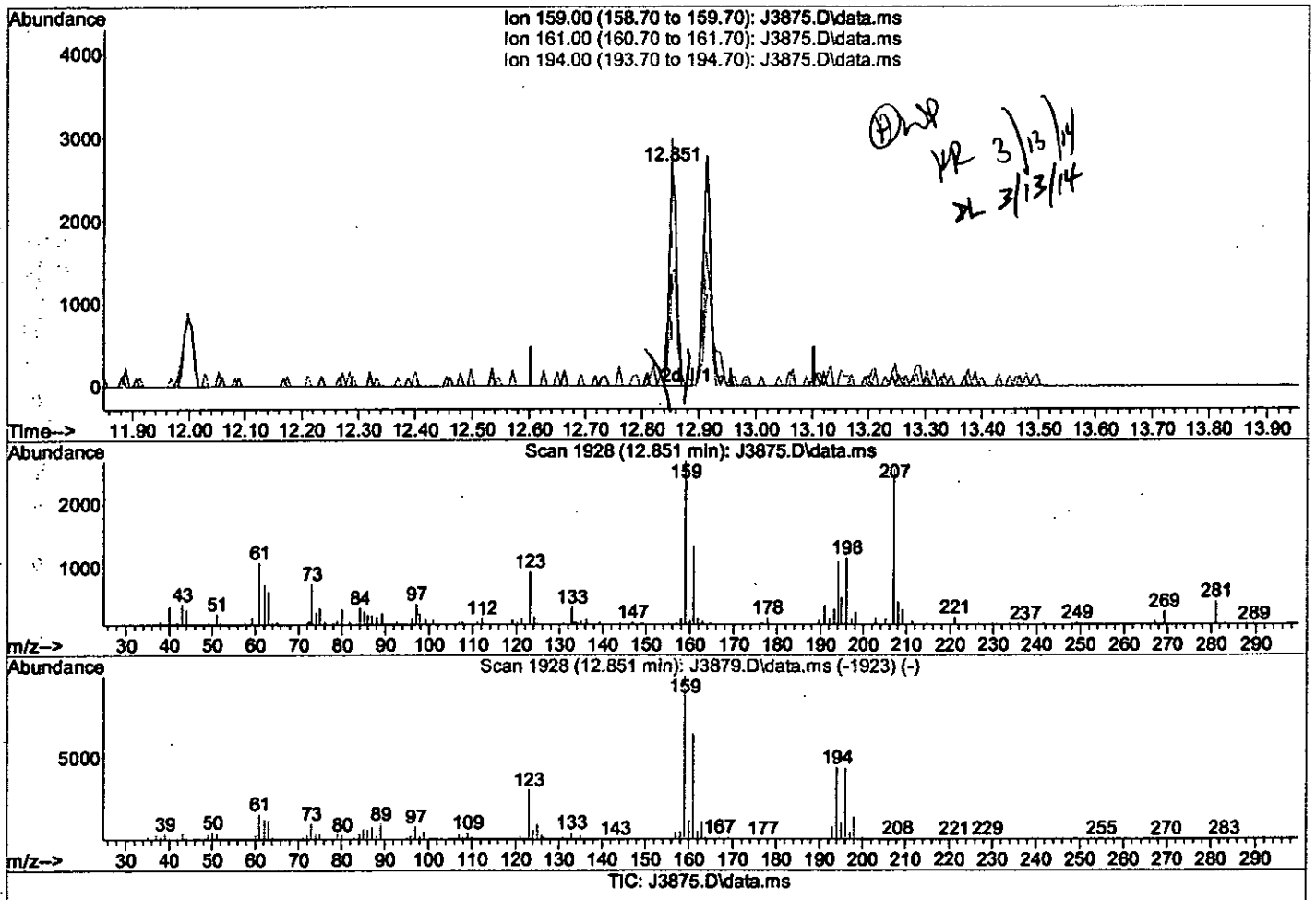
response 2541

Ion	Exp%	Act%
159.00	100	100
161.00	64.60	58.59
194.00	43.80	37.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:35 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3875.D\data.ms

(119) 2,4,5-Trichlorotolene

12.851min (+0.000) 0.49 ppb m

response 2375

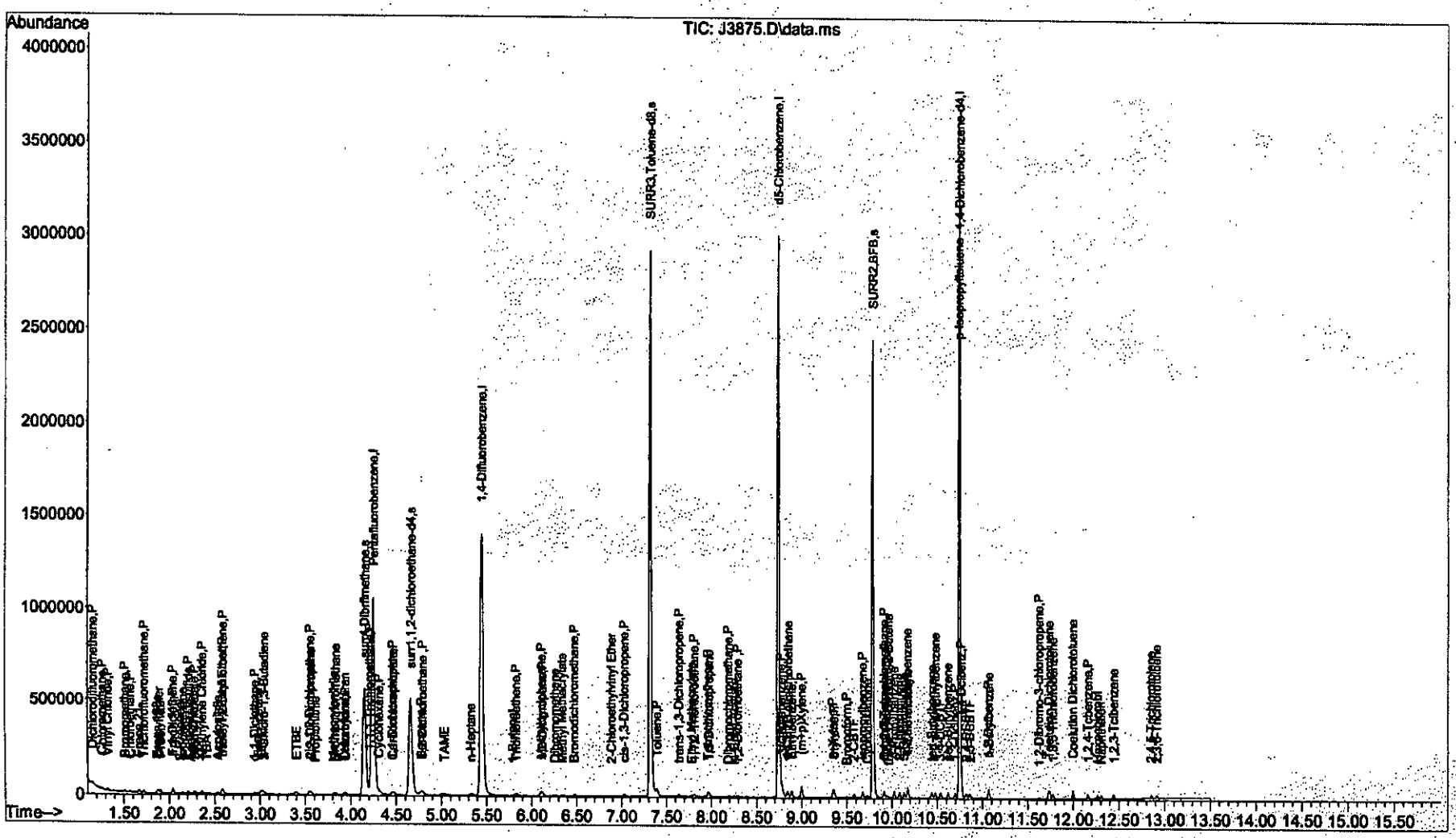
Ion	Exp%	Act%
159.00	100	100
161.00	64.60	49.83#
194.00	43.80	40.46
0.00	0.00	0.00

00398

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3875.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 10:45 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:11:48 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:16:19 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	909776	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1428738	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1289121	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	616857	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	410160	49.59	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.18%				
48) surr1,1,2-dichloroetha...	4.664	65	482134	51.17	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.34%				
65) SURR3,Toluene-d8	7.322	98	1743990	50.18	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.36%				
70) SURR2,BFB	9.785	95	640602	49.40	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	10136	0.94	ppb		93
3) Chloromethane	1.256	50	9090	0.97	ppb		98
4) Vinyl Chloride	1.323	62	8349	0.96	ppb		100
5) Bromomethane	1.512	94	5664	1.08	ppb		100
6) Chloroethane	1.567	64	5094m	0.94	ppb		
7) Freon 21	1.664	67	12648	0.96	ppb		93
8) Trichlorofluoromethane	1.719	101	12681	0.95	ppb		98
9) Diethyl Ether	1.884	59	6969	1.06	ppb		94
10) Freon 123a	1.872	67	9615	0.98	ppb		89
11) Freon 123	1.902	83	11518	1.03	ppb		92
12) Acrolein	1.957	56	841m	2.67	ppb		
13) 1,1-Diclethene	2.042	96	6368	0.96	ppb		94
14) Freon 113	2.036	101	7307	1.01	ppb		93
15) Acetone	2.048	43	2625	1.45	ppb		79
16) 2-Propanol	2.109	45	5194	17.45	ppb		82
17) Iodomethane	2.146	142	6957	0.79	ppb		89
18) Carbon Disulfide	2.207	76	22369	0.97	ppb		97
19) Acetonitrile	2.225	40	879	2.98	ppb	#	80
20) Allyl Chloride	2.274	76	4499	0.99	ppb	#	82
21) Methyl Acetate	2.280	43	4034	0.99	ppb		84
22) Methylene Chloride	2.359	84	9268	1.07	ppb		89
23) TBA	2.408	59	9223	18.28	ppb		98
24) Acrylonitrile	2.530	53	10212	5.05	ppb		83
25) Methyl-t-Butyl Ether	2.579	73	20977	1.00	ppb		98
26) trans-1,2-Dichloroethene	2.585	96	8267	1.00	ppb		95
28) 1,1-Diclethane	2.945	63	15260	0.99	ppb		94
29) Vinyl Acetate	2.987	86	1309m	0.95	ppb		
30) DIPE	3.018	45	28957	0.97	ppb		90
31) 2-Chloro-1,3-Butadiene	3.042	53	11321	0.85	ppb		98
32) ETBE	3.396	59	24145	0.96	ppb		95
33) 2,2-Dichloropropane	3.554	77	11739	0.96	ppb		97
34) cis-1,2-Dichloroethene	3.542	96	9588	1.04	ppb		85
36) Propionitrile	3.609	54	3282	4.63	ppb		92
37) Bromochloromethane	3.835	130	5212	1.01	ppb	#	77
38) Methacrylonitrile	3.810	67	1831	0.78	ppb	#	52

KR 3/18/14

00400

Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:16:19 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Tetrahydrofuran	3.914	42	2184	1.24	ppb	#	49
40) Chloroform	3.944	83	14880	0.99	ppb		89
41) 1,1,1-Trichloroethane	4.213	97	12496	0.97	ppb	#	1
42) TAME	5.023	73	20545	0.97	ppb		95
44) Cyclohexane	4.316	41	7870	1.02	ppb		97
46) Carbontetrachloride	4.463	121	3211	0.94	ppb		79
47) 1,1-Dichloropropene	4.463	75	9605	0.92	ppb		77
49) Benzene	4.786	78	34783	0.99	ppb		96
50) 1,2-Dichloroethane	4.792	62	11135	1.04	ppb		90
51) Iso-Butyl Alcohol	4.645	43	4896m	20.70	ppb		
52) n-Heptane	5.334	43	8949	1.02	ppb		89
53) 1-Butanol	5.785	56	5606m	41.98	ppb		
54) Trichloroethene	5.828	130	8557	1.00	ppb	#	77
55) Methylcyclohexane	6.109	55	9048	0.99	ppb		93
56) 1,2-Diclpropane	6.115	63	8401	0.93	ppb		94
57) Dibromomethane	6.255	93	4422	1.03	ppb		82
59) Methyl Methacrylate	6.346	69	4351m	1.03	ppb		
60) Bromodichloromethane	6.480	83	9613	0.91	ppb		96
61) 2-Nitropropane	6.743	41	2112	1.87	ppb		91
62) 2-Chloroethylvinyl Ether	6.889	63	3778	0.94	ppb		100
63) cis-1,3-Dichloropropene	7.029	75	11016	0.88	ppb		93
64) 4-Methyl-2-pentanone	7.218	43	4894	0.90	ppb		88
66) Toluene	7.395	91	36309	1.00	ppb		97
67) trans-1,3-Dichloropropene	7.633	75	8721	0.87	ppb		99
68) Ethyl Methacrylate	7.773	69	7414m	0.92	ppb		
69) 1,1,2-Trichloroethane	7.809	97	6006	0.95	ppb		94
72) Tetrachloroethene	7.962	164	6434	0.97	ppb		90
73) 2-Hexanone	8.096	43	3196	0.88	ppb		99
74) 1,3-Dichloropropane	7.974	76	11877	1.02	ppb		88
75) Dibromochloromethane	8.187	129	5635	0.84	ppb		87
76) N-Butyl Acetate	8.242	43	8454	0.94	ppb		93
77) 1,2-Dibromoethane	8.291	107	5584	0.94	ppb		98
78) Chlorobenzene	8.773	112	21495	0.96	ppb		93
79) 3-CBTF	8.785	180	10407	0.94	ppb		96
80) 4-CBTF	8.834	180	8928	0.90	ppb		97
81) 1,1,1,2-Tetrachloroethane	8.852	131	6999	0.89	ppb		97
82) Ethylbenzene	8.889	106	11238	0.94	ppb		95
83) (m+p)Xylene	8.998	106	25096	1.79	ppb		95
84) o-Xylene	9.346	106	14523	1.01	ppb	#	81
85) Styrene	9.358	104	19861	0.87	ppb		90
87) Bromoform	9.498	173	3297	0.94	ppb		100
88) 2-CBTF	9.577	180	9585	0.93	ppb		91
89) Isopropylbenzene	9.669	105	30809	0.97	ppb		98
90) Cyclohexanone	9.724	55	10704	21.64	ppb		87
91) trans-1,4-Dichloro-2-B...	9.962	53	1318	0.79	ppb		95
92) 1,1,2,2-Tetrachloroethane	9.913	83	7805	1.10	ppb		96
93) Bromobenzene	9.907	156	9148	1.01	ppb		96
94) 1,2,3-Trichloropropane	9.943	110	2408	1.14	ppb	#	71
95) n-Propylbenzene	10.022	91	36616	0.98	ppb		97
96) 2-Chlorotoluene	10.083	91	22220	0.95	ppb		99
97) 3-Chlorotoluene	10.132	91	23805	0.98	ppb		92
98) 4-Chlorotoluene	10.175	91	27266	0.99	ppb		95

Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:16:19 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

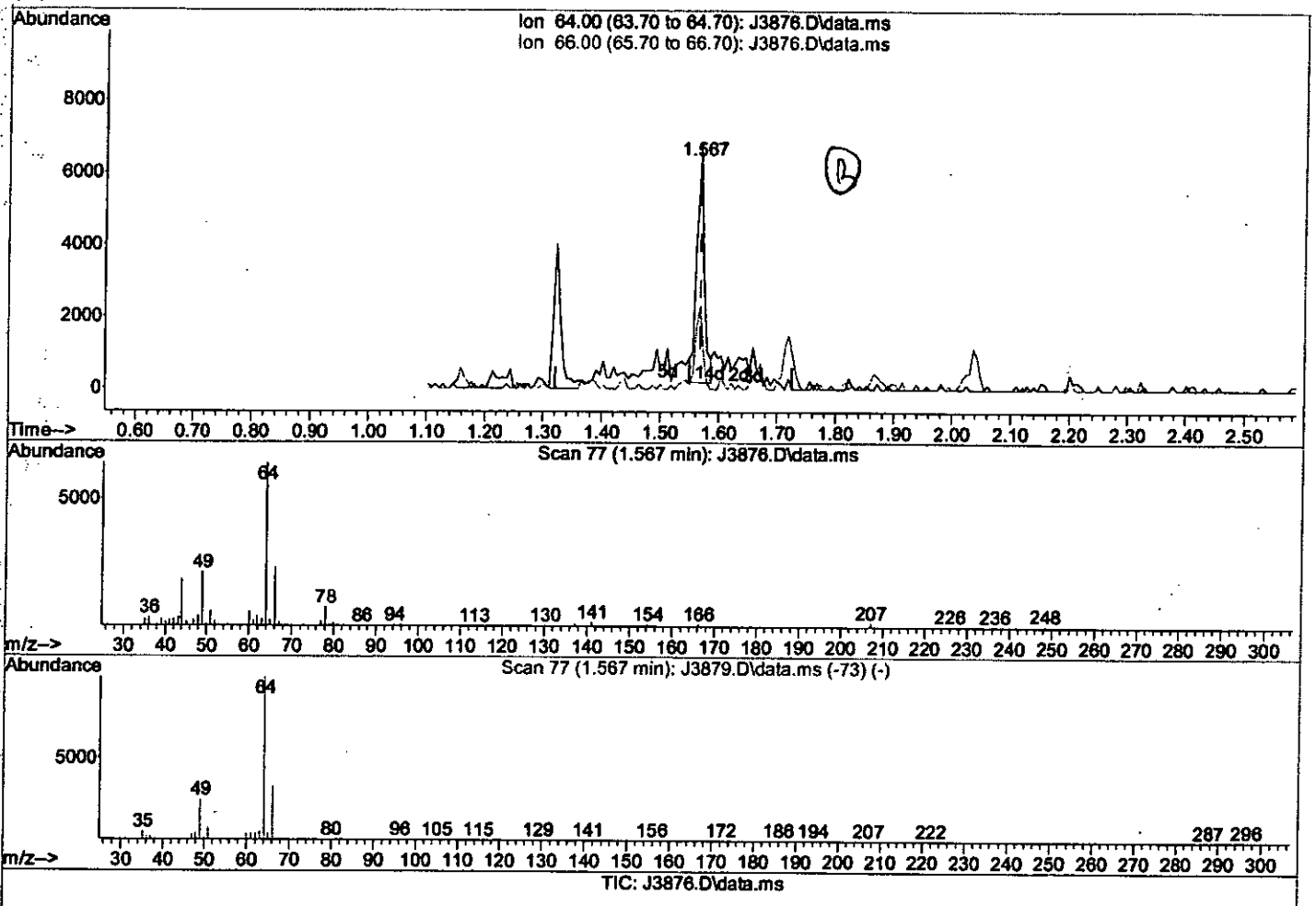
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
99)	1,3,5-Trimethylbenzene	10.169	105	24817	0.96	ppb		92
100)	tert-Butylbenzene	10.437	119	21877	1.00	ppb		90
101)	1,2,4-Trimethylbenzene	10.480	105	25964	0.97	ppb		100
102)	3,4-DCBTF	10.535	214	7195	0.95	ppb		94
103)	sec-Butylbenzene	10.620	105	29824	0.98	ppb		97
104)	p-Isopropyltoluene	10.742	119	24266	0.94	ppb		84
105)	1,3-Dclbenz	10.699	146	14936	0.97	ppb		90
106)	1,4-Dclbenz	10.766	146	15823	0.96	ppb		94
107)	2,4-DCBTF	10.821	214	6587	1.00	ppb	#	70
108)	2,5-DCBTF	10.858	214	7707	1.02	ppb	#	77
109)	n-Butylbenzene	11.071	91	21185	0.91	ppb		97
110)	1,2-Dclbenz	11.065	146	14396	0.97	ppb		97
111)	1,2-Dibromo-3-chloropr...	11.626	157	1052	0.97	ppb	#	55
112)	Trielution Dichlorotol...	11.742	125	33349	2.84	ppb		93
113)	1,3,5 Trichlorobenzene	11.778	180	9895	0.96	ppb	#	93
114)	Coelution Dichlorotoluene	11.998	125	25211	2.02	ppb		96
115)	1,2,4-Tcbenzene	12.162	180	8877	0.98	ppb		93
116)	Hexachlorobt	12.266	225	3996	1.01	ppb		88
117)	Naphthalen	12.303	128	14907	0.91	ppb		96
118)	1,2,3-Tclbenzene	12.443	180	7276	0.98	ppb		91
119)	2,4,5-Trichlorotolene	12.851	159	5341	1.09	ppb	#	79
120)	2,3,6-Trichlorotoluene	12.912	159	4781	1.06	ppb	#	91

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

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3876.D\data.ms

(6) Chloroethane (P)

1.567min (-0.000) 1.07 ppb

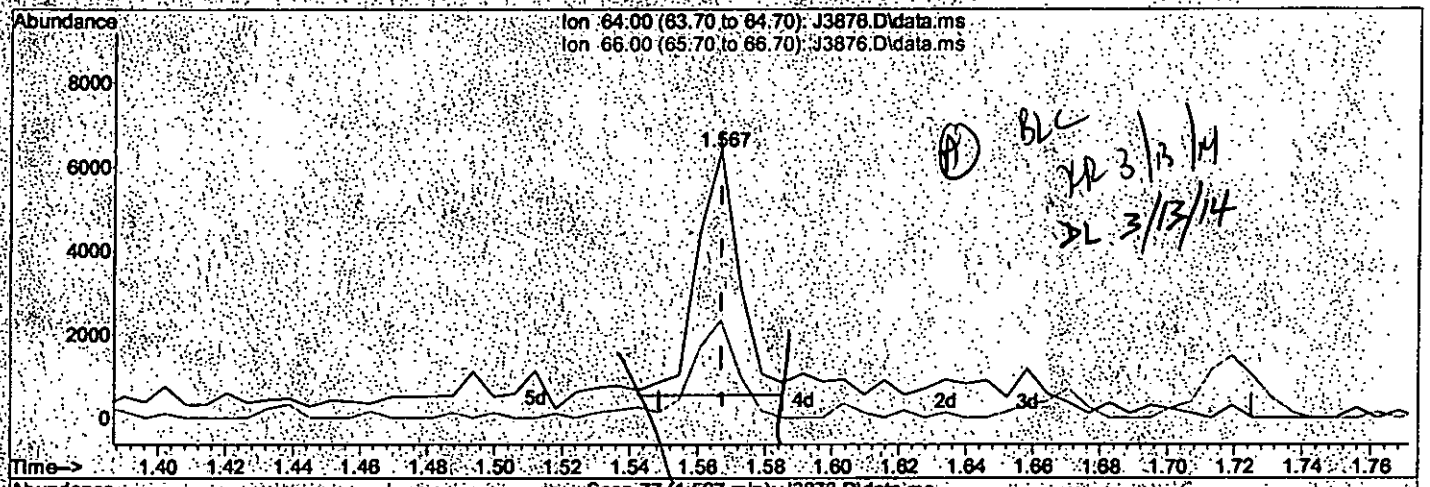
response 5774

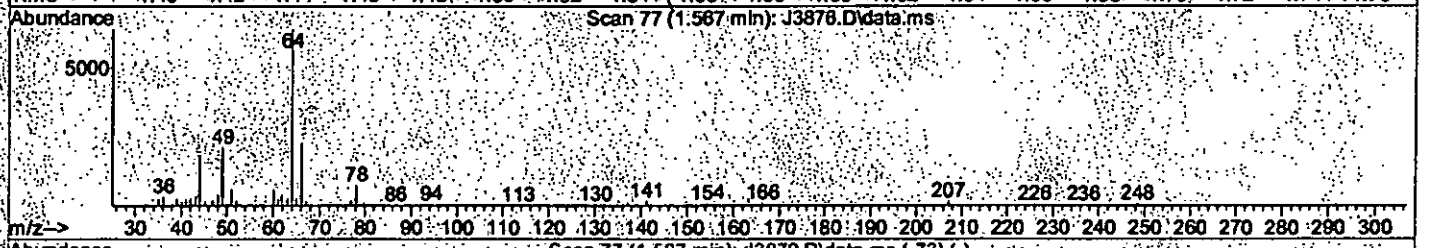
Ion	Exp%	Act%
64.00	100	100
66.00	32.20	36.64
0.00	0.00	0.00
0.00	0.00	0.00

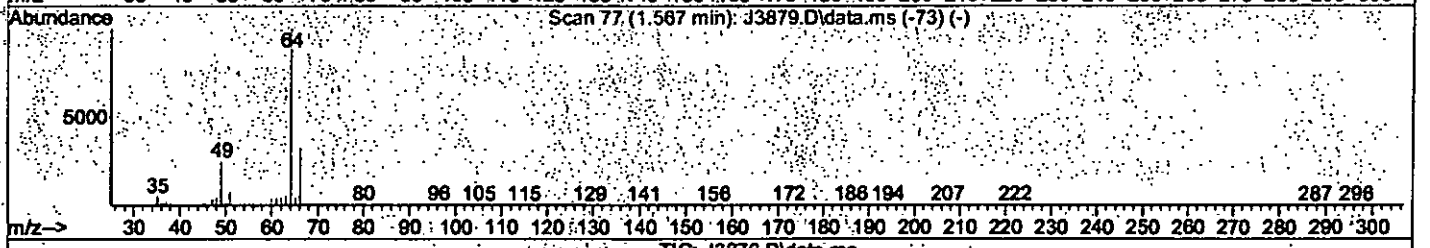
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(6) Chloroethane (P)

1.567min (-0.000) 0.94 ppb m

response 5094

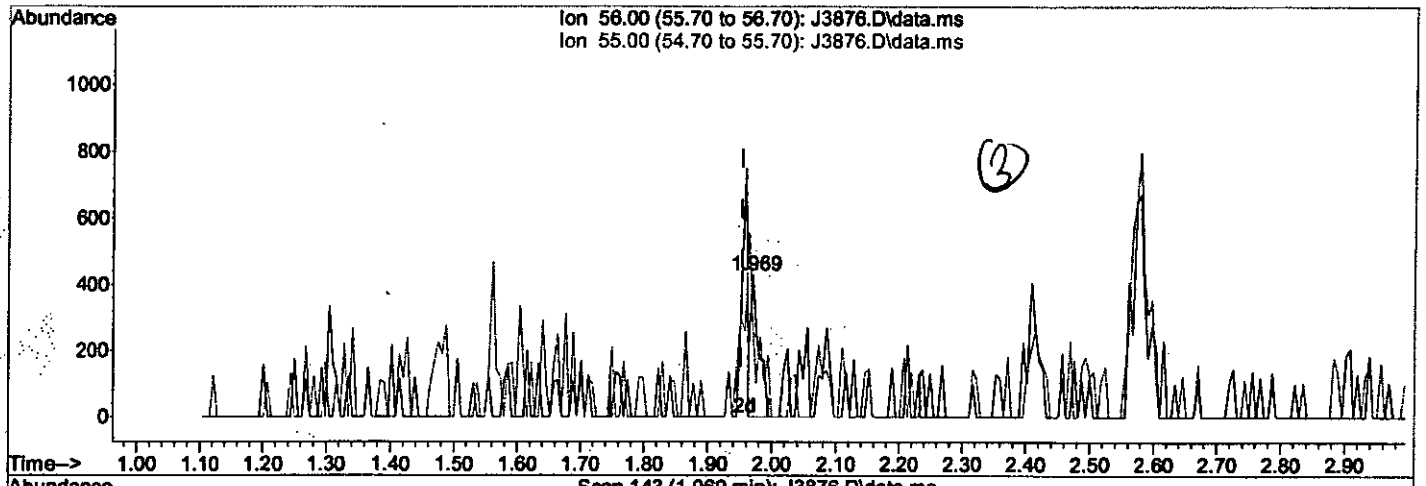
Ion	Exp%	Act%
64.00	100	100
66.00	32.20	36.64
0.00	0.00	0.00
0.00	0.00	0.00

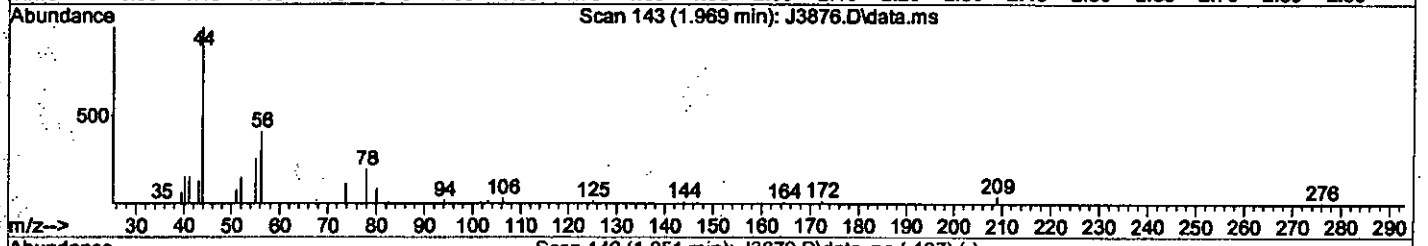
00404

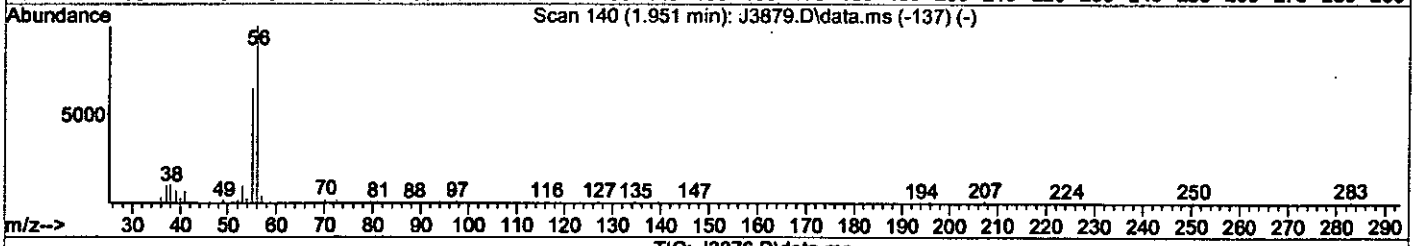
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(12) Acrolein

1.969min (+0.018) 1.19 ppb

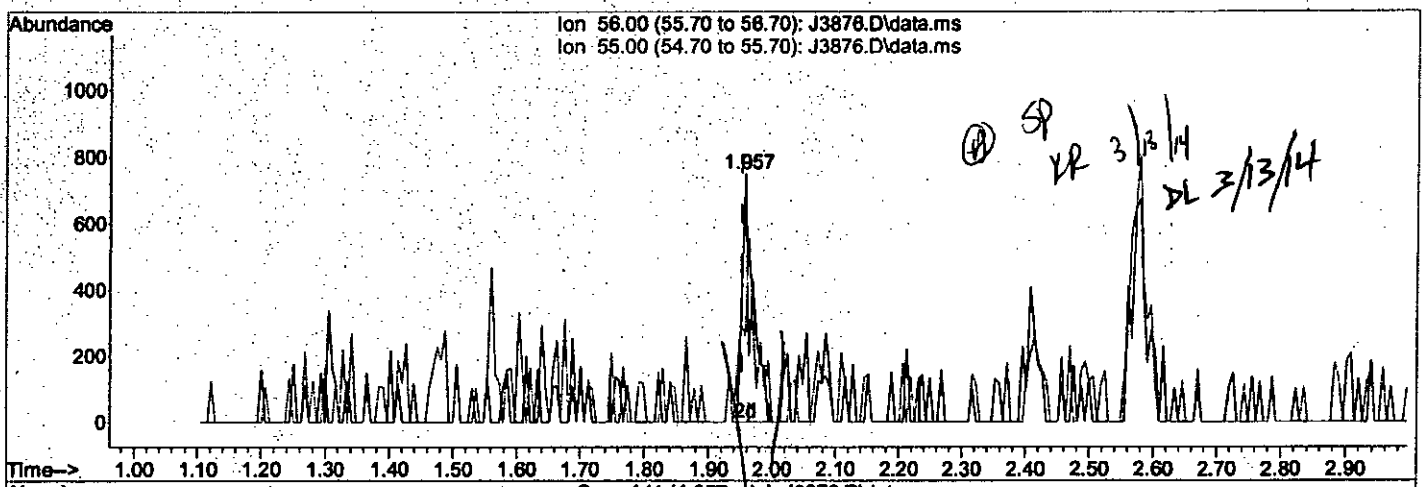
response 373

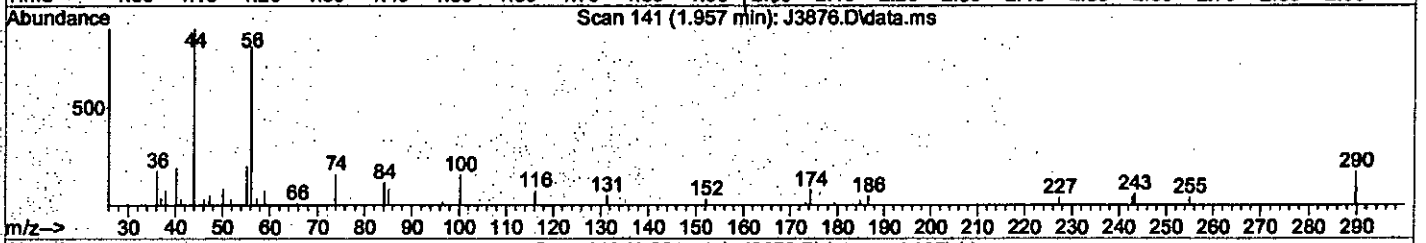
Ion	Exp%	Act%
56.00	100	100
55.00	66.20	70.63
0.00	0.00	0.00
0.00	0.00	0.00

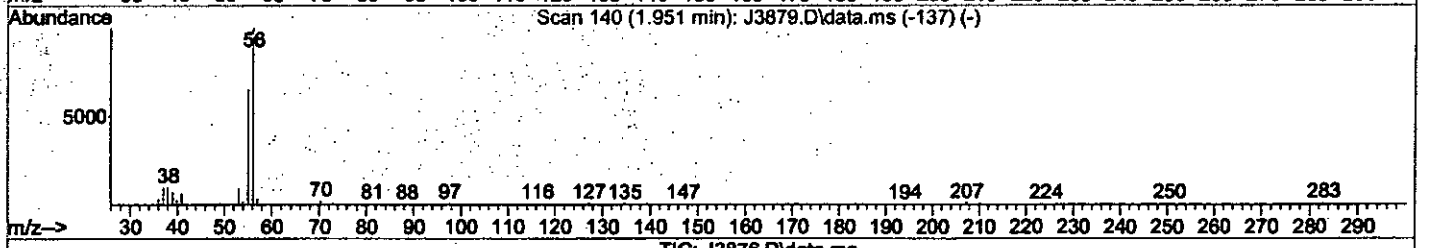
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(12) Acrolein

1.957min (+0.006) 2.67 ppb m

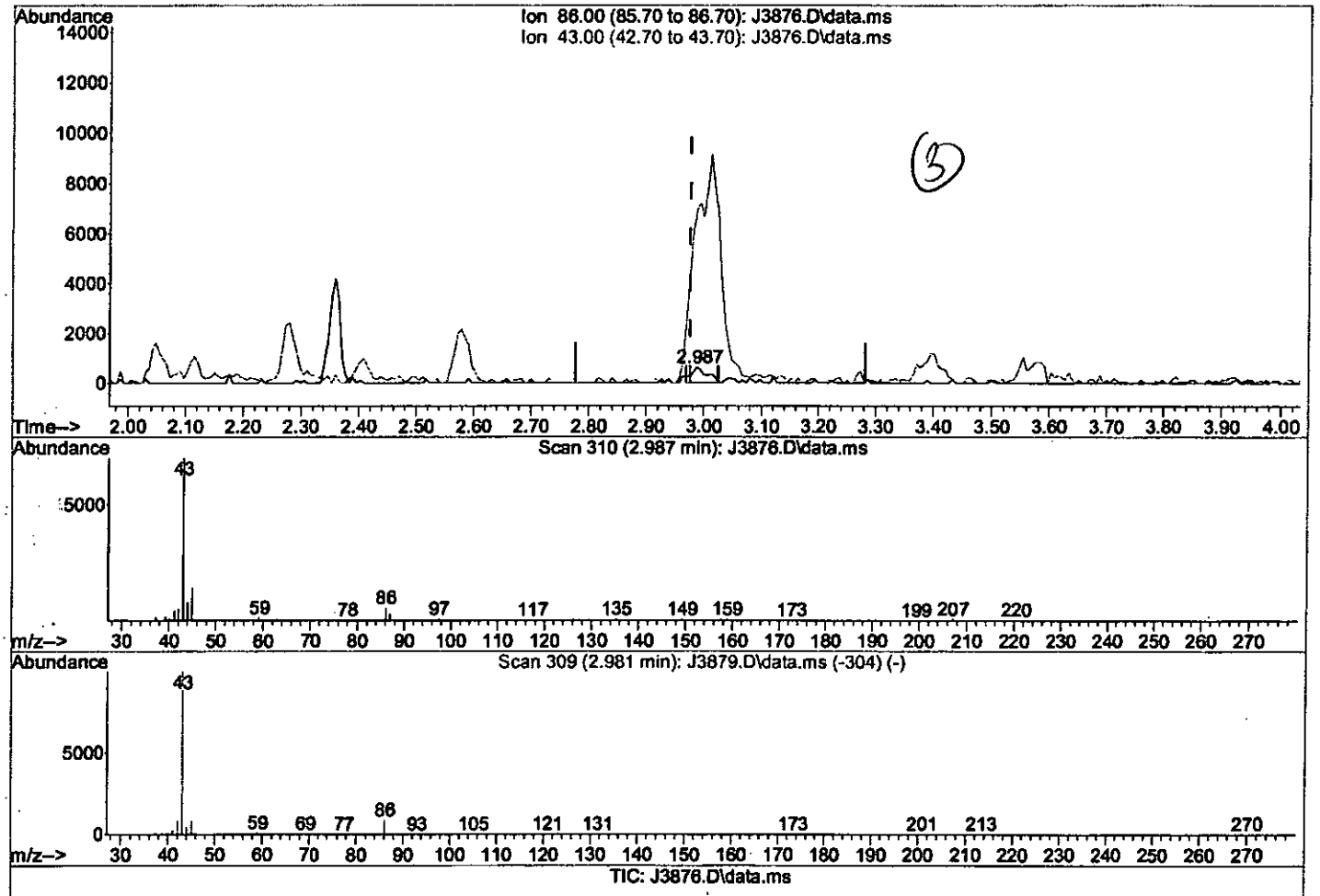
response 841

Ion	Exp%	Act%
56.00	100	100
55.00	66.20	34.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3876.D\data.ms

(29) Vinyl Acetate

2.987min (+0.012) 0.82 ppb

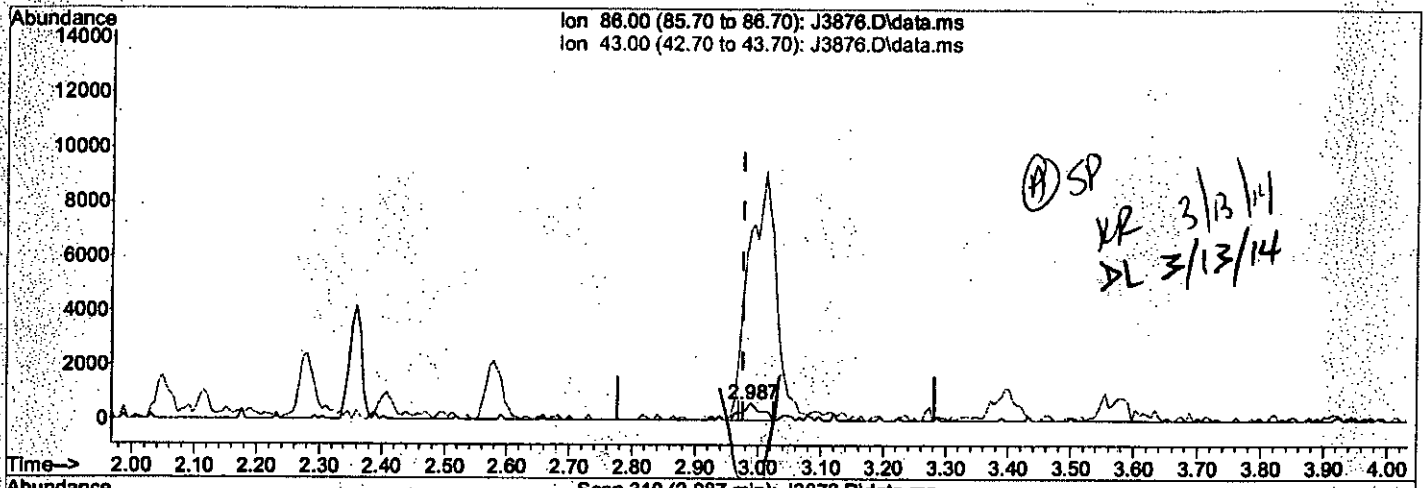
response 1125

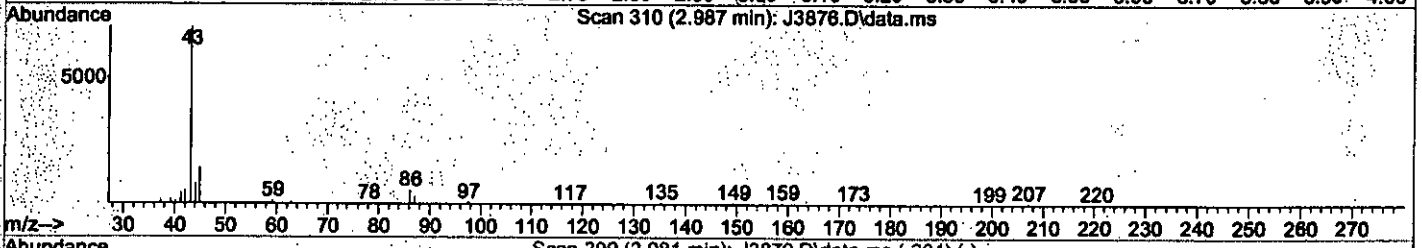
Ion	Exp%	Act%
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43.00	1138.10	1111.02#
0.00	0.00	0.00
0.00	0.00	0.00

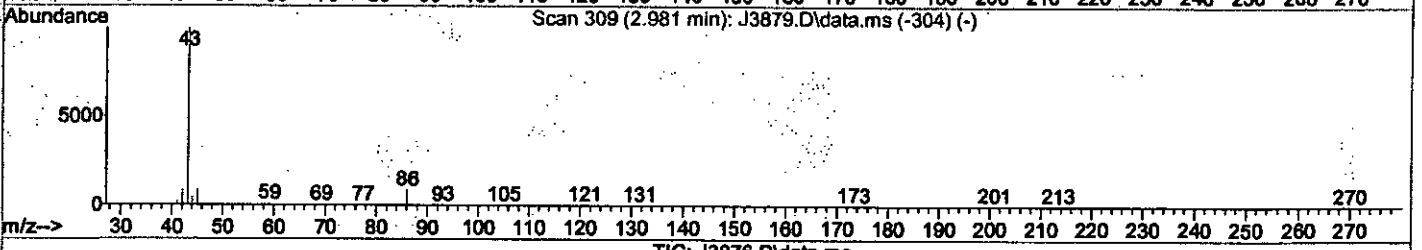
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(29) Vinyl Acetate

2.987min (+0.012) 0.95 ppb m

response 1309

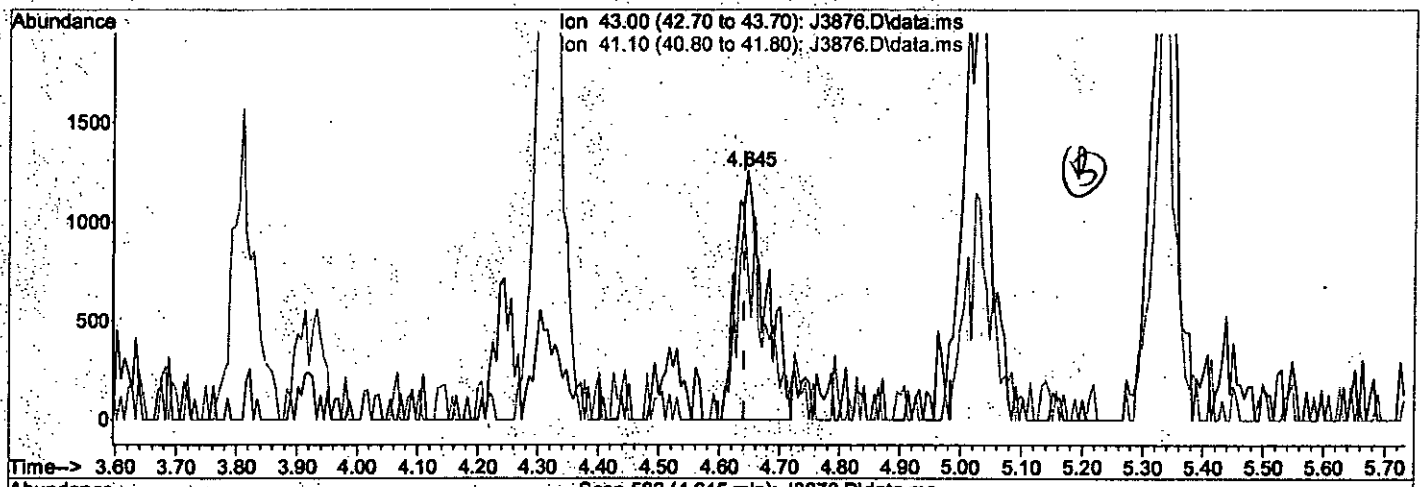
Ion	Exp%	Act%
86.00	100	100
43.00	1138.10	1111.02#
0.00	0.00	0.00
0.00	0.00	0.00

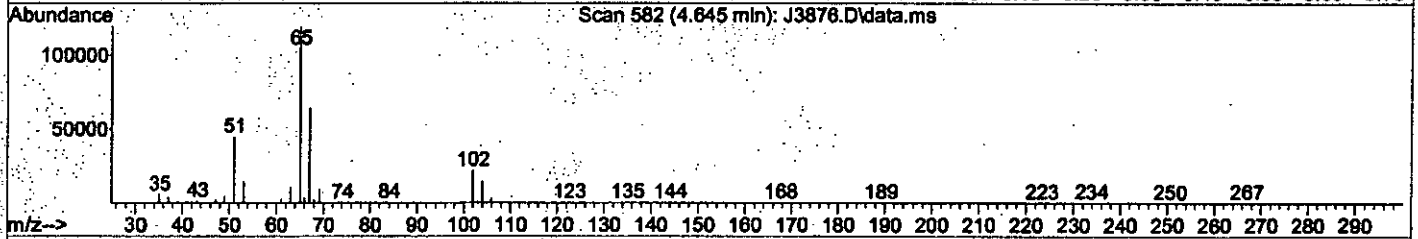
00408

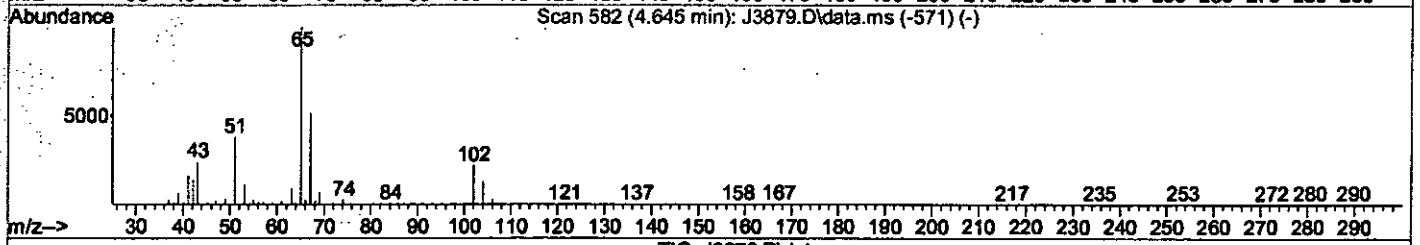
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(51) Iso-Butyl Alcohol

4.645min (+0.008) 17.90 ppb

response 4235

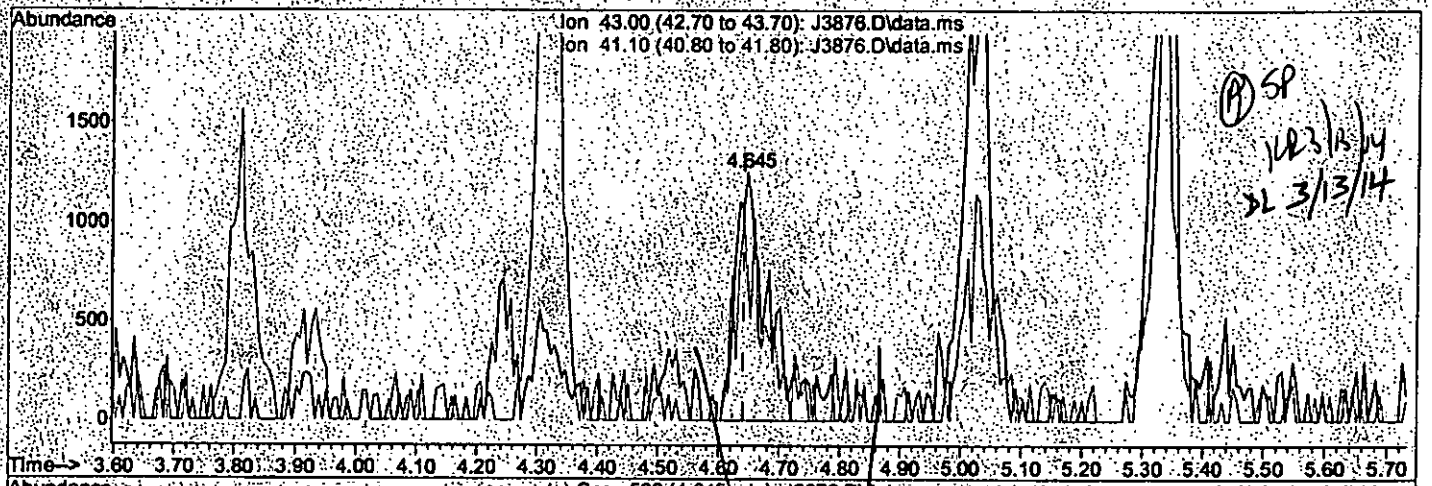
Ion	Exp%	Act%
43.00	100	100
41.10	68.40	60.99
0.00	0.00	0.00
0.00	0.00	0.00

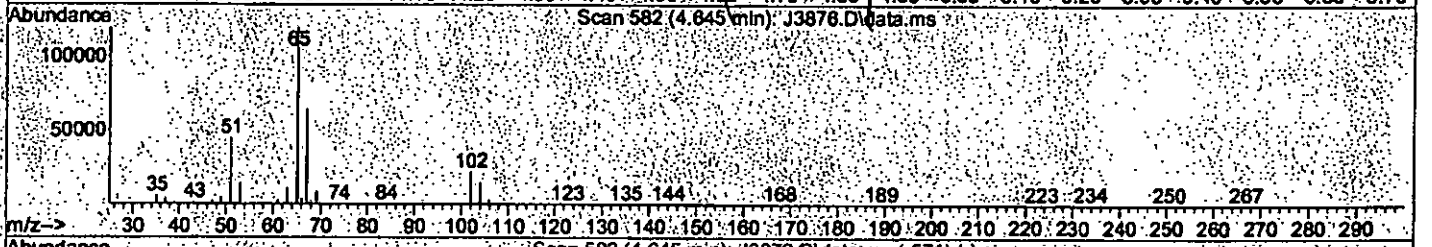
00409

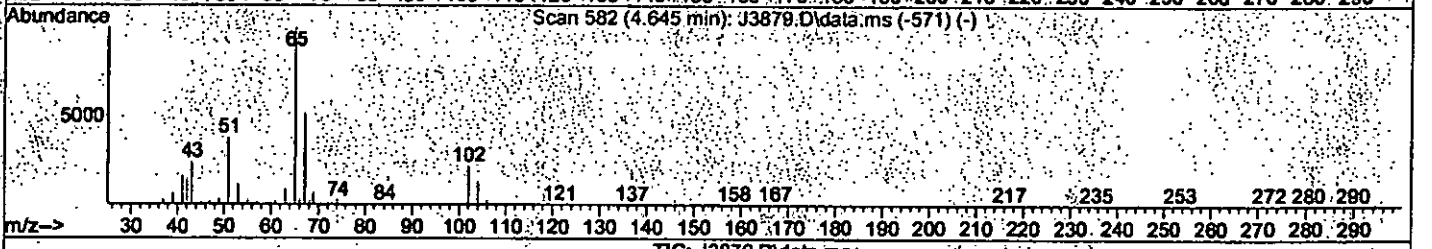
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(51) Iso-Butyl Alcohol

4.645min (+0.006) 20.70 ppb m

response 4896

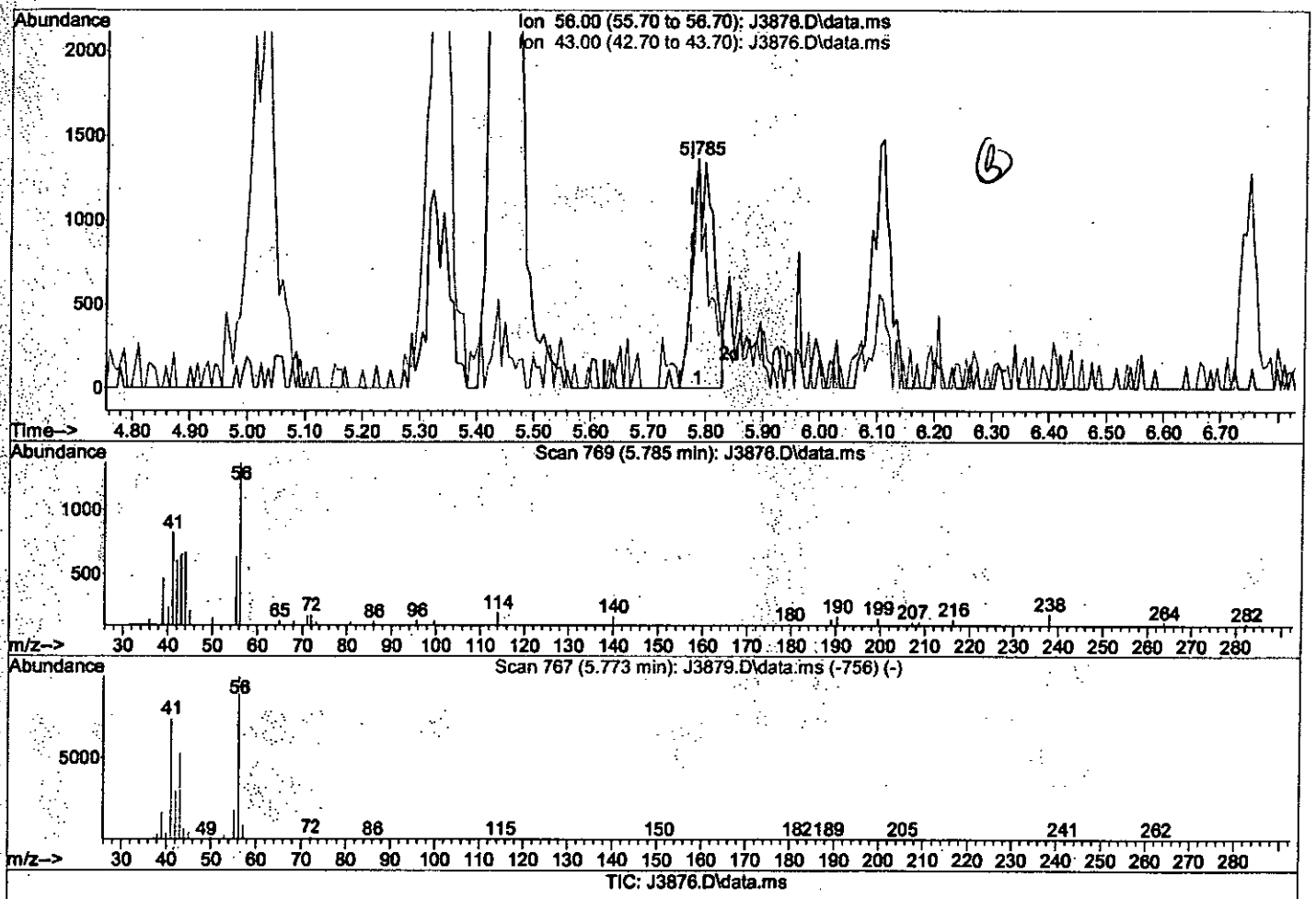
Ion	Exp%	Act%
43.00	100	100
41.10	68.40	60.99
0.00	0.00	0.00
0.00	0.00	0.00

00410

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3876.D\data.ms

(53) 1-Butanol

5.785min (+0.012) 25.83 ppb

response 3450

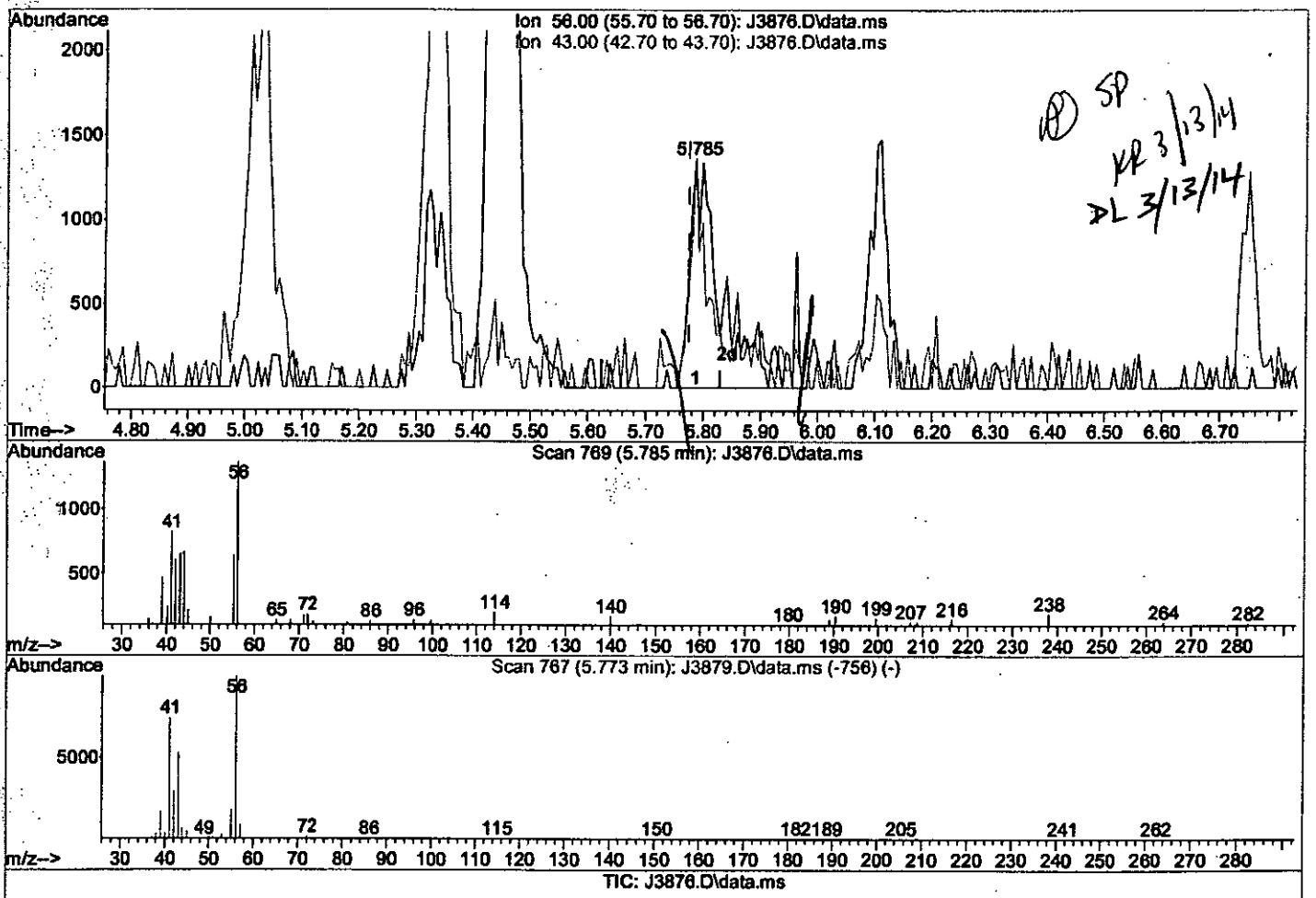
Ion	Exp%	Act%
56.00	100	100
43.00	55.80	81.22#
0.00	0.00	0.00
0.00	0.00	0.00

00411

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3876.D\data.ms

(53) 1-Butanol

5.785min (+0.012) 41.98 ppb m

response 5606

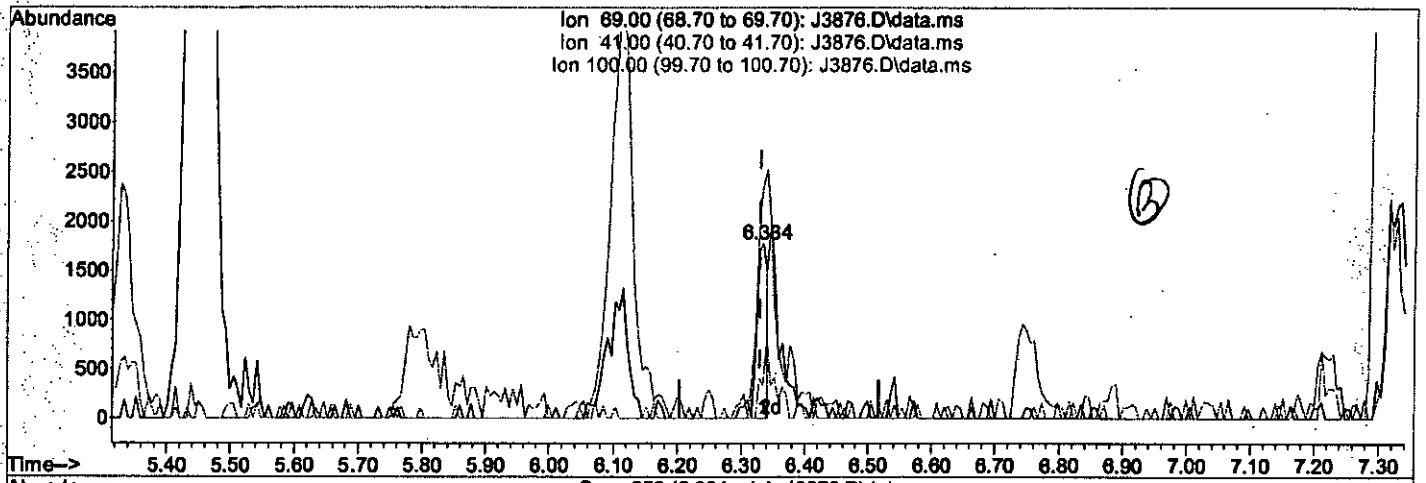
Ion	Exp%	Act%
56.00	100	100
43.00	55.80	49.98
0.00	0.00	0.00
0.00	0.00	0.00

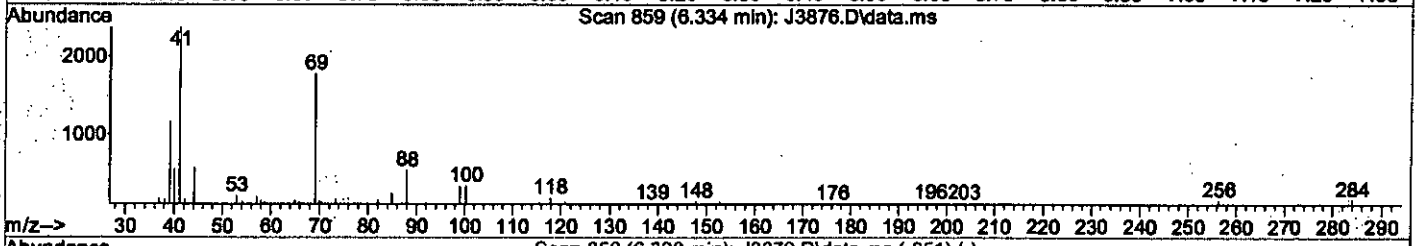
00412

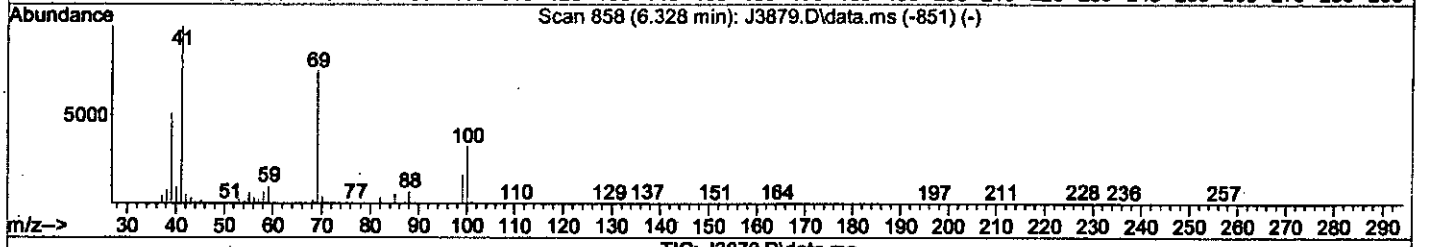
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(59) Methyl Methacrylate

6.334min (+0.006) 0.49 ppb

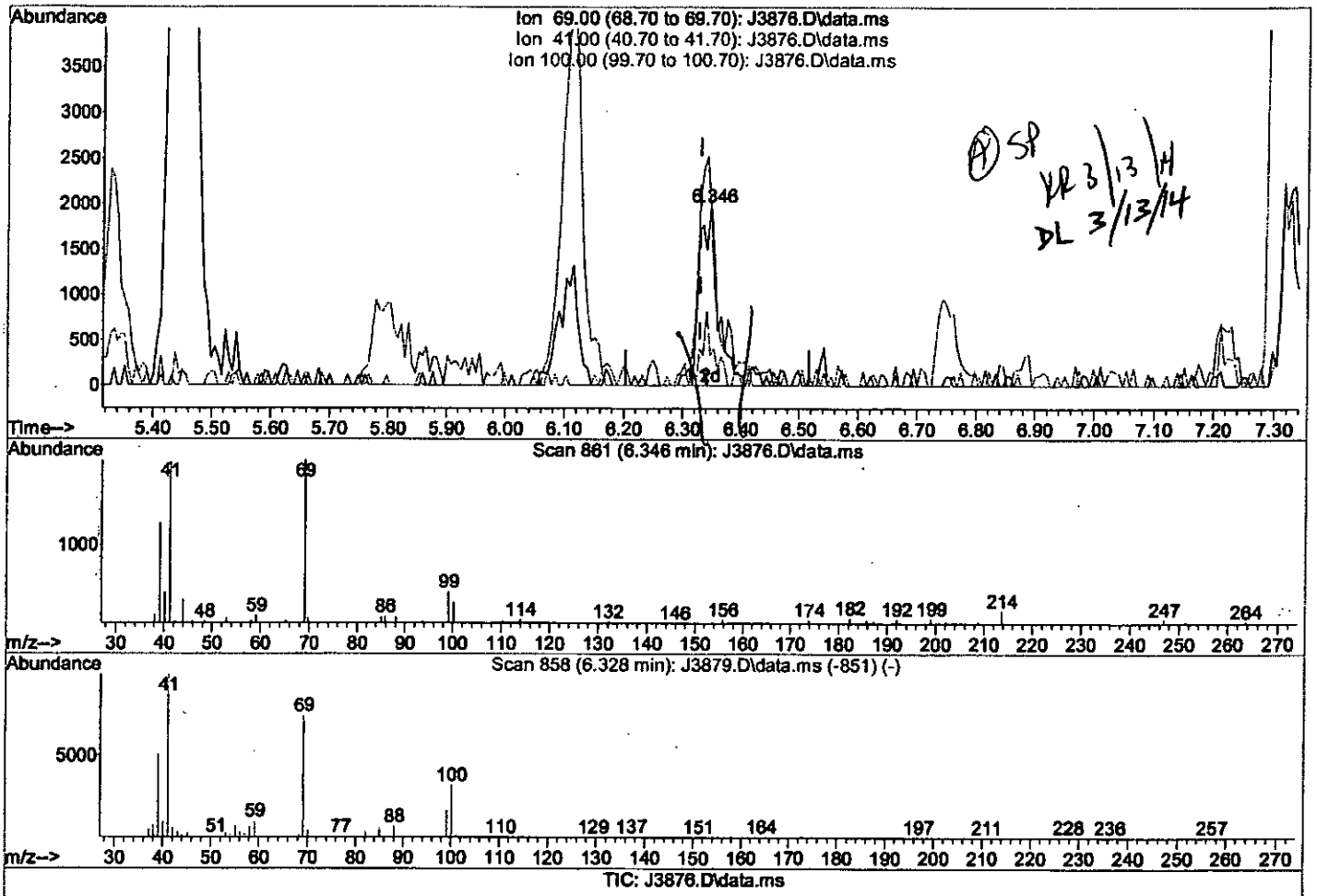
response 2074

Ion	Exp%	Act%
69.00	100	100
41.00	134.40	133.56
100.00	42.90	18.84#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3876.D\data.ms

(59) Methyl Methacrylate

6.346min (+0.018) 1.03 ppb m

response 4351

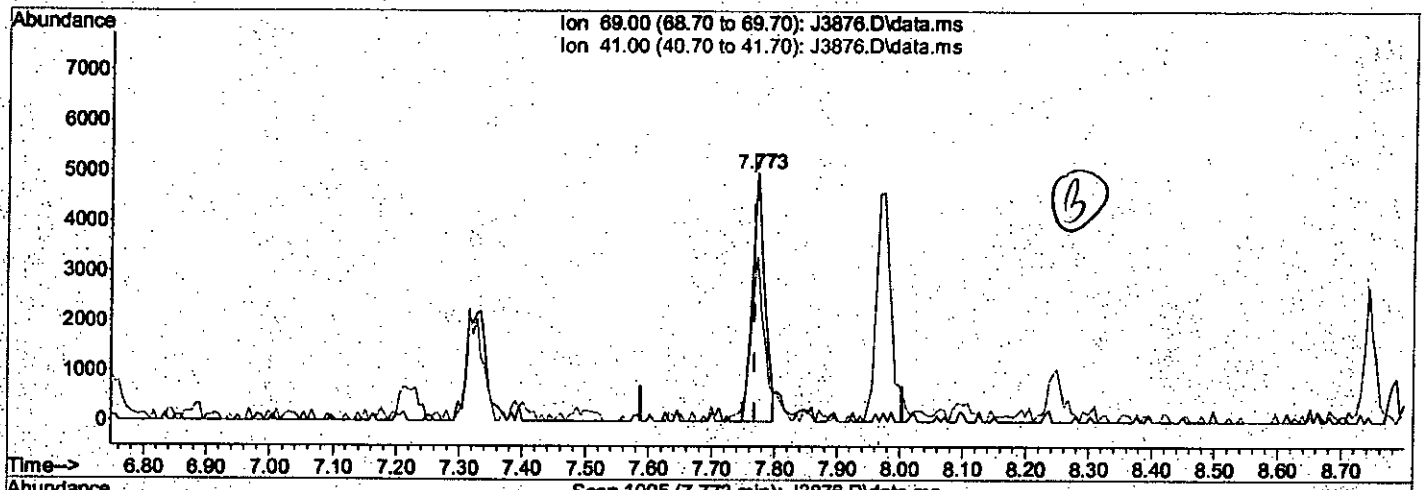
Ion	Exp%	Act%
69.00	100	100
41.00	134.40	98.68#
100.00	42.90	16.94#
0.00	0.00	0.00

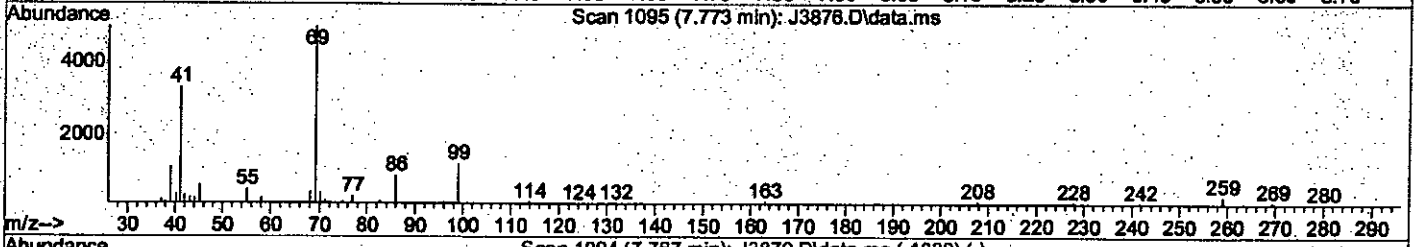
00414

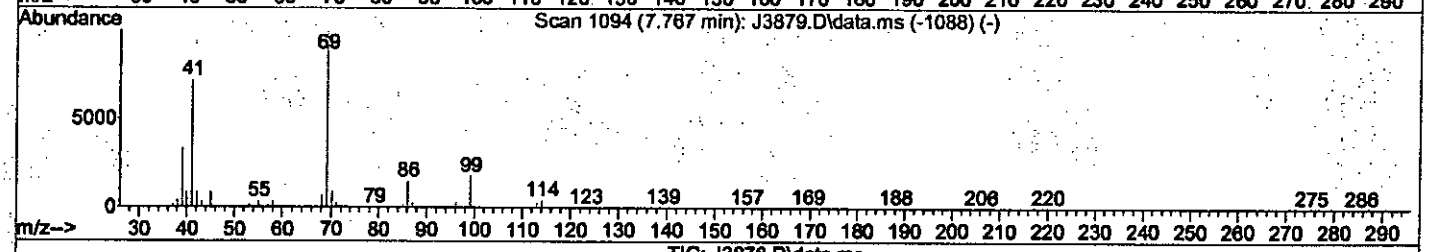
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(68) Ethyl Methacrylate

7.773min (+0.006) 0.84 ppb

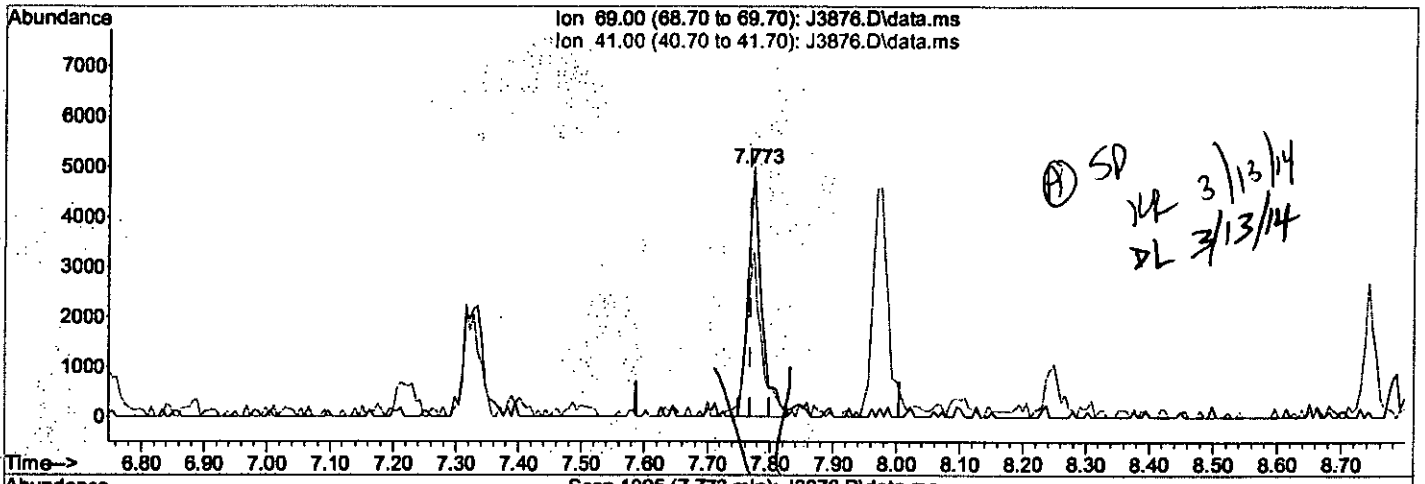
response 6810

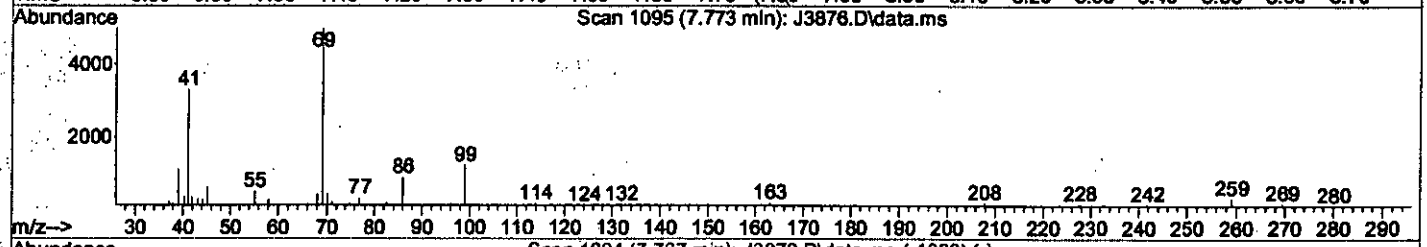
Ion	Exp%	Act%
69.00	100	100
41.00	72.10	66.39
0.00	0.00	0.00
0.00	0.00	0.00

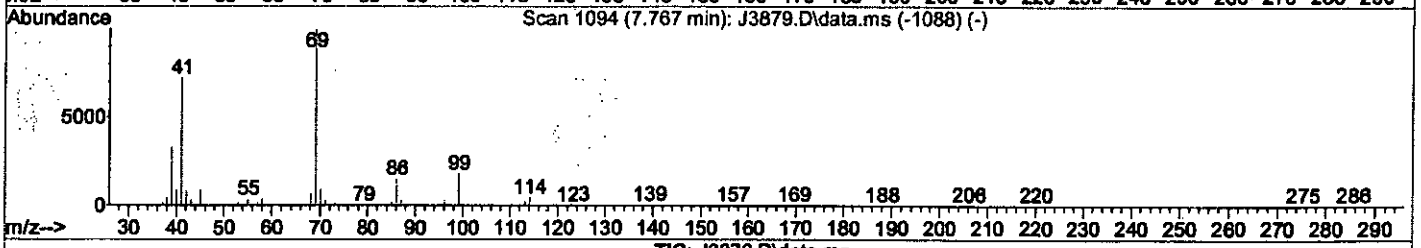
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:40 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3876.D\data.ms

(68) Ethyl Methacrylate

7.773min (+0.008) 0.92 ppb m

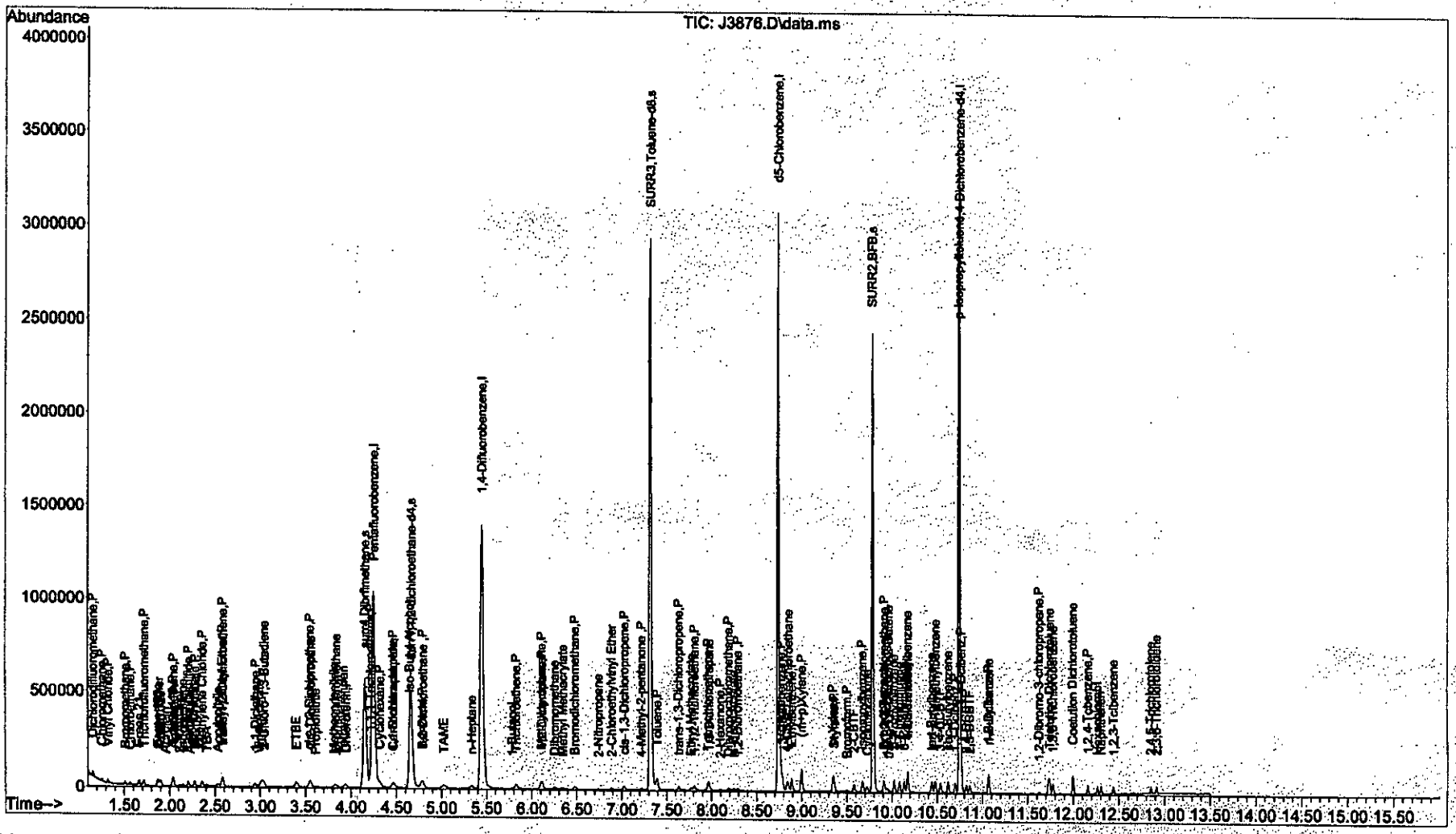
response 7414

Ion	Exp%	Act%
69.00	100	100
41.00	72.10	66.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3876.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:17 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:16:19 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



0041 7

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:28:27 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	909918	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1430134	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1288124	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	610738	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	411288	49.68	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.36%				
48) surr1,1,2-dichloroetha...	4.658	65	473496	50.20	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.40%				
65) SURR3,Toluene-d8	7.322	98	1742443	50.08	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.16%				
70) SURR2,BFB	9.785	95	630193	48.55	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	20735	1.92	ppb		98
3) Chloromethane	1.262	50	19011	2.03	ppb		95
4) Vinyl Chloride	1.323	62	17323	1.99	ppb		99
5) Bromomethane	1.512	94	11249	2.15	ppb		92
6) Chloroethane	1.567	64	11004	2.03	ppb		97
7) Freon 21	1.664	67	27600	2.10	ppb		100
8) Trichlorofluoromethane	1.719	101	26842	2.01	ppb		99
9) Diethyl Ether	1.878	59	13135	2.00	ppb		98
10) Freon 123a	1.872	67	20874	2.13	ppb		96
11) Freon 123	1.902	83	23028	2.06	ppb		97
12) Acrolein	1.957	56	1454m	4.62	ppb		
13) 1,1-Diclethene	2.036	96	13512	2.05	ppb		92
14) Freon 113	2.036	101	14449	2.00	ppb		95
15) Acetone	2.048	43	4756	2.63	ppb	#	65
16) 2-Propanol	2.115	45	9075	30.48	ppb		94
17) Iodomethane	2.146	142	14905	1.70	ppb		93
18) Carbon Disulfide	2.207	76	45666	1.99	ppb		97
19) Acetonitrile	2.225	40	2234	7.57	ppb		96
20) Allyl Chloride	2.274	76	8927	1.97	ppb	#	88
21) Methyl Acetate	2.280	43	7554	1.86	ppb		94
22) Methylene Chloride	2.359	84	17720	2.05	ppb		92
23) TBA	2.408	59	18160	35.99	ppb		100
24) Acrylonitrile	2.524	53	18242	9.02	ppb		94
25) Methyl-t-Butyl Ether	2.585	73	41163	1.96	ppb		95
26) trans-1,2-Dichloroethene	2.585	96	16136	1.95	ppb		99
28) 1,1-Diclethane	2.938	63	31309	2.03	ppb		93
29) Vinyl Acetate	2.987	86	2521	1.84	ppb	#	27
30) DIPE	3.012	45	59555	1.99	ppb		87
31) 2-Chloro-1,3-Butadiene	3.042	53	26608	2.01	ppb		92
32) ETBE	3.396	59	48108	1.92	ppb		99
33) 2,2-Dichloropropane	3.560	77	23375	1.91	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	17604	1.91	ppb		85
35) 2-Butanone	3.566	43	4922	1.95	ppb		85
36) Propionitrile	3.597	54	6574	9.27	ppb		90
37) Bromochloromethane	3.835	130	10569	2.05	ppb		90

KR 3/13/14

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:28:27 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.804	67	5081	2.16	ppb	#	58
39) Tetrahydrofuran	3.914	42	3686	2.08	ppb		80
40) Chloroform	3.938	83	30998	2.05	ppb		98
41) 1,1,1-Trichloroethane	4.219	97	25573	1.98	ppb	#	1
42) TAME	5.023	73	41178	1.94	ppb		98
44) Cyclohexane	4.316	41	15916m	2.06	ppb		
46) Carbontetrachloride	4.469	121	6643m	1.94	ppb		
47) 1,1-Dichloropropene	4.462	75	19919	1.90	ppb		95
49) Benzene	4.786	78	70084	1.99	ppb		91
50) 1,2-Dichloroethane	4.792	62	21052	1.97	ppb		90
51) Iso-Butyl Alcohol	4.645	43	8755m	36.97	ppb		
52) n-Heptane	5.334	43	17849	2.03	ppb		94
53) 1-Butanol	5.779	56	10476m	78.36	ppb		
54) Trichloroethene	5.834	130	17521	2.05	ppb		84
55) Methylcyclohexane	6.108	55	18955	2.07	ppb		86
56) 1,2-Diclpropane	6.115	63	18552	2.04	ppb		98
57) Dibromomethane	6.255	93	8051	1.88	ppb		94
58) 1,4-Dioxane	6.328	88	2071m	36.08	ppb		
59) Methyl Methacrylate	6.340	69	6901	1.63	ppb		90
60) Bromodichloromethane	6.480	83	20138	1.91	ppb		95
61) 2-Nitropropane	6.743	41	4286m	3.79	ppb		
62) 2-Chloroethylvinyl Ether	6.889	63	7503	1.86	ppb		88
63) cis-1,3-Dichloropropene	7.023	75	22401	1.80	ppb		94
64) 4-Methyl-2-pentanone	7.212	43	10071	1.85	ppb		89
66) Toluene	7.395	91	74992	2.07	ppb		97
67) trans-1,3-Dichloropropene	7.633	75	17986	1.79	ppb		96
68) Ethyl Methacrylate	7.767	69	13634	1.68	ppb		94
69) 1,1,2-Trichloroethane	7.809	97	11464	1.81	ppb		99
72) Tetrachloroethene	7.962	164	13515	2.03	ppb		96
73) 2-Hexanone	8.090	43	6463	1.77	ppb	#	74
74) 1,3-Dichloropropane	7.974	76	22806	1.97	ppb		93
75) Dibromochloromethane	8.193	129	12460	1.87	ppb		99
76) N-Butyl Acetate	8.242	43	15842	1.76	ppb		98
77) 1,2-Dibromoethane	8.291	107	11853	1.99	ppb		91
78) Chlorobenzene	8.767	112	45758	2.04	ppb		100
79) 3-CBTF	8.785	180	20314	1.83	ppb		98
80) 4-CBTF	8.840	180	17849	1.80	ppb		91
81) 1,1,1,2-Tetrachloroethane	8.852	131	14723	1.87	ppb		92
82) Ethylbenzene	8.888	106	22933	1.92	ppb		91
83) (m+p)Xylene	8.998	106	55419	3.95	ppb		96
84) o-Xylene	9.346	106	26979	1.88	ppb		97
85) Styrene	9.358	104	41678	1.82	ppb		92
87) Bromoform	9.492	173	5562	1.60	ppb		83
88) 2-CBTF	9.577	180	20255	1.99	ppb		98
89) Isopropylbenzene	9.675	105	64407	2.04	ppb		98
90) Cyclohexanone	9.718	55	17665	36.07	ppb		96
91) trans-1,4-Dichloro-2-B...	9.967	53	3112	1.89	ppb		94
92) 1,1,2,2-Tetrachloroethane	9.913	83	13476	1.93	ppb		95
93) Bromobenzene	9.913	156	18829	2.10	ppb	#	77
94) 1,2,3-Trichloropropane	9.943	110	4408	2.11	ppb	#	80
95) n-Propylbenzene	10.022	91	78055	2.12	ppb		95
96) 2-Chlorotoluene	10.083	91	48755	2.10	ppb		98

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:28:27 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

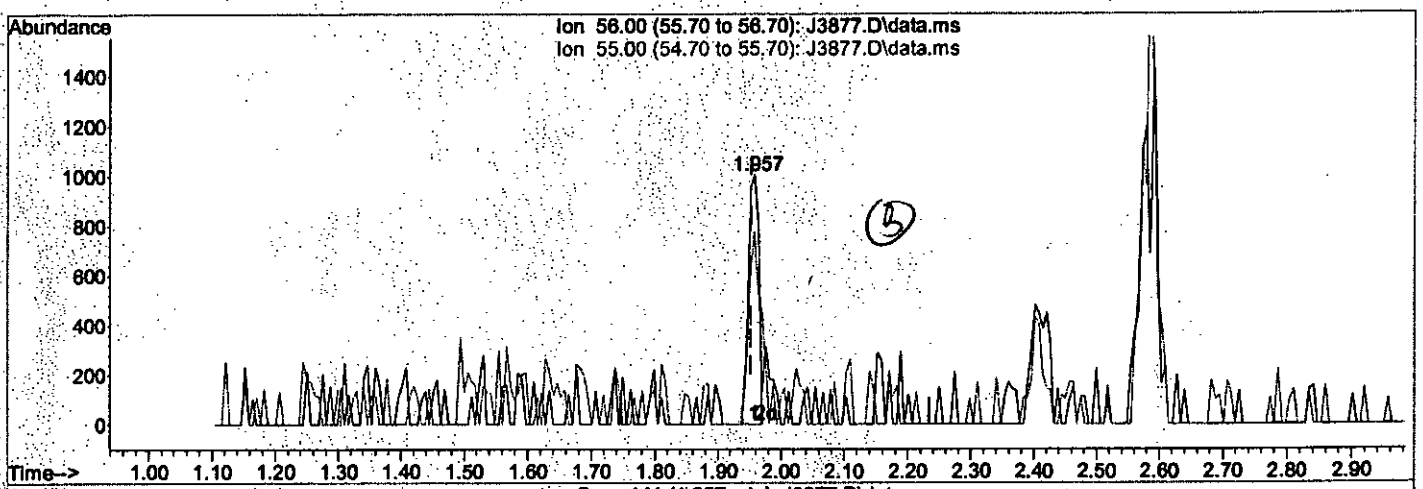
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	48185	2.00	ppb		97
98)	4-Chlorotoluene	10.175	91	57852	2.12	ppb		96
99)	1,3,5-Trimethylbenzene	10.169	105	51100	1.99	ppb		94
100)	tert-Butylbenzene	10.437	119	44524	2.06	ppb		97
101)	1,2,4-Trimethylbenzene	10.480	105	52516	1.98	ppb		100
102)	3,4-DCBTF	10.534	214	14555	1.93	ppb		96
103)	sec-Butylbenzene	10.620	105	62384	2.07	ppb		98
104)	p-Isopropyltoluene	10.742	119	50277	1.97	ppb		97
105)	1,3-Dclbenz	10.699	146	29567	1.93	ppb		95
106)	1,4-Dclbenz	10.766	146	31312	1.92	ppb		90
107)	2,4-DCBTF	10.821	214	12420	1.90	ppb	#	88
108)	2,5-DCBTF	10.864	214	14748	1.97	ppb		98
109)	n-Butylbenzene	11.065	91	47827	2.08	ppb		93
110)	1,2-Dclbenz	11.065	146	28414	1.93	ppb		99
111)	1,2-Dibromo-3-chloropr...	11.626	157	1695	1.58	ppb	#	67
112)	Trielution Dichlorotol...	11.729	125	67672	5.81	ppb		97
113)	1,3,5 Trichlorobenzene	11.778	180	20663	2.03	ppb		97
114)	Coelution Dichlorotoluene	11.998	125	50516	4.10	ppb		96
115)	1,2,4-Tcbenzene	12.162	180	17573	1.95	ppb		95
116)	Hexachlorobt	12.266	225	7725	1.97	ppb		97
117)	Naphthalen	12.302	128	31525	1.94	ppb		99
118)	1,2,3-Tclbenzene	12.437	180	14777	2.00	ppb		97
119)	2,4,5-Trichlorotolene	12.851	159	9636m	1.98	ppb		
120)	2,3,6-Trichlorotoluene	12.912	159	8342	1.88	ppb		97

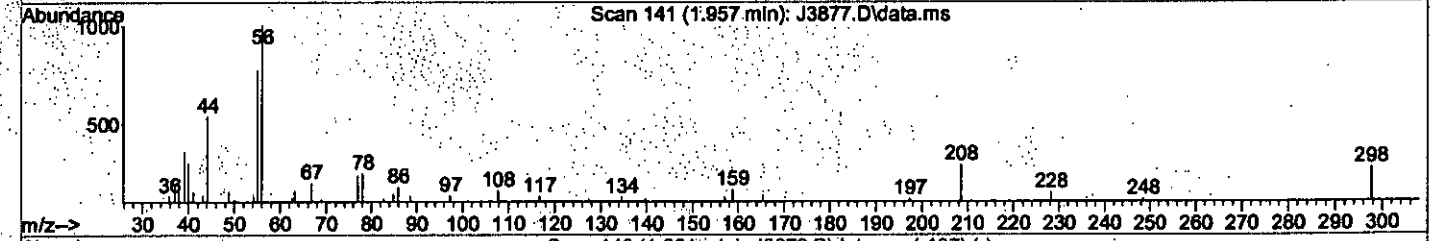
(#) = qualifier out of range (m) = manual integration (+) = signals summed

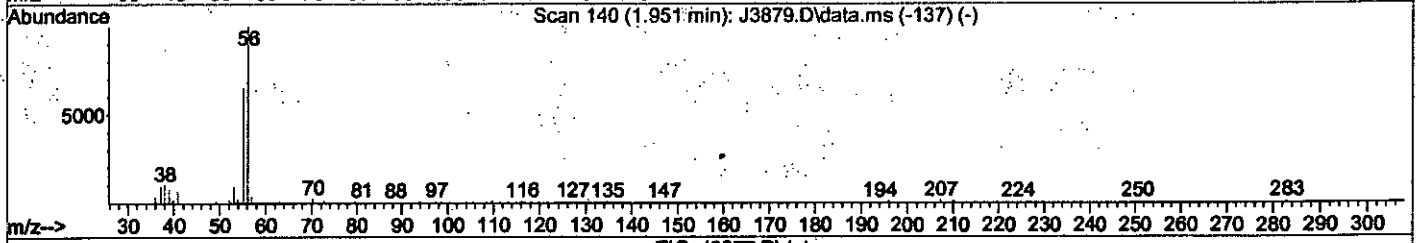
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(12) Acrolein

1.957min (+0.006) 3.70 ppb

response 1163

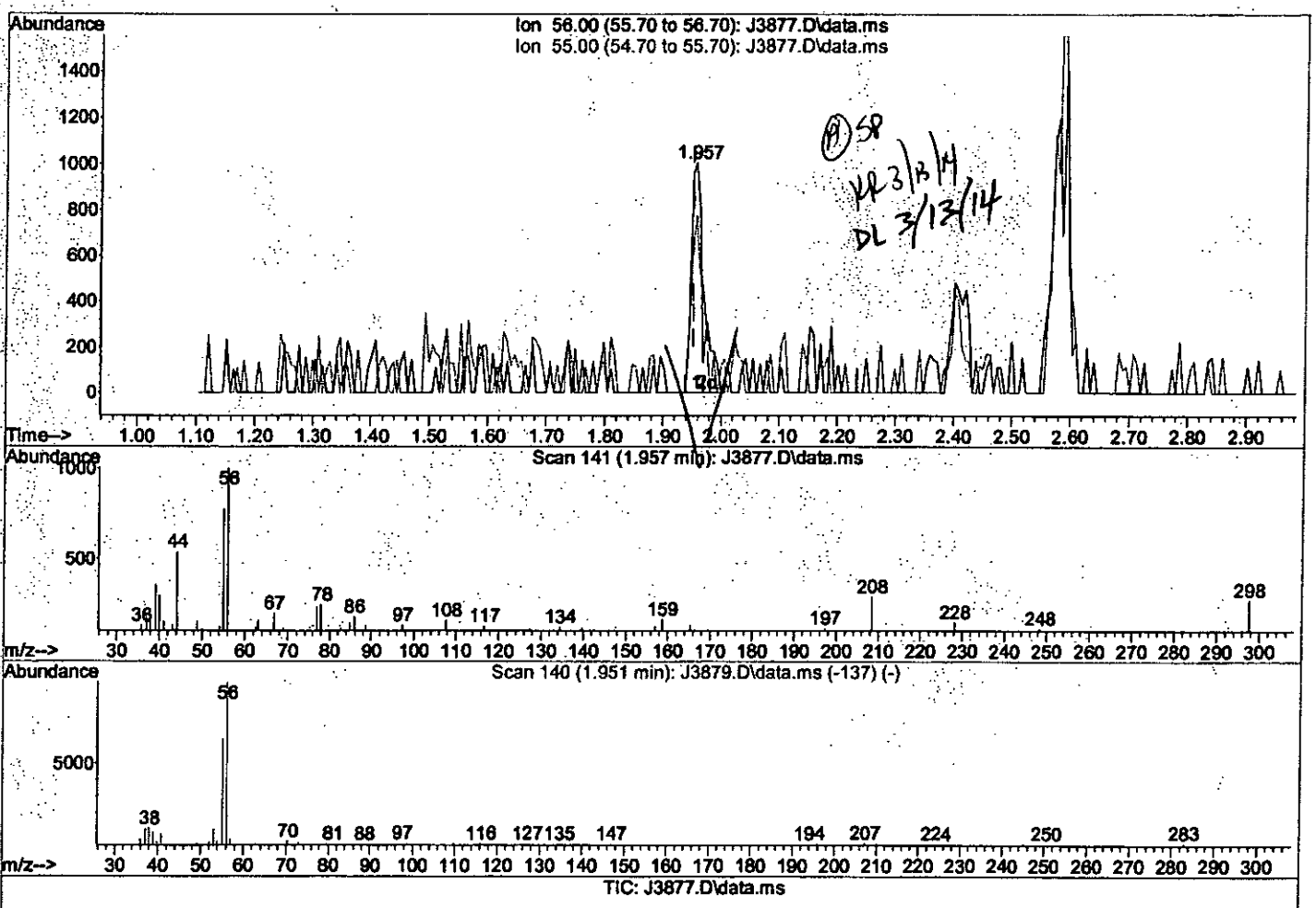
Ion	Exp%	Act%
56.00	100	100
55.00	66.20	77.47
0.00	0.00	0.00
0.00	0.00	0.00

00421

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(12) Acrolein

1.957min (+0.006) 4.82 ppb m

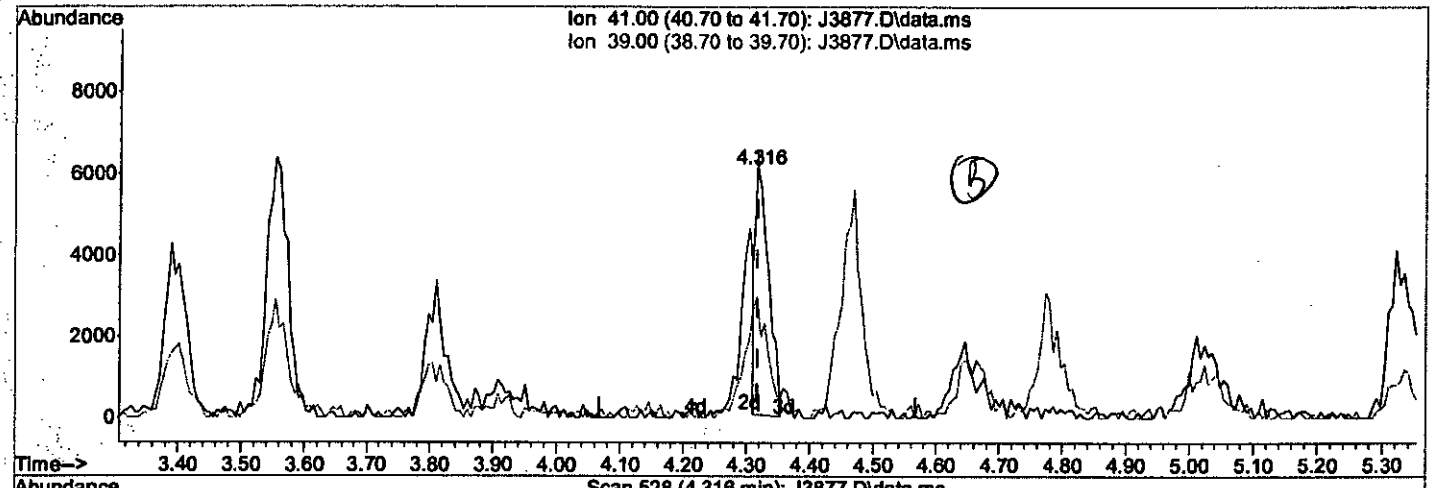
response 1454

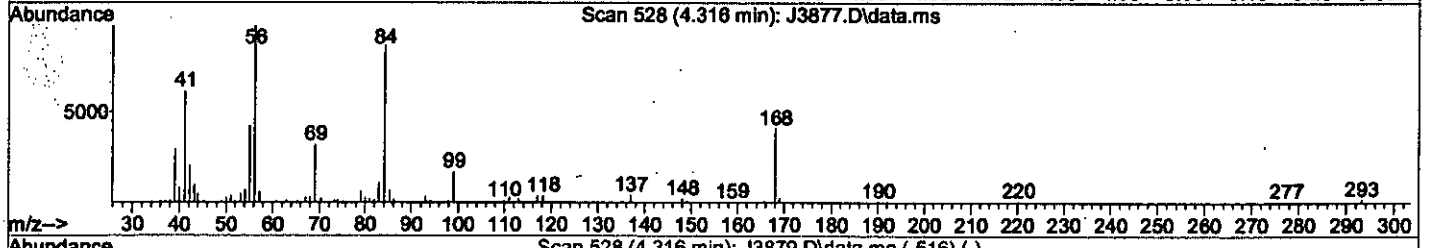
Ion	Exp%	Act%
56.00	100	100
55.00	66.20	77.47
0.00	0.00	0.00
0.00	0.00	0.00

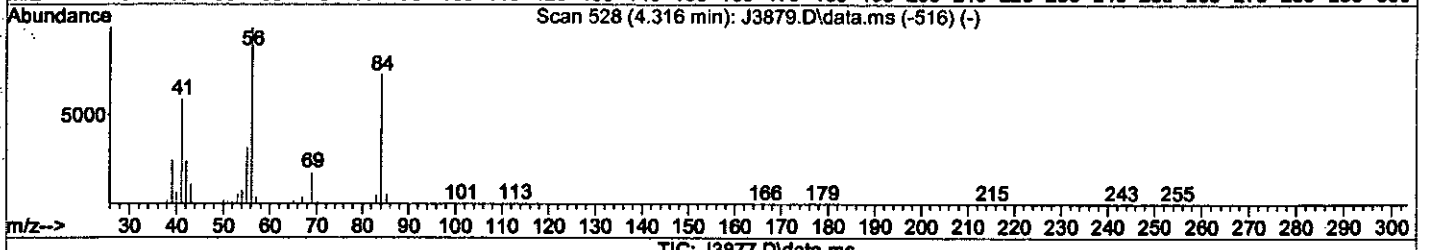
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(44) Cyclohexane (P)

4.316min (-0.000) 1.12 ppb

response 8699

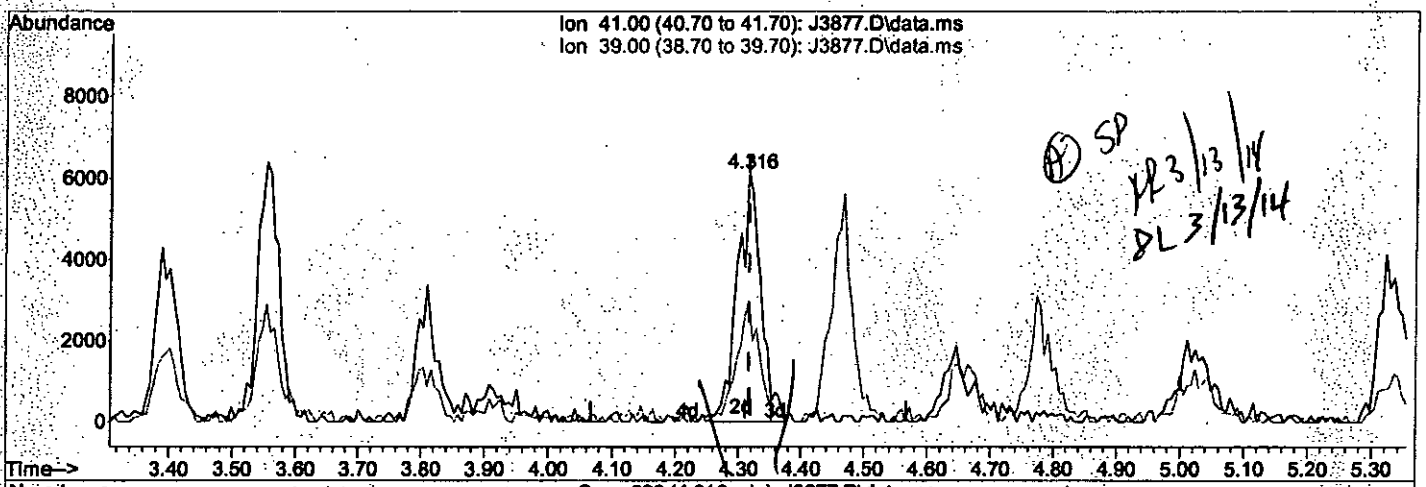
Ion	Exp%	Act%
41.00	100	100
39.00	41.90	48.62
0.00	0.00	0.00
0.00	0.00	0.00

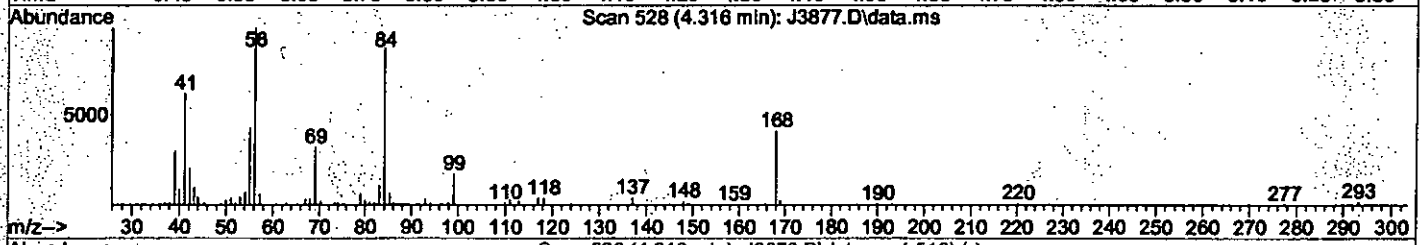
00423

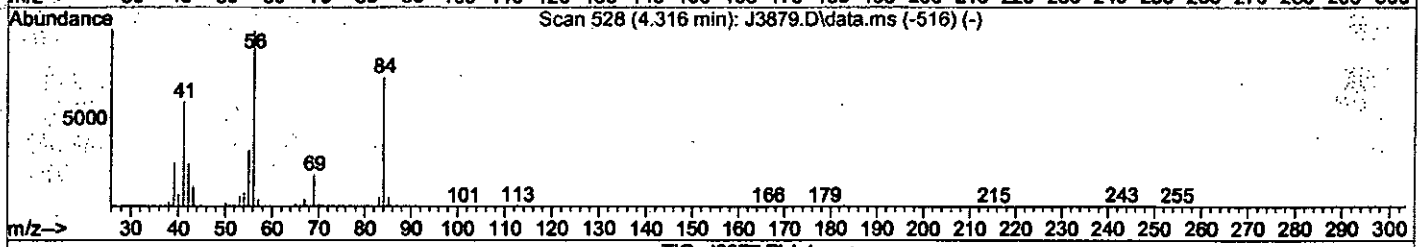
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(44) Cyclohexane (P)

4.316min (-0.000) 2.06 ppb m

response 15916

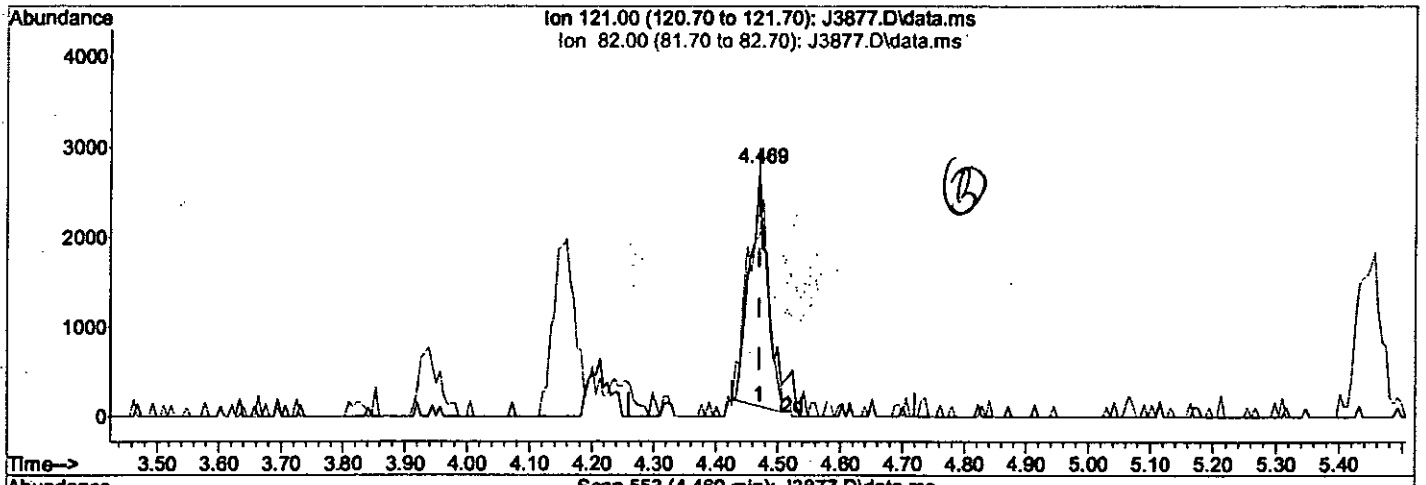
Ion	Exp%	Act%
41.00	100	100
39.00	41.90	48.62
0.00	0.00	0.00
0.00	0.00	0.00

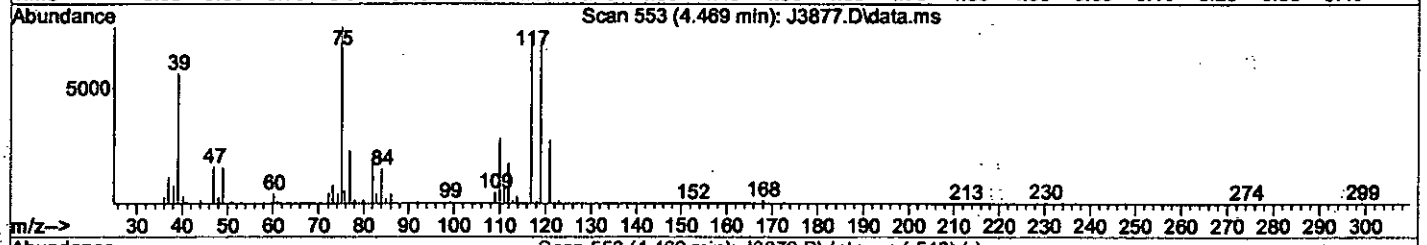
00424

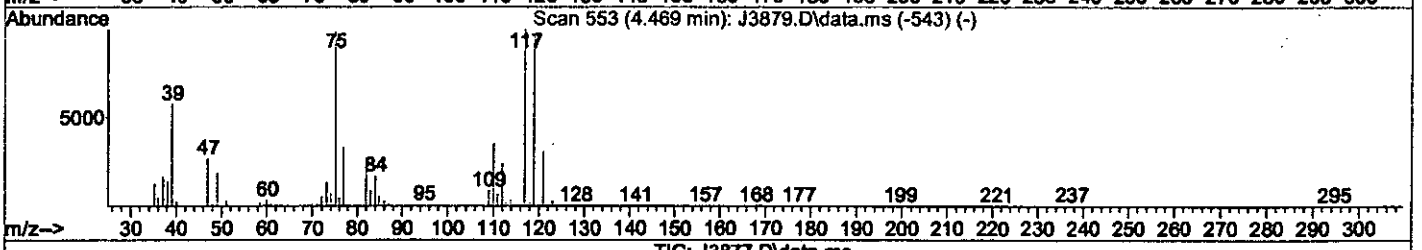
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(46) Carbontetrachloride (P)

4.469min (-0.000) 1.57 ppb

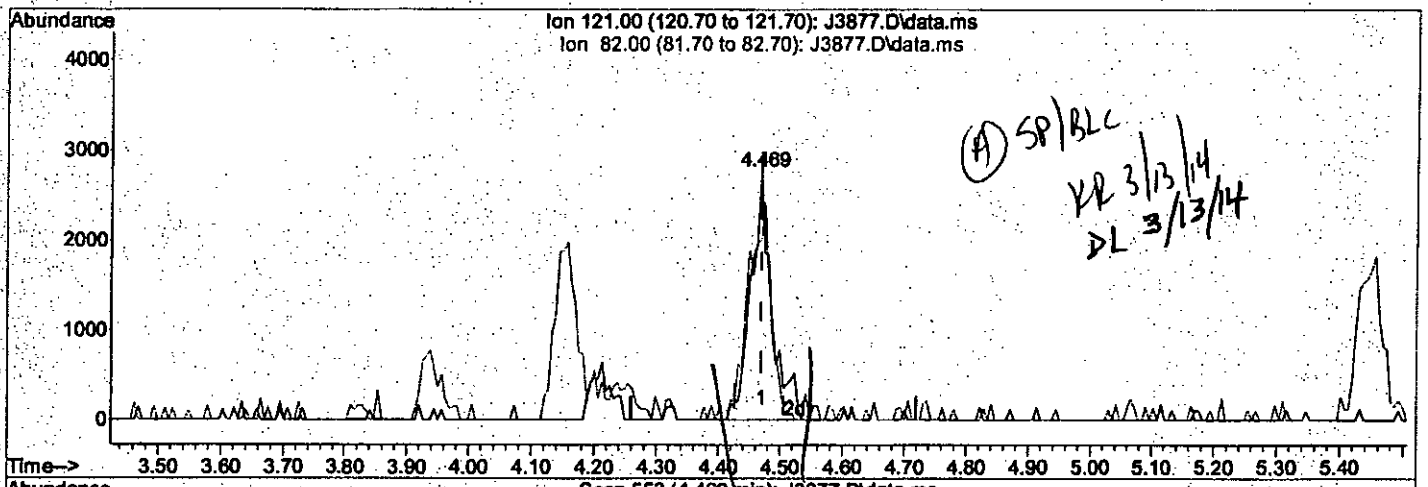
response 5374

Ion	Exp%	Act%
121.00	100	100
82.00	67.50	72.27
0.00	0.00	0.00
0.00	0.00	0.00

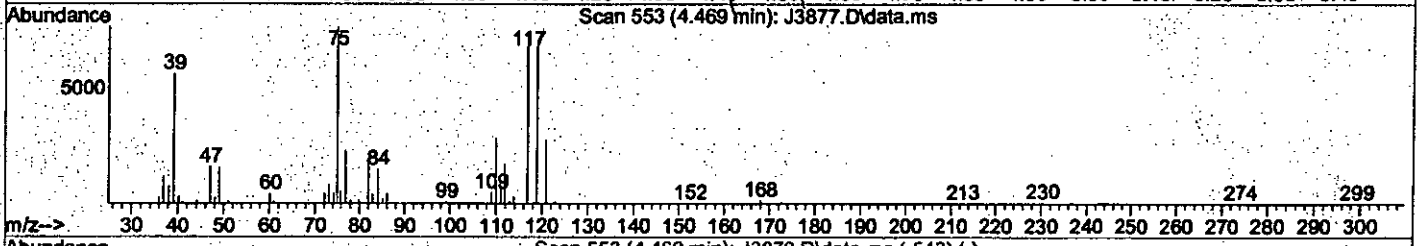
Quantitation Report (Qedit)

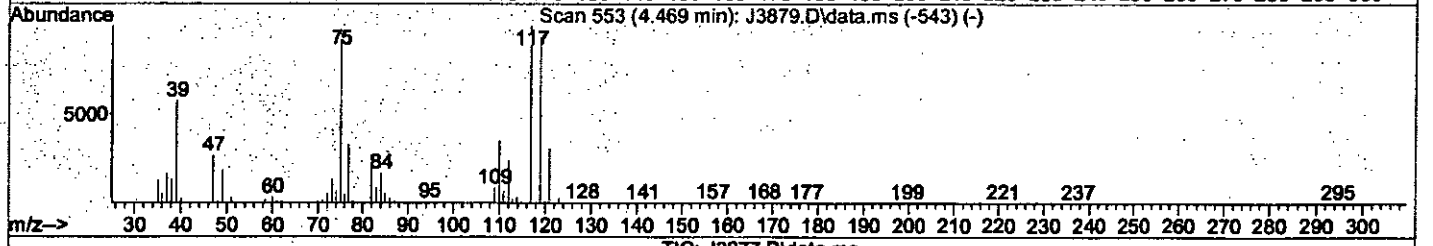
Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



(A) SP/BLC KR 3/13/14 DL 3/13/14





TIC: J3877.D\data.ms

(46) Carbontetrachloride (P)

4.469min (-0.000) 1.94 ppb m

response 6643

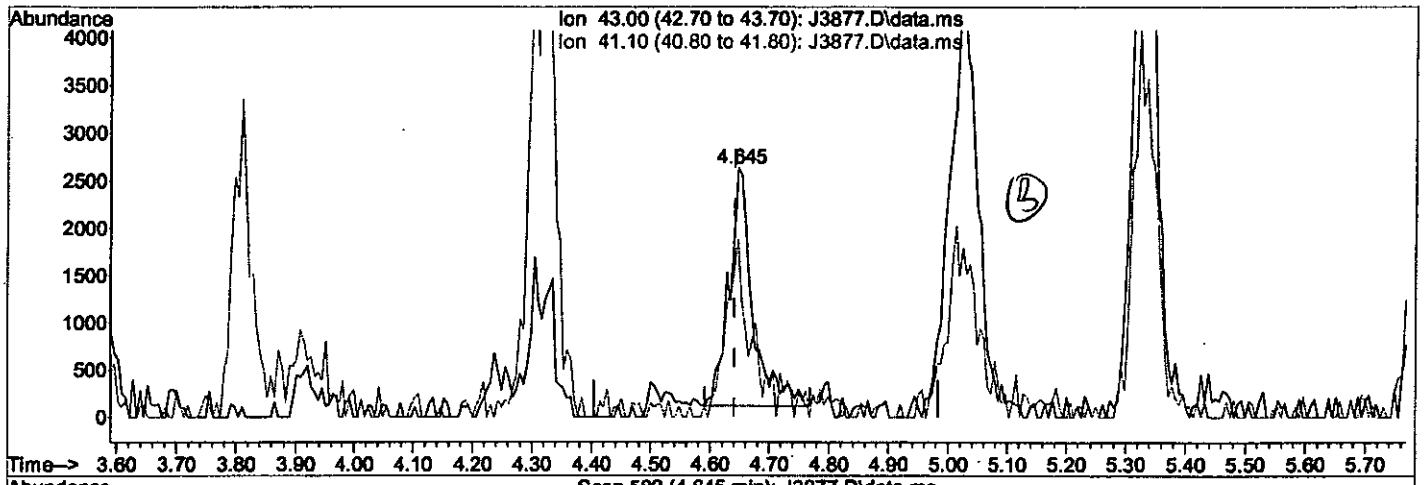
Ion	Exp%	Act%
121.00	100	100
82.00	87.50	72.27
0.00	0.00	0.00
0.00	0.00	0.00

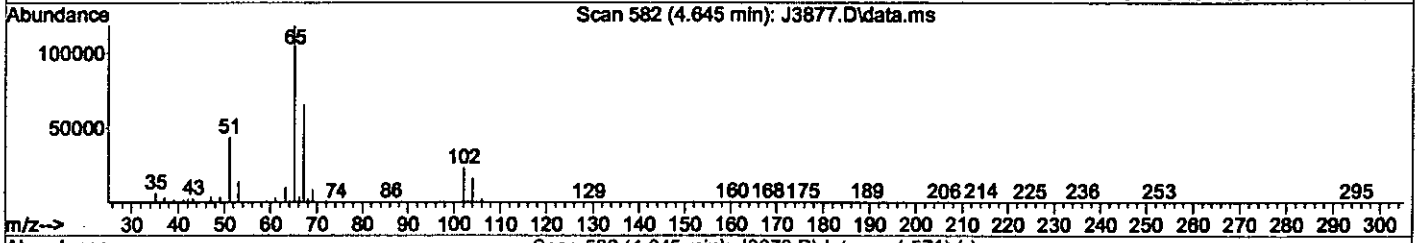
00426

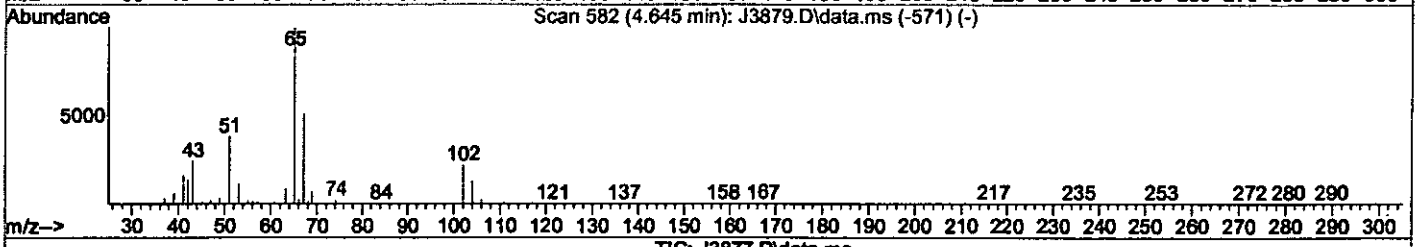
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(51) Iso-Butyl Alcohol

4.645min (+0.006) 29.57 ppb

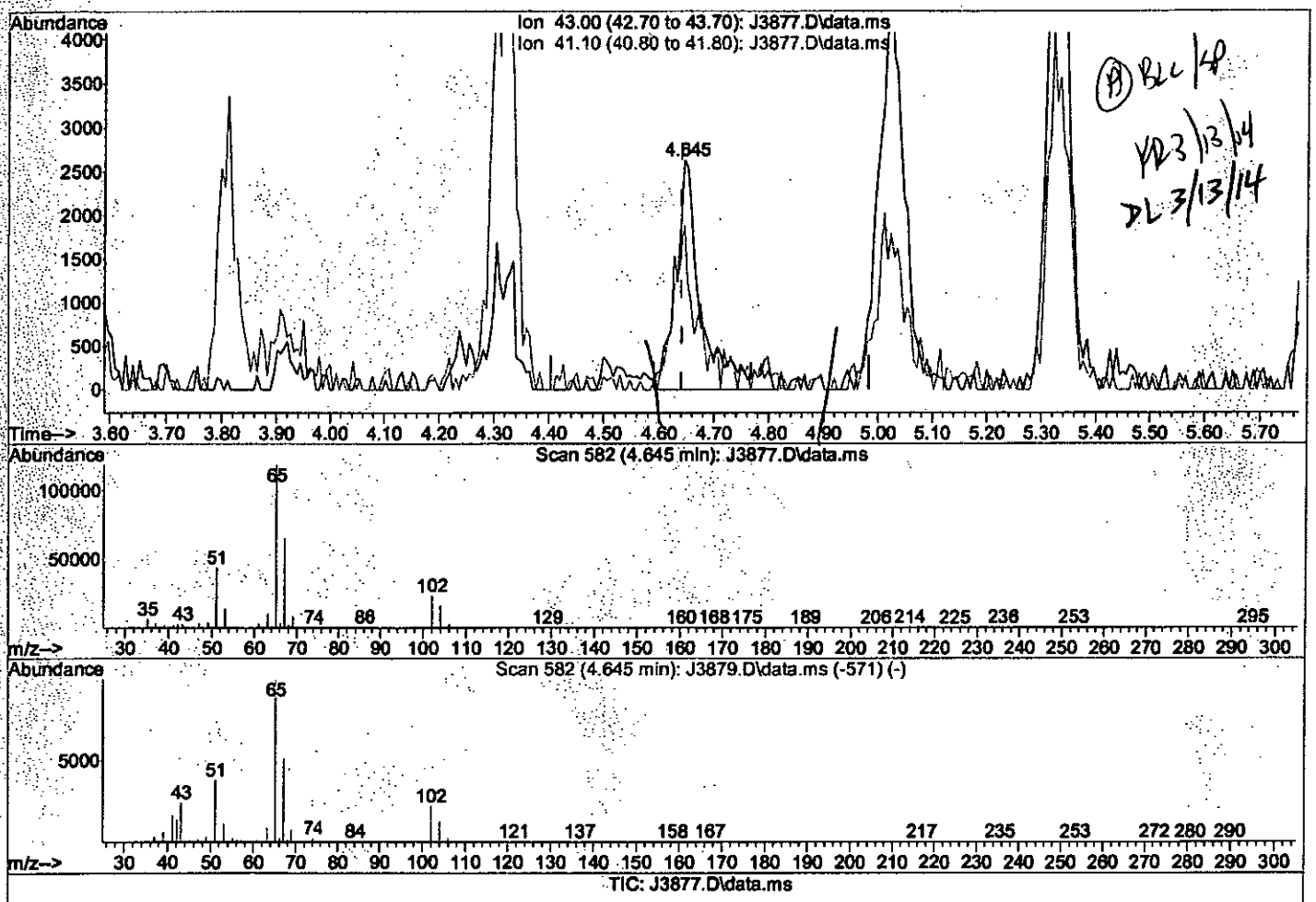
response 7003

Ion	Exp%	Act%
43.00	100	100
41.10	68.40	71.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(51) Iso-Butyl Alcohol

4.645min (+0.006) 36.97 ppb m

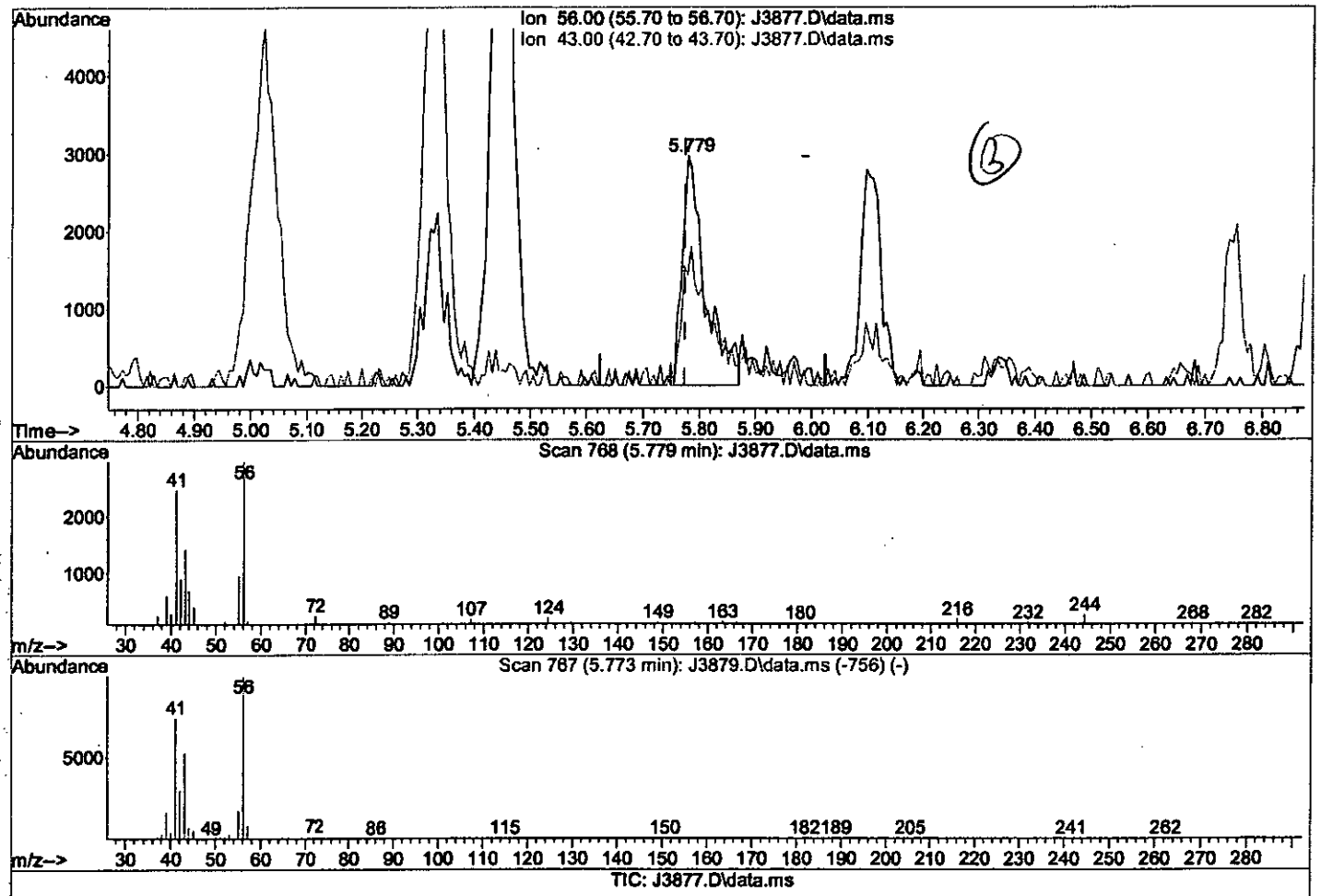
response 8755

Ion	Exp%	Act%
43.00	100	100
41.10	68.40	71.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(53) 1-Butanol

5.779min (+0.006) 63.08 ppb

response 8433

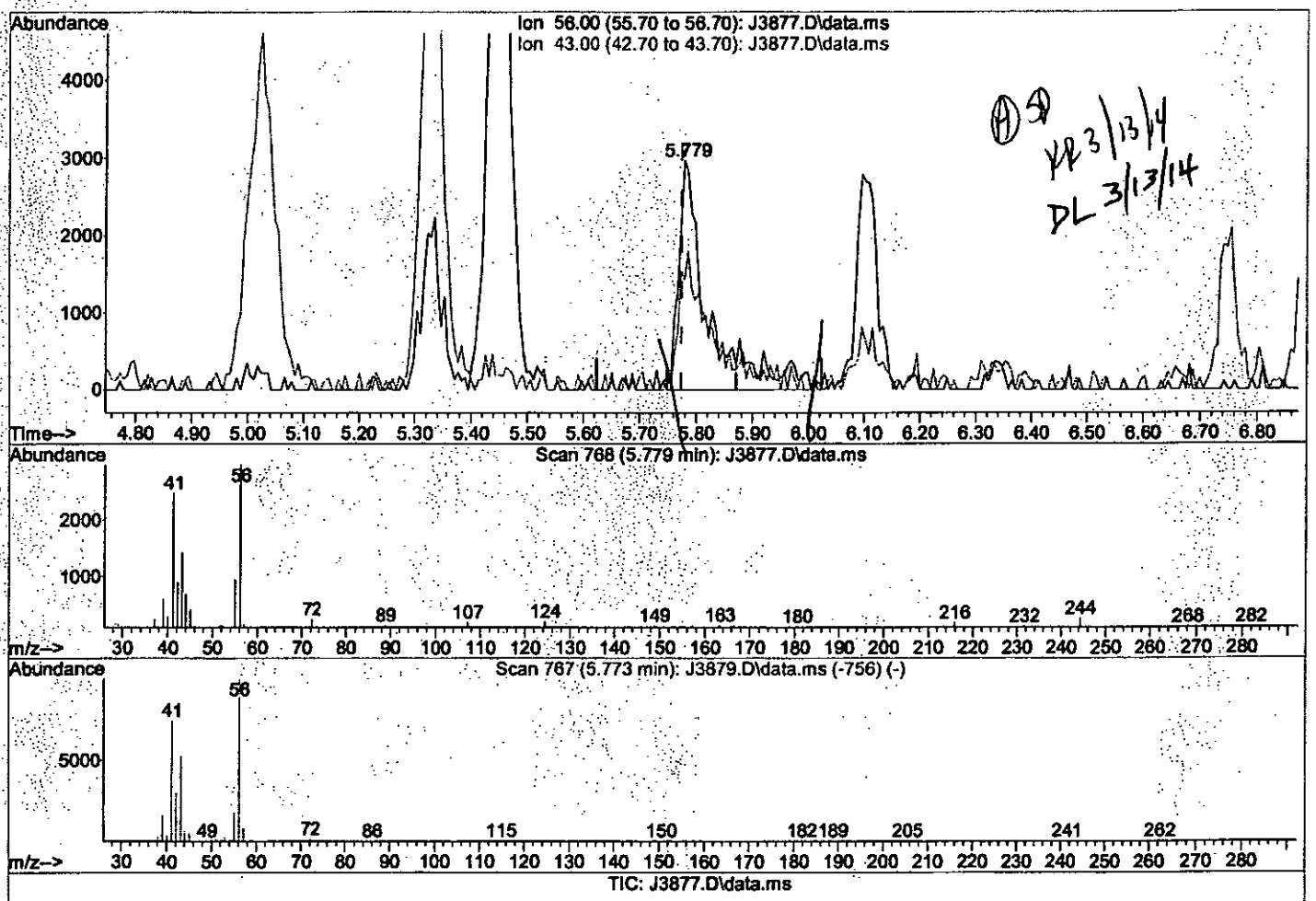
Ion	Exp%	Act%
56.00	100	100
43.00	55.80	71.53
0.00	0.00	0.00
0.00	0.00	0.00

00429

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(53) 1-Butanol

5.779min (+0.006) 78.36 ppb m

response 10476

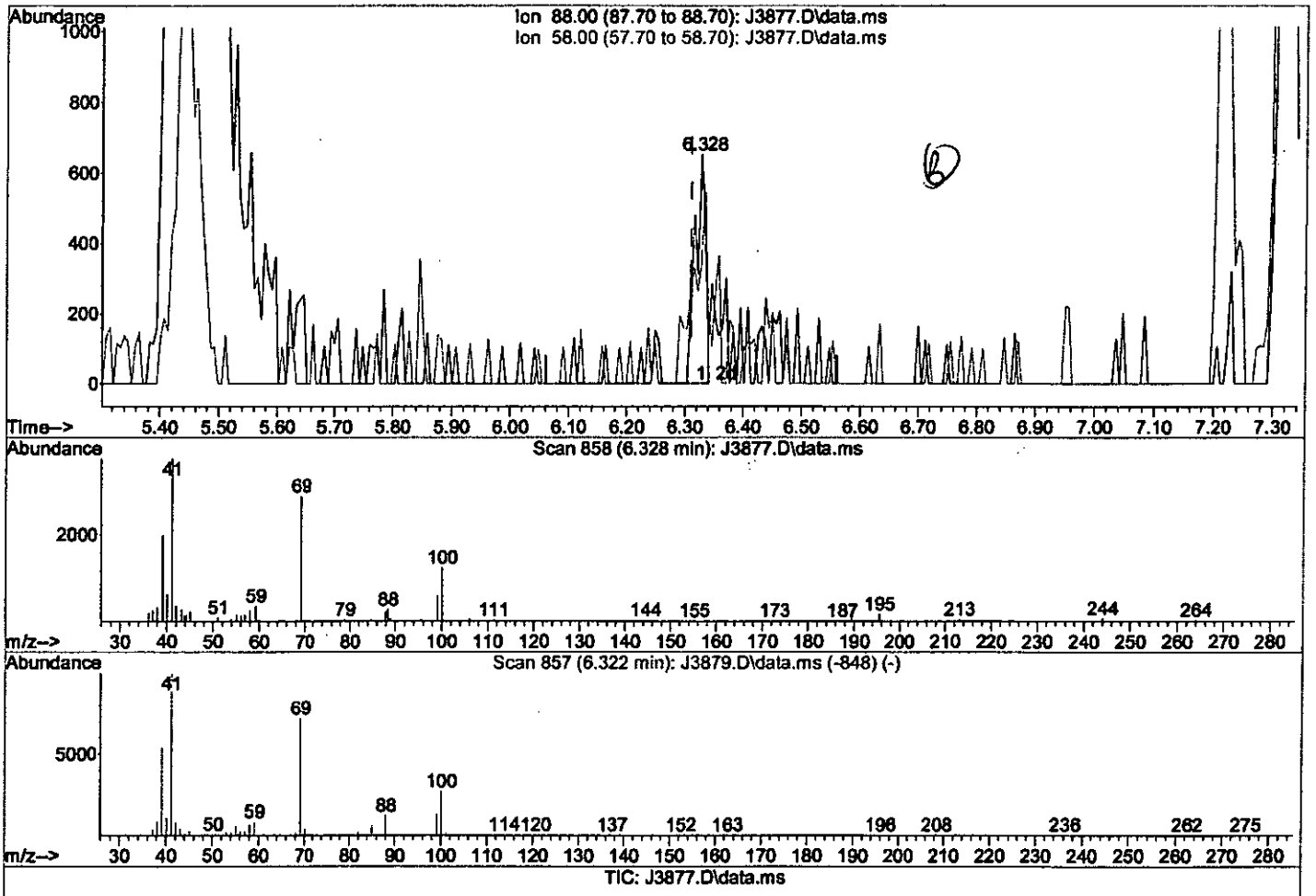
Ion	Exp%	Act%
56.00	100	100
43.00	55.80	57.58
0.00	0.00	0.00
0.00	0.00	0.00

00430

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(58) 1,4-Dioxane

6.328min (+0.018) 14.23 ppb

response 817

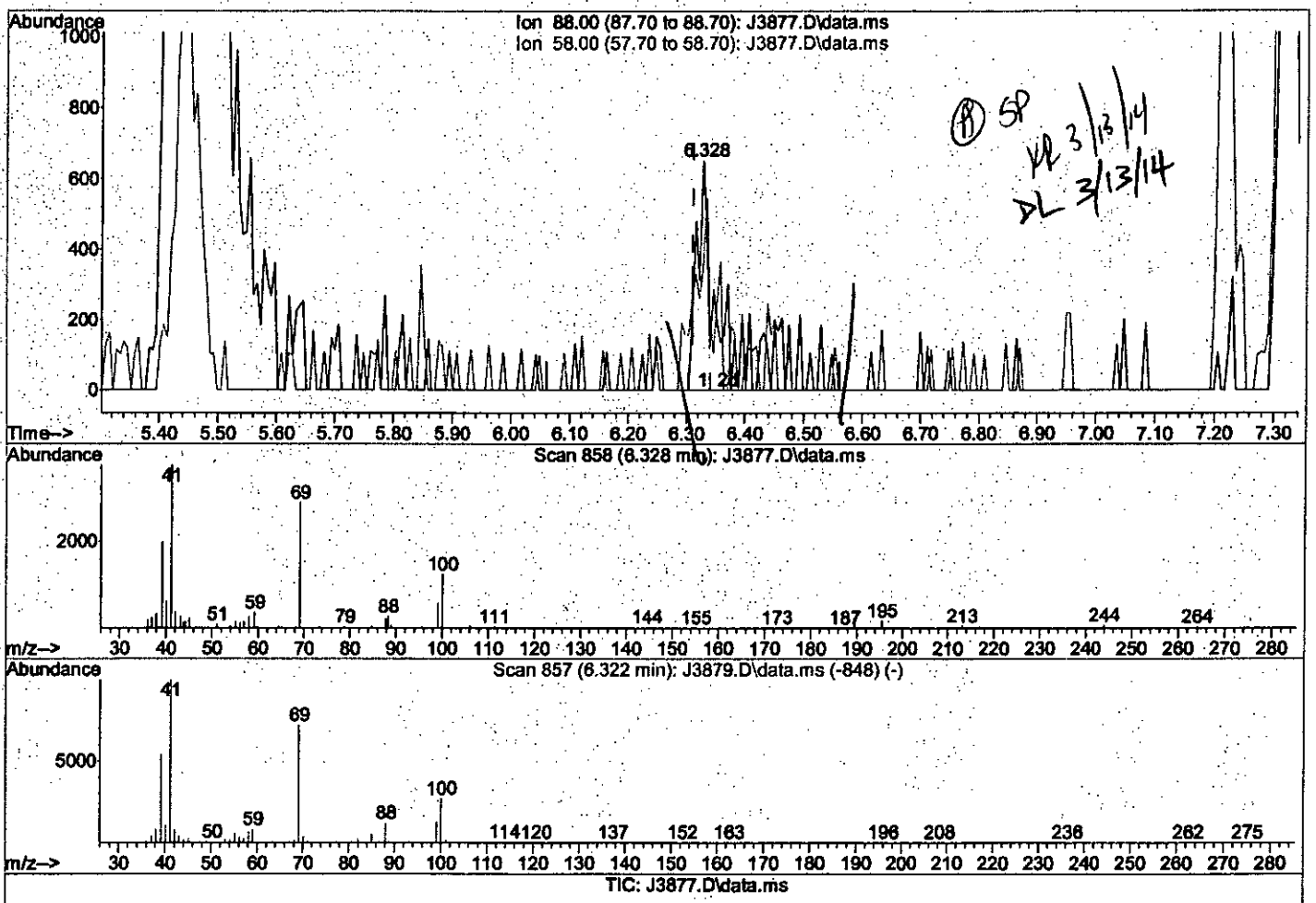
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	51.84
0.00	0.00	0.00
0.00	0.00	0.00

00431

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(58) 1,4-Dioxane

6.328min (+0.018) 36.08 ppb m

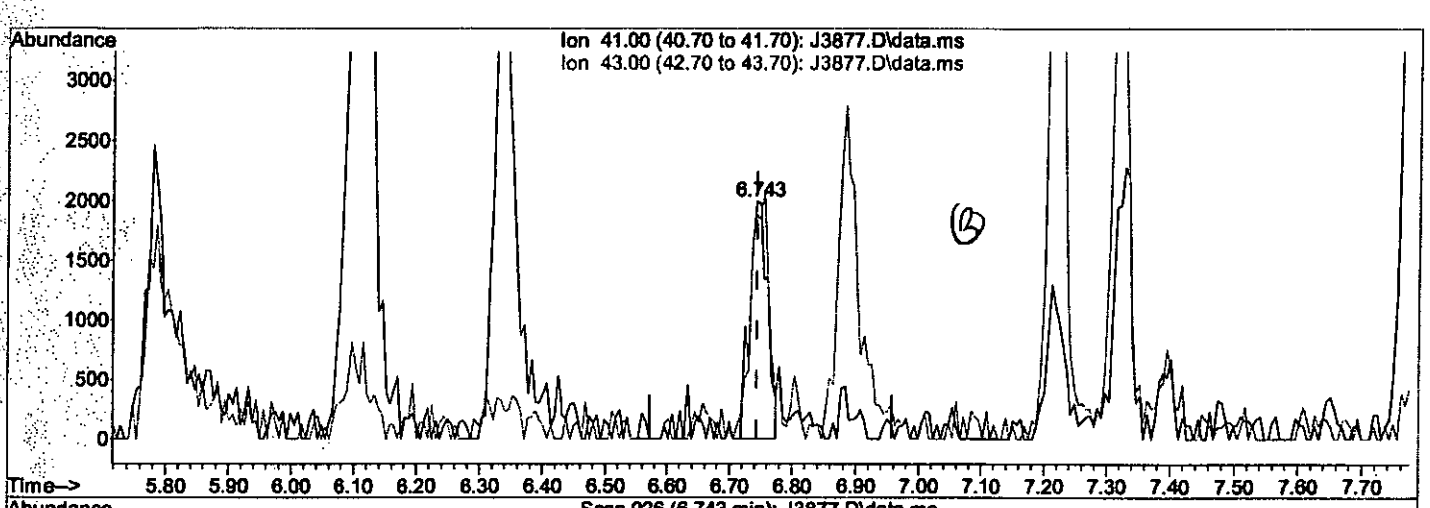
response 2071

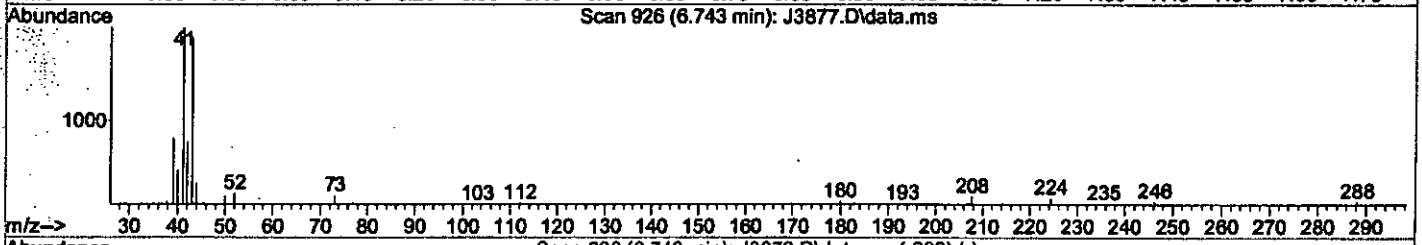
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	96.57#
0.00	0.00	0.00
0.00	0.00	0.00

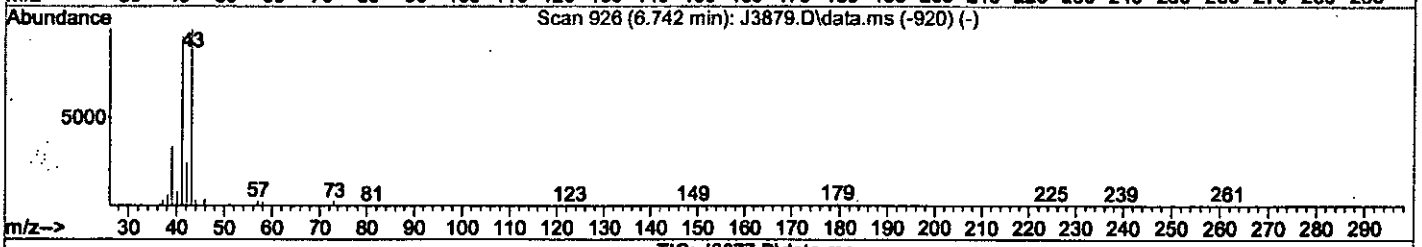
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(81) 2-Nitropropane

6.743min (-0.000) 3.49 ppb

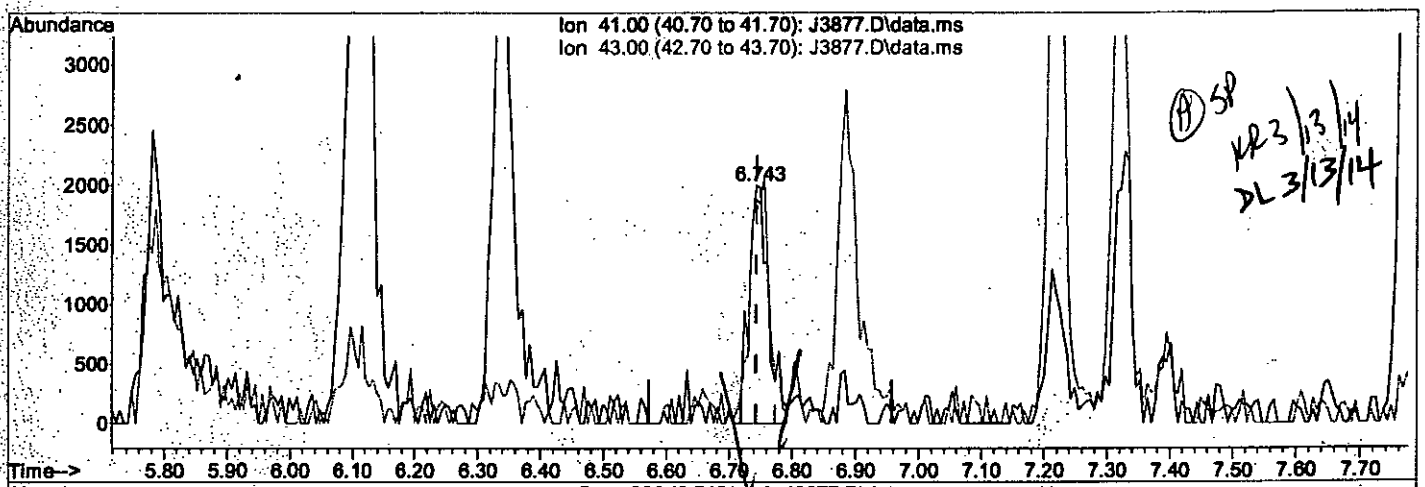
response 3948

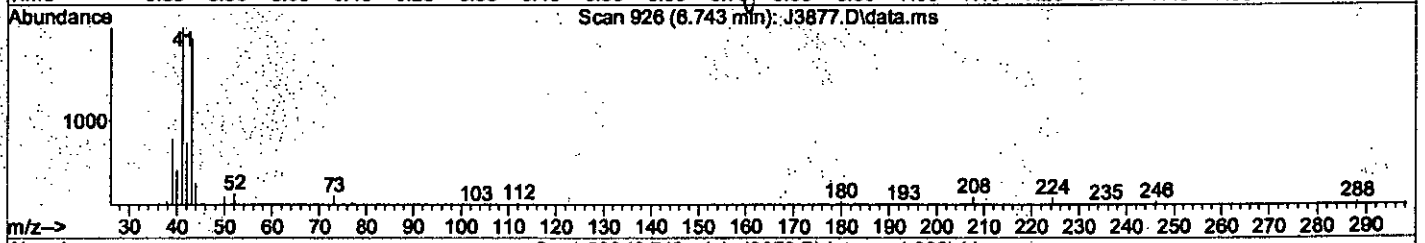
Ion	Exp%	Act%
41.00	100	100
43.00	105.30	93.94
0.00	0.00	0.00
0.00	0.00	0.00

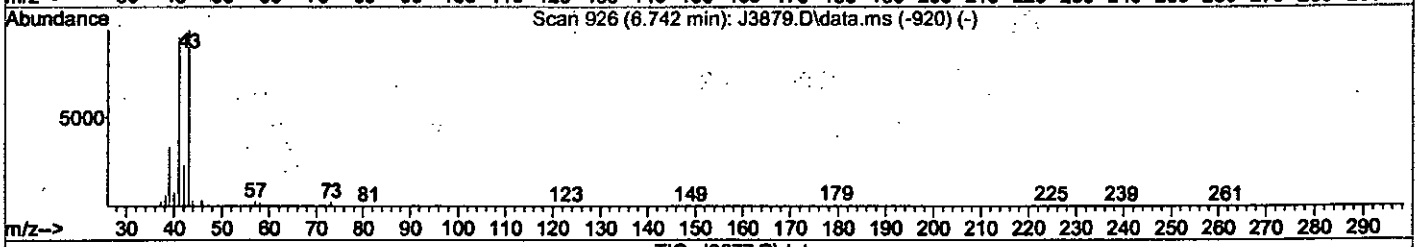
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3877.D\data.ms

(61) 2-Nitropropane

6.743min (-0.000) 3.79 ppb m

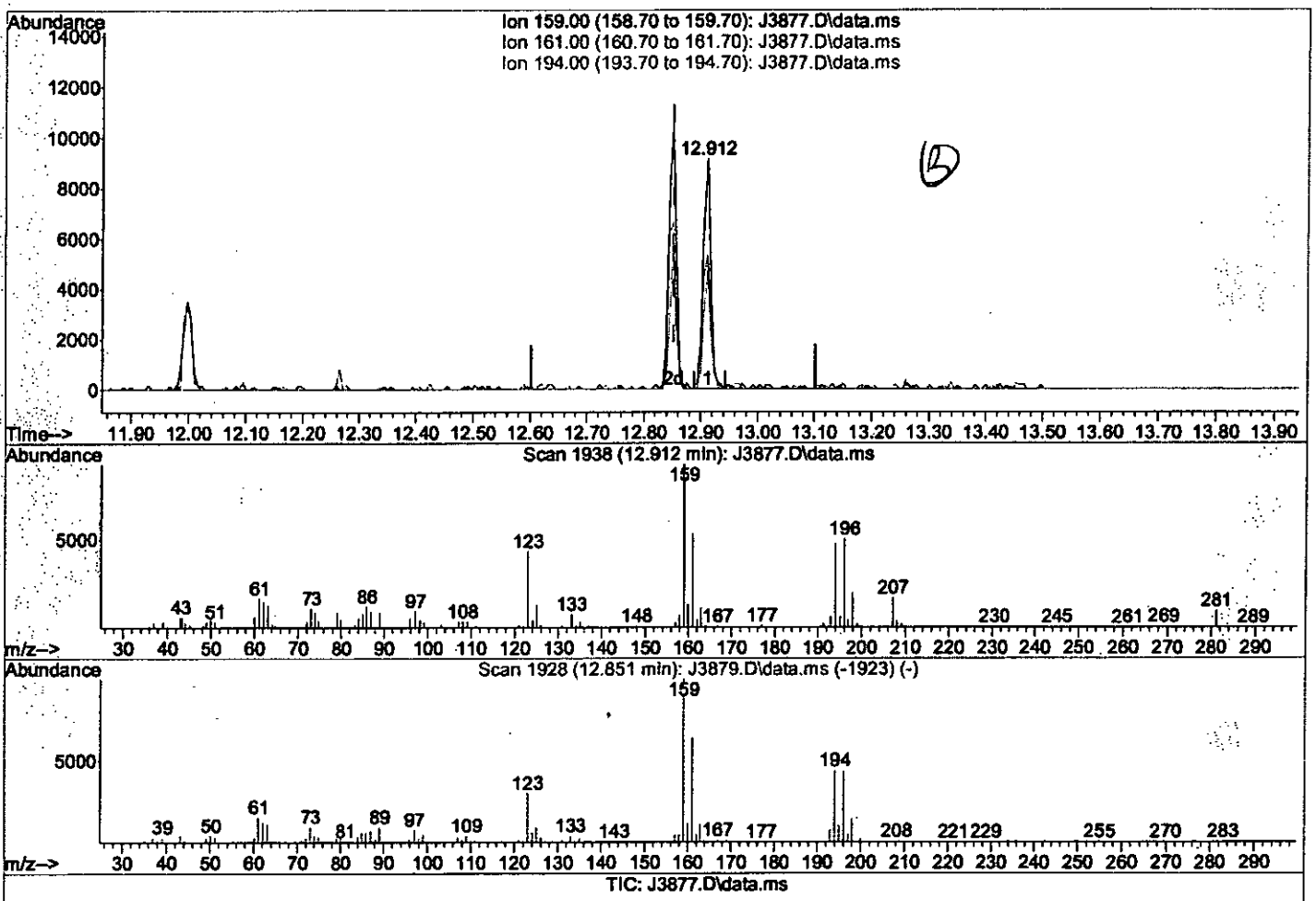
response 4286

Ion	Exp%	Act%
41.00	100	100
43.00	105.30	93.94
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



(119) 2,4,5-Trichlorotolene

12.912min (+0.061) 1.71 ppb

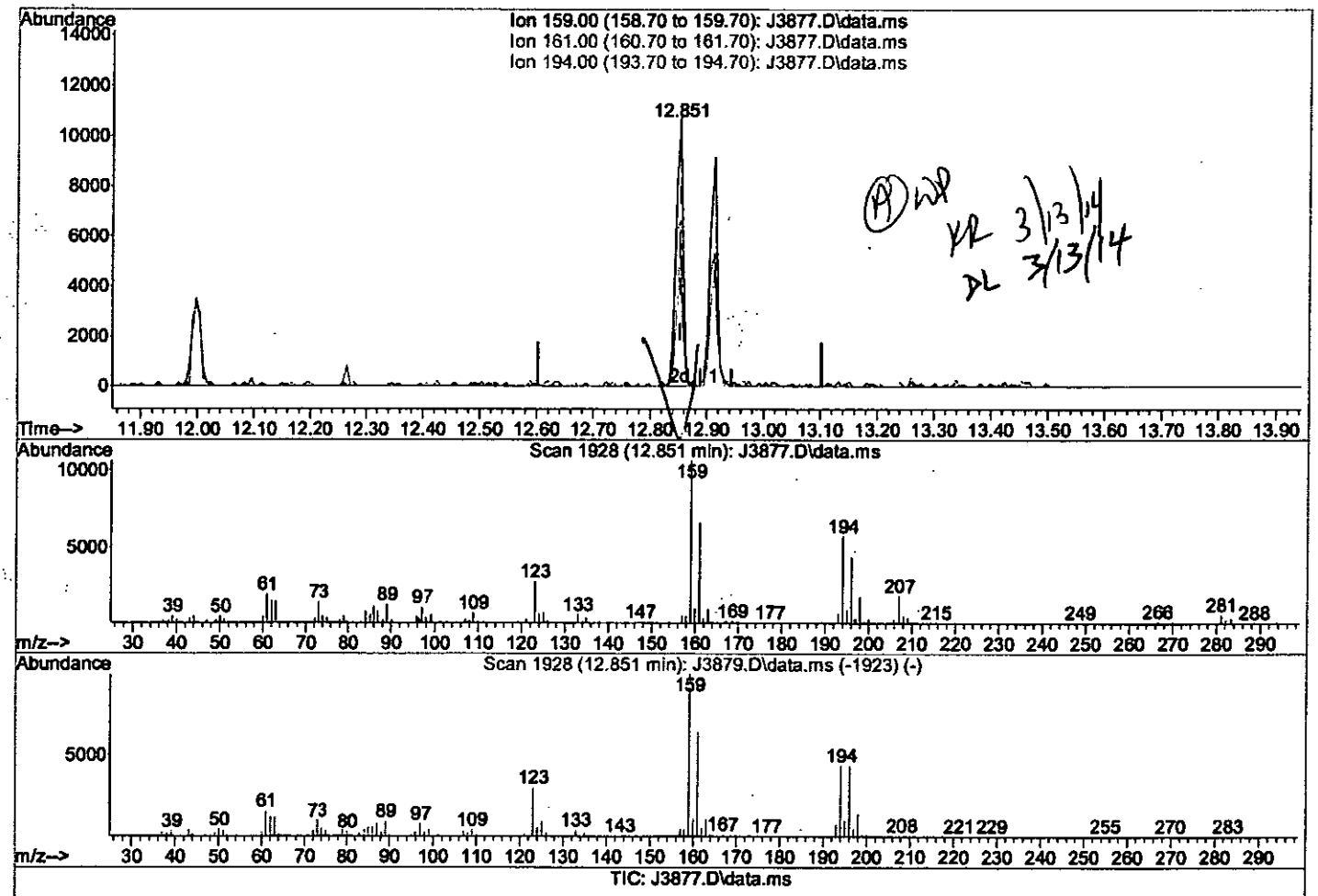
response 8342

Ion	Exp%	Act%
159.00	100	100
161.00	64.60	58.14
194.00	43.80	51.93
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:45 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3877.D\data.ms

(119) 2,4,5-Trichlorotolene

12.851min (-0.000) 1.98 ppb m

response 9836

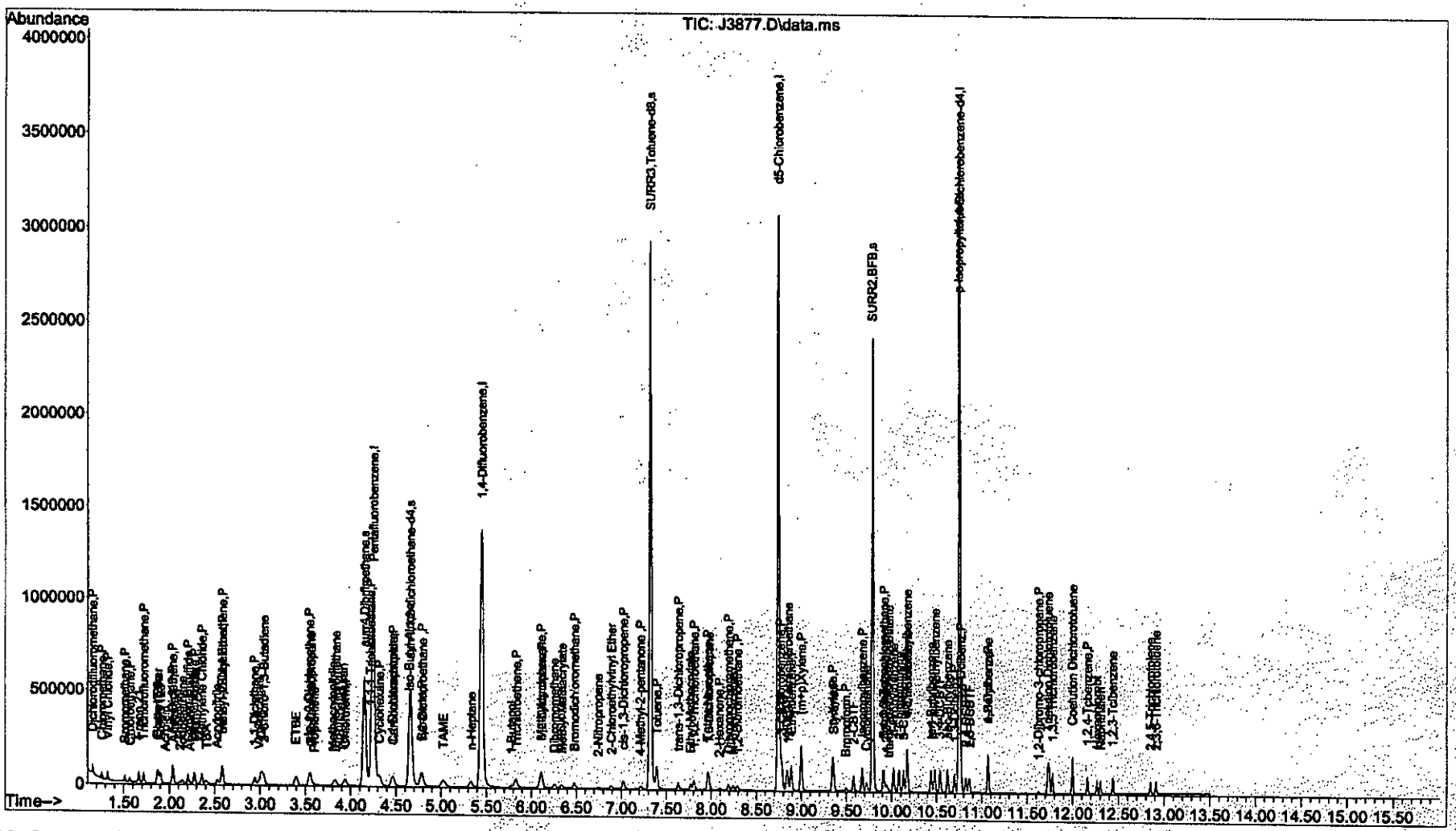
Ion	Exp%	Act%
159.00	100	100
161.00	64.60	62.31
194.00	43.80	53.92#
0.00	0.00	0.00

00436

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3877.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 11:49 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:28:27 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3878.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:34:30 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	909636	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1434063	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1295117	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	613774	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	419968	50.59	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.18%				
48) surr1,1,2-dichloroetha...	4.658	65	473956	50.11	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.22%				
65) SURR3,Toluene-d8	7.322	98	1740484	49.89	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.78%				
70) SURR2,BFB	9.785	95	647335	49.74	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.48%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	48185	4.46	ppb		99
3) Chloromethane	1.256	50	46384	4.94	ppb		94
4) Vinyl Chloride	1.323	62	43530	5.00	ppb		99
5) Bromomethane	1.512	94	24980	4.77	ppb		95
6) Chloroethane	1.567	64	23684	4.38	ppb		92
7) Freon 21	1.664	67	67580	5.15	ppb		100
8) Trichlorofluoromethane	1.719	101	68500	5.13	ppb		98
9) Diethyl Ether	1.878	59	31483	4.79	ppb		92
10) Freon 123a	1.866	67	50620	5.16	ppb		91
11) Freon 123	1.902	83	56653	5.06	ppb		97
12) Acrolein	1.951	56	3084	9.81	ppb		98
13) 1,1-Diclethene	2.036	96	33755	5.11	ppb		95
14) Freon 113	2.036	101	36313	5.03	ppb		92
15) Acetone	2.048	43	9867	5.47	ppb		81
16) 2-Propanol	2.116	45	27896	93.73	ppb		91
17) Iodomethane	2.146	142	38074	4.34	ppb		95
18) Carbon Disulfide	2.207	76	113819	4.96	ppb		98
19) Acetonitrile	2.225	40	7540	25.55	ppb		96
20) Allyl Chloride	2.274	76	22847	5.05	ppb		98
21) Methyl Acetate	2.274	43	22856	5.62	ppb		99
22) Methylene Chloride	2.353	84	43263	5.00	ppb		98
23) TBA	2.408	59	49570	98.27	ppb		96
24) Acrylonitrile	2.524	53	50514	24.98	ppb		93
25) Methyl-t-Butyl Ether	2.579	73	108080	5.15	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	40087	4.85	ppb		93
28) 1,1-Diclethane	2.939	63	78544	5.10	ppb		98
29) Vinyl Acetate	2.975	86	6450	4.71	ppb	#	57
30) DIPE	3.018	45	153755	5.13	ppb		97
31) 2-Chloro-1,3-Butadiene	3.042	53	66829	5.04	ppb		89
32) ETBE	3.396	59	129769	5.17	ppb		96
33) 2,2-Dichloropropane	3.560	77	58638	4.80	ppb		94
34) cis-1,2-Dichloroethene	3.548	96	45860	4.97	ppb		95
35) 2-Butanone	3.554	43	12867	5.09	ppb		92
36) Propionitrile	3.591	54	17228	24.31	ppb		96
37) Bromochloromethane	3.835	130	26538	5.15	ppb	#	73

KR 3/13/14

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3878.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:34:30 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	11464	4.87	ppb		95
39) Tetrahydrofuran	3.908	42	8977	5.08	ppb		87
40) Chloroform	3.938	83	74686	4.95	ppb		96
41) 1,1,1-Trichloroethane	4.213	97	64390	4.98	ppb	#	37
42) TAME	5.023	73	106230	5.02	ppb		98
44) Cyclohexane	4.310	41	39966	5.15	ppb		94
46) Carbontetrachloride	4.469	121	15872	4.62	ppb		90
47) 1,1-Dichloropropene	4.463	75	54305	5.17	ppb		93
49) Benzene	4.780	78	179829	5.09	ppb		95
50) 1,2-Dichloroethane	4.780	62	53239	4.97	ppb		94
51) Iso-Butyl Alcohol	4.633	43	20997	88.43	ppb		94
52) n-Heptane	5.322	43	42494	4.82	ppb		93
53) 1-Butanol	5.773	56	26987	201.32	ppb		95
54) Trichloroethene	5.828	130	41962	4.91	ppb		92
55) Methylcyclohexane	6.103	55	46721	5.08	ppb		91
56) 1,2-Diclpropane	6.115	63	43350	4.76	ppb		100
57) Dibromomethane	6.261	93	20852	4.86	ppb		93
58) 1,4-Dioxane	6.322	88	6178m	107.34	ppb		
59) Methyl Methacrylate	6.334	69	19608	4.62	ppb		98
60) Bromodichloromethane	6.474	83	52141	4.94	ppb		95
61) 2-Nitropropane	6.743	41	9752	8.60	ppb		93
62) 2-Chloroethylvinyl Ether	6.877	63	19373	4.78	ppb		94
63) cis-1,3-Dichloropropene	7.023	75	59020	4.72	ppb		92
64) 4-Methyl-2-pentanone	7.218	43	25233	4.63	ppb		94
66) Toluene	7.389	91	187487	5.15	ppb		93
67) trans-1,3-Dichloropropene	7.633	75	47205	4.68	ppb		99
68) Ethyl Methacrylate	7.767	69	38371	4.72	ppb		95
69) 1,1,2-Trichloroethane	7.803	97	31839	5.00	ppb		94
72) Tetrachloroethene	7.962	164	31272	4.67	ppb		93
73) 2-Hexanone	8.090	43	16065	4.38	ppb		94
74) 1,3-Dichloropropane	7.974	76	59278	5.08	ppb		96
75) Dibromochloromethane	8.188	129	32842	4.90	ppb		93
76) N-Butyl Acetate	8.236	43	42929	4.73	ppb		94
77) 1,2-Dibromoethane	8.285	107	29591	4.94	ppb		94
78) Chlorobenzene	8.767	112	114107	5.06	ppb		95
79) 3-CBTF	8.785	180	53330	4.78	ppb		96
80) 4-CBTF	8.834	180	48803	4.89	ppb		96
81) 1,1,1,2-Tetrachloroethane	8.846	131	38239	4.83	ppb		94
82) Ethylbenzene	8.889	106	61699	5.14	ppb		98
83) (m+p)Xylene	8.998	106	144528	10.24	ppb		98
84) o-Xylene	9.346	106	72480	5.03	ppb		100
85) Styrene	9.358	104	114854	4.99	ppb		92
87) Bromoform	9.492	173	16573	4.75	ppb		96
88) 2-CBTF	9.577	180	51681	5.05	ppb		95
89) Isopropylbenzene	9.669	105	169239	5.34	ppb		96
90) Cyclohexanone	9.718	55	49534	100.63	ppb		97
91) trans-1,4-Dichloro-2-B...	9.962	53	7667	4.64	ppb		92
92) 1,1,2,2-Tetrachloroethane	9.913	83	36213	5.15	ppb		98
93) Bromobenzene	9.913	156	46987	5.20	ppb	#	86
94) 1,2,3-Trichloropropane	9.943	110	10506	5.00	ppb	#	86
95) n-Propylbenzene	10.023	91	199054	5.37	ppb		99
96) 2-Chlorotoluene	10.083	91	125591	5.39	ppb		97

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3878.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:34:30 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

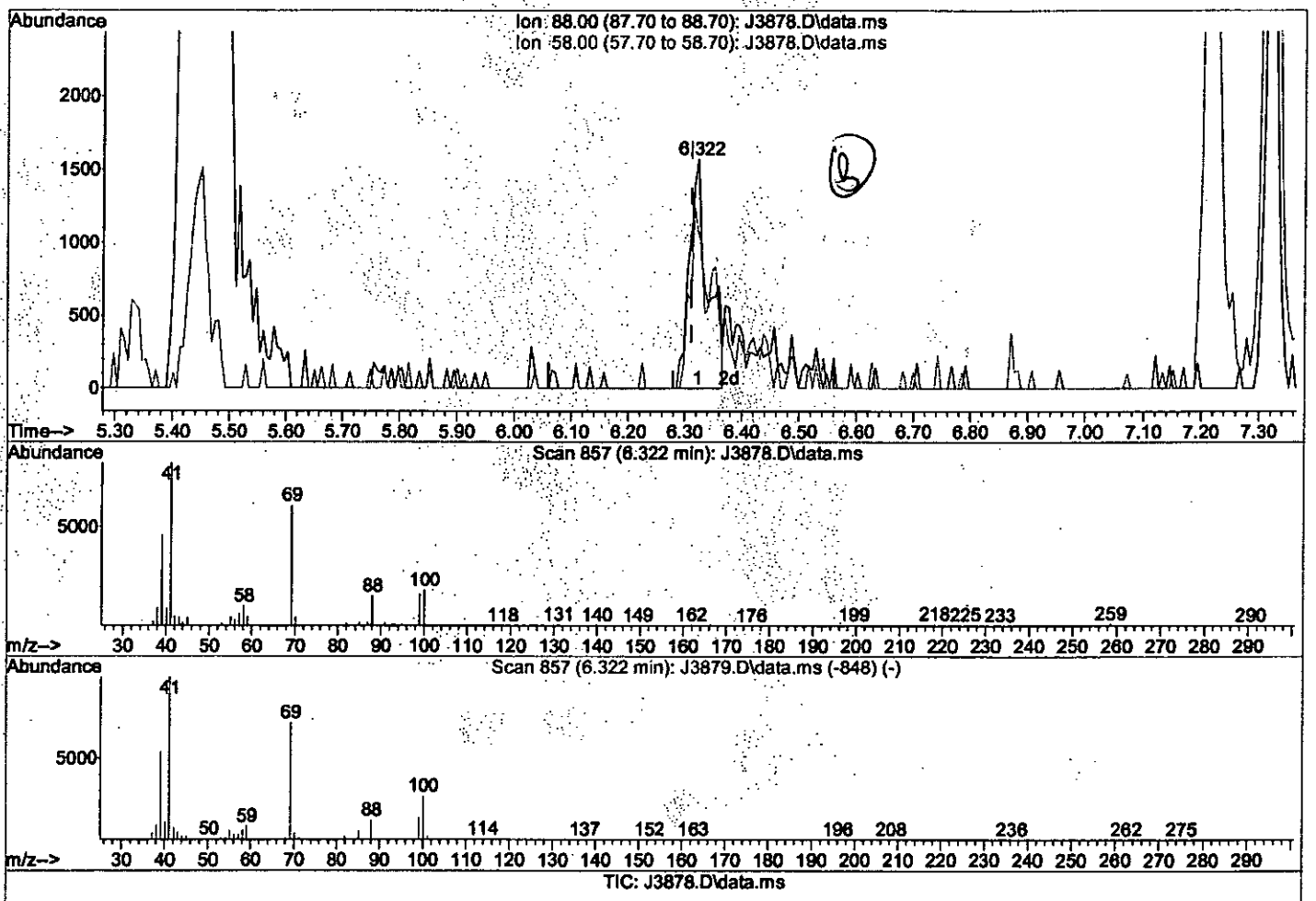
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	128681	5.31	ppb		97
98)	4-Chlorotoluene	10.169	91	151049	5.50	ppb		96
99)	1,3,5-Trimethylbenzene	10.169	105	137380	5.31	ppb		99
100)	tert-Butylbenzene	10.437	119	113901	5.23	ppb		99
101)	1,2,4-Trimethylbenzene	10.474	105	143214	5.38	ppb		98
102)	3,4-DCBTF	10.535	214	36559	4.83	ppb		98
103)	sec-Butylbenzene	10.620	105	165306	5.46	ppb		97
104)	p-Isopropyltoluene	10.742	119	136851	5.34	ppb		97
105)	1,3-Dclbenz	10.693	146	80200	5.22	ppb		99
106)	1,4-Dclbenz	10.766	146	81727	5.00	ppb		90
107)	2,4-DCBTF	10.821	214	33202	5.05	ppb		98
108)	2,5-DCBTF	10.864	214	38208	5.08	ppb		97
109)	n-Butylbenzene	11.065	91	122103	5.29	ppb		96
110)	1,2-Dclbenz	11.065	146	76727	5.18	ppb		96
111)	1,2-Dibromo-3-chloropr...	11.626	157	4670	4.34	ppb	#	79
112)	Trielution Dichlorotol...	11.730	125	181694	15.52	ppb		99
113)	1,3,5 Trichlorobenzene	11.778	180	51719	5.07	ppb		96
114)	Coelution Dichlorotoluene	11.998	125	128721	10.39	ppb		98
115)	1,2,4-Tcbenzene	12.162	180	46406	5.13	ppb		98
116)	Hexachlorobt	12.266	225	20395	5.16	ppb		96
117)	Naphthalen	12.303	128	82080	5.04	ppb		98
118)	1,2,3-Tclbenzene	12.437	180	37771	5.10	ppb		96
119)	2,4,5-Trichlorotolene	12.851	159	25032	5.12	ppb		96
120)	2,3,6-Trichlorotoluene	12.912	159	24018	5.37	ppb		89

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

Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3878.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:50 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



TIC: J3878.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.012) 61.75 ppb

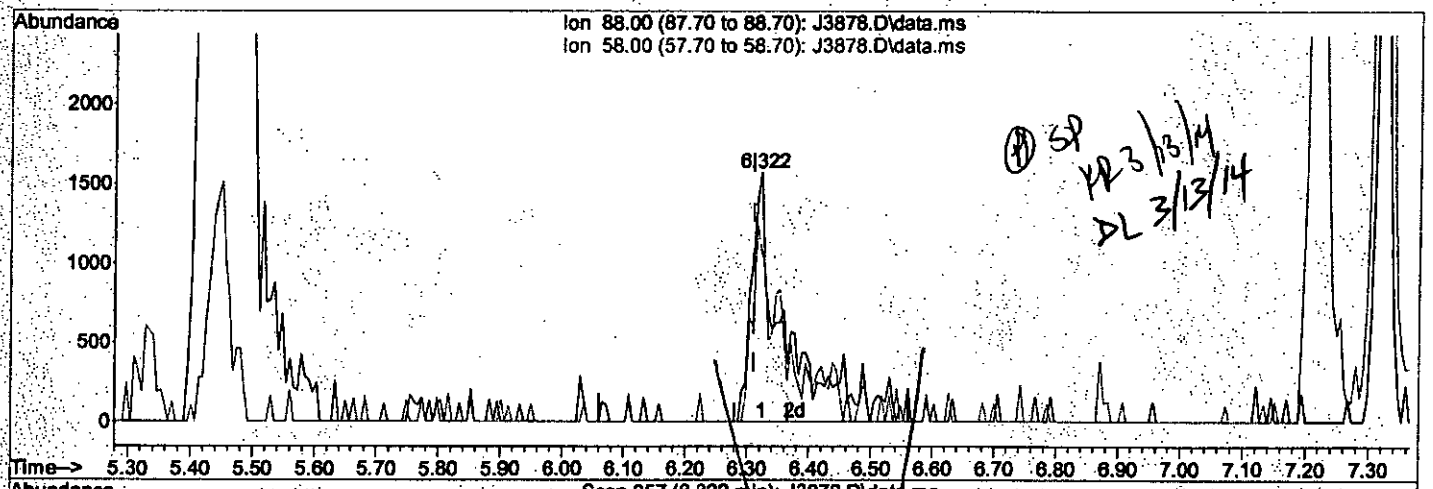
response 3554

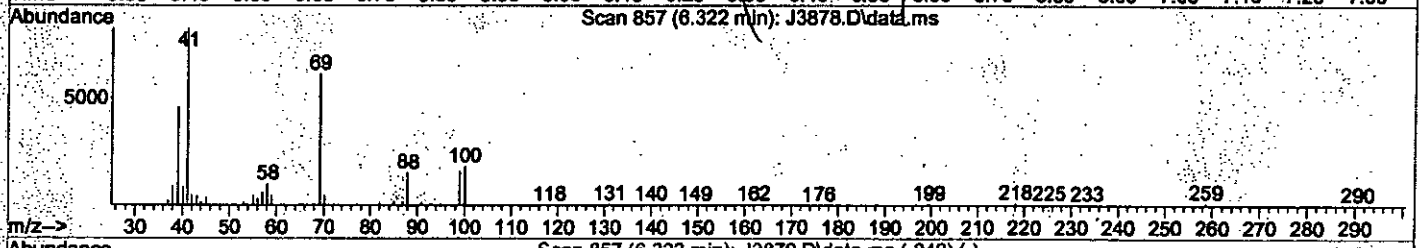
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	67.98
0.00	0.00	0.00
0.00	0.00	0.00

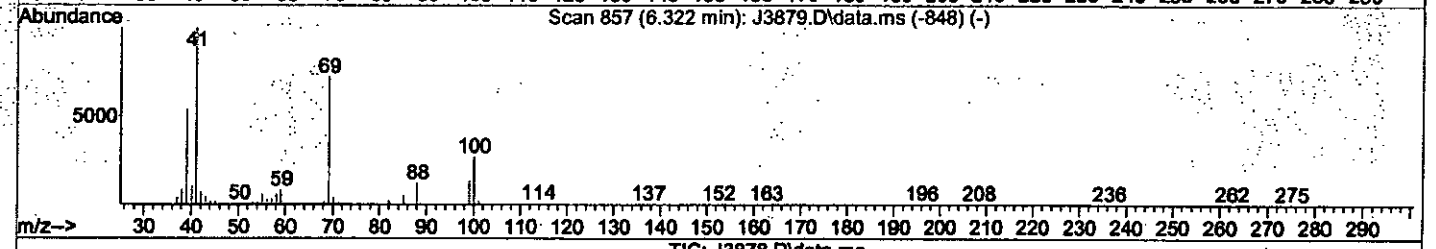
Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3878.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:50 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3878.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.012) 107.34 ppb m

response 6178

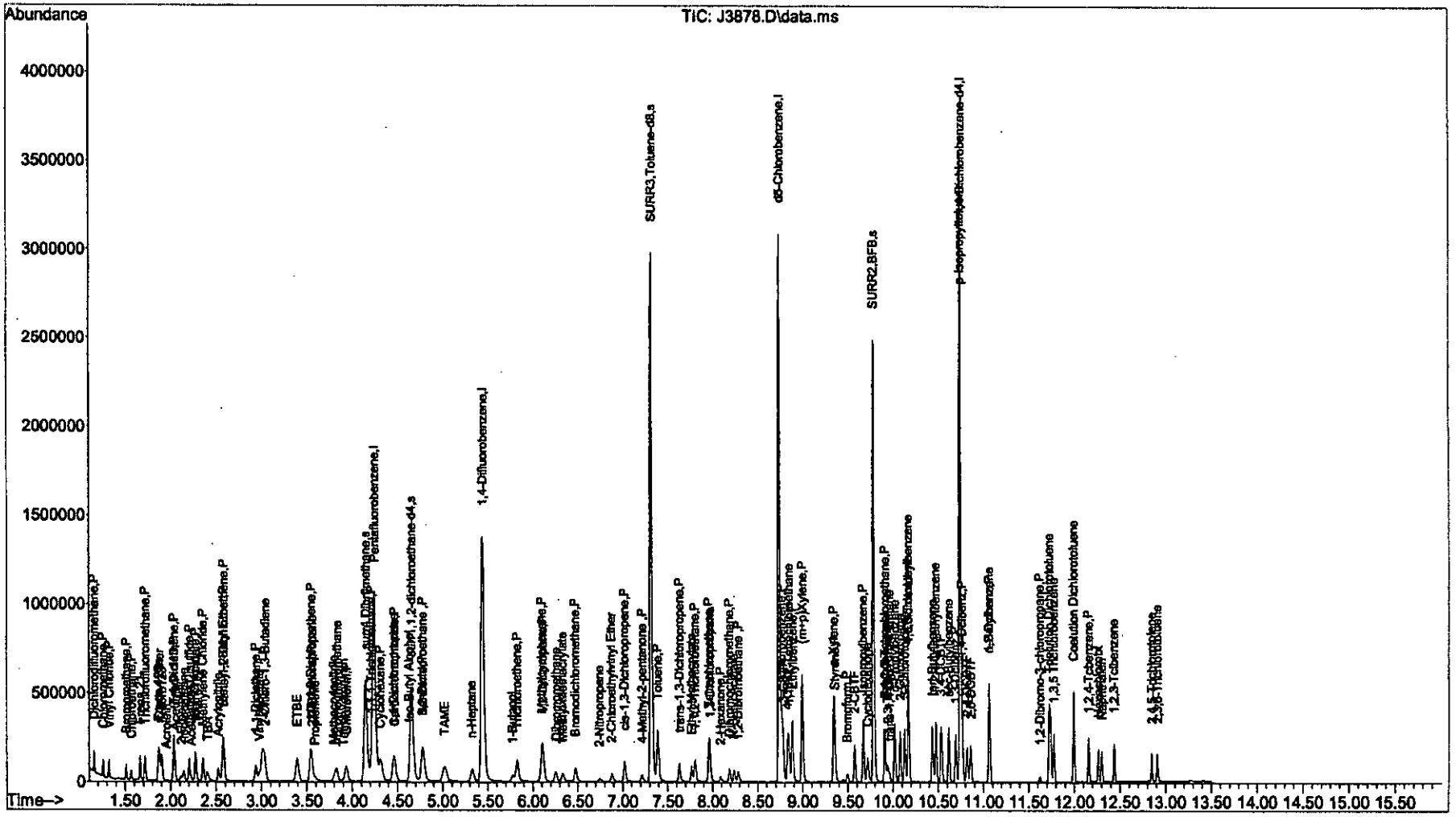
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	67.98
0.00	0.00	0.00
0.00	0.00	0.00

00442

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3878.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:34:30 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



0443

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3879.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:45:04 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	922799	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1437195	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1313495	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	644479	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	420420	50.53	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.06%			
48) surr1,1,2-dichloroetha...	4.664	65	476208	50.24	ppb	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.48%			
65) SURR3,Toluene-d8	7.322	98	1753103	50.14	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.28%			
70) SURR2,BFB	9.785	95	651604	49.96	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.92%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.158	85	236007	21.53	ppb	100
3) Chloromethane	1.262	50	199071	20.91	ppb	100
4) Vinyl Chloride	1.323	62	184578	20.92	ppb	100
5) Bromomethane	1.512	94	101510	19.09	ppb	100
6) Chloroethane	1.567	64	108989	19.86	ppb	100
7) Freon 21	1.664	67	274791	20.65	ppb	100
8) Trichlorofluoromethane	1.719	101	283252	20.91	ppb	100
9) Diethyl Ether	1.878	59	136065	20.40	ppb	100
10) Freon 123a	1.865	67	204196	20.53	ppb	100
11) Freon 123	1.902	83	234424	20.64	ppb	100
12) Acrolein	1.951	56	18931	59.34	ppb	100
13) 1,1-Diclethene	2.036	96	137460	20.53	ppb	100
14) Freon 113	2.036	101	149593	20.41	ppb	100
15) Acetone	2.042	43	36823	20.11	ppb	100
16) 2-Propanol	2.115	45	122751	406.54	ppb	100
17) Iodomethane	2.146	142	198218	22.28	ppb	100
18) Carbon Disulfide	2.207	76	496357	21.31	ppb	100
19) Acetonitrile	2.225	40	33901	113.23	ppb	100
20) Allyl Chloride	2.274	76	97449	21.22	ppb	100
21) Methyl Acetate	2.274	43	82752	20.07	ppb	100
22) Methylene Chloride	2.359	84	176046	20.07	ppb	100
23) TBA	2.408	59	222324	434.45	ppb	100
24) Acrylonitrile	2.524	53	220459	107.48	ppb	100
25) Methyl-t-Butyl Ether	2.579	73	441594	20.75	ppb	100
26) trans-1,2-Dichloroethene	2.585	96	174413	20.79	ppb	100
28) 1,1-Diclethane	2.938	63	329721	21.11	ppb	100
29) Vinyl Acetate	2.981	86	26664	19.18	ppb	100
30) DIPE	3.012	45	654075	21.50	ppb	100
31) 2-Chloro-1,3-Butadiene	3.042	53	297059	22.09	ppb	100
32) ETBE	3.396	59	547952	21.53	ppb	100
33) 2,2-Dichloropropane	3.554	77	257201	20.76	ppb	100
34) cis-1,2-Dichloroethene	3.548	96	194189	20.74	ppb	100
35) 2-Butanone	3.548	43	52188	20.35	ppb	100
36) Propionitrile	3.597	54	81195	112.94	ppb	100
37) Bromochloromethane	3.828	130	103638	19.83	ppb	100

KP 3/13/14

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3879.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:45:04 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	50231	21.02	ppb	100
39) Tetrahydrofuran	3.908	42	37265	20.78	ppb	100
40) Chloroform	3.938	83	308523	20.16	ppb	100
41) 1,1,1-Trichloroethane	4.213	97	268217	20.43	ppb	100
42) TAME	5.023	73	454949	21.17	ppb	100
44) Cyclohexane	4.316	41	158361	20.37	ppb	100
46) Carbontetrachloride	4.469	121	68823	19.97	ppb	100
47) 1,1-Dichloropropene	4.462	75	223653	21.26	ppb	100
49) Benzene	4.779	78	747584	21.13	ppb	100
50) 1,2-Dichloroethane	4.786	62	222596	20.72	ppb	100
51) Iso-Butyl Alcohol	4.645	43	97955	411.63	ppb	100
52) n-Heptane	5.328	43	187647	21.23	ppb	100
53) 1-Butanol	5.773	56	140316	1044.44	ppb	100
54) Trichloroethene	5.828	130	172802	20.16	ppb	100
55) Methylcyclohexane	6.102	55	188533	20.46	ppb	100
56) 1,2-Diclpropane	6.115	63	190060	20.83	ppb	100
57) Dibromomethane	6.255	93	87964	20.44	ppb	100
58) 1,4-Dioxane	6.322	88	24827m	430.43	ppb	
59) Methyl Methacrylate	6.328	69	88674	20.83	ppb	100
60) Bromodichloromethane	6.474	83	224153	21.21	ppb	100
61) 2-Nitropropane	6.742	41	42750	37.61	ppb	100
62) 2-Chloroethylvinyl Ether	6.877	63	84368	20.79	ppb	100
63) cis-1,3-Dichloropropene	7.023	75	271354	21.64	ppb	100
64) 4-Methyl-2-pentanone	7.212	43	108953	19.96	ppb	100
66) Toluene	7.395	91	768079	21.05	ppb	100
67) trans-1,3-Dichloropropene	7.626	75	221059	21.87	ppb	100
68) Ethyl Methacrylate	7.767	69	182991	22.46	ppb	100
69) 1,1,2-Trichloroethane	7.803	97	135446	21.22	ppb	100
72) Tetrachloroethene	7.962	164	136336	20.09	ppb	100
73) 2-Hexanone	8.084	43	76704	20.62	ppb	100
74) 1,3-Dichloropropane	7.968	76	246006	20.80	ppb	100
75) Dibromochloromethane	8.187	129	145086	21.34	ppb	100
76) N-Butyl Acetate	8.236	43	189825	20.64	ppb	100
77) 1,2-Dibromoethane	8.285	107	128698	21.19	ppb	100
78) Chlorobenzene	8.767	112	471085	20.61	ppb	100
79) 3-CBTF	8.785	180	230152	20.35	ppb	100
80) 4-CBTF	8.840	180	214655	21.19	ppb	100
81) 1,1,1,2-Tetrachloroethane	8.852	131	167154	20.81	ppb	100
82) Ethylbenzene	8.888	106	251722	20.67	ppb	100
83) (m+p)Xylene	8.998	106	608659	42.53	ppb	100
84) o-Xylene	9.346	106	306257	20.97	ppb	100
85) Styrene	9.352	104	513247	21.98	ppb	100
87) Bromoform	9.492	173	79425	21.70	ppb	100
88) 2-CBTF	9.577	180	220924	20.58	ppb	100
89) Isopropylbenzene	9.669	105	718183	21.58	ppb	100
90) Cyclohexanone	9.718	55	223344	432.11	ppb	100
91) trans-1,4-Dichloro-2-B...	9.961	53	38370	22.12	ppb	100
92) 1,1,2,2-Tetrachloroethane	9.913	83	151723	20.56	ppb	100
93) Bromobenzene	9.907	156	192228	20.28	ppb	100
94) 1,2,3-Trichloropropane	9.943	110	45293	20.51	ppb	100
95) n-Propylbenzene	10.022	91	833670	21.42	ppb	100
96) 2-Chlorotoluene	10.083	91	514264	21.04	ppb	100

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3879.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:45:04 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

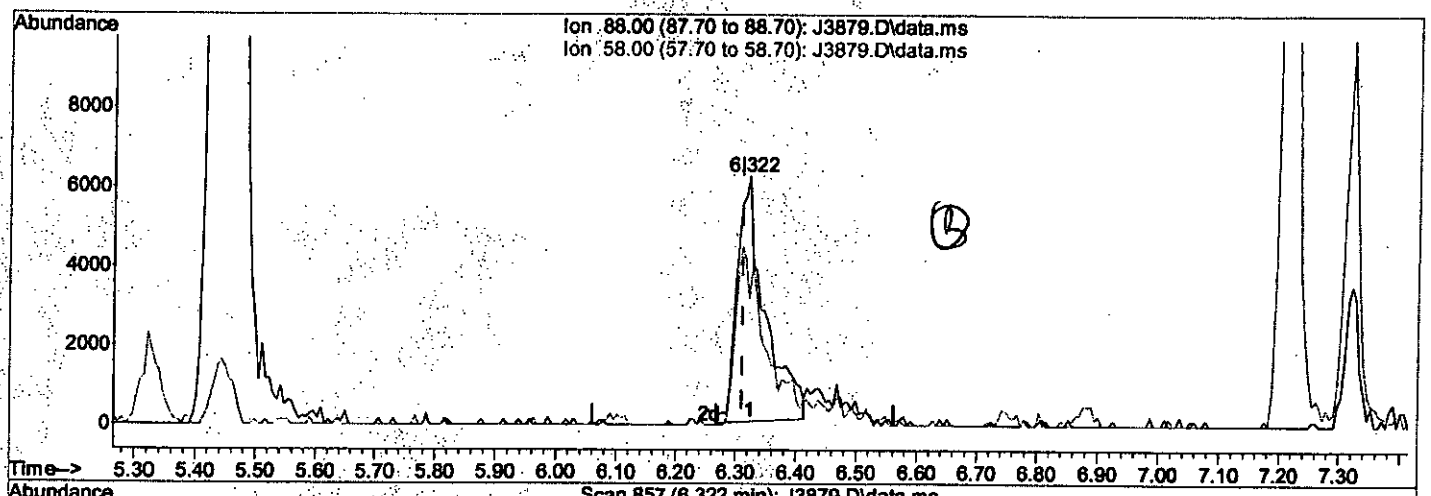
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	541594	21.30	ppb	100
98)	4-Chlorotoluene	10.175	91	627344	21.77	ppb	100
99)	1,3,5-Trimethylbenzene	10.169	105	592216	21.82	ppb	100
100)	tert-Butylbenzene	10.437	119	478689	20.95	ppb	100
101)	1,2,4-Trimethylbenzene	10.473	105	610669	21.87	ppb	100
102)	3,4-DCBTF	10.534	214	165151	20.80	ppb	100
103)	sec-Butylbenzene	10.620	105	688491	21.65	ppb	100
104)	p-Isopropyltoluene	10.742	119	592664	22.04	ppb	100
105)	1,3-Dclbenz	10.699	146	344896	21.37	ppb	100
106)	1,4-Dclbenz	10.766	146	352806	20.55	ppb	100
107)	2,4-DCBTF	10.821	214	146766	21.25	ppb	100
108)	2,5-DCBTF	10.864	214	163981	20.76	ppb	100
109)	n-Butylbenzene	11.065	91	536348	22.12	ppb	100
110)	1,2-Dclbenz	11.065	146	326326	21.00	ppb	100
111)	1,2-Dibromo-3-chloropr...	11.626	157	23847	21.09	ppb	100
112)	Trielution Dichlorotol...	11.729	125	790878	64.35	ppb	100
113)	1,3,5 Trichlorobenzene	11.778	180	225244	21.02	ppb	100
114)	Coelution Dichlorotoluene	11.998	125	555902	42.72	ppb	100
115)	1,2,4-Tcbenzene	12.156	180	192297	20.24	ppb	100
116)	Hexachlorobt	12.266	225	89220	21.51	ppb	100
117)	Naphthalen	12.302	128	369318	21.59	ppb	100
118)	1,2,3-Tclbenzene	12.437	180	156926	20.17	ppb	100
119)	2,4,5-Trichlorotolene	12.851	159	107382	20.90	ppb	100
120)	2,3,6-Trichlorotoluene	12.912	159	96471	20.56	ppb	100

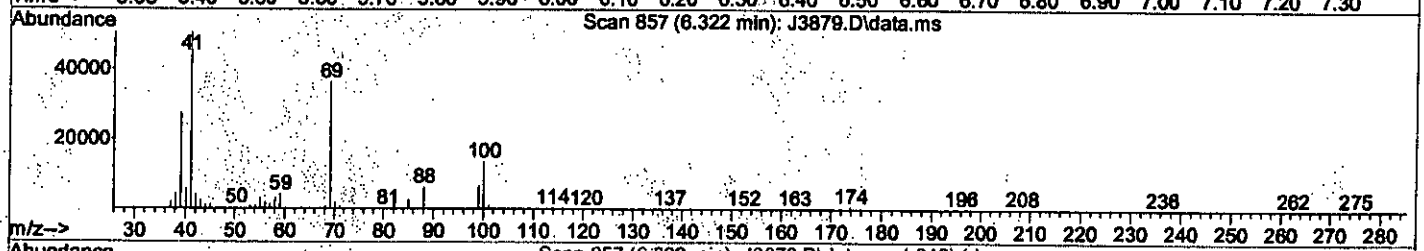
(#) = qualifier out of range (m) = manual integration (+) = signals summed

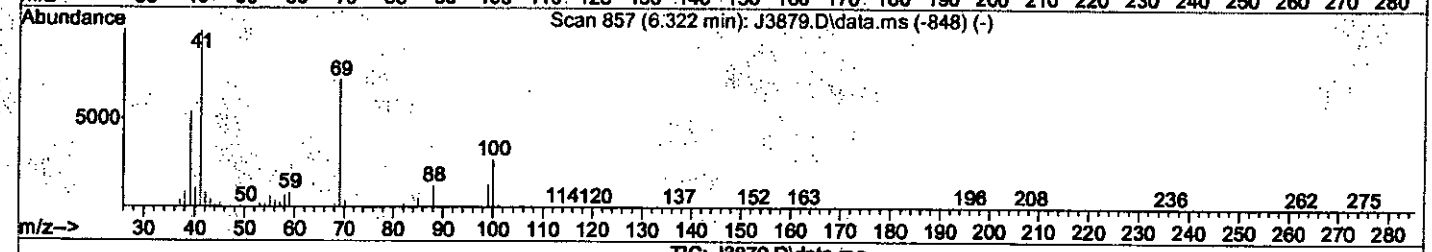
Quantitation Report (Qedit)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3879.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:55 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3879.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.012) 345.93 ppb

response 19953

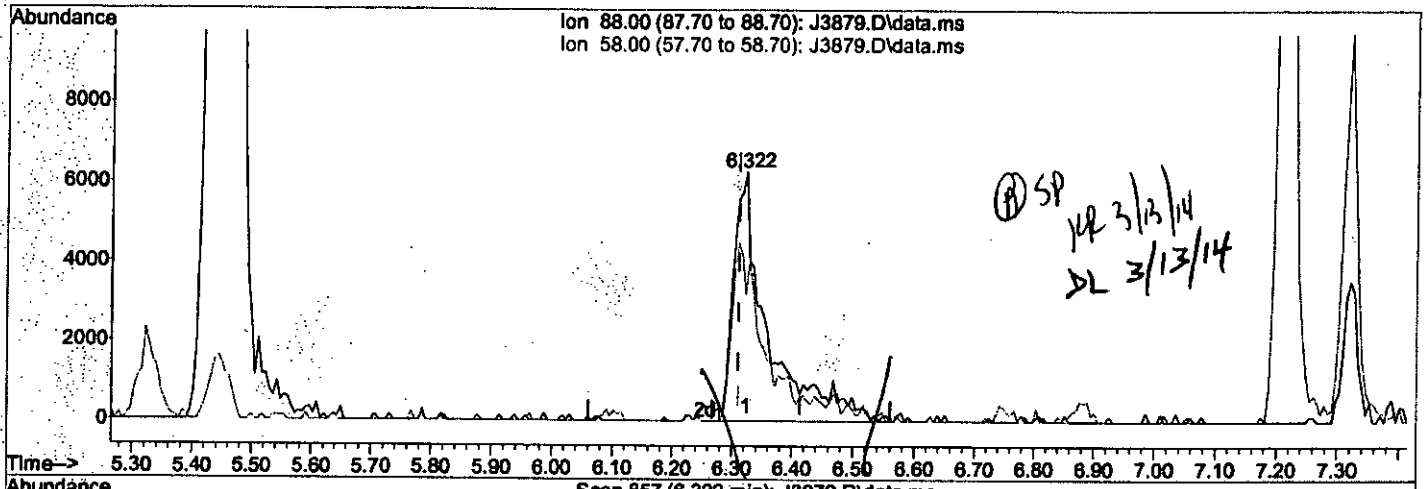
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	50.82
0.00	0.00	0.00
0.00	0.00	0.00

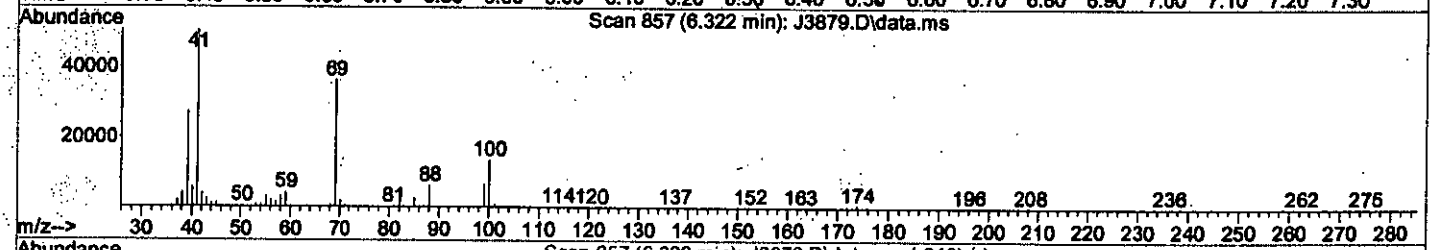
00447

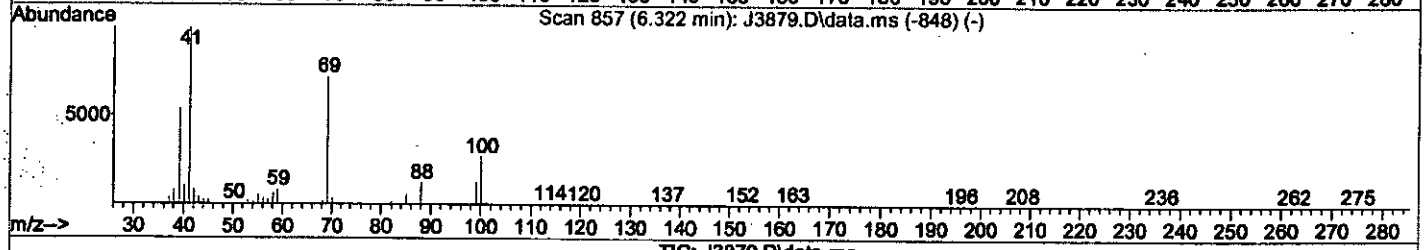
Quantitation Report (Qedit)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3879.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:55 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3879.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.012) 430.43 ppb m

response 24827

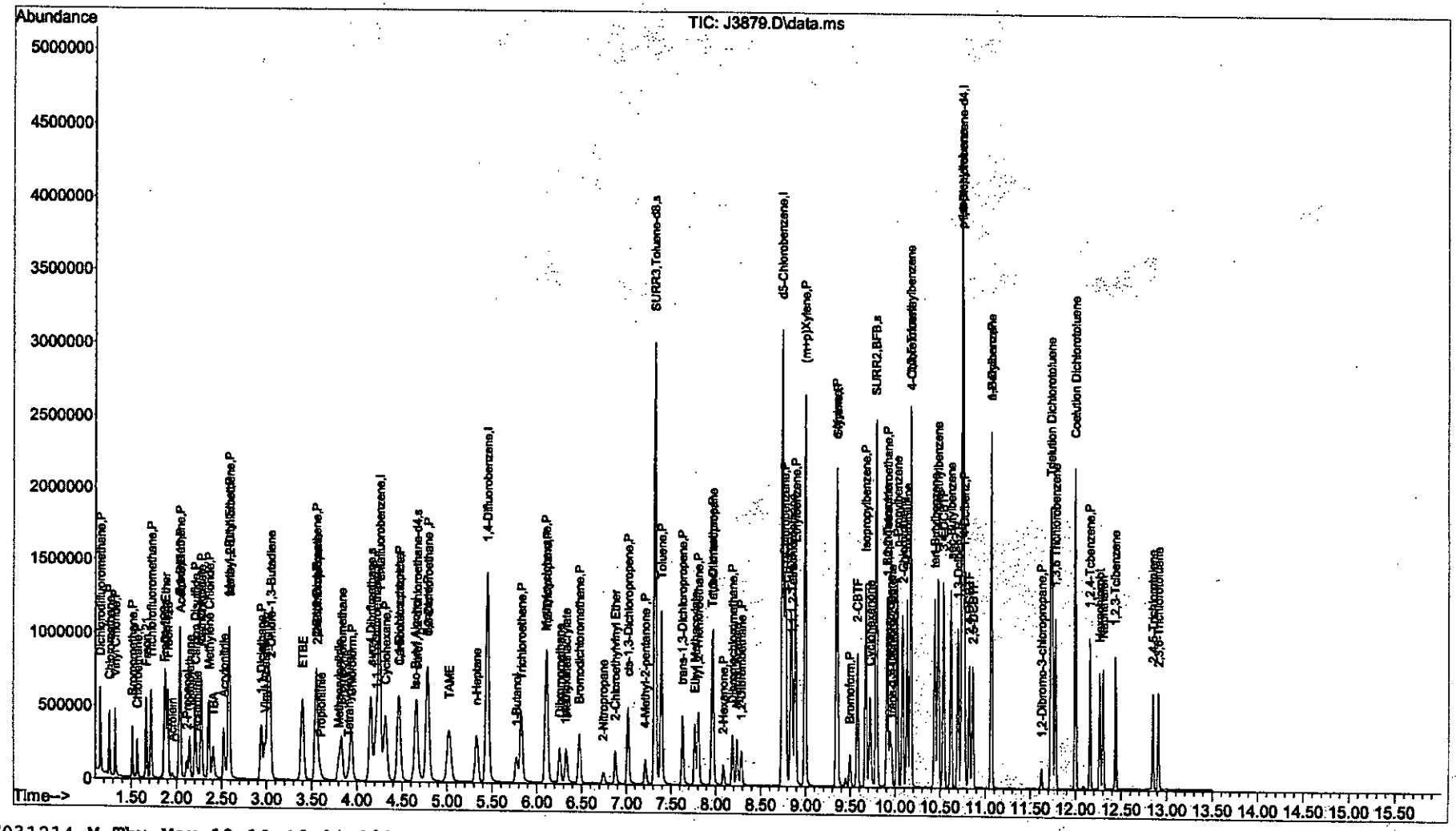
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	50.82
0.00	0.00	0.00
0.00	0.00	0.00

00448

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3879.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 12:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:45:04 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration


Abundance
TIC: J3879.D\data.ms
5000000
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
Time-->
1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 6.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50 10.00 10.50 11.00 11.50 12.00 12.50 13.00 13.50 14.00 14.50 15.00 15.50
Dichlorodifluoromethane,P
Chloromethane,P
Vinyl Chloride,P
Bromomethane,P
Chloroethane,P
Trichlorofluoromethane,P
Freon 21
Ethyl Ether
Acrolein,P
Acetone,P
2-Propanol,P
Iodomethane,P
Carbon Disulfide,P
Methyl Acetate,P
Methylene Chloride,P
TBA
Acrylonitrile
trans-1,2-Dichloroethene,P
Vinyl Acetate,P
1,1-Dichloroethane,P
2,2-Dichloropropane,P
2-Butanone,P
1,3-Butadiene
ETBE
cis-1,2-Dichloroethene,P
2-Chloroethyl Vinyl Ether,P
Propionitrile
Methacrylonitrile,P
Methyl Methacrylate,P
Tetrahydrofuran,P
Chloroform,P
1,1,1-Trichloroethane,P
Dibromofluoromethane,s
1,1-Dichloropropene,P
Cyclohexane,P
Carbon Tetrachloride,P
Dibromomethane,P
1,2-Dichloroethane-d4,s
Isobutyl Alcohol,P
Benzene,P
TAME
1,2-Dichloroethane,P
n-Heptane
Trichloroethene,P
1,2-Dichloropropane,P
1,4-Difluorobenzene,I
1-Butanol
Methylcyclohexane,P
Dibromomethane,P
Methyl Methacrylate,P
Bromodichloromethane,P
2-Nitropropane
2-Chloroethyl Vinyl Ether
cis-1,3-Dichloropropene,P
4-Methyl-2-pentanone,P
Toluene,P
SURR3,Toluene-d8,s
trans-1,3-Dichloropropene,P
Ethyl Methacrylate,P
1,1,2-Trichloroethane,P
Tetrachloroethene,P
2-Hexanone,P
1,3-Dichloropropane,P
Dibromochloromethane,P
1,2-Dibromoethane,P
Chlorobenzene-d5,I
Ethylbenzene,P
(m+p)Xylene,P
o-Xylene,P
Styrene,P
Bromoform,P
2-CBTF
Isopropylbenzene,P
Cyclohexanone
Bromobenzene,P
SURR2,BFB,s
1,1,2,2-Tetrachloroethane,P
1,2,3-Trichloropropane,P
trans-1,4-Dichloro-2-butene,P
n-Propylbenzene,P
4-Chlorotoluene,P
2-Chlorotoluene,P
1,3,5-Trimethylbenzene,P
tert-Butylbenzene,P
1,2,4-Trimethylbenzene,P
sec-Butylbenzene,P
1,3-Dichlorobenzene,P
p-Isopropyltoluene,P
1,4-Dichlorobenzene,P
n-Butylbenzene,P
1,2-Dichlorobenzene,P
1,2-Dibromo-3-chloropropane,P
1,3,5-Trichlorobenzene,P
1,2,4-Trichlorobenzene,P
Hexachlorobutadiene,P
Naphthalene,P
1,2,3-Trichlorobenzene
Dichlorotoluene
Dichlorotoluene
Dichlorotolu

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3880.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:47:22 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	937657	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1455324	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1331361	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	670106	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	420448	49.90	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.80%				
48) surr1,1,2-dichloroetha...	4.658	65	477074	49.71	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.42%				
65) SURR3,Toluene-d8	7.322	98	1776183	50.17	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.34%				
70) SURR2,BFB	9.785	95	667990	50.57	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.14%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	564076	50.65	ppb		100
3) Chloromethane	1.262	50	474968	49.11	ppb		99
4) Vinyl Chloride	1.323	62	441606	49.26	ppb		99
5) Bromomethane	1.512	94	245467	45.43	ppb		99
6) Chloroethane	1.567	64	252379	45.25	ppb		98
7) Freon 21	1.664	67	644488	47.66	ppb		100
8) Trichlorofluoromethane	1.719	101	663901	48.23	ppb		100
9) Diethyl Ether	1.878	59	321286	47.40	ppb		97
10) Freon 123a	1.866	67	476539	47.15	ppb		97
11) Freon 123	1.902	83	541833	46.95	ppb		97
12) Acrolein	1.951	56	70930	218.82	ppb		93
13) 1,1-Diclethene	2.036	96	334465	49.15	ppb		97
14) Freon 113	2.036	101	357010	47.94	ppb		89
15) Acetone	2.042	43	88018	47.31	ppb		95
16) 2-Propanol	2.109	45	321452	1047.74	ppb		94
17) Iodomethane	2.146	142	528506	58.48	ppb		99
18) Carbon Disulfide	2.207	76	1233537	52.12	ppb		99
19) Acetonitrile	2.219	40	74229	244.00	ppb		95
20) Allyl Chloride	2.274	76	235013	50.37	ppb		98
21) Methyl Acetate	2.274	43	208249	49.71	ppb		98
22) Methylene Chloride	2.359	84	416569	46.73	ppb		97
23) TBA	2.402	59	549332	1056.46	ppb		100
24) Acrylonitrile	2.524	53	533681	256.05	ppb		100
25) Methyl-t-Butyl Ether	2.579	73	1049984	48.54	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	412950	48.44	ppb		96
28) 1,1-Diclethane	2.939	63	773535	48.75	ppb		99
29) Vinyl Acetate	2.975	86	77152	54.60	ppb	#	88
30) DIPE	3.012	45	1550730	50.17	ppb		97
31) 2-Chloro-1,3-Butadiene	3.042	53	747718	54.71	ppb		95
32) ETBE	3.396	59	1323915	51.19	ppb		98
33) 2,2-Dichloropropane	3.554	77	628304	49.91	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	466155	49.00	ppb		98
35) 2-Butanone	3.542	43	132381	50.79	ppb		99
36) Propionitrile	3.591	54	202098	276.65	ppb		99
37) Bromochloromethane	3.829	130	248184	46.72	ppb		96

KR 3/13/14

00450

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3880.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:47:22 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	126313	52.02	ppb	94
39) Tetrahydrofuran	3.902	42	90635	49.74	ppb	78
40) Chloroform	3.938	83	732190	47.09	ppb	98
41) 1,1,1-Trichloroethane	4.213	97	658125	49.34	ppb	90
42) TAME	5.023	73	1124934	51.52	ppb	99
44) Cyclohexane	4.316	41	365658	46.46	ppb	97
46) Carbontetrachloride	4.475	121	167213	47.92	ppb	94
47) 1,1-Dichloropropene	4.463	75	532677	50.00	ppb	97
49) Benzene	4.780	78	1762037	49.18	ppb	98
50) 1,2-Dichloroethane	4.786	62	526829	48.43	ppb	97
51) Iso-Butyl Alcohol	4.639	43	254891	1057.77	ppb	94
52) n-Heptane	5.328	43	424272	47.40	ppb	99
53) 1-Butanol	5.773	56	377086	2771.88	ppb	95
54) Trichloroethene	5.828	130	420559	48.46	ppb	98
55) Methylcyclohexane	6.103	55	430078	46.09	ppb	97
56) 1,2-Diclpropane	6.109	63	451018	48.80	ppb	99
57) Dibromomethane	6.255	93	217523	49.91	ppb	97
58) 1,4-Dioxane	6.316	88	57551m	985.34	ppb	
59) Methyl Methacrylate	6.328	69	226083	52.44	ppb	93
60) Bromodichloromethane	6.474	83	544940	50.92	ppb	97
61) 2-Nitropropane	6.743	41	120948	105.09	ppb	89
62) 2-Chloroethylvinyl Ether	6.877	63	216563	52.70	ppb	94
63) cis-1,3-Dichloropropene	7.023	75	673884	53.07	ppb	97
64) 4-Methyl-2-pentanone	7.212	43	291984	52.83	ppb	96
66) Toluene	7.389	91	1845581	49.96	ppb	98
67) trans-1,3-Dichloropropene	7.627	75	557858	54.50	ppb	97
68) Ethyl Methacrylate	7.767	69	467885	56.71	ppb	99
69) 1,1,2-Trichloroethane	7.810	97	323984	50.13	ppb	98
72) Tetrachloroethene	7.962	164	321606	46.76	ppb	100
73) 2-Hexanone	8.084	43	203476	53.96	ppb	99
74) 1,3-Dichloropropane	7.974	76	591305	49.33	ppb	97
75) Dibromochloromethane	8.187	129	370150	53.71	ppb	97
76) N-Butyl Acetate	8.236	43	500003	53.63	ppb	96
77) 1,2-Dibromoethane	8.285	107	316309	51.38	ppb	99
78) Chlorobenzene	8.767	112	1122450	48.45	ppb	99
79) 3-CBTF	8.785	180	564574	49.26	ppb	94
80) 4-CBTF	8.840	180	528416	51.46	ppb	99
81) 1,1,1,2-Tetrachloroethane	8.852	131	415996	51.10	ppb	96
82) Ethylbenzene	8.889	106	615664	49.88	ppb	98
83) (m+p)Xylene	8.998	106	1487671	102.56	ppb	95
84) o-Xylene	9.346	106	740250	50.01	ppb	97
85) Styrene	9.352	104	1267657	53.57	ppb	98
87) Bromoform	9.492	173	209385	55.02	ppb	98
88) 2-CBTF	9.577	180	557431	49.93	ppb	98
89) Isopropylbenzene	9.669	105	1741830	50.35	ppb	98
90) Cyclohexanone	9.718	55	530771	987.62	ppb	99
91) trans-1,4-Dichloro-2-B...	9.962	53	101239	56.13	ppb	89
92) 1,1,2,2-Tetrachloroethane	9.913	83	379084	49.40	ppb	99
93) Bromobenzene	9.907	156	470985	47.78	ppb	96
94) 1,2,3-Trichloropropane	9.943	110	111383	48.51	ppb	97
95) n-Propylbenzene	10.023	91	2010813	49.69	ppb	100
96) 2-Chlorotoluene	10.083	91	1249532	49.16	ppb	98

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3880.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:47:22 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

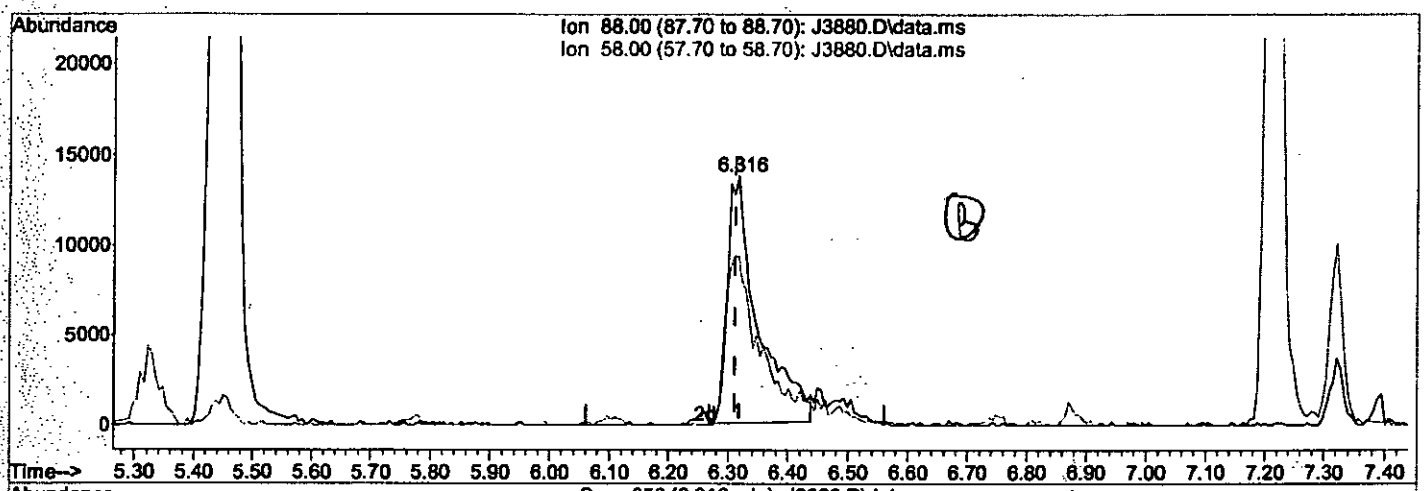
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) 3-Chlorotoluene	10.132	91	1329412	50.29 ppb	98
98) 4-Chlorotoluene	10.169	91	1484176	49.53 ppb	98
99) 1,3,5-Trimethylbenzene	10.169	105	1423846	50.45 ppb	99
100) tert-Butylbenzene	10.437	119	1162005	48.91 ppb	99
101) 1,2,4-Trimethylbenzene	10.480	105	1487149	51.22 ppb	100
102) 3,4-DCBTF	10.535	214	419830	50.85 ppb	98
103) sec-Butylbenzene	10.620	105	1626721	49.21 ppb	99
104) p-Isopropyltoluene	10.742	119	1412183	50.51 ppb	99
105) 1,3-Dclbenz	10.693	146	830616	49.50 ppb	98
106) 1,4-Dclbenz	10.766	146	848800	47.54 ppb	97
107) 2,4-DCBTF	10.821	214	371206	51.68 ppb	95
108) 2,5-DCBTF	10.858	214	418243	50.93 ppb	98
109) n-Butylbenzene	11.065	91	1279244	50.75 ppb	98
110) 1,2-Dclbenz	11.065	146	803257	49.72 ppb	99
111) 1,2-Dibromo-3-chloropr...	11.626	157	63513	54.02 ppb	96
112) Trielution Dichlorotol...	11.729	125	2007597	157.11 ppb	99
113) 1,3,5 Trichlorobenzene	11.778	180	573684	51.48 ppb	98
114) Coelution Dichlorotoluene	11.998	125	1435061	106.06 ppb	98
115) 1,2,4-Tcbenzene	12.156	180	485670	49.15 ppb	96
116) Hexachlorobt	12.266	225	211082	48.95 ppb	98
117) Naphthalen	12.303	128	946078	53.18 ppb	98
118) 1,2,3-Tclbenzene	12.437	180	386312	47.75 ppb	98
119) 2,4,5-Trichlorotolene	12.851	159	270768	50.69 ppb	97
120) 2,3,6-Trichlorotoluene	12.912	159	254890	52.24 ppb	96

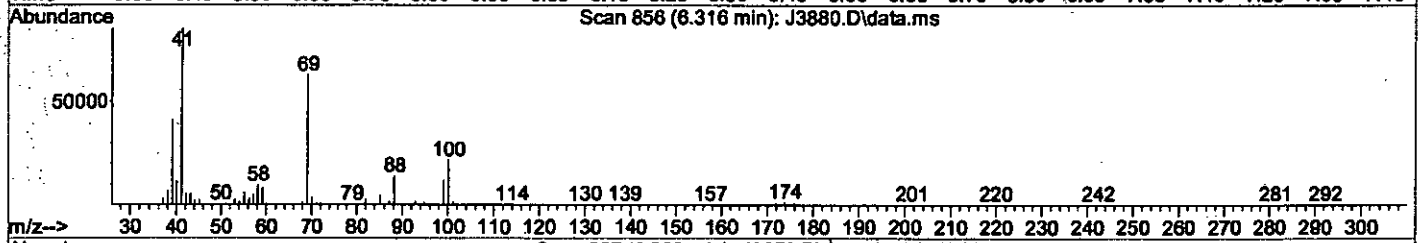
(#) = qualifier out of range (m) = manual integration (+) = signals summed

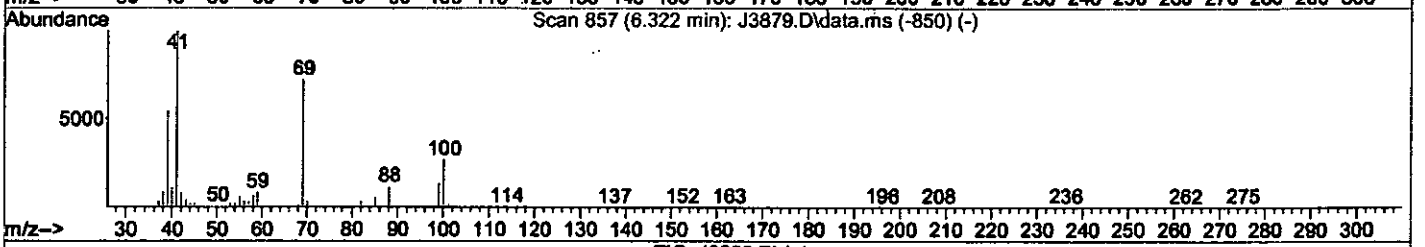
Quantitation Report (Qedit)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3880.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:59 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3880.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 841.01 ppb

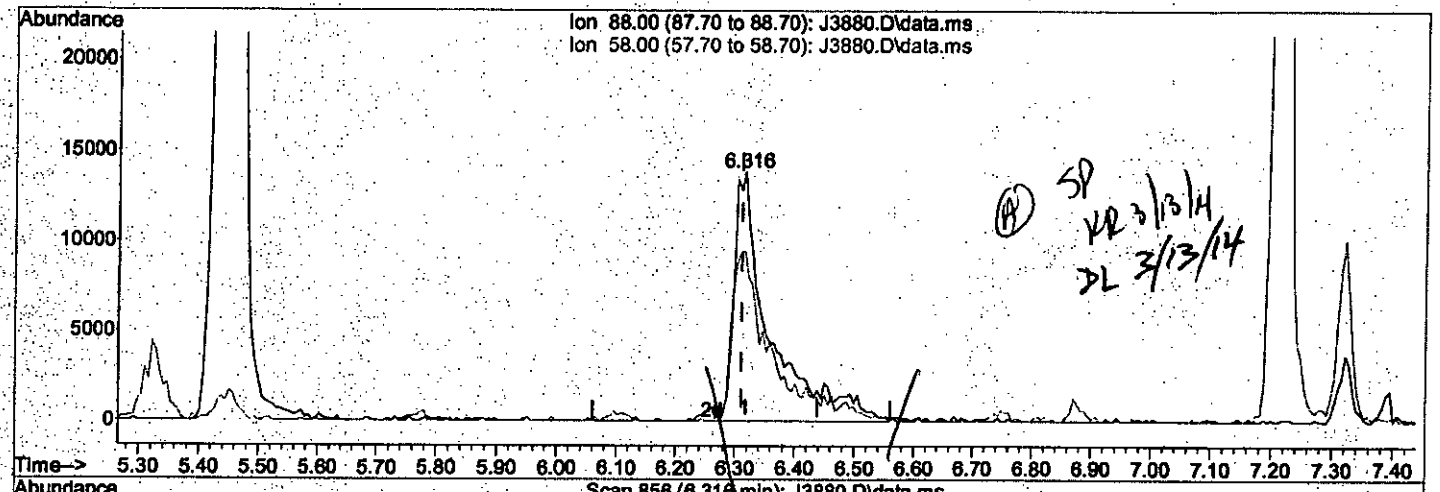
response 49121

Ion	Exp%	Act%
88.00	100	100
58.00	50.80	67.82
0.00	0.00	0.00
0.00	0.00	0.00

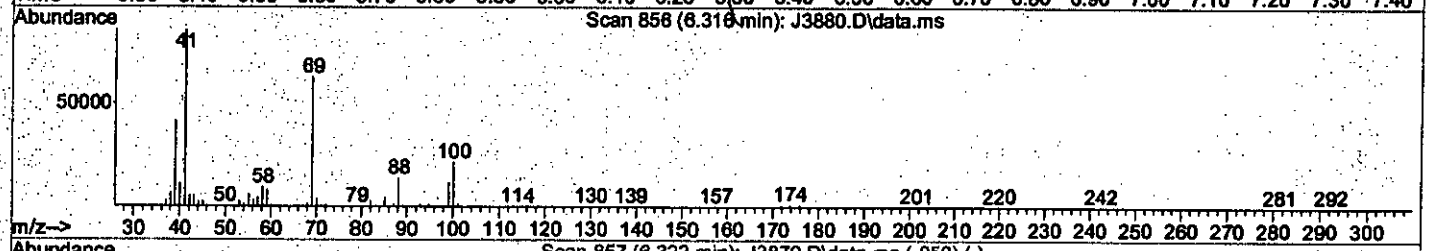
Quantitation Report (Qedit)

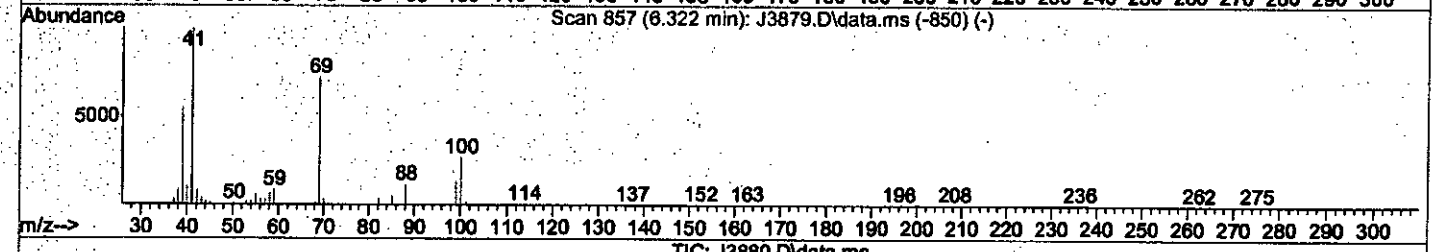
Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3880.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 09:59:59 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



SP 3/13/14
KR 3/13/14
DL 3/13/14





TIC: J3880.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 985.34 ppb m

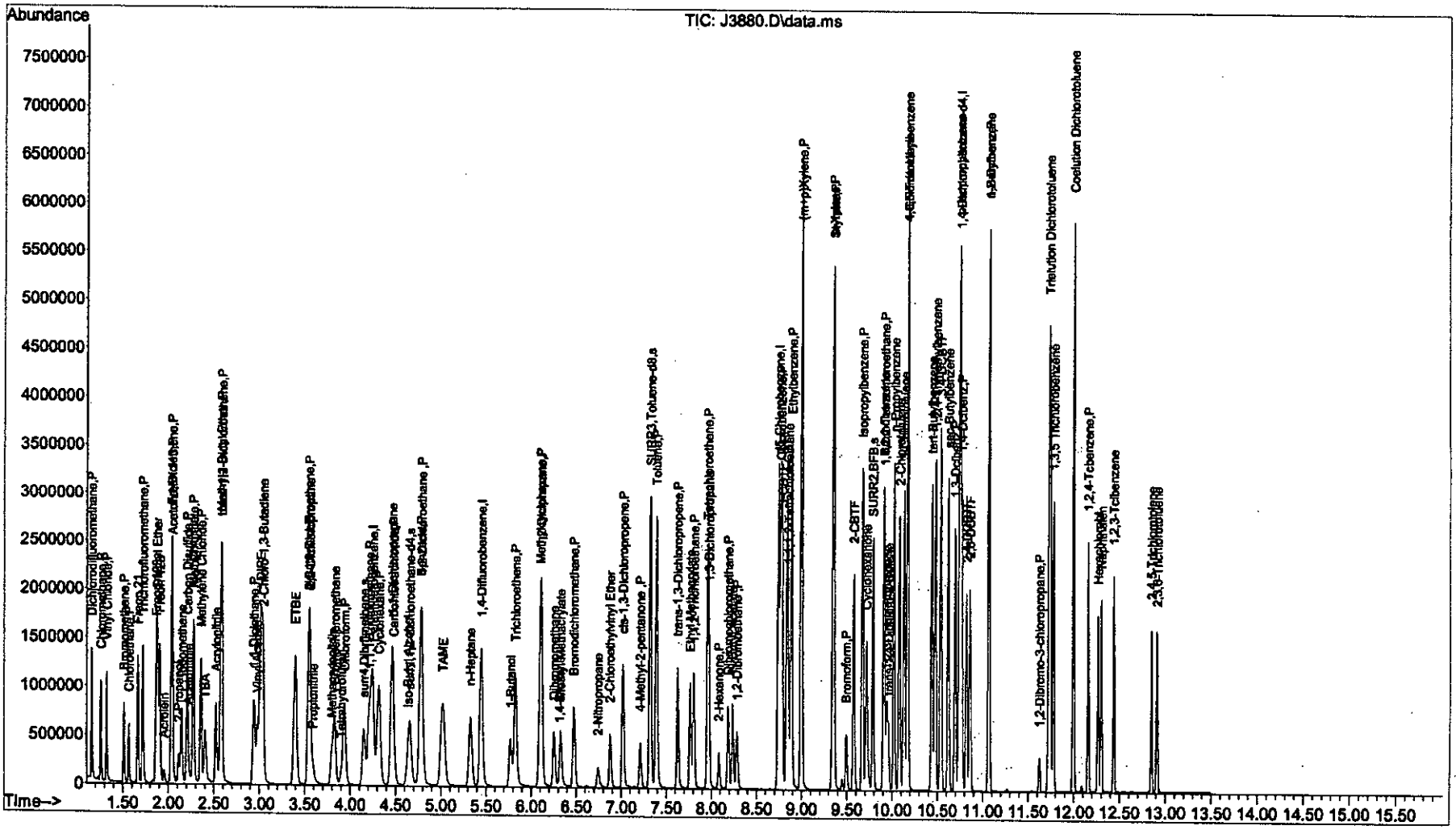
response 57551

Ion	Exp%	Act%
88.00	100	100
58.00	50.80	67.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3880.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:47:22 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



W031214.M Thu Mar 13 10:48:08 2014

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3881.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:49:15 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	937973	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1484441	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1370021	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	701019	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	430044	50.04	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.08%				
48) surr1,1,2-dichloroetha...	4.658	65	480420	49.07	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.14%				
65) SURR3,Toluene-d8	7.322	98	1799950	49.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%				
70) SURR2,BFB	9.791	95	684103	50.78	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.56%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	1151799	103.38	ppb		98
3) Chloromethane	1.262	50	984445	101.75	ppb		98
4) Vinyl Chloride	1.323	62	910676	101.54	ppb		98
5) Bromomethane	1.512	94	519455	96.11	ppb		99
6) Chloroethane	1.567	64	513409	92.02	ppb		99
7) Freon 21	1.664	67	1302870	96.32	ppb		98
8) Trichlorofluoromethane	1.719	101	1346481	97.79	ppb		100
9) Diethyl Ether	1.878	59	651078	96.03	ppb		97
10) Freon 123a	1.872	67	966134	95.56	ppb		88
11) Freon 123	1.902	83	1112658	96.38	ppb		98
12) Acrolein	1.951	56	260329	802.83	ppb		93
13) 1,1-Diclethene	2.042	96	703538	103.36	ppb		91
14) Freon 113	2.036	101	752470	101.02	ppb		93
15) Acetone	2.042	43	187153	100.57	ppb		98
16) 2-Propanol	2.115	45	689079	2245.24	ppb		95
17) Iodomethane	2.146	142	1009536	111.66	ppb		98
18) Carbon Disulfide	2.207	76	2278103	96.23	ppb		99
19) Acetonitrile	2.219	40	167185	549.38	ppb		99
20) Allyl Chloride	2.274	76	470843	100.89	ppb		99
21) Methyl Acetate	2.274	43	413689	98.72	ppb		100
22) Methylene Chloride	2.359	84	856870	96.09	ppb		99
23) TBA	2.408	59	1129564	2171.61	ppb		99
24) Acrylonitrile	2.524	53	1072759	514.53	ppb		96
25) Methyl-t-Butyl Ether	2.579	73	2127883	98.35	ppb		98
26) trans-1,2-Dichloroethene	2.585	96	868915	101.89	ppb		99
28) 1,1-Diclethane	2.945	63	1593999	100.42	ppb		99
29) Vinyl Acetate	2.981	86	147267	104.19	ppb	#	78
30) DIPE	3.018	45	3010668	97.38	ppb		96
31) 2-Chloro-1,3-Butadiene	3.042	53	1354355	99.07	ppb		98
32) ETBE	3.396	59	2608434	100.82	ppb		99
33) 2,2-Dichloropropane	3.554	77	1328467	105.49	ppb		99
34) cis-1,2-Dichloroethene	3.548	96	962108	101.10	ppb		96
35) 2-Butanone	3.542	43	258220	99.04	ppb		96
36) Propionitrile	3.591	54	412919	565.06	ppb		94
37) Bromochloromethane	3.829	130	496052	93.36	ppb		95

KR 3/13/14

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3881.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:49:15 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	254231	104.67	ppb		98
39) Tetrahydrofuran	3.908	42	173277	95.07	ppb		76
40) Chloroform	3.938	83	1536180	98.76	ppb		96
41) 1,1,1-Trichloroethane	4.213	97	1378473	103.32	ppb		86
42) TAME	5.023	73	2253915	103.19	ppb		99
44) Cyclohexane	4.316	41	749224	93.33	ppb		99
46) Carbontetrachloride	4.475	121	366099	102.86	ppb		97
47) 1,1-Dichloropropene	4.463	75	1116976	102.80	ppb		94
49) Benzene	4.780	78	3634712	99.46	ppb		98
50) 1,2-Dichloroethane	4.786	62	1063848	95.88	ppb		95
51) Iso-Butyl Alcohol	4.639	43	539363	2194.40	ppb		98
52) n-Heptane	5.328	43	888766	97.34	ppb		98
53) 1-Butanol	5.767	56	809280	5832.15	ppb		99
54) Trichloroethene	5.828	130	889519	100.49	ppb		98
55) Methylcyclohexane	6.103	55	905575	95.15	ppb		98
56) 1,2-Diclpropane	6.115	63	924592	98.08	ppb		94
57) Dibromomethane	6.255	93	443550	99.77	ppb		98
58) 1,4-Dioxane	6.310	88	125980m	2114.61	ppb		
59) Methyl Methacrylate	6.328	69	467460	106.30	ppb		94
60) Bromodichloromethane	6.480	83	1137327	104.18	ppb		97
61) 2-Nitropropane	6.749	41	259802	221.31	ppb		90
62) 2-Chloroethylvinyl Ether	6.877	63	425533	101.53	ppb		100
63) cis-1,3-Dichloropropene	7.023	75	1400196	108.11	ppb		99
64) 4-Methyl-2-pentanone	7.212	43	583711	103.54	ppb		98
66) Toluene	7.395	91	3748008	99.46	ppb		99
67) trans-1,3-Dichloropropene	7.627	75	1183119	113.32	ppb		98
68) Ethyl Methacrylate	7.767	69	978589	116.29	ppb		98
69) 1,1,2-Trichloroethane	7.809	97	656030	99.52	ppb		98
72) Tetrachloroethene	7.962	164	687266	97.11	ppb		98
73) 2-Hexanone	8.084	43	401480	103.46	ppb		98
74) 1,3-Dichloropropane	7.974	76	1209458	98.06	ppb		98
75) Dibromochloromethane	8.187	129	788086	111.12	ppb		98
76) N-Butyl Acetate	8.236	43	1000972	104.33	ppb		96
77) 1,2-Dibromoethane	8.285	107	655010	103.39	ppb		98
78) Chlorobenzene	8.767	112	2363650	99.14	ppb		99
79) 3-CBTF	8.785	180	1185107	100.49	ppb		96
80) 4-CBTF	8.840	180	1071141	101.37	ppb		98
81) 1,1,1,2-Tetrachloroethane	8.852	131	887066	105.88	ppb		97
82) Ethylbenzene	8.889	106	1313617	103.42	ppb	#	90
83) (m+p)Xylene	8.998	106	3142865	210.55	ppb	#	87
84) o-Xylene	9.346	106	1572694	103.24	ppb		92
85) Styrene	9.358	104	2671945	109.72	ppb		95
87) Bromoform	9.492	173	461418	115.90	ppb		98
88) 2-CBTF	9.577	180	1151393	98.59	ppb		99
89) Isopropylbenzene	9.675	105	3644119	100.68	ppb		95
90) Cyclohexanone	9.718	55	1104912	1965.28	ppb		99
91) trans-1,4-Dichloro-2-B...	9.961	53	209847	111.21	ppb		88
92) 1,1,2,2-Tetrachloroethane	9.913	83	772541	96.23	ppb		99
93) Bromobenzene	9.913	156	1019396	98.85	ppb	#	85
94) 1,2,3-Trichloropropane	9.943	110	229868	95.69	ppb		99
95) n-Propylbenzene	10.022	91	4188003	98.92	ppb		97
96) 2-Chlorotoluene	10.083	91	2652958	99.77	ppb		99

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3881.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:49:15 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

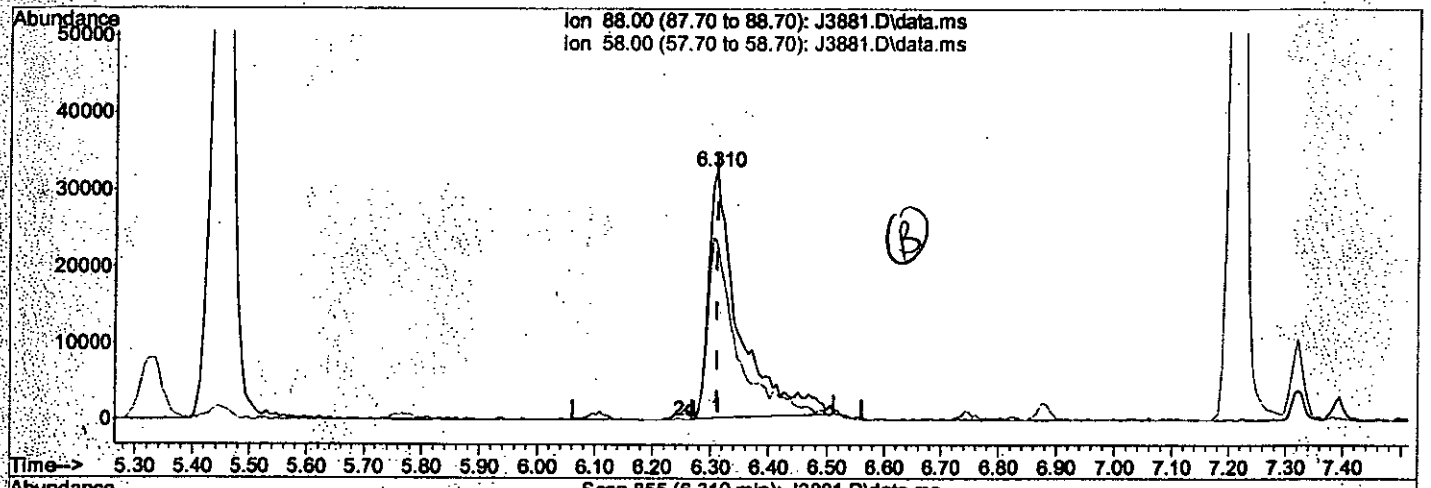
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	2690681	97.29	ppb	97
98)	4-Chlorotoluene	10.175	91	3159334	100.78	ppb	95
99)	1,3,5-Trimethylbenzene	10.175	105	3042400	103.05	ppb	95
100)	tert-Butylbenzene	10.437	119	2486489	100.05	ppb	98
101)	1,2,4-Trimethylbenzene	10.480	105	3118106	102.65	ppb	97
102)	3,4-DCBTF	10.535	214	869988	100.73	ppb	97
103)	sec-Butylbenzene	10.620	105	3484191	100.74	ppb	97
104)	p-Isopropyltoluene	10.742	119	3038002	103.87	ppb	98
105)	1,3-Dclbenz	10.699	146	1804895	102.83	ppb	97
106)	1,4-Dclbenz	10.766	146	1826800	97.81	ppb	96
107)	2,4-DCBTF	10.821	214	767048	102.08	ppb	95
108)	2,5-DCBTF	10.864	214	873255	101.64	ppb	98
109)	n-Butylbenzene	11.065	91	2753475	104.42	ppb	98
110)	1,2-Dclbenz	11.065	146	1726213	102.13	ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	139798	113.65	ppb	94
112)	Trielution Dichlorotol...	11.729	125	4037789	302.05	ppb	99
113)	1,3,5 Trichlorobenzene	11.778	180	1149549	98.60	ppb	100
114)	Coelution Dichlorotoluene	11.998	125	2873775	203.02	ppb	97
115)	1,2,4-Tcbenzene	12.162	180	1007657	97.49	ppb	95
116)	Hexachlorobt	12.266	225	434402	96.30	ppb	99
117)	Naphthalen	12.303	128	1968108	105.76	ppb	98
118)	1,2,3-Tclbenzene	12.437	180	814869	96.28	ppb	99
119)	2,4,5-Trichlorotolene	12.851	159	541327	96.87	ppb	98
120)	2,3,6-Trichlorotoluene	12.912	159	499889	97.93	ppb	97

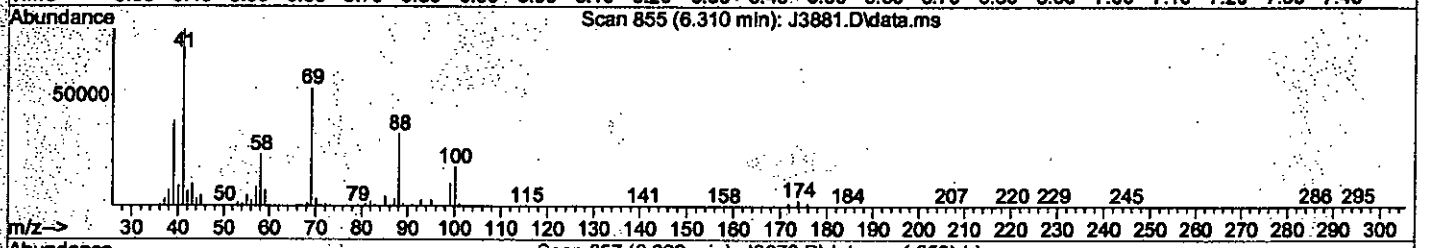
(#) = qualifier out of range (m) = manual integration (+) = signals summed

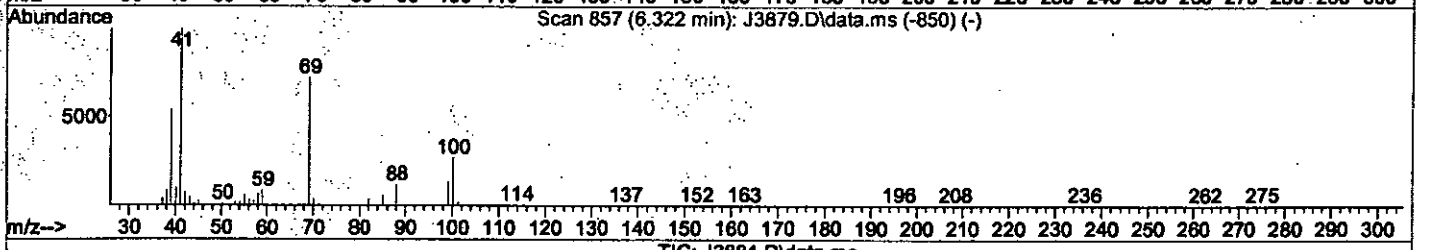
Quantitation Report (Qedit)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3881.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:00:04 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3881.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.000) 1971.52 ppb

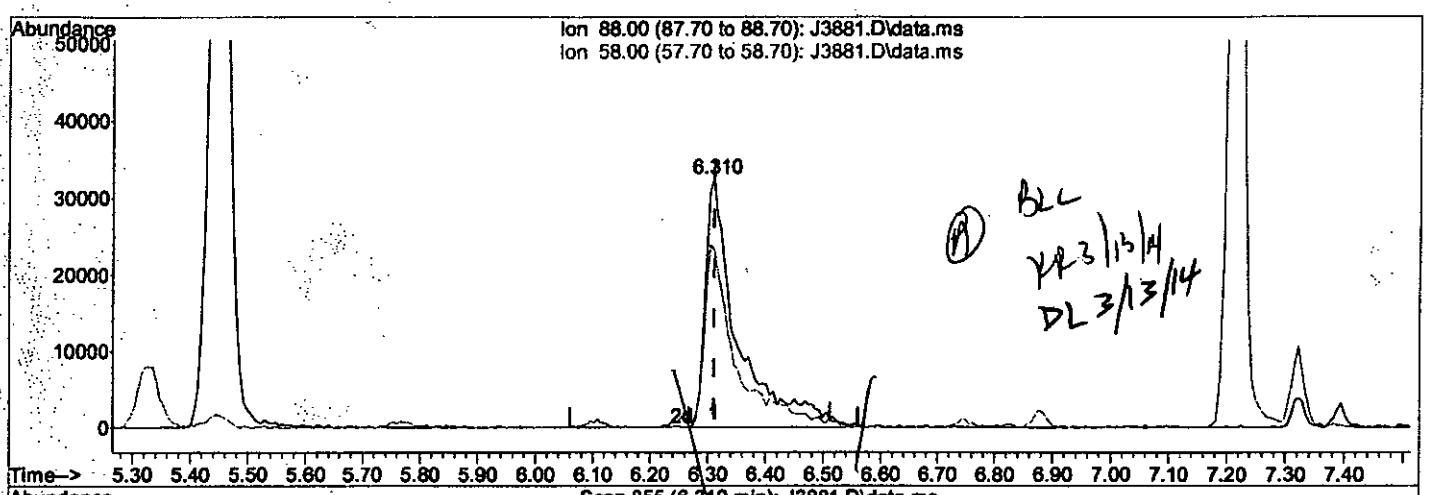
response 117455

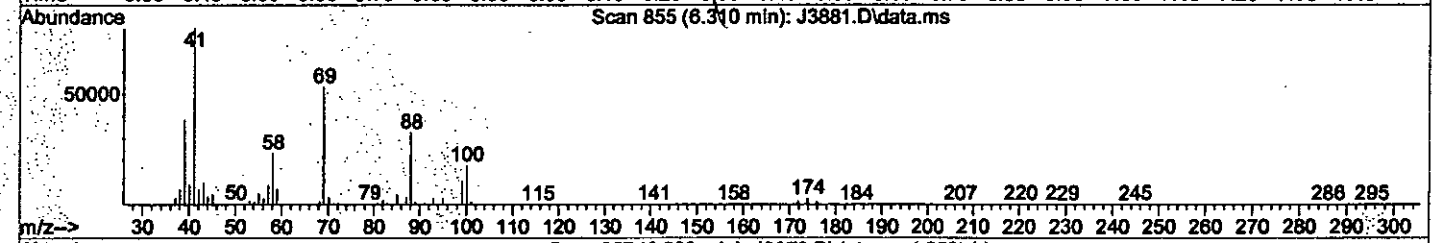
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	71.24#
0.00	0.00	0.00
0.00	0.00	0.00

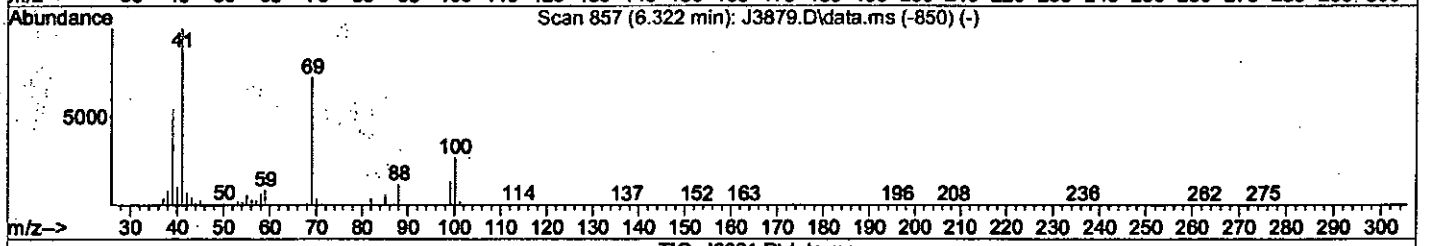
Quantitation Report (Qedit)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3881.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:00:04 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3881.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.000) 2114.61 ppb m

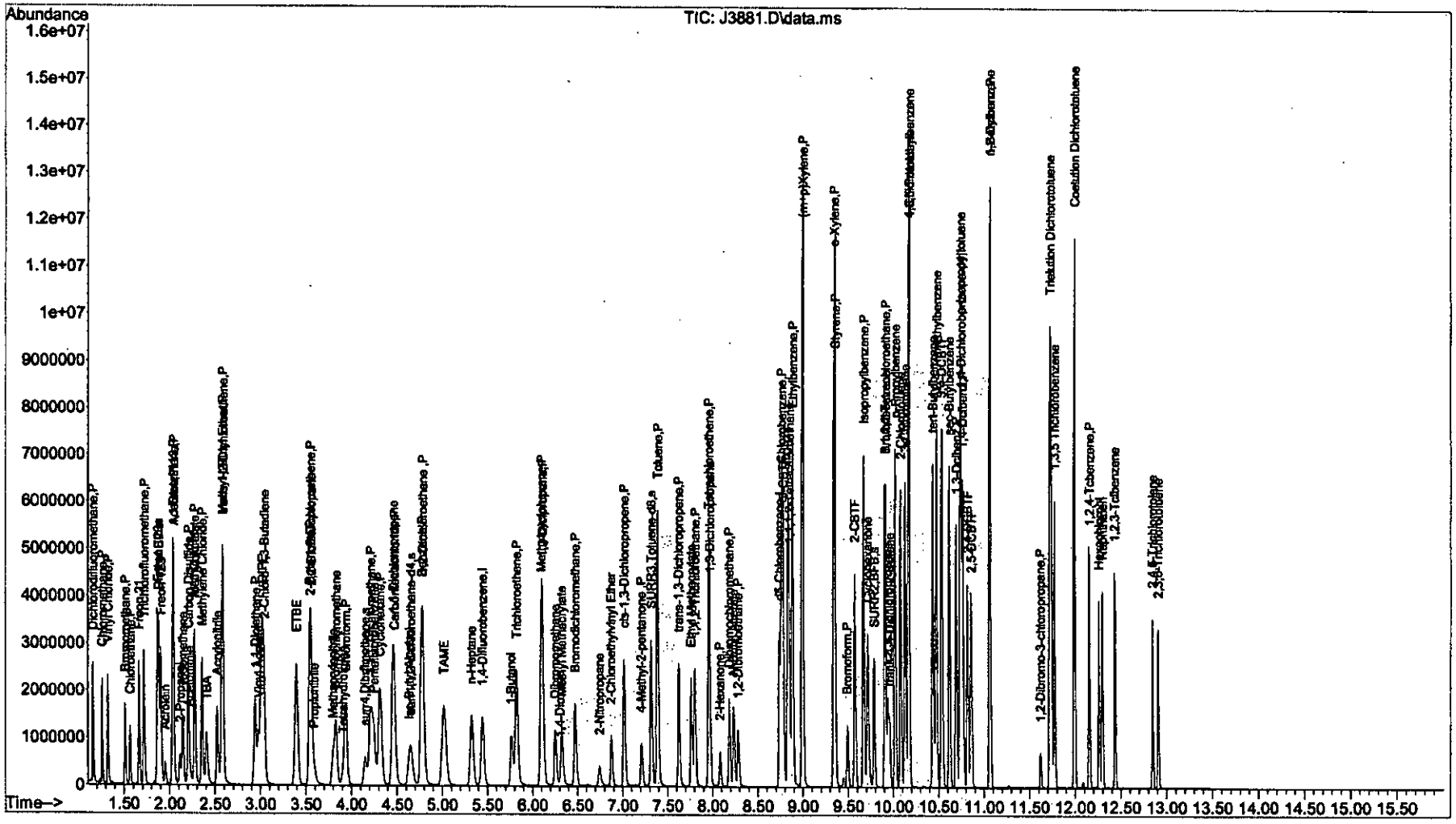
response 125980

Ion	Exp%	Act%
88.00	100	100
58.00	50.80	71.24#
0.00	0.00	0.00
0.00	0.00	0.00

00460

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3881.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 1:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:49:15 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



19490

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:51:14 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	979999	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1518459	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1407424	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	759863	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	441101	50.18	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.36%				
48) surr1,1,2-dichloroetha...	4.664	65	488656	48.80	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.60%				
65) SURR3,Toluene-d8	7.322	98	1853938	50.19	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.38%				
70) SURR2,BFB	9.791	95	709699	51.50	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	2286283	196.42	ppb		96
3) Chloromethane	1.262	50	2037500	201.56	ppb		96
4) Vinyl Chloride	1.323	62	1831559	195.46	ppb		98
5) Bromomethane	1.512	94	1116290	197.68	ppb		99
6) Chloroethane	1.567	64	1042363	178.82	ppb		100
7) Freon 21	1.664	67	2705583	191.44	ppb		96
8) Trichlorofluoromethane	1.719	101	2751491	191.27	ppb		98
9) Diethyl Ether	1.878	59	1310397	184.99	ppb		96
10) Freon 123a	1.872	67	2017900m	191.04	ppb		
11) Freon 123	1.902	83	2383673	197.61	ppb		95
12) Acrolein	1.951	56	843142	2488.67	ppb		96
13) 1,1-Diclethene	2.036	96	1444716	203.15	ppb		95
14) Freon 113	2.036	101	1541423	198.05	ppb		90
15) Acetone	2.042	43	369068	189.81	ppb		99
16) 2-Propanol	2.116	45	1449061	4519.02	ppb		95
17) Iodomethane	2.146	142	2055775	217.63	ppb		96
18) Carbon Disulfide	2.207	76	4568264	184.69	ppb		98
19) Acetonitrile	2.219	40	322471	1014.22	ppb		94
20) Allyl Chloride	2.274	76	887879	182.08	ppb		95
21) Methyl Acetate	2.274	43	848257	193.74	ppb		99
22) Methylene Chloride	2.359	84	1742532	187.03	ppb		99
23) TBA	2.408	59	2336094	4298.58	ppb		95
24) Acrylonitrile	2.524	53	2160614	991.85	ppb		98
25) Methyl-t-Butyl Ether	2.579	73	4301170	190.27	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	1768019	198.42	ppb		96
28) 1,1-Diclethane	2.939	63	3195225	192.67	ppb		100
29) Vinyl Acetate	2.975	86	322532	218.41	ppb	#	80
30) DIPE	3.018	45	5908636	182.91	ppb		97
31) 2-Chloro-1,3-Butadiene	3.042	53	2848864	199.45	ppb		97
32) ETBE	3.396	59	5248916	194.19	ppb		99
33) 2,2-Dichloropropane	3.554	77	2728713	207.38	ppb		99
34) cis-1,2-Dichloroethene	3.542	96	1971351	198.26	ppb		97
35) 2-Butanone	3.548	43	536985	197.13	ppb		97
36) Propionitrile	3.591	54	833731	1091.99	ppb		98
37) Bromochloromethane	3.829	130	1006153	181.24	ppb		94

KR 3/13/14

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:51:14 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	524188	206.57	ppb		97
39) Tetrahydrofuran	3.902	42	364546	191.44	ppb		74
40) Chloroform	3.938	83	3126159	192.36	ppb		98
41) 1,1,1-Trichloroethane	4.213	97	2833193	203.25	ppb	#	84
42) TAME	5.023	73	4623300	202.60	ppb		99
44) Cyclohexane	4.316	41	1591117	193.76	ppb		99
46) Carbontetrachloride	4.469	121	768760	211.15	ppb		100
47) 1,1-Dichloropropene	4.463	75	2295867	206.56	ppb		94
49) Benzene	4.786	78	7257077	194.13	ppb		96
50) 1,2-Dichloroethane	4.792	62	2181265	192.18	ppb		97
51) Iso-Butyl Alcohol	4.639	43	1130810	4497.64	ppb		98
52) n-Heptane	5.328	43	1791526	191.82	ppb		97
53) 1-Butanol	5.773	56	1716496	12092.96	ppb		100
54) Trichloroethene	5.828	130	1855685	204.93	ppb		96
55) Methylcyclohexane	6.109	55	1898582	195.02	ppb		96
56) 1,2-Diclpropane	6.115	63	1885412	195.53	ppb		97
57) Dibromomethane	6.255	93	928427	204.16	ppb		97
58) 1,4-Dioxane	6.310	88	260761m	4278.89	ppb		
59) Methyl Methacrylate	6.328	69	977496	217.30	ppb		92
60) Bromodichloromethane	6.474	83	2367789	212.04	ppb		97
61) 2-Nitropropane	6.743	41	557263	464.07	ppb		83
62) 2-Chloroethylvinyl Ether	6.877	63	916396	213.74	ppb		100
63) cis-1,3-Dichloropropene	7.023	75	2885488	217.79	ppb		99
64) 4-Methyl-2-pentanone	7.212	43	1217857	211.20	ppb		97
66) Toluene	7.395	91	7245118	187.96	ppb		93
67) trans-1,3-Dichloropropene	7.633	75	2452963	229.69	ppb		95
68) Ethyl Methacrylate	7.767	69	2019211	234.58	ppb		100
69) 1,1,2-Trichloroethane	7.810	97	1369904	203.16	ppb		97
72) Tetrachloroethene	7.962	164	1476158	203.04	ppb		98
73) 2-Hexanone	8.084	43	872249	218.80	ppb		99
74) 1,3-Dichloropropane	7.974	76	2487765	196.34	ppb		98
75) Dibromochloromethane	8.188	129	1673461	229.69	ppb		99
76) N-Butyl Acetate	8.236	43	2151476	218.28	ppb		97
77) 1,2-Dibromoethane	8.285	107	1357253	208.54	ppb		97
78) Chlorobenzene	8.773	112	4820919	196.84	ppb		95
79) 3-CBTF	8.785	180	2511010	207.26	ppb		95
80) 4-CBTF	8.840	180	2266329	208.77	ppb		97
81) 1,1,1,2-Tetrachloroethane	8.852	131	1919375	223.01	ppb		96
82) Ethylbenzene	8.889	106	2713368	207.95	ppb	#	70
83) (m+p)Xylene	8.998	106	6206404	404.74	ppb	#	67
84) o-Xylene	9.346	106	3243504	207.27	ppb	#	81
85) Styrene	9.358	104	5349928	213.85	ppb		99
87) Bromoform	9.498	173	1021268	236.66	ppb		99
88) 2-CBTF	9.577	180	2418474	191.05	ppb		98
89) Isopropylbenzene	9.675	105	6913118	176.21	ppb		86
90) Cyclohexanone	9.724	55	2390191	3922.16	ppb		97
91) trans-1,4-Dichloro-2-B...	9.962	53	457912	223.88	ppb		86
92) 1,1,2,2-Tetrachloroethane	9.913	83	1621835	186.37	ppb		98
93) Bromobenzene	9.913	156	2182175	195.22	ppb	#	82
94) 1,2,3-Trichloropropane	9.943	110	482217	185.19	ppb		97
95) n-Propylbenzene	10.023	91	7682061	167.40	ppb		87
96) 2-Chlorotoluene	10.083	91	5254597	182.32	ppb		93

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:51:14 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration

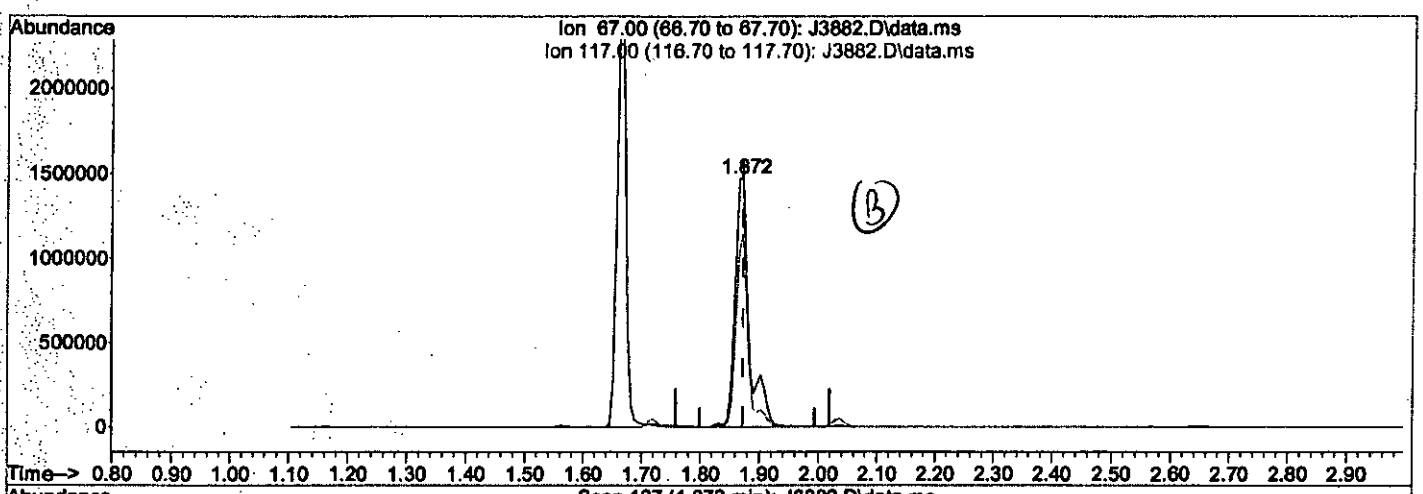
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	5400136	180.14	ppb		92
98)	4-Chlorotoluene	10.175	91	6004495	176.70	ppb		84
99)	1,3,5-Trimethylbenzene	10.175	105	5961721	186.29	ppb		86
100)	tert-Butylbenzene	10.443	119	4946458	183.63	ppb		93
101)	1,2,4-Trimethylbenzene	10.480	105	6014450	182.67	ppb		88
102)	3,4-DCBTF	10.535	214	1853237	197.96	ppb		96
103)	sec-Butylbenzene	10.620	105	6557013	174.91	ppb		91
104)	p-Isopropyltoluene	10.742	119	5833378	184.01	ppb		90
105)	1,3-Dclbenz	10.699	146	3744521	196.81	ppb		96
106)	1,4-Dclbenz	10.772	146	3787265	187.07	ppb		95
107)	2,4-DCBTF	10.821	214	1588956	195.09	ppb		96
108)	2,5-DCBTF	10.864	214	1812827	194.66	ppb		98
109)	n-Butylbenzene	11.071	91	5279444	184.71	ppb		91
110)	1,2-Dclbenz	11.065	146	3657071	199.61	ppb		98
111)	1,2-Dibromo-3-chloropr...	11.626	157	292980	219.74	ppb		96
112)	Trielution Dichlorotol...	11.736	125	7827531	540.19	ppb	#	90
113)	1,3,5 Trichlorobenzene	11.778	180	2337530	184.97	ppb		99
114)	Coelution Dichlorotoluene	11.998	125	5360706	349.39	ppb	#	87
115)	1,2,4-Tcbenzene	12.162	180	2051796	183.13	ppb		94
116)	Hexachlorobt	12.266	225	888614	181.73	ppb		99
117)	Naphthalen	12.303	128	3805658	188.67	ppb		98
118)	1,2,3-Tclbenzene	12.437	180	1643433	179.15	ppb		99
119)	2,4,5-Trichlorotolene	12.851	159	1040596	171.79	ppb		97
120)	2,3,6-Trichlorotoluene	12.912	159	963982	174.22	ppb		97

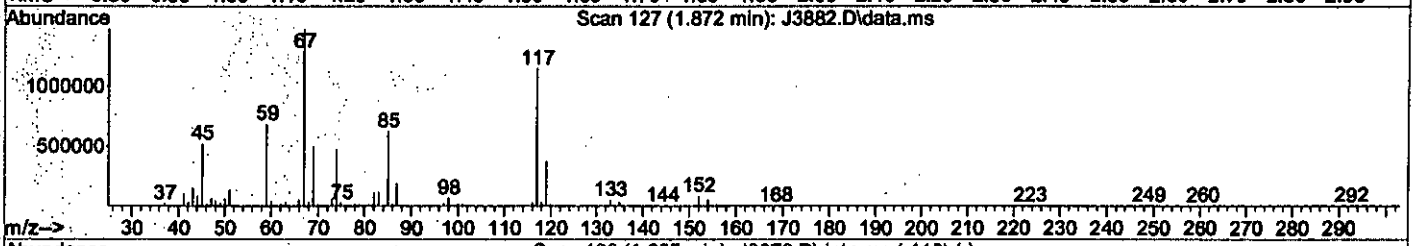
(#) = qualifier out of range (m) = manual integration (+) = signals summed

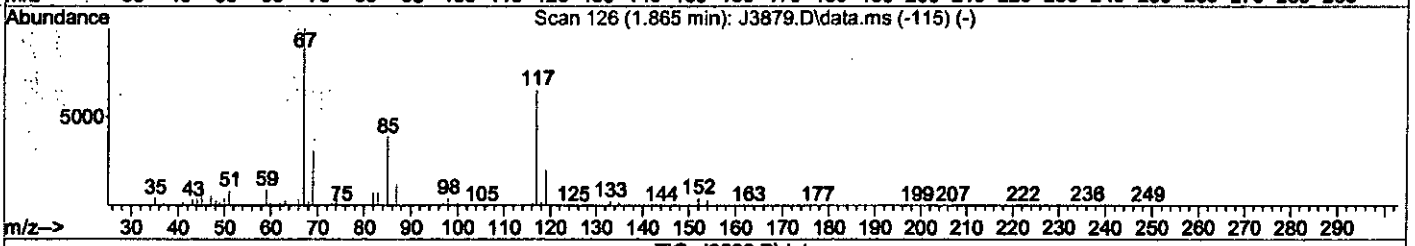
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:00:09 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3882.D\data.ms

(10) Freon 123a

1.872min (0.000) 225.75 ppb

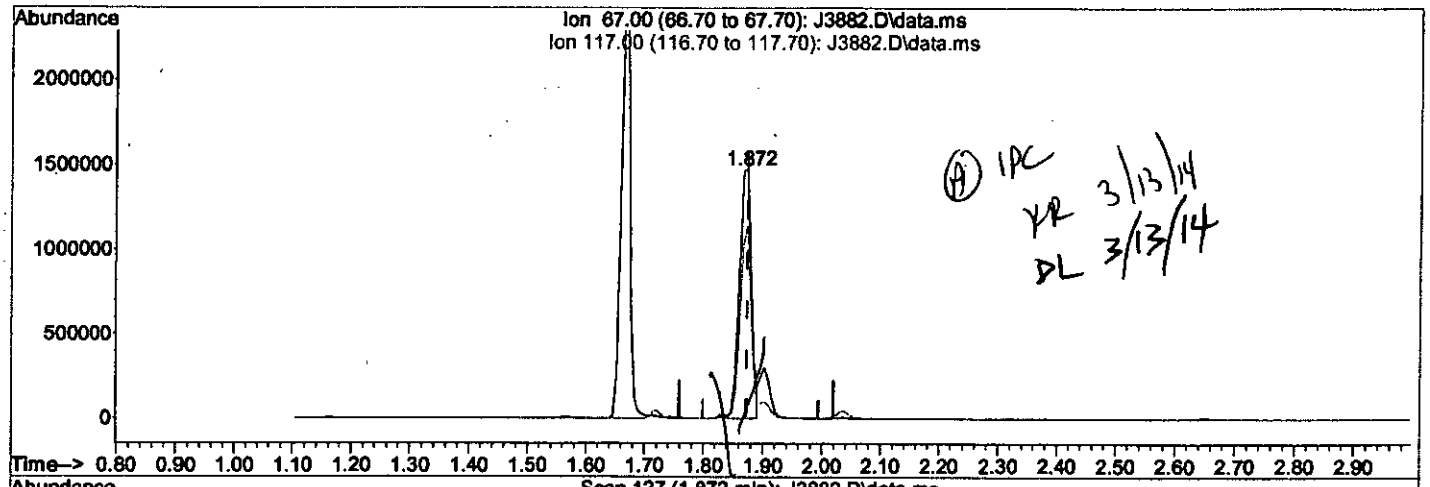
response 2384527

Ion	Exp%	Act%
67.00	100	100
117.00	65.80	77.87
0.00	0.00	0.00
0.00	0.00	0.00

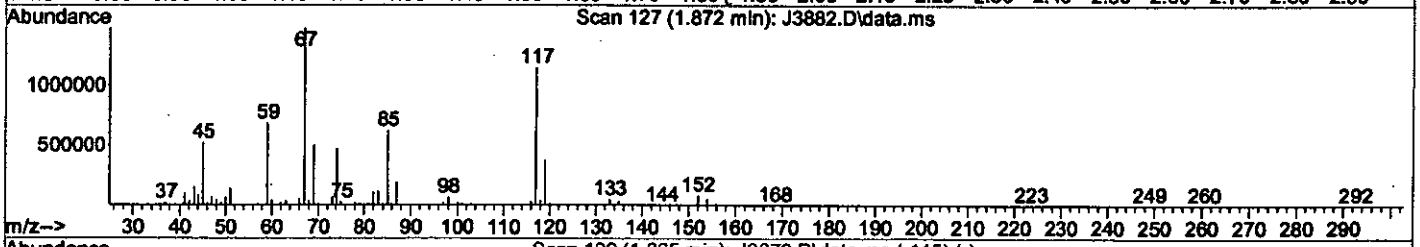
Quantitation Report (Qedit)

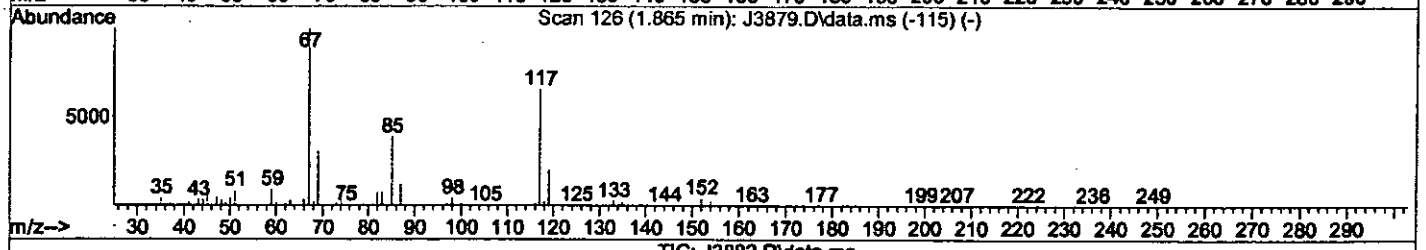
Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:00:09 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



(A) IPC 3/13/14
YR 3/13/14
DL 3/13/14





TIC: J3882.D\data.ms

(10) Freon 123a

1.872min (0.000) 191.04 ppb m

response 2017900

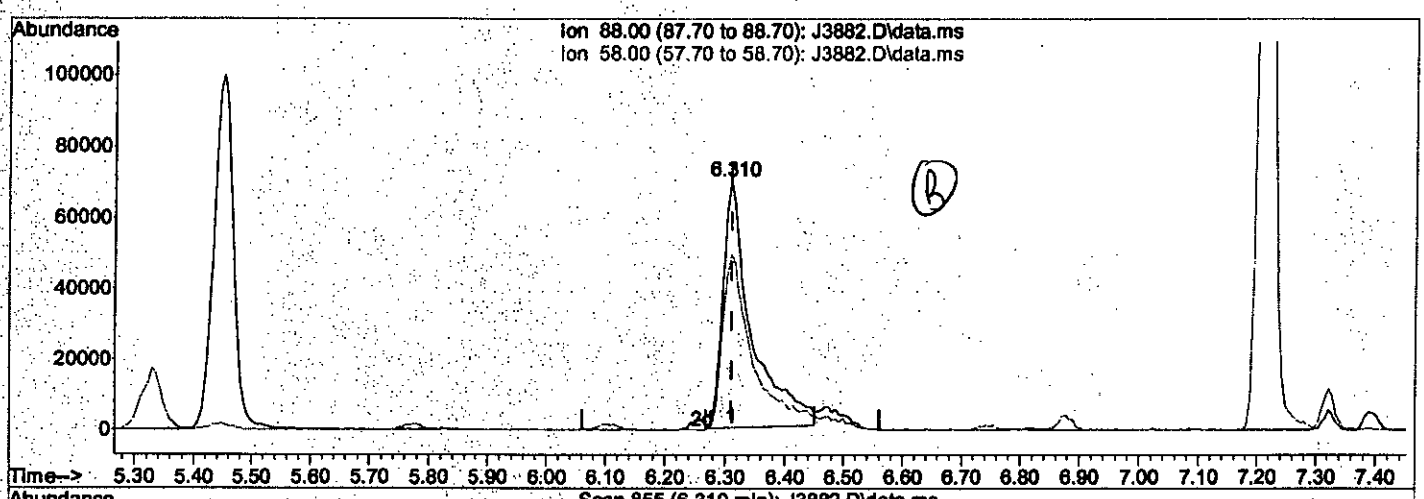
Ion	Exp%	Act%
67.00	100	100
117.00	85.90	77.87
0.00	0.00	0.00
0.00	0.00	0.00

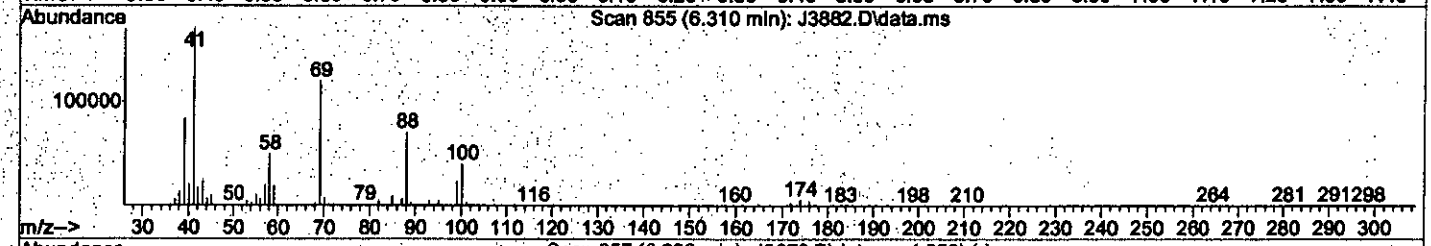
00466

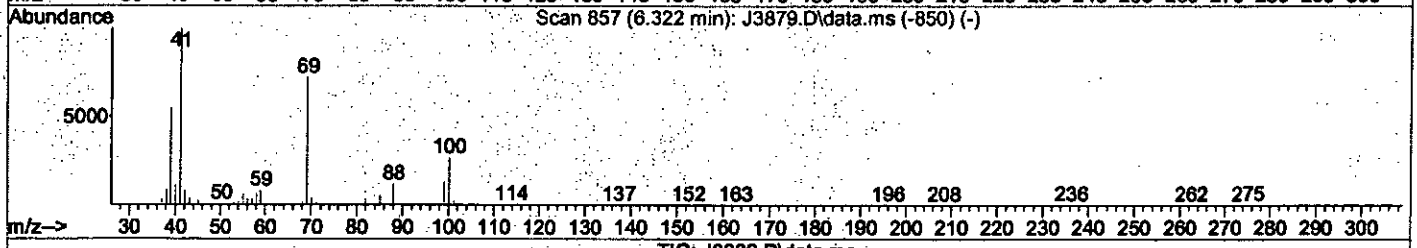
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:00:09 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3882.D\data.ms

(58) 1,4-Dioxane

6.310min (0.000) 3786.68 ppb

response 230765

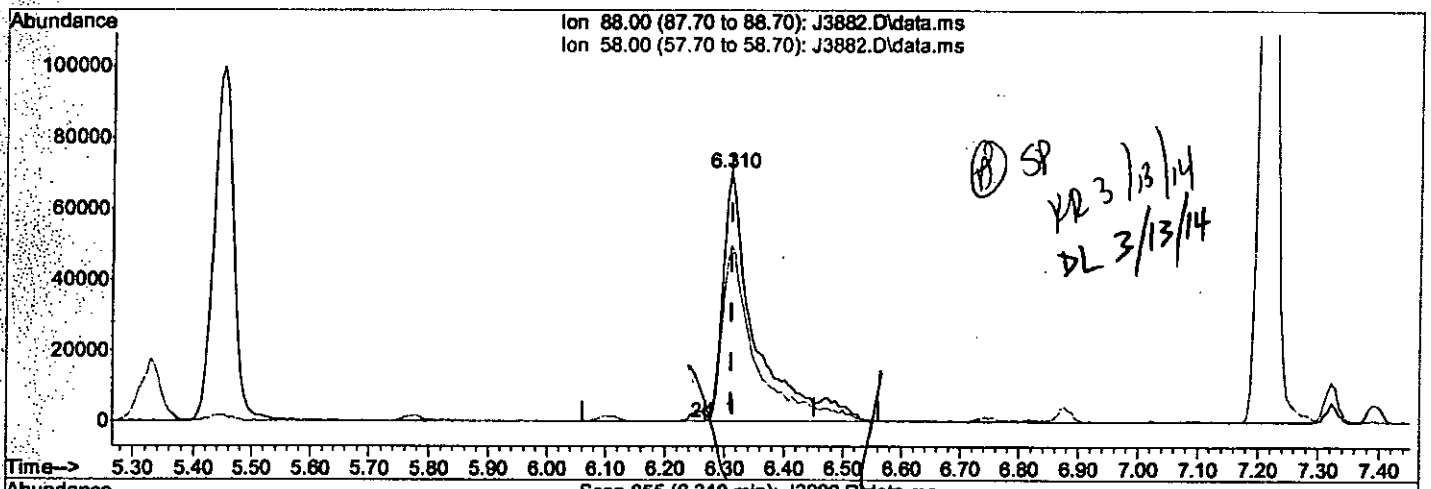
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	70.35
0.00	0.00	0.00
0.00	0.00	0.00

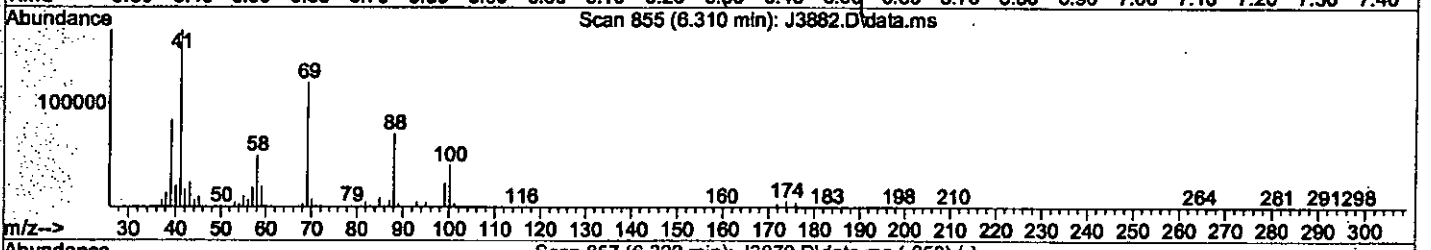
00467

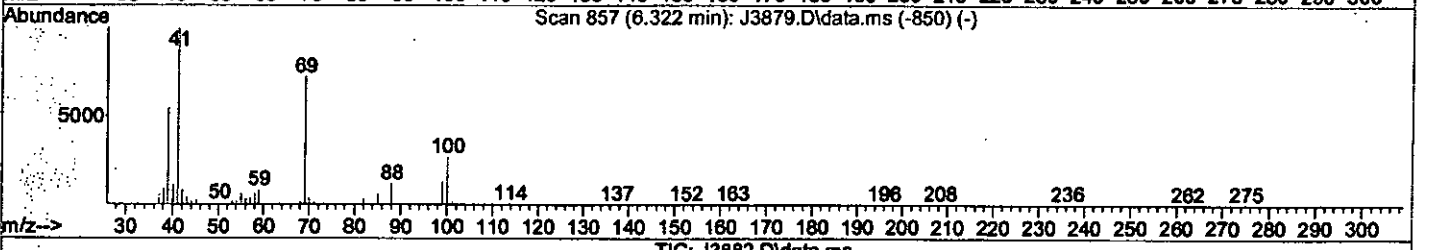
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:00:09 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration







TIC: J3882.D\data.ms

(58) 1,4-Dioxane

6.310min (0.000) 4278.89 ppb m

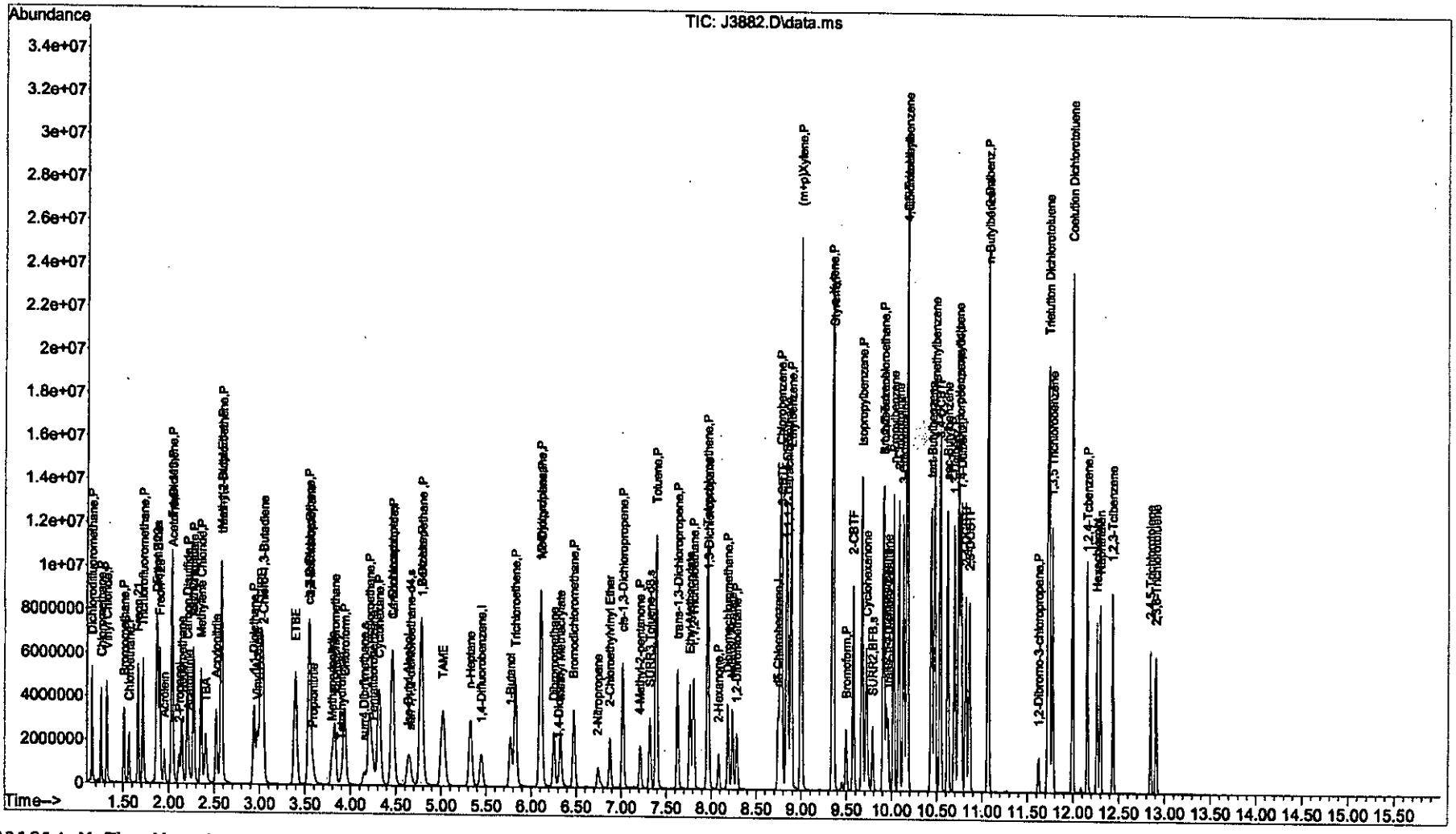
response 260761

Ion	Exp%	Act%
88.00	100	100
58.00	50.80	70.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\031214\J3882.D
Misc : 8260 WATER ICAL
Acq On : 12 Mar 2014 2:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 10:51:14 2014
QLast Update : Thu Mar 13 09:53:09 2014
Response via : Initial Calibration



Initial Calibration Verification Summary Report

KR 3/13/14

Calibration ID: RC1400023
WOB1214 8260 Waters

Instrument ID: R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1400023-09	T	Average RF	50	52.81	ppm	5.6	<=30
1,1,1-Trichloroethane (TCA)	RC1400023-09	T	Average RF	50	49.84	ppm	-0.3	<=30
1,1,2,2-Tetrachloroethane	RC1400023-09	T	Average RF	50	48.43	ppm	-3.1	<=30
1,1,2-Trichloroethane	RC1400023-09	T	Average RF	50	48.84	ppm	-2.3	<=30
1,1,2-Trichlorotrifluoroethane	RC1400023-09	T	Average RF	50	50.03	ppm	0.1	<=30
1,1-Dichloroethane (1,1-DCA)	RC1400023-09	T	Average RF	50	48.94	ppm	-2.1	<=30
1,1-Dichloroethene (1,1-DCE)	RC1400023-09	T	Average RF	50	57.52	ppm	15.0	<=30
1,1-Dichloropropene	RC1400023-09	T	Average RF	50	56.55	ppm	13.1	<=30
1,2,3-Trichlorobenzene	RC1400023-09	T	Average RF	50	50.70	ppm	1.4	<=30
1,2,3-Trichloropropane	RC1400023-09	T	Average RF	50	48.79	ppm	-2.4	<=30
1,2,4-Trichlorobenzene	RC1400023-09	T	Average RF	50	51.43	ppm	2.9	<=30
1,2,4-Trimethylbenzene	RC1400023-09	T	Average RF	50	52.17	ppm	4.3	<=30
1,2-Dibromo-3-chloropropane (DBCP)	RC1400023-09	T	Average RF	50	55.67	ppm	11.3	<=30
1,2-Dibromoethane	RC1400023-09	T	Average RF	50	52.14	ppm	4.3	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1400023-09	T	Average RF	50	51.68	ppm	3.4	<=30
1,2-Dichlorobenzene	RC1400023-09	T	Average RF	50	50.95	ppm	1.9	<=30
1,2-Dichloroethane	RC1400023-09	T	Average RF	50	46.09	ppm	-7.8	<=30
1,2-Dichloropropane	RC1400023-09	T	Average RF	50	48.94	ppm	-2.1	<=30
1,3,5-Trichlorobenzene	RC1400023-09	T	Average RF	50	49.97	ppm	-0.1	<=30
1,3,5-Trimethylbenzene	RC1400023-09	T	Average RF	50	52.32	ppm	4.6	<=30
1,3-Dichlorobenzene	RC1400023-09	T	Average RF	50	51.41	ppm	2.8	<=30
1,3-Dichloropropane	RC1400023-09	T	Average RF	50	48.78	ppm	-2.4	<=30
1,4-Dichlorobenzene	RC1400023-09	T	Average RF	50	49.93	ppm	-0.1	<=30
1,4-Dioxane	RC1400023-09	T	Average RF	1000	938.8	ppm	-6.1	<=30
1-Butanol	RC1400023-09	T	Average RF	2500	2756	ppm	10.2	<=30
1-Chloro-4-(trifluoromethyl)benzene	RC1400023-09	T	Average RF	50	51.02	ppm	2.0	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1400023-09	T	Average RF	50	51.23	ppm	2.5	<=30
2,2-Dichloropropane	RC1400023-09	T	Average RF	50	53.03	ppm	6.1	<=30
2,3,6-Trichlorotoluene	RC1400023-09	T	Average RF	50	52.46	ppm	4.9	<=30
2,4,5-Trichlorotoluene	RC1400023-09	T	Average RF	50	53.89	ppm	7.8	<=30
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1400023-09	T	Average RF	150	151.4	ppm	0.9	<=30
2,4-Dichlorobenzotrifluoride	RC1400023-09	T	Average RF	50	50.93	ppm	1.9	<=30
2,5-Dichlorobenzotrifluoride	RC1400023-09	T	Average RF	50	50.16	ppm	0.3	<=30
2-Butanone (MEK)	RC1400023-09	T	Average RF	50	45.55	ppm	-8.9	<=30
2-Chloro-1,3-butadiene	RC1400023-09	T	Average RF	50	49.33	ppm	-1.3	<=30
2-Chlorobenzotrifluoride	RC1400023-09	T	Average RF	50	50.08	ppm	0.2	<=30
2-Chloroethyl Vinyl Ether	RC1400023-09	T	Average RF	50	52.52	ppm	5.0	<=30
2-Chlorotoluene	RC1400023-09	T	Average RF	50	50.46	ppm	0.9	<=30
2-Hexanone	RC1400023-09	T	Average RF	50	49.41	ppm	-1.2	<=30
2-Methyl-1-propanol	RC1400023-09	T	Average RF	1000	1010	ppm	1.0	<=30
2-Methyl-2-propanol	RC1400023-09	T	Average RF	1000	978.2	ppm	-2.2	<=30
2-Nitropropane	RC1400023-09	T	Average RF	100	102.0	ppm	2.0	<=30
2-Propanol	RC1400023-09	T	Average RF	1000	1025	ppm	2.5	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1400023-09	T	Average RF	100	103.6	ppm	3.6	<=30
3,4-Dichlorobenzotrifluoride	RC1400023-09	T	Average RF	50	49.78	ppm	-0.4	<=30
3-Chloro-1-propene	RC1400023-09	T	Average RF	50	50.79	ppm	1.6	<=30
3-Chlorobenzotrifluoride	RC1400023-09	T	Average RF	50	49.64	ppm	-0.7	<=30
3-Chlorotoluene	RC1400023-09	T	Average RF	50	48.80	ppm	-2.4	<=30
4-Chlorotoluene	RC1400023-09	T	Average RF	50	51.03	ppm	2.1	<=30
4-Isopropyltoluene	RC1400023-09	T	Average RF	50	53.38	ppm	6.8	<=30
4-Methyl-2-pentanone	RC1400023-09	T	Average RF	50	50.35	ppm	0.7	<=30

Initial Calibration Verification Summary Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1400023-09	T	Average RF	50	39.48	ppm	-21.0	<=30
Acetonitrile	RC1400023-09	T	Average RF	250	225.5	ppm	-9.8	<=30
Acrolein	RC1400023-09	T	Quadratic	100	208.5	ppm	108.5	<=30
Acrylonitrile	RC1400023-09	T	Average RF	250	246.3	ppm	-1.5	<=30
Benzene	RC1400023-09	T	Average RF	50	49.93	ppm	-0.1	<=30
Bromobenzene	RC1400023-09	T	Average RF	50	49.66	ppm	-0.7	<=30
Bromochloromethane	RC1400023-09	T	Average RF	50	47.83	ppm	-4.3	<=30
Bromodichloromethane	RC1400023-09	T	Average RF	50	51.35	ppm	2.7	<=30
Bromoform	RC1400023-09	T	Average RF	50	54.02	ppm	8.0	<=30
Bromomethane	RC1400023-09	T	Average RF	50	47.24	ppm	-5.5	<=30
Carbon Disulfide	RC1400023-09	T	Average RF	50	47.03	ppm	-5.9	<=30
Carbon Tetrachloride	RC1400023-09	T	Average RF	50	50.06	ppm	0.1	<=30
Chlorobenzene	RC1400023-09	T	Average RF	50	50.84	ppm	1.7	<=30
Chloroethane	RC1400023-09	T	Average RF	50	45.68	ppm	-8.6	<=30
Chloroform	RC1400023-09	T	Average RF	50	48.21	ppm	-3.6	<=30
Chloromethane	RC1400023-09	T	Average RF	50	44.02	ppm	-12.0	<=30
Cyclohexane	RC1400023-09	T	Average RF	50	43.66	ppm	-12.7	<=30
Cyclohexanone	RC1400023-09	T	Average RF	1000	614.2	ppm	-38.6	<=30
Dibromochloromethane	RC1400023-09	T	Average RF	50	53.83	ppm	7.7	<=30
Dibromomethane	RC1400023-09	T	Average RF	50	49.61	ppm	-0.8	<=30
Dichlorodifluoromethane (CFC 12)	RC1400023-09	T	Average RF	50	38.90	ppm	-22.2	<=30
Dichlorofluoromethane (CFC 21)	RC1400023-09	T	Average RF	50	48.36	ppm	-3.3	<=30
Dichloromethane	RC1400023-09	T	Average RF	50	48.52	ppm	-3.0	<=30
Diethyl Ether	RC1400023-09	T	Average RF	50	49.25	ppm	-1.5	<=30
Diisopropyl Ether	RC1400023-09	T	Average RF	50	45.55	ppm	-8.9	<=30
Ethyl Methacrylate	RC1400023-09	T	Average RF	50	54.92	ppm	9.8	<=30
Ethyl tert-Butyl Ether	RC1400023-09	T	Average RF	50	47.03	ppm	-5.9	<=30
Ethylbenzene	RC1400023-09	T	Average RF	50	51.98	ppm	4.0	<=30
Hexachlorobutadiene	RC1400023-09	T	Average RF	50	52.06	ppm	4.1	<=30
Iodomethane	RC1400023-09	T	Average RF	50	55.23	ppm	10.5	<=30
Isopropylbenzene (Cumene)	RC1400023-09	T	Average RF	50	52.49	ppm	5.0	<=30
Methacrylonitrile	RC1400023-09	T	Average RF	50	49.67	ppm	-0.7	<=30
Methyl Acetate	RC1400023-09	T	Average RF	50	48.18	ppm	-3.6	<=30
Methyl Methacrylate	RC1400023-09	T	Average RF	50	50.68	ppm	1.4	<=30
Methyl tert-Butyl Ether	RC1400023-09	T	Average RF	50	49.16	ppm	-1.7	<=30
Methylcyclohexane	RC1400023-09	T	Average RF	50	44.63	ppm	-10.7	<=30
Naphthalene	RC1400023-09	T	Average RF	50	56.07	ppm	12.1	<=30
Propionitrile	RC1400023-09	T	Average RF	250	258.3	ppm	3.3	<=30
Styrene	RC1400023-09	T	Average RF	50	55.20	ppm	10.4	<=30
Tetrachloroethene (PCE)	RC1400023-09	T	Average RF	50	50.19	ppm	0.4	<=30
Tetrahydrofuran (THF)	RC1400023-09	T	Average RF	50	46.06	ppm	-7.9	<=30
Toluene	RC1400023-09	T	Average RF	50	50.32	ppm	0.6	<=30
Trichloroethene (TCE)	RC1400023-09	T	Average RF	50	51.42	ppm	2.8	<=30
Trichlorofluoromethane (CFC 11)	RC1400023-09	T	Average RF	50	45.53	ppm	-8.9	<=30
Vinyl Acetate	RC1400023-09	T	Average RF	50	47.09	ppm	-5.8	<=30
Vinyl Chloride	RC1400023-09	T	Average RF	50	46.08	ppm	-7.8	<=30
cis-1,2-Dichloroethene	RC1400023-09	T	Average RF	50	50.33	ppm	0.7	<=30
cis-1,3-Dichloropropene	RC1400023-09	T	Average RF	50	50.69	ppm	1.4	<=30
m,p-Xylenes	RC1400023-09	T	Average RF	100	107.8	ppm	7.8	<=30
n-Butyl Acetate	RC1400023-09	T	Average RF	50	52.20	ppm	4.4	<=30
n-Butylbenzene	RC1400023-09	T	Average RF	50	53.27	ppm	6.5	<=30

Initial Calibration Verification Summary Report

Calibration ID:	RC1400023	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1400023-09	T	Average RF	50	47.14	ppm	-5.7	<=30
n-Propylbenzene	RC1400023-09	T	Average RF	50	51.09	ppm	2.2	<=30
o-Xylene	RC1400023-09	T	Average RF	50	52.18	ppm	4.4	<=30
sec-Butylbenzene	RC1400023-09	T	Average RF	50	51.80	ppm	3.6	<=30
tert-Amyl Methyl Ether	RC1400023-09	T	Average RF	50	49.25	ppm	-1.5	<=30
tert-Butylbenzene	RC1400023-09	T	Average RF	50	50.94	ppm	1.9	<=30
trans-1,2-Dichloroethene	RC1400023-09	T	Average RF	50	51.22	ppm	2.4	<=30
trans-1,3-Dichloropropene	RC1400023-09	T	Average RF	50	53.39	ppm	6.8	<=30
trans-1,4-Dichloro-2-butene	RC1400023-09	T	Average RF	50	50.06	ppm	0.1	<=30
1,2-Dichloroethane-d4	RC1400023-09	S	Average RF	50	47.74	ppm	-4.5	<=30
4-Bromofluorobenzene	RC1400023-09	S	Average RF	50	50.03	ppm	0.1	<=30
Dibromofluoromethane	RC1400023-09	S	Average RF	50	50.20	ppm	0.4	<=30
Toluene-d8	RC1400023-09	S	Average RF	50	49.47	ppm	-1.1	<=30

Exceptions

QAP	Method
CRA-OXY	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 30	108.48
Cyclohexanone	Percent Difference	<= 30	-38.58

Quantitation Report (QT Reviewed)

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\031314\J3894.D
Misc : 50ppb
Acq On : 13 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 12:14:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	929881	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1444154	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1310348	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	668032	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	419672	50.20	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.40%				
48) surr1,1,2-dichloroetha...	4.658	65	454641	47.74	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.48%				
65) SURR3,Toluene-d8	7.322	98	1737832	49.47	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.94%				
70) SURR2,BFB	9.785	95	655712	50.03	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.06%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	429607	38.90	ppb		99
3) Chloromethane	1.262	50	421317	44.02	ppb		97
4) Vinyl Chloride	1.323	62	409710	46.08	ppb		99
5) Bromomethane	1.512	94	253110	47.24	ppb		100
6) Chloroethane	1.567	64	242226	45.68	ppb		100
7) Freon 21	1.664	67	648556	48.36	ppb		99
8) Trichlorofluoromethane	1.719	101	621513	45.53	ppb		100
9) Diethyl Ether	1.878	59	331013	49.25	ppb		95
10) Freon 123a	1.866	67	517883	51.68	ppb		97
11) Freon 123	1.902	83	586378	51.23	ppb		97
12) Acrolein	1.951	56	55280	208.48	ppb		86
13) 1,1-Diclethene	2.036	96	388120	57.52	ppb		94
14) Freon 113	2.036	101	369435	50.03	ppb		94
15) Acetone	2.042	43	72835	39.48	ppb		96
16) 2-Propanol	2.109	45	306969	1025.29	ppb		98
17) Iodomethane	2.146	142	495062	55.23	ppb		95
18) Carbon Disulfide	2.207	76	1103871	47.03	ppb		99
19) Acetonitrile	2.225	40	68032	225.50	ppb		97
20) Allyl Chloride	2.274	76	234992	50.79	ppb		98
21) Methyl Acetate	2.274	43	200165	48.18	ppb		99
22) Methylene Chloride	2.353	84	428950	48.52	ppb		97
23) TBA	2.402	59	504436	978.23	ppb		98
24) Acrylonitrile	2.524	53	509123	246.31	ppb		99
25) Methyl-t-Butyl Ether	2.579	73	1054535	49.16	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	433069	51.22	ppb		97
28) 1,1-Diclethane	2.938	63	770101	48.94	ppb		99
29) Vinyl Acetate	2.975	86	65986	47.09	ppb	#	71
30) DIPE	3.012	45	1396139	45.55	ppb		98
31) 2-Chloro-1,3-Butadiene	3.036	53	668588	49.33	ppb		95
32) ETBE	3.396	59	1206134	47.03	ppb		98
33) 2,2-Dichloropropane	3.554	77	662135	53.03	ppb		99
34) cis-1,2-Dichloroethene	3.542	96	474863	50.33	ppb		97
35) 2-Butanone	3.548	43	117744	45.55	ppb		98
36) Propionitrile	3.591	54	192749	258.26	ppb		100
37) Bromochloromethane	3.829	130	251979	47.83	ppb		89

KR 3/13/14

Quantitation Report (QT Reviewed)

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\031314\J3894.D
Misc : 50ppb
Acq On : 13 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 12:14:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	119599	49.67	ppb	98
39) Tetrahydrofuran	3.902	42	83220	46.06	ppb	78
40) Chloroform	3.938	83	743487	48.21	ppb	95
41) 1,1,1-Trichloroethane	4.213	97	659281	49.84	ppb	90
42) TAME	5.017	73	1066399	49.25	ppb	100
44) Cyclohexane	4.316	41	341159	43.66	ppb	98
46) Carbontetrachloride	4.469	121	173353	50.06	ppb	97
47) 1,1-Dichloropropene	4.463	75	603211	56.55	ppb	93
49) Benzene	4.780	78	1775123	49.93	ppb	100
50) 1,2-Dichloroethane	4.786	62	497561	46.09	ppb	96
51) Iso-Butyl Alcohol	4.639	43	246703	1009.81	ppb	98
52) n-Heptane	5.328	43	418693	47.14	ppb	98
53) 1-Butanol	5.767	56	369742	2755.71	ppb	98
54) Trichloroethene	5.828	130	442862	51.42	ppb	96
55) Methylcyclohexane	6.103	55	413194	44.63	ppb	96
56) 1,2-Diclpropane	6.115	63	444936	48.94	ppb	96
57) Dibromomethane	6.255	93	214572	49.61	ppb	97
58) 1,4-Dioxane	6.310	88	55901m	938.84	ppb	
59) Methyl Methacrylate	6.328	69	216807	50.68	ppb	99
60) Bromodichloromethane	6.474	83	545381	51.35	ppb	98
61) 2-Nitropropane	6.743	41	116523	102.03	ppb	89
62) 2-Chloroethylvinyl Ether	6.877	63	214137	52.52	ppb	100
63) cis-1,3-Dichloropropene	7.023	75	638673	50.69	ppb	98
64) 4-Methyl-2-pentanone	7.212	43	276149	50.35	ppb	96
66) Toluene	7.395	91	1844775	50.32	ppb	98
67) trans-1,3-Dichloropropene	7.627	75	542305	53.39	ppb	96
68) Ethyl Methacrylate	7.767	69	453829	54.92	ppb	98
69) 1,1,2-Trichloroethane	7.809	97	313249	48.84	ppb	98
72) Tetrachloroethene	7.962	164	339703	50.19	ppb	100
73) 2-Hexanone	8.084	43	183408	49.41	ppb	96
74) 1,3-Dichloropropane	7.968	76	575463	48.78	ppb	100
75) Dibromochloromethane	8.187	129	365103	53.83	ppb	96
76) N-Butyl Acetate	8.236	43	479039	52.20	ppb	97
77) 1,2-Dibromoethane	8.285	107	315951	52.14	ppb	97
78) Chlorobenzene	8.767	112	1159324	50.84	ppb	96
79) 3-CBTF	8.785	180	559968	49.64	ppb	98
80) 4-CBTF	8.840	180	515676	51.02	ppb	100
81) 1,1,1,2-Tetrachloroethane	8.846	131	423150	52.81	ppb	97
82) Ethylbenzene	8.889	106	631469	51.98	ppb	96
83) (m+p)Xylene	8.998	106	1538701	107.78	ppb	93
84) o-Xylene	9.346	106	760185	52.18	ppb	94
85) Styrene	9.352	104	1285835	55.20	ppb	97
87) Bromoform	9.492	173	204953	54.02	ppb	97
88) 2-CBTF	9.577	180	557312	50.08	ppb	96
89) Isopropylbenzene	9.669	105	1810564	52.49	ppb	98
90) Cyclohexanone	9.718	55	329122	614.21	ppb	98
91) trans-1,4-Dichloro-2-B...	9.961	53	90008	50.06	ppb	80
92) 1,1,2,2-Tetrachloroethane	9.913	83	370514	48.43	ppb	99
93) Bromobenzene	9.907	156	488033	49.66	ppb	97
94) 1,2,3-Trichloropropane	9.943	110	111696	48.79	ppb	97
95) n-Propylbenzene	10.022	91	2061187	51.09	ppb	99
96) 2-Chlorotoluene	10.077	91	1278494	50.46	ppb	97

Quantitation Report (QT Reviewed)

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\031314\J3894.D
Misc : 50ppb
Acq On : 13 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 12:14:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

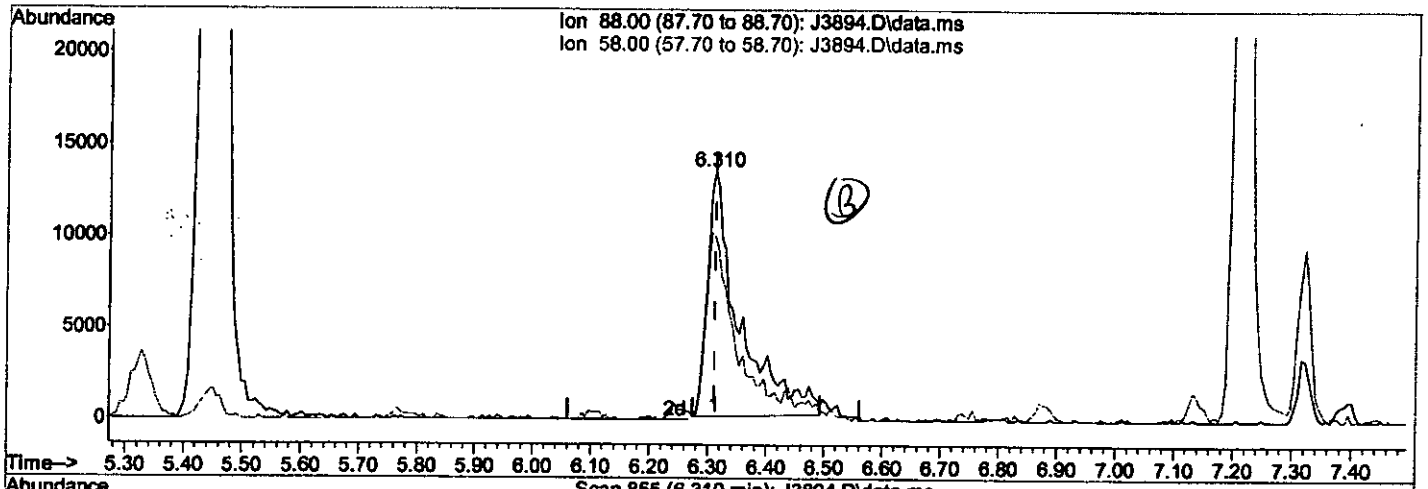
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1285999	48.80	ppb	98
98)	4-Chlorotoluene	10.169	91	1524341	51.03	ppb	99
99)	1,3,5-Trimethylbenzene	10.169	105	1471871	52.32	ppb	98
100)	tert-Butylbenzene	10.437	119	1206430	50.94	ppb	98
101)	1,2,4-Trimethylbenzene	10.480	105	1510183	52.17	ppb	98
102)	3,4-DCBTF	10.535	214	409731	49.78	ppb	96
103)	sec-Butylbenzene	10.620	105	1707185	51.80	ppb	98
104)	p-Isopropyltoluene	10.742	119	1487810	53.38	ppb	98
105)	1,3-Dclbenz	10.693	146	859962	51.41	ppb	98
106)	1,4-Dclbenz	10.766	146	888598	49.93	ppb	98
107)	2,4-DCBTF	10.821	214	364683	50.93	ppb	96
108)	2,5-DCBTF	10.864	214	410704	50.16	ppb	97
109)	n-Butylbenzene	11.065	91	1338607	53.27	ppb	99
110)	1,2-Dclbenz	11.065	146	820587	50.95	ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	65258	55.67	ppb	96
112)	Trielution Dichlorotol...	11.729	125	1928109	151.35	ppb	98
113)	1,3,5 Trichlorobenzene	11.778	180	555108	49.97	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	1397381	103.59	ppb	98
115)	1,2,4-Tcbenzene	12.156	180	506622	51.43	ppb	99
116)	Hexachlorobt	12.266	225	223796	52.06	ppb	97
117)	Naphthalen	12.303	128	994268	56.07	ppb	97
118)	1,2,3-Tclbenzene	12.437	180	408897	50.70	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	286396	53.89	ppb	99
120)	2,3,6-Trichlorotoluene	12.912	159	255170	52.46	ppb	98

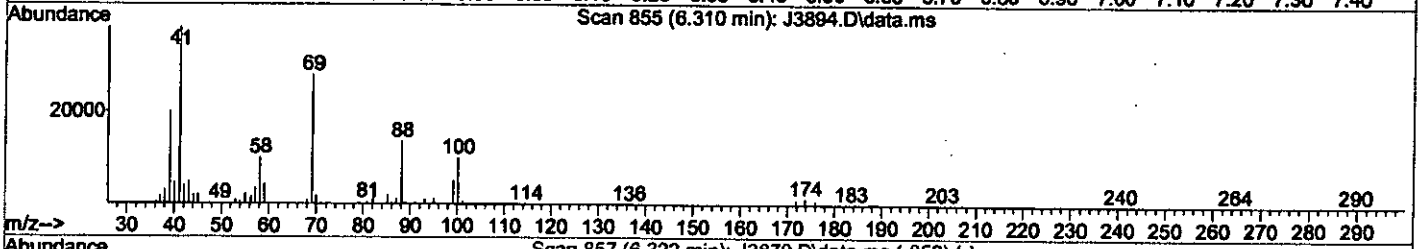
(#) = qualifier out of range (m) = manual integration (+) = signals summed

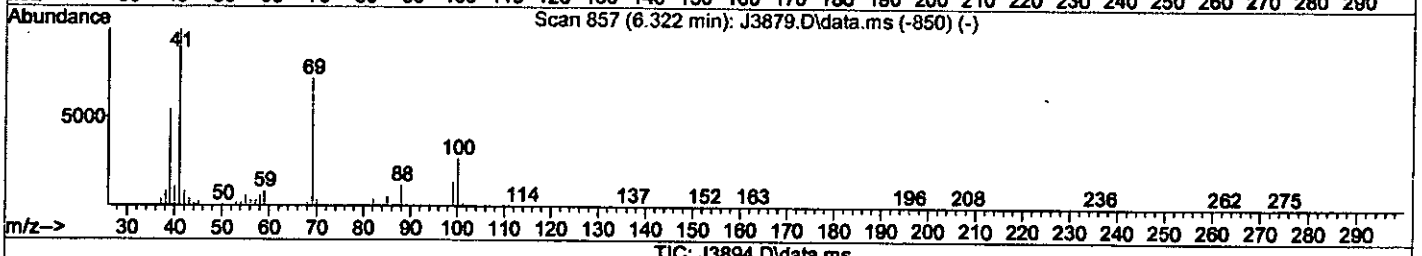
Quantitation Report (Qedit)

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\031314\J3894.D
Misc : 50ppb
Acq On : 13 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 12:12:46 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J3894.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.000) 853.79 ppb

response 50837

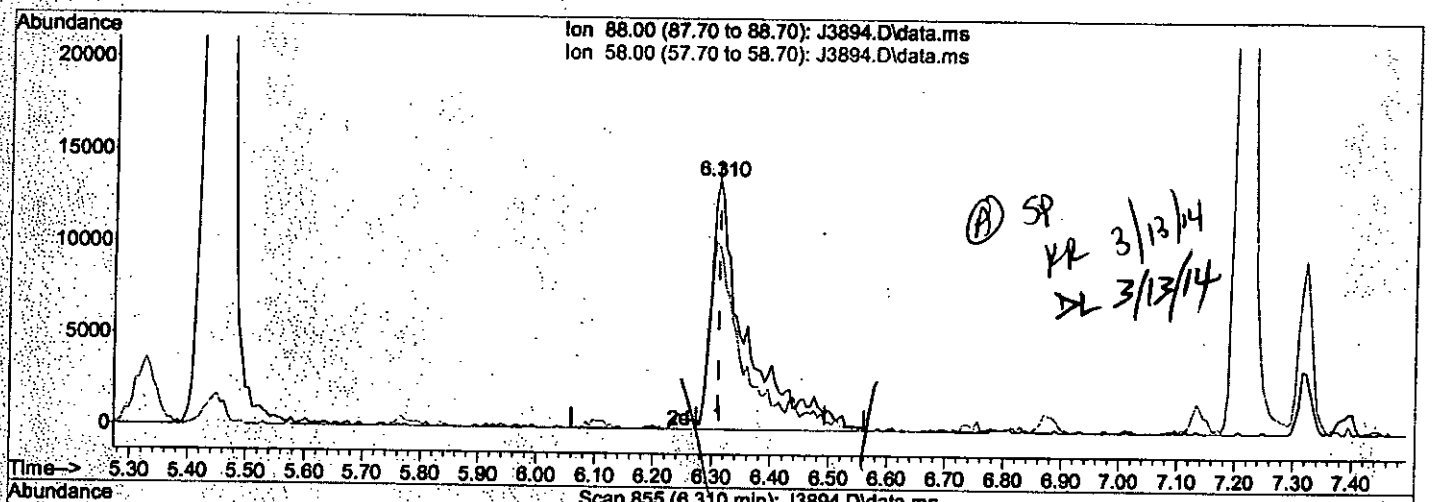
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	73.63#
0.00	0.00	0.00
0.00	0.00	0.00

00476

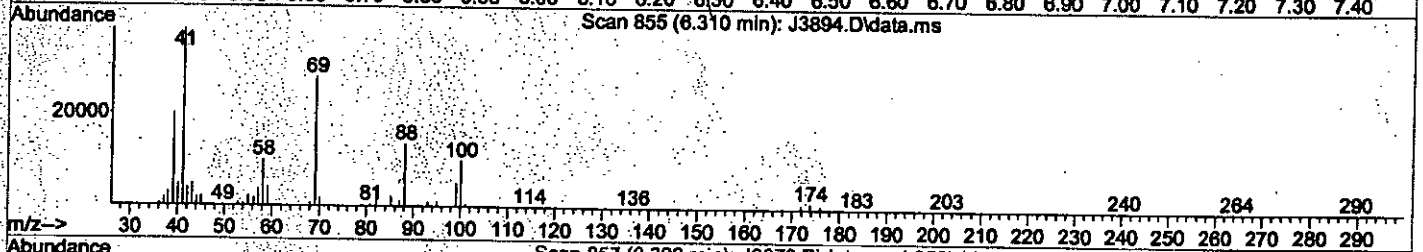
Quantitation Report (Qedit)

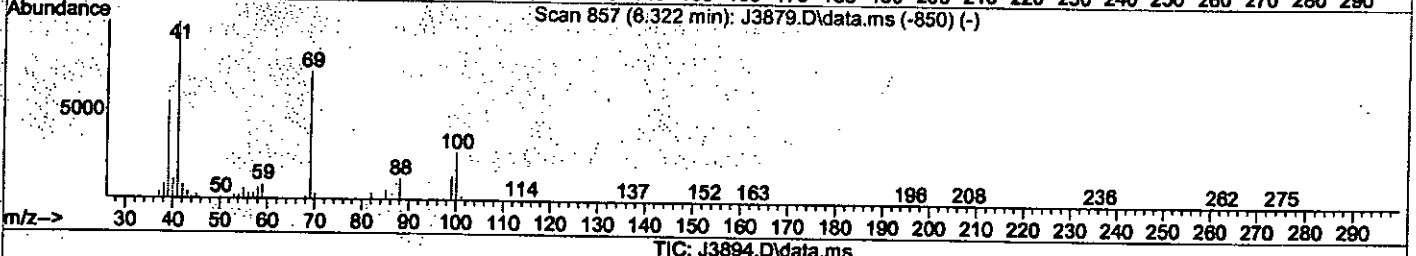
Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\031314\J3894.D
Misc : 50ppb
Acq On : 13 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 12:12:46 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



A SP 3/13/14
KR 3/13/14
DL 3/13/14





TIC: J3894.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.000) 938.84 ppb m

response 55901

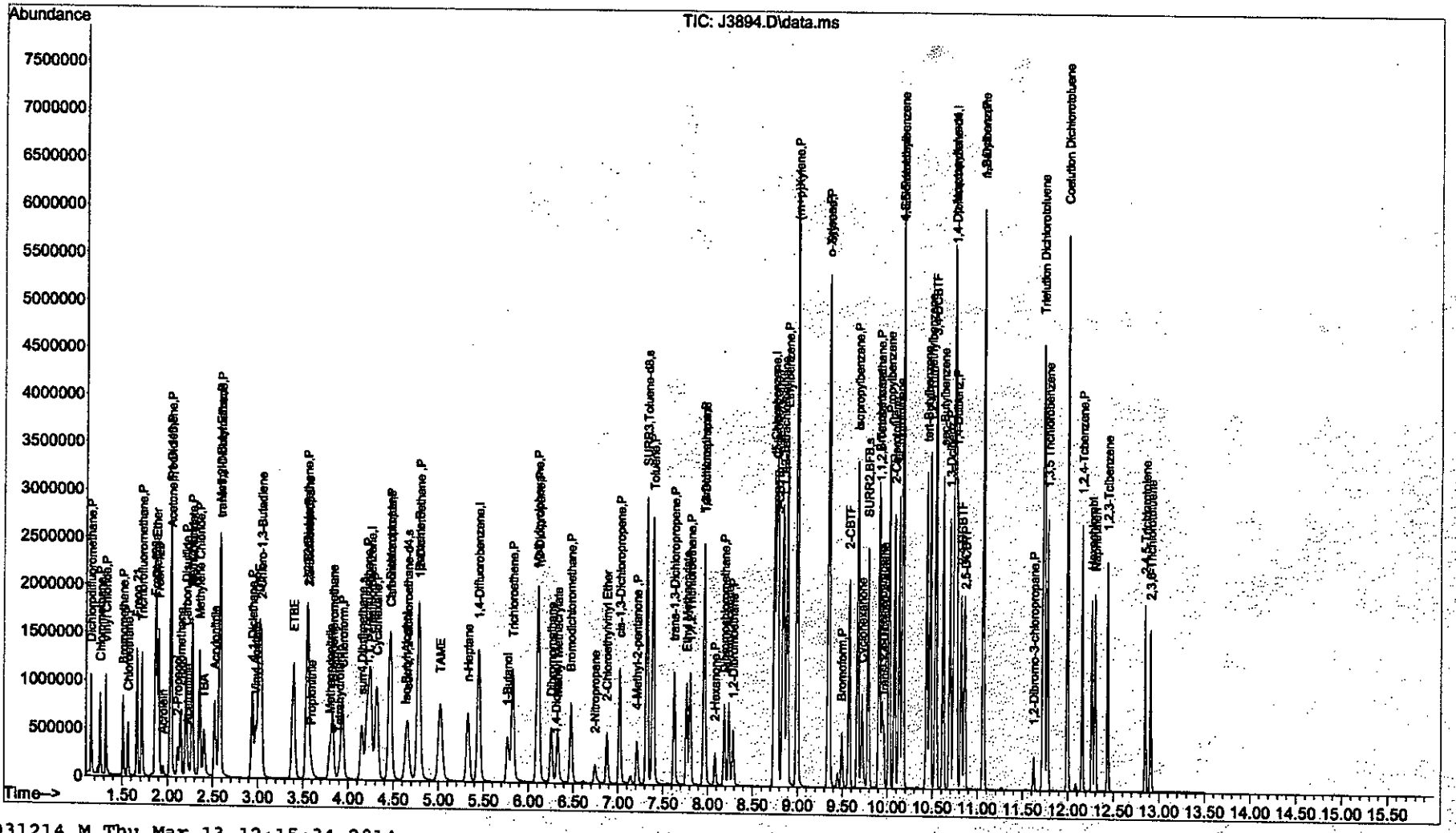
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	73.63#
0.00	0.00	0.00
0.00	0.00	0.00

00477

Quantitation Report (QT Reviewed)

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\031314\J3894.D
Misc : 50ppb
Acq On : 13 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 13 12:14:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/24/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D\

Calibration Date: 3/12/14
Calibration ID: RC1400023
Analysis Lot: 384987
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	48.1	0.7112	0.6836	-3.9	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	48.7	0.8461	0.8243	-2.6	NA	± 20 %	Average RF
1,1-Dichloroethene (1,I-DCE)	50.0	50.4	0.3628	0.3658	0.8	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	50.6	0.2583	0.2615	1.3	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	52.0	0.2982	0.3099	3.9	NA	± 20 %	Average RF
Vinyl Chloride	50.0	55.8	0.4781	0.5337	11.6	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	50.5	0.5073	0.5121	0.9	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	50.8	0.4546	0.4619	1.6	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	49.3	0.4538	0.4477	-1.3	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	49.5	0.2895	0.2864	-1.1	NA	± 20 %	Average RF
Toluene-d8	50.0	49.6	1.216	1.206	-0.9	NA	± 20 %	Average RF

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:05:55 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

KR 3/24/14

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

		Compound	AvgRF	CCRF	20%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	99	0.00
2	P	Dichlorodifluoromethane	0.5939	0.5324	10.4	88	0.00
3	P	Chloromethane	0.5146	0.5407	-5.1	106	0.00
4	P	Vinyl Chloride	0.4781	0.5337	-11.6	112	0.00
5	P	Bromomethane	0.2881	0.3201	-11.1	121	0.00
6	P	Chloroethane	0.2851	0.3151	-10.5	116	0.00
7		Freon 21	0.7211	0.7845	-8.8	113	0.00
8	P	Trichlorofluoromethane	0.7340	0.6923	5.7	97	0.00
9		Diethyl Ether	0.3614	0.3434	5.0	99	0.00
10		Freon 123a	0.5388	0.5261	2.4	103	0.00
11		Freon 123	0.6154	0.5959	3.2	102	0.00
12		Acrolein	0.0172	0.0421	-80.13 ~~-144.8#~~	276#	0.00
13	P	1,1-Diclethene	0.3628	0.3658	-0.8	102	0.00
14	P	Freon 113	0.3971	0.3767	5.1	98	0.00
15	P	Acetone	0.0992	0.0933	5.9	99	0.00
16		2-Propanol	0.0161	0.0160	0.6	93	0.00
17		Iodomethane	0.4820	0.5134	-6.5	90	0.00
18	P	Carbon Disulfide	1.2620	1.2253	2.9	92	0.00
19		Acetonitrile	0.0162	0.0159	1.9	100	0.00
20		Allyl Chloride	0.2488	0.2512	-1.0	99	0.00
21	P	Methyl Acetate	0.2234	0.2182	2.3	97	0.00
22	P	Methylene Chloride	0.4753	0.4534	4.6	101	0.00
23		TBA	0.0277	0.0284	-2.5	96	0.00
24		Acrylonitrile	0.1111	0.1123	-1.1	98	0.00
25	P	Methyl-t-Butyl Ether	1.1534	1.1187	3.0	99	0.00
26	P	trans-1,2-Dichloroethene	0.4546	0.4619	-1.6	104	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-3.01#
28	P	1,1-Diclethane	0.8461	0.8243	2.6	99	0.00
29		Vinyl Acetate	0.0753	0.0804	-6.8	97	0.00
30		DIPE	1.6481	1.5716	4.6	94	0.00
31		2-Chloro-1,3-Butadiene	0.7288	0.7340	-0.7	91	0.00
32		ETBE	1.3791	1.3648	1.0	96	0.00
33		2,2-Dichloropropane	0.6713	0.6947	-3.5	103	0.00
34	P	cis-1,2-Dichloroethene	0.5073	0.5121	-0.9	102	0.00
35	P	2-Butanone	0.1390	0.1395	-0.4	98	0.00
36		Propionitrile	0.0401	0.0416	-3.7	96	0.00
37		Bromochloromethane	0.2832	0.2709	4.3	102	0.00
38		Methacrylonitrile	0.1295	0.1328	-2.5	98	0.00
39		Tetrahydrofuran	0.0972	0.0932	4.1	96	0.00
40	P	Chloroform	0.8292	0.7900	4.7	100	0.00
41	P	1,1,1-Trichloroethane	0.7112	0.6836	3.9	97	0.00
42		TAME	1.1643	1.1677	-0.3	97	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	98	0.00
44	P	Cyclohexane	0.2705	0.2564	5.2	100	0.00
45	s	surr4,Dibrflmethane	0.2895	0.2864	1.1	97	0.00
46	P	Carbontetrachloride	0.1199	0.1164	2.9	99	0.00
47		1,1-Dichloropropene	0.3693	0.3760	-1.8	100	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:05:55 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	s	surr1,1,2-dichloroethane-d4	0.3297	0.3081	6.6	92	0.00
49	P	Benzene	1.2310	1.2505	-1.6	101	0.00
50	P	1,2-Dichloroethane	0.3737	0.3566	4.6	96	0.00
51		Iso-Butyl Alcohol	0.0085	0.0083	2.4	93	0.00
52		n-Heptane	0.3075	0.2918	5.1	98	0.00
53		1-Butanol	0.0046	0.0050	-8.7	94	0.00
54	P	Trichloroethene	0.2982	0.3099	-3.9	105	0.00
55	P	Methylcyclohexane	0.3206	0.3062	4.5	101	0.00
56	P	1,2-Diclpropane	0.3148	0.3098	1.6	98	0.00
57		Dibromomethane	0.1497	0.1526	-1.9	100	0.00
58		1,4-Dioxane	0.0021	0.0019	9.5	95	0.00
59		Methyl Methacrylate	0.1481	0.1566	-5.7	98	0.00
60	P	Bromodichloromethane	0.3677	0.3765	-2.4	98	0.00
61		2-Nitropropane	0.0395	0.0444	-12.4	104	0.00
62		2-Chloroethylvinyl Ether	0.1412	0.1471	-4.2	97	0.00
63	P	cis-1,3-Dichloropropene	0.4363	0.4697	-7.7	99	0.00
64	P	4-Methyl-2-pentanone	0.1899	0.1980	-4.3	96	0.00
65	s	SURR3,Toluene-d8	1.2163	1.2056	0.9	97	0.00
66	P	Toluene	1.2692	1.3113	-3.3	101	0.00
67	P	trans-1,3-Dichloropropene	0.3517	0.3905	-11.0	100	0.00
68		Ethyl Methacrylate	0.2861	0.3251	-13.6	99	0.00
69	P	1,1,2-Trichloroethane	0.2220	0.2285	-2.9	100	0.00
70	s	SURR2,BFB	0.4538	0.4477	1.3	95	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00
72	P	Tetrachloroethene	0.2583	0.2615	-1.2	107	0.00
73	P	2-Hexanone	0.1416	0.1502	-6.1	97	0.00
74		1,3-Dichloropropane	0.4501	0.4464	0.8	99	0.00
75	P	Dibromochloromethane	0.2588	0.2855	-10.3	101	0.00
76		N-Butyl Acetate	0.3502	0.3683	-5.2	97	0.00
77	P	1,2-Dibromoethane	0.2312	0.2408	-4.2	100	0.00
78	P	Chlorobenzene	0.8701	0.8845	-1.7	103	0.00
79		3-CBTF	0.4304	0.4408	-2.4	102	0.00
80		4-CBTF	0.3856	0.4003	-3.8	99	0.00
81		1,1,1,2-Tetrachloroethane	0.3058	0.3233	-5.7	102	0.00
82	P	Ethylbenzene	0.4636	0.4796	-3.5	102	0.00
83	P	(m+p)Xylene	0.5448	0.5861	-7.6	103	0.00
84	P	o-Xylene	0.5559	0.5841	-5.1	103	0.00
85	P	Styrene	0.8888	0.9876	-11.1	102	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	99	0.00
87	P	Bromoform	0.2840	0.3282	-15.6	104	0.00
88		2-CBTF	0.8330	0.8338	-0.1	99	0.00
89	P	Isopropylbenzene	2.5815	2.6822	-3.9	102	0.00
90		Cyclohexanone	0.0401	0.0358	10.7	90	0.00
91		trans-1,4-Dichloro-2-Butene	0.1346	0.1457	-8.2	96	0.00
92	P	1,1,2,2-Tetrachloroethane	0.5726	0.5704	0.4	100	0.00
93		Bromobenzene	0.7355	0.7414	-0.8	105	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:05:55 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94		1,2,3-Trichloropropane	0.1713	0.1681	1.9	100	0.00
95		n-Propylbenzene	3.0196	3.1013	-2.7	102	0.00
96		2-Chlorotoluene	1.8965	1.9102	-0.7	102	0.00
97		3-Chlorotoluene	1.9725	1.9274	2.3	96	0.00
98		4-Chlorotoluene	2.2360	2.2575	-1.0	101	0.00
99		1,3,5-Trimethylbenzene	2.1057	2.2087	-4.9	103	0.00
100		tert-Butylbenzene	1.7725	1.8094	-2.1	103	0.00
101		1,2,4-Trimethylbenzene	2.1665	2.2344	-3.1	100	0.00
102		3,4-DCBTF	0.6160	0.5998	2.6	95	0.00
103		sec-Butylbenzene	2.4668	2.5539	-3.5	104	0.00
104		p-Isopropyltoluene	2.0860	2.2348	-7.1	105	0.00
105	P	1,3-Dclbenz	1.2519	1.3061	-4.3	104	0.00
106	P	1,4-Dclbenz	1.3322	1.3312	0.1	104	0.00
107		2,4-DCBTF	0.5359	0.5474	-2.1	98	0.00
108		2,5-DCBTF	0.6128	0.6112	0.3	97	0.00
109		n-Butylbenzene	1.8808	1.9754	-5.0	103	0.00
110	P	1,2-Dclbenz	1.2055	1.2582	-4.4	104	0.00
111	P	1,2-Dibromo-3-chloropropane	0.0877	0.1003	-14.4	105	0.00
112		Trielution Dichlorotoluene	0.9535	0.9630	-1.0	96	0.00
113		1,3,5 Trichlorobenzene	0.8315	0.8360	-0.5	97	0.00
114		Coelution Dichlorotoluene	1.0096	1.0317	-2.2	96	0.00
115	P	1,2,4-Tcbenzene	0.7372	0.7454	-1.1	102	0.00
116		Hexachlorobt	0.3218	0.3074	4.5	97	0.00
117		Naphthalen	1.3273	1.4041	-5.8	99	0.00
118		1,2,3-Tclbenzene	0.6036	0.5925	1.8	102	0.00
119		2,4,5-Trichlorotolene	0.3978	0.3612	9.2	89	0.00
120		2,3,6-Trichlorotoluene	0.3641	0.3354	7.9	87	0.00

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

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12 RQ 1402681-02

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 11:51:44 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	930294	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1422163	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1310598	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	664220	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	407283	49.47	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	98.94%			
48) surr1,1,2-dichloroetha...	4.658	65	438107	46.71	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =	93.42%			
65) SURR3,Toluene-d8	7.322	98	1714573	49.56	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	99.12%			
70) SURR2,BFB	9.785	95	636748	49.33	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	98.66%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	495315	44.83	ppb		98
3) Chloromethane	1.256	50	503022	52.53	ppb		99
4) Vinyl Chloride	1.323	62	496493	55.82	ppb		99
5) Bromomethane	1.512	94	297741	55.54	ppb		99
6) Chloroethane	1.567	64	293099	55.25	ppb		100
7) Freon 21	1.664	67	729851	54.40	ppb		98
8) Trichlorofluoromethane	1.719	101	644008	47.16	ppb		99
9) Diethyl Ether	1.878	59	319459	47.51	ppb		95
10) Freon 123a	1.866	67	489458	48.82	ppb		92
11) Freon 123	1.902	83	554376	48.41	ppb		97
12) Acrolein	1.951	56	195674	450.32	ppb		96
13) 1,1-Diclethene	2.036	96	340306	50.41	ppb		93
14) Freon 113	2.036	101	350399	47.43	ppb		90
15) Acetone	2.042	43	86791	47.02	ppb		96
16) 2-Propanol	2.109	45	297375	992.80	ppb		96
17) Iodomethane	2.146	142	477644	53.27	ppb		92
18) Carbon Disulfide	2.207	76	1139860	48.54	ppb		99
19) Acetonitrile	2.219	40	73989	245.14	ppb		99
20) Allyl Chloride	2.274	76	233695	50.49	ppb		95
21) Methyl Acetate	2.274	43	202992	48.84	ppb		96
22) Methylene Chloride	2.353	84	421818	47.69	ppb		98
23) TBA	2.402	59	527703	1022.89	ppb		97
24) Acrylonitrile	2.524	53	522162	252.51	ppb		96
25) Methyl-t-Butyl Ether	2.579	73	1040688	48.50	ppb		99
26) trans-1,2-Dichloroethene	2.579	96	429709	50.80	ppb		97
28) 1,1-Diclethane	2.939	63	766810	48.71	ppb		100
29) Vinyl Acetate	2.975	86	74773	53.34	ppb	#	78
30) DIPE	3.012	45	1462085	47.68	ppb		96
31) 2-Chloro-1,3-Butadiene	3.036	53	682794	50.36	ppb		96
32) ETBE	3.396	59	1269704	49.48	ppb		99
33) 2,2-Dichloropropane	3.554	77	646252	51.74	ppb		100
34) cis-1,2-Dichloroethene	3.542	96	476376	50.47	ppb		98
35) 2-Butanone	3.542	43	129769	50.18	ppb		99
36) Propionitrile	3.591	54	193436	259.07	ppb		95
37) Bromochloromethane	3.829	130	252041	47.83	ppb		97

KR 3/24/14

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 11:51:44 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
38)	Methacrylonitrile	3.798	67	123505	51.27	ppb		96	
39)	Tetrahydrofuran	3.902	42	86727	47.98	ppb		80	
40)	Chloroform	3.938	83	734892	47.64	ppb		98	
41)	1,1,1-Trichloroethane	4.213	97	635990	48.06	ppb		92	
42)	TAME	5.017	73	1086349	50.15	ppb		98	
44)	Cyclohexane	4.316	41	364711	47.40	ppb		96	
46)	Carbontetrachloride	4.469	121	165473	48.53	ppb		98	
47)	1,1-Dichloropropene	4.463	75	534728	50.91	ppb		93	
49)	Benzene	4.780	78	1778364	50.79	ppb		99	
50)	1,2-Dichloroethane	4.786	62	507099	47.70	ppb		96	
51)	Iso-Butyl Alcohol	4.633	43	236121	981.44	ppb		96	
52)	n-Heptane	5.328	43	414968	47.44	ppb		96	
53)	1-Butanol	5.767	56	352714	2669.45	ppb		99	
54)	Trichloroethene	5.828	130	440740	51.97	ppb		96	
55)	Methylcyclohexane	6.103	55	435488	47.76	ppb		95	
56)	1,2-Diclpropane	6.109	63	440598	49.21	ppb		96	
57)	Dibromomethane	6.255	93	216978	50.94	ppb		93	
58)	1,4-Dioxane	6.310	88	~~49320~~	~~841.12~~	ppb	#	65	930.01
59)	Methyl Methacrylate	6.328	69	222686	52.86	ppb		92	
60)	Bromodichloromethane	6.474	83	535382	51.19	ppb		98	
61)	2-Nitropropane	6.743	41	126330	112.33	ppb		83	
62)	2-Chloroethylvinyl Ether	6.877	63	209212	52.10	ppb		99	
63)	cis-1,3-Dichloropropene	7.023	75	667982	53.83	ppb		97	
64)	4-Methyl-2-pentanone	7.212	43	281533	52.13	ppb		97	
66)	Toluene	7.389	91	1864862	51.66	ppb		98	
67)	trans-1,3-Dichloropropene	7.627	75	555316	55.52	ppb		94	
68)	Ethyl Methacrylate	7.767	69	462337	56.82	ppb		97	
69)	1,1,2-Trichloroethane	7.803	97	324995	51.46	ppb		97	
72)	Tetrachloroethene	7.962	164	342759	50.63	ppb		97	
73)	2-Hexanone	8.084	43	196897	53.04	ppb		98	
74)	1,3-Dichloropropane	7.968	76	585106	49.59	ppb		98	
75)	Dibromochloromethane	8.188	129	374115	55.14	ppb		99	
76)	N-Butyl Acetate	8.236	43	482728	52.59	ppb		95	
77)	1,2-Dibromoethane	8.285	107	315626	52.08	ppb		98	
78)	Chlorobenzene	8.767	112	1159202	50.83	ppb		97	
79)	3-CBTF	8.785	180	577686	51.20	ppb		97	
80)	4-CBTF	8.840	180	524587	51.90	ppb		98	
81)	1,1,1,2-Tetrachloroethane	8.846	131	423779	52.88	ppb		97	
82)	Ethylbenzene	8.889	106	628608	51.73	ppb		97	
83)	(m+p)Xylene	8.998	106	1536153	107.58	ppb		92	
84)	o-Xylene	9.346	106	765475	52.53	ppb		93	
85)	Styrene	9.352	104	1294332	55.56	ppb		98	
87)	Bromoform	9.492	173	218015	57.79	ppb		99	
88)	2-CBTF	9.578	180	553853	50.05	ppb		97	
89)	Isopropylbenzene	9.669	105	1781593	51.95	ppb		98	
90)	Cyclohexanone	9.718	55	476108	893.61	ppb		96	
91)	trans-1,4-Dichloro-2-B...	9.962	53	96788	54.14	ppb		83	
92)	1,1,2,2-Tetrachloroethane	9.913	83	378895	49.81	ppb		98	
93)	Bromobenzene	9.907	156	492446	50.40	ppb		94	
94)	1,2,3-Trichloropropane	9.943	110	111642	49.05	ppb		97	
95)	n-Propylbenzene	10.023	91	2059951	51.35	ppb		98	
96)	2-Chlorotoluene	10.077	91	1268806	50.36	ppb		98	

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 11:51:44 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

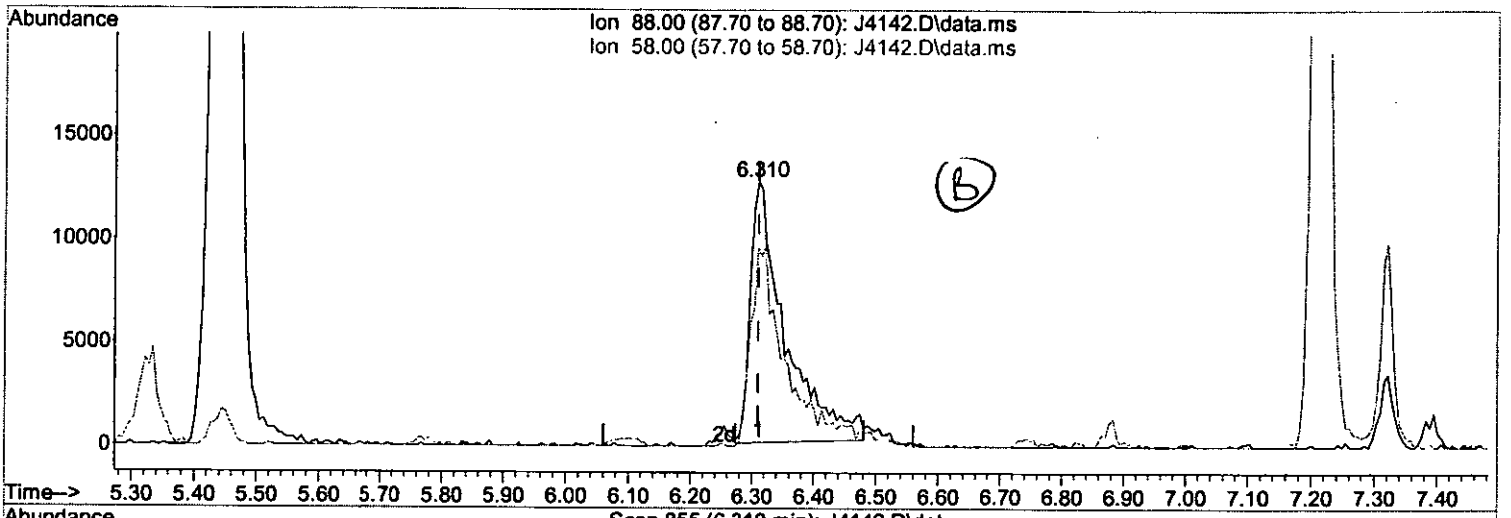
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1280195	48.86	ppb	95
98)	4-Chlorotoluene	10.169	91	1499472	50.48	ppb	98
99)	1,3,5-Trimethylbenzene	10.169	105	1467041	52.44	ppb	97
100)	tert-Butylbenzene	10.437	119	1201861	51.04	ppb	97
101)	1,2,4-Trimethylbenzene	10.474	105	1484119	51.57	ppb	98
102)	3,4-DCBTF	10.535	214	398393	48.68	ppb	96
103)	sec-Butylbenzene	10.620	105	1696346	51.77	ppb	98
104)	p-Isopropyltoluene	10.742	119	1484425	53.57	ppb	98
105)	1,3-Dclbenz	10.693	146	867564	52.16	ppb	98
106)	1,4-Dclbenz	10.766	146	884224	49.96	ppb	99
107)	2,4-DCBTF	10.821	214	363592	51.07	ppb	94
108)	2,5-DCBTF	10.858	214	405956	49.87	ppb	99
109)	n-Butylbenzene	11.065	91	1312123	52.52	ppb	98
110)	1,2-Dclbenz	11.065	146	835746	52.19	ppb	97
111)	1,2-Dibromo-3-chloropr...	11.626	157	66629	57.17	ppb	93
112)	Trielution Dichlorotol...	11.730	125	1918931	151.50	ppb	97
113)	1,3,5 Trichlorobenzene	11.778	180	555272	50.27	ppb	99
114)	Coelution Dichlorotoluene	11.998	125	1370570	102.19	ppb	96
115)	1,2,4-Tcbenzene	12.156	180	495122	50.56	ppb	97
116)	Hexachlorobt	12.266	225	204210	47.78	ppb	98
117)	Naphthalen	12.303	128	932634	52.89	ppb	98
118)	1,2,3-Tclbenzene	12.437	180	393556	49.08	ppb	99
119)	2,4,5-Trichlorotolene	12.851	159	239887	45.40	ppb	97
120)	2,3,6-Trichlorotoluene	12.912	159	222779	46.06	ppb	99

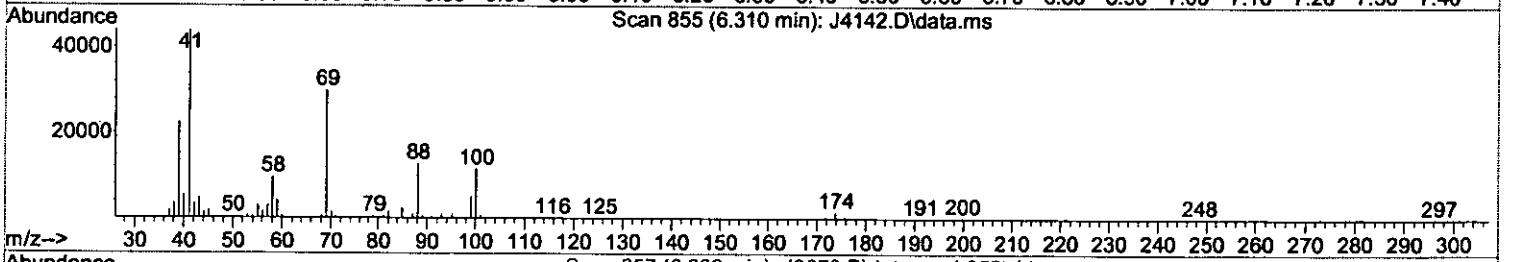
(#) = qualifier out of range (m) = manual integration (+) = signals summed

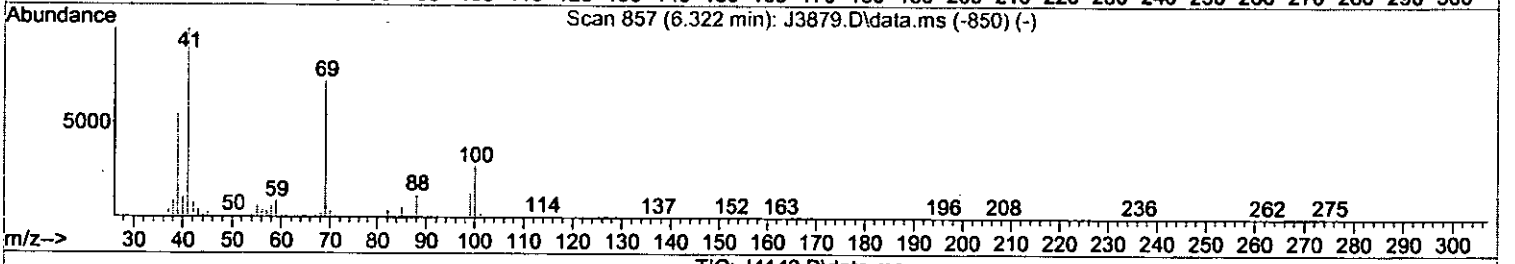
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 11:51:44 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4142.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.000) 841.12 ppb

response 49320

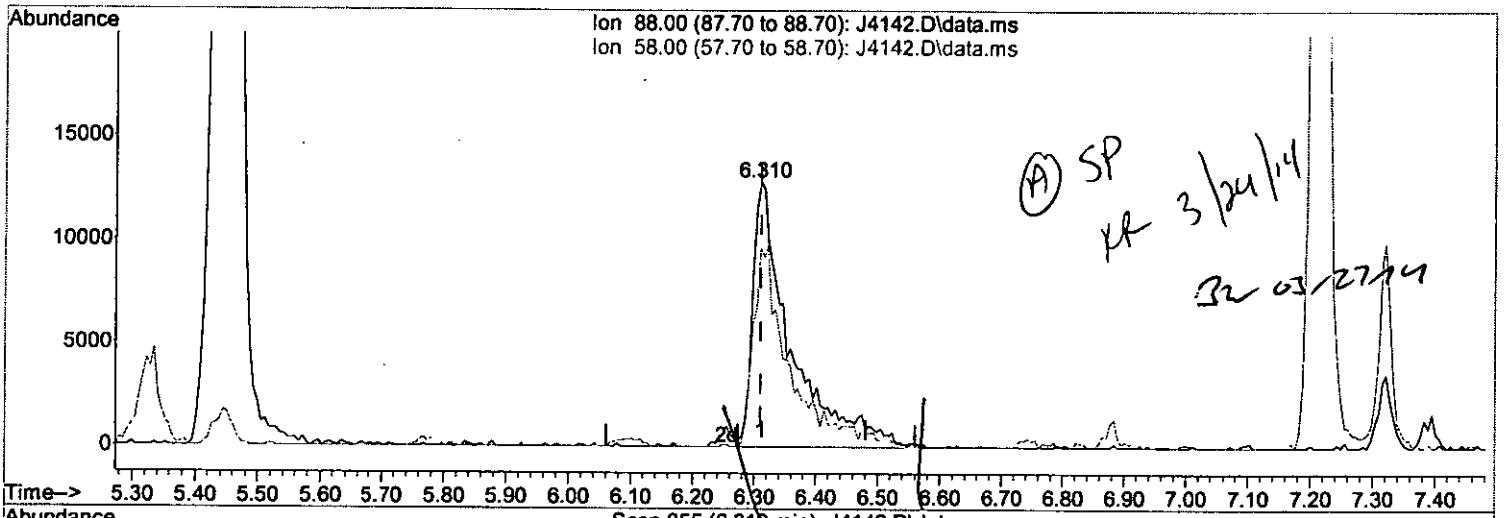
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	75.04#
0.00	0.00	0.00
0.00	0.00	0.00

00486

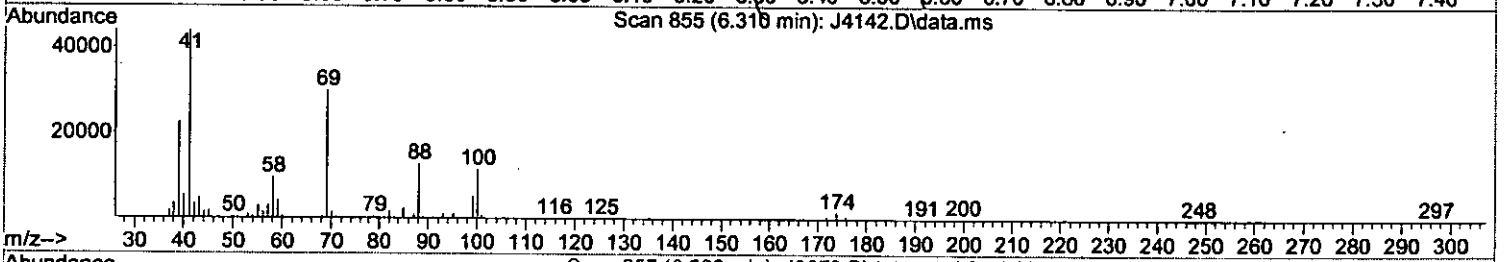
Quantitation Report (Qedit)

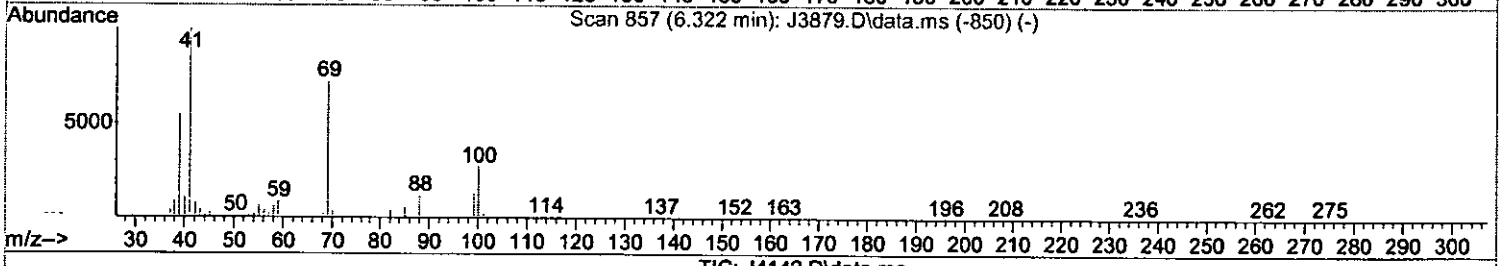
Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 11:51:44 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



A SP kt 3/24/14 JR 03/27/14





TIC: J4142.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.000) 930.01 ppb m

response 54532

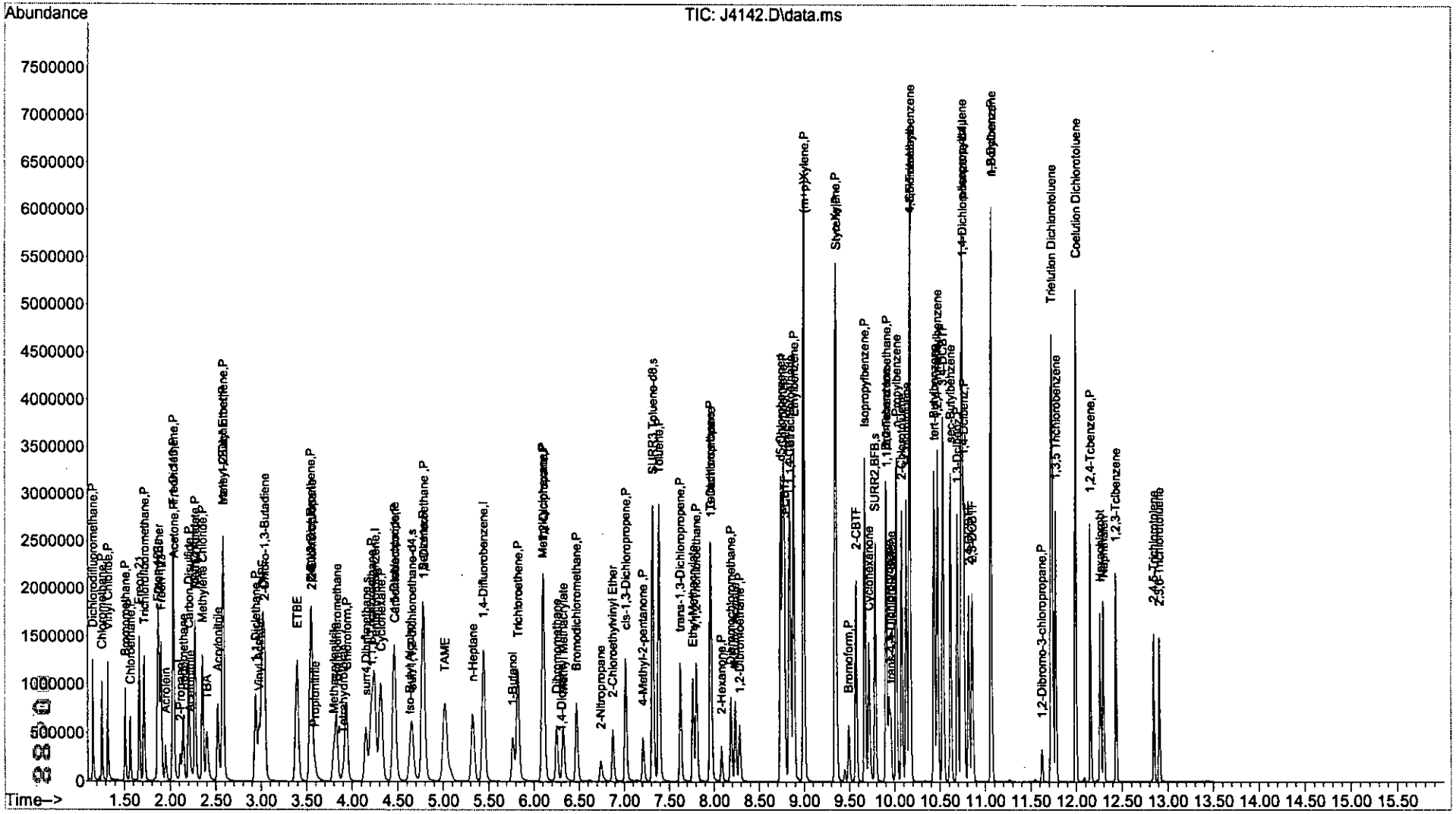
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	75.04#
0.00	0.00	0.00
0.00	0.00	0.00

00487

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4142.D
Misc :
Acq On : 24 Mar 2014 11:36 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 11:51:44 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/25/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa12\Data\032514\J4187.D\

Calibration Date: 3/12/14
Calibration ID: RC1400023
Analysis Lot: 385241
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	51.5	0.7112	0.7326	3.0	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	51.3	0.8461	0.8680	2.6	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	51.5	0.3628	0.3736	3.0	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	48.8	0.2583	0.2522	-2.4	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	51.1	0.2982	0.3049	2.3	NA	± 20 %	Average RF
Vinyl Chloride	50.0	57.9	0.4781	0.5534	15.8	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	50.7	0.5073	0.5145	1.4	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	51.8	0.4546	0.4709	3.6	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	51.2	0.4538	0.4651	2.5	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	50.6	0.2895	0.2928	1.2	NA	± 20 %	Average RF
Toluene-d8	50.0	49.8	1.216	1.212	-0.4	NA	± 20 %	Average RF

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:30:22 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

KP 3/25/14

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

		Compound	AvgRF	CCRF	%Drift %Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	89	0.00
2	P	Dichlorodifluoromethane	0.5939	0.5702	4.0	84	0.00
3	P	Chloromethane	0.5146	0.5447	-5.8	96	0.00
4	P	Vinyl Chloride	0.4781	0.5534	-15.7	105	0.00
5	P	Bromomethane	0.2881	0.1774	38.4#	60	0.00 ⊗ - NT!
6	P	Chloroethane	0.2851	0.3266	-14.6	108	0.00
7		Freon 21	0.7211	0.8572	-18.9	111	0.00
8	P	Trichlorofluoromethane	0.7340	0.7543	-2.8	95	0.00
9		Diethyl Ether	0.3614	0.3595	0.5	94	0.00
10		Freon 123a	0.5388	0.5507	-2.2	97	0.00
11		Freon 123	0.6154	0.6399	-4.0	99	0.00
12		Acrolein	0.0172	0.0431	-82.7 ~~-150.6#~~	254#	0.00
13	P	1,1-Diclethene	0.3628	0.3736	-3.0	93	0.00
14	P	Freon 113	0.3971	0.3913	1.5	92	0.00
15	P	Acetone	0.0992	0.1219	-22.9#	116	0.00 NT!
16		2-Propanol	0.0161	0.0204	NT -26.7#	106	0.00
17		Iodomethane	0.4820	0.3479	NT 27.8#	55	0.00
18	P	Carbon Disulfide	1.2620	1.2573	0.4	85	0.00
19		Acetonitrile	0.0162	0.0177	-9.3	99	0.00
20		Allyl Chloride	0.2488	0.2485	0.1	88	0.00
21	P	Methyl Acetate	0.2234	0.2395	-7.2	96	0.00
22	P	Methylene Chloride	0.4753	0.4697	1.2	94	0.00
23		TBA	0.0277	0.0330	-19.1	100	0.00
24		Acrylonitrile	0.1111	0.1198	-7.8	94	0.00
25	P	Methyl-t-Butyl Ether	1.1534	1.2006	-4.1	96	0.00
26	P	trans-1,2-Dichloroethene	0.4546	0.4709	-3.6	95	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-3.01#
28	P	1,1-Diclethane	0.8461	0.8680	-2.6	94	0.00
29		Vinyl Acetate	0.0753	0.0881	-17.0	95	0.00
30		DIPE	1.6481	1.7002	-3.2	92	0.00
31		2-Chloro-1,3-Butadiene	0.7288	0.7990	-9.6	89	0.00
32		ETBE	1.3791	1.4708	-6.6	93	0.00
33		2,2-Dichloropropane	0.6713	0.7341	-9.4	98	0.00
34	P	cis-1,2-Dichloroethene	0.5073	0.5145	-1.4	92	0.00
35	P	2-Butanone	0.1390	0.1653	-18.9	104	0.00
36		Propionitrile	0.0401	0.0452	-12.7	93	0.00
37		Bromochloromethane	0.2832	0.2713	4.2	91	0.00
38		Methacrylonitrile	0.1295	0.1410	-8.9	93	0.00
39		Tetrahydrofuran	0.0972	0.1029	-5.9	95	0.00
40	P	Chloroform	0.8292	0.8333	-0.5	95	0.00
41	P	1,1,1-Trichloroethane	0.7112	0.7326	-3.0	93	0.00
42		TAME	1.1643	1.2423	-6.7	92	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	89	0.00
44	P	Cyclohexane	0.2705	0.2801	-3.5	100	0.00
45	s	surr4,Dibrflmethane	0.2895	0.2928	-1.1	91	0.00
46	P	Carbontetrachloride	0.1199	0.1174	2.1	91	0.00
47		1,1-Dichloropropene	0.3693	0.3788	-2.6	93	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:30:22 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	s	surr1,1,2-dichloroethane-d4	0.3297	0.3381	-2.5	92	0.00
49	P	Benzene	1.2310	1.2523	-1.7	93	0.00
50	P	1,2-Dichloroethane	0.3737	0.3857	-3.2	95	0.00
51		Iso-Butyl Alcohol	0.0085	0.0099	-16.5	101	0.00
52		n-Heptane	0.3075	0.3258	-6.0	100	0.00
53		1-Butanol	0.0046	0.0058	-26.1#	100	0.00
54	P	Trichloroethene	0.2982	0.3049	-2.2	94	0.00
55	P	Methylcyclohexane	0.3206	0.3376	-5.3	102	0.00
56	P	1,2-Diclpropane	0.3148	0.3192	-1.4	92	0.00
57		Dibromomethane	0.1497	0.1541	-2.9	92	0.00
58		1,4-Dioxane	0.0021	0.0023	-9.5	103	0.00
59		Methyl Methacrylate	0.1481	0.1626	-9.8	94	0.00
60	P	Bromodichloromethane	0.3677	0.3914	-6.4	94	0.00
61		2-Nitropropane	0.0395	0.0489	-23.8#	105	0.00
62		2-Chloroethylvinyl Ether	0.1412	0.1519	-7.6	91	0.00
63	P	cis-1,3-Dichloropropene	0.4363	0.4713	-8.0	91	0.00
64	P	4-Methyl-2-pentanone	0.1899	0.2170	-14.3	97	0.00
65	s	SURR3,Toluene-d8	1.2163	1.2117	0.4	89	0.00
66	P	Toluene	1.2692	1.3004	-2.5	92	0.00
67	P	trans-1,3-Dichloropropene	0.3517	0.3997	-13.6	93	0.00
68		Ethyl Methacrylate	0.2861	0.3360	-17.4	94	0.00
69	P	1,1,2-Trichloroethane	0.2220	0.2302	-3.7	93	0.00
70	s	SURR2,BFB	0.4538	0.4651	-2.5	91	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	90	0.00
72	P	Tetrachloroethene	0.2583	0.2522	2.4	94	0.00
73	P	2-Hexanone	0.1416	0.1691	-19.4	100	0.00
74		1,3-Dichloropropane	0.4501	0.4562	-1.4	92	0.00
75	P	Dibromochloromethane	0.2588	0.2753	-6.4	89	0.00
76		N-Butyl Acetate	0.3502	0.4066	-16.1	97	0.00
77	P	1,2-Dibromoethane	0.2312	0.2459	-6.4	93	0.00
78	P	Chlorobenzene	0.8701	0.8784	-1.0	94	0.00
79		3-CBTF	0.4304	0.4324	-0.5	92	0.00
80		4-CBTF	0.3856	0.3968	-2.9	90	0.00
81		1,1,1,2-Tetrachloroethane	0.3058	0.3180	-4.0	92	0.00
82	P	Ethylbenzene	0.4636	0.4647	-0.2	90	0.00
83	P	(m+p)Xylene	0.5448	0.5747	-5.5	93	0.00
84	P	o-Xylene	0.5559	0.5752	-3.5	93	0.00
85	P	Styrene	0.8888	0.9807	-10.3	93	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	90	0.00
87	P	Bromoform	0.2840	0.3039	-7.0	88	0.00
88		2-CBTF	0.8330	0.8241	1.1	90	0.00
89	P	Isopropylbenzene	2.5815	2.7160	-5.2	94	0.00
90		Cyclohexanone	0.0401	0.0625	-55.9#	143	0.00
91		trans-1,4-Dichloro-2-Butene	0.1346	0.1061	21.2#	63	0.00
92	P	1,1,2,2-Tetrachloroethane	0.5726	0.5735	-0.2	92	0.00
93		Bromobenzene	0.7355	0.7235	1.6	93	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:30:22 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94		1,2,3-Trichloropropane	0.1713	0.1718	-0.3	93	0.00
95		n-Propylbenzene	3.0196	3.1597	-4.6	95	0.00
96		2-Chlorotoluene	1.8965	1.9504	-2.8	95	0.00
97		3-Chlorotoluene	1.9725	1.9709	0.1	90	0.00
98		4-Chlorotoluene	2.2360	2.3310	-4.2	95	0.00
99		1,3,5-Trimethylbenzene	2.1057	2.2471	-6.7	96	0.00
100		tert-Butylbenzene	1.7725	1.8231	-2.9	95	0.00
101		1,2,4-Trimethylbenzene	2.1665	2.3084	-6.5	94	0.00
102		3,4-DCBTF	0.6160	0.6103	0.9	88	0.00
103		sec-Butylbenzene	2.4668	2.5951	-5.2	97	0.00
104		p-Isopropyltoluene	2.0860	2.2458	-7.7	96	0.00
105	P	1,3-Dclbenz	1.2519	1.3012	-3.9	95	0.00
106	P	1,4-Dclbenz	1.3322	1.3201	0.9	94	0.00
107		2,4-DCBTF	0.5359	0.5390	-0.6	88	0.00
108		2,5-DCBTF	0.6128	0.6063	1.1	88	0.00
109		n-Butylbenzene	1.8808	2.0207	-7.4	96	0.00
110	P	1,2-Dclbenz	1.2055	1.2412	-3.0	94	0.00
111	P	1,2-Dibromo-3-chloropropane	0.0877	0.0973	-10.9	93	0.00
112		Trielution Dichlorotoluene	0.9535	0.9890	-3.7	90	0.00
113		1,3,5 Trichlorobenzene	0.8315	0.8302	0.2	88	0.00
114		Coelution Dichlorotoluene	1.0096	1.0553	-4.5	89	0.00
115	P	1,2,4-Tcbenzene	0.7372	0.7410	-0.5	92	0.00
116		Hexachlorobt	0.3218	0.3196	0.7	92	0.00
117		Naphthalen	1.3273	1.4123	-6.4	90	0.00
118		1,2,3-Tclbenzene	0.6036	0.5932	1.7	93	0.00
119		2,4,5-Trichlorotolene	0.3978	0.3825	3.8	86	0.00
120		2,3,6-Trichlorotoluene	0.3641	0.3462	4.9	82	0.00

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

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12 RQ1402765-02,06

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:12:29 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	835832	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1302084	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1198773	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	605978	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	381305	50.59	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.18%				
48) surr1,1,2-dichloroetha...	4.658	65	440239	51.27	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.54%				
65) SURR3,Toluene-d8	7.322	98	1577697	49.81	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.62%				
70) SURR2,BFB	9.785	95	605547	51.24	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.48%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	476551	48.00	ppb		99
3) Chloromethane	1.262	50	455305	52.92	ppb		98
4) Vinyl Chloride	1.323	62	462550	57.88	ppb		99
5) Bromomethane	1.512	94	148298	30.79	ppb		96
6) Chloroethane	1.567	64	273005	57.27	ppb		99
7) Freon 21	1.664	67	716488	59.44	ppb		99
8) Trichlorofluoromethane	1.719	101	630460	51.39	ppb		97
9) Diethyl Ether	1.878	59	300498	49.74	ppb		96
10) Freon 123a	1.865	67	460292	51.10	ppb		97
11) Freon 123	1.902	83	534859	51.99	ppb		97
12) Acrolein	1.951	56	180183	456.77	ppb		91
13) 1,1-Diclethene	2.036	96	312236	51.48	ppb		98
14) Freon 113	2.036	101	327096	49.28	ppb		95
15) Acetone	2.042	43	101925	61.46	ppb		96
16) 2-Propanol	2.115	45	340232	1264.26	ppb		96
17) Iodomethane	2.146	142	290750	36.09	ppb		97
18) Carbon Disulfide	2.207	76	1050893	49.81	ppb		100
19) Acetonitrile	2.219	40	73853	272.34	ppb		98
20) Allyl Chloride	2.274	76	207686	49.94	ppb		96
21) Methyl Acetate	2.274	43	200200	53.61	ppb		99
22) Methylene Chloride	2.353	84	392561	49.40	ppb		95
23) TBA	2.408	59	551429	1189.68	ppb		98
24) Acrylonitrile	2.524	53	500744	269.52	ppb		98
25) Methyl-t-Butyl Ether	2.579	73	1003517	52.05	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	393562	51.79	ppb		99
28) 1,1-Diclethane	2.938	63	725477	51.29	ppb		98
29) Vinyl Acetate	2.981	86	73663	58.49	ppb	#	72
30) DIPE	3.012	45	1421082	51.58	ppb		99
31) 2-Chloro-1,3-Butadiene	3.036	53	667870	54.82	ppb		91
32) ETBE	3.396	59	1229354	53.33	ppb		97
33) 2,2-Dichloropropane	3.554	77	613557	54.67	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	430010	50.71	ppb		94
35) 2-Butanone	3.542	43	138160	59.47	ppb		98
36) Propionitrile	3.597	54	188850	281.51	ppb		91
37) Bromochloromethane	3.829	130	226777	47.89	ppb		96

KR 3/25/14

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:12:29 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	117867	54.46	ppb		92
39) Tetrahydrofuran	3.902	42	85978	52.94	ppb		81
40) Chloroform	3.938	83	696475	50.25	ppb		98
41) 1,1,1-Trichloroethane	4.213	97	612293	51.50	ppb		88
42) TAME	5.023	73	1038330	53.35	ppb		98
44) Cyclohexane	4.316	41	364761	51.78	ppb		97
46) Carbontetrachloride	4.475	121	152887	48.97	ppb		92
47) 1,1-Dichloropropene	4.463	75	493204	51.29	ppb		95
49) Benzene	4.780	78	1630558	50.87	ppb		97
50) 1,2-Dichloroethane	4.786	62	502155	51.59	ppb		96
51) Iso-Butyl Alcohol	4.639	43	256539	1164.64	ppb		94
52) n-Heptane	5.328	43	424168	52.96	ppb		96
53) 1-Butanol	5.767	56	378644	3129.98	ppb		98
54) Trichloroethene	5.828	130	396972	51.13	ppb		96
55) Methylcyclohexane	6.102	55	439550	52.65	ppb		96
56) 1,2-Diclpropane	6.115	63	415689	50.71	ppb		98
57) Dibromomethane	6.255	93	200644	51.45	ppb		98
58) 1,4-Dioxane	6.316	88 ~~50380~~	~~938.44~~	ppb	#	60	102.75
59) Methyl Methacrylate	6.328	69	211772	54.90	ppb		94
60) Bromodichloromethane	6.474	83	509686	53.23	ppb		97
61) 2-Nitropropane	6.743	41	127265	123.59	ppb		88
62) 2-Chloroethylvinyl Ether	6.877	63	197760	53.79	ppb		98
63) cis-1,3-Dichloropropene	7.023	75	613627	54.01	ppb		99
64) 4-Methyl-2-pentanone	7.212	43	282518	57.13	ppb		95
66) Toluene	7.389	91	1693253	51.23	ppb		99
67) trans-1,3-Dichloropropene	7.627	75	520432	56.83	ppb		97
68) Ethyl Methacrylate	7.767	69	437547	58.73	ppb		98
69) 1,1,2-Trichloroethane	7.803	97	299755	51.84	ppb		99
72) Tetrachloroethene	7.962	164	302275	48.81	ppb		99
73) 2-Hexanone	8.084	43	202687	59.69	ppb		98
74) 1,3-Dichloropropane	7.968	76	546905	50.68	ppb		98
75) Dibromochloromethane	8.187	129	330053	53.19	ppb		98
76) N-Butyl Acetate	8.236	43	487427	58.06	ppb		97
77) 1,2-Dibromoethane	8.285	107	294825	53.18	ppb		99
78) Chlorobenzene	8.767	112	1053017	50.48	ppb		97
79) 3-CBTF	8.785	180	518316	50.23	ppb		96
80) 4-CBTF	8.840	180	475689	51.45	ppb		98
81) 1,1,1,2-Tetrachloroethane	8.852	131	381205	52.00	ppb		95
82) Ethylbenzene	8.889	106	557021	50.12	ppb		98
83) (m+p)Xylene	8.998	106	1377905	105.50	ppb		98
84) o-Xylene	9.346	106	689546	51.73	ppb		100
85) Styrene	9.352	104	1175664	55.17	ppb		99
87) Bromoform	9.492	173	184175	53.52	ppb		97
88) 2-CBTF	9.577	180	499384	49.47	ppb		96
89) Isopropylbenzene	9.669	105	1645849	52.61	ppb		98
90) Cyclohexanone	9.718	55	757430	1558.26	ppb		99
91) trans-1,4-Dichloro-2-B...	9.961	53	64271	39.40	ppb		91
92) 1,1,2,2-Tetrachloroethane	9.913	83	347499	50.07	ppb		96
93) Bromobenzene	9.907	156	438439	49.18	ppb		98
94) 1,2,3-Trichloropropane	9.943	110	104087	50.13	ppb		99
95) n-Propylbenzene	10.022	91	1914715	52.32	ppb		99
96) 2-Chlorotoluene	10.083	91	1181904	51.42	ppb		99

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:12:29 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

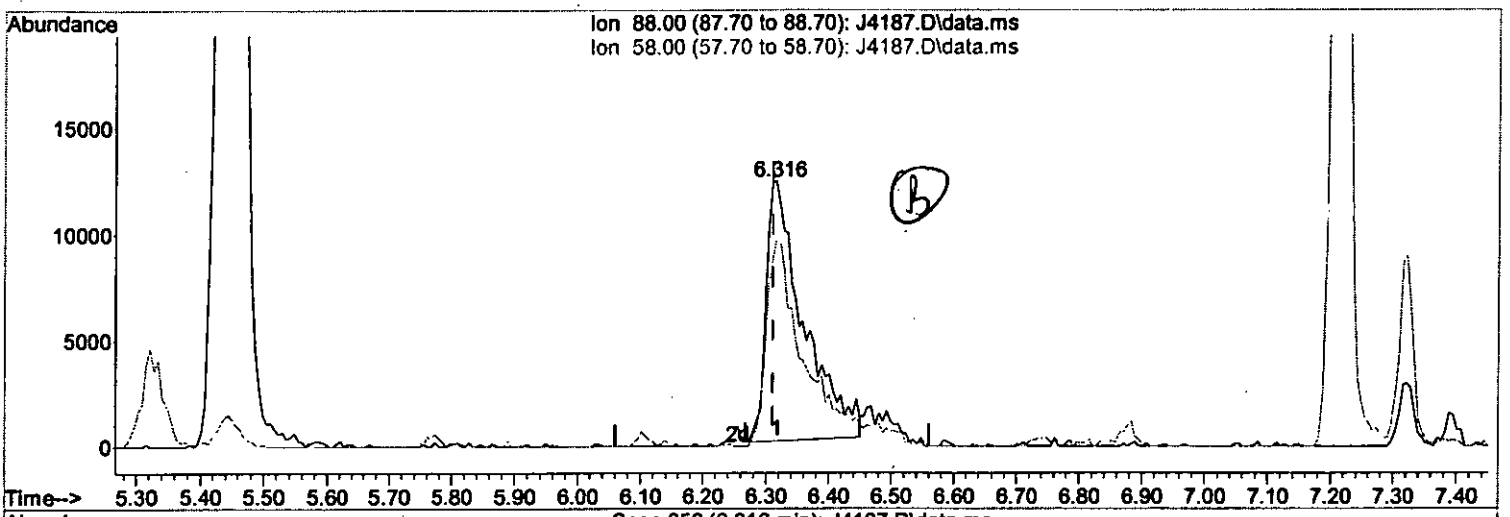
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1194303	49.96	ppb	98
98)	4-Chlorotoluene	10.169	91	1412548	52.13	ppb	98
99)	1,3,5-Trimethylbenzene	10.169	105	1361709	53.36	ppb	100
100)	tert-Butylbenzene	10.437	119	1104748	51.43	ppb	98
101)	1,2,4-Trimethylbenzene	10.474	105	1398862	53.27	ppb	99
102)	3,4-DCBTF	10.535	214	369809	49.53	ppb	96
103)	sec-Butylbenzene	10.620	105	1572568	52.60	ppb	98
104)	p-Isopropyltoluene	10.742	119	1360895	53.83	ppb	98
105)	1,3-Dclbenz	10.693	146	788503	51.97	ppb	99
106)	1,4-Dclbenz	10.766	146	799951	49.55	ppb	97
107)	2,4-DCBTF	10.821	214	326645	50.29	ppb	95
108)	2,5-DCBTF	10.858	214	367410	49.47	ppb	96
109)	n-Butylbenzene	11.065	91	1224495	53.72	ppb	99
110)	1,2-Dclbenz	11.065	146	752150	51.48	ppb	99
111)	1,2-Dibromo-3-chloropr...	11.626	157	58966	55.46	ppb	96
112)	Trielution Dichlorotol...	11.729	125	1797937	155.59	ppb	98
113)	1,3,5 Trichlorobenzene	11.778	180	503110	49.92	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	1278962	104.52	ppb	100
115)	1,2,4-Tcbenzene	12.156	180	449045	50.26	ppb	99
116)	Hexachlorobt	12.266	225	193671	49.66	ppb	99
117)	Naphthalen	12.302	128	855829	53.20	ppb	100
118)	1,2,3-Tclbenzene	12.437	180	359468	49.14	ppb	99
119)	2,4,5-Trichlorotolene	12.851	159	231774	48.08	ppb	97
120)	2,3,6-Trichlorotoluene	12.912	159	209778	47.54	ppb	98

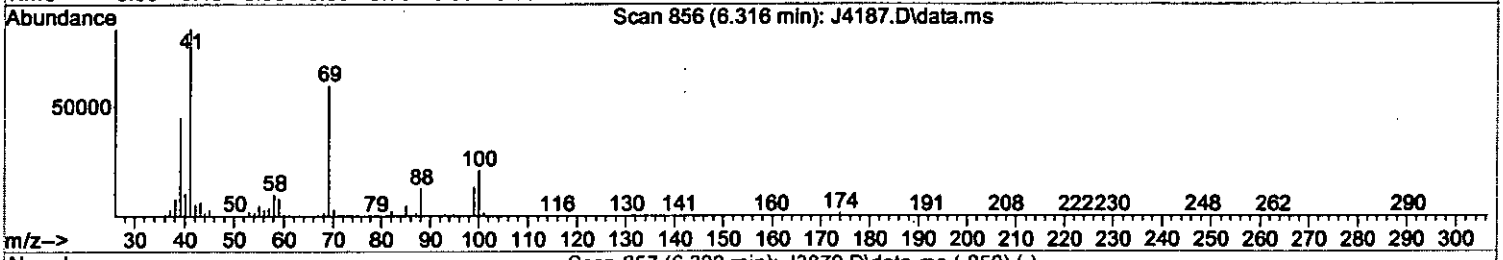
(#) = qualifier out of range (m) = manual integration (+) = signals summed

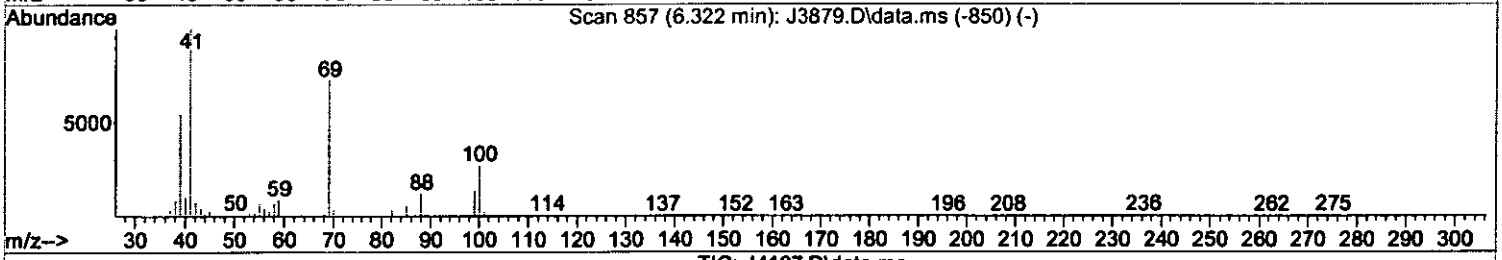
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:12:29 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4187.D\data.ms

(58) 1,4-Dioxane

8.316min (+0.008) 938.44 ppb

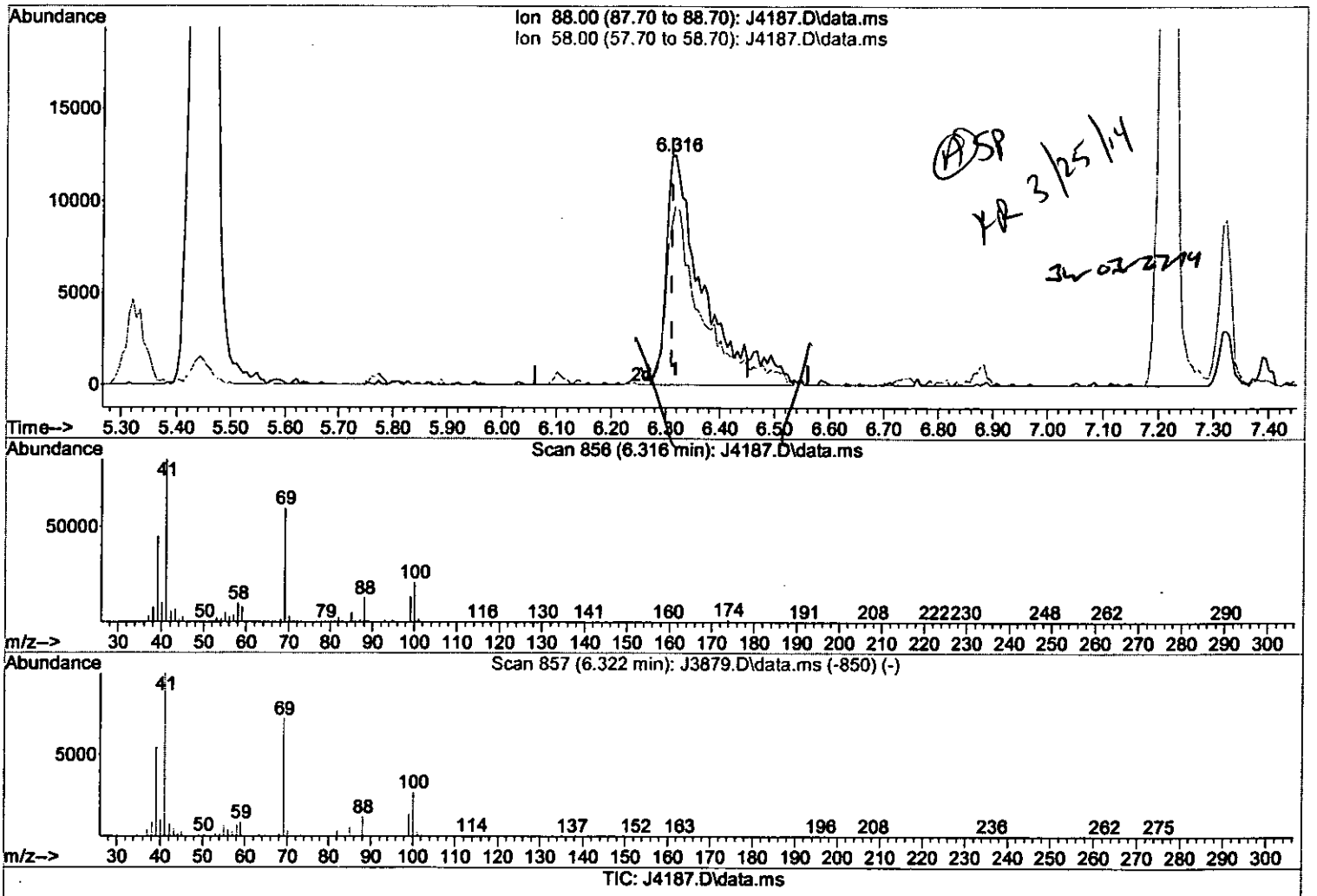
response 50380

Ion	Exp%	Act%
88.00	100	100
58.00	50.80	78.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:12:29 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



TIC: J4187.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 1102.75 ppb m

response 59201

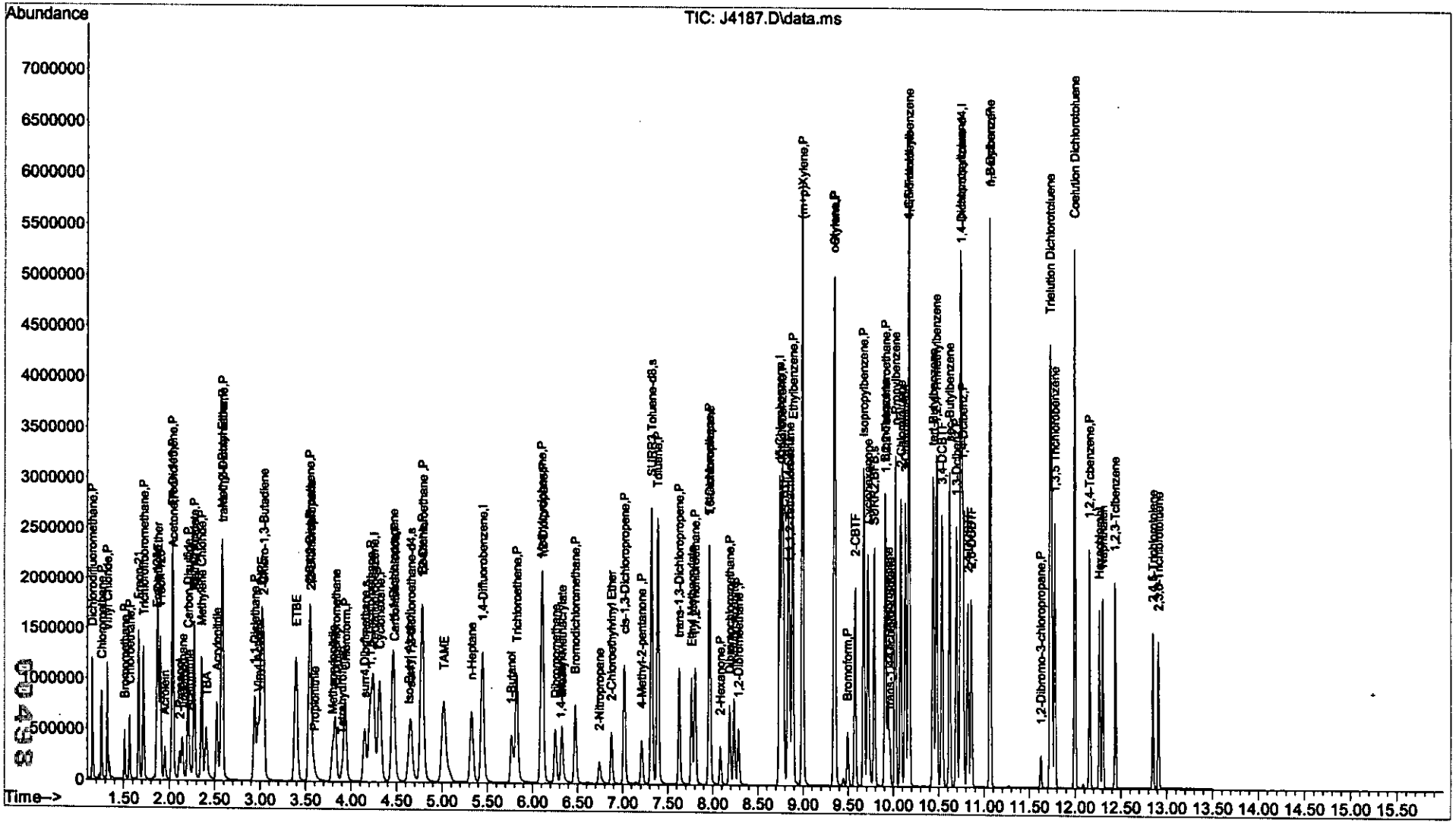
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	78.36#
0.00	0.00	0.00
0.00	0.00	0.00

00487

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4187.D
Misc :
Acq On : 25 Mar 2014 11:57 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:12:29 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1402018
Date Analyzed: 3/28/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa10\data\032714\F6974.D\

Calibration Date: 2/28/14
Calibration ID: RC1400020
Analysis Lot: 385666
Units: µg/L

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	46.3	0.7057	0.6530	-7.5	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	46.7	0.8760	0.8173	-6.7	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	47.2	0.3481	0.3287	-5.6	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	48.3	0.2948	0.2847	-3.4	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	54.1	0.3389	0.3669	8.2	NA	± 20 %	Average RF
Vinyl Chloride	50.0	47.1	0.5981	0.5628	-5.9	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	47.5	0.5059	0.4803	-5.0	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	47.6	0.4454	0.4239	-4.8	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	51.3	0.4806	0.4928	2.5	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	49.6	0.3263	0.3238	-0.8	NA	± 20 %	Average RF
Toluene-d8	50.0	49.6	1.170	1.160	-0.8	NA	± 20 %	Average RF

Evaluate Continuing Calibration Report

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

FJ 4/5/14

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	i	Pentafluorobenzene	1.0000	1.0000	0.0	107	0.00	
2	P	Dichlorodifluoromethane	0.5497	0.4955	9.9	87	0.00	
3	P	Chloromethane	0.6421	0.5855	8.8	94	0.00	
4	P	Vinyl Chloride	0.5981	0.5628	5.9	94	0.00	
5	P	Bromomethane	0.1740	0.2085	-16.7 ~~-19.8~~	110	0.00	
6	P	Chloroethane	0.3514	0.3132	10.9	97	0.00	
7		Freon 21	0.9725	0.8827	9.2	98	0.00	
8	P	Trichlorofluoromethane	0.7478	0.6732	10.0	91	0.00	
9		Diethyl Ether	0.3630	0.3708	-2.1	108	0.00	
10		Freon 123a	0.6029	0.5476	9.2	97	0.00	
11		Freon 123	0.6483	0.6055	6.6	100	0.00	
12		Acrolein	0.0544	0.0659	-21.1#	144	0.00	* NT
13		1,1-Diclethene	0.3481	0.3287	5.6	96	0.00	
14	P	Freon 113	0.4199	0.3775	10.1	91	0.00	
15	P	Acetone	0.1325	0.1463	-10.4	126	0.00	
16		2-Propanol	0.0185	0.0243	-31.4#	144	0.00	* NT
17		Iodomethane	0.2379	0.3588	-27.9 ~~-50.8#~~	158	0.00	* NT
18	P	Carbon Disulfide	1.2784	1.2254	4.1	106	0.00	
19		Acetonitrile	0.0162	0.0198	-22.2#	148	0.00	* NT
20		Allyl Chloride	0.2209	0.2154	2.5	98	0.00	
21	P	Methyl Acetate	0.2714	0.2948	-8.6	112	0.00	
22	P	Methylene Chloride	0.4535	0.4250	6.3	102	0.00	
23		TBA	0.0278	0.0357	-28.4#	138	0.00	* NT
24		Acrylonitrile	0.1202	0.1424	-18.5	123	0.00	
25	P	Methyl-t-Butyl Ether	1.0523	1.1218	-6.6	112	0.00	
26	P	trans-1,2-Dichloroethene	0.4454	0.4239	4.8	99	0.00	
27		Halothane	0.0000	0.0000	0.0	0#	-3.03#	
28	P	1,1-Diclethane	0.8760	0.8173	6.7	97	0.00	
29		Vinyl Acetate	0.0595	0.0349	41.3#	58	0.00	* NT
30		DIPE	1.8799	1.7621	6.3	96	0.00	
31		2-Chloro-1,3-Butadiene	0.8571	0.8161	4.8	97	0.00	
32		ETBE	1.4619	1.4077	3.7	98	0.00	
33		2,2-Dichloropropane	0.6338	0.5000	21.1#	79	0.00	* NT
34	P	cis-1,2-Dichloroethene	0.5059	0.4803	5.1	102	0.00	
35	P	2-Butanone	0.1754	0.1954	-11.4	119	0.00	
36		Propionitrile	0.0381	0.0514	-15.4 ~~-34.9#~~	124	0.00	
37		Bromochloromethane	0.2963	0.3027	-2.2	107	0.00	
38		Methacrylonitrile	0.1110	0.1400	-26.1#	124	0.00	* NT
39		Tetrahydrofuran	0.1013	0.1178	-16.3	128	0.01	
40	P	Chloroform	0.8322	0.7742	7.0	98	0.00	
41	P	1,1,1-Trichloroethane	0.7057	0.6530	7.5	96	0.00	
42		TAME	1.1043	1.0808	2.1	102	0.00	
43	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	105	0.00	
44	P	Cyclohexane	0.3923	0.3495	10.9	92	0.00	
45	s	surr4,Dibrflmethane	0.3263	0.3238	0.8	106	0.00	
46	P	Carbontetrachloride	0.1307	0.1272	2.7	95	0.00	
47		1,1-Dichloropropene	0.3805	0.3695	2.9	96	0.00	

Evaluate Continuing Calibration Report

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
48	s	surr1,1,2-dichloroethane-d4	0.3433	0.3317	3.4	103	0.00	
49	P	Benzene	1.2122	1.2081	0.3	100	0.00	
50	P	1,2-Dichloroethane	0.4594	0.4309	6.2	101	0.00	
51		Iso-Butyl Alcohol	0.0088	0.0112	-27.3#	130	0.00	* NT
52		n-Heptane	0.3673	0.3349	8.8	84	0.00	
53		1-Butanol	0.0043	0.0058 -29.0	~~34.9#~~	134	0.00	* NT
54	P	Trichloroethene	0.3389	0.3669	-8.3	111	0.00	
55	P	Methylcyclohexane	0.4387	0.4165	5.1	96	0.00	
56	P	1,2-Diclpropane	0.3276	0.3309	-1.0	100	0.00	
57		Dibromomethane	0.1720	0.1856	-7.9	111	0.00	
58		1,4-Dioxane	0.0017	0.0024	-41.2#	155	0.00	* NT
59		Methyl Methacrylate	0.1354	0.1686	-24.5#	118	0.00	* NT
60	P	Bromodichloromethane	0.4042	0.4005	0.9	99	0.00	
61		2-Nitropropane	0.0000	0.0545	0.0	0#	0.00	
62		2-Chloroethylvinyl Ether	0.1469	0.1716	-16.8	116	0.00	
63	P	cis-1,3-Dichloropropene	0.4366	0.4613	-5.7	101	0.00	
64	P	4-Methyl-2-pentanone	0.2364	0.2907	-23.0#	123	0.00	* NT
65	s	SURR3,Toluene-d8	1.1701	1.1602	0.8	105	0.00	
66	P	Toluene	1.2999	1.3109	-0.8	99	0.00	
67	P	trans-1,3-Dichloropropene	0.3592	0.3943	-9.8	105	0.00	
68		Ethyl Methacrylate	0.2712	0.3481 -20.3	~~28.4#~~	116	0.00	* NT
69	P	1,1,2-Trichloroethane	0.2339	0.2584	-10.5	111	0.00	
70	s	SURR2,BFB	0.4806	0.4928	-2.5	107	0.00	
71	i	d5-Chlorobenzene	1.0000	1.0000	0.0	109	0.00	
72	P	Tetrachloroethene	0.2948	0.2847	3.4	99	0.00	
73	P	2-Hexanone	0.1901	0.2239	-17.8	125	0.00	
74		1,3-Dichloropropane	0.4313	0.4557	-5.7	113	0.00	
75	P	Dibromochloromethane	0.3193	0.3386	-6.0	106	0.00	
76		N-Butyl Acetate	0.4518	0.5067	-12.2	113	0.00	
77	P	1,2-Dibromoethane	0.2554	0.2795	-9.4	114	0.00	
78		3-Chlorobenzotrifluoride	0.5494	0.5113	6.9	99	0.00	
79	P	Chlorobenzene	0.9784	0.9518	2.7	101	0.00	
80		4-Chlorobenzotrifluoride	0.5051	0.4662	7.7	97	0.00	
81		1,1,1,2-Tetrachloroethane	0.3469	0.3443	0.7	100	0.00	
82	P	Ethylbenzene	0.4804	0.4766	0.8	100	0.00	
83	P	(m+p)Xylene	0.5810	0.5989	-3.1	100	0.00	
84	P	o-Xylene	0.5725	0.5924	-3.5	101	0.00	
85	P	Styrene	0.9587	1.0160	-6.0	101	0.00	
86	P	Bromoform	0.1892	0.2148	-13.5	113	0.00	
87		2-Chlorobenzotrifluoride	0.5331	0.5163	3.2	103	0.00	
88	P	Isopropylbenzene	1.4360	1.4592	-1.6	99	0.00	
89		Cyclohexanone	0.0351	0.0356	-1.4	101	0.00	
90		trans-1,4-Dichloro-2-Butene	0.0804	0.0908 -3.3	~~12.9~~	104	0.00	
91	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	109	0.00	
92	P	1,1,2,2-Tetrachloroethane	0.5717	0.5402	5.5	106	0.00	
93		Bromobenzene	0.7589	0.7315	3.6	104	0.00	

Evaluate Continuing Calibration Report

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
94		1,2,3-Trichloropropane	0.1438	0.1548	-7.6	116	0.00	
95		n-Propylbenzene	3.0264	2.9936	1.1	96	0.00	
96		2-Chlorotoluene	1.8824	1.8252	3.0	98	0.00	
97		3-Chlorotoluene	2.0567	1.8605	9.5	98	0.00	
98		4-Chlorotoluene	2.2868	2.1608	5.5	97	0.00	
99		1,3,5-Trimethylbenzene	2.1580	2.1159	2.0	97	0.00	
100		tert-Butylbenzene	1.8084	1.7608	2.6	97	0.00	
101		1,2,4-Trimethylbenzene	2.1942	2.1696	1.1	97	0.00	
102		3,4-Dichlorobenzotrifluorid	0.6842	0.6255	8.6	99	0.00	
103		sec-Butylbenzene	2.4929	2.4380	2.2	96	0.00	
104		p-Isopropyltoluene	2.1418	2.1609	-0.9	96	0.00	
105	P	1,3-Dclbenz	1.4185	1.3864	2.3	102	0.00	
106	P	1,4-Dclbenz	1.4946	1.4261	4.6	103	0.00	
107		2,4-Dichlorobenzotrifluorid	0.6206	0.5634	9.2	97	0.00	
108		2,5-Dichlorobenzotrifluorid	0.7203	0.6454	10.4	98	0.00	
109		n-Butylbenzene	1.8641	1.8343	1.6	93	0.00	
110	P	1,2-Dclbenz	1.3266	1.3342	-0.6	105	0.00	
111	P	1,2-Dibromo-3-chloropropane	0.0987	0.1140	-15.5	129	0.00	
112		Trielution Dichlorotoluene	1.0668	1.0272	3.7	100	0.00	
113		1,3,5-Trichlorobenzene	0.9449	0.8781	7.1	102	0.00	
114		Coelution Dichlorotoluene	1.1100	1.1117	-0.2	105	0.00	
115	P	1,2,4-Tcbenzene	0.7628	0.7911	-3.7	107	0.00	
116		Hexachlorobt	0.3409	0.2976	12.7	91	0.00	
117		Naphthalen	1.2907	1.6088	-24.6#	122	0.00	* NT
118		1,2,3-Tclbenzene	0.6070	0.6496	-7.0	115	0.00	
119		2,4,5-Trichlorotoluene	0.3818	0.3726	2.4	101	0.00	
120		2,3,6-Trichlorotoluene	0.3631	0.3523	3.0	106	0.00	

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

Quantitation Report (QT Reviewed)

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

RQ1403226-04

FD 4/5/14

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	930091	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1340834	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1270938	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	738845	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	434188	49.61	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.22%				
48) surr1,1,2-dichloroetha...	4.854	65	444738	48.30	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.60%				
65) SURR3,Toluene-d8	7.427	98	1555674	49.58	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.16%				
70) SURR2,BFB	9.878	95	660783	51.27	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.54%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.191	85	460836	45.07	ug/L		96
3) Chloromethane	1.300	50	544542	45.59	ug/L		96
4) Vinyl Chloride	1.361	62	523493	47.05	ug/L		99
5) Bromomethane	1.562	94	193903	58.35	ug/L		99
6) Chloroethane	1.617	64	291313	44.57	ug/L		96
7) Freon 21	1.721	67	821008	45.38	ug/L		100
8) Trichlorofluoromethane	1.770	101	626130	45.01	ug/L		99
9) Diethyl Ether	1.940	59	344887	51.07	ug/L		93
10) Freon 123a	1.934	67	509297	45.41	ug/L		100
11) Freon 123	1.971	83	563135	46.69	ug/L		98
12) Acrolein	2.026	56	306531	302.68	ug/L		100
13) 1,1-Diclethene	2.105	96	305725	47.21	ug/L		96
14) Freon 113	2.093	101	351070	44.95	ug/L		100
15) Acetone	2.123	43	136038	55.21	ug/L		97
16) 2-Propanol	2.196	45	451277	1311.35	ug/L		94
17) Iodomethane	2.215	142	333681	63.94	ug/L		97
18) Carbon Disulfide	2.276	76	1139723	47.93	ug/L		99
19) Acetonitrile	2.318	40	92004	305.34	ug/L		98
20) Allyl Chloride	2.355	76	200336	48.75	ug/L	#	82
21) Methyl Acetate	2.355	43	274160	54.30	ug/L		92
22) Methylene Chloride	2.440	84	395313	46.86	ug/L		91
23) TBA	2.501	59	664477	1284.85	ug/L		88
24) Acrylonitrile	2.635	53	662269	296.27	ug/L		96
25) Methyl-t-Butyl Ether	2.666	73	1043412	53.30	ug/L		94
26) trans-1,2-Dichloroethene	2.672	96	394253	47.58	ug/L		90
28) 1,1-Diclethane	3.050	63	760124	46.65	ug/L		99
29) Vinyl Acetate	3.093	86	32447	29.29	ug/L	#	39
30) DIPE	3.111	45	1638891	46.87	ug/L		93
31) 2-Chloro-1,3-Butadiene	3.147	53	759020	47.61	ug/L		89
32) ETBE	3.507	59	1309295	48.15	ug/L		96
33) 2,2-Dichloropropane	3.684	77	464999	39.44	ug/L		100
34) cis-1,2-Dichloroethene	3.684	96	446733	47.48	ug/L		95
35) 2-Butanone	3.696	43	181711	55.69	ug/L		94
36) Propionitrile	3.769	54	239048	288.49	ug/L		98
37) Bromochloromethane	3.983	130	281522	51.08	ug/L		94

Quantitation Report (QT Reviewed)

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.970	67	130184	63.02	ug/L	#	70
39) Tetrahydrofuran	4.062	42	109582	58.16	ug/L		87
40) Chloroform	4.092	83	720081	46.52	ug/L		96
41) 1,1,1-Trichloroethane	4.361	97	607379	46.27	ug/L		96
42) TAME	5.184	73	1005272	48.94	ug/L		95
44) Cyclohexane	4.446	41	468651	44.54	ug/L		91
46) Carbontetrachloride	4.623	121	170497	48.63	ug/L		92
47) 1,1-Dichloropropene	4.623	75	495431	48.55	ug/L		100
49) Benzene	4.958	78	1619818	49.83	ug/L		96
50) 1,2-Dichloroethane	4.989	62	577707	46.90	ug/L		96
51) Iso-Butyl Alcohol	4.861	43	301097	1278.87	ug/L		93
52) n-Heptane	5.458	43	449078	45.59	ug/L		90
53) 1-Butanol	5.946	56	389989	3224.68	ug/L		92
54) Trichloroethene	5.970	130	491885	54.12	ug/L		96
55) Methylcyclohexane	6.214	55	558431	47.47	ug/L		91
56) 1,2-Diclpropane	6.257	63	443743	50.52	ug/L		99
57) Dibromomethane	6.403	93	248916	53.97	ug/L		97
58) 1,4-Dioxane	6.458	88	64489m	1413.52	ug/L		
59) Methyl Methacrylate	6.464	69	226005	62.22	ug/L	#	77
60) Bromodichloromethane	6.616	83	537053	49.54	ug/L		97
62) 2-Chloroethylvinyl Ether	7.006	63	230148	58.43	ug/L		94
63) cis-1,3-Dichloropropene	7.147	75	618519	52.82	ug/L		99
64) 4-Methyl-2-pentanone	7.336	43	389738	61.47	ug/L		97
66) Toluene	7.500	91	1757713	50.43	ug/L		100
67) trans-1,3-Dichloropropene	7.744	75	528713	54.89	ug/L		98
68) Ethyl Methacrylate	7.872	69	466709	60.17	ug/L		81
69) 1,1,2-Trichloroethane	7.921	97	346435	55.23	ug/L		99
72) Tetrachloroethene	8.055	164	361828	48.28	ug/L		97
73) 2-Hexanone	8.195	43	284516	58.89	ug/L		94
74) 1,3-Dichloropropane	8.086	76	579111	52.83	ug/L		90
75) Dibromochloromethane	8.299	129	430298	53.02	ug/L		99
76) N-Butyl Acetate	8.335	43	643939	56.07	ug/L		98
77) 1,2-Dibromoethane	8.396	107	355188	54.71	ug/L		95
78) 3-Chlorobenzotrifluoride	8.878	180	649823	46.53	ug/L		98
79) Chlorobenzene	8.866	112	1209716	48.64	ug/L		96
80) 4-Chlorobenzotrifluoride	8.927	180	592512	46.15	ug/L		99
81) 1,1,1,2-Tetrachloroethane	8.945	131	437525	49.62	ug/L		99
82) Ethylbenzene	8.976	106	605747	49.61	ug/L		97
83) (m+p)Xylene	9.085	106	1522391	103.09	ug/L		96
84) o-Xylene	9.433	106	752929	51.74	ug/L		96
85) Styrene	9.445	104	1291244	52.99	ug/L		97
86) Bromoform	9.597	173	272964	56.75	ug/L		97
87) 2-Chlorobenzotrifluoride	9.665	180	656224	48.43	ug/L		93
88) Isopropylbenzene	9.756	105	1854577	50.81	ug/L		100
89) Cyclohexanone	9.823	55	906073	1016.27	ug/L		100
90) trans-1,4-Dichloro-2-B...	10.055	53	115456	51.65	ug/L		89
92) 1,1,2,2-Tetrachloroethane	10.006	83	399126	47.24	ug/L		99
93) Bromobenzene	10.000	156	540500	48.20	ug/L		97
94) 1,2,3-Trichloropropane	10.036	110	114350	53.82	ug/L		98
95) n-Propylbenzene	10.103	91	2211792	49.46	ug/L		99
96) 2-Chlorotoluene	10.164	91	1348556	48.48	ug/L		97
97) 3-Chlorotoluene	10.219	91	1374607	45.23	ug/L		98

Quantitation Report (QT Reviewed)

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

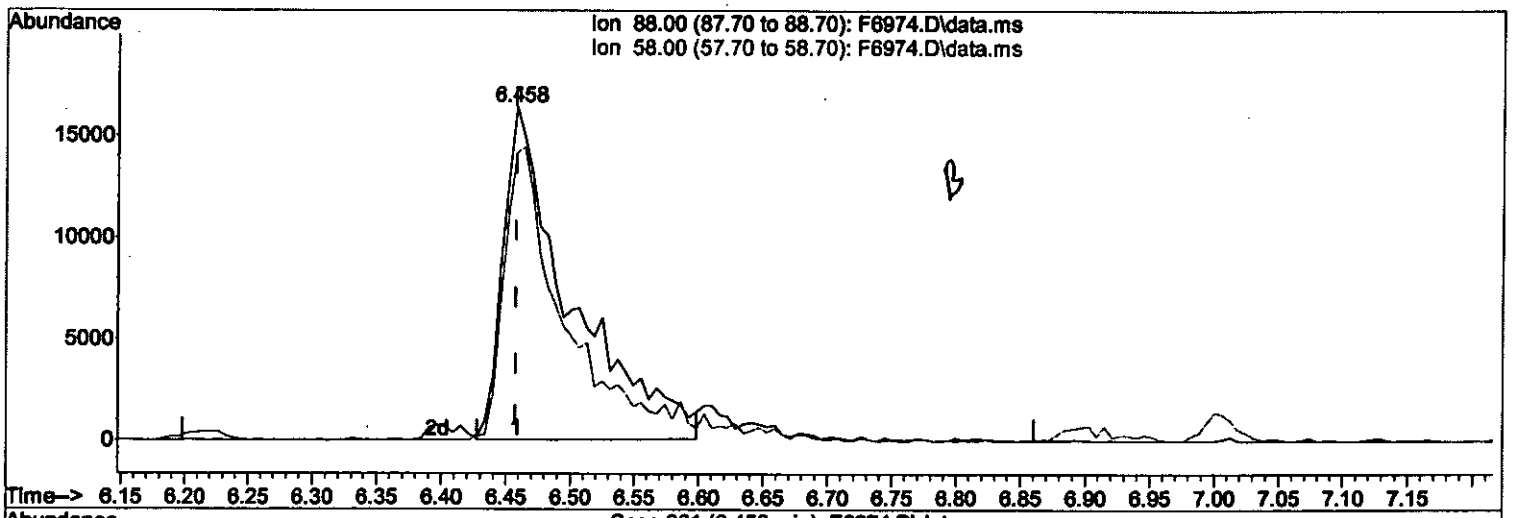
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	4-Chlorotoluene	10.256	91	1596525	47.25	ug/L	98
99)	1,3,5-Trimethylbenzene	10.250	105	1563287	49.02	ug/L	97
100)	tert-Butylbenzene	10.518	119	1300950	48.68	ug/L	98
101)	1,2,4-Trimethylbenzene	10.555	105	1602969	49.44	ug/L	98
102)	3,4-Dichlorobenzotrifl...	10.616	214	462153	45.71	ug/L	97
103)	sec-Butylbenzene	10.695	105	1801273	48.90	ug/L	98
104)	p-Isopropyltoluene	10.817	119	1596554	50.44	ug/L	97
105)	1,3-Dclbenz	10.780	146	1024317	48.87	ug/L	98
106)	1,4-Dclbenz	10.853	146	1053690	47.71	ug/L	100
107)	2,4-Dichlorobenzotrifl...	10.902	214	416281	45.39	ug/L	99
108)	2,5-Dichlorobenzotrifl...	10.939	214	476839	44.80	ug/L	98
109)	n-Butylbenzene	11.140	91	1355264	49.20	ug/L	98
110)	1,2-Dclbenz	11.152	146	985777	50.29	ug/L	98
111)	1,2-Dibromo-3-chloropr...	11.707	157	84209	57.75	ug/L	91
112)	Trielution Dichlorotol...	11.804	125	2276732	144.42	ug/L	97
113)	1,3,5-Trichlorobenzene	11.847	180	648777	46.46	ug/L	96
114)	Coelution Dichlorotoluene	12.066	125	1642713	100.16	ug/L	96
115)	1,2,4-Tcbenzene	12.225	180	584503	51.86	ug/L	96
116)	Hexachlorobt	12.323	225	219860	43.64	ug/L	98
117)	Naphthalen	12.371	128	1188688	62.32	ug/L	99
118)	1,2,3-Tclbenzene	12.505	180	479977	53.51	ug/L	99
119)	2,4,5-Trichlorotoluene	12.914	159	275274	48.80	ug/L	97
120)	2,3,6-Trichlorotoluene	12.975	159	260328	48.51	ug/L	97

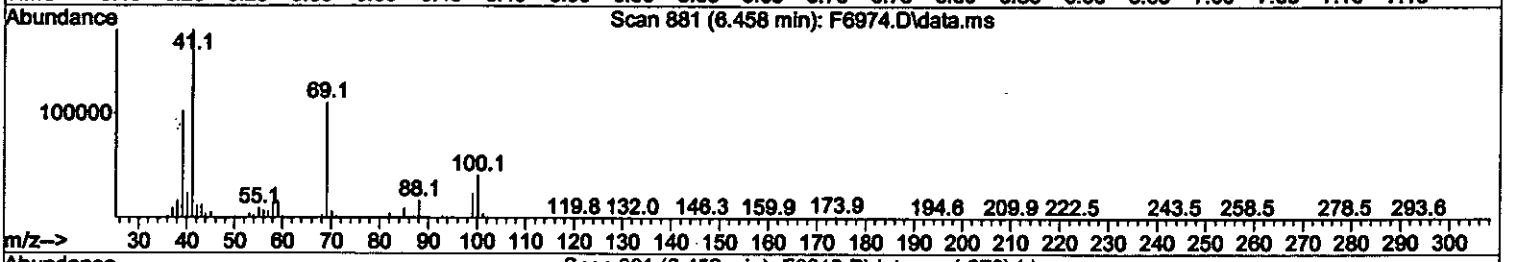
(#) = qualifier out of range (m) = manual integration (+) = signals summed

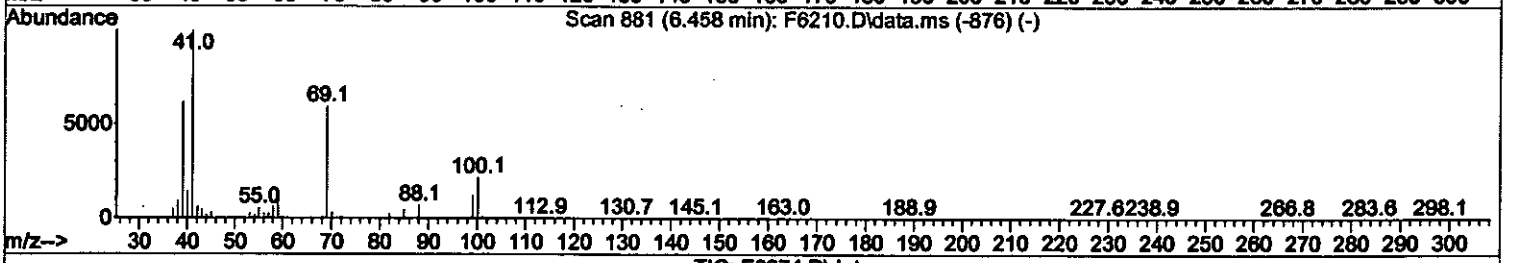
Quantitation Report (Qedit)

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 00:32:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration







TIC: F6974.D\data.ms

(58) 1,4-Dioxane

6.458min (+0.001) 1303.88 ug/L

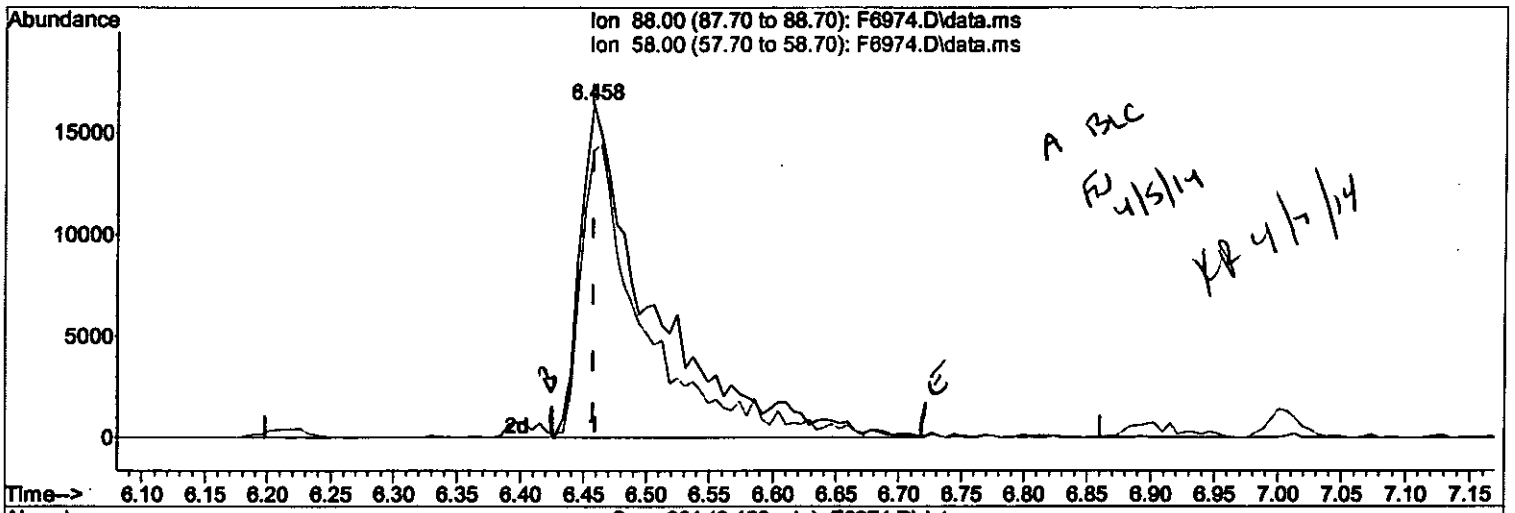
response 59487

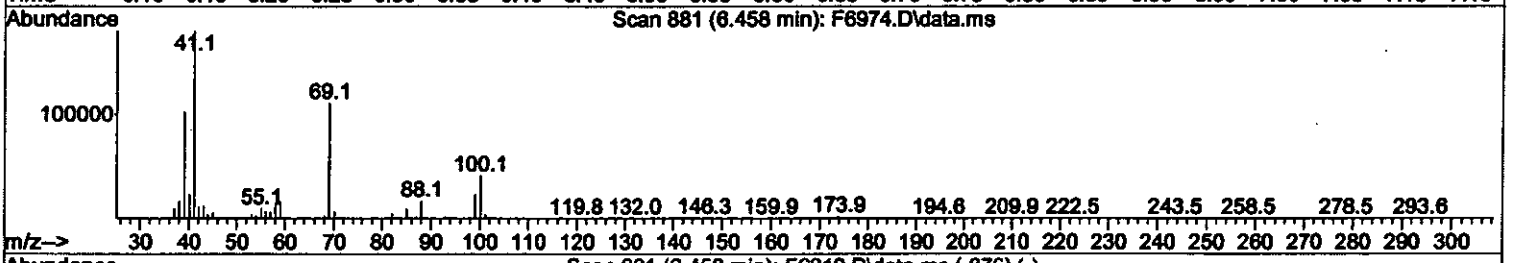
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	86.21
0.00	0.00	0.00
0.00	0.00	0.00

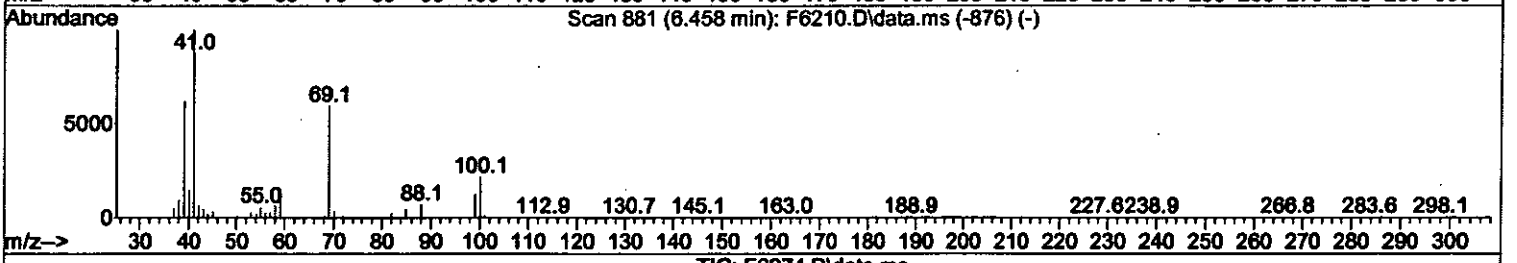
Quantitation Report (Qedit)

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 00:32:57 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration







TIC: F6974.D\data.ms

(58) 1,4-Dioxane

8.458min (+0.001) 1413.52 ug/L m

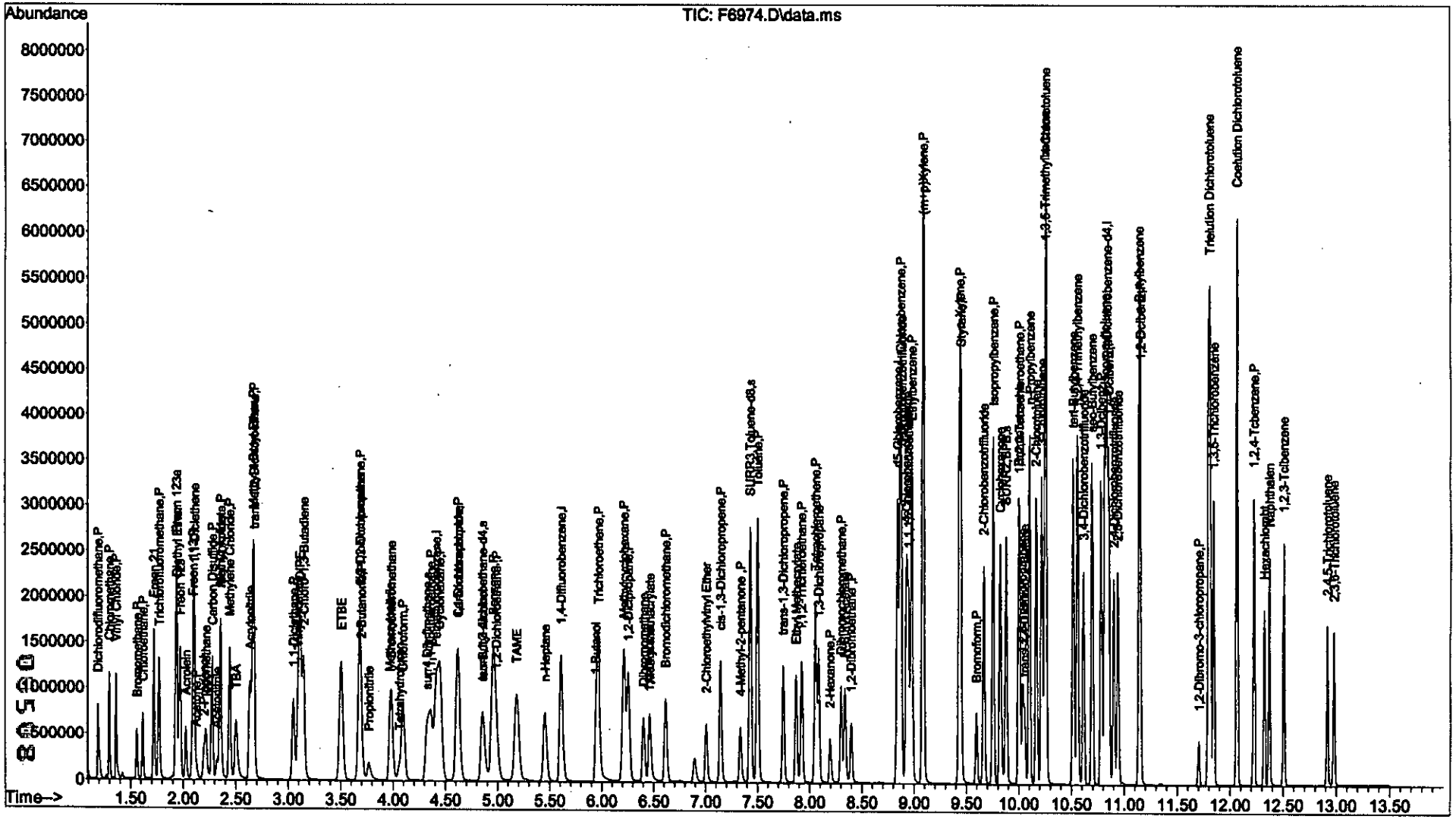
response 64489

Ion	Exp%	Act%
88.00	100	100
58.00	73.00	88.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : CCV
Data File : I:\ACQUDATA\msvoa10\data\032714\F6974.D Vial: 24
Acq On : 28 Mar 2014 12:19 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:36:39 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



ALS Environmental

VOLATILE ORGANICS
RAW QC DATA

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

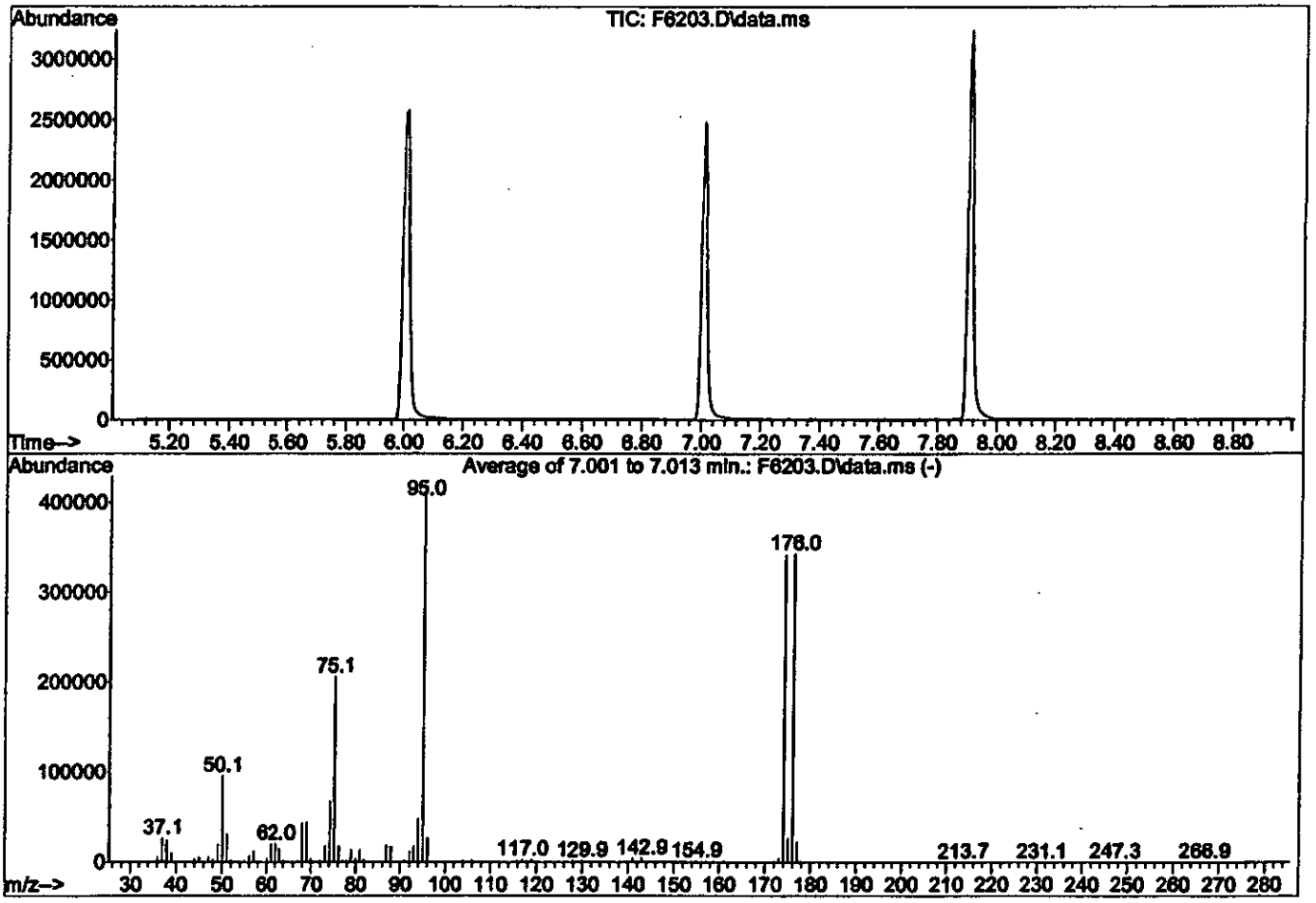
BFB

Data Path : I:\ACQUDATA\msvoa10\data\022814\
Data File : F6203.D
Acq On : 28 Feb 2014 10:52 am
Operator : F.Naegler
Sample : TUNE
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: CPD4.P

FJ 3/3/14

Method : I:\ACQUDATA\MSVOA10\METHODS\T022814.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



AutoFind: Scans 314, 315, 316; Background Corrected with Scan 309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	95613	PASS
75	95	30	60	50.5	206016	PASS
95	95	100	100	100.0	407872	PASS
96	95	5	9	6.6	26888	PASS
173	174	0.00	2	1.1	3882	PASS
174	95	50	120	83.6	340928	PASS
175	174	5	9	7.9	26888	PASS
176	174	95	101	100.6	343061	PASS
177	176	5	9	6.5	22267	PASS

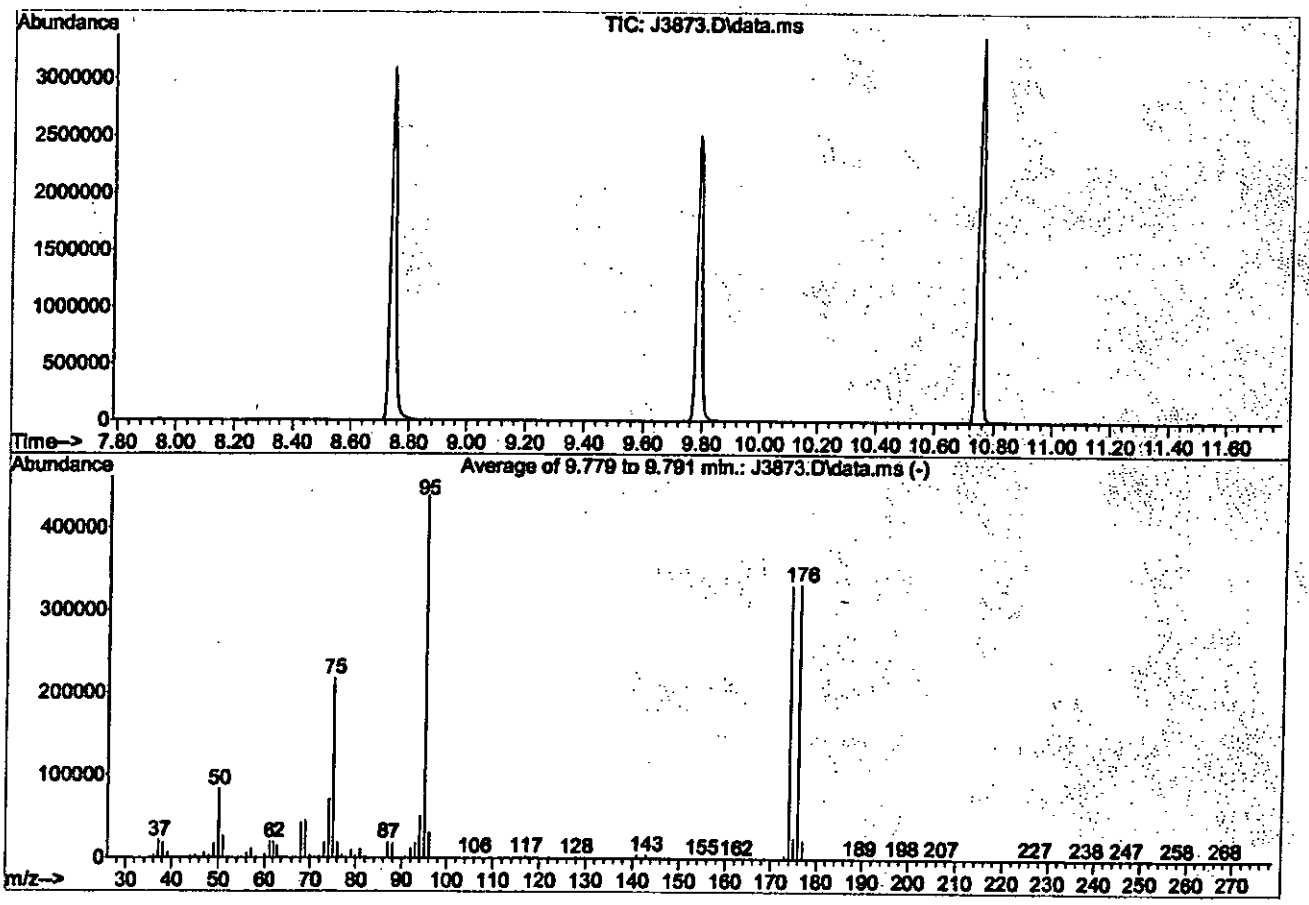
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\031214\
Data File : J3873.D
Acq On : 12 Mar 2014 9:41 am
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

KR 3/12/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Jan 16 12:02:56 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	83285	PASS
75	95	30	60	49.5	217600	PASS
95	95	100	100	100.0	439232	PASS
96	95	5	9	6.8	30035	PASS
173	174	0.00	2	1.2	3907	PASS
174	95	50	120	75.2	330475	PASS
175	174	5	9	7.6	25003	PASS
176	174	95	101	100.4	331712	PASS
177	176	5	9	6.5	21696	PASS

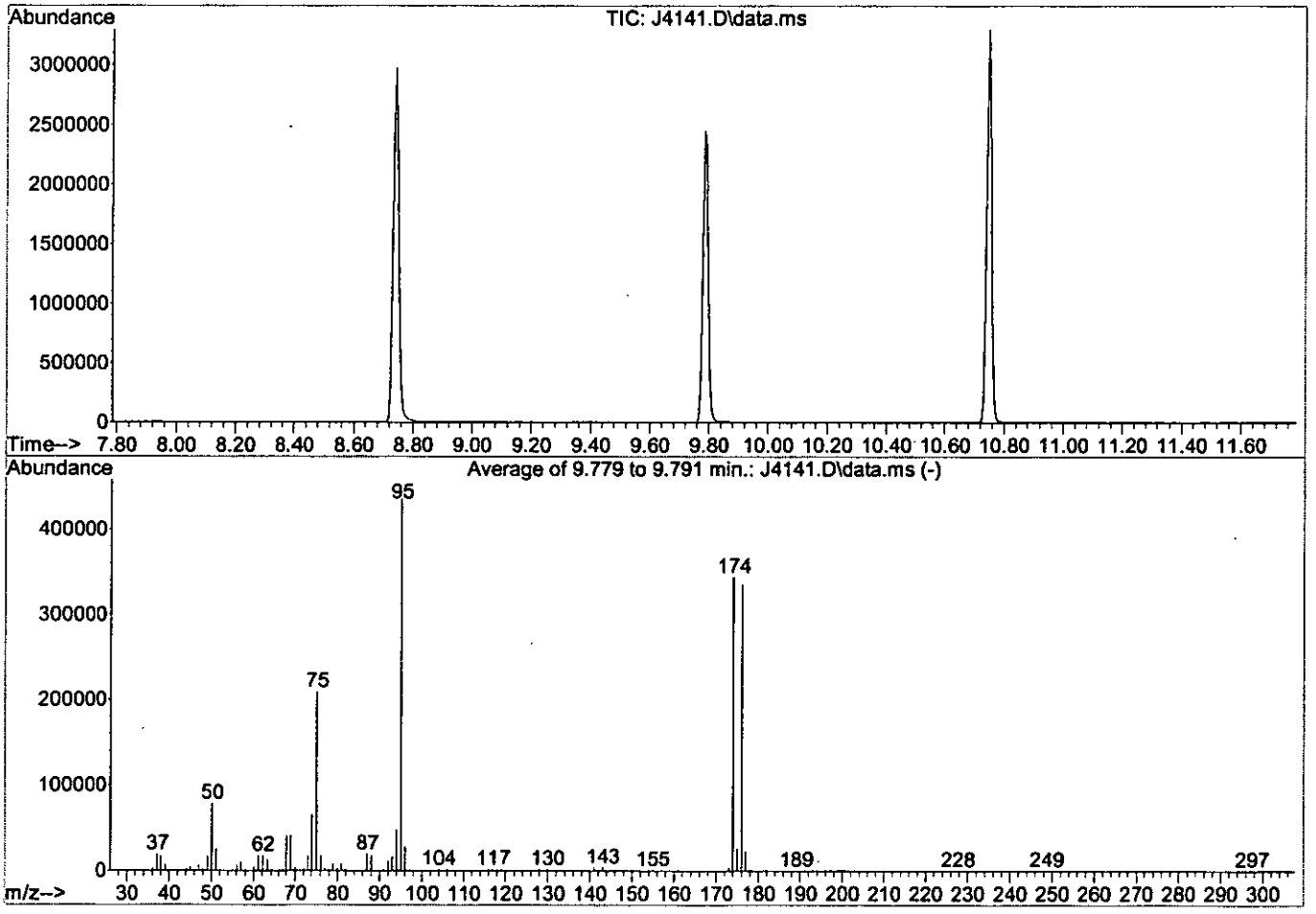
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\032414\
Data File : J4141.D
Acq On : 24 Mar 2014 11:04 am
Operator : K.Ruest
Sample : TUNE RQ1402678-01
Misc :
ALS Vial : 1 Sample Multiplier: 1

KR 3/24/14

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Mar 13 11:21:13 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	78213	PASS
75	95	30	60	48.0	209280	PASS
95	95	100	100	100.0	435712	PASS
96	95	5	9	6.5	28307	PASS
173	174	0.00	2	0.9	3202	PASS
174	95	50	120	79.0	344149	PASS
175	174	5	9	7.5	25759	PASS
176	174	95	101	97.5	335509	PASS
177	176	5	9	6.7	22328	PASS

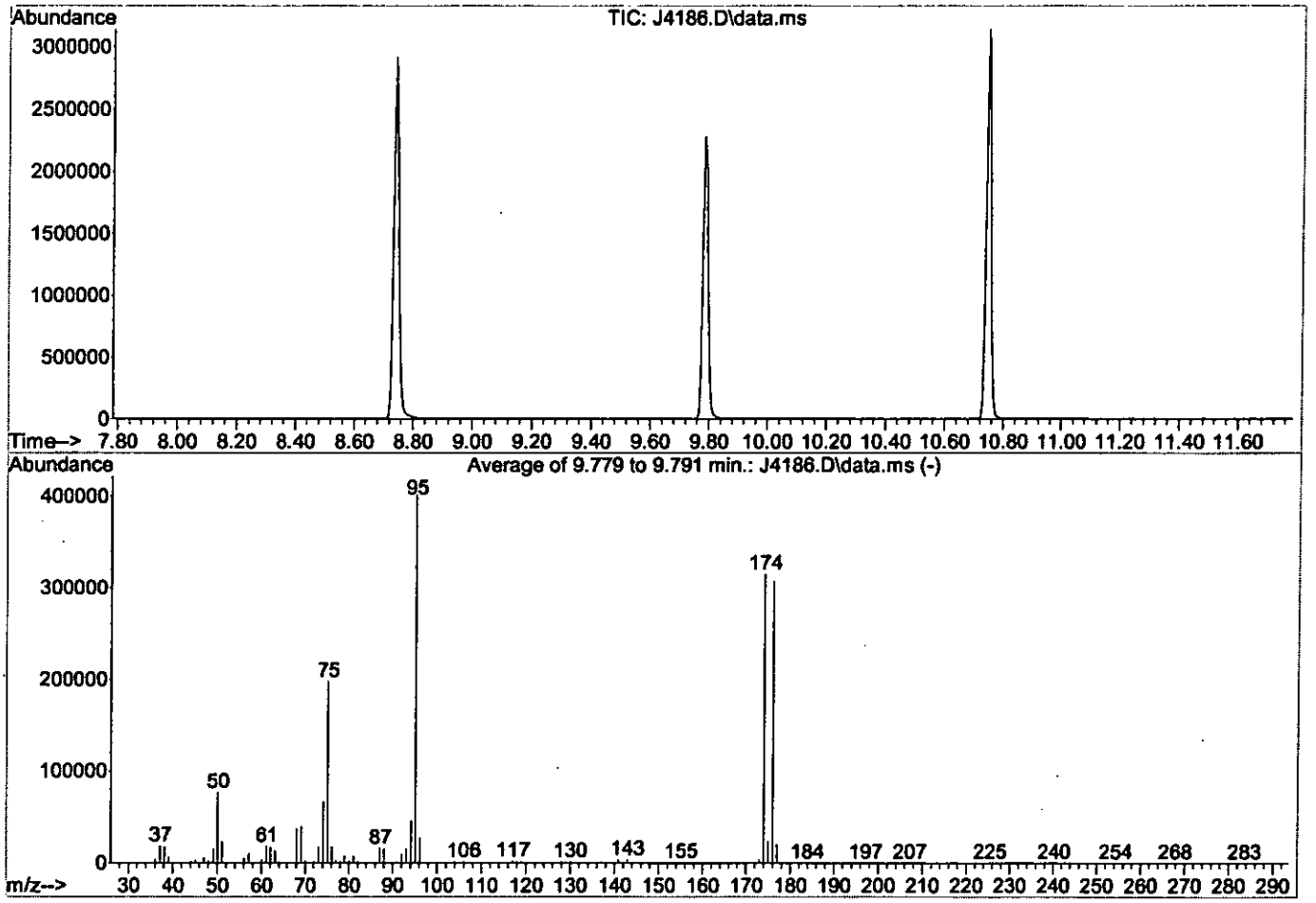
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\032514\
Data File : J4186.D
Acq On : 25 Mar 2014 11:22 am
Operator : K.Ruest
Sample : TUNE RQ1407765-01,05
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

KR 3/25/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Mar 13 11:21:13 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	76979	PASS
75	95	30	60	49.3	197931	PASS
95	95	100	100	100.0	401813	PASS
96	95	5	9	6.8	27235	PASS
173	174	0.00	2	1.1	3625	PASS
174	95	50	120	78.5	315435	PASS
175	174	5	9	7.5	23775	PASS
176	174	95	101	97.5	307627	PASS
177	176	5	9	6.7	20476	PASS

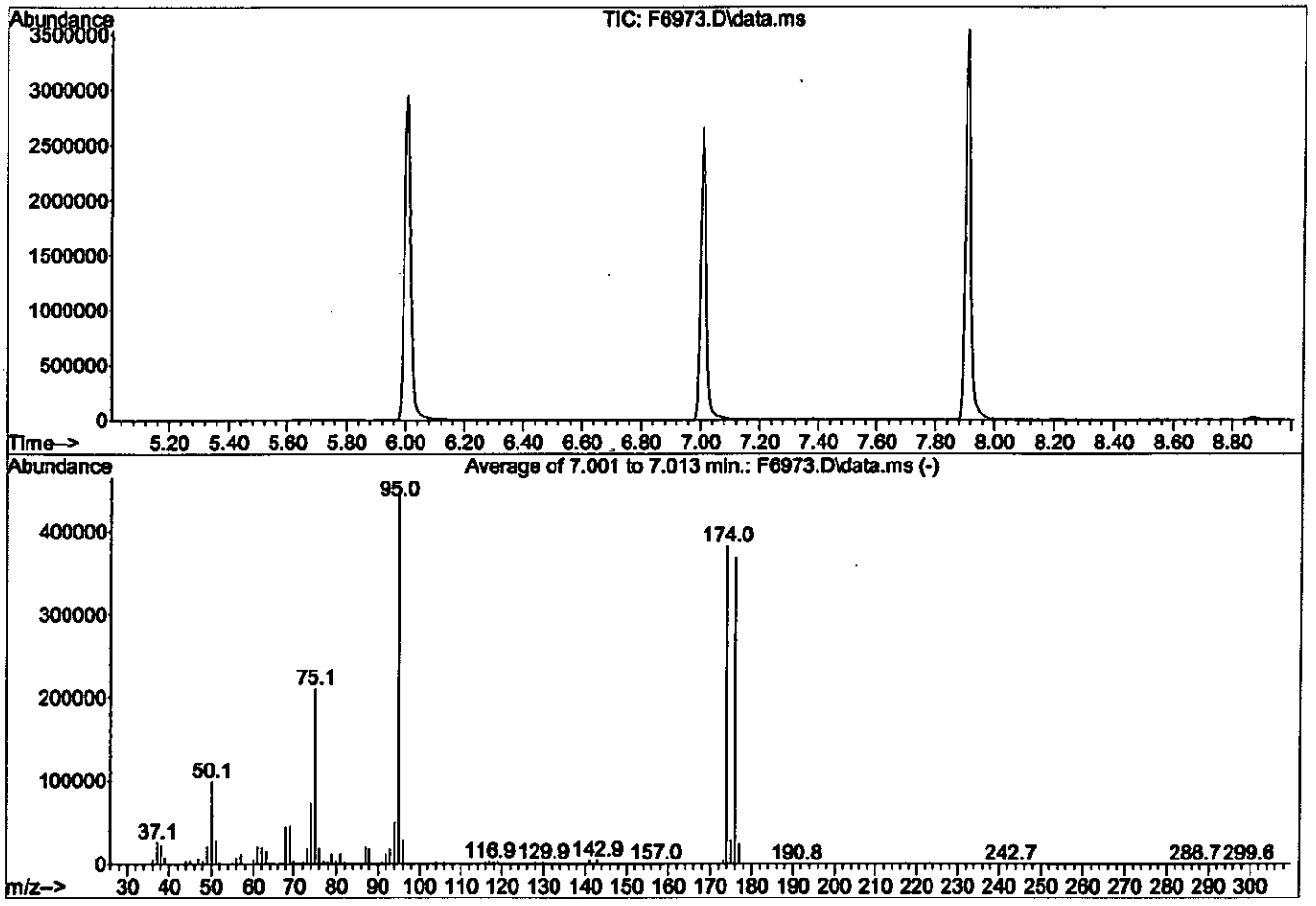
Data Path : I:\ACQUDATA\msvoa10\data\032714\
Data File : F6973.D
Acq On : 27 Mar 2014 11:53 pm
Operator : F.Naegler
Sample : TUNE
Misc :
ALS Vial : 23 Sample Multiplier: 1

RQ1433226-03

FJ 4/5/14

Integration File: CPD4.P

Method : I:\ACQUDATA\MSVOA10\METHODS\T022814.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



AutoFind: Scans 314, 315, 316; Background Corrected with Scan 309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.5	99573	PASS
75	95	30	60	47.7	211359	PASS
95	95	100	100	100.0	443120	PASS
96	95	5	9	6.6	29093	PASS
173	174	0.00	2	0.9	3247	PASS
174	95	50	120	86.2	381909	PASS
175	174	5	9	7.5	28571	PASS
176	174	95	101	96.5	368661	PASS
177	176	5	9	6.4	23438	PASS

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/24/14 13:13
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1402678-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4145.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	3/24/14 13:13	
Dibromofluoromethane	98	89-119	3/24/14 13:13	
Toluene-d8	99	87-121	3/24/14 13:13	

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4145.D
Misc :
Acq On : 24 Mar 2014 1:13 pm
Operator : K.Ruest
InstName : MSVOA-12 LQ1402678-04

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 13:28:52 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.243	168	913567	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1403536	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1271095	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	597508	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	399299	49.14	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.28%				
48) surr1,1,2-dichloroetha...	4.658	65	434450	46.94	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 93.88%				
65) SURR3,Toluene-d8	7.322	98	1683598	49.31	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.62%				
70) SURR2,BFB	9.785	95	613981	48.20	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.40%				
Target Compounds							Qvalue
5) Bromomethane	1.524	94	1604	0.30	ppb		98
~~20) Allyl Chloride~~	~~2.201~~	~~76~~	~~1661~~	~~0.37~~	~~ppb~~	~~#~~	~~1~~
~~90) Cyclohexanone~~	~~9.724~~	~~55~~	~~316~~	~~0.66~~	~~ppb~~	~~#~~	~~48~~
112) Trielution Dichlorotol...	11.735	125	5971	0.52	ppb		97 MTBD!
113) 1,3,5 Trichlorobenzene	11.778	180	2194	0.22	ppb	#	97
114) Coelution Dichlorotoluene	11.998	125	4518	0.37	ppb		95
115) 1,2,4-Tcbenzene	12.162	180	2434	0.28	ppb		95
116) Hexachlorobt	12.266	225	3137	0.82	ppb		87
117) Naphthalen	12.302	128	4376	0.28	ppb		94
118) 1,2,3-Tclbenzene	12.443	180	3881	0.54	ppb	#	79
119) 2,4,5-Trichlorotolene	12.851	159	9021	1.90	ppb		99 MTBD!
120) 2,3,6-Trichlorotoluene	12.912	159	7835	1.80	ppb		91
17) Iodomethane ~~NFT MP~~	2.116		1924	0.22	m(KP)		<

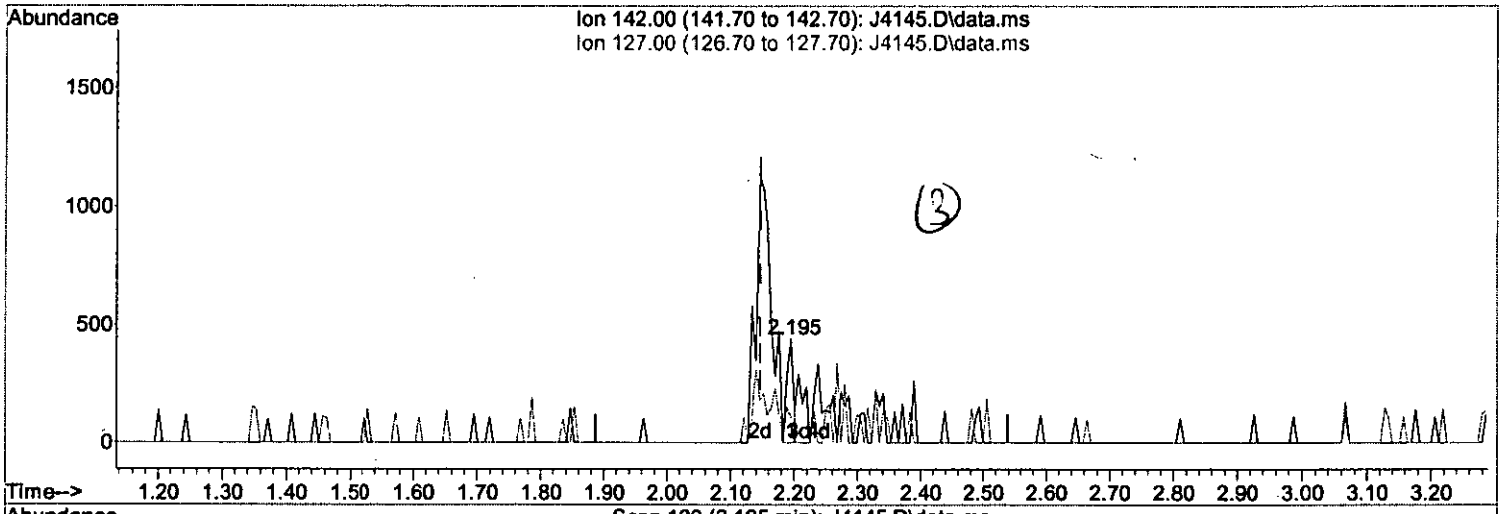
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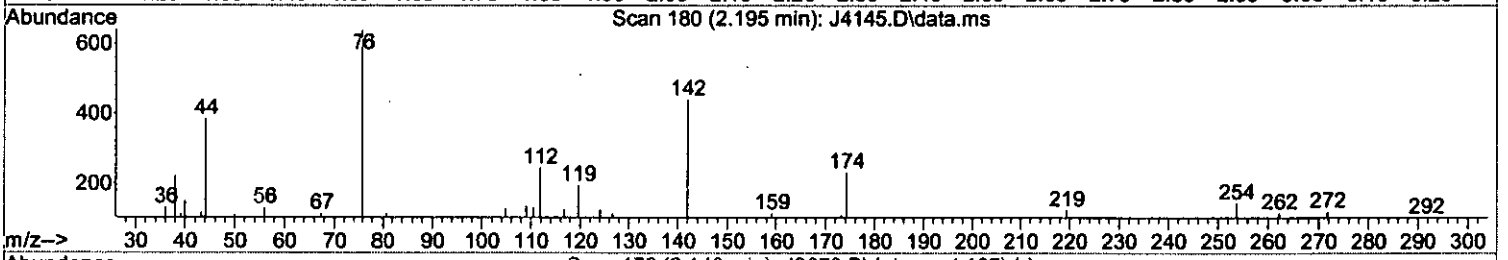
KP 3/24/14

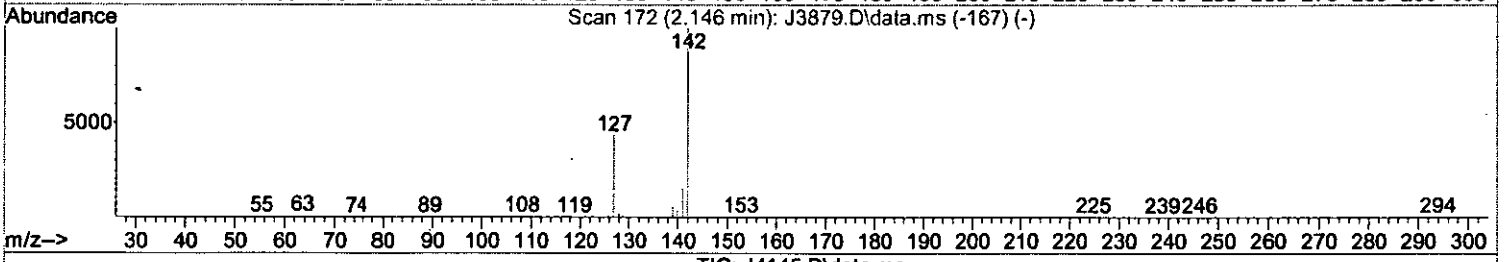
Quantitation Report (Qedit)

Sample : VBLK
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4145.D
Misc :
Acq On : 24 Mar 2014 1:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 15:13:40 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4145.D\data.ms

(17) Iodomethane

2.195min (+0.049) 0.04 ppb

response 313

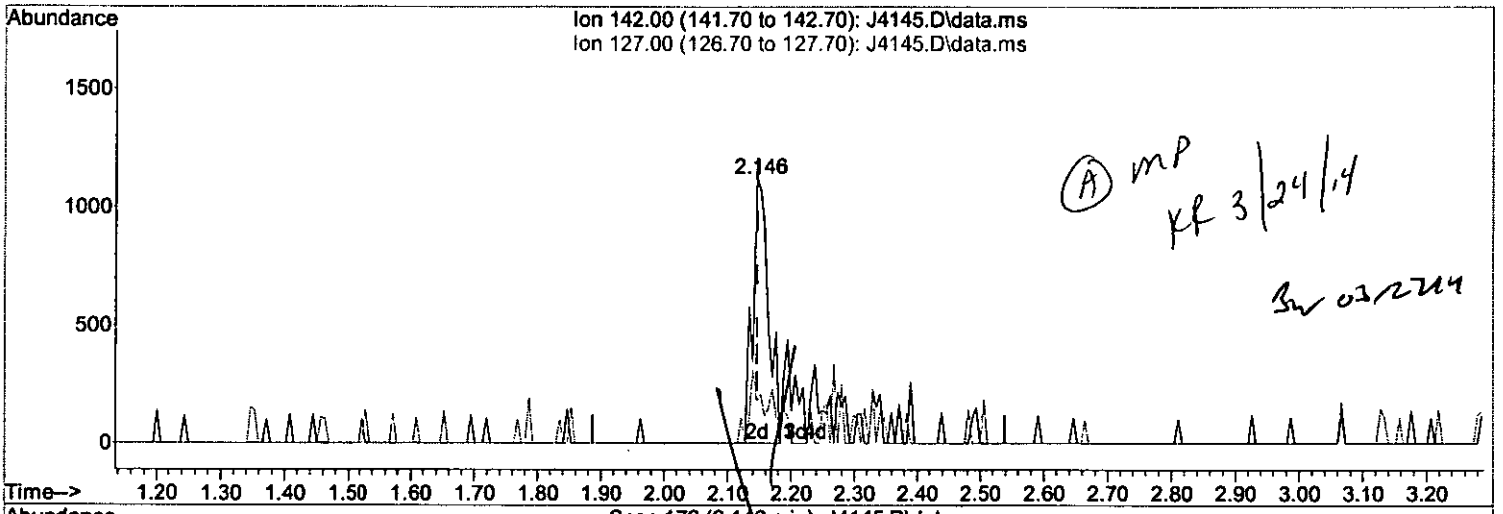
Ion	Exp%	Act%
142.00	100	100
127.00	43.50	25.91
0.00	0.00	0.00
0.00	0.00	0.00

00517

Quantitation Report (Qedit)

Sample : VBLK
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4145.D
Misc :
Acq On : 24 Mar 2014 1:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 15:13:40 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



TIC: J4145.D\data.ms

(17) Iodomethane

2.146min (-0.000) 0.22 ppb m

response 1924

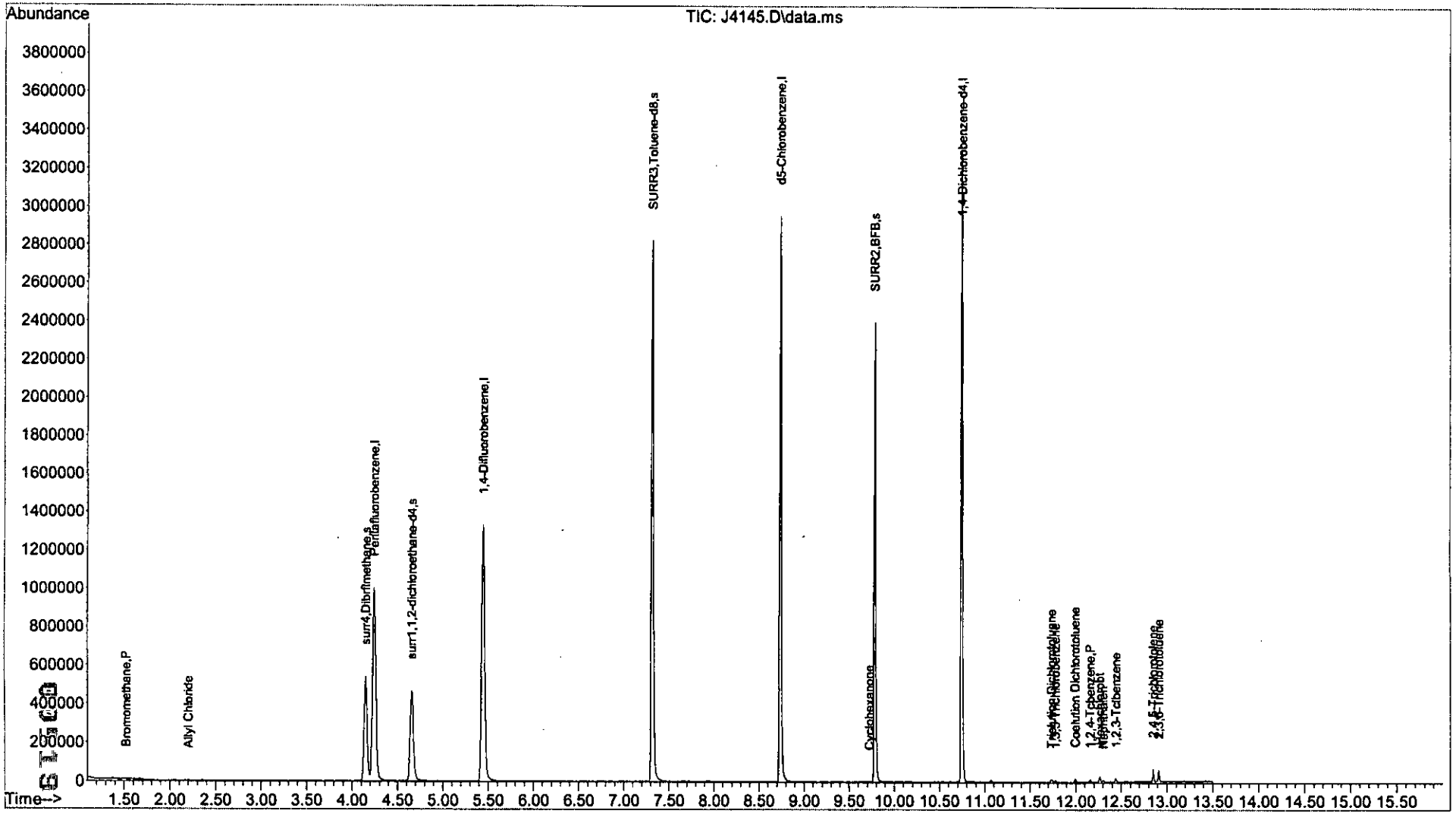
Ion	Exp%	Act%
142.00	100	100
127.00	43.50	29.62
0.00	0.00	0.00
0.00	0.00	0.00

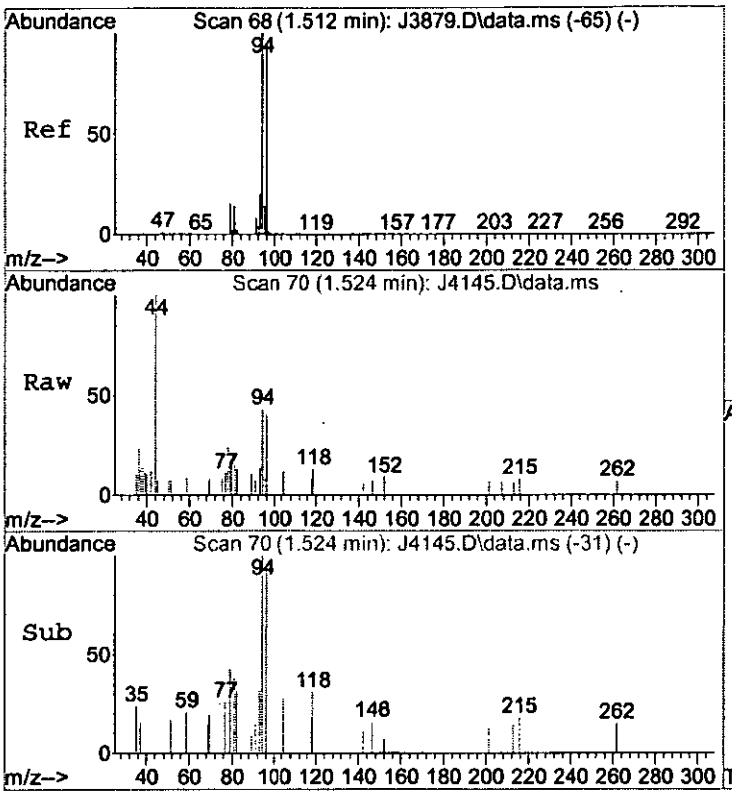
00518

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4145.D
Misc :
Acq On : 24 Mar 2014 1:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 13:28:52 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

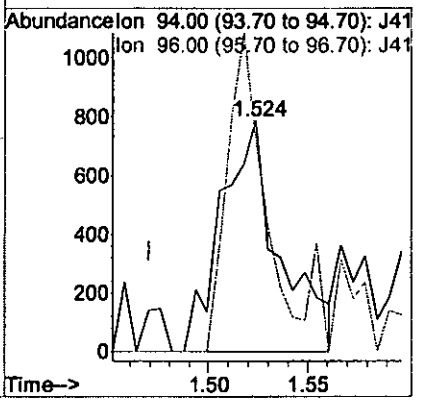




#5
Bromomethane
Concen: 0.30 ppb
RT: 1.524 min Scan# 70
Delta R.T. 0.012 min
Lab File: J4145.D
Acq: 24 Mar 2014 1:13 pm

Tgt Ion: 94 Resp: 1604

Ion	Ratio	Lower	Upper
94	100		
96	91.6	73.8	113.8



Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/25/14 13:36
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1402765-08	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\J4190.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/25/14 13:36	
Dibromofluoromethane	98	89-119	3/25/14 13:36	
Toluene-d8	99	87-121	3/25/14 13:36	

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4190.D
Misc :
Acq On : 25 Mar 2014 1:36 pm
Operator : K.Ruest
InstName : MSVOA-12 RQ1402765-04, 08

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 13:51:30 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	826673	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1286774	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1182406	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	572377	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	365625	49.08	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.16%				
48) surr1,1,2-dichloroetha...	4.658	65	440368	51.89	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 103.78%				
65) SURR3,Toluene-d8	7.322	98	1546630	49.41	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.82%				
70) SURR2,BFB	9.785	95	586643	50.23	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.46%				
Target Compounds							Qvalue
12) Acrolein	1.963	56	386	1.66	ppb	#	~~69~~
15) Acetone	2.048	~~43~~	~~1047~~	0.64	ppb	#	44
16) 2-Propanol	2.183	45	271	1.02	ppb	#	55
~~20) Allyl Chloride~~	~~2.201~~	~~76~~	~~1469~~	~~0.36~~	~~ppb~~	#	~~1~~
90) Cyclohexanone	9.718	55	809	1.76	ppb		76M
112) Trielution Dichlorotol...	11.748	125	4610	0.42	ppb		95
114) Coelution Dichlorotoluene	11.998	125	3628	0.31	ppb	#	84
115) 1,2,4-Tcbenzene	12.162	180	2502	0.30	ppb		89
116) Hexachlorobt	12.266	225	2473	0.67	ppb		93
117) Naphthalen	12.302	128	4533	0.30	ppb		95
118) 1,2,3-Tclbenzene	12.443	180	2818	0.41	ppb		90
119) 2,4,5-Trichlorotolene	12.851	159	8248	1.81	ppb		99
120) 2,3,6-Trichlorotoluene	12.851	159	8248	1.98	ppb		91MT/WP

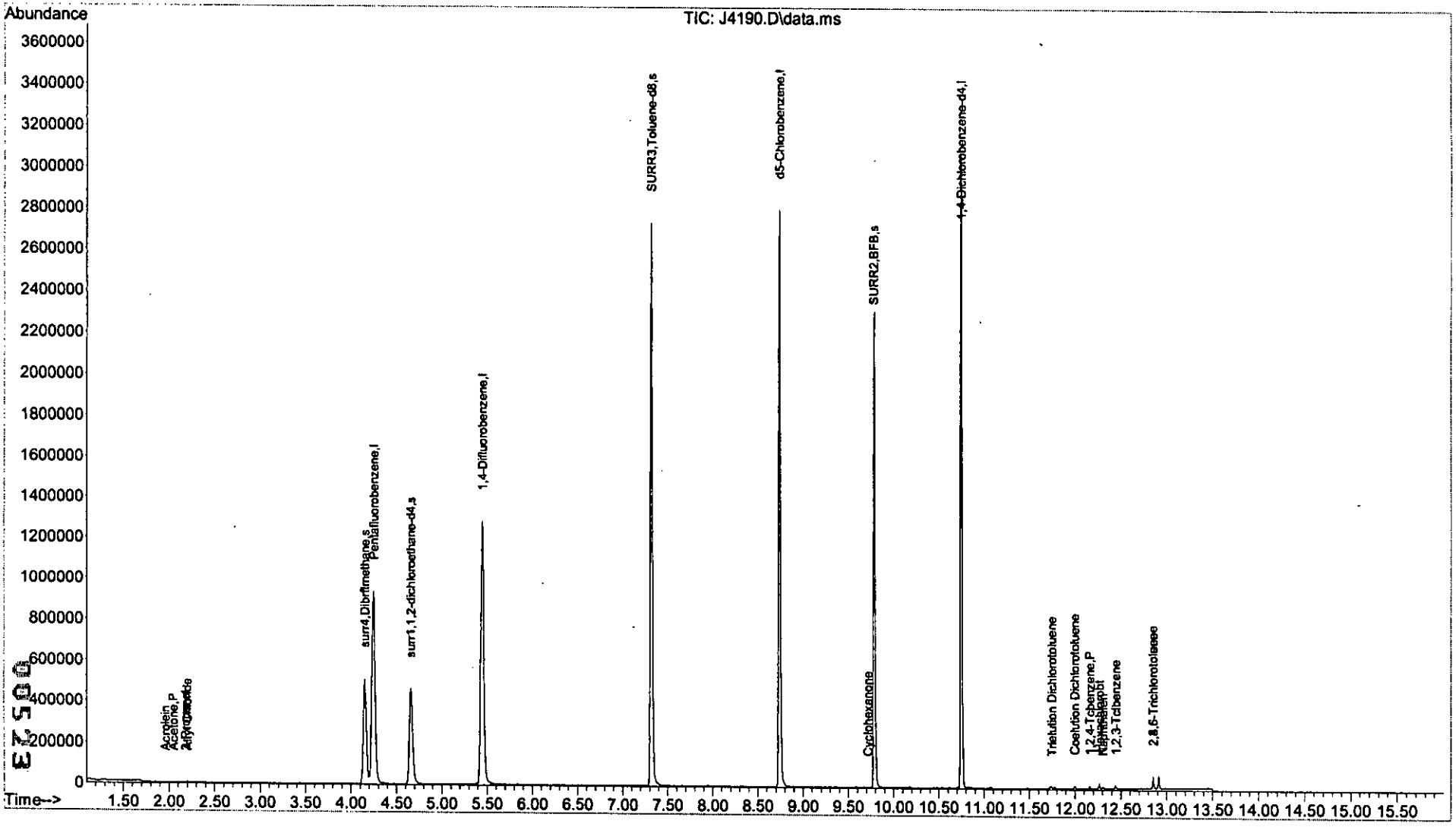
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 3/25/14

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4190.D
Misc :
Acq On : 25 Mar 2014 1:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 13:51:30 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/28/14 01:51
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1403226-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6977.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	3/28/14 01:51	
Dibromofluoromethane	98	89-119	3/28/14 01:51	
Toluene-d8	97	87-121	3/28/14 01:51	

Quantitation Report (Not Reviewed)

Sample : MBLK
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6977.D Vial: 27
Acq On : 28 Mar 2014 1:51 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

R2403226-01

Quant Time: Mar 28 02:04:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.415	168	914253	50.00	ug/L	0.00
43) 1,4-Difluorobenzene	5.616	114	1323435	50.00	ug/L	0.00
71) d5-Chlorobenzene	8.841	117	1245534	50.00	ug/L	0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	694531	50.00	ug/L	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.324	113	422398	48.90	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.80%			
48) surr1,1,2-dichloroetha...	4.860	65	437157	48.11	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.22%			
65) SURR3,Toluene-d8	7.433	98	1504792	48.59	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.18%			
70) SURR2,BFB	9.884	95	618320	48.60	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.20%			
Target Compounds						Qvalue
5) Bromomethane	1.568	94	790	0.40	ug/L #	61
12) Acrolein	2.032	56	342	0.34	ug/L #	38
15) Acetone	2.123	43	824	0.34	ug/L #	43
16) 2-Propanol	2.129	45	180	0.53	ug/L #	1
17) Iodomethane	2.215	142	372	1.05	ug/L #	41
19) Acetonitrile	2.263	40	536	1.81	ug/L #	1
20) Allyl Chloride	2.276	76	1683	0.42	ug/L #	1
89) Cyclohexanone	9.841	55	303	0.35	ug/L	81
112) Trielution Dichlorotol...	11.835	125	7124	0.48	ug/L	96
114) Coelution Dichlorotoluene	12.103	125	4467	0.29	ug/L	69
116) Hexachlorobt	12.335	225	1557	0.33	ug/L #	72
118) 1,2,3-Tclbenzene	12.536	180	1770	0.21	ug/L	81
119) 2,4,5-Trichlorotoluene	12.932	159	5550	1.05	ug/L	85
120) 2,3,6-Trichlorotoluene	12.987	159	5171	1.03	ug/L	87

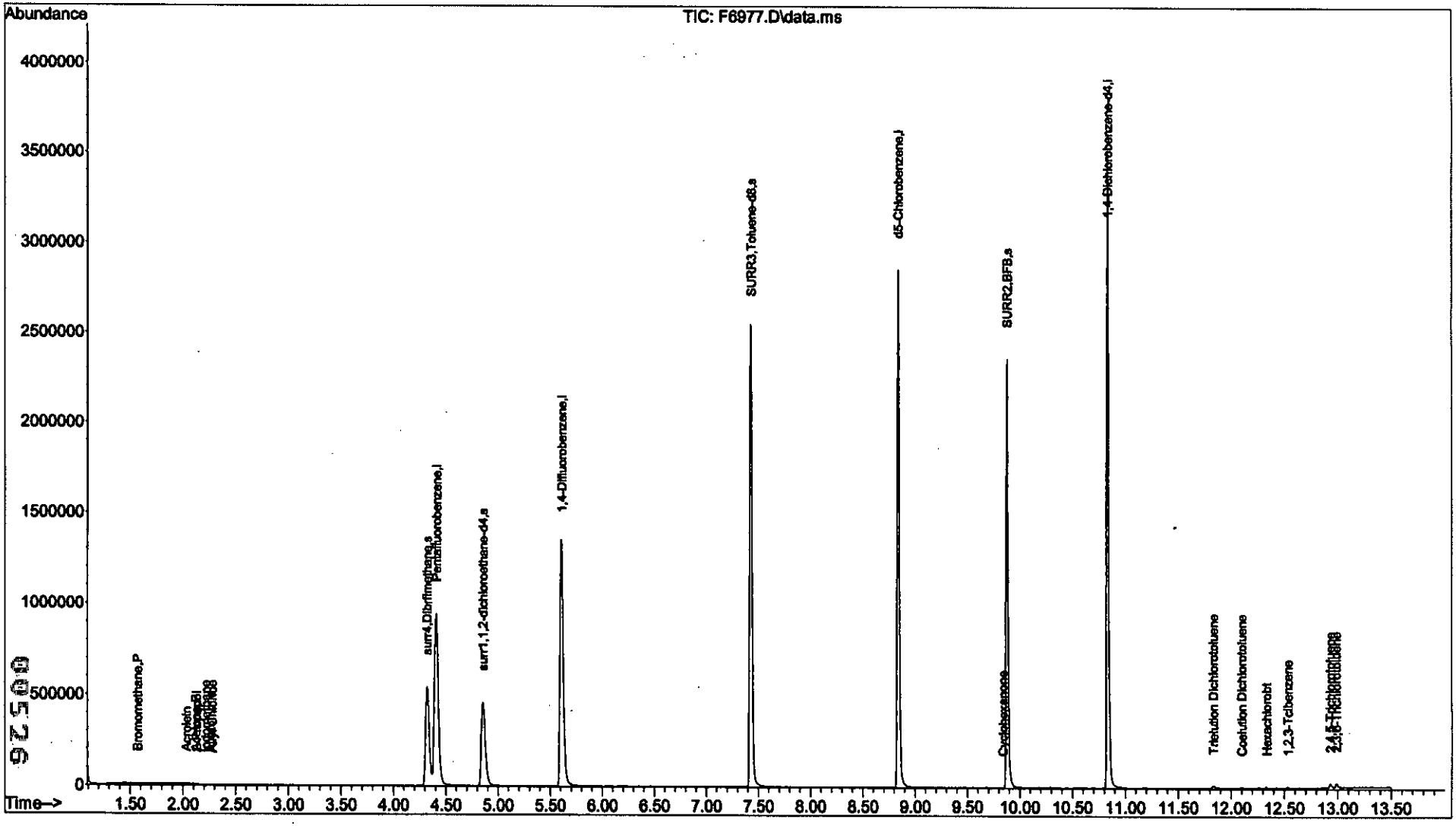
(#) = qualifier out of range (m) = manual integration (+) = signals summed

FJ 4/5/14

Quantitation Report (Not Reviewed)

Sample : MBLK
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6977.D Vial: 27
Acq On : 28 Mar 2014 1:51 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 02:04:14 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/24/14 12:09
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1402678-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**19.6**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**19.7**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**23.3**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**20.7**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**20.7**		5.0	0.22	
75-01-4	Vinyl Chloride	**23.6**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**20.5**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**20.7**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/24/14 12:09	
Dibromofluoromethane	99	89-119	3/24/14 12:09	
Toluene-d8	99	87-121	3/24/14 12:09	

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D
Misc :
Acq On : 24 Mar 2014 12:09 pm
Operator : K.Ruest
InstName : MSVOA-12 LQ1402678-03

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:24:43 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.243	168	920302	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1415817	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1290455	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	634005	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.146	113	404933	49.40	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.80%				
48) surr1,1,2-dichloroetha...	4.658	65	437274	46.83	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 93.66%				
65) SURR3,Toluene-d8	7.322	98	1698147	49.30	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.60%				
70) SURR2,BFB	9.785	95	629381	48.98	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.96%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	216183	19.78	ppb		99
3) Chloromethane	1.256	50	209291	22.09	ppb		100
4) Vinyl Chloride	1.323	62	207914	23.63	ppb		96
5) Bromomethane	1.512	94	126429	23.84	ppb		97
6) Chloroethane	1.567	64	115881	22.08	ppb		97
7) Freon 21	1.664	67	314798	23.72	ppb		98
8) Trichlorofluoromethane	1.719	101	258022	19.10	ppb		99
9) Diethyl Ether	1.878	59	133441	20.06	ppb		94
10) Freon 123a	1.866	67	223019	22.49	ppb		96
11) Freon 123	1.902	83	247224	21.83	ppb		94
12) Acrolein	1.951	56	21395	109.79	ppb		89
13) 1,1-Diclethene	2.036	96	155747	23.32	ppb		93
14) Freon 113	2.036	101	155917	21.33	ppb		93
15) Acetone	2.042	43	40282	22.06	ppb		95
16) 2-Propanol	2.109	45	130052	438.90	ppb		96
17) Iodomethane	2.146	142	173449	19.55	ppb		94
18) Carbon Disulfide	2.207	76	437948	18.85	ppb		99
19) Acetonitrile	2.225	40	26780	89.69	ppb		91
20) Allyl Chloride	2.274	76	94245	20.58	ppb		100
21) Methyl Acetate	2.274	43	83435	20.29	ppb		98
22) Methylene Chloride	2.353	84	175157	20.02	ppb		95
23) TBA	2.402	59	205109	401.90	ppb		97
24) Acrylonitrile	2.524	53	210713	103.00	ppb		97
25) Methyl-t-Butyl Ether	2.579	73	435221	20.50	ppb		99
26) trans-1,2-Dichloroethene	2.579	96	173339	20.72	ppb		98
28) 1,1-Diclethane	2.939	63	307179	19.72	ppb		99
29) Vinyl Acetate	2.975	86	28278	20.39	ppb	#	80
30) DIPE	3.012	45	588544	19.40	ppb		97
31) 2-Chloro-1,3-Butadiene	3.036	53	283663	21.15	ppb		96
32) ETBE	3.396	59	508767	20.04	ppb		99
33) 2,2-Dichloropropane	3.554	77	259649	21.01	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	191201	20.48	ppb		99
35) 2-Butanone	3.542	43	53665	20.98	ppb		91
36) Propionitrile	3.591	54	75625	102.38	ppb		93
37) Bromochloromethane	3.829	130	105482	20.23	ppb		90

KR 3/24/14

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D
Misc :
Acq On : 24 Mar 2014 12:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:24:43 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)		
38) Methacrylonitrile	3.798	67	48580	20.39	ppb	94		
39) Tetrahydrofuran	3.908	42	34233	19.14	ppb	77		
40) Chloroform	3.932	83	299678	19.64	ppb	99		
41) 1,1,1-Trichloroethane	4.213	97	256207	19.57	ppb	93		
42) TAME	5.017	73	443643	20.70	ppb	98		
44) Cyclohexane	4.316	41	149424	19.51	ppb	99		
46) Carbontetrachloride	4.463	121	65957	19.43	ppb	96		
47) 1,1-Dichloropropene	4.463	75	240658	23.01	ppb	94		
49) Benzene	4.780	78	720086	20.66	ppb	98		
50) 1,2-Dichloroethane	4.786	62	202443	19.13	ppb	95		
51) Iso-Butyl Alcohol	4.639	43	92731	387.16	ppb	95		
52) n-Heptane	5.322	43	181795	20.88	ppb	96		
53) 1-Butanol	5.773	56	148430	1128.40	ppb	98		
54) Trichloroethene	5.828	130	175108	20.74	ppb	94		
55) Methylcyclohexane	6.103	55	180976	19.94	ppb	100		
56) 1,2-Diclpropane	6.109	63	180509	20.25	ppb	94		
57) Dibromomethane	6.255	93	84369	19.90	ppb	91		
58) 1,4-Dioxane	6.304	88	~~21175~~	~~362.75~~	ppb	425.92	86	m(KR)
59) Methyl Methacrylate	6.328	69	85603	20.41	ppb	95		
60) Bromodichloromethane	6.474	83	215617	20.71	ppb	97		
61) 2-Nitropropane	6.743	41	45704	40.82	ppb	82		
62) 2-Chloroethylvinyl Ether	6.877	63	87338	21.85	ppb	99		
63) cis-1,3-Dichloropropene	7.017	75	254836	20.63	ppb	98		
64) 4-Methyl-2-pentanone	7.212	43	114499	21.30	ppb	95		
66) Toluene	7.389	91	746633	20.77	ppb	99		
67) trans-1,3-Dichloropropene	7.627	75	213735	21.46	ppb	97		
68) Ethyl Methacrylate	7.767	69	176708	21.81	ppb	96		
69) 1,1,2-Trichloroethane	7.803	97	127211	20.23	ppb	97		
72) Tetrachloroethene	7.962	164	138181	20.73	ppb	97		
73) 2-Hexanone	8.084	43	81455	22.28	ppb	96		
74) 1,3-Dichloropropane	7.968	76	232648	20.03	ppb	99		
75) Dibromochloromethane	8.188	129	143269	21.45	ppb	98		
76) N-Butyl Acetate	8.236	43	189604	20.98	ppb	96		
77) 1,2-Dibromoethane	8.285	107	125633	21.05	ppb	94		
78) Chlorobenzene	8.767	112	469122	20.89	ppb	96		
79) 3-CBTF	8.785	180	235506	21.20	ppb	95		
80) 4-CBTF	8.834	180	217284	21.83	ppb	98		
81) 1,1,1,2-Tetrachloroethane	8.846	131	163728	20.75	ppb	97		
82) Ethylbenzene	8.889	106	251619	21.03	ppb	95		
83) (m+p)Xylene	8.998	106	613232	43.62	ppb	93		
84) o-Xylene	9.346	106	300662	20.95	ppb	98		
85) Styrene	9.352	104	500977	21.84	ppb	97		
87) Bromoform	9.492	173	79066	21.96	ppb	97		
88) 2-CBTF	9.577	180	230768	21.85	ppb	96		
89) Isopropylbenzene	9.669	105	720998	22.03	ppb	99		
90) Cyclohexanone	9.718	55	179062	352.10	ppb	99		
91) trans-1,4-Dichloro-2-B...	9.955	53	33046	19.36	ppb	93		
92) 1,1,2,2-Tetrachloroethane	9.913	83	148448	20.45	ppb	97		
93) Bromobenzene	9.907	156	193935	20.79	ppb	93		
94) 1,2,3-Trichloropropane	9.943	110	42660	19.64	ppb	98		
95) n-Propylbenzene	10.023	91	830112	21.68	ppb	98		
96) 2-Chlorotoluene	10.077	91	501756	20.87	ppb	99		

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D
Misc :
Acq On : 24 Mar 2014 12:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:24:43 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

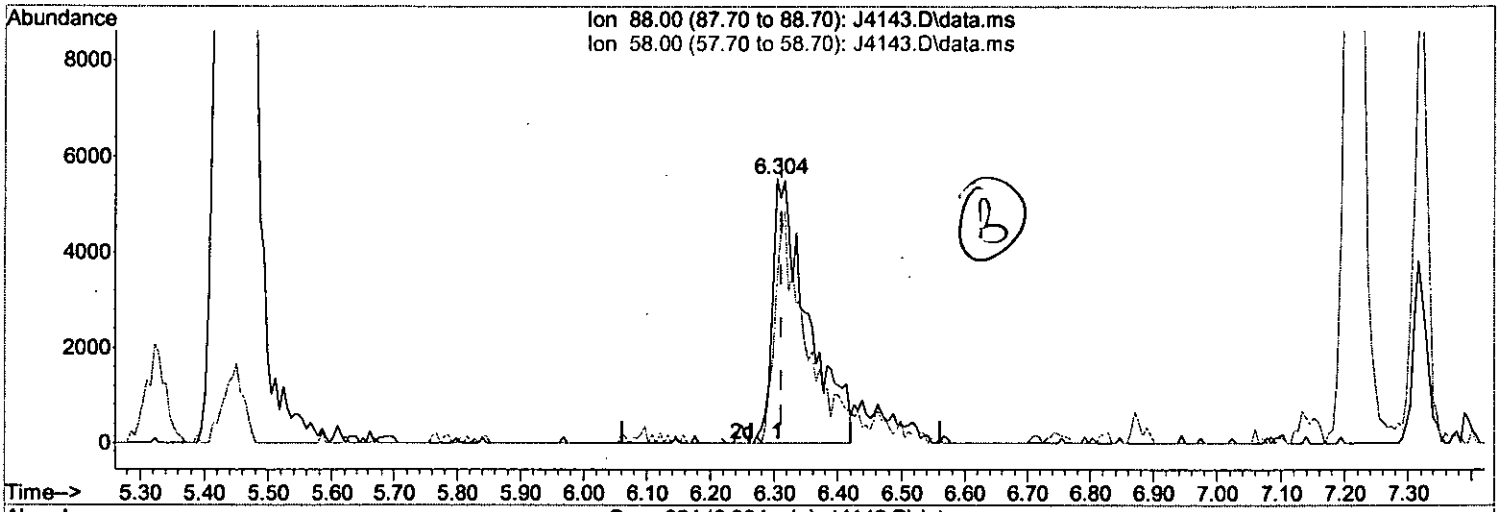
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	531646	21.26	ppb	97
98)	4-Chlorotoluene	10.169	91	606301	21.38	ppb	99
99)	1,3,5-Trimethylbenzene	10.169	105	581783	21.79	ppb	98
100)	tert-Butylbenzene	10.437	119	482860	21.48	ppb	97
101)	1,2,4-Trimethylbenzene	10.474	105	586913	21.36	ppb	99
102)	3,4-DCBTF	10.535	214	167185	21.40	ppb	95
103)	sec-Butylbenzene	10.620	105	692812	22.15	ppb	97
104)	p-Isopropyltoluene	10.742	119	602432	22.78	ppb	98
105)	1,3-Dclbenz	10.693	146	347802	21.91	ppb	96
106)	1,4-Dclbenz	10.766	146	353485	20.93	ppb	99
107)	2,4-DCBTF	10.821	214	149636	22.02	ppb	96
108)	2,5-DCBTF	10.858	214	170175	21.90	ppb	99
109)	n-Butylbenzene	11.065	91	540861	22.68	ppb	99
110)	1,2-Dclbenz	11.065	146	322286	21.08	ppb	96
111)	1,2-Dibromo-3-chloropr...	11.626	157	25048	22.52	ppb	93
112)	Trielution Dichlorotol...	11.730	125	832697	68.87	ppb	98
113)	1,3,5 Trichlorobenzene	11.778	180	245214	23.26	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	593705	46.38	ppb	98
115)	1,2,4-Tcbenzene	12.156	180	212846	22.77	ppb	96
116)	Hexachlorobt	12.266	225	93846	23.00	ppb	98
117)	Naphthalen	12.303	128	405525	24.10	ppb	97
118)	1,2,3-Tclbenzene	12.437	180	181699	23.74	ppb	99
119)	2,4,5-Trichlorotolene	12.851	159	134567	26.68	ppb	97
120)	2,3,6-Trichlorotoluene	12.912	159	124301	26.92	ppb	97

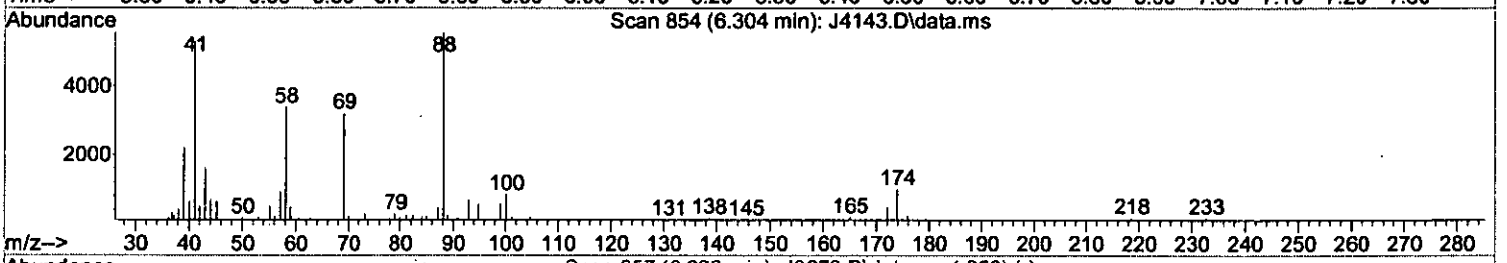
(#) = qualifier out of range (m) = manual integration (+) = signals summed

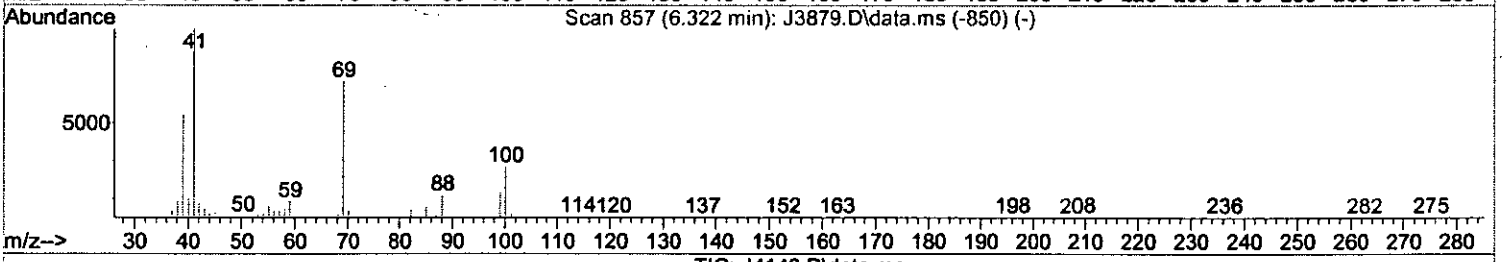
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4143.D
Misc :
Acq On : 24 Mar 2014 12:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:24:43 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4143.D\data.ms

(58) 1,4-Dioxane

6.304min (-0.006) 362.75 ppb

response 21175

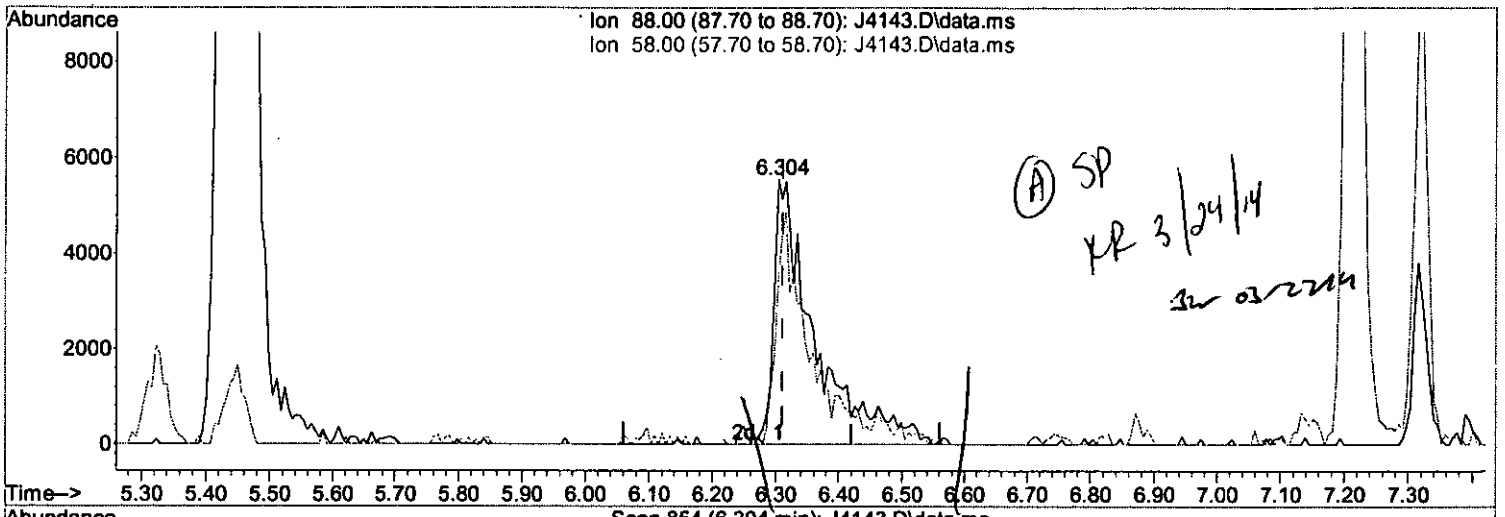
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	60.84
0.00	0.00	0.00
0.00	0.00	0.00

00531

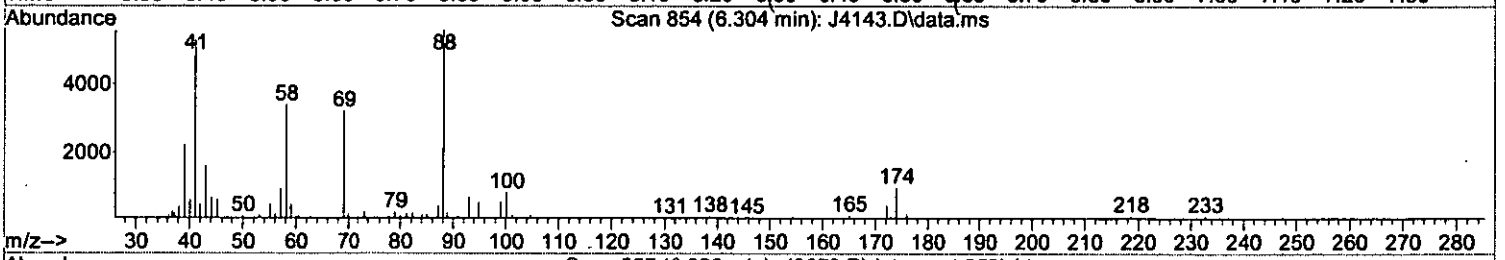
Quantitation Report (Qedit)

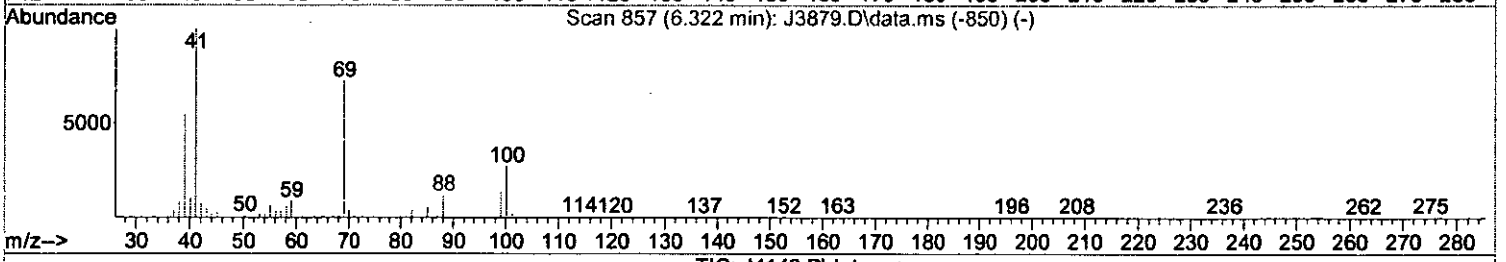
Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4143.D
Misc :
Acq On : 24 Mar 2014 12:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:24:43 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



(A) SP
KR 3/24/14
JW 03/27/14





TIC: J4143.D\data.ms

(58) 1,4-Dioxane

6.304min (-0.006) 425.82 ppb m

response 24857

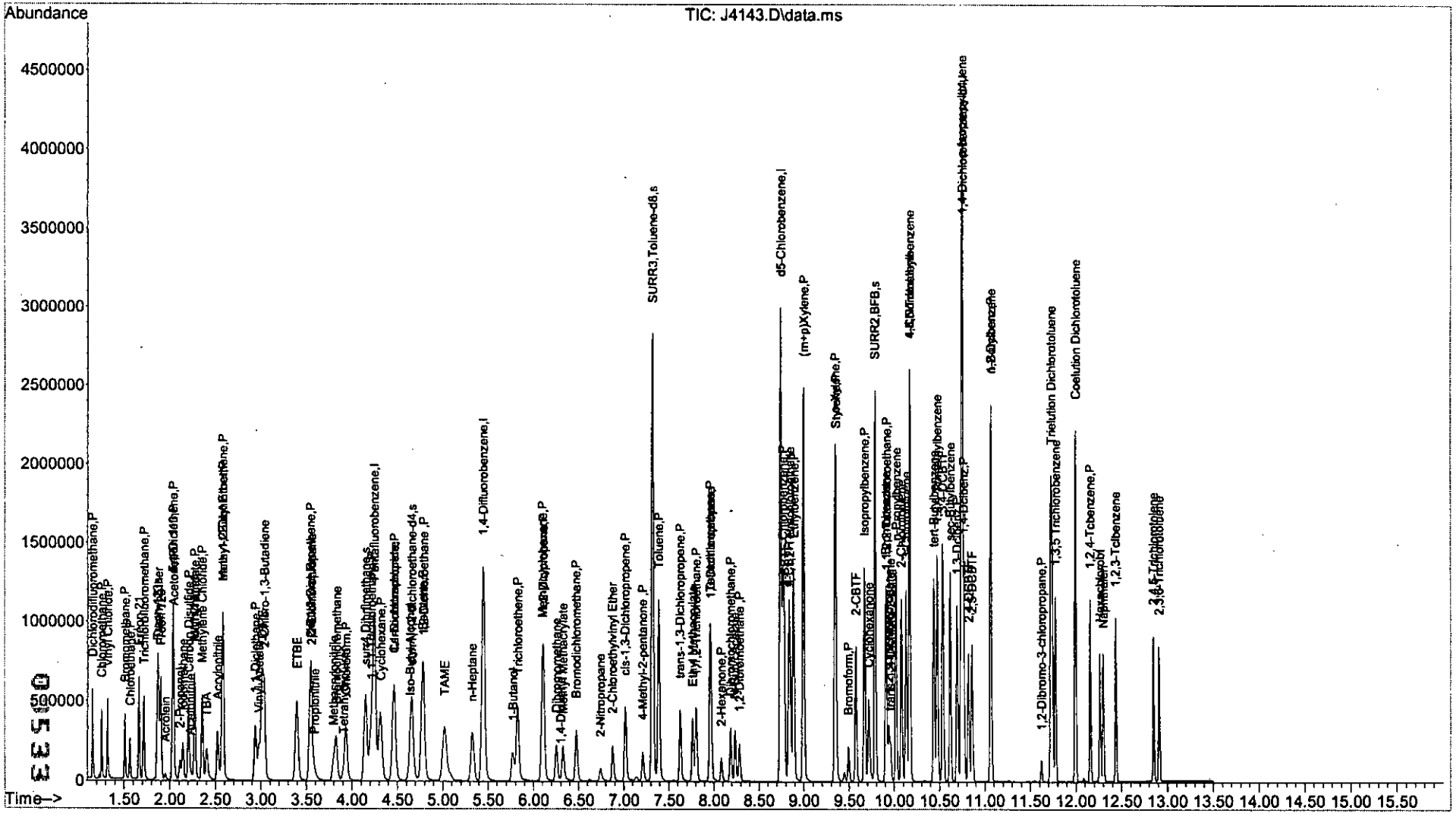
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	60.84
0.00	0.00	0.00
0.00	0.00	0.00

00532

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4143.D
Misc :
Acq On : 24 Mar 2014 12:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 12:24:43 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/25/14 12:31
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1402765-07	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	385241
Data File Name:	I:\ACQUDATA\msvoa12\Data\032514\J4188.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**21.3**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**21.4**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**24.2**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**20.8**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**21.7**		5.0	0.22	
75-01-4	Vinyl Chloride	**24.3**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**21.6**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**21.9**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/25/14 12:31	
Dibromofluoromethane	100	89-119	3/25/14 12:31	
Toluene-d8	99	87-121	3/25/14 12:31	

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4188.D
Misc :
Acq On : 25 Mar 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12 LQ1402765-03, 07

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:46:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	841442	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1317252	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1205910	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	589465	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.151	113	379387	49.75	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.50%				
48) surr1,1,2-dichloroetha...	4.657	65	435613	50.14	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.28%				
65) SURR3,Toluene-d8	7.322	98	1581224	49.35	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.70%				
70) SURR2,BFB	9.785	95	593197	49.62	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	208412	20.85	ppb		98
3) Chloromethane	1.256	50	201929	23.32	ppb		98
4) Vinyl Chloride	1.323	62	195612	24.31	ppb		99
5) Bromomethane	1.512	94	82701	17.06	ppb		97
6) Chloroethane	1.567	64	115232	24.01	ppb		100
7) Freon 21	1.664	67	300128	24.73	ppb		97
8) Trichlorofluoromethane	1.719	101	261478	21.17	ppb		100
9) Diethyl Ether	1.878	59	129006	21.21	ppb		94
10) Freon 123a	1.865	67	203063	22.39	ppb		95
11) Freon 123	1.902	83	233870	22.58	ppb		97
12) Acrolein	1.951	56	20401	113.18	ppb		97
13) 1,1-Diclethene	2.036	96	147686	24.19	ppb		99
14) Freon 113	2.036	101	142405	21.31	ppb		86
15) Acetone	2.048	43	38498	23.06	ppb		92
16) 2-Propanol	2.115	45	123207	454.77	ppb		93
17) Iodomethane	2.146	142	140937	17.38	ppb		93
18) Carbon Disulfide	2.207	76	392983	18.50	ppb		99
19) Acetonitrile	2.219	40	26858	98.38	ppb		97
20) Allyl Chloride	2.274	76	88477	21.13	ppb		91
21) Methyl Acetate	2.274	43	79541	21.16	ppb		99
22) Methylene Chloride	2.353	84	168847	21.11	ppb		91
23) TBA	2.408	59	206832	443.26	ppb		99
24) Acrylonitrile	2.524	53	204625	109.40	ppb		94
25) Methyl-t-Butyl Ether	2.579	73	423069	21.80	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	167867	21.94	ppb		96
28) 1,1-Diclethane	2.938	63	304638	21.39	ppb		98
29) Vinyl Acetate	2.975	86	25188	19.86	ppb	#	91
30) DIPE	3.011	45	537624	19.38	ppb		99
31) 2-Chloro-1,3-Butadiene	3.042	53	279629	22.80	ppb		91
32) ETBE	3.396	59	462771	19.94	ppb		97
33) 2,2-Dichloropropane	3.554	77	263699	23.34	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	183989	21.55	ppb		99
35) 2-Butanone	3.548	43	51835	22.16	ppb		97
36) Propionitrile	3.591	54	75559	111.88	ppb		99
37) Bromochloromethane	3.828	130	97897	20.54	ppb		94

KP 3/25/14

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4188.D
Misc :
Acq On : 25 Mar 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:46:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)	
38) Methacrylonitrile	3.804	67	45268	20.78	ppb		91	
39) Tetrahydrofuran	3.908	42	34207	20.92	ppb		86	
40) Chloroform	3.938	83	293895	21.06	ppb		98	
41) 1,1,1-Trichloroethane	4.212	97	254329	21.25	ppb		94	
42) TAME	5.023	73	396800	20.25	ppb		99	
44) Cyclohexane	4.310	41	143308	20.11	ppb		99	
46) Carbontetrachloride	4.468	121	65684	20.80	ppb		96	
47) 1,1-Dichloropropene	4.462	75	235791	24.24	ppb		91	
49) Benzene	4.779	78	694000	21.40	ppb		98	
50) 1,2-Dichloroethane	4.792	62	210816	21.41	ppb		97	
51) Iso-Butyl Alcohol	4.639	43	92305	414.22	ppb		95	
52) n-Heptane	5.328	43	178878	22.08	ppb		97	
53) 1-Butanol	5.767	56	124582	1017.97	ppb		95	
54) Trichloroethene	5.828	130	170410	21.69	ppb		99	
55) Methylcyclohexane	6.102	55	164974	19.53	ppb		97	
56) 1,2-Diclpropane	6.115	63	175100	21.11	ppb		99	
57) Dibromomethane	6.255	93	83380	21.14	ppb		99	
58) 1,4-Dioxane	6.316	88	~~20983~~	~~386.35~~	ppb	#	58	457.05 mkk
59) Methyl Methacrylate	6.328	69	82993	21.27	ppb		97	
60) Bromodichloromethane	6.480	83	215762	22.27	ppb		95	
61) 2-Nitropropane	6.742	41	45237	43.43	ppb		84	
62) 2-Chloroethylvinyl Ether	6.877	63	79383	21.34	ppb		96	
63) cis-1,3-Dichloropropene	7.023	75	241035	20.97	ppb		99	
64) 4-Methyl-2-pentanone	7.212	43	109716	21.93	ppb		98	
66) Toluene	7.395	91	726965	21.74	ppb		95	
67) trans-1,3-Dichloropropene	7.626	75	205181	22.15	ppb		96	
68) Ethyl Methacrylate	7.767	69	171916	22.81	ppb		99	
69) 1,1,2-Trichloroethane	7.803	97	123186	21.06	ppb		98	
72) Tetrachloroethene	7.962	164	129530	20.79	ppb		98	
73) 2-Hexanone	8.084	43	73256	21.45	ppb		96	
74) 1,3-Dichloropropane	7.968	76	224300	20.66	ppb		97	
75) Dibromochloromethane	8.187	129	128892	20.65	ppb		96	
76) N-Butyl Acetate	8.236	43	183359	21.71	ppb		98	
77) 1,2-Dibromoethane	8.285	107	121511	21.79	ppb		96	
78) Chlorobenzene	8.766	112	444623	21.19	ppb		98	
79) 3-CBTF	8.785	180	205569	19.80	ppb		97	
80) 4-CBTF	8.840	180	189260	20.35	ppb		96	
81) 1,1,1,2-Tetrachloroethane	8.852	131	158365	21.48	ppb		99	
82) Ethylbenzene	8.888	106	237585	21.25	ppb		93	
83) (m+p)Xylene	8.998	106	574832	43.75	ppb		98	
84) o-Xylene	9.346	106	287836	21.47	ppb		99	
85) Styrene	9.352	104	486079	22.68	ppb		98	
87) Bromoform	9.498	173	66990	20.01	ppb		95	
88) 2-CBTF	9.577	180	196712	20.03	ppb		95	
89) Isopropylbenzene	9.669	105	689839	22.67	ppb		99	
90) Cyclohexanone	9.717	55	238631	504.69	ppb		98	
91) trans-1,4-Dichloro-2-B...	9.961	53	20675	13.03	ppb		93	
92) 1,1,2,2-Tetrachloroethane	9.913	83	140970	20.88	ppb		98	
93) Bromobenzene	9.906	156	185098	21.35	ppb		97	
94) 1,2,3-Trichloropropane	9.943	110	41235	20.41	ppb		99	
95) n-Propylbenzene	10.022	91	803264	22.56	ppb		100	
96) 2-Chlorotoluene	10.077	91	486032	21.74	ppb		99	

00526

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4188.D
Misc :
Acq On : 25 Mar 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:46:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

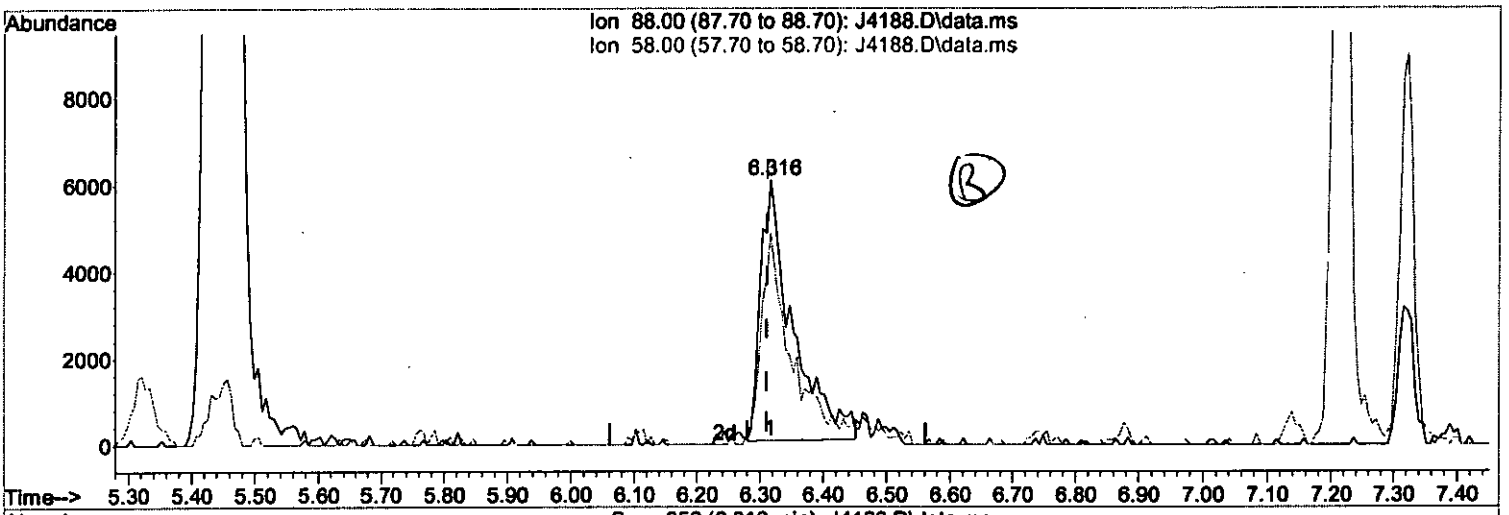
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	472925	20.34	ppb	99
98)	4-Chlorotoluene	10.169	91	596927	22.64	ppb	99
99)	1,3,5-Trimethylbenzene	10.169	105	562902	22.67	ppb	99
100)	tert-Butylbenzene	10.437	119	454580	21.75	ppb	99
101)	1,2,4-Trimethylbenzene	10.473	105	562141	22.01	ppb	99
102)	3,4-DCBTF	10.534	214	143852	19.81	ppb	95
103)	sec-Butylbenzene	10.620	105	661650	22.75	ppb	99
104)	p-Isopropyltoluene	10.742	119	570006	23.18	ppb	99
105)	1,3-Dclbenz	10.699	146	323814	21.94	ppb	97
106)	1,4-Dclbenz	10.766	146	336527	21.43	ppb	95
107)	2,4-DCBTF	10.821	214	129668	20.52	ppb	95
108)	2,5-DCBTF	10.858	214	145365	20.12	ppb	99
109)	n-Butylbenzene	11.065	91	521546	23.52	ppb	98
110)	1,2-Dclbenz	11.065	146	303089	21.33	ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	22551	21.80	ppb	95
112)	Trielution Dichlorotol...	11.729	125	733819	65.28	ppb	97
113)	1,3,5 Trichlorobenzene	11.778	180	210020	21.42	ppb	99
114)	Coelution Dichlorotoluene	11.998	125	524080	44.03	ppb	98
115)	1,2,4-Tcbenzene	12.156	180	205750	23.67	ppb	99
116)	Hexachlorobt	12.266	225	86505	22.80	ppb	97
117)	Naphthalen	12.302	128	375960	24.03	ppb	99
118)	1,2,3-Tclbenzene	12.443	180	168858	23.73	ppb	95
119)	2,4,5-Trichlorotolene	12.851	159	117332	25.02	ppb	98
120)	2,3,6-Trichlorotoluene	12.912	159	109024	25.40	ppb	94

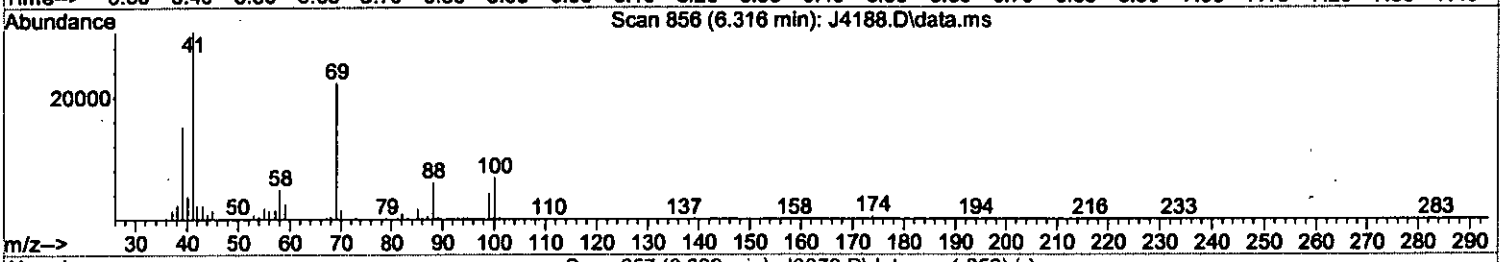
(#) = qualifier out of range (m) = manual integration (+) = signals summed

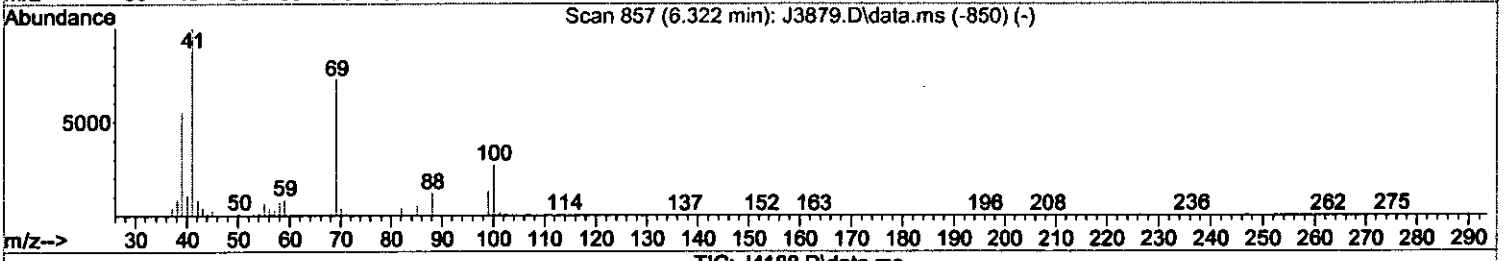
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4188.D
Misc :
Acq On : 25 Mar 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:46:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4188.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 386.35 ppb

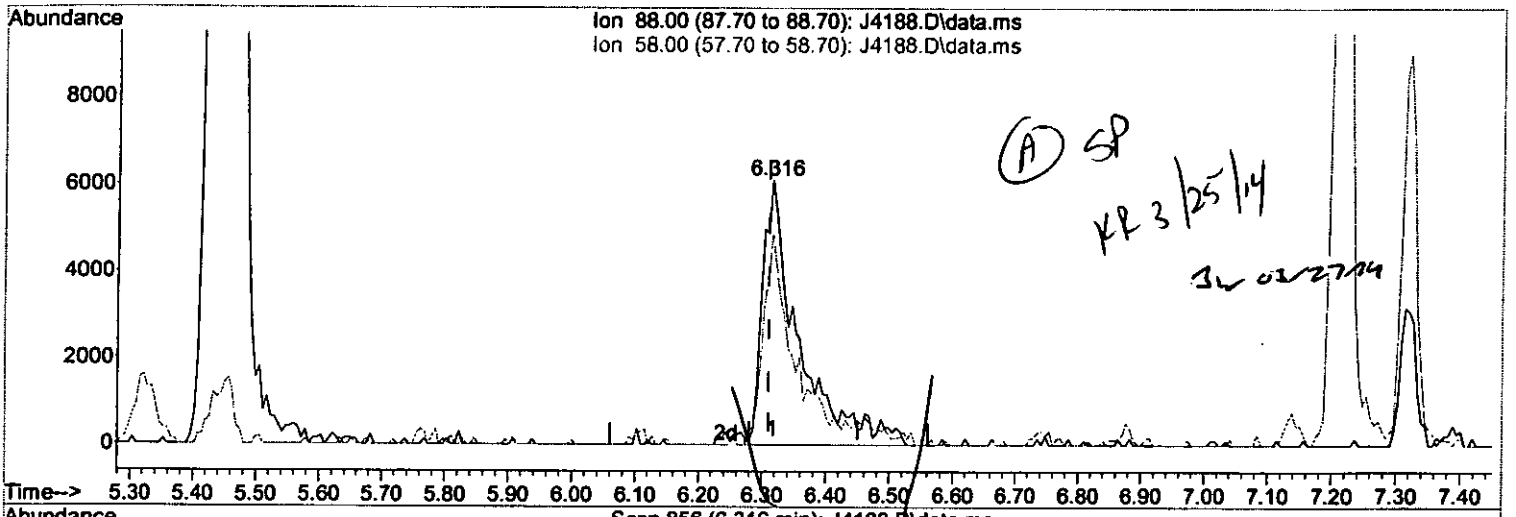
response 20963

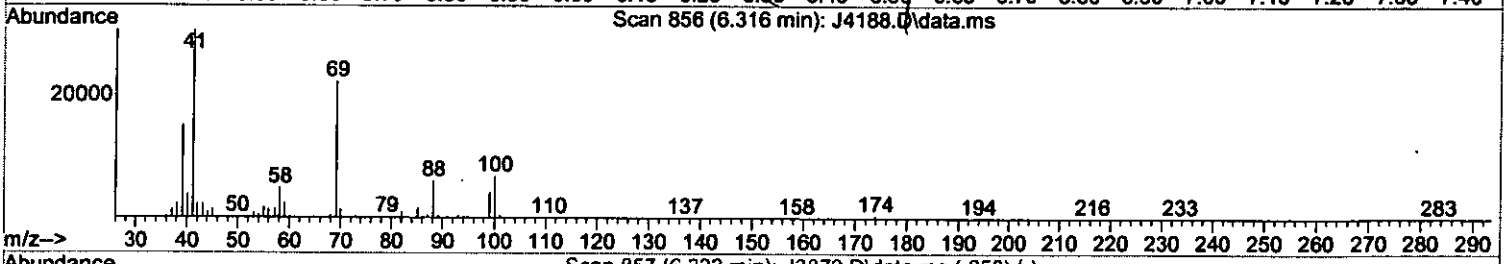
Ion	Exp%	Act%
88.00	100	100
58.00	50.80	80.18#
0.00	0.00	0.00
0.00	0.00	0.00

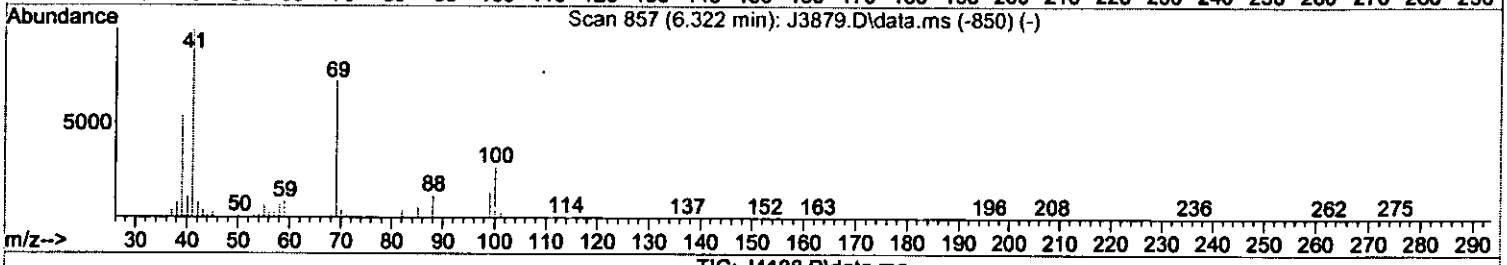
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\032514\J4188.D
Misc :
Acq On : 25 Mar 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:46:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4188.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 437.65 ppb m

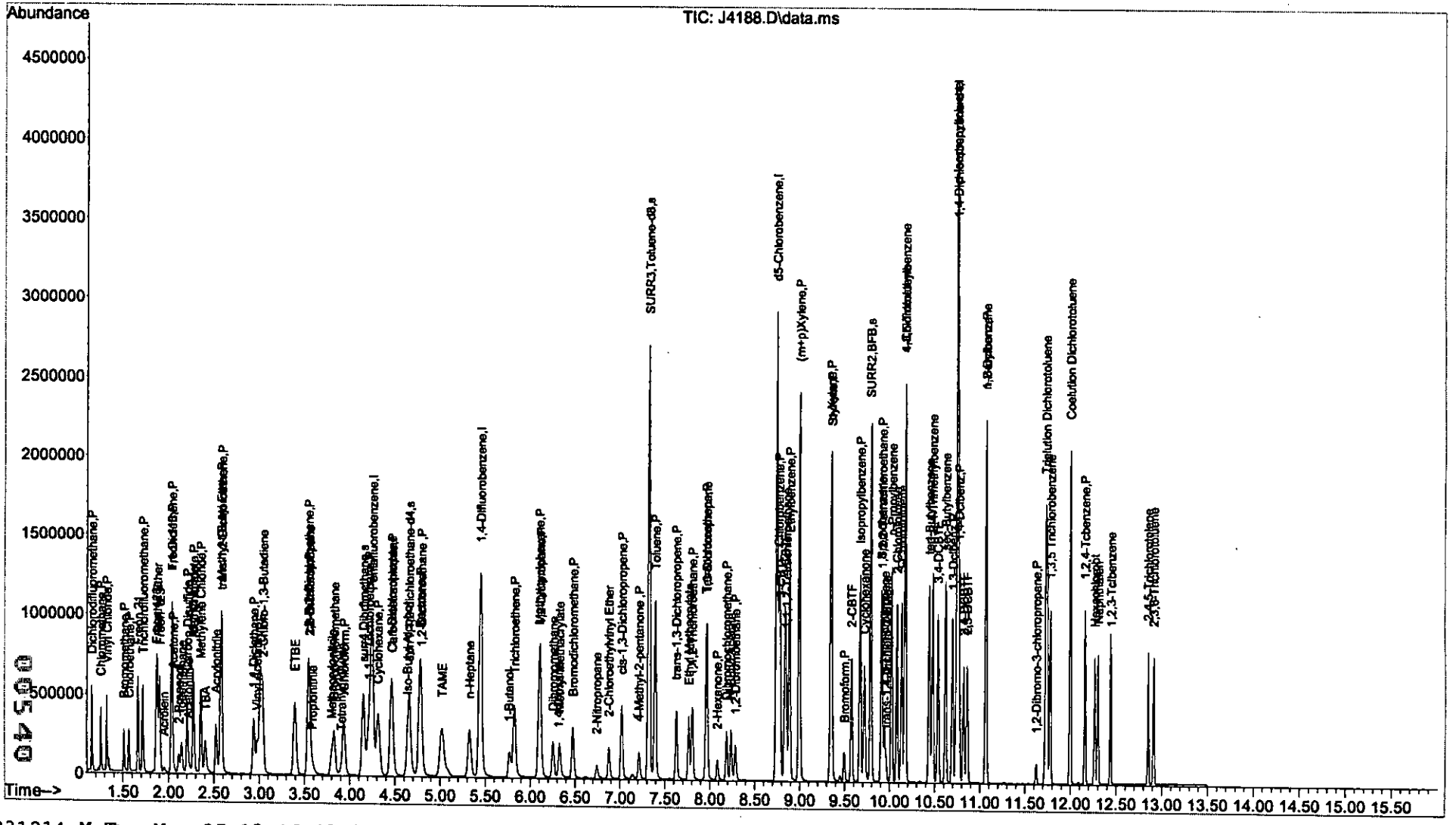
response 23769

Ion	Exp%	Act%
88.00	100	100
58.00	50.80	80.18#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\032514\J4188.D
Misc :
Acq On : 25 Mar 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 25 12:46:48 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/28/14 00:50
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1403226-02	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6975.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**18.4**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**18.9**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**21.1**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**19.6**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**22.0**		5.0	0.22	
75-01-4	Vinyl Chloride	**19.3**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**19.0**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**19.8**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/28/14 00:50	
Dibromofluoromethane	99	89-119	3/28/14 00:50	
Toluene-d8	100	87-121	3/28/14 00:50	

Quantitation Report (QT Reviewed)

Sample : LCS
Data File : I:\ACQUDATA\msvoa10\data\032714\F6975.D Vial: 25
Acq On : 28 Mar 2014 12:50 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

R2403226-02

FJ 4/5/14

Quant Time: Mar 28 08:39:27 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.415	168	914092	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1315622	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1252152	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	720728	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	425888	49.60	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.20%				
48) surr1,1,2-dichloroetha...	4.860	65	441237	48.84	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.68%				
65) SURR3,Toluene-d8	7.433	98	1536722	49.91	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.82%				
70) SURR2,BFB	9.878	95	636275	50.31	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.62%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.196	85	187965	18.70	ug/L		97
3) Chloromethane	1.300	50	230049	19.60	ug/L		99
4) Vinyl Chloride	1.361	62	210972	19.29	ug/L		99
5) Bromomethane	1.562	94	81956	28.88	ug/L		99
6) Chloroethane	1.617	64	116367	18.12	ug/L		100
7) Freon 21	1.721	67	353161	19.86	ug/L		99
8) Trichlorofluoromethane	1.770	101	236811	17.32	ug/L		98
9) Diethyl Ether	1.940	59	146686	22.10	ug/L		92
10) Freon 123a	1.934	67	236729	21.48	ug/L		99
11) Freon 123	1.971	83	249585	21.06	ug/L		98
12) Acrolein	2.026	56	47472	47.70	ug/L		94
13) 1,1-Diclethene	2.105	96	134029	21.06	ug/L		96
14) Freon 113	2.093	101	138456	18.04	ug/L		98
15) Acetone	2.123	43	46509	19.21	ug/L		95
16) 2-Propanol	2.202	45	188317	556.80	ug/L		99
17) Iodomethane	2.221	142	106879	31.57	ug/L		98
18) Carbon Disulfide	2.276	76	428724	18.34	ug/L		98
19) Acetonitrile	2.324	40	31640	106.84	ug/L	#	88
20) Allyl Chloride	2.355	76	76512	18.95	ug/L	#	67
21) Methyl Acetate	2.361	43	108072	21.78	ug/L		95
22) Methylene Chloride	2.446	84	167257	20.17	ug/L		97
23) TBA	2.507	59	263266	517.97	ug/L		87
24) Acrylonitrile	2.635	53	271425	123.55	ug/L		98
25) Methyl-t-Butyl Ether	2.666	73	435694	22.65	ug/L		93
26) trans-1,2-Dichloroethene	2.672	96	160925	19.76	ug/L		95
28) 1,1-Diclethane	3.050	63	302204	18.87	ug/L		98
29) Vinyl Acetate	3.099	86	11676	10.73	ug/L	#	1
30) DIPE	3.111	45	611042	17.78	ug/L		92
31) 2-Chloro-1,3-Butadiene	3.147	53	289555	18.48	ug/L		87
32) ETBE	3.507	59	504117	18.86	ug/L		94
33) 2,2-Dichloropropane	3.684	77	173550	14.98	ug/L		98
34) cis-1,2-Dichloroethene	3.684	96	175789	19.01	ug/L		90
35) 2-Butanone	3.714	43	75063	23.41	ug/L		92
36) Propionitrile	3.775	54	91424	114.18	ug/L		98
37) Bromochloromethane	3.983	130	115876	21.39	ug/L		94

Quantitation Report (QT Reviewed)

Sample : LCS
Data File : I:\ACQUDATA\msvoa10\data\032714\F6975.D Vial: 25
Acq On : 28 Mar 2014 12:50 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:39:27 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.976	67	51233	25.24	ug/L	#	75
39) Tetrahydrofuran	4.062	42	43219	23.34	ug/L		82
40) Chloroform	4.098	83	283599	18.64	ug/L		95
41) 1,1,1-Trichloroethane	4.361	97	237770	18.43	ug/L		97
42) TAME	5.190	73	396669	19.65	ug/L		94
44) Cyclohexane	4.446	41	186144	18.03	ug/L		90
46) Carbontetrachloride	4.617	121	65550	19.06	ug/L		89
47) 1,1-Dichloropropene	4.623	75	215547	21.53	ug/L		98
49) Benzene	4.958	78	634845	19.90	ug/L		98
50) 1,2-Dichloroethane	4.988	62	233449	19.31	ug/L		97
51) Iso-Butyl Alcohol	4.867	43	118028	510.91	ug/L		91
52) n-Heptane	5.458	43	164326	17.00	ug/L		94
53) 1-Butanol	5.952	56	154822	1410.95	ug/L		99
54) Trichloroethene	5.970	130	195944	21.97	ug/L		95
55) Methylcyclohexane	6.214	55	219806	19.04	ug/L		87
56) 1,2-Diclpropane	6.256	63	179231	20.80	ug/L		96
57) Dibromomethane	6.403	93	100836	22.28	ug/L		99
58) 1,4-Dioxane	6.464	88	29384m	656.40	ug/L		
59) Methyl Methacrylate	6.464	69	83272	23.37	ug/L	#	85
60) Bromodichloromethane	6.616	83	211882	19.92	ug/L		96
62) 2-Chloroethylvinyl Ether	7.006	63	92972	24.06	ug/L		91
63) cis-1,3-Dichloropropene	7.147	75	233462	20.32	ug/L		98
64) 4-Methyl-2-pentanone	7.336	43	150354	24.17	ug/L		95
66) Toluene	7.500	91	685552	20.04	ug/L		99
67) trans-1,3-Dichloropropene	7.750	75	197003	20.84	ug/L		97
68) Ethyl Methacrylate	7.872	69	171544	23.93	ug/L		79
69) 1,1,2-Trichloroethane	7.927	97	138098	22.44	ug/L		96
72) Tetrachloroethene	8.055	164	144643	19.59	ug/L		96
73) 2-Hexanone	8.201	43	105914	22.25	ug/L		94
74) 1,3-Dichloropropane	8.085	76	229936	21.29	ug/L		85
75) Dibromochloromethane	8.299	129	167857	21.00	ug/L		100
76) N-Butyl Acetate	8.341	43	255814	22.61	ug/L		96
77) 1,2-Dibromoethane	8.402	107	144379	22.57	ug/L		94
78) 3-Chlorobenzotrifluoride	8.878	180	260258	18.92	ug/L		100
79) Chlorobenzene	8.866	112	479232	19.56	ug/L		95
80) 4-Chlorobenzotrifluoride	8.927	180	238946	18.89	ug/L		100
81) 1,1,1,2-Tetrachloroethane	8.945	131	167424	19.27	ug/L		96
82) Ethylbenzene	8.975	106	233717	19.43	ug/L		98
83) (m+p)Xylene	9.085	106	584529	40.18	ug/L		96
84) o-Xylene	9.433	106	289388	20.19	ug/L		98
85) Styrene	9.445	104	491746	20.48	ug/L		98
86) Bromoform	9.597	173	99725	21.04	ug/L		99
87) 2-Chlorobenzotrifluoride	9.670	180	257503	19.29	ug/L		96
88) Isopropylbenzene	9.756	105	717032	19.94	ug/L		100
89) Cyclohexanone	9.823	55	356168	405.48	ug/L		100
90) trans-1,4-Dichloro-2-B...	10.055	53	38487	18.70	ug/L		84
92) 1,1,2,2-Tetrachloroethane	10.006	83	155167	18.83	ug/L		99
93) Bromobenzene	10.000	156	216671	19.81	ug/L		96
94) 1,2,3-Trichloropropane	10.042	110	45784	22.09	ug/L		96
95) n-Propylbenzene	10.103	91	837306	19.19	ug/L		98
96) 2-Chlorotoluene	10.170	91	525236	19.36	ug/L		93
97) 3-Chlorotoluene	10.219	91	553561	18.67	ug/L		97

Quantitation Report (QT Reviewed)

Sample : LCS
Data File : I:\ACQUDATA\msvoa10\data\032714\F6975.D Vial: 25
Acq On : 28 Mar 2014 12:50 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:39:27 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

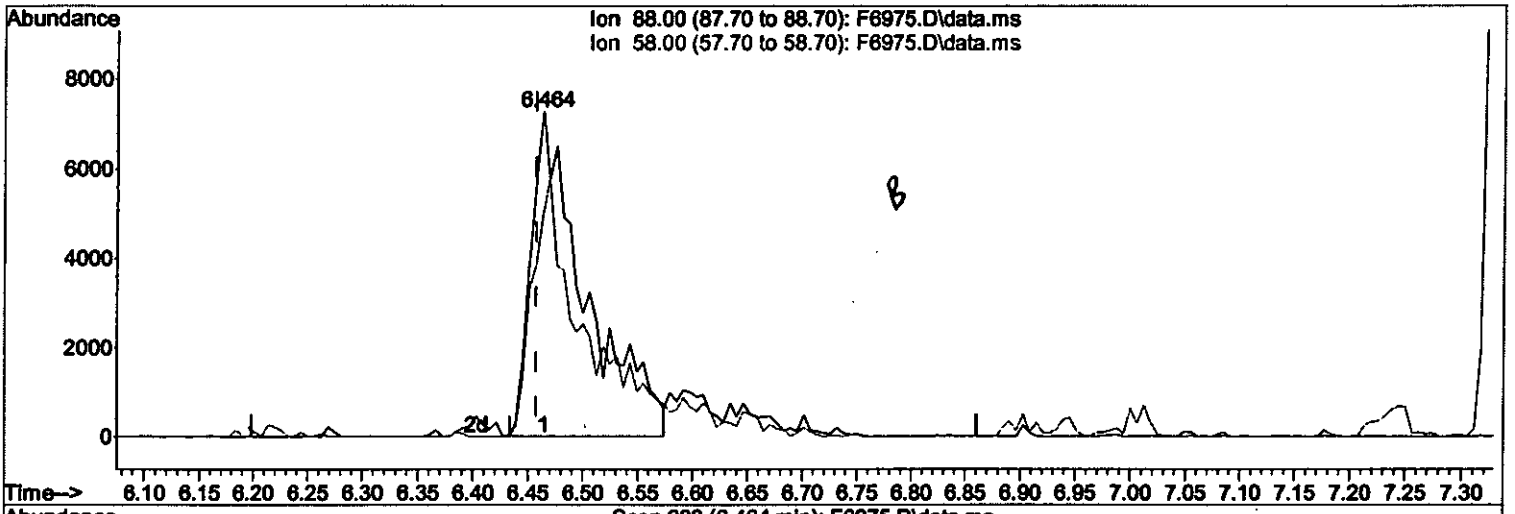
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	4-Chlorotoluene	10.262	91	634691	19.25	ug/L	92
99)	1,3,5-Trimethylbenzene	10.250	105	605482	19.46	ug/L	96
100)	tert-Butylbenzene	10.518	119	494711	18.98	ug/L	99
101)	1,2,4-Trimethylbenzene	10.561	105	618353	19.55	ug/L	95
102)	3,4-Dichlorobenzotrifl...	10.615	214	184633	18.72	ug/L	99
103)	sec-Butylbenzene	10.695	105	694235	19.32	ug/L	99
104)	p-Isopropyltoluene	10.817	119	617343	20.00	ug/L	98
105)	1,3-Dclbenz	10.780	146	400897	19.61	ug/L	99
106)	1,4-Dclbenz	10.853	146	422990	19.63	ug/L	99
107)	2,4-Dichlorobenzotrifl...	10.902	214	167301	18.70	ug/L	100
108)	2,5-Dichlorobenzotrifl...	10.945	214	184642	17.78	ug/L	94
109)	n-Butylbenzene	11.140	91	521817	19.42	ug/L	99
110)	1,2-Dclbenz	11.152	146	393766	20.59	ug/L	98
111)	1,2-Dibromo-3-chloropr...	11.707	157	32487	22.84	ug/L	96
112)	Trielution Dichlorotol...	11.798	125	923806	60.07	ug/L	91
113)	1,3,5-Trichlorobenzene	11.847	180	268680	19.73	ug/L	98
114)	Coelution Dichlorotoluene	12.066	125	674783	42.18	ug/L	97
115)	1,2,4-Tcbenzene	12.225	180	240461	21.87	ug/L	94
116)	Hexachlorobt	12.322	225	93706	19.07	ug/L	98
117)	Naphthalen	12.371	128	478226	25.70	ug/L	99
118)	1,2,3-Tclbenzene	12.511	180	199690	22.82	ug/L	97
119)	2,4,5-Trichlorotoluene	12.920	159	137717	25.03	ug/L	99
120)	2,3,6-Trichlorotoluene	12.981	159	128919	24.63	ug/L	98

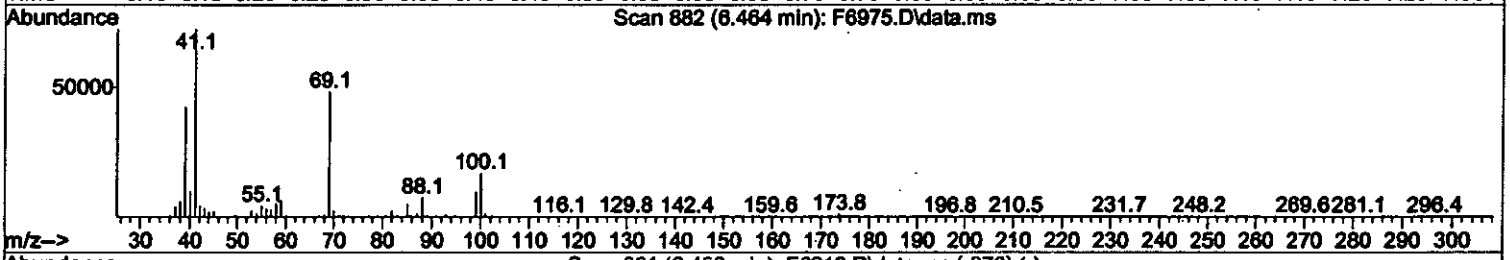
(#) = qualifier out of range (m) = manual integration (+) = signals summed

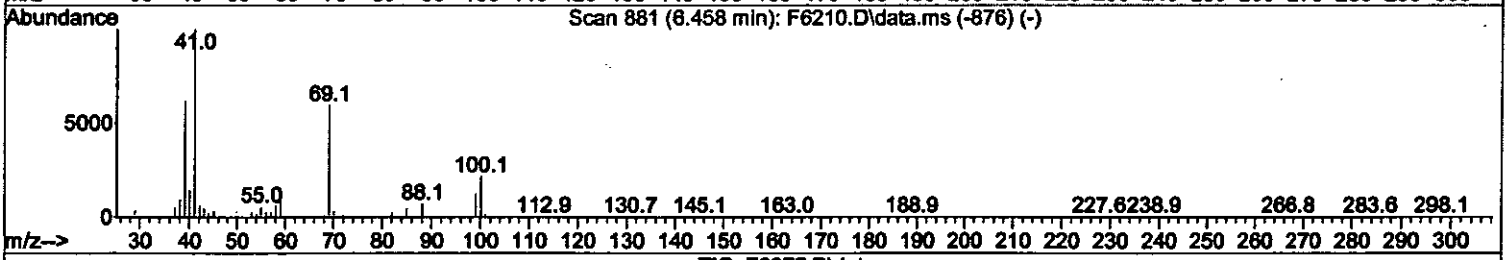
Quantitation Report (Qedit)

Sample : LCS
Data File : I:\ACQUDATA\msvoa10\data\032714\F6975.D Vial: 25
Acq On : 28 Mar 2014 12:50 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 01:03:18 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration







TIC: F6975.D\data.ms

(58) 1,4-Dioxane

6.464min (+0.007) 550.23 ug/L

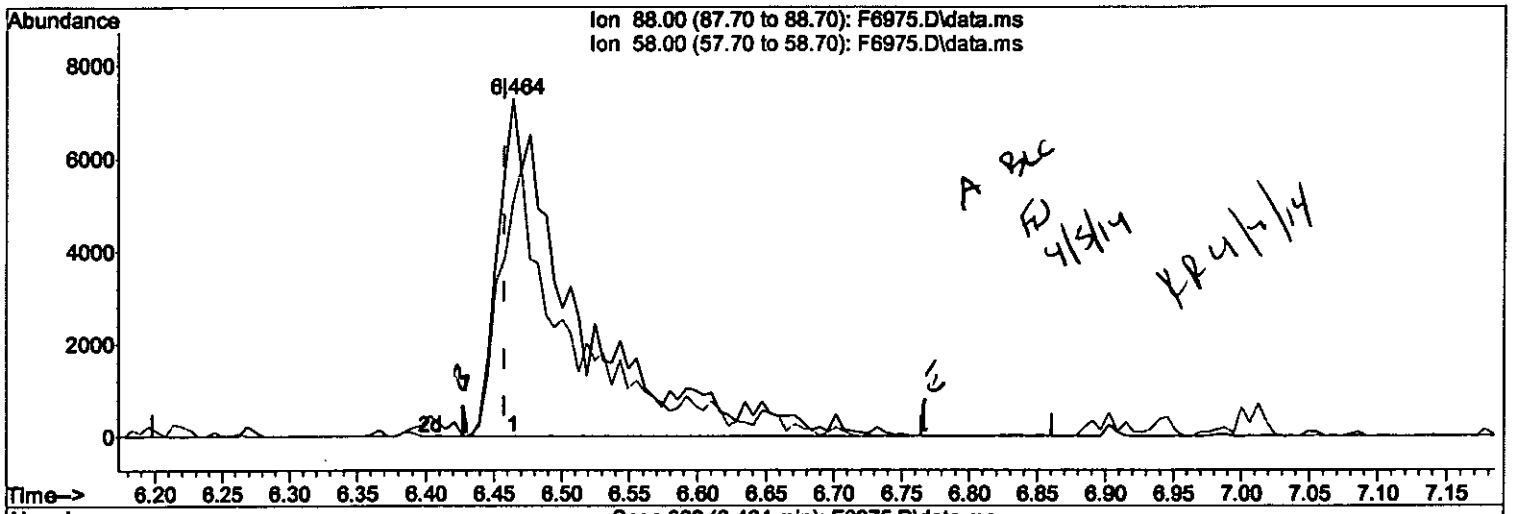
response 24631

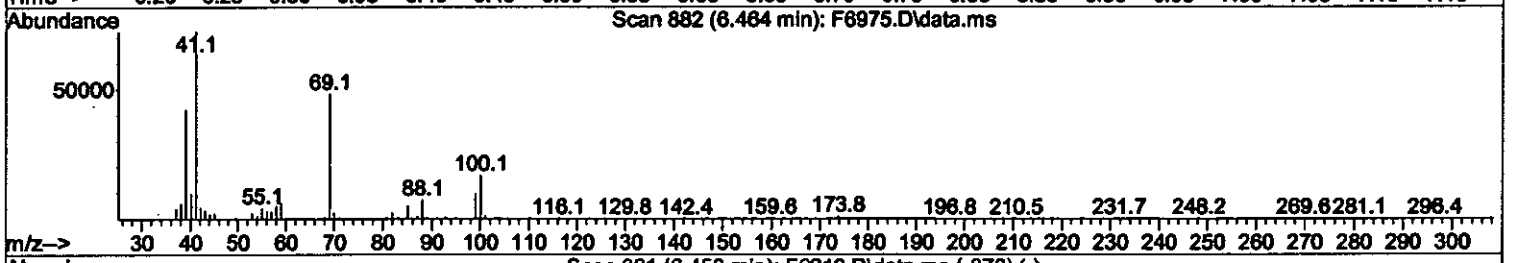
Ion	Exp%	Act%
88.00	100	100
58.00	73.00	69.37
0.00	0.00	0.00
0.00	0.00	0.00

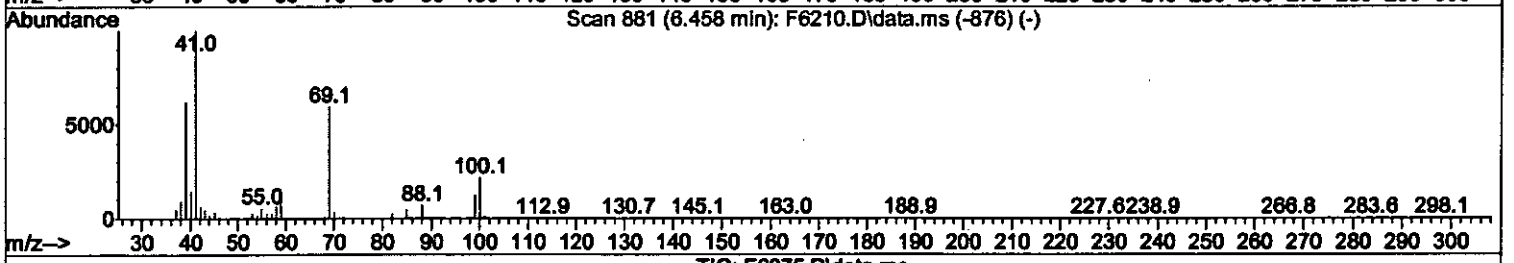
Quantitation Report (Qedit)

Sample : LCS
Data File : I:\ACQUDATA\msvoa10\data\032714\F6975.D Vial: 25
Acq On : 28 Mar 2014 12:50 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 01:03:18 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration







TIC: F6975.D\data.ms

(58) 1,4-Dioxane

6.464min (+0.007) 656.40 ug/L m

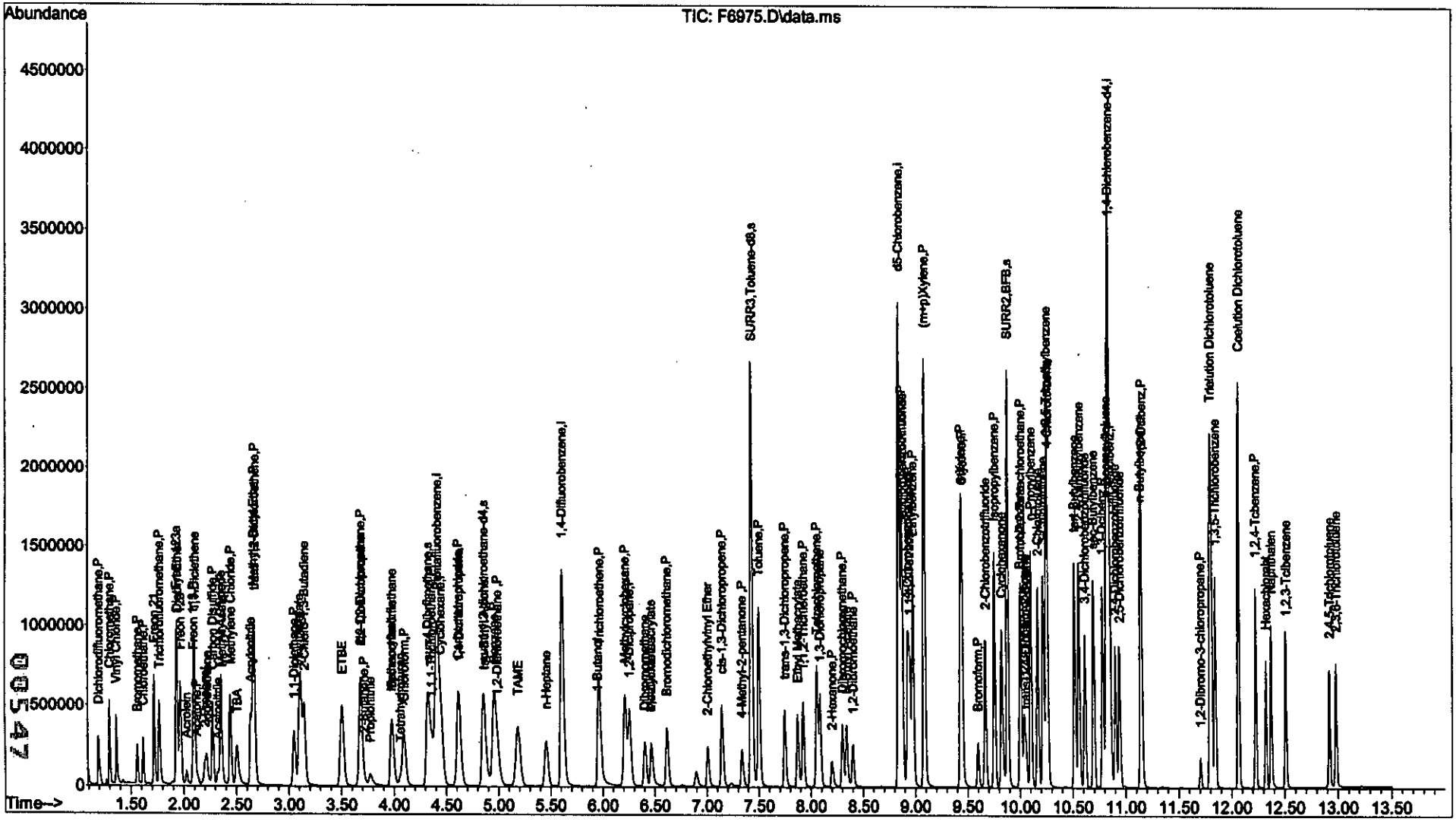
response 29384

Ion	Exp%	Act%
88.00	100	100
58.00	73.00	69.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : LCS
Data File : I:\ACQUDATA\msvoa10\data\032714\F6975.D Vial: 25
Acq On : 28 Mar 2014 12:50 am
Operator : F.Naegler
InstName : MSVOA10
Misc :

Quant Time: Mar 28 08:39:27 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1245
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/24/14 22:19
Sample Name:	MP-11	**Units:**	µg/L
Lab Code:	RQ1402678-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\J4162.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**101**		10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**99.3**		10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**114**		10	1.2	
127-18-4	Tetrachloroethene (PCE)	**320**		10	0.60	
79-01-6	Trichloroethene (TCE)	**104**		10	0.44	
75-01-4	Vinyl Chloride	**134**		10	0.64	
156-59-2	cis-1,2-Dichloroethene	**134**		10	0.60	
156-60-5	trans-1,2-Dichloroethene	**103**		10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	3/24/14 22:19	
Dibromofluoromethane	100	89-119	3/24/14 22:19	
Toluene-d8	99	87-121	3/24/14 22:19	

Quantitation Report (Not Reviewed)

Sample : R1402018-002MS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4162.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:19 pm
Operator : K.Ruest
InstName : MSVOA-12 R1402678-05

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:34:24 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	852990	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1315715	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1194927	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	610179	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	378928	49.75	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.50%			
48) surr1,1,2-dichloroetha...	4.658	65	434462	50.07	ppb	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.14%			
65) SURR3,Toluene-d8	7.322	98	1581111	49.40	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.80%			
70) SURR2,BFB	9.791	95	600560	50.29	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.58%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.158	85	507568	50.10	ppb	99
3) Chloromethane	1.262	50	484974	55.24	ppb	98
4) Vinyl Chloride	1.323	62	545114	66.84	ppb	100
5) Bromomethane	1.512	94	247347	50.32	ppb	99
6) Chloroethane	1.567	64	280442	57.65	ppb	99
7) Freon 21	1.664	67	771353	62.71	ppb	97
8) Trichlorofluoromethane	1.719	101	629102	50.24	ppb	98
9) Diethyl Ether	1.878	59	322224	52.26	ppb	96
10) Freon 123a	1.865	67	534650	58.16	ppb	95
11) Freon 123	1.902	83	601641	57.30	ppb	98
12) Acrolein	1.951	56	67735	250.66	ppb	95
13) 1,1-Diclethene	2.036	96	352958	57.02	ppb	98
14) Freon 113	2.036	101	351310	51.86	ppb	91
15) Acetone	2.042	43	80467	47.55	ppb	97
16) 2-Propanol	2.115	45	362009	1318.12	ppb	97
17) Iodomethane	2.146	142	417256	50.75	ppb	93
18) Carbon Disulfide	2.207	76	618589	28.73	ppb	98
19) Acetonitrile	2.219	40	72143	260.68	ppb	94
20) Allyl Chloride	2.274	76	137195	32.32	ppb	99
21) Methyl Acetate	2.274	43	211824	55.58	ppb	100
22) Methylene Chloride	2.353	84	402412	49.62	ppb	96
23) TBA	2.408	59	567991	1200.76	ppb	96
24) Acrylonitrile	2.524	53	512969	270.55	ppb	97
25) Methyl-t-Butyl Ether	2.579	73	1045614	53.14	ppb	98
26) trans-1,2-Dichloroethene	2.585	96	397805	51.29	ppb	97
28) 1,1-Diclethane	2.938	63	716388	49.63	ppb	99
29) Vinyl Acetate 2.975 ~~3.060~~		86	(49728 ~~563~~ M)	~~0.44~~	ppb	53.08 99
30) DIPE	3.011	45	1325987	47.16	ppb	98
31) 2-Chloro-1,3-Butadiene	3.036	53	634602	51.04	ppb	91
32) ETBE	3.396	59	1154690	49.08	ppb	98
33) 2,2-Dichloropropane	3.554	77	571415	49.89	ppb	96
34) cis-1,2-Dichloroethene	3.542	96	578839	66.88	ppb	100
35) 2-Butanone	3.548	43	132366	55.83	ppb	99
36) Propionitrile	3.591	54	188355	275.12	ppb	98
37) Bromochloromethane	3.828	130	235284	48.69	ppb	93

3/25/14

Quantitation Report (Not Reviewed)

Sample : R1402018-002MS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4162.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:34:24 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	113605	51.43	ppb		90
39) Tetrahydrofuran	3.902	42	85453	51.56	ppb		79
40) Chloroform	3.938	83	699850	49.48	ppb		96
41) 1,1,1-Trichloroethane	4.212	97	611858	50.43	ppb		91
42) TAME	5.017	73	1021749	51.44	ppb		99
44) Cyclohexane	4.316	41	369001	51.84	ppb		99
46) Carbontetrachloride	4.469	121	144615	45.84	ppb		94
47) 1,1-Dichloropropene	4.462	75	553174	56.93	ppb		94
49) Benzene	4.779	78	1643482	50.74	ppb		98
50) 1,2-Dichloroethane	4.786	62	496348	50.47	ppb		97
51) Iso-Butyl Alcohol	4.639	43	257037	1154.81	ppb		95
52) n-Heptane	5.328	43	406596	50.24	ppb		95
53) 1-Butanol	5.767	56	398039	3256.21	ppb		100
54) Trichloroethene	5.828	130	407173	51.90	ppb		96
55) Methylcyclohexane	6.102	55	432244	51.24	ppb		97
56) 1,2-Diclpropane	6.115	63	416998	50.34	ppb		97
57) Dibromomethane	6.255	93	206508	52.41	ppb		95
58) 1,4-Dioxane	6.310	88	57858	1066.57	ppb	#	70
59) Methyl Methacrylate	6.328	69	204976	52.59	ppb		95
60) Bromodichloromethane	6.474	83	481379	49.75	ppb		98
61) 2-Nitropropane	6.742	41	124556	119.71	ppb		84
63) cis-1,3-Dichloropropene	7.023	75	459317	40.01	ppb		97
64) 4-Methyl-2-pentanone	7.212	43	291215	58.28	ppb		99
66) Toluene	7.389	91	1705974	51.08	ppb		99
67) trans-1,3-Dichloropropene	7.626	75	383946	41.49	ppb		98
68) Ethyl Methacrylate	7.767	69	417878	55.51	ppb		97
69) 1,1,2-Trichloroethane	7.809	97	299565	51.27	ppb		98
72) Tetrachloroethene	7.962	164	988463	160.14	ppb		98
73) 2-Hexanone	8.084	43	200152	59.13	ppb		98
74) 1,3-Dichloropropane	7.968	76	563550	52.39	ppb		99
75) Dibromochloromethane	8.187	129	305786	49.43	ppb		97
76) N-Butyl Acetate	8.236	43	506681	60.55	ppb		96
77) 1,2-Dibromoethane	8.285	107	300262	54.34	ppb		93
78) Chlorobenzene	8.766	112	1073730	51.64	ppb		98
79) 3-CBTF	8.785	180	512200	49.79	ppb		98
80) 4-CBTF	8.834	180	469755	50.97	ppb		97
81) 1,1,1,2-Tetrachloroethane	8.852	131	380035	52.01	ppb		96
82) Ethylbenzene	8.888	106	578617	52.23	ppb		97
83) (m+p)Xylene	8.998	106	1397902	107.37	ppb		94
84) o-Xylene	9.346	106	693449	52.19	ppb		94
85) Styrene	9.352	104	990102	46.61	ppb		99
87) Bromoform	9.492	173	158905	45.86	ppb		97
88) 2-CBTF	9.577	180	504665	49.65	ppb		96
89) Isopropylbenzene	9.669	105	1629643	51.73	ppb		97
90) Cyclohexanone	9.718	55	174125	355.76	ppb		99
91) trans-1,4-Dichloro-2-B...	9.961	53	36893	22.46	ppb		85
92) 1,1,2,2-Tetrachloroethane	9.913	83	364734	52.20	ppb		98
93) Bromobenzene	9.906	156	451809	50.33	ppb		95
94) 1,2,3-Trichloropropane	9.943	110	107561	51.44	ppb		99
95) n-Propylbenzene	10.022	91	1858761	50.44	ppb		99
96) 2-Chlorotoluene	10.083	91	1166307	50.39	ppb		99
97) 3-Chlorotoluene	10.132	91	1172465	48.71	ppb		96

Quantitation Report (Not Reviewed)

Sample : R1402018-002MS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4162.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:34:24 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

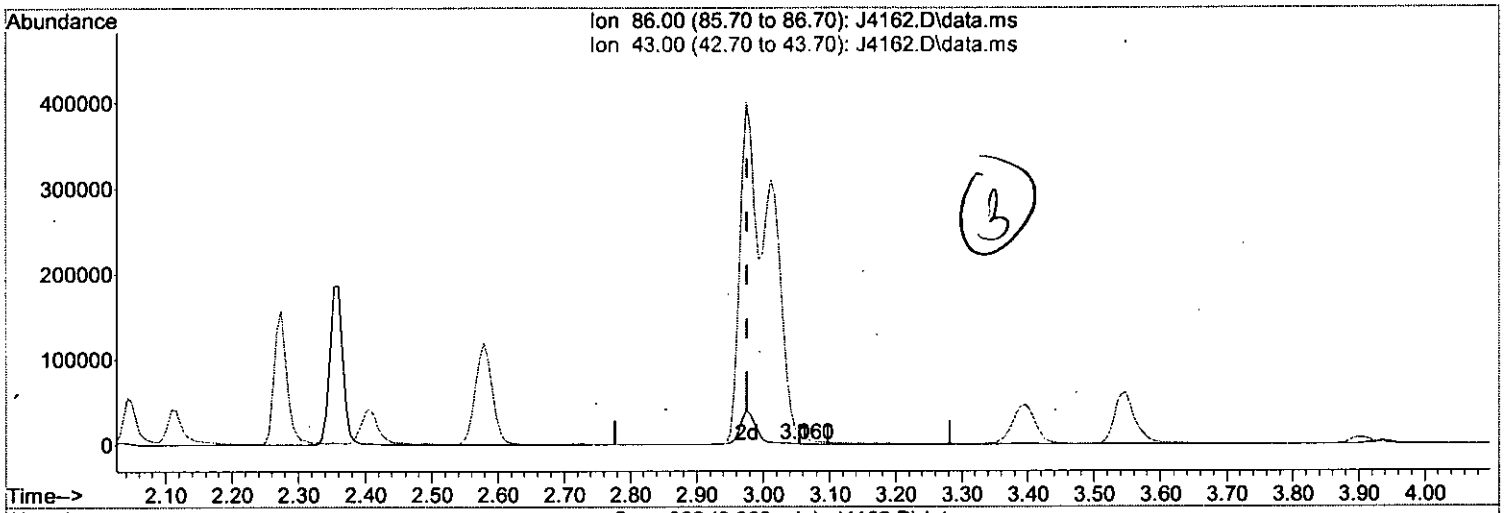
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	4-Chlorotoluene	10.169	91	1388479	50.88	ppb	98
99)	1,3,5-Trimethylbenzene	10.169	105	1300844	50.62	ppb	99
100)	tert-Butylbenzene	10.437	119	1071297	49.53	ppb	97
101)	1,2,4-Trimethylbenzene	10.473	105	1319591	49.91	ppb	98
102)	3,4-DCBTF	10.534	214	346932	46.15	ppb	98
103)	sec-Butylbenzene	10.620	105	1514885	50.32	ppb	98
104)	p-Isopropyltoluene	10.742	119	1326450	52.11	ppb	98
105)	1,3-Dclbenz	10.693	146	781047	51.12	ppb	99
106)	1,4-Dclbenz	10.766	146	803695	49.44	ppb	96
107)	2,4-DCBTF	10.821	214	317978	48.62	ppb	97
108)	2,5-DCBTF	10.858	214	360745	48.24	ppb	98
109)	n-Butylbenzene	11.065	91	1169981	50.97	ppb	98
110)	1,2-Dclbenz	11.065	146	748084	50.85	ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	64405	60.15	ppb	91
112)	Trielution Dichlorotol...	11.729	125	1718945	147.73	ppb	99
113)	1,3,5 Trichlorobenzene	11.778	180	495242	48.80	ppb	99
114)	Coelution Dichlorotoluene	11.998	125	1252337	101.64	ppb	98
115)	1,2,4-Tcbenzene	12.156	180	443226	49.26	ppb	99
116)	Hexachlorobt	12.266	225	176278	44.89	ppb	98
117)	Naphthalen	12.302	128	889841	54.94	ppb	99
118)	1,2,3-Tclbenzene	12.437	180	359093	48.75	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	220132	45.35	ppb	97
120)	2,3,6-Trichlorotoluene	12.912	159	197716	44.50	ppb	96

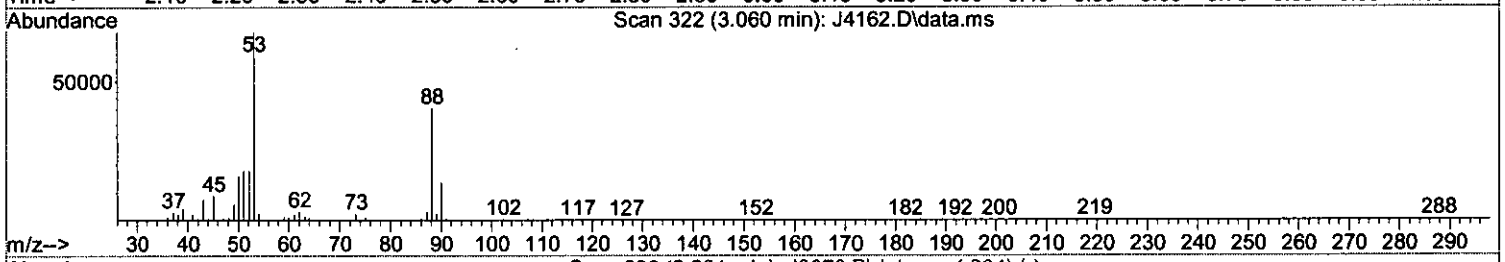
(#) = qualifier out of range (m) = manual integration (+) = signals summed

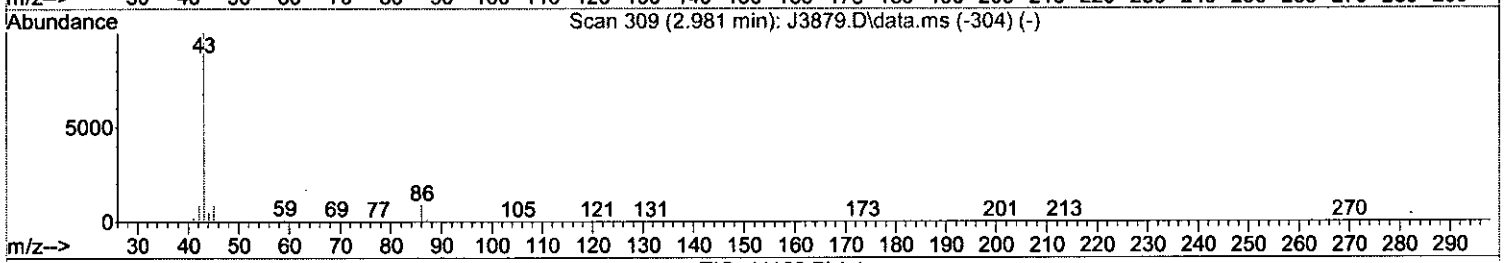
Quantitation Report (Qedit)

Sample : R1402018-002MS|2.0
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4162.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:34:24 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration







TIC: J4162.D\data.ms

(29) Vinyl Acetate

3.060min (+0.085) 0.44 ppb

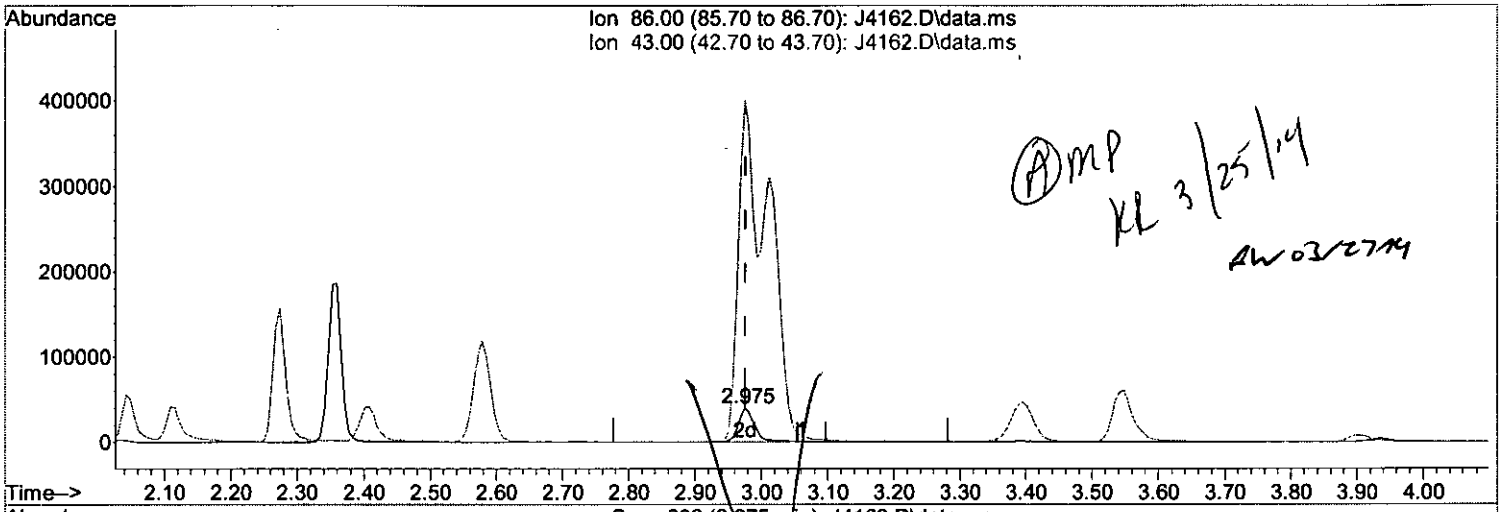
response 563

Ion	Exp%	Act%
86.00	100	100
43.00	1138.10	1133.03
0.00	0.00	0.00
0.00	0.00	0.00

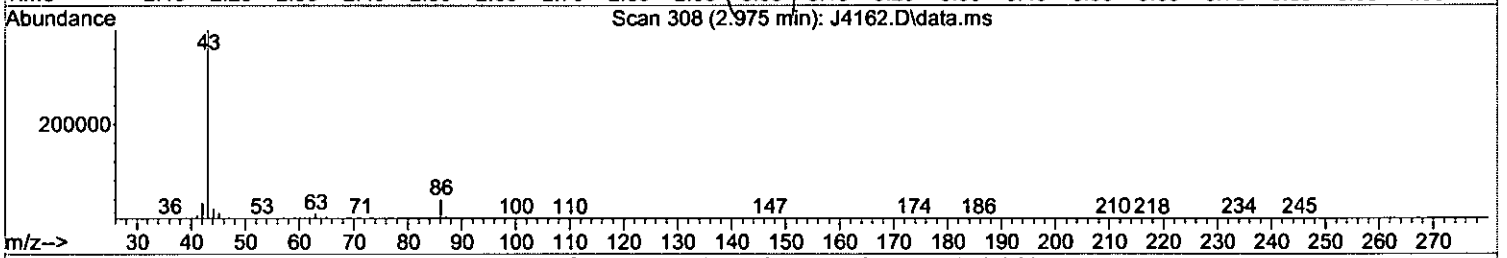
Quantitation Report (Qedit)

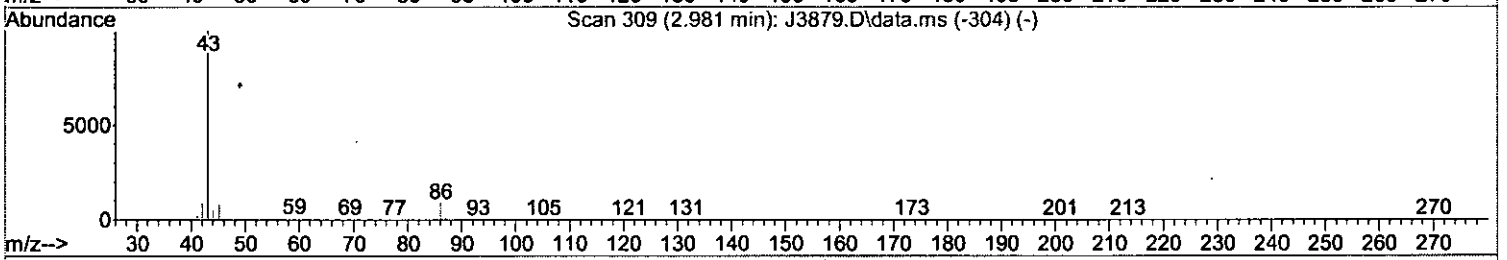
Sample : R1402018-002MS|2.0
Data File: I:\ACQUDATA\msvoa12\Data\032414\J4162.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:34:24 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



AMP 3/25/14
AW 03/27/14





TIC: J4162.D\data.ms

(29) Vinyl Acetate

2.975min (-0.000) 53.08 ppb m

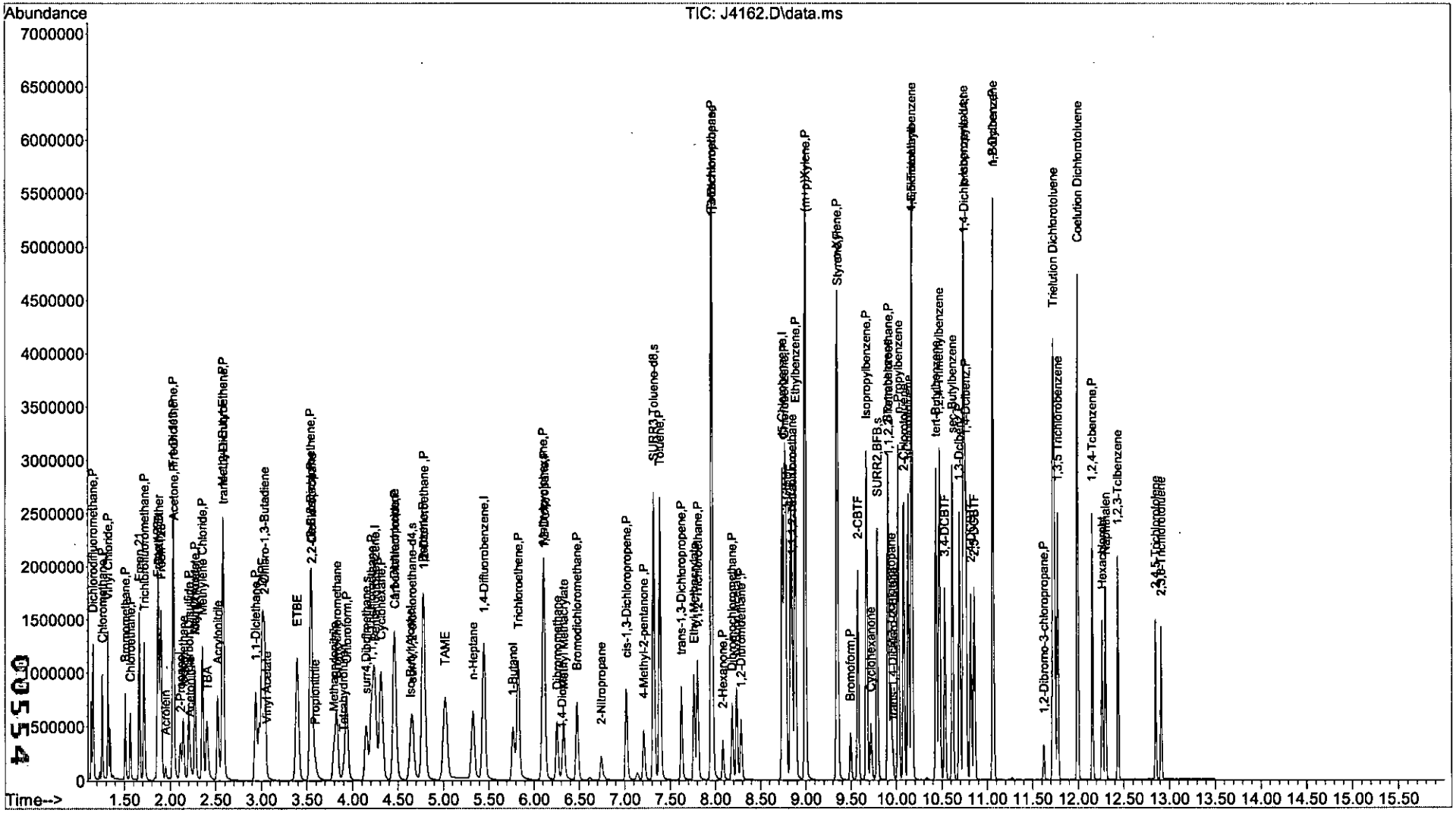
response 68228

Ion	Exp%	Act%
86.00	100	100
43.00	1138.10	1001.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Sample : R1402018-002MS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4162.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 22:34:24 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/18/14 1245
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/24/14 22:51
Sample Name:	MP-11	**Units:**	µg/L
Lab Code:	RQ1402678-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	384987
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\032414\U4163.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**100**		10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**99.2**		10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**117**		10	1.2	
127-18-4	Tetrachloroethene (PCE)	**325**		10	0.60	
79-01-6	Trichloroethene (TCE)	**105**		10	0.44	
75-01-4	Vinyl Chloride	**137**		10	0.64	
156-59-2	cis-1,2-Dichloroethene	**135**		10	0.60	
156-60-5	trans-1,2-Dichloroethene	**103**		10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	3/24/14 22:51	
Dibromofluoromethane	101	89-119	3/24/14 22:51	
Toluene-d8	99	87-121	3/24/14 22:51	

Quantitation Report (Not Reviewed)

Sample : R1402018-002DMS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4163.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:51 pm
Operator : K.Ruest
InstName : MSVOA-12 RQ1402678-00

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 23:06:26 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.243	168	867730	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1334099	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1232967	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	615053	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	389036	50.37	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.74%				
48) surr1,1,2-dichloroetha...	4.658	65	438655	49.86	ppb		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.72%				
65) SURR3,Toluene-d8	7.322	98	1604881	49.45	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.90%				
70) SURR2,BFB	9.785	95	608340	50.24	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.48%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	501170	48.63	ppb		98
3) Chloromethane	1.256	50	487717	54.61	ppb		100
4) Vinyl Chloride	1.323	62	566542	68.28	ppb		100
5) Bromomethane	1.512	94	280026	56.01	ppb		99
6) Chloroethane	1.567	64	283758	57.34	ppb		97
7) Freon 21	1.664	67	772142	61.70	ppb		100
8) Trichlorofluoromethane	1.719	101	624389	49.02	ppb		99
9) Diethyl Ether	1.878	59	322169	51.37	ppb		95
10) Freon 123a	1.866	67	529261	56.60	ppb		95
11) Freon 123	1.902	83	597922	55.98	ppb		95
12) Acrolein	1.951	56	67239	246.84	ppb		93
13) 1,1-Diclethene	2.036	96	367765	58.40	ppb		96
14) Freon 113	2.036	101	350761	50.90	ppb		90
15) Acetone	2.042	43	75072	43.61	ppb		95
16) 2-Propanol	2.109	45	355733	1273.26	ppb		98
17) Iodomethane	2.146	142	442630	52.92	ppb		94
18) Carbon Disulfide	2.207	76	605559	27.65	ppb		98
19) Acetonitrile	2.219	40	76253	270.86	ppb		98
20) Allyl Chloride	2.274	76	131589	30.48	ppb		94
21) Methyl Acetate	2.274	43	207159	53.44	ppb		99
22) Methylene Chloride	2.353	84	405405	49.14	ppb		95
23) TBA	2.408	59	552262	1147.68	ppb		96
24) Acrylonitrile	2.524	53	505610	262.14	ppb		96
25) Methyl-t-Butyl Ether	2.579	73	1053505	52.63	ppb		99
26) trans-1,2-Dichloroethene	2.579	96	405090	51.34	ppb		97
28) 1,1-Diclethane	2.938	63	728133	49.59	ppb		99
29) Vinyl Acetate	2.975	86	67786	51.84	ppb	#	83
30) DIPE	3.012	45	1339078	46.82	ppb		98
31) 2-Chloro-1,3-Butadiene	3.036	53	631412	49.92	ppb		95
32) ETBE	3.396	59	1172128	48.97	ppb		100
33) 2,2-Dichloropropane	3.554	77	568577	48.80	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	596025	67.70	ppb		97
35) 2-Butanone	3.542	43	124467	51.60	ppb		97
36) Propionitrile	3.591	54	191639	275.16	ppb		97
37) Bromochloromethane	3.829	130	242116	49.25	ppb		93

KP 3/25/14

Quantitation Report (Not Reviewed)

Sample : R1402018-002DMS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4163.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:51 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 23:06:26 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	113983	50.73	ppb	93
39) Tetrahydrofuran	3.902	42	84320	50.01	ppb	78
40) Chloroform	3.938	83	712484	49.51	ppb	98
41) 1,1,1-Trichloroethane	4.213	97	618825	50.14	ppb	92
42) TAME	5.017	73	1017478	50.36	ppb	99
44) Cyclohexane	4.316	41	362560	50.23	ppb	96
46) Carbontetrachloride	4.469	121	145193	45.39	ppb	97
47) 1,1-Dichloropropene	4.463	75	570286	57.88	ppb	95
49) Benzene	4.780	78	1656695	50.44	ppb	98
50) 1,2-Dichloroethane	4.786	62	496232	49.76	ppb	96
51) Iso-Butyl Alcohol	4.639	43	247045	1094.63	ppb	96
52) n-Heptane	5.328	43	405119	49.37	ppb	96
53) 1-Butanol	5.767	56	396699	3200.53	ppb	98
54) Trichloroethene	5.828	130	419022	52.67	ppb	95
55) Methylcyclohexane	6.103	55	419441	49.04	ppb	98
56) 1,2-Diclpropane	6.115	63	424926	50.59	ppb	96
57) Dibromomethane	6.255	93	207089	51.83	ppb	95
58) 1,4-Dioxane	6.316	88	58342	1060.67	ppb	90
59) Methyl Methacrylate	6.328	69	203076	51.38	ppb	98
60) Bromodichloromethane	6.474	83	485727	49.51	ppb	97
61) 2-Nitropropane	6.743	41	129139	122.41	ppb	91
63) cis-1,3-Dichloropropene	7.023	75	471429	40.50	ppb	96
64) 4-Methyl-2-pentanone	7.212	43	283559	55.97	ppb	98
66) Toluene	7.389	91	1733403	51.18	ppb	99
67) trans-1,3-Dichloropropene	7.627	75	388845	41.44	ppb	98
68) Ethyl Methacrylate	7.767	69	420386	55.07	ppb	99
69) 1,1,2-Trichloroethane	7.803	97	302253	51.02	ppb	98
72) Tetrachloroethene	7.962	164	1035800	162.63	ppb	97
73) 2-Hexanone	8.084	43	196537	56.28	ppb	97
74) 1,3-Dichloropropane	7.968	76	565456	50.94	ppb	98
75) Dibromochloromethane	8.187	129	296586	46.47	ppb	99
76) N-Butyl Acetate	8.236	43	492617	57.05	ppb	98
77) 1,2-Dibromoethane	8.285	107	306050	53.68	ppb	97
78) Chlorobenzene	8.767	112	1078008	50.24	ppb	97
79) 3-CBTF	8.785	180	526399	49.60	ppb	98
80) 4-CBTF	8.834	180	482637	50.75	ppb	97
81) 1,1,1,2-Tetrachloroethane	8.846	131	385592	51.14	ppb	95
82) Ethylbenzene	8.889	106	589193	51.54	ppb	97
83) (m+p)Xylene	8.998	106	1408981	104.88	ppb	96
84) o-Xylene	9.346	106	699086	50.99	ppb	97
85) Styrene	9.352	104	983080	44.86	ppb	98
87) Bromoform	9.492	173	157671	45.14	ppb	98
88) 2-CBTF	9.577	180	514849	50.25	ppb	95
89) Isopropylbenzene	9.669	105	1650686	51.98	ppb	98
90) Cyclohexanone	9.718	55	173813	352.31	ppb	91
91) trans-1,4-Dichloro-2-B...	9.962	53	37290	22.52	ppb	92
92) 1,1,2,2-Tetrachloroethane	9.913	83	360830	51.23	ppb	98
93) Bromobenzene	9.907	156	462932	51.16	ppb	95
94) 1,2,3-Trichloropropane	9.937	110	106881	50.71	ppb	93
95) n-Propylbenzene	10.022	91	1896404	51.05	ppb	98
96) 2-Chlorotoluene	10.083	91	1175452	50.39	ppb	98
97) 3-Chlorotoluene	10.132	91	1201934	49.54	ppb	97

Quantitation Report (Not Reviewed)

Sample : R1402018-002DMS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4163.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:51 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 23:06:26 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration

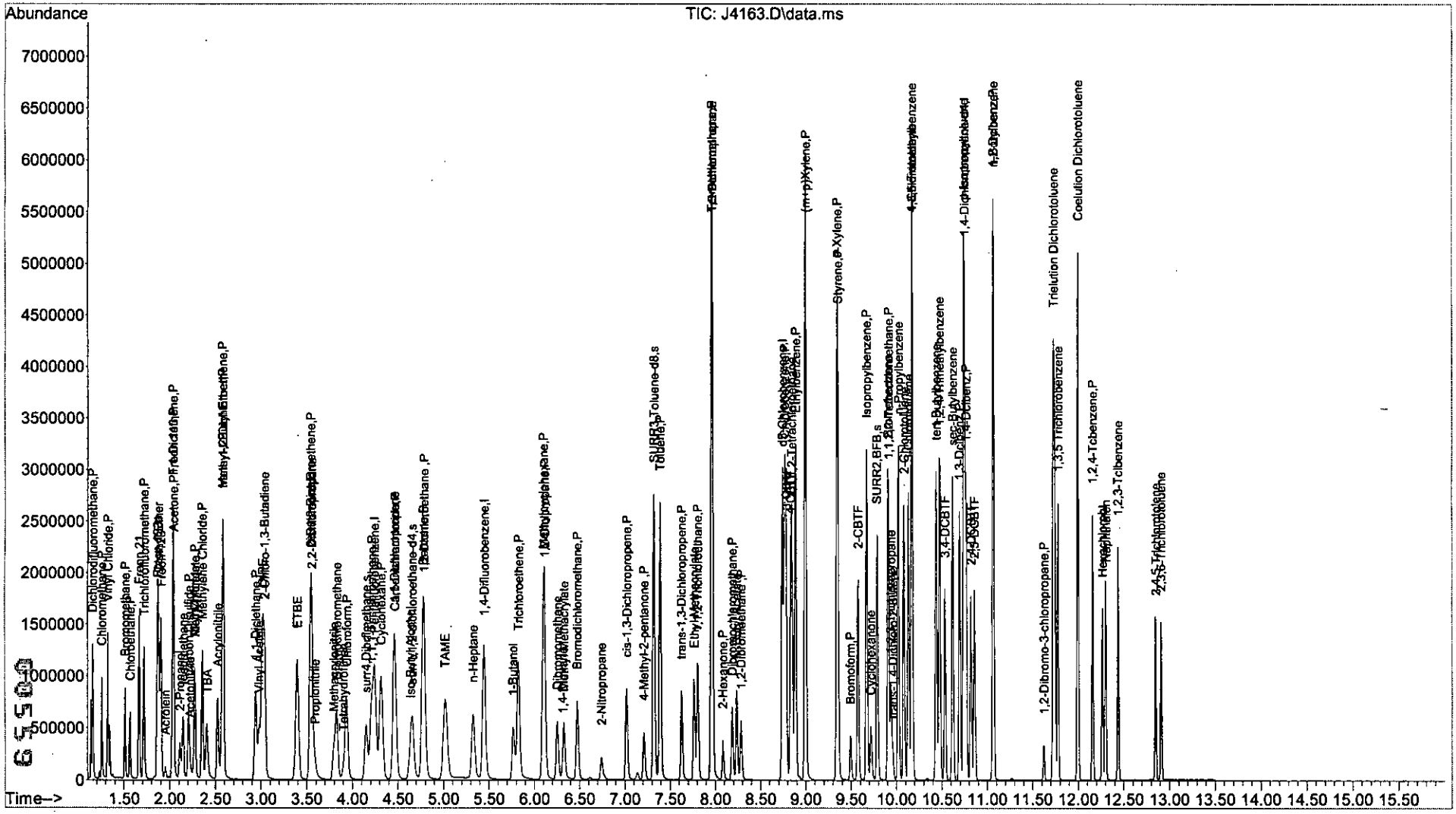
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	4-Chlorotoluene	10.169	91	1409951	51.26	ppb	98
99)	1,3,5-Trimethylbenzene	10.169	105	1324072	51.12	ppb	97
100)	tert-Butylbenzene	10.437	119	1096517	50.29	ppb	97
101)	1,2,4-Trimethylbenzene	10.474	105	1349487	50.64	ppb	99
102)	3,4-DCBTF	10.535	214	358281	47.28	ppb	96
103)	sec-Butylbenzene	10.620	105	1554226	51.22	ppb	98
104)	p-Isopropyltoluene	10.742	119	1368463	53.33	ppb	99
105)	1,3-Dclbenz	10.693	146	793639	51.53	ppb	98
106)	1,4-Dclbenz	10.766	146	824662	50.32	ppb	98
107)	2,4-DCBTF	10.821	214	331552	50.29	ppb	95
108)	2,5-DCBTF	10.858	214	375791	49.85	ppb	99
109)	n-Butylbenzene	11.065	91	1216117	52.56	ppb	98
110)	1,2-Dclbenz	11.065	146	755516	50.95	ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	62344	57.77	ppb	98
112)	Trielution Dichlorotol...	11.729	125	1796315	153.15	ppb	98
113)	1,3,5 Trichlorobenzene	11.778	180	527759	51.60	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	1307232	105.26	ppb	97
115)	1,2,4-Tcbenzene	12.156	180	466717	51.46	ppb	96
116)	Hexachlorobt	12.266	225	193141	48.80	ppb	99
117)	Naphthalen	12.303	128	923345	56.55	ppb	98
118)	1,2,3-Tclbenzene	12.437	180	385642	51.94	ppb	100
119)	2,4,5-Trichlorotolene	12.851	159	257915	52.71	ppb	97
120)	2,3,6-Trichlorotoluene	12.906	159	231985	51.80	ppb	94

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

Quantitation Report (Not Reviewed)

Sample : R1402018-002DMS|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\032414\J4163.D
Misc : VERINA 7979 T4
Acq On : 24 Mar 2014 10:51 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W031214.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Mar 24 23:06:26 2014
QLast Update : Thu Mar 13 11:21:13 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1505
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 09:27
Sample Name:	MP-5	**Units:**	µg/L
Lab Code:	RQ1403226-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6992.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**494**		50	3.6	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**492**		50	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**580**		50	5.7	
127-18-4	Tetrachloroethene (PCE)	**1460**		50	3.0	
79-01-6	Trichloroethene (TCE)	**544**		50	2.2	
75-01-4	Vinyl Chloride	**505**		50	3.2	
156-59-2	cis-1,2-Dichloroethene	**513**		50	3.0	
156-60-5	trans-1,2-Dichloroethene	**510**		50	3.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	3/28/14 09:27	
Dibromofluoromethane	97	89-119	3/28/14 09:27	
Toluene-d8	99	87-121	3/28/14 09:27	

Quantitation Report (Not Reviewed)

Sample : R1402018-012MS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6992.D Vial: 42
Acq On : 28 Mar 2014 9:27 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

RQ1403226-05

Quant Time: Mar 28 09:40:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

FV 4/5/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	911672	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1340616	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.841	117	1255571	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	726237	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	425726	48.66	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.32%				
48) surr1,1,2-dichloroetha...	4.854	65	422927	45.94	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 91.88%				
65) SURR3,Toluene-d8	7.427	98	1547946	49.34	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.68%				
70) SURR2,BFB	9.878	95	638563	49.55	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.191	85	502996	50.19	ug/L		97
3) Chloromethane	1.294	50	572786	48.92	ug/L		99
4) Vinyl Chloride	1.361	62	551203	50.54	ug/L		98
5) Bromomethane	1.556	94	199325	60.59	ug/L		95
6) Chloroethane	1.617	64	299849	46.80	ug/L		96
7) Freon 21	1.721	67	887664	50.06	ug/L		99
8) Trichlorofluoromethane	1.770	101	649016	47.60	ug/L		99
9) Diethyl Ether	1.934	59	347626	52.52	ug/L		90
10) Freon 123a	1.928	67	600887	54.66	ug/L		94
11) Freon 123	1.965	83	638846	54.04	ug/L		99
12) Acrolein	2.026	56	112549	113.38	ug/L		95
13) 1,1-Diclethene	2.099	96	367883	57.96	ug/L	#	87
14) Freon 113	2.093	101	391111	51.09	ug/L		97
15) Acetone	2.123	43	98462	40.77	ug/L		99
16) 2-Propanol	2.196	45	320264	949.45	ug/L		98
17) Iodomethane	2.215	142	308009	61.67	ug/L		100
18) Carbon Disulfide	2.276	76	976156	41.88	ug/L		100
19) Acetonitrile	2.318	40	79733	269.96	ug/L		98
20) Allyl Chloride	2.355	76	188488	46.80	ug/L	#	80
21) Methyl Acetate	2.355	43	230915	46.66	ug/L		92
22) Methylene Chloride	2.440	84	413869	50.05	ug/L		91
23) TBA	2.501	59	455439	898.44	ug/L		84
24) Acrylonitrile	2.629	53	581390	265.34	ug/L		98
25) Methyl-t-Butyl Ether	2.660	73	972287	50.67	ug/L		92
26) trans-1,2-Dichloroethene	2.672	96	414475	51.03	ug/L		93
28) 1,1-Diclethane	3.050	63	786050	49.21	ug/L		98
29) Vinyl Acetate	3.086	86	55666	51.27	ug/L	#	89
30) DIPE	3.111	45	1573037	45.89	ug/L		94
31) 2-Chloro-1,3-Butadiene	3.141	53	830862	53.16	ug/L		84
32) ETBE	3.507	59	1185884	44.49	ug/L		94
33) 2,2-Dichloropropane	3.684	77	337644	29.22	ug/L		97
34) cis-1,2-Dichloroethene	3.678	96	473265	51.31	ug/L		95
35) 2-Butanone	3.696	43	144281	45.11	ug/L		91
36) Propionitrile	3.769	54	201995	249.35	ug/L		95
37) Bromochloromethane	3.983	130	283520	52.48	ug/L		94

Quantitation Report (Not Reviewed)

Sample : R1402018-012MS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6992.D Vial: 42
Acq On : 28 Mar 2014 9:27 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 09:40:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.970	67	113399	56.01 ug/L #	62
39) Tetrahydrofuran	4.056	42	85953	46.54 ug/L	84
40) Chloroform	4.092	83	736876	48.56 ug/L	96
41) 1,1,1-Trichloroethane	4.361	97	635124	49.36 ug/L	98
42) TAME	5.184	73	893386	44.37 ug/L	97
44) Cyclohexane	4.446	41	497793	47.32 ug/L	93
46) Carbontetrachloride	4.611	121	175828	50.16 ug/L	95
47) 1,1-Dichloropropene	4.617	75	586133	57.45 ug/L	98
49) Benzene	4.958	78	1668982	51.35 ug/L	95
50) 1,2-Dichloroethane	4.989	62	570290	46.30 ug/L	95
51) Iso-Butyl Alcohol	4.861	43	210717	895.14 ug/L	94
52) n-Heptane	5.458	43	395663	40.17 ug/L	86
53) 1-Butanol	5.952	56	274615	2350.46 ug/L	92
54) Trichloroethene	5.964	130	494703	54.44 ug/L	96
55) Methylcyclohexane	6.214	55	574251	48.82 ug/L	85
56) 1,2-Diclpropane	6.257	63	459904	52.37 ug/L	99
57) Dibromomethane	6.403	93	232421	50.40 ug/L	95
58) 1,4-Dioxane	6.464	88	46748	1024.82 ug/L	94
59) Methyl Methacrylate	6.464	69	193474	53.28 ug/L #	74
60) Bromodichloromethane	6.616	83	544096	50.20 ug/L	97
63) cis-1,3-Dichloropropene	7.141	75	558714	47.72 ug/L	99
64) 4-Methyl-2-pentanone	7.336	43	324345	51.17 ug/L	98
66) Toluene	7.500	91	1796137	51.54 ug/L	100
67) trans-1,3-Dichloropropene	7.744	75	447179	46.43 ug/L	97
68) Ethyl Methacrylate	7.872	69	403595	52.66 ug/L	87
69) 1,1,2-Trichloroethane	7.921	97	315614	50.32 ug/L	98
72) Tetrachloroethene	8.055	164	1081379	146.06 ug/L	97
73) 2-Hexanone	8.195	43	214313	44.90 ug/L	95
74) 1,3-Dichloropropane	8.086	76	540588	49.92 ug/L	85
75) Dibromochloromethane	8.299	129	407505	50.83 ug/L	99
76) N-Butyl Acetate	8.335	43	537139	47.35 ug/L	97
77) 1,2-Dibromoethane	8.396	107	322179	50.23 ug/L	100
78) 3-Chlorobenzotrifluoride	8.872	180	658598	47.74 ug/L	99
79) Chlorobenzene	8.866	112	1234136	50.23 ug/L	97
80) 4-Chlorobenzotrifluoride	8.927	180	580234	45.75 ug/L	97
81) 1,1,1,2-Tetrachloroethane	8.945	131	436306	50.09 ug/L	98
82) Ethylbenzene	8.976	106	629718	52.20 ug/L	95
83) (m+p)Xylene	9.085	106	1562863	107.13 ug/L	99
84) o-Xylene	9.433	106	762508	53.04 ug/L	94
85) Styrene	9.445	104	1287621	53.49 ug/L	97
86) Bromoform	9.597	173	228523	48.09 ug/L	98
87) 2-Chlorobenzotrifluoride	9.671	180	649685	48.53 ug/L	99
88) Isopropylbenzene	9.756	105	1925083	53.38 ug/L	100
89) Cyclohexanone	9.823	55	160591	182.33 ug/L	98
90) trans-1,4-Dichloro-2-B...	10.055	53	81410	37.84 ug/L	88
92) 1,1,2,2-Tetrachloroethane	10.006	83	393828	47.42 ug/L	97
93) Bromobenzene	10.000	156	549502	49.85 ug/L	95
94) 1,2,3-Trichloropropane	10.042	110	104162	49.88 ug/L	94
95) n-Propylbenzene	10.103	91	2261296	51.44 ug/L	98
96) 2-Chlorotoluene	10.164	91	1368480	50.05 ug/L	97
97) 3-Chlorotoluene	10.219	91	1343300	44.97 ug/L	97
98) 4-Chlorotoluene	10.256	91	1636393	49.27 ug/L	97

Quantitation Report (Not Reviewed)

Sample : R1402018-012MS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6992.D Vial: 42
Acq On : 28 Mar 2014 9:27 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 09:40:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

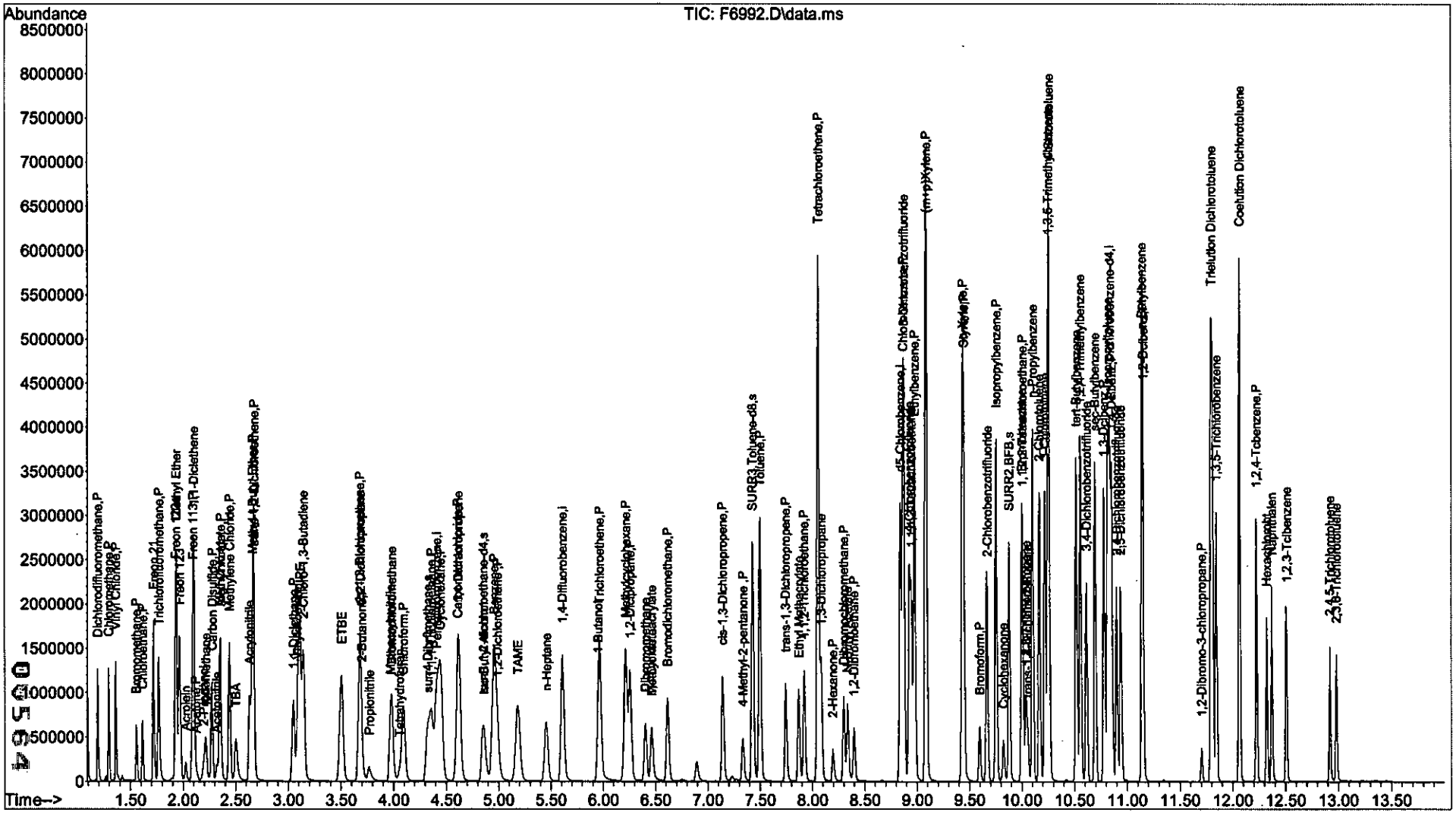
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	1,3,5-Trimethylbenzene	10.250	105	1586592	50.62	ug/L	97
100)	tert-Butylbenzene	10.518	119	1331017	50.67	ug/L	99
101)	1,2,4-Trimethylbenzene	10.555	105	1622137	50.90	ug/L	98
102)	3,4-Dichlorobenzotrifl...	10.616	214	440550	44.33	ug/L	98
103)	sec-Butylbenzene	10.695	105	1842173	50.88	ug/L	98
104)	p-Isopropyltoluene	10.817	119	1636050	52.59	ug/L	97
105)	1,3-Dclbenz	10.780	146	1008930	48.97	ug/L	98
106)	1,4-Dclbenz	10.853	146	1039006	47.86	ug/L	98
107)	2,4-Dichlorobenzotrifl...	10.902	214	391698	43.45	ug/L	98
108)	2,5-Dichlorobenzotrifl...	10.939	214	465035	44.45	ug/L	98
109)	n-Butylbenzene	11.140	91	1371137	50.64	ug/L	99
110)	1,2-Dclbenz	11.152	146	947028	49.15	ug/L	98
111)	1,2-Dibromo-3-chloropr...	11.707	157	67393	47.02	ug/L	92
112)	Trielution Dichlorotol...	11.798	125	2177368	140.52	ug/L	92
113)	1,3,5-Trichlorobenzene	11.847	180	624723	45.52	ug/L	96
114)	Coelution Dichlorotoluene	12.066	125	1506624	93.45	ug/L	97
115)	1,2,4-Tcbenzene	12.225	180	541703	48.89	ug/L	99
116)	Hexachlorobt	12.323	225	215712	43.56	ug/L	99
117)	Naphthalen	12.371	128	975559	52.04	ug/L	99
118)	1,2,3-Tclbenzene	12.511	180	408566	46.34	ug/L	95
119)	2,4,5-Trichlorotoluene	12.920	159	239723	43.23	ug/L	95
120)	2,3,6-Trichlorotoluene	12.981	159	219364	41.59	ug/L	95

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

Quantitation Report (Not Reviewed)

Sample : R1402018-012MS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6992.D Vial: 42
Acq On : 28 Mar 2014 9:27 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 09:40:41 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1402018
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	3/19/14 1505
Sample Matrix:	Water	**Date Received:**	3/22/14
		Date Analyzed:	3/28/14 09:57
Sample Name:	MP-5	**Units:**	µg/L
Lab Code:	RQ1403226-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	385666
Data File Name:	I:\ACQUDATA\msvoa10\data\032714\F6993.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**482**		50	3.6	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**493**		50	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**561**		50	5.7	
127-18-4	Tetrachloroethene (PCE)	**1450**		50	3.0	
79-01-6	Trichloroethene (TCE)	**535**		50	2.2	
75-01-4	Vinyl Chloride	**500**		50	3.2	
156-59-2	cis-1,2-Dichloroethene	**510**		50	3.0	
156-60-5	trans-1,2-Dichloroethene	**499**		50	3.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85-122	3/28/14 09:57	
Dibromofluoromethane	96	89-119	3/28/14 09:57	
Toluene-d8	99	87-121	3/28/14 09:57	

Quantitation Report (Not Reviewed)

Sample : R1402018-012DMS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6993.D Vial: 43
Acq On : 28 Mar 2014 9:57 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

RQ1403226-06 FJ 4/5/14

Quant Time: Mar 28 10:11:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.409	168	921247	50.00	ug/L		0.00
43) 1,4-Difluorobenzene	5.610	114	1340915	50.00	ug/L		0.00
71) d5-Chlorobenzene	8.842	117	1268229	50.00	ug/L		0.00
91) 1,4-Dichlorobenzene-d4	10.835	152	738062	50.00	ug/L		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.324	113	418275	47.79	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.58%				
48) surr1,1,2-dichloroetha...	4.854	65	419712	45.58	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 91.16%				
65) SURR3,Toluene-d8	7.427	98	1558385	49.66	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.32%				
70) SURR2,BFB	9.878	95	658069	51.05	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.191	85	490615	48.44	ug/L		99
3) Chloromethane	1.294	50	577089	48.78	ug/L		100
4) Vinyl Chloride	1.361	62	551493	50.04	ug/L		99
5) Bromomethane	1.556	94	216957	64.24	ug/L		98
6) Chloroethane	1.617	64	302281	46.69	ug/L		98
7) Freon 21	1.721	67	898068	50.12	ug/L		99
8) Trichlorofluoromethane	1.770	101	631223	45.81	ug/L		99
9) Diethyl Ether	1.934	59	349306	52.22	ug/L		90
10) Freon 123a	1.928	67	600647	54.07	ug/L		94
11) Freon 123	1.971	83	641008	53.66	ug/L		99
12) Acrolein	2.026	56	116879	116.52	ug/L		94
13) 1,1-Diclethene	2.105	96	359969	56.12	ug/L		96
14) Freon 113	2.093	101	367190	47.46	ug/L		99
15) Acetone	2.123	43	96764	39.65	ug/L		98
16) 2-Propanol	2.196	45	389586	1142.96	ug/L		96
17) Iodomethane	2.215	142	372090	68.63	ug/L		98
18) Carbon Disulfide	2.276	76	911892	38.71	ug/L		99
19) Acetonitrile	2.318	40	90194	302.21	ug/L		95
20) Allyl Chloride	2.355	76	190873	46.90	ug/L	#	76
21) Methyl Acetate	2.355	43	244577	48.90	ug/L		92
22) Methylene Chloride	2.440	84	408980	48.95	ug/L		90
23) TBA	2.501	59	502967	981.89	ug/L		87
24) Acrylonitrile	2.629	53	590702	266.79	ug/L		94
25) Methyl-t-Butyl Ether	2.660	73	1001750	51.67	ug/L		94
26) trans-1,2-Dichloroethene	2.672	96	409654	49.91	ug/L		94
28) 1,1-Diclethane	3.050	63	795420	49.28	ug/L		99
29) Vinyl Acetate	3.093	86	55394	50.49	ug/L	#	65
30) DIPE	3.105	45	1654489	47.77	ug/L		91
31) 2-Chloro-1,3-Butadiene	3.141	53	783374	49.61	ug/L		87
32) ETBE	3.501	59	1269713	47.14	ug/L		94
33) 2,2-Dichloropropane	3.684	77	329467	28.21	ug/L		95
34) cis-1,2-Dichloroethene	3.678	96	475550	51.02	ug/L		94
35) 2-Butanone	3.702	43	148729	46.02	ug/L		94
36) Propionitrile	3.769	54	209169	255.42	ug/L		99
37) Bromochloromethane	3.983	130	281477	51.56	ug/L		91

Quantitation Report (Not Reviewed)

Sample : R1402018-012DMS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6993.D Vial: 43
Acq On : 28 Mar 2014 9:57 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 10:11:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.971	67	117161	57.26	ug/L	#	59
39) Tetrahydrofuran	4.056	42	91137	48.83	ug/L		79
40) Chloroform	4.092	83	739052	48.20	ug/L		96
41) 1,1,1-Trichloroethane	4.361	97	626606	48.19	ug/L		95
42) TAME	5.184	73	963553	47.36	ug/L		96
44) Cyclohexane	4.452	41	479989	45.62	ug/L		89
46) Carbontetrachloride	4.617	121	172931	49.32	ug/L		98
47) 1,1-Dichloropropene	4.617	75	578903	56.73	ug/L		98
49) Benzene	4.958	78	1670992	51.40	ug/L		96
50) 1,2-Dichloroethane	4.989	62	564849	45.85	ug/L		96
51) Iso-Butyl Alcohol	4.854	43	225475	957.61	ug/L		99
52) n-Heptane	5.458	43	370264	37.59	ug/L		87
53) 1-Butanol	5.946	56	329214	2769.84	ug/L		90
54) Trichloroethene	5.964	130	486134	53.49	ug/L		96
55) Methylcyclohexane	6.214	55	552097	46.93	ug/L		88
56) 1,2-Diclpropane	6.257	63	462249	52.62	ug/L		99
57) Dibromomethane	6.403	93	233711	50.67	ug/L		92
58) 1,4-Dioxane	6.458	88	48049	1053.11	ug/L		81
59) Methyl Methacrylate	6.464	69	202242	55.68	ug/L	#	78
60) Bromodichloromethane	6.616	83	536878	49.53	ug/L		96
63) cis-1,3-Dichloropropene	7.141	75	547784	46.78	ug/L		98
64) 4-Methyl-2-pentanone	7.336	43	326432	51.49	ug/L		99
66) Toluene	7.500	91	1778632	51.02	ug/L		100
67) trans-1,3-Dichloropropene	7.744	75	453641	47.09	ug/L		95
68) Ethyl Methacrylate	7.872	69	412133	53.67	ug/L		83
69) 1,1,2-Trichloroethane	7.921	97	324389	51.71	ug/L		99
72) Tetrachloroethene	8.055	164	1084961	145.08	ug/L		99
73) 2-Hexanone	8.195	43	227227	47.13	ug/L		98
74) 1,3-Dichloropropane	8.086	76	546745	49.98	ug/L		91
75) Dibromochloromethane	8.299	129	396934	49.02	ug/L		98
76) N-Butyl Acetate	8.336	43	549763	47.98	ug/L		97
77) 1,2-Dibromoethane	8.396	107	327663	50.58	ug/L		95
78) 3-Chlorobenzotrifluoride	8.878	180	646634	46.40	ug/L		99
79) Chlorobenzene	8.866	112	1203777	48.51	ug/L		97
80) 4-Chlorobenzotrifluoride	8.927	180	588967	45.97	ug/L		97
81) 1,1,1,2-Tetrachloroethane	8.945	131	436602	49.62	ug/L		99
82) Ethylbenzene	8.976	106	612577	50.27	ug/L		97
83) (m+p)Xylene	9.085	106	1547795	105.04	ug/L		97
84) o-Xylene	9.433	106	757108	52.14	ug/L		97
85) Styrene	9.445	104	1283363	52.78	ug/L		98
86) Bromoform	9.597	173	228908	47.69	ug/L		97
87) 2-Chlorobenzotrifluoride	9.665	180	654540	48.41	ug/L		92
88) Isopropylbenzene	9.756	105	1886840	51.80	ug/L		100
89) Cyclohexanone	9.823	55	181453	203.96	ug/L		99
90) trans-1,4-Dichloro-2-B...	10.055	53	82991	38.17	ug/L		86
92) 1,1,2,2-Tetrachloroethane	10.006	83	401444	47.57	ug/L		99
93) Bromobenzene	10.000	156	546571	48.79	ug/L		95
94) 1,2,3-Trichloropropane	10.043	110	104164	49.08	ug/L		96
95) n-Propylbenzene	10.103	91	2238000	50.10	ug/L		98
96) 2-Chlorotoluene	10.171	91	1366260	49.17	ug/L		94
97) 3-Chlorotoluene	10.219	91	1405882	46.31	ug/L		99
98) 4-Chlorotoluene	10.256	91	1644459	48.72	ug/L		97

Quantitation Report (Not Reviewed)

Sample : R1402018-012DMS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6993.D Vial: 43
Acq On : 28 Mar 2014 9:57 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 10:11:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration

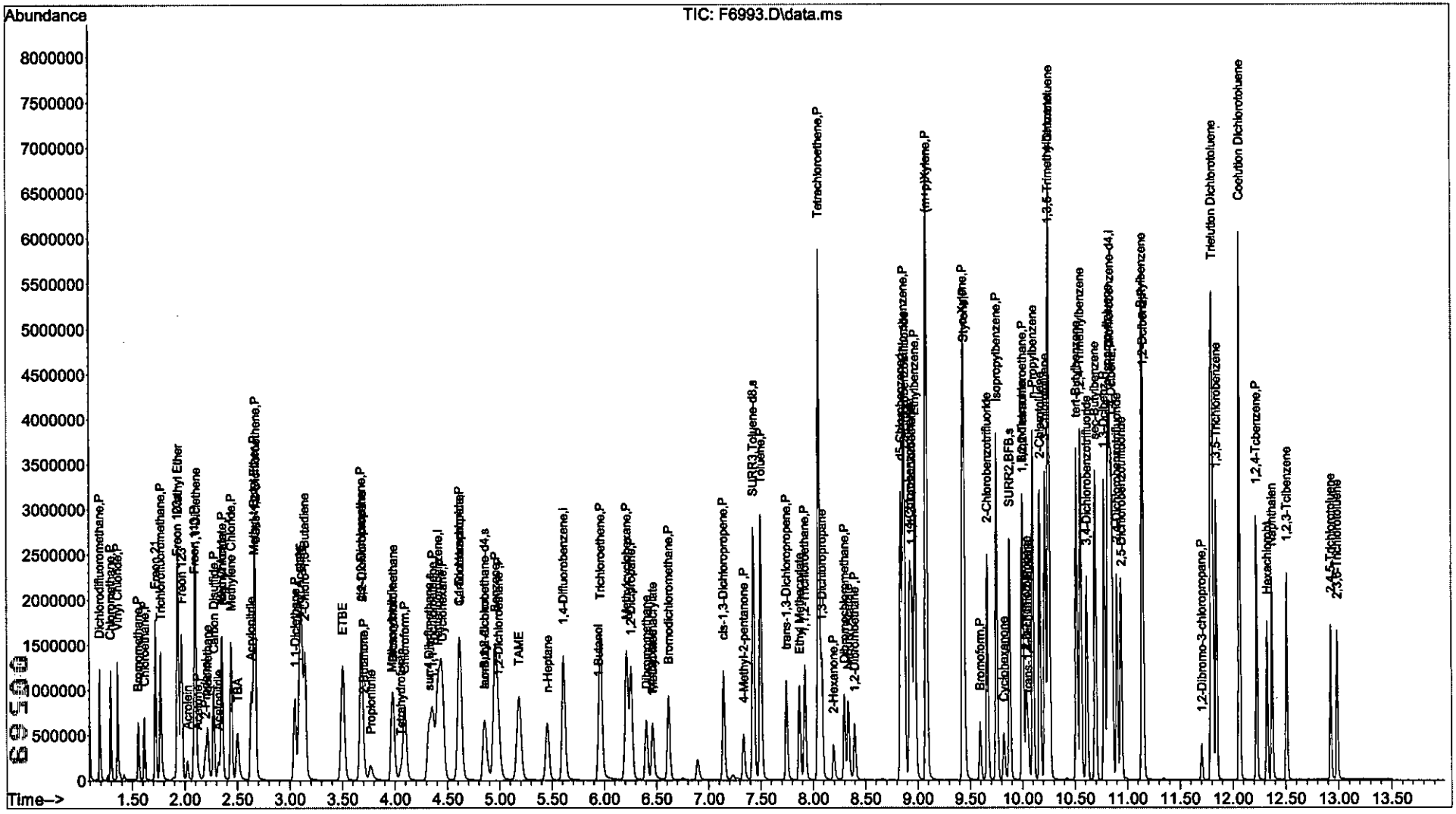
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	1,3,5-Trimethylbenzene	10.250	105	1606852	50.44	ug/L	97
100)	tert-Butylbenzene	10.518	119	1334534	49.99	ug/L	98
101)	1,2,4-Trimethylbenzene	10.555	105	1645261	50.80	ug/L	98
102)	3,4-Dichlorobenzotrifl...	10.616	214	442025	43.77	ug/L	100
103)	sec-Butylbenzene	10.695	105	1829026	49.71	ug/L	99
104)	p-Isopropyltoluene	10.817	119	1631686	51.61	ug/L	97
105)	1,3-Dclbenz	10.780	146	1016876	48.56	ug/L	99
106)	1,4-Dclbenz	10.853	146	1050234	47.60	ug/L	98
107)	2,4-Dichlorobenzotrifl...	10.902	214	398943	43.55	ug/L	99
108)	2,5-Dichlorobenzotrifl...	10.945	214	463394	43.58	ug/L	99
109)	n-Butylbenzene	11.140	91	1359942	49.42	ug/L	99
110)	1,2-Dclbenz	11.152	146	951967	48.61	ug/L	99
111)	1,2-Dibromo-3-chloropr...	11.707	157	69284	47.57	ug/L	95
112)	Trielution Dichlorotol...	11.804	125	2221386	141.06	ug/L	96
113)	1,3,5-Trichlorobenzene	11.847	180	631089	45.24	ug/L	96
114)	Coelution Dichlorotoluene	12.067	125	1574599	96.10	ug/L	97
115)	1,2,4-Tcbenzene	12.225	180	554929	49.29	ug/L	95
116)	Hexachlorobt	12.329	225	219622	43.64	ug/L	98
117)	Naphthalen	12.371	128	1017727	53.42	ug/L	99
118)	1,2,3-Tclbenzene	12.512	180	433771	48.41	ug/L	96
119)	2,4,5-Trichlorotoluene	12.926	159	274931	48.79	ug/L	95
120)	2,3,6-Trichlorotoluene	12.987	159	252613	47.13	ug/L	97

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

Quantitation Report (Not Reviewed)

Sample : R1402018-012DMS|10.0
Data File : I:\ACQUDATA\MSVOA10\DATA\032714\F6993.D Vial: 43
Acq On : 28 Mar 2014 9:57 am
Operator : F.Naegler
InstName : MSVOA10
Misc : VERINA 6646 T4

Quant Time: Mar 28 10:11:01 2014
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W022814.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Mon Mar 03 11:21:35 2014
Response via : Initial Calibration



Analysis: 8260C | Analyst: F. Naegler | Tune Method: TO22814.M
Date: 2/28/14 | Data Path: j:\acqudata\msvoa 10\ 022814 | Run Method: WO22814.M
Instr. MS#10 | LIMS Run# : —

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								F6201	Y	
2	BLK								02	Y	
1	TUNE								03	Y	
2	ICAL BLK								04	Y	
3	0.5 ppb Std								05	Y	
4	1.0								06	Y	
5	2.0								07	Y	
6	5.0								08	Y	
7	10								09	Y	
8	50								10	Y	
9	100								11	Y	
10	150								12	Y	
11	200								13	Y	
12	BLK								14	Y	
13	BLK								15	Y	
14	50 ppb ICV								16	Y	
15	BLK								17	Y	
16	BLK								18	Y	

WATER ICAL TABLE

CONC (PPB)	0.5	1.0	2.0	5.0	10	50	100	150	200
1°T/G = 67759	10mL/1mL → 5mL/5mL	10mL/5mL	2mL/5mL	5mL/5mL	2mL/10mL	5mL/5mL	10mL/5mL	15mL/5mL	20mL/5mL
1° HSL = 67760	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° Fr = 67761	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° HBo = 67146	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° OCC = 67739	↓	↓	↓	↓	↓	↓	↓	↓	↓

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

0507

T/G Primary 500 : SEE ICAL TABLE
HSL Primary :
Fr Primary :
HBo Primary :
OCC 1° ↓

Fr Secondary 200 : 67576 - 12.5mL
T/G Secondary 500 : 67057 - 5mL
HSL Secondary : 67666 -
HBo Secondary : 67211 -
OCC 2° ↓ 67763 - ↓

5mL (ICV)

Combined IS/Surr 500 : 67655
Surrogate : —
Internal Std : —

Analysis: 8260 Waters | Analyst: K. Priest | Tune Method: W031214

Date: 3/12/14 | Data Path: j:\acqudata\msvoa12\031214 | Run Method: ↓

Instr. 12 | LIMS Run#: —ICAL—

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								53672		
(2)	TUNE								53673	YT	(auto) 9:41
2	1 BLK	5ppm	50ppm FV						53674	YB	
1	0.5	5ml	— 50mls						53675	Y	8260 water ICAL
2	1.0	10ml	—						53676	Y	
3	2.0	20ml	—						53677	Y	
4	5.0	50ml	—						53678	Y	
5	20	—	2ml						53679	Y	
6	50	—	5ml						53680	Y	
7	100	—	10ml						53681	Y	
8	200	—	20ml						53682	Y	
9	BLK								53683	—	
10	↓								53684	—	
11									53685	—	
12									53686	—	
13	1.0 ppb LOD		R1401347-017						53687		
14	5.0 ppb LOQ								53688		
15	10 ppb LOQ								53689		

EOD KR 3/12/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

50D Primary OCC : 67739
Primary HBO : 68188
Primary Fit : 67761 10ml → 1.0ml MeOH
Primary HSL : 68234 = 5ppm std
TG 68233

Secondary :
Secondary :
Secondary :
Secondary :

Combined IS/Surr 50D : 68182
Surrogate :
Internal Std :

Analysis: 8260 waters | Analyst: KWest | Tune Method: W032114

Date: 3/24/14 | Data Path: j:\acqudata\msvoa12\032414 | Run Method: ↓

Instr. 12 | LIMS Run#: 3681987

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								J4138		leader? ↓ instrument OK, LK on...
2	~~BLKtest~~ BLK								J4139		
3	BLK								J4140		
1	IWE(acetonitrile)		RQ1402678-01						J4141	YT	(auto) 11:04
2	CCV		↓ 02						J4142	YC	
3	LCS		03						J4143	YQ	
4	VBLK		—						J4144	N	↓pt c/b
5	VBLK		↓ 04						J4145	YB	Bromom = J
1	R1401725-023	1.0		[redacted]	8774	4	2	c2	J4146	Y	
2	↓ 021	1.0		↓	↓	↓	2	c2	J4147	N	w/ms#7 run 3rd sur ↓
3	R1401859-007	1.0		[redacted]	9740	4	2	c2	J4148	Y	
4	010	1.0		↓	↓	↓	2	c2	J4149	Y	
5	↓ 013	1.0		↓	↓	↓	2	c2	J4150	Y	
6	R1401820-010	1.0		↓	↓	↓	2	c2	J4151	Y	
7	↓ 011	1.0		↓	↓	↓	2	c2	J4152	N	leader - foam?
8	↓ 009	5.0	10/50mls	↓	↓	↓	2	c2	J4153	N	DL
9	RQ1402641-01	1.0	TCLPBLK 3/22/14	[redacted]	66480	2	1	5	J4154	Y	TCLP
10	R1401952-002	20	2.5/50mls	↓	↓	↓	1	5	J4155	N	↓pt 10
11	↓ 001	100	1/100mls	↓	↓	↓	1	5	J4156	N	↓pt 10
12	R1402058-005	1.0		[redacted]	7979	4	1+2	5	J4157	Y	lots of sediment (ump)
13	006	5.0	10/50mls	↓	↓	↓	1	5	J4158	N	↓pt 2.0
14	014	5.0	↓	↓	↓	↓	1	5	J4159	N	↓pt 2.5
15	004	2.0	25/50mls	↓	↓	↓	1	5	J4160	N	↓pt 1.0
16	002	2.0	↓	↓	6646	↓	1	c2	J4161	Y	↓
17	ms 002	2.0	RQ1402678-05	↓	↓	↓	1+2	c2	J4162	YQ	
18	↓ msD 002	2.0	↓ ↓ 06	↓	↓	↓	2	c2	J4163	YQ	22:51 ✓
19	BLK								J4164	—	
											EOD
											KR 3/24/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

SDD Primary HBD : 68188
Primary OCC : 67739
Primary HSL : 68234 5ml → 50mls
Primary TG : 68233 = CCV
Primary FT : 67761

2DD Secondary FT : 68705 - 5ml - 10.0ml
SDD Secondary OCC : 67763
Secondary HBD : 68296 2ml
Secondary TG : 68199
Secondary HSL : 67666
→ 50mls = LCS

11.2ml → 40ml vial = msID

Combined IS/Surr SDD : 68521
Surrogate :
Internal Std :

Analysis: 8260D waters | Analyst: KWest | Tune Method: W032514
Date: 3/25/14 | Data Path: j:\acqudata\msvoa2\032514 | Run Method: ↓
Instr. 12 | LIMS Run#: 385241

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	TUNE (on hour 1/2)		RQ1402765-01	-05					J4186	YT	(auto)
1	CCV		02	-06 (wait)					J4187	YC	Bromomt Acetone↑
1	LCS		FCLP 03	-07					J4188	YQ	
1	~~VBLK~~		=						J4189	(N)	upc/0
2	↓		04	-08					J4190	YB	
1	R1402018-004	1.0		[redacted]	7979	4	2	5	J4191	Y	(lump)
2	006	2.0	25/50mls				2	5	J4192	Y	↓
3	014	2.5	20/50mls		↓	↓	2	5	J4193	Y	TCLP's
4	R1401952-001	10	5/50mls	[redacted]	66480	2	2	5	J4194	Y	
5	002	10					2	5	J4195	Y	
6	003	10					2	5	J4196	Y	
7	004	10	↓				2	5	J4197	Y	
8	005	50	1/50mls				2	5	J4198	Y	
9	R1401951-001	10	5/50mls	[redacted]	66480	2	2	7	J4199	Y	
10	002	10					2	6	J4200	Y	
11	003	10					2	6	J4201	Y	
12	004	10					2	6	J4202	Y	
13	005	10					2	6	J4203	Y	
14	007	10					2	6	J4204	Y	lost vial -
15	010	10					2	6	J4205		tail vial?
16	MS 010	10	RQ1402765-09				2	6	J4206		
17	↓ MSD 010	10	↓ ↓ 10	↓	↓	↓	2	6	J4207		↓
18	~~BLK HIGH CASES~~							-	J4208	-	
19	~~BLK~~							-	J4209	-	

EOD
KR 3/25/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary HBO : 68458
Primary OCL : 67739
Primary HSL : 68234 5ml → 50mls = CCV
Primary TG : 68233
Primary FrT : 67761

200 Secondary Fr+ : 68705 - 5ml
500 Secondary OCL : 67763
Secondary HBO : 68296 2ml → 50mls = LCS
Secondary TG : 68199
Secondary HSL : 67666

Combined IS/Surr 500 : 68521
Surrogate :
Internal Std :

Analysis: 8260C | Analyst: F. Naylor | Tune Method: T022814.M

Date: 3/27/14 #2 | Data Path: j:\acqudata\msvoa1\032714 | Run Method: W022814.M

Instr. MS#10 | LIMS Run#: 385666

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
23	TUNE								F6973	Y	
24	CCV								74	Y	
25	LCS								75	Y	
26	MBLK								76	(N)	
27	MBLK								77	Y	R1403226-01
28	R1402018-001	1.0		[redacted]	6646	4	1	<2	78	Y	
29	-007	1.0					1	<2	79	Y	
30	-010	1.0					1	<2	80	Y	
31	-018	1.0					1	<2	81	Y	
32	-003	1.0					1	<2	82	Y	
33	-005	1.0					1	<2	83	Y	
34	-009	100.0	5|5mL → 5|5mL				1	<2	84	Y	
35	-011	1.0					1	<2	85	Y	
36	-012	10.0	5|50mL				1	<2	86	Y	
37	-013	1.0					1	<2	87	Y	
38	-015	5.0	10|50mL				1	<2	88	Y	
39	-016	1.0					1	<2	89	Y	
40	-017	2.5	20|50mL				1	<2	90	Y	
41	-019	1.0					1	<2	91	Y	
42	-012MS	10.0	5|50mL				1	<2	92	Y	
43	-012MSD	10.0	↓	↓	↓	↓	1	<2	93	Y	
44	BLK								94	Y	

FJ 3/27/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

T/G Primary 500 : 68233 - 5mL/50mL

HSL Primary : 68234 -

Fr Primary : 67761 -

HBo Primary : 68188 -

OCL 1° 67739 - (CCV)

Fr Secondary 200 : 68705 - 5mL

T/G Secondary 500 : 68499 - 2mL

HSL Secondary : 68796 -

HBo Secondary : 68296 -

OCL 2° 67763 - (LCS) 50mL

-12.5mL -5mL (SPK) 5mL

Combined IS/Surr 500 : 68307

Surrogate :

Internal Std :

00574

September 30, 2014

Service Request No: R1407413

Ms. Tammy Yuan
Verina Consulting Group, LLC
220 Davidson Avenue, Suite 105
Somerset, NJ 08873

Laboratory Results for: Dover - Kirkwood/5101.0002

Dear Ms. Yuan:

Enclosed are the results of the sample(s) submitted to our laboratory on September 22, 2014. For your reference, these analyses have been assigned our service request number **R1407413**.

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

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

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company
www.alsglobal.com
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CASE NARRATIVE

Client:	Verina Consulting	**Service Request:**	R1407413
Project:	Kirkwood	**Project Number:**	5101.002
Sample Matrix:	Water	**Date Received:**	09/22/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 09/17-20/14 and received at ALS Rochester on 09/22/14 at a cooler temperature of 9.6 °C in good condition except as noted on the cooler receipt and preservation check form. The client was notified of the out of temperature cooler and the samples analyzed.

Volatile Organics

Water samples were analyzed for a site list of Volatile Organics by Method 8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Vinyl chloride on the 09/22/14 CCV. All positive detections for this compounds for samples associated with this CCV should be considered as estimated.

All Internal Standard Areas were within QC limits.

The Laboratory Control Sample (LCS) recoveries were all acceptable.

All surrogate standard recoveries were within acceptable limits.

Site specific QC was performed on MW-12 as requested. All Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries and RPD's were acceptable.

Various compounds for MW-7A have been flagged with an "E" as being outside the calibration range of the instrument. The sample was repeated at a dilutions and both sets of data have been reported out.

The Method Blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 5101.0002	Batch Complete: Yes	Date Revised:	
Submission: R1407413	Diskette Requested: No	Date Due: 10/13/14	
Client: Verina Consulting Group, LLC	Date: 9/22/14	Protocol: SW846	
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:	
Project: Dover - Kirkwood	Chain of Custody: Present/Absent:	SDG #: IJ-10	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1407413-001	TRIP BLANK	Water	8260C	9/17/14	9/22/14			
R1407413-002	IJ-10	Water	8260C	9/17/14	9/22/14			
R1407413-003	MP-5	Water	8260C	9/17/14	9/22/14			
R1407413-004	IJ-1	Water	8260C	9/17/14	9/22/14			
R1407413-005	MP-4	Water	8260C	9/17/14	9/22/14			
R1407413-006	MP-6S	Water	8260C	9/17/14	9/22/14			
R1407413-007	IJ-4	Water	8260C	9/17/14	9/22/14			
R1407413-008	MW-7A	Water	8260C	9/17/14	9/22/14			
R1407413-009	MP-6D	Water	8260C	9/17/14	9/22/14			
R1407413-010	MP-11	Water	8260C	9/17/14	9/22/14			
R1407413-011	FB-091714	Water	8260C	9/17/14	9/22/14			
R1407413-012	MP-13	Water	8260C	9/17/14	9/22/14			
R1407413-013QC	MW-12	Water	8260C	9/18/14	9/22/14			
R1407413-014	MP-30	Water	8260C	9/18/14	9/22/14			
R1407413-015	MW-16	Water	8260C	9/18/14	9/22/14			
R1407413-016	MP-12	Water	8260C	9/18/14	9/22/14			
R1407413-017	IJ-5	Water	8260C	9/18/14	9/22/14			
R1407413-018	MP-14	Water	8260C	9/18/14	9/22/14			
R1407413-019	MW-11	Water	8260C	9/18/14	9/22/14			
R1407413-020	FB-091814	Water	8260C	9/18/14	9/22/14			
R1407413-021	MW-6	Water	8260C	9/18/14	9/22/14			
R1407413-022	DUP-091814	Water	8260C	9/18/14	9/22/14			
R1407413-023	MW-37	Water	8260C	9/19/14	9/22/14			
R1407413-024	MW-30	Water	8260C	9/19/14	9/22/14			
R1407413-025	MW-26	Water	8260C	9/19/14	9/22/14			
R1407413-026	MW-18	Water	8260C	9/19/14	9/22/14			
R1407413-027	MW-25	Water	8260C	9/19/14	9/22/14			
R1407413-028	MP-8S	Water	8260C	9/19/14	9/22/14			
R1407413-029	MW-28	Water	8260C	9/19/14	9/22/14			
R1407413-030	MP-8D	Water	8260C	9/19/14	9/22/14			
R1407413-031	FB-091914	Water	8260C	9/19/14	9/22/14			
R1407413-032	MW-33	Water	8260C	9/20/14	9/22/14			
R1407413-033	FB-092014	Water	8260C	9/20/14	9/22/14			

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at wbich the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18381

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 3

Project Name: Dover - Kirkwood	Project Number: 510.0002
Project Manager: Tammy Yuan	Report CC: Sarah Tufaro
Company/Address: Verina Consulting Group, LLC 200 Davidson Ave., Suite 105 Somerset, NJ ~~07403~~ 08873	
Phone #: 732-412-7576	Email: stufaro@vcg-llc.com
Sampler's Signature: [signature]	Sampler's Printed Name: Sarah Tufaro

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

PRESERVATIVE: 1/8

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOCs	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		9/10/14	11:00	TB	3	X	
IJ-10	*	9/17/14	09:30	G-W	3	X	
MP-5			09:45		3	X	
IJ-1	*		11:02		3	X	
MP-4			11:18		3	X	
MP-6S			12:50		3	X	
IJ-4	*		13:25		3	X	
MW-7A	*		15:15		3	X	
MP-6D		↓	15:35	↓	3	X	
MP-11	*		16:35	GW	3	X	
FB-091714		9/17/14	16:55	FB	3	X	Field Blank

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

SPECIAL INSTRUCTIONS/COMMENTS

~~Metals~~ SSPL VOCs - PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, VC

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS

____ I. Results Only

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

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata X Yes ____ No

INVOICE INFORMATION

PO # 510.0002

BILL TO: Verina

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	
Printed Name: Sarah Tufaro	Printed Name: [illegible]	Printed Name	Printed Name	Printed Name	
Firm: Verina	Firm: ALS	Firm	Firm	Firm	
Date/Time: 9/20/14 10:35	Date/Time: 9/22/14 0810	Date/Time	Date/Time	Date/Time	

R1407413 5

Verina Consulting Group, LLC
Dover - Kirkwood

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

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18378

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

Project Name: Dover-kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC: Sarah Tufaro
Company/Address: Verina Consulting Group, LLC 220 Davidson Ave, Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: stufaro@vcg-llc.com
Sampler's Signature:	Sampler's Printed Name: Sarah Tufaro

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

PRESERVATIVE: 1,8

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

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	SSPL VOCs	REMARKS/ ALTERNATE DESCRIPTION
MP-13		9/17/14	1735	GW	3								X	Time = 17:35
MW-12 (MS/MSD)		9/18/14	0920		9								X	Matrix spike + duplicate
MP-30			0945		3								X	
MW-16			1145		3								X	
MP-12	*		1150		3								X	
IJ-5			1330		3								X	ID = IJ-5
MP-14			1345	"	3								X	
MW-11	*		1525	GW	3								X	
FB-091814			1540	FB	3								X	
MW-6		"	1600	GW	3								X	
DUP-091814		9/18/14	—	GW	3								X	Blind duplicate

SPECIAL INSTRUCTIONS/COMMENTS

~~Metals~~ SSPL VOCs = PCE, TCE, 1,1,1-TCA
1,1-DCA, 1,1-DCE, cis-1,2-DCE
Trans-1,2-DCE, VC

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
_____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION
PO # 5101.0002
BILL TO: VERINA

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Sarah Tufaro	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Verina	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 9/20/14 10:30	Date/Time: 9/20/14 0840	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1407413 5
Verina Consulting Group, LLC
Dover - Kirkwood

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

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18383

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 3 OF 3

Project Name: Dover-Kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC: Sarah Tufaro
Company/Address: Verina Consulting Group, LLC 220 Davidson Ave., Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: stufaro@vcg-llc.com
Sampler's Signature:	Sampler's Printed Name: Sarah Tufaro

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

PRESERVATIVE: 1 6 8

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

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 8011/8021	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	SSPL VOCs						REMARKS/ ALTERNATE DESCRIPTION
MW-37		9/19/14	09:05	GW	3								X						
MW-30			09:41		3								X						
MW-26			11:08		5								X						
MW-18			11:35		3								X						
MW-25	*		13:49		3								X						
MP-8S			14:05		3								X						
MW-28	*		15:00		3								X						
MP-8D			15:35	GW	3								X						
FB-091914		9/19/14	15:55	FB	3								X						field blank
MW-33		9/20/14	09:16	GW	3								X						
FB-092014		9/20/14	09:30	FB	3								X						field blank

SPECIAL INSTRUCTIONS/COMMENTS

Metals

SSPL VOCs = PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, VC

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS

____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION

PO # 5101.0002
BILL TO: Verina

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature						
Printed Name	Sarah Tufaro					
Firm	Verina	ARI				
Date/Time	9/20/14 10:35	9/22/14 0816				9/40 7/43

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

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Cooler Receipt and Preservation Check Form

Project/Client Versar Folder Number 14-7413

Cooler received on 9/22/14 by: [illegible]

COURIER: ALS ~~UPS~~ (FEDEX) VELOCITY CLIENT

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

8. Temperature Readings Date: 9/22/14 Time: 0825 ID: (IR#3) IR#4 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	9.5						
Correction Factor (°C)	+0.1						
Corrected Temp (°C)	9.6						
Within 0-6°C?	Y (N)	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ (Ice melted) Poorly Packed Same Day Rule 9/22/14

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: [illegible] 9/22/14

All samples held in storage location: R-002 by [illegible] on 9/22/14 at 0820

5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: [illegible] 9/22/14

Cooler Breakdown: Date: 9/22 Time: 1032 by: JRS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated ~~N/A~~ (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	[illegible] 4113570	8/15				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 4-162002

Other Comments:

Trendlyzer: MP-60 (Iodide)

PC Secondary Review: [illegible] 9/24/14

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 0930
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 00:10
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1407413-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9155.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 00:10	
Dibromofluoromethane	101	89-119	9/23/14 00:10	
Toluene-d8	97	87-121	9/23/14 00:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 0930
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 00:42
Sample Name:	IJ-10	**Units:**	µg/L
Lab Code:	R1407413-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9156.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**1.5**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 00:42	
Dibromofluoromethane	101	89-119	9/23/14 00:42	
Toluene-d8	101	87-121	9/23/14 00:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 0945
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 13:38
Sample Name:	MP-5	**Units:**	µg/L
Lab Code:	R1407413-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9202.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.8	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	25	U	25	2.9	
127-18-4	Tetrachloroethene (PCE)	**890**		25	1.5	
79-01-6	Trichloroethene (TCE)	**32**		25	1.1	
75-01-4	Vinyl Chloride	**1.7**	**J**	25	1.6	
156-59-2	cis-1,2-Dichloroethene	**14**	**J**	25	1.5	
156-60-5	trans-1,2-Dichloroethene	25	U	25	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/24/14 13:38	
Dibromofluoromethane	103	89-119	9/24/14 13:38	
Toluene-d8	100	87-121	9/24/14 13:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1102
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 01:14
Sample Name:	IJ-1	**Units:**	µg/L
Lab Code:	R1407413-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9157.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 01:14	
Dibromofluoromethane	101	89-119	9/23/14 01:14	
Toluene-d8	101	87-121	9/23/14 01:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1110
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 07:42
Sample Name:	MP-4	**Units:**	µg/L
Lab Code:	R1407413-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9169.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	57	
127-18-4	Tetrachloroethene (PCE)	**12000**		500	30	
79-01-6	Trichloroethene (TCE)	500	U	500	22	
75-01-4	Vinyl Chloride	500	U	500	32	
156-59-2	cis-1,2-Dichloroethene	500	U	500	30	
156-60-5	trans-1,2-Dichloroethene	500	U	500	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 07:42	
Dibromofluoromethane	99	89-119	9/23/14 07:42	
Toluene-d8	99	87-121	9/23/14 07:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1250
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 06:05
Sample Name:	MP-6S	**Units:**	µg/L
Lab Code:	R1407413-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9166.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**450**		13	0.75	
79-01-6	Trichloroethene (TCE)	**3.4**	J	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**1.8**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 06:05	
Dibromofluoromethane	101	89-119	9/23/14 06:05	
Toluene-d8	100	87-121	9/23/14 06:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1325
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 01:46
Sample Name:	IJ-4	**Units:**	µg/L
Lab Code:	R1407413-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9158.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	9/23/14 01:46	
Dibromofluoromethane	102	89-119	9/23/14 01:46	
Toluene-d8	101	87-121	9/23/14 01:46	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1515
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 05:00
Sample Name:	MW-7A	**Units:**	µg/L
Lab Code:	R1407413-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9164.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	1.2	
127-18-4	Tetrachloroethene (PCE)	**810**	E	10	0.60	
79-01-6	Trichloroethene (TCE)	**0.96**	J	10	0.44	
75-01-4	Vinyl Chloride	10	U	10	0.64	
156-59-2	cis-1,2-Dichloroethene	10	U	10	0.60	
156-60-5	trans-1,2-Dichloroethene	10	U	10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/23/14 05:00	
Dibromofluoromethane	103	89-119	9/23/14 05:00	
Toluene-d8	101	87-121	9/23/14 05:00	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1515
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 13:06
Sample Name:	MW-7A	**Units:**	µg/L
Lab Code:	R1407413-008	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9201.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.8	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	25	U	25	2.9	
127-18-4	Tetrachloroethene (PCE)	780	D	25	1.5	
79-01-6	Trichloroethene (TCE)	25	U	25	1.1	
75-01-4	Vinyl Chloride	25	U	25	1.6	
156-59-2	cis-1,2-Dichloroethene	25	U	25	1.5	
156-60-5	trans-1,2-Dichloroethene	25	U	25	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/24/14 13:06	
Dibromofluoromethane	102	89-119	9/24/14 13:06	
Toluene-d8	100	87-121	9/24/14 13:06	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1535
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 02:19
Sample Name:	MP-6D	**Units:**	µg/L
Lab Code:	R1407413-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9159.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**1.4**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 02:19	
Dibromofluoromethane	101	89-119	9/23/14 02:19	
Toluene-d8	97	87-121	9/23/14 02:19	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1635
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 15:44
Sample Name:	MP-11	**Units:**	µg/L
Lab Code:	R1407413-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9184.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**3.1**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 15:44	
Dibromofluoromethane	101	89-119	9/23/14 15:44	
Toluene-d8	100	87-121	9/23/14 15:44	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1655
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 13:03
Sample Name:	FB-091714	**Units:**	µg/L
Lab Code:	R1407413-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9179.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85-122	9/23/14 13:03	
Dibromofluoromethane	101	89-119	9/23/14 13:03	
Toluene-d8	99	87-121	9/23/14 13:03	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1715
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 17:21
Sample Name:	MP-13	**Units:**	µg/L
Lab Code:	R1407413-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9187.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.33**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/23/14 17:21	
Dibromofluoromethane	102	89-119	9/23/14 17:21	
Toluene-d8	100	87-121	9/23/14 17:21	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 0920
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 02:51
Sample Name:	MW-12	**Units:**	µg/L
Lab Code:	R1407413-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9160.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 02:51	
Dibromofluoromethane	101	89-119	9/23/14 02:51	
Toluene-d8	100	87-121	9/23/14 02:51	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 0945
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 16:17
Sample Name:	MP-30	**Units:**	µg/L
Lab Code:	R1407413-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9185.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.85**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/23/14 16:17	
Dibromofluoromethane	100	89-119	9/23/14 16:17	
Toluene-d8	99	87-121	9/23/14 16:17	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1145
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 17:53
Sample Name:	MW-16	**Units:**	µg/L
Lab Code:	R1407413-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9188.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**140**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**2.4**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.3**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 17:53	
Dibromofluoromethane	103	89-119	9/23/14 17:53	
Toluene-d8	101	87-121	9/23/14 17:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1150
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 03:24
Sample Name:	MP-12	**Units:**	µg/L
Lab Code:	R1407413-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9161.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**31**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.2**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.1**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 03:24	
Dibromofluoromethane	101	89-119	9/23/14 03:24	
Toluene-d8	100	87-121	9/23/14 03:24	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1330
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 12:34
Sample Name:	IJ-5	**Units:**	µg/L
Lab Code:	R1407413-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9200.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85-122	9/24/14 12:34	
Dibromofluoromethane	101	89-119	9/24/14 12:34	
Toluene-d8	99	87-121	9/24/14 12:34	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1345
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 18:57
Sample Name:	MP-14	**Units:**	µg/L
Lab Code:	R1407413-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9190.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**45**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.9**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.2**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 18:57	
Dibromofluoromethane	104	89-119	9/23/14 18:57	
Toluene-d8	100	87-121	9/23/14 18:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1525
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 03:56
Sample Name:	MW-11	**Units:**	µg/L
Lab Code:	R1407413-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9162.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 03:56	
Dibromofluoromethane	101	89-119	9/23/14 03:56	
Toluene-d8	100	87-121	9/23/14 03:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1540
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 13:35
Sample Name:	FB-091814	**Units:**	µg/L
Lab Code:	R1407413-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9180.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 13:35	
Dibromofluoromethane	101	89-119	9/23/14 13:35	
Toluene-d8	100	87-121	9/23/14 13:35	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1600
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 19:30
Sample Name:	MW-6	**Units:**	µg/L
Lab Code:	R1407413-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9191.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 19:30	
Dibromofluoromethane	103	89-119	9/23/14 19:30	
Toluene-d8	99	87-121	9/23/14 19:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 16:49
Sample Name:	DUP-091814	**Units:**	µg/L
Lab Code:	R1407413-022	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9186.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 16:49	
Dibromofluoromethane	102	89-119	9/23/14 16:49	
Toluene-d8	100	87-121	9/23/14 16:49	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 0925
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 14:43
Sample Name:	MW-37	**Units:**	µg/L
Lab Code:	R1407413-023	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9204.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**8.0**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.38**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/24/14 14:43	
Dibromofluoromethane	103	89-119	9/24/14 14:43	
Toluene-d8	100	87-121	9/24/14 14:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 0941
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 15:15
Sample Name:	MW-30	**Units:**	µg/L
Lab Code:	R1407413-024	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9205.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 15:15	
Dibromofluoromethane	103	89-119	9/24/14 15:15	
Toluene-d8	97	87-121	9/24/14 15:15	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1128
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 15:47
Sample Name:	MW-26	**Units:**	µg/L
Lab Code:	R1407413-025	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9206.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**38**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**3.5**	**J**	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**4.0**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/24/14 15:47	
Dibromofluoromethane	102	89-119	9/24/14 15:47	
Toluene-d8	100	87-121	9/24/14 15:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1135
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 16:19
Sample Name:	MW-18	**Units:**	µg/L
Lab Code:	R1407413-026	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9207.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 16:19	
Dibromofluoromethane	102	89-119	9/24/14 16:19	
Toluene-d8	99	87-121	9/24/14 16:19	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1349
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 06:37
Sample Name:	MW-25	**Units:**	µg/L
Lab Code:	R1407413-027	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9167.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**240**		13	0.75	
79-01-6	Trichloroethene (TCE)	**3.0**	J	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**1.4**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 06:37	
Dibromofluoromethane	102	89-119	9/23/14 06:37	
Toluene-d8	101	87-121	9/23/14 06:37	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1405
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 16:52
Sample Name:	MP-8S	**Units:**	µg/L
Lab Code:	R1407413-028	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9208.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**0.88**	J	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**65**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**59**		5.0	0.22	
75-01-4	Vinyl Chloride	**0.84**	J	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**81**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**6.3**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/24/14 16:52	
Dibromofluoromethane	105	89-119	9/24/14 16:52	
Toluene-d8	101	87-121	9/24/14 16:52	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1500
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 15:12
Sample Name:	MW-28	**Units:**	µg/L
Lab Code:	R1407413-029	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9183.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**36**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**27**		5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**26**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	0.65	J	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 15:12	
Dibromofluoromethane	103	89-119	9/23/14 15:12	
Toluene-d8	100	87-121	9/23/14 15:12	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1535
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 17:24
Sample Name:	MP-8D	**Units:**	µg/L
Lab Code:	R1407413-030	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9209.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 17:24	
Dibromofluoromethane	102	89-119	9/24/14 17:24	
Toluene-d8	97	87-121	9/24/14 17:24	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1555
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 14:08
Sample Name:	FB-091914	**Units:**	µg/L
Lab Code:	R1407413-031	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9181.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 14:08	
Dibromofluoromethane	104	89-119	9/23/14 14:08	
Toluene-d8	100	87-121	9/23/14 14:08	

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Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/20/14 0916
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 17:56
Sample Name:	MW-33	**Units:**	µg/L
Lab Code:	R1407413-032	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9210.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**2.3**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.56**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85-122	9/24/14 17:56	
Dibromofluoromethane	101	89-119	9/24/14 17:56	
Toluene-d8	98	87-121	9/24/14 17:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/20/14 0930
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 14:40
Sample Name:	FB-092014	**Units:**	µg/L
Lab Code:	R1407413-033	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9182.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85-122	9/23/14 14:40	
Dibromofluoromethane	99	89-119	9/23/14 14:40	
Toluene-d8	95	87-121	9/23/14 14:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/22/14 23:38
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411227-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	9/22/14 23:38	
Dibromofluoromethane	103	89-119	9/22/14 23:38	
Toluene-d8	101	87-121	9/22/14 23:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/22/14 23:38
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411227-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	9/22/14 23:38	
Dibromofluoromethane	103	89-119	9/22/14 23:38	
Toluene-d8	101	87-121	9/22/14 23:38	

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/23/14 12:31
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411303-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 12:31	
Dibromofluoromethane	101	89-119	9/23/14 12:31	
Toluene-d8	99	87-121	9/23/14 12:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/23/14 12:31
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411303-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 12:31	
Dibromofluoromethane	101	89-119	9/23/14 12:31	
Toluene-d8	99	87-121	9/23/14 12:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/24/14 12:01
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411389-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 12:01	
Dibromofluoromethane	102	89-119	9/24/14 12:01	
Toluene-d8	101	87-121	9/24/14 12:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/24/14 12:01
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411389-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 12:01	
Dibromofluoromethane	102	89-119	9/24/14 12:01	
Toluene-d8	101	87-121	9/24/14 12:01	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Collected: 9/18/14
Date Received: 9/22/14
Date Analyzed: 9/23/14

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-12
Lab Code: R1407413-013

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW-12MS Matrix Spike RQ1411227-05 Result	Spike Amount	% Rec	MW-12DMS Duplicate Matrix Spike RQ1411227-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	50.6	50.0	101	51.9	50.0	104	74 - 127	3	30
1,1-Dichloroethane (1,1-DCA)	ND	45.1	50.0	90	45.5	50.0	91	74 - 132	1	30
1,1-Dichloroethene (1,1-DCE)	ND	56.5	50.0	113	57.6	50.0	115	72 - 125	2	30
Tetrachloroethene (PCE)	ND	56.3	50.0	113	55.8	50.0	112	67 - 137	<1	30
Trichloroethene (TCE)	ND	56.4	50.0	113	55.6	50.0	111	62 - 142	1	30
Vinyl Chloride	ND	41.5	50.0	83	42.5	50.0	85	60 - 157	2	30
cis-1,2-Dichloroethene	ND	48.7	50.0	97	49.2	50.0	98	72 - 133	1	30
trans-1,2-Dichloroethene	ND	51.9	50.0	104	51.4	50.0	103	77 - 125	<1	30

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

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/22/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412453

Lab Control Sample
RQ1411227-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.2	20.0	106	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	76 - 128
1,1-Dichloroethene (1,1-DCE)	23.0	20.0	115	74 - 135
Tetrachloroethene (PCE)	23.4	20.0	117	69 - 124
Trichloroethene (TCE)	24.7	20.0	123	76 - 123
Vinyl Chloride	18.1	20.0	90	69 - 136
cis-1,2-Dichloroethene	20.2	20.0	101	80 - 121
trans-1,2-Dichloroethene	21.3	20.0	106	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/22/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412453

Analyte Name	Lab Control Sample RQ1411227-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.2	20.0	106	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	76 - 128
1,1-Dichloroethene (1,1-DCE)	23.0	20.0	115	74 - 135
Tetrachloroethene (PCE)	23.4	20.0	117	69 - 124
Trichloroethene (TCE)	24.7	20.0	123	76 - 123
Vinyl Chloride	18.1	20.0	90	69 - 136
cis-1,2-Dichloroethene	20.2	20.0	101	80 - 121
trans-1,2-Dichloroethene	21.3	20.0	106	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/23/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412669

Lab Control Sample
RQ1411303-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.4	20.0	102	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.5	20.0	92	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	23.0	20.0	115	69 - 124
Trichloroethene (TCE)	22.1	20.0	111	76 - 123
Vinyl Chloride	16.9	20.0	84	69 - 136
cis-1,2-Dichloroethene	19.8	20.0	99	80 - 121
trans-1,2-Dichloroethene	20.6	20.0	103	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/23/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412669

Lab Control Sample
RQ1411303-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.4	20.0	102	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.5	20.0	92	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	23.0	20.0	115	69 - 124
Trichloroethene (TCE)	22.1	20.0	111	76 - 123
Vinyl Chloride	16.9	20.0	84	69 - 136
cis-1,2-Dichloroethene	19.8	20.0	99	80 - 121
trans-1,2-Dichloroethene	20.6	20.0	103	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/24/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412923

Analyte Name	Lab Control Sample RQ1411389-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	71 - 123
1,1-Dichloroethane (1,1-DCA)	17.9	20.0	89	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	22.6	20.0	113	69 - 124
Trichloroethene (TCE)	22.8	20.0	114	76 - 123
Vinyl Chloride	17.0	20.0	85	69 - 136
cis-1,2-Dichloroethene	20.1	20.0	100	80 - 121
trans-1,2-Dichloroethene	20.1	20.0	101	78 - 124

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

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

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/24/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412923

Lab Control Sample
RQ1411389-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	71 - 123
1,1-Dichloroethane (1,1-DCA)	17.9	20.0	89	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	22.6	20.0	113	69 - 124
Trichloroethene (TCE)	22.8	20.0	114	76 - 123
Vinyl Chloride	17.0	20.0	85	69 - 136
cis-1,2-Dichloroethene	20.1	20.0	100	80 - 121
trans-1,2-Dichloroethene	20.1	20.0	101	78 - 124

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

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

September 30, 2014

Service Request No: R1407413

Ms. Tammy Yuan
Verina Consulting Group, LLC
220 Davidson Avenue, Suite 105
Somerset, NJ 08873

Laboratory Results for: Dover - Kirkwood/5101.0002

Dear Ms. Yuan:

Enclosed are the results of the sample(s) submitted to our laboratory on September 22, 2014. For your reference, these analyses have been assigned our service request number **R1407413**.

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

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

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475
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ALS Environmental

SDG NARRATIVE

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

CASE NARRATIVE

Client:	Verina Consulting	**Service Request:**	R1407413
Project:	Kirkwood	**Project Number:**	5101.002
Sample Matrix:	Water	**Date Received:**	09/22/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 09/17-20/14 and received at ALS Rochester on 09/22/14 at a cooler temperature of 9.6 °C in good condition except as noted on the cooler receipt and preservation check form. The client was notified of the out of temperature cooler and the samples analyzed.

Volatile Organics

Water samples were analyzed for a site list of Volatile Organics by Method 8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Vinyl chloride on the 09/22/14 CCV. All positive detections for this compounds for samples associated with this CCV should be considered as estimated.

All Internal Standard Areas were within QC limits.

The Laboratory Control Sample (LCS) recoveries were all acceptable.

All surrogate standard recoveries were within acceptable limits.

Site specific QC was performed on MW-12 as requested. All Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries and RPD's were acceptable.

Various compounds for MW-7A have been flagged with an "E" as being outside the calibration range of the instrument. The sample was repeated at a dilutions and both sets of data have been reported out.

The Method Blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 5101.0002	Batch Complete: Yes	Date Revised:	
Submission: R1407413	Diskette Requested: No	Date Due: 10/13/14	
Client: Verina Consulting Group, LLC	Date: 9/22/14	Protocol: SW846	
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:	
Project: Dover - Kirkwood	Chain of Custody: Present/Absent:	SDG #: IJ-10	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1407413-001	TRIP BLANK	Water	8260C	9/17/14	9/22/14			
R1407413-002	IJ-10	Water	8260C	9/17/14	9/22/14			
R1407413-003	MP-5	Water	8260C	9/17/14	9/22/14			
R1407413-004	IJ-1	Water	8260C	9/17/14	9/22/14			
R1407413-005	MP-4	Water	8260C	9/17/14	9/22/14			
R1407413-006	MP-6S	Water	8260C	9/17/14	9/22/14			
R1407413-007	IJ-4	Water	8260C	9/17/14	9/22/14			
R1407413-008	MW-7A	Water	8260C	9/17/14	9/22/14			
R1407413-009	MP-6D	Water	8260C	9/17/14	9/22/14			
R1407413-010	MP-11	Water	8260C	9/17/14	9/22/14			
R1407413-011	FB-091714	Water	8260C	9/17/14	9/22/14			
R1407413-012	MP-13	Water	8260C	9/17/14	9/22/14			
R1407413-013QC	MW-12	Water	8260C	9/18/14	9/22/14			
R1407413-014	MP-30	Water	8260C	9/18/14	9/22/14			
R1407413-015	MW-16	Water	8260C	9/18/14	9/22/14			
R1407413-016	MP-12	Water	8260C	9/18/14	9/22/14			
R1407413-017	IJ-5	Water	8260C	9/18/14	9/22/14			
R1407413-018	MP-14	Water	8260C	9/18/14	9/22/14			
R1407413-019	MW-11	Water	8260C	9/18/14	9/22/14			
R1407413-020	FB-091814	Water	8260C	9/18/14	9/22/14			
R1407413-021	MW-6	Water	8260C	9/18/14	9/22/14			
R1407413-022	DUP-091814	Water	8260C	9/18/14	9/22/14			
R1407413-023	MW-37	Water	8260C	9/19/14	9/22/14			
R1407413-024	MW-30	Water	8260C	9/19/14	9/22/14			
R1407413-025	MW-26	Water	8260C	9/19/14	9/22/14			
R1407413-026	MW-18	Water	8260C	9/19/14	9/22/14			
R1407413-027	MW-25	Water	8260C	9/19/14	9/22/14			
R1407413-028	MP-8S	Water	8260C	9/19/14	9/22/14			
R1407413-029	MW-28	Water	8260C	9/19/14	9/22/14			
R1407413-030	MP-8D	Water	8260C	9/19/14	9/22/14			
R1407413-031	FB-091914	Water	8260C	9/19/14	9/22/14			
R1407413-032	MW-33	Water	8260C	9/20/14	9/22/14			
R1407413-033	FB-092014	Water	8260C	9/20/14	9/22/14			

Folder Comments:

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REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to
http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

ALS Environmental - Rochester, NY
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18381

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 3

Project Name: Dover - Kirkwood	Project Number: 510.0002
Project Manager: Tammy Yuan	Report CC: Sarah Tufaro
Company/Address: Verina Consulting Group, LLC 200 Davidson Ave., Suite 105 Somerset, NJ ~~07403~~ 08873	
Phone #: 732-412-7576	Email: stufaro@vcg-llc.com
Sampler's Signature: [signature]	Sampler's Printed Name: Sarah Tufaro

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

PRESERVATIVE: 1/6

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	SSPL VOCs						REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		9/10/14	11:00	TB	3								X						
IJ-10	*	9/17/14	09:30	GW	3								X						
MP-5			09:45		3								X						
IJ-1	*		11:02		3								X						
MP-4			11:10		3								X						
MP-6S			12:50		3								X						
IJ-4	*		13:05		3								X						
MW-7A	*		15:15		3								X						
MP-6D			15:35		3								X						
MP-11	*		16:35	GW	3								X						
FB-091714		9/17/14	16:55	FB	3								X						Field Yank

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

SPECIAL INSTRUCTIONS/COMMENTS
Metals - SSPL VOCs - PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, VC

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE: _____

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

INVOICE INFORMATION
PO # 510.0002
BILL TO: Verina

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	
Printed Name: Sarah Tufaro	Printed Name: Greg Waters	Printed Name	Printed Name	Printed Name	
Firm: Verina	Firm: ALS	Firm	Firm	Firm	
Date/Time: 9/22/14 10:35	Date/Time: 9/22/14 0810	Date/Time	Date/Time	Date/Time	

R1407413 5
Verina Consulting Group, LLC
Dover - Kirkwood

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18378

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

Project Name: Dover-kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC: Sarah Tufaro
Company/Address: Verina Consulting Group, LLC 220 Davidson Ave, Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: stufaro@vcg-llc.com
Sampler's Signature:	Sampler's Printed Name: Sarah Tufaro

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1,8

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	SSPL VOCs						REMARKS/ ALTERNATE DESCRIPTION
MP-13		9/17/14	1735	GW	3								X						Time = 17:35
MW-12 (MS/MSD)		9/18/14	0920		9								X						Matrix spike + duplicate
MP-30			0945		3								X						
MW-16			1145		3								X						
MP-17	*		1150		3								X						
IJ-5			1330		3								X						ID = IJ-5
MP-14			1345	"	3								X						
MW-11	*		1525	GW	3								X						
FB-091814			1540	FB	3								X						
MW-6		"	1600	GW	3								X						
DUP-091814		9/18/14	—	GW	3								X						Blind duplicate

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

SPECIAL INSTRUCTIONS/COMMENTS
Metals SSPL VOCs = PCE, TCE, 1,1,1-TCA
1,1-DCA, 1,1-DCE, cis-1,2-DCE
Trans-1,2-DCE, VC

See OAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: _____

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

INVOICE INFORMATION
PO # 5101.0002
BILL TO: VERINA

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Sarah Tufaro	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Verina	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 9/20/14 10:35	Date/Time: 9/22/14 0840	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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

R1407413 5
Verina Consulting Group, LLC
Dover - Kirkwood

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18383

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 3 OF 3

Project Name: Dover-Kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC: Sarah Tufaro
Company/Address: Verina Consulting Group, LLC 220 Davidson Ave., Suite 105 Somerset, NJ 08873	
Phone #: 732-412-7576	Email: stufaro@vcghlc.com
Sampler's Signature:	Sampler's Printed Name: Sarah Tufaro

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

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOCs	REMARKS/ ALTERNATE DESCRIPTION
MW-37		9/19/14	09:05	GW	3	X	
MW-30			09:41		3	X	
MW-26			11:28		5	X	
MW-18			11:35		3	X	
MW-25	*		13:49		3	X	
MP-8S			14:05		3	X	
MW-28	*		15:20		3	X	
MP-8D			15:35	GW	3	X	
FB-091914		9/19/14	15:55	FB	3	X	field blank
MW-33		9/20/14	09:16	GW	3	X	
FB-092014		9/20/14	09:30	FB	3	X	field blank

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

SPECIAL INSTRUCTIONS/COMMENTS
Metals
SSPL VOCs = PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, VC

See OAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE

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

INVOICE INFORMATION
PO # 5101.0002
BILL TO: Verina

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Sarah Tufaro	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Verina	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 9/20/14 10:35	Date/Time: 9/20/14 0816	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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

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Cooler Receipt and Preservation Check Form

Project/Client Versar Folder Number 14-7413

Cooler received on 9/22/14 by: [illegible]

COURIER: ALS ~~UPS~~ FEDEX VELOCITY CLIENT

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

8. Temperature Readings Date: 9/22/14 Time: 0815 ID: (IR#3) IR#4 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	9.5						
Correction Factor (°C)	+0.1						
Corrected Temp (°C)	9.6°						
Within 0-6°C?	Y (N)	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ (Ice melted) Poorly Packed Same Day Rule 9/22/14

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

All samples held in storage location: R-002 by [illegible] on 9/22/14 at 0820

5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: [illegible] 9/22/14

Cooler Breakdown: Date: 9/22 Time: 1937 by: JH

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? ~~YES~~ NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated ~~N/A~~

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	[illegible] 411357O	8/15				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 4-162.052

Other Comments:

Headspace: MP-60 (1vial)

PC Secondary Review: [illegible] 9/24/14

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

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1407413-001.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-001.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-001.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-002.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-002.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-002.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-003.01					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-003.02					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1447	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-003.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-004.01					

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-004.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-004.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-005.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/22/14	1425	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-005.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-005.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-006.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/22/14	1425	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-006.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-006.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-007.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-007.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-007.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-008.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-008.02					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/23/14	1418	In Lab / KRUEST	
		9/24/14	1447	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-008.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-009.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/22/14	1425	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-009.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-009.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-010.01					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-010.02					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-010.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-011.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-011.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-011.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-012.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-012.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-012.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-013.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.04					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.05					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.06					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.07					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.08					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-013.09					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-014.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-014.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-014.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-015.01					

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-015.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-015.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-016.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-016.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-016.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-017.01					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-017.02					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/24/14	1447	In Lab / KRUEST	
		9/24/14	1723	R-001-S12 / KRUEST	
R1407413-017.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-018.01					
	8260C				

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-018.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-018.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-019.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-019.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-019.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-020.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-020.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-020.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-021.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-021.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-021.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-022.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-022.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-022.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-023.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-023.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-023.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-024.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		9/23/14	1648	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-024.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-024.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-025.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1648	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-025.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-025.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-026.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1648	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-026.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-026.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-027.01					

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Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-027.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-027.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-028.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1648	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-028.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-028.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-029.01					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1424	In Lab / KRUEST	
		9/22/14	1714	R-001-S12 / KRUEST	
R1407413-029.02					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-029.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-030.01					

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Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1648	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-030.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-030.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-031.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-031.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-031.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-032.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1648	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
		9/24/14	1448	In Lab / KRUEST	
		9/24/14	1724	R-001-S12 / KRUEST	
R1407413-032.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-032.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	

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Service Request: R1407413

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1407413-033.01					
	8260C				
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
		9/22/14	1210	R-001-S12 / BWOJTASIEWICZ	
		9/23/14	1418	In Lab / KRUEST	
		9/23/14	1724	R-001-S12 / DLIPANI	
R1407413-033.02					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	
R1407413-033.03					
		9/22/14	1036	SMO / JSEWARD	
		9/22/14	1036	R-001 / JSEWARD	

ALS Environmental

VOLATILE ORGANICS
QC SUMMARY

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Collected: 9/18/14
Date Received: 9/22/14
Date Analyzed: 9/23/14

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-12
Lab Code: R1407413-013

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW-12MS Matrix Spike RQ1411227-05 Result	Spike Amount	% Rec	MW-12DMS Duplicate Matrix Spike RQ1411227-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	50.6	50.0	101	51.9	50.0	104	74 - 127	3	30
1,1-Dichloroethane (1,1-DCA)	ND	45.1	50.0	90	45.5	50.0	91	74 - 132	1	30
1,1-Dichloroethene (1,1-DCE)	ND	56.5	50.0	113	57.6	50.0	115	72 - 125	2	30
Tetrachloroethene (PCE)	ND	56.3	50.0	113	55.8	50.0	112	67 - 137	<1	30
Trichloroethene (TCE)	ND	56.4	50.0	113	55.6	50.0	111	62 - 142	1	30
Vinyl Chloride	ND	41.5	50.0	83	42.5	50.0	85	60 - 157	2	30
cis-1,2-Dichloroethene	ND	48.7	50.0	97	49.2	50.0	98	72 - 133	1	30
trans-1,2-Dichloroethene	ND	51.9	50.0	104	51.4	50.0	103	77 - 125	<1	30

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

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/22/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412453

Lab Control Sample
RQ1411227-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.2	20.0	106	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	76 - 128
1,1-Dichloroethene (1,1-DCE)	23.0	20.0	115	74 - 135
Tetrachloroethene (PCE)	23.4	20.0	117	69 - 124
Trichloroethene (TCE)	24.7	20.0	123	76 - 123
Vinyl Chloride	18.1	20.0	90	69 - 136
cis-1,2-Dichloroethene	20.2	20.0	101	80 - 121
trans-1,2-Dichloroethene	21.3	20.0	106	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/22/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412453

Lab Control Sample
RQ1411227-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.2	20.0	106	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	76 - 128
1,1-Dichloroethene (1,1-DCE)	23.0	20.0	115	74 - 135
Tetrachloroethene (PCE)	23.4	20.0	117	69 - 124
Trichloroethene (TCE)	24.7	20.0	123	76 - 123
Vinyl Chloride	18.1	20.0	90	69 - 136
cis-1,2-Dichloroethene	20.2	20.0	101	80 - 121
trans-1,2-Dichloroethene	21.3	20.0	106	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/23/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412669

Lab Control Sample
RQ1411303-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.4	20.0	102	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.5	20.0	92	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	23.0	20.0	115	69 - 124
Trichloroethene (TCE)	22.1	20.0	111	76 - 123
Vinyl Chloride	16.9	20.0	84	69 - 136
cis-1,2-Dichloroethene	19.8	20.0	99	80 - 121
trans-1,2-Dichloroethene	20.6	20.0	103	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/23/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412669

Analyte Name	Lab Control Sample RQ1411303-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.4	20.0	102	71 - 123
1,1-Dichloroethane (1,1-DCA)	18.5	20.0	92	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	23.0	20.0	115	69 - 124
Trichloroethene (TCE)	22.1	20.0	111	76 - 123
Vinyl Chloride	16.9	20.0	84	69 - 136
cis-1,2-Dichloroethene	19.8	20.0	99	80 - 121
trans-1,2-Dichloroethene	20.6	20.0	103	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/24/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412923

Analyte Name	Lab Control Sample RQ1411389-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	71 - 123
1,1-Dichloroethane (1,1-DCA)	17.9	20.0	89	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	22.6	20.0	113	69 - 124
Trichloroethene (TCE)	22.8	20.0	114	76 - 123
Vinyl Chloride	17.0	20.0	85	69 - 136
cis-1,2-Dichloroethene	20.1	20.0	100	80 - 121
trans-1,2-Dichloroethene	20.1	20.0	101	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1407413
Date Analyzed: 9/24/14

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

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 412923

Analyte Name	Lab Control Sample RQ1411389-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	71 - 123
1,1-Dichloroethane (1,1-DCA)	17.9	20.0	89	76 - 128
1,1-Dichloroethene (1,1-DCE)	22.6	20.0	113	74 - 135
Tetrachloroethene (PCE)	22.6	20.0	113	69 - 124
Trichloroethene (TCE)	22.8	20.0	114	76 - 123
Vinyl Chloride	17.0	20.0	85	69 - 136
cis-1,2-Dichloroethene	20.1	20.0	100	80 - 121
trans-1,2-Dichloroethene	20.1	20.0	101	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/22/14 23:38
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1411227-04	**File ID:**	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1411227-03	I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D\	9/22/14 22:33
TRIP BLANK	R1407413-001	I:\ACQUDATA\MSVOA12\DATA\092214\M9155.D\	9/23/14 00:10
MP-6D	R1407413-009	I:\ACQUDATA\MSVOA12\DATA\092214\M9159.D\	9/23/14 02:19
MW-12	R1407413-013	I:\ACQUDATA\MSVOA12\DATA\092214\M9160.D\	9/23/14 02:51
MP-6S	R1407413-006	I:\ACQUDATA\MSVOA12\DATA\092214\M9166.D\	9/23/14 06:05
MP-4	R1407413-005	I:\ACQUDATA\MSVOA12\DATA\092214\M9169.D\	9/23/14 07:42
MW-12MS	RQ1411227-05	I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D\	9/23/14 08:14
MW-12DMS	RQ1411227-06	I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D\	9/23/14 08:46

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/22/14 23:38
Sample Matrix:	Water		

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

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1411227-04	**File ID:**	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1411227-03	I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D\	9/22/14 22:33
IJ-10	R1407413-002	I:\ACQUDATA\MSVOA12\DATA\092214\M9156.D\	9/23/14 00:42
IJ-1	R1407413-004	I:\ACQUDATA\MSVOA12\DATA\092214\M9157.D\	9/23/14 01:14
IJ-4	R1407413-007	I:\ACQUDATA\MSVOA12\DATA\092214\M9158.D\	9/23/14 01:46
MP-12	R1407413-016	I:\ACQUDATA\MSVOA12\DATA\092214\M9161.D\	9/23/14 03:24
MW-11	R1407413-019	I:\ACQUDATA\MSVOA12\DATA\092214\M9162.D\	9/23/14 03:56
MW-7A	R1407413-008	I:\ACQUDATA\MSVOA12\DATA\092214\M9164.D\	9/23/14 05:00
MW-25	R1407413-027	I:\ACQUDATA\MSVOA12\DATA\092214\M9167.D\	9/23/14 06:37

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/23/14 12:31
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1411303-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1411303-03	I:\ACQUDATA\msvoa12\Data\092314\M9176.D\	9/23/14 11:27
FB-091714	R1407413-011	I:\ACQUDATA\msvoa12\Data\092314\M9179.D\	9/23/14 13:03
FB-091814	R1407413-020	I:\ACQUDATA\msvoa12\Data\092314\M9180.D\	9/23/14 13:35
FB-091914	R1407413-031	I:\ACQUDATA\msvoa12\Data\092314\M9181.D\	9/23/14 14:08
FB-092014	R1407413-033	I:\ACQUDATA\msvoa12\Data\092314\M9182.D\	9/23/14 14:40
MP-30	R1407413-014	I:\ACQUDATA\msvoa12\Data\092314\M9185.D\	9/23/14 16:17
DUP-091814	R1407413-022	I:\ACQUDATA\msvoa12\Data\092314\M9186.D\	9/23/14 16:49
MP-13	R1407413-012	I:\ACQUDATA\msvoa12\Data\092314\M9187.D\	9/23/14 17:21
MW-16	R1407413-015	I:\ACQUDATA\msvoa12\Data\092314\M9188.D\	9/23/14 17:53
MP-14	R1407413-018	I:\ACQUDATA\msvoa12\Data\092314\M9190.D\	9/23/14 18:57
MW-6	R1407413-021	I:\ACQUDATA\msvoa12\Data\092314\M9191.D\	9/23/14 19:30

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/23/14 12:31
Sample Matrix:	Water		

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

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1411303-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1411303-03	I:\ACQUDATA\msvoa12\Data\092314\M9176.D\	9/23/14 11:27
MW-28	R1407413-029	I:\ACQUDATA\msvoa12\Data\092314\M9183.D\	9/23/14 15:12
MP-11	R1407413-010	I:\ACQUDATA\msvoa12\Data\092314\M9184.D\	9/23/14 15:44

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/24/14 12:01
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1411389-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1411389-03	I:\ACQUDATA\msvoa12\Data\092414\M9197.D\	9/24/14 10:56
IJ-5	R1407413-017	I:\ACQUDATA\msvoa12\Data\092414\M9200.D\	9/24/14 12:34
MP-5	R1407413-003	I:\ACQUDATA\msvoa12\Data\092414\M9202.D\	9/24/14 13:38
MW-37	R1407413-023	I:\ACQUDATA\msvoa12\Data\092414\M9204.D\	9/24/14 14:43
MW-30	R1407413-024	I:\ACQUDATA\msvoa12\Data\092414\M9205.D\	9/24/14 15:15
MW-26	R1407413-025	I:\ACQUDATA\msvoa12\Data\092414\M9206.D\	9/24/14 15:47
MW-18	R1407413-026	I:\ACQUDATA\msvoa12\Data\092414\M9207.D\	9/24/14 16:19
MP-8S	R1407413-028	I:\ACQUDATA\msvoa12\Data\092414\M9208.D\	9/24/14 16:52
MP-8D	R1407413-030	I:\ACQUDATA\msvoa12\Data\092414\M9209.D\	9/24/14 17:24
MW-33	R1407413-032	I:\ACQUDATA\msvoa12\Data\092414\M9210.D\	9/24/14 17:56

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/24/14 12:01
Sample Matrix:	Water		

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

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1411389-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1411389-03	I:\ACQUDATA\msvoa12\Data\092414\M9197.D\	9/24/14 10:56
MW-7ADL	R1407413-008	I:\ACQUDATA\msvoa12\Data\092414\M9201.D\	9/24/14 13:06

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/09/14 14:37

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\090914\M8728.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot:

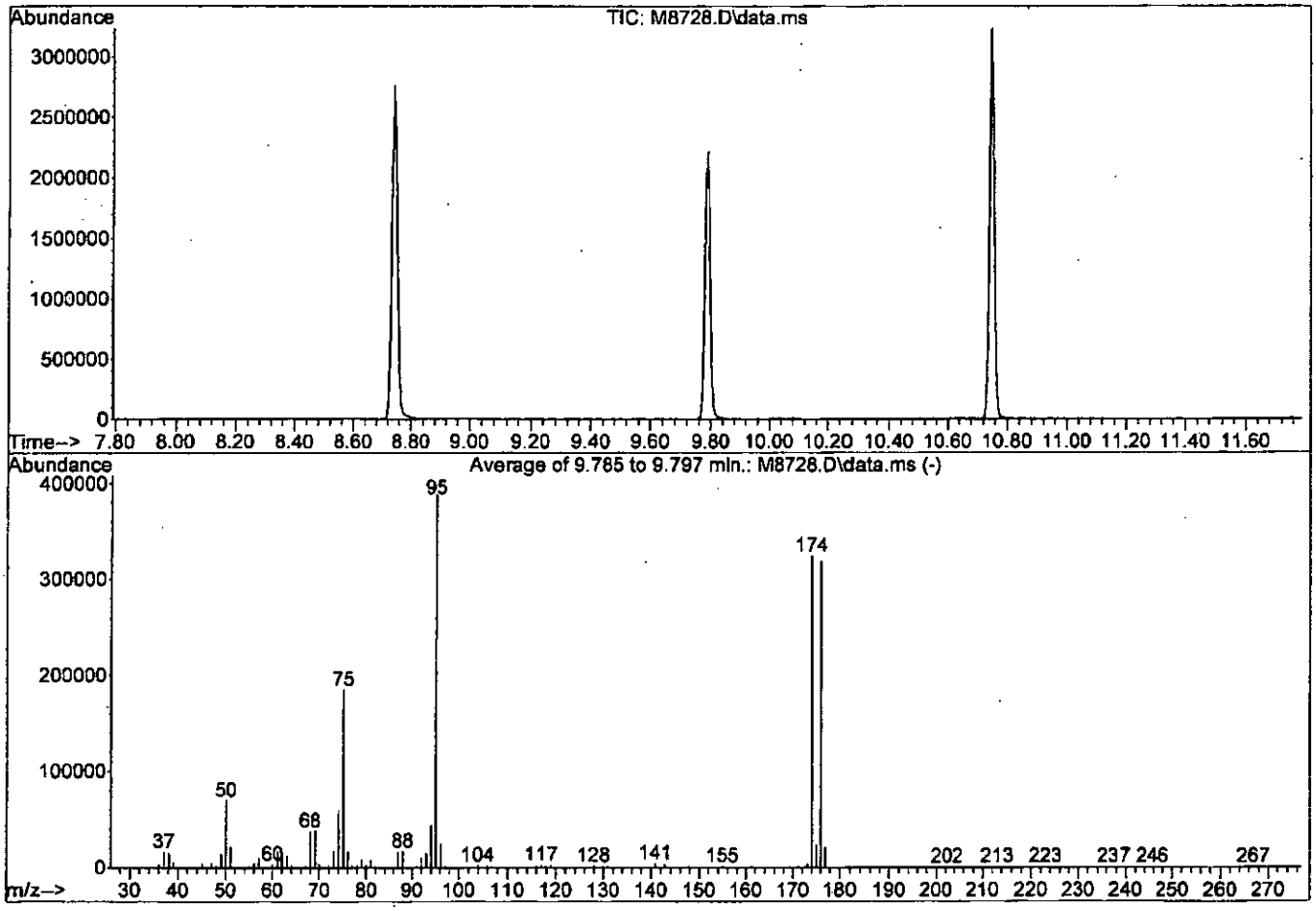
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	17.8	69235	Pass
75	95	30	60	47.5	184157	Pass
95	95	100	100	100.0	388011	Pass
96	95	5	9	6.3	24410	Pass
173	174	0	2	0.8	2686	Pass
174	95	50	120	83.4	323669	Pass
175	174	5	9	7.1	23053	Pass
176	174	95	101	98.3	318059	Pass
177	176	5	9	6.6	20833	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8730.D\	9/09/14 15:42	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8731.D\	9/09/14 16:36	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8732.D\	9/09/14 17:09	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8733.D\	9/09/14 17:41	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8734.D\	9/09/14 18:13	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8735.D\	9/09/14 18:45	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8736.D\	9/09/14 19:18	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\090914\M8737.D\	9/09/14 19:50	

Data Path : I:\ACQUDATA\msvoa12\Data\090914\
Data File : M8728.D
Acq On : 9 Sep 2014 2:37 pm
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Fri Sep 05 08:48:55 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	69235	PASS
75	95	30	60	47.5	184157	PASS
95	95	100	100	100.0	388011	PASS
96	95	5	9	6.3	24410	PASS
173	174	0.00	2	0.8	2686	PASS
174	95	50	120	83.4	323669	PASS
175	174	5	9	7.1	23053	PASS
176	174	95	101	98.3	318059	PASS
177	176	5	9	6.6	20833	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14 21:28

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\092214\M9150.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 412453

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.75	63365	Pass
75	95	30	60	45.84	184448	Pass
95	95	100	100	100.00	402389	Pass
96	95	5	9	7.00	28181	Pass
173	174	0	2	0.63	2269	Pass
174	95	50	120	89.50	360125	Pass
175	174	5	9	6.96	25059	Pass
176	174	95	101	98.70	355456	Pass
177	176	5	9	6.14	21808	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1411227-02	I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\	9/22/14 22:01	
Lab Control Sample	RQ1411227-03	I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D\	9/22/14 22:33	
Method Blank	RQ1411227-04	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\	9/22/14 23:38	
TRIP BLANK	R1407413-001	I:\ACQUDATA\MSVOA12\DATA\092214\M9155.D\	9/23/14 00:10	
MP-6D	R1407413-009	I:\ACQUDATA\MSVOA12\DATA\092214\M9159.D\	9/23/14 02:19	
MW-12	R1407413-013	I:\ACQUDATA\MSVOA12\DATA\092214\M9160.D\	9/23/14 02:51	
MP-6S	R1407413-006	I:\ACQUDATA\MSVOA12\DATA\092214\M9166.D\	9/23/14 06:05	
MP-4	R1407413-005	I:\ACQUDATA\MSVOA12\DATA\092214\M9169.D\	9/23/14 07:42	
MW-12MS	RQ1411227-05	I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D\	9/23/14 08:14	
MW-12DMS	RQ1411227-06	I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D\	9/23/14 08:46	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14 21:28

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\092214\M9150.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 412453

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.75	63365	Pass
75	95	30	60	45.84	184448	Pass
95	95	100	100	100.00	402389	Pass
96	95	5	9	7.00	28181	Pass
173	174	0	2	0.63	2269	Pass
174	95	50	120	89.50	360125	Pass
175	174	5	9	6.96	25059	Pass
176	174	95	101	98.70	355456	Pass
177	176	5	9	6.14	21808	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1411227-02	I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\	9/22/14 22:01	
Lab Control Sample	RQ1411227-03	I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D\	9/22/14 22:33	
Method Blank	RQ1411227-04	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\	9/22/14 23:38	
IJ-10	R1407413-002	I:\ACQUDATA\MSVOA12\DATA\092214\M9156.D\	9/23/14 00:42	
IJ-1	R1407413-004	I:\ACQUDATA\MSVOA12\DATA\092214\M9157.D\	9/23/14 01:14	
IJ-4	R1407413-007	I:\ACQUDATA\MSVOA12\DATA\092214\M9158.D\	9/23/14 01:46	
MP-12	R1407413-016	I:\ACQUDATA\MSVOA12\DATA\092214\M9161.D\	9/23/14 03:24	
MW-11	R1407413-019	I:\ACQUDATA\MSVOA12\DATA\092214\M9162.D\	9/23/14 03:56	
MW-7A	R1407413-008	I:\ACQUDATA\MSVOA12\DATA\092214\M9164.D\	9/23/14 05:00	
MW-25	R1407413-027	I:\ACQUDATA\MSVOA12\DATA\092214\M9167.D\	9/23/14 06:37	

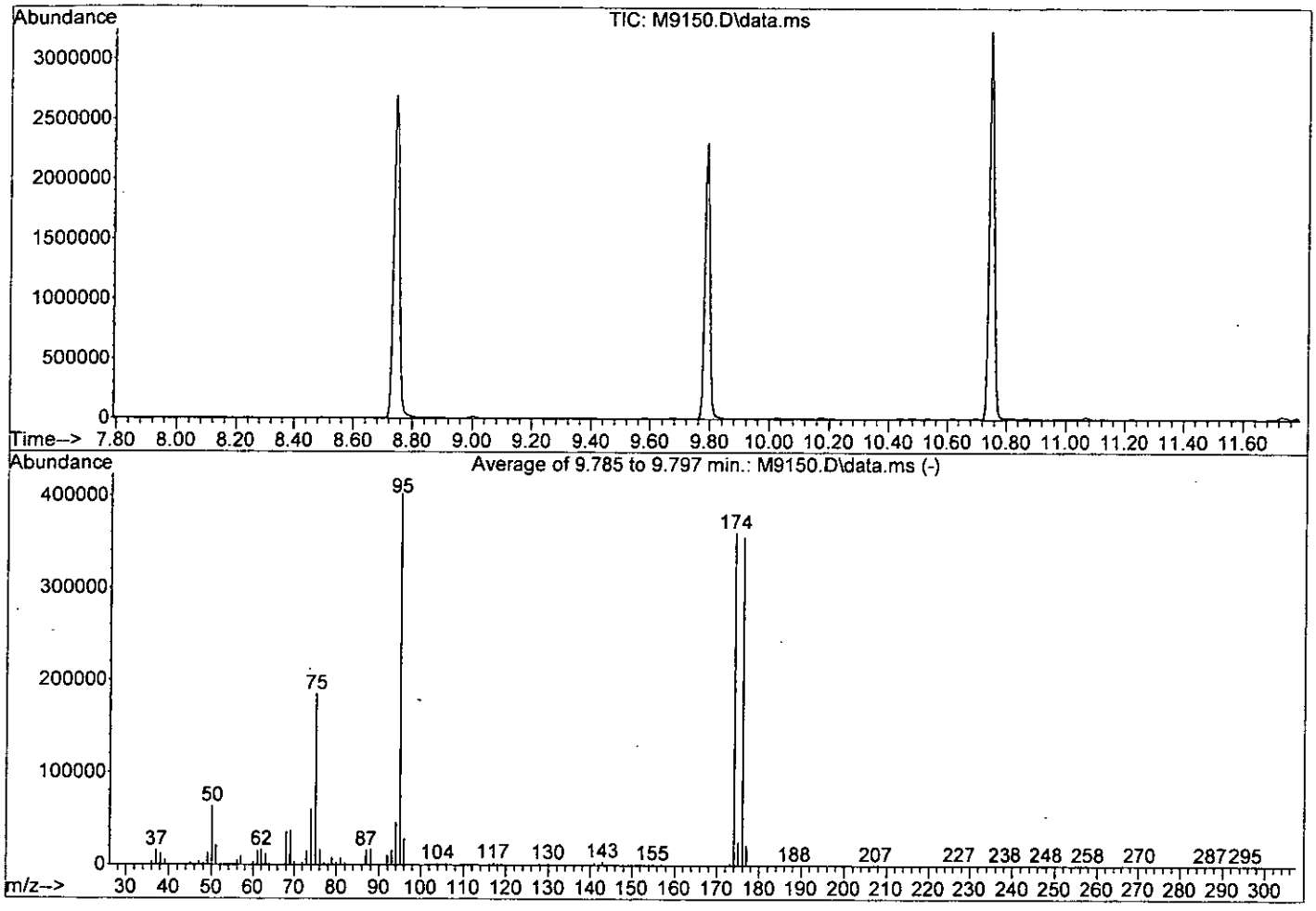
BFB

Data Path : I:\ACQUDATA\msvoa12\Data\092214\
Data File : M9150.D
Acq On : 22 Sep 2014 9:28 pm
Operator : K.Ruest
Sample : TUNE LQ 1411227-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: INTP60.P

KR 9/23/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Sep 10 10:41:23 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	63365	PASS
75	95	30	60	45.8	184448	PASS
95	95	100	100	100.0	402389	PASS
96	95	5	9	7.0	28181	PASS
173	174	0.00	2	0.6	2269	PASS
174	95	50	120	89.5	360125	PASS
175	174	5	9	7.0	25059	PASS
176	174	95	101	98.7	355456	PASS
177	176	5	9	6.1	21808	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14 10:23

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9174.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 412669

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.62	59523	Pass
75	95	30	60	46.32	176469	Pass
95	95	100	100	100.00	380949	Pass
96	95	5	9	6.62	25213	Pass
173	174	0	2	0.81	2779	Pass
174	95	50	120	90.13	343360	Pass
175	174	5	9	7.85	26952	Pass
176	174	95	101	99.35	341120	Pass
177	176	5	9	6.50	22160	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1411303-02	I:\ACQUDATA\msvoa12\Data\092314\M9175.D\	9/23/14 10:55	
Lab Control Sample	RQ1411303-03	I:\ACQUDATA\msvoa12\Data\092314\M9176.D\	9/23/14 11:27	
Method Blank	RQ1411303-04	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\	9/23/14 12:31	
FB-091714	R1407413-011	I:\ACQUDATA\msvoa12\Data\092314\M9179.D\	9/23/14 13:03	
FB-091814	R1407413-020	I:\ACQUDATA\msvoa12\Data\092314\M9180.D\	9/23/14 13:35	
FB-091914	R1407413-031	I:\ACQUDATA\msvoa12\Data\092314\M9181.D\	9/23/14 14:08	
FB-092014	R1407413-033	I:\ACQUDATA\msvoa12\Data\092314\M9182.D\	9/23/14 14:40	
MP-30	R1407413-014	I:\ACQUDATA\msvoa12\Data\092314\M9185.D\	9/23/14 16:17	
DUP-091814	R1407413-022	I:\ACQUDATA\msvoa12\Data\092314\M9186.D\	9/23/14 16:49	
MP-13	R1407413-012	I:\ACQUDATA\msvoa12\Data\092314\M9187.D\	9/23/14 17:21	
MW-16	R1407413-015	I:\ACQUDATA\msvoa12\Data\092314\M9188.D\	9/23/14 17:53	
MP-14	R1407413-018	I:\ACQUDATA\msvoa12\Data\092314\M9190.D\	9/23/14 18:57	
MW-6	R1407413-021	I:\ACQUDATA\msvoa12\Data\092314\M9191.D\	9/23/14 19:30	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14 10:23

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9174.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 412669

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.62	59523	Pass
75	95	30	60	46.32	176469	Pass
95	95	100	100	100.00	380949	Pass
96	95	5	9	6.62	25213	Pass
173	174	0	2	0.81	2779	Pass
174	95	50	120	90.13	343360	Pass
175	174	5	9	7.85	26952	Pass
176	174	95	101	99.35	341120	Pass
177	176	5	9	6.50	22160	Pass

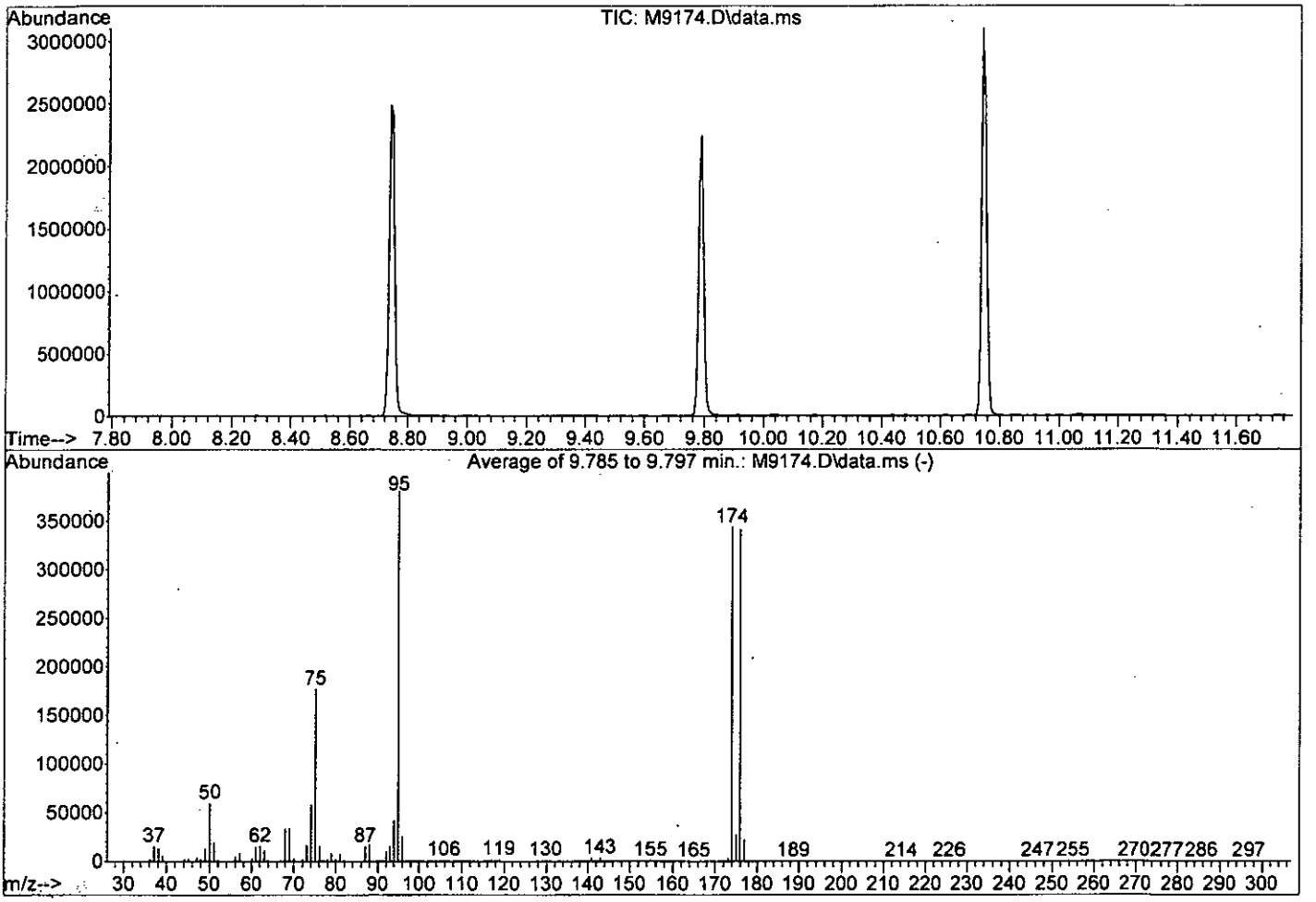
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1411303-02	I:\ACQUDATA\msvoa12\Data\092314\M9175.D\	9/23/14 10:55	
Lab Control Sample	RQ1411303-03	I:\ACQUDATA\msvoa12\Data\092314\M9176.D\	9/23/14 11:27	
Method Blank	RQ1411303-04	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\	9/23/14 12:31	
MW-28	R1407413-029	I:\ACQUDATA\msvoa12\Data\092314\M9183.D\	9/23/14 15:12	
MP-11	R1407413-010	I:\ACQUDATA\msvoa12\Data\092314\M9184.D\	9/23/14 15:44	

Data Path : I:\ACQUDATA\msvoa12\Data\092314\
Data File : M9174.D
Acq On : 23 Sep 2014 10:23 am
Operator : K.Ruest
Sample : TUNE RG1411303-01
Misc :
ALS Vial : 2 Sample Multiplier: 1

KR 9/23/14

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Sep 10 10:41:23 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	59523	PASS
75	95	30	60	46.3	176469	PASS
95	95	100	100	100.0	380949	PASS
96	95	5	9	6.6	25213	PASS
173	174	0.00	2	0.8	2779	PASS
174	95	50	120	90.1	343360	PASS
175	174	5	9	7.8	26952	PASS
176	174	95	101	99.3	341120	PASS
177	176	5	9	6.5	22160	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/24/14 09:52

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\092414\M9195.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 412923

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.66	57275	Pass
75	95	30	60	45.79	167437	Pass
95	95	100	100	100.00	365653	Pass
96	95	5	9	6.69	24470	Pass
173	174	0	2	0.78	2597	Pass
174	95	50	120	91.61	334976	Pass
175	174	5	9	7.55	25277	Pass
176	174	95	101	99.42	333035	Pass
177	176	5	9	6.61	22004	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1411389-02	I:\ACQUDATA\msvoa12\Data\092414\M9196.D\	9/24/14 10:24	
Lab Control Sample	RQ1411389-03	I:\ACQUDATA\msvoa12\Data\092414\M9197.D\	9/24/14 10:56	
Method Blank	RQ1411389-04	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\	9/24/14 12:01	
IJ-5	R1407413-017	I:\ACQUDATA\msvoa12\Data\092414\M9200.D\	9/24/14 12:34	
MP-5	R1407413-003	I:\ACQUDATA\msvoa12\Data\092414\M9202.D\	9/24/14 13:38	
MW-37	R1407413-023	I:\ACQUDATA\msvoa12\Data\092414\M9204.D\	9/24/14 14:43	
MW-30	R1407413-024	I:\ACQUDATA\msvoa12\Data\092414\M9205.D\	9/24/14 15:15	
MW-26	R1407413-025	I:\ACQUDATA\msvoa12\Data\092414\M9206.D\	9/24/14 15:47	
MW-18	R1407413-026	I:\ACQUDATA\msvoa12\Data\092414\M9207.D\	9/24/14 16:19	
MP-8S	R1407413-028	I:\ACQUDATA\msvoa12\Data\092414\M9208.D\	9/24/14 16:52	
MP-8D	R1407413-030	I:\ACQUDATA\msvoa12\Data\092414\M9209.D\	9/24/14 17:24	
MW-33	R1407413-032	I:\ACQUDATA\msvoa12\Data\092414\M9210.D\	9/24/14 17:56	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/24/14 09:52

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\092414\M9195.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 412923

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.66	57275	Pass
75	95	30	60	45.79	167437	Pass
95	95	100	100	100.00	365653	Pass
96	95	5	9	6.69	24470	Pass
173	174	0	2	0.78	2597	Pass
174	95	50	120	91.61	334976	Pass
175	174	5	9	7.55	25277	Pass
176	174	95	101	99.42	333035	Pass
177	176	5	9	6.61	22004	Pass

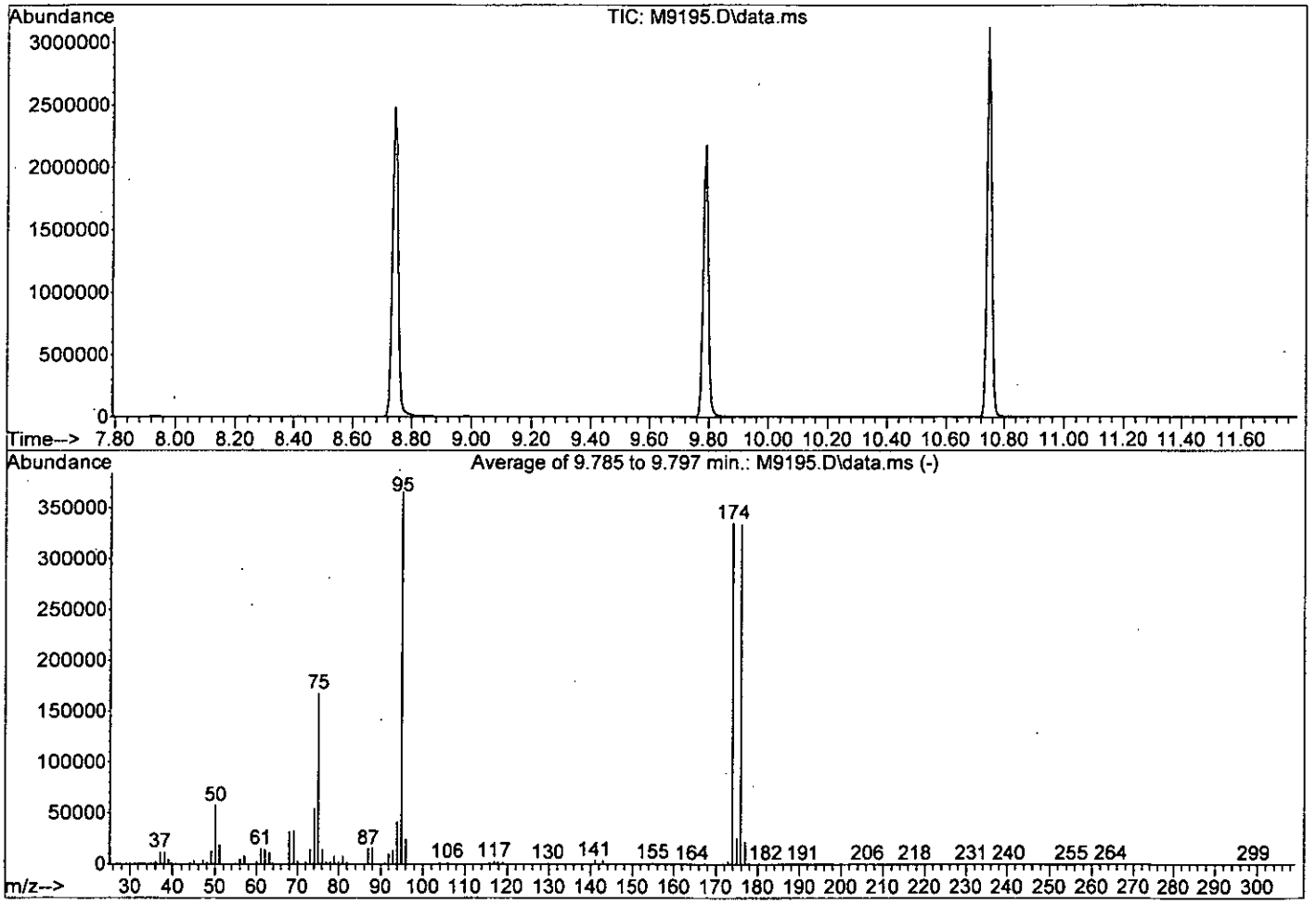
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1411389-02	I:\ACQUDATA\msvoa12\Data\092414\M9196.D\	9/24/14 10:24	
Lab Control Sample	RQ1411389-03	I:\ACQUDATA\msvoa12\Data\092414\M9197.D\	9/24/14 10:56	
Method Blank	RQ1411389-04	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\	9/24/14 12:01	
MW-7ADL	R1407413-008	I:\ACQUDATA\msvoa12\Data\092414\M9201.D\	9/24/14 13:06	

Data Path : I:\ACQUDATA\msvoa12\Data\092414\
Data File : M9195.D
Acq On : 24 Sep 2014 9:52 am
Operator : K.Ruest
Sample : TUNE RQ1411389-01
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: INTP60.P

KR 9/24/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Sep 10 10:41:23 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	57275	PASS
75	95	30	60	45.8	167437	PASS
95	95	100	100	100.0	365653	PASS
96	95	5	9	6.7	24470	PASS
173	174	0.00	2	0.8	2597	PASS
174	95	50	120	91.6	334976	PASS
175	174	5	9	7.5	25277	PASS
176	174	95	101	99.4	333035	PASS
177	176	5	9	6.6	22004	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14 22:01

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

File ID: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411227-02
Analysis Lot: 412453
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	706,464	10.75	1,402,268	5.45	1,286,621	8.74
	Upper Limit ==>	1,412,928	11.25	2,804,536	5.95	2,573,242	9.24
	Lower Limit ==>	353,232	10.25	701,134	4.95	643,311	8.24
	ICAL Result ==>	748,434	10.75	1,534,701	5.46	1,409,806	8.75
Associated Analyses							
Lab Control Sample	RQ1411227-03	685,017	10.75	1,401,608	5.45	1,272,101	8.74
Method Blank	RQ1411227-04	667,201	10.75	1,396,077	5.45	1,274,043	8.74
TRIP BLANK	R1407413-001	627,991	10.75	1,404,945	5.45	1,261,905	8.74
MP-6D	R1407413-009	626,857	10.75	1,378,244	5.45	1,247,766	8.74
MW-12	R1407413-013	656,631	10.75	1,386,093	5.45	1,270,512	8.74
MP-6S	R1407413-006	621,139	10.75	1,340,817	5.45	1,211,534	8.75
MP-4	R1407413-005	622,013	10.75	1,351,913	5.45	1,240,955	8.74
MW-12MS	RQ1411227-05	671,183	10.75	1,347,101	5.45	1,238,180	8.74
MW-12DMS	RQ1411227-06	670,865	10.75	1,351,984	5.45	1,248,614	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14 22:01

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

File ID: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411227-02
Analysis Lot: 412453
Signal ID:

		Pentafluorobenzene	
		Area	RT
	Results ==>	923,319	4.25
	Upper Limit ==>	1,846,638	4.75
	Lower Limit ==>	461,660	3.75
	ICAL Result ==>	976,069	4.25
Associated Analyses			
Lab Control Sample	RQ1411227-03	923,289	4.25
Method Blank	RQ1411227-04	904,889	4.26
TRIP BLANK	R1407413-001	923,966	4.25
MP-6D	R1407413-009	922,340	4.25
MW-12	R1407413-013	909,873	4.25
MP-6S	R1407413-006	884,076	4.25
MP-4	R1407413-005	886,639	4.25
MW-12MS	RQ1411227-05	898,275	4.25
MW-12DMS	RQ1411227-06	890,943	4.25

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14 10:55

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

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9175.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411303-02
Analysis Lot: 412669
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	676,327	10.75	1,344,965	5.45	1,237,991	8.74
	Upper Limit ==>	1,352,654	11.25	2,689,930	5.95	2,475,982	9.24
	Lower Limit ==>	338,164	10.25	672,483	4.95	618,996	8.24
	ICAL Result ==>	633,420	10.75	1,277,051	5.45	1,160,256	8.75
Associated Analyses							
Lab Control Sample	RQ1411303-03	676,465	10.75	1,365,703	5.45	1,244,438	8.74
Method Blank	RQ1411303-04	642,144	10.75	1,367,053	5.45	1,226,440	8.74
FB-091714	R1407413-011	584,633	10.75	1,360,227	5.45	1,217,019	8.74
FB-091814	R1407413-020	618,035	10.75	1,351,025	5.45	1,221,746	8.74
FB-091914	R1407413-031	615,098	10.75	1,331,705	5.45	1,222,873	8.74
FB-092014	R1407413-033	616,442	10.75	1,361,495	5.45	1,219,268	8.74
MP-30	R1407413-014	583,589	10.75	1,333,617	5.45	1,194,747	8.74
DUP-091814	R1407413-022	615,745	10.75	1,315,274	5.45	1,188,810	8.74
MP-13	R1407413-012	607,303	10.75	1,334,171	5.45	1,184,787	8.74
MW-16	R1407413-015	619,405	10.75	1,306,442	5.45	1,191,765	8.74
MP-14	R1407413-018	618,100	10.75	1,302,700	5.45	1,187,463	8.74
MW-6	R1407413-021	606,936	10.75	1,309,818	5.45	1,201,758	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14 10:55

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

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9175.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411303-02
Analysis Lot: 412669
Signal ID:

		Pentafluorobenzene	
		Area	RT
	Results ==>	894,048	4.25
	Upper Limit ==>	1,788,096	4.75
	Lower Limit ==>	447,024	3.75
	ICAL Result ==>	818,377	4.25
Associated Analyses			
Lab Control Sample	RQ1411303-03	900,420	4.25
Method Blank	RQ1411303-04	881,572	4.25
FB-091714	R1407413-011	903,085	4.25
FB-091814	R1407413-020	899,923	4.25
FB-091914	R1407413-031	873,408	4.25
FB-092014	R1407413-033	901,401	4.25
MP-30	R1407413-014	884,922	4.25
DUP-091814	R1407413-022	868,466	4.25
MP-13	R1407413-012	873,416	4.25
MW-16	R1407413-015	864,699	4.25
MP-14	R1407413-018	857,780	4.25
MW-6	R1407413-021	865,968	4.25

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/24/14 10:24

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

File ID: I:\ACQUDATA\msvoa12\Data\092414\M9196.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411389-02
Analysis Lot: 412923
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	665,616	10.75	1,295,478	5.45	1,191,712	8.74
	Upper Limit ==>	1,331,232	11.25	2,590,956	5.95	2,383,424	9.24
	Lower Limit ==>	332,808	10.25	647,739	4.95	595,856	8.24
	ICAL Result ==>	633,420	10.75	1,277,051	5.45	1,160,256	8.75
Associated Analyses							
Lab Control Sample	RQ1411389-03	653,848	10.75	1,328,436	5.45	1,205,369	8.74
Method Blank	RQ1411389-04	617,847	10.75	1,307,566	5.45	1,191,821	8.74
IJ-5	R1407413-017	582,004	10.75	1,321,046	5.45	1,195,728	8.74
MP-5	R1407413-003	587,252	10.75	1,315,054	5.45	1,190,968	8.74
MW-37	R1407413-023	573,429	10.75	1,289,358	5.45	1,184,145	8.74
MW-30	R1407413-024	610,312	10.75	1,289,143	5.45	1,164,274	8.74
MW-26	R1407413-025	606,156	10.75	1,285,195	5.45	1,181,797	8.74
MW-18	R1407413-026	599,222	10.75	1,275,993	5.45	1,178,540	8.74
MP-8S	R1407413-028	610,756	10.75	1,253,296	5.45	1,161,716	8.74
MP-8D	R1407413-030	596,762	10.75	1,274,142	5.45	1,165,051	8.74
MW-33	R1407413-032	587,770	10.75	1,288,114	5.45	1,162,780	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/24/14 10:24

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

File ID: I:\ACQUDATA\msvoa12\Data\092414\M9196.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411389-02
Analysis Lot: 412923
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	861,077	4.25
	Upper Limit ==>	1,722,154	4.75
	Lower Limit ==>	430,539	3.75
	ICAL Result ==>	818,377	4.25
Associated Analyses			
Lab Control Sample	RQ1411389-03	871,705	4.25
Method Blank	RQ1411389-04	867,272	4.25
IJ-5	R1407413-017	865,940	4.25
MP-5	R1407413-003	864,512	4.25
MW-37	R1407413-023	845,651	4.25
MW-30	R1407413-024	856,642	4.25
MW-26	R1407413-025	849,078	4.25
MW-18	R1407413-026	837,893	4.25
MP-8S	R1407413-028	838,443	4.25
MP-8D	R1407413-030	849,870	4.25
MW-33	R1407413-032	835,602	4.25

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14 22:01

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

File ID: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411227-02
Analysis Lot: 412453
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	706,464	10.75	1,402,268	5.45	1,286,621	8.74
	Upper Limit ==>	1,412,928	11.25	2,804,536	5.95	2,573,242	9.24
	Lower Limit ==>	353,232	10.25	701,134	4.95	643,311	8.24
	ICAL Result ==>	748,434	10.75	1,534,701	5.46	1,409,806	8.75
Associated Analyses							
Lab Control Sample	RQ1411227-03	685,017	10.75	1,401,608	5.45	1,272,101	8.74
Method Blank	RQ1411227-04	667,201	10.75	1,396,077	5.45	1,274,043	8.74
IJ-10	R1407413-002	646,807	10.75	1,391,144	5.45	1,260,929	8.74
IJ-1	R1407413-004	671,734	10.75	1,388,861	5.45	1,264,486	8.74
IJ-4	R1407413-007	666,558	10.75	1,372,944	5.45	1,261,379	8.74
MP-12	R1407413-016	642,767	10.75	1,367,031	5.45	1,256,508	8.74
MW-11	R1407413-019	604,279	10.75	1,370,451	5.45	1,229,344	8.74
MW-7A	R1407413-008	649,252	10.75	1,341,826	5.45	1,251,696	8.74
MW-25	R1407413-027	638,610	10.75	1,340,250	5.45	1,229,395	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14 22:01

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

File ID: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411227-02
Analysis Lot: 412453
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	923,319	4.25
	Upper Limit ==>	1,846,638	4.75
	Lower Limit ==>	461,660	3.75
	ICAL Result ==>	976,069	4.25
Associated Analyses			
Lab Control Sample	RQ1411227-03	923,289	4.25
Method Blank	RQ1411227-04	904,889	4.26
IJ-10	R1407413-002	921,824	4.25
IJ-1	R1407413-004	916,408	4.26
IJ-4	R1407413-007	914,549	4.25
MP-12	R1407413-016	902,915	4.25
MW-11	R1407413-019	907,858	4.25
MW-7A	R1407413-008	889,865	4.25
MW-25	R1407413-027	887,871	4.25

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14 10:55

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

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9175.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411303-02
Analysis Lot: 412669
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	676,327	10.75	1,344,965	5.45	1,237,991	8.74
	Upper Limit ==>	1,352,654	11.25	2,689,930	5.95	2,475,982	9.24
	Lower Limit ==>	338,164	10.25	672,483	4.95	618,996	8.24
	ICAL Result ==>	633,420	10.75	1,277,051	5.45	1,160,256	8.75
Associated Analyses							
Lab Control Sample	RQ1411303-03	676,465	10.75	1,365,703	5.45	1,244,438	8.74
Method Blank	RQ1411303-04	642,144	10.75	1,367,053	5.45	1,226,440	8.74
MW-28	R1407413-029	637,088	10.75	1,346,736	5.45	1,230,762	8.74
MP-11	R1407413-010	635,563	10.75	1,338,992	5.45	1,213,466	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14 10:55

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

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9175.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411303-02
Analysis Lot: 412669
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	894,048	4.25
	Upper Limit ==>	1,788,096	4.75
	Lower Limit ==>	447,024	3.75
	ICAL Result ==>	818,377	4.25
Associated Analyses			
Lab Control Sample	RQ1411303-03	900,420	4.25
Method Blank	RQ1411303-04	881,572	4.25
MW-28	R1407413-029	880,826	4.25
MP-11	R1407413-010	879,848	4.25

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/24/14 10:24

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

File ID: I:\ACQUDATA\msvoa12\Data\092414\M9196.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1411389-02
Analysis Lot: 412923
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	665,616	10.75	1,295,478	5.45	1,191,712	8.74
	Upper Limit ==>	1,331,232	11.25	2,590,956	5.95	2,383,424	9.24
	Lower Limit ==>	332,808	10.25	647,739	4.95	595,856	8.24
	ICAL Result ==>	633,420	10.75	1,277,051	5.45	1,160,256	8.75
Associated Analyses							
Lab Control Sample	RQ1411389-03	653,848	10.75	1,328,436	5.45	1,205,369	8.74
Method Blank	RQ1411389-04	617,847	10.75	1,307,566	5.45	1,191,821	8.74
MW-7A	R1407413-008	607,434	10.75	1,315,433	5.45	1,199,915	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	9/24/14 10:24

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

File ID:	I:\ACQUDATA\msvoa12\Data\092414\M9196.D\	**Lab Code:**	RQ1411389-02
Instrument ID:	R-MS-12	**Analysis Lot:**	412923
Analytical Method:	8260C	**Signal ID:**	

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	861,077	4.25
	Upper Limit ==>	1,722,154	4.75
	Lower Limit ==>	430,539	3.75
	ICAL Result ==>	818,377	4.25
Associated Analyses			
Lab Control Sample	RQ1411389-03	871,705	4.25
Method Blank	RQ1411389-04	867,272	4.25
MW-7A	R1407413-008	876,498	4.25

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

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
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www.alsglobal.com

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 0930
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 00:10
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1407413-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9155.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 00:10	
Dibromofluoromethane	101	89-119	9/23/14 00:10	
Toluene-d8	97	87-121	9/23/14 00:10	

Quantitation Report (Not Reviewed)

Sample : R1407413-001|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9155.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 12:10 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 00:24:35 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	923966	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1404945	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1261905	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	627991	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	395574	50.55	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.10%				
48) surr1,1,2-dichloroetha...	4.664	65	390285	46.27	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.54%				
65) SURR3,Toluene-d8	7.322	98	1609656	48.74	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.48%				
70) SURR2,BFB	9.791	95	572727	48.43	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.86%				
Target Compounds							Qvalue
5) Bromomethane	1.518	94	2297	0.38	ppb		99
12) Acrolein	1.981	56	379	0.67	ppb	#	15
15) Acetone	2.061	43	943	0.50	ppb	#	43
16) 2-Propanol	2.134	45	207	0.68	ppb	#	56
90) Cyclohexanone	9.724	55	839	1.12	ppb	#	54
115) 1,2,4-Tcbenzene	12.162	180	2542	0.29	ppb		88
116) Hexachlorobt	12.266	225	1999	0.58	ppb		94
117) Naphthalen	12.303	128	3946	0.22	ppb		74
118) 1,2,3-Tclbenzene	12.437	180	3313	0.44	ppb	#	73
119) 2,4,5-Trichlorotolene	12.851	159	1219	0.21	ppb	#	81
120) 2,3,6-Trichlorotoluene	12.912	159	1288	0.22	ppb	#	79

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

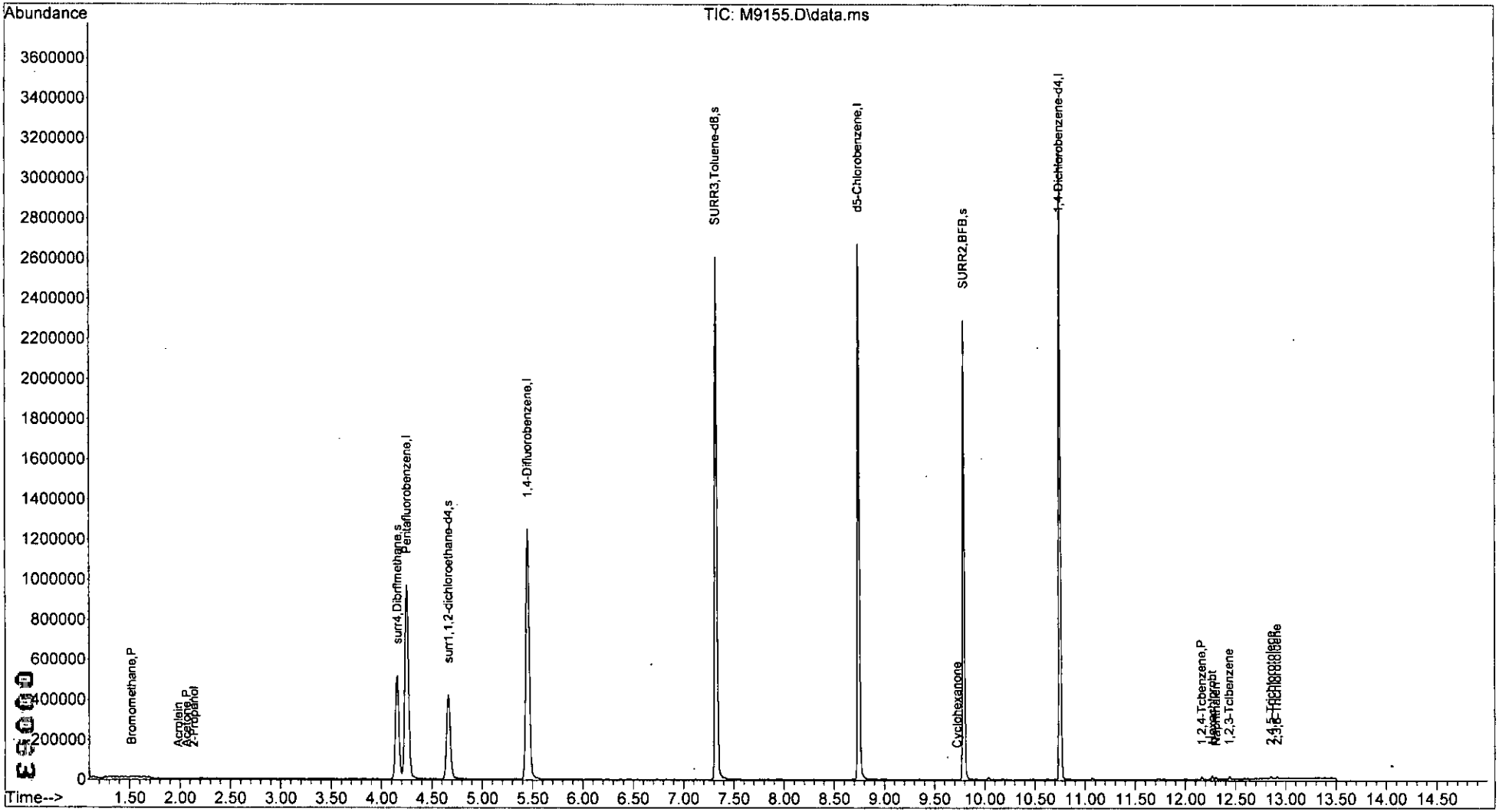
NT's -
Qdil

NT's not evaluated
KR 9/24/14

Quantitation Report (Not Reviewed)

Sample : R1407413-001|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9155.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 12:10 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 00:24:35 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 0930
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 00:42
Sample Name:	IJ-10	**Units:**	µg/L
Lab Code:	R1407413-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9156.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**1.5**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 00:42	
Dibromofluoromethane	101	89-119	9/23/14 00:42	
Toluene-d8	101	87-121	9/23/14 00:42	

Quantitation Report (Not Reviewed)

Sample : R1407413-002|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9156.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 12:42 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 00:56:52 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	921824	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1391144	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1260929	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	646807	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	392789	50.69	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.38%				
48) surr1,1,2-dichloroetha...	4.664	65	384854	46.08	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.16%				
65) SURR3,Toluene-d8	7.322	98	1650309	50.46	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.92%				
70) SURR2,BFB	9.791	95	577045	49.28	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.56%				
Target Compounds							Qvalue
6) Chloroethane	1.567	64	1996	0.35	ppb		78
12) Acrolein	1.963	56	253	0.45	ppb		94
14) Freon 113	2.042	101	2728	0.36	ppb		90
15) Acetone	2.042	43	46193	24.36	ppb		99
20) Allyl Chloride	2.207	76	2159	0.49	ppb	#	1
23) TBA	2.420	59	545	1.08	ppb		99
35) 2-Butanone	3.554	43	3094	1.25	ppb		90
40) Chloroform	3.944	83	6883	0.46	ppb		79
49) Benzene	4.780	78	11501	0.36	ppb		92
60) Bromodichloromethane	6.481	83	5823	0.59	ppb		90
62) 2-Chloroethylvinyl Ether	6.834	63	833	0.23	ppb	#	45
72) Tetrachloroethene	7.962	164	9978	1.54	ppb	#	80
75) Dibromochloromethane	8.194	129	6739	1.04	ppb	#	73
87) Bromoform	9.492	173	8375	2.38	ppb		82
90) Cyclohexanone	9.724	55	455	0.59	ppb	#	43
116) Hexachlorobt	12.266	225	875	0.25	ppb	#	59
118) 1,2,3-Tclbenzene	12.443	180	1619	0.21	ppb	#	71
119) 2,4,5-Trichlorotolene	12.912	159	1276	0.21	ppb		88
120) 2,3,6-Trichlorotoluene	12.912	159	1276	0.21	ppb		87

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

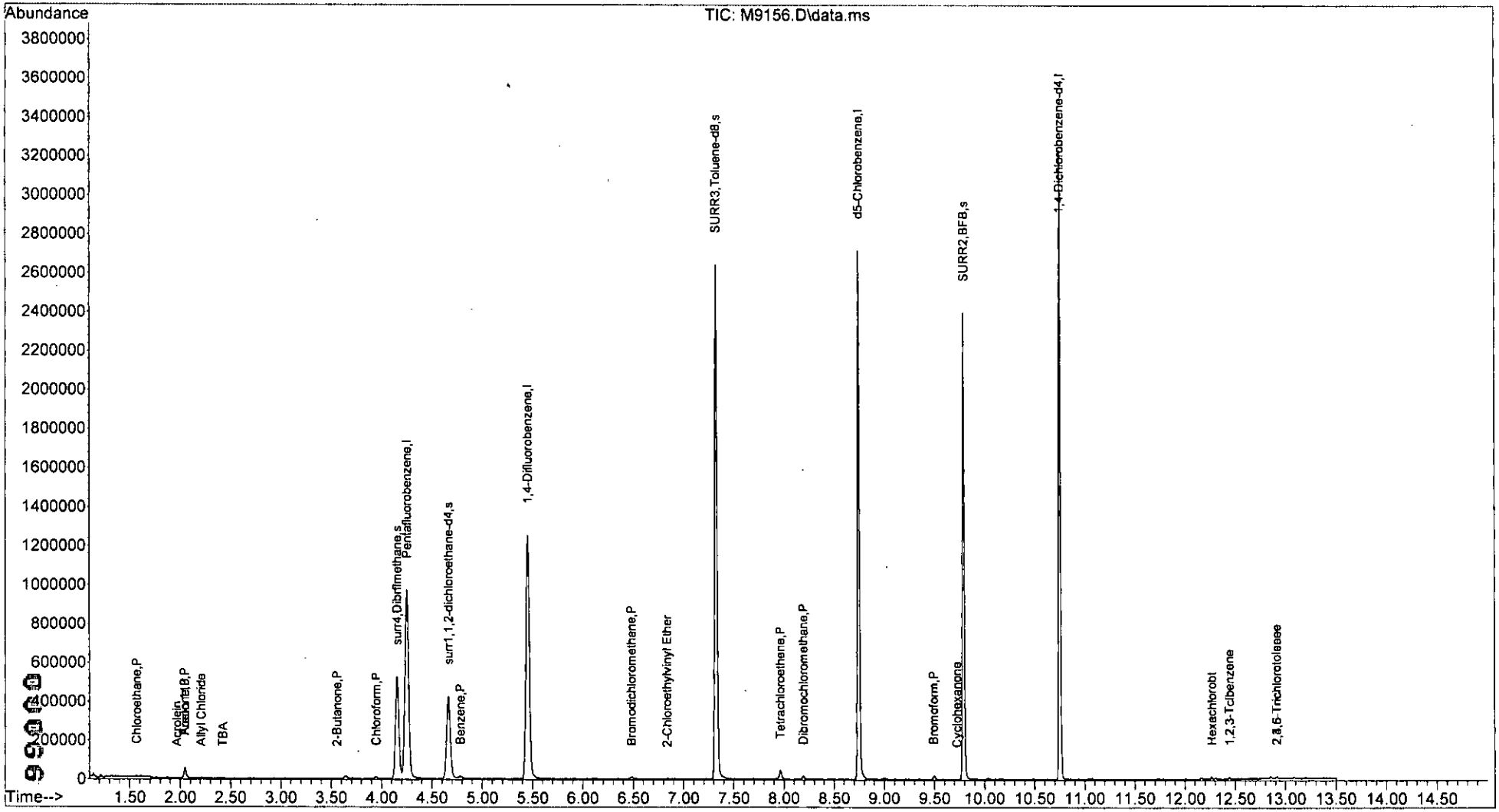
KR 9/24/14

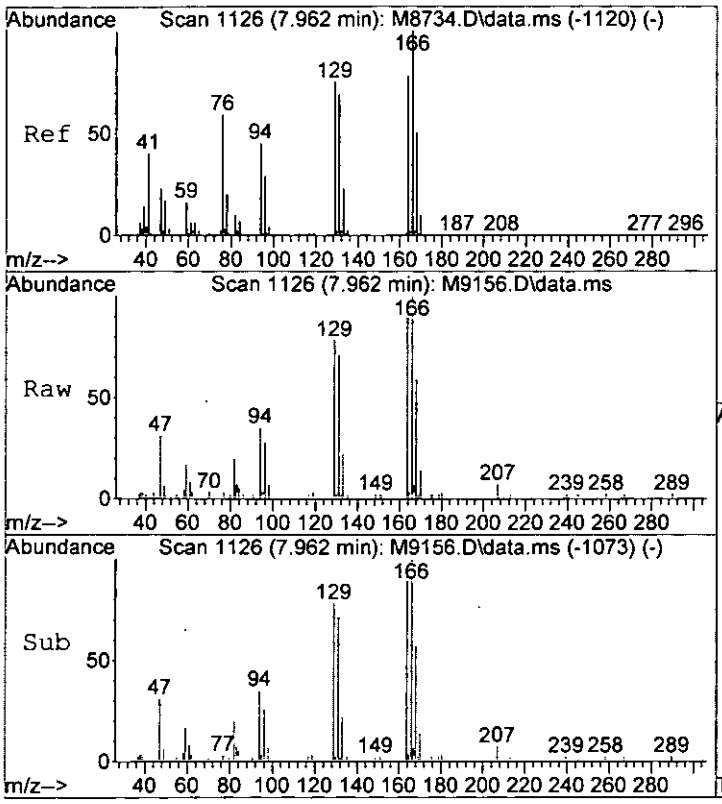
NT's not evaluated — Qdv.

Quantitation Report (Not Reviewed)

Sample : R1407413-002|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9156.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 12:42 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 00:56:52 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

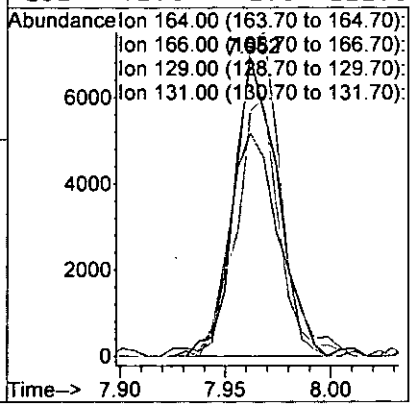




#72
Tetrachloroethene
Concen: 1.54 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9156.D
Acq: 23 Sep 2014 12:42 am

Tgt Ion:164 Resp: 9978

Ion	Ratio	Lower	Upper
164	100		
166	101.5	108.1	148.1#
129	79.4	75.7	115.7
131	72.4	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 0945
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 13:38
Sample Name:	MP-5	**Units:**	µg/L
Lab Code:	R1407413-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9202.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.8	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	25	U	25	2.9	
127-18-4	Tetrachloroethene (PCE)	**890**		25	1.5	
79-01-6	Trichloroethene (TCE)	**32**		25	1.1	
75-01-4	Vinyl Chloride	**1.7**	J	25	1.6	
156-59-2	cis-1,2-Dichloroethene	**14**	J	25	1.5	
156-60-5	trans-1,2-Dichloroethene	25	U	25	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/24/14 13:38	
Dibromofluoromethane	103	89-119	9/24/14 13:38	
Toluene-d8	100	87-121	9/24/14 13:38	

Quantitation Report (Not Reviewed)

Sample : R1407413-003|5.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9202.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 1:38 pm
Operator : K.Ruest
InstName : MSVOA-12

DL

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 13:53:01 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	864512	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1315054	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1190968	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	587252	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	377633	51.56	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.12%				
48) surr1,1,2-dichloroetha...	4.664	65	357921	45.34	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.68%				
65) SURR3,Toluene-d8	7.322	98	1544988	49.98	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.96%				
70) SURR2,BFB	9.791	95	533393	48.19	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.38%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.323	62	3169	0.33	ppb		98
~~5) Bromomethane~~	~~1.518~~	~~94~~	~~1317~~	~~0.23~~	~~ppb~~	~~#~~	~~75~~
~~12) Acrolein~~	~~1.951~~	~~56~~	~~519~~	~~0.98~~	~~ppb~~	~~#~~	~~15~~
13) 1,1-Diclethene	2.036	96	2542	0.41	ppb	#	74
~~15) Acetone~~	~~2.055~~	~~43~~	~~394~~	~~0.22~~	~~ppb~~	~~#~~	~~51~~
~~16) 2 Propanol~~	~~2.176~~	~~45~~	~~241~~	~~0.85~~	~~ppb~~	~~#~~	~~5~~
~~18) Carbon Disulfide~~	~~2.201~~	~~76~~	~~9914~~	~~0.42~~	~~ppb~~		~~92~~
~~20) Allyl Chloride~~	~~2.286~~	~~76~~	~~2137~~	~~0.51~~	~~ppb~~	~~#~~	~~1~~
34) cis-1,2-Dichloroethene	3.548	96	23645	2.74	ppb		96
~~40) Chloroform~~	~~3.938~~	~~83~~	~~5918~~	~~0.42~~	~~ppb~~		~~96~~
~~53) 1-Butanol~~	~~5.828~~	~~56~~	~~212~~	~~1.86~~	~~ppb~~	~~#~~	~~2~~
54) Trichloroethene	5.834	130	50023	6.30	ppb		89
72) Tetrachloroethene	7.962	164	1089645	178.62	ppb		96
~~76) N-Butyl Acetate~~	~~8.261~~	~~43~~	~~311~~	~~0.24~~	~~ppb~~	~~#~~	~~41~~
90) Cyclohexanone	9.791	55	~~1315~~	1.88	ppb	#	15
119) 2,4,5-Trichlorotolene	12.857	159	1255	0.23	ppb	#	58
~~120) 2,3,6-Trichlorotoluene~~	12.918	159	1160	0.21	ppb		90

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

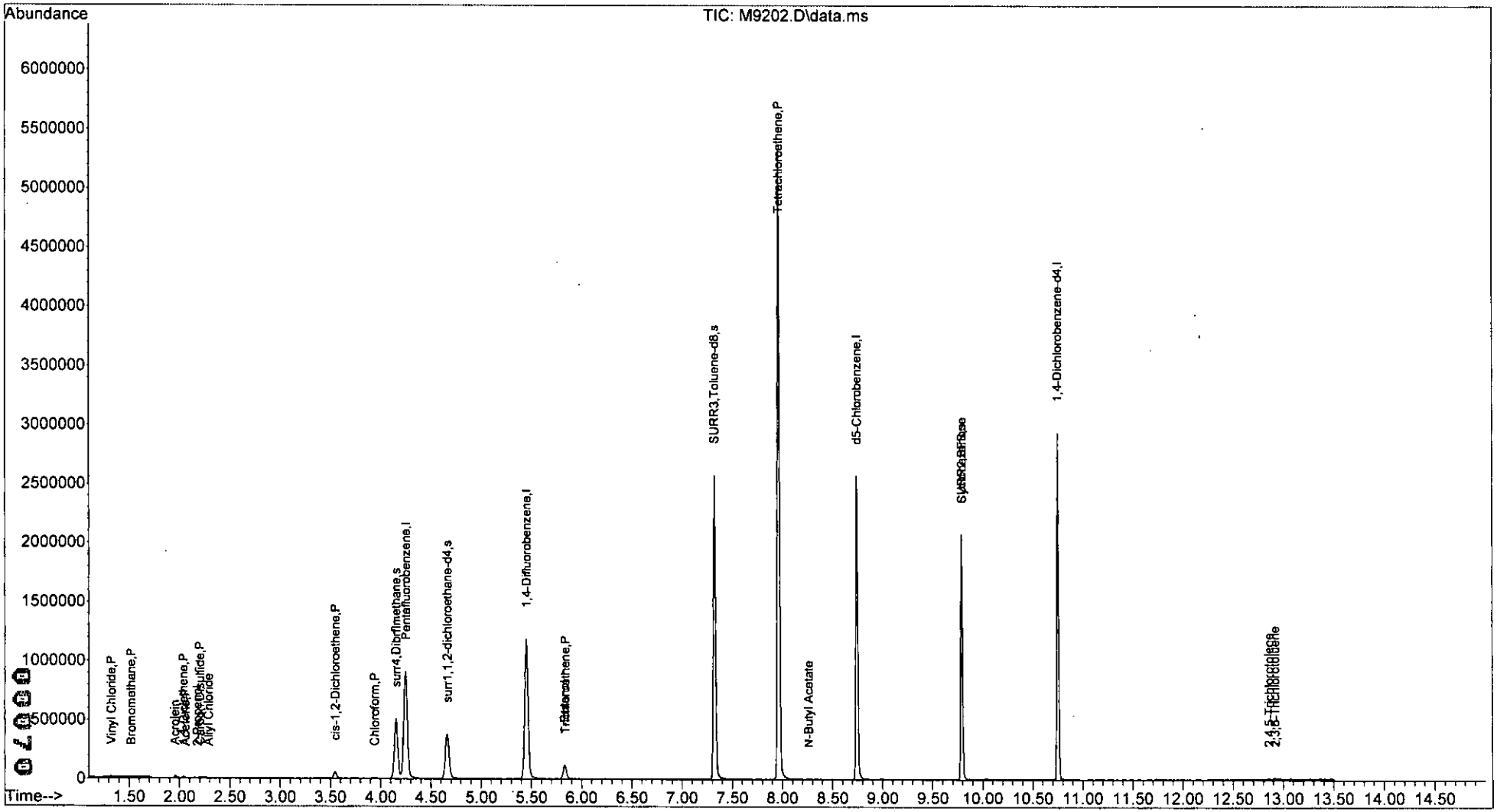
KR 9/26/14

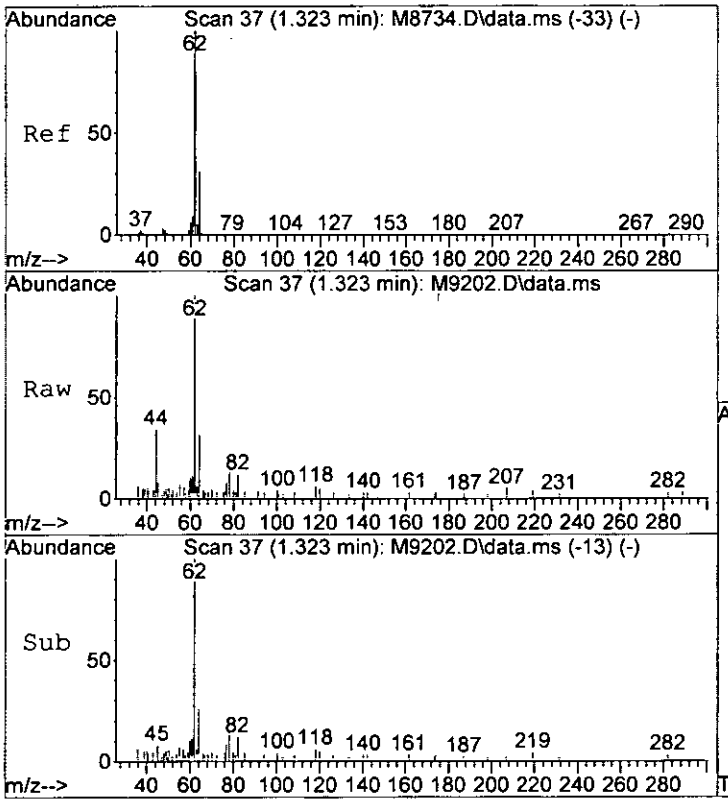
NT's not evaluated
- Qdel.

Quantitation Report (Not Reviewed)

Sample : R1407413-003|5.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9202.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 1:38 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 13:53:01 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

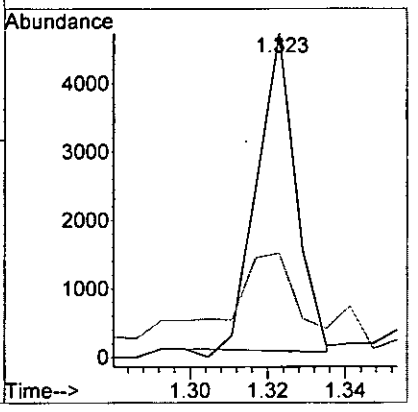


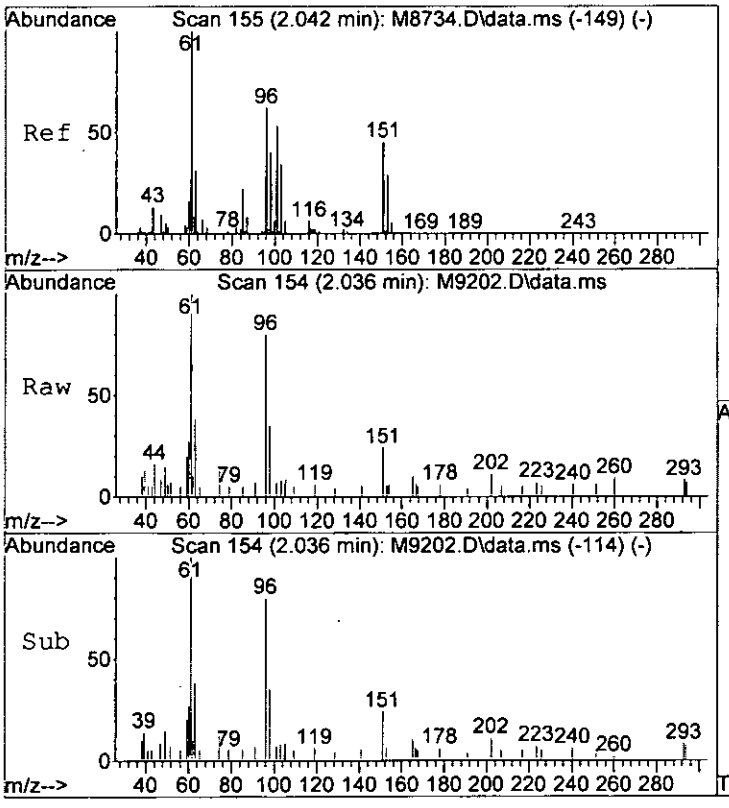


#4
Vinyl Chloride
Concen: 0.33 ppb
RT: 1.323 min Scan# 37
Delta R.T. 0.000 min
Lab File: M9202.D
Acq: 24 Sep 2014 1:38 pm

Tgt Ion: 62 Resp: 3169

Ion	Ratio	Lower	Upper
62	100		
64	32.1	13.0	53.0

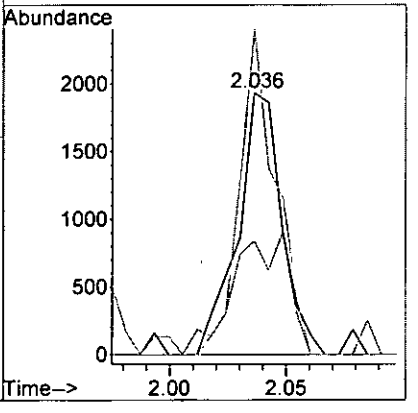


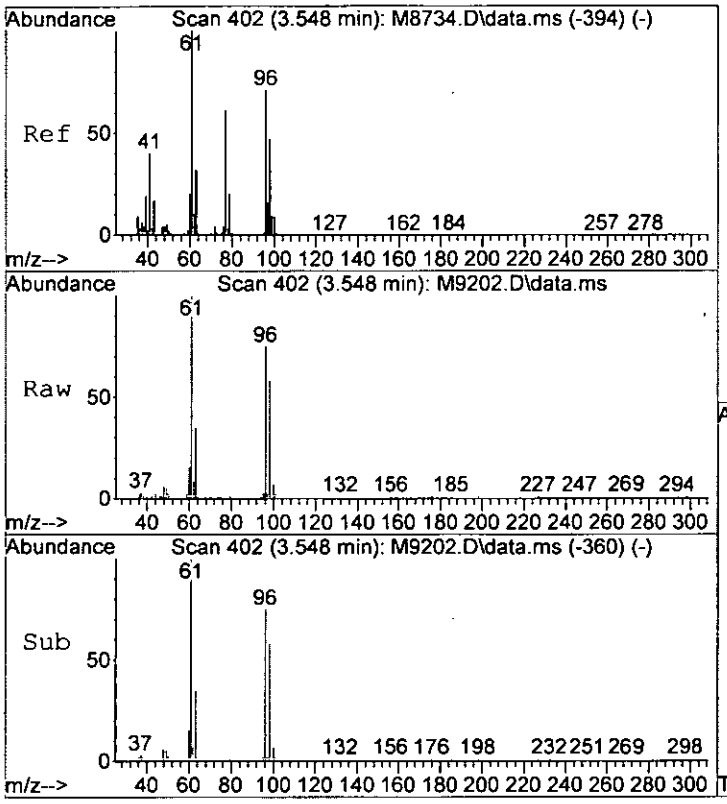


#13
1,1-Diclethene
Concen: 0.41 ppb
RT: 2.036 min Scan# 154
Delta R.T. -0.006 min
Lab File: M9202.D
Acq: 24 Sep 2014 1:38 pm

Tgt Ion: 96 Resp: 2542

Ion	Ratio	Lower	Upper
96	100		
98	43.5	43.4	83.4
61	124.3	137.8	177.8#

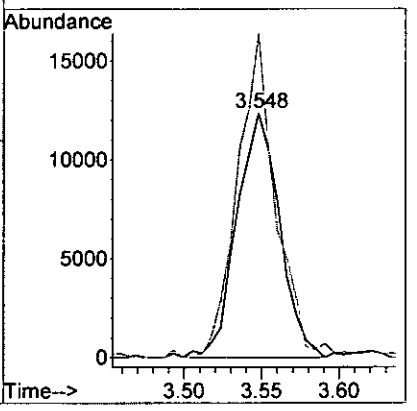


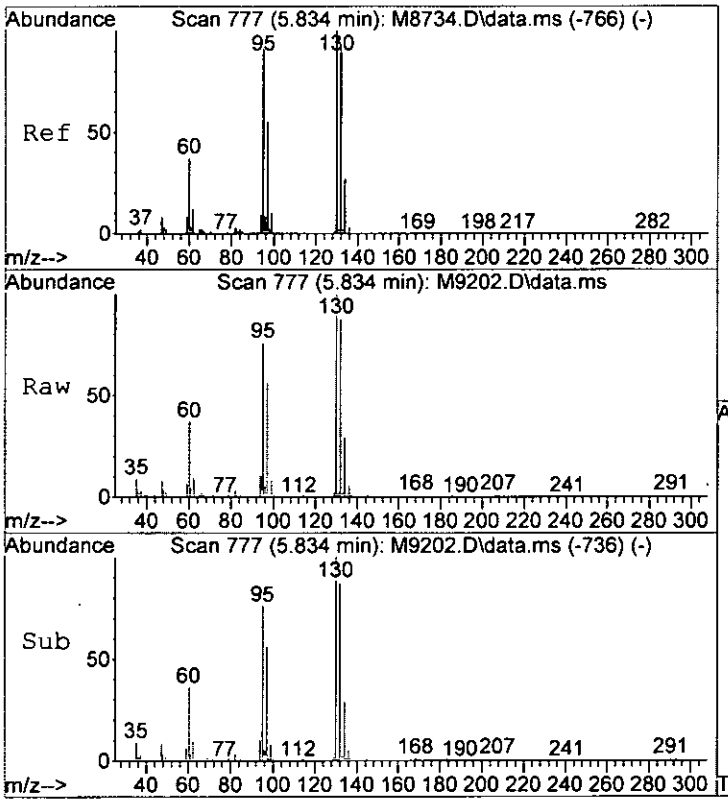


#34
cis-1,2-Dichloroethene
Concen: 2.74 ppb
RT: 3.548 min Scan# 402
Delta R.T. 0.000 min
Lab File: M9202.D
Acq: 24 Sep 2014 1:38 pm

Tgt Ion: 96 Resp: 23645

Ion	Ratio	Lower	Upper
96	100		
61	132.5	117.4	157.4

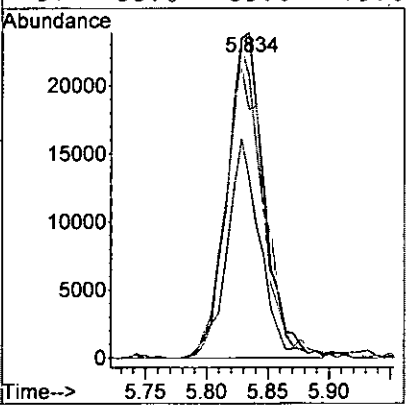


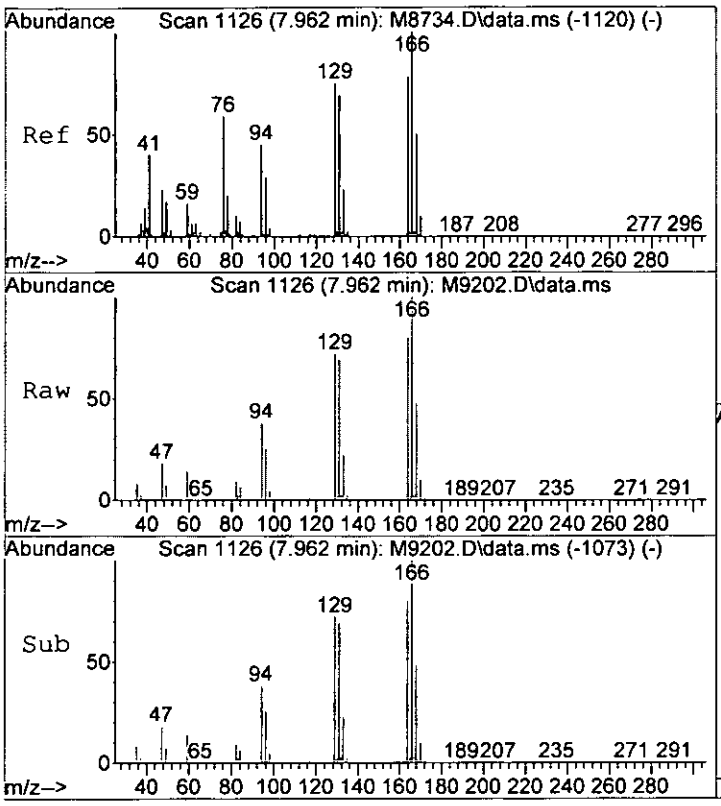


#54
Trichloroethene
Concen: 6.30 ppb
RT: 5.834 min Scan# 777
Delta R.T. 0.000 min
Lab File: M9202.D
Acq: 24 Sep 2014 1:38 pm

Tgt Ion:130 Resp: 50023

Ion	Ratio	Lower	Upper
130	100		
132	86.6	75.1	115.1
95	76.3	71.2	111.2
97	55.6	39.6	79.6

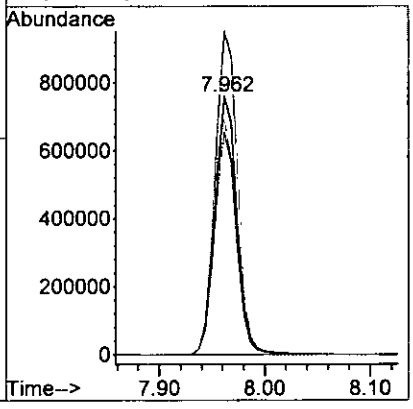




#72
Tetrachloroethene
Concen: 178.62 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9202.D
Acq: 24 Sep 2014 1:38 pm

Tgt Ion:164 Resp: 1089645

Ion	Ratio	Lower	Upper
164	100		
166	125.3	108.1	148.1
129	90.8	75.7	115.7
131	86.0	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1102
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 01:14
Sample Name:	IJ-1	**Units:**	µg/L
Lab Code:	R1407413-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9157.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 01:14	
Dibromofluoromethane	101	89-119	9/23/14 01:14	
Toluene-d8	101	87-121	9/23/14 01:14	

Quantitation Report (Not Reviewed)

Sample : R1407413-004|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9157.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 1:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 01:29:01 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.255	168	916408	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1388861	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1264486	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	671734	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	391362	50.59	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.18%				
48) surr1,1,2-dichloroetha...	4.664	65	381357	45.74	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.48%				
65) SURR3,Toluene-d8	7.322	98	1640764	50.26	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.52%				
70) SURR2,BFB	9.791	95	577181	49.37	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.74%				
Target Compounds							Qvalue
5) Bromomethane	1.524	94	1499	0.25	ppb	#	58
15) Acetone	2.048	43	18319	9.72	ppb		90
19) Acetonitrile	2.280	40	705	2.77	ppb	#	1
35) 2-Butanone	3.572	43	2504	1.02	ppb		73
76) N-Butyl Acetate	8.157	43	275	0.24	ppb	#	41
90) Cyclohexanone	9.736	55	298	0.37	ppb	#	15

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

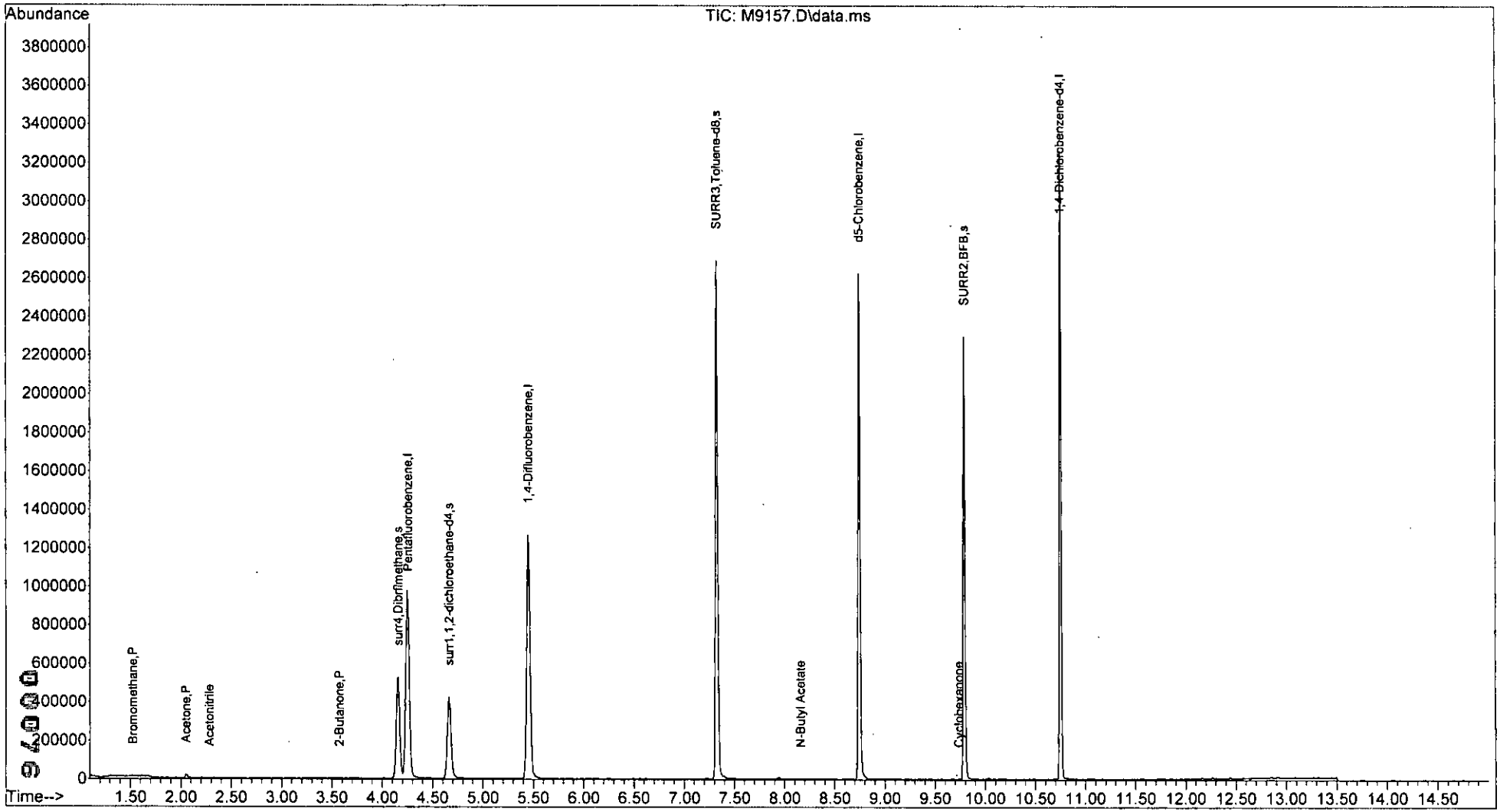
KR 9/24/14

NT's not validated. — Add.

Quantitation Report (Not Reviewed)

Sample : R1407413-004|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9157.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 1:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 01:29:01 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1110
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 07:42
Sample Name:	MP-4	**Units:**	µg/L
Lab Code:	R1407413-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9169.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	57	
127-18-4	Tetrachloroethene (PCE)	**12000**		500	30	
79-01-6	Trichloroethene (TCE)	500	U	500	22	
75-01-4	Vinyl Chloride	500	U	500	32	
156-59-2	cis-1,2-Dichloroethene	500	U	500	30	
156-60-5	trans-1,2-Dichloroethene	500	U	500	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 07:42	
Dibromofluoromethane	99	89-119	9/23/14 07:42	
Toluene-d8	99	87-121	9/23/14 07:42	

Quantitation Report (Not Reviewed)

Sample : R1407413-005|100
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9169.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 7:42 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 07:56:22 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	886639	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1351913	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1240955	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	622013	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	373782	49.64	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.28%				
48) surr1,1,2-dichloroetha...	4.664	65	373851	46.07	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.14%				
65) SURR3,Toluene-d8	7.322	98	1570810	49.43	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.86%				
70) SURR2,BFB	9.791	95	555120	48.79	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.58%				
Target Compounds							Qvalue
6) Chloroethane	1.469	64	1829	0.33	ppb		68
15) Acetone	2.042	43	368	0.20	ppb	#	51
16) 2-Propanol	2.201	45	219	0.75	ppb	#	7
18) Carbon Disulfide	2.207	76	12510	0.52	ppb		87
39) Tetrahydrofuran	3.944	42	303	0.20	ppb		68
40) Chloroform	3.938	83	36838	2.57	ppb		95
60) Bromodichloromethane	6.487	83	5246	0.55	ppb		93
72) Tetrachloroethene	7.962	164	754910	118.76	ppb		98
90) Cyclohexanone	9.785	55	1224	1.65	ppb	#	15

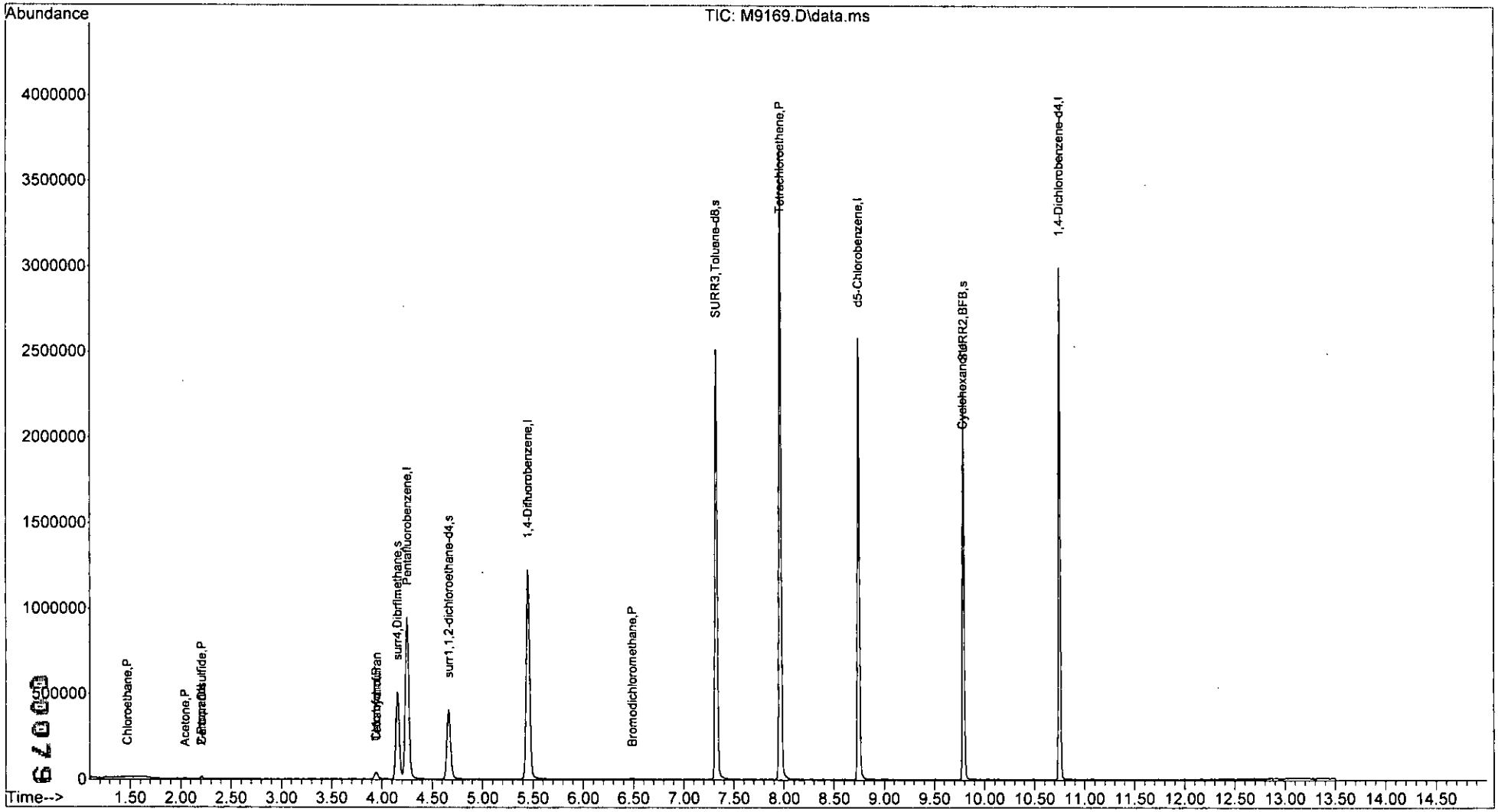
KP 9/24/14

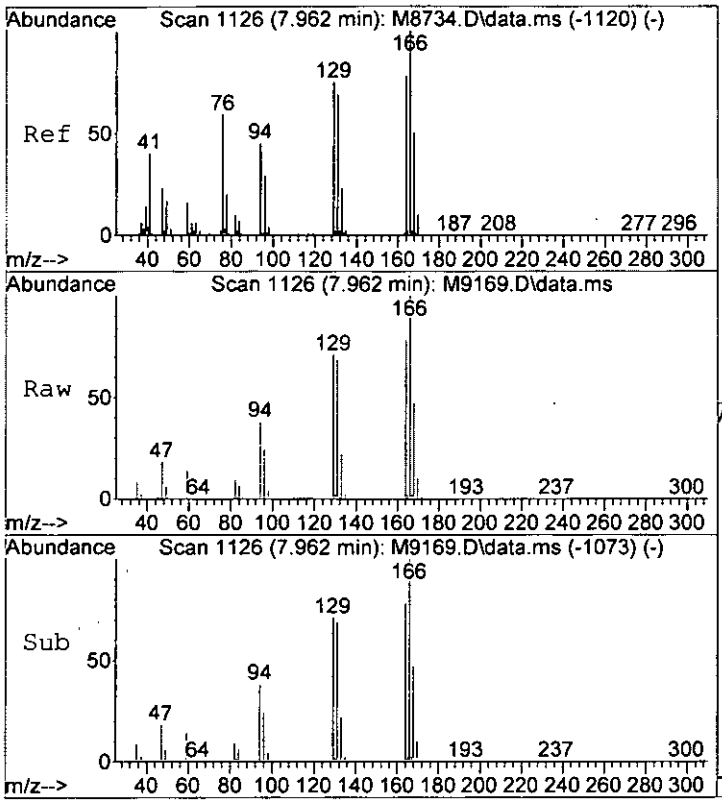
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Sample : R1407413-005|100
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9169.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 7:42 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 07:56:22 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

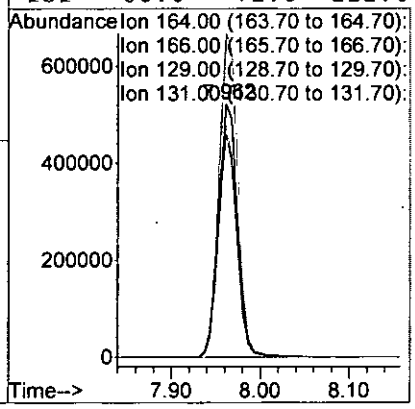




#72
Tetrachloroethene
Concen: 118.76 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9169.D
Acq: 23 Sep 2014 7:42 am

Tgt Ion:164 Resp: 754910

Ion	Ratio	Lower	Upper
164	100		
166	127.8	108.1	148.1
129	91.1	75.7	115.7
131	88.0	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1250
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 06:05
Sample Name:	MP-6S	**Units:**	µg/L
Lab Code:	R1407413-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9166.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**450**		13	0.75	
79-01-6	Trichloroethene (TCE)	**3.4**	**J**	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**1.8**	**J**	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 06:05	
Dibromofluoromethane	101	89-119	9/23/14 06:05	
Toluene-d8	100	87-121	9/23/14 06:05	

Quantitation Report (Not Reviewed)

Sample : R1407413-006|2.5
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9166.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 6:05 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 06:19:28 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	884076	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1340817	50.00	ppb		0.00
71) d5-Chlorobenzene	8.748	117	1211534	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	621139	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	377144	50.50	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.00%				
48) surr1,1,2-dichloroetha...	4.664	65	372339	46.26	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.52%				
65) SURR3,Toluene-d8	7.322	98	1575174	49.98	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.96%				
70) SURR2,BFB	9.791	95	545407	48.33	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.66%				
Target Compounds							Qvalue
~~15) Acetone~~	~~2.049~~	~~43~~	~~1465~~	~~0.81~~	~~ppb~~	~~#~~	~~47~~
~~16) 2-Propanol~~	~~2.085~~	~~45~~	~~150~~	~~0.52~~	~~ppb~~	~~#~~	~~56~~
~~18) Carbon Disulfide~~	~~2.207~~	~~76~~	~~11406~~	~~0.48~~	~~ppb~~		~~96~~
34) cis-1,2-Dichloroethene	3.548	96	6285	0.71	ppb	#	80
~~40) Chloroform~~	~~3.932~~	~~83~~	~~5978~~	~~0.42~~	~~ppb~~	~~#~~	~~72~~
54) Trichloroethene	5.840	130	11039	1.36	ppb	#	83
72) Tetrachloroethene	7.962	164	1124302	181.17	ppb		97
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1219~~	~~1.65~~	~~ppb~~	~~#~~	~~15~~

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

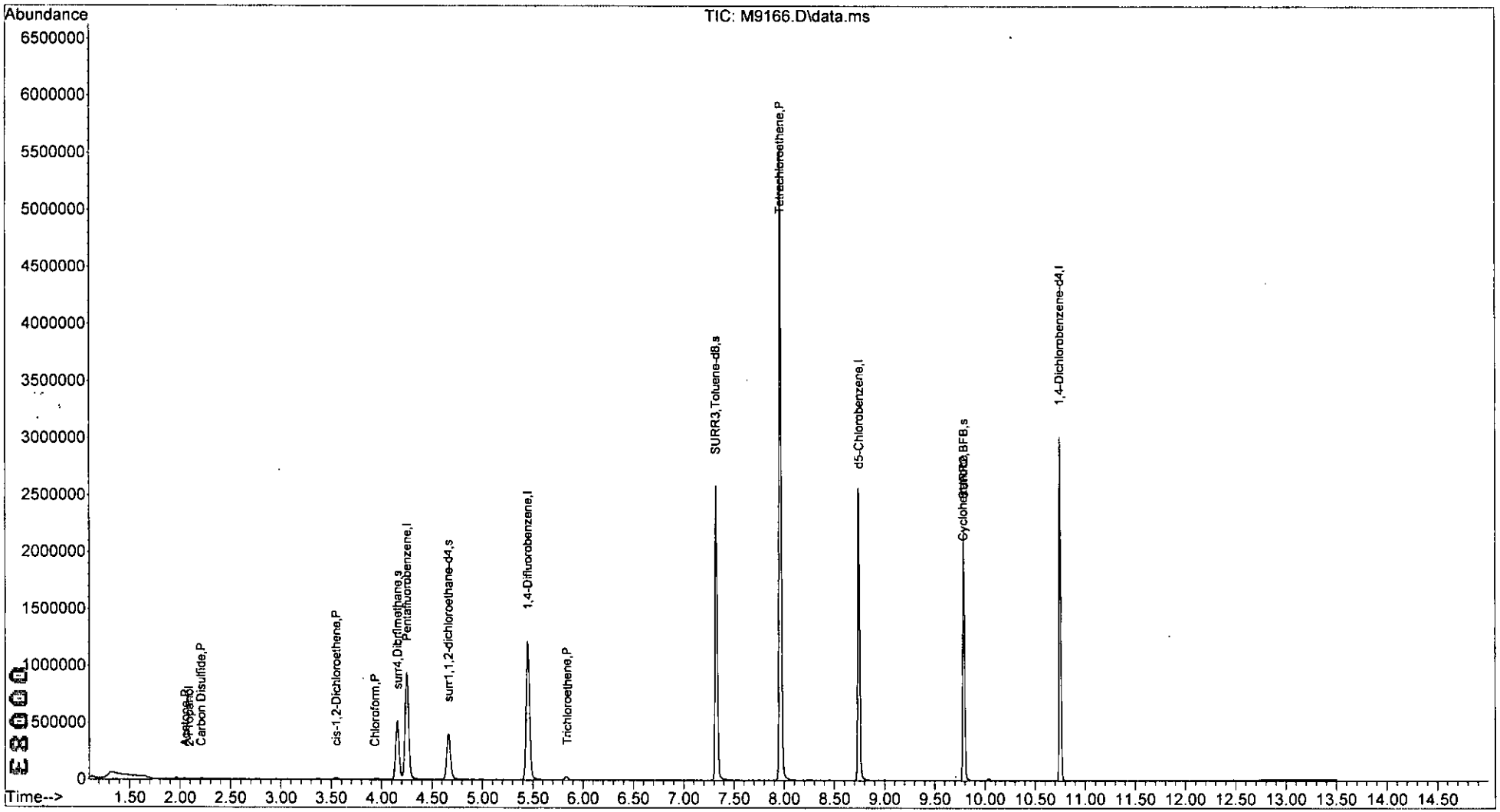
KR 9/24/14

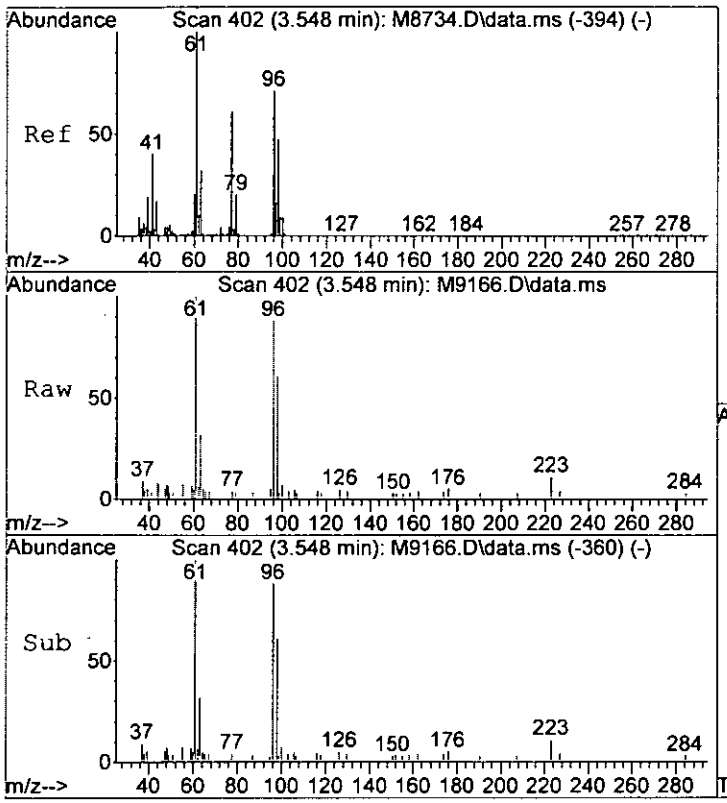
NT's not evaluated
- Qdel

Quantitation Report (Not Reviewed)

Sample : R1407413-006|2.5
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9166.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 6:05 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 06:19:28 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

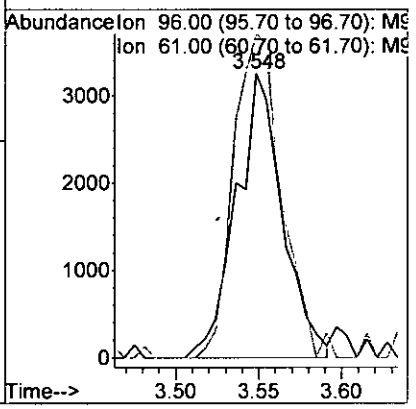


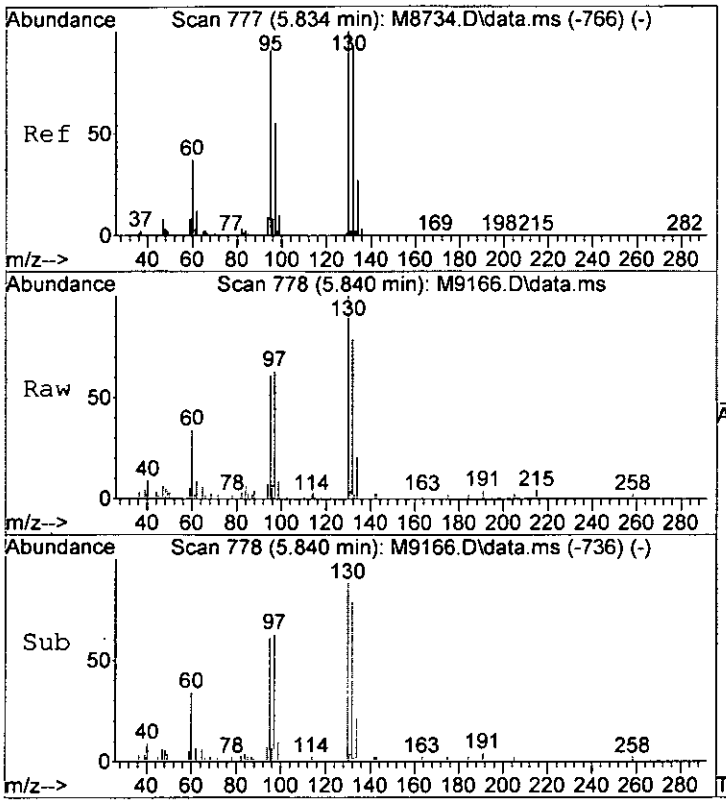


#34
cis-1,2-Dichloroethene
Concen: 0.71 ppb
RT: 3.548 min Scan# 402
Delta R.T. 0.000 min
Lab File: M9166.D
Acq: 23 Sep 2014 6:05 am

Tgt Ion: 96 Resp: 6285

Ion	Ratio	Lower	Upper
96	100		
61	113.7	117.4	157.4#

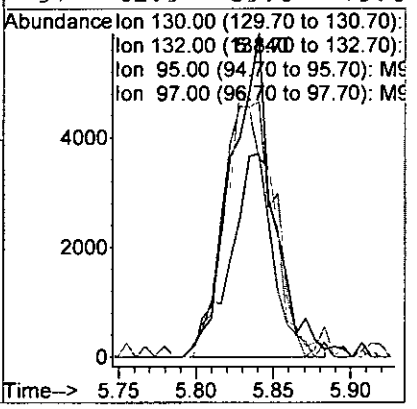


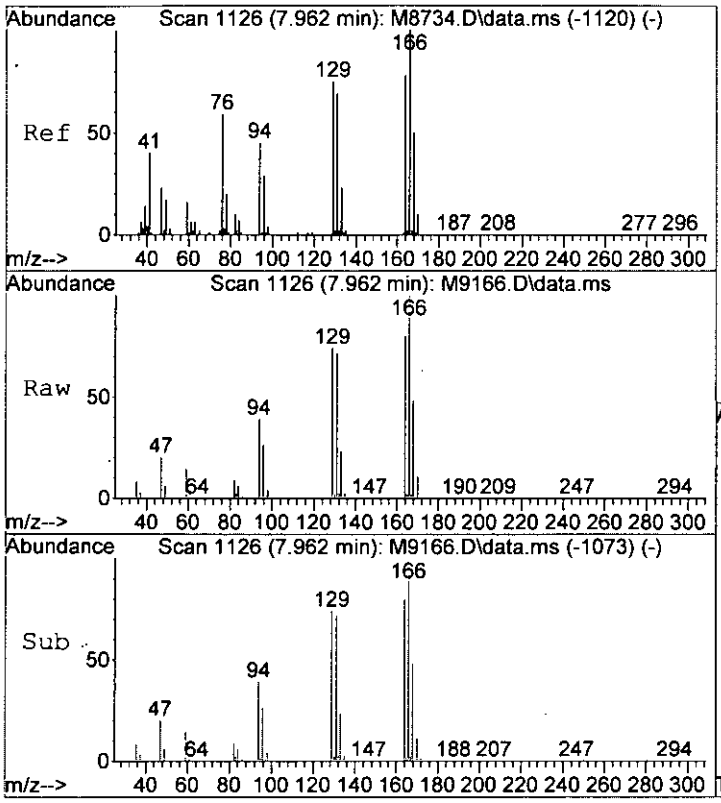


#54
Trichloroethene
Concen: 1.36 ppb
RT: 5.840 min Scan# 778
Delta R.T. 0.006 min
Lab File: M9166.D
Acq: 23 Sep 2014 6:05 am

Tgt Ion:130 Resp: 11039

Ion	Ratio	Lower	Upper
130	100		
132	79.0	75.1	115.1
95	66.5	71.2	111.2#
97	62.9	39.6	79.6

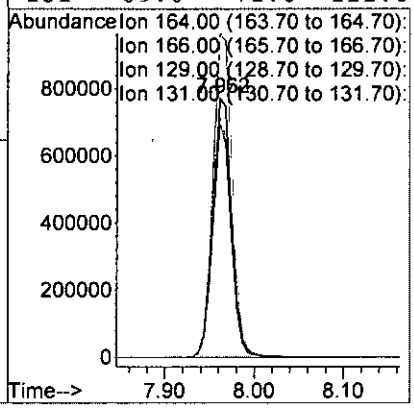




#72
Tetrachloroethene
Concen: 181.17 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9166.D
Acq: 23 Sep 2014 6:05 am

Tgt Ion:164 Resp: 1124302

Ion	Ratio	Lower	Upper
164	100		
166	124.7	108.1	148.1
129	92.4	75.7	115.7
131	89.8	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1325
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 01:46
Sample Name:	IJ-4	**Units:**	µg/L
Lab Code:	R1407413-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9158.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	9/23/14 01:46	
Dibromofluoromethane	102	89-119	9/23/14 01:46	
Toluene-d8	101	87-121	9/23/14 01:46	

Quantitation Report (Not Reviewed)

Sample : R1407413-007|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9158.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 1:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 02:01:15 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	914549	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1372944	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1261379	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	666558	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	391154	51.15	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.30%				
48) surr1,1,2-dichloroetha...	4.664	65	387245	46.98	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.96%				
65) SURR3,Toluene-d8	7.322	98	1625526	50.37	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.74%				
70) SURR2,BFB	9.791	95	578260	50.04	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.08%				
Target Compounds							Qvalue
6) Chloroethane	1.567	64	1652	0.29	ppb		75
10) Freon 123a	1.872	67	10954	1.14	ppb		86
14) Freon 113	2.036	101	17901	2.36	ppb		100
15) Acetone	2.054	43	17139	9.11	ppb		94
18) Carbon Disulfide	2.207	76	7062	0.29	ppb		74
19) Acetonitrile	2.213	40	629	2.48	ppb	#	1
23) TBA	2.408	59	695	1.38	ppb		91
35) 2-Butanone	3.566	43	919	0.37	ppb	#	44
40) Chloroform	3.938	83	4573	0.31	ppb		83
90) Cyclohexanone	9.791	55	1503	1.89	ppb	#	33

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

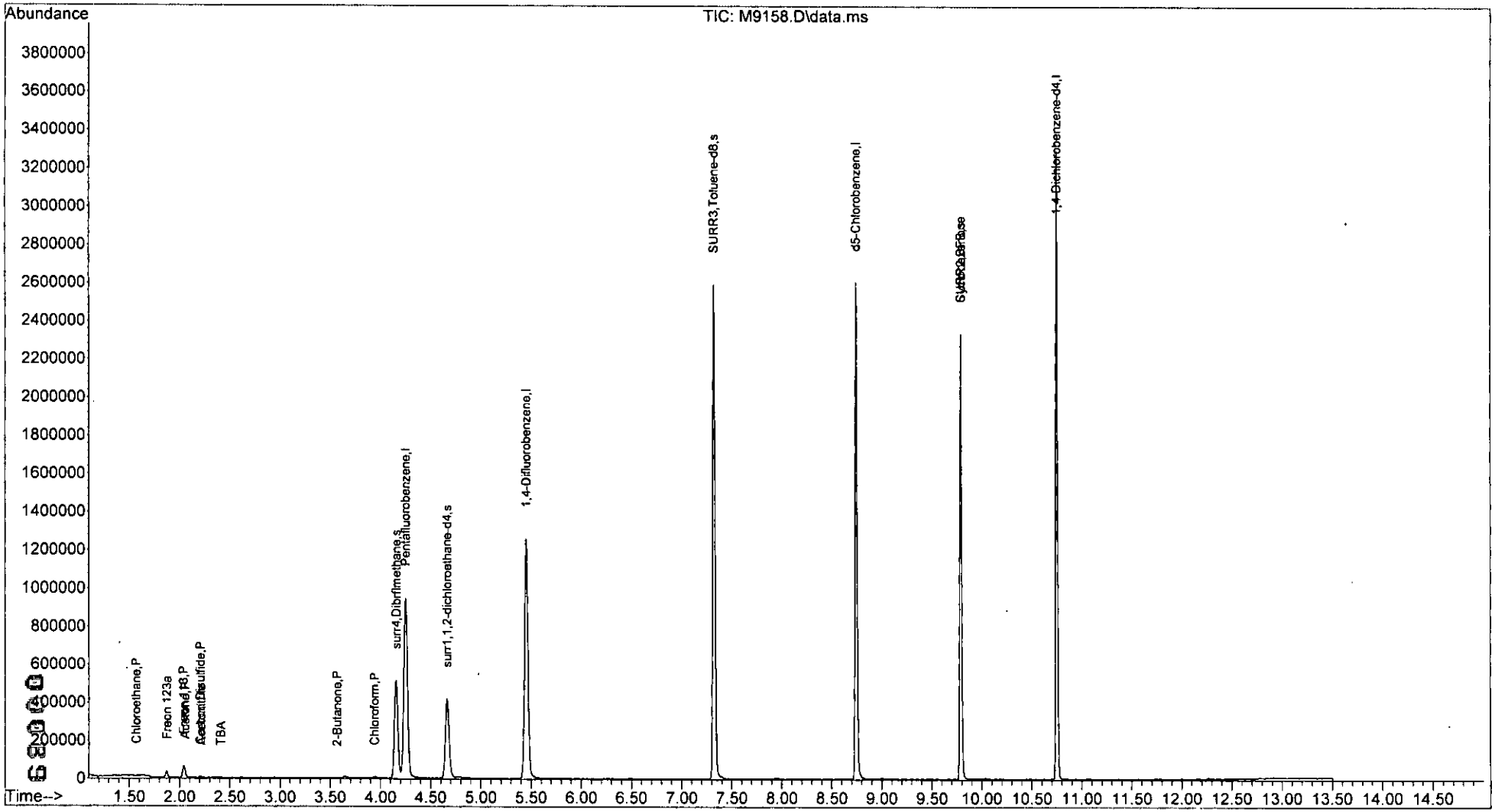
KR 9/24/14

NT's not Valuated - Qdd.

Quantitation Report (Not Reviewed)

Sample : R1407413-007|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9158.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 1:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 02:01:15 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1515
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 05:00
Sample Name:	MW-7A	**Units:**	µg/L
Lab Code:	R1407413-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9164.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	0.72	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	0.40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	1.2	
127-18-4	Tetrachloroethene (PCE)	**810**	E	10	0.60	
79-01-6	Trichloroethene (TCE)	**0.96**	J	10	0.44	
75-01-4	Vinyl Chloride	10	U	10	0.64	
156-59-2	cis-1,2-Dichloroethene	10	U	10	0.60	
156-60-5	trans-1,2-Dichloroethene	10	U	10	0.66	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/23/14 05:00	
Dibromofluoromethane	103	89-119	9/23/14 05:00	
Toluene-d8	101	87-121	9/23/14 05:00	

Quantitation Report (Not Reviewed)

Sample : R1407413-008|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9164.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 5:00 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 05:14:50 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

pt 5.0

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	889865	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1341826	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1251696	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	649252	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	385980	51.64	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.28%				
48) surr1,1,2-dichloroetha...	4.670	65	376206	46.70	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.40%				
65) SURR3,Toluene-d8	7.322	98	1595914	50.60	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.20%				
70) SURR2,BFB	9.791	95	568382	50.33	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.66%				
Target Compounds							Qvalue
6) Chloroethane	1.573	64	2683	0.48	ppb		68
14) Freon 113	2.036	101	1949	0.26	ppb		78
15) Acetone	2.054	43	12315	6.73	ppb		88
35) 2-Butanone	3.585	43	637	0.27	ppb		89
40) Chloroform	3.932	83	5650	0.39	ppb	#	65
53) 1-Butanol	5.046	56	208	1.79	ppb	#	23
54) Trichloroethene	5.834	130	3880	0.48	ppb	#	77
72) Tetrachloroethene	7.968	164	2595438	404.82	ppb		96 (E)
90) Cyclohexanone	9.791	55	1367	1.77	ppb	#	15

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

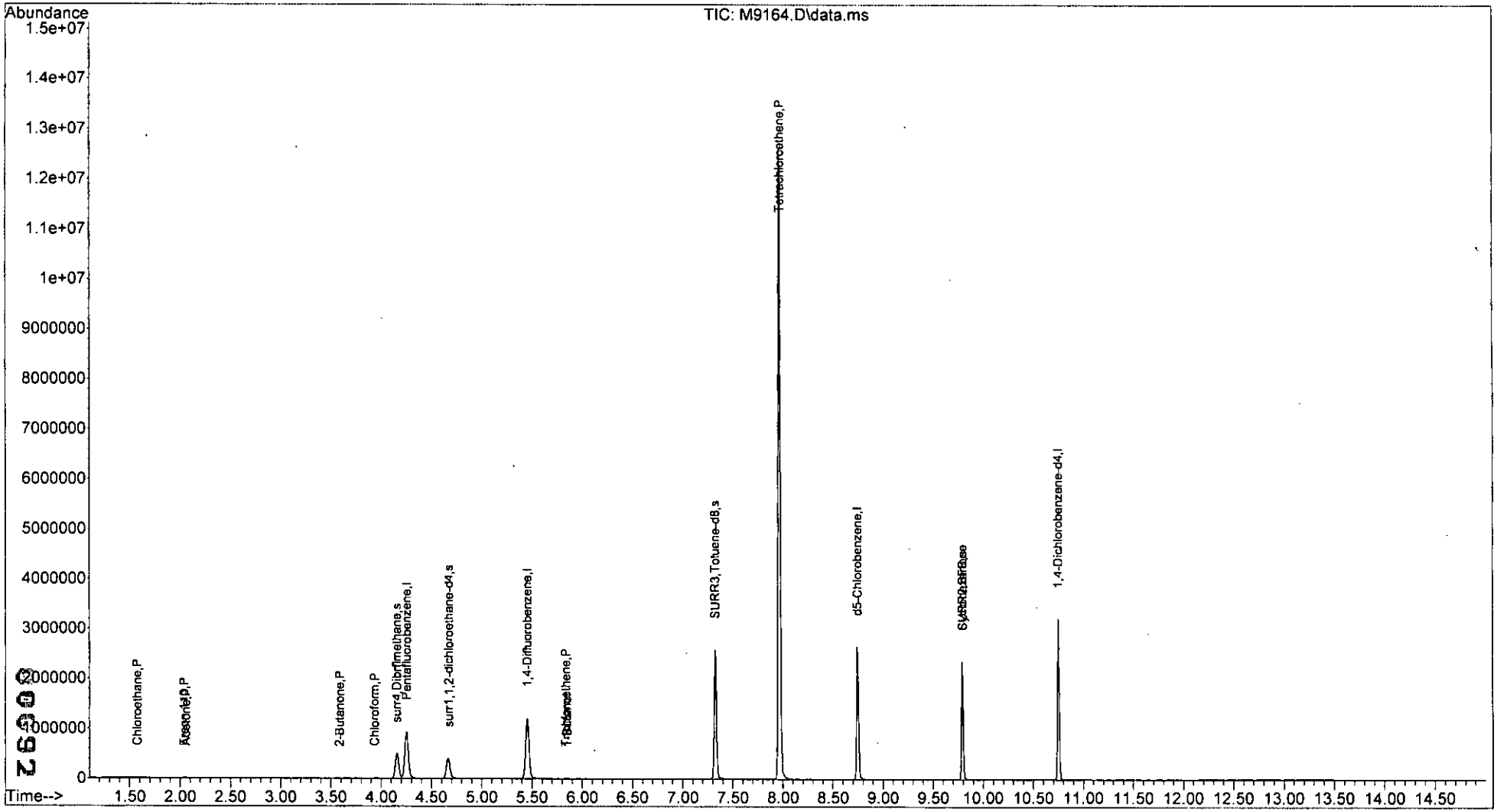
KR 9/24/14

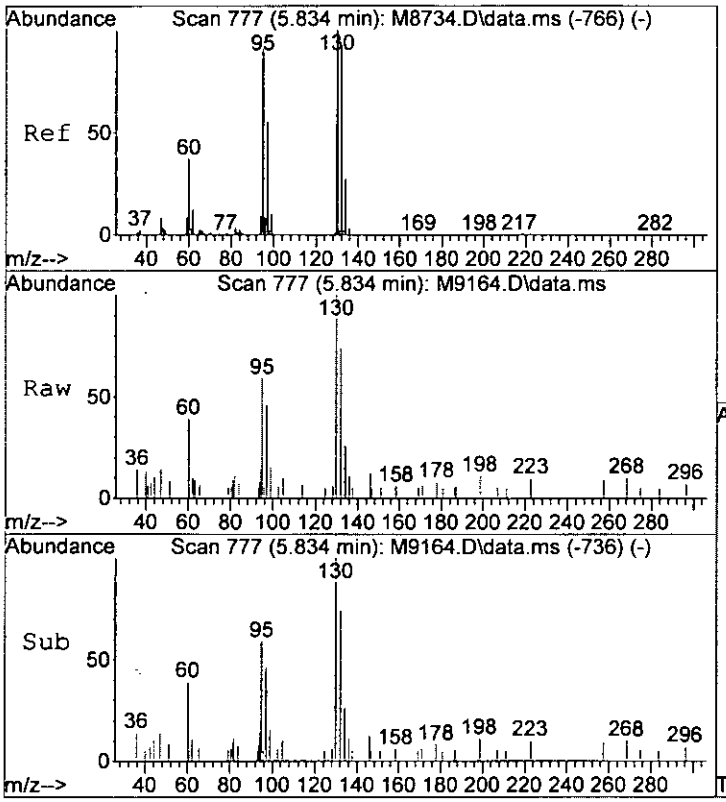
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— QAL

Quantitation Report (Not Reviewed)

Sample : R1407413-008|2.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9164.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 5:00 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 05:14:50 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

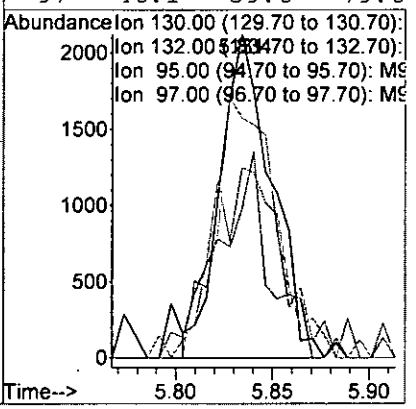


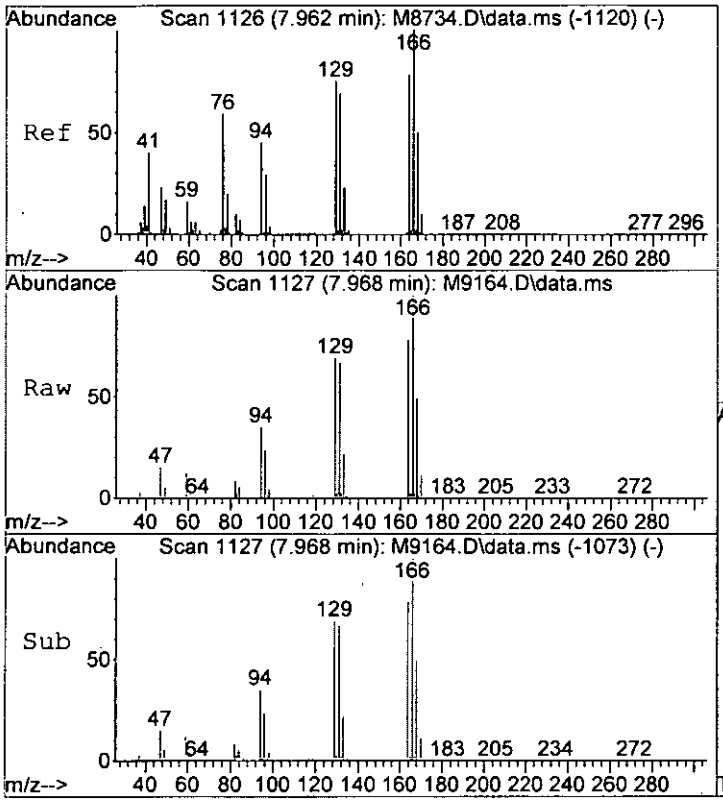


#54
Trichloroethene
Concen: 0.48 ppb
RT: 5.834 min Scan# 777
Delta R.T. -0.000 min
Lab File: M9164.D
Acq: 23 Sep 2014 5:00 am

Tgt Ion:130 Resp: 3880

Ion	Ratio	Lower	Upper
130	100		
132	74.2	75.1	115.1#
95	63.7	71.2	111.2#
97	46.1	39.6	79.6

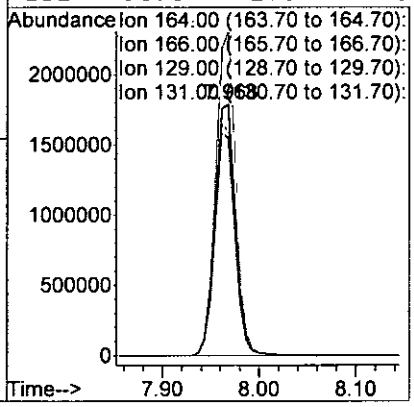




#72
Tetrachloroethene
Concen: 404.82 ppb
RT: 7.968 min Scan# 1127
Delta R.T. -0.000 min
Lab File: M9164.D
Acq: 23 Sep 2014 5:00 am

Tgt Ion:164 Resp: 2595438

Ion	Ratio	Lower	Upper
164	100		
166	128.7	108.1	148.1
129	89.1	75.7	115.7
131	86.6	71.0	111.0



Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1515
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 13:06
Sample Name:	MW-7A	**Units:**	µg/L
Lab Code:	R1407413-008	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9201.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.8	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	25	U	25	2.9	
127-18-4	Tetrachloroethene (PCE)	**780**	D	25	1.5	
79-01-6	Trichloroethene (TCE)	25	U	25	1.1	
75-01-4	Vinyl Chloride	25	U	25	1.6	
156-59-2	cis-1,2-Dichloroethene	25	U	25	1.5	
156-60-5	trans-1,2-Dichloroethene	25	U	25	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/24/14 13:06	
Dibromofluoromethane	102	89-119	9/24/14 13:06	
Toluene-d8	100	87-121	9/24/14 13:06	

Quantitation Report (Not Reviewed)

Sample : R1407413-008|5.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9201.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 1:06 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 13:20:56 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	876498	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1315433	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1199915	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	607434	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	373834	51.02	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.04%				
48) surr1,1,2-dichloroetha...	4.658	65	359061	45.47	ppb		-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.94%				
65) SURR3,Toluene-d8	7.322	98	1550162	50.13	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.26%				
70) SURR2,BFB	9.791	95	534024	48.23	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.46%				
Target Compounds							Qvalue
5) Bromomethane	1.512	94	1587	0.28	ppb		80
15) Acetone	2.054	43	4498	2.50	ppb		90
16) 2-Propanol	2.085	45	172	0.60	ppb	#	1
19) Acetonitrile	2.207	40	557	2.29	ppb	#	1
20) Allyl Chloride	2.201	76	2597	0.62	ppb	#	1
35) 2-Butanone	3.597	43	739	0.31	ppb	#	62
40) Chloroform	3.938	83	4639	0.33	ppb		89
72) Tetrachloroethene	7.962	164	962022	156.52	ppb		96
90) Cyclohexanone	9.730	55	442	0.61	ppb	#	63
116) Hexachlorobt	12.266	225	1252	0.38	ppb	#	45
119) 2,4,5-Trichlorotolene	12.857	159	2041	0.36	ppb	#	80
120) 2,3,6-Trichlorotoluene	12.918	159	1659	0.30	ppb	#	74

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

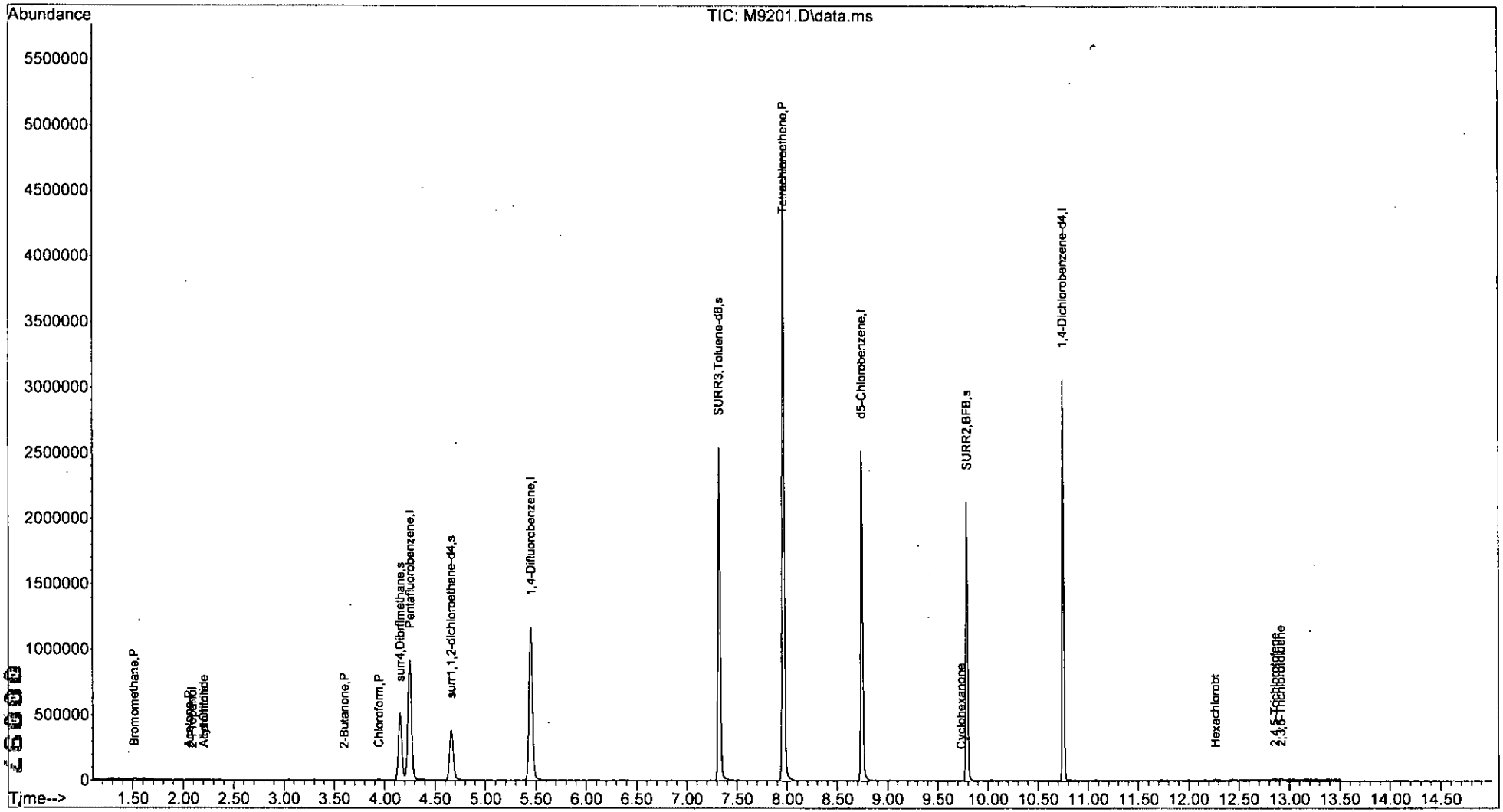
KR 9/26/14

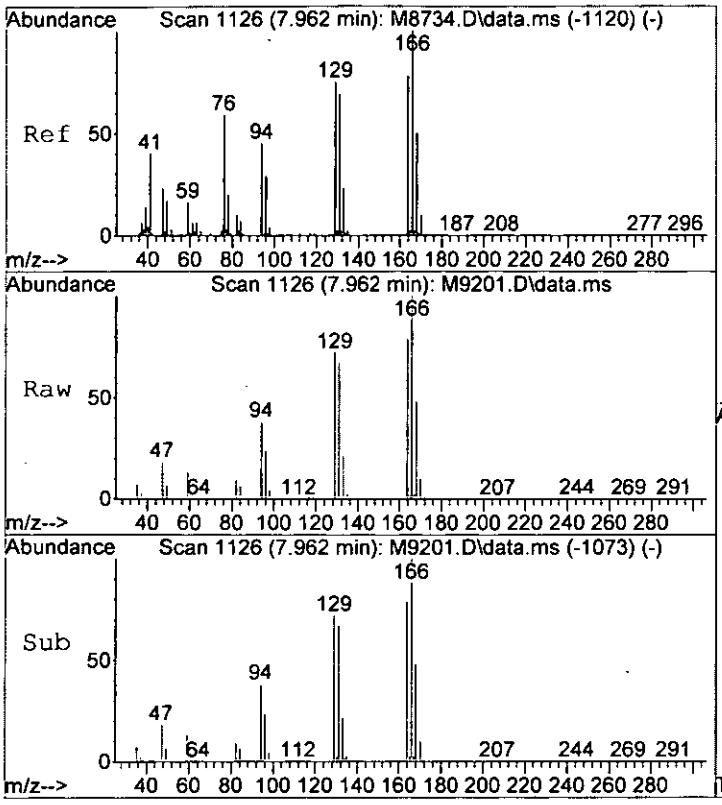
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-Qdel.

Quantitation Report (Not Reviewed)

Sample : R1407413-008|5.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9201.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 1:06 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 13:20:56 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

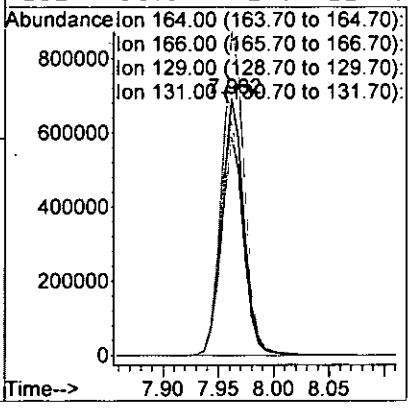




#72
Tetrachloroethene
Concen: 156.52 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9201.D
Acq: 24 Sep 2014 1:06 pm

Tgt Ion:164 Resp: 962022

Ion	Ratio	Lower	Upper
164	100		
166	126.1	108.1	148.1
129	91.0	75.7	115.7
131	84.9	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1535
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 02:19
Sample Name:	MP-6D	**Units:**	µg/L
Lab Code:	R1407413-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9159.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**1.4**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 02:19	
Dibromofluoromethane	101	89-119	9/23/14 02:19	
Toluene-d8	97	87-121	9/23/14 02:19	

Quantitation Report (Not Reviewed)

Sample : R1407413-009|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9159.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 2:19 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 02:33:37 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	922340	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1378244	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1247766	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	626857	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	389518	50.74	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.48%				
48) surr1,1,2-dichloroetha...	4.664	65	383227	46.32	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.64%				
65) SURR3,Toluene-d8	7.322	98	1571937	48.52	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.04%				
70) SURR2,BFB	9.791	95	568469	49.00	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.00%				
Target Compounds							Qvalue
12) Acrolein	1.969	56	226	0.40	ppb		76
15) Acetone	2.055	43	1802	0.95	ppb		78
16) 2-Propanol	2.116	45	152	0.50	ppb	#	56
~~18) Carbon Disulfide~~	~~2.207~~	~~76~~	~~10217~~	~~0.41~~	~~ppb~~		~~90~~
72) Tetrachloroethene	7.962	164	9231	1.44	ppb	#	88
~~90) Cyclohexanone~~	~~9.736~~	~~55~~	~~416~~	~~0.56~~	~~ppb~~	#	~~15~~

KR 9/24/14

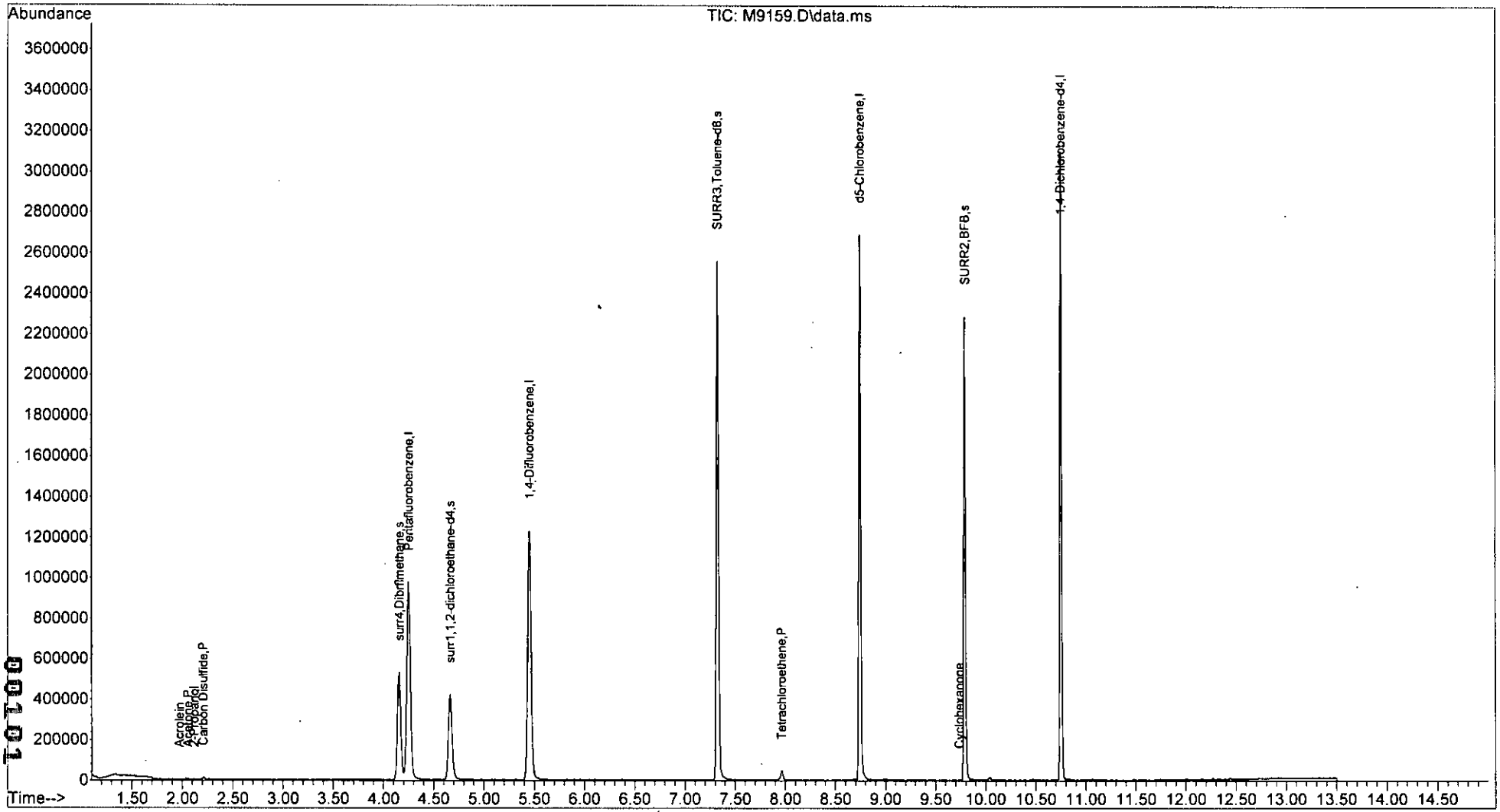
(#) = qualifier out of range (m) = manual integration (+) = signals summed

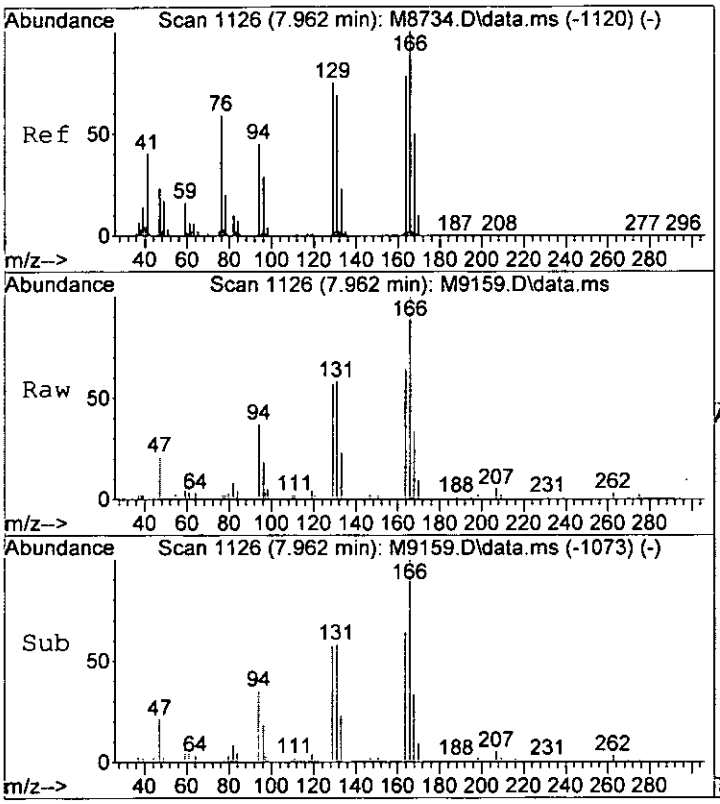
NT's not Validated — Qdel

Quantitation Report (Not Reviewed)

Sample : R1407413-009|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9159.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 2:19 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 02:33:37 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

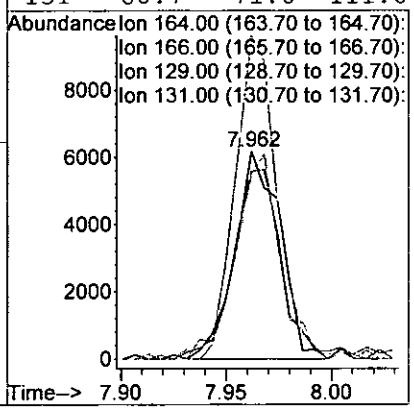




#72
Tetrachloroethene
Concen: 1.44 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9159.D
Acq: 23 Sep 2014 2:19 am

Tgt Ion:164 Resp: 9231

Ion	Ratio	Lower	Upper
164	100		
166	153.1	108.1	148.1#
129	87.4	75.7	115.7
131	88.7	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1635
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 15:44
Sample Name:	MP-11	**Units:**	µg/L
Lab Code:	R1407413-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9184.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**3.1**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 15:44	
Dibromofluoromethane	101	89-119	9/23/14 15:44	
Toluene-d8	100	87-121	9/23/14 15:44	

Quantitation Report (Not Reviewed)

Sample : R1407413-010|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9184.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 3:44 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 15:58:57 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	879848	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1338992	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1213466	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	635563	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	375039	50.29	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.58%				
48) surr1,1,2-dichloroetha...	4.664	65	367745	45.75	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.50%				
65) SURR3,Toluene-d8	7.322	98	1566993	49.78	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.56%				
70) SURR2,BFB	9.791	95	544867	48.35	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.70%				
Target Compounds							Qvalue
5) Bromomethane	1.518	94	1595	0.28	ppb		94
6) Chloroethane	1.567	64	11405	2.07	ppb		97
8) Trichlorofluoromethane	1.719	101	2976	0.25	ppb	#	67
10) Freon 123a	1.866	67	3155	0.34	ppb		99
14) Freon 113	2.036	101	13017	1.78	ppb		87
15) Acetone	2.048	43	31843	17.60	ppb		92
16) 2-Propanol	2.189	45	235	0.82	ppb	#	1
18) Carbon Disulfide	2.207	76	11927	0.50	ppb		95
35) 2-Butanone	3.554	43	1561	0.66	ppb		67
72) Tetrachloroethene	7.968	164	19048	3.06	ppb		84
76) N-Butyl Acetate	8.194	43	323	0.24	ppb	#	41
90) Cyclohexanone	9.791	55	1102	1.46	ppb	#	42

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

KP 9/29/14

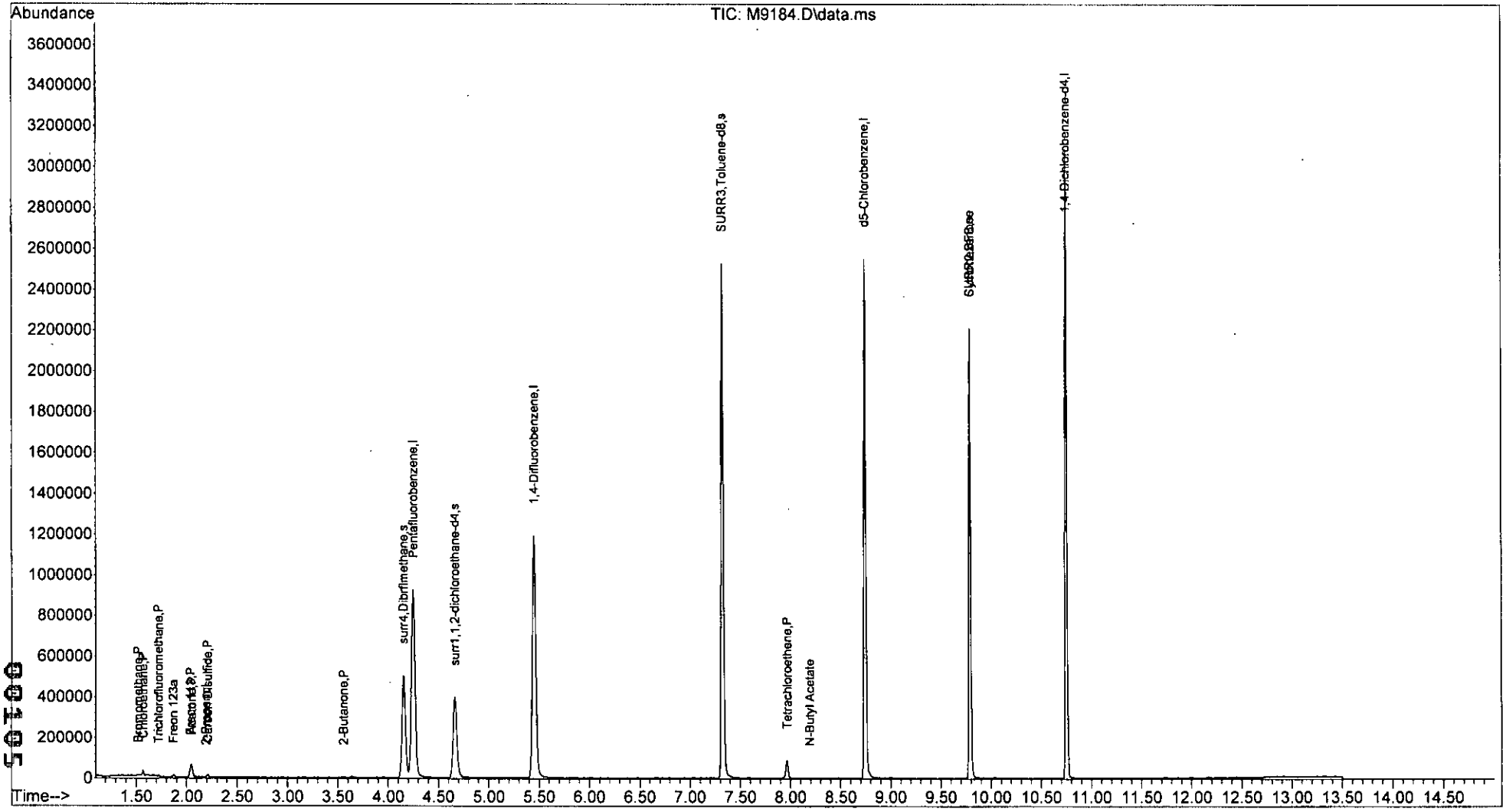
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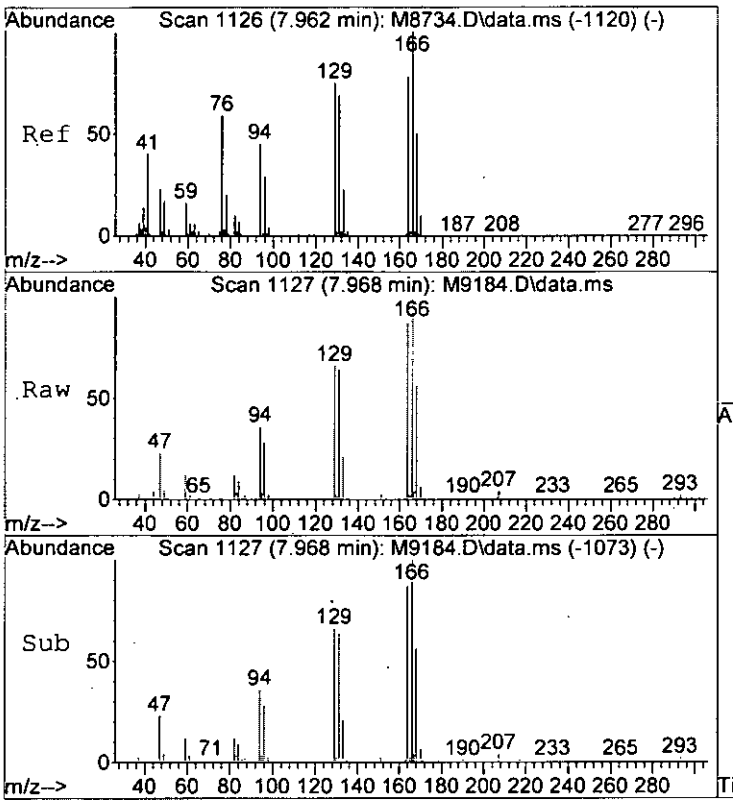
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Quantitation Report (Not Reviewed)

Sample : R1407413-010|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9184.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 3:44 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 15:58:57 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

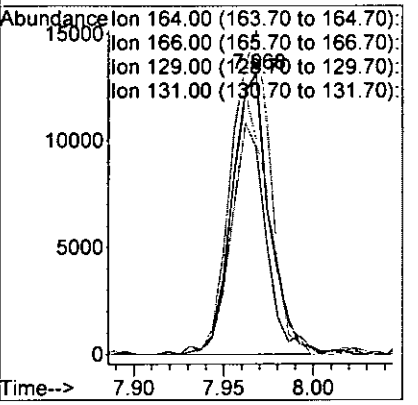




#72
Tetrachloroethene
Concen: 3.06 ppb
RT: 7.968 min Scan# 1127
Delta R.T. 0.000 min
Lab File: M9184.D
Acq: 23 Sep 2014 3:44 pm

Tgt Ion:164 Resp: 19048

Ion	Ratio	Lower	Upper
164	100		
166	115.5	108.1	148.1
129	76.5	75.7	115.7
131	73.8	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1655
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 13:03
Sample Name:	FB-091714	**Units:**	µg/L
Lab Code:	R1407413-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9179.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85-122	9/23/14 13:03	
Dibromofluoromethane	101	89-119	9/23/14 13:03	
Toluene-d8	99	87-121	9/23/14 13:03	

Quantitation Report (Not Reviewed)

Sample : R1407413-011|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9179.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 1:03 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 13:17:44 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	903085	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1360227	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1217019	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	584633	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	384391	50.74	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.48%				
48) surr1,1,2-dichloroetha...	4.658	65	366277	44.86	ppb		-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 89.72%				
65) SURR3,Toluene-d8	7.322	98	1588244	49.67	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.34%				
70) SURR2,BFB	9.791	95	546115	47.70	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.40%				
Target Compounds							Qvalue
5) Bromomethane	1.518	94	3087	0.53	ppb		87
~~12) Acrolein~~	~~1.994~~	~~56~~	~~338~~	~~0.61~~	~~ppb~~		~~89~~
15) Acetone	2.061	43	811	0.44	ppb		86
~~16) 2 Propanol~~	~~2.146~~	~~45~~	~~171~~	~~0.58~~	~~ppb~~	#	~~56~~
17) Iodomethane	2.146	142	2083	0.21	ppb		91
18) Carbon Disulfide	2.207	76	5563	0.23	ppb		92
~~19) Acetonitrile~~	~~2.268~~	~~40~~	~~634~~	~~2.53~~	~~ppb~~	#	~~47~~
22) Methylene Chloride	2.359	84	3274	0.40	ppb	#	81
40) Chloroform	3.938	83	137096	9.40	ppb		96
~~90) Cyclohexanone~~	~~9.724~~	~~55~~	~~446~~	~~0.64~~	~~ppb~~		~~81~~
112) Trielution Dichlorotol...	11.729	125	3523	0.31	ppb	#	75
114) Coelution Dichlorotoluene	11.998	125	2736	0.22	ppb	#	90
115) 1,2,4-Tcbenzene	12.162	180	1822	0.22	ppb		85
116) Hexachlorobt	12.266	225	1609	0.50	ppb		86
117) Naphthalen	12.302	128	3479	0.21	ppb		93
118) 1,2,3-Tclbenzene	12.437	180	1440	0.21	ppb	#	54
119) 2,4,5-Trichlorotolene	12.851	159	2860	0.52	ppb		88
120) 2,3,6-Trichlorotoluene	12.912	159	2278	0.42	ppb	#	89

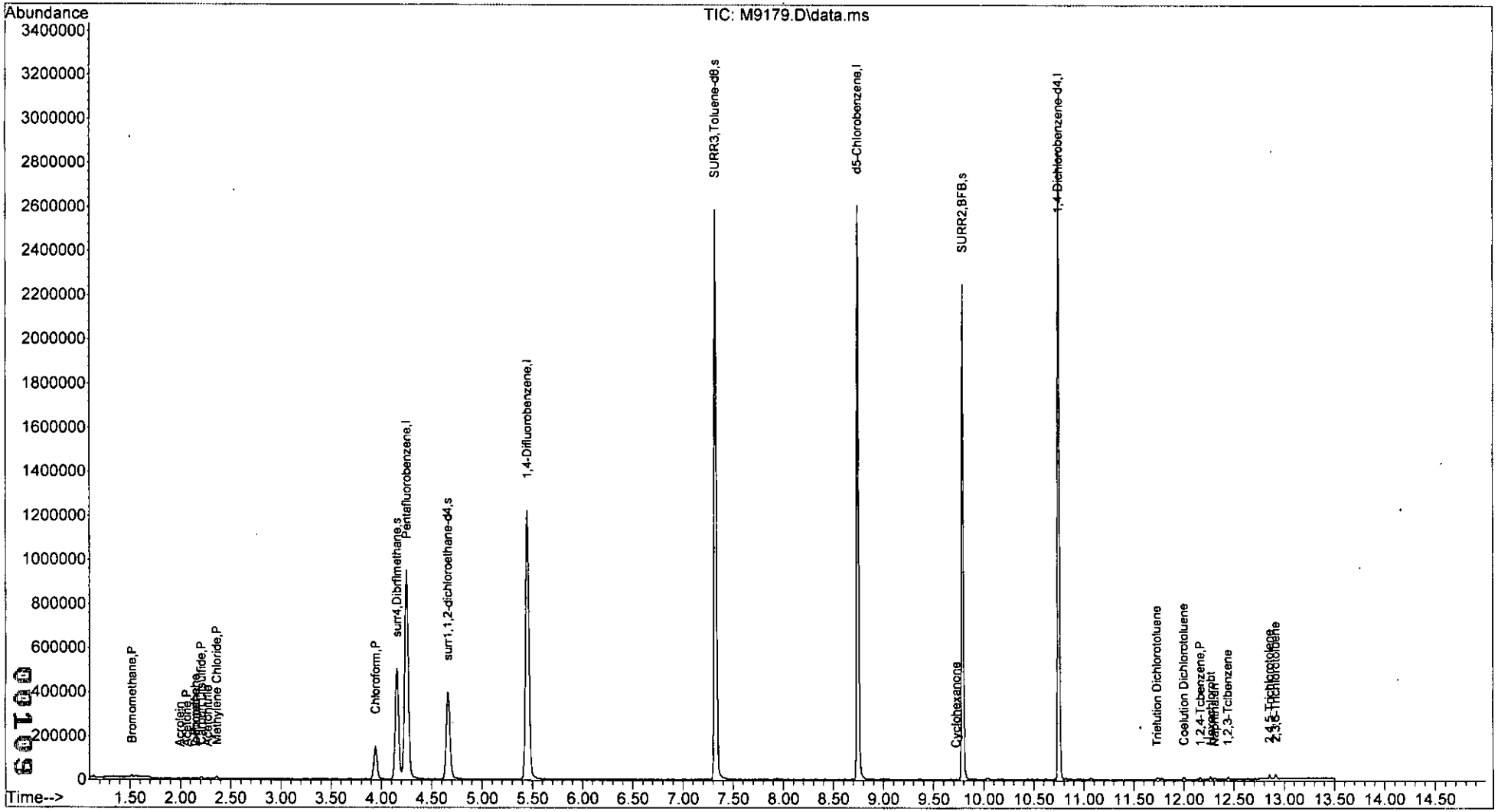
KR 9/23/14

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

Quantitation Report (Not Reviewed)

Sample : R1407413-011|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9179.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 1:03 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 13:17:44 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/17/14 1715
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 17:21
Sample Name:	MP-13	**Units:**	µg/L
Lab Code:	R1407413-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9187.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.33**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/23/14 17:21	
Dibromofluoromethane	102	89-119	9/23/14 17:21	
Toluene-d8	100	87-121	9/23/14 17:21	

Quantitation Report (Not Reviewed)

Sample : R1407413-012|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9187.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 5:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 17:35:28 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	873416	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1334171	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1184787	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	607303	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	378354	50.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.82%				
48) surr1,1,2-dichloroetha...	4.658	65	368052	45.95	ppb		-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.90%				
65) SURR3,Toluene-d8	7.322	98	1562179	49.81	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.62%				
70) SURR2,BFB	9.791	95	539449	48.04	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.08%				
Target Compounds							Qvalue
6) Chloroethane	1.579	64	1185	0.22	ppb	#	48
15) Acetone	2.049	43	394	0.22	ppb		71
16) 2-Propanol	2.195	45	194	0.68	ppb		62
20) Allyl Chloride	2.268	76	1518	0.36	ppb	#	1
90) Cyclohexanone	9.791	55	1239	1.71	ppb	#	38
91) TCE	5.578		2640	0.33	m(KR)		

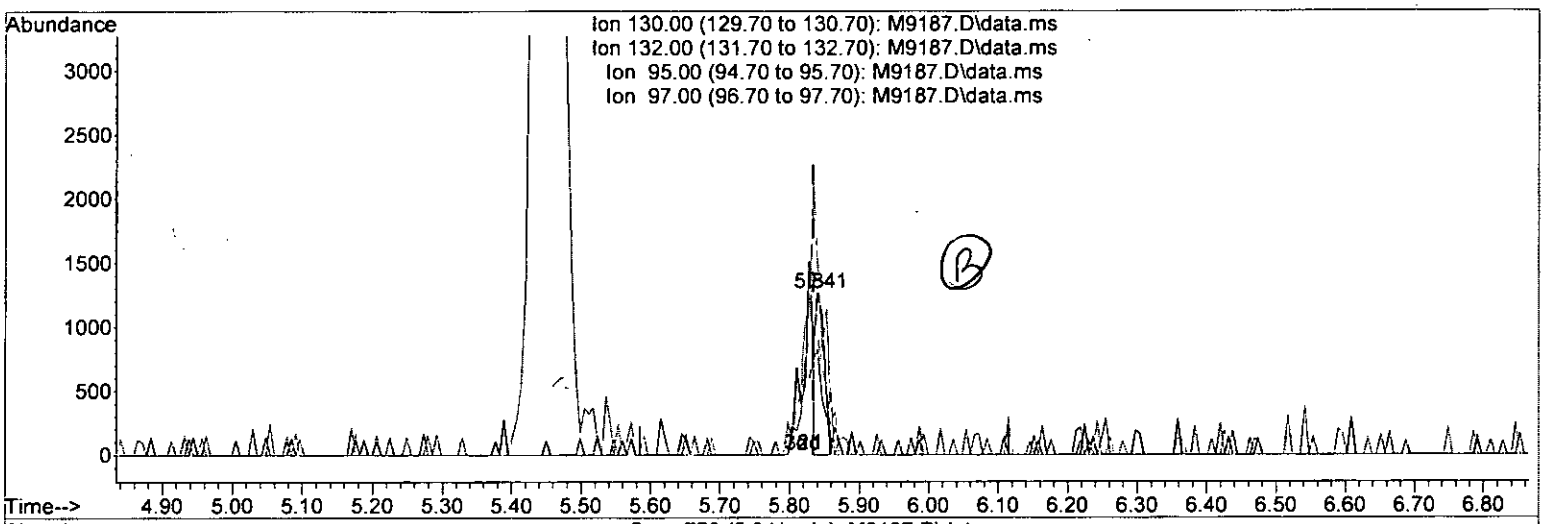
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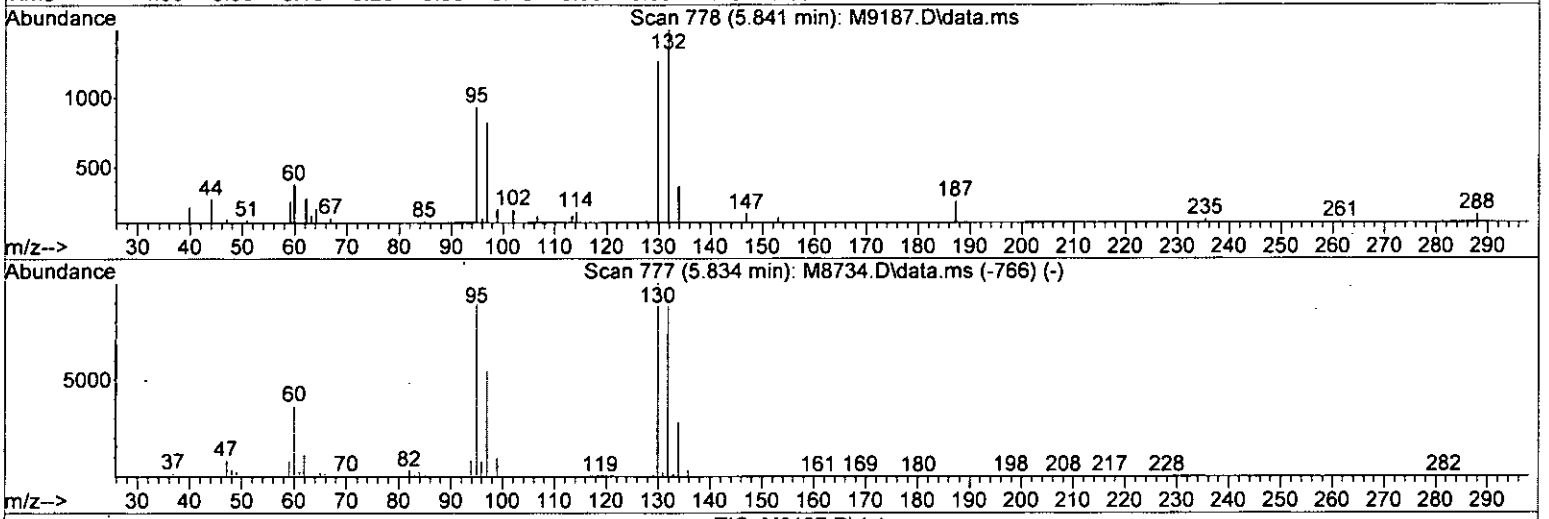
KR 9/29/14

Quantitation Report (Qedit)

Sample : R1407413-012|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9187.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 5:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 17:35:28 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration





TIC: M9187.D\data.ms

(54) Trichloroethene (P)

5.841min (+0.006) 0.13 ppb

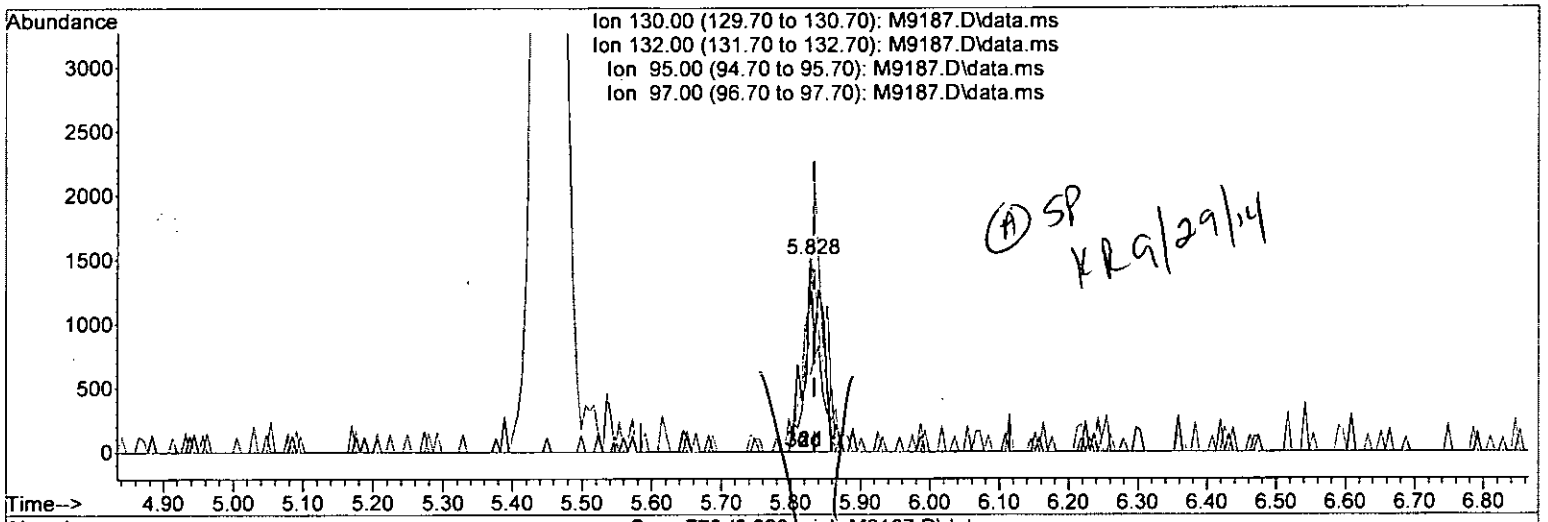
response 1026

Ion	Exp%	Act%
130.00	100	100
132.00	95.10	118.08#
95.00	91.20	73.91
97.00	59.60	65.11

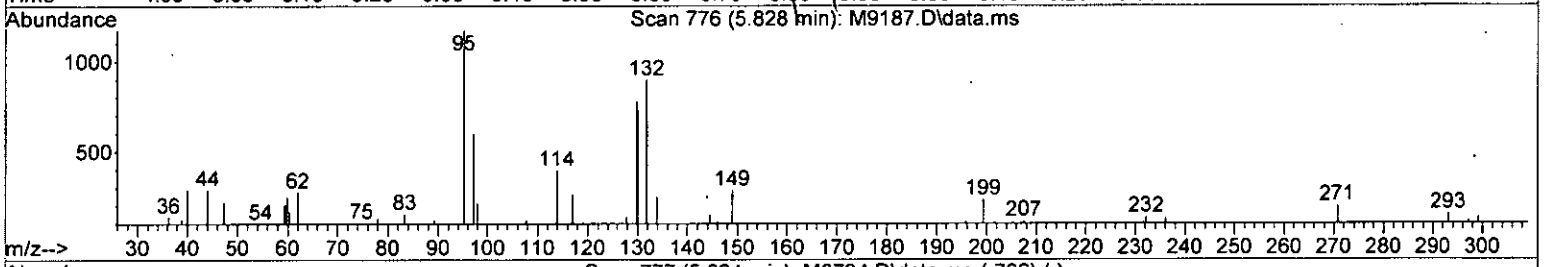
Quantitation Report (Qedit)

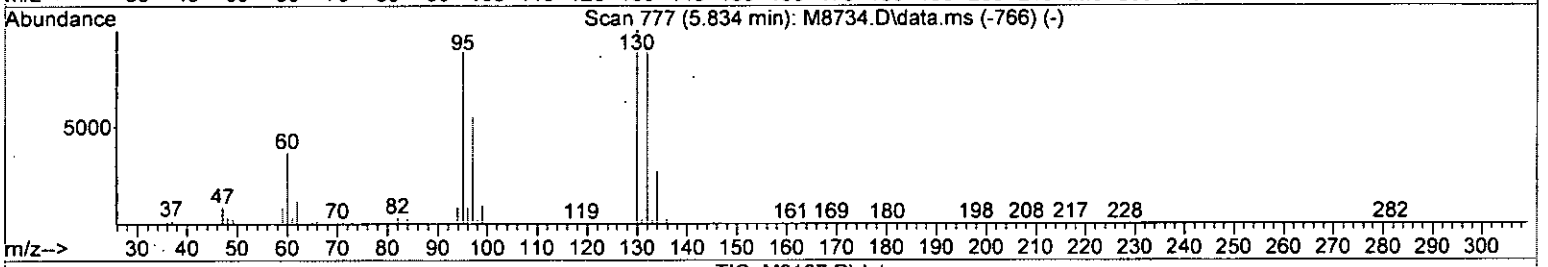
Sample : R1407413-012|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9187.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 5:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 17:35:28 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



(A) SP KRG/29/14





TIC: M9187.D\data.ms

(54) Trichloroethene (P)

5.828min (-0.006) 0.33 ppb m

response 2640

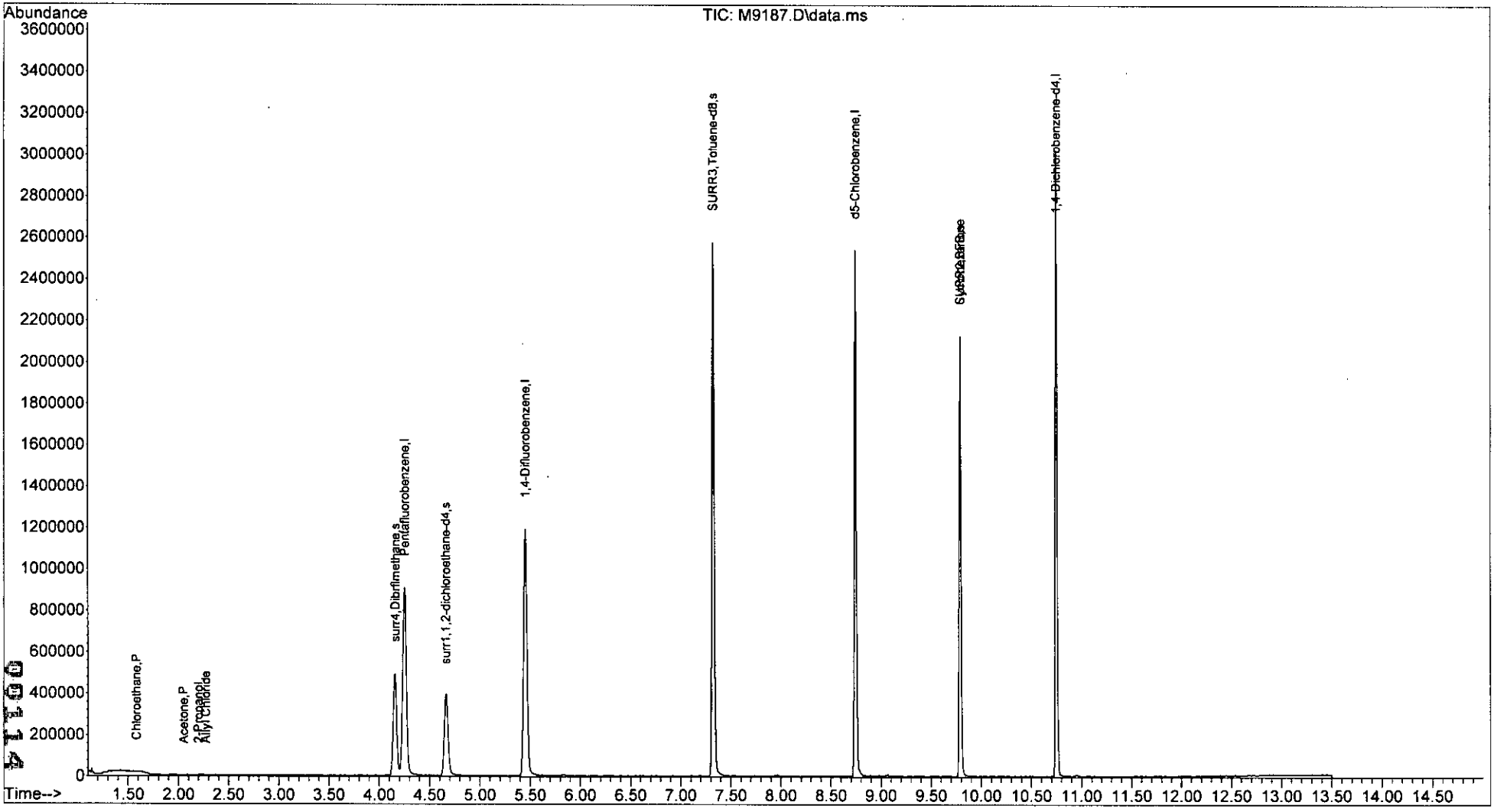
Ion	Exp%	Act%
130.00	100	100
132.00	95.10	115.91#
95.00	91.20	151.36#
97.00	59.60	77.36

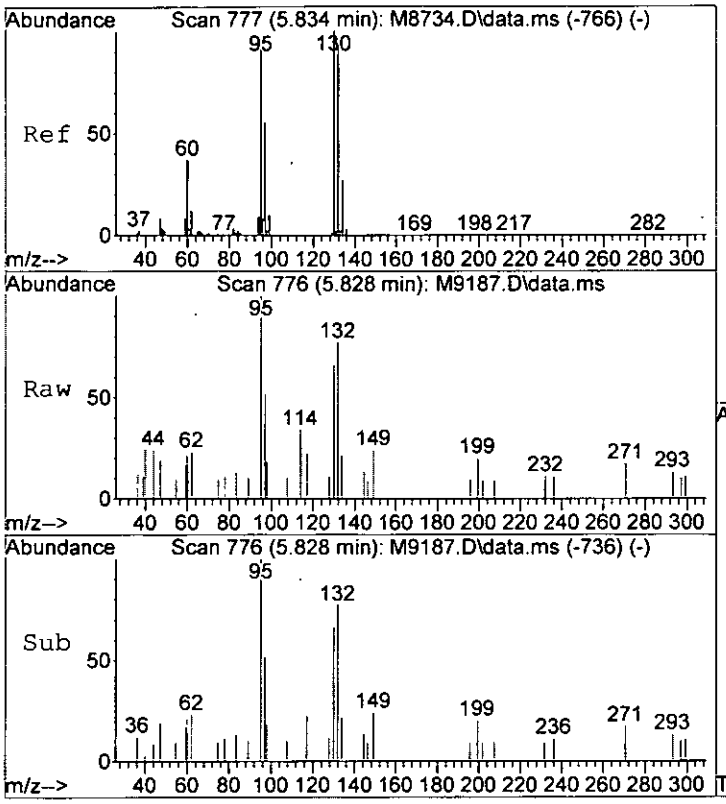
M' 9/29

Quantitation Report (Not Reviewed)

Sample : R1407413-012|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9187.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 5:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 17:35:28 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

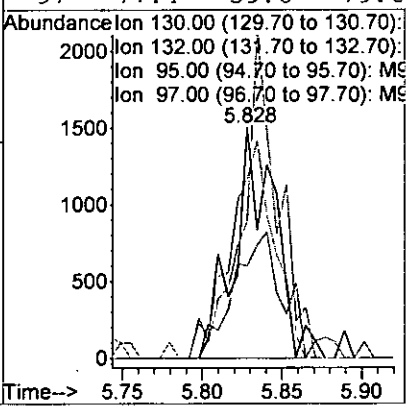




#54
Trichloroethene
Concen: 0.33 ppb m
RT: 5.828 min Scan# 776
Delta R.T. -0.006 min
Lab File: M9187.D
Acq: 23 Sep 2014 5:21 pm

Tgt Ion:130 Resp: 2640

Ion	Ratio	Lower	Upper
130	100		
132	115.9	75.1	115.1#
95	151.4	71.2	111.2#
97	77.4	39.6	79.6



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 0920
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 02:51
Sample Name:	MW-12	**Units:**	µg/L
Lab Code:	R1407413-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9160.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 02:51	
Dibromofluoromethane	101	89-119	9/23/14 02:51	
Toluene-d8	100	87-121	9/23/14 02:51	

Quantitation Report (Not Reviewed)

Sample : R1407413-013|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9160.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 2:51 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 03:06:01 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	909873	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1386093	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1270512	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	656631	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	391397	50.70	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.40%				
48) surr1,1,2-dichloroetha...	4.664	65	386128	46.40	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.80%				
65) SURR3,Toluene-d8	7.322	98	1635108	50.18	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.36%				
70) SURR2,BFB	9.791	95	573127	49.13	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.26%				
Target Compounds							Qvalue
3) Chloromethane	1.256	50	3272	0.34	ppb	#	54
12) Acrolein	1.969	56	274	0.49	ppb	#	57
15) Acetone	2.055	43	600	0.32	ppb		82
16) 2-Propanol	2.122	45	225	0.75	ppb	#	56
20) Allyl Chloride	2.298	76	1124	0.26	ppb	#	1
90) Cyclohexanone	9.718	55	237	0.30	ppb	#	72

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

KR 9/24/14

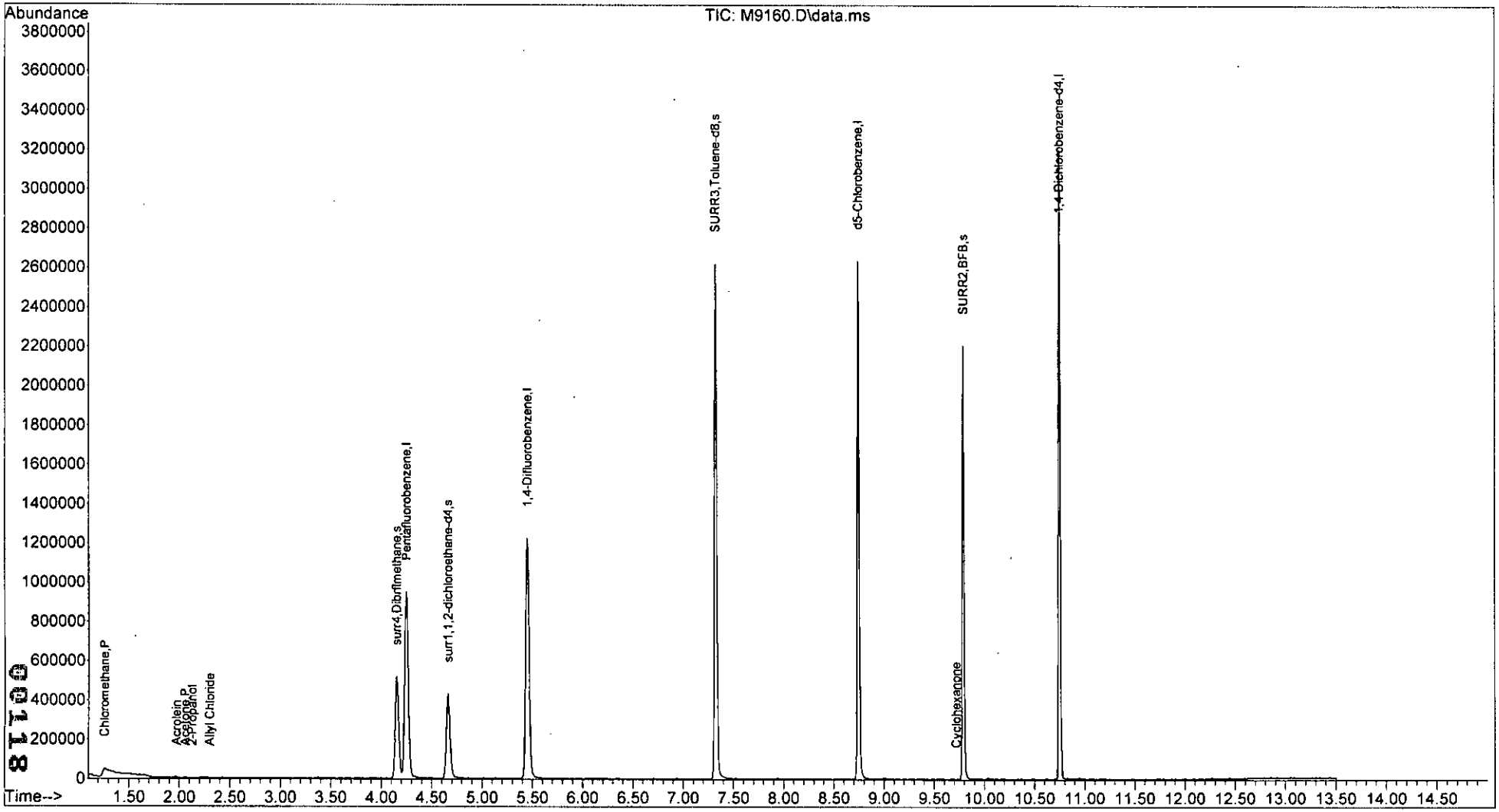
NT's not evaluated
— Qdel.

00117

Quantitation Report (Not Reviewed)

Sample : R1407413-013|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9160.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 2:51 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 03:06:01 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 0945
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 16:17
Sample Name:	MP-30	**Units:**	µg/L
Lab Code:	R1407413-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9185.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.85**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/23/14 16:17	
Dibromofluoromethane	100	89-119	9/23/14 16:17	
Toluene-d8	99	87-121	9/23/14 16:17	

Quantitation Report (Not Reviewed)

Sample : R1407413-014|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9185.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 4:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 16:31:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	884922	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1333617	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1194747	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	583589	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	373090	50.23	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.46%				
48) surr1,1,2-dichloroetha...	4.664	65	365657	45.67	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.34%				
65) SURR3,Toluene-d8	7.322	98	1558520	49.71	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.42%				
70) SURR2,BFB	9.791	95	540787	48.18	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.36%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.323	62	2649	0.27	ppb	#	1
~~9) Diethyl Ether~~	~~1.957~~	~~59~~	~~4048~~	~~0.71~~	~~ppb~~	~~#~~	~~1~~
12) Acrolein	2.048	56	249	0.46	ppb		78
16) 2-Propanol	~~2.170~~	45	292	1.01	ppb	#	56
19) Acetonitrile	2.243	40	668	2.72	ppb	#	1
~~20) Allyl Chloride~~	~~2.286~~	~~76~~	~~3759~~	~~0.88~~	~~ppb~~	~~#~~	~~1~~
34) cis-1,2-Dichloroethene	3.548	96	7522	0.85	ppb	#	58
~~90) Cyclohexanone~~	~~9.791~~	~~55~~	~~1237~~	~~1.78~~	~~ppb~~	~~#~~	~~15~~

< (SQL : nd.)

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

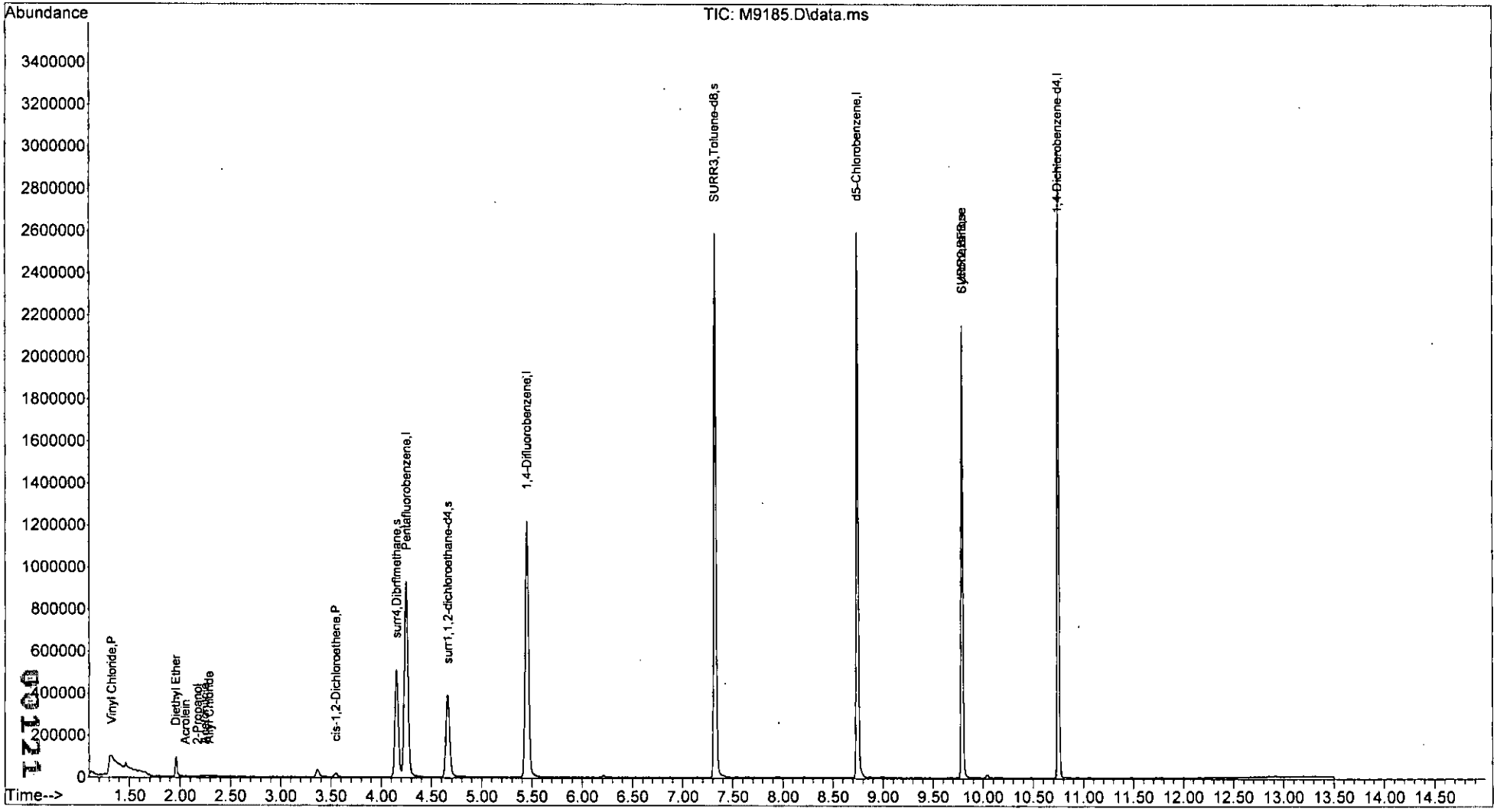
NT's not evaluated
- QAU.

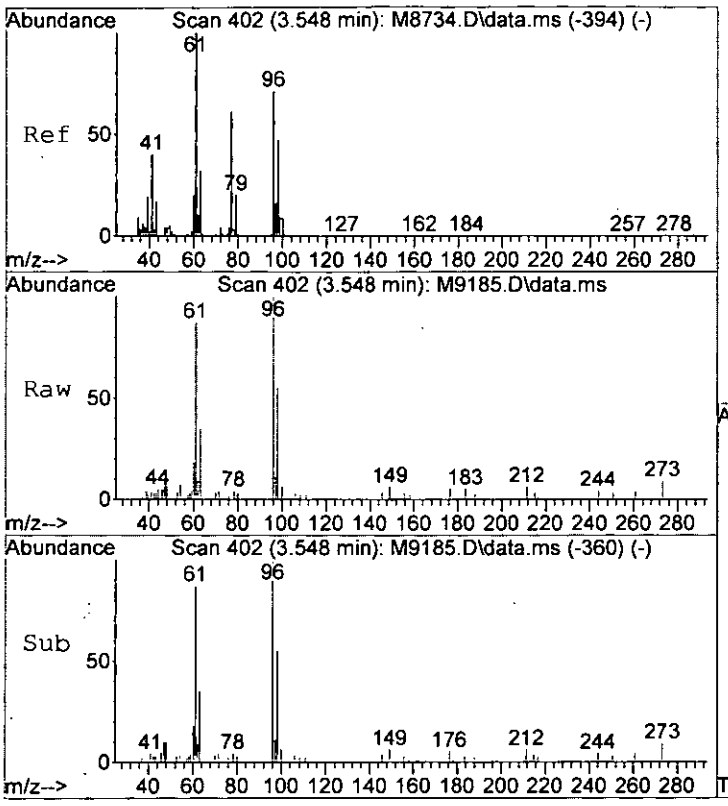
00129

Quantitation Report (Not Reviewed)

Sample : R1407413-014|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9185.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 4:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 16:31:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

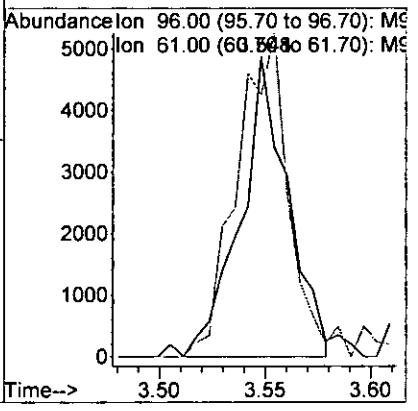




#34
cis-1,2-Dichloroethene
Concen: 0.85 ppb
RT: 3.548 min Scan# 402
Delta R.T. -0.000 min
Lab File: M9185.D
Acq: 23 Sep 2014 4:17 pm

Tgt Ion: 96 Resp: 7522

Ion	Ratio	Lower	Upper
96	100		
61	87.4	117.4	157.4#



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1145
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 17:53
Sample Name:	MW-16	**Units:**	µg/L
Lab Code:	R1407413-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9188.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**140**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**2.4**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.3**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 17:53	
Dibromofluoromethane	103	89-119	9/23/14 17:53	
Toluene-d8	101	87-121	9/23/14 17:53	

Quantitation Report (Not Reviewed)

Sample : R1407413-015|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9188.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 5:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 18:07:32 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	864699	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1306442	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1191765	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	619405	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	373750	51.36	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.72%				
48) surr1,1,2-dichloroetha...	4.664	65	361710	46.12	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.24%				
65) SURR3,Toluene-d8	7.322	98	1549681	50.46	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.92%				
70) SURR2,BFB	9.791	95	540293	49.14	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.28%				
Target Compounds							Qvalue
~~6) Chloroethane~~	~~1.561~~	~~64~~	~~1961~~	~~0.36~~	~~ppb~~	~~#~~	~~61~~
~~15) Acetone~~	~~2.055~~	~~43~~	~~3309~~	~~1.86~~	~~ppb~~		~~89~~
34) cis-1,2-Dichloroethene	3.548	96	11174	1.29	ppb	#	69
~~40) Chloroform~~	~~3.938~~	~~83~~	~~12693~~	~~0.91~~	~~ppb~~		~~90~~
54) Trichloroethene	5.828	130	18884	2.39	ppb		94
72) Tetrachloroethene	7.962	164	858180	140.58	ppb		99
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1375~~	~~1.87~~	~~ppb~~	~~#~~	~~15~~

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

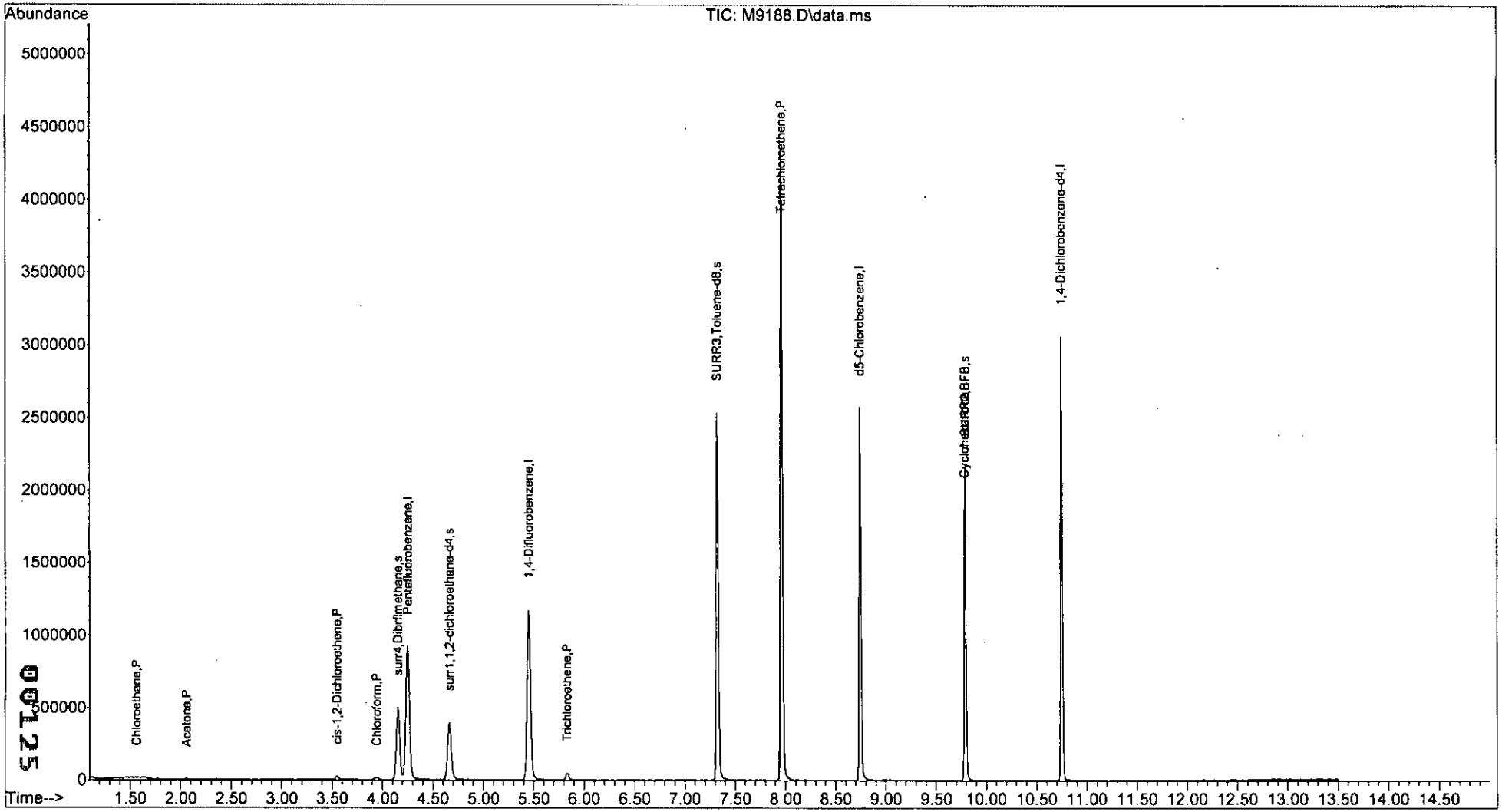
KR 9/29/14

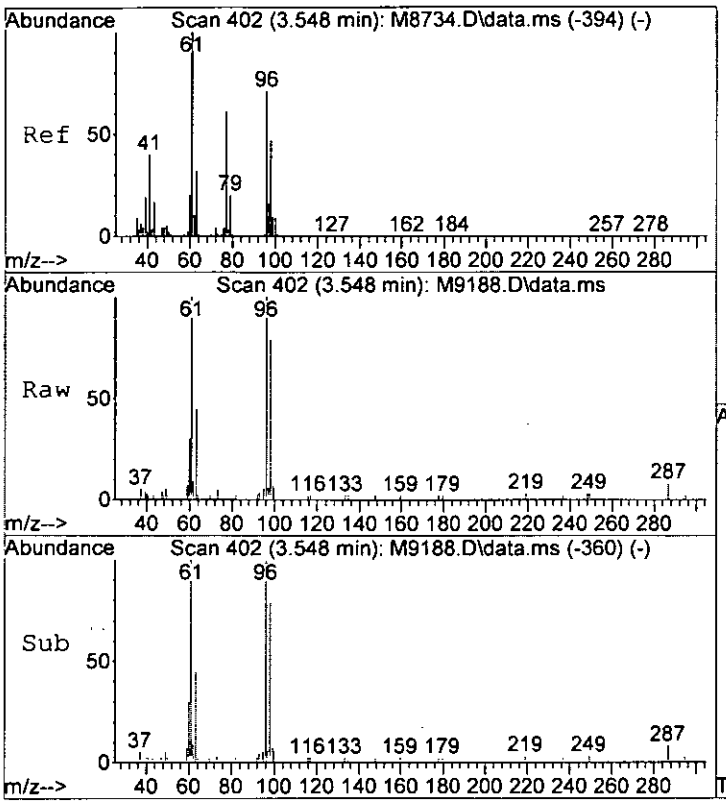
NT's not evaluated - Qdell.

Quantitation Report (Not Reviewed)

Sample : R1407413-015|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9188.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 5:53 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 18:07:32 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

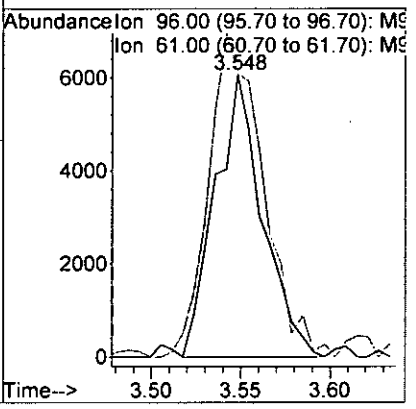


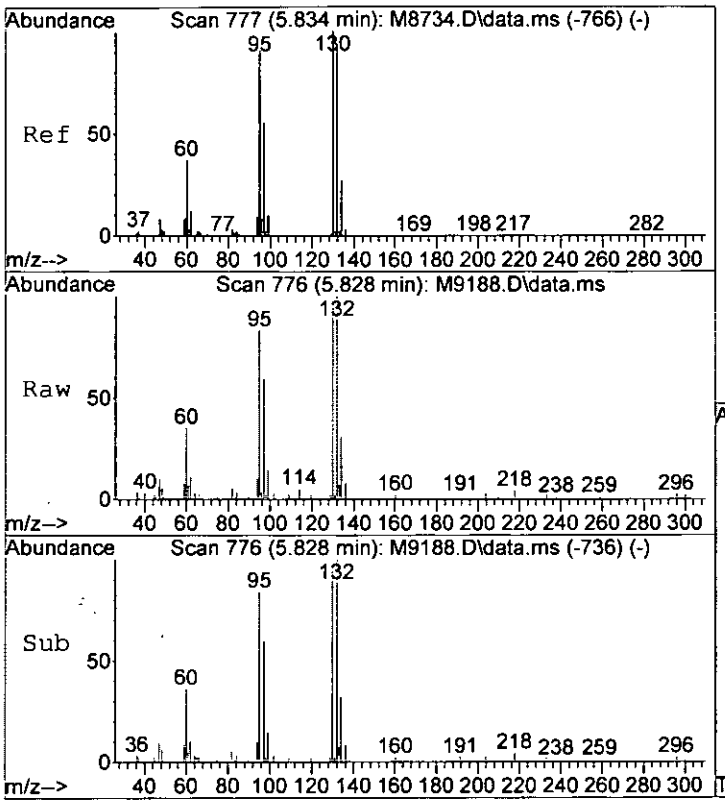


#34
cis-1,2-Dichloroethene
Concen: 1.29 ppb
RT: 3.548 min Scan# 402
Delta R.T. 0.000 min
Lab File: M9188.D
Acq: 23 Sep 2014 5:53 pm

Tgt Ion: 96 Resp: 11174

Ion	Ratio	Lower	Upper
96	100		
61	100.3	117.4	157.4#

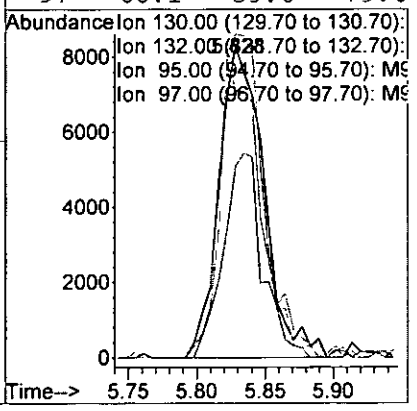


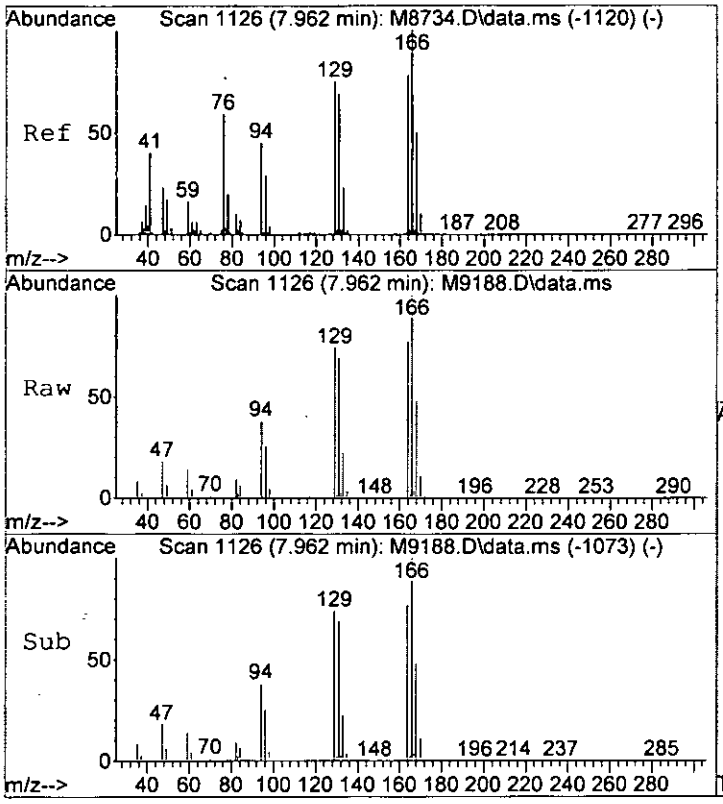


#54
Trichloroethene
Concen: 2.39 ppb
RT: 5.828 min Scan# 776
Delta R.T. -0.006 min
Lab File: M9188.D
Acq: 23 Sep 2014 5:53 pm

Tgt Ion:130 Resp: 18884

Ion	Ratio	Lower	Upper
130	100		
132	101.6	75.1	115.1
95	83.9	71.2	111.2
97	60.1	39.6	79.6

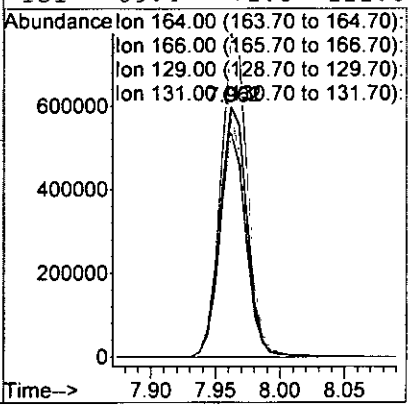




#72
Tetrachloroethene
Concen: 140.58 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9188.D
Acq: 23 Sep 2014 5:53 pm

Tgt Ion:164 Resp: 858180

Ion	Ratio	Lower	Upper
164	100		
166	129.3	108.1	148.1
129	95.0	75.7	115.7
131	89.4	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1150
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 03:24
Sample Name:	MP-12	**Units:**	µg/L
Lab Code:	R1407413-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9161.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**31**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.2**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.1**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 03:24	
Dibromofluoromethane	101	89-119	9/23/14 03:24	
Toluene-d8	100	87-121	9/23/14 03:24	

Quantitation Report (Not Reviewed)

Sample : R1407413-016|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9161.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 3:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 03:38:14 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	902915	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1367031	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1256508	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	642767	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	386205	50.72	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.44%				
48) surr1,1,2-dichloroetha...	4.664	65	383786	46.77	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.54%				
65) SURR3,Toluene-d8	7.322	98	1605385	49.96	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.92%				
70) SURR2,BFB	9.791	95	560648	48.73	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.46%				
Target Compounds							Qvalue
~~12) Acrolein~~	~~1.957~~	~~56~~	~~263~~	~~0.48~~	~~ppb~~	~~#~~	~~47~~
~~15) Acetone~~	~~2.055~~	~~43~~	~~7815~~	~~4.21~~	~~ppb~~		~~99~~
~~16) 2-Propanol~~	~~2.122~~	~~45~~	~~193~~	~~0.65~~	~~ppb~~	~~#~~	~~56~~
34) cis-1,2-Dichloroethene	3.548	96	10100	1.12	ppb	#	75
~~35) 2-Butanone~~	~~3.560~~	~~43~~	~~845~~	~~0.35~~	~~ppb~~	~~#~~	~~54~~
~~40) Chloroform~~	~~3.944~~	~~83~~	~~12853~~	~~0.88~~	~~ppb~~		~~93~~
54) Trichloroethene	5.834	130	9803	1.19	ppb	#	90
72) Tetrachloroethene	7.962	164	202297	31.43	ppb		99
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1069~~	~~1.40~~	~~ppb~~	~~#~~	~~15~~

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

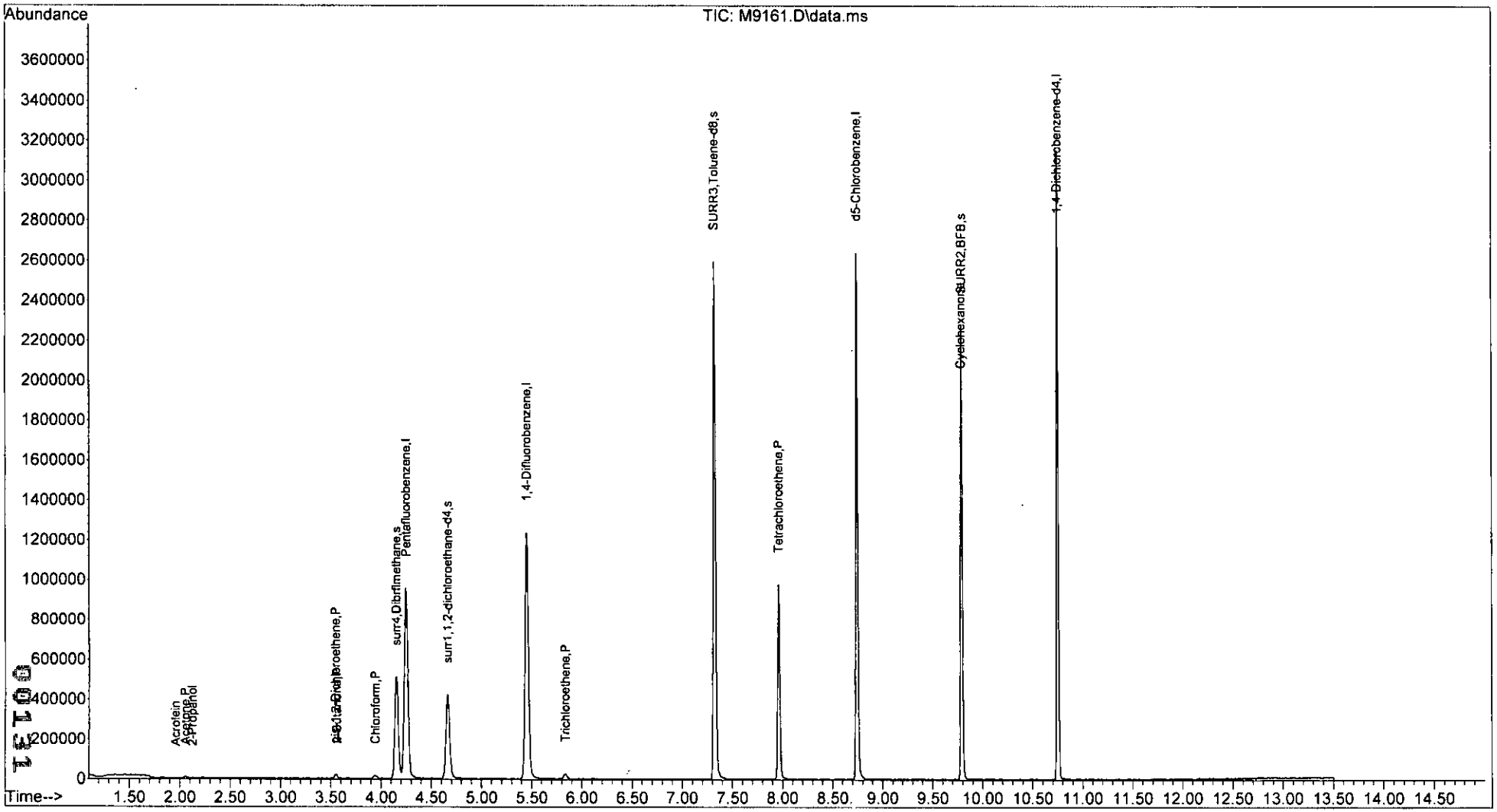
KR 9/24/14

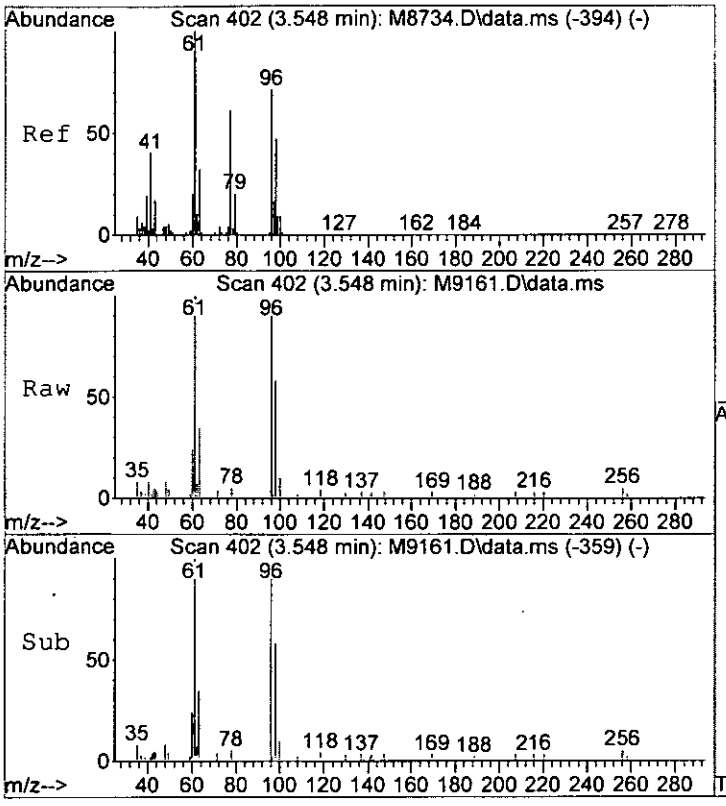
NT's not Valuated - Qalil

Quantitation Report (Not Reviewed)

Sample : R1407413-016|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9161.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 3:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 03:38:14 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

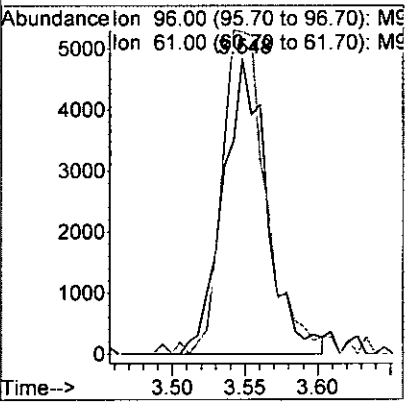


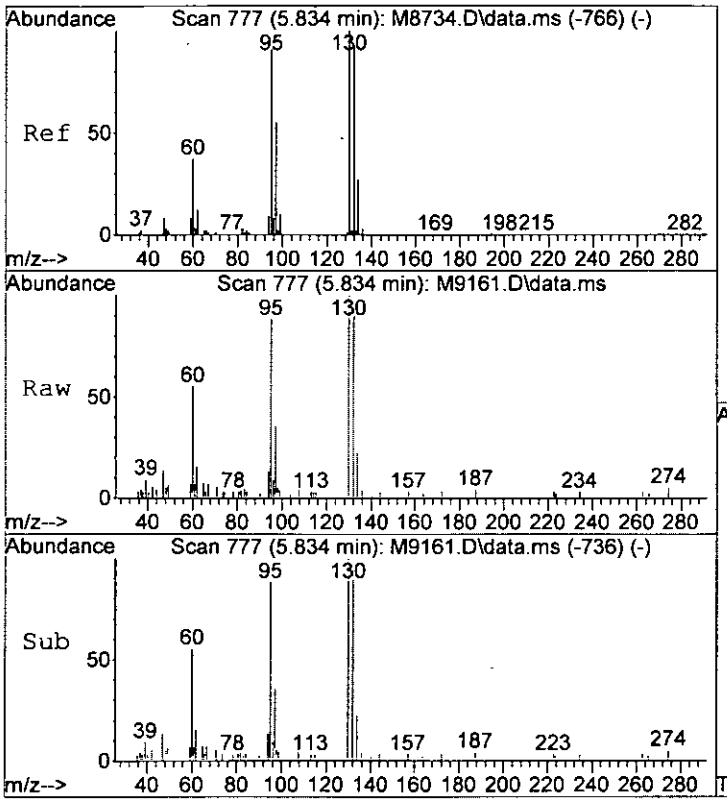


#34
cis-1,2-Dichloroethene
Concen: 1.12 ppb
RT: 3.548 min Scan# 402
Delta R.T. 0.000 min
Lab File: M9161.D
Acq: 23 Sep 2014 3:24 am

Tgt Ion: 96 Resp: 10100

Ion	Ratio	Lower	Upper
96	100		
61	106.8	117.4	157.4#

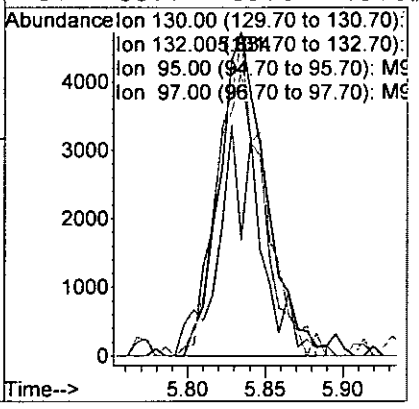


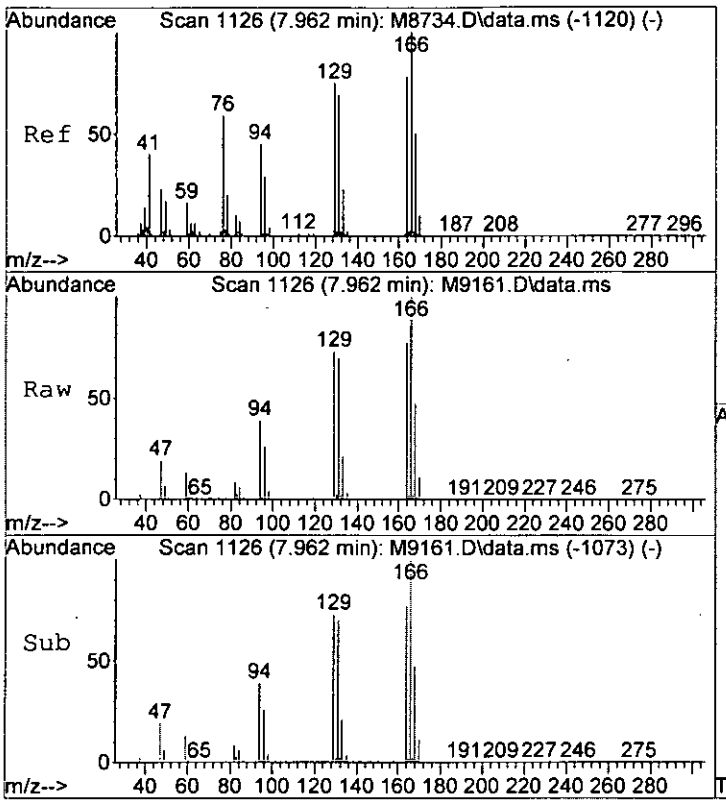


#54
Trichloroethene
Concen: 1.19 ppb
RT: 5.834 min Scan# 777
Delta R.T. 0.000 min
Lab File: M9161.D
Acq: 23 Sep 2014 3:24 am

Tgt Ion:130 Resp: 9803

Ion	Ratio	Lower	Upper
130	100		
132	98.1	75.1	115.1
95	88.1	71.2	111.2
97	35.7	39.6	79.6#

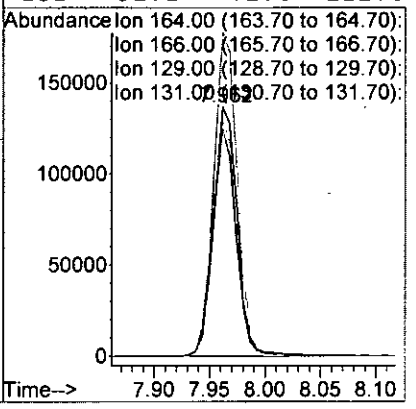




#72
Tetrachloroethene
Concen: 31.43 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9161.D
Acq: 23 Sep 2014 3:24 am

Tgt Ion:164 Resp: 202297

Ion	Ratio	Lower	Upper
164	100		
166	129.9	108.1	148.1
129	94.4	75.7	115.7
131	91.1	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1330
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 12:34
Sample Name:	IJ-5	**Units:**	µg/L
Lab Code:	R1407413-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9200.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85-122	9/24/14 12:34	
Dibromofluoromethane	101	89-119	9/24/14 12:34	
Toluene-d8	99	87-121	9/24/14 12:34	

Quantitation Report (Not Reviewed)

Sample : R1407413-017|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9200.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 12:34 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 12:48:42 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	865940	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1321046	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1195728	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	582004	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	372385	50.61	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.22%				
48) surr1,1,2-dichloroetha...	4.658	65	355636	44.84	ppb		-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 89.68%				
65) SURR3,Toluene-d8	7.322	98	1536624	49.48	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.96%				
70) SURR2,BFB	9.791	95	525268	47.24	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.48%				
Target Compounds							Qvalue
5) Bromomethane	1.512	94	2636	0.47	ppb		94
90) Cyclohexanone	9.730	55	358	0.52	ppb		81
112) Trielution Dichlorotol...	11.729	125	2994	0.26	ppb	#	81
114) Coelution Dichlorotoluene	11.998	125	2769	0.23	ppb	#	78
116) Hexachlorobt	12.266	225	1829	0.57	ppb		80
118) 1,2,3-Tclbenzene	12.443	180	1731	0.25	ppb	#	73
119) 2,4,5-Trichlorotolene	12.857	159	2248	0.41	ppb	#	77
120) 2,3,6-Trichlorotoluene	12.918	159	2763	0.52	ppb	#	61

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

KR 9/26/14

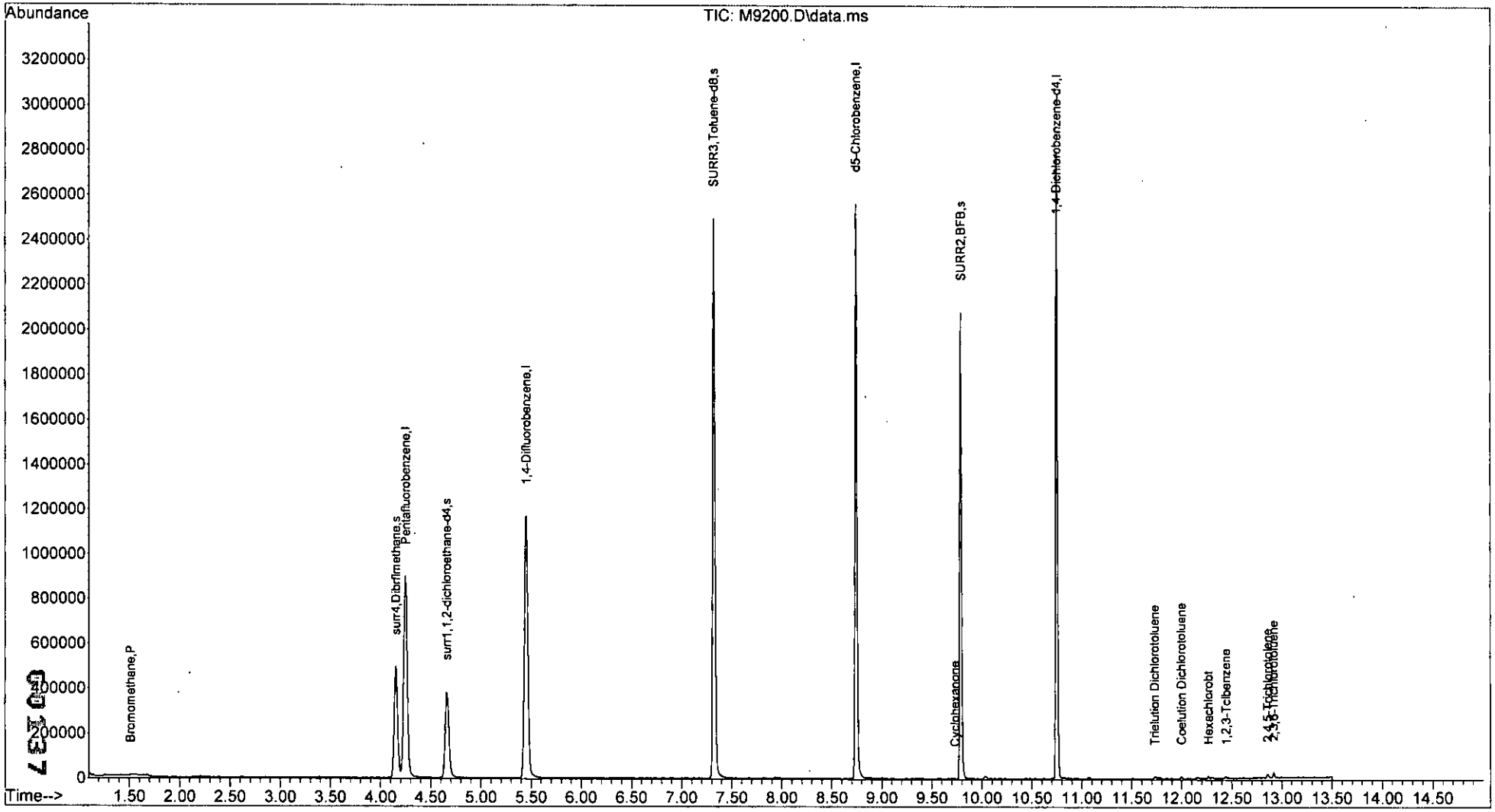
NJ's not evaluated — Qdil.

0012

Quantitation Report (Not Reviewed)

Sample : R1407413-017|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9200.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 12:34 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 12:48:42 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1345
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 18:57
Sample Name:	MP-14	**Units:**	µg/L
Lab Code:	R1407413-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9190.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**45**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**1.9**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**1.2**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 18:57	
Dibromofluoromethane	104	89-119	9/23/14 18:57	
Toluene-d8	100	87-121	9/23/14 18:57	

Quantitation Report (Not Reviewed)

Sample : R1407413-018|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9190.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 6:57 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 19:12:03 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	857780	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1302700	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1187463	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	618100	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	376514	51.89	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.78%				
48) surr1,1,2-dichloroetha...	4.664	65	368528	47.12	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 94.24%				
65) SURR3,Toluene-d8	7.322	98	1530067	49.96	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.92%				
70) SURR2,BFB	9.791	95	541301	49.37	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.74%				
Target Compounds							Qvalue
3) Chloromethane	1.262	50	2193	0.24	ppb		77
6) Chloroethane	1.616	64	5350	1.00	ppb	#	52
15) Acetone	2.055	43	2601	1.47	ppb		86
16) 2-Propanol	2.152	45	229	0.82	ppb		91
19) Acetonitrile	2.237	40	536	2.25	ppb	#	4
20) Allyl Chloride	2.274	76	1801	0.44	ppb	#	1
34) cis-1,2-Dichloroethene	3.542	96	10486	1.23	ppb	#	45
35) 2-Butanone	3.560	43	966	0.42	ppb		94
54) Trichloroethene	5.834	130	14754	1.88	ppb	#	75
72) Tetrachloroethene	7.962	164	271974	44.72	ppb		95
90) Cyclohexanone	9.791	55	1039	1.41	ppb	#	15

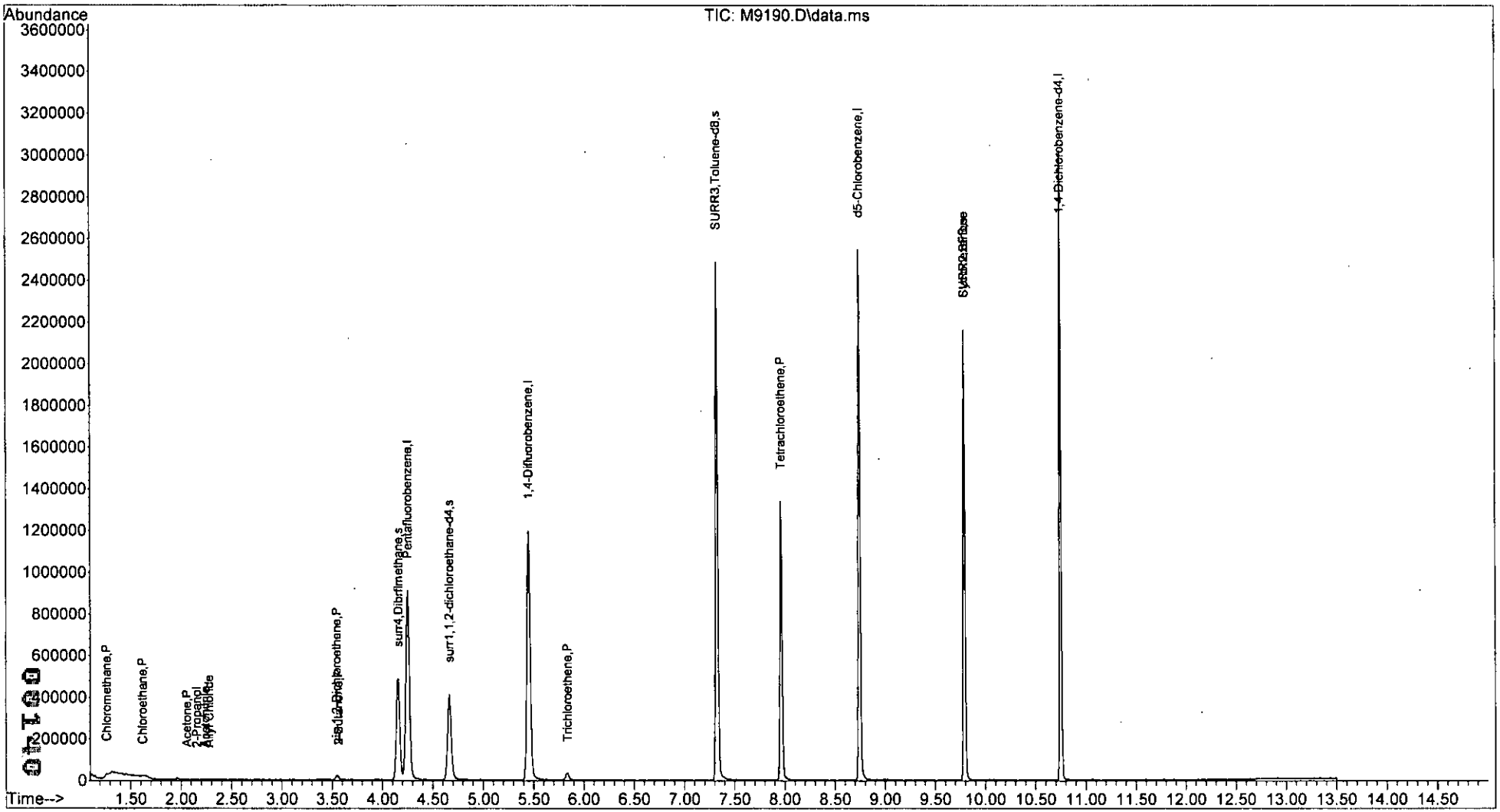
KR 9/29/14

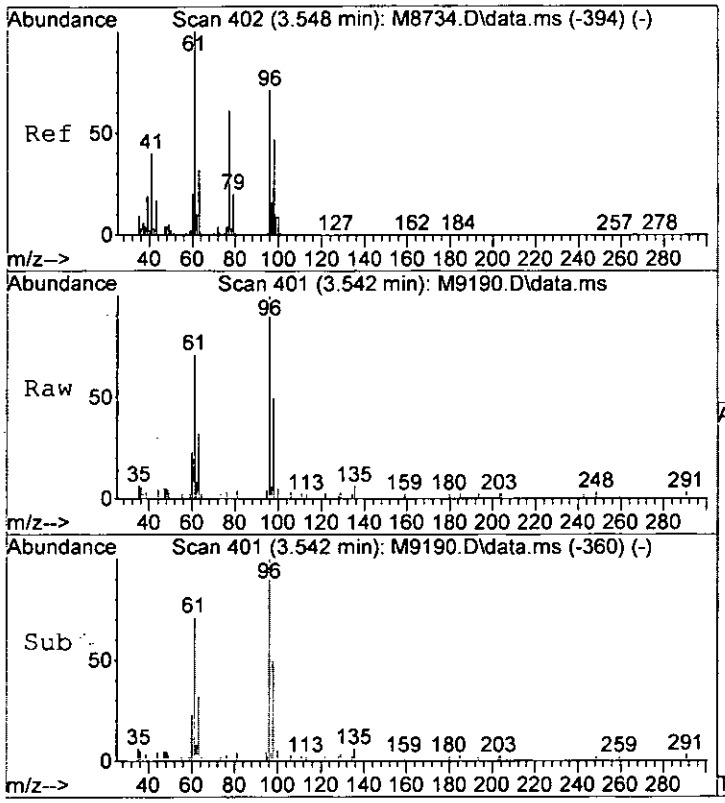
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Sample : R1407413-018|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9190.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 6:57 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 19:12:03 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

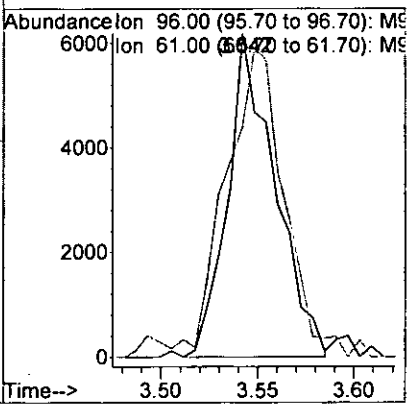


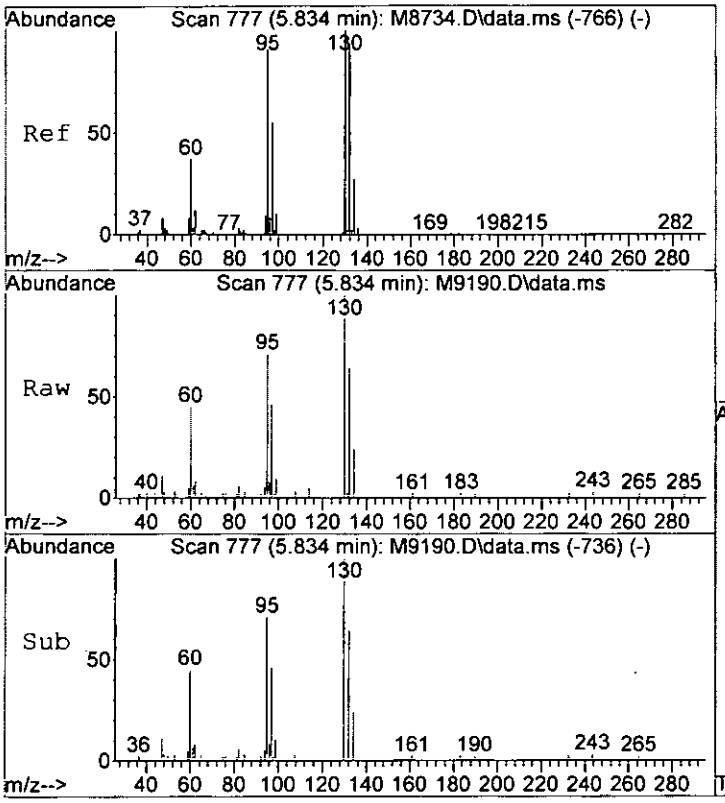


#34
cis-1,2-Dichloroethene
Concen: 1.23 ppb
RT: 3.542 min Scan# 401
Delta R.T. -0.006 min
Lab File: M9190.D
Acq: 23 Sep 2014 6:57 pm

Tgt Ion: 96 Resp: 10486

Ion	Ratio	Lower	Upper
96	100		
61	71.2	117.4	157.4#

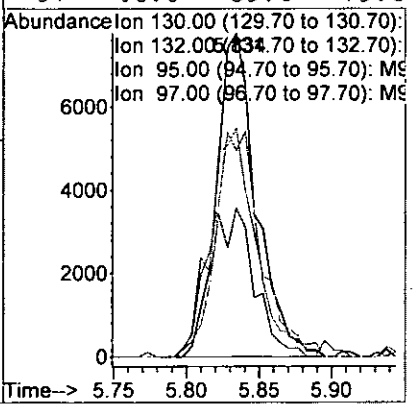


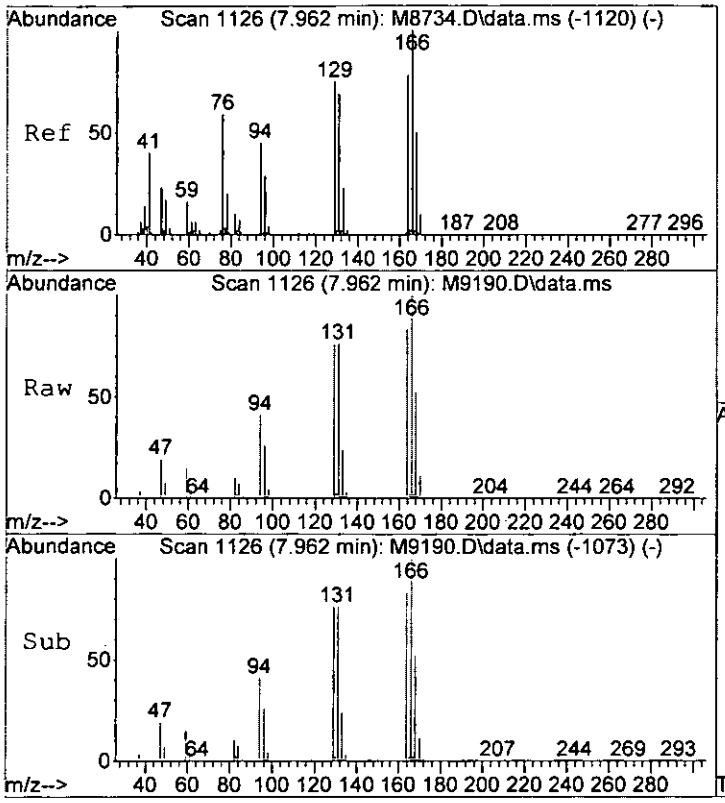


#54
Trichloroethene
Concen: 1.88 ppb
RT: 5.834 min Scan# 777
Delta R.T. 0.000 min
Lab File: M9190.D
Acq: 23 Sep 2014 6:57 pm

Tgt Ion:130 Resp: 14754

Ion	Ratio	Lower	Upper
130	100		
132	63.8	75.1	115.1#
95	70.7	71.2	111.2#
97	46.0	39.6	79.6

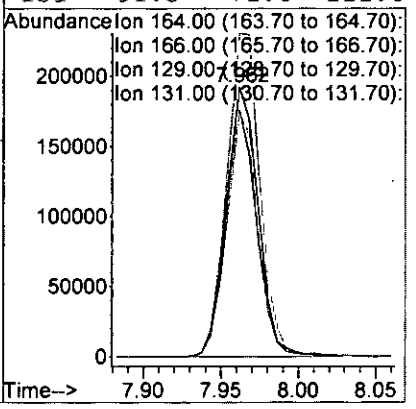




#72
Tetrachloroethene
Concen: 44.72 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9190.D
Acq: 23 Sep 2014 6:57 pm

Tgt Ion:164 Resp: 271974

Ion	Ratio	Lower	Upper
164	100		
166	120.0	108.1	148.1
129	90.7	75.7	115.7
131	91.5	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1525
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 03:56
Sample Name:	MW-11	**Units:**	µg/L
Lab Code:	R1407413-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9162.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 03:56	
Dibromofluoromethane	101	89-119	9/23/14 03:56	
Toluene-d8	100	87-121	9/23/14 03:56	

Quantitation Report (Not Reviewed)

Sample : R1407413-019|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9162.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 3:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 04:10:14 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	907858	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1370451	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1229344	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	604279	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	386688	50.66	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.32%				
48) surr1,1,2-dichloroetha...	4.664	65	379849	46.17	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.34%				
65) SURR3,Toluene-d8	7.322	98	1605805	49.85	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.70%				
70) SURR2,BFB	9.791	95	564587	48.95	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.90%				
Target Compounds							Qvalue
3) Chloromethane	1.262	50	3157	0.33	ppb		99
9) Diethyl Ether	1.957	59	1473	0.25	ppb	#	1
12) Acrolein	1.963	56	347	0.63	ppb	#	48
15) Acetone	2.055	43	1107	0.59	ppb	#	49
16) 2-Propanol	2.091	45	175	0.59	ppb	#	56
18) Carbon Disulfide	2.207	76	5063	0.21	ppb		94
19) Acetonitrile	2.250	40	662	2.63	ppb	#	1
20) Allyl Chloride	2.262	76	2516	0.58	ppb	#	1
90) Cyclohexanone	9.791	55	941	1.31	ppb	#	15

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

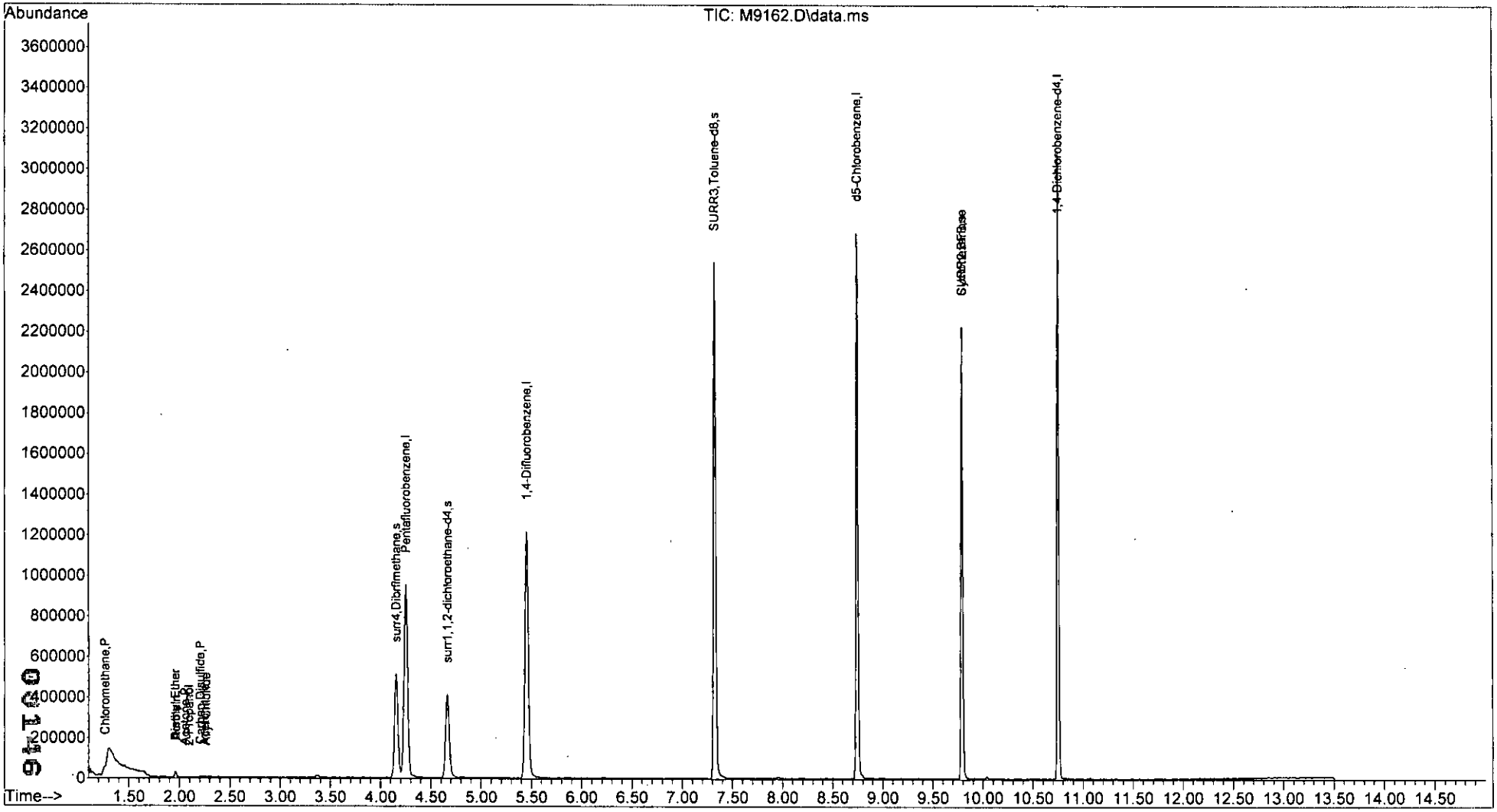
KL 9/24/14

NJ's not evaluated - Qdel

Quantitation Report (Not Reviewed)

Sample : R1407413-019|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9162.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 3:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 04:10:14 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1540
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 13:35
Sample Name:	FB-091814	**Units:**	µg/L
Lab Code:	R1407413-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9180.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 13:35	
Dibromofluoromethane	101	89-119	9/23/14 13:35	
Toluene-d8	100	87-121	9/23/14 13:35	

Quantitation Report (Not Reviewed)

Sample : R1407413-020|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9180.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 1:35 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 13:49:50 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	899923	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1351025	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1221746	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	618035	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	379907	50.48	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.96%				
48) surr1,1,2-dichloroetha...	4.664	65	372675	45.95	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.90%				
65) SURR3,Toluene-d8	7.322	98	1582875	49.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%				
70) SURR2,BFB	9.791	95	553166	48.65	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.30%				
Target Compounds							Qvalue
5) Bromomethane	1.518	94	2306	0.39	ppb		95
~~12) Acrolein~~	~~1.969~~	~~56~~	~~324~~	~~0.59~~	~~ppb~~	~~#~~	~~15~~
15) Acetone	2.048	43	1206	0.65	ppb		91
~~16) 2-Propanol~~	~~2.158~~	~~45~~	~~232~~	~~0.79~~	~~ppb~~		~~66~~
~~19) Acetonitrile~~	~~2.189~~	~~40~~	~~603~~	~~2.41~~	~~ppb~~	~~#~~	~~1~~
22) Methylene Chloride	2.359	84	2958	0.36	ppb	#	71
~~39) Tetrahydrofuran~~	~~3.926~~	~~42~~	~~589~~	~~0.39~~	~~ppb~~		~~98~~
40) Chloroform	3.938	83	131689	9.06	ppb		95
~~90) Cyclohexanone~~	~~9.736~~	~~55~~	~~249~~	~~0.34~~	~~ppb~~		~~79~~
~~111) 1,2 Dibromo-3-chloropr...~~	~~11.522~~	~~157~~	~~232~~	~~0.21~~	~~ppb~~	~~#~~	~~46~~
116) Hexachlorobt	12.266	225	1278	0.38	ppb	#	78
118) 1,2,3-Tclbenzene	12.443	180	1521	0.20	ppb	#	61
119) 2,4,5-Trichlorotolene	12.912	159	2074	0.36	ppb		92
120) 2,3,6-Trichlorotoluene	12.912	159	2074	0.36	ppb		94

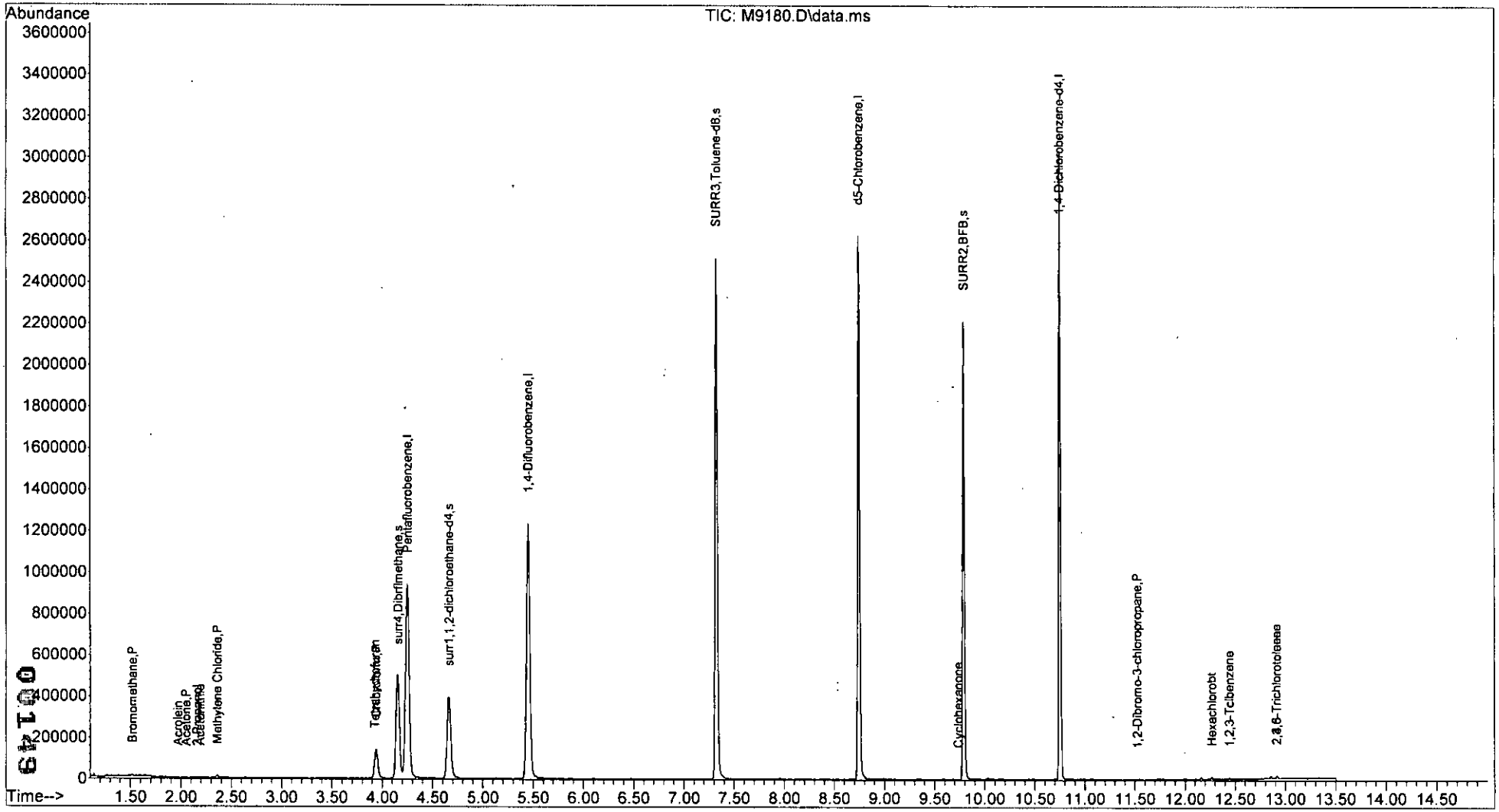
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 9/23/14

Quantitation Report (Not Reviewed)

Sample : R1407413-020|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9180.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 1:35 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 13:49:50 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 1600
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 19:30
Sample Name:	MW-6	**Units:**	µg/L
Lab Code:	R1407413-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9191.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 19:30	
Dibromofluoromethane	103	89-119	9/23/14 19:30	
Toluene-d8	99	87-121	9/23/14 19:30	

Quantitation Report (Not Reviewed)

Sample : R1407413-021|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9191.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 7:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 19:44:13 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	865968	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1309818	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1201758	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	606936	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	375200	51.43	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.86%				
48) surr1,1,2-dichloroetha...	4.664	65	360811	45.89	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.78%				
65) SURR3,Toluene-d8	7.322	98	1520990	49.40	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.80%				
70) SURR2,BFB	9.791	95	534897	48.52	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.04%				
Target Compounds							Qvalue
3) Chloromethane	1.262	50	2686	0.29	ppb		~~97~~
6) Chloroethane	1.567	64	~~5766~~	~~1.06~~	ppb	#	60
15) Acetone	~~2.042~~	43	535	0.30	ppb	#	36
16) 2-Propanol	2.140	45	178	0.63	ppb	#	56
~~20) Allyl Chloride~~	~~2.274~~	~~76~~	~~844~~	~~0.20~~	~~ppb~~	~~#~~	~~1~~
72) Tetrachloroethene	7.962	164	1353	0.22	ppb	#	61
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1200~~	~~1.66~~	~~ppb~~	~~#~~	~~15~~

KR 9/29/14

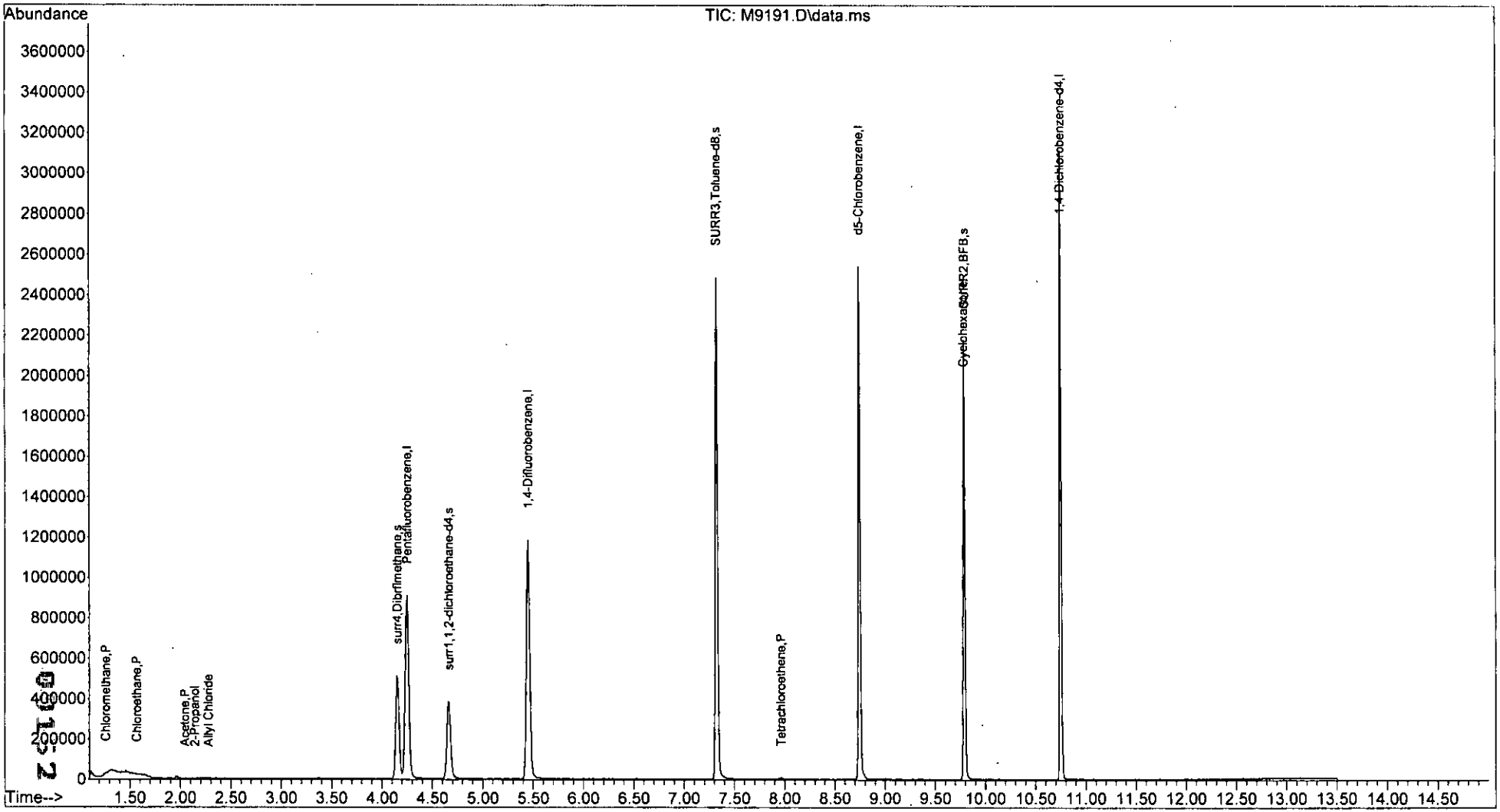
(#) = qualifier out of range (m) = manual integration (+) = signals summed

00151

Quantitation Report (Not Reviewed)

Sample : R1407413-021|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9191.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 7:30 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 19:44:13 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 16:49
Sample Name:	DUP-091814	**Units:**	µg/L
Lab Code:	R1407413-022	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9186.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/23/14 16:49	
Dibromofluoromethane	102	89-119	9/23/14 16:49	
Toluene-d8	100	87-121	9/23/14 16:49	

Quantitation Report (Not Reviewed)

Sample : R1407413-022|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9186.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 4:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 17:03:10 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	868466	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1315274	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1188810	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	615745	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	372102	50.79	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.58%				
48) surr1,1,2-dichloroetha...	4.664	65	356514	45.15	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.30%				
65) SURR3,Toluene-d8	7.322	98	1547178	50.04	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.08%				
70) SURR2,BFB	9.791	95	536440	48.46	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.92%				
Target Compounds							Qvalue
6) Chloroethane	1.591	64	2675	0.49	ppb	#	49
12) Acrolein	1.975	56	414	0.78	ppb	#	71
15) Acetone	2.055	43	776	0.43	ppb		76
16) 2-Propanol	2.115	45	432	1.52	ppb	#	56
20) Allyl Chloride	2.280	76	2550	0.61	ppb	#	1
53) 1-Butanol	5.706	56	205	1.80	ppb	#	23
90) Cyclohexanone	9.791	55	1365	1.86	ppb	#	41

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

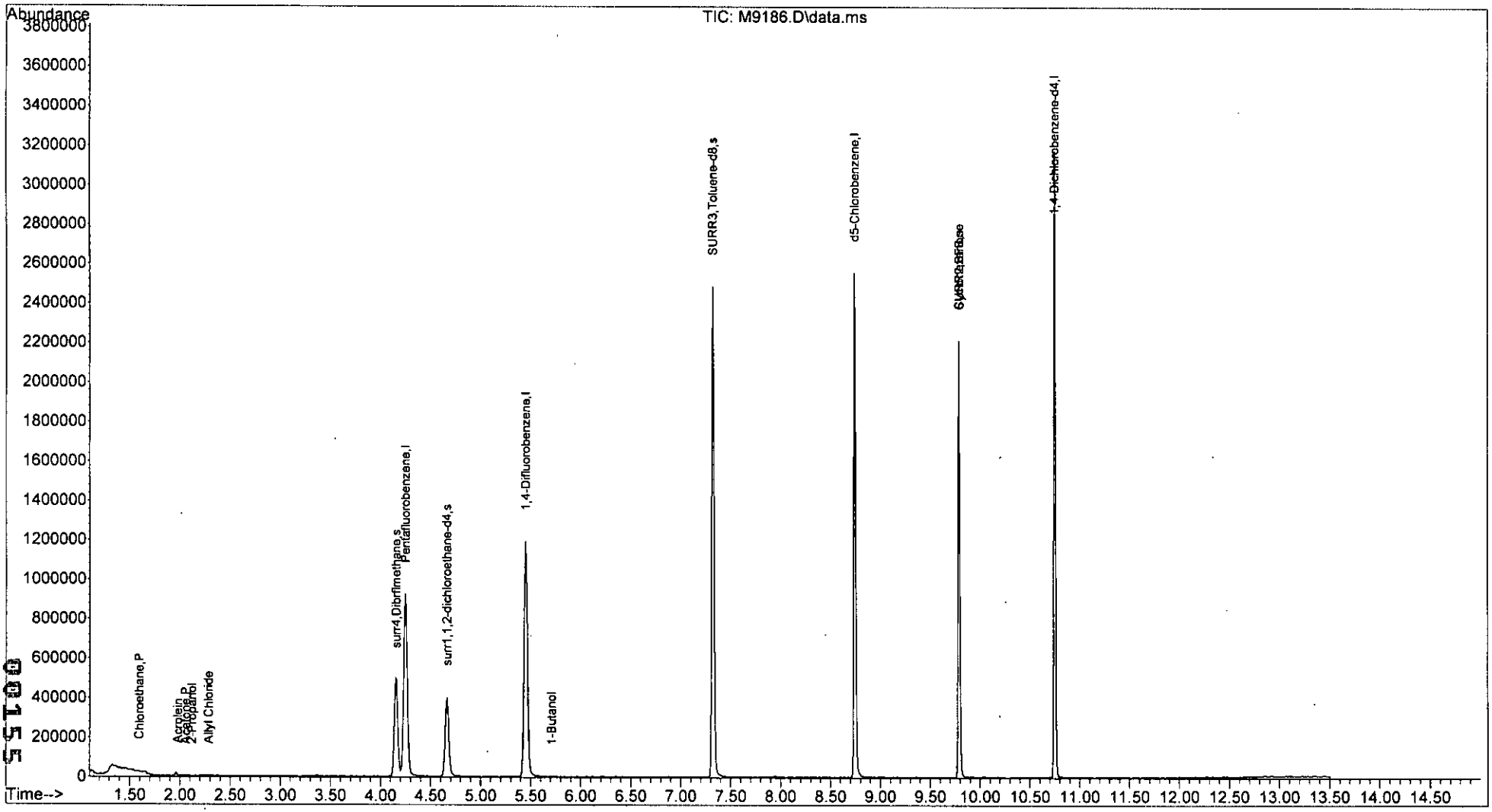
KR 9/29/14

NT's not evaluated
– QAU

Quantitation Report (Not Reviewed)

Sample : R1407413-022|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9186.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 4:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 17:03:10 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 0925
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 14:43
Sample Name:	MW-37	**Units:**	µg/L
Lab Code:	R1407413-023	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9204.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**8.0**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.38**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	9/24/14 14:43	
Dibromofluoromethane	103	89-119	9/24/14 14:43	
Toluene-d8	100	87-121	9/24/14 14:43	

Quantitation Report (Not Reviewed)

Sample : R1407413-023|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9204.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 2:43 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 14:57:46 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	845651	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1289358	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1184145	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	573429	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	370028	51.52	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.04%				
48) surr1,1,2-dichloroetha...	4.664	65	358113	46.27	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.54%				
65) SURR3,Toluene-d8	7.322	98	1515756	50.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.02%				
70) SURR2,BFB	9.791	95	523578	48.25	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.50%				
Target Compounds							Qvalue
~~16) 2-Propanol~~	~~2.201~~	~~45~~	~~215~~	~~0.78~~	~~ppb~~	~~#~~	~~56~~
~~18) Carbon Disulfide~~	~~2.207~~	~~76~~	~~6205~~	~~0.27~~	~~ppb~~		~~95~~
~~20) Allyl Chloride~~	~~2.274~~	~~76~~	~~1520~~	~~0.37~~	~~ppb~~	~~#~~	~~1~~
54) Trichloroethene	5.822	130	2994	0.38	ppb	#	70
72) Tetrachloroethene	7.962	164	48533	8.00	ppb		89
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1212~~	~~1.78~~	~~ppb~~	~~#~~	~~15~~

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

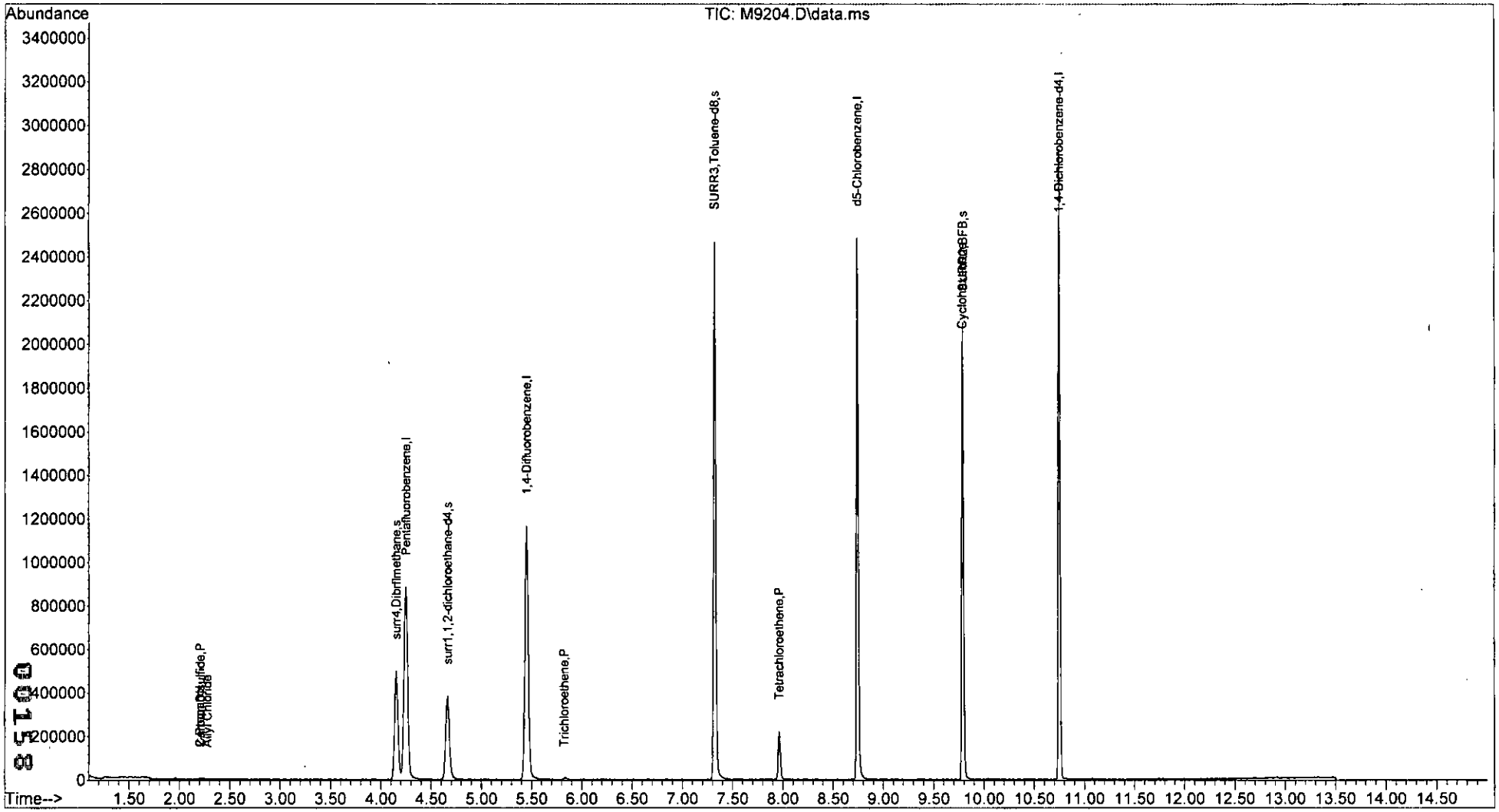
NT's not evaluated
- Qdil.

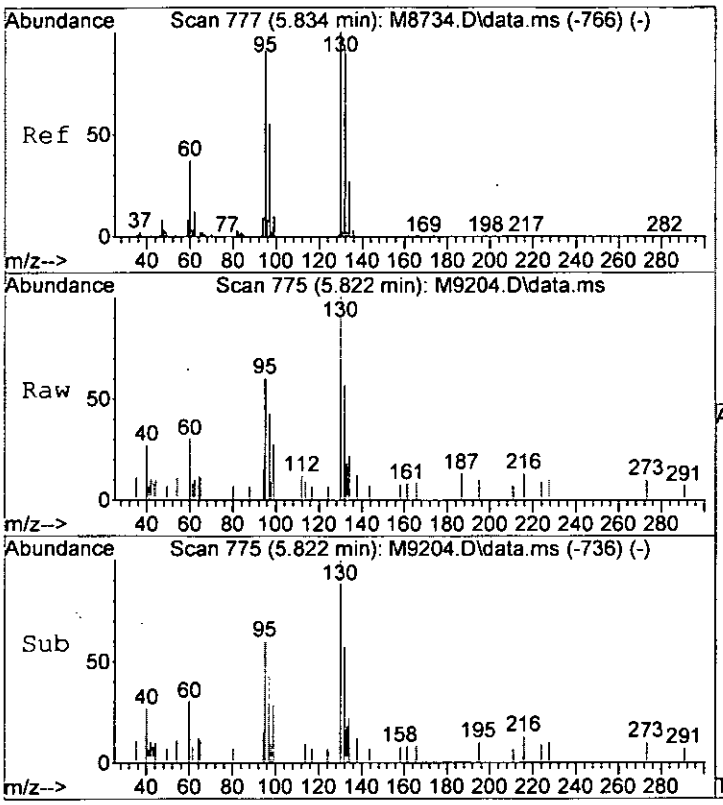
KR 9/26/14

Quantitation Report (Not Reviewed)

Sample : R1407413-023|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9204.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 2:43 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 14:57:46 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

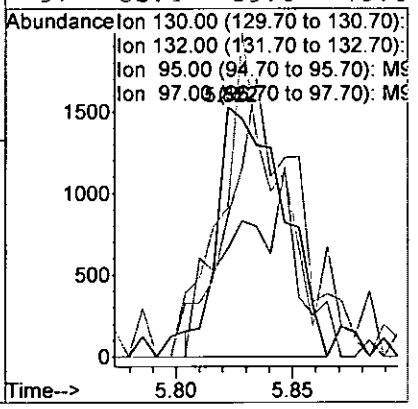


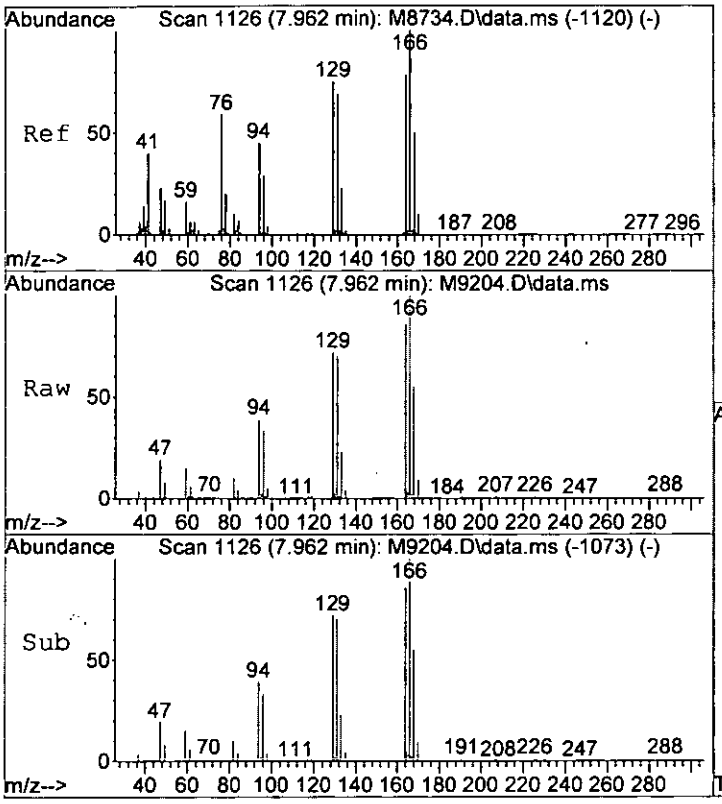


#54
Trichloroethene
Concen: 0.38 ppb
RT: 5.822 min Scan# 775
Delta R.T. -0.012 min
Lab File: M9204.D
Acq: 24 Sep 2014 2:43 pm

Tgt Ion:130 Resp: 2994

Ion	Ratio	Lower	Upper
130	100		
132	56.7	75.1	115.1#
95	59.7	71.2	111.2#
97	52.4	39.6	79.6

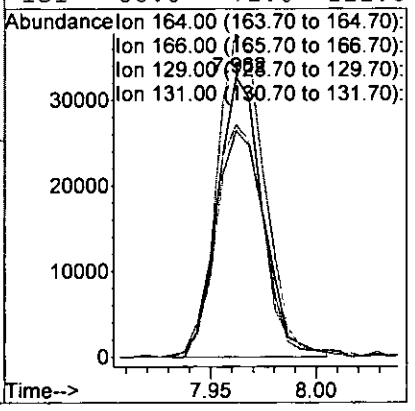




#72
Tetrachloroethene
Concen: 8.00 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9204.D
Acq: 24 Sep 2014 2:43 pm

Tgt Ion:164 Resp: 48533

Ion	Ratio	Lower	Upper
164	100		
166	115.7	108.1	148.1
129	83.0	75.7	115.7
131	80.8	71.0	111.0



Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 0941
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 15:15
Sample Name:	MW-30	**Units:**	µg/L
Lab Code:	R1407413-024	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9205.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 15:15	
Dibromofluoromethane	103	89-119	9/24/14 15:15	
Toluene-d8	97	87-121	9/24/14 15:15	

Quantitation Report (Not Reviewed)

Sample : R1407413-024|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9205.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 3:15 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 15:30:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	856642	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1289143	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1164274	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	610312	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	369805	51.50	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.00%				
48) surr1,1,2-dichloroetha...	4.664	65	350876	45.34	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.68%				
65) SURR3,Toluene-d8	7.322	98	1468663	48.46	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.92%				
70) SURR2,BFB	9.791	95	526473	48.52	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.04%				
Target Compounds							Qvalue
3) Chloromethane	1.256	50	2069	0.23	ppb		90
12) Acrolein	1.963	56	309	0.59	ppb	#	24
15) Acetone	2.061	43	7778	4.41	ppb		82
16) 2-Propanol	2.140	45	324	1.15	ppb	#	53
18) Carbon Disulfide	2.207	76	4690	0.20	ppb		89
35) 2-Butanone	3.573	43	1361	0.59	ppb		84
64) 4-Methyl-2-pentanone	7.218	43	32105	7.35	ppb		88
90) Cyclohexanone	9.730	55	299	0.41	ppb	#	15

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

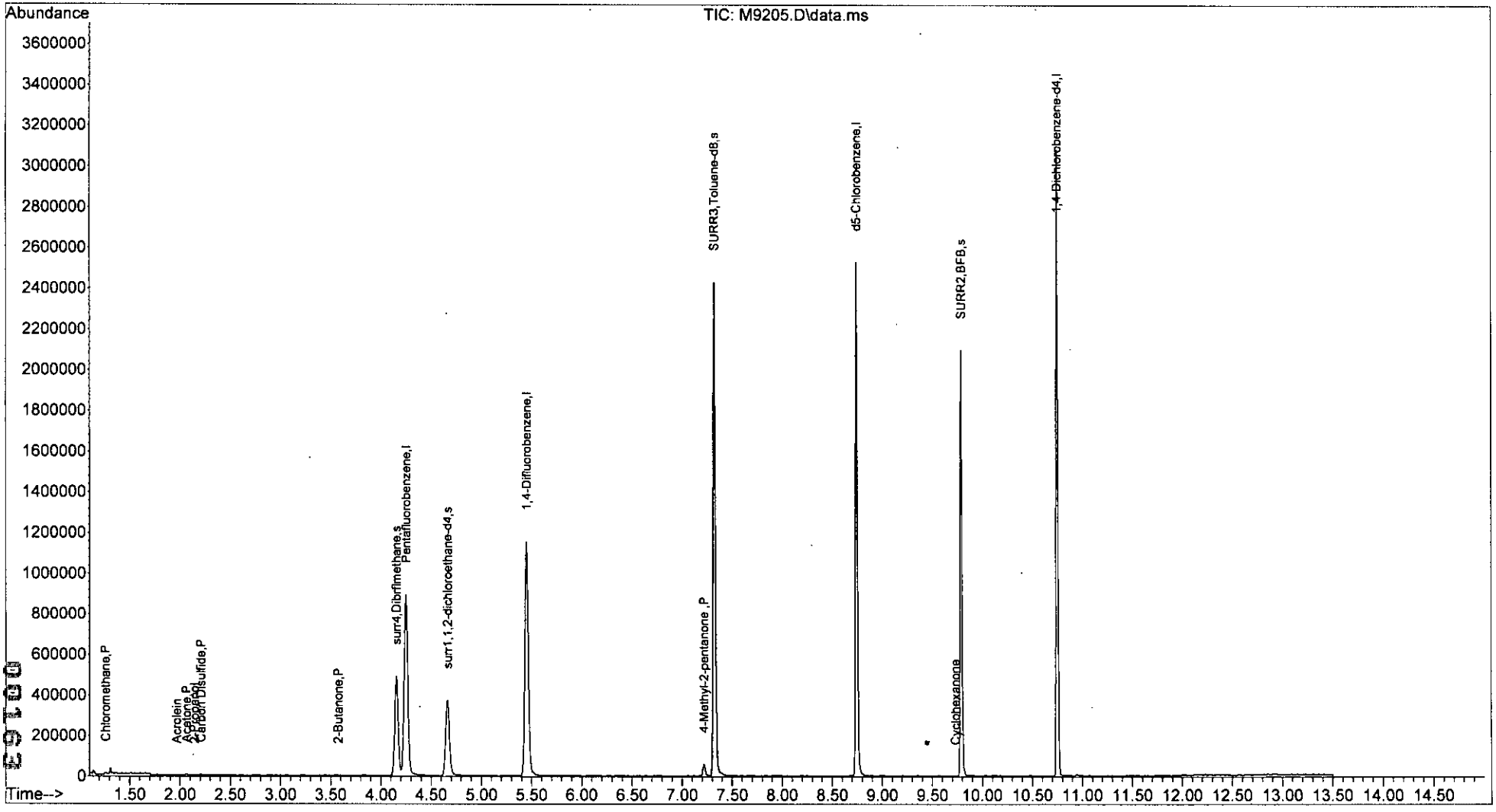
KR 9/26/14

NT's not evaluated
- Qdel.

Quantitation Report (Not Reviewed)

Sample : R1407413-024|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9205.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 3:15 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 15:30:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1128
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 15:47
Sample Name:	MW-26	**Units:**	µg/L
Lab Code:	R1407413-025	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9206.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**38**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**3.5**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	4.0	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/24/14 15:47	
Dibromofluoromethane	102	89-119	9/24/14 15:47	
Toluene-d8	100	87-121	9/24/14 15:47	

Quantitation Report (Not Reviewed)

Sample : R1407413-025|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9206.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 3:47 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 16:02:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	849078	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1285195	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1181797	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	606156	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	365360	51.04	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.08%				
48) surr1,1,2-dichloroetha...	4.664	65	355585	46.09	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.18%				
65) SURR3,Toluene-d8	7.322	98	1505890	49.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%				
70) SURR2,BFB	9.791	95	536598	49.61	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.22%				
Target Compounds							Qvalue
~~5) Bromomethane~~	~~1.518~~	~~94~~	~~1266~~	~~0.23~~	~~ppb~~		~~79~~
~~15) Acetone~~	~~2.061~~	~~43~~	~~793~~	~~0.45~~	~~ppb~~		~~80~~
~~16) 2 Propanol~~	~~2.195~~	~~45~~	~~202~~	~~0.73~~	~~ppb~~	~~#~~	~~53~~
34) cis-1,2-Dichloroethene	3.542	96	33586	3.96	ppb	#	77
54) Trichloroethene	5.828	130	27322	3.52	ppb		92
72) Tetrachloroethene	7.962	164	227157	37.53	ppb		97
~~90) Cyclohexanone~~	~~9.779~~	~~55~~	~~1133~~	~~1.57~~	~~ppb~~	~~#~~	~~15~~

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

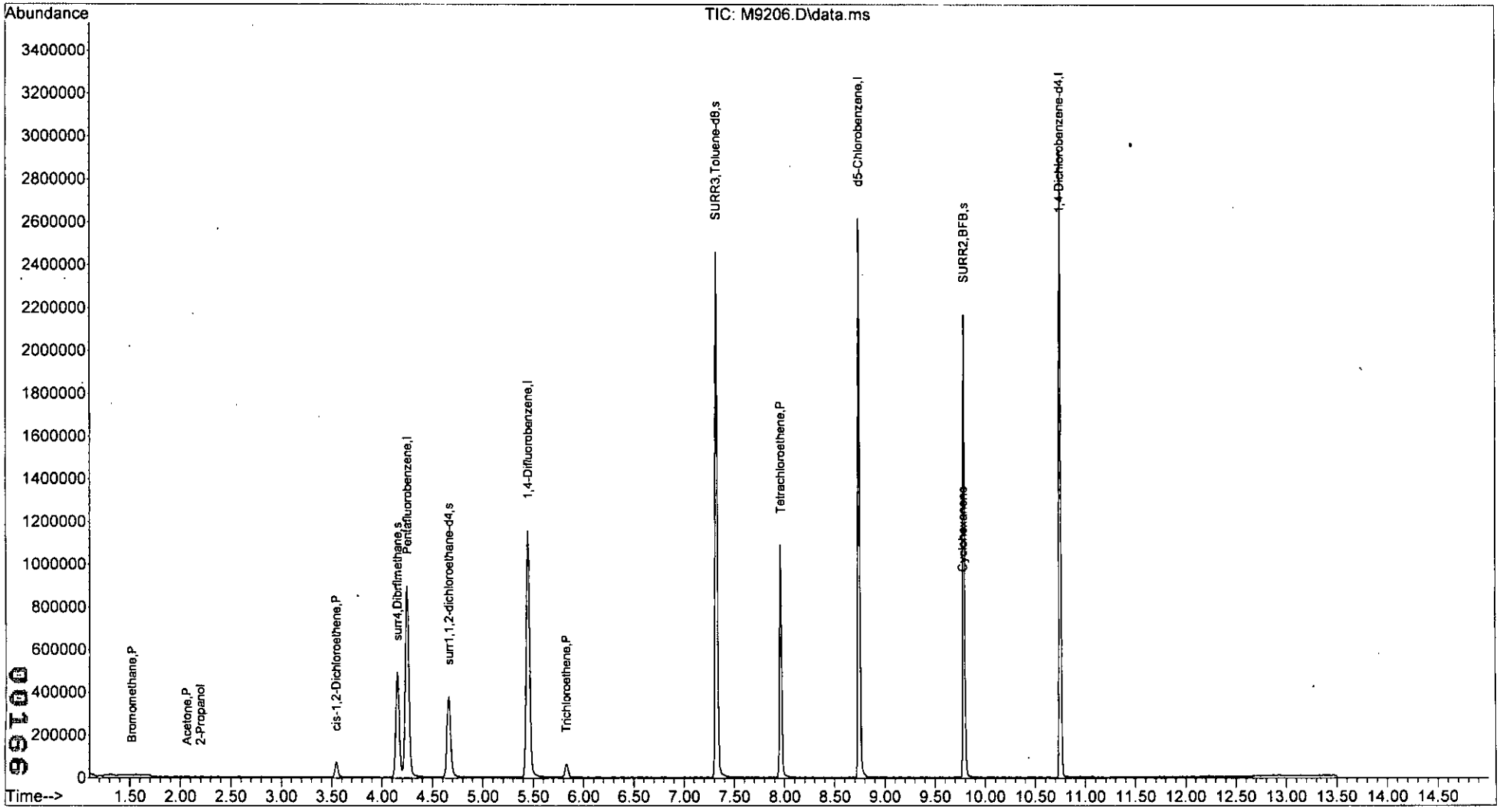
KR 9/26/14

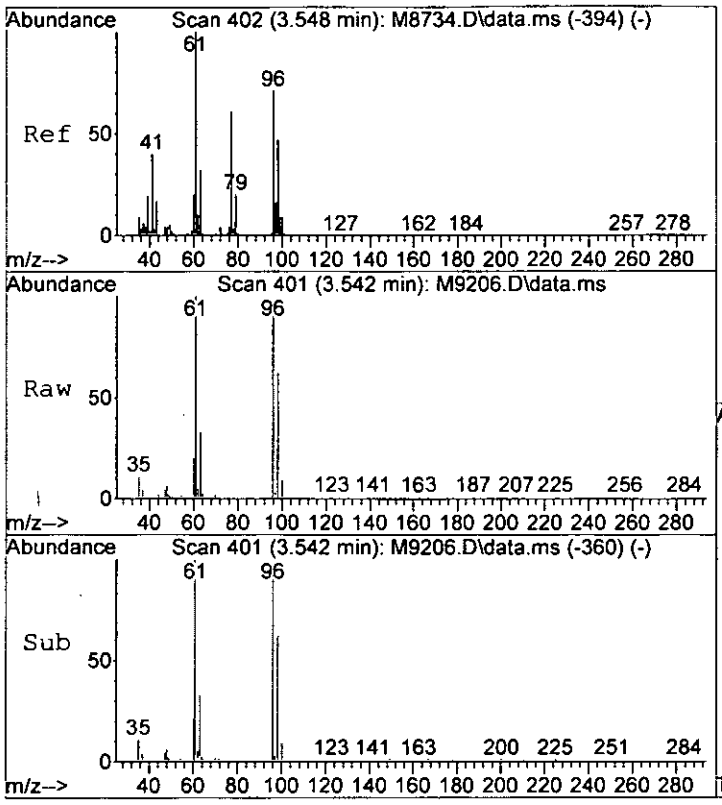
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Quantitation Report (Not Reviewed)

Sample : R1407413-025|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9206.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 3:47 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 16:02:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

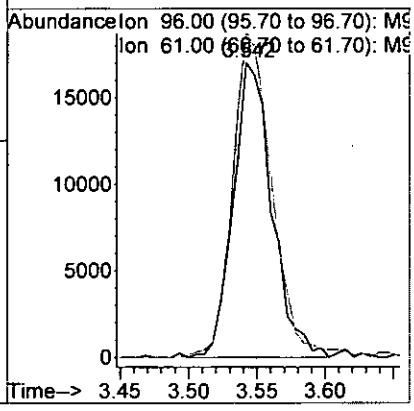


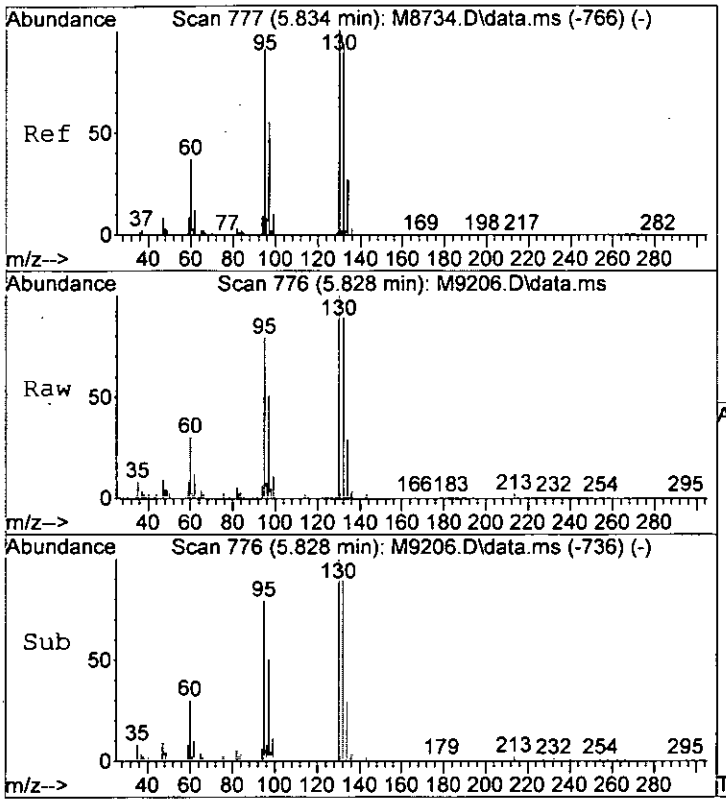


#34
cis-1,2-Dichloroethene
Concen: 3.96 ppb
RT: 3.542 min Scan# 401
Delta R.T. -0.006 min
Lab File: M9206.D
Acq: 24 Sep 2014 3:47 pm

Tgt Ion: 96 Resp: 33586

Ion	Ratio	Lower	Upper
96	100		
61	109.8	117.4	157.4#

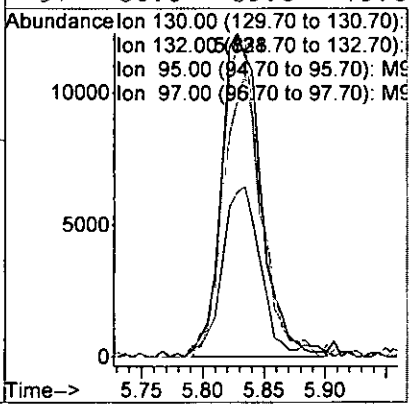


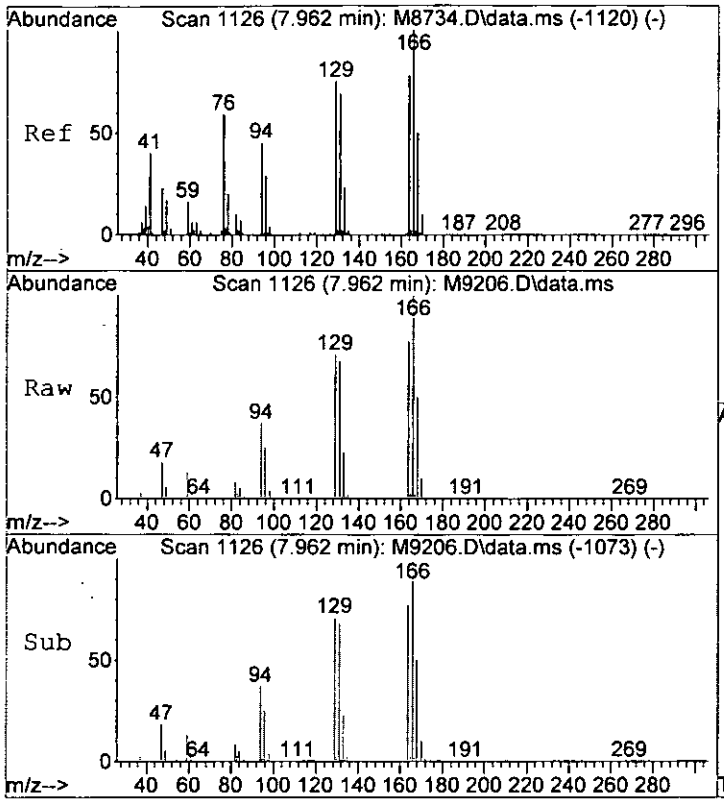


#54
Trichloroethene
Concen: 3.52 ppb
RT: 5.828 min Scan# 776
Delta R.T. -0.006 min
Lab File: M9206.D
Acq: 24 Sep 2014 3:47 pm

Tgt Ion:130 Resp: 27322

Ion	Ratio	Lower	Upper
130	100		
132	97.3	75.1	115.1
95	79.1	71.2	111.2
97	50.8	39.6	79.6

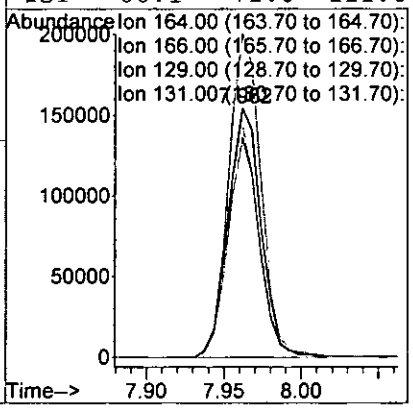




#72
Tetrachloroethene
Concen: 37.53 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9206.D
Acq: 24 Sep 2014 3:47 pm

Tgt Ion:164 Resp: 227157

Ion	Ratio	Lower	Upper
164	100		
166	129.9	108.1	148.1
129	92.3	75.7	115.7
131	88.1	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1135
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 16:19
Sample Name:	MW-18	**Units:**	µg/L
Lab Code:	R1407413-026	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9207.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 16:19	
Dibromofluoromethane	102	89-119	9/24/14 16:19	
Toluene-d8	99	87-121	9/24/14 16:19	

Quantitation Report (Not Reviewed)

Sample : R1407413-026|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9207.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 4:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 16:34:14 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	837893	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1275993	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1178540	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	599222	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	363643	51.17	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.34%				
48) surr1,1,2-dichloroetha...	4.658	65	351734	45.92	ppb		-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.84%				
65) SURR3,Toluene-d8	7.322	98	1489642	49.66	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.32%				
70) SURR2,BFB	9.791	95	519906	48.41	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.82%				
Target Compounds							Qvalue
15) Acetone	2.048	43	612	0.36	ppb		~~78~~
16) 2-Propanol	2.079	45	~~349~~	1.27	ppb	#	1
90) Cyclohexanone	~~9.791~~	55	1403	1.97	ppb	#	15

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

NR 9/26/14

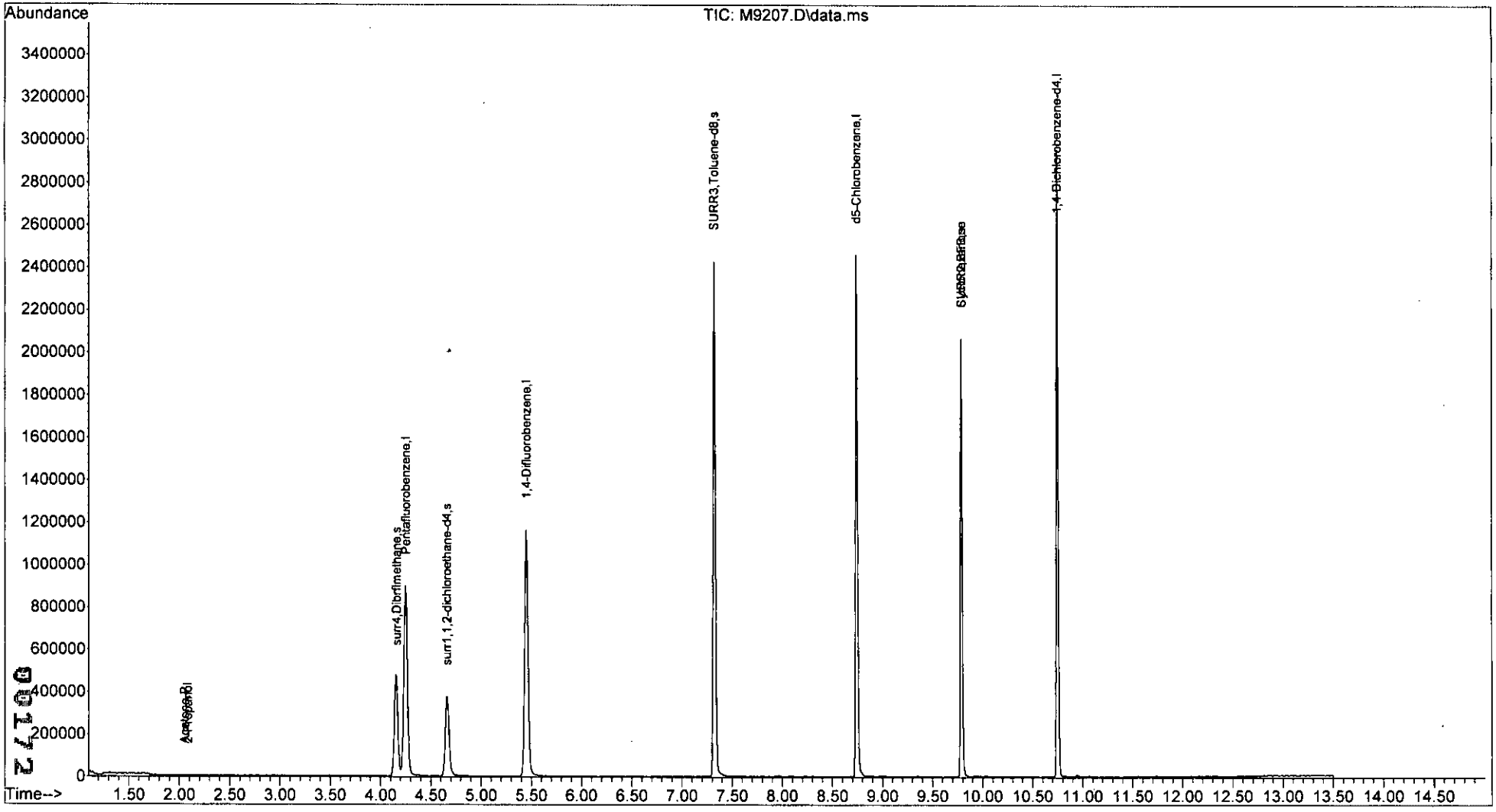
NT's not evaluated
-Qdel.

0017

Quantitation Report (Not Reviewed)

Sample : R1407413-026|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9207.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 4:19 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 16:34:14 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1349
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 06:37
Sample Name:	MW-25	**Units:**	µg/L
Lab Code:	R1407413-027	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9167.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	0.90	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	0.50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	1.5	
127-18-4	Tetrachloroethene (PCE)	**240**		13	0.75	
79-01-6	Trichloroethene (TCE)	**3.0**	**J**	13	0.55	
75-01-4	Vinyl Chloride	13	U	13	0.80	
156-59-2	cis-1,2-Dichloroethene	**1.4**	J	13	0.75	
156-60-5	trans-1,2-Dichloroethene	13	U	13	0.83	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 06:37	
Dibromofluoromethane	102	89-119	9/23/14 06:37	
Toluene-d8	101	87-121	9/23/14 06:37	

Quantitation Report (Not Reviewed)

Sample : R1407413-027|2.5
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9167.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 6:37 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 06:51:44 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	887871	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1340250	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1229395	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	638610	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	380364	50.95	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.90%				
48) surr1,1,2-dichloroetha...	4.664	65	378789	47.08	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 94.16%				
65) SURR3,Toluene-d8	7.322	98	1592151	50.54	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.08%				
70) SURR2,BFB	9.791	95	554860	49.19	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.38%				
Target Compounds							Qvalue
~~15) Acetone~~	~~2.049~~	~~43~~	~~2807~~	~~1.54~~	~~ppb~~		~~77~~
~~19) Acetonitrile~~	~~2.201~~	~~40~~	~~796~~	~~3.23~~	~~ppb~~	~~#~~	~~1~~
34) cis-1,2-Dichloroethene	3.554	96	4825	0.54	ppb	#	72
~~40) Chloroform~~	~~3.938~~	~~83~~	~~4088~~	~~0.29~~	~~ppb~~	~~#~~	~~75~~
54) Trichloroethene	5.834	130	9621	1.19	ppb	#	77
72) Tetrachloroethene	7.962	164	593406	94.23	ppb		95
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1226~~	~~1.61~~	~~ppb~~	~~#~~	~~15~~

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

KR 9/24/14

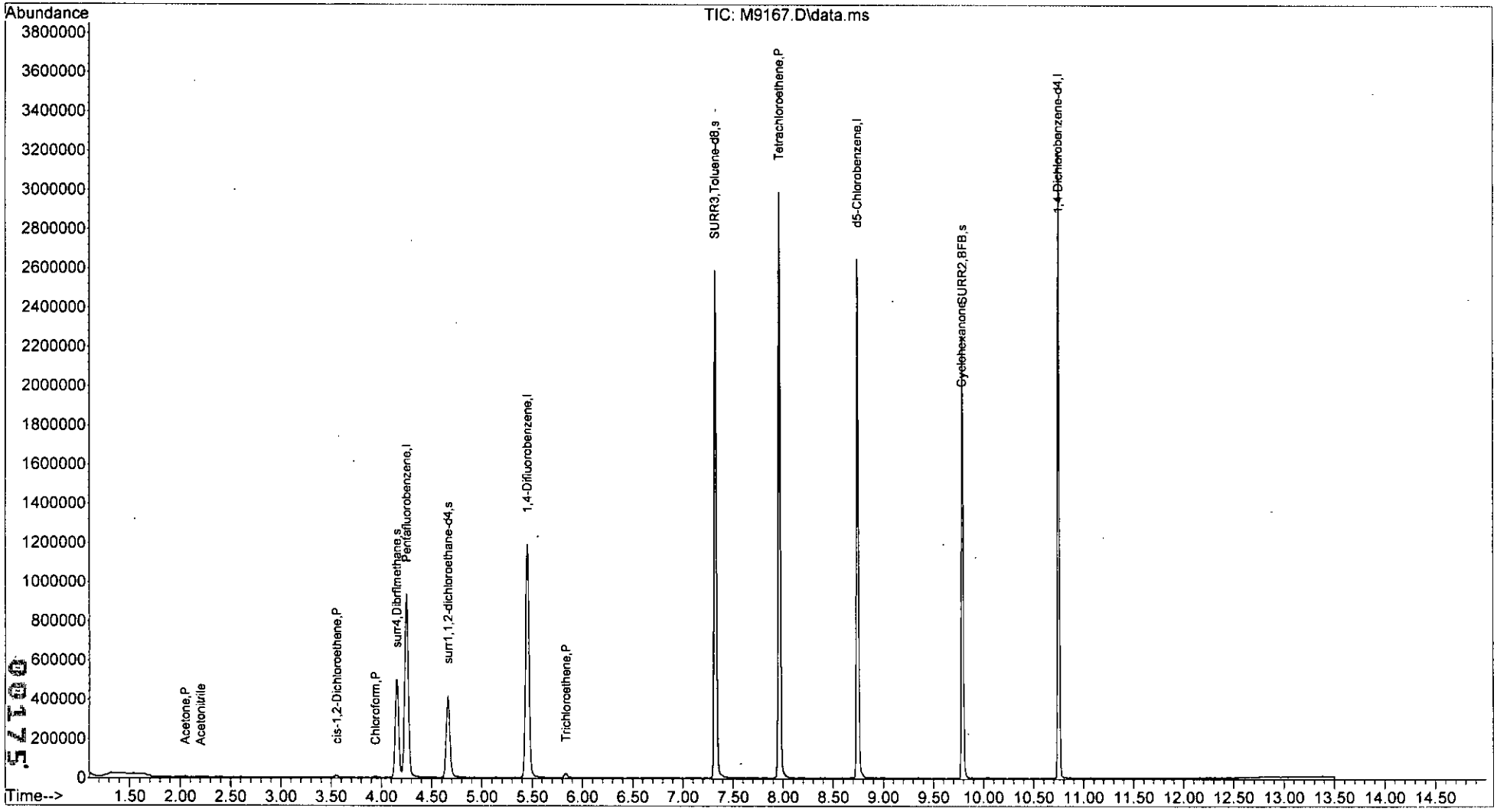
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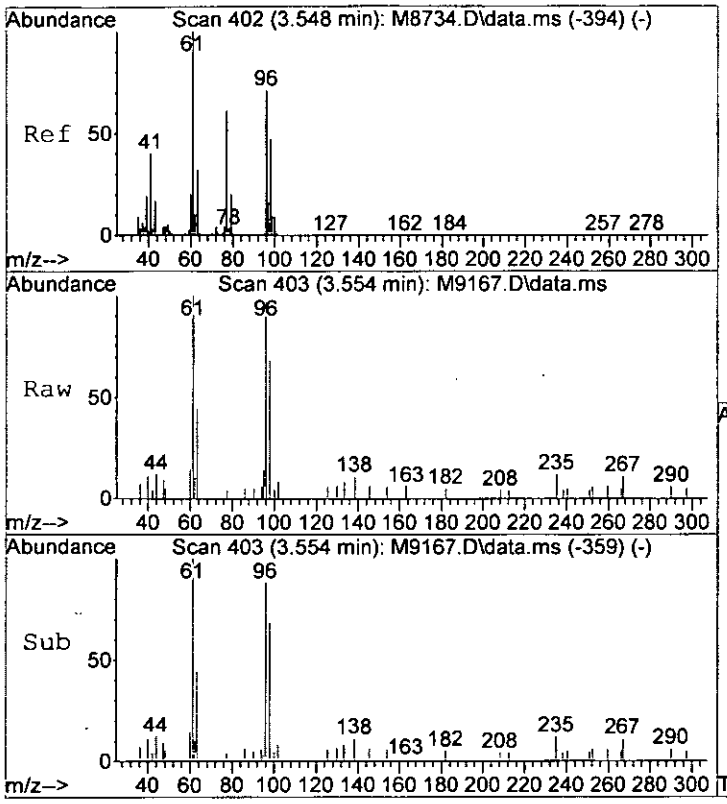
NJ's not validated
– Qdel.

Quantitation Report (Not Reviewed)

Sample : R1407413-027|2.5
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9167.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 6:37 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 06:51:44 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

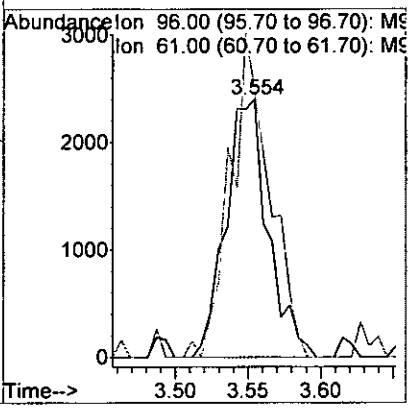


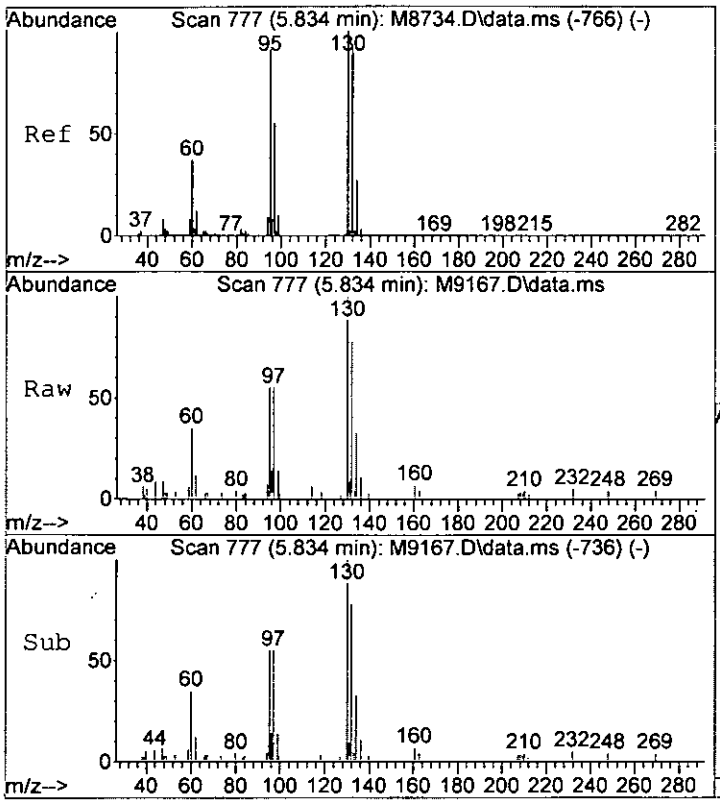


#34
cis-1,2-Dichloroethene
Concen: 0.54 ppb
RT: 3.554 min Scan# 403
Delta R.T. 0.006 min
Lab File: M9167.D
Acq: 23 Sep 2014 6:37 am

Tgt Ion: 96 Resp: 4825

Ion	Ratio	Lower	Upper
96	100		
61	103.5	117.4	157.4#

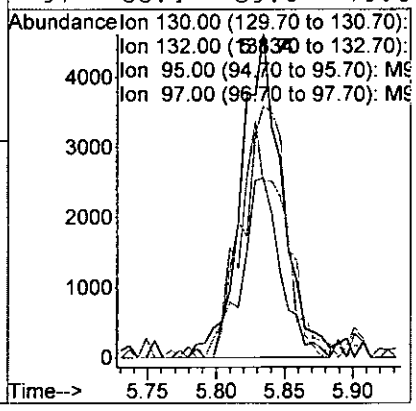


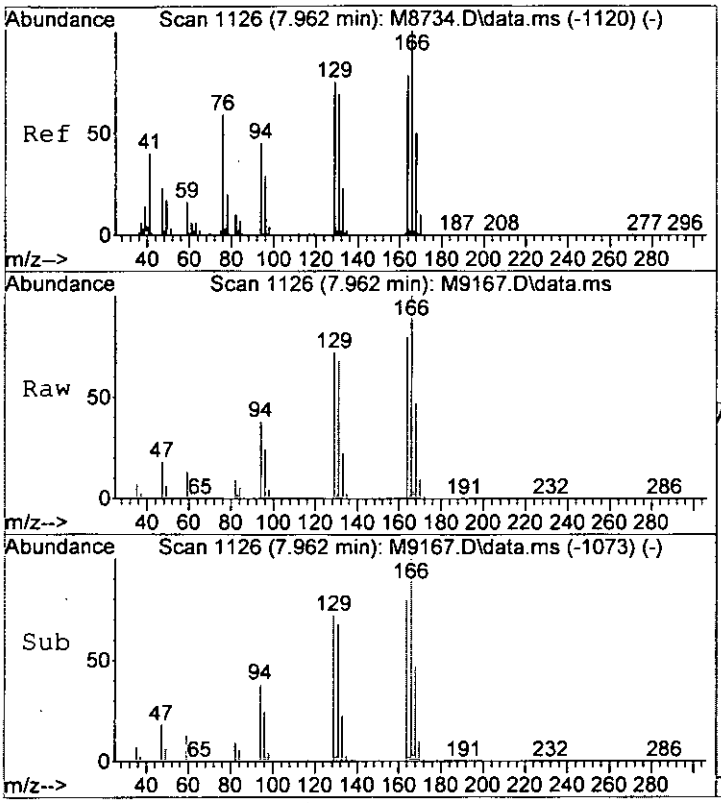


#54
Trichloroethene
Concen: 1.19 ppb
RT: 5.834 min Scan# 777
Delta R.T. 0.000 min
Lab File: M9167.D
Acq: 23 Sep 2014 6:37 am

Tgt Ion:130 Resp: 9621

Ion	Ratio	Lower	Upper
130	100		
132	77.6	75.1	115.1
95	54.5	71.2	111.2#
97	55.4	39.6	79.6

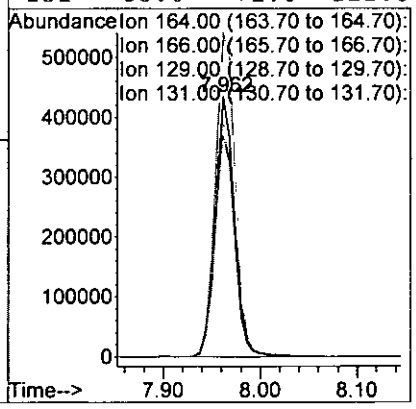




#72
Tetrachloroethene
Concen: 94.23 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9167.D
Acq: 23 Sep 2014 6:37 am

Tgt Ion:164 Resp: 593406

Ion	Ratio	Lower	Upper
164	100		
166	124.5	108.1	148.1
129	90.1	75.7	115.7
131	85.0	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1405
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 16:52
Sample Name:	MP-8S	**Units:**	µg/L
Lab Code:	R1407413-028	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9208.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**0.88**	J	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**65**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**59**		5.0	0.22	
75-01-4	Vinyl Chloride	**0.84**	J	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**81**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**6.3**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/24/14 16:52	
Dibromofluoromethane	105	89-119	9/24/14 16:52	
Toluene-d8	101	87-121	9/24/14 16:52	

Quantitation Report (Not Reviewed)

Sample : R1407413-028|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9208.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 4:52 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 17:06:32 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	838443	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1253296	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1161716	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	610756	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	365366	52.34	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.68%				
48) surr1,1,2-dichloroetha...	4.664	65	352327	46.83	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.66%				
65) SURR3,Toluene-d8	7.322	98	1494462	50.73	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.46%				
70) SURR2,BFB	9.791	95	522385	49.52	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.04%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.323	62	7856	0.84	ppb		91
~~5) Bromomethane~~	~~1.512~~	~~94~~	~~1370~~	~~0.25~~	~~ppb~~	~~#~~	~~58~~
13) 1,1-Diclethene	2.036	96	5262	0.88	ppb		84
~~15) Acetone~~	~~2.067~~	~~43~~	~~797~~	~~0.46~~	~~ppb~~		~~86~~
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~1386~~	~~0.34~~	~~ppb~~	~~#~~	~~1~~
26) trans-1,2-Dichloroethene	2.585	96	46744	6.28	ppb		91
34) cis-1,2-Dichloroethene	3.548	96	677153	80.93	ppb	#	75
54) Trichloroethene	5.828	130	448788	59.29	ppb		95
72) Tetrachloroethene	7.962	164	387915	65.19	ppb		99
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~1135~~	~~1.56~~	~~ppb~~	~~#~~	~~31~~

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

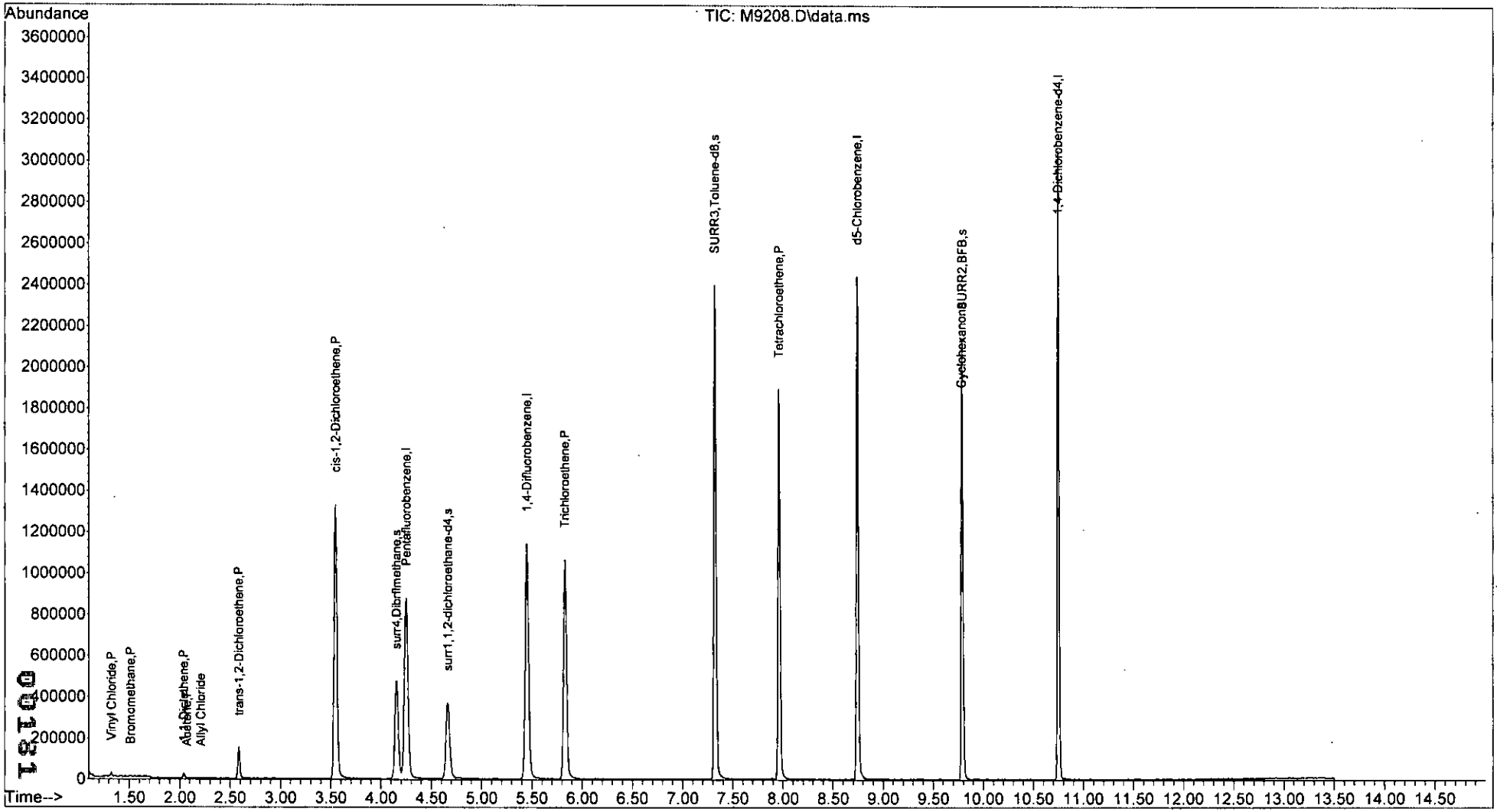
KR 9/26/14

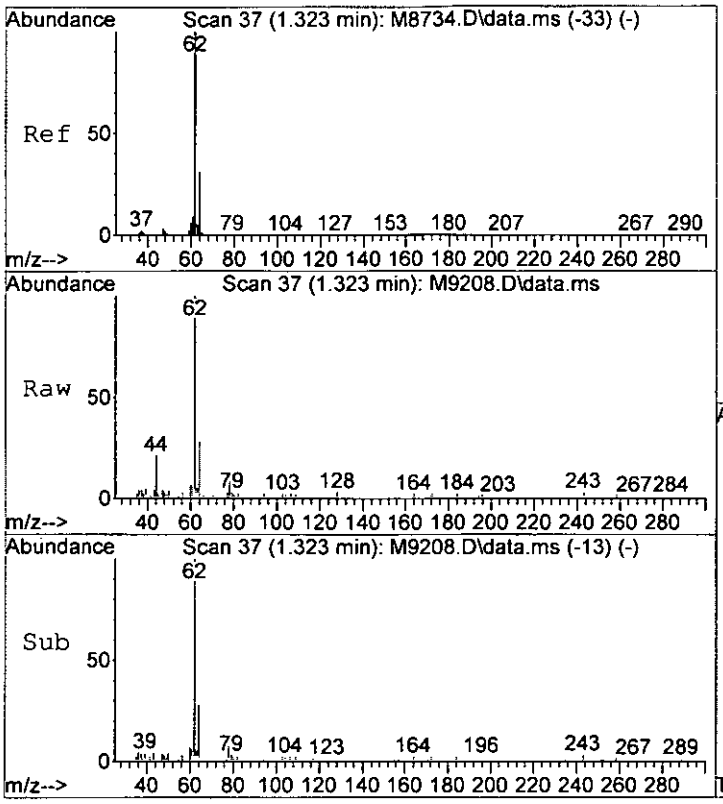
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Quantitation Report (Not Reviewed)

Sample : R1407413-028|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9208.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 4:52 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 17:06:32 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

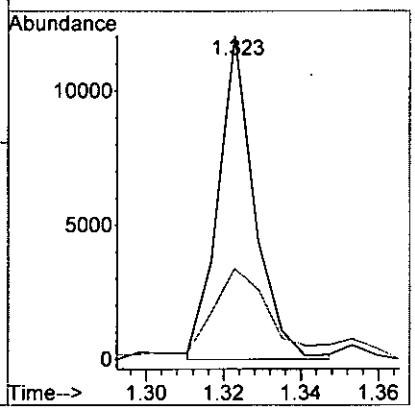


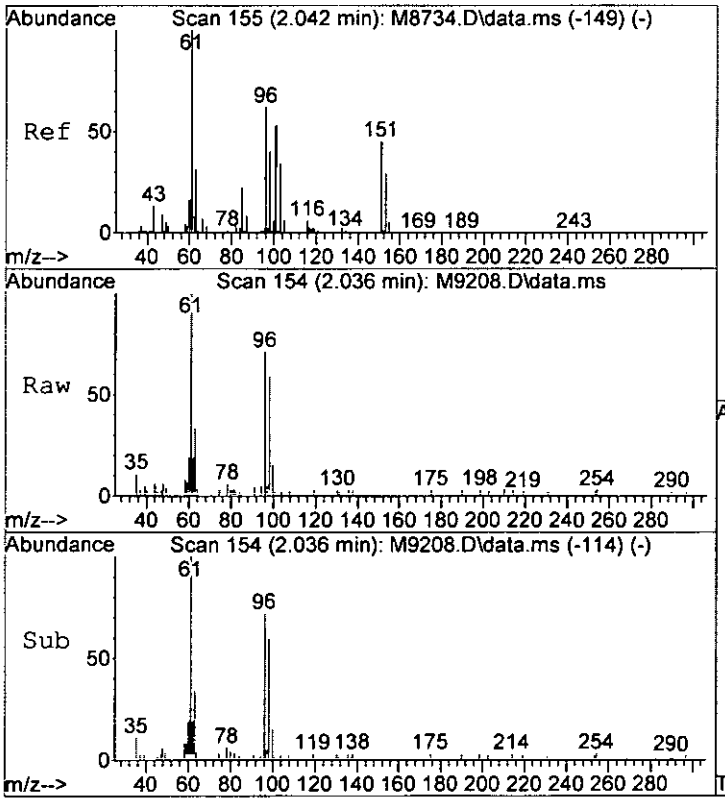


#4
Vinyl Chloride
Concen: 0.84 ppb
RT: 1.323 min Scan# 37
Delta R.T. -0.000 min
Lab File: M9208.D
Acq: 24 Sep 2014 4:52 pm

Tgt Ion: 62 Resp: 7856

Ion	Ratio	Lower	Upper
62	100		
64	28.1	13.0	53.0

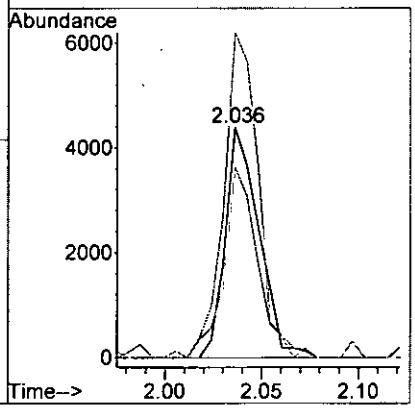


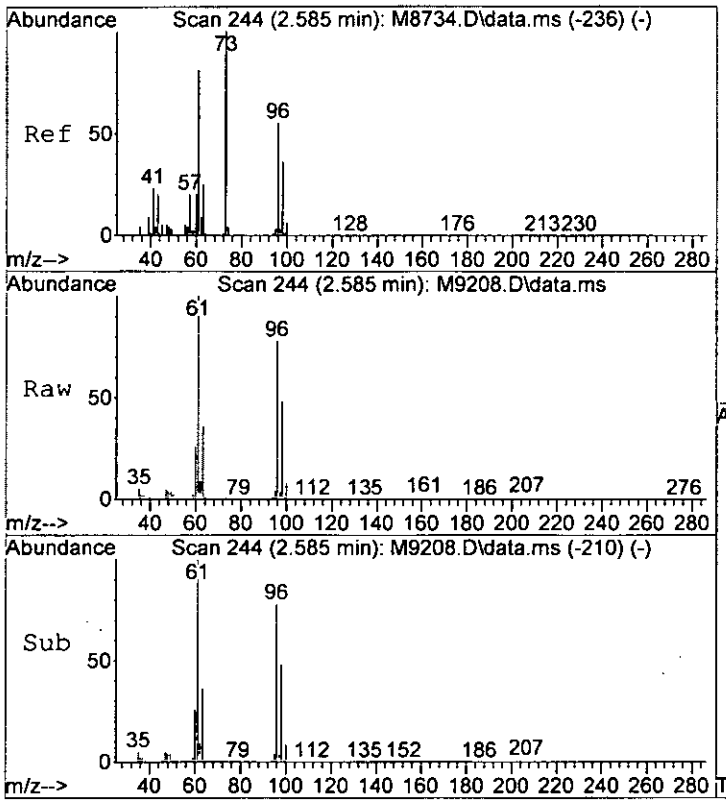


#13
1,1-Diclethene
Concen: 0.88 ppb
RT: 2.036 min Scan# 154
Delta R.T. -0.006 min
Lab File: M9208.D
Acq: 24 Sep 2014 4:52 pm

Tgt Ion: 96 Resp: 5262

Ion	Ratio	Lower	Upper
96	100		
98	82.8	43.4	83.4
61	141.2	137.8	177.8

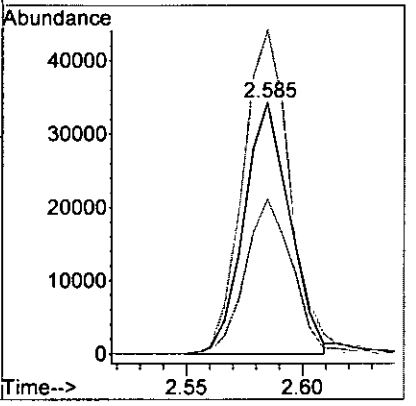


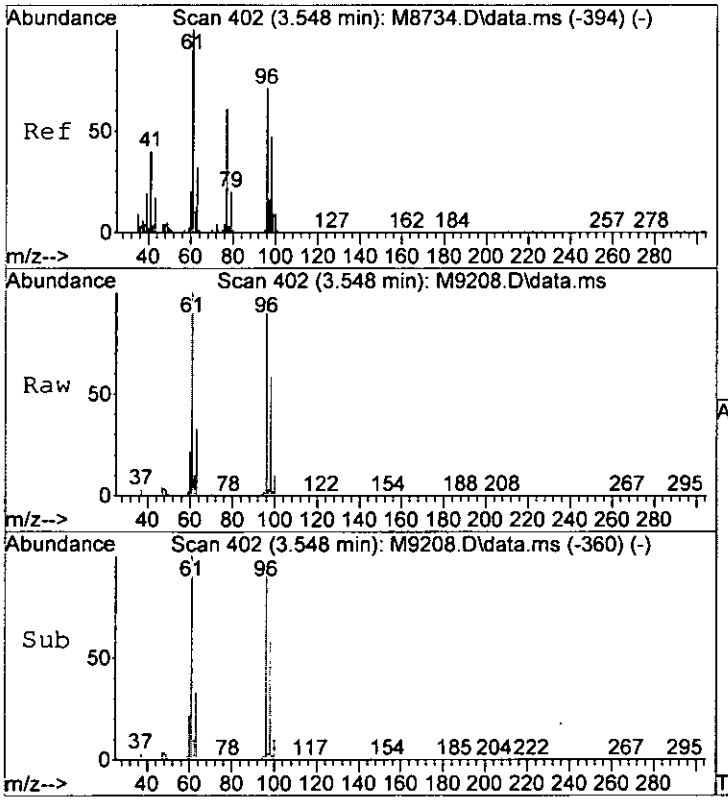


#26
trans-1,2-Dichloroethene
Concen: 6.28 ppb
RT: 2.585 min Scan# 244
Delta R.T. -0.000 min
Lab File: M9208.D
Acq: 24 Sep 2014 4:52 pm

Tgt Ion: 96 Resp: 46744

Ion	Ratio	Lower	Upper
96	100		
98	61.7	44.1	84.1
61	128.7	123.1	163.1

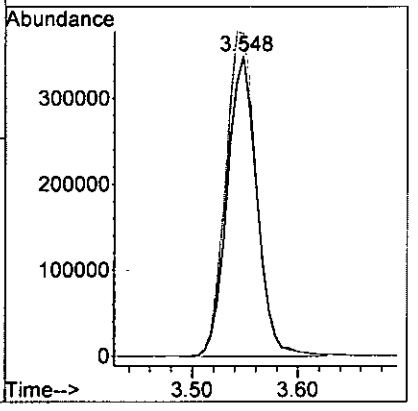


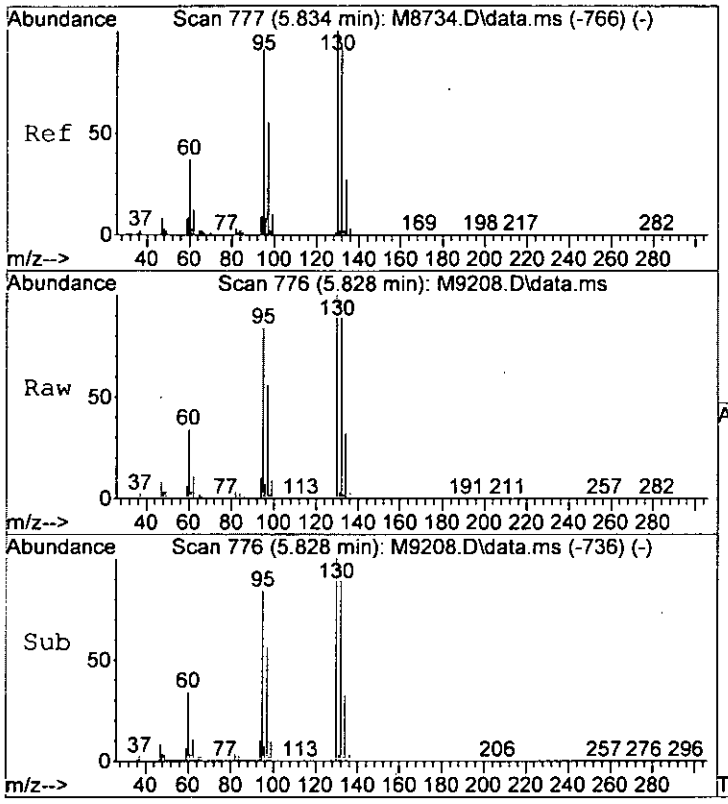


#34
cis-1,2-Dichloroethene
Concen: 80.93 ppb
RT: 3.548 min Scan# 402
Delta R.T. -0.000 min
Lab File: M9208.D
Acq: 24 Sep 2014 4:52 pm

Tgt Ion: 96 Resp: 677153

Ion	Ratio	Lower	Upper
96	100		
61	107.4	117.4	157.4#

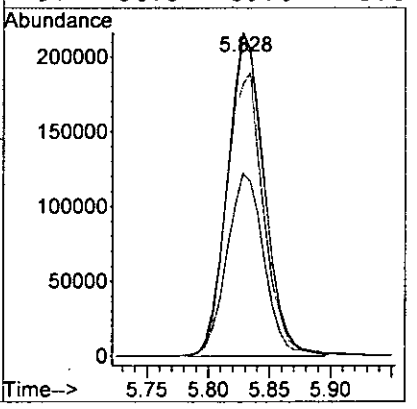


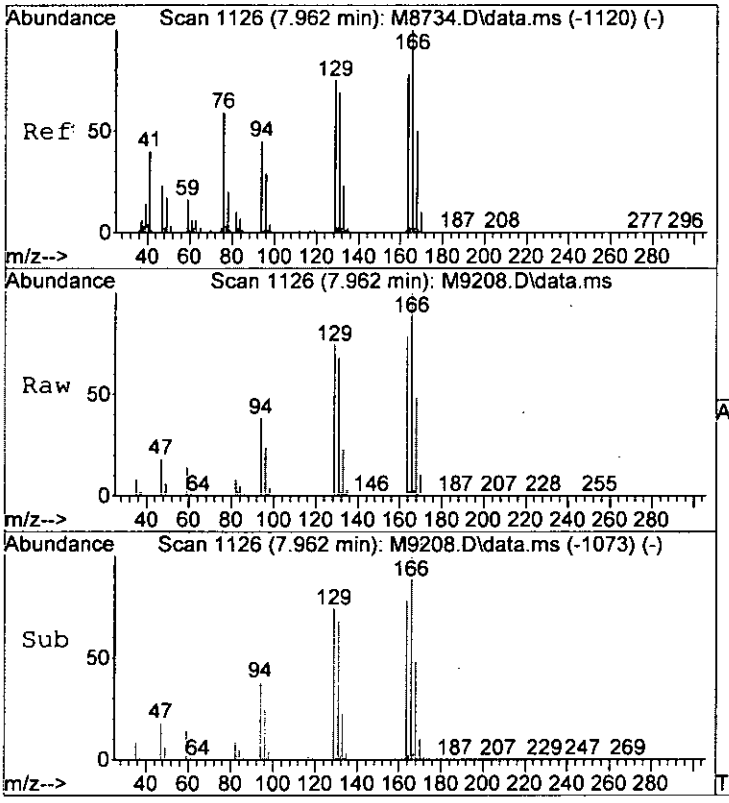


#54
Trichloroethene
Concen: 59.29 ppb
RT: 5.828 min Scan# 776
Delta R.T. -0.006 min
Lab File: M9208.D
Acq: 24 Sep 2014 4:52 pm

Tgt Ion:130 Resp: 448788

Ion	Ratio	Lower	Upper
130	100		
132	98.4	75.1	115.1
95	84.1	71.2	111.2
97	56.5	39.6	79.6

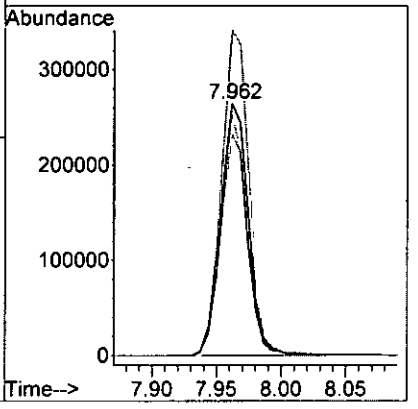




#72
Tetrachloroethene
Concen: 65.19 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9208.D
Acq: 24 Sep 2014 4:52 pm

Tgt Ion:164 Resp: 387915

Ion	Ratio	Lower	Upper
164	100		
166	129.0	108.1	148.1
129	95.5	75.7	115.7
131	87.7	71.0	111.0



Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1500
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 15:12
Sample Name:	MW-28	**Units:**	µg/L
Lab Code:	R1407413-029	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9183.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**36**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**27**		5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**26**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**0.65**	J	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 15:12	
Dibromofluoromethane	103	89-119	9/23/14 15:12	
Toluene-d8	100	87-121	9/23/14 15:12	

Quantitation Report (Not Reviewed)

Sample : R1407413-029|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9183.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 3:12 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 15:26:36 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	880826	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1346736	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1230762	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	637088	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	387225	51.62	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.24%				
48) surr1,1,2-dichloroetha...	4.664	65	371554	45.96	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.92%				
65) SURR3,Toluene-d8	7.322	98	1589789	50.22	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.44%				
70) SURR2,BFB	9.791	95	553318	48.81	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.62%				
Target Compounds							Qvalue
5) Bromomethane	1.512	94	1427	0.25	ppb	#	62
15) Acetone	2.055	43	24784	13.68	ppb		98
16) 2-Propanol	2.128	45	203	0.70	ppb	#	56
10) Carbon Disulfide	2.207	76	6105	0.26	ppb		99
26) trans-1,2-Dichloroethene	2.591	96	5074	0.65	ppb	#	61
34) cis-1,2-Dichloroethene	3.548	96	230931	26.27	ppb	#	75
35) 2-Butanone	3.560	43	2911	1.23	ppb	#	69
54) Trichloroethene	5.828	130	217440	26.73	ppb		95
72) Tetrachloroethene	7.962	164	224748	35.65	ppb		97
90) Cyclohexanone	9.785	55	1063	1.40	ppb	#	15
120) 2,3,6-Trichlorotoluene	12.918	159	1247	0.21	ppb		94

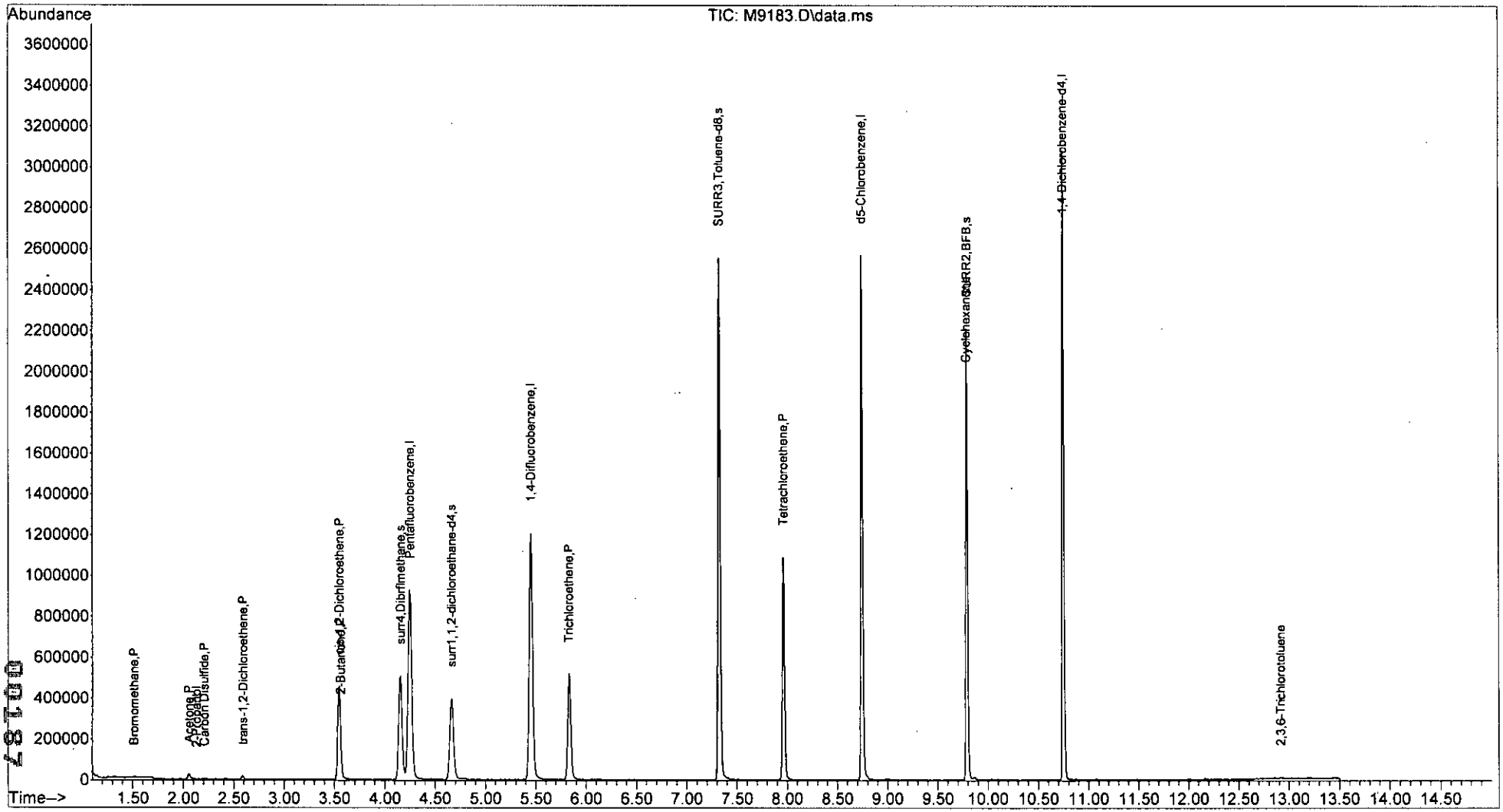
KF 9/29/14

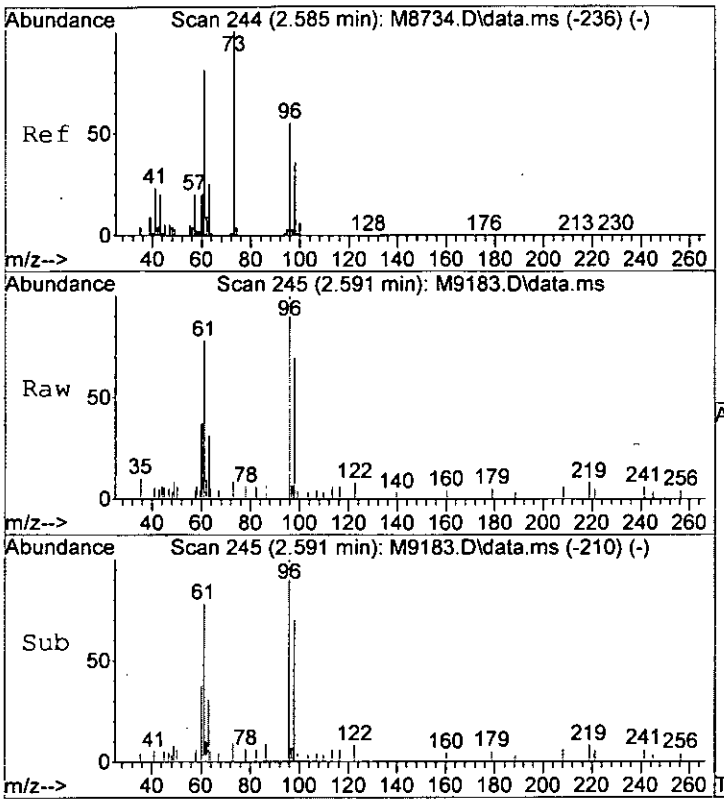
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Sample : R1407413-029|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9183.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 3:12 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 15:26:36 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

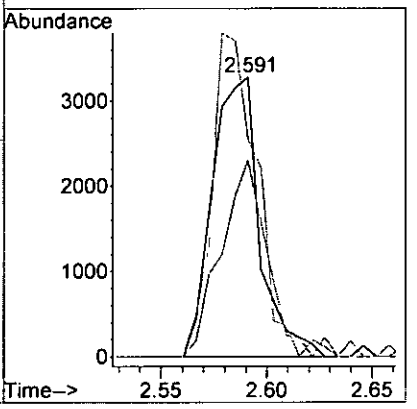


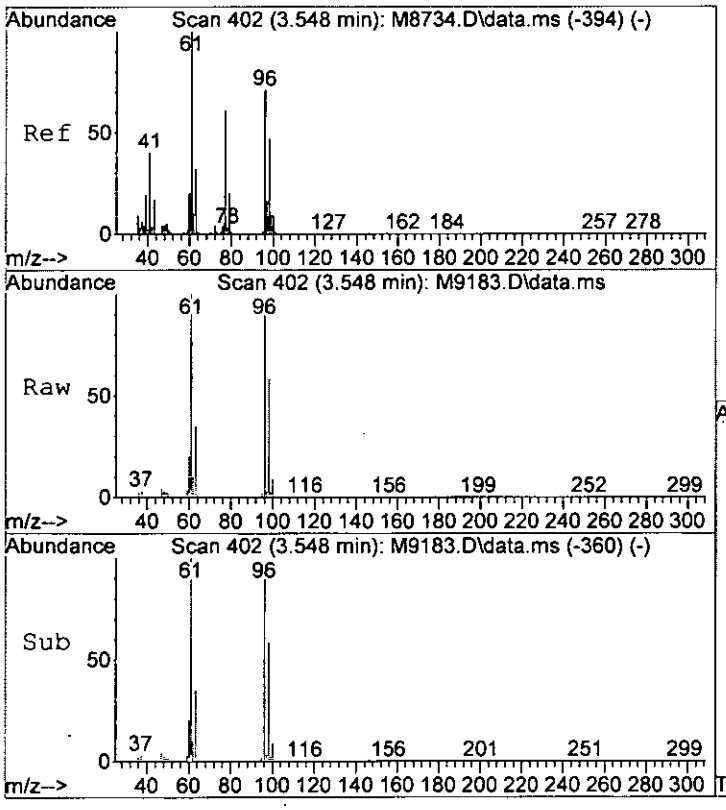


#26
trans-1,2-Dichloroethene
Concen: 0.65 ppb
RT: 2.591 min Scan# 245
Delta R.T. 0.006 min
Lab File: M9183.D
Acq: 23 Sep 2014 3:12 pm

Tgt Ion: 96 Resp: 5074

Ion	Ratio	Lower	Upper
96	100		
98	70.3	44.1	84.1
61	78.0	123.1	163.1#

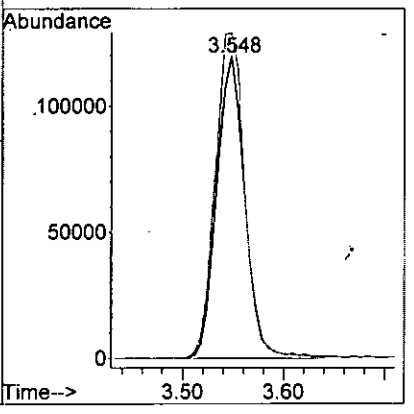


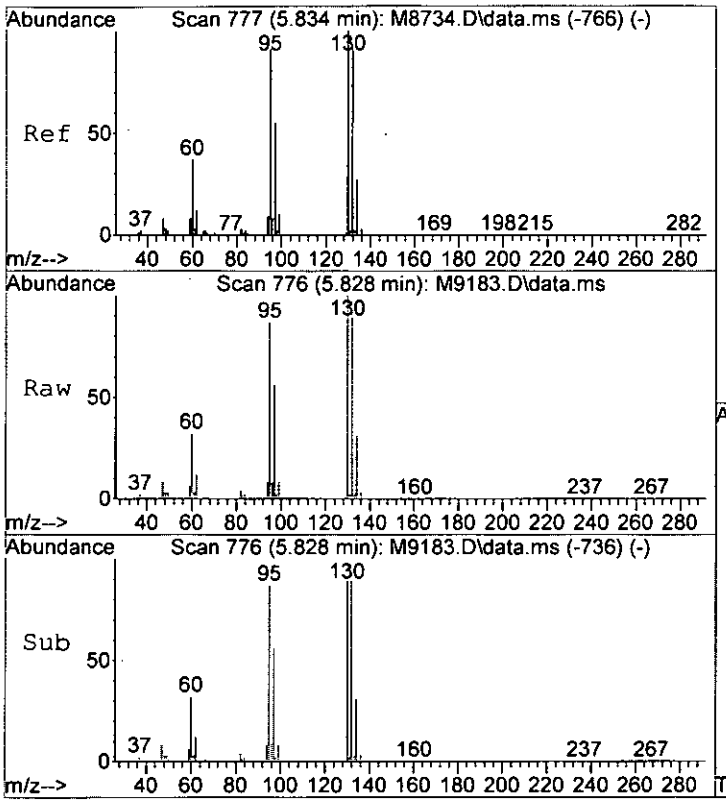


#34
cis-1,2-Dichloroethene
Concen: 26.27 ppb
RT: 3.548 min Scan# 402
Delta R.T. 0.000 min
Lab File: M9183.D
Acq: 23 Sep 2014 3:12 pm

Tgt Ion: 96 Resp: 230931

Ion	Ratio	Lower	Upper
96	100		
61	107.5	117.4	157.4#

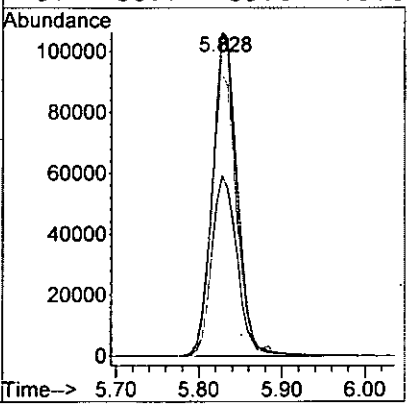


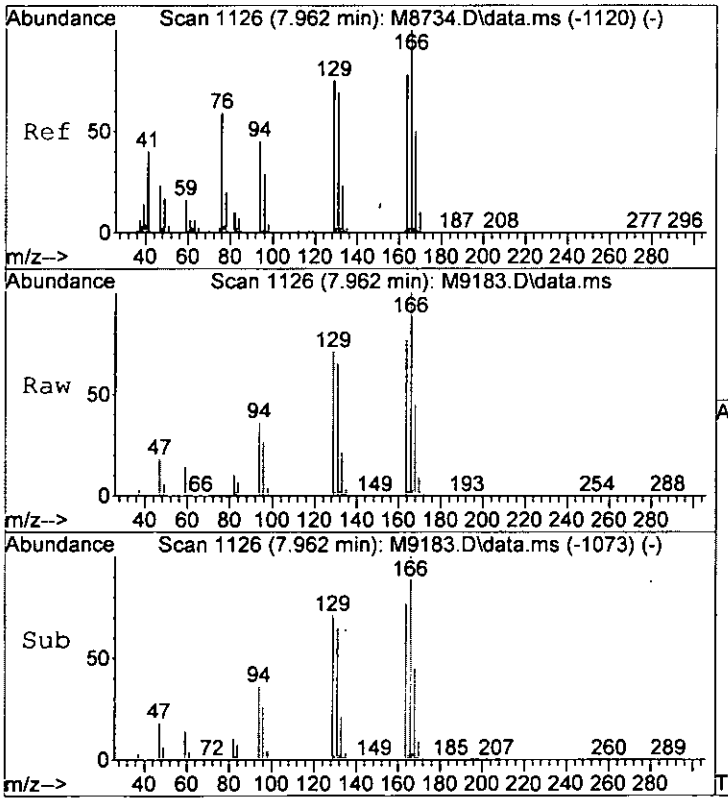


#54
Trichloroethene
Concen: 26.73 ppb
RT: 5.828 min Scan# 776
Delta R.T. -0.006 min
Lab File: M9183.D
Acq: 23 Sep 2014 3:12 pm

Tgt Ion:130 Resp: 217440

Ion	Ratio	Lower	Upper
130	100		
132	98.8	75.1	115.1
95	86.6	71.2	111.2
97	55.7	39.6	79.6

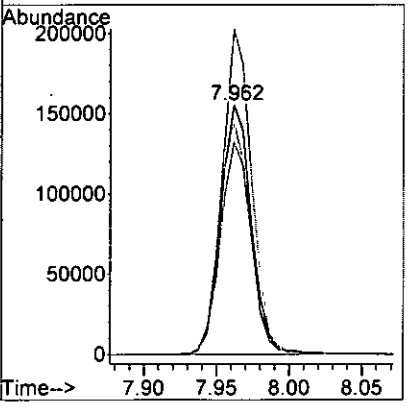




#72
Tetrachloroethene
Concen: 35.65 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9183.D
Acq: 23 Sep 2014 3:12 pm

Tgt Ion:164 Resp: 224748

Ion	Ratio	Lower	Upper
164	100		
166	130.5	108.1	148.1
129	92.9	75.7	115.7
131	85.2	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1535
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 17:24
Sample Name:	MP-8D	**Units:**	µg/L
Lab Code:	R1407413-030	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9209.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 17:24	
Dibromofluoromethane	102	89-119	9/24/14 17:24	
Toluene-d8	97	87-121	9/24/14 17:24	

Quantitation Report (Not Reviewed)

Sample : R1407413-030|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9209.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 5:24 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 17:38:51 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	849870	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1274142	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1165051	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	596762	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	361566	50.95	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.90%				
48) surr1,1,2-dichloroetha...	4.664	65	346785	45.34	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.68%				
65) SURR3,Toluene-d8	7.322	98	1459046	48.71	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.42%				
70) SURR2,BFB	9.791	95	522324	48.71	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.42%				
Target Compounds							Qvalue
5) Bromomethane	1.512	94	1234	0.22	ppb		86
15) Acetone	2.061	43	1059	0.61	ppb		73
16) 2-Propanol	2.213	45	228	0.82	ppb	#	56
19) Acetonitrile	2.256	40	848	3.59	ppb	#	2
20) Allyl Chloride	2.207	76	1213	0.30	ppb	#	1
72) Tetrachloroethene	7.968	164	1256	0.21	ppb	#	70
90) Cyclohexanone	9.791	55	913	1.29	ppb	#	15

KR 9/26/14

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

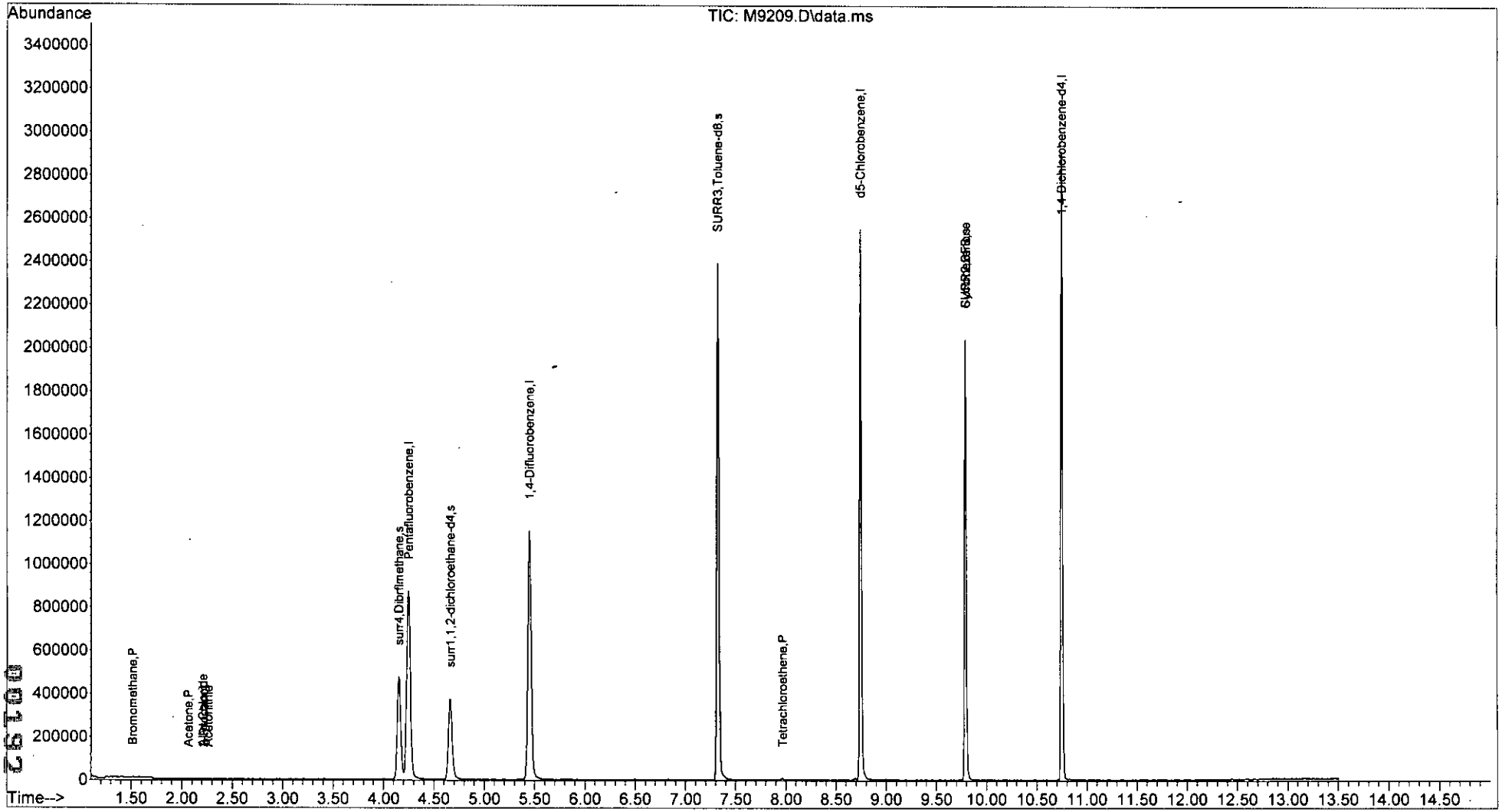
NT's not evaluated
-Qdul.

00181

Quantitation Report (Not Reviewed)

Sample : R1407413-030|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9209.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 5:24 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 17:38:51 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/19/14 1555
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 14:08
Sample Name:	FB-091914	**Units:**	µg/L
Lab Code:	R1407413-031	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9181.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 14:08	
Dibromofluoromethane	104	89-119	9/23/14 14:08	
Toluene-d8	100	87-121	9/23/14 14:08	

Quantitation Report (Not Reviewed)

Sample : R1407413-031|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9181.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 2:08 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 14:22:07 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	873408	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1331705	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1222873	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	615098	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	383833	51.75	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.50%				
48) surr1,1,2-dichloroetha...	4.664	65	372404	46.58	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.16%				
65) SURR3,Toluene-d8	7.322	98	1561565	49.88	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.76%				
70) SURR2,BFB	9.791	95	550258	49.09	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.18%				
Target Compounds							Qvalue
5) Bromomethane	1.518	94	2429	0.43	ppb		100
12) Acrolein	2.012	56	275	0.52	ppb		78
16) 2-Propanol	2.140	45	244	0.85	ppb	#	56
19) Acetonitrile	2.237	40	509	2.10	ppb	#	1
22) Methylene Chloride	2.365	84	3195	0.40	ppb	#	50
39) Tetrahydrofuran	3.926	42	668	0.45	ppb	#	1
40) Chloroform	3.938	83	129902	9.21	ppb		91
58) 1,4-Dioxane	6.407	88	263	4.15	ppb	#	22
90) Cyclohexanone	9.724	55	327	0.45	ppb		96
119) 2,4,5-Trichlorotolene	12.857	159	1399	0.24	ppb	#	77
120) 2,3,6-Trichlorotoluene	12.918	159	1362	0.24	ppb	#	80

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

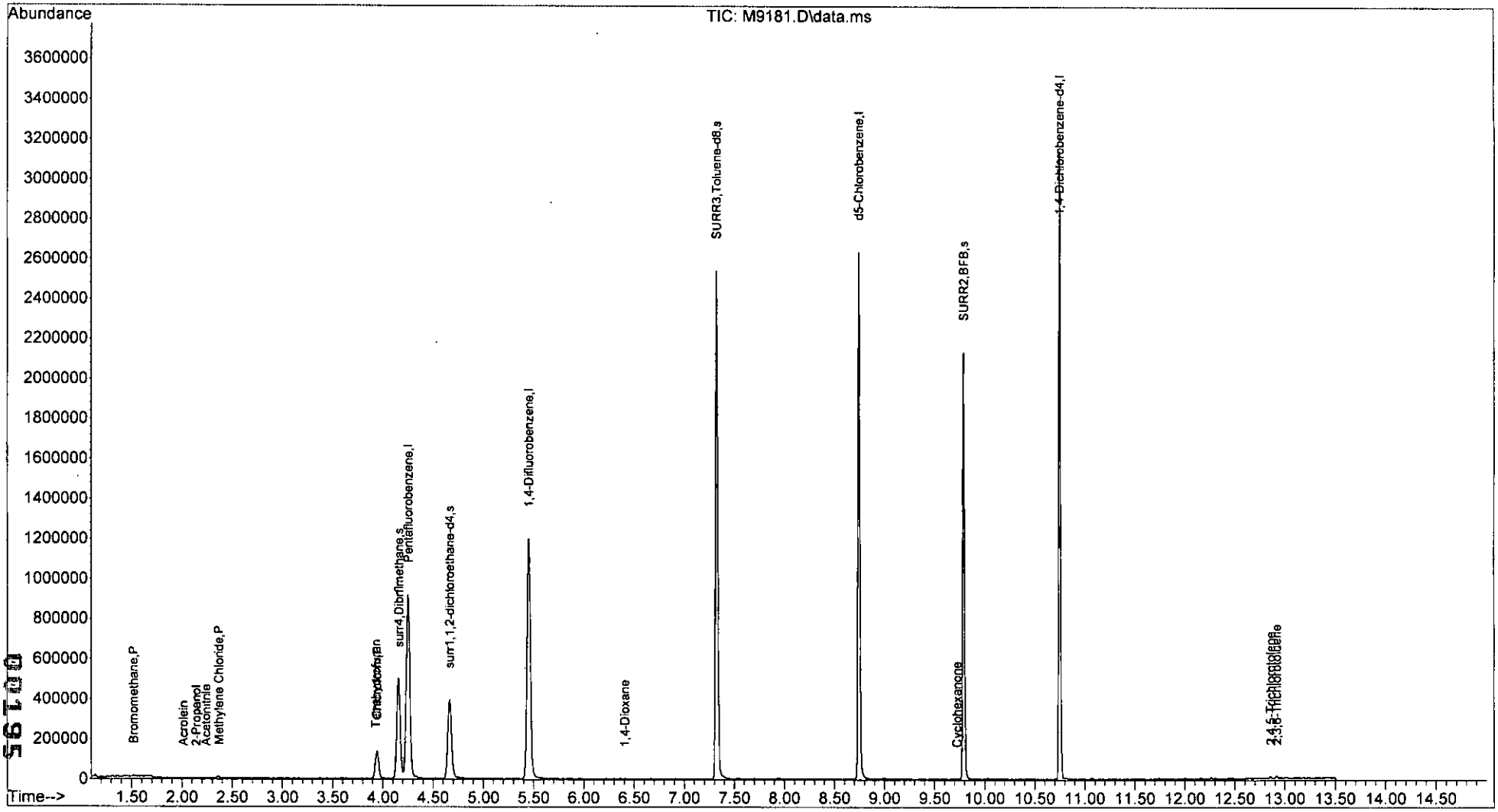
KR 9/29/14

NT's not evaluated - QAU KR 9/29/14

Quantitation Report (Not Reviewed)

Sample : R1407413-031|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9181.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 2:08 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 14:22:07 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/20/14 0916
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/24/14 17:56
Sample Name:	MW-33	**Units:**	µg/L
Lab Code:	R1407413-032	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9210.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**2.3**	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.56**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85-122	9/24/14 17:56	
Dibromofluoromethane	101	89-119	9/24/14 17:56	
Toluene-d8	98	87-121	9/24/14 17:56	

Quantitation Report (Not Reviewed)

Sample : R1407413-032|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9210.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 5:56 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 18:11:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	835602	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1288114	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1162780	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	587770	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	362135	50.47	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.94%			
48) surr1,1,2-dichloroetha...	4.658	65	349376	45.18	ppb	-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.36%			
65) SURR3,Toluene-d8	7.322	98	1480962	48.91	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.82%			
70) SURR2,BFB	9.791	95	516165	47.61	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.22%			
Target Compounds						Qvalue
~~5) Bromomethane~~	~~1.518~~	~~94~~	~~1215~~	~~0.22~~	~~ppb~~	~~# 66~~
~~16) 2-Propanol~~	~~2.164~~	~~45~~	~~448~~	~~1.64~~	~~ppb~~	~~# 56~~
54) Trichloroethene	5.872 ~~5.834~~	130	4323 ~~2305~~	0.26 ~~0.30~~	ppb	m (#) 59
72) Tetrachloroethene	7.962	164	13840	2.32	ppb	93
~~90) Cyclohexanone~~	~~9.785~~	~~55~~	~~732~~	~~1.05~~	~~ppb~~	~~# 15~~

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

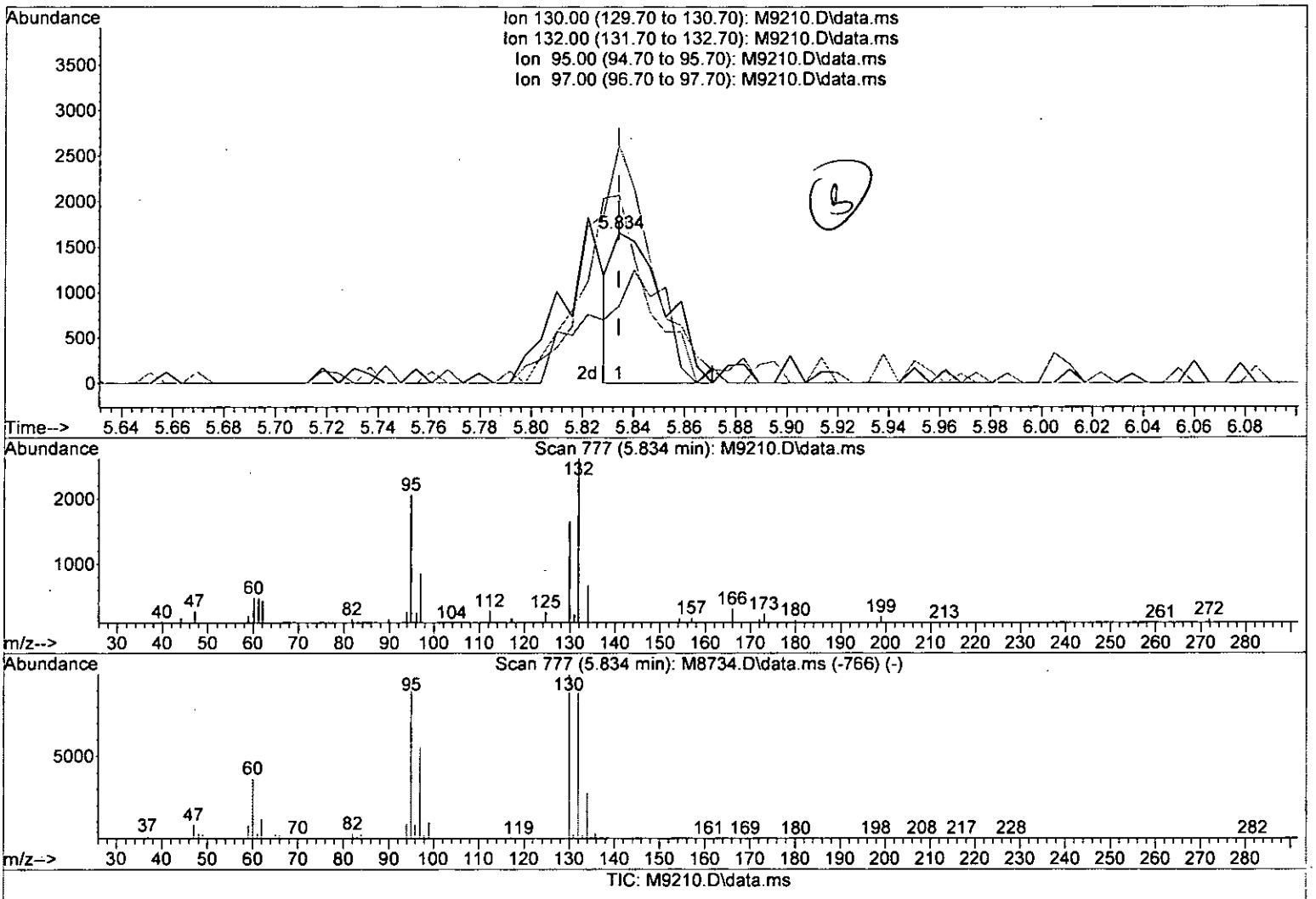
KR 9/26/14

NT's not evaluated - QdL

Quantitation Report (Qedit)

Sample : R1407413-032|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9210.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 5:56 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 18:11:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



TIC: M9210.D\data.ms

(54) Trichloroethene (P)

5.834min (+0.000) 0.30 ppb

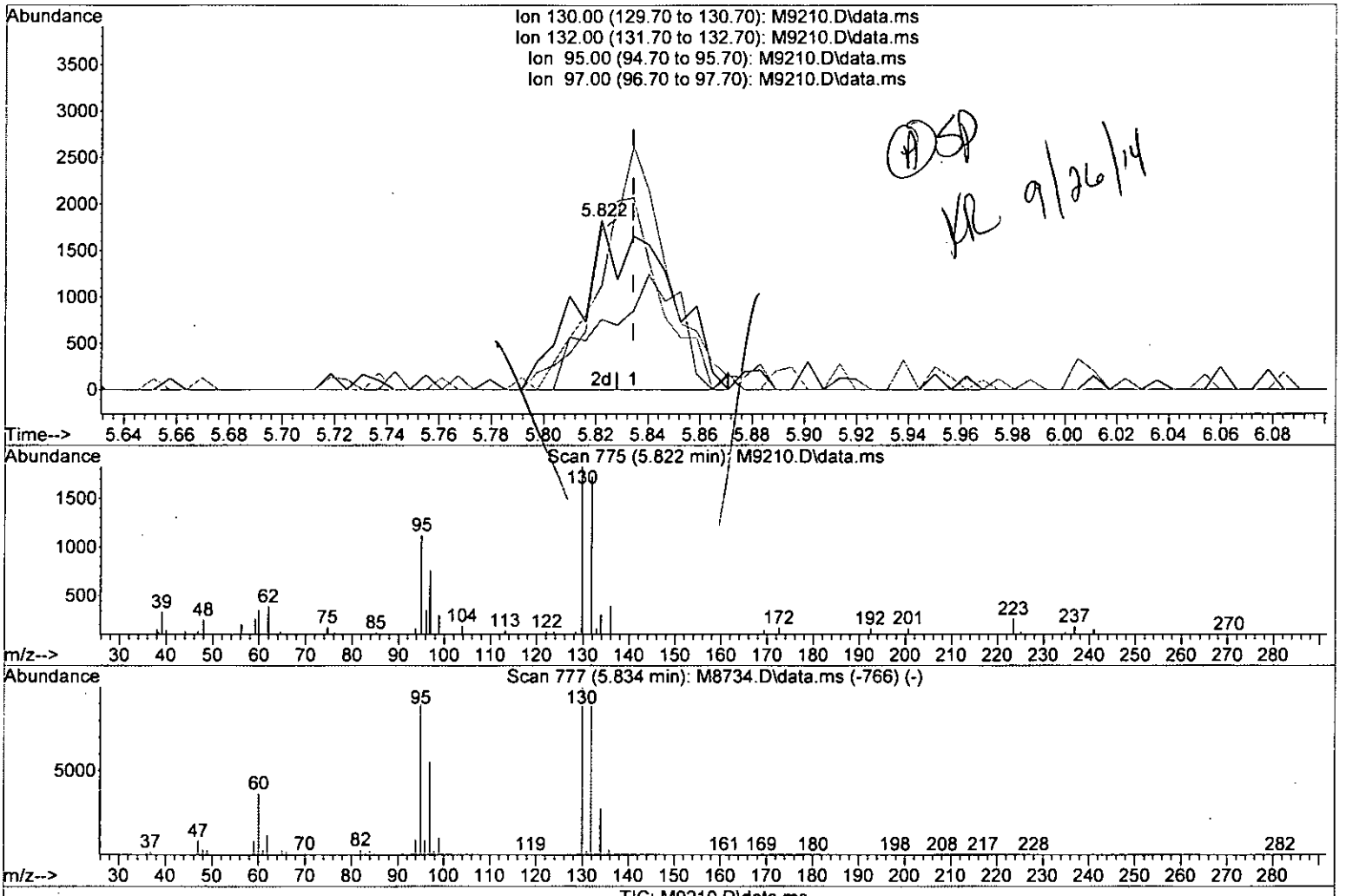
response 2305

Ion	Exp%	Act%
130.00	100	100
132.00	95.10	158.60#
95.00	91.20	124.94#
97.00	59.60	51.33

Quantitation Report (Qedit)

Sample : R1407413-032|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9210.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 5:56 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 18:11:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



TIC: M9210.D\data.ms

(54) Trichloroethene (P)

5.822min (-0.012) 0.56 ppb m

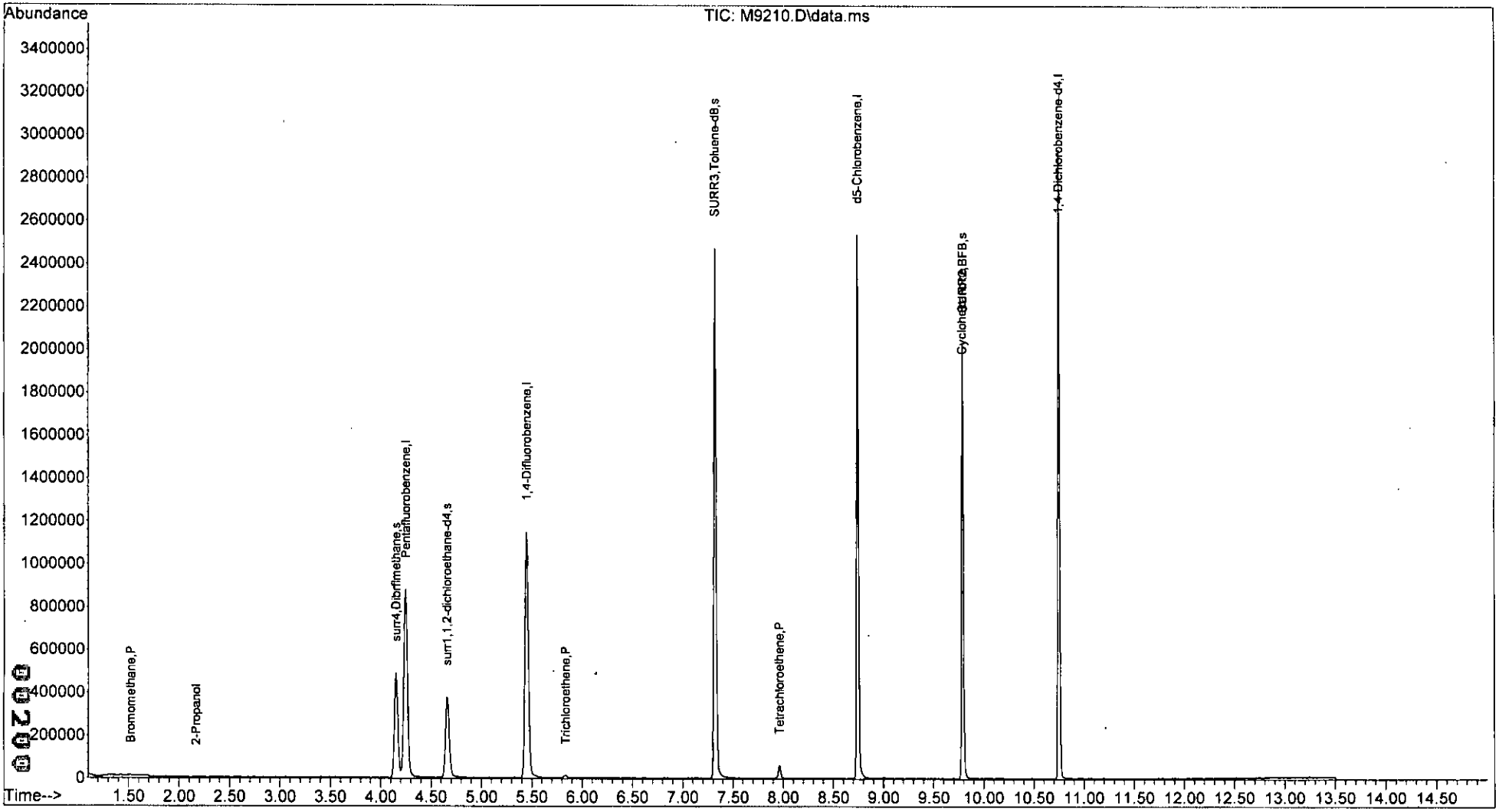
response 4323

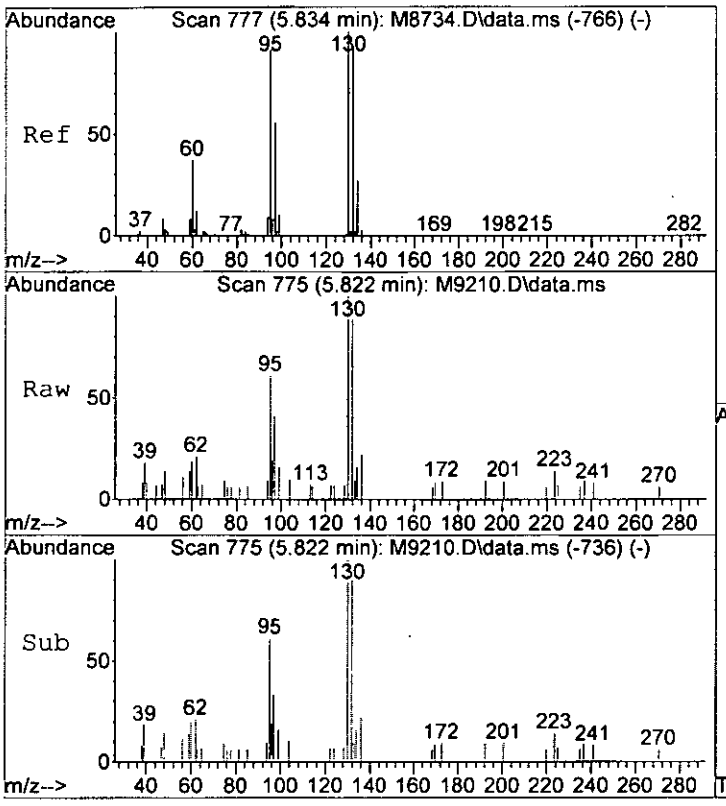
Ion	Exp%	Act%
130.00	100	100
132.00	95.10	94.51
95.00	91.20	61.36#
97.00	59.60	41.38

Quantitation Report (Not Reviewed)

Sample : R1407413-032|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9210.D
Misc : VERINA 6646 T4
Acq On : 24 Sep 2014 5:56 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 18:11:05 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

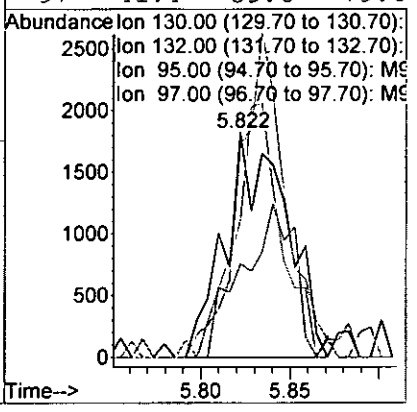


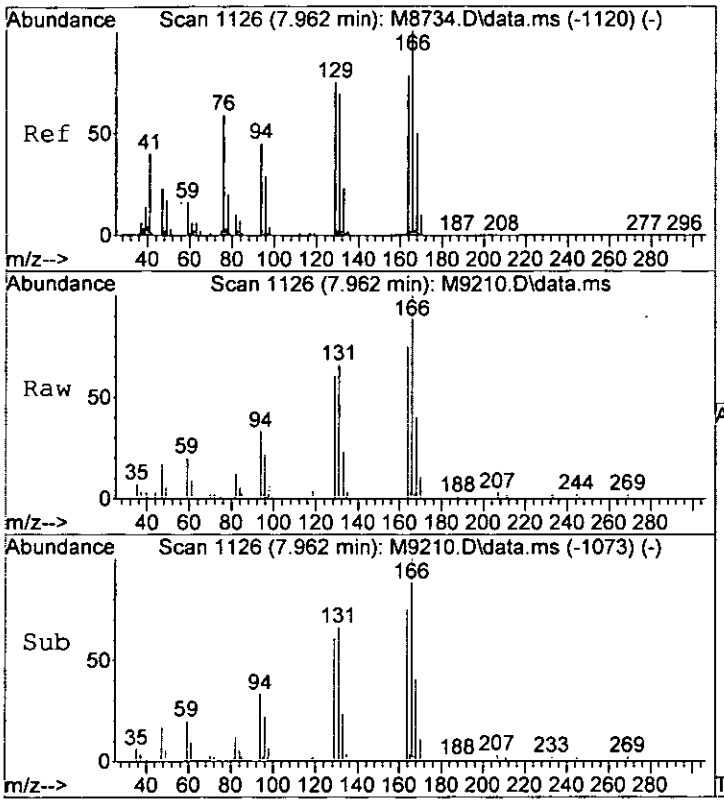


#54
Trichloroethene
Concen: 0.56 ppb m
RT: 5.822 min Scan# 775
Delta R.T. -0.012 min
Lab File: M9210.D
Acq: 24 Sep 2014 5:56 pm

Tgt Ion:130 Resp: 4323

Ion	Ratio	Lower	Upper
130	100		
132	94.5	75.1	115.1
95	61.4	71.2	111.2#
97	41.4	39.6	79.6

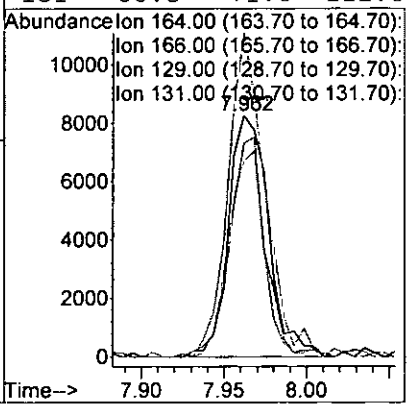




#72
Tetrachloroethene
Concen: 2.32 ppb
RT: 7.962 min Scan# 1126
Delta R.T. -0.006 min
Lab File: M9210.D
Acq: 24 Sep 2014 5:56 pm

Tgt Ion:164 Resp: 13840

Ion	Ratio	Lower	Upper
164	100		
166	134.1	108.1	148.1
129	81.3	75.7	115.7
131	88.5	71.0	111.0



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/20/14 0930
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 14:40
Sample Name:	FB-092014	**Units:**	µg/L
Lab Code:	R1407413-033	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9182.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85-122	9/23/14 14:40	
Dibromofluoromethane	99	89-119	9/23/14 14:40	
Toluene-d8	95	87-121	9/23/14 14:40	

Quantitation Report (Not Reviewed)

Sample : R1407413-033|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9182.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 2:40 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 14:54:21 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	901401	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1361495	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1219268	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	616442	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	376637	49.67	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.34%				
48) surr1,1,2-dichloroetha...	4.664	65	367763	45.00	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 90.00%				
65) SURR3,Toluene-d8	7.322	98	1517424	47.41	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.82%				
70) SURR2,BFB	9.791	95	539490	47.08	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.16%				
Target Compounds							Qvalue
15) Acetone	2.048	43	952	0.51	ppb	#	~~49~~
19) Acetonitrile	2.256	40	525	2.10	ppb	#	1
20) Allyl Chloride	2.207	76	2035	0.47	ppb	#	1
22) Methylene Chloride	2.353	84	2885	0.35	ppb	#	73
39) Tetrahydrofuran	3.932	42	432	0.28	ppb	#	43
40) Chloroform	3.944	83	122563	8.42	ppb		93
90) Cyclohexanone	9.730	55	326	0.44	ppb	#	69
119) 2,4,5-Trichlorotolene	12.857	159	1159	0.20	ppb		89

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

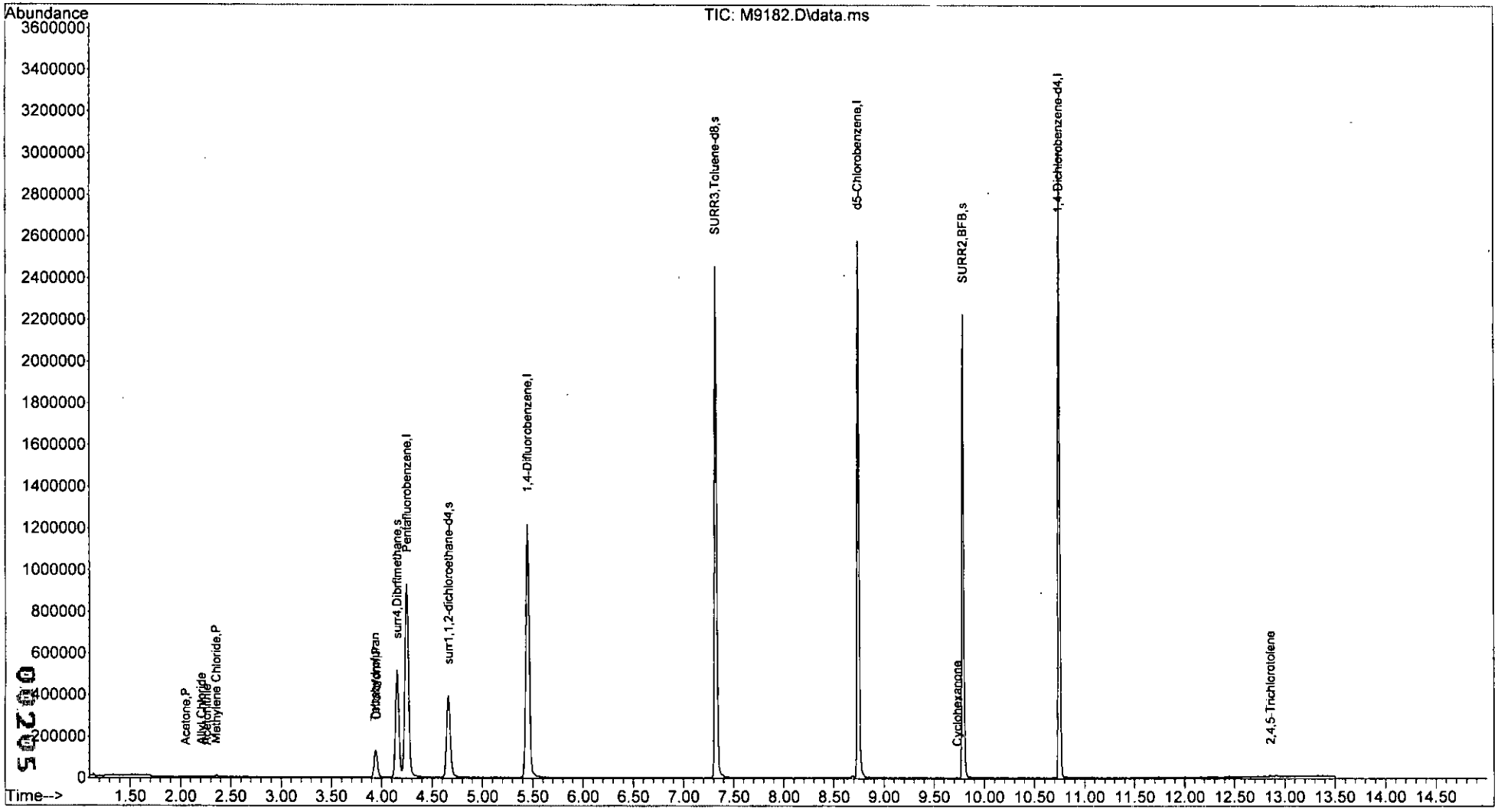
KP 9/29/14

NT's not evaluated — QAM

Quantitation Report (Not Reviewed)

Sample : R1407413-033|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9182.D
Misc : VERINA 6646 T4
Acq On : 23 Sep 2014 2:40 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 14:54:21 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

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

RIGHT SOLUTIONS | RIGHT PARTNER

Initial Calibration - Summary Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
8260 Waters W0909014 **Column Name:** 1 KB 9/10/14

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.3039	<=20	10.0
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6687	<=20	6.4
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5147	<=20	6.9
1,1,2-Trichloroethane	T	Average RF		0.100	0.2081	<=20	8.4
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.4146	<=20	5.3
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.7920	<=20	7.7
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.3563	<=20	7.3
1,1-Dichloropropene	T	Average RF			0.3631	<=20	9.1
1,2,3-Trichlorobenzene	T	Average RF			0.6007	<=20	7.3
1,2,3-Trichloropropane	T	Average RF			0.1493	<=20	3.5
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6933	<=20	9.7
1,2,4-Trimethylbenzene	T	Average RF			2.113	<=20	10.8
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.09089	<=20	15.8
1,2-Dibromoethane	T	Average RF		0.100	0.2151	<=20	11.8
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123:	T	Average RF			0.5269	<=20	7.7
1,2-Dichlorobenzene	T	Average RF		0.400	1.187	<=20	8.1
1,2-Dichloroethane	T	Average RF		0.100	0.3376	<=20	8.1
1,2-Dichloropropane	T	Average RF		0.100	0.2860	<=20	10.8
1,3,5-Trichlorobenzene	T	Average RF			0.8472	<=20	5.6
1,3,5-Trimethylbenzene	T	Average RF			2.049	<=20	14.3
1,3-Dichlorobenzene	T	Average RF		0.600	1.243	<=20	7.5
1,3-Dichloropropane	T	Average RF			0.4258	<=20	7.5
1,4-Dichlorobenzene	T	Average RF		0.500	1.284	<=20	5.9
1,4-Dioxane	T	Average RF			0.002382	<=20	8.4
1-Butanol	T	Average RF			0.004330	<=20	19.4
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.4209	<=20	4.3
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.5823	<=20	8.0
2,2-Dichloropropane	T	Average RF			0.6257	<=20	11.1
2,3,6-Trichlorotoluene	T	Average RF			0.4607	<=20	5.6
2,4,5-Trichlorotoluene	T	Average RF			0.4693	<=20	5.7
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.9868	<=20	7.9
2,4-Dichlorobenzotrifluoride	T	Average RF			0.5002	<=20	6.8
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5686	<=20	5.5
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1345	<=20	8.4
2-Chloro-1,3-butadiene	T	Average RF			0.7706	<=20	5.9
2-Chlorobenzotrifluoride	T	Average RF			0.8115	<=20	5.9
2-Chloroethyl Vinyl Ether	T	Average RF			0.1287	<=20	14.6
2-Chlorotoluene	T	Average RF			1.818	<=20	8.0
2-Hexanone	T	Average RF		0.05	0.1403	<=20	10.7
2-Methyl-1-propanol	T	Average RF			0.007505	<=20	16.9
2-Methyl-2-propanol	T	Average RF			0.02749	<=20	16.5
2-Nitropropane	T	Average RF			0.03516	<=20	14.9
2-Propanol	T	Average RF			0.01638	<=20	18.6
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			1.055	<=20	9.2
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5776	<=20	8.1
3-Chloro-1-propene	T	Average RF			0.2402	<=20	9.4
3-Chlorobenzotrifluoride	T	Average RF			0.4381	<=20	10.8
3-Chlorotoluene	T	Average RF			1.951	<=20	5.9
4-Chlorotoluene	T	Average RF			2.114	<=20	10.0
4-Isopropyltoluene	T	Average RF			2.083	<=20	11.4
4-Methyl-2-pentanone	T	Average RF		0.05	0.1694	<=20	14.9

00207

Initial Calibration - Summary Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Acetone	T	Average RF		0.05	0.1028	<=20	6.6
Acetonitrile	T	Average RF			0.01389	<=20	13.7
Acrolein	T	Average RF			0.03050	<=20	19.4
Acrylonitrile	T	Average RF			0.09800	<=20	13.1
Benzene	T	Average RF		0.500	1.135	<=20	8.0
Bromobenzene	T	Average RF			0.6582	<=20	7.8
Bromochloromethane	T	Average RF			0.2759	<=20	10.1
Bromodichloromethane	T	Average RF		0.200	0.3539	<=20	9.2
Bromoform	T	Average RF		0.100	0.2726	<=20	13.2
Bromomethane	T	Average RF		0.100	0.3254	<=20	5.4
Carbon Disulfide	T	Average RF		0.100	1.350	<=20	5.9
Carbon Tetrachloride	T	Average RF		0.05	0.1126	<=20	7.5
Chlorobenzene	T	Average RF		0.500	0.8864	<=20	9.1
Chloroethane	T	Average RF		0.100	0.3130	<=20	9.2
Chloroform	T	Average RF		0.200	0.8076	<=20	5.3
Chloromethane	T	Average RF		0.100	0.5292	<=20	9.3
Cyclohexane	T	Average RF		0.100	0.2586	<=20	6.5
Cyclohexanone	T	Average RF			0.05950	<=20	10.2
Dibromochloromethane	T	Average RF		0.100	0.2578	<=20	13.9
Dibromomethane	T	Average RF			0.1385	<=20	7.9
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.4852	<=20	13.4
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8280	<=20	5.9
Dichloromethane	T	Average RF		0.100	0.4580	<=20	6.9
Diethyl Ether	T	Average RF			0.3237	<=20	8.1
Diisopropyl Ether	T	Average RF			1.499	<=20	3.3
Ethyl Methacrylate	T	Average RF			0.2648	<=20	18.1
Ethyl tert-Butyl Ether	T	Average RF			1.322	<=20	4.3
Ethylbenzene	T	Average RF		0.100	0.4656	<=20	11.1
Hexachlorobutadiene	T	Average RF			0.2742	<=20	9.2
Iodomethane	T	Average RF			0.5364	<=20	16.1
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.563	<=20	8.3
Methacrylonitrile	T	Average RF			0.1156	<=20	15.6
Methyl Acetate	T	Average RF		0.100	0.2095	<=20	10.3
Methyl Methacrylate	T	Average RF			0.1314	<=20	15.5
Methyl tert-Butyl Ether	T	Average RF		0.100	1.015	<=20	12.0
Methylcyclohexane	T	Average RF		0.100	0.3104	<=20	11.0
Naphthalene	T	Average RF			1.419	<=20	13.7
Propionitrile	T	Average RF			0.03625	<=20	14.2
Styrene	T	Average RF		0.300	0.8998	<=20	16.4
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2561	<=20	5.3
Tetrahydrofuran (THF)	T	Average RF			0.08416	<=20	9.0
Toluene	T	Average RF		0.400	1.234	<=20	7.6
Trichloroethene (TCE)	T	Average RF		0.200	0.3020	<=20	7.2
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6717	<=20	9.3
Vinyl Acetate	T	Average RF			0.06319	<=20	12.9
Vinyl Chloride	T	Average RF		0.100	0.5600	<=20	10.9
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4990	<=20	8.1
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4135	<=20	14.8
m,p-Xylenes	T	Average RF		0.100	0.5642	<=20	13.0
n-Butyl Acetate	T	Quadratic	1/X2		0.3007	>=0.99	0.9932
n-Butylbenzene	T	Average RF			1.890	<=20	10.9
n-Heptane	T	Average RF			0.2860	<=20	9.2

Initial Calibration - Summary Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Propylbenzene	T	Average RF			2.997	<=20	8.7
o-Xylene	T	Average RF		0.300	0.5489	<=20	14.6
sec-Butylbenzene	T	Average RF			2.497	<=20	8.2
tert-Amyl Methyl Ether	T	Average RF			1.130	<=20	7.5
tert-Butylbenzene	T	Average RF			1.718	<=20	10.3
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4442	<=20	7.5
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3368	<=20	19.2
trans-1,4-Dichloro-2-butene	T	Average RF			0.1275	<=20	12.0
1,2-Dichloroethane-d4	S	Average RF			0.3002	<=20	1.7
4-Bromofluorobenzene	S	Average RF			0.4208	<=20	2.9
Dibromofluoromethane	S	Average RF			0.2785	<=20	2.2
Toluene-d8	S	Average RF			1.175	<=20	3.4

Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
8260 Waters W090914 **Signal ID:** 1 KB 9/10/14

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1400080-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\090914\M8730.D	9/9/14 15:42
02	RC1400080-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\090914\M8731.D	9/9/14 16:36
03	RC1400080-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\090914\M8732.D	9/9/14 17:09
04	RC1400080-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\090914\M8733.D	9/9/14 17:41
05	RC1400080-05	20ppb	I:\ACQUDATA\msvoa12\Data\090914\M8734.D	9/9/14 18:13
06	RC1400080-06	50ppb	I:\ACQUDATA\msvoa12\Data\090914\M8735.D	9/9/14 18:45
07	RC1400080-07	100ppb	I:\ACQUDATA\msvoa12\Data\090914\M8736.D	9/9/14 19:18
08	RC1400080-08	200ppb	I:\ACQUDATA\msvoa12\Data\090914\M8737.D	9/9/14 19:50

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 10.0 Average RF = 0.3039

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2903	02	1.000	0.2625	03	2.000	0.2766	04	5.000	0.2778
05	20.000	0.3241	06	50.000	0.3355	07	100.000	0.3239	08	200.000	0.3406

1,1,1-Trichloroethane (TCA) Average RF RSD = 6.4 Average RF = 0.6687

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6199	02	1.000	0.6497	03	2.000	0.6392	04	5.000	0.6115
05	20.000	0.7045	06	50.000	0.7102	07	100.000	0.7011	08	200.000	0.7139

1,1,2,2-Tetrachloroethane Average RF RSD = 6.9 Average RF = 0.5147

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5162	02	1.000	0.5022	03	2.000	0.4473	04	5.000	0.4851
05	20.000	0.5472	06	50.000	0.5365	07	100.000	0.5300	08	200.000	0.5526

1,1,2-Trichloroethane Average RF RSD = 8.4 Average RF = 0.2081

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1983	02	1.000	0.1997	03	2.000	0.1869	04	5.000	0.1862
05	20.000	0.2182	06	50.000	0.2262	07	100.000	0.2187	08	200.000	0.2308

1,1,2-Trichlorotrifluoroethane Average RF RSD = 5.3 Average RF = 0.4146

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4032	02	1.000	0.3911	03	2.000	0.4064	04	5.000	0.3819
05	20.000	0.4402	06	50.000	0.4368	07	100.000	0.4252	08	200.000	0.4319

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 7.7 Average RF = 0.7920

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7508	02	1.000	0.6883	03	2.000	0.7410	04	5.000	0.7830
05	20.000	0.8523	06	50.000	0.8497	07	100.000	0.8276	08	200.000	0.8432

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 7.3 Average RF = 0.3563

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3543	02	1.000	0.3393	03	2.000	0.3140	04	5.000	0.3319
05	20.000	0.3833	06	50.000	0.3754	07	100.000	0.3680	08	200.000	0.3846

1,1-Dichloropropene Average RF RSD = 9.1 Average RF = 0.3631

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3721	02	1.000	0.3002	03	2.000	0.3348	04	5.000	0.3472
05	20.000	0.3904	06	50.000	0.3941	07	100.000	0.3798	08	200.000	0.3863

Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2,3-Trichlorobenzene Average RF RSD = 7.3 Average RF = 0.6007

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6222	02	1.000	0.5606	03	2.000	0.5356	04	5.000	0.5713
05	20.000	0.6536	06	50.000	0.6575	07	100.000	0.6127	08	200.000	0.5923

1,2,3-Trichloropropane Average RF RSD = 3.5 Average RF = 0.1493

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1455	02	1.000	0.1451	03	2.000	0.1413	04	5.000	0.1488
05	20.000	0.1570	06	50.000	0.1545	07	100.000	0.1495	08	200.000	0.1526

1,2,4-Trichlorobenzene Average RF RSD = 9.7 Average RF = 0.6933

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6290	02	1.000	0.6819	03	2.000	0.5990	04	5.000	0.6495
05	20.000	0.7911	06	50.000	0.7707	07	100.000	0.7264	08	200.000	0.6990

1,2,4-Trimethylbenzene Average RF RSD = 10.8 Average RF = 2.113

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.848	02	1.000	1.875	03	2.000	1.939	04	5.000	2.017
05	20.000	2.437	06	50.000	2.389	07	100.000	2.250	08	200.000	2.151

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 15.8 Average RF = 0.09089

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.08598	03	2.000	0.06491	04	5.000	0.08203	05	20.000	0.09489
06	50.000	0.1017	07	100.000	0.1014	08	200.000	0.1053			

1,2-Dibromoethane Average RF RSD = 11.8 Average RF = 0.2151

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2031	02	1.000	0.1811	03	2.000	0.1856	04	5.000	0.2003
05	20.000	0.2314	06	50.000	0.2434	07	100.000	0.2349	08	200.000	0.2413

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 7.7 Average RF = 0.5269

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5143	02	1.000	0.4925	03	2.000	0.4637	04	5.000	0.4949
05	20.000	0.5610	06	50.000	0.5675	07	100.000	0.5523	08	200.000	0.5689

1,2-Dichlorobenzene Average RF RSD = 8.1 Average RF = 1.187

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.164	02	1.000	1.097	03	2.000	1.041	04	5.000	1.118
05	20.000	1.304	06	50.000	1.265	07	100.000	1.241	08	200.000	1.270

1,2-Dichloroethane Average RF RSD = 8.1 Average RF = 0.3376

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3023	02	1.000	0.3268	03	2.000	0.3105	04	5.000	0.3142
05	20.000	0.3678	06	50.000	0.3644	07	100.000	0.3494	08	200.000	0.3652

1,2-Dichloroethane-d4 Average RF RSD = 1.7 Average RF = 0.3002

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.3084	03	60.000	0.3018	04	70.000	0.3024	05	100.000	0.2959
07	125.000	0.2958	08	150.000	0.2966						

1,2-Dichloropropane Average RF RSD = 10.8 Average RF = 0.2860

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2959	02	1.000	0.2342	03	2.000	0.2657	04	5.000	0.2533
05	20.000	0.3070	06	50.000	0.3155	07	100.000	0.3021	08	200.000	0.3141

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte	Curve Fit	Weighting

1,3,5-Trichlorobenzene — Average RF — RSD = 5.6 — Average RF = 0.8472

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9443	02	1.000	0.8056	03	2.000	0.8343	04	5.000	0.8163
05	20.000	0.8674	06	50.000	0.8584	07	100.000	0.8558	08	200.000	0.7952

1,3,5-Trimethylbenzene — Average RF — RSD = 14.3 — Average RF = 2.049

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.594	02	1.000	1.829	03	2.000	1.773	04	5.000	2.026
05	20.000	2.411	06	50.000	2.325	07	100.000	2.244	08	200.000	2.188

1,3-Dichlorobenzene — Average RF — RSD = 7.5 — Average RF = 1.243

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.154	02	1.000	1.221	03	2.000	1.116	04	5.000	1.183
05	20.000	1.392	06	50.000	1.338	07	100.000	1.263	08	200.000	1.276

1,3-Dichloropropane — Average RF — RSD = 7.5 — Average RF = 0.4258

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4087	02	1.000	0.4183	03	2.000	0.3670	04	5.000	0.4053
05	20.000	0.4481	06	50.000	0.4552	07	100.000	0.4421	08	200.000	0.4618

1,4-Dichlorobenzene — Average RF — RSD = 5.9 — Average RF = 1.284

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.306	02	1.000	1.160	03	2.000	1.227	04	5.000	1.233
05	20.000	1.397	06	50.000	1.356	07	100.000	1.297	08	200.000	1.300

1,4-Dioxane — Average RF — RSD = 8.4 — Average RF = 0.002382

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.002758	04	100.000	0.002271	05	400.000	0.002221	06	1000.000	0.002290
07	2000.000	0.002297	08	4000.000	0.002455						

1-Butanol — Average RF — RSD = 19.4 — Average RF = 0.004330

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.003561	03	100.000	0.003986	04	250.000	0.003444	05	1000.000	0.003770
06	2500.000	0.004782	07	5000.000	0.005366	08	10000.000	0.005399			

1-Chloro-4-(trifluoromethyl)benzene — Average RF — RSD = 4.3 — Average RF = 0.4209

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4263	02	1.000	0.4141	03	2.000	0.3901	04	5.000	0.4092
05	20.000	0.4123	06	50.000	0.4307	07	100.000	0.4446	08	200.000	0.4397

2,2-Dichloro-1,1,1-trifluoroethane (CFC — Average RF — RSD = 8.0 — Average RF = 0.5823

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5536	02	1.000	0.5627	03	2.000	0.5248	04	5.000	0.5252
05	20.000	0.5979	06	50.000	0.6327	07	100.000	0.6257	08	200.000	0.6358

2,2-Dichloropropane — Average RF — RSD = 11.1 — Average RF = 0.6257

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5897	02	1.000	0.5404	03	2.000	0.5760	04	5.000	0.5450
05	20.000	0.6817	06	50.000	0.6911	07	100.000	0.6885	08	200.000	0.6936

2,3,6-Trichlorotoluene — Average RF — RSD = 5.6 — Average RF = 0.4607

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4864	03	2.000	0.4359	04	5.000	0.4338	05	20.000	0.4866
06	50.000	0.4812	07	100.000	0.4687	08	200.000	0.4323			

00212

Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2,4,5-Trichlorotoluene Average RF RSD = 5.7 Average RF = 0.4693

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4917	03	2.000	0.4450	04	5.000	0.4468	05	20.000	0.5027
06	50.000	0.4812	07	100.000	0.4828	08	200.000	0.4347			

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut Average RF RSD = 7.9 Average RF = 0.9868

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.8824	02	3.000	0.9164	03	6.000	0.9128	04	15.000	0.9761
05	60.000	1.067	06	150.000	1.070	07	300.000	1.077	08	600.000	0.9932

2,4-Dichlorobenzotrifluoride Average RF RSD = 6.8 Average RF = 0.5002

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5531	02	1.000	0.4756	03	2.000	0.4544	04	5.000	0.4644
05	20.000	0.5118	06	50.000	0.5131	07	100.000	0.5332	08	200.000	0.4958

2,5-Dichlorobenzotrifluoride Average RF RSD = 5.5 Average RF = 0.5686

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6251	02	1.000	0.5241	03	2.000	0.5407	04	5.000	0.5596
05	20.000	0.5790	06	50.000	0.5861	07	100.000	0.5802	08	200.000	0.5537

2-Butanone (MEK) Average RF RSD = 8.4 Average RF = 0.1345

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1213	04	5.000	0.1302	05	20.000	0.1230	06	50.000	0.1413
07	100.000	0.1419	08	200.000	0.1491						

2-Chloro-1,3-butadiene Average RF RSD = 5.9 Average RF = 0.7706

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7058	02	1.000	0.8054	03	2.000	0.6998	04	5.000	0.7506
05	20.000	0.8092	06	50.000	0.7928	07	100.000	0.7977	08	200.000	0.8039

2-Chlorobenzotrifluoride Average RF RSD = 5.9 Average RF = 0.8115

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7572	02	1.000	0.7356	03	2.000	0.7781	04	5.000	0.8454
05	20.000	0.8533	06	50.000	0.8500	07	100.000	0.8525	08	200.000	0.8201

2-Chloroethyl Vinyl Ether Average RF RSD = 14.6 Average RF = 0.1287

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1036	03	2.000	0.1091	04	5.000	0.1152	05	20.000	0.1392
06	50.000	0.1424	07	100.000	0.1415	08	200.000	0.1500			

2-Chlorotoluene Average RF RSD = 8.0 Average RF = 1.818

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.606	02	1.000	1.812	03	2.000	1.644	04	5.000	1.816
05	20.000	2.049	06	50.000	1.953	07	100.000	1.852	08	200.000	1.815

2-Hexanone Average RF RSD = 10.7 Average RF = 0.1403

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1282	04	5.000	0.1187	05	20.000	0.1383	06	50.000	0.1464
07	100.000	0.1517	08	200.000	0.1587						

2-Methyl-1-propanol Average RF RSD = 16.9 Average RF = 0.007505

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.006713	03	40.000	0.006306	04	100.000	0.006074	05	400.000	0.007128
06	1000.000	0.008259	07	2000.000	0.008744	08	4000.000	0.009315			

Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

2-Methyl-2-propanol — Average RF — RSD = 16.5 — Average RF = 0.02749

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.02222	04	100.000	0.02270	05	400.000	0.02648	06	1000.000	0.02890
07	2000.000	0.03131	08	4000.000	0.03334						

2-Nitropropane — Average RF — RSD = 14.9 — Average RF = 0.03516

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.03411	03	4.000	0.03331	04	10.000	0.02714	05	40.000	0.03291
06	100.000	0.03608	07	200.000	0.03853	08	400.000	0.04401			

2-Propanol — Average RF — RSD = 18.6 — Average RF = 0.01638

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.01367	04	100.000	0.01300	05	400.000	0.01452	06	1000.000	0.01775
07	2000.000	0.01900	08	4000.000	0.02033						

3,4- and 2,3-Dichlorotoluene Coelution — Average RF — RSD = 9.2 — Average RF = 1.055

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.9304	02	2.000	0.9844	03	4.000	0.9466	04	10.000	1.062
05	40.000	1.142	06	100.000	1.167	07	200.000	1.167	08	400.000	1.037

3,4-Dichlorobenzotrifluoride — Average RF — RSD = 8.1 — Average RF = 0.5776

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6837	02	1.000	0.5897	03	2.000	0.5263	04	5.000	0.5626
05	20.000	0.5585	06	50.000	0.5620	07	100.000	0.5831	08	200.000	0.5548

3-Chloro-1-propene — Average RF — RSD = 9.4 — Average RF = 0.2402

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2050	02	1.000	0.2440	03	2.000	0.2141	04	5.000	0.2243
05	20.000	0.2628	06	50.000	0.2593	07	100.000	0.2571	08	200.000	0.2554

3-Chlorobenzotrifluoride — Average RF — RSD = 10.8 — Average RF = 0.4381

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3555	02	1.000	0.3885	03	2.000	0.4120	04	5.000	0.4595
05	20.000	0.4535	06	50.000	0.4713	07	100.000	0.4837	08	200.000	0.4807

3-Chlorotoluene — Average RF — RSD = 5.9 — Average RF = 1.951

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.865	02	1.000	1.848	03	2.000	1.785	04	5.000	1.981
05	20.000	2.047	06	50.000	2.070	07	100.000	2.095	08	200.000	1.915

4-Bromofluorobenzene — Average RF — RSD = 2.9 — Average RF = 0.4208

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4442	03	60.000	0.4193	04	70.000	0.4167	05	100.000	0.4092
07	125.000	0.4132	08	150.000	0.4224						

4-Chlorotoluene — Average RF — RSD = 10.0 — Average RF = 2.114

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.862	02	1.000	2.002	03	2.000	1.913	04	5.000	1.948
05	20.000	2.441	06	50.000	2.308	07	100.000	2.233	08	200.000	2.201

4-Isopropyltoluene — Average RF — RSD = 11.4 — Average RF = 2.083

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.782	02	1.000	1.906	03	2.000	1.863	04	5.000	2.012
05	20.000	2.451	06	50.000	2.336	07	100.000	2.214	08	200.000	2.097

Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

4-Methyl-2-pentanone Average RF RSD = 14.9 Average RF = 0.1694

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1363	04	5.000	0.1425	05	20.000	0.1688	06	50.000	0.1819
07	100.000	0.1883	08	200.000	0.1985						

Acetone Average RF RSD = 6.6 Average RF = 0.1028

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1124	04	5.000	0.09299	05	20.000	0.09923	06	50.000	0.1009
07	100.000	0.1037	08	200.000	0.1078						

Acetonitrile Average RF RSD = 13.7 Average RF = 0.01389

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01096	04	25.000	0.01297	05	100.000	0.01334	06	250.000	0.01517
07	500.000	0.01444	08	1000.000	0.01644						

Acrolein Average RF RSD = 19.4 Average RF = 0.03050

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.02613	03	10.000	0.02830	04	25.000	0.02421	05	100.000	0.02957
06	250.000	0.03458	07	500.000	0.04019						

Acrylonitrile Average RF RSD = 13.1 Average RF = 0.09800

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.07959	02	5.000	0.08923	03	10.000	0.08805	04	25.000	0.09120
05	100.000	0.1019	06	250.000	0.1086	07	500.000	0.1094	08	1000.000	0.1161

Benzene Average RF RSD = 8.0 Average RF = 1.135

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.032	02	1.000	1.056	03	2.000	1.034	04	5.000	1.096
05	20.000	1.246	06	50.000	1.232	07	100.000	1.174	08	200.000	1.209

Bromobenzene Average RF RSD = 7.8 Average RF = 0.6582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6413	02	1.000	0.5758	03	2.000	0.6192	04	5.000	0.6257
05	20.000	0.7306	06	50.000	0.7041	07	100.000	0.6794	08	200.000	0.6892

Bromochloromethane Average RF RSD = 10.1 Average RF = 0.2759

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3306	02	1.000	0.2637	03	2.000	0.2538	04	5.000	0.2365
05	20.000	0.2903	06	50.000	0.2842	07	100.000	0.2752	08	200.000	0.2728

Bromodichloromethane Average RF RSD = 9.2 Average RF = 0.3539

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3168	02	1.000	0.3289	03	2.000	0.3247	04	5.000	0.3264
05	20.000	0.3816	06	50.000	0.3898	07	100.000	0.3738	08	200.000	0.3897

Bromoform Average RF RSD = 13.2 Average RF = 0.2726

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2273	02	1.000	0.2427	03	2.000	0.2421	04	5.000	0.2487
05	20.000	0.2892	06	50.000	0.3086	07	100.000	0.3052	08	200.000	0.3167

Bromomethane Average RF RSD = 5.4 Average RF = 0.3254

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3561	02	1.000	0.3386	03	2.000	0.3265	04	5.000	0.3023
05	20.000	0.3131	06	50.000	0.3144	07	100.000	0.3161	08	200.000	0.3361

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Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Carbon Disulfide Average RF RSD = 5.9 Average RF = 1.350

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.496	02	1.000	1.287	03	2.000	1.285	04	5.000	1.252
05	20.000	1.410	06	50.000	1.384	07	100.000	1.347	08	200.000	1.337

Carbon Tetrachloride Average RF RSD = 7.5 Average RF = 0.1126

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1065	02	1.000	0.1085	03	2.000	0.1086	04	5.000	0.09863
05	20.000	0.1189	06	50.000	0.1223	07	100.000	0.1154	08	200.000	0.1221

Chlorobenzene Average RF RSD = 9.1 Average RF = 0.8864

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9161	02	1.000	0.7755	03	2.000	0.7780	04	5.000	0.8282
05	20.000	0.9651	06	50.000	0.9713	07	100.000	0.9190	08	200.000	0.9377

Chloroethane Average RF RSD = 9.2 Average RF = 0.3130

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3205	02	1.000	0.2839	03	2.000	0.2796	04	5.000	0.2734
05	20.000	0.3354	06	50.000	0.3406	07	100.000	0.3346	08	200.000	0.3363

Chloroform Average RF RSD = 5.3 Average RF = 0.8076

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7679	02	1.000	0.7945	03	2.000	0.9040	04	5.000	0.7702
05	20.000	0.8076	06	50.000	0.8167	07	100.000	0.7929	08	200.000	0.8070

Chloromethane Average RF RSD = 9.3 Average RF = 0.5292

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4956	02	1.000	0.5188	03	2.000	0.4697	04	5.000	0.4618
05	20.000	0.5762	06	50.000	0.5767	07	100.000	0.5547	08	200.000	0.5802

Cyclohexane Average RF RSD = 6.5 Average RF = 0.2586

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2574	02	1.000	0.2504	03	2.000	0.2314	04	5.000	0.2407
05	20.000	0.2700	06	50.000	0.2782	07	100.000	0.2664	08	200.000	0.2742

Cyclohexanone Average RF RSD = 10.2 Average RF = 0.05950

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.05158	02	20.000	0.05565	03	40.000	0.05241	04	100.000	0.05663
05	400.000	0.06580	06	1000.000	0.06499	07	2000.000	0.06403	08	4000.000	0.06488

Dibromochloromethane Average RF RSD = 13.9 Average RF = 0.2578

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2284	02	1.000	0.2148	03	2.000	0.2372	04	5.000	0.2217
05	20.000	0.2764	06	50.000	0.2955	07	100.000	0.2858	08	200.000	0.3027

Dibromofluoromethane Average RF RSD = 2.2 Average RF = 0.2785

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.2848	03	60.000	0.2864	04	70.000	0.2801	05	100.000	0.2756
07	125.000	0.2721	08	150.000	0.2720						

Dibromomethane Average RF RSD = 7.9 Average RF = 0.1385

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1290	02	1.000	0.1269	03	2.000	0.1321	04	5.000	0.1261
05	20.000	0.1488	06	50.000	0.1479	07	100.000	0.1462	08	200.000	0.1512

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte	Curve Fit	Weighting

Dichlorodifluoromethane (CFC 12) — Average RF — RSD = 13.4 — Average RF = 0.4852

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4296	02	1.000	0.4224	03	2.000	0.4141	04	5.000	0.4365
05	20.000	0.5631	06	50.000	0.5561	07	100.000	0.5313	08	200.000	0.5284

Dichlorofluoromethane (CFC 21) — Average RF — RSD = 5.9 — Average RF = 0.8280

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7806	02	1.000	0.7924	03	2.000	0.7883	04	5.000	0.7713
05	20.000	0.8604	06	50.000	0.8881	07	100.000	0.8779	08	200.000	0.8646

Dichloromethane — Average RF — RSD = 6.9 — Average RF = 0.4580

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4762	02	1.000	0.5201	03	2.000	0.4268	04	5.000	0.4166
05	20.000	0.4626	06	50.000	0.4592	07	100.000	0.4452	08	200.000	0.4575

Diethyl Ether — Average RF — RSD = 8.1 — Average RF = 0.3237

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3243	02	1.000	0.3132	03	2.000	0.2803	04	5.000	0.2947
05	20.000	0.3353	06	50.000	0.3366	07	100.000	0.3480	08	200.000	0.3575

Diisopropyl Ether — Average RF — RSD = 3.3 — Average RF = 1.499

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.563	02	1.000	1.450	03	2.000	1.478	04	5.000	1.457
05	20.000	1.452	06	50.000	1.490	07	100.000	1.571	08	200.000	1.535

Ethyl Methacrylate — Average RF — RSD = 18.1 — Average RF = 0.2648

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2252	02	1.000	0.2244	03	2.000	0.2186	04	5.000	0.2208
05	20.000	0.2760	06	50.000	0.3077	07	100.000	0.3135	08	200.000	0.3323

Ethyl tert-Butyl Ether — Average RF — RSD = 4.3 — Average RF = 1.322

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.306	02	1.000	1.272	03	2.000	1.260	04	5.000	1.304
05	20.000	1.290	06	50.000	1.326	07	100.000	1.413	08	200.000	1.405

Ethylbenzene — Average RF — RSD = 11.1 — Average RF = 0.4656

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4136	02	1.000	0.4265	03	2.000	0.4039	04	5.000	0.4296
05	20.000	0.5111	06	50.000	0.5242	07	100.000	0.4992	08	200.000	0.5167

Hexachlorobutadiene — Average RF — RSD = 9.2 — Average RF = 0.2742

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3128	02	1.000	0.2889	03	2.000	0.2548	04	5.000	0.2533
05	20.000	0.2972	06	50.000	0.2867	07	100.000	0.2560	08	200.000	0.2443

Iodomethane — Average RF — RSD = 16.1 — Average RF = 0.5364

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.4118	04	5.000	0.4406	05	20.000	0.5870	06	50.000	0.6071
07	100.000	0.5956	08	200.000	0.5765						

Isopropylbenzene (Cumene) — Average RF — RSD = 8.3 — Average RF = 2.563

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.368	02	1.000	2.464	03	2.000	2.318	04	5.000	2.476
05	20.000	2.930	06	50.000	2.805	07	100.000	2.642	08	200.000	2.499

Initial Calibration - Detailed Report

Calibration ID: RC1400080 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

Methacrylonitrile — Average RF — RSD = 15.6 — Average RF = 0.1156

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1017	03	2.000	0.09087	04	5.000	0.09934	05	20.000	0.1217
06	50.000	0.1291	07	100.000	0.1292	08	200.000	0.1373			

Methyl Acetate — Average RF — RSD = 10.3 — Average RF = 0.2095

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2025	03	2.000	0.1835	04	5.000	0.1829	05	20.000	0.2072
06	50.000	0.2255	07	100.000	0.2285	08	200.000	0.2364			

Methyl Methacrylate — Average RF — RSD = 15.5 — Average RF = 0.1314

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1093	02	1.000	0.1311	03	2.000	0.1051	04	5.000	0.1116
05	20.000	0.1390	06	50.000	0.1499	07	100.000	0.1481	08	200.000	0.1569

Methyl tert-Butyl Ether — Average RF — RSD = 12.0 — Average RF = 1.015

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8998	02	1.000	0.8790	03	2.000	0.9171	04	5.000	0.9187
05	20.000	1.088	06	50.000	1.110	07	100.000	1.134	08	200.000	1.173

Methylcyclohexane — Average RF — RSD = 11.0 — Average RF = 0.3104

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2906	02	1.000	0.2772	03	2.000	0.2655	04	5.000	0.2851
05	20.000	0.3290	06	50.000	0.3445	07	100.000	0.3420	08	200.000	0.3494

Naphthalene — Average RF — RSD = 13.7 — Average RF = 1.419

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.224	02	1.000	1.197	03	2.000	1.227	04	5.000	1.325
05	20.000	1.609	06	50.000	1.648	07	100.000	1.598	08	200.000	1.524

Propionitrile — Average RF — RSD = 14.2 — Average RF = 0.03625

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.02973	02	5.000	0.03122	03	10.000	0.03446	04	25.000	0.03229
05	100.000	0.03730	06	250.000	0.04018	07	500.000	0.04066	08	1000.000	0.04415

Styrene — Average RF — RSD = 16.4 — Average RF = 0.8998

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7026	02	1.000	0.7794	03	2.000	0.7484	04	5.000	0.8364
05	20.000	1.020	06	50.000	1.048	07	100.000	1.016	08	200.000	1.048

Tetrachloroethene (PCE) — Average RF — RSD = 5.3 — Average RF = 0.2561

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2414	02	1.000	0.2548	03	2.000	0.2336	04	5.000	0.2530
05	20.000	0.2641	06	50.000	0.2743	07	100.000	0.2606	08	200.000	0.2670

Tetrahydrofuran (THF) — Average RF — RSD = 9.0 — Average RF = 0.08416

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.08271	04	5.000	0.07236	05	20.000	0.07941	06	50.000	0.08912
07	100.000	0.08787	08	200.000	0.09346						

Toluene — Average RF — RSD = 7.6 — Average RF = 1.234

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.131	02	1.000	1.186	03	2.000	1.131	04	5.000	1.153
05	20.000	1.356	06	50.000	1.343	07	100.000	1.281	08	200.000	1.291

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte	Curve Fit	Weighting

Toluene-d8 — Average RF — RSD = 3.4 — Average RF = 1.175

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	1.243	03	60.000	1.197	04	70.000	1.177	05	100.000	1.151
07	125.000	1.140	08	150.000	1.145						

Trichloroethene (TCE) — Average RF — RSD = 7.2 — Average RF = 0.3020

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2769	02	1.000	0.3043	03	2.000	0.2701	04	5.000	0.2876
05	20.000	0.3286	06	50.000	0.3217	07	100.000	0.3065	08	200.000	0.3200

Trichlorofluoromethane (CFC 11) — Average RF — RSD = 9.3 — Average RF = 0.6717

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5496	02	1.000	0.6559	03	2.000	0.6427	04	5.000	0.6417
05	20.000	0.7406	06	50.000	0.7258	07	100.000	0.7051	08	200.000	0.7120

Vinyl Acetate — Average RF — RSD = 12.9 — Average RF = 0.06319

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.05368	03	2.000	0.05781	04	5.000	0.05494	05	20.000	0.06622
06	50.000	0.06334	07	100.000	0.07219	08	200.000	0.07417			

Vinyl Chloride — Average RF — RSD = 10.9 — Average RF = 0.5600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4865	02	1.000	0.5222	03	2.000	0.4952	04	5.000	0.5137
05	20.000	0.6309	06	50.000	0.6156	07	100.000	0.6059	08	200.000	0.6098

cis-1,2-Dichloroethene — Average RF — RSD = 8.1 — Average RF = 0.4990

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5433	02	1.000	0.4875	03	2.000	0.4232	04	5.000	0.4591
05	20.000	0.5313	06	50.000	0.5146	07	100.000	0.5080	08	200.000	0.5248

cis-1,3-Dichloropropene — Average RF — RSD = 14.8 — Average RF = 0.4135

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3508	02	1.000	0.3521	03	2.000	0.3470	04	5.000	0.3815
05	20.000	0.4549	06	50.000	0.4725	07	100.000	0.4629	08	200.000	0.4862

m,p-Xylenes — Average RF — RSD = 13.0 — Average RF = 0.5642

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.4850	02	2.000	0.4837	03	4.000	0.4841	04	10.000	0.5401
05	40.000	0.6328	06	100.000	0.6461	07	200.000	0.6161	08	400.000	0.6258

n-Butyl Acetate — Quadratic — 1/X2 — COD = 0.9932 — $Y = 0.02766 X^2 + 0.2852 X + -0.001128$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2517	03	2.000	0.2265	04	5.000	0.2374	05	20.000	0.3017
06	50.000	0.3496	07	100.000	0.3630	08	200.000	0.3749			

n-Butylbenzene — Average RF — RSD = 10.9 — Average RF = 1.890

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.875	02	1.000	1.618	03	2.000	1.630	04	5.000	1.767
05	20.000	2.146	06	50.000	2.126	07	100.000	2.014	08	200.000	1.948

n-Heptane — Average RF — RSD = 9.2 — Average RF = 0.2860

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3000	02	1.000	0.2613	03	2.000	0.2509	04	5.000	0.2530
05	20.000	0.3143	06	50.000	0.3109	07	100.000	0.2965	08	200.000	0.3008

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Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte	Curve Fit	Weighting

n-Propylbenzene — Average RF — RSD = 8.7 — Average RF = 2.997

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.781	02	1.000	2.965	03	2.000	2.633	04	5.000	2.987
05	20.000	3.422	06	50.000	3.287	07	100.000	3.076	08	200.000	2.826

o-Xylene — Average RF — RSD = 14.6 — Average RF = 0.5489

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4528	02	1.000	0.4802	03	2.000	0.4521	04	5.000	0.5243
05	20.000	0.6114	06	50.000	0.6274	07	100.000	0.6052	08	200.000	0.6378

sec-Butylbenzene — Average RF — RSD = 8.2 — Average RF = 2.497

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.316	02	1.000	2.363	03	2.000	2.363	04	5.000	2.395
05	20.000	2.883	06	50.000	2.715	07	100.000	2.551	08	200.000	2.388

tert-Amyl Methyl Ether — Average RF — RSD = 7.5 — Average RF = 1.130

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.199	02	1.000	1.009	03	2.000	1.060	04	5.000	1.089
05	20.000	1.075	06	50.000	1.143	07	100.000	1.227	08	200.000	1.241

tert-Butylbenzene — Average RF — RSD = 10.3 — Average RF = 1.718

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.467	02	1.000	1.586	03	2.000	1.609	04	5.000	1.627
05	20.000	1.991	06	50.000	1.910	07	100.000	1.792	08	200.000	1.764

trans-1,2-Dichloroethene — Average RF — RSD = 7.5 — Average RF = 0.4442

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4204	02	1.000	0.4631	03	2.000	0.3807	04	5.000	0.4213
05	20.000	0.4687	06	50.000	0.4661	07	100.000	0.4575	08	200.000	0.4759

trans-1,3-Dichloropropene — Average RF — RSD = 19.2 — Average RF = 0.3368

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2467	02	1.000	0.2903	03	2.000	0.2799	04	5.000	0.2993
05	20.000	0.3748	06	50.000	0.3995	07	100.000	0.3887	08	200.000	0.4155

trans-1,4-Dichloro-2-butene — Average RF — RSD = 12.0 — Average RF = 0.1275

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1176	02	1.000	0.1031	03	2.000	0.1156	04	5.000	0.1210
05	20.000	0.1365	06	50.000	0.1371	07	100.000	0.1438	08	200.000	0.1453

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.5	02	1.000	0.86	-13.6	03	2.000	1.82	-9.0
04	5.000	4.57	-8.6	05	20.000	21.33	6.6	06	50.000	55.20	10.4
07	100.000	106.57	6.6	08	200.000	224.15	12.1				

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.3	02	1.000	0.97	-2.8	03	2.000	1.91	-4.4
04	5.000	4.57	-8.6	05	20.000	21.07	5.3	06	50.000	53.10	6.2
07	100.000	104.84	4.8	08	200.000	213.49	6.7				

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	0.98	-2.4	03	2.000	1.74	-13.1
04	5.000	4.71	-5.7	05	20.000	21.26	6.3	06	50.000	52.12	4.2
07	100.000	102.99	3.0	08	200.000	214.76	7.4				

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.7	02	1.000	0.96	-4.1	03	2.000	1.80	-10.2
04	5.000	4.47	-10.5	05	20.000	20.97	4.9	06	50.000	54.33	8.7
07	100.000	105.09	5.1	08	200.000	221.77	10.9				

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.7	02	1.000	0.94	-5.7	03	2.000	1.96	-2.0
04	5.000	4.61	-7.9	05	20.000	21.24	6.2	06	50.000	52.68	5.4
07	100.000	102.56	2.6	08	200.000	208.35	4.2				

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.2	02	1.000	0.87	-13.1	03	2.000	1.87	-6.4
04	5.000	4.94	-1.1	05	20.000	21.52	7.6	06	50.000	53.64	7.3
07	100.000	104.50	4.5	08	200.000	212.93	6.5				

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.6	02	1.000	0.95	-4.8	03	2.000	1.76	-11.9
04	5.000	4.66	-6.9	05	20.000	21.51	7.6	06	50.000	52.67	5.3
07	100.000	103.28	3.3	08	200.000	215.87	7.9				

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	0.83	-17.3	03	2.000	1.84	-7.8
04	5.000	4.78	-4.4	05	20.000	21.50	7.5	06	50.000	54.27	8.5
07	100.000	104.59	4.6	08	200.000	212.78	6.4				

00221

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.6	02	1.000	0.93	-6.7	03	2.000	1.78	-10.8
04	5.000	4.76	-4.9	05	20.000	21.76	8.8	06	50.000	54.72	9.4
07	100.000	102.00	2.0	08	200.000	197.20	-1.4				

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.5	02	1.000	0.97	-2.8	03	2.000	1.89	-5.3
04	5.000	4.98	-0.4	05	20.000	21.03	5.2	06	50.000	51.75	3.5
07	100.000	100.14	0.1	08	200.000	204.49	2.2				

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.3	02	1.000	0.98	-1.7	03	2.000	1.73	-13.6
04	5.000	4.68	-6.3	05	20.000	22.82	14.1	06	50.000	55.58	11.2
07	100.000	104.78	4.8	08	200.000	201.64	0.8				

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-12.5	02	1.000	0.89	-11.3	03	2.000	1.84	-8.2
04	5.000	4.77	-4.5	05	20.000	23.06	15.3	06	50.000	56.53	13.1
07	100.000	106.46	6.5	08	200.000	203.54	1.8				

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.95	-5.4	03	2.000	1.43	-28.6	04	5.000	4.51	-9.8
05	20.000	20.88	4.4	06	50.000	55.96	11.9	07	100.000	111.56	11.6
08	200.000	231.72	15.9								

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.6	02	1.000	0.84	-15.8	03	2.000	1.73	-13.7
04	5.000	4.66	-6.9	05	20.000	21.51	7.6	06	50.000	56.57	13.1
07	100.000	109.17	9.2	08	200.000	224.31	12.2				

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.4	02	1.000	0.93	-6.5	03	2.000	1.76	-12.0
04	5.000	4.70	-6.1	05	20.000	21.29	6.5	06	50.000	53.85	7.7
07	100.000	104.82	4.8	08	200.000	215.94	8.0				

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	0.92	-7.6	03	2.000	1.75	-12.3
04	5.000	4.71	-5.8	05	20.000	21.96	9.8	06	50.000	53.26	6.5
07	100.000	104.51	4.5	08	200.000	213.87	6.9				

00222

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.5	02	1.000	0.97	-3.2	03	2.000	1.84	-8.0
04	5.000	4.65	-6.9	05	20.000	21.79	8.9	06	50.000	53.98	8.0
07	100.000	103.51	3.5	08	200.000	216.37	8.2				

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	51.37	2.7	03	60.000	60.34	0.6	04	70.000	70.52	0.7
05	100.000	98.59	-1.4	07	125.000	123.19	-1.4	08	150.000	148.22	-1.2

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.5	02	1.000	0.82	-18.1	03	2.000	1.86	-7.1
04	5.000	4.43	-11.4	05	20.000	21.47	7.3	06	50.000	55.16	10.3
07	100.000	105.65	5.6	08	200.000	219.65	9.8				

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.5	02	1.000	0.95	-4.9	03	2.000	1.97	-1.5
04	5.000	4.82	-3.6	05	20.000	20.48	2.4	06	50.000	50.66	1.3
07	100.000	101.02	1.0	08	200.000	187.73	-6.1				

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.39	-22.2	02	1.000	0.89	-10.7	03	2.000	1.73	-13.5
04	5.000	4.94	-1.1	05	20.000	23.54	17.7	06	50.000	56.74	13.5
07	100.000	109.52	9.5	08	200.000	213.61	6.8				

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.1	02	1.000	0.98	-1.7	03	2.000	1.80	-10.2
04	5.000	4.76	-4.8	05	20.000	22.40	12.0	06	50.000	53.81	7.6
07	100.000	101.59	1.6	08	200.000	205.38	2.7				

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.0	02	1.000	0.98	-1.8	03	2.000	1.72	-13.8
04	5.000	4.76	-4.8	05	20.000	21.05	5.2	06	50.000	53.45	6.9
07	100.000	103.83	3.8	08	200.000	216.92	8.5				

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.7	02	1.000	0.90	-9.7	03	2.000	1.91	-4.5
04	5.000	4.80	-4.0	05	20.000	21.76	8.8	06	50.000	52.78	5.6
07	100.000	100.96	1.0	08	200.000	202.42	1.2				

00223

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	46.31	15.8	04	100.000	95.33	-4.7	05	400.000	373.05	-6.7
06	1000.000	961.37	-3.9	07	2000.000	1,928.54	-3.6	08	4000.000	4,122.89	3.1

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	41.13	-17.7	03	100.000	92.07	-7.9	04	250.000	198.83	-20.5
05	1000.000	870.81	-12.9	06	2500.000	2,761.19	10.4	07	5000.000	6,196.42	23.9
08	10000.000	12,468.79	24.7								

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.3	02	1.000	0.98	-1.6	03	2.000	1.85	-7.3
04	5.000	4.86	-2.8	05	20.000	19.59	-2.0	06	50.000	51.17	2.3
07	100.000	105.64	5.6	08	200.000	208.97	4.5				

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	0.97	-3.4	03	2.000	1.80	-9.9
04	5.000	4.51	-9.8	05	20.000	20.54	2.7	06	50.000	54.33	8.7
07	100.000	107.46	7.5	08	200.000	218.38	9.2				

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.8	02	1.000	0.86	-13.6	03	2.000	1.84	-7.9
04	5.000	4.35	-12.9	05	20.000	21.79	8.9	06	50.000	55.22	10.4
07	100.000	110.03	10.0	08	200.000	221.68	10.8				

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.06	5.6	03	2.000	1.89	-5.4	04	5.000	4.71	-5.8
05	20.000	21.12	5.6	06	50.000	52.22	4.4	07	100.000	101.73	1.7
08	200.000	187.67	-6.2								

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.05	4.8	03	2.000	1.90	-5.2	04	5.000	4.76	-4.8
05	20.000	21.43	7.1	06	50.000	51.28	2.6	07	100.000	102.88	2.9
08	200.000	185.27	-7.4								

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.34	-10.6	02	3.000	2.79	-7.1	03	6.000	5.55	-7.5
04	15.000	14.84	-1.1	05	60.000	64.90	8.2	06	150.000	162.58	8.4
07	300.000	327.30	9.1	08	600.000	603.88	0.6				

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.6	02	1.000	0.95	-4.9	03	2.000	1.82	-9.2
04	5.000	4.64	-7.2	05	20.000	20.46	2.3	06	50.000	51.29	2.6
07	100.000	106.60	6.6	08	200.000	198.27	-0.9				

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.9	02	1.000	0.92	-7.8	03	2.000	1.90	-4.9
04	5.000	4.92	-1.6	05	20.000	20.37	1.8	06	50.000	51.55	3.1
07	100.000	102.05	2.0	08	200.000	194.78	-2.6				

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.80	-9.8	04	5.000	4.84	-3.2	05	20.000	18.29	-8.5
06	50.000	52.55	5.1	07	100.000	105.56	5.6	08	200.000	221.74	10.9

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.4	02	1.000	1.05	4.5	03	2.000	1.82	-9.2
04	5.000	4.87	-2.6	05	20.000	21.00	5.0	06	50.000	51.44	2.9
07	100.000	103.51	3.5	08	200.000	208.63	4.3				

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.7	02	1.000	0.91	-9.4	03	2.000	1.92	-4.1
04	5.000	5.21	4.2	05	20.000	21.03	5.1	06	50.000	52.37	4.7
07	100.000	105.05	5.0	08	200.000	202.12	1.1				

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.80	-19.5	03	2.000	1.70	-15.2	04	5.000	4.47	-10.5
05	20.000	21.64	8.2	06	50.000	55.30	10.6	07	100.000	109.91	9.9
08	200.000	233.12	16.6								

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.7	02	1.000	1.00	-0.4	03	2.000	1.81	-9.6
04	5.000	4.99	-0.1	05	20.000	22.53	12.7	06	50.000	53.71	7.4
07	100.000	101.86	1.9	08	200.000	199.70	-0.2				

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.83	-8.6	04	5.000	4.23	-15.4	05	20.000	19.71	-1.4
06	50.000	52.17	4.3	07	100.000	108.08	8.1	08	200.000	226.16	13.1

Initial Calibration - Detailed Report

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Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	17.89	-10.6	03	40.000	33.61	-16.0	04	100.000	80.92	-19.1
05	400.000	379.88	-5.0	06	1000.000	1,100.35	10.0	07	2000.000	2,330.08	16.5
08	4000.000	4,964.36	24.1								

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	32.33	-19.2	04	100.000	82.56	-17.4	05	400.000	385.34	-3.7
06	1000.000	1,051.20	5.1	07	2000.000	2,277.75	13.9	08	4000.000	4,851.10	21.3

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.94	-3.0	03	4.000	3.79	-5.3	04	10.000	7.72	-22.8
05	40.000	37.44	-6.4	06	100.000	102.63	2.6	07	200.000	219.21	9.6
08	400.000	500.73	25.2								

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	33.38	-16.5	04	100.000	79.37	-20.6	05	400.000	354.62	-11.3
06	1000.000	1,083.80	8.4	07	2000.000	2,320.05	16.0	08	4000.000	4,965.28	24.1

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.88	-11.8	02	2.000	1.87	-6.7	03	4.000	3.59	-10.2
04	10.000	10.07	0.7	05	40.000	43.30	8.3	06	100.000	110.69	10.7
07	200.000	221.40	10.7	08	400.000	393.25	-1.7				

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.4	02	1.000	1.02	2.1	03	2.000	1.82	-8.9
04	5.000	4.87	-2.6	05	20.000	19.34	-3.3	06	50.000	48.65	-2.7
07	100.000	100.95	1.0	08	200.000	192.11	-3.9				

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.7	02	1.000	1.02	1.6	03	2.000	1.78	-10.9
04	5.000	4.67	-6.6	05	20.000	21.88	9.4	06	50.000	53.96	7.9
07	100.000	107.00	7.0	08	200.000	212.65	6.3				

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-18.8	02	1.000	0.89	-11.3	03	2.000	1.88	-6.0
04	5.000	5.24	4.9	05	20.000	20.70	3.5	06	50.000	53.80	7.6
07	100.000	110.41	10.4	08	200.000	219.44	9.7				

Initial Calibration - Detailed Report

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Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.4	02	1.000	0.95	-5.2	03	2.000	1.83	-8.5
04	5.000	5.08	1.5	05	20.000	20.98	4.9	06	50.000	53.07	6.1
07	100.000	107.38	7.4	08	200.000	196.36	-1.8				

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	52.78	5.6	03	60.000	59.78	-0.4	04	70.000	69.31	-1.0
05	100.000	97.23	-2.8	07	125.000	122.73	-1.8	08	150.000	150.55	0.4

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.9	02	1.000	0.95	-5.3	03	2.000	1.81	-9.5
04	5.000	4.61	-7.8	05	20.000	23.10	15.5	06	50.000	54.61	9.2
07	100.000	105.64	5.6	08	200.000	208.31	4.2				

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.4	02	1.000	0.92	-8.5	03	2.000	1.79	-10.6
04	5.000	4.83	-3.4	05	20.000	23.54	17.7	06	50.000	56.09	12.2
07	100.000	106.31	6.3	08	200.000	201.40	0.7				

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.61	-19.5	04	5.000	4.21	-15.8	05	20.000	19.93	-0.3
06	50.000	53.68	7.4	07	100.000	111.17	11.2	08	200.000	234.35	17.2

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.19	9.3	04	5.000	4.52	-9.6	05	20.000	19.30	-3.5
06	50.000	49.05	-1.9	07	100.000	100.83	0.8	08	200.000	209.72	4.9

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	7.89	-21.1	04	25.000	23.36	-6.6	05	100.000	96.05	-3.9
06	250.000	273.05	9.2	07	500.000	520.09	4.0	08	1000.000	1,183.80	18.4

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	4.28	-14.3	03	10.000	9.28	-7.2	04	25.000	19.85	-20.6
05	100.000	96.96	-3.0	06	250.000	283.47	13.4	07	500.000	658.95	31.8

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.03	-18.8	02	5.000	4.55	-8.9	03	10.000	8.98	-10.2
04	25.000	23.27	-6.9	05	100.000	103.93	3.9	06	250.000	277.05	10.8
07	500.000	558.02	11.6	08	1000.000	1,184.65	18.5				

Initial Calibration - Detailed Report

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Analyte

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.1	02	1.000	0.93	-7.0	03	2.000	1.82	-8.9
04	5.000	4.83	-3.4	05	20.000	21.95	9.8	06	50.000	54.30	8.6
07	100.000	103.48	3.5	08	200.000	213.01	6.5				

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.6	02	1.000	0.87	-12.5	03	2.000	1.88	-5.9
04	5.000	4.75	-4.9	05	20.000	22.20	11.0	06	50.000	53.49	7.0
07	100.000	103.23	3.2	08	200.000	209.43	4.7				

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.8	02	1.000	0.96	-4.4	03	2.000	1.84	-8.0
04	5.000	4.29	-14.3	05	20.000	21.04	5.2	06	50.000	51.51	3.0
07	100.000	99.76	-0.2	08	200.000	197.77	-1.1				

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.5	02	1.000	0.93	-7.1	03	2.000	1.83	-8.3
04	5.000	4.61	-7.8	05	20.000	21.56	7.8	06	50.000	55.06	10.1
07	100.000	105.60	5.6	08	200.000	220.20	10.1				

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-16.6	02	1.000	0.89	-10.9	03	2.000	1.78	-11.2
04	5.000	4.56	-8.7	05	20.000	21.22	6.1	06	50.000	56.60	13.2
07	100.000	111.98	12.0	08	200.000	232.41	16.2				

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.4	02	1.000	1.04	4.1	03	2.000	2.01	0.3
04	5.000	4.64	-7.1	05	20.000	19.25	-3.8	06	50.000	48.32	-3.4
07	100.000	97.13	-2.9	08	200.000	206.59	3.3				

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	0.95	-4.7	03	2.000	1.90	-4.8
04	5.000	4.64	-7.2	05	20.000	20.89	4.5	06	50.000	51.29	2.6
07	100.000	99.78	-0.2	08	200.000	198.11	-0.9				

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.4	02	1.000	0.96	-3.7	03	2.000	1.93	-3.5
04	5.000	4.38	-12.4	05	20.000	21.12	5.6	06	50.000	54.28	8.6
07	100.000	102.50	2.5	08	200.000	216.75	8.4				

Initial Calibration - Detailed Report

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Analyte

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	0.87	-12.5	03	2.000	1.76	-12.2
04	5.000	4.67	-6.6	05	20.000	21.78	8.9	06	50.000	54.79	9.6
07	100.000	103.68	3.7	08	200.000	211.58	5.8				

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.91	-9.3	03	2.000	1.79	-10.7
04	5.000	4.37	-12.7	05	20.000	21.43	7.1	06	50.000	54.40	8.8
07	100.000	106.89	6.9	08	200.000	214.85	7.4				

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	0.98	-1.6	03	2.000	2.24	11.9
04	5.000	4.77	-4.6	05	20.000	20.00	0.0	06	50.000	50.56	1.1
07	100.000	98.18	-1.8	08	200.000	199.85	-0.1				

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.4	02	1.000	0.98	-2.0	03	2.000	1.78	-11.2
04	5.000	4.36	-12.7	05	20.000	21.78	8.9	06	50.000	54.49	9.0
07	100.000	104.81	4.8	08	200.000	219.27	9.6				

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	0.97	-3.2	03	2.000	1.79	-10.5
04	5.000	4.65	-6.9	05	20.000	20.88	4.4	06	50.000	53.80	7.6
07	100.000	103.02	3.0	08	200.000	212.06	6.0				

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.67	-13.3	02	20.000	18.71	-6.5	03	40.000	35.24	-11.9
04	100.000	95.18	-4.8	05	400.000	442.39	10.6	06	1000.000	1,092.38	9.2
07	2000.000	2,152.26	7.6	08	4000.000	4,361.85	9.0				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.4	02	1.000	0.83	-16.7	03	2.000	1.84	-8.0
04	5.000	4.30	-14.0	05	20.000	21.44	7.2	06	50.000	57.31	14.6
07	100.000	110.86	10.9	08	200.000	234.84	17.4				

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	51.13	2.3	03	60.000	61.70	2.8	04	70.000	70.40	0.6
05	100.000	98.98	-1.0	07	125.000	122.12	-2.3	08	150.000	146.49	-2.3

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Analyte

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.9	02	1.000	0.92	-8.4	03	2.000	1.91	-4.6
04	5.000	4.55	-9.0	05	20.000	21.48	7.4	06	50.000	53.38	6.8
07	100.000	105.56	5.6	08	200.000	218.29	9.1				

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.4	02	1.000	0.87	-12.9	03	2.000	1.71	-14.6
04	5.000	4.50	-10.0	05	20.000	23.21	16.1	06	50.000	57.31	14.6
07	100.000	109.50	9.5	08	200.000	217.81	8.9				

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.7	02	1.000	0.96	-4.3	03	2.000	1.90	-4.8
04	5.000	4.66	-6.8	05	20.000	20.78	3.9	06	50.000	53.63	7.3
07	100.000	106.04	6.0	08	200.000	208.85	4.4				

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.0	02	1.000	1.14	13.5	03	2.000	1.86	-6.8
04	5.000	4.55	-9.0	05	20.000	20.20	1.0	06	50.000	50.13	0.3
07	100.000	97.21	-2.8	08	200.000	199.78	-0.1				

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.2	02	1.000	0.97	-3.3	03	2.000	1.73	-13.4
04	5.000	4.55	-9.0	05	20.000	20.72	3.6	06	50.000	51.99	4.0
07	100.000	107.49	7.5	08	200.000	220.85	10.4				

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.2	02	1.000	0.97	-3.3	03	2.000	1.97	-1.4
04	5.000	4.86	-2.8	05	20.000	19.36	-3.2	06	50.000	49.68	-0.6
07	100.000	104.78	4.8	08	200.000	204.78	2.4				

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-15.0	02	1.000	0.85	-15.2	03	2.000	1.65	-17.5
04	5.000	4.17	-16.6	05	20.000	20.85	4.2	06	50.000	58.09	16.2
07	100.000	118.39	18.4	08	200.000	250.95	25.5				

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.2	02	1.000	0.96	-3.8	03	2.000	1.91	-4.7
04	5.000	4.93	-1.4	05	20.000	19.52	-2.4	06	50.000	50.17	0.3
07	100.000	106.86	6.9	08	200.000	212.52	6.3				

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.2	02	1.000	0.92	-8.4	03	2.000	1.73	-13.3
04	5.000	4.61	-7.7	05	20.000	21.95	9.8	06	50.000	56.29	12.6
07	100.000	107.23	7.2	08	200.000	221.95	11.0				

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.1	02	1.000	1.05	5.3	03	2.000	1.86	-7.1
04	5.000	4.62	-7.6	05	20.000	21.68	8.4	06	50.000	52.27	4.5
07	100.000	93.33	-6.7	08	200.000	178.17	-10.9				

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.54	-23.2	04	5.000	4.11	-17.9	05	20.000	21.88	9.4
06	50.000	56.59	13.2	07	100.000	111.03	11.0	08	200.000	214.94	7.5

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.6	02	1.000	0.96	-3.8	03	2.000	1.81	-9.6
04	5.000	4.83	-3.4	05	20.000	22.87	14.3	06	50.000	54.72	9.4
07	100.000	103.09	3.1	08	200.000	195.01	-2.5				

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.88	-12.0	03	2.000	1.57	-21.4	04	5.000	4.30	-14.1
05	20.000	21.05	5.3	06	50.000	55.85	11.7	07	100.000	111.75	11.7
08	200.000	237.52	18.8								

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.97	-3.3	03	2.000	1.75	-12.4	04	5.000	4.37	-12.7
05	20.000	19.78	-1.1	06	50.000	53.82	7.6	07	100.000	109.06	9.1
08	200.000	225.68	12.8								

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-16.8	02	1.000	1.00	-0.2	03	2.000	1.60	-20.0
04	5.000	4.25	-15.0	05	20.000	21.16	5.8	06	50.000	57.04	14.1
07	100.000	112.73	12.7	08	200.000	238.87	19.4				

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.44	-11.4	02	1.000	0.87	-13.4	03	2.000	1.81	-9.7
04	5.000	4.53	-9.5	05	20.000	21.45	7.2	06	50.000	54.68	9.4
07	100.000	111.75	11.8	08	200.000	231.13	15.6				

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.4	02	1.000	0.89	-10.7	03	2.000	1.71	-14.5
04	5.000	4.59	-8.2	05	20.000	21.20	6.0	06	50.000	55.49	11.0
07	100.000	110.17	10.2	08	200.000	225.10	12.6				

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.7	02	1.000	0.84	-15.7	03	2.000	1.73	-13.5
04	5.000	4.67	-6.6	05	20.000	22.68	13.4	06	50.000	58.06	16.1
07	100.000	112.62	12.6	08	200.000	214.84	7.4				

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.05	-18.0	02	5.000	4.31	-13.9	03	10.000	9.51	-4.9
04	25.000	22.27	-10.9	05	100.000	102.91	2.9	06	250.000	277.10	10.8
07	500.000	560.87	12.2	08	1000.000	1,218.06	21.8				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.39	-21.9	02	1.000	0.87	-13.4	03	2.000	1.66	-16.8
04	5.000	4.65	-7.0	05	20.000	22.67	13.3	06	50.000	58.25	16.5
07	100.000	112.94	12.9	08	200.000	232.83	16.4				

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.7	02	1.000	0.99	-0.5	03	2.000	1.82	-8.8
04	5.000	4.94	-1.2	05	20.000	20.62	3.1	06	50.000	53.55	7.1
07	100.000	101.74	1.7	08	200.000	208.54	4.3				

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.97	-1.7	04	5.000	4.30	-14.0	05	20.000	18.87	-5.6
06	50.000	52.95	5.9	07	100.000	104.42	4.4	08	200.000	222.12	11.1

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.3	02	1.000	0.96	-3.9	03	2.000	1.83	-8.3
04	5.000	4.67	-6.6	05	20.000	21.97	9.9	06	50.000	54.44	8.9
07	100.000	103.79	3.8	08	200.000	209.28	4.6				

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	52.86	5.7	03	60.000	61.10	1.8	04	70.000	70.09	0.1
05	100.000	97.93	-2.1	07	125.000	121.19	-3.0	08	150.000	146.16	-2.6

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.3	02	1.000	1.01	0.8	03	2.000	1.79	-10.6
04	5.000	4.76	-4.7	05	20.000	21.77	8.8	06	50.000	53.27	6.5
07	100.000	101.51	1.5	08	200.000	211.91	6.0				

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-18.2	02	1.000	0.98	-2.4	03	2.000	1.91	-4.3
04	5.000	4.78	-4.5	05	20.000	22.05	10.3	06	50.000	54.03	8.1
07	100.000	104.98	5.0	08	200.000	211.99	6.0				

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.85	-15.0	03	2.000	1.83	-8.5	04	5.000	4.35	-13.1
05	20.000	20.96	4.8	06	50.000	50.12	0.2	07	100.000	114.24	14.2
08	200.000	234.73	17.4								

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.1	02	1.000	0.93	-6.7	03	2.000	1.77	-11.6
04	5.000	4.59	-8.3	05	20.000	22.53	12.7	06	50.000	54.96	9.9
07	100.000	108.21	8.2	08	200.000	217.81	8.9				

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.9	02	1.000	0.98	-2.3	03	2.000	1.70	-15.2
04	5.000	4.60	-8.0	05	20.000	21.30	6.5	06	50.000	51.56	3.1
07	100.000	101.80	1.8	08	200.000	210.35	5.2				

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-15.2	02	1.000	0.85	-14.8	03	2.000	1.68	-16.1
04	5.000	4.61	-7.7	05	20.000	22.00	10.0	06	50.000	57.13	14.3
07	100.000	111.96	12.0	08	200.000	235.18	17.6				

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.86	-14.0	02	2.000	1.71	-14.3	03	4.000	3.43	-14.2
04	10.000	9.57	-4.3	05	40.000	44.86	12.2	06	100.000	114.51	14.5
07	200.000	218.39	9.2	08	400.000	443.66	10.9				

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.08	7.8	03	2.000	1.78	-11.0	04	5.000	4.32	-13.5
05	20.000	20.54	2.7	06	50.000	55.51	11.0	07	100.000	105.78	5.8
08	200.000	191.78	-4.1								

00233

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.86	-14.4	03	2.000	1.72	-13.8
04	5.000	4.67	-6.5	05	20.000	22.70	13.5	06	50.000	56.23	12.5
07	100.000	106.55	6.6	08	200.000	206.11	3.1				

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.9	02	1.000	0.91	-8.6	03	2.000	1.75	-12.3
04	5.000	4.42	-11.5	05	20.000	21.98	9.9	06	50.000	54.35	8.7
07	100.000	103.70	3.7	08	200.000	210.39	5.2				

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.2	02	1.000	0.99	-1.1	03	2.000	1.76	-12.2
04	5.000	4.98	-0.3	05	20.000	22.84	14.2	06	50.000	54.83	9.7
07	100.000	102.64	2.6	08	200.000	188.59	-5.7				

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-17.5	02	1.000	0.87	-12.5	03	2.000	1.65	-17.6
04	5.000	4.78	-4.5	05	20.000	22.28	11.4	06	50.000	57.15	14.3
07	100.000	110.25	10.3	08	200.000	232.38	16.2				

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.2	02	1.000	0.95	-5.4	03	2.000	1.89	-5.4
04	5.000	4.80	-4.1	05	20.000	23.09	15.5	06	50.000	54.38	8.8
07	100.000	102.18	2.2	08	200.000	191.32	-4.3				

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.1	02	1.000	0.89	-10.7	03	2.000	1.88	-6.2
04	5.000	4.82	-3.7	05	20.000	19.02	-4.9	06	50.000	50.56	1.1
07	100.000	108.57	8.6	08	200.000	219.56	9.8				

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.6	02	1.000	0.92	-7.7	03	2.000	1.87	-6.3
04	5.000	4.73	-5.3	05	20.000	23.18	15.9	06	50.000	55.58	11.2
07	100.000	104.30	4.3	08	200.000	205.26	2.6				

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.4	02	1.000	1.04	4.3	03	2.000	1.71	-14.3
04	5.000	4.74	-5.2	05	20.000	21.10	5.5	06	50.000	52.46	4.9
07	100.000	103.00	3.0	08	200.000	214.25	7.1				

Initial Calibration - Detailed Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.37	-26.8	02	1.000	0.86	-13.8	03	2.000	1.66	-16.9
04	5.000	4.44	-11.1	05	20.000	22.25	11.3	06	50.000	59.31	18.6
07	100.000	115.39	15.4	08	200.000	246.72	23.4				

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.7	02	1.000	0.81	-19.1	03	2.000	1.81	-9.3
04	5.000	4.74	-5.1	05	20.000	21.41	7.1	06	50.000	53.75	7.5
07	100.000	112.82	12.8	08	200.000	227.92	14.0				

00235

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

KR 9/10/14

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:00:50 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	814647	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1294523	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1149524	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	591769	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	363676	50.44	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.88%				
48) surr1,1,2-dichloroetha...	4.658	65	388759	50.03	ppb		-0.01
Spiked Amount 50.000	Range 78 - 122		Recovery = 100.06%				
65) SURR3,Toluene-d8	7.322	98	1547237	50.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.68%				
70) SURR2,BFB	9.791	95	546567	50.17	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.34%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	3500	0.44	ppb		84
3) Chloromethane	1.262	50	4037	0.47	ppb		79
4) Vinyl Chloride	1.323	62	3963m	0.43	ppb		
5) Bromomethane	1.512	94	2901	0.55	ppb		93
6) Chloroethane	1.567	64	2611	0.51	ppb		78
7) Freon 21	1.664	67	6359	0.47	ppb		90
8) Trichlorofluoromethane	1.719	101	4477	0.41	ppb	#	77
9) Diethyl Ether	1.884	59	2642	0.50	ppb		90
10) Freon 123a	1.865	67	4190	0.49	ppb		83
11) Freon 123	1.908	83	4510	0.48	ppb		90
12) Acrolein	1.951	56	976	1.96	ppb		94
13) 1,1-Diclethene	2.036	96	2886	0.50	ppb	#	81
14) Freon 113	2.036	101	3285	0.49	ppb		88
16) 2-Propanol	2.115	45	1658	6.21	ppb		97
17) Iodomethane	2.146	142	3355	0.38	ppb		90
18) Carbon Disulfide	2.207	76	12184	0.55	ppb		91
19) Acetonitrile	2.237	40	673	2.97	ppb	#	1
20) Allyl Chloride	2.274	76	1670	0.42	ppb	#	79
21) Methyl Acetate	2.274	43	1676	0.49	ppb		82
22) Methylene Chloride	2.359	84	3879	0.52	ppb		89
23) TBA	2.408	59	3648	8.15	ppb	#	40
24) Acrylonitrile	2.536	53	3242m	2.03	ppb		
25) Methyl-t-Butyl Ether	2.579	73	7330	0.44	ppb		90
26) trans-1,2-Dichloroethene	2.585	96	3425	0.47	ppb		83
28) 1,1-Diclethane	2.944	63	6116	0.47	ppb		80
29) Vinyl Acetate	2.993	86	636m	0.60	ppb		
30) DIPE	3.012	45	12730	0.52	ppb		94
31) 2-Chloro-1,3-Butadiene	3.042	53	5750	0.46	ppb		97
32) ETBE	3.408	59	10641	0.49	ppb		92
33) 2,2-Dichloropropane	3.566	77	4804m	0.47	ppb		
34) cis-1,2-Dichloroethene	3.548	96	4426m	0.55	ppb		
36) Propionitrile	3.615	54	1211m	2.05	ppb		
37) Bromochloromethane	3.841	130	2693m	0.60	ppb		
38) Methacrylonitrile	3.810	67	768	0.41	ppb	#	75
40) Chloroform	3.932	83	6256	0.48	ppb	#	78

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:00:50 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	1,1,1-Trichloroethane	4.219	97	5050m	0.46	ppb		
42)	TAME	5.029	73	9765	0.53	ppb		88
44)	Cyclohexane	4.316	41	3332	0.49	ppb		91
46)	Carbontetrachloride	4.487	121	1379m	0.48	ppb		
47)	1,1-Dichloropropene	4.469	75	4817m	0.51	ppb		
49)	Benzene	4.792	78	13354m	0.45	ppb		
50)	1,2-Dichloroethane	4.798	62	3913m	0.45	ppb		
52)	n-Heptane	5.328	43	3883	0.52	ppb	#	77
54)	Trichloroethene	5.834	130	3585m	0.46	ppb		
55)	Methylcyclohexane	6.115	55	3762m	0.47	ppb		
56)	1,2-Diclpropane	6.115	63	3830	0.52	ppb		95
57)	Dibromomethane	6.261	93	1670	0.47	ppb		98
59)	Methyl Methacrylate	6.346	69	1415m	0.42	ppb		
60)	Bromodichloromethane	6.480	83	4101	0.45	ppb		89
62)	2-Chloroethylvinyl Ether	6.901	63	1220m	0.37	ppb		
63)	cis-1,3-Dichloropropene	7.029	75	4541	0.42	ppb		99
64)	4-Methyl-2-pentanone	7.218	43	1814	0.41	ppb		84
66)	Toluene	7.395	91	14642	0.46	ppb		98
67)	trans-1,3-Dichloropropene	7.639	75	3193m	0.37	ppb		
68)	Ethyl Methacrylate	7.779	69	2915m	0.42	ppb		
69)	1,1,2-Trichloroethane	7.809	97	2567	0.48	ppb		80
72)	Tetrachloroethene	7.962	164	2775	0.47	ppb	#	78
74)	1,3-Dichloropropane	7.980	76	4698	0.48	ppb		89
75)	Dibromochloromethane	8.193	129	2626	0.44	ppb		91
76)	N-Butyl Acetate	8.248	43	2151	0.31	ppb		73
77)	1,2-Dibromoethane	8.291	107	2335	0.47	ppb		89
78)	Chlorobenzene	8.767	112	10531	0.52	ppb		88
79)	3-CBTF	8.785	180	4087	0.41	ppb		95
80)	4-CBTF	8.840	180	4900	0.51	ppb		92
81)	1,1,1,2-Tetrachloroethane	8.852	131	3337	0.48	ppb		98
82)	Ethylbenzene	8.888	106	4755	0.44	ppb		97
83)	(m+p)Xylene	8.998	106	11151	0.86	ppb		99
84)	o-Xylene	9.346	106	5205	0.41	ppb		89
85)	Styrene	9.358	104	8076m	0.39	ppb		
87)	Bromoform	9.498	173	1345	0.42	ppb		80
88)	2-CBTF	9.577	180	4481	0.47	ppb	#	78
89)	Isopropylbenzene	9.669	105	14015	0.46	ppb		91
90)	Cyclohexanone	9.724	55	6105m	8.74	ppb		
91)	trans-1,4-Dichloro-2-B...	9.967	53	696	0.46	ppb	#	68
92)	1,1,2,2-Tetrachloroethane	9.907	83	3055	0.50	ppb	#	73
93)	Bromobenzene	9.913	156	3795	0.49	ppb		92
94)	1,2,3-Trichloropropane	9.943	110	861	0.49	ppb	#	83
95)	n-Propylbenzene	10.022	91	16457	0.46	ppb		93
96)	2-Chlorotoluene	10.083	91	9501	0.44	ppb		92
97)	3-Chlorotoluene	10.132	91	11036	0.47	ppb		96
98)	4-Chlorotoluene	10.175	91	11021	0.44	ppb		97
99)	1,3,5-Trimethylbenzene	10.169	105	9431	0.39	ppb		98
100)	tert-Butylbenzene	10.443	119	8683m	0.43	ppb		
101)	1,2,4-Trimethylbenzene	10.480	105	10936	0.44	ppb		98
102)	3,4-DCBTF	10.541	214	4046	0.59	ppb	#	71
103)	sec-Butylbenzene	10.620	105	13705	0.46	ppb		94
104)	p-Isopropyltoluene	10.742	119	10544	0.43	ppb	#	74

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:00:50 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

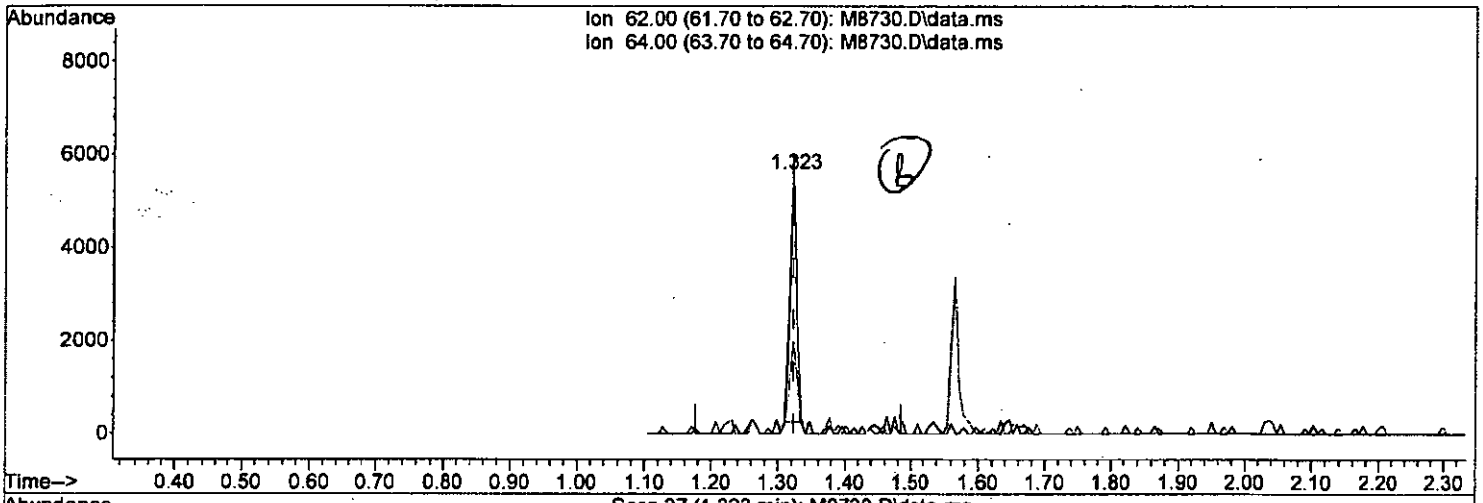
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	10.699	146	6829	0.46	ppb		97
106) 1,4-Dclbenz	10.766	146	7728	0.51	ppb		89
107) 2,4-DCBTF	10.821	214	3273m	0.55	ppb		
108) 2,5-DCBTF	10.864	214	3699m	0.55	ppb		
109) n-Butylbenzene	11.071	91	11097	0.50	ppb		86
110) 1,2-Dclbenz	11.065	146	6886	0.49	ppb	#	66
111) 1,2-Dibromo-3-chloropr...	11.632	157	747	0.69	ppb	#	48
112) Trielution Dichlorotol...	11.735	125	15665	1.34	ppb	#	93
113) 1,3,5 Trichlorobenzene	11.784	180	5588	0.56	ppb	#	73
114) Coelution Dichlorotoluene	11.998	125	11012	0.88	ppb	#	89
115) 1,2,4-Tcbenzene	12.162	180	3722	0.45	ppb		89
116) Hexachlorobt	12.272	225	1851	0.57	ppb	#	86
117) Naphthalen	12.302	128	7245	0.43	ppb		96
118) 1,2,3-Tclbenzene	12.443	180	3682	0.52	ppb		88
119) 2,4,5-Trichlorotolene	12.863	159	2561m	0.46	ppb		
120) 2,3,6-Trichlorotoluene	12.924	159	2283	0.42	ppb		95

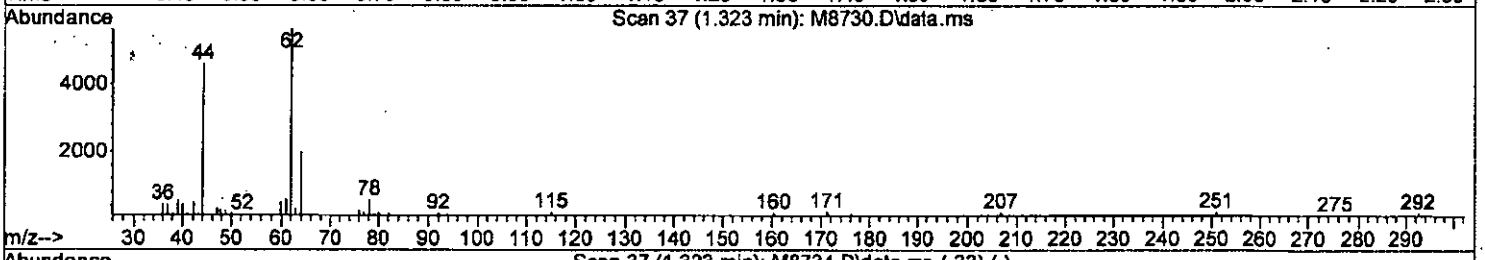
(#) = qualifier out of range (m) = manual integration (+) = signals summed

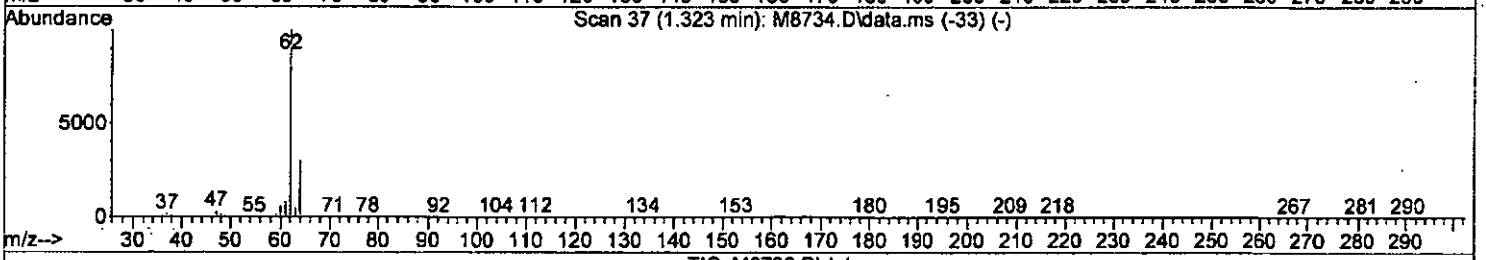
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(4) Vinyl Chloride (P)

1.323min (-0.000) 0.38 ppb

response 3500

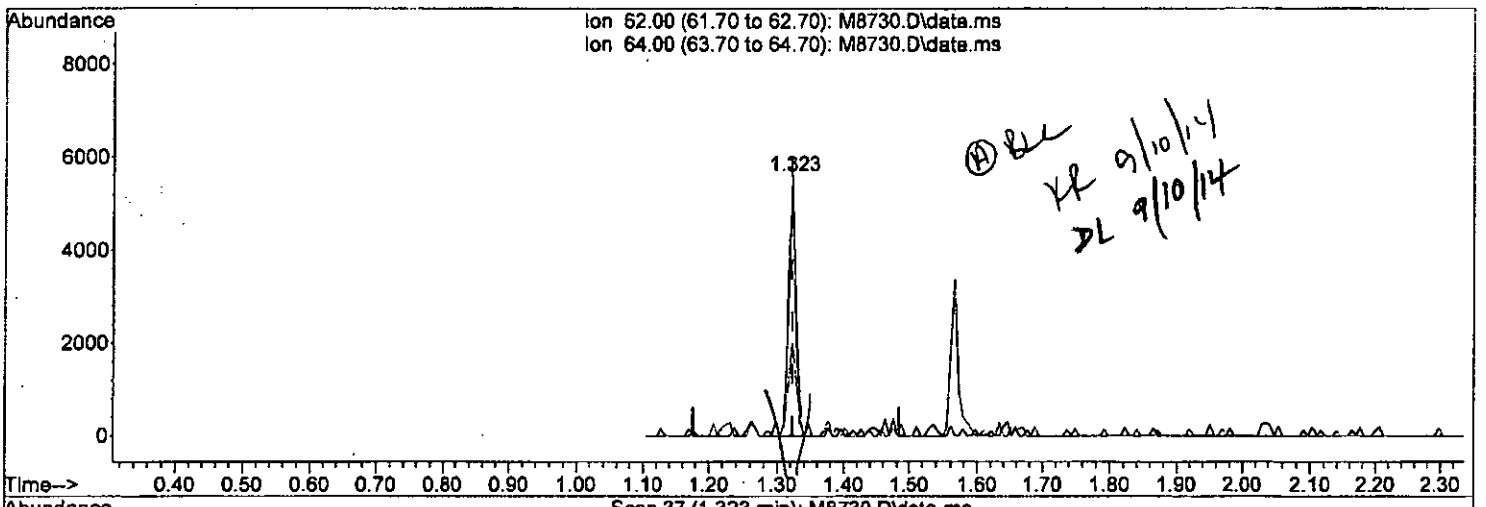
Ion	Exp%	Act%
62.00	100	100
64.00	30.60	35.22
0.00	0.00	0.00
0.00	0.00	0.00

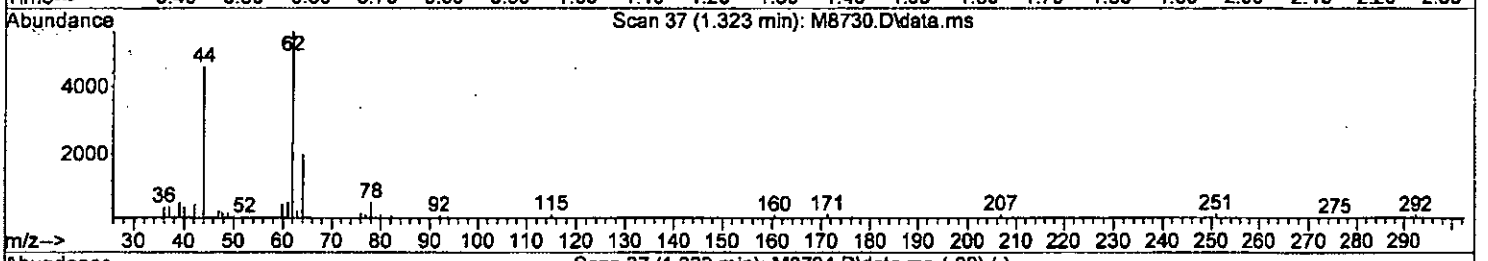
00239

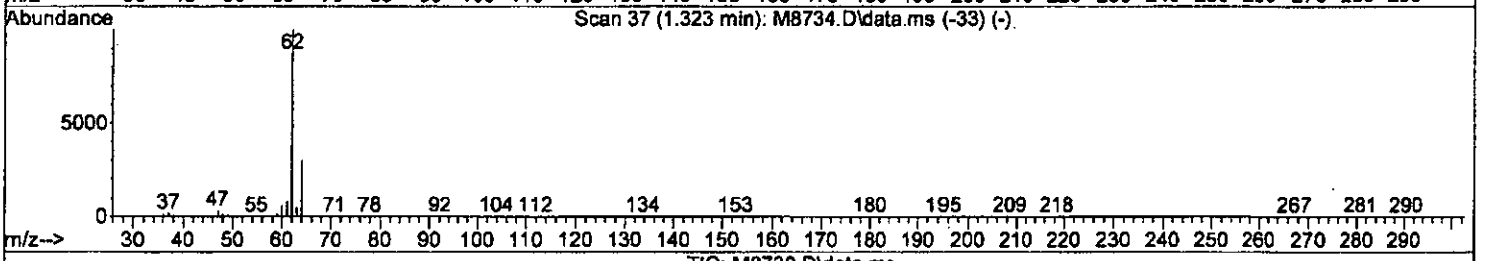
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(4) Vinyl Chloride (P)

1.323min (-0.000) 0.43 ppb m

response 3963

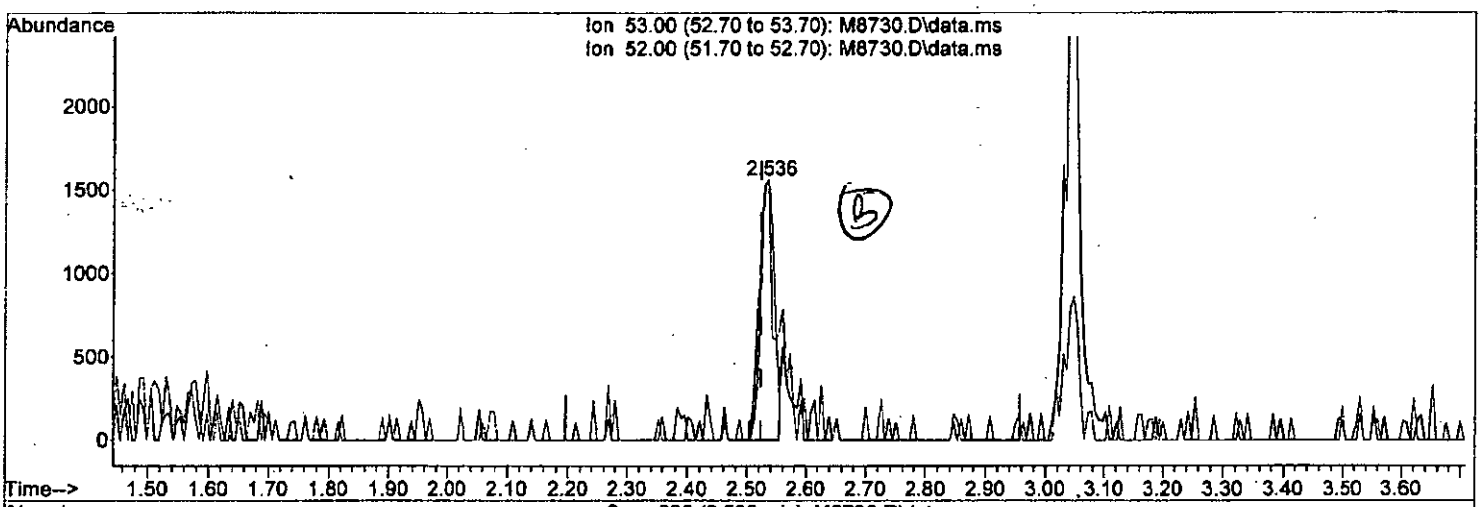
Ion	Exp%	Act%
62.00	100	100
64.00	30.60	35.22
0.00	0.00	0.00
0.00	0.00	0.00

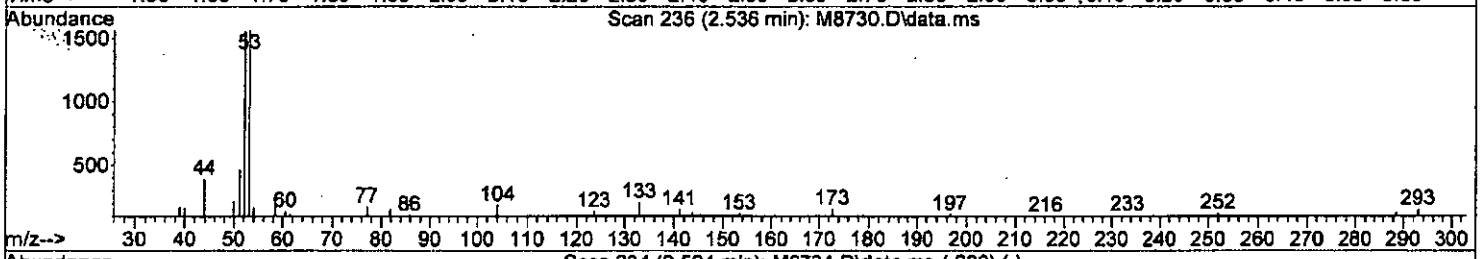
00240

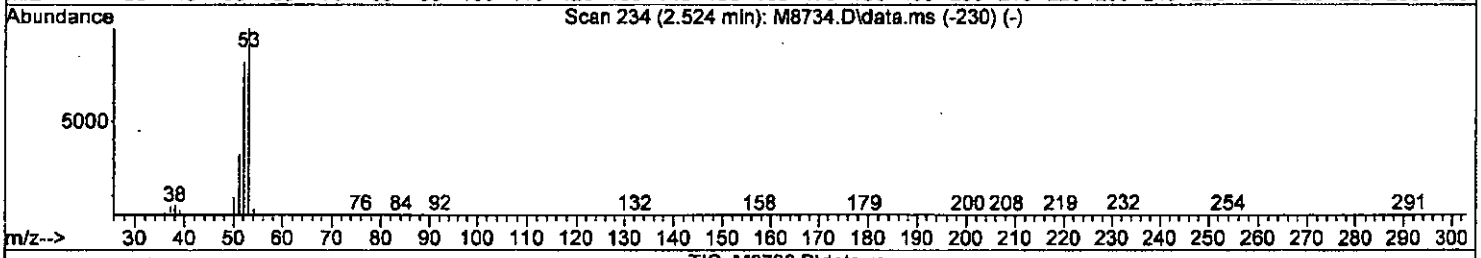
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(24) Acrylonitrile

2.536min (+0.012) 1.59 ppb

response 2541

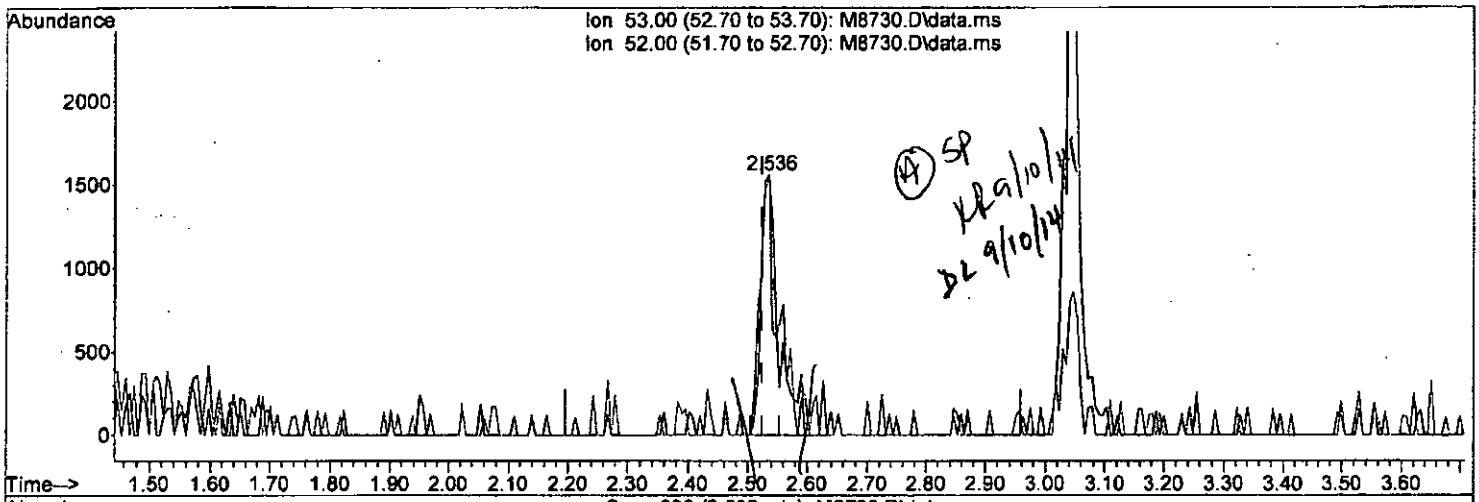
Ion	Exp%	Act%
53.00	100	100
52.00	61.60	99.55#
0.00	0.00	0.00
0.00	0.00	0.00

00241

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(24) Acrylonitrile

2.536min (+0.012) 2.03 ppb m

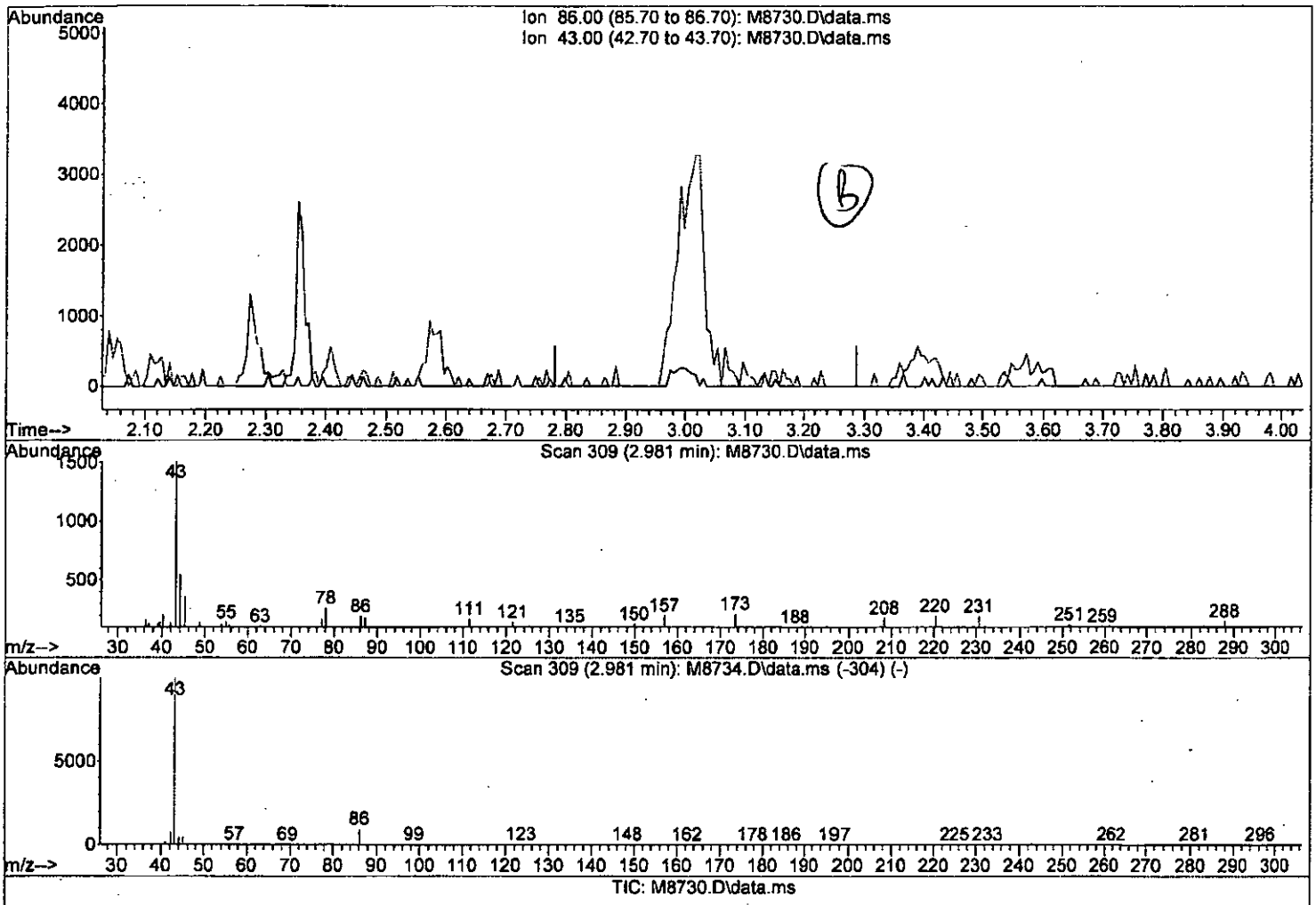
response 3242

Ion	Exp%	Act%
53.00	100	100
52.00	81.60	99.55#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(29) Vinyl Acetate

2.981min (-2.981) 0.00 ppb

response 0

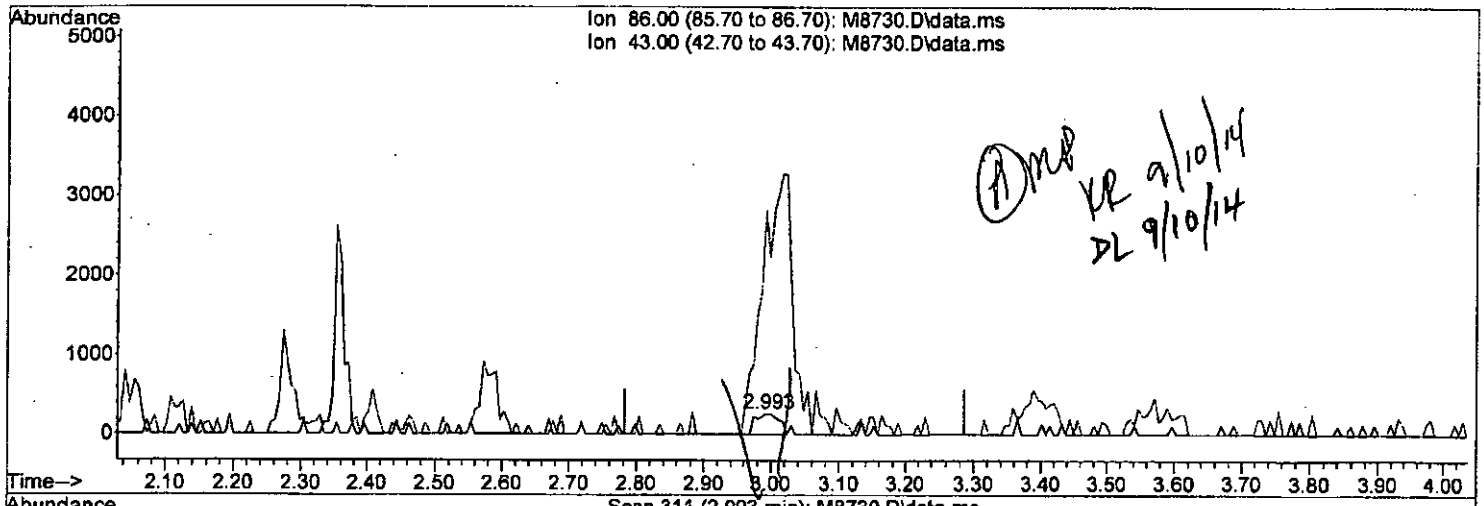
Ion	Exp%	Act%
86.00	100	0.00
43.00	1037.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

00243

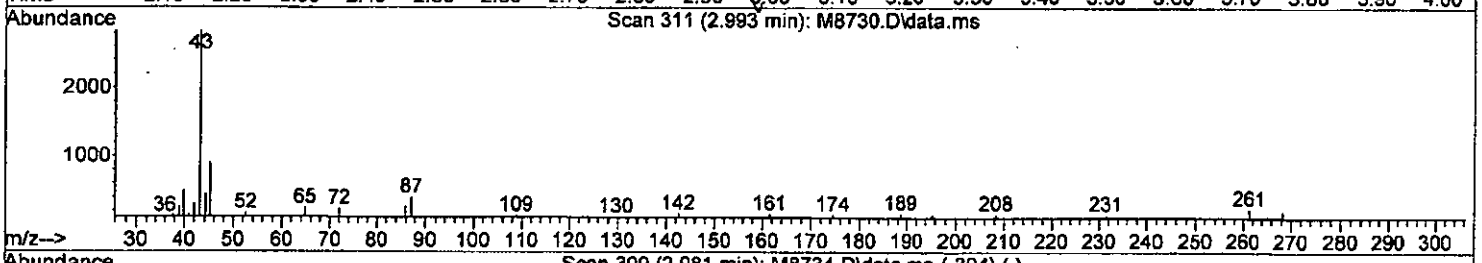
Quantitation Report (Qedit)

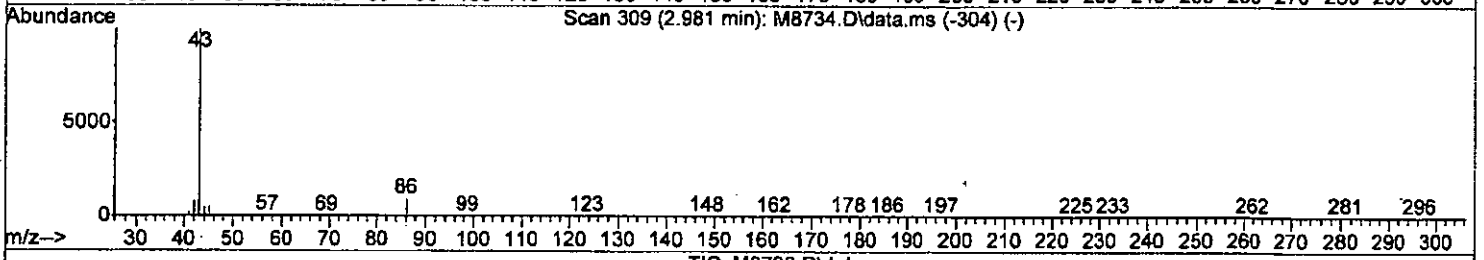
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



DMB 9/10/14
KR 9/10/14
DL 9/10/14





TIC: M8730.D\data.ms

(28) Vinyl Acetate

2.993min (+0.012) 0.60 ppb m

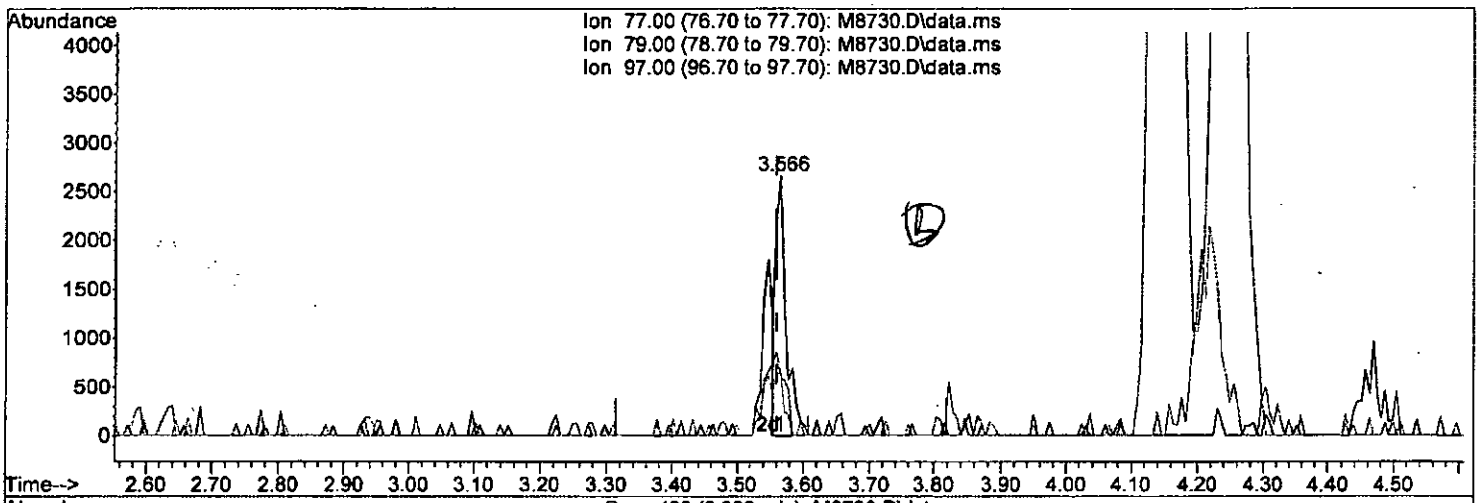
response 636

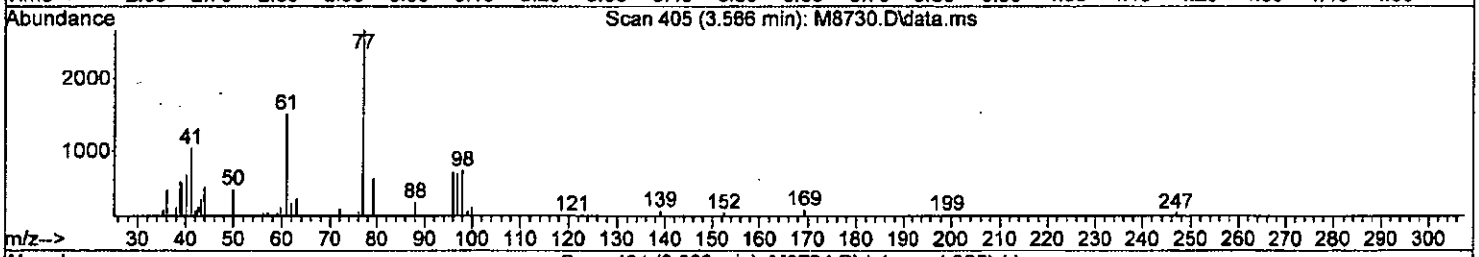
Ion	Exp%	Act%
86.00	100	100
43.00	1037.10	1062.41#
0.00	0.00	0.00
0.00	0.00	0.00

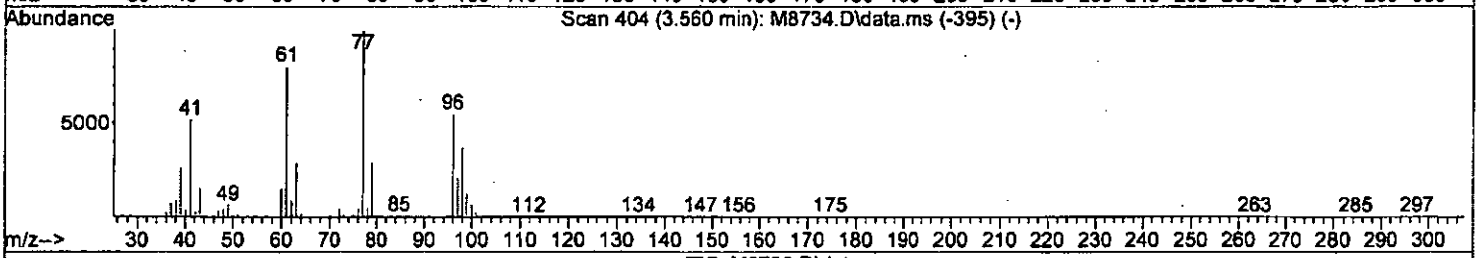
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(33) 2,2-Dichloropropane

3.566min (+0.006) 0.28 ppb

response 2892

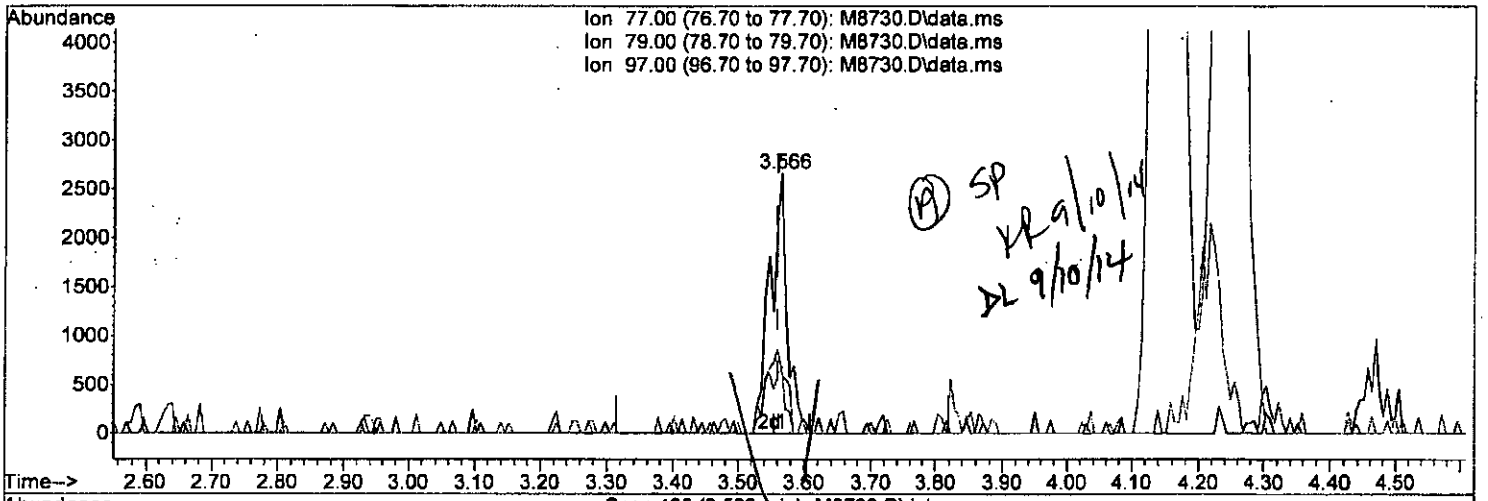
Ion	Exp%	Act%
77.00	100	100
79.00	28.40	22.96
97.00	20.50	25.40
0.00	0.00	0.00

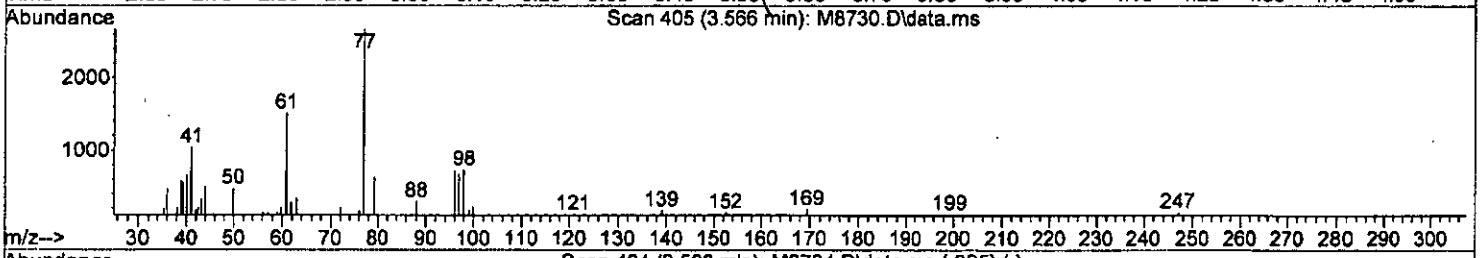
00245

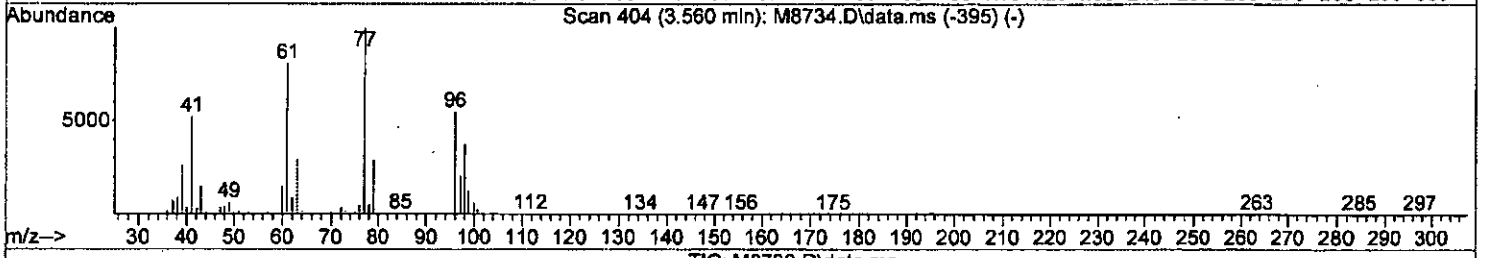
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(33) 2,2-Dichloropropane

3.566min (+0.006) 0.47 ppb m

response 4804

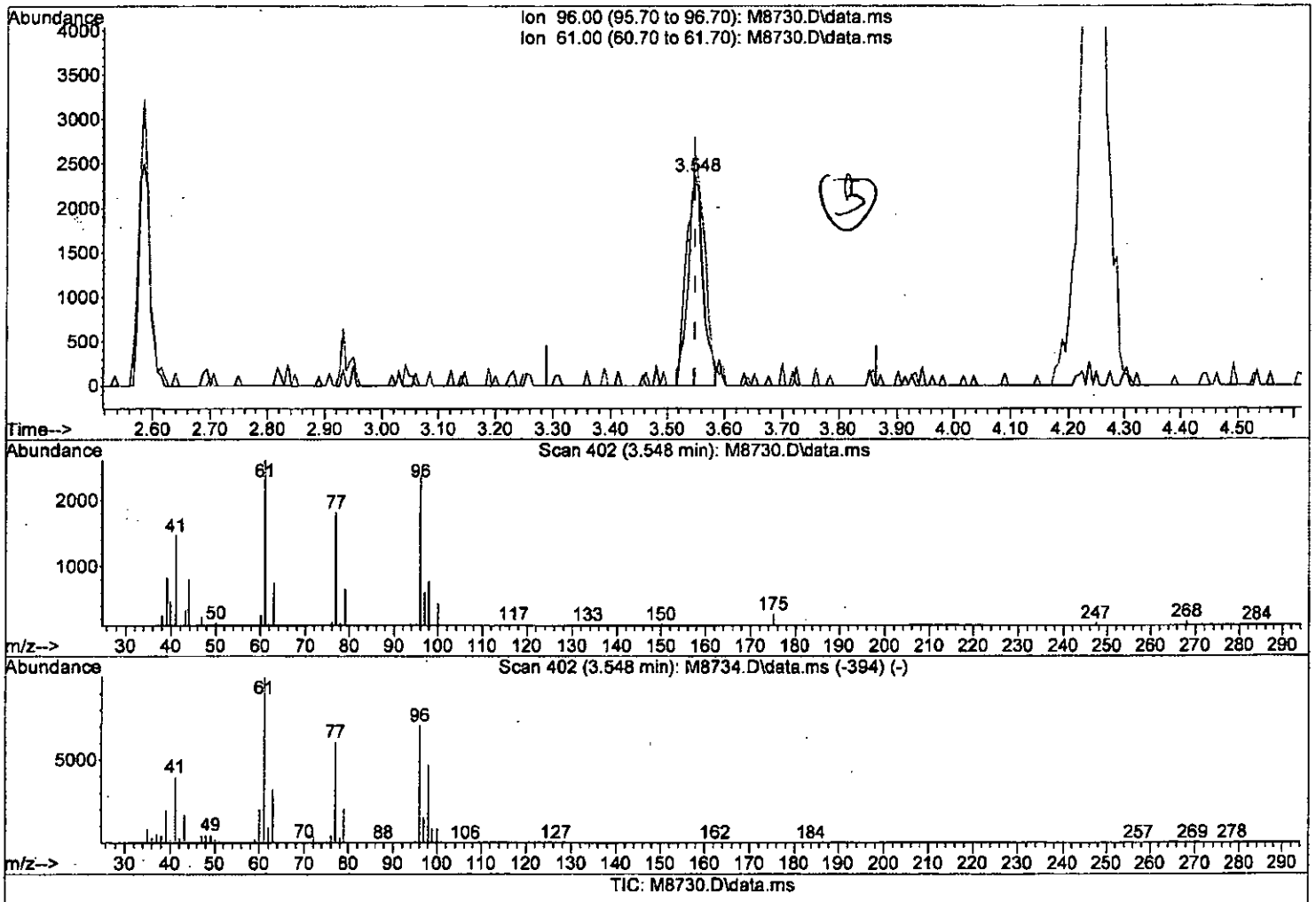
Ion	Exp%	Act%
77.00	100	100
79.00	28.40	22.96
97.00	20.50	25.40
0.00	0.00	0.00

00246

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

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

3.548min (-0.000) 0.53 ppb

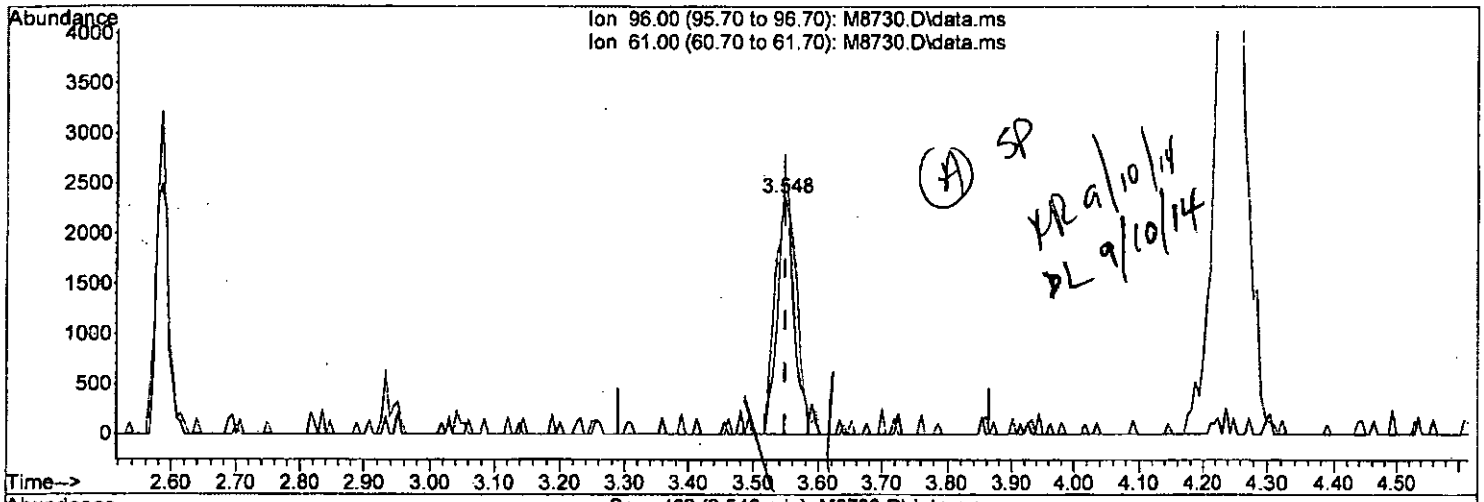
response 4281

Ion	Exp%	Act%
96.00	100	100
61.00	141.20	109.98#
0.00	0.00	0.00
0.00	0.00	0.00

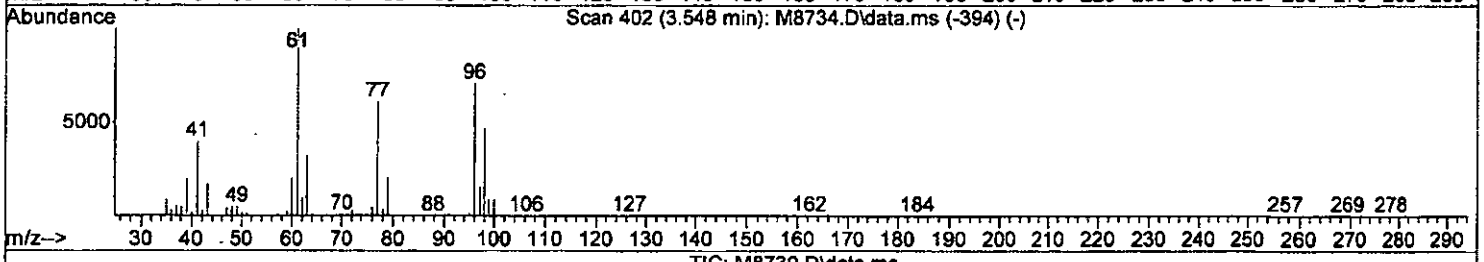
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(A) SP 9/10/14 RL 9/10/14



TIC: M8730.D\data.ms

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

3.548min (-0.000) 0.55 ppb m

response 4426

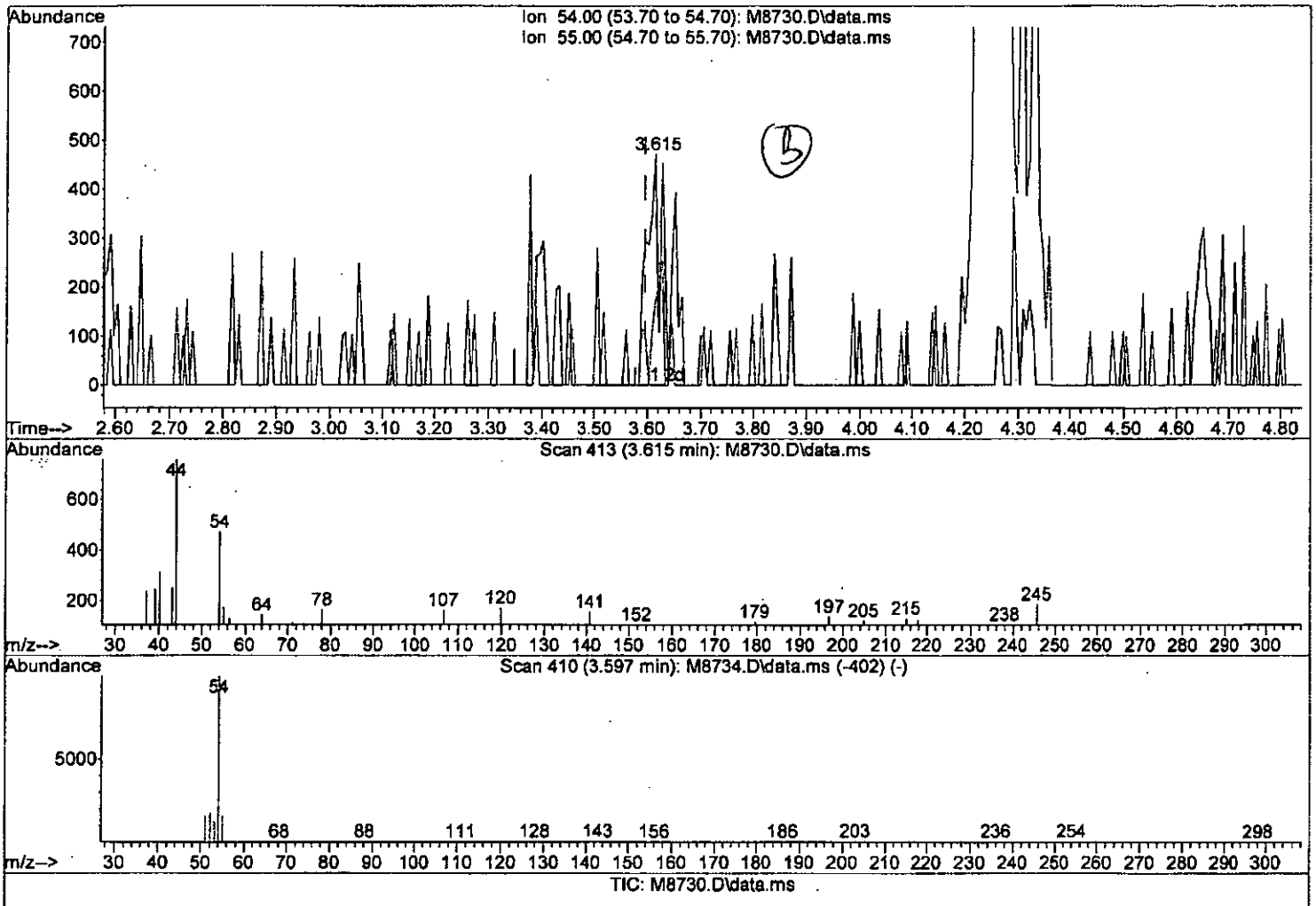
Ion	Exp%	Act%
96.00	100	100
61.00	141.20	109.98#
0.00	0.00	0.00
0.00	0.00	0.00

00248

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(36) Propionitrile

3.615min (+0.018) 1.47 ppb

response 868

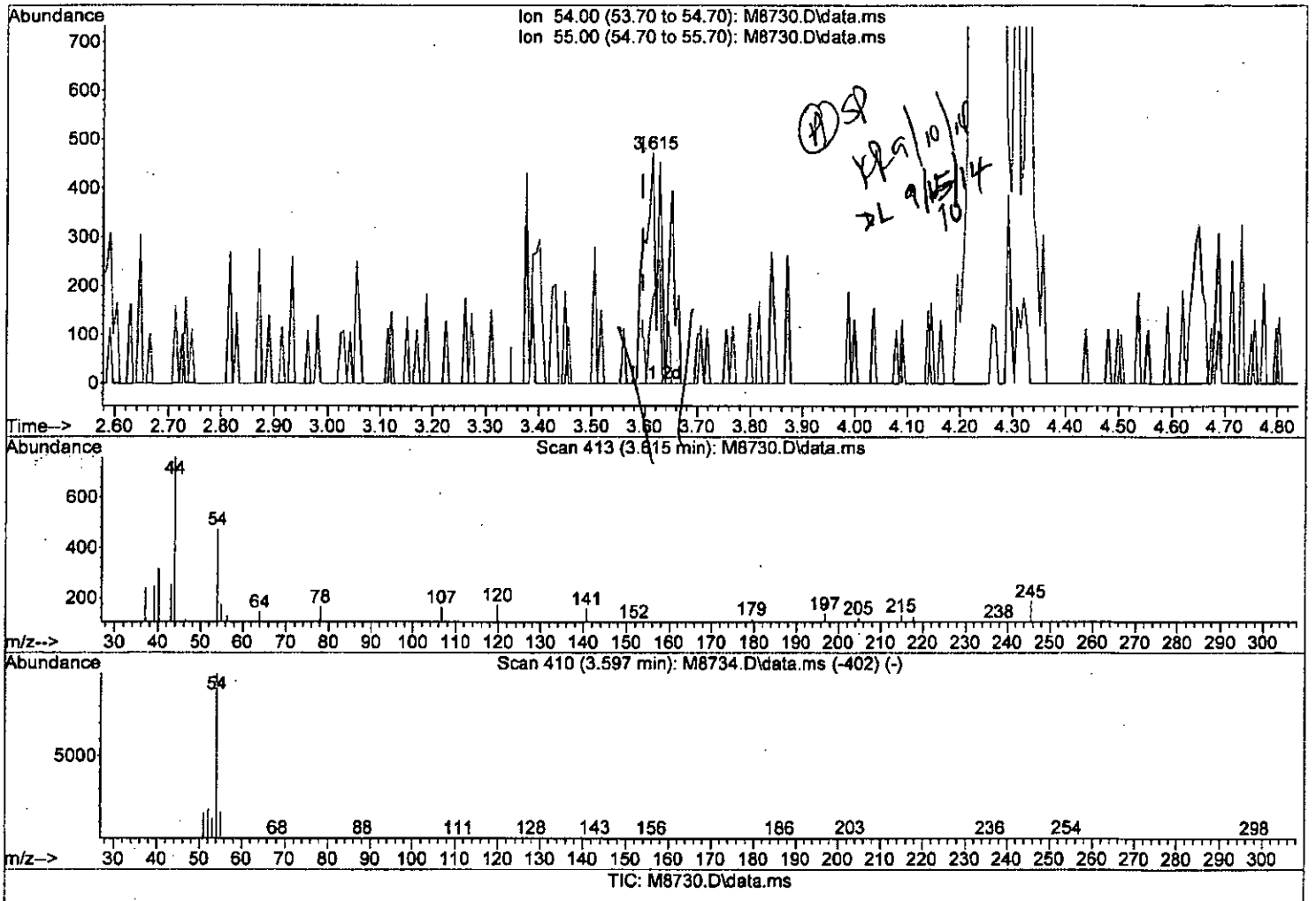
Ion	Exp%	Act%
54.00	100	100
55.00	16.80	36.23
0.00	0.00	0.00
0.00	0.00	0.00

00249

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(36) Propionitrile

3.615min (+0.018) 2.05 ppb m

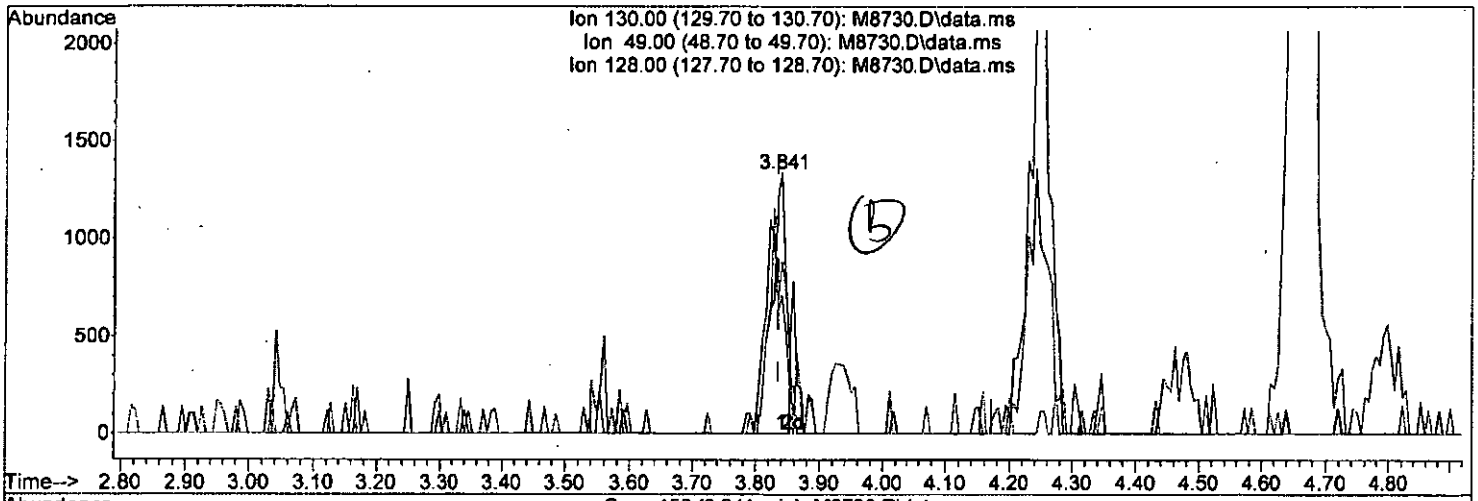
response 1211

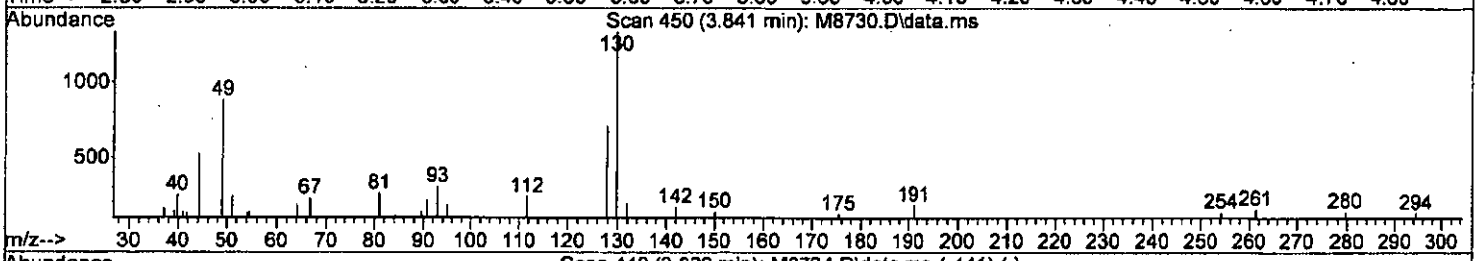
Ion	Exp%	Act%
54.00	100	100
55.00	16.80	36.23
0.00	0.00	0.00
0.00	0.00	0.00

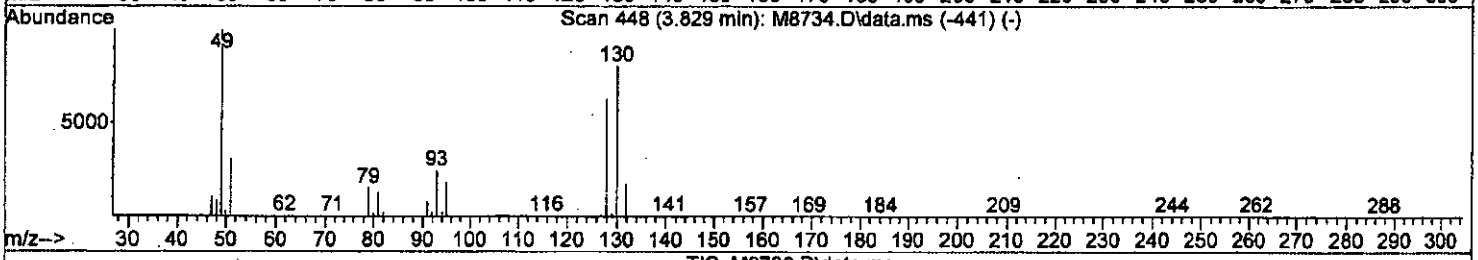
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(37) Bromochloromethane

3.841min (+0.006) 0.47 ppb

response 2095

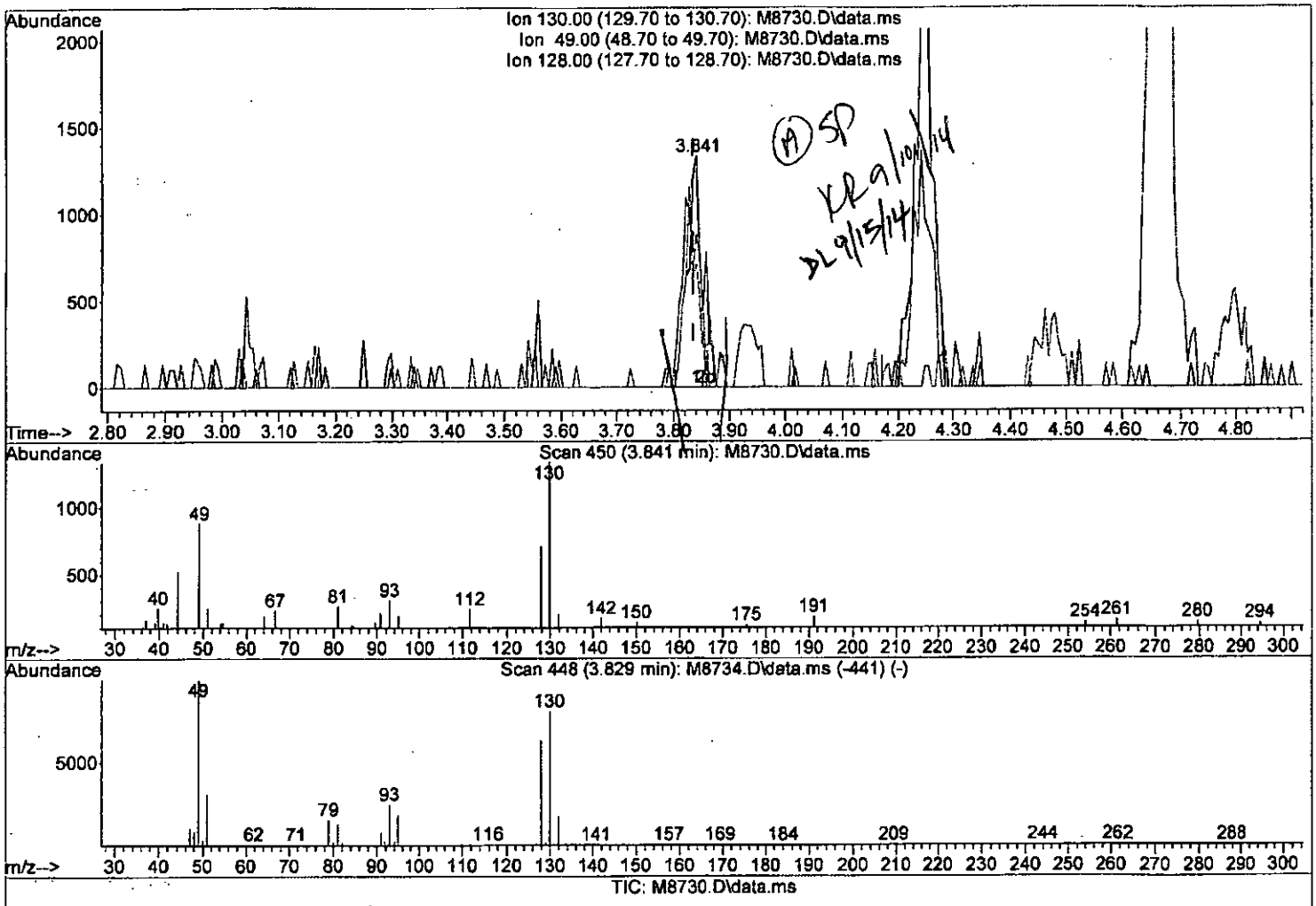
Ion	Exp%	Act%
130.00	100	100
49.00	124.00	65.84#
128.00	78.00	53.03#
0.00	0.00	0.00

00251

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(37) Bromochloromethane

3.841min (+0.006) 0.60 ppb m

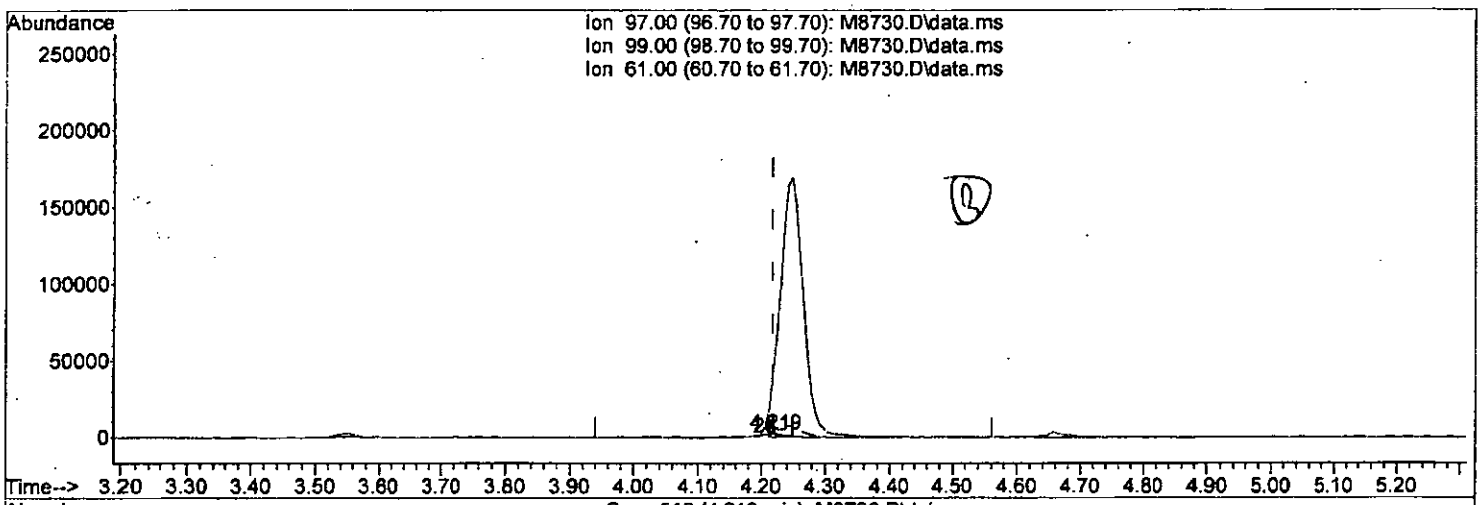
response 2693

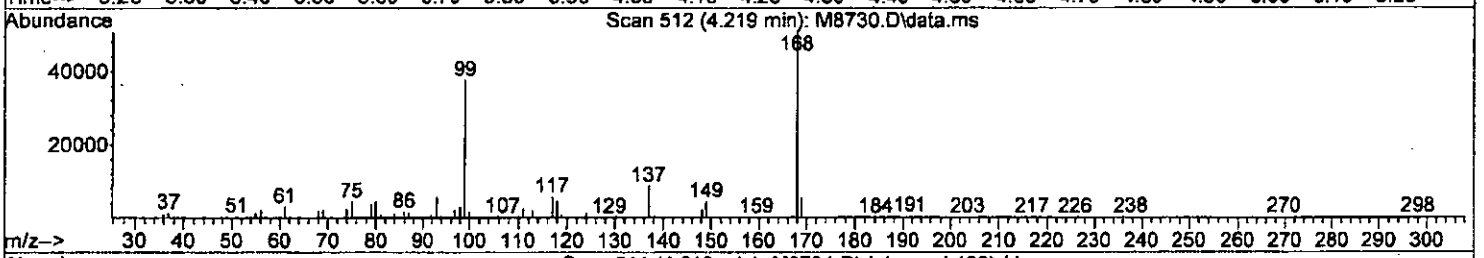
Ion	Exp%	Act%
130.00	100	100
49.00	124.00	65.84#
128.00	78.00	53.03#
0.00	0.00	0.00

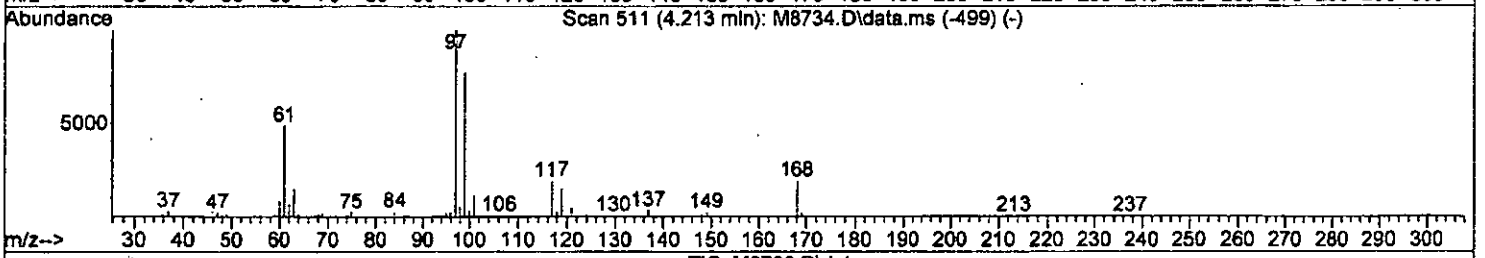
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

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

4.219min (-0.000) 0.19 ppb

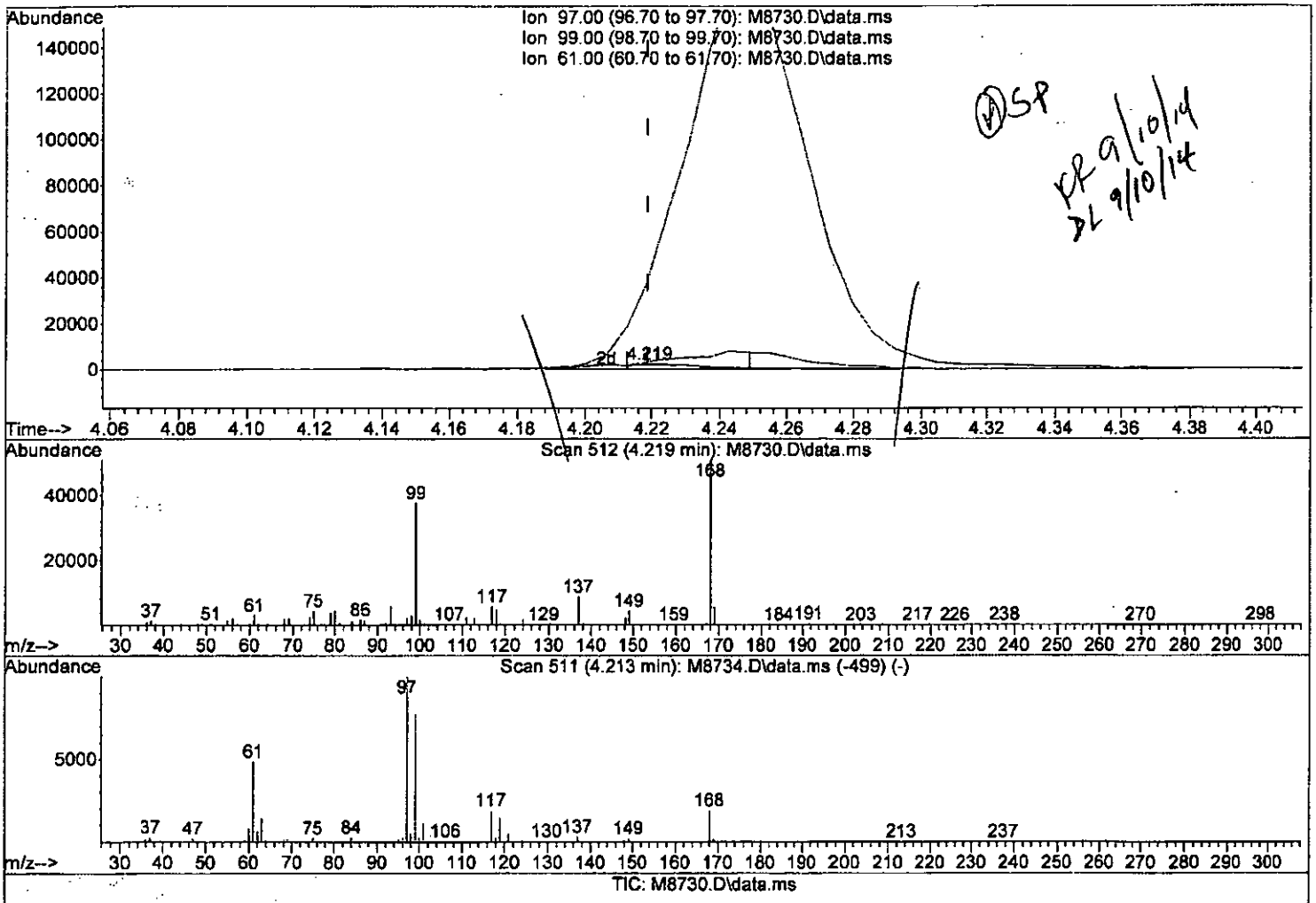
response 2078

Ion	Exp%	Act%
97.00	100	100
99.00	77.60	1753.50#
61.00	48.40	138.28#
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



DSP 9/10/14
PP 9/10/14
DL 9/10/14

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

4.219min (-0.000) 0.46 ppb m

response 5050

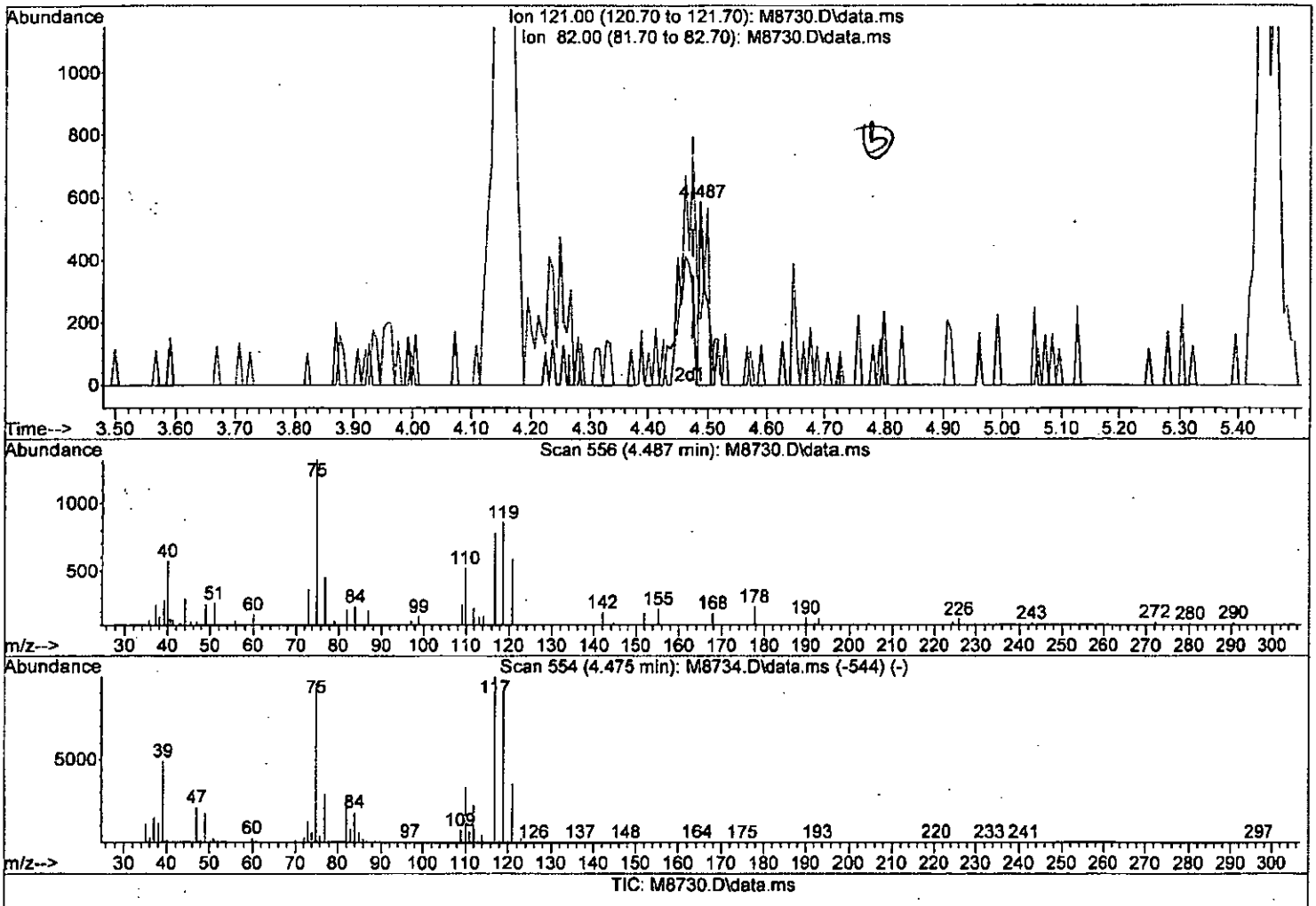
Ion	Exp%	Act%
97.00	100	100
99.00	77.60	1753.50#
61.00	48.40	138.28#
0.00	0.00	0.00

00254

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(46) Carbontetrachloride (P)

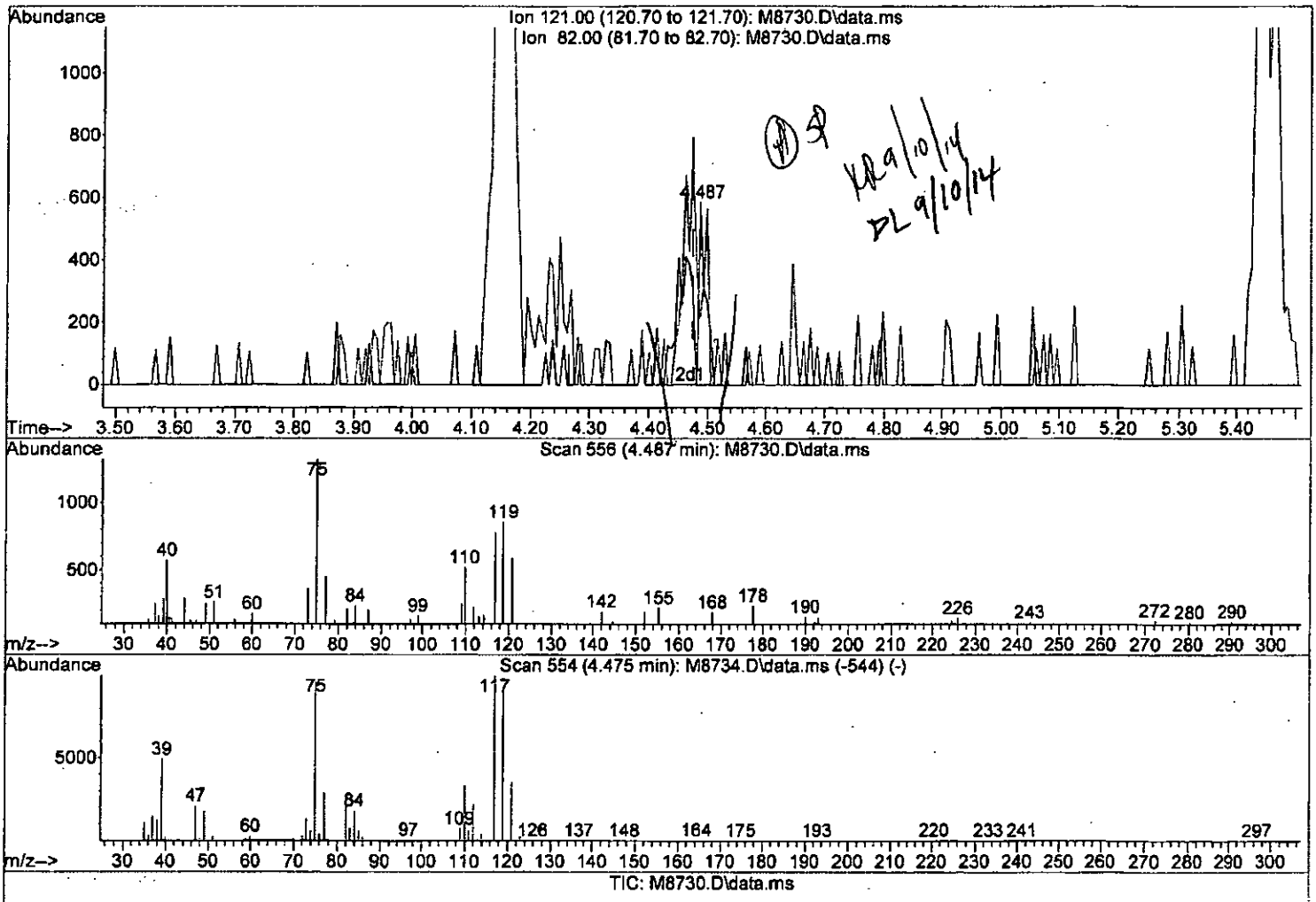
4.487min (+0.012) 0.17 ppb

response 480

Ion	Exp%	Act%
121.00	100	100
82.00	80.90	36.01#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(46) Carbontetrachloride (P)

4.487min (+0.012) 0.48 ppb m

response 1379

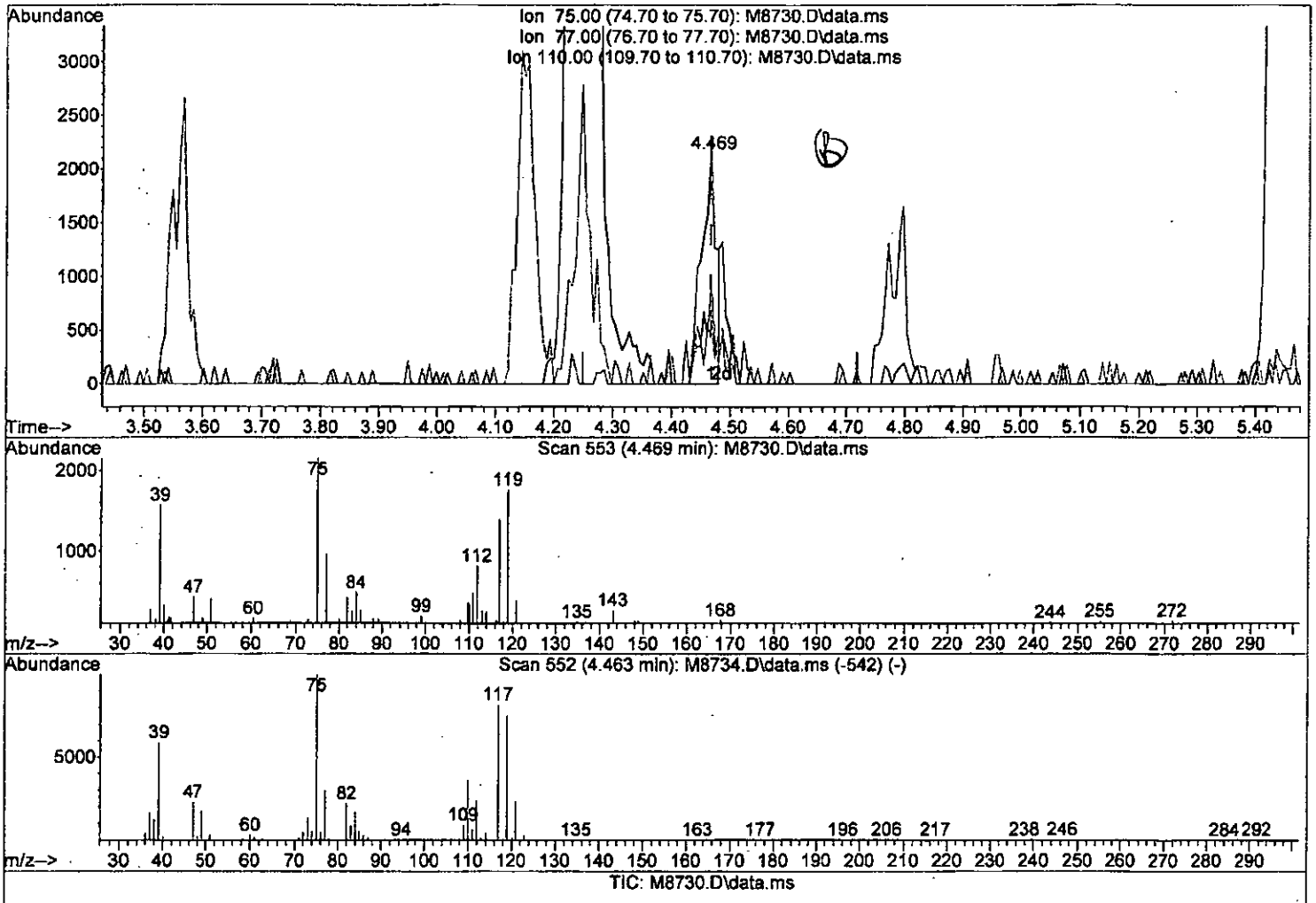
Ion	Exp%	Act%
121.00	100	100
82.00	80.90	36.01#
0.00	0.00	0.00
0.00	0.00	0.00

00256

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(47) 1,1-Dichloropropene

4.469min (-0.000) 0.40 ppb

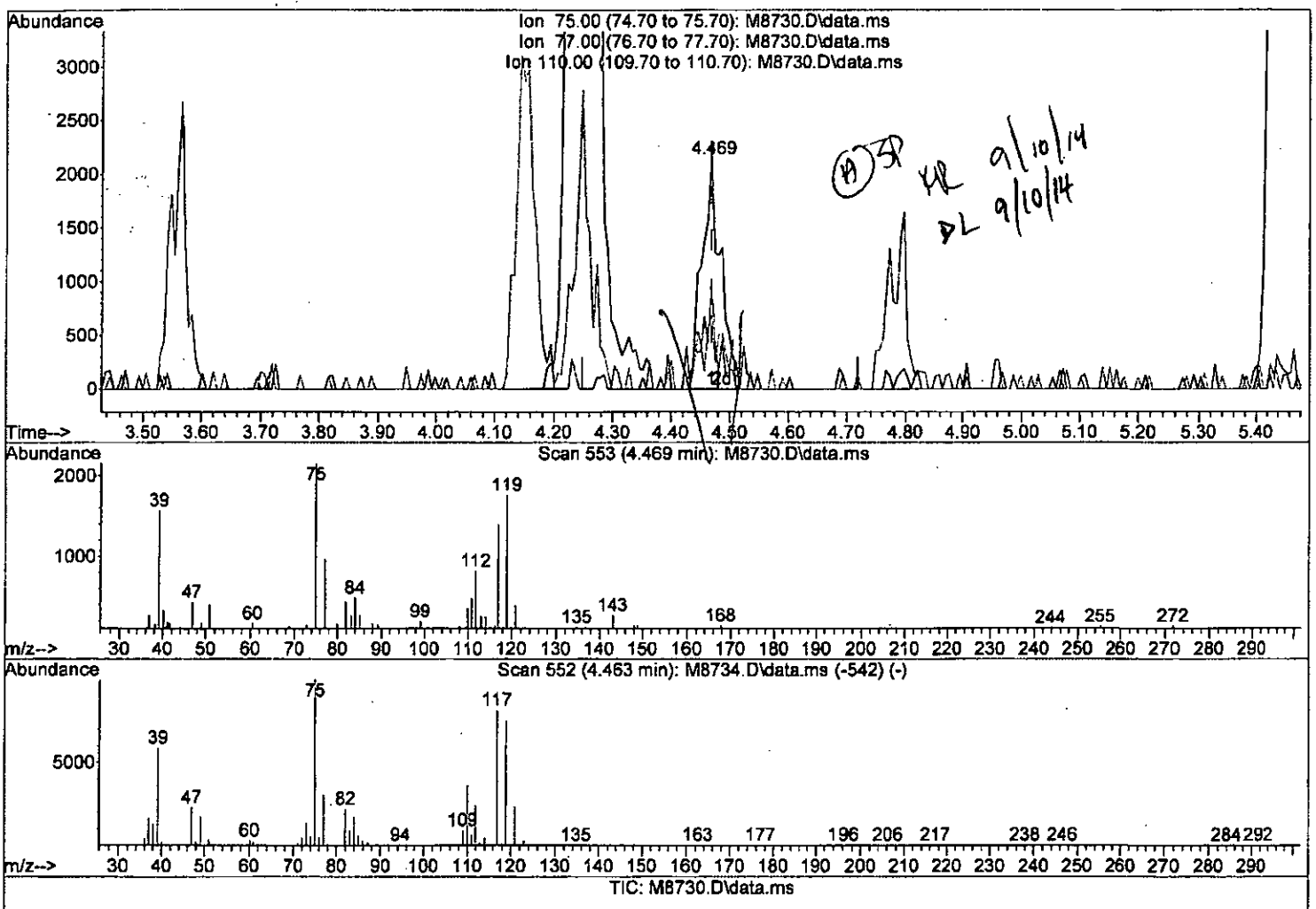
response 3721

Ion	Exp%	Act%
75.00	100	100
77.00	30.80	44.65
110.00	36.40	31.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(47) 1,1-Dichloropropene

4.469min (-0.000) 0.51 ppb m

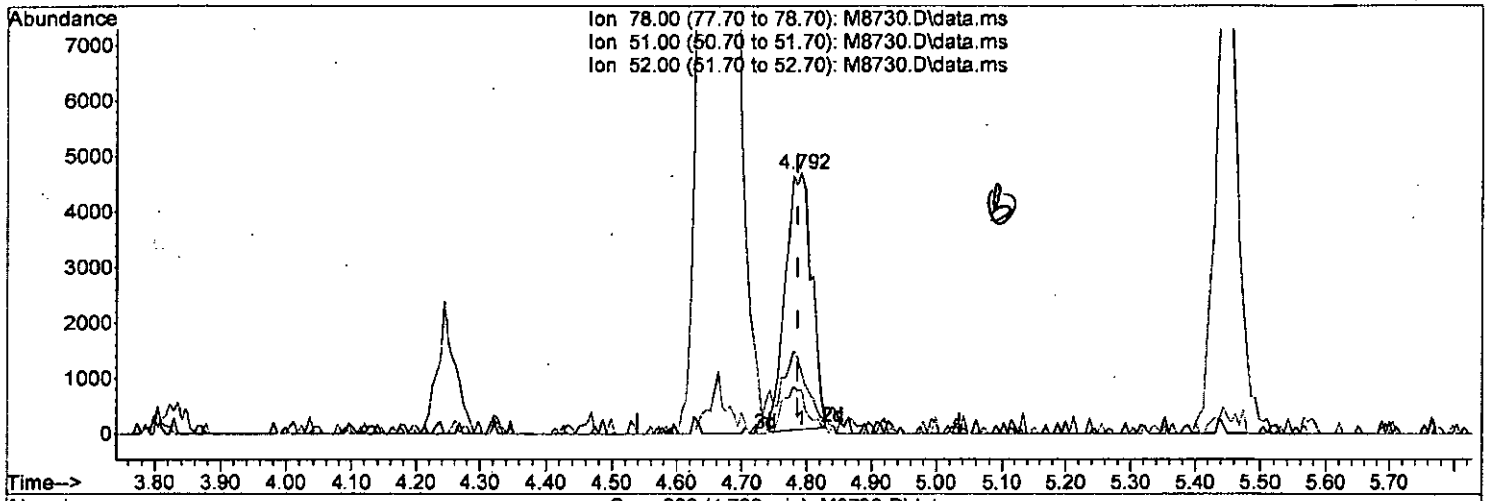
response 4817

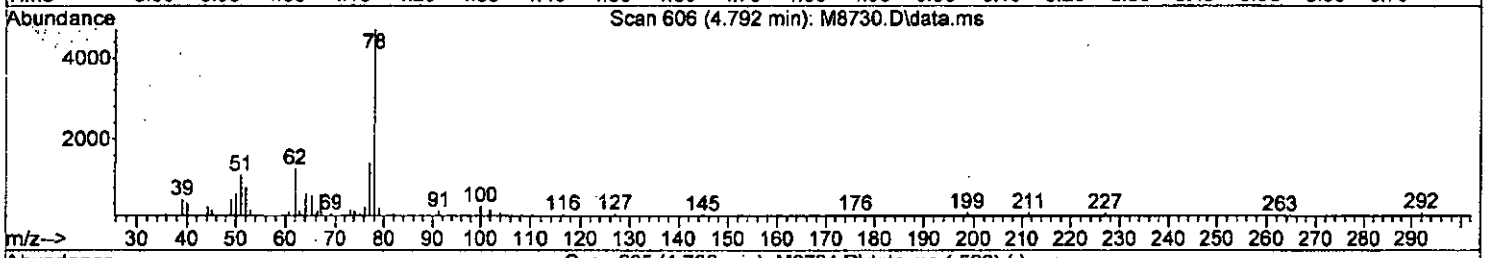
Ion	Exp%	Act%
75.00	100	100
77.00	30.80	44.65
110.00	36.40	16.37#
0.00	0.00	0.00

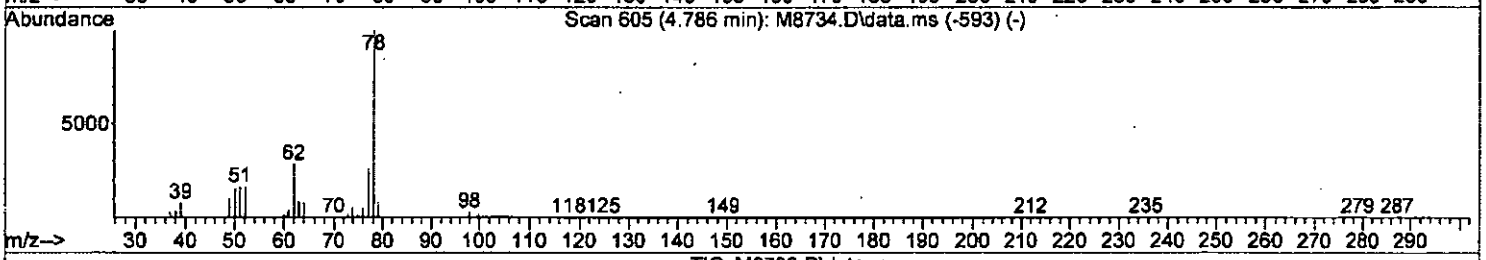
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(49) Benzene (P)

4.792min (+0.006) 0.44 ppb

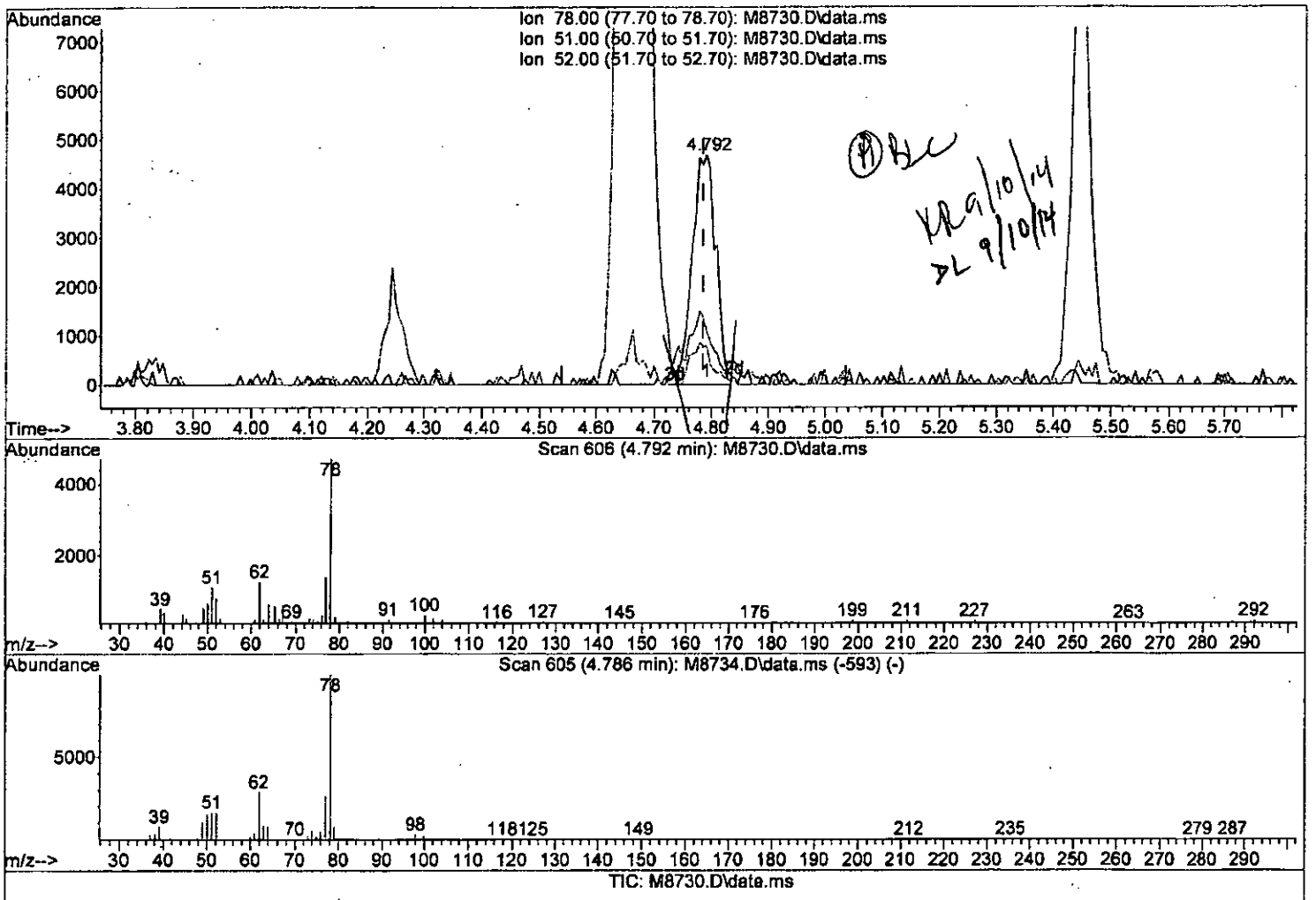
response 12874

Ion	Exp%	Act%
78.00	100	100
51.00	17.90	23.41
52.00	16.30	16.98
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(49) Benzene (P)

4.792min (+0.006) 0.45 ppb m

response 13354

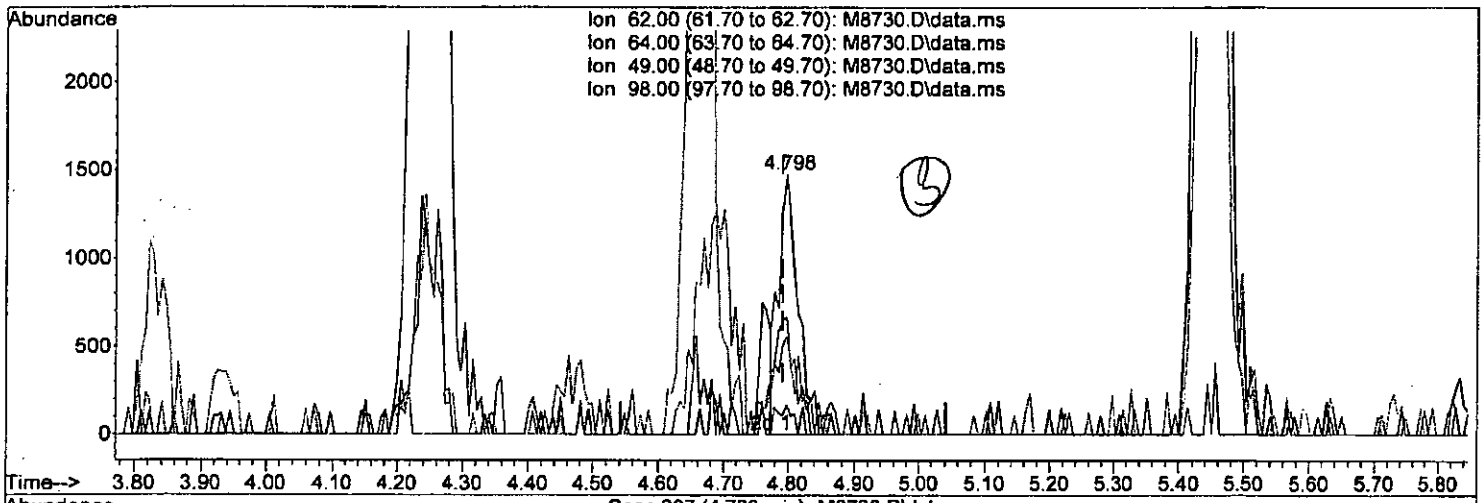
Ion	Exp%	Act%
78.00	100	100
51.00	17.90	23.41
52.00	16.30	16.98
0.00	0.00	0.00

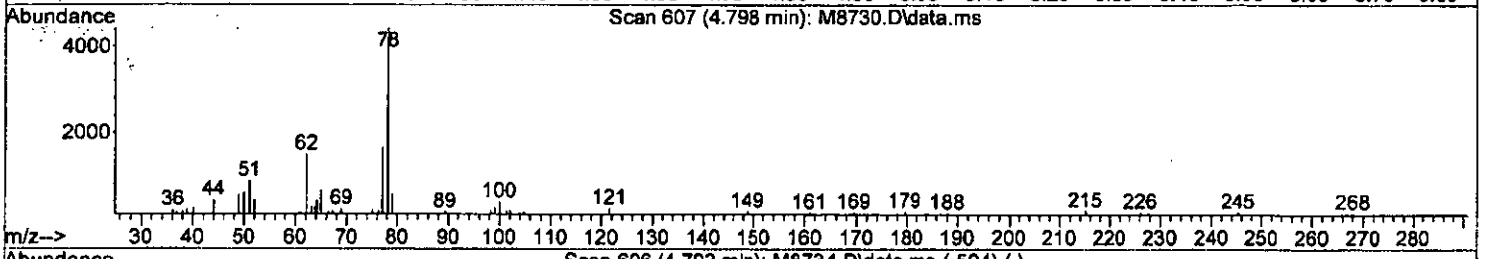
00260

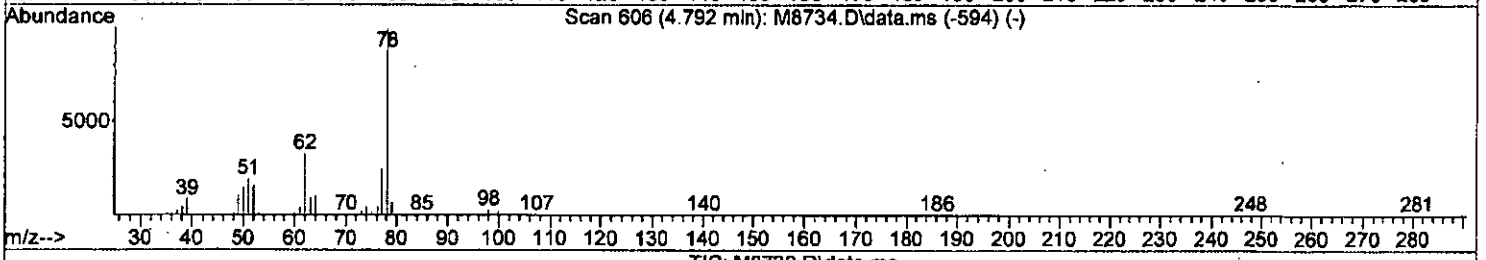
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(50) 1,2-Dichloroethane (P)

4.798min (+0.006) 0.35 ppb

response 3049

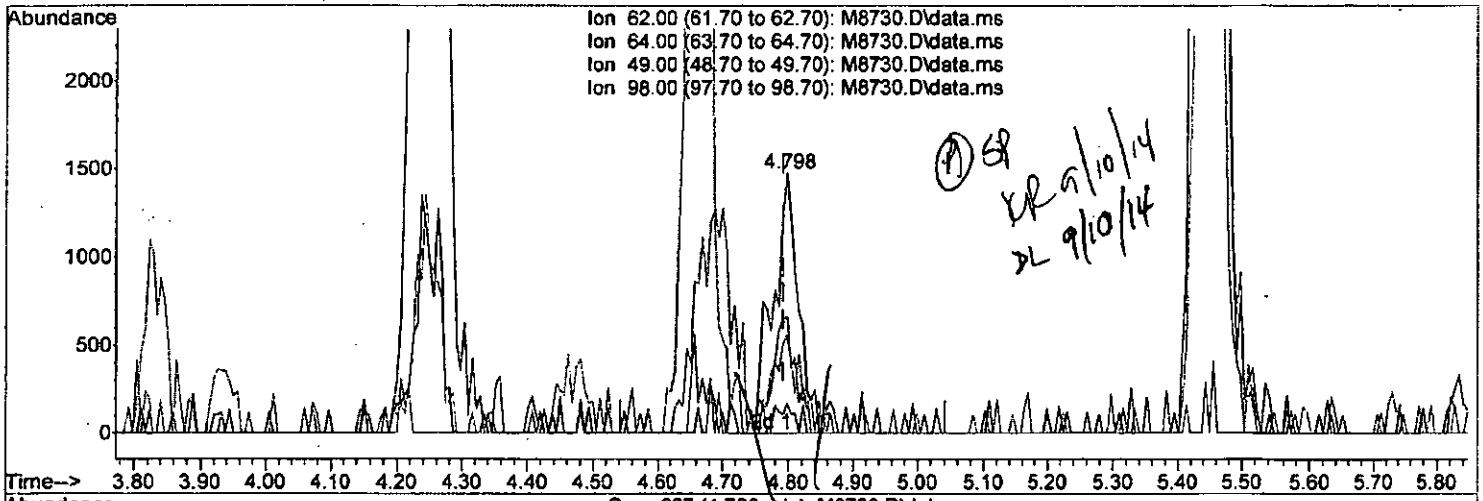
Ion	Exp%	Act%
62.00	100	100
64.00	32.40	45.03
49.00	33.30	37.86
98.00	8.50	11.43

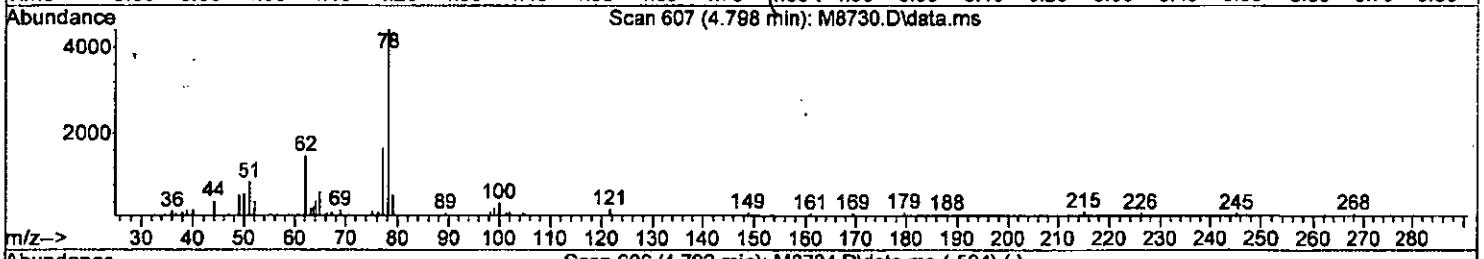
00261

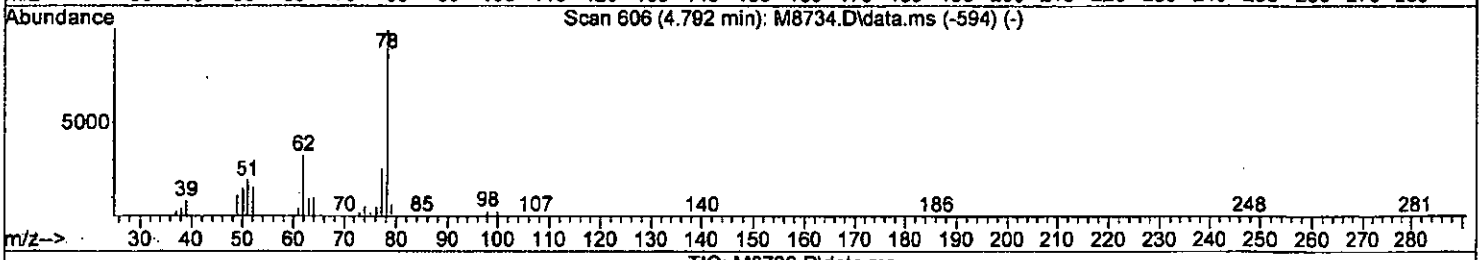
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(50) 1,2-Dichloroethane (P)

4.798min (+0.006) 0.45 ppb m

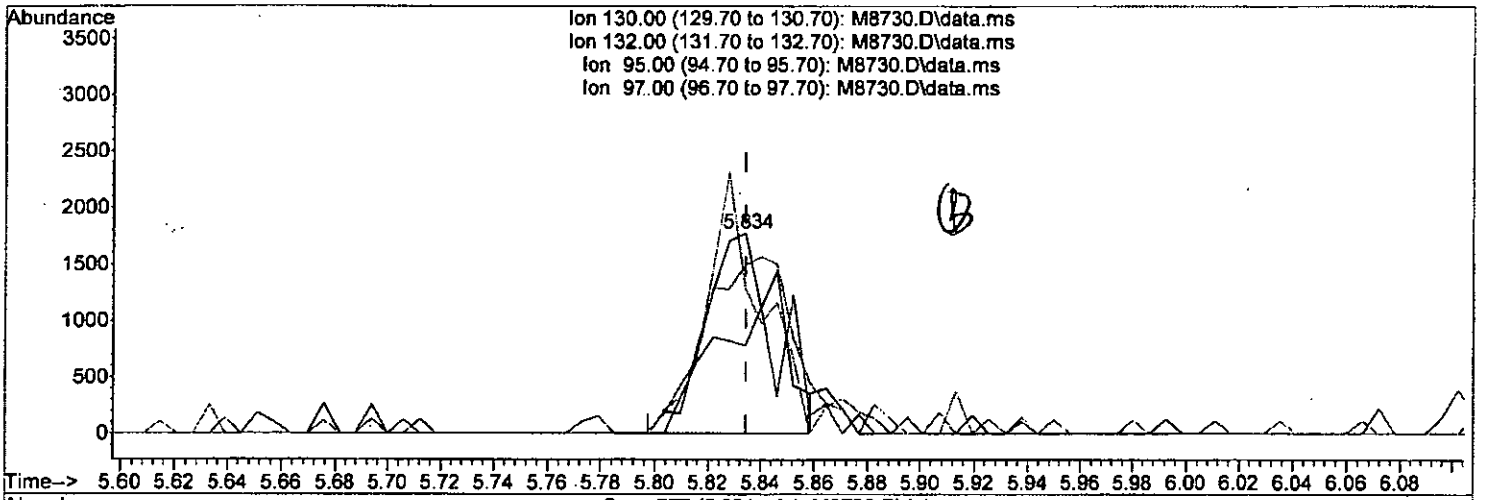
response 3913

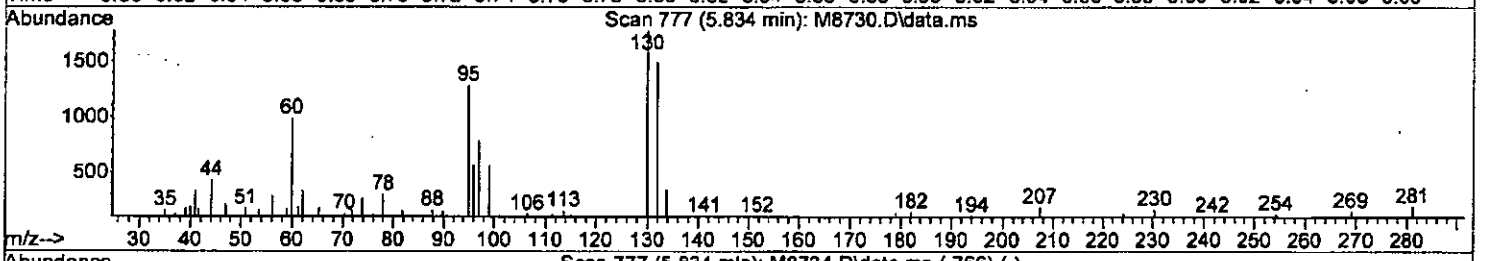
Ion	Exp%	Act%
62.00	100	100
64.00	32.40	27.59
49.00	33.30	37.86
98.00	8.50	11.43

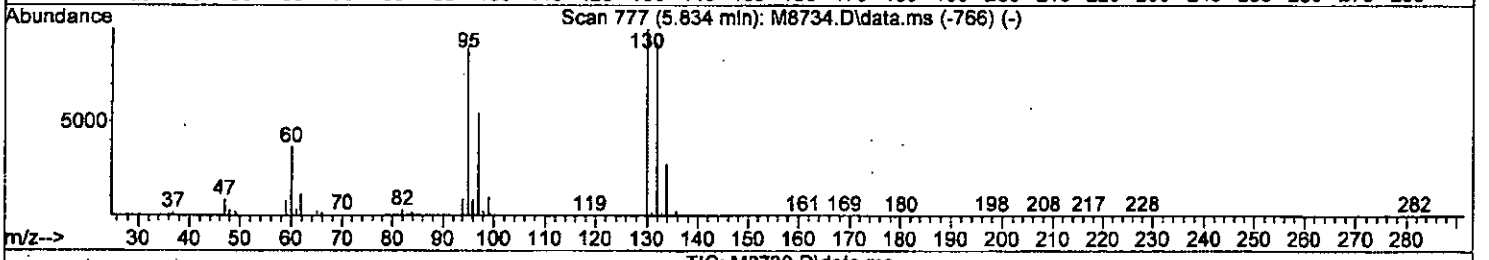
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(54) Trichloroethene (P)

5.834min (-0.000) 0.43 ppb

response 3360

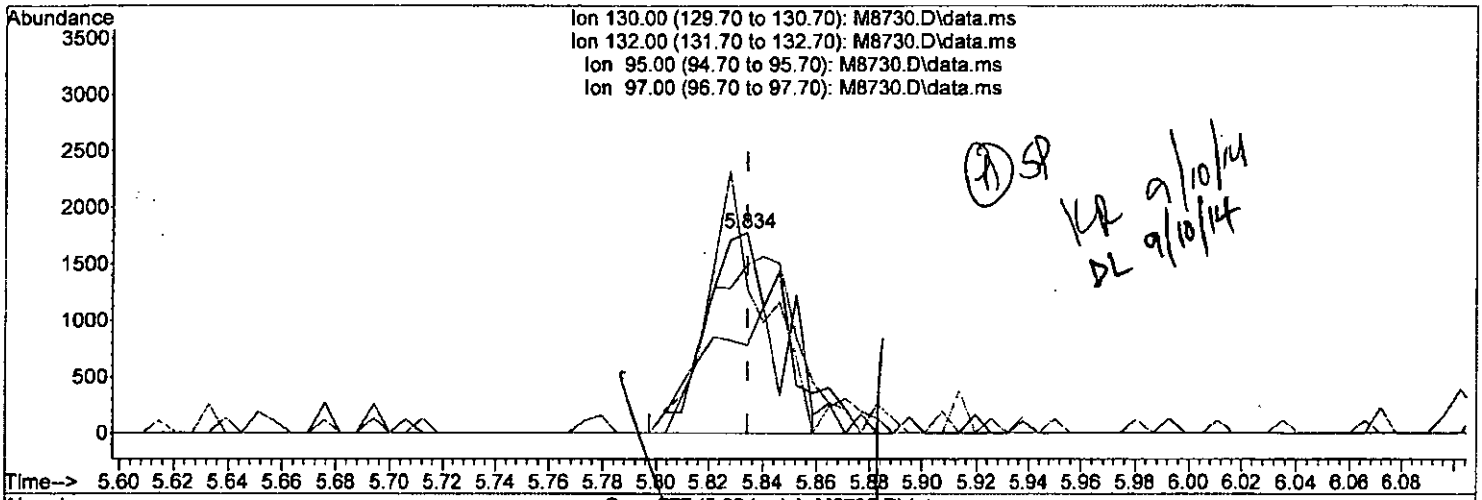
Ion	Exp%	Act%
130.00	100	100
132.00	92.70	83.95
95.00	91.00	72.24
97.00	55.00	43.81

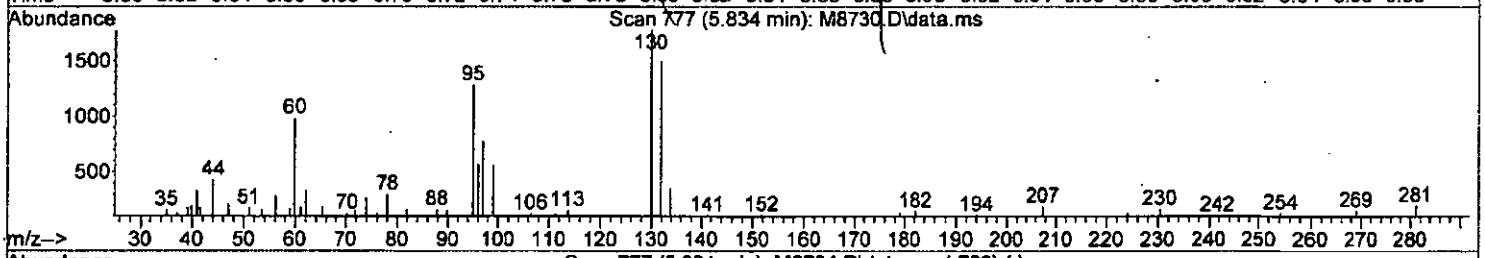
00263

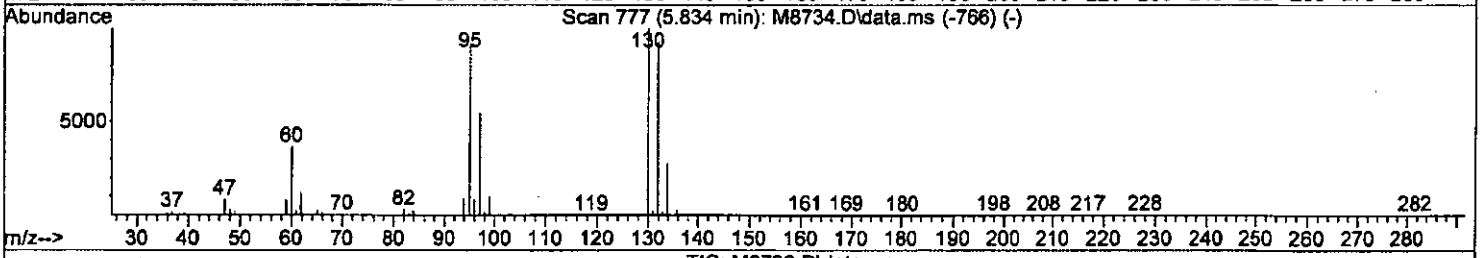
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoal2\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(54) Trichloroethene (P)

5.834min (-0.000) 0.46 ppb m

response 3585

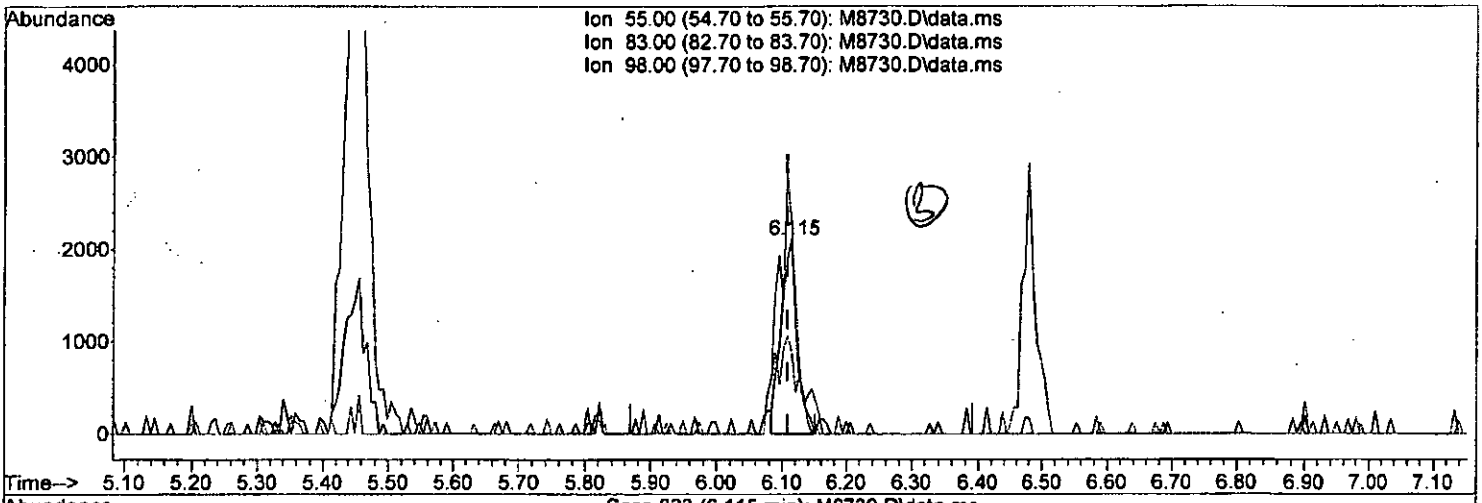
Ion	Exp%	Act%
130.00	100	100
132.00	92.70	83.95
95.00	91.00	72.24
97.00	55.00	43.81

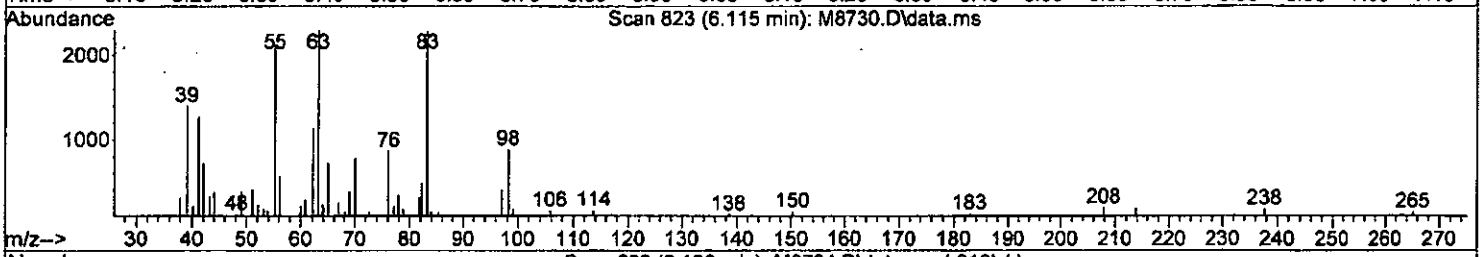
00264

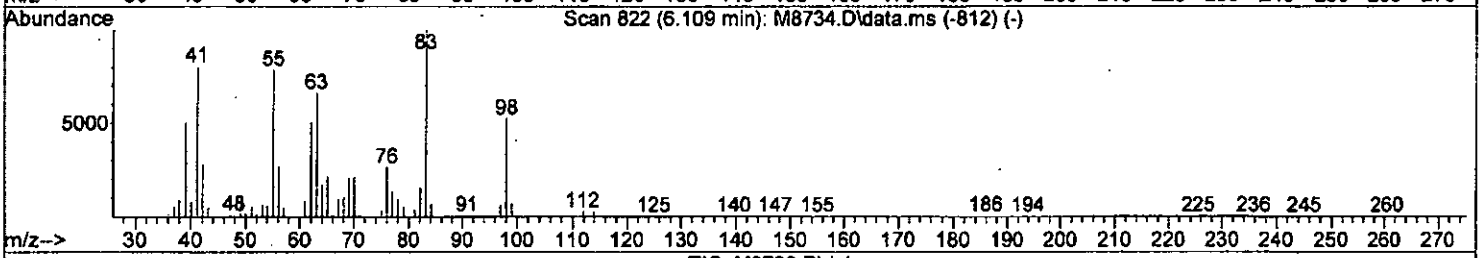
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(55) Methylcyclohexane (P)

6.115min (+0.006) 0.44 ppb

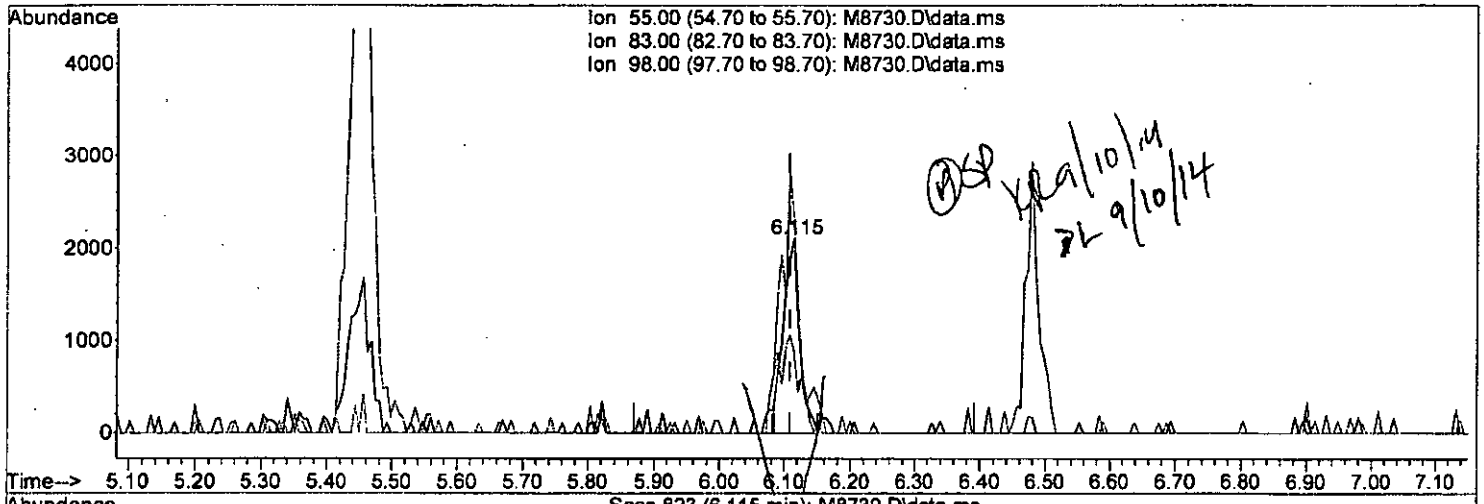
response 3517

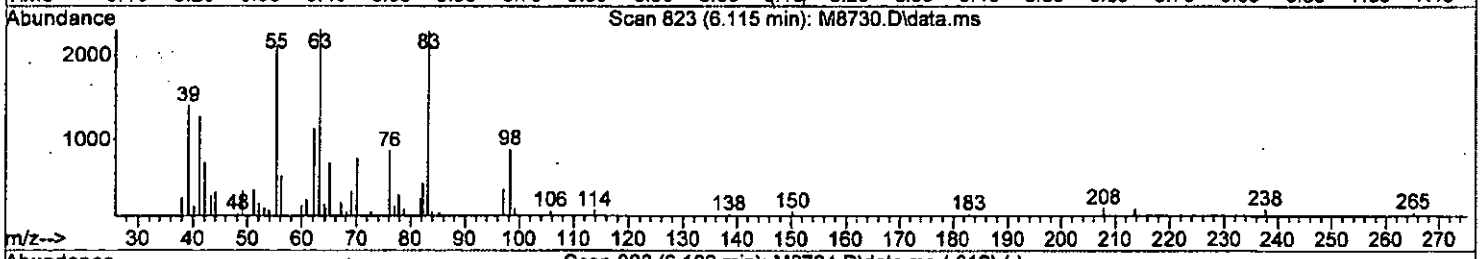
Ion	Exp%	Act%
55.00	100	100
83.00	127.40	107.89
98.00	67.00	41.85#
0.00	0.00	0.00

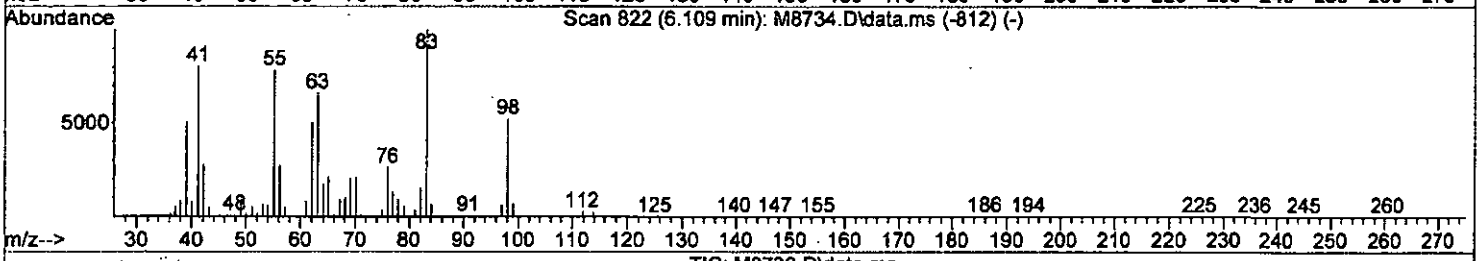
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(55) Methylcyclohexane (P)

6.115min (+0.006) 0.47 ppb m

response 3762

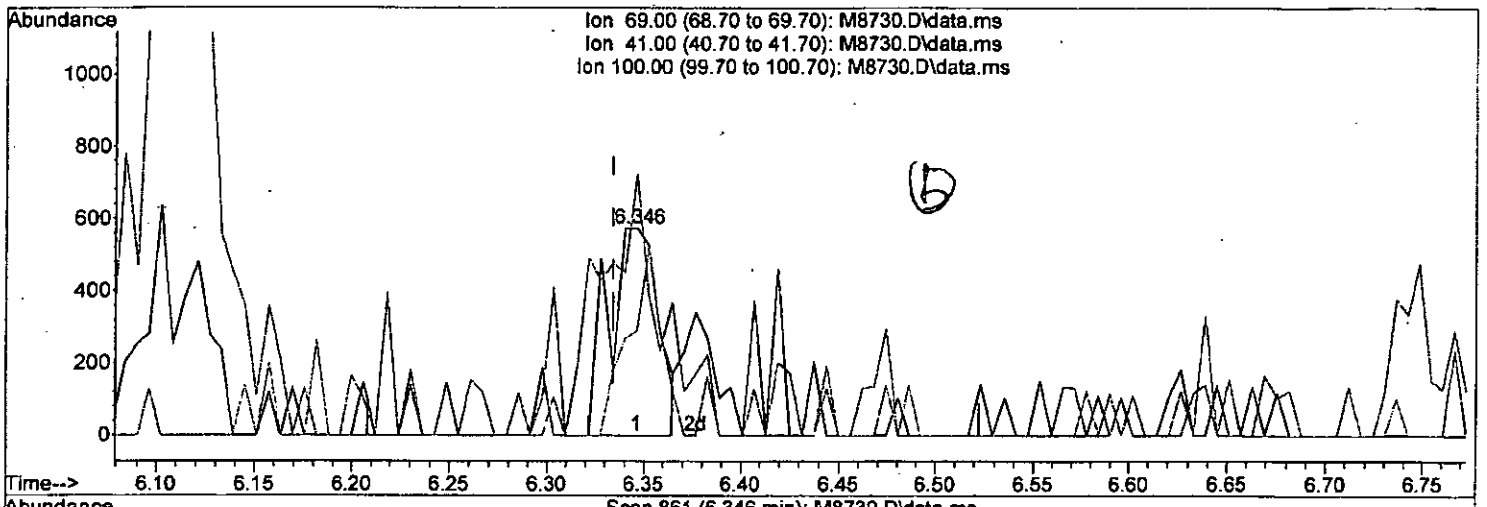
Ion	Exp%	Act%
55.00	100	100
83.00	127.40	107.89
98.00	67.00	41.85#
0.00	0.00	0.00

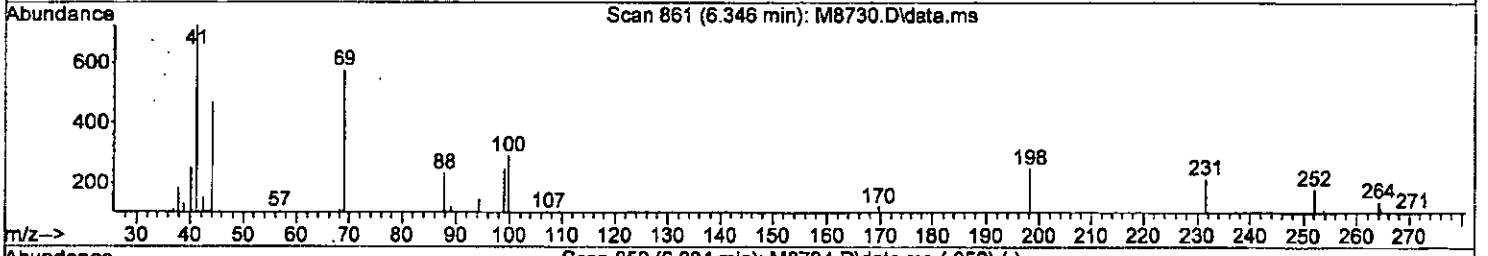
00266

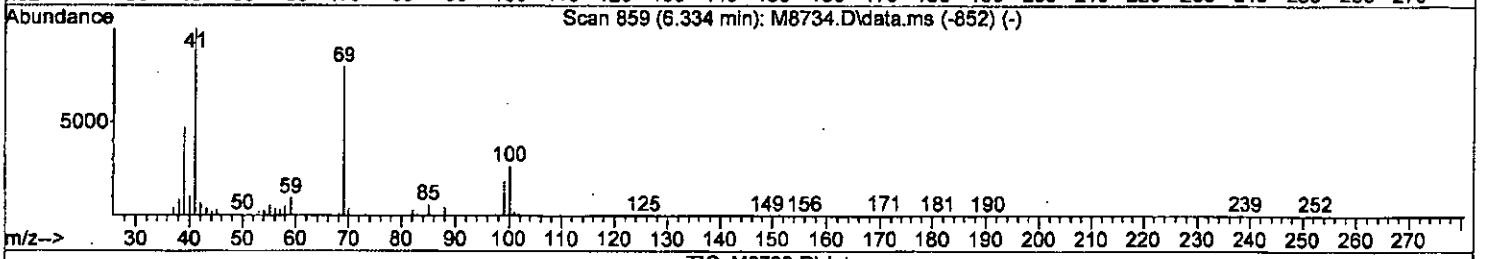
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(59) Methyl Methacrylate

6.346min (+0.012) 0.30 ppb

response 1021

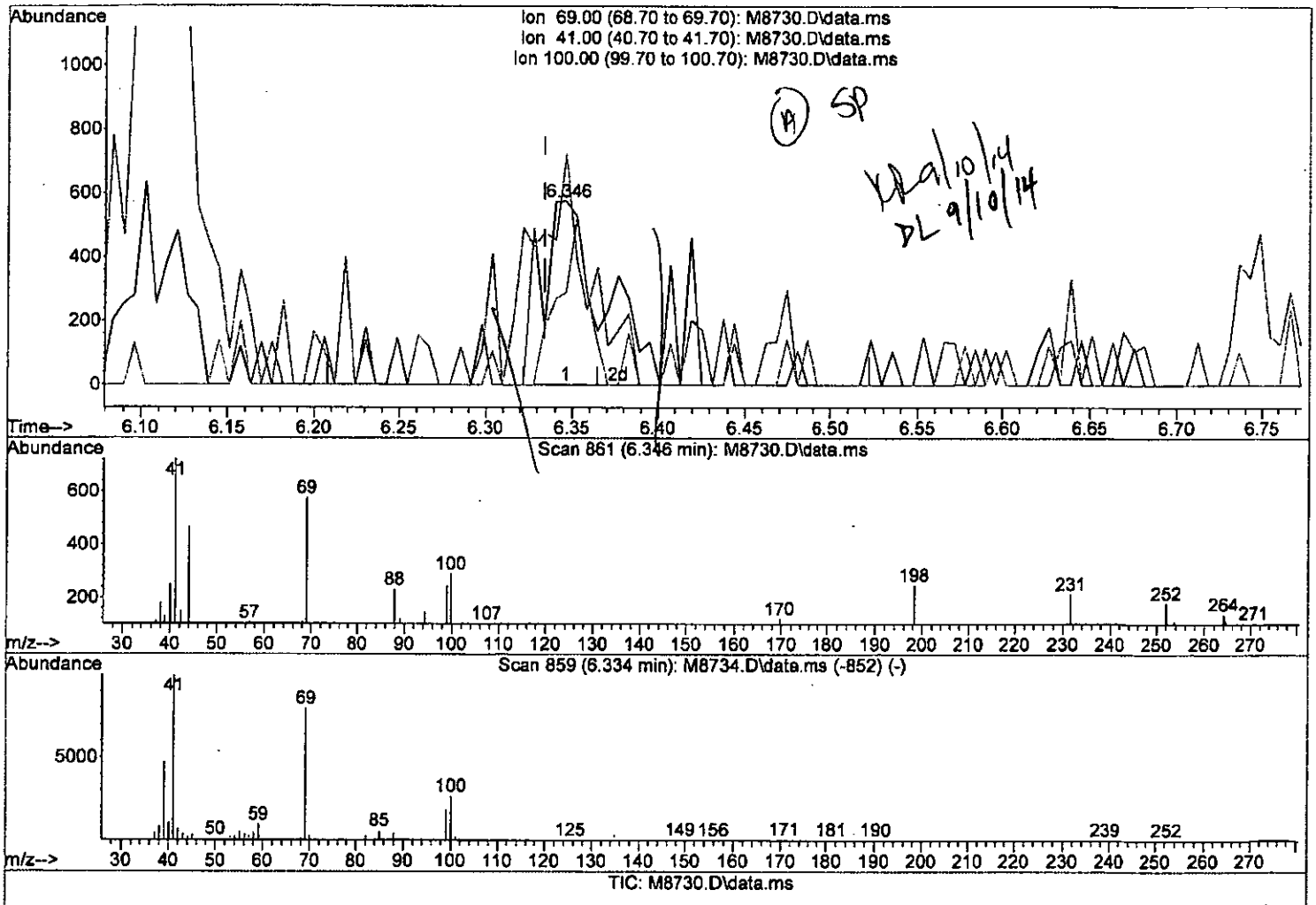
Ion	Exp%	Act%
69.00	100	100
41.00	125.90	125.61
100.00	33.40	50.35
0.00	0.00	0.00

00267

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(59) Methyl Methacrylate

6.346min (+0.012) 0.42 ppb m

response 1415

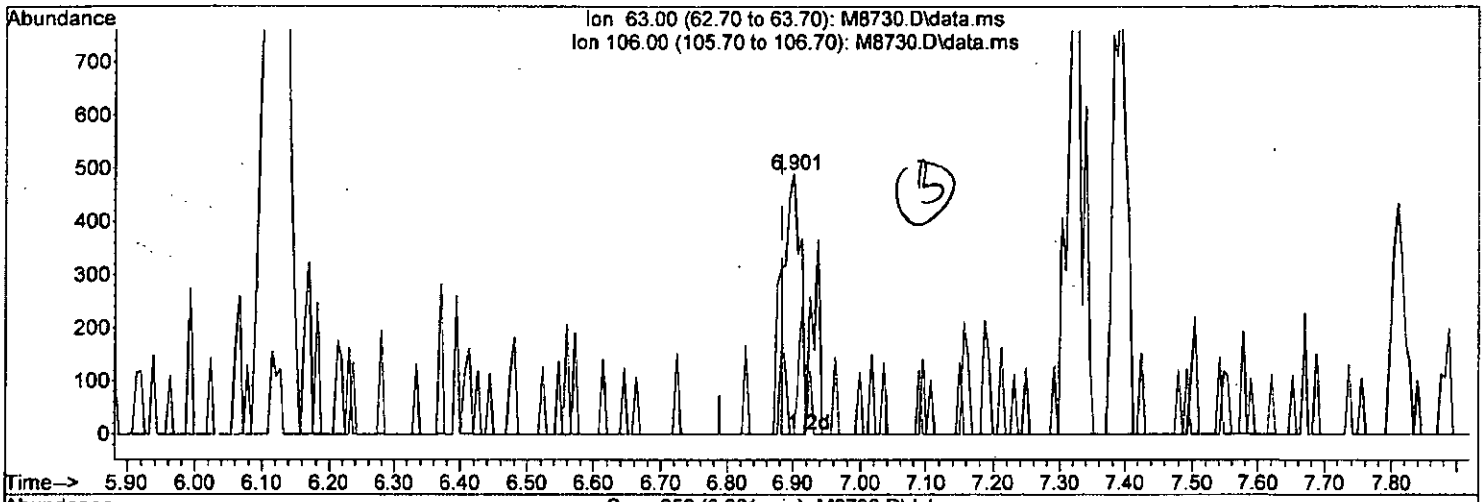
Ion	Exp%	Act%
69.00	100	100
41.00	125.90	125.61
100.00	33.40	50.35
0.00	0.00	0.00

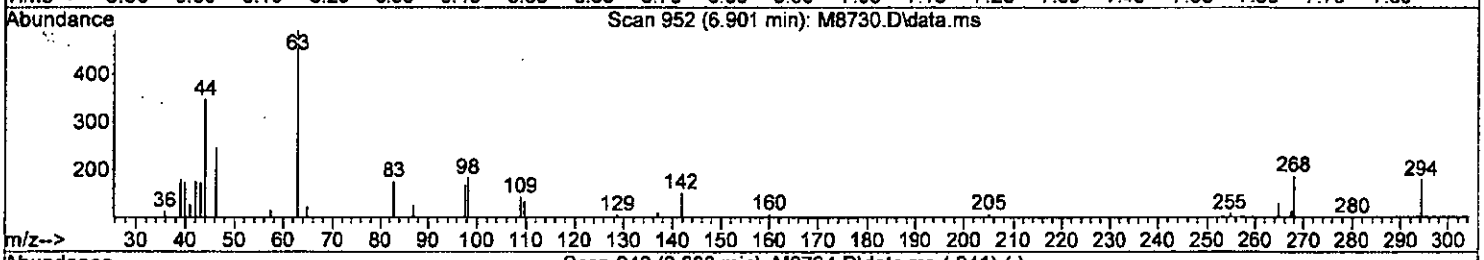
00268

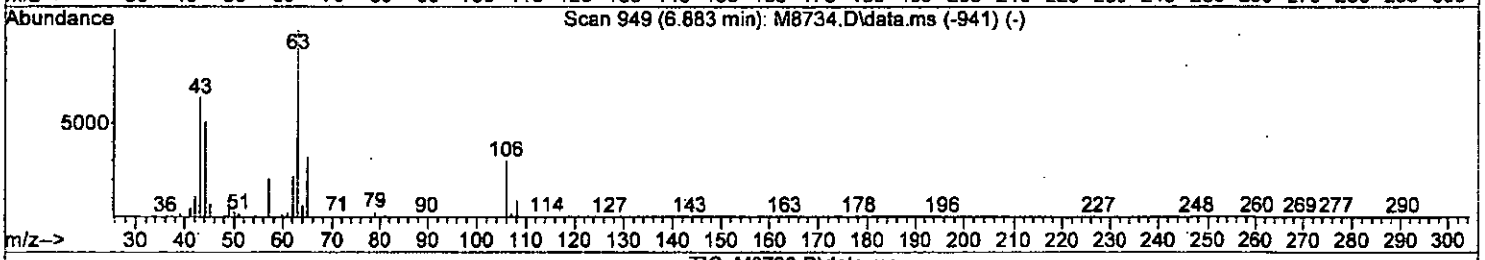
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(62) 2-Chloroethylvinyl Ether

6.901min (+0.018) 0.21 ppb

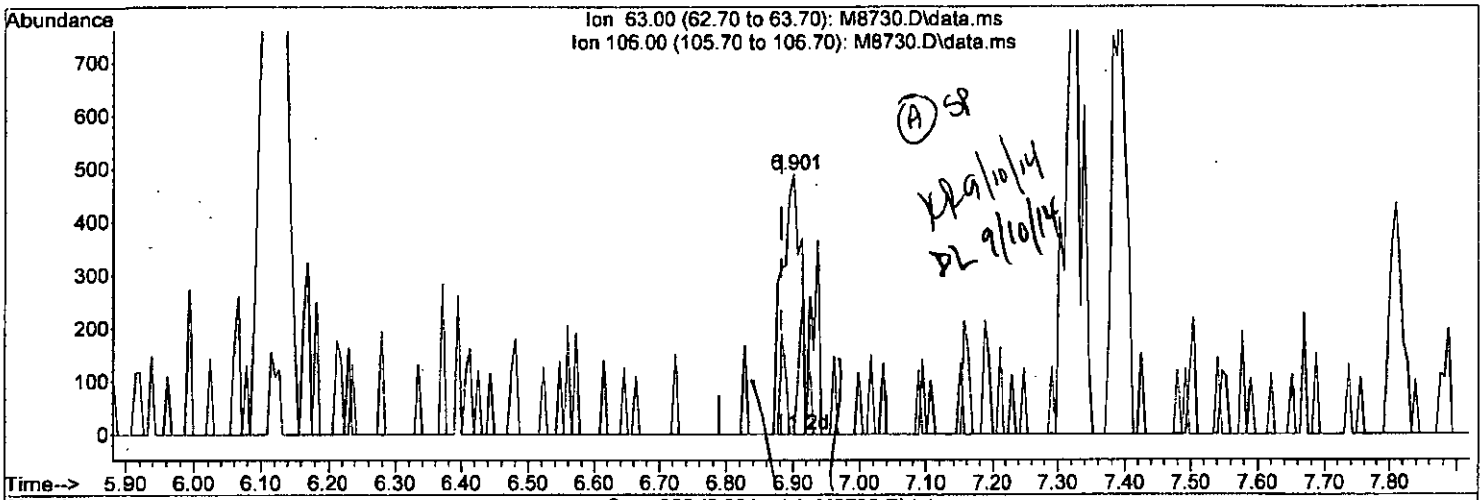
response 716

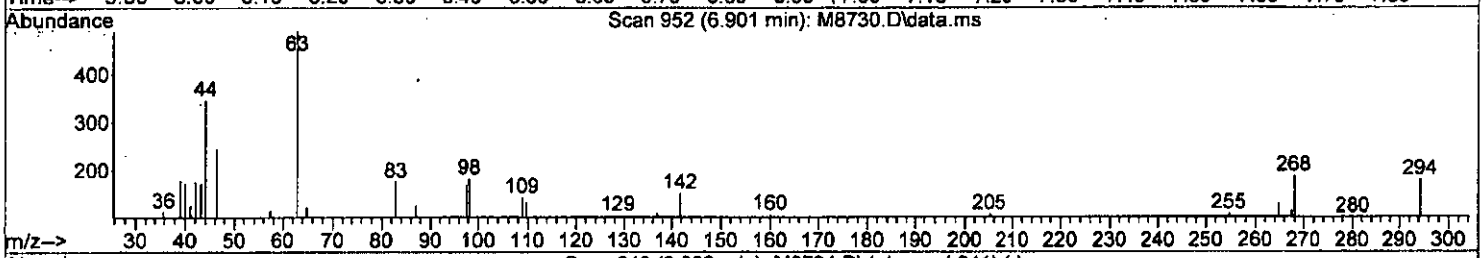
Ion	Exp%	Act%
63.00	100	100
106.00	30.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

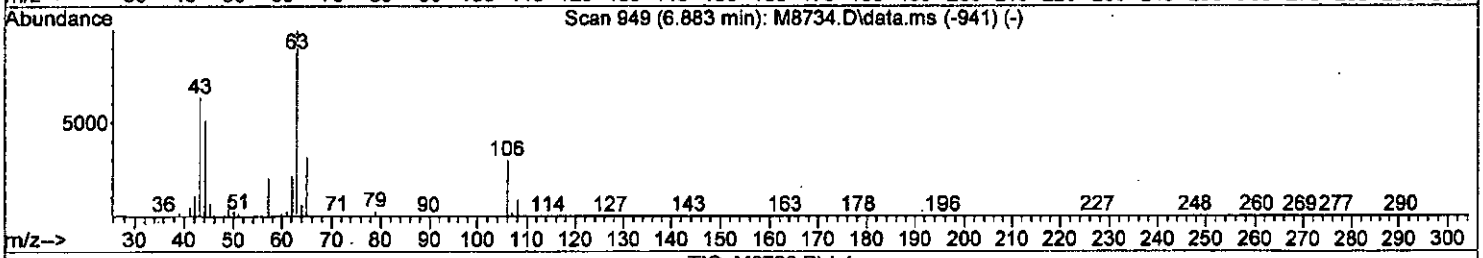
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(62) 2-Chloroethylvinyl Ether

6.901min (+0.018) 0.37 ppb m

response 1220

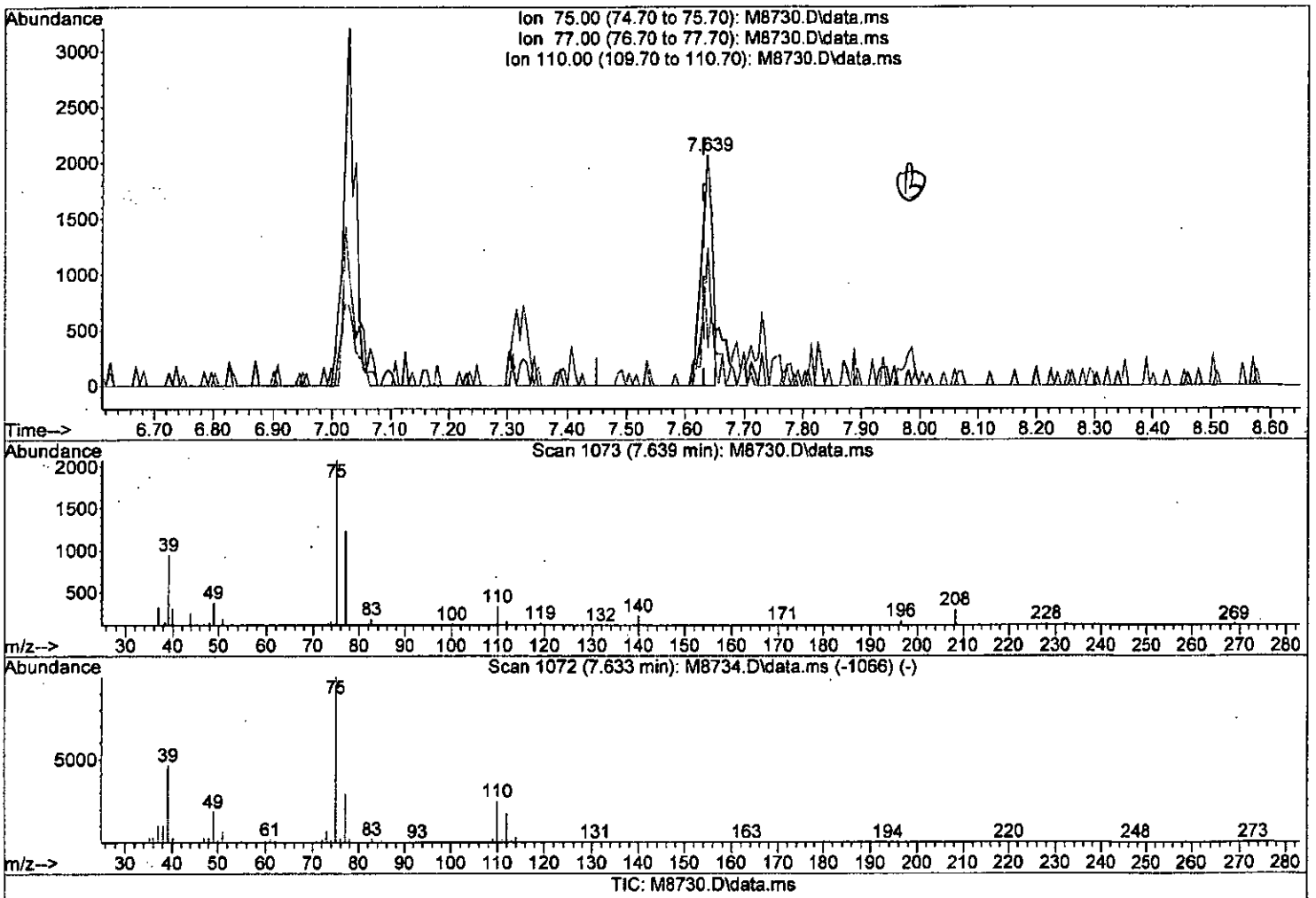
Ion	Exp%	Act%
63.00	100	100
106.00	30.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

00279

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(67) trans-1,3-Dichloropropene (P)

7.639min (+0.006) 0.30 ppb

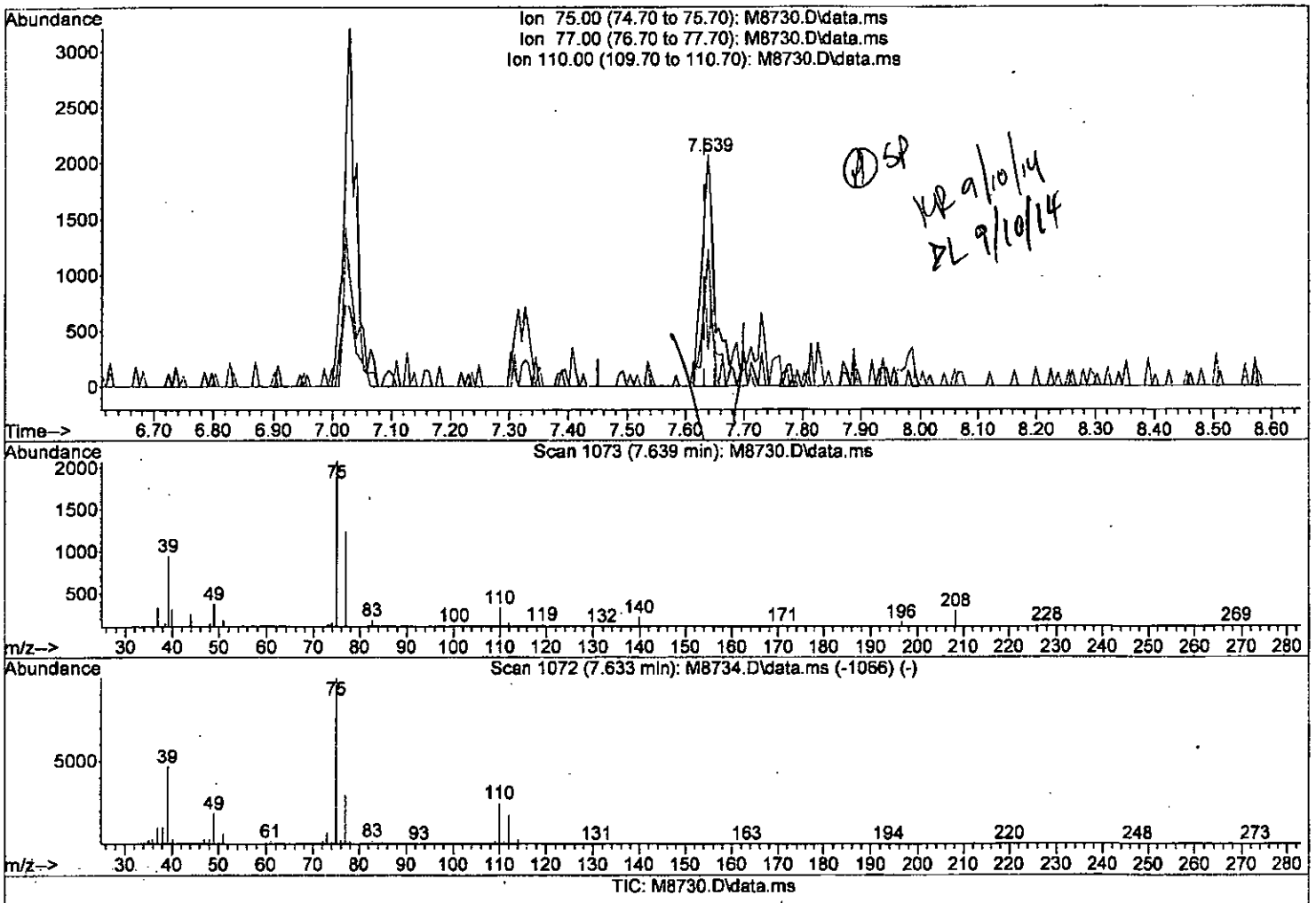
response 2577

Ion	Exp%	Act%
75.00	100	100
77.00	29.70	59.57#
110.00	24.70	15.96
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(67) trans-1,3-Dichloropropene (P)

7.639min (+0.006) 0.37 ppb m

response 3193

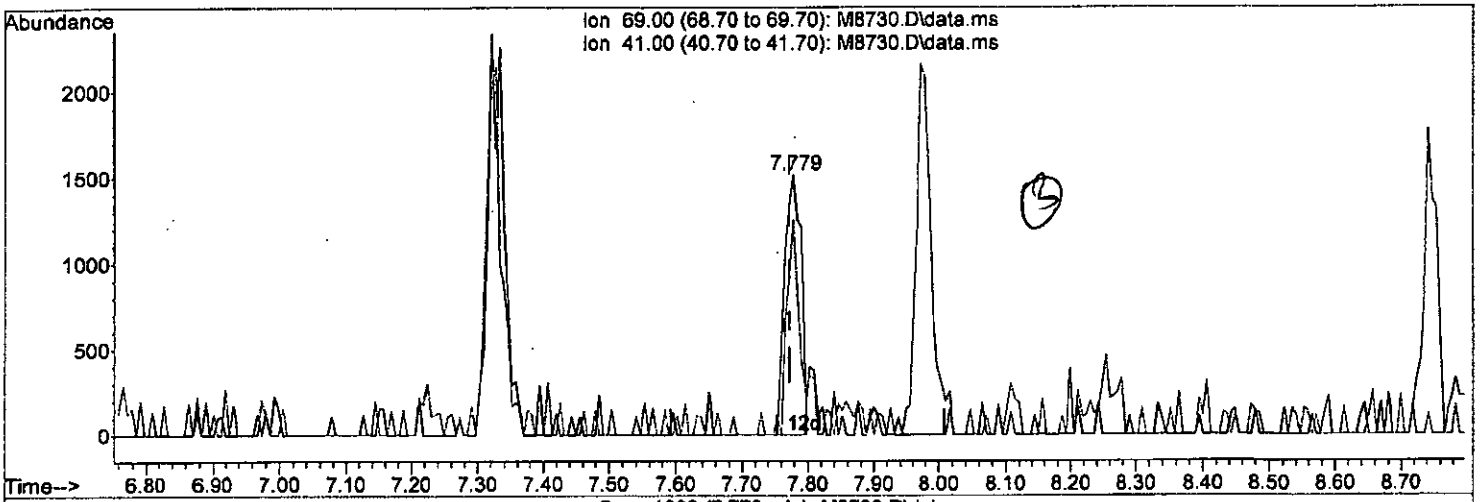
Ion	Exp%	Act%
75.00	100	100
77.00	29.70	59.57#
110.00	24.70	15.96
0.00	0.00	0.00

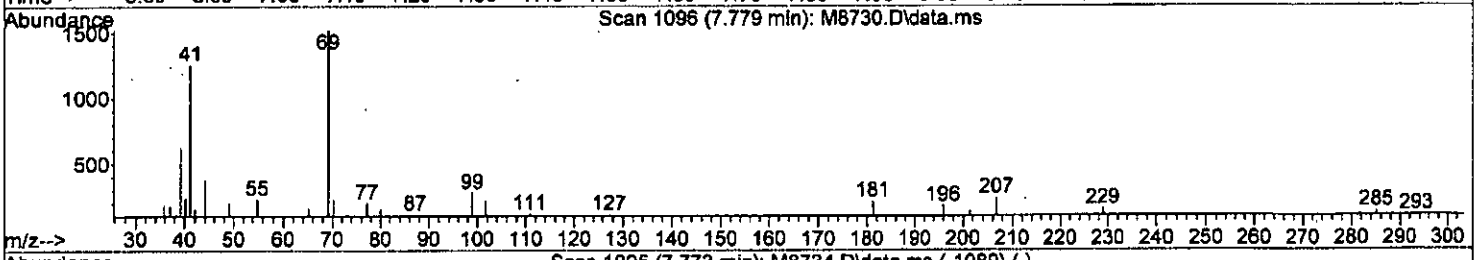
00272

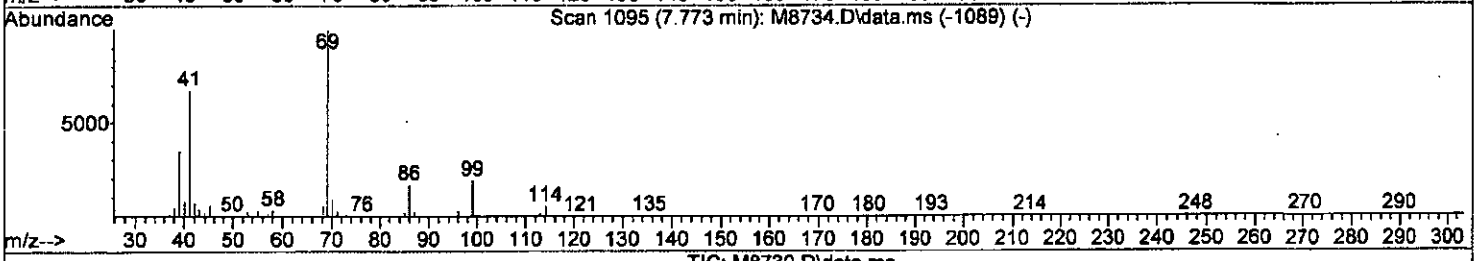
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(68) Ethyl Methacrylate

7.779min (+0.006) 0.38 ppb

response 2592

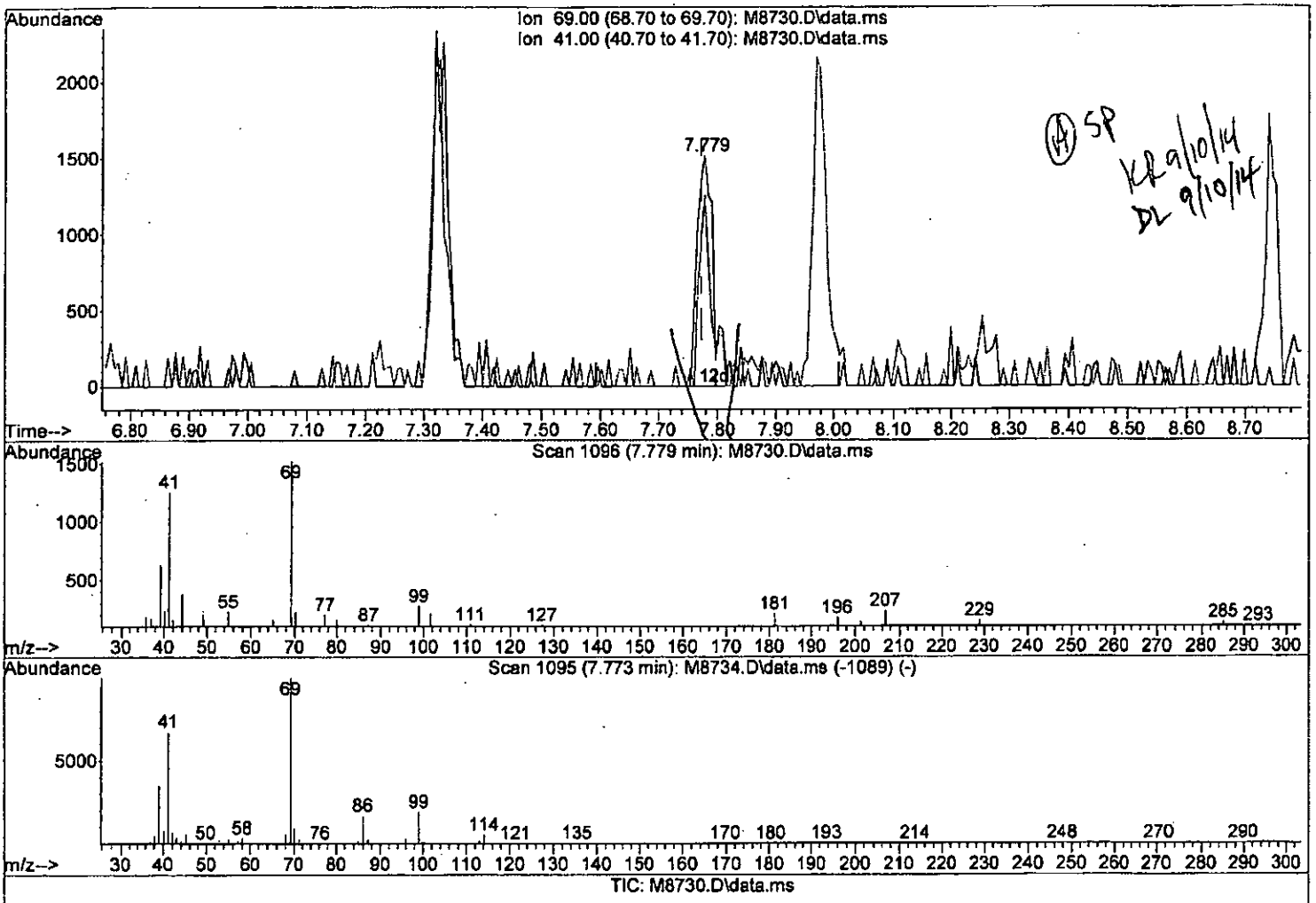
Ion	Exp%	Act%
69.00	100	100
41.00	67.80	82.67
0.00	0.00	0.00
0.00	0.00	0.00

00273

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(68) Ethyl Methacrylate

7.779min (+0.006) 0.42 ppb m

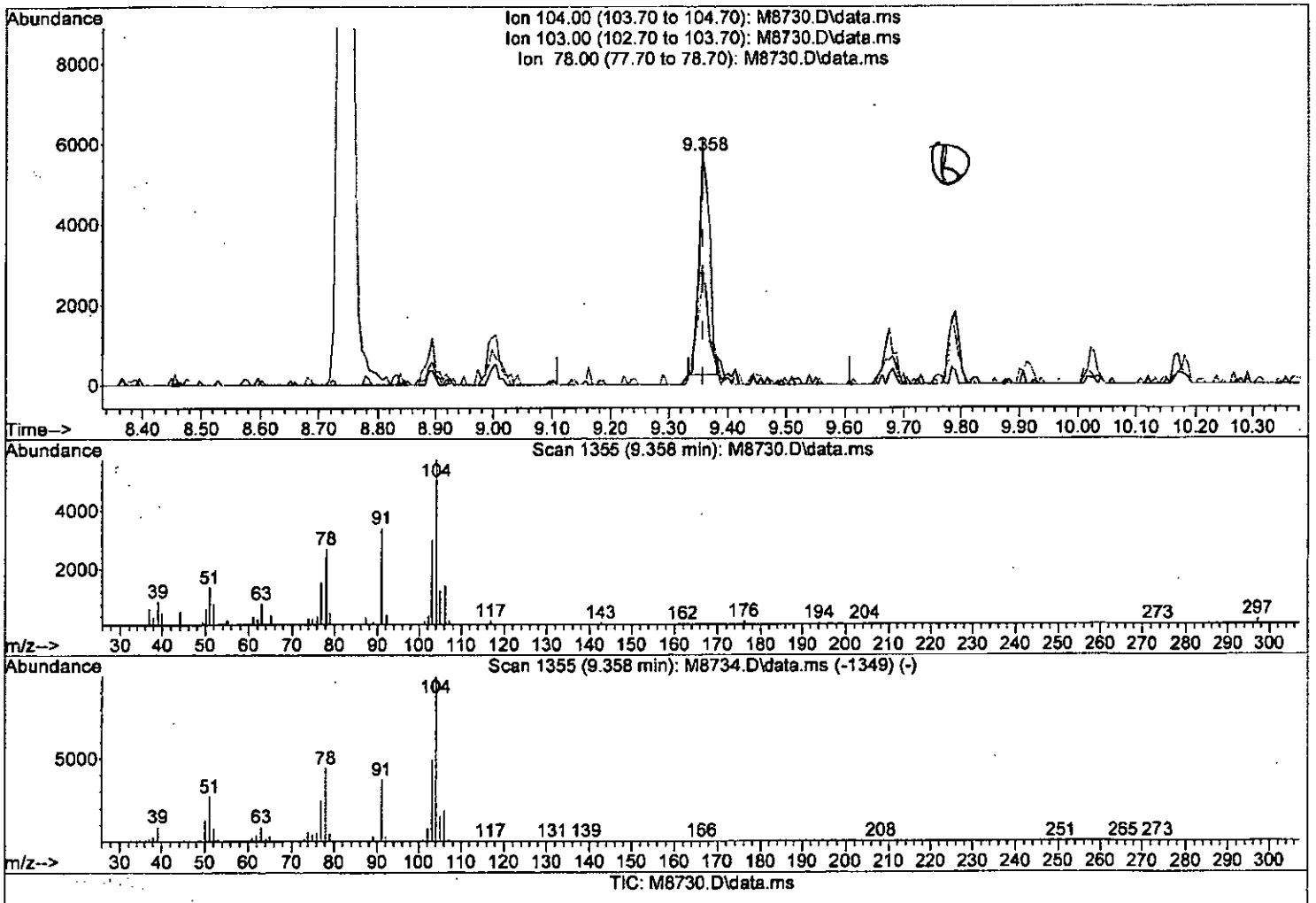
response 2915

Ion	Exp%	Act%
69.00	100	100
41.00	67.80	82.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(85) Styrene (P)

9.358min (-0.000) 0.33 ppb

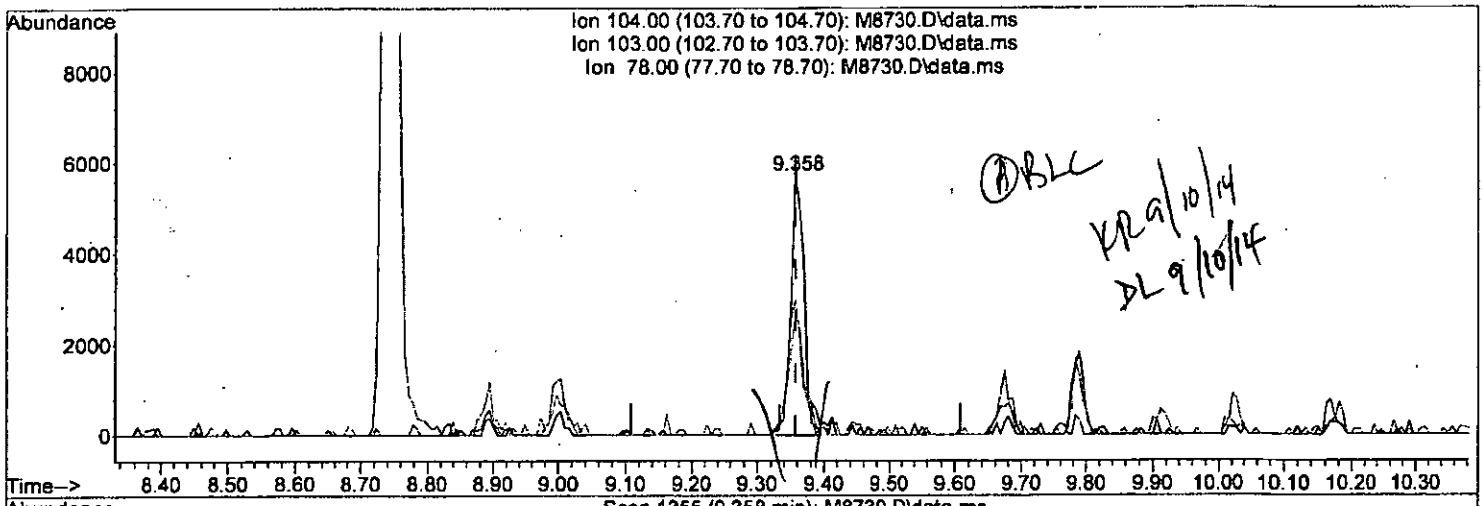
response 6912

Ion	Exp%	Act%
104.00	100	100
103.00	49.60	52.03
78.00	44.20	46.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(85) Styrene (P)

9.358min (-0.000) 0.39 ppb m

response 8076

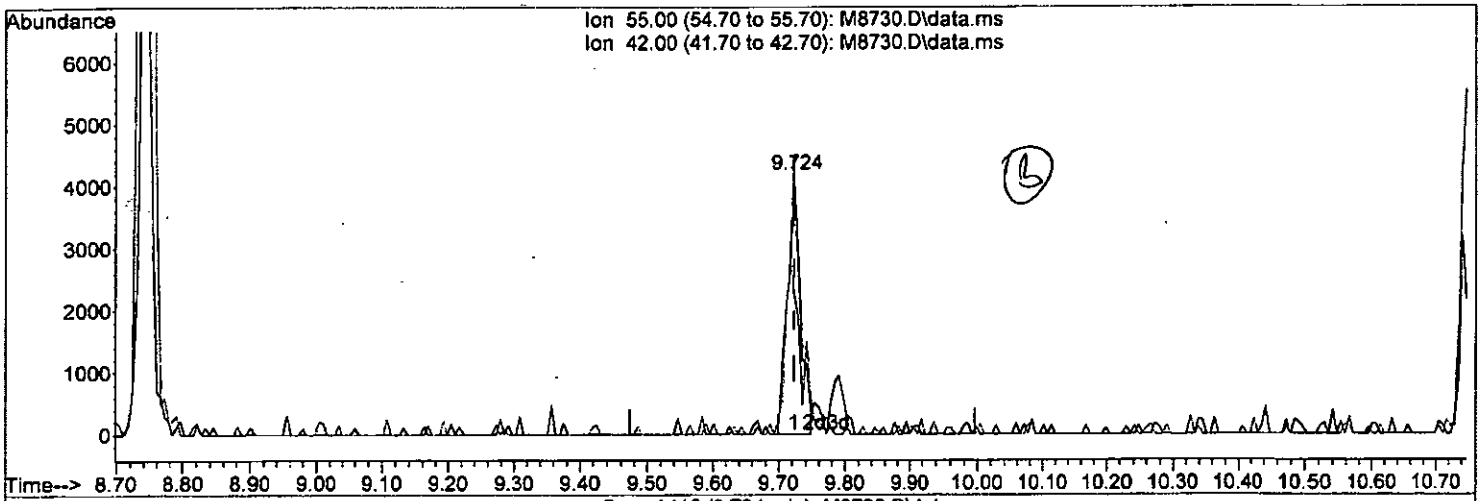
Ion	Exp%	Act%
104.00	100	100
103.00	49.60	52.03
78.00	44.20	46.89
0.00	0.00	0.00

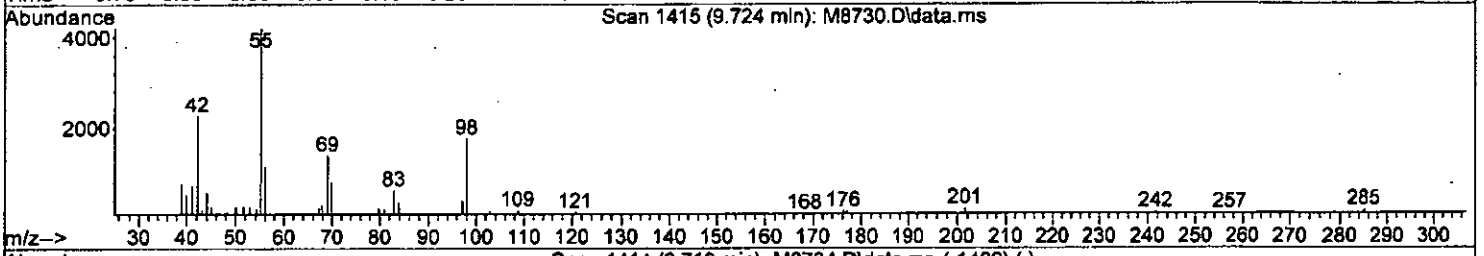
00276

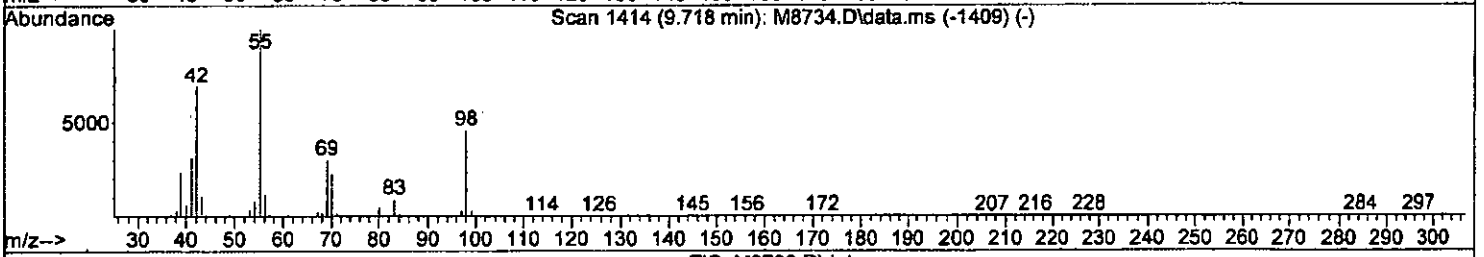
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(90) Cyclohexanone

9.724min (-0.000) 8.11 ppb

response 5669

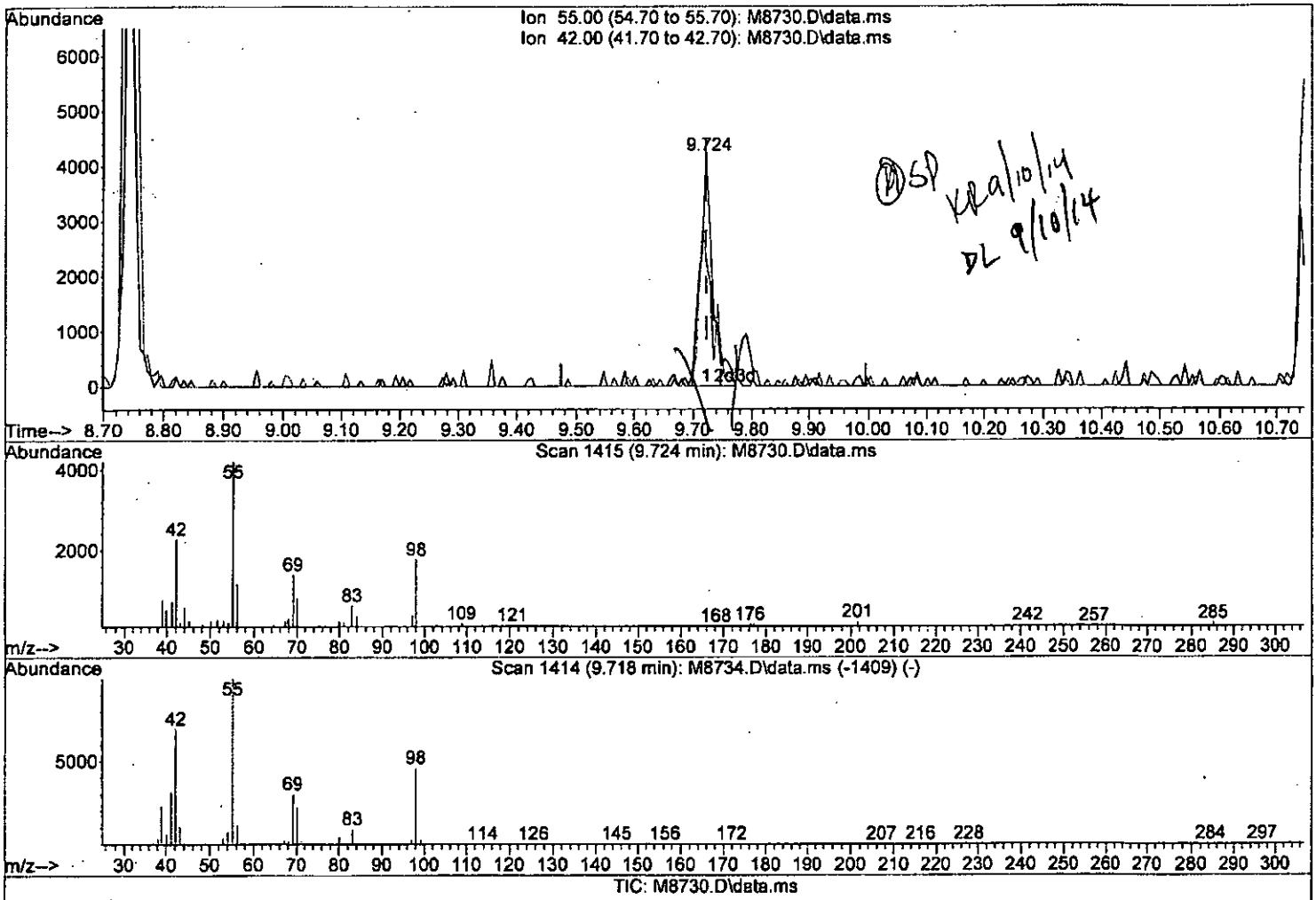
Ion	Exp%	Act%
55.00	100	100
42.00	69.50	53.85
0.00	0.00	0.00
0.00	0.00	0.00

00277

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(90) Cyclohexanone

9.724min (-0.000) 8.74 ppb m

response 6105

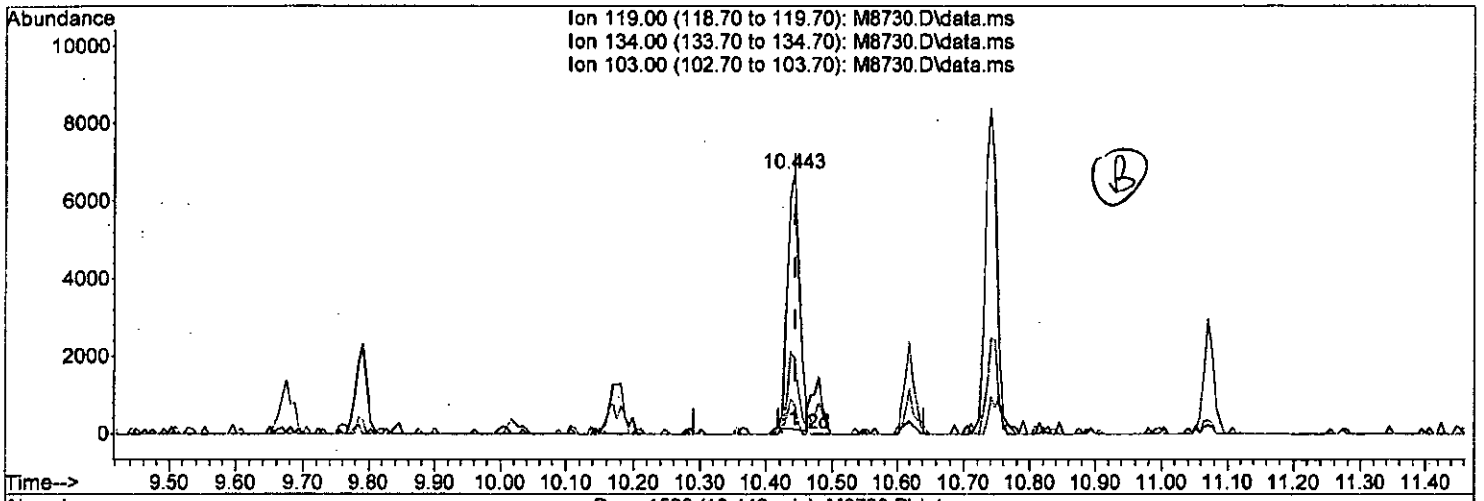
Ion	Exp%	Act%
55.00	100	100
42.00	69.50	53.85
0.00	0.00	0.00
0.00	0.00	0.00

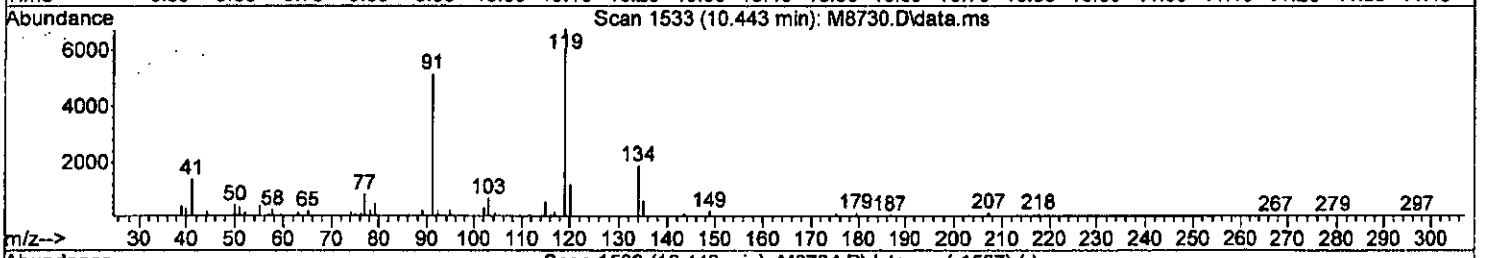
00278

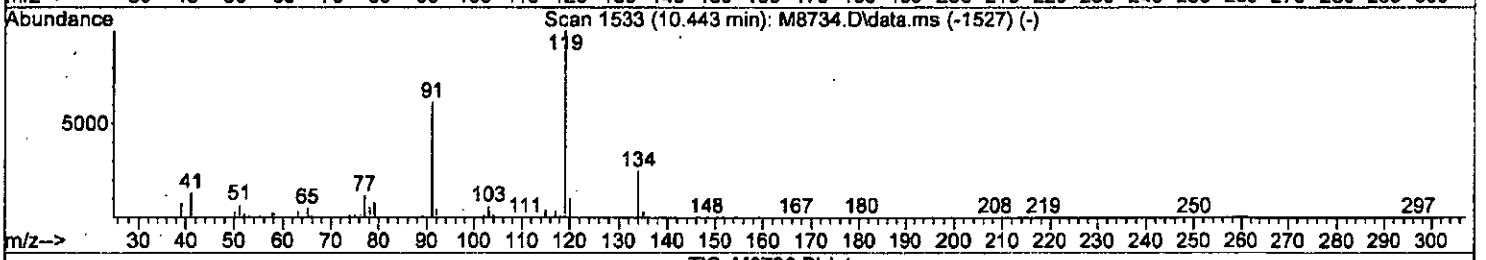
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(100) tert-Butylbenzene

10.443min (-0.000) 0.41 ppb

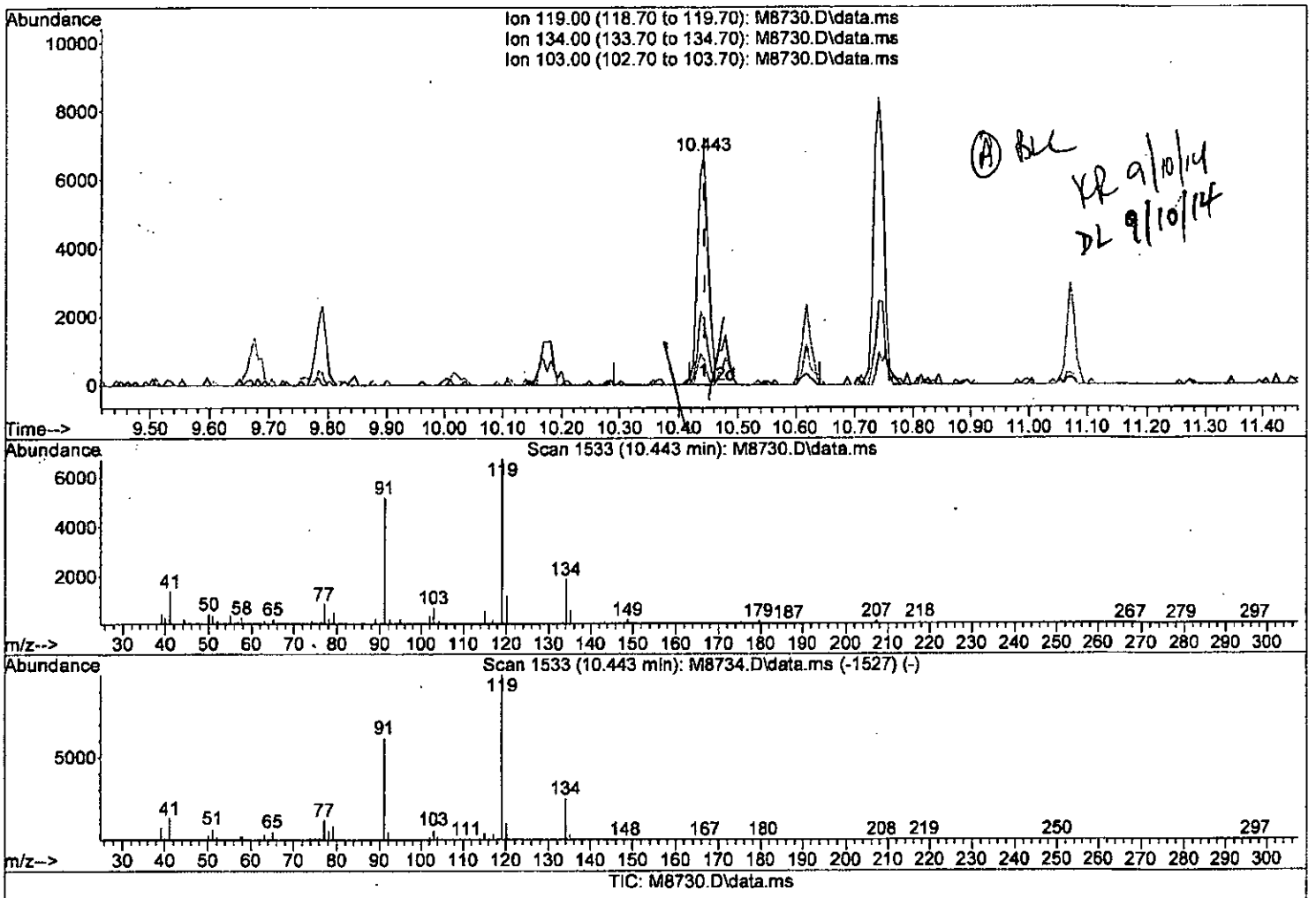
response 6320

Ion	Exp%	Act%
119.00	100	100
134.00	24.80	27.90
103.00	6.00	10.80
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(100) tert-Butylbenzene

10.443min (-0.000) 0.43 ppb m

response 8683

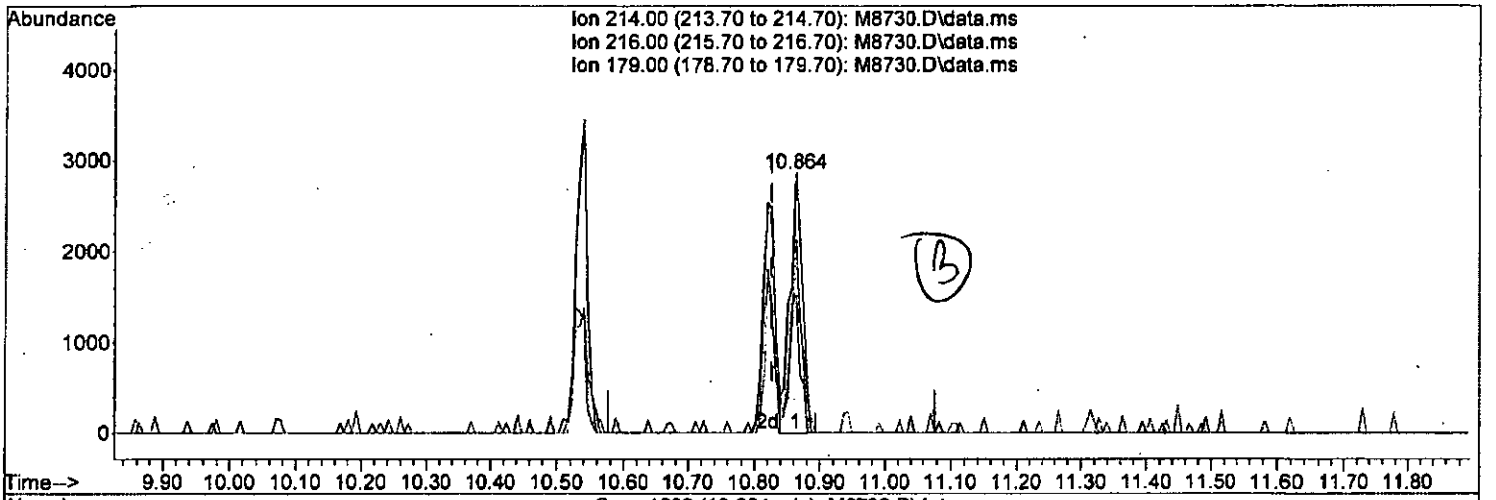
Ion	Exp%	Act%
119.00	100	100
134.00	24.80	27.90
103.00	6.00	10.80
0.00	0.00	0.00

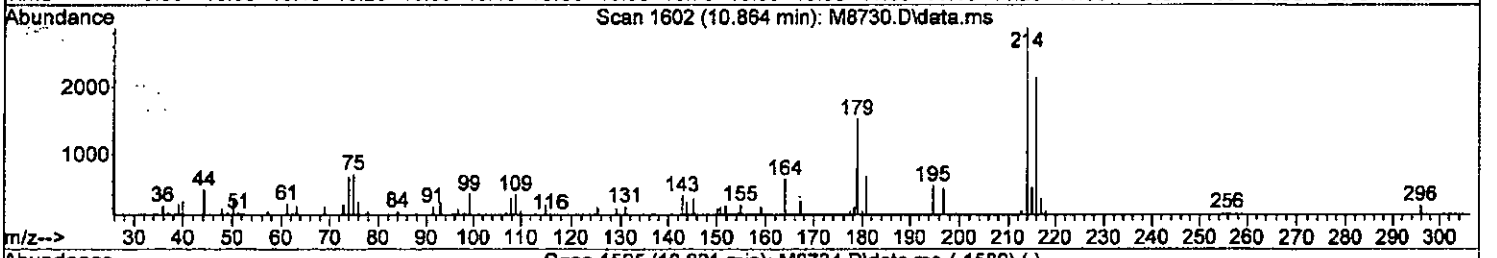
00280

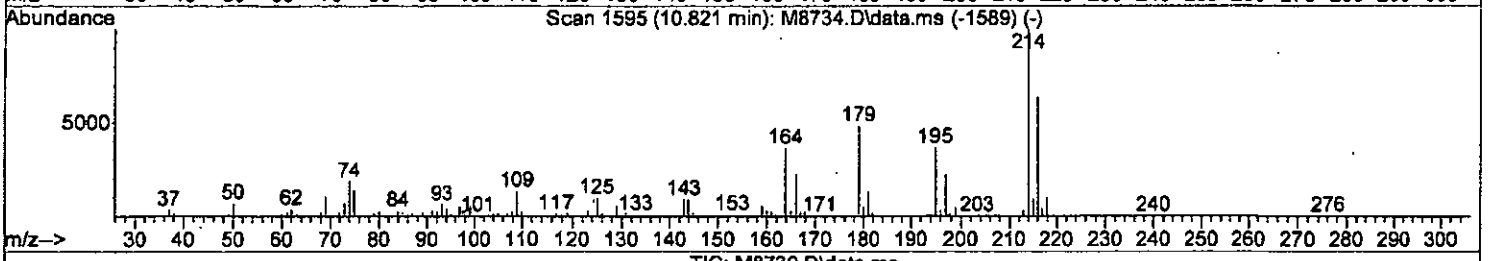
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(107) 2,4-DCBTF

10.864min (+0.036) 0.62 ppb

response 3699

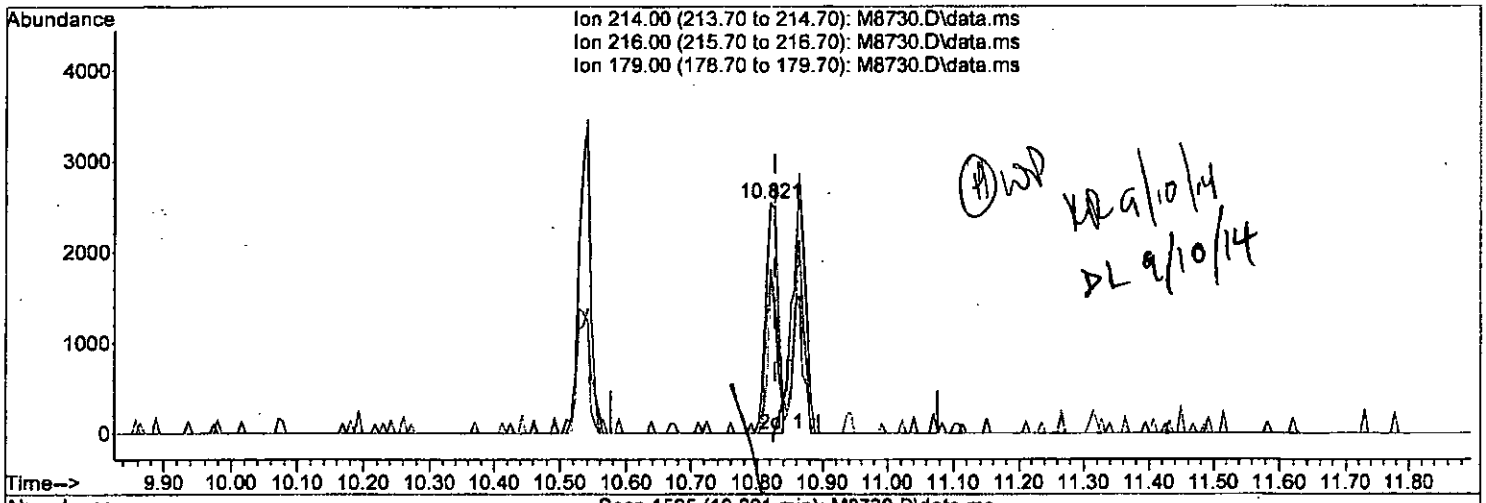
Ion	Exp%	Act%
214.00	100	100
216.00	63.60	74.22
179.00	48.30	52.95
0.00	0.00	0.00

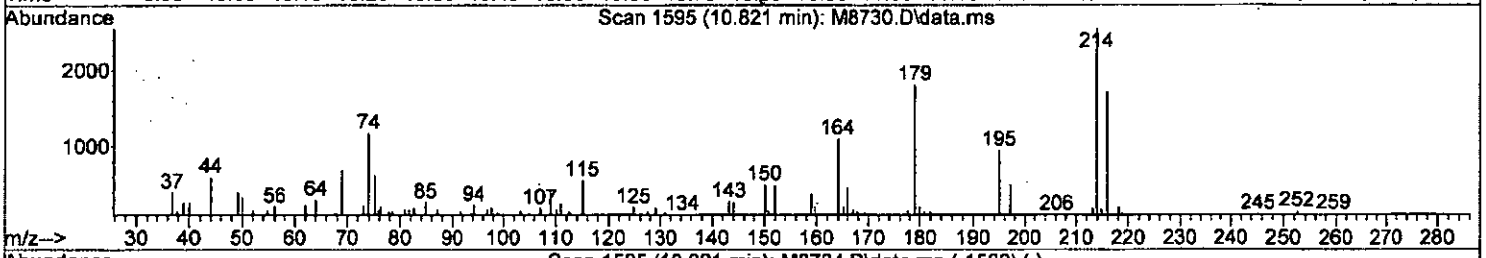
00281

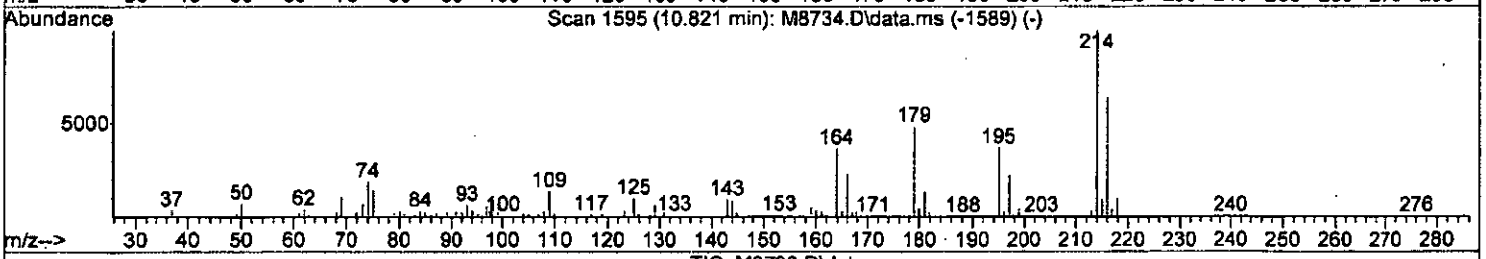
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(107) 2,4-DCBTF

10.821min (-0.006) 0.55 ppb m

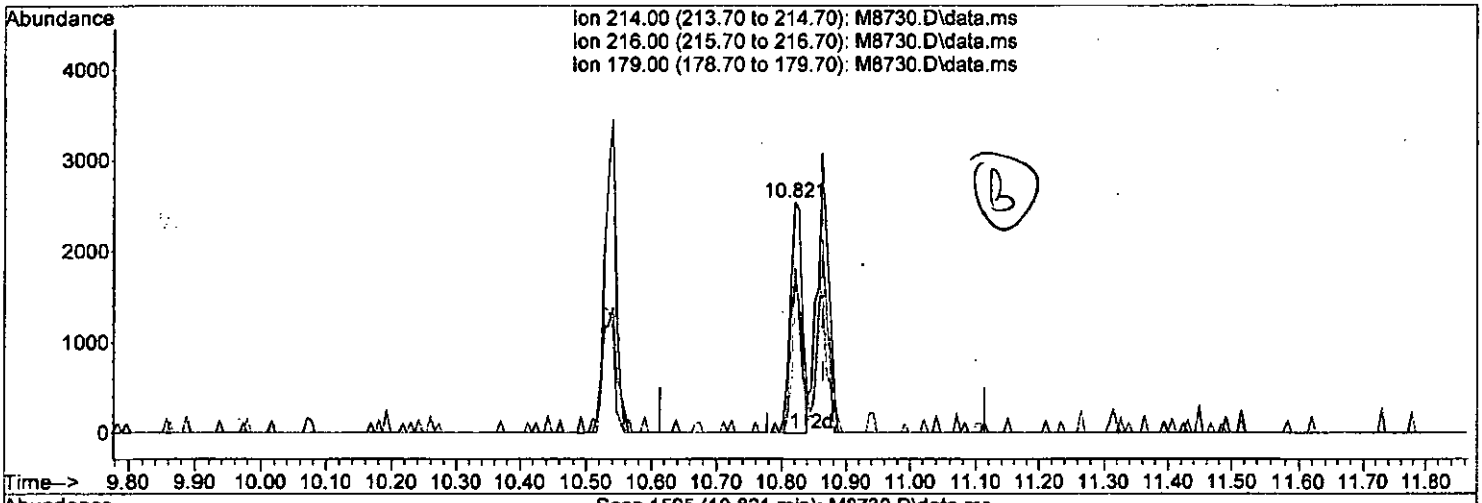
response 3273

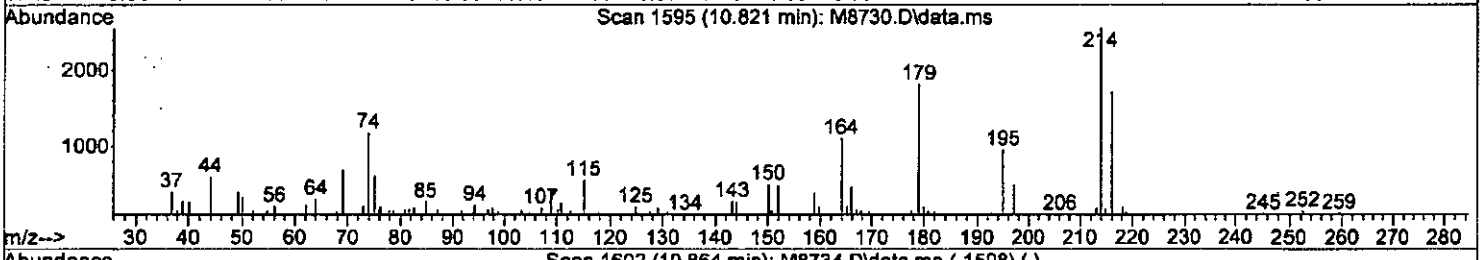
Ion	Exp%	Act%
214.00	100	100
216.00	63.60	67.47
179.00	48.30	70.96#
0.00	0.00	0.00

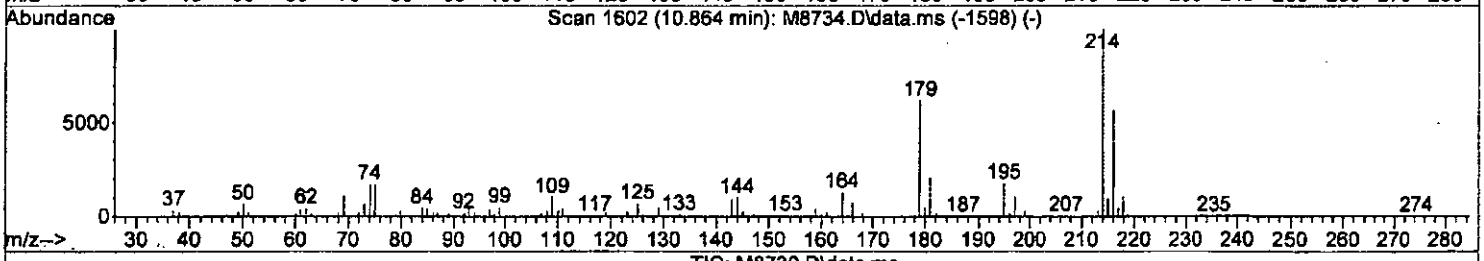
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(108) 2,5-DCBTF

10.821min (-0.043) 0.49 ppb

response 3314

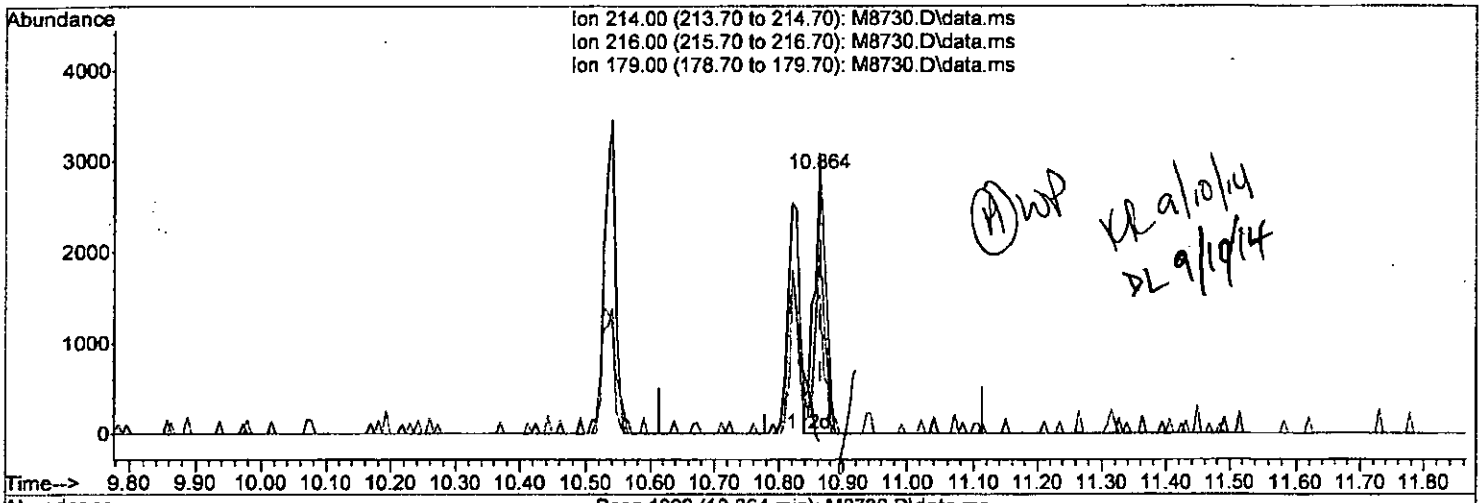
Ion	Exp%	Act%
214.00	100	100
216.00	58.80	67.47
179.00	61.90	70.96
0.00	0.00	0.00

00283

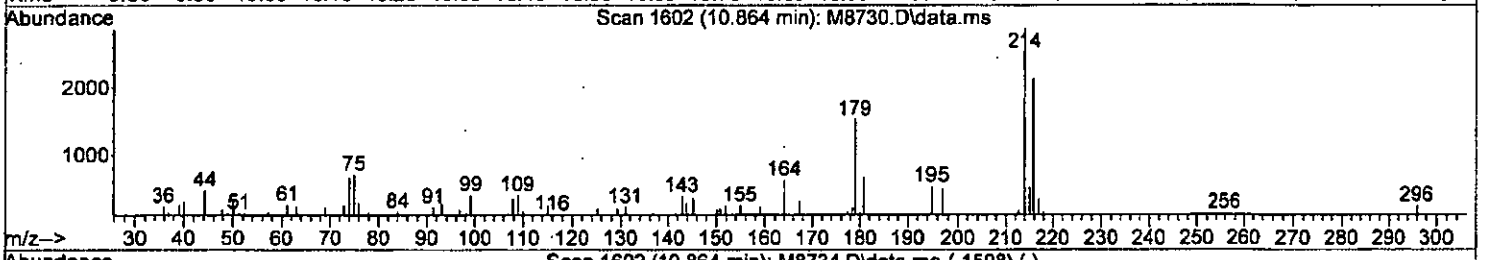
Quantitation Report (Qedit)

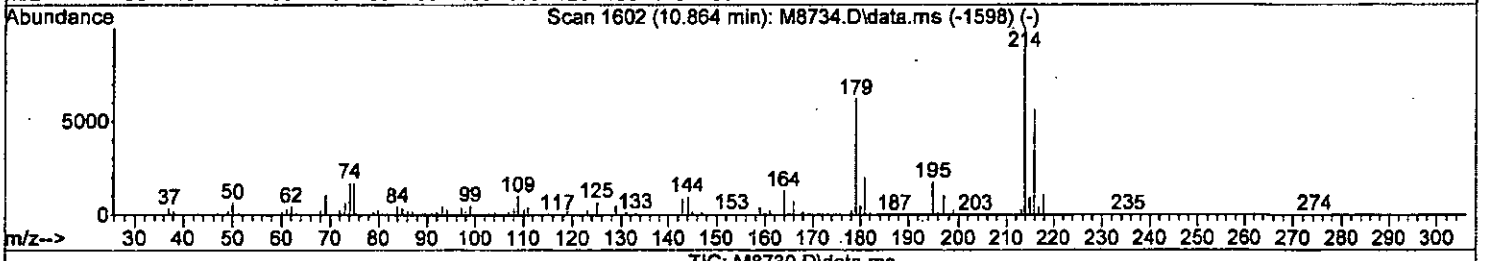
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



KL 9/10/14
DL 9/10/14





TIC: M8730.D\data.ms

(108) 2,5-DCBTF

10.864min (-0.000) 0.55 ppb m

response 3699

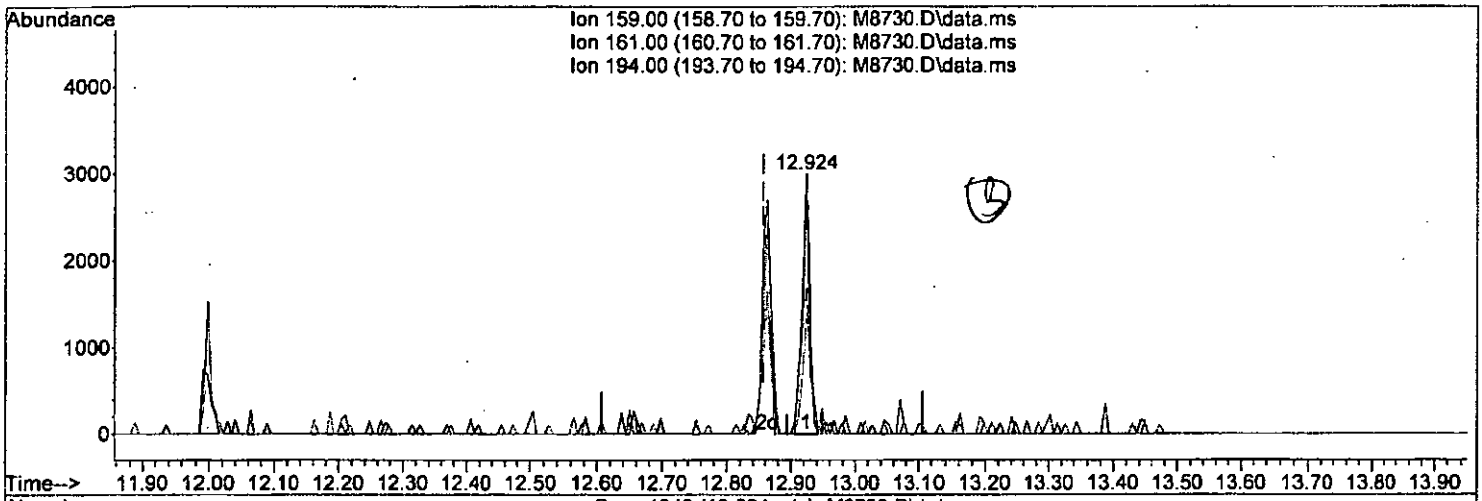
Ion	Exp%	Act%
214.00	100	100
216.00	58.80	74.22#
179.00	61.90	52.95
0.00	0.00	0.00

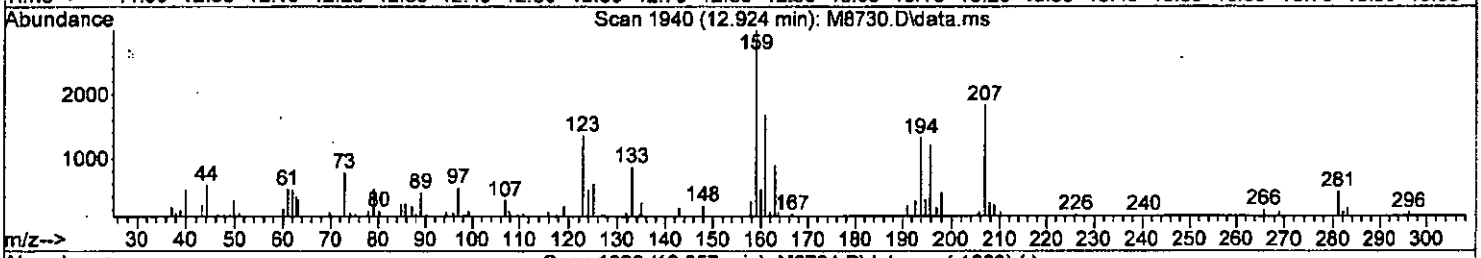
00284

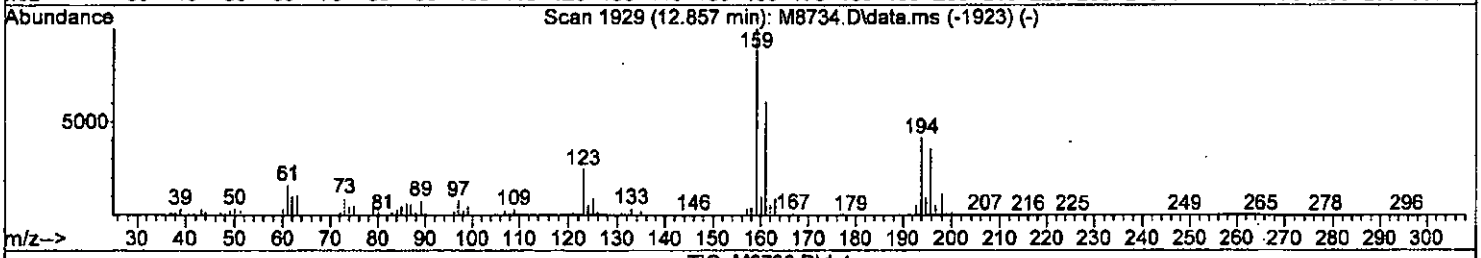
Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8730.D\data.ms

(119) 2,4,5-Trichlorotolene

12.924min (+0.067) 0.41 ppb

response 2283

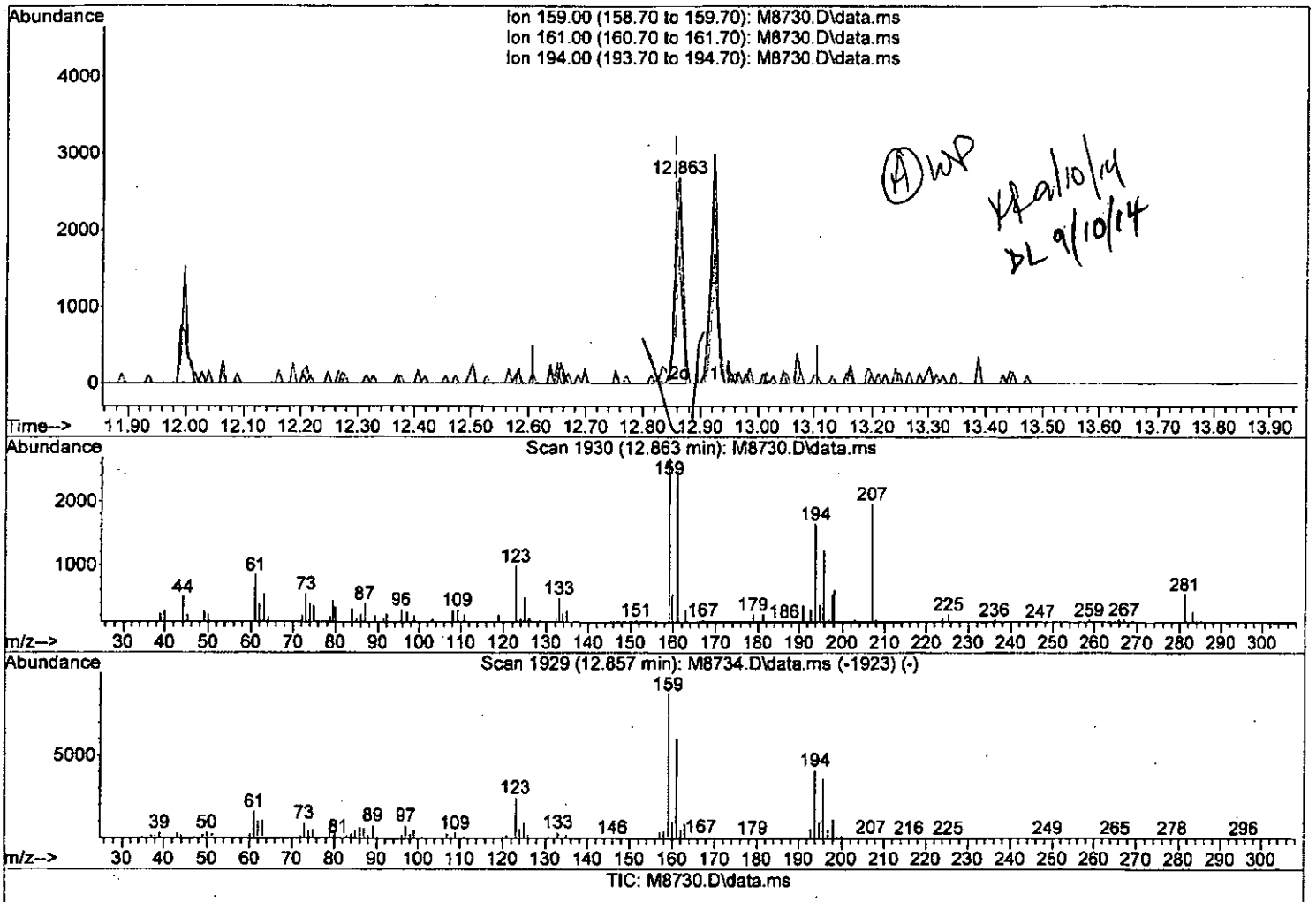
Ion	Exp%	Act%
159.00	100	100
161.00	60.30	55.90
194.00	41.20	44.13
0.00	0.00	0.00

00285

Quantitation Report (Qedit)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:21 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8730.D\data.ms

(119) 2,4,5-Trichlorotolene

12.863min (+0.006) 0.46 ppb m

response 2561

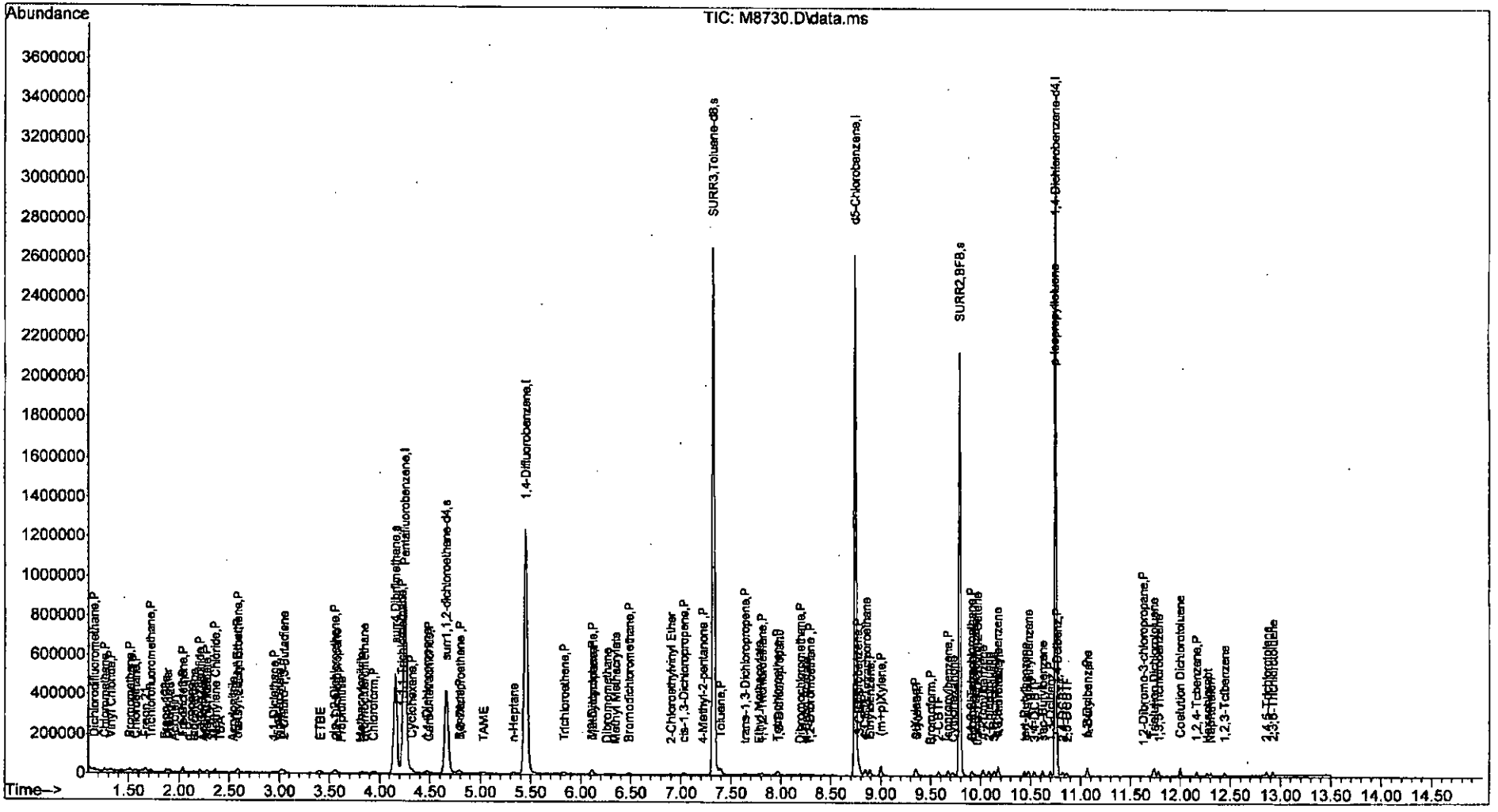
Ion	Exp%	Act%
159.00	100	100
161.00	60.30	92.18#
194.00	41.20	61.21#
0.00	0.00	0.00

00286

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8730.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 3:42 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:00:50 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:11:53 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	805639	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1269995	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1150027	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	582081	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.151	113	363376	51.37	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.74%				
48) surr1,1,2-dichloroetha...	4.664	65	390503	51.22	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 102.44%				
65) SURR3,Toluene-d8	7.322	98	1562134	52.32	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.64%				
70) SURR2,BFB	9.791	95	542526	50.77	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.54%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	6806	0.87	ppb		86
3) Chloromethane	1.262	50	8360	0.98	ppb		89
4) Vinyl Chloride	1.323	62	8414	0.93	ppb		96
5) Bromomethane	1.512	94	5456	1.05	ppb		92
6) Chloroethane	1.567	64	4575	0.91	ppb		95
7) Freon 21	1.664	67	12768	0.96	ppb		98
8) Trichlorofluoromethane	1.719	101	10568	0.98	ppb		99
9) Diethyl Ether	1.877	59	5046	0.97	ppb	#	80
10) Freon 123a	1.871	67	7936	0.93	ppb		96
11) Freon 123	1.902	83	9066	0.97	ppb		87
12) Acrolein	1.951	56	2105	4.28	ppb	#	72
13) 1,1-Diclethene	2.042	96	5467	0.95	ppb	#	79
14) Freon 113	2.036	101	6302	0.94	ppb		100
15) Acetone	2.048	43	2242	1.35	ppb	#	67
16) 2-Propanol	2.115	45	3917	14.85	ppb		93
17) Iodomethane	2.146	142	6419	0.74	ppb		96
18) Carbon Disulfide	2.207	76	20734	0.95	ppb		98
19) Acetonitrile	2.237	40	1064	4.76	ppb	#	20
20) Allyl Chloride	2.274	76	3931	1.01	ppb	#	83
21) Methyl Acetate	2.280	43	3263	0.97	ppb		93
22) Methylene Chloride	2.359	84	8380	1.14	ppb		92
23) TBA	2.408	59	7051	15.92	ppb		81
24) Acrylonitrile	2.536	53	7189	4.55	ppb	#	74
25) Methyl-t-Butyl Ether	2.579	73	14163	0.87	ppb		89
26) trans-1,2-Dichloroethene	2.585	96	7462	1.04	ppb		88
28) 1,1-Diclethane	2.944	63	11091m	0.87	ppb		
29) Vinyl Acetate	2.999	86	865m	0.83	ppb		
30) DIPE	3.018	45	23368	0.97	ppb		98
31) 2-Chloro-1,3-Butadiene	3.042	53	12977	1.05	ppb		88
32) ETBE	3.396	59	20499	0.96	ppb		90
33) 2,2-Dichloropropane	3.554	77	8707m	0.86	ppb		
34) cis-1,2-Dichloroethene	3.548	96	7855	0.98	ppb		92
35) 2-Butanone	3.560	43	2182	1.01	ppb		75
36) Propionitrile	3.603	54	2515	4.31	ppb		98
37) Bromochloromethane	3.841	130	4249	0.96	ppb	#	66

KR 9/10/14

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:11:53 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	Methacrylonitrile	3.828	67	1639	0.88	ppb	#	30
39)	Tetrahydrofuran	3.926	42	1218	0.90	ppb		90
40)	Chloroform	3.938	83	12801	0.98	ppb		96
41)	1,1,1-Trichloroethane	4.200	97	10469	0.97	ppb		89
42)	TAME	5.017	73	16263	0.89	ppb		93
44)	Cyclohexane	4.316	41	6359	0.95	ppb		86
46)	Carbontetrachloride	4.475	121	2756	0.97	ppb		88
47)	1,1-Dichloropropene	4.456	75	7625m	0.83	ppb		
49)	Benzene	4.785	78	26814	0.93	ppb		96
50)	1,2-Dichloroethane	4.792	62	8301	0.97	ppb		93
51)	Iso-Butyl Alcohol	4.651	43	3410	17.75	ppb	#	74
52)	n-Heptane	5.334	43	6638	0.91	ppb	#	68
53)	1-Butanol	5.797	56	4523m	41.00	ppb		
54)	Trichloroethene	5.828	130	7730	1.01	ppb		94
55)	Methylcyclohexane	6.108	55	7042	0.89	ppb		95
56)	1,2-Diclpropane	6.114	63	5949	0.82	ppb		91
57)	Dibromomethane	6.261	93	3224	0.92	ppb		92
59)	Methyl Methacrylate	6.340	69	3330	1.00	ppb	#	76
60)	Bromodichloromethane	6.486	83	8353	0.93	ppb		93
61)	2-Nitropropane	6.742	41	1733m	1.94	ppb		
62)	2-Chloroethylvinyl Ether	6.895	63	2631	0.80	ppb		93
63)	cis-1,3-Dichloropropene	7.023	75	8944	0.85	ppb		84
64)	4-Methyl-2-pentanone	7.218	43	3740	0.87	ppb		83
66)	Toluene	7.395	91	30121	0.96	ppb		97
67)	trans-1,3-Dichloropropene	7.632	75	7373	0.86	ppb		94
68)	Ethyl Methacrylate	7.779	69	5701	0.85	ppb		95
69)	1,1,2-Trichloroethane	7.809	97	5072	0.96	ppb		83
72)	Tetrachloroethene	7.962	164	5860	0.99	ppb	#	83
73)	2-Hexanone	8.096	43	2572m	0.81	ppb		
74)	1,3-Dichloropropane	7.980	76	9622	0.98	ppb		87
75)	Dibromochloromethane	8.193	129	4940	0.83	ppb	#	72
76)	N-Butyl Acetate	8.242	43	5789m	0.84	ppb		
77)	1,2-Dibromoethane	8.291	107	4166	0.84	ppb		98
78)	Chlorobenzene	8.773	112	17836	0.87	ppb		80
79)	3-CBTF	8.791	180	8935	0.89	ppb		96
80)	4-CBTF	8.840	180	9524	0.98	ppb		96
81)	1,1,1,2-Tetrachloroethane	8.852	131	6038	0.86	ppb		97
82)	Ethylbenzene	8.888	106	9809	0.92	ppb	#	73
83)	(m+p)Xylene	8.998	106	22250	1.71	ppb		98
84)	o-Xylene	9.346	106	11046	0.87	ppb		99
85)	Styrene	9.358	104	17926	0.87	ppb		92
87)	Bromoform	9.498	173	2826	0.89	ppb		83
88)	2-CBTF	9.577	180	8563	0.91	ppb	#	92
89)	Isopropylbenzene	9.675	105	28689	0.96	ppb		96
90)	Cyclohexanone	9.717	55	12957	18.85	ppb		91
91)	trans-1,4-Dichloro-2-B...	9.967	53	1200	0.81	ppb	#	84
92)	1,1,2,2-Tetrachloroethane	9.913	83	5847	0.98	ppb		86
93)	Bromobenzene	9.913	156	6703	0.87	ppb	#	82
94)	1,2,3-Trichloropropane	9.943	110	1689	0.97	ppb	#	79
95)	n-Propylbenzene	10.022	91	34520	0.99	ppb		98
96)	2-Chlorotoluene	10.083	91	21089	1.00	ppb		94
97)	3-Chlorotoluene	10.132	91	21518	0.92	ppb		93

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:11:53 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

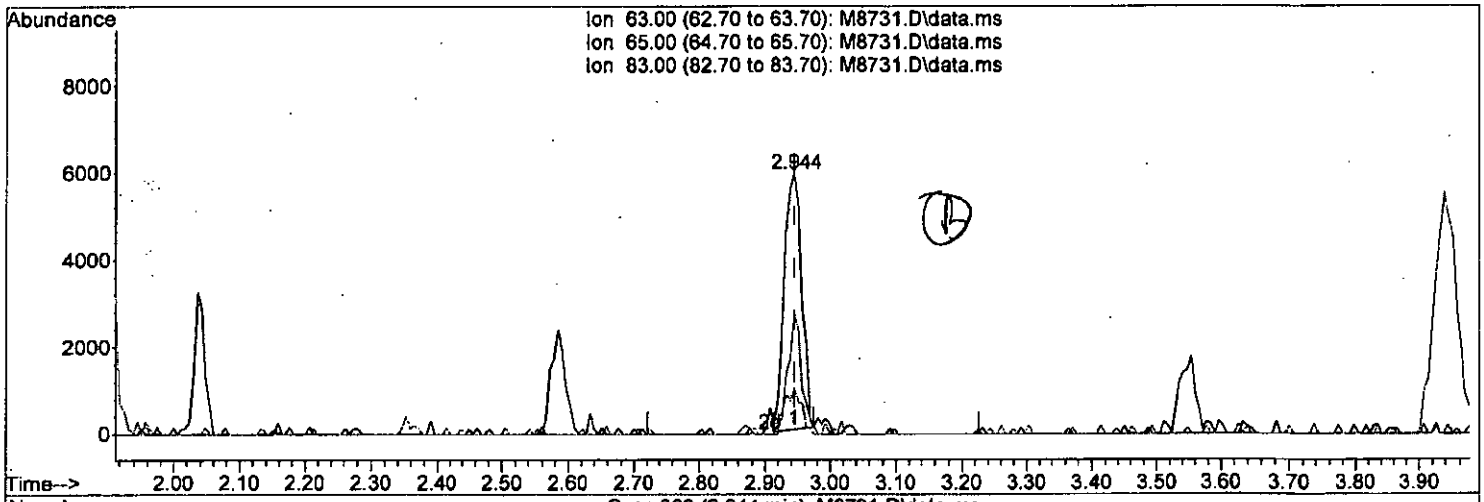
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
98)	4-Chlorotoluene	10.175	91	23308	0.95	ppb		86
99)	1,3,5-Trimethylbenzene	10.175	105	21298	0.89	ppb		91
100)	tert-Butylbenzene	10.443	119	18465	0.92	ppb		89
101)	1,2,4-Trimethylbenzene	10.479	105	21828	0.89	ppb		96
102)	3,4-DCBTF	10.534	214	6865	1.02	ppb	#	84
103)	sec-Butylbenzene	10.620	105	27505	0.95	ppb		96
104)	p-Isopropyltoluene	10.742	119	22184	0.92	ppb		92
105)	1,3-Dclbenz	10.699	146	14217	0.98	ppb		93
106)	1,4-Dclbenz	10.766	146	13500	0.90	ppb		88
107)	2,4-DCBTF	10.821	214	5537	0.95	ppb	#	80
108)	2,5-DCBTF	10.864	214	6101	0.92	ppb		98
109)	n-Butylbenzene	11.071	91	18831	0.86	ppb		95
110)	1,2-Dclbenz	11.071	146	12767	0.92	ppb		87
111)	1,2-Dibromo-3-chloropr...	11.626	157	1001	0.95	ppb	#	69
112)	Trielution Dichlorotol...	11.729	125	32005	2.79	ppb		97
113)	1,3,5 Trichlorobenzene	11.778	180	9379	0.95	ppb	#	92
114)	Coelution Dichlorotoluene	11.997	125	22920	1.87	ppb		95
115)	1,2,4-Tcbenzene	12.162	180	7938	0.98	ppb		92
116)	Hexachlorobt	12.266	225	3363	1.05	ppb		88
117)	Naphthalen	12.302	128	13932	0.84	ppb		87
118)	1,2,3-Tclbenzene	12.443	180	6526	0.93	ppb		95
119)	2,4,5-Trichlorotolene	12.857	159	5724	1.05	ppb		95
120)	2,3,6-Trichlorotoluene	12.918	159	5663	1.06	ppb		91

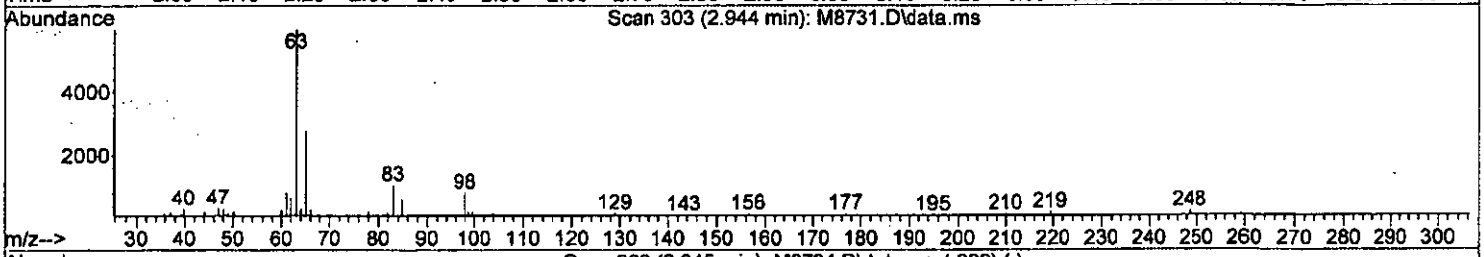
(#) = qualifier out of range (m) = manual integration (+) = signals summed

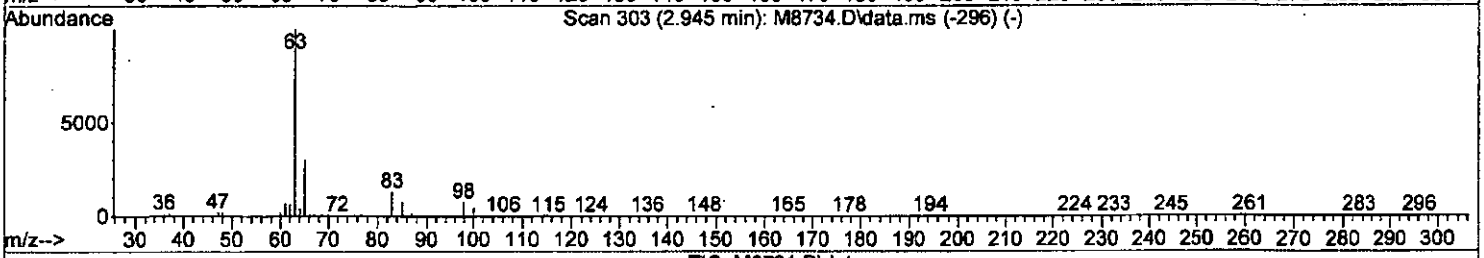
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8731.D\data.ms

(28) 1,1-Diclethane (P)

2.944min (-0.000) 0.84 ppb

response 10731

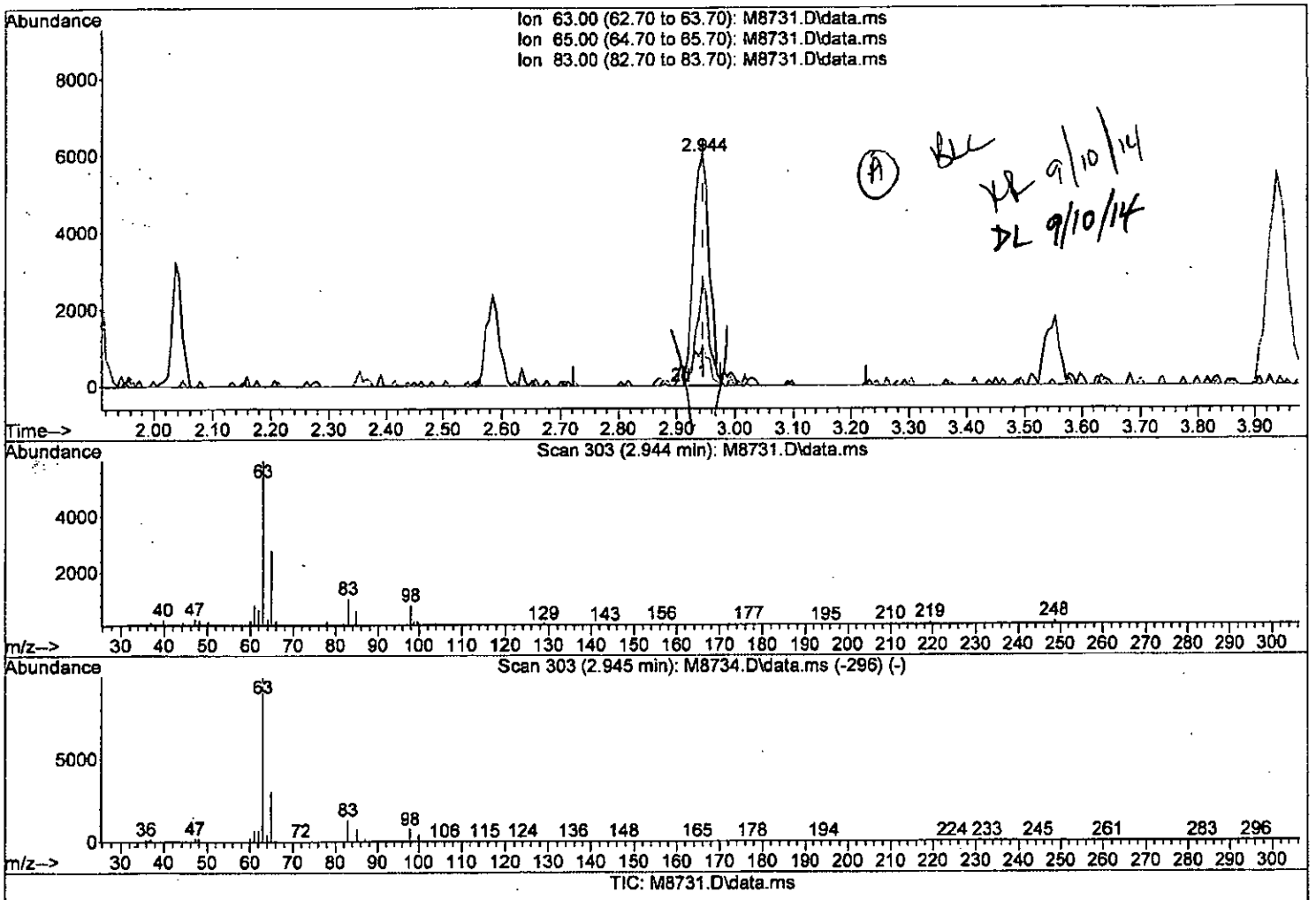
Ion	Exp%	Act%
63.00	100	100
65.00	30.30	46.09
83.00	13.00	17.42
0.00	0.00	0.00

09291

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(A) BLL 9/10/14 KR 9/10/14 DL 9/10/14

(28) 1,1-Diclethane (P)

2.944min (-0.000) 0.87 ppb m

response 11091

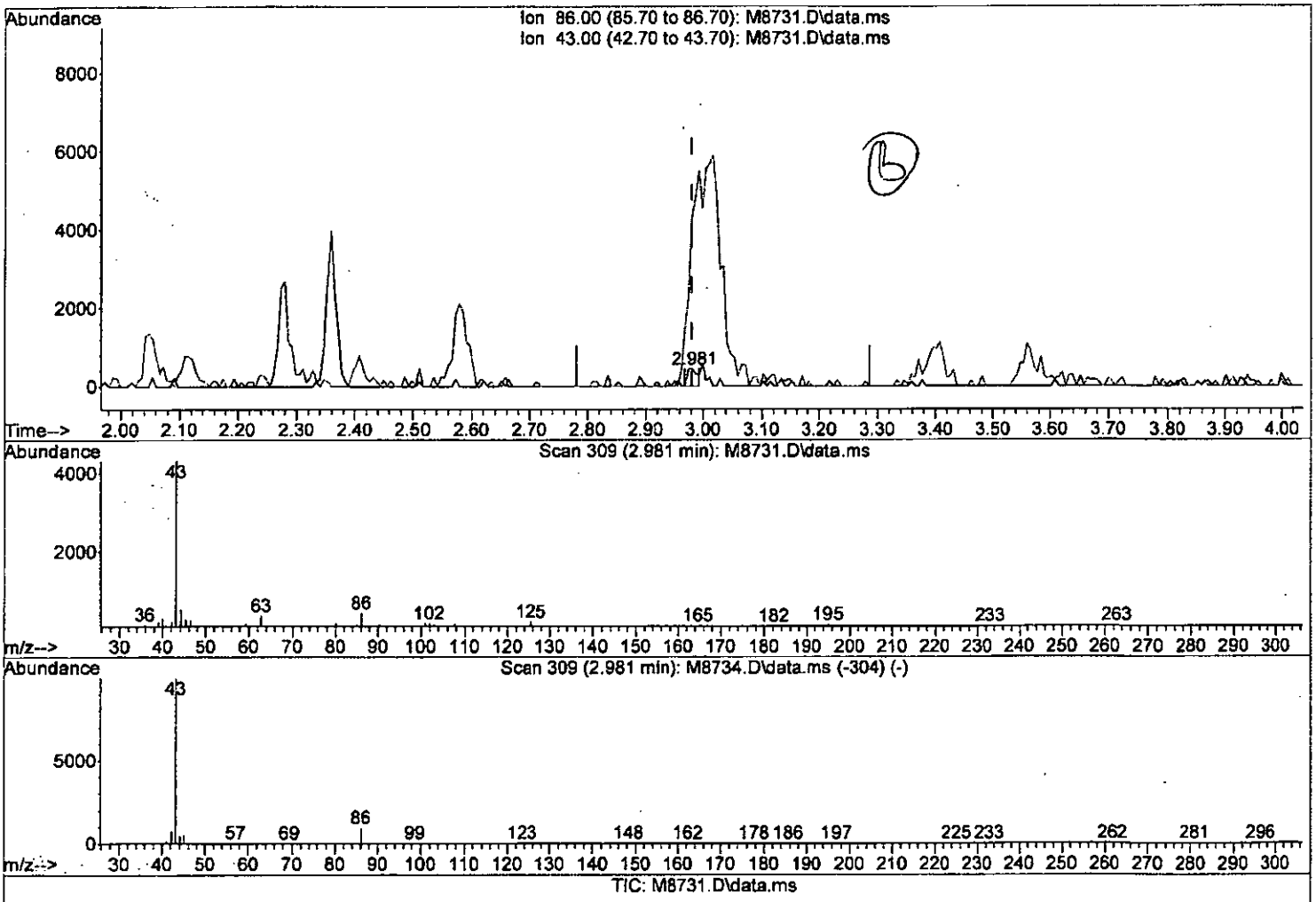
Ion	Exp%	Act%
63.00	100	100
65.00	30.30	46.09
83.00	13.00	17.42
0.00	0.00	0.00

00292

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(29) Vinyl Acetate

2.981min (-0.000) 0.50 ppb

response 526

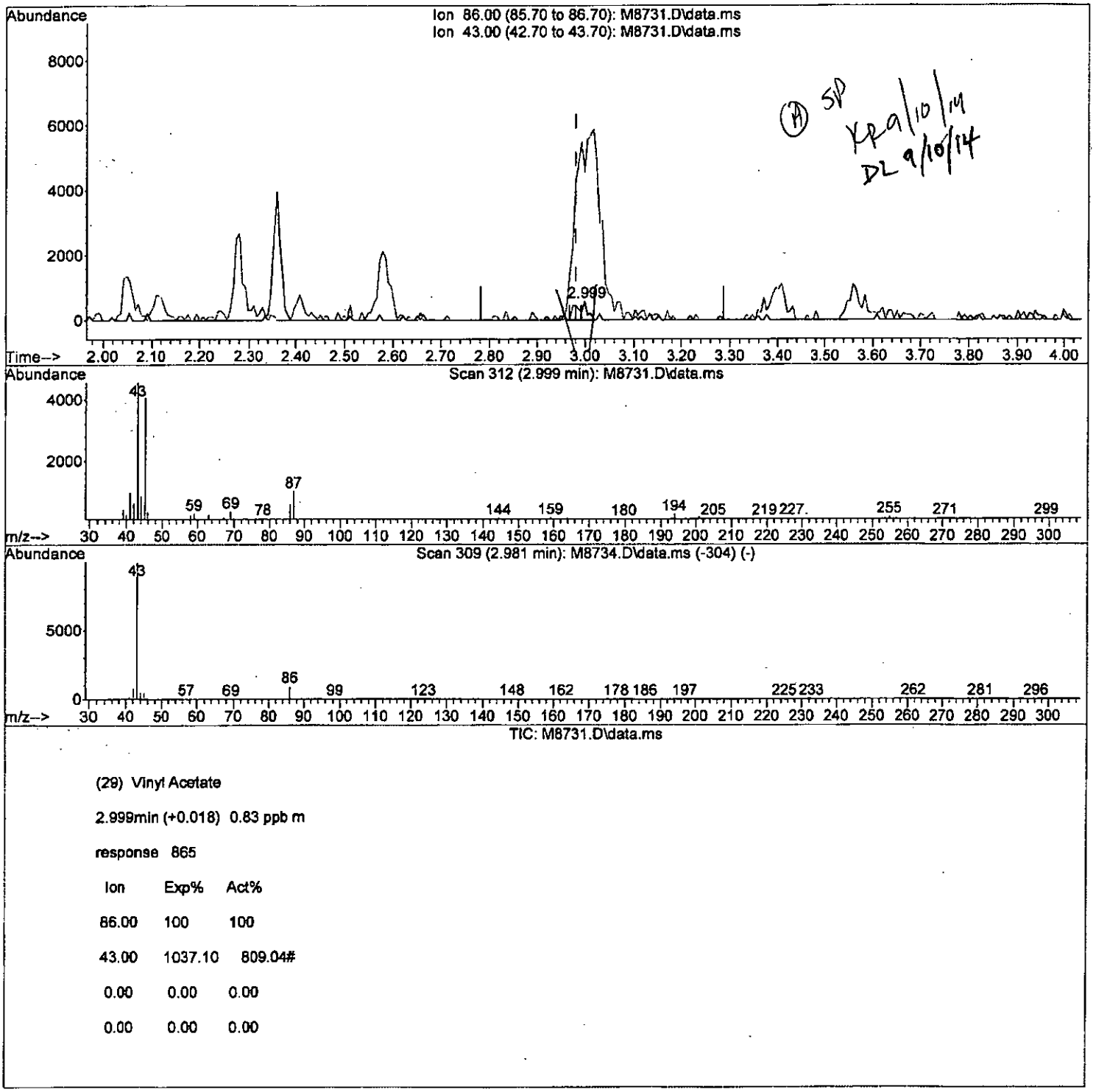
Ion	Exp%	Act%
86.00	100	100
43.00	1037.10	990.32#
0.00	0.00	0.00
0.00	0.00	0.00

00293

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(29) Vinyl Acetate

2.999min (+0.018) 0.83 ppb m

response 865

Ion	Exp%	Act%
86.00	100	100
43.00	1037.10	809.04#
0.00	0.00	0.00
0.00	0.00	0.00

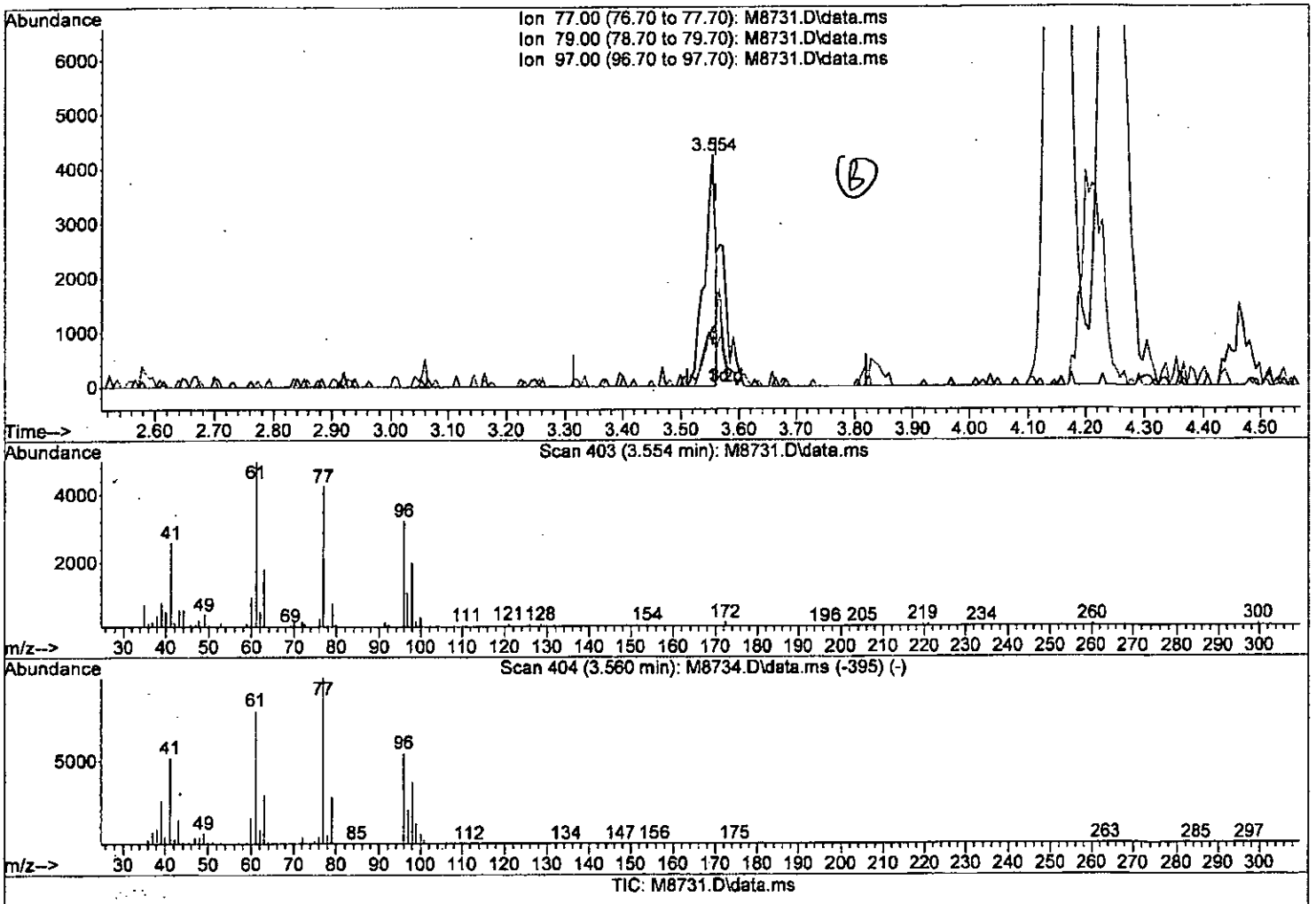
SP 9/10/14
DL 9/10/14

00294

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(33) 2,2-Dichloropropane

3.554min (-0.006) 0.55 ppb

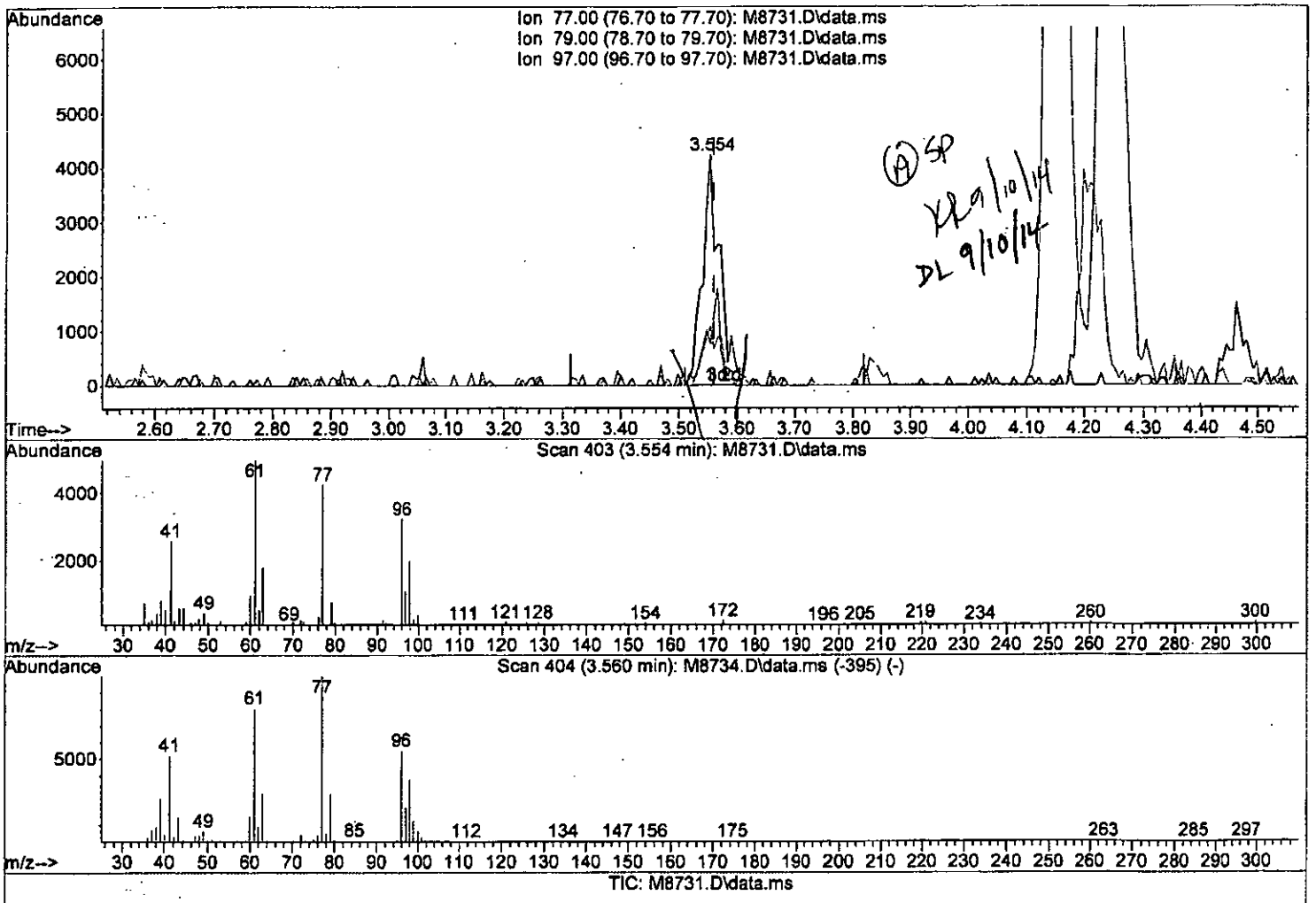
response 5551

Ion	Exp%	Act%
77.00	100	100
79.00	28.40	17.95
97.00	20.50	25.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(33) 2,2-Dichloropropane

3.554min (-0.008) 0.86 ppb m

response 8707

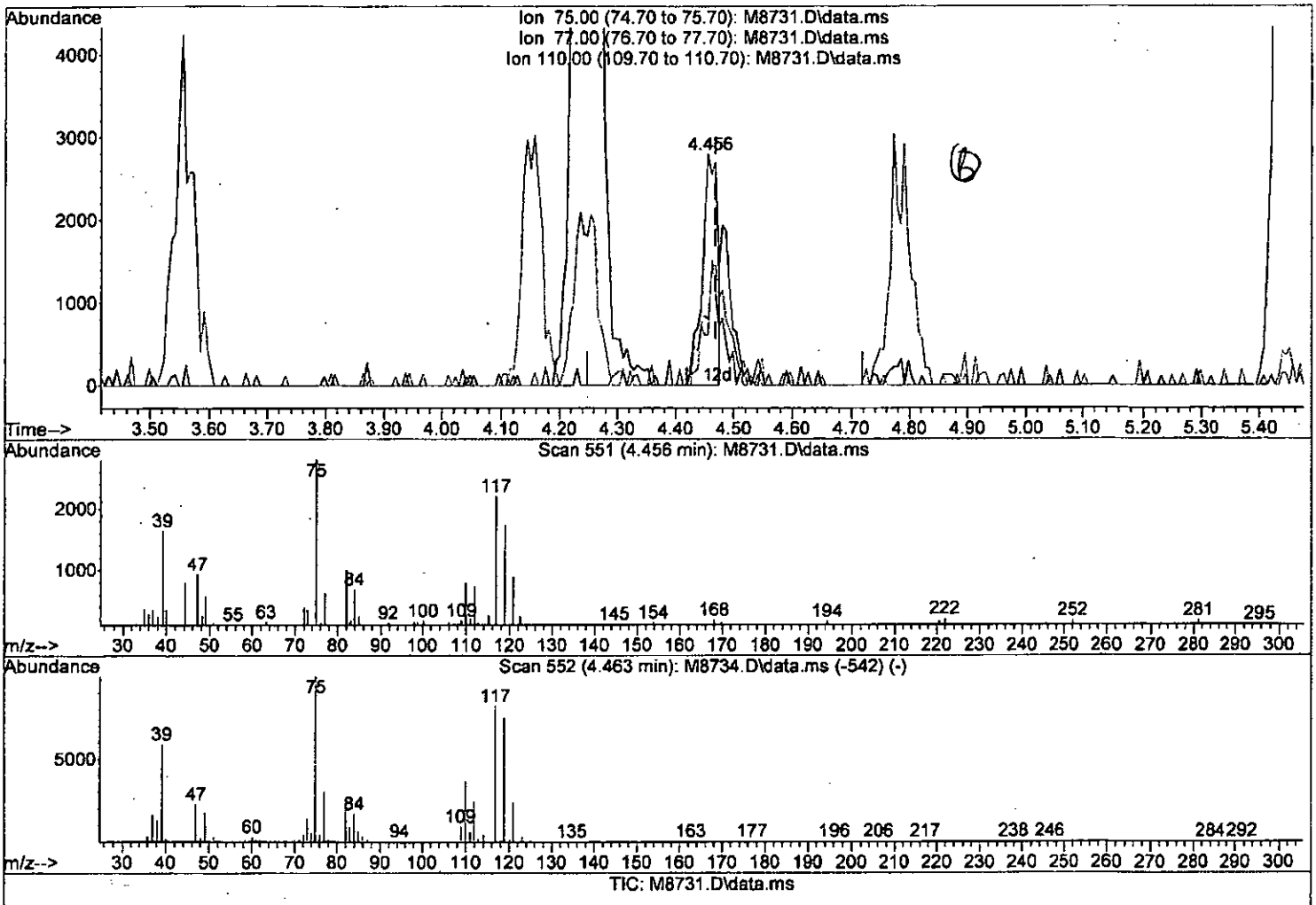
Ion	Exp%	Act%
77.00	100	100
79.00	28.40	17.95
97.00	20.50	25.52
0.00	0.00	0.00

00296

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(47) 1,1-Dichloropropene

4.456min (-0.012) 0.55 ppb

response 5075

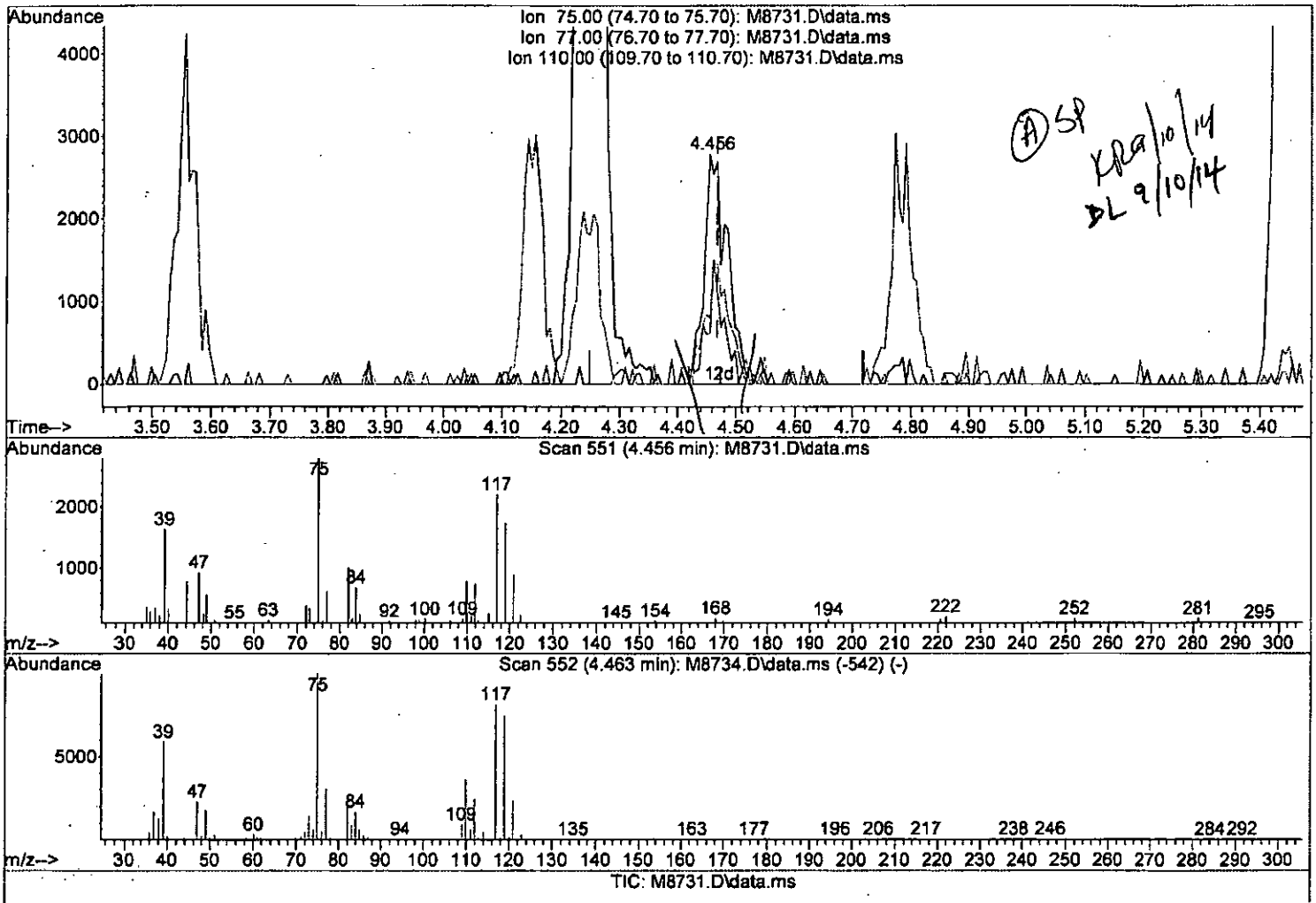
Ion	Exp%	Act%
75.00	100	100
77.00	30.80	21.99
110.00	36.40	28.12
0.00	0.00	0.00

00297

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(47) 1,1-Dichloropropene

4.456min (-0.012) 0.83 ppb m

response 7625

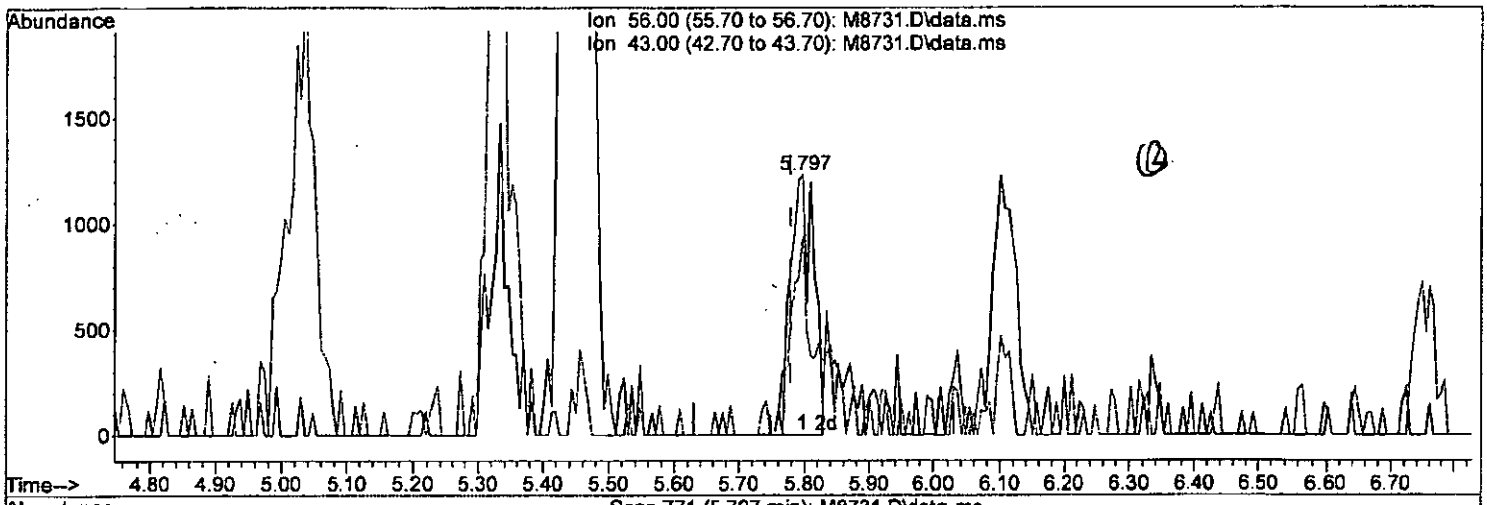
Ion	Exp%	Act%
75.00	100	100
77.00	30.80	21.99
110.00	36.40	28.12
0.00	0.00	0.00

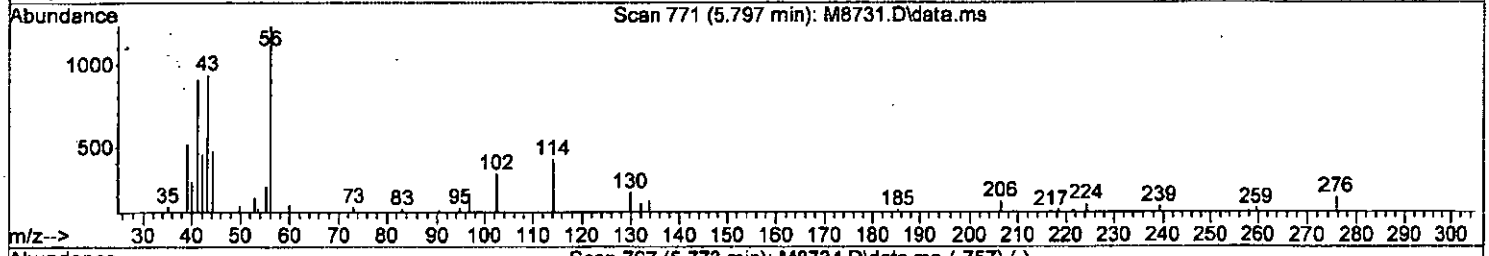
00298

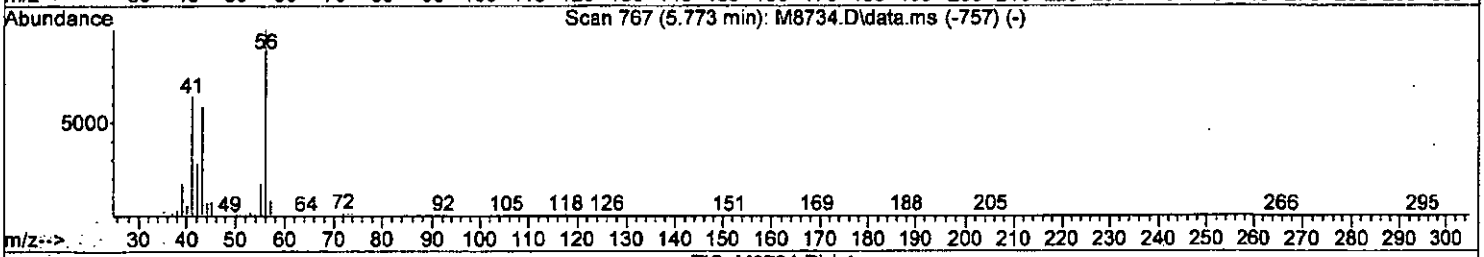
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8731.D\data.ms

(53) 1-Butanol

5.797min (+0.018) 27.19 ppb

response 3000

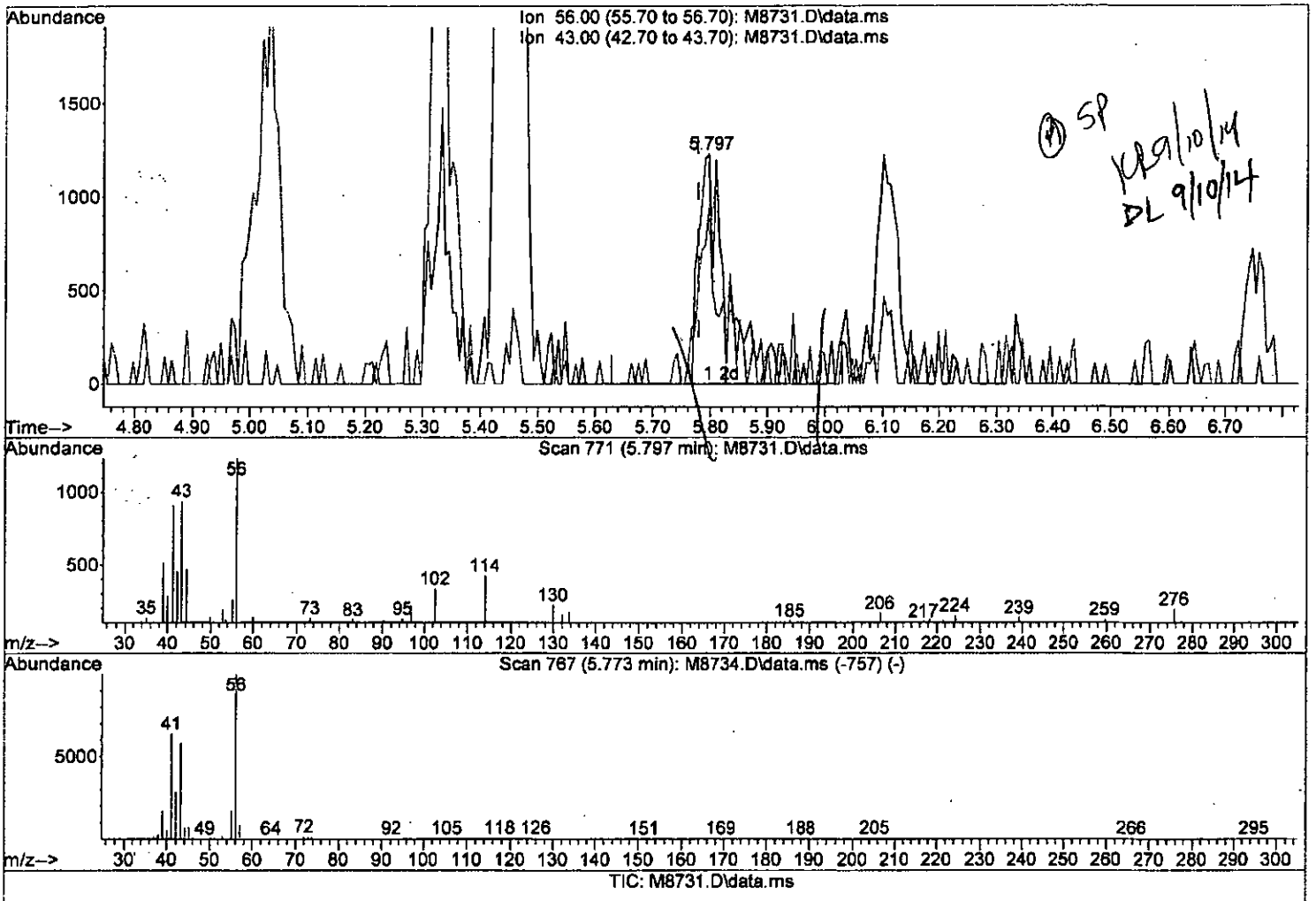
Ion	Exp%	Act%
56.00	100	100
43.00	57.60	87.10#
0.00	0.00	0.00
0.00	0.00	0.00

00299

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(53) 1-Butanol

5.797min (+0.018) 41.00 ppb m

response 4523

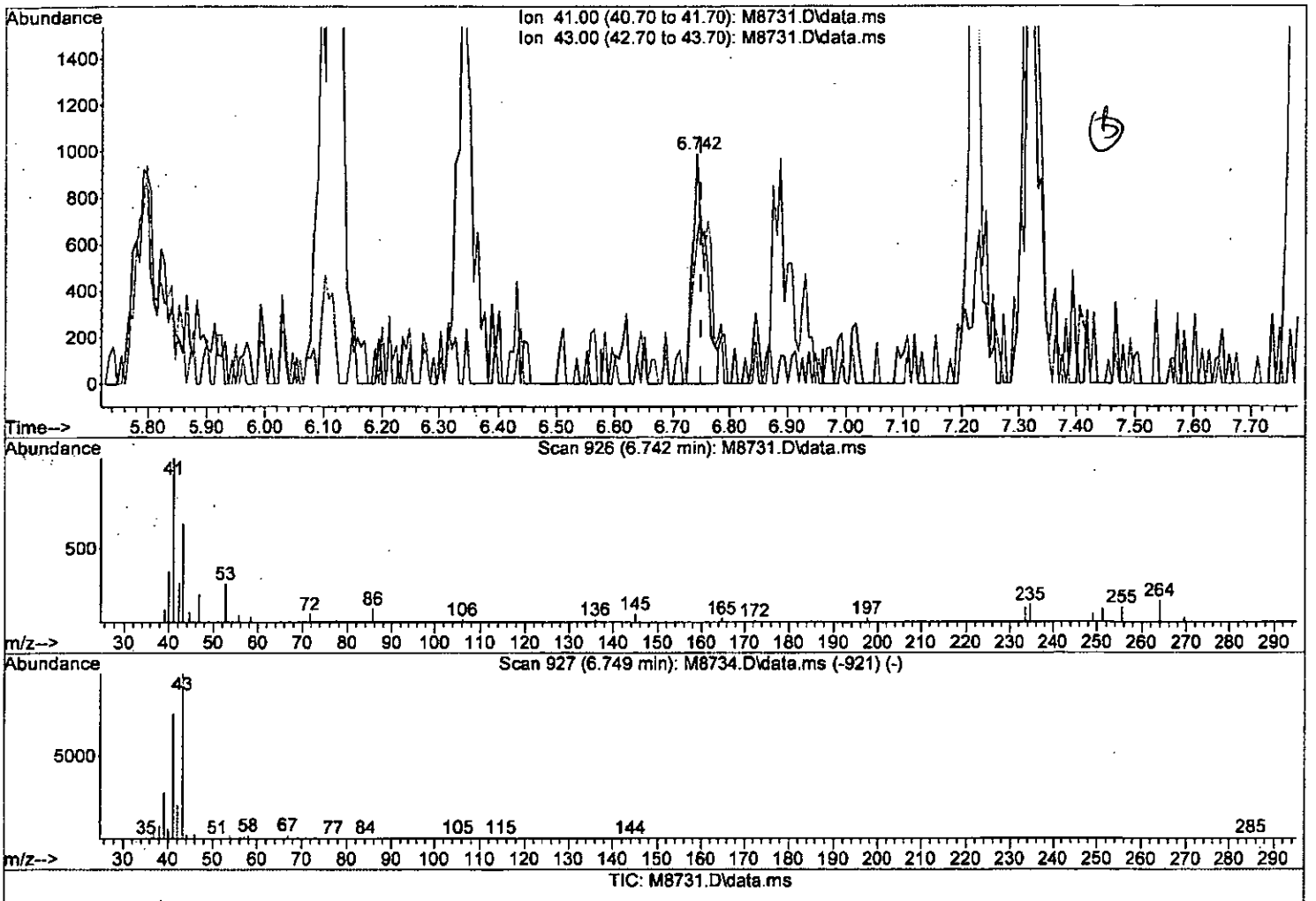
Ion	Exp%	Act%
56.00	100	100
43.00	57.60	57.77
0.00	0.00	0.00
0.00	0.00	0.00

00300

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(61) 2-Nitropropane

6.742min (-0.006) 1.77 ppb

response 1581

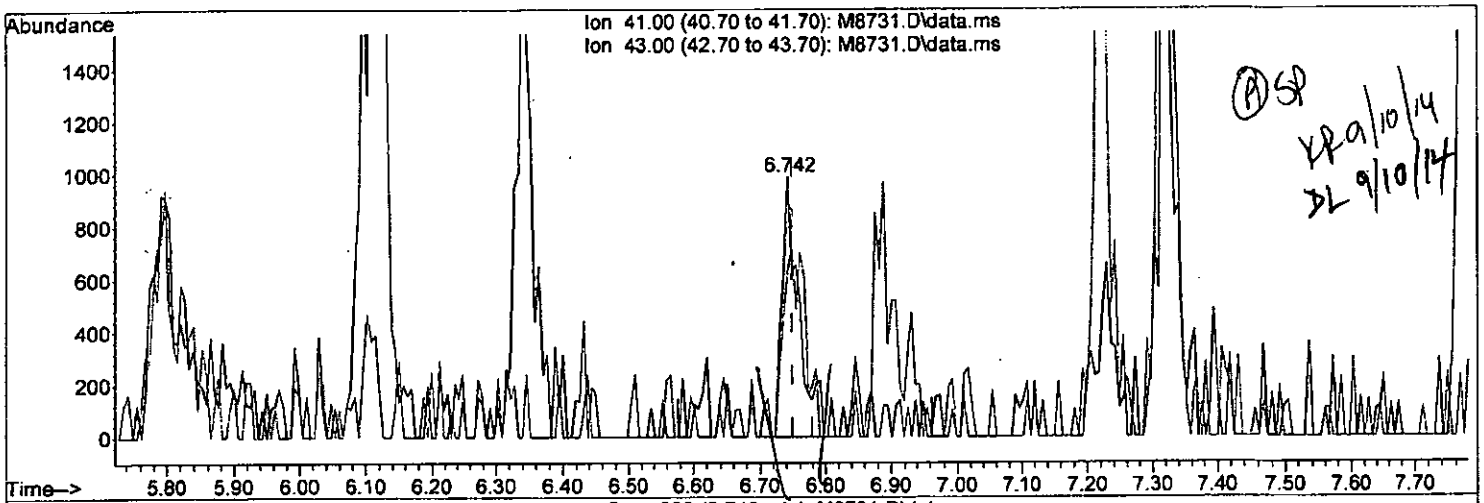
Ion	Exp%	Act%
41.00	100	100
43.00	130.50	64.04#
0.00	0.00	0.00
0.00	0.00	0.00

00301

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(61) 2-Nitropropane

6.742min (-0.006) 1.94 ppb m

response 1733

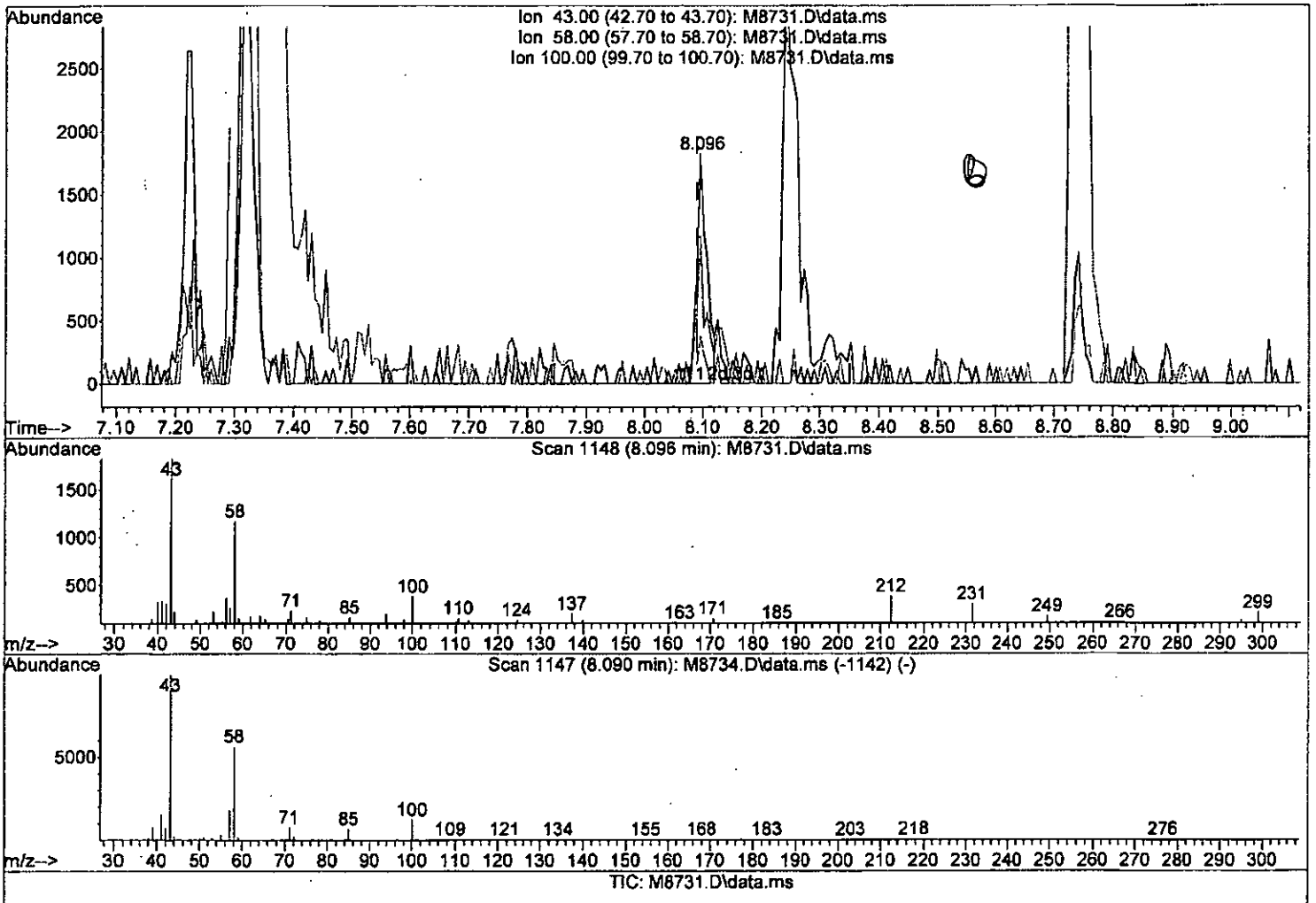
Ion	Exp%	Act%
41.00	100	100
43.00	130.50	64.04#
0.00	0.00	0.00
0.00	0.00	0.00

00302

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(73) 2-Hexanone (P)

8.096min (+0.006) 0.71 ppb

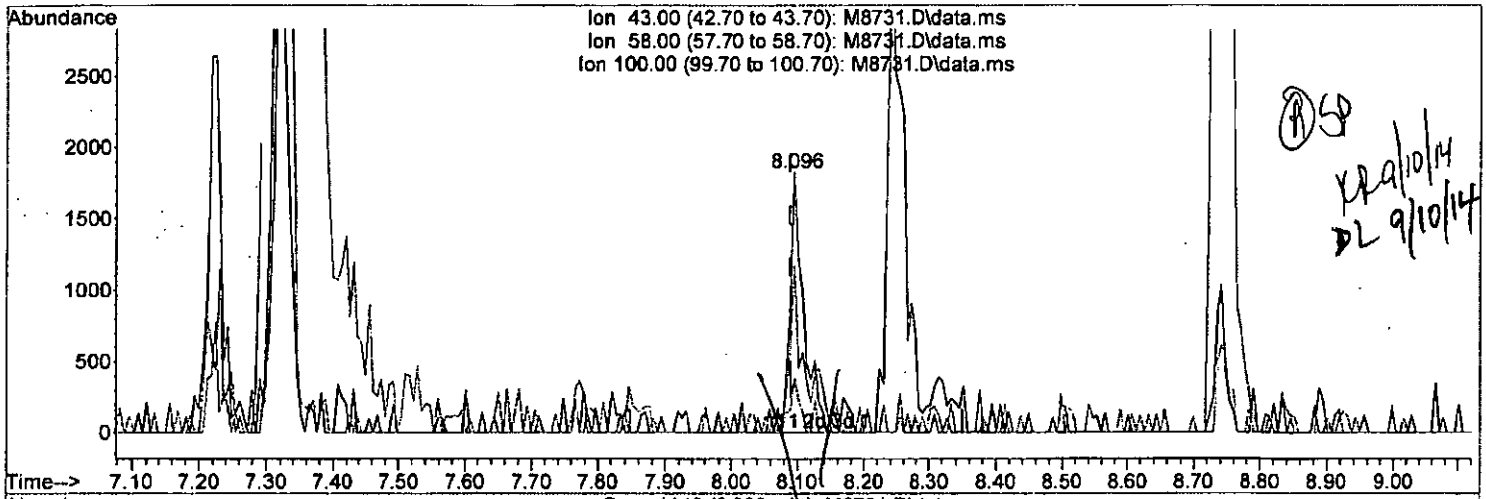
response 2258

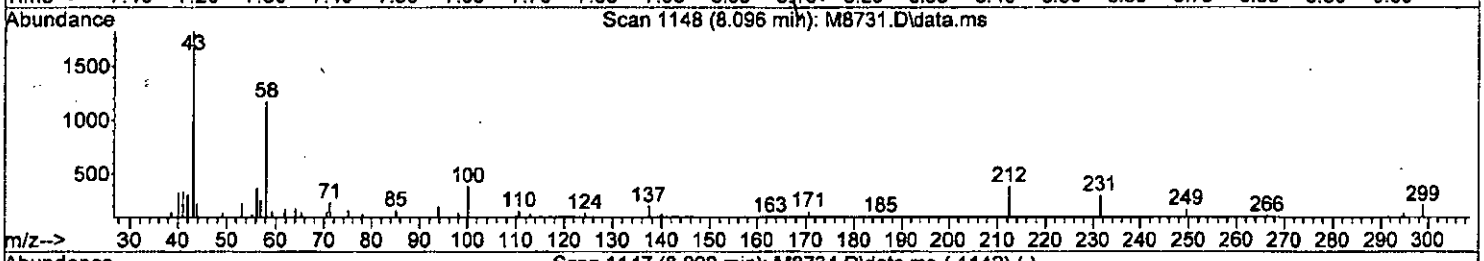
Ion	Exp%	Act%
43.00	100	100
58.00	56.80	64.06
100.00	12.10	20.90
0.00	0.00	0.00

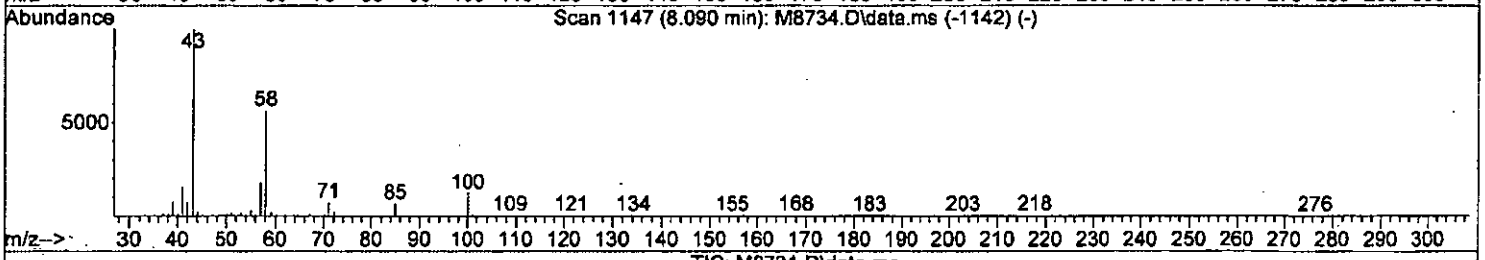
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8731.D\data.ms

(73) 2-Hexanone (P)

6.096min (+0.006) 0.81 ppb m

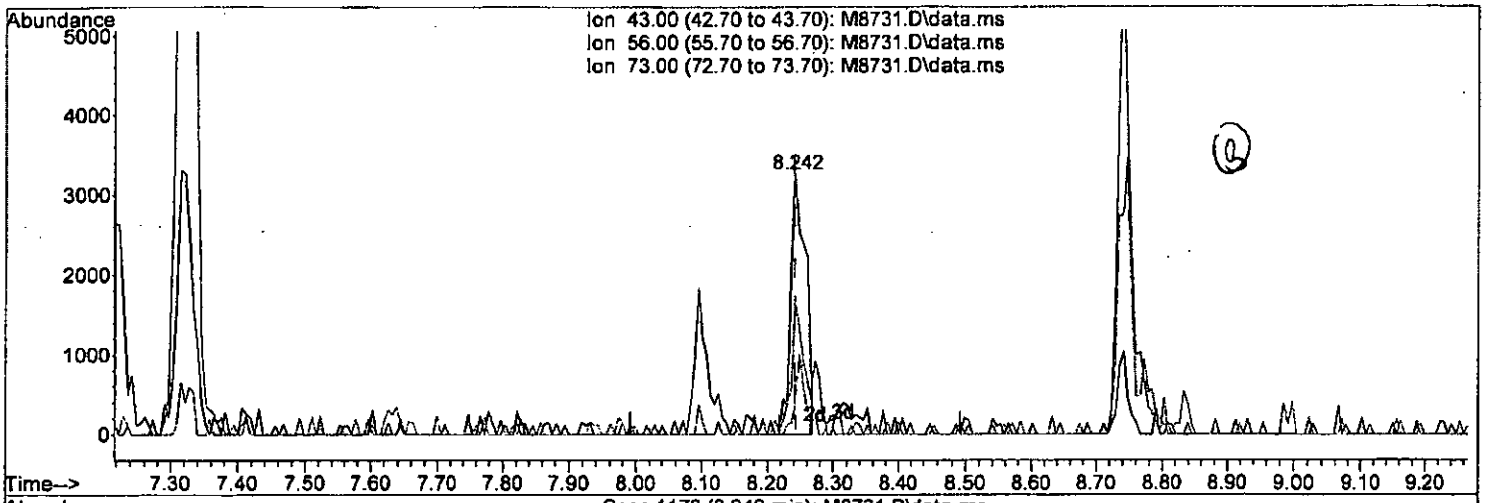
response 2572

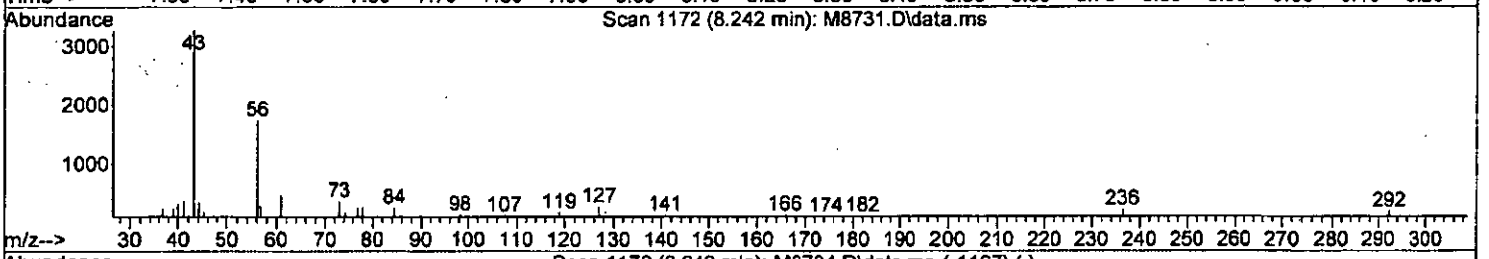
Ion	Exp%	Act%
43.00	100	100
58.00	56.80	64.06
100.00	12.10	20.90
0.00	0.00	0.00

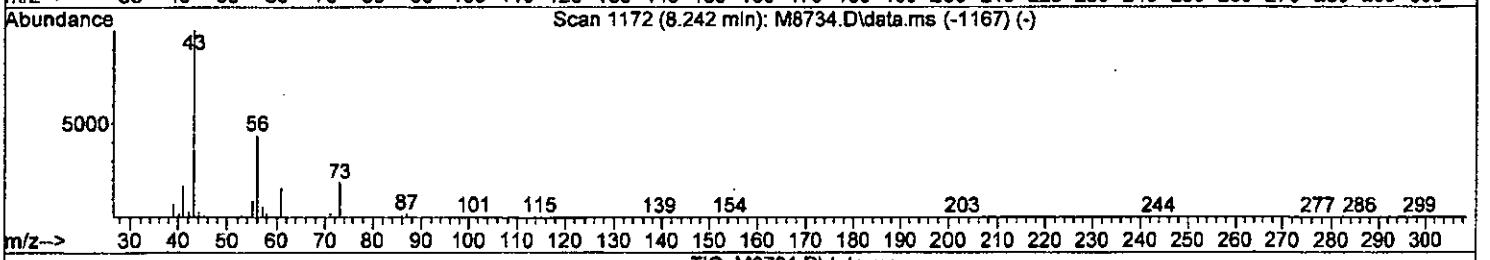
Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8731.D\data.ms

(76) N-Butyl Acetate

8.242min (-0.000) 0.74 ppb

response 5085

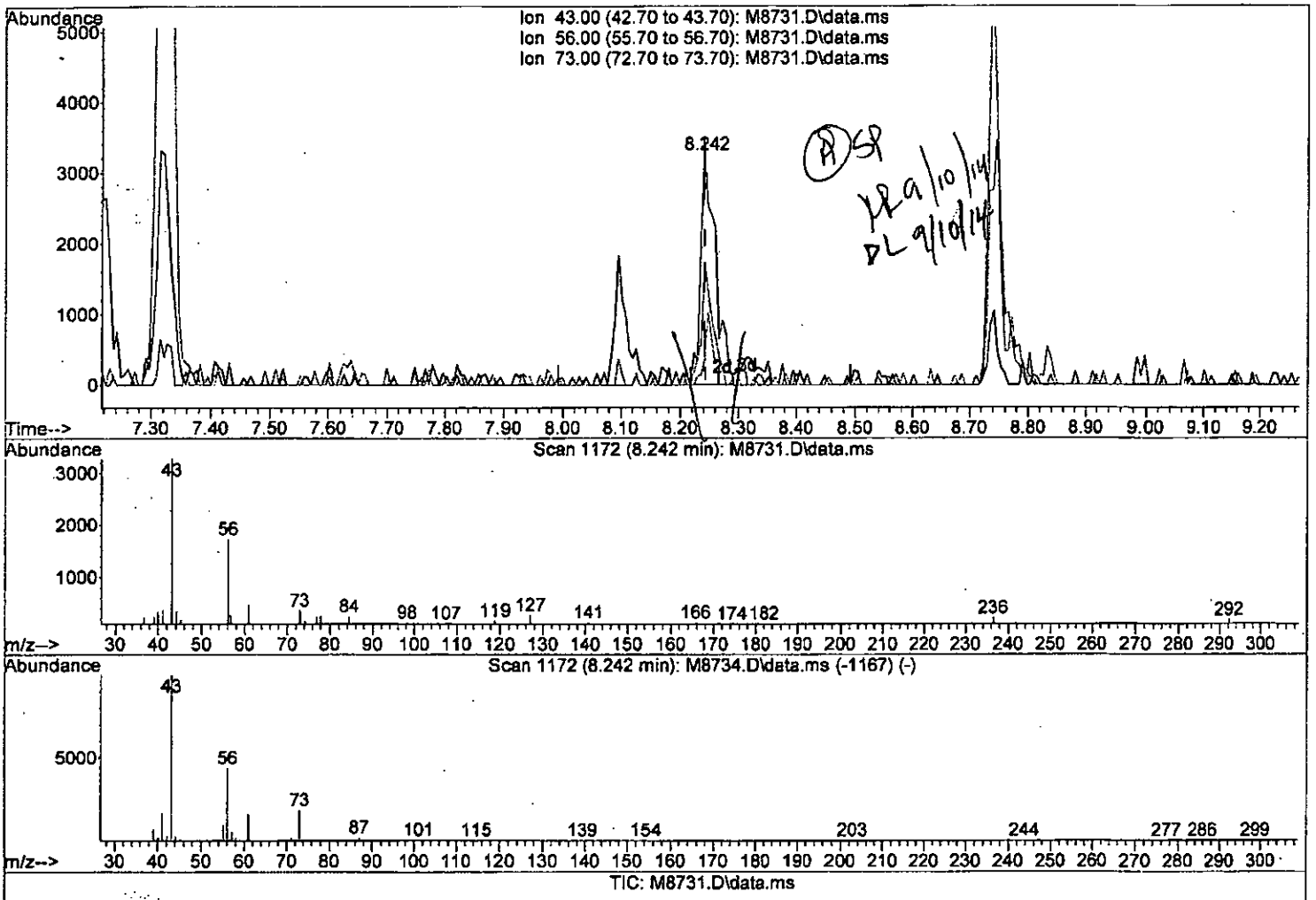
Ion	Exp%	Act%
43.00	100	100
56.00	43.90	61.07
73.00	18.30	10.82
0.00	0.00	0.00

00305

Quantitation Report (Qedit)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:24 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8731.D\data.ms

(76) N-Butyl Acetate

8.242min (-0.000) 0.84 ppb m

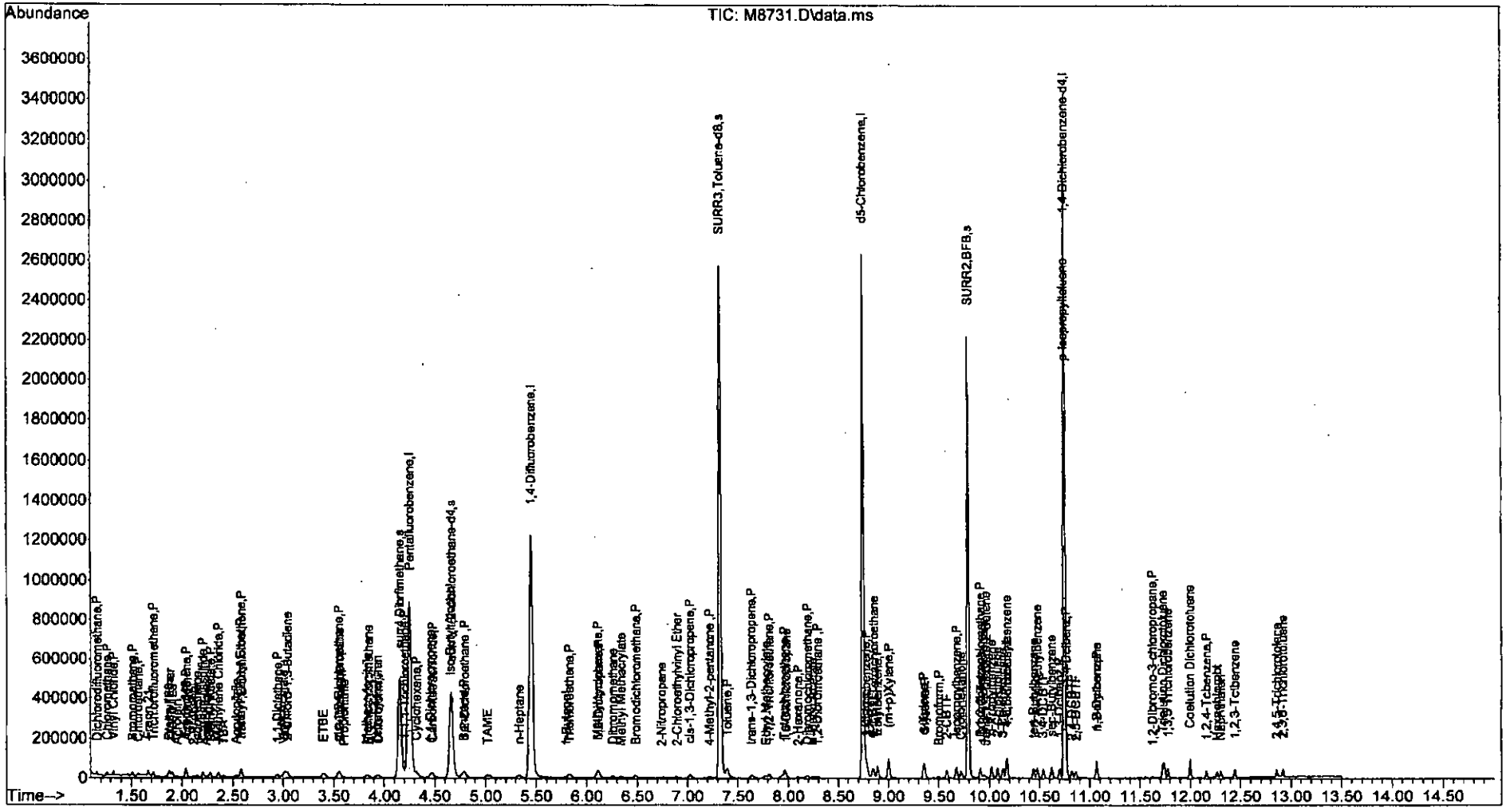
response 5789

Ion	Exp%	Act%
43.00	100	100
56.00	43.90	53.03
73.00	18.30	10.82
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8731.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 4:36 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:11:53 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:18:31 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	793130	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1275954	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1150162	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	586961	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	438526	61.70	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 123.40%#				
48) surr1,1,2-dichloroetha...	4.664	65	462155	60.34	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 120.68%				
65) SURR3,Toluene-d8	7.322	98	1832631	61.10	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 122.20%#				
70) SURR2,BFB	9.791	95	642057	59.80	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 119.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	13138	1.71	ppb		97
3) Chloromethane	1.262	50	14901	1.78	ppb		89
4) Vinyl Chloride	1.323	62	15710	1.77	ppb		98
5) Bromomethane	1.512	94	10358m	2.03	ppb		
6) Chloroethane	1.567	64	8869	1.79	ppb		100
7) Freon 21	1.664	67	25008	1.90	ppb		89
8) Trichlorofluoromethane	1.719	101	20391	1.91	ppb		94
9) Diethyl Ether	1.884	59	8891	1.73	ppb	#	87
10) Freon 123a	1.872	67	14710	1.76	ppb		97
11) Freon 123	1.902	83	16649	1.80	ppb		96
12) Acrolein	1.957	56	4489	9.28	ppb	#	76
13) 1,1-Diclethene	2.042	96	9962	1.76	ppb		88
14) Freon 113	2.036	101	12894	1.96	ppb		99
15) Acetone	2.048	43	3565	2.19	ppb		79
16) 2-Propanol	2.122	45	8673	33.39	ppb		97
17) Iodomethane	2.146	142	13064	1.54	ppb		96
18) Carbon Disulfide	2.207	76	40754	1.90	ppb		99
19) Acetonitrile	2.231	40	1738	7.89	ppb	#	54
20) Allyl Chloride	2.274	76	6793	1.77	ppb		95
21) Methyl Acetate	2.280	43	5823	1.75	ppb		93
22) Methylene Chloride	2.359	84	13539	1.86	ppb		86
23) TBA	2.408	59	14096	32.33	ppb		87
24) Acrylonitrile	2.524	53	13967	8.98	ppb	#	80
25) Methyl-t-Butyl Ether	2.585	73	29095	1.81	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	12079	1.71	ppb		98
28) 1,1-Diclethane	2.945	63	23507	1.87	ppb		90
29) Vinyl Acetate	2.981	86	1834m	1.78	ppb		
30) DIPE	3.018	45	46880	1.97	ppb		94
31) 2-Chloro-1,3-Butadiene	3.048	53	22200	1.82	ppb		94
32) ETBE	3.402	59	39972	1.91	ppb		93
33) 2,2-Dichloropropane	3.560	77	18274	1.84	ppb		86
34) cis-1,2-Dichloroethene	3.548	96	13425	1.70	ppb		99
35) 2-Butanone	3.566	43	3848	1.80	ppb		76
36) Propionitrile	3.609	54	5467	9.51	ppb		76
37) Bromochloromethane	3.835	130	8052	1.85	ppb	#	83

KR 9/10/14

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:18:31 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	Methacrylonitrile	3.804	67	2883	1.57	ppb		92
39)	Tetrahydrofuran	3.914	42	2624	1.97	ppb		80
40)	Chloroform	3.944	83	28679	2.24	ppb		95
41)	1,1,1-Trichloroethane	4.213	97	20279	1.90	ppb	#	5
42)	TAME	5.017	73	33624	1.88	ppb		90
44)	Cyclohexane	4.310	41	11812	1.76	ppb		89
46)	Carbontetrachloride	4.475	121	5545m	1.95	ppb		
47)	1,1-Dichloropropene	4.456	75	17089	1.84	ppb		91
49)	Benzene	4.786	78	52763	1.82	ppb		92
50)	1,2-Dichloroethane	4.792	62	15847	1.84	ppb		93
51)	Iso-Butyl Alcohol	4.652	43	6437m	33.35	ppb		
52)	n-Heptane	5.334	43	12807	1.75	ppb		87
53)	1-Butanol	5.779	56	10173m	91.78	ppb		
54)	Trichloroethene	5.828	130	13783m	1.80	ppb		
55)	Methylcyclohexane	6.102	55	13549	1.71	ppb	#	87
56)	1,2-Diclpropane	6.115	63	13563	1.86	ppb		100
57)	Dibromomethane	6.261	93	6742	1.91	ppb		87
58)	1,4-Dioxane	6.322	88	2815m	47.65	ppb		
59)	Methyl Methacrylate	6.334	69	5365	1.61	ppb	#	83
60)	Bromodichloromethane	6.480	83	16573	1.83	ppb		93
61)	2-Nitropropane	6.755	41	3400m	3.79	ppb		
62)	2-Chloroethylvinyl Ether	6.889	63	5570m	1.70	ppb		
63)	cis-1,3-Dichloropropene	7.029	75	17711	1.68	ppb		91
64)	4-Methyl-2-pentanone	7.224	43	6957	1.61	ppb		96
66)	Toluene	7.395	91	57726	1.83	ppb		99
67)	trans-1,3-Dichloropropene	7.633	75	14285	1.66	ppb		92
68)	Ethyl Methacrylate	7.773	69	11156	1.65	ppb		77
69)	1,1,2-Trichloroethane	7.816	97	9541	1.80	ppb	#	82
72)	Tetrachloroethene	7.968	164	10749	1.82	ppb	#	81
73)	2-Hexanone	8.096	43	5898m	1.85	ppb		
74)	1,3-Dichloropropane	7.974	76	16884	1.72	ppb		84
75)	Dibromochloromethane	8.194	129	10912	1.84	ppb		98
76)	N-Butyl Acetate	8.242	43	10419m	1.51	ppb		
77)	1,2-Dibromoethane	8.291	107	8539	1.73	ppb		95
78)	Chlorobenzene	8.773	112	35794	1.76	ppb		92
79)	3-CBTF	8.785	180	18954	1.88	ppb	#	93
80)	4-CBTF	8.840	180	17945	1.85	ppb		90
81)	1,1,1,2-Tetrachloroethane	8.852	131	12726	1.82	ppb		93
82)	Ethylbenzene	8.889	106	18581	1.73	ppb		91
83)	(m+p)Xylene	8.998	106	44541	3.43	ppb		92
84)	o-Xylene	9.346	106	20800	1.65	ppb	#	65
85)	Styrene	9.358	104	34431	1.66	ppb		96
87)	Bromoform	9.498	173	5683	1.78	ppb		95
88)	2-CBTF	9.577	180	18268	1.92	ppb		96
89)	Isopropylbenzene	9.675	105	54413	1.81	ppb		95
90)	Cyclohexanone	9.724	55	24612	35.51	ppb		97
91)	trans-1,4-Dichloro-2-B...	9.961	53	2714	1.81	ppb	#	72
92)	1,1,2,2-Tetrachloroethane	9.913	83	10501	1.74	ppb		91
93)	Bromobenzene	9.913	156	14537	1.88	ppb		95
94)	1,2,3-Trichloropropane	9.943	110	3318	1.89	ppb	#	80
95)	n-Propylbenzene	10.022	91	61813	1.76	ppb		96
96)	2-Chlorotoluene	10.083	91	38595	1.81	ppb		94

00309

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:18:31 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

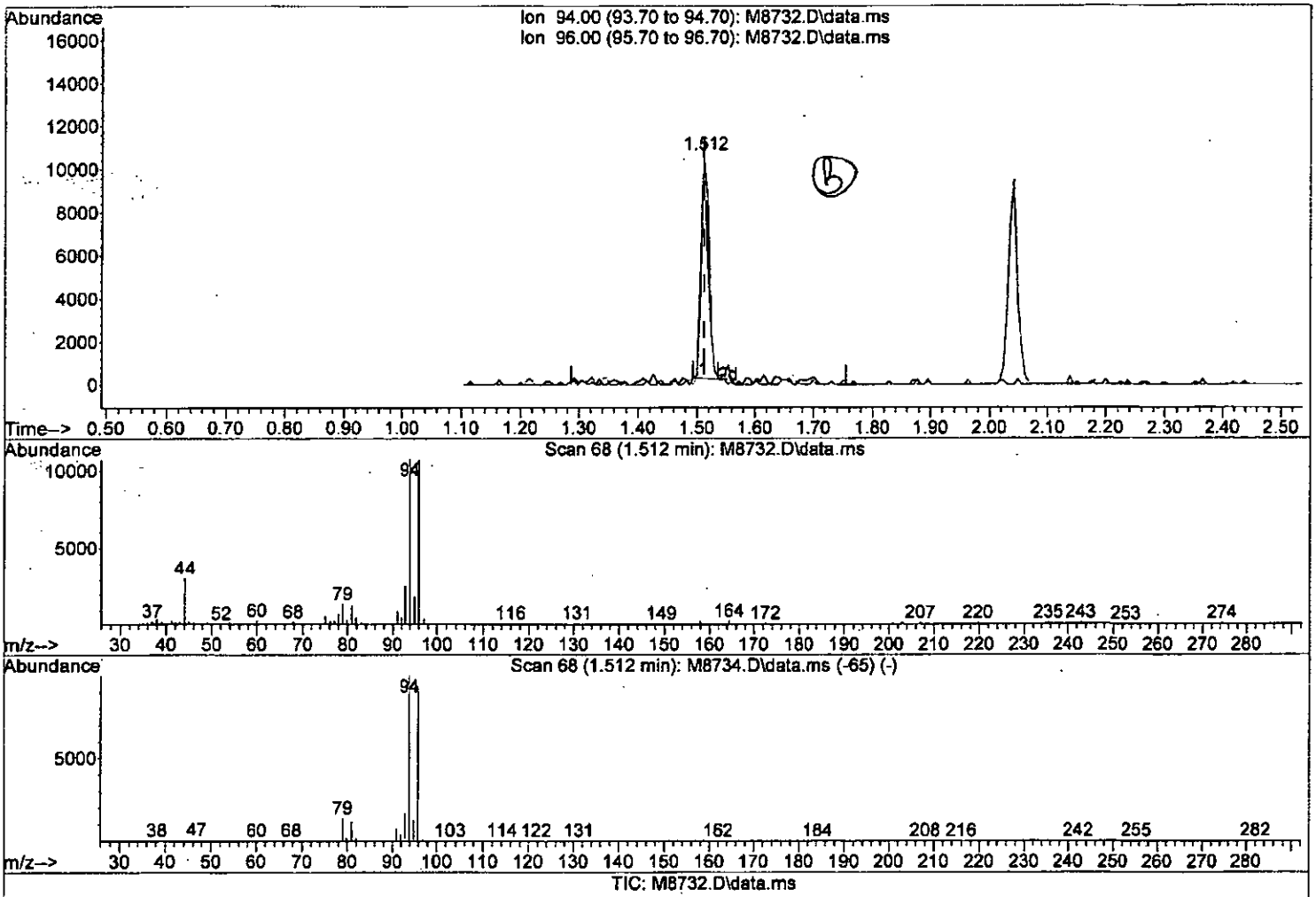
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	41910m	1.78	ppb		
98)	4-Chlorotoluene	10.175	91	44906	1.81	ppb		95
99)	1,3,5-Trimethylbenzene	10.175	105	41617	1.73	ppb		99
100)	tert-Butylbenzene	10.443	119	37785	1.87	ppb		89
101)	1,2,4-Trimethylbenzene	10.480	105	45526	1.84	ppb		87
102)	3,4-DCBTF	10.535	214	12357	1.82	ppb		97
103)	sec-Butylbenzene	10.620	105	55482	1.89	ppb		98
104)	p-Isopropyltoluene	10.742	119	43729	1.79	ppb		94
105)	1,3-Dclbenz	10.699	146	26196	1.80	ppb		95
106)	1,4-Dclbenz	10.772	146	28806	1.91	ppb		96
107)	2,4-DCBTF	10.821	214	10668	1.81	ppb		89
108)	2,5-DCBTF	10.864	214	12694	1.90	ppb		99
109)	n-Butylbenzene	11.071	91	38260	1.72	ppb		97
110)	1,2-Dclbenz	11.065	146	24440	1.75	ppb		97
111)	1,2-Dibromo-3-chloropr...	11.626	157	1524	1.43	ppb	#	32
112)	Trielution Dichlorotol...	11.729	125	64291	5.55	ppb		98
113)	1,3,5 Trichlorobenzene	11.778	180	19588	1.97	ppb		90
114)	Coelution Dichlorotoluene	11.998	125	44450	3.59	ppb		97
115)	1,2,4-Tcbenzene	12.162	180	14063	1.73	ppb		88
116)	Hexachlorobt	12.266	225	5982	1.86	ppb		96
117)	Naphthalen	12.302	128	28804	1.73	ppb		99
118)	1,2,3-Tclbenzene	12.443	180	12576	1.78	ppb	#	73
119)	2,4,5-Trichlorotolene	12.857	159	10448	1.90	ppb		94
120)	2,3,6-Trichlorotoluene	12.918	159	10235	1.89	ppb		93

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

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(5) Bromomethane (P)

1.512min (-0.000) 1.86 ppb

response 9509

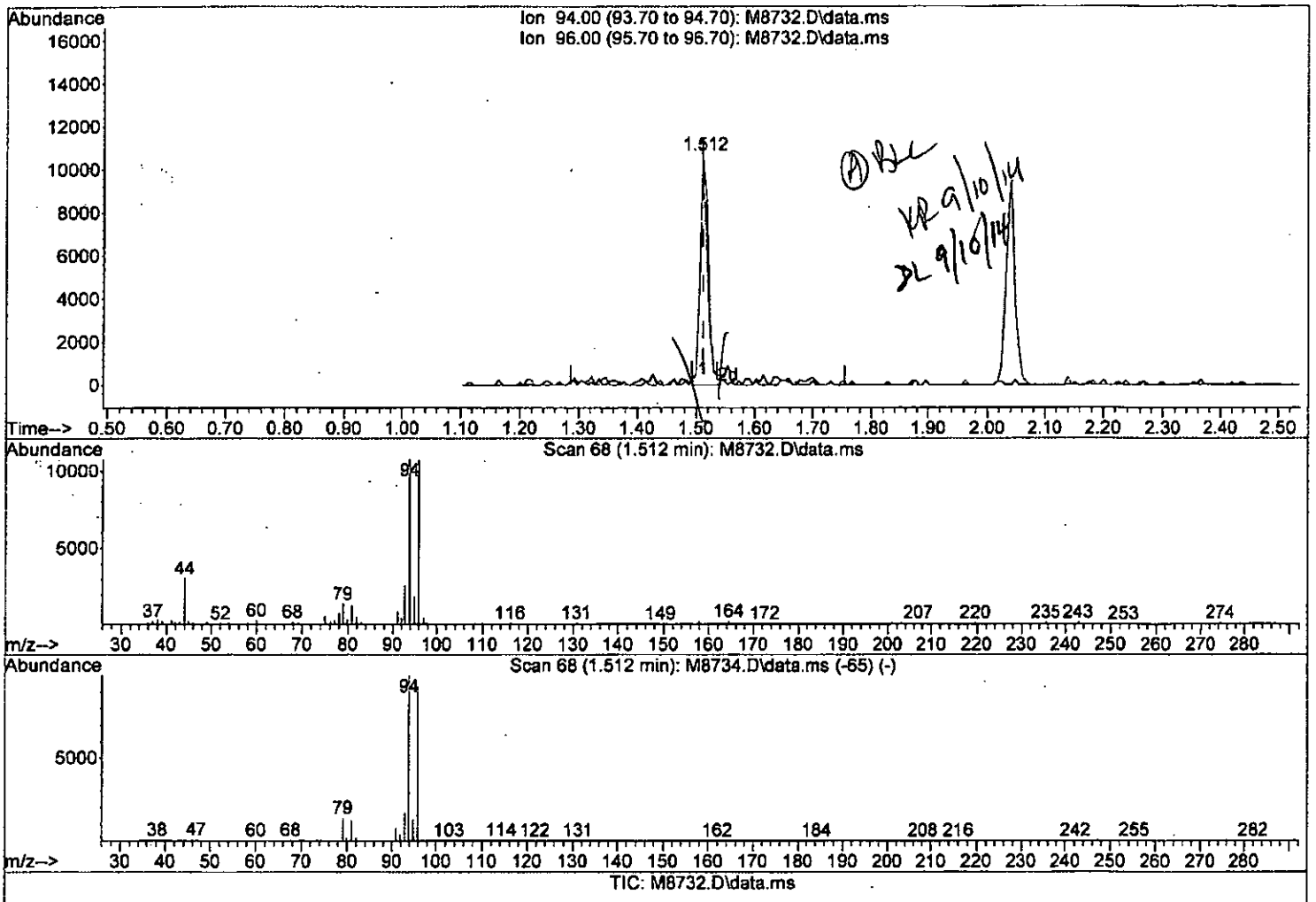
Ion	Exp%	Act%
94.00	100	100
96.00	93.50	99.68
0.00	0.00	0.00
0.00	0.00	0.00

00311

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(5) Bromomethane (P)

1.512min (-0.000) 2.03 ppb m

response 10358

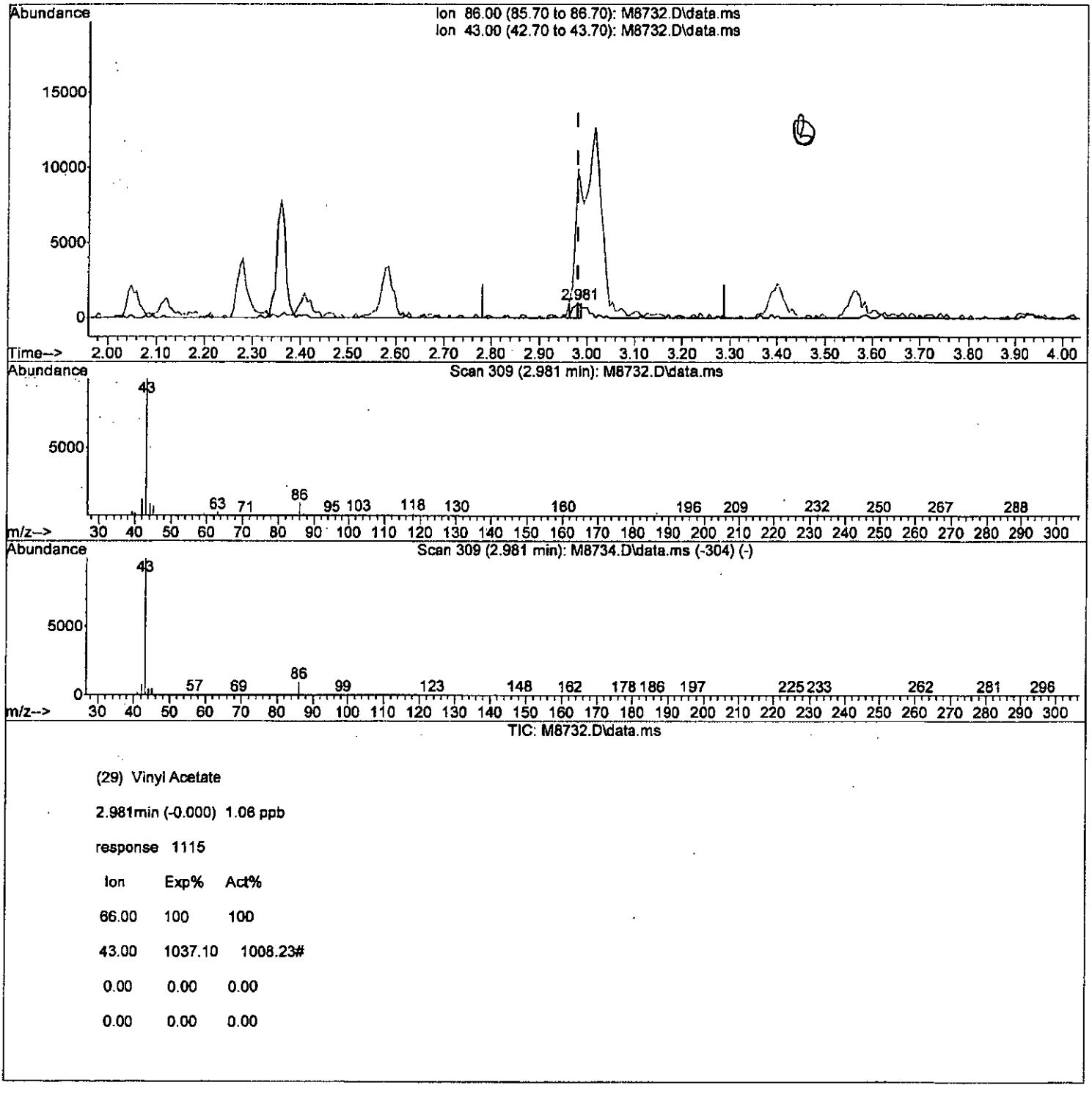
Ion	Exp%	Act%
94.00	100	100
96.00	93.50	99.68
0.00	0.00	0.00
0.00	0.00	0.00

00312

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(29) Vinyl Acetate

2.981min (-0.000) 1.06 ppb

response 1115

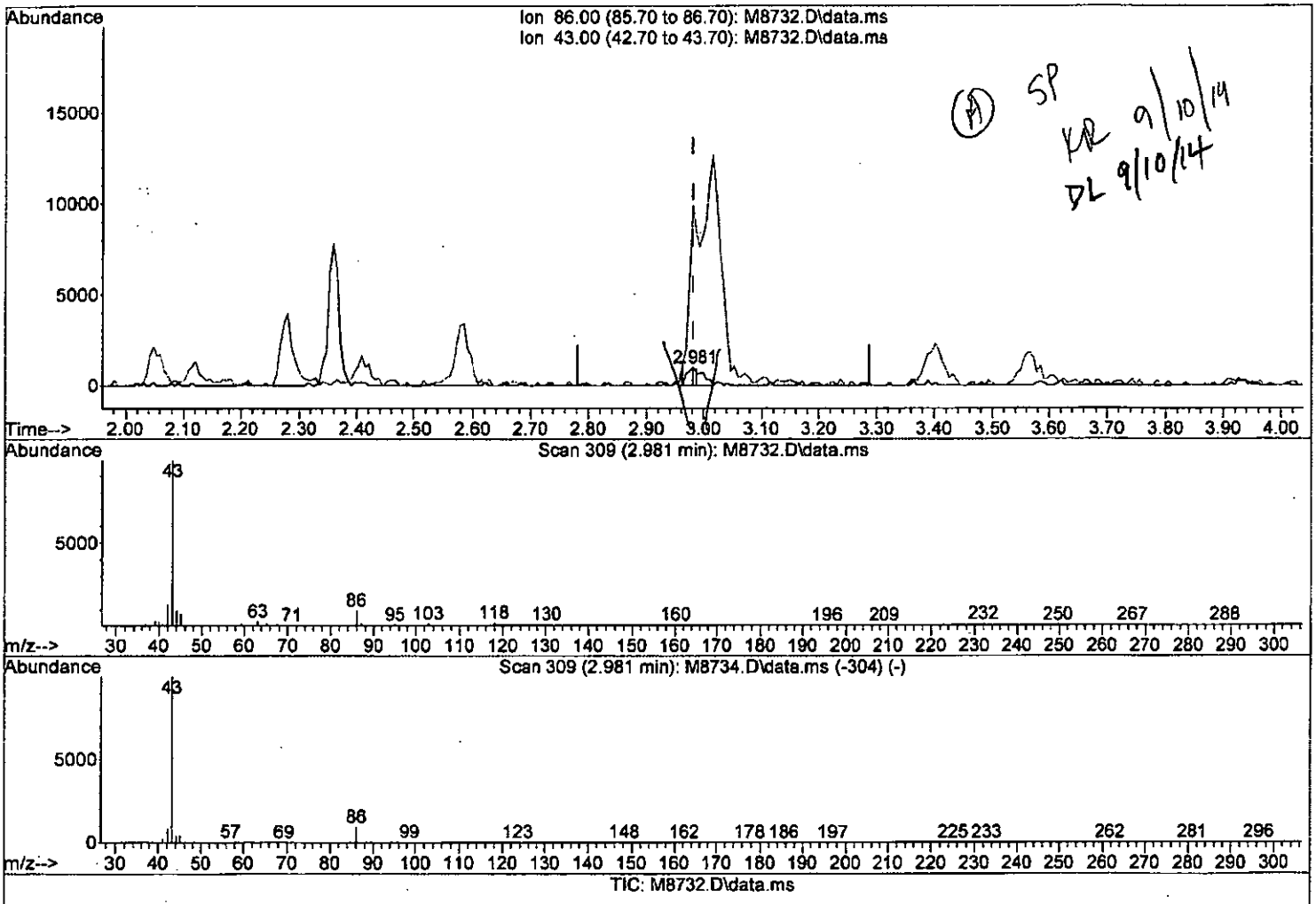
Ion	Exp%	Act%
66.00	100	100
43.00	1037.10	1008.23#
0.00	0.00	0.00
0.00	0.00	0.00

00313

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(29) Vinyl Acetate

2.981min (-0.000) 1.78 ppb m

response 1834

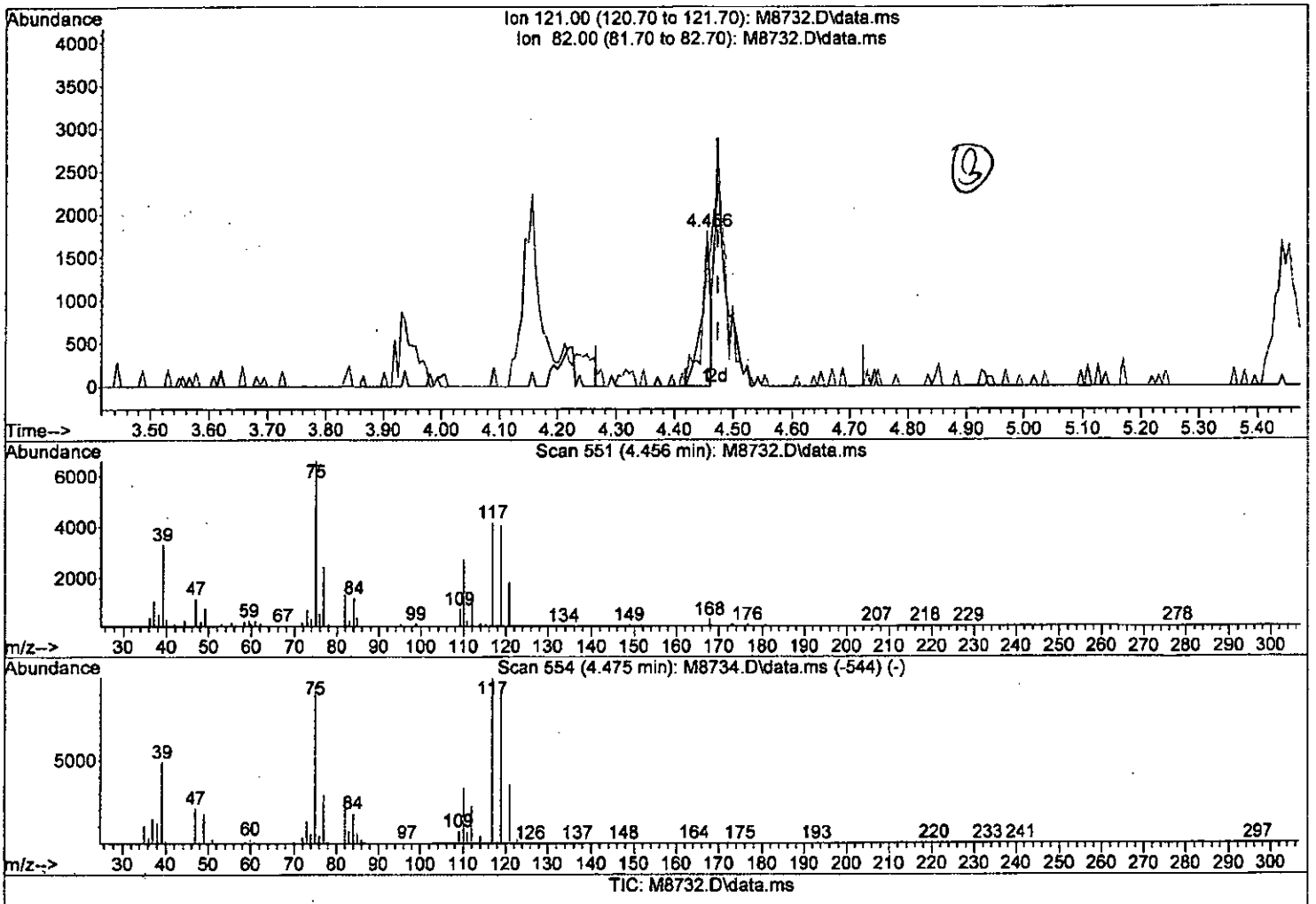
Ion	Exp%	Act%
86.00	100	100
43.00	1037.10	1008.23#
0.00	0.00	0.00
0.00	0.00	0.00

00314

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(46) Carbontetrachloride (P)

4.456min (-0.018) 0.67 ppb

response 1900

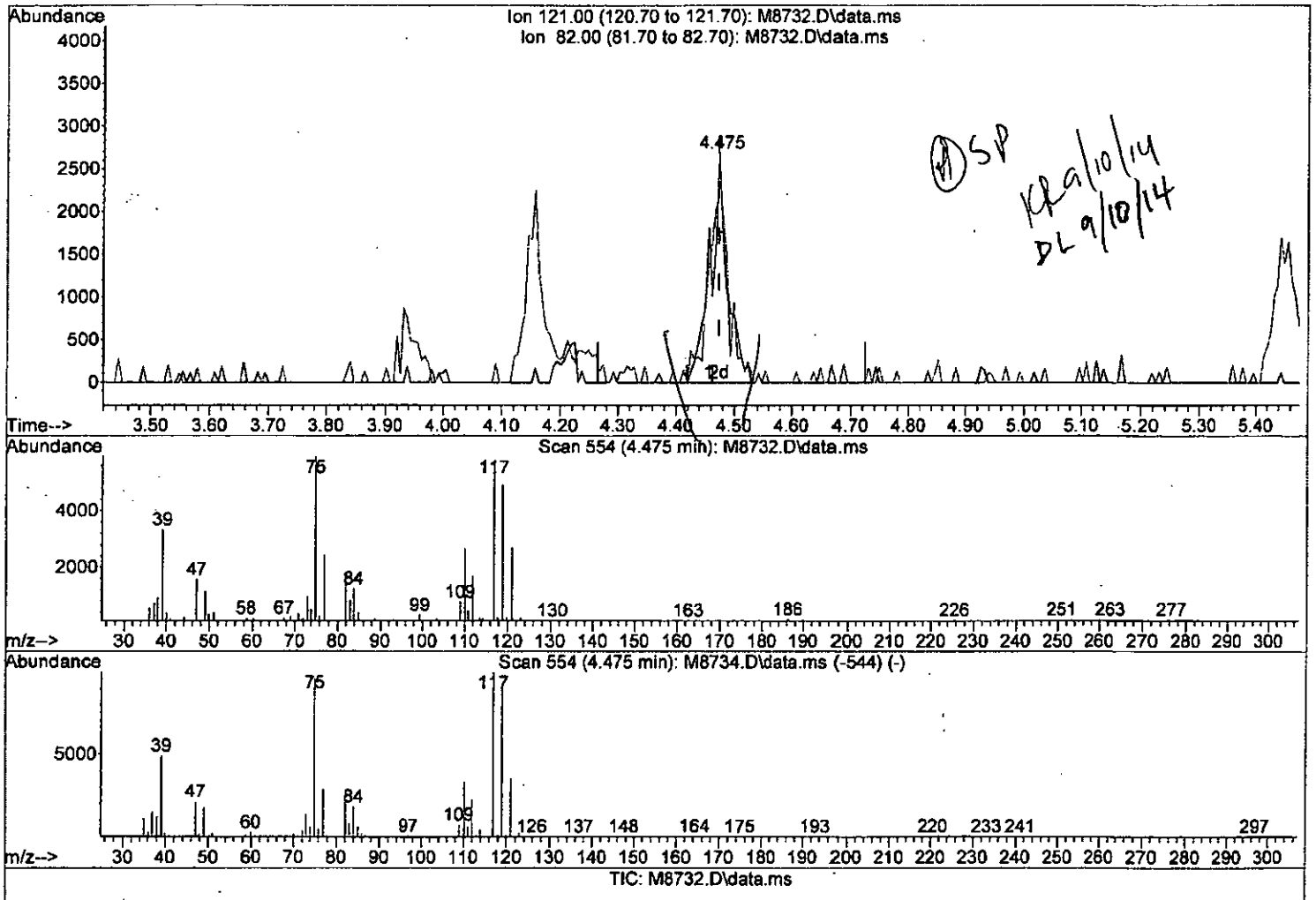
Ion	Exp%	Act%
121.00	100	100
82.00	80.90	72.91
0.00	0.00	0.00
0.00	0.00	0.00

00315

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(46) Carbontetrachloride (P)

4.475min (-0.000) 1.95 ppb m

response 5545

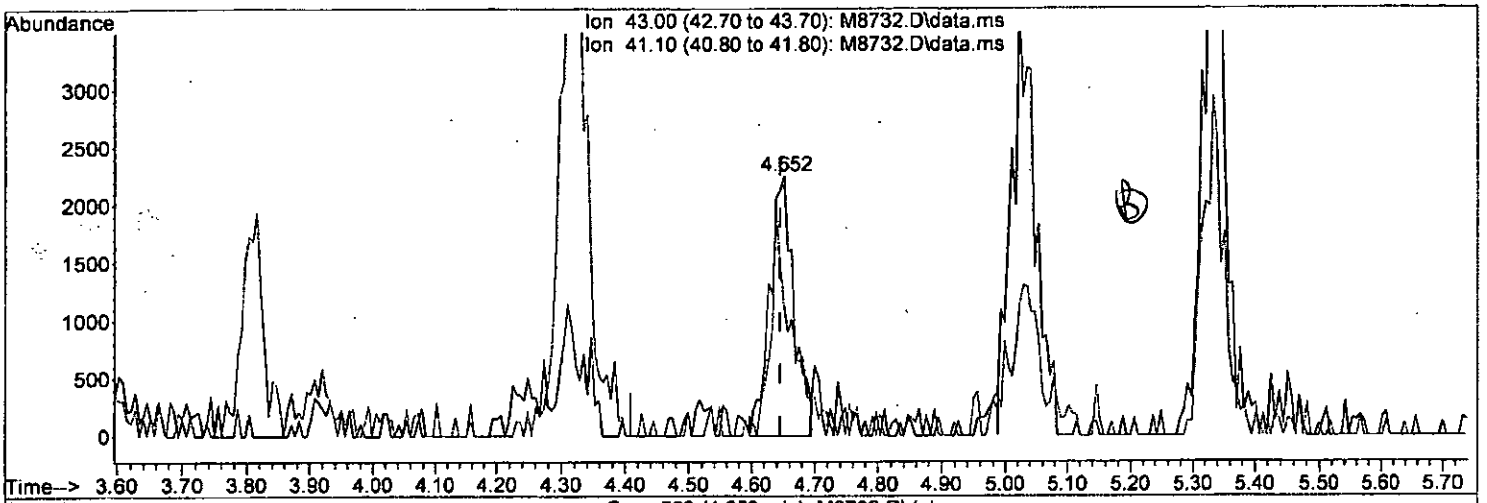
Ion	Exp%	Act%
121.00	100	100
82.00	80.90	60.36#
0.00	0.00	0.00
0.00	0.00	0.00

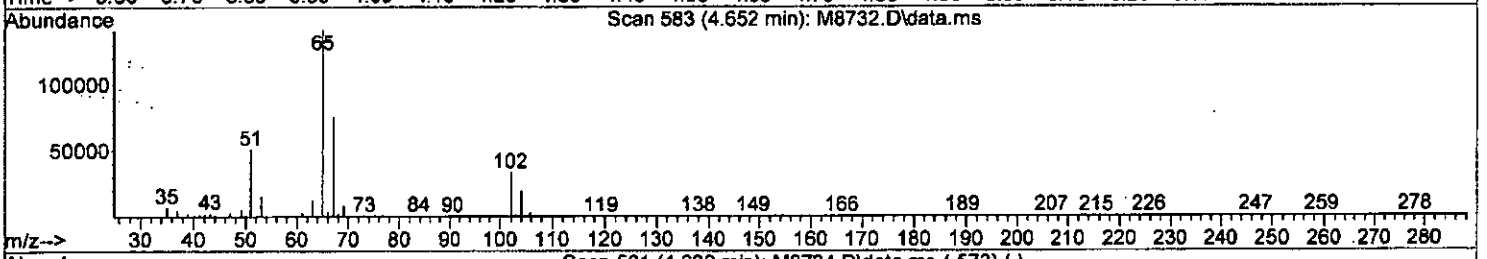
00316

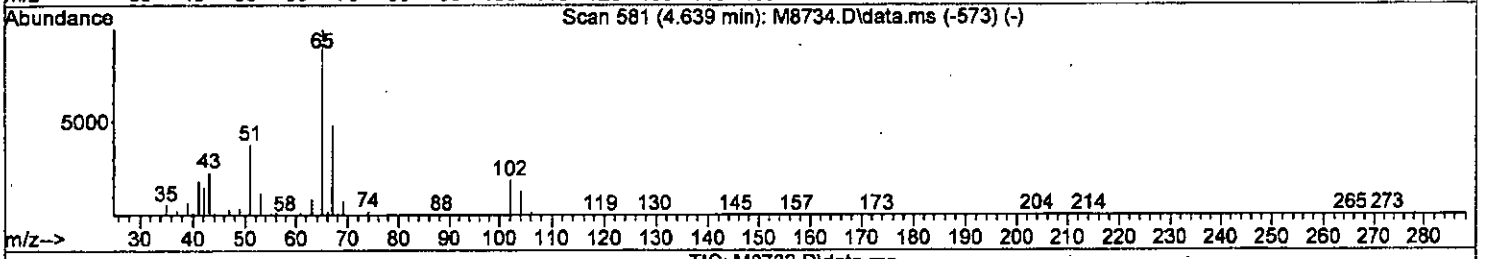
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(51) Iso-Butyl Alcohol

4.652min (+0.006) 30.99 ppb

response 5980

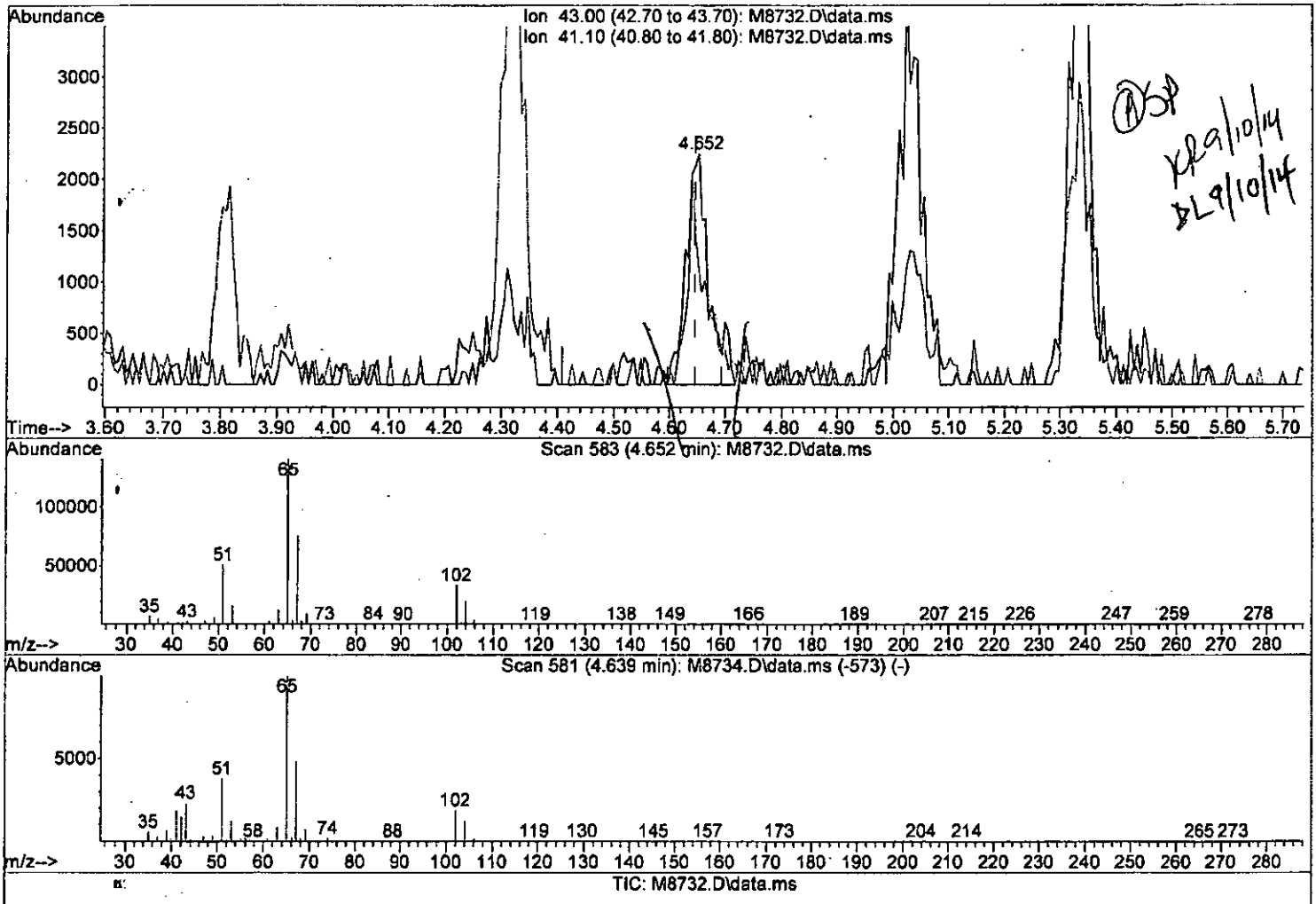
Ion	Exp%	Act%
43.00	100	100
41.10	77.80	49.84#
0.00	0.00	0.00
0.00	0.00	0.00

00317

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(51) Iso-Butyl Alcohol

4.652min (+0.006) 33.35 ppb m

response 6437

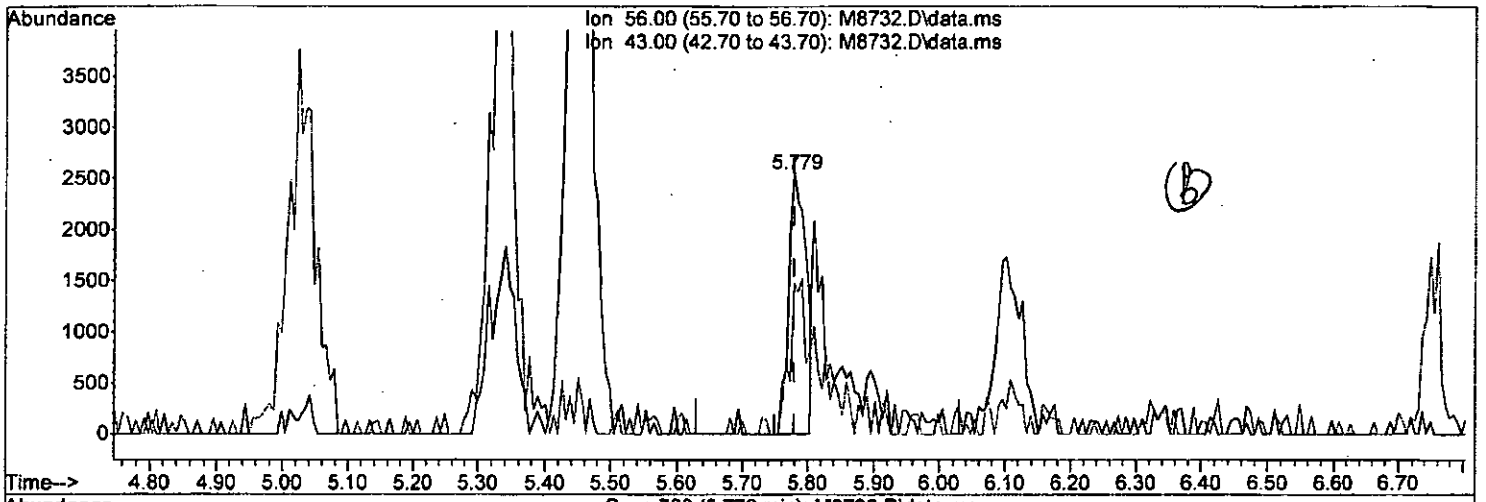
Ion	Exp%	Act%
43.00	100	100
41.10	77.80	49.84#
0.00	0.00	0.00
0.00	0.00	0.00

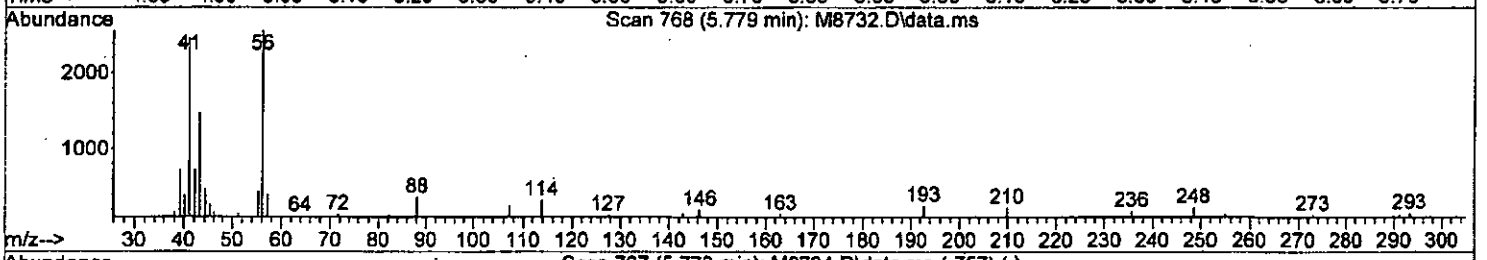
00318

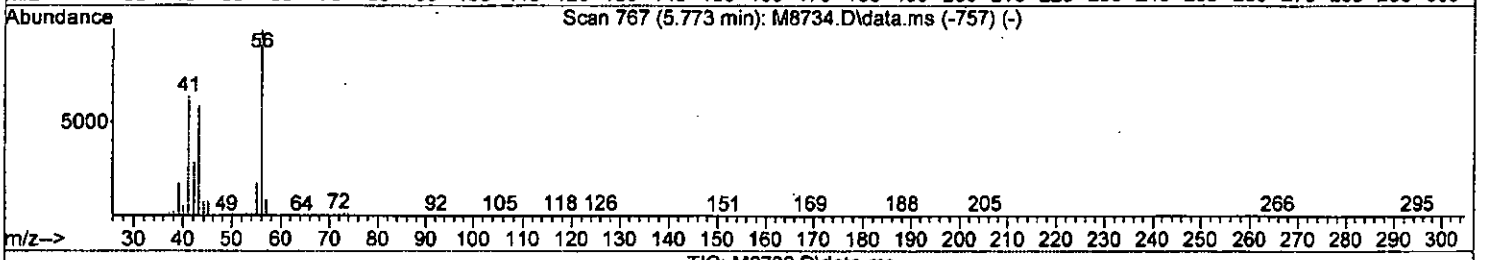
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(53) 1-Butanol

5.779min (-0.000) 43.09 ppb

response 4776

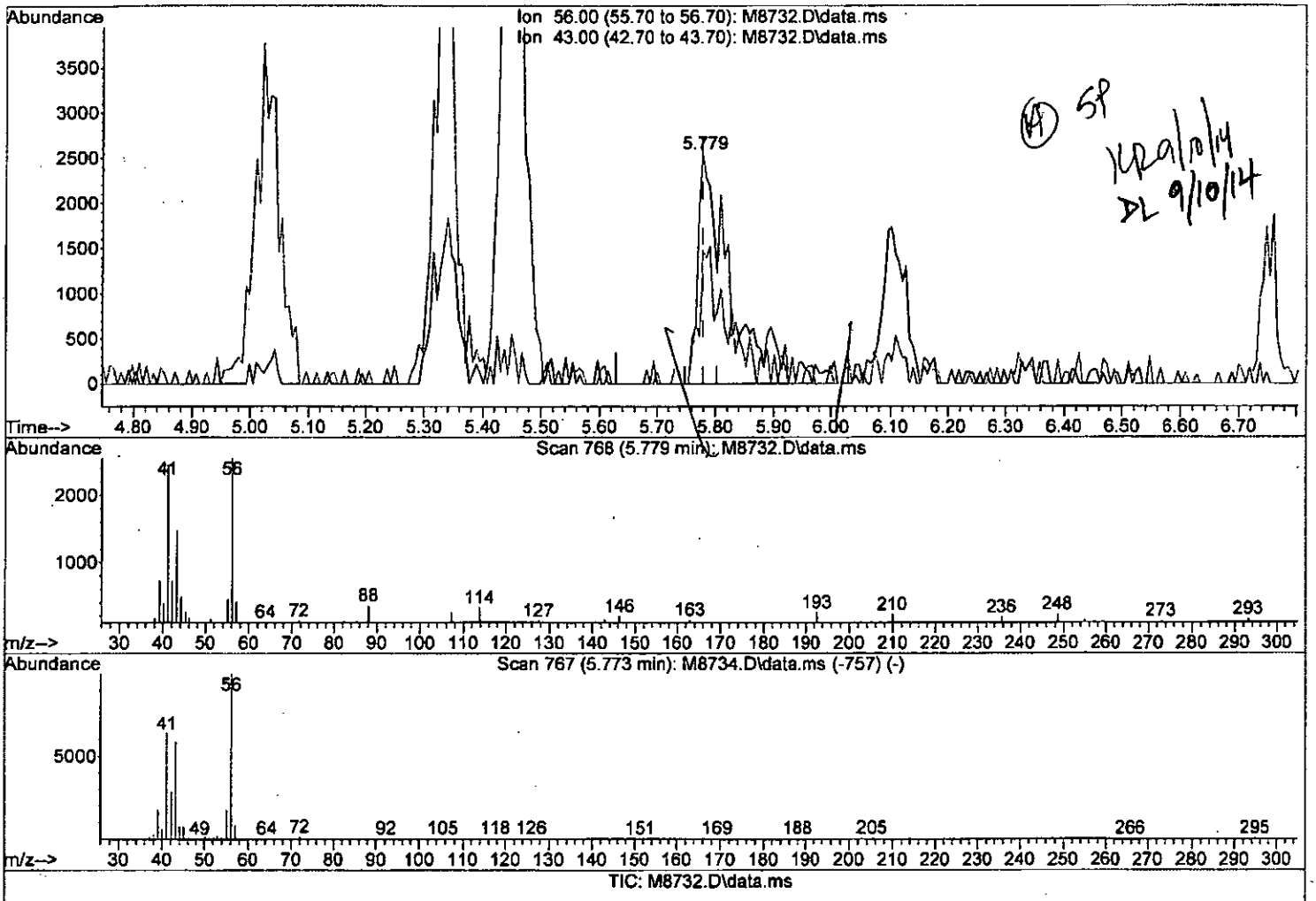
Ion	Exp%	Act%
56.00	100	100
43.00	57.60	72.68
0.00	0.00	0.00
0.00	0.00	0.00

00319

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(53) 1-Butanol

5.779min (-0.000) 91.78 ppb m

response 10173

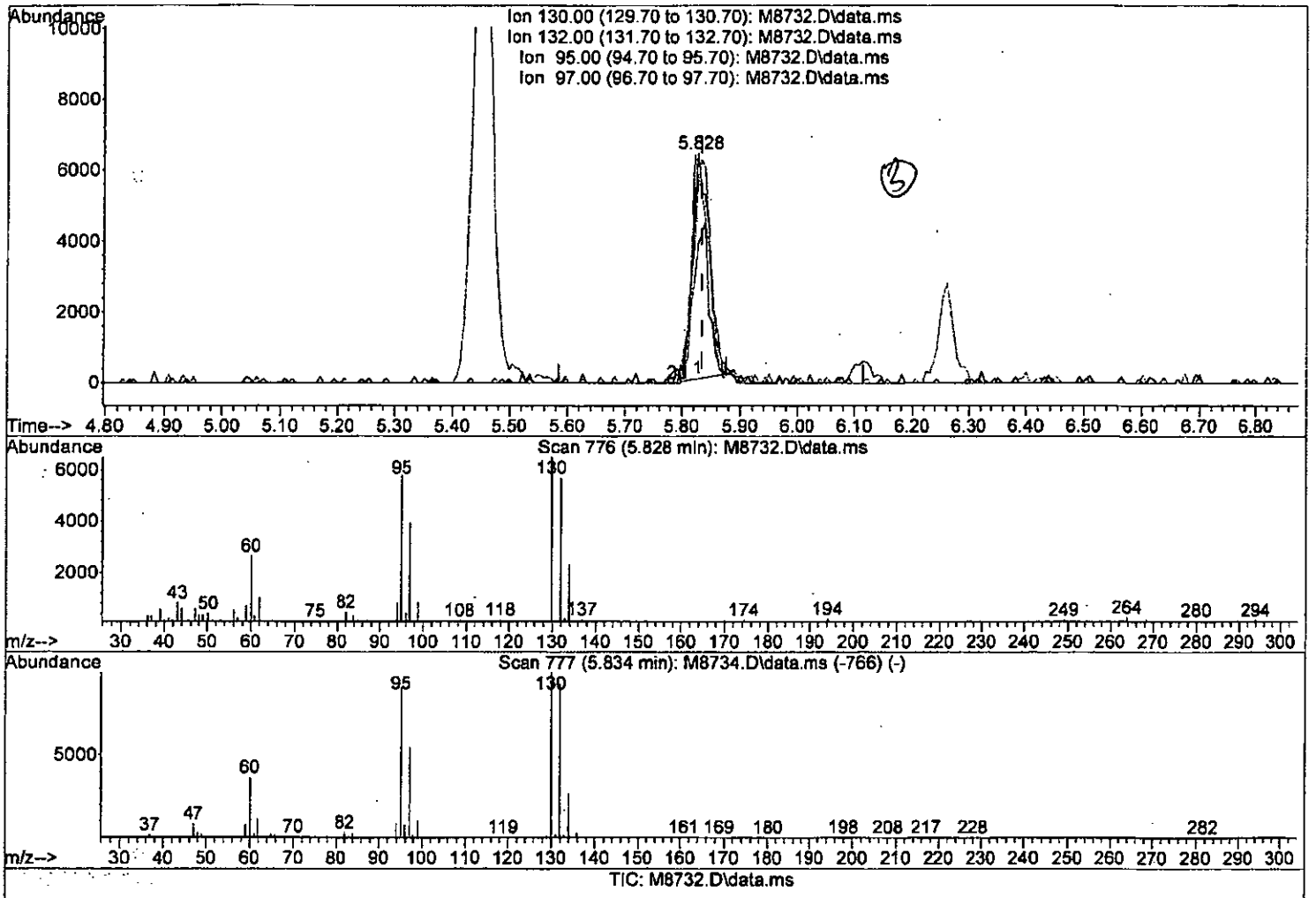
Ion	Exp%	Act%
56.00	100	100
43.00	57.60	34.12#
0.00	0.00	0.00
0.00	0.00	0.00

00320

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(54) Trichloroethene (P)

5.828min (-0.006) 1.66 ppb

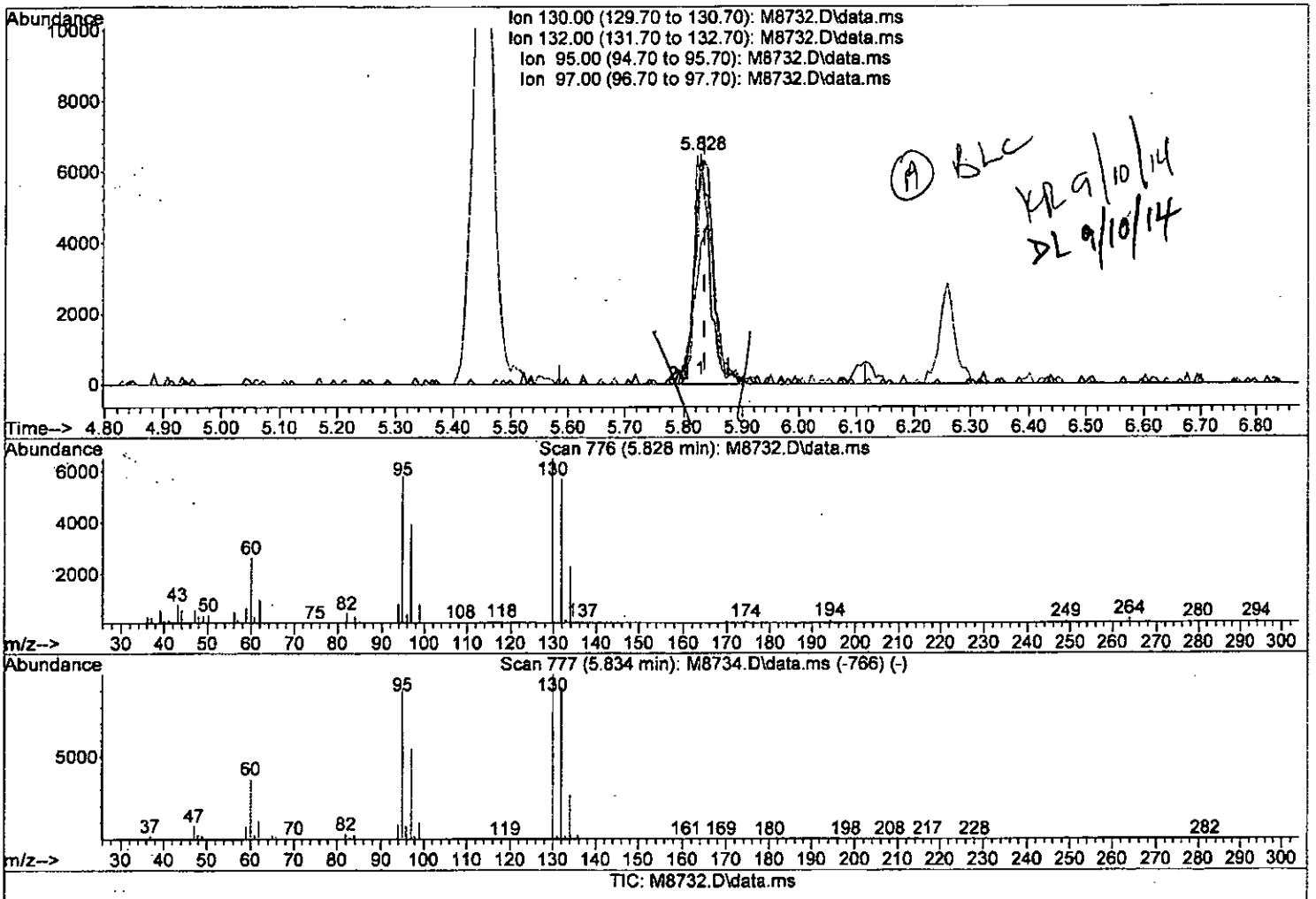
response 12725

Ion	Exp%	Act%
130.00	100	100
132.00	92.70	87.50
95.00	91.00	89.21
97.00	55.00	60.54

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(54) Trichloroethene (P)

5.828min (-0.006) 1.80 ppb m

response 13783

Ion	Exp%	Act%
130.00	100	100
132.00	92.70	87.50
95.00	91.00	89.21
97.00	55.00	60.54

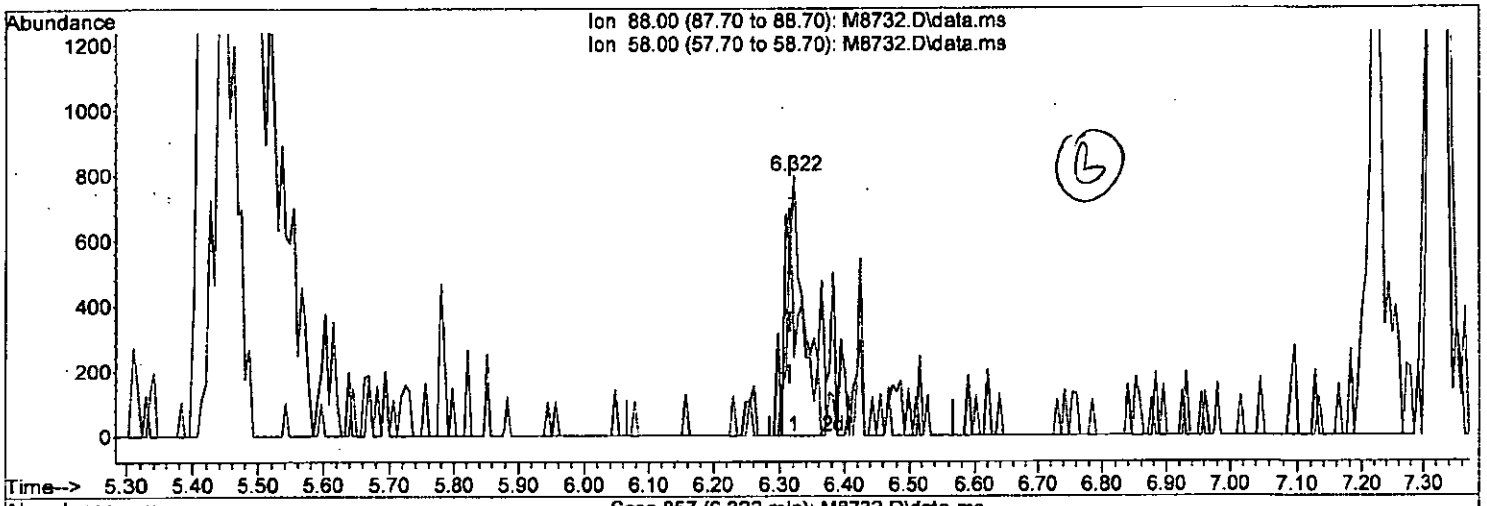
(A) BLC KR 9/10/14 DL 9/10/14

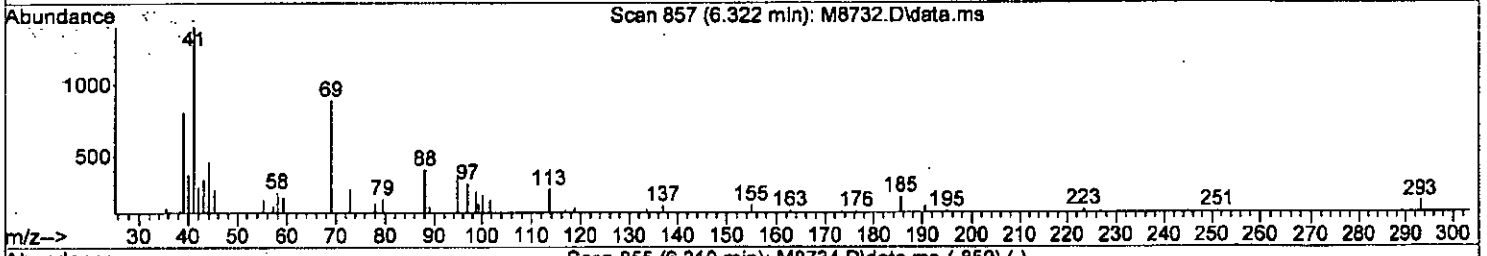
00322

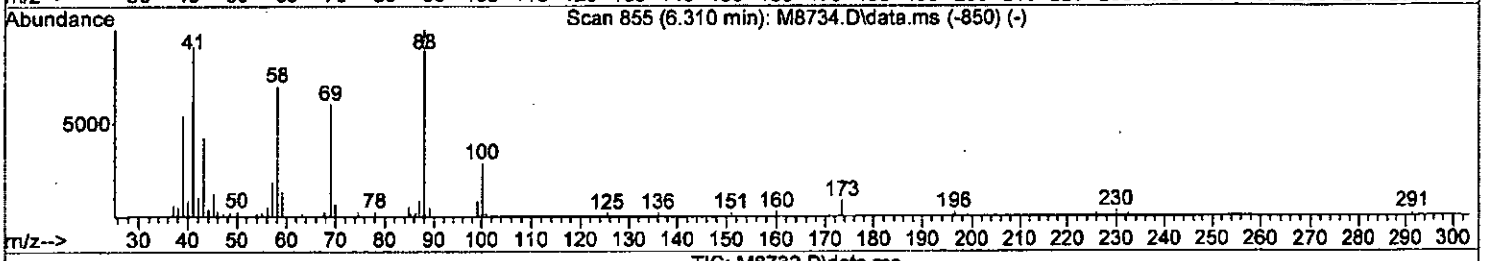
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 29.20 ppb

response 1725

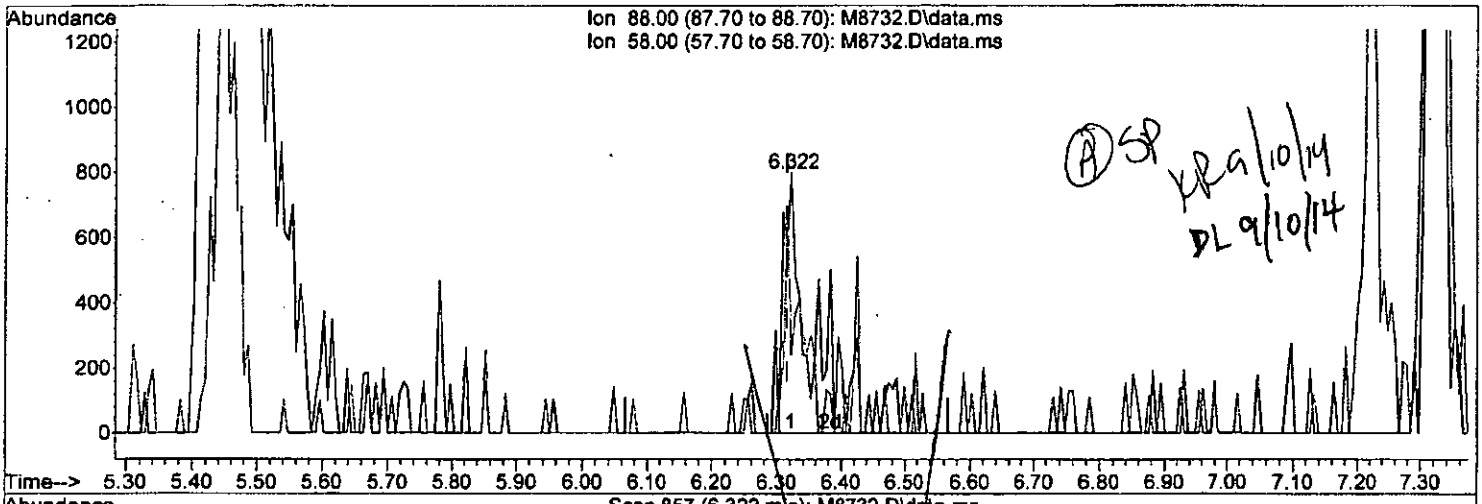
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	30.04#
0.00	0.00	0.00
0.00	0.00	0.00

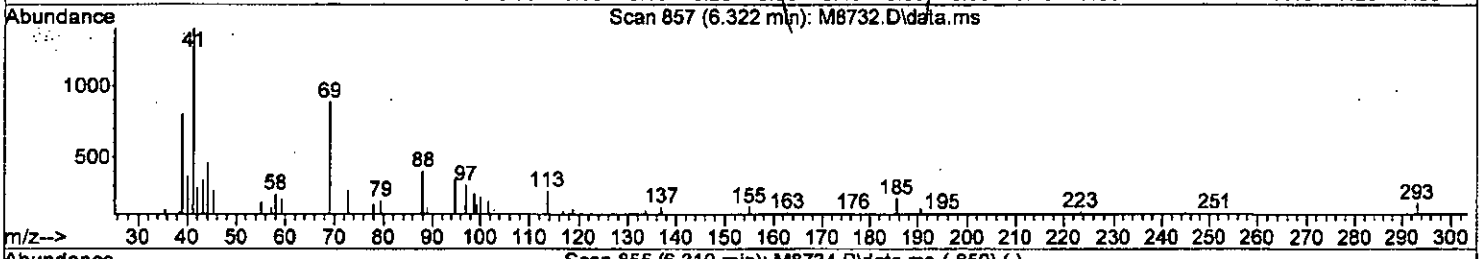
00323

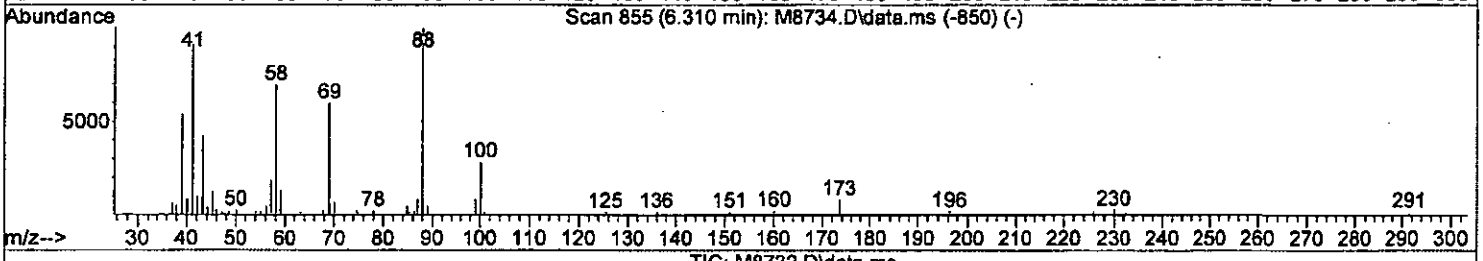
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 47.65 ppb m

response 2815

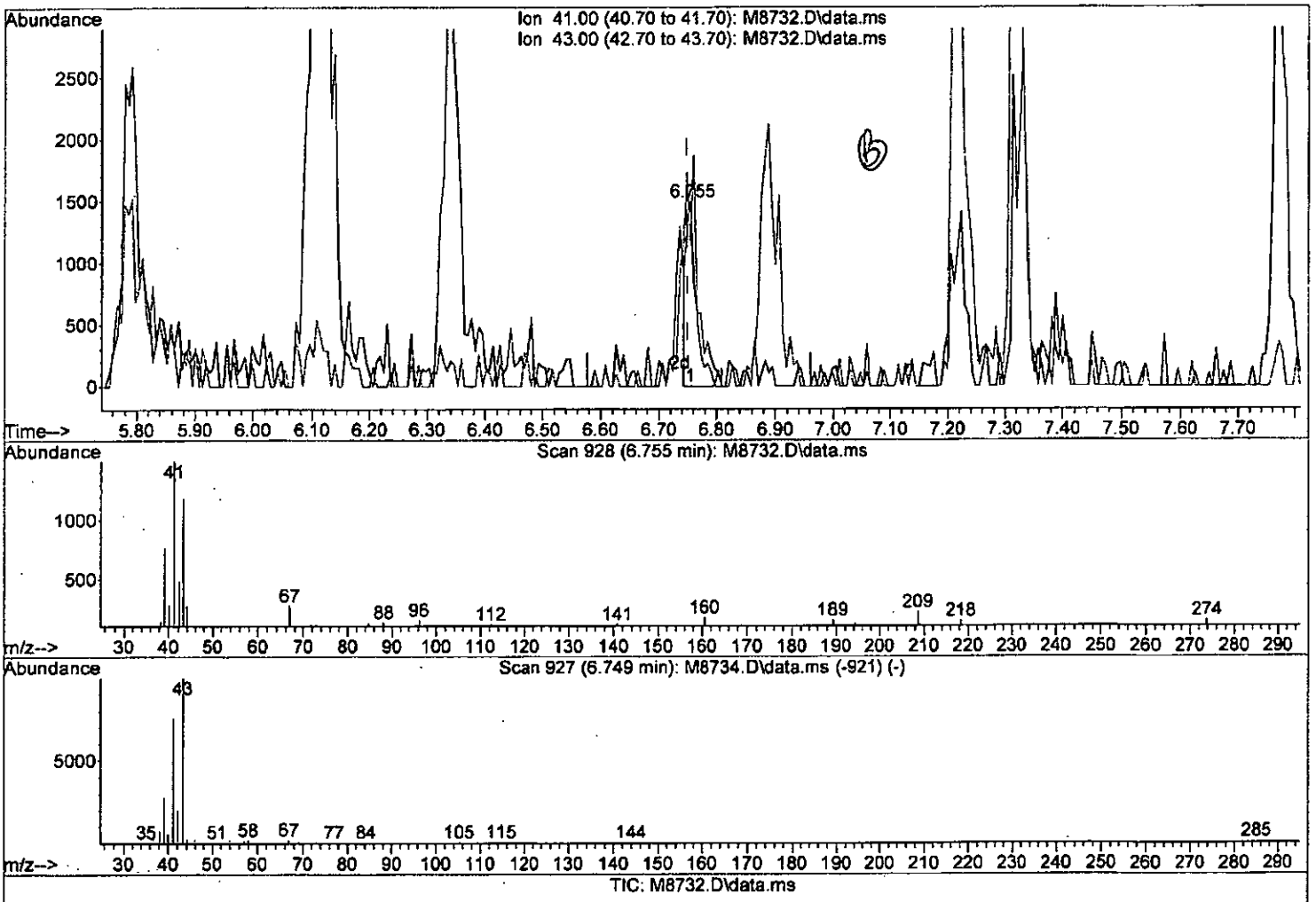
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	60.00
0.00	0.00	0.00
0.00	0.00	0.00

00324

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(61) 2-Nitropropane

6.755min (+0.006) 2.39 ppb

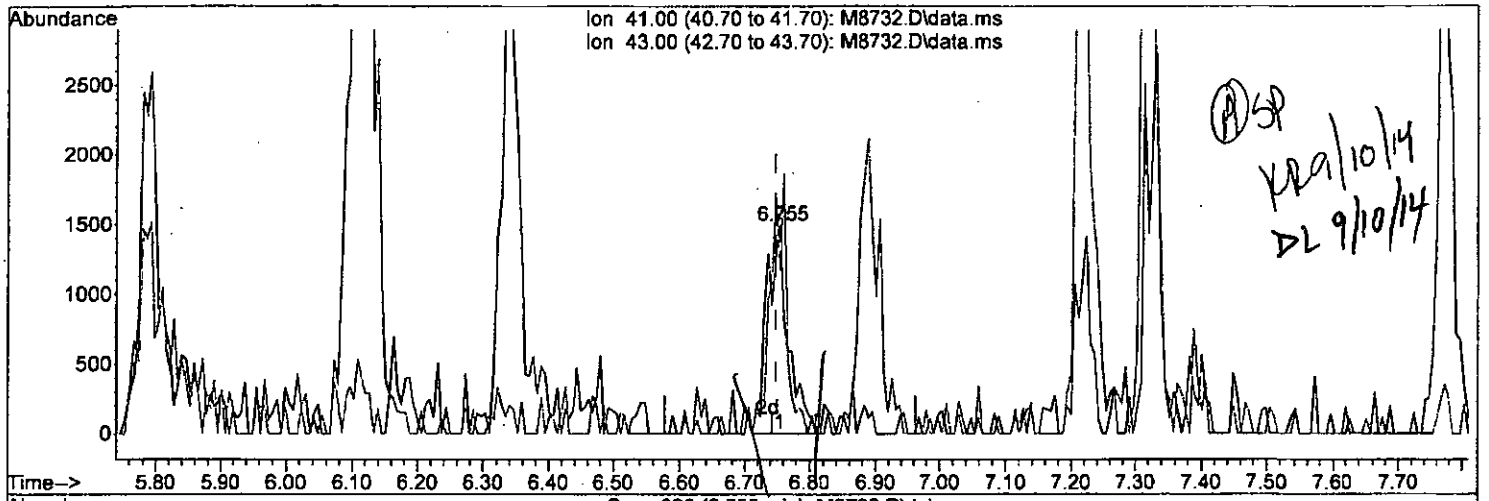
response 2145

Ion	Exp%	Act%
41.00	100	100
43.00	130.50	78.73#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(61) 2-Nitropropane

6.755min (+0.006) 3.79 ppb m

response 3400

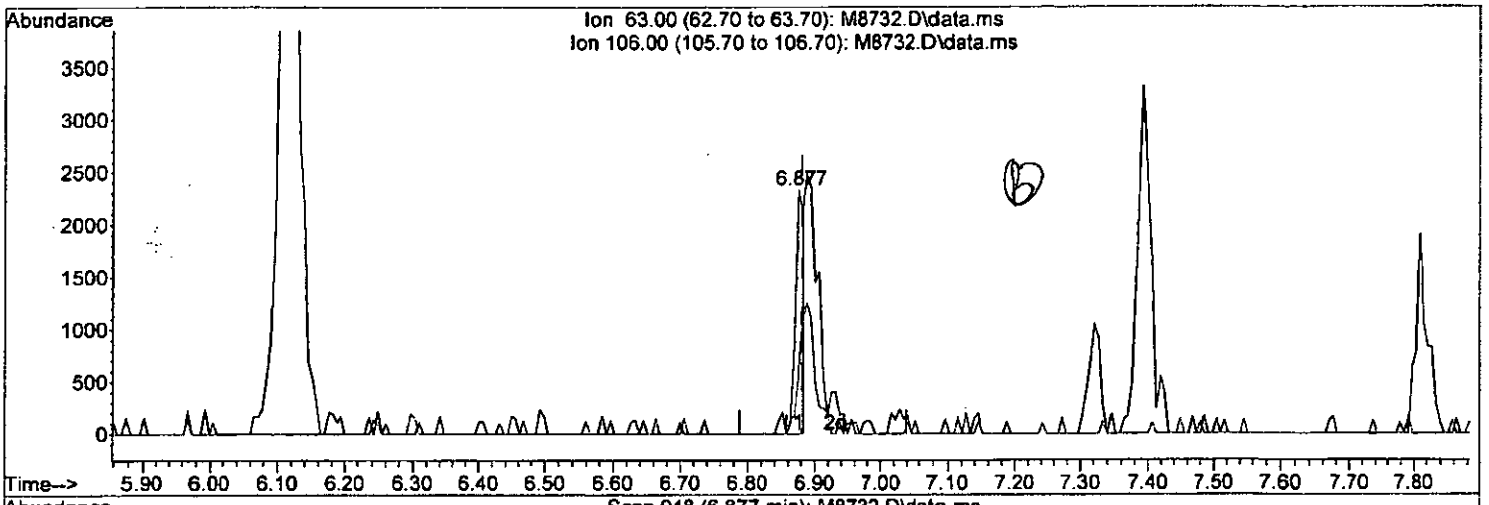
Ion	Exp%	Act%
41.00	100	100
43.00	130.50	78.73#
0.00	0.00	0.00
0.00	0.00	0.00

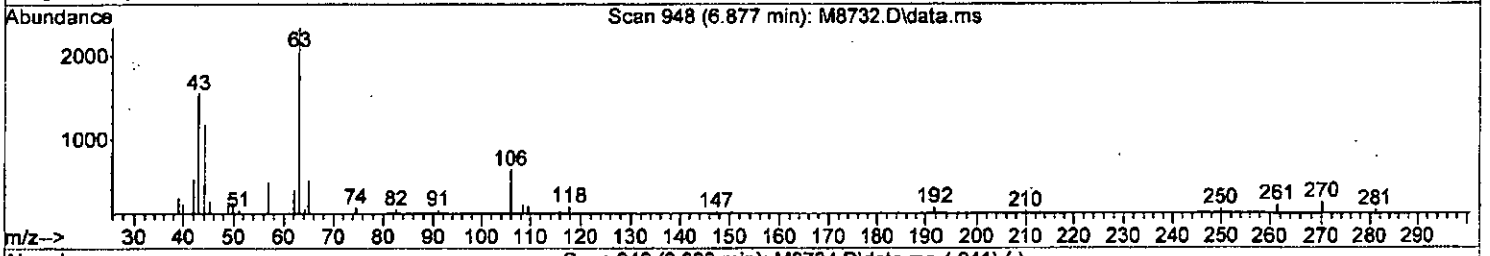
00326

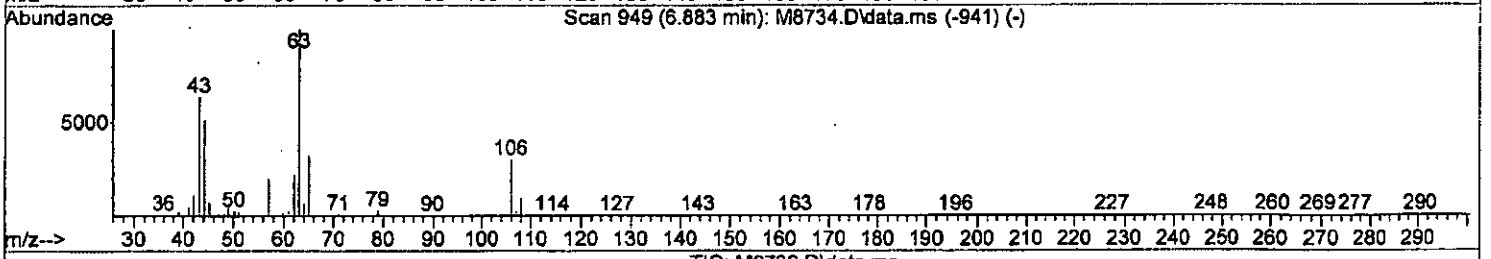
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(62) 2-Chloroethylvinyl Ether

6.877min (-0.006) 0.61 ppb

response 2006

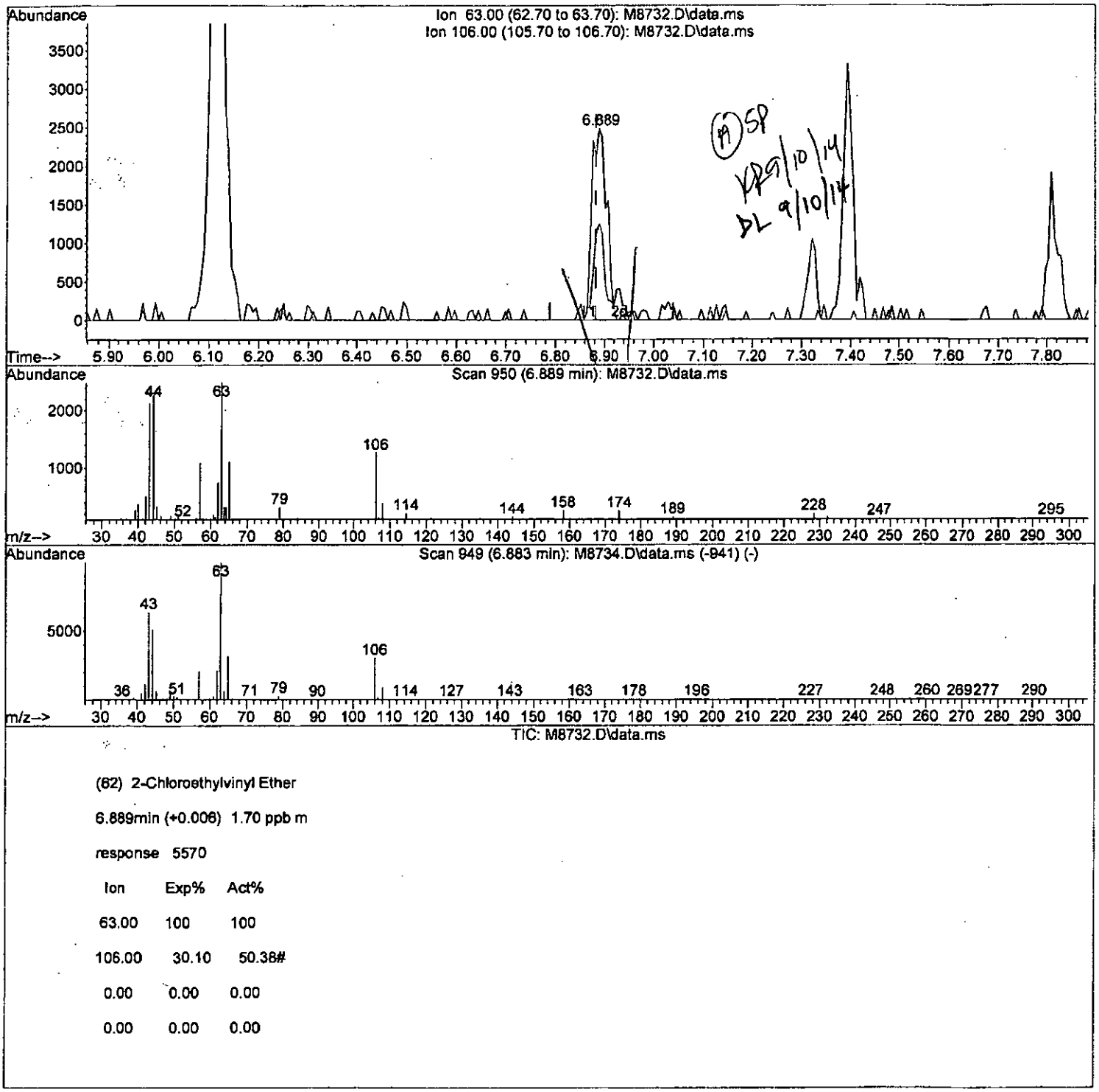
Ion	Exp%	Act%
63.00	100	100
106.00	30.10	26.98
0.00	0.00	0.00
0.00	0.00	0.00

00327

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(62) 2-Chloroethylvinyl Ether

6.889min (+0.006) 1.70 ppb m

response 5570

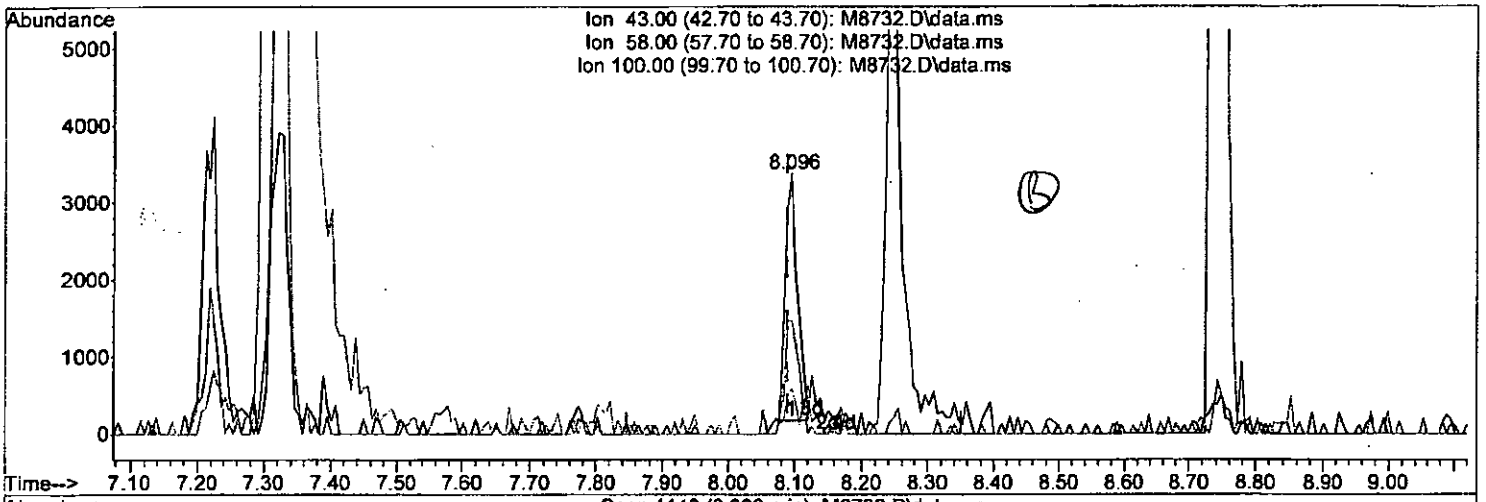
Ion	Exp%	Act%
63.00	100	100
106.00	30.10	50.38#
0.00	0.00	0.00
0.00	0.00	0.00

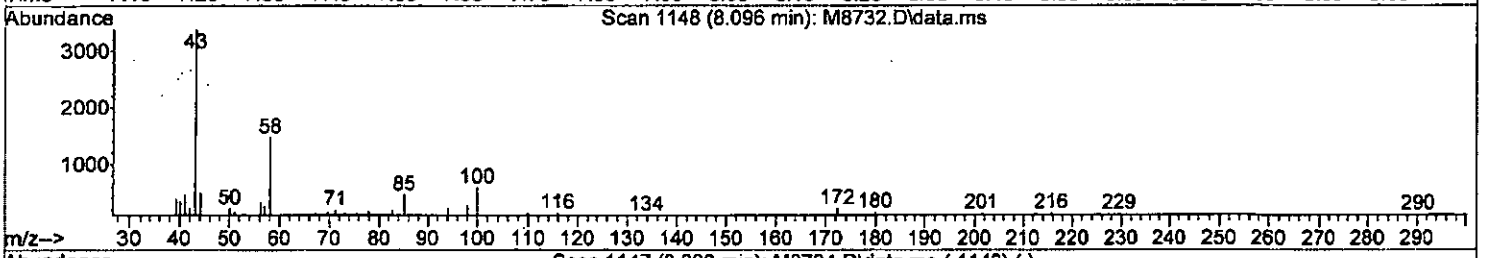
00328

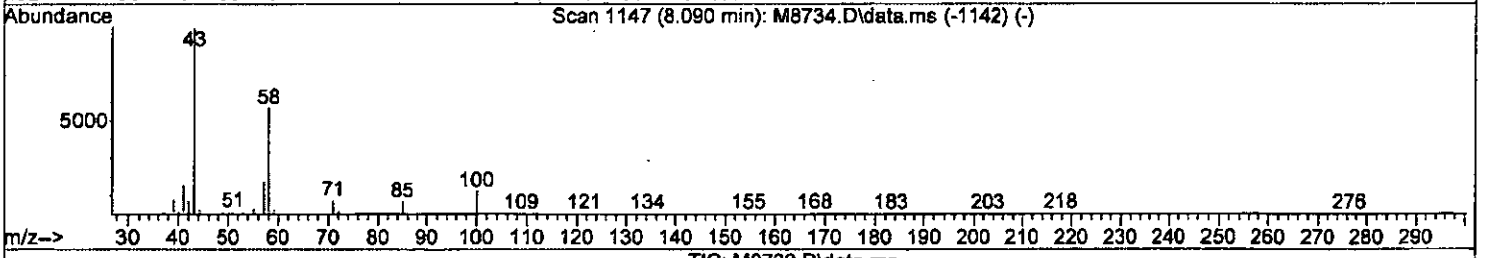
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(73) 2-Hexanone (P)

8.096min (+0.006) 1.30 ppb

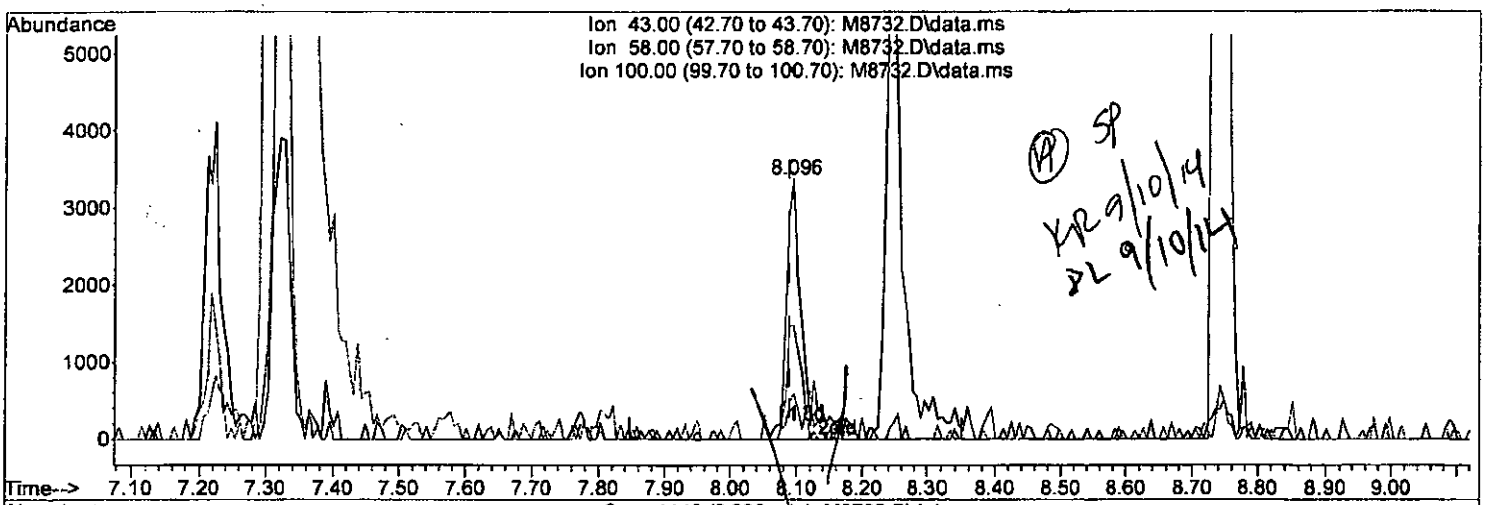
response 4148

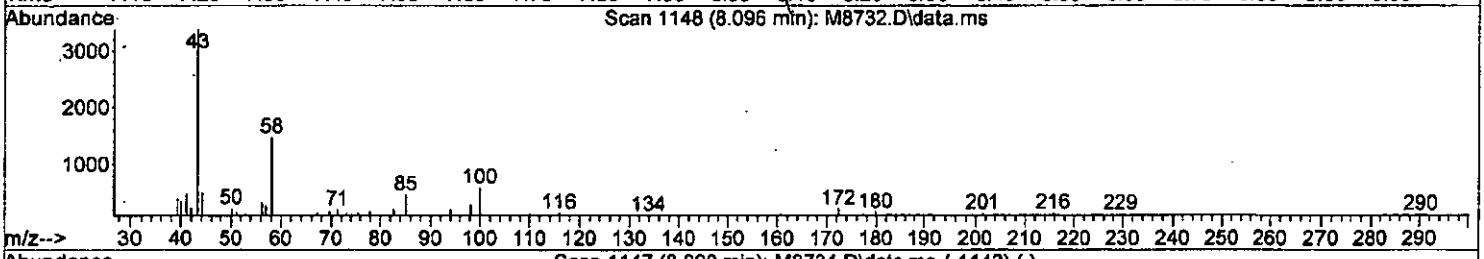
Ion	Exp%	Act%
43.00	100	100
58.00	56.80	43.56
100.00	12.10	17.22
0.00	0.00	0.00

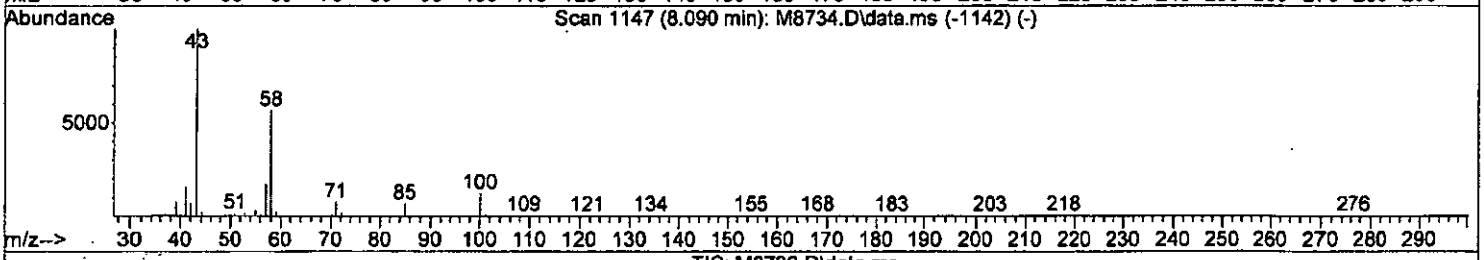
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(73) 2-Hexanone (P)

8.096min (+0.006) 1.85 ppb m

response 5898

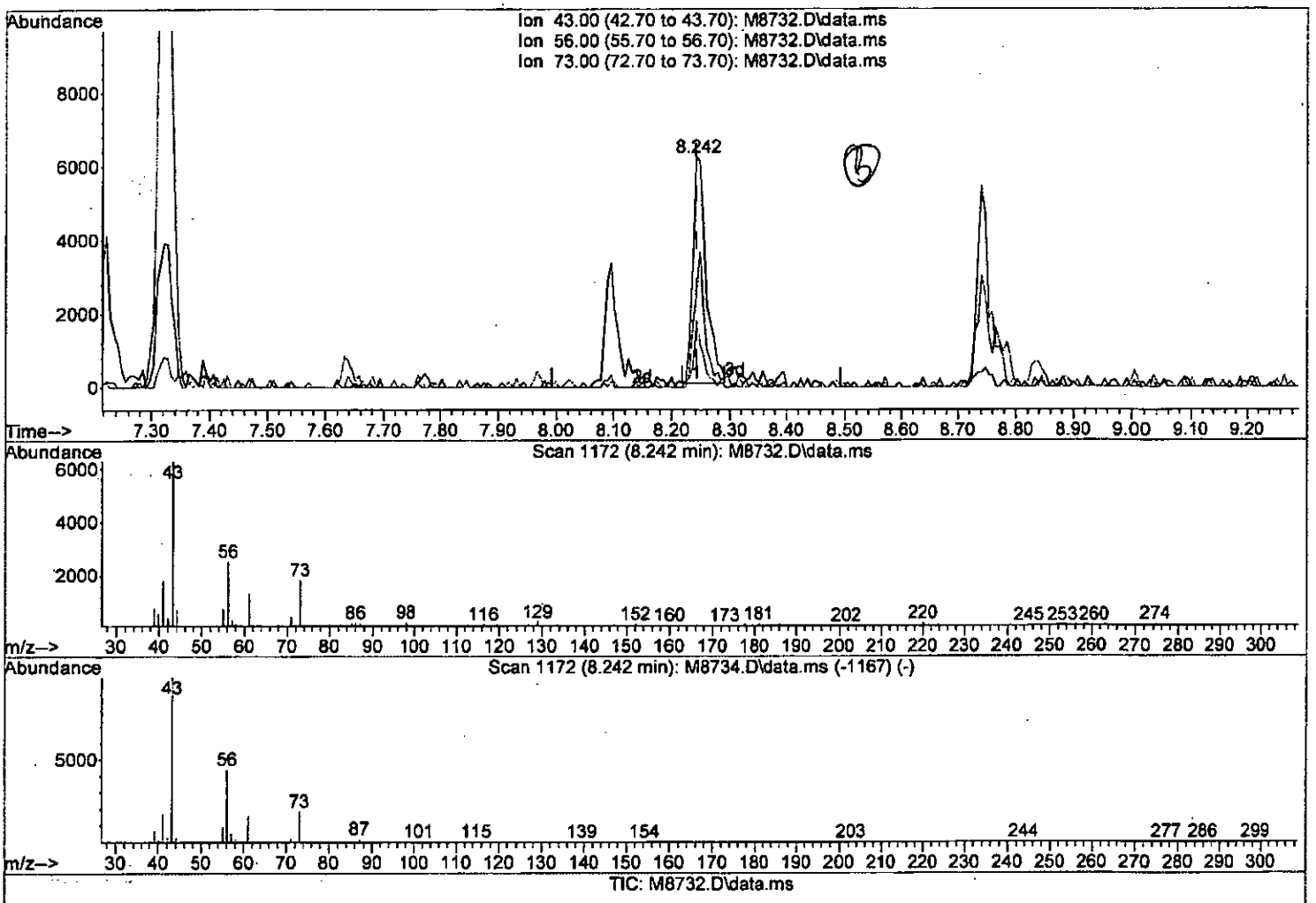
Ion	Exp%	Act%
43.00	100	100
58.00	56.80	43.56
100.00	12.10	17.22
0.00	0.00	0.00

00330

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(76) N-Butyl Acetate

8.242min (-0.000) 1.44 ppb

response 9928

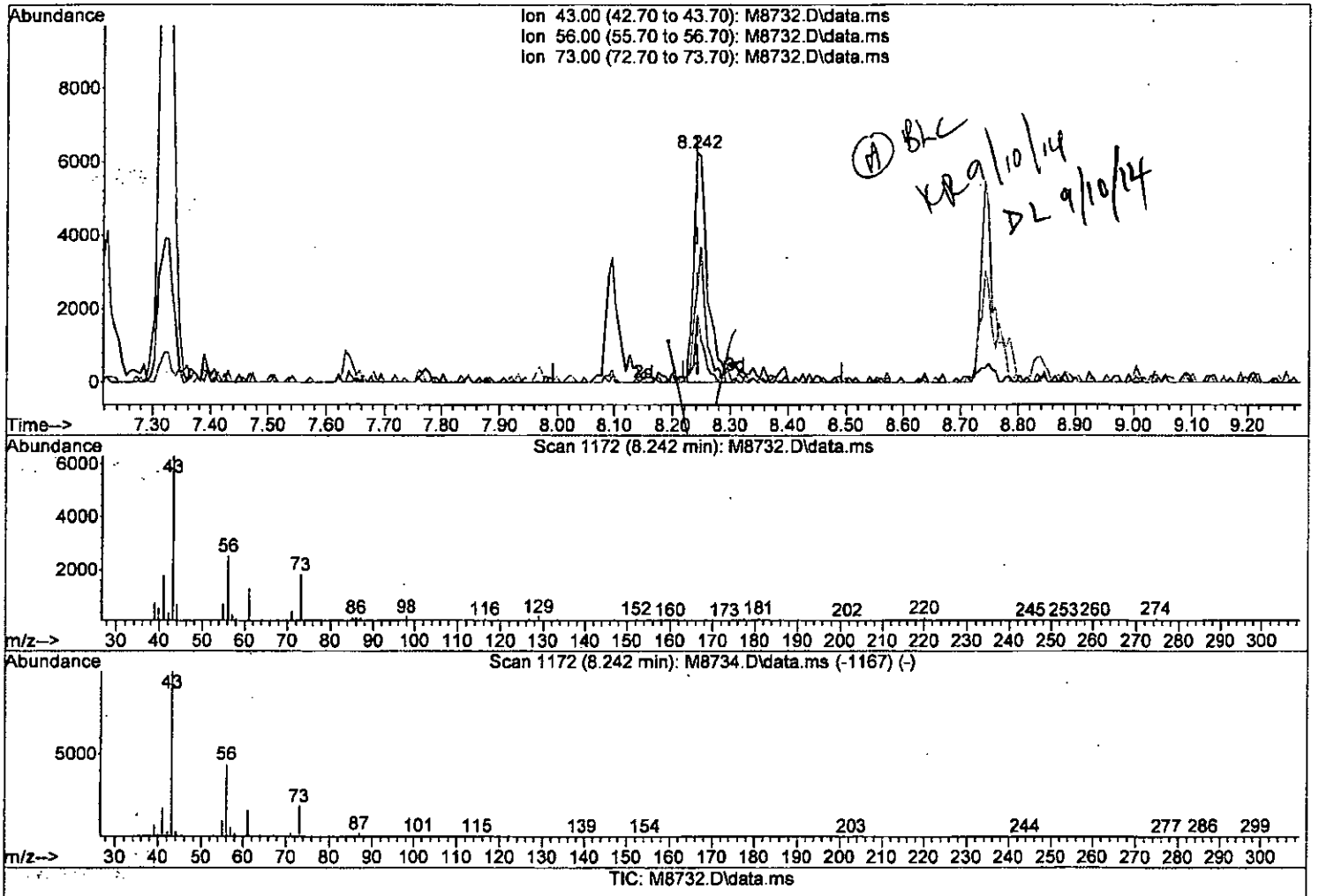
Ion	Exp%	Act%
43.00	100	100
56.00	43.90	40.04
73.00	18.30	29.04
0.00	0.00	0.00

00331

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8732.D\data.ms

(76) N-Butyl Acetate

8.242min (-0.000) 1.51 ppb m

response 10419

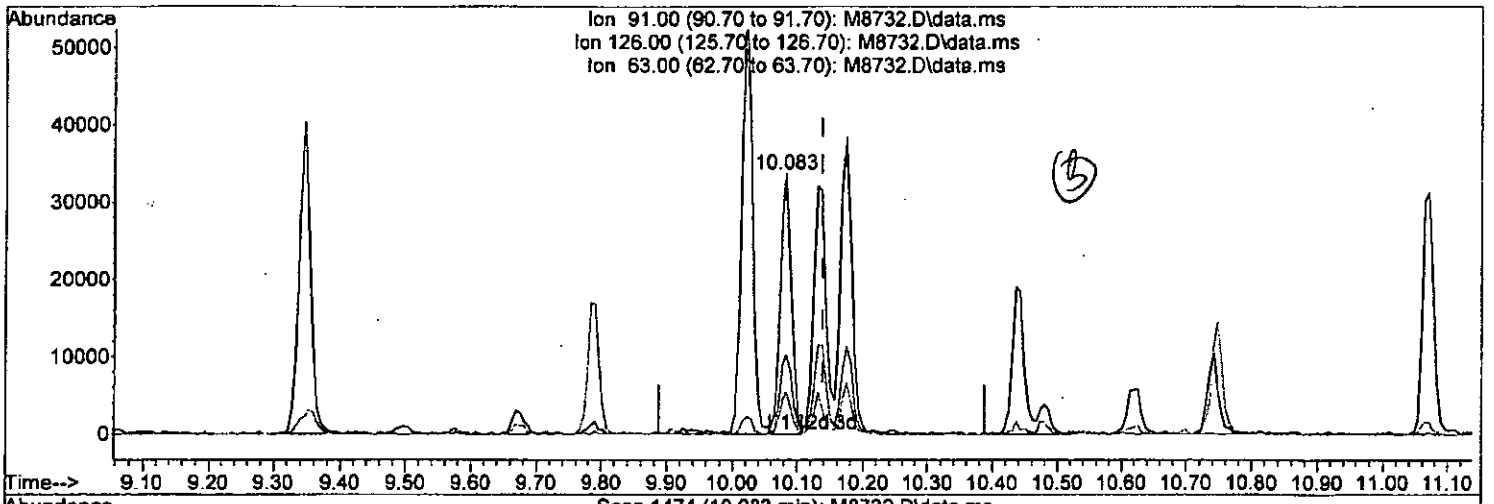
Ion	Exp%	Act%
43.00	100	100
56.00	43.90	40.04
73.00	18.30	29.04
0.00	0.00	0.00

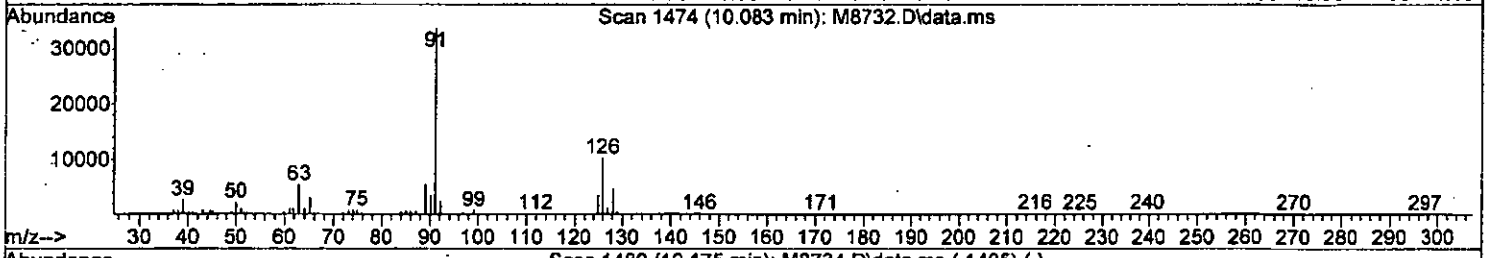
00332

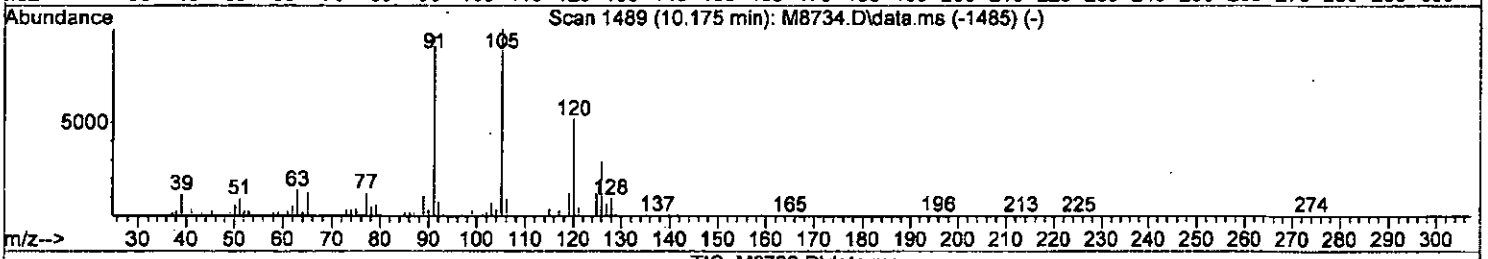
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8732.D\data.ms

(97) 3-Chlorotoluene

10.083min (-0.055) 1.71 ppb

response 40167

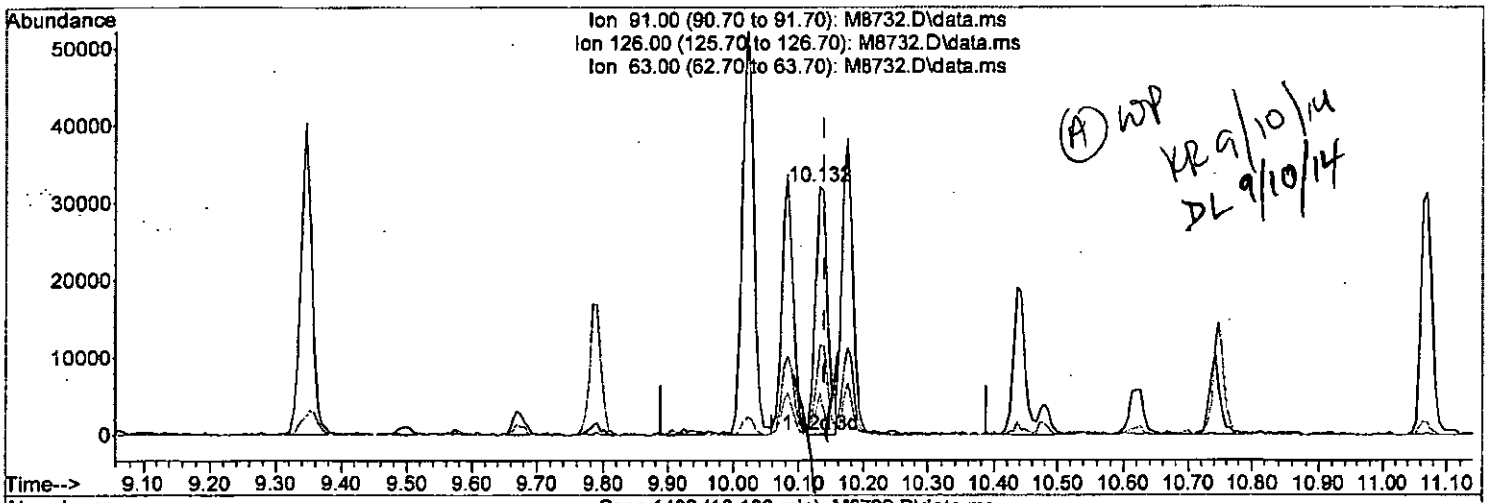
Ion	Exp%	Act%
91.00	100	100
126.00	31.10	30.32
63.00	13.70	16.02
0.00	0.00	0.00

00333

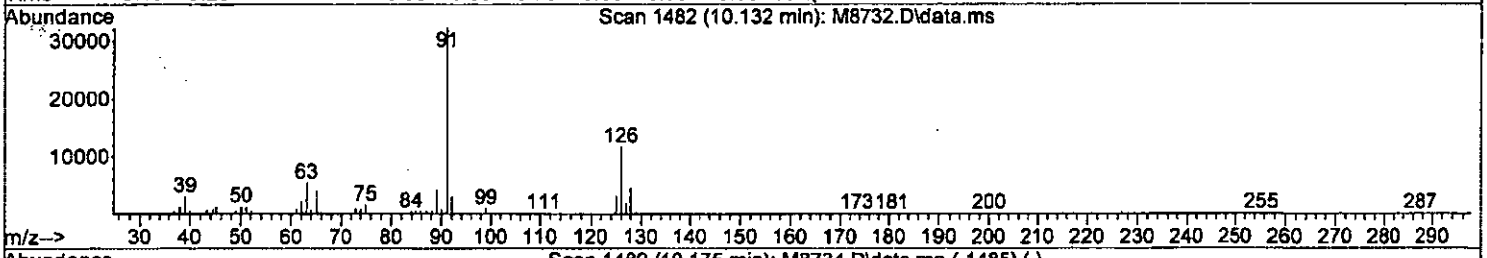
Quantitation Report (Qedit)

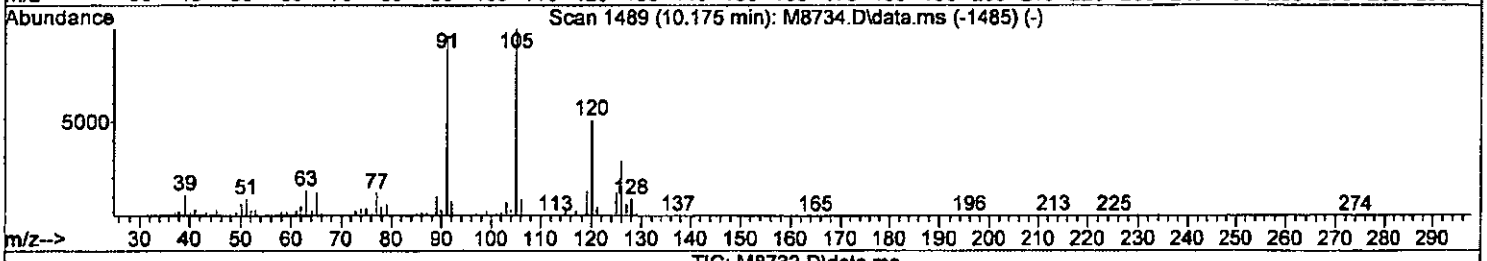
Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:29 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



(A) WP KR 9/10/14 DL 9/10/14





TIC: M8732.D\data.ms

(97) 3-Chlorotoluene

10.132min (-0.006) 1.78 ppb m

response 41910

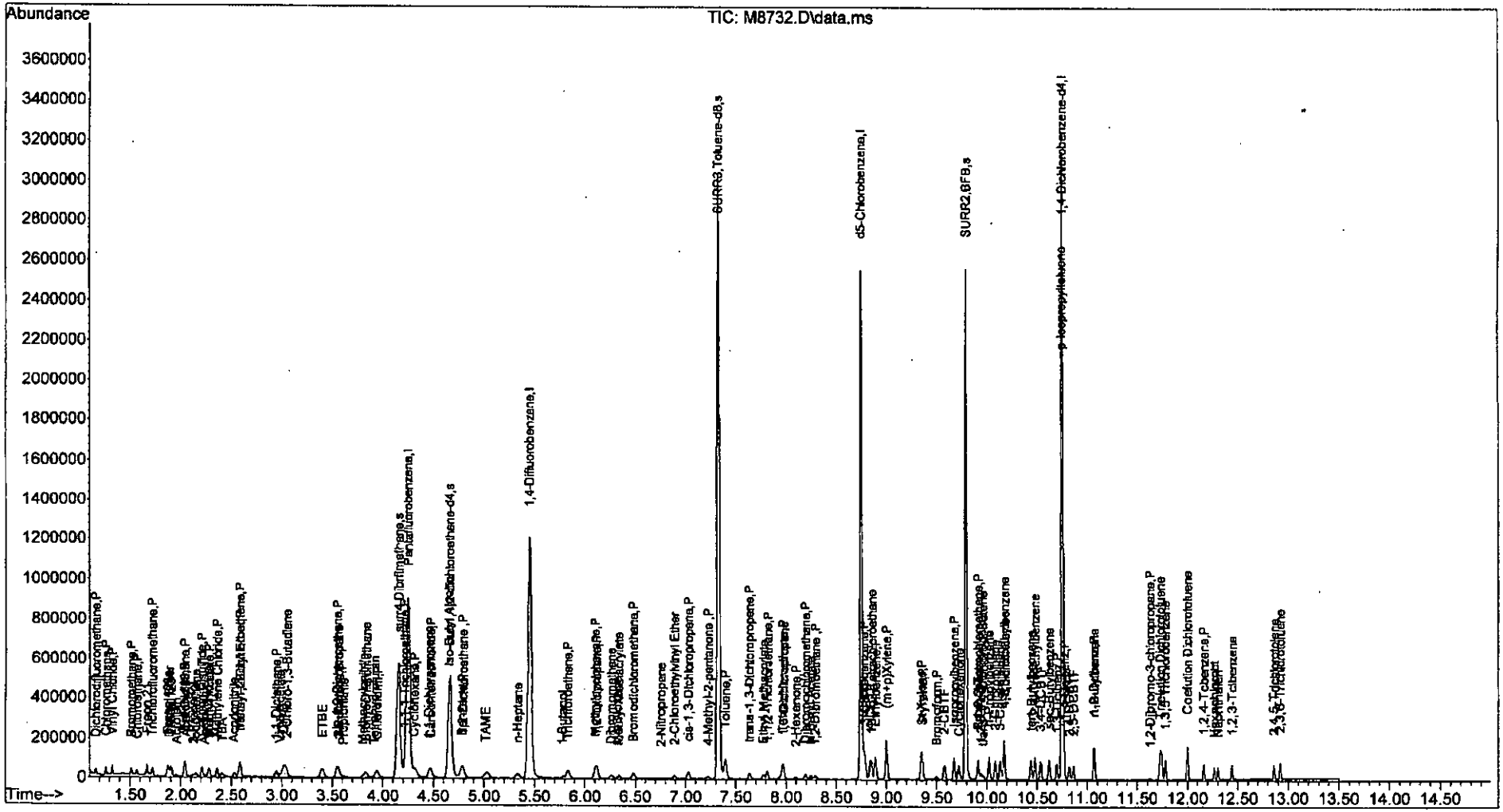
Ion	Exp%	Act%
91.00	100	100
126.00	31.10	36.19
63.00	13.70	16.84#
0.00	0.00	0.00

00334

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8732.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:09 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:18:31 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:23:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	807858	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1273235	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1143322	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	587615	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	499288	70.40	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 140.80%#				
48) surr1,1,2-dichloroetha...	4.664	65	539023	70.52	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 141.04%#				
65) SURR3,Toluene-d8	7.322	98	2097772	70.08	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 140.16%#				
70) SURR2,BFB	9.791	95	742787	69.33	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 138.66%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	35260	4.50	ppb		93
3) Chloromethane	1.262	50	37307	4.36	ppb		95
4) Vinyl Chloride	1.323	62	41498	4.59	ppb		92
5) Bromomethane	1.512	94	24420	4.69	ppb		98
6) Chloroethane	1.567	64	22089	4.37	ppb		94
7) Freon 21	1.664	67	62311	4.66	ppb		96
8) Trichlorofluoromethane	1.719	101	51842	4.78	ppb		96
9) Diethyl Ether	1.884	59	23805	4.55	ppb		93
10) Freon 123a	1.872	67	39979	4.70	ppb		96
11) Freon 123	1.902	83	42426	4.51	ppb		89
12) Acrolein	1.957	56	9778	19.85	ppb		92
13) 1,1-Diclethene	2.042	96	26812	4.66	ppb	#	86
14) Freon 113	2.036	101	30851	4.61	ppb		95
15) Acetone	2.042	43	7512	4.52	ppb		87
16) 2-Propanol	2.116	45	21003	79.38	ppb		97
17) Iodomethane	2.146	142	35591	4.11	ppb		94
18) Carbon Disulfide	2.207	76	101136	4.64	ppb		98
19) Acetonitrile	2.225	40	5240	23.36	ppb	#	69
20) Allyl Chloride	2.280	76	18120	4.62	ppb		95
21) Methyl Acetate	2.274	43	14779	4.37	ppb		97
22) Methylene Chloride	2.359	84	33658	4.55	ppb		93
23) TBA	2.414	59	36670	82.56	ppb		91
24) Acrylonitrile	2.524	53	36838	23.27	ppb		97
25) Methyl-t-Butyl Ether	2.585	73	74218	4.53	ppb		94
26) trans-1,2-Dichloroethene	2.585	96	34034	4.74	ppb		89
28) 1,1-Diclethane	2.945	63	63253	4.94	ppb		98
29) Vinyl Acetate	2.987	86	4438	4.23	ppb		97
30) DIPE	3.018	45	117692	4.86	ppb		96
31) 2-Chloro-1,3-Butadiene	3.042	53	60635	4.89	ppb		95
32) ETBE	3.402	59	105331	4.93	ppb		98
33) 2,2-Dichloropropane	3.560	77	44027	4.35	ppb		94
34) cis-1,2-Dichloroethene	3.548	96	37089	4.62	ppb		96
35) 2-Butanone	3.554	43	10515	4.84	ppb		87
36) Propionitrile	3.603	54	13041	22.27	ppb		89
37) Bromochloromethane	3.829	130	19109	4.32	ppb	#	88

KF 9/10/14

00336

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:23:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	Methacrylonitrile	3.810	67	8025	4.30	ppb		95
39)	Tetrahydrofuran	3.914	42	5846	4.30	ppb		85
40)	Chloroform	3.938	83	62221	4.77	ppb		96
41)	1,1,1-Trichloroethane	4.207	97	49400	4.55	ppb		95
42)	TAME	5.024	73	87937	4.82	ppb		98
44)	Cyclohexane	4.316	41	30641	4.57	ppb		99
46)	Carbontetrachloride	4.475	121	12558	4.42	ppb		86
47)	1,1-Dichloropropene	4.463	75	44205	4.78	ppb		87
49)	Benzene	4.786	78	139573	4.83	ppb		98
50)	1,2-Dichloroethane	4.792	62	40005	4.65	ppb		96
51)	Iso-Butyl Alcohol	4.652	43	15466	80.31	ppb		95
52)	n-Heptane	5.334	43	32207	4.42	ppb		93
53)	1-Butanol	5.786	56	21922	198.20	ppb		85
54)	Trichloroethene	5.828	130	36622	4.79	ppb		87
55)	Methylcyclohexane	6.109	55	36294	4.59	ppb		94
56)	1,2-Diclpropane	6.115	63	32255	4.43	ppb		95
57)	Dibromomethane	6.261	93	16052	4.55	ppb		91
58)	1,4-Dioxane	6.322	88	5782m	98.08	ppb		
59)	Methyl Methacrylate	6.334	69	14213m	4.26	ppb		
60)	Bromodichloromethane	6.481	83	41554	4.61	ppb		97
61)	2-Nitropropane	6.749	41	6911	7.72	ppb	#	55
62)	2-Chloroethylvinyl Ether	6.883	63	14663	4.47	ppb		92
63)	cis-1,3-Dichloropropene	7.023	75	48578	4.61	ppb		96
64)	4-Methyl-2-pentanone	7.218	43	18149	4.21	ppb		89
66)	Toluene	7.395	91	146756	4.67	ppb		98
67)	trans-1,3-Dichloropropene	7.633	75	38111	4.44	ppb		99
68)	Ethyl Methacrylate	7.773	69	28111	4.16	ppb		95
69)	1,1,2-Trichloroethane	7.810	97	23713	4.47	ppb		96
72)	Tetrachloroethene	7.962	164	28930	4.94	ppb		94
73)	2-Hexanone	8.090	43	13570	4.28	ppb		94
74)	1,3-Dichloropropane	7.974	76	46342	4.76	ppb		95
75)	Dibromochloromethane	8.194	129	25352	4.30	ppb		98
76)	N-Butyl Acetate	8.242	43	27138	3.95	ppb		89
77)	1,2-Dibromoethane	8.291	107	22902	4.66	ppb		95
78)	Chlorobenzene	8.773	112	94694	4.67	ppb		97
79)	3-CBTF	8.785	180	52537	5.24	ppb		95
80)	4-CBTF	8.840	180	46789	4.86	ppb		92
81)	1,1,1,2-Tetrachloroethane	8.852	131	31765	4.57	ppb		93
82)	Ethylbenzene	8.889	106	49117	4.61	ppb	#	91
83)	(m+p)Xylene	8.998	106	123512	9.57	ppb		99
84)	o-Xylene	9.346	106	59946	4.78	ppb		100
85)	Styrene	9.358	104	95631	4.64	ppb		99
87)	Bromoform	9.492	173	14616	4.56	ppb		98
88)	2-CBTF	9.577	180	49678	5.21	ppb		98
89)	Isopropylbenzene	9.675	105	145517	4.83	ppb		98
90)	Cyclohexanone	9.718	55	66557	95.93	ppb		99
91)	trans-1,4-Dichloro-2-B...	9.962	53	7109	4.74	ppb		85
92)	1,1,2,2-Tetrachloroethane	9.913	83	28508	4.71	ppb		86
93)	Bromobenzene	9.913	156	36769	4.75	ppb		93
94)	1,2,3-Trichloropropane	9.943	110	8741	4.98	ppb	#	78
95)	n-Propylbenzene	10.023	91	175543	4.98	ppb		99
96)	2-Chlorotoluene	10.083	91	106702	4.99	ppb		95

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:23:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

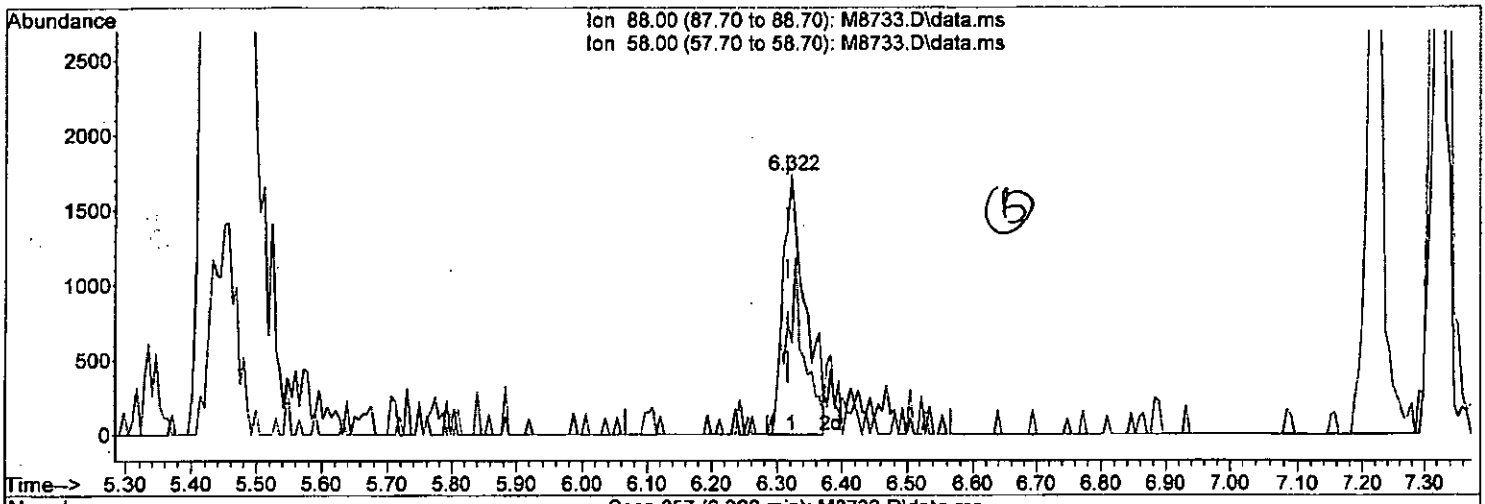
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	116386	4.94	ppb		92
98)	4-Chlorotoluene	10.175	91	114454	4.61	ppb		97
99)	1,3,5-Trimethylbenzene	10.175	105	119037	4.94	ppb		97
100)	tert-Butylbenzene	10.443	119	95582	4.73	ppb		96
101)	1,2,4-Trimethylbenzene	10.480	105	118544	4.77	ppb		99
102)	3,4-DCBTF	10.535	214	33060	4.87	ppb	#	86
103)	sec-Butylbenzene	10.620	105	140724	4.80	ppb		97
104)	p-Isopropyltoluene	10.742	119	118245	4.83	ppb		97
105)	1,3-Dclbenz	10.699	146	69524	4.76	ppb		96
106)	1,4-Dclbenz	10.766	146	72449	4.80	ppb		96
107)	2,4-DCBTF	10.821	214	27287	4.63	ppb		93
108)	2,5-DCBTF	10.864	214	32885	4.92	ppb		95
109)	n-Butylbenzene	11.071	91	103846	4.67	ppb		97
110)	1,2-Dclbenz	11.065	146	65699	4.71	ppb		96
111)	1,2-Dibromo-3-chloropr...	11.626	157	4820	4.51	ppb	#	84
112)	Trielution Dichlorotol...	11.730	125	172078	14.84	ppb		98
113)	1,3,5 Trichlorobenzene	11.778	180	47966	4.82	ppb		93
114)	Coelution Dichlorotoluene	11.998	125	124818	10.07	ppb		98
115)	1,2,4-Tcbenzene	12.156	180	38166	4.68	ppb		98
116)	Hexachlorobt	12.266	225	14887	4.62	ppb		94
117)	Naphthalen	12.303	128	77852	4.67	ppb		96
118)	1,2,3-Tclbenzene	12.443	180	33571	4.76	ppb		97
119)	2,4,5-Trichlorotolene	12.857	159	26252	4.76	ppb		96
120)	2,3,6-Trichlorotoluene	12.918	159	25491	4.71	ppb		88

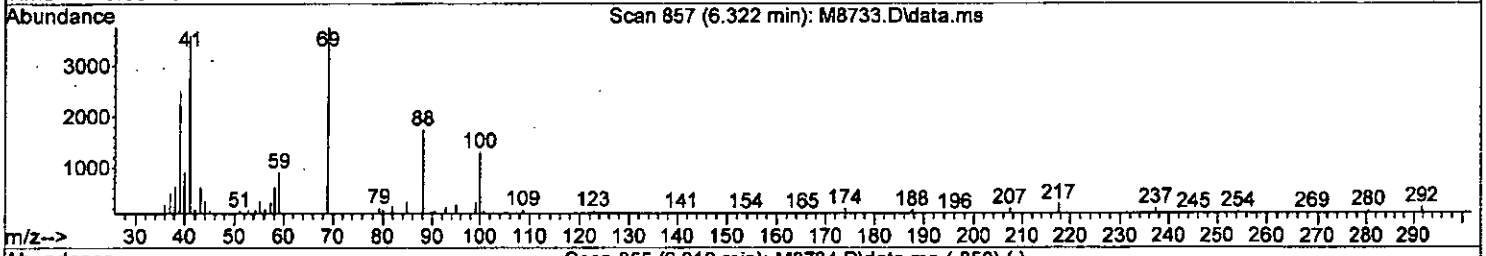
(#) = qualifier out of range (m) = manual integration (+) = signals summed

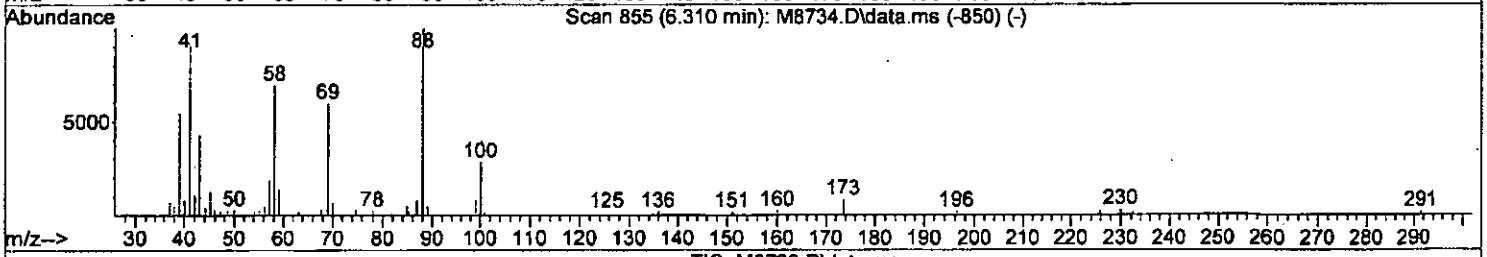
Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8733.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 70.11 ppb

response 4133

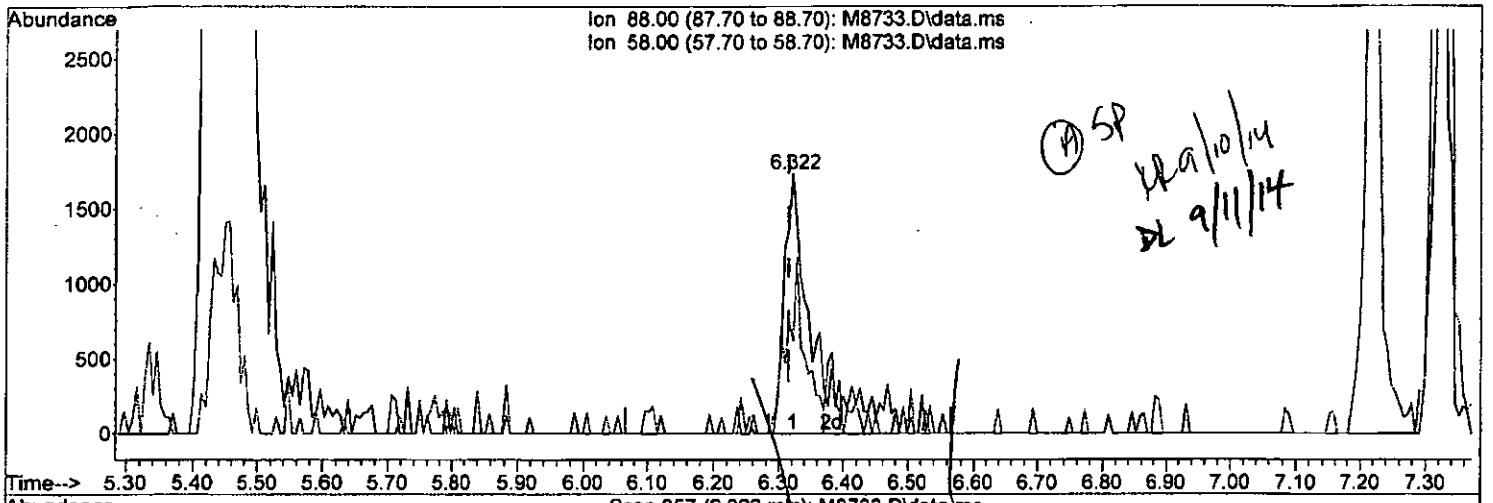
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	35.35#
0.00	0.00	0.00
0.00	0.00	0.00

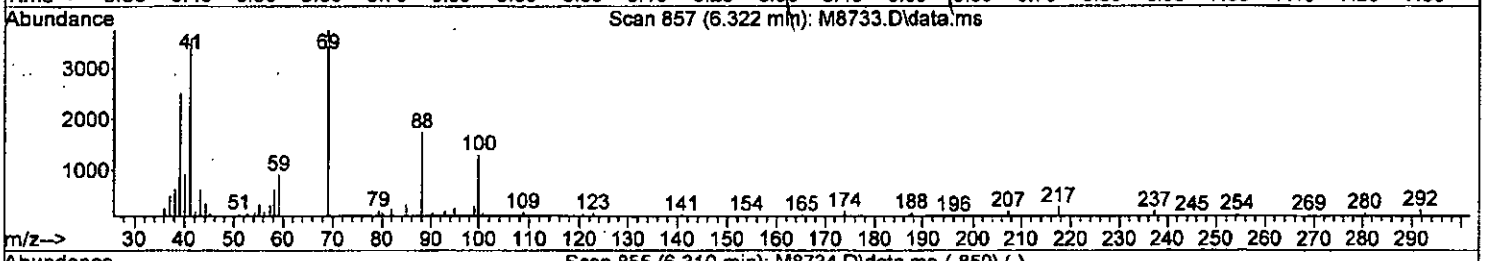
00339

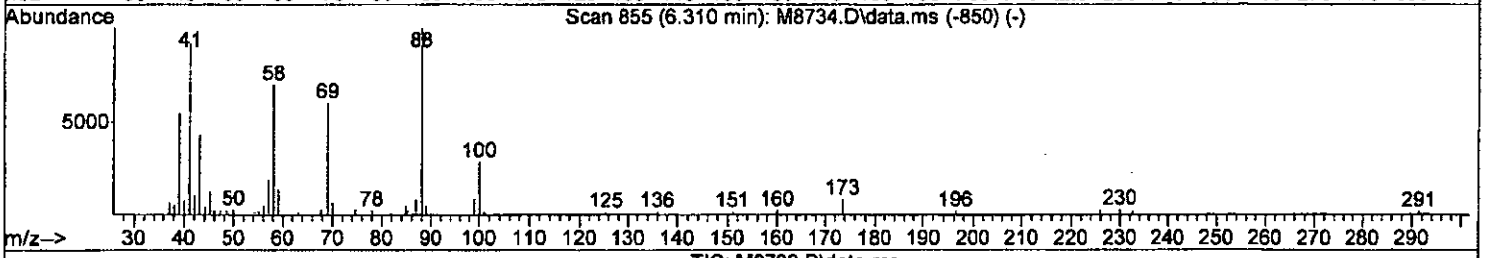
Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8733.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 98.08 ppb m

response 5782

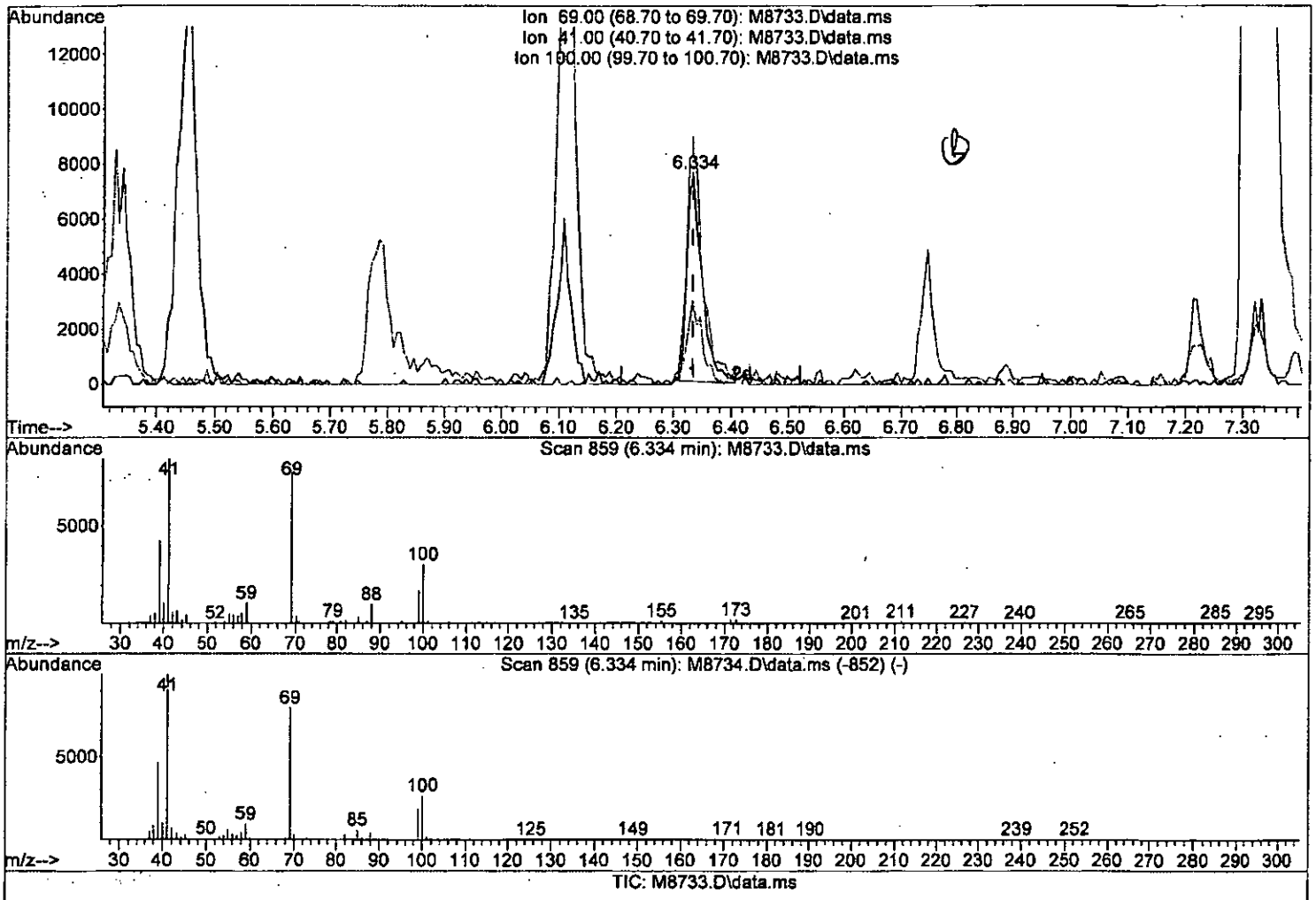
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	35.35#
0.00	0.00	0.00
0.00	0.00	0.00

00340

Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8733.D\data.ms

(59) Methyl Methacrylate

6.334min (+0.000) 4.12 ppb

response 13738

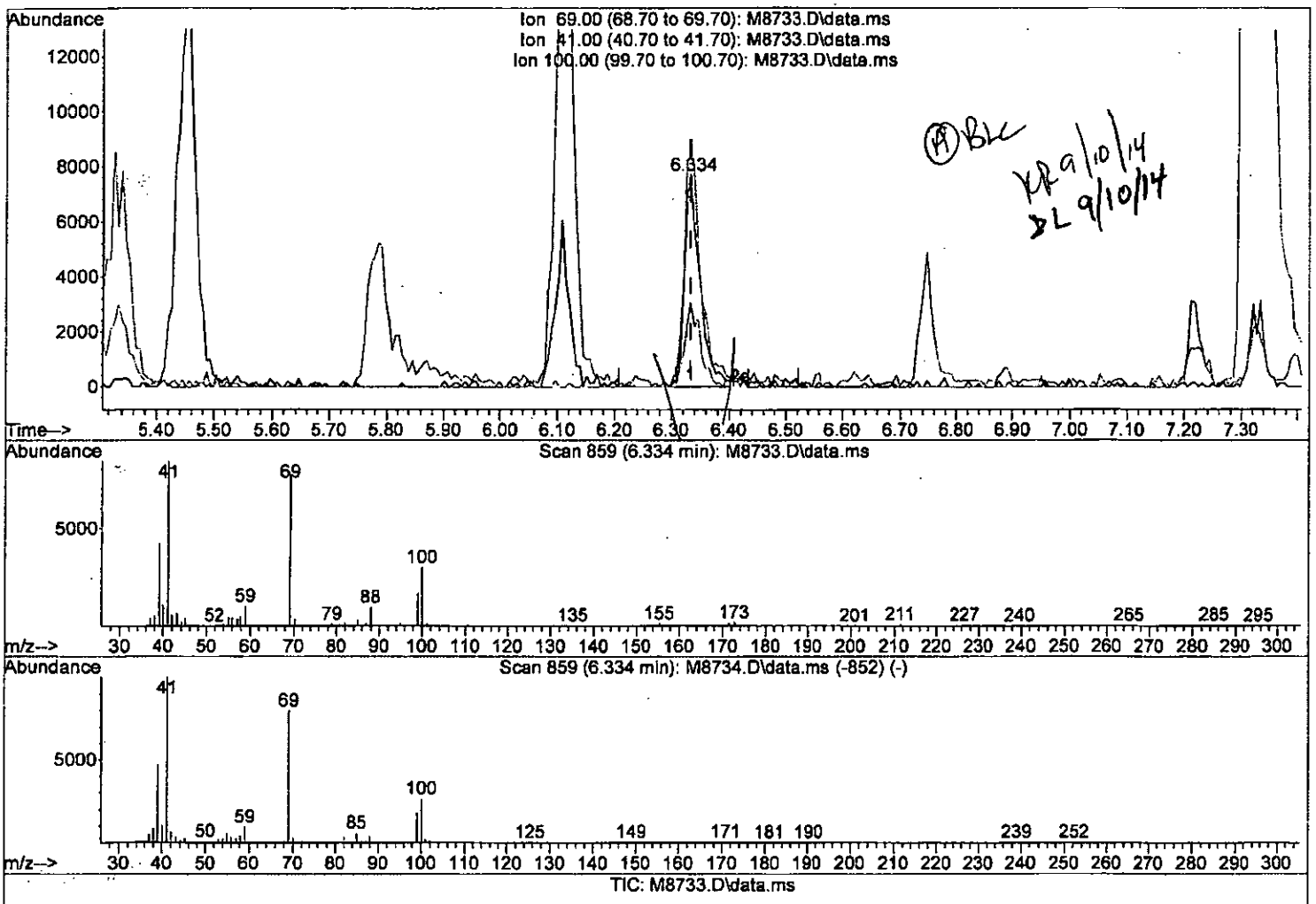
Ion	Exp%	Act%
69.00	100	100
41.00	125.90	108.93
100.00	33.40	39.62
0.00	0.00	0.00

00341

Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8733.D\data.ms

(59) Methyl Methacrylate

6.334min (+0.000) 4.26 ppb m

response 14213

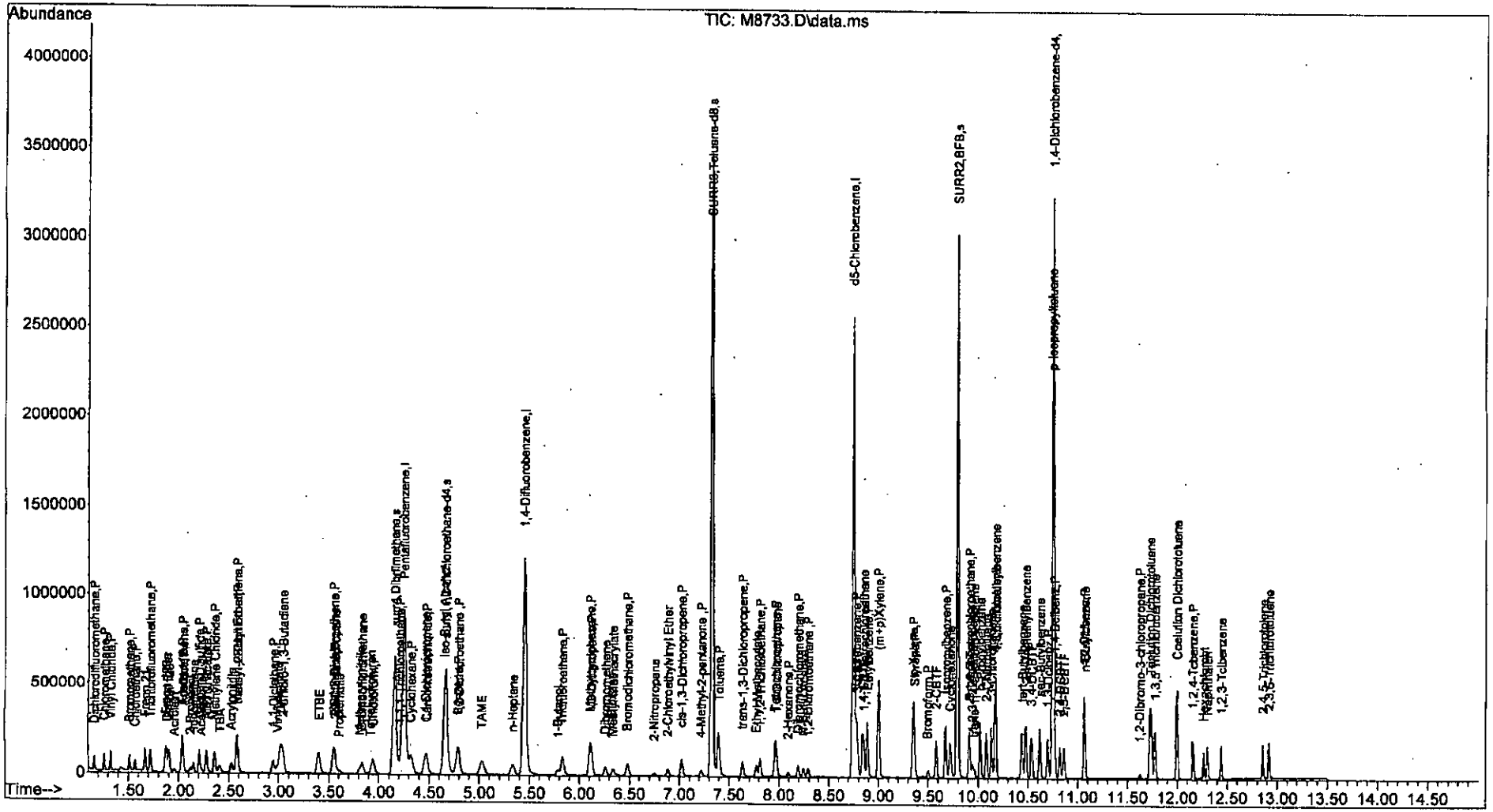
Ion	Exp%	Act%
69.00	100	100
41.00	125.90	108.93
100.00	33.40	39.62
0.00	0.00	0.00

00342

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8733.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 5:41 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:23:34 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



W090914.M Wed Sep 10 09:24:21 2014

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8734.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:36:09 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.255	168	814462	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1264925	50.00	ppb	0.00
71) d5-Chlorobenzene	8.748	117	1151996	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	594351	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	697348	98.98	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 197.96%#			
48) surr1,1,2-dichloroetha...	4.664	65	748650	98.59	ppb	0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 197.18%#			
65) SURR3,Toluene-d8	7.322	98	2911911	97.92	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 195.84%#			
70) SURR2,BFB	9.791	95	1035148	97.25	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 194.50%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.164	85	183463	23.21	ppb	100
3) Chloromethane	1.262	50	187707	21.78	ppb	100
4) Vinyl Chloride	1.323	62	205540	22.53	ppb	100
5) Bromomethane	1.512	94	102018	19.43	ppb	100
6) Chloroethane	1.567	64	109259	21.43	ppb	100
7) Freon 21	1.664	67	280299	20.78	ppb	100
8) Trichlorofluoromethane	1.719	101	241284	22.05	ppb	100
9) Diethyl Ether	1.884	59	109241	20.72	ppb	100
10) Freon 123a	1.872	67	182764	21.29	ppb	100
11) Freon 123	1.902	83	194782	20.53	ppb	100
12) Acrolein	1.957	56	48165	96.96	ppb	100
13) 1,1-Diclethene	2.042	96	124880	21.51	ppb	100
14) Freon 113	2.036	101	143419	21.24	ppb	100
15) Acetone	2.048	43	32329	19.30	ppb	100
16) 2-Propanol	2.116	45	94608	354.67	ppb	100
17) Iodomethane	2.146	142	191224	21.88	ppb	100
18) Carbon Disulfide	2.207	76	459303	20.89	ppb	100
19) Acetonitrile	2.225	40	21725	96.05	ppb	100
20) Allyl Chloride	2.280	76	85615	21.66	ppb	100
21) Methyl Acetate	2.274	43	67510	19.78	ppb	100
22) Methylene Chloride	2.359	84	150713	20.20	ppb	100
23) TBA	2.408	59	172543	385.34	ppb	100
24) Acrylonitrile	2.524	53	165915	103.94	ppb	100
25) Methyl-t-Butyl Ether	2.579	73	354614	21.45	ppb	100
26) trans-1,2-Dichloroethene	2.585	96	152697	21.10	ppb	100
28) 1,1-Diclethane	2.945	63	277657	21.52	ppb	100
29) Vinyl Acetate	2.981	86	21575	20.41	ppb	100
30) DIPE	3.018	45	472950	19.36	ppb	100
31) 2-Chloro-1,3-Butadiene	3.042	53	263634	21.07	ppb	100
32) ETBE	3.402	59	420262	19.52	ppb	100
33) 2,2-Dichloropropane	3.560	77	222086	21.79	ppb	100
34) cis-1,2-Dichloroethene	3.548	96	173081	21.39	ppb	100
35) 2-Butanone	3.548	43	40062	18.29	ppb	100
36) Propionitrile	3.597	54	60766	102.91	ppb	100
37) Bromochloromethane	3.829	130	94560	21.20	ppb	100

KR 9/10/14

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8734.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:36:09 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.804	67	39638	21.06 ppb	100
39) Tetrahydrofuran	3.914	42	25869	18.87 ppb	100
40) Chloroform	3.938	83	263094	20.00 ppb	100
41) 1,1,1-Trichloroethane	4.213	97	229510	20.97 ppb	100
42) TAME	5.024	73	350209	19.02 ppb	100
44) Cyclohexane	4.322	41	136621	20.53 ppb	100
46) Carbontetrachloride	4.475	121	60159	21.32 ppb	100
47) 1,1-Dichloropropene	4.463	75	197506	21.50 ppb	100
49) Benzene	4.786	78	630264	21.94 ppb	100
50) 1,2-Dichloroethane	4.792	62	186088	21.79 ppb	100
51) Iso-Butyl Alcohol	4.639	43	72130	377.00 ppb	100
52) n-Heptane	5.334	43	159044	21.98 ppb	100
53) 1-Butanol	5.773	56	95386	868.06 ppb	100
54) Trichloroethene	5.834	130	166280	21.90 ppb	100
55) Methylcyclohexane	6.109	55	166483	21.20 ppb	100
56) 1,2-Diclpropane	6.121	63	155323	21.47 ppb	100
57) Dibromomethane	6.261	93	75292	21.48 ppb	100
58) 1,4-Dioxane	6.310	88	22480m	383.84 ppb	
59) Methyl Methacrylate	6.334	69	70333	21.24 ppb	100
60) Bromodichloromethane	6.481	83	193080	21.56 ppb	100
61) 2-Nitropropane	6.749	41	33301	37.44 ppb	100
62) 2-Chloroethylvinyl Ether	6.883	63	70456	21.64 ppb	100
63) cis-1,3-Dichloropropene	7.023	75	230157	22.00 ppb	100
64) 4-Methyl-2-pentanone	7.218	43	85404	19.92 ppb	100
66) Toluene	7.395	91	685935	21.97 ppb	100
67) trans-1,3-Dichloropropene	7.633	75	189629	22.25 ppb	100
68) Ethyl Methacrylate	7.773	69	139671	20.80 ppb	100
69) 1,1,2-Trichloroethane	7.810	97	110423	20.97 ppb	100
72) Tetrachloroethene	7.962	164	121689	20.62 ppb	100
73) 2-Hexanone	8.090	43	63738	19.97 ppb	100
74) 1,3-Dichloropropane	7.974	76	206492	21.05 ppb	100
75) Dibromochloromethane	8.194	129	127351	21.44 ppb	100
76) N-Butyl Acetate	8.242	43	139004	20.09 ppb	100
77) 1,2-Dibromoethane	8.285	107	106635	21.51 ppb	100
78) Chlorobenzene	8.773	112	444714	21.78 ppb	100
79) 3-CBTF	8.785	180	208972	20.70 ppb	100
80) 4-CBTF	8.840	180	189989	19.59 ppb	100
81) 1,1,1,2-Tetrachloroethane	8.852	131	149352	21.33 ppb	100
82) Ethylbenzene	8.889	106	235508	21.95 ppb	100
83) (m+p)Xylene	8.998	106	583155	44.86 ppb	100
84) o-Xylene	9.346	106	281752	22.28 ppb	100
85) Styrene	9.358	104	469922	22.64 ppb	100
87) Bromoform	9.498	173	68761	21.22 ppb	100
88) 2-CBTF	9.577	180	202862	21.03 ppb	100
89) Isopropylbenzene	9.675	105	696688	22.87 ppb	100
90) Cyclohexanone	9.718	55	312886	445.84 ppb	100
91) trans-1,4-Dichloro-2-B...	9.962	53	32449	21.41 ppb	100
92) 1,1,2,2-Tetrachloroethane	9.913	83	130084	21.26 ppb	100
93) Bromobenzene	9.913	156	173685	22.20 ppb	100
94) 1,2,3-Trichloropropane	9.943	110	37320	21.03 ppb	100
95) n-Propylbenzene	10.023	91	813660	22.84 ppb	100
96) 2-Chlorotoluene	10.083	91	487037	22.51 ppb	100

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8734.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:36:09 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

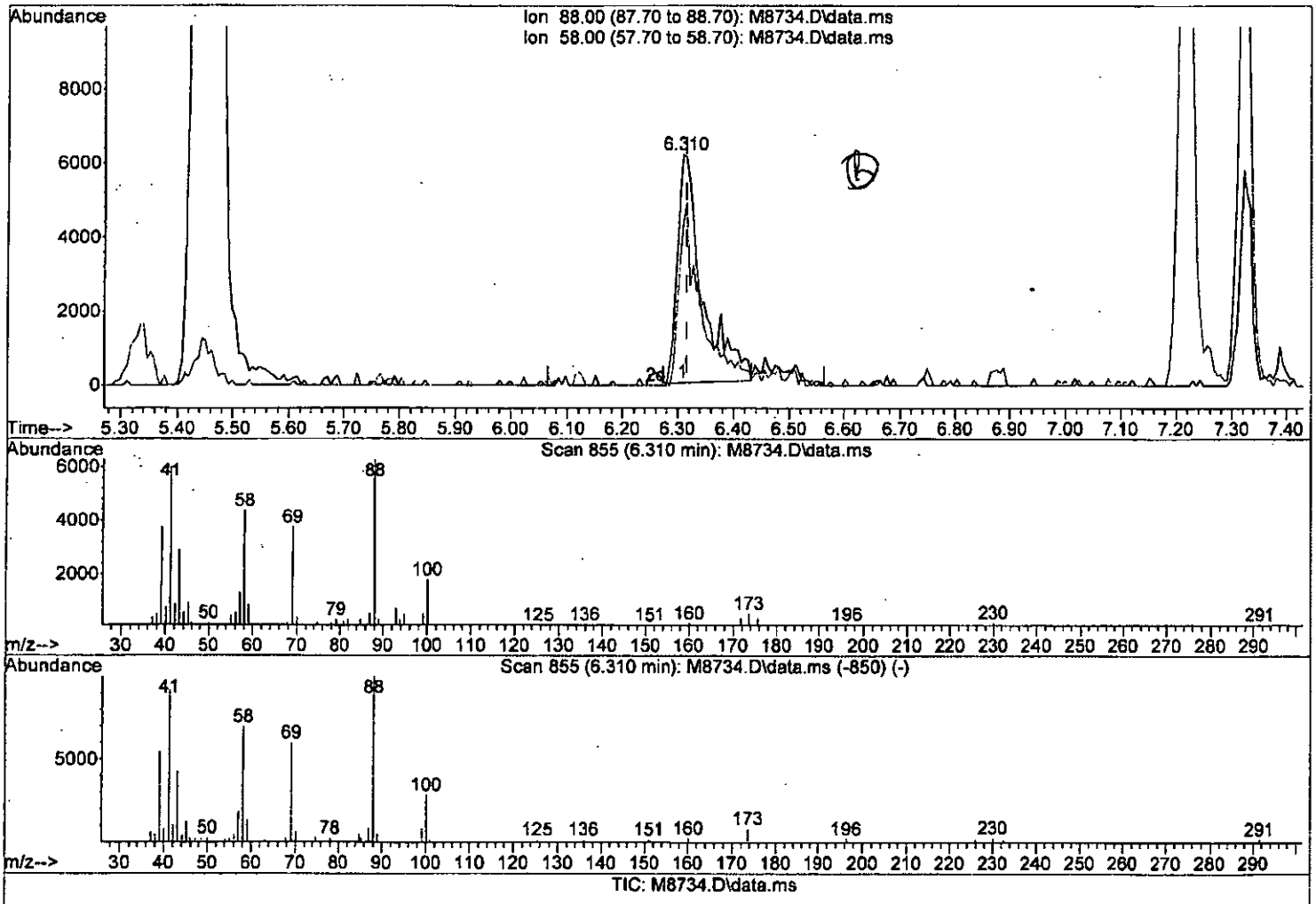
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	486577	20.43 ppb	93
98)	4-Chlorotoluene	10.175	91	580430	23.10 ppb	100
99)	1,3,5-Trimethylbenzene	10.175	105	573283	23.54 ppb	100
100)	tert-Butylbenzene	10.443	119	473438	23.18 ppb	100
101)	1,2,4-Trimethylbenzene	10.480	105	579258	23.06 ppb	100
102)	3,4-DCBTF	10.535	214	132770	19.34 ppb	100
103)	sec-Butylbenzene	10.620	105	685430	23.09 ppb	100
104)	p-Isopropyltoluene	10.742	119	582640	23.54 ppb	100
105)	1,3-Dclbenz	10.699	146	330971	22.40 ppb	100
106)	1,4-Dclbenz	10.772	146	332227	21.76 ppb	100
107)	2,4-DCBTF	10.821	214	121670	20.43 ppb	100
108)	2,5-DCBTF	10.864	214	137648	20.37 ppb	100
109)	n-Butylbenzene	11.071	91	510078	22.70 ppb	100
110)	1,2-Dclbenz	11.065	146	309928	21.96 ppb	100
111)	1,2-Dibromo-3-chloropr...	11.626	157	22559	20.88 ppb	100
112)	Trielution Dichlorotol...	11.730	125	761260	64.90 ppb	100
113)	1,3,5 Trichlorobenzene	11.778	180	206225	20.48 ppb	100
114)	Coelution Dichlorotoluene	11.998	125	542811	43.30 ppb	100
115)	1,2,4-Tcbenzene	12.156	180	188072	22.82 ppb	100
116)	Hexachlorobt	12.266	225	70661	21.68 ppb	100
117)	Naphthalen	12.303	128	382508	22.68 ppb	100
118)	1,2,3-Tclbenzene	12.443	180	155395	21.76 ppb	100
119)	2,4,5-Trichlorotolene	12.857	159	119519	21.43 ppb	100
120)	2,3,6-Trichlorotoluene	12.918	159	115676	21.12 ppb	100

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

Quantitation Report (Qedit)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8734.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:39 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8734.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.006) 326.99 ppb

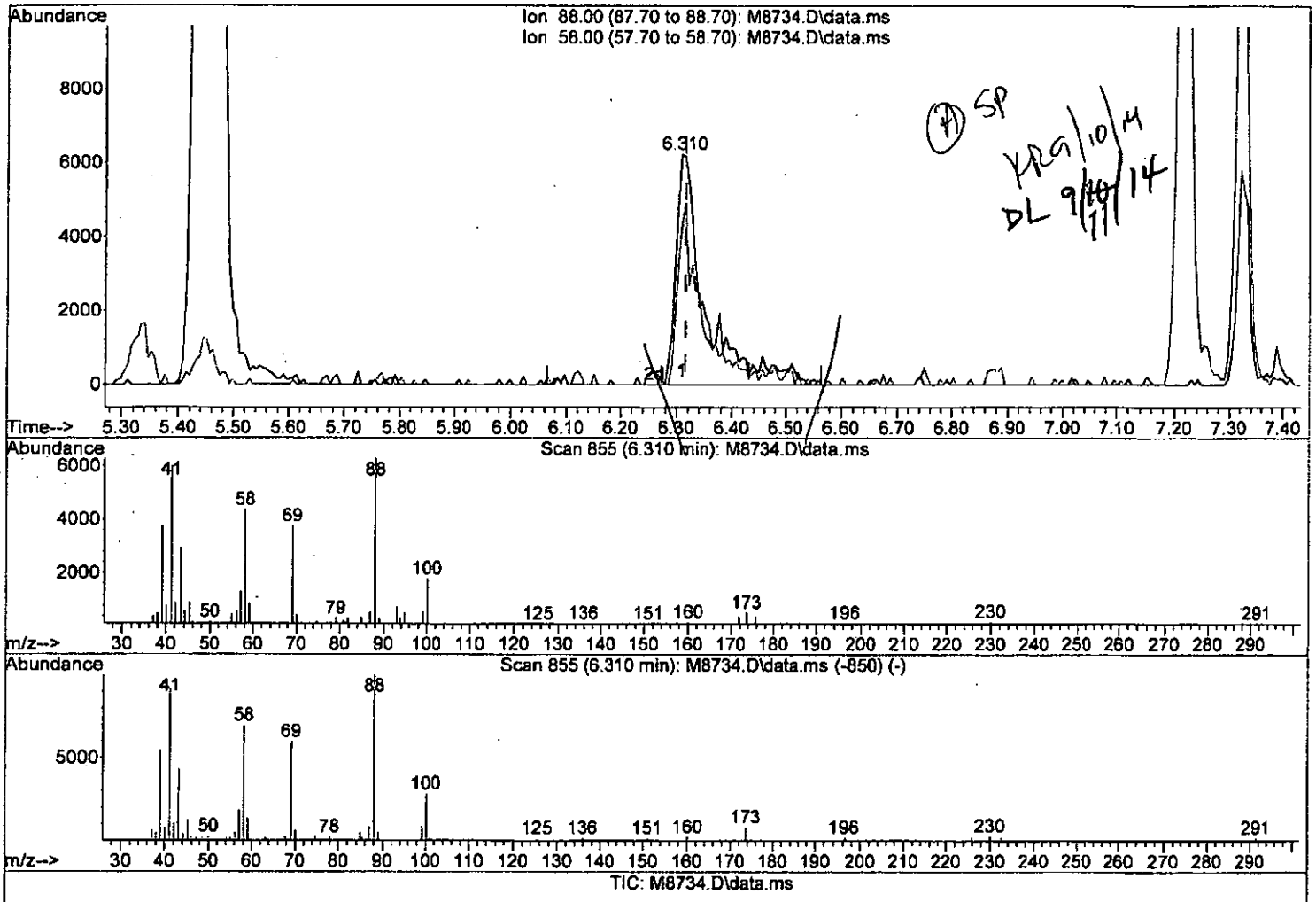
response 19150

Ion	Exp%	Act%
88.00	100	100
58.00	69.80	69.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8734.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:39 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8734.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.006) 383.84 ppb m

response 22480

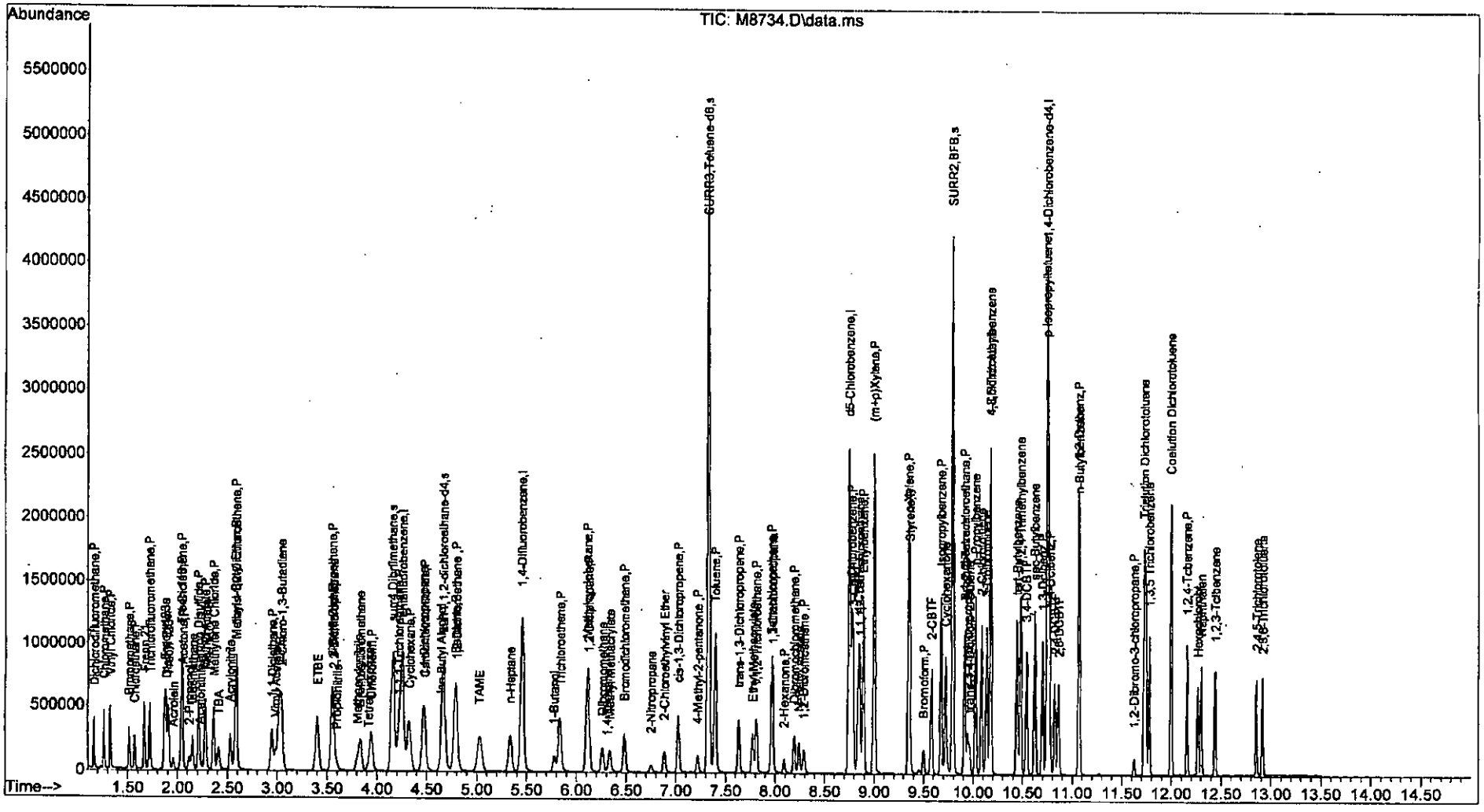
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	69.76
0.00	0.00	0.00
0.00	0.00	0.00

00348

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8734.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:36:09 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8735.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:40:41 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	818377	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1277051	50.00	ppb		0.00
71) d5-Chlorobenzene	8.748	117	1160256	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	633420	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	363675	51.13	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.26%				
48) surr1,1,2-dichloroetha...	4.664	65	393799	51.37	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 102.74%				
65) SURR3,Toluene-d8	7.322	98	1586916	52.86	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.72%				
70) SURR2,BFB	9.791	95	567314	52.79	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.58%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.165	85	455090	57.31	ppb		99
3) Chloromethane	1.262	50	471952	54.49	ppb		97
4) Vinyl Chloride	1.323	62	503755	54.96	ppb		96
5) Bromomethane	1.512	94	257337	48.77	ppb		98
6) Chloroethane	1.567	64	278751	54.40	ppb		100
7) Freon 21	1.664	67	726833	53.63	ppb		99
8) Trichlorofluoromethane	1.719	101	593983	54.03	ppb		96
9) Diethyl Ether	1.884	59	275439	51.99	ppb		95
10) Freon 123a	1.872	67	464423	53.85	ppb		96
11) Freon 123	1.902	83	517771	54.32	ppb		99
12) Acrolein	1.957	56	141488	283.47	ppb		96
13) 1,1-Diclethene	2.042	96	307178	52.67	ppb		98
14) Freon 113	2.036	101	357462	52.68	ppb		97
15) Acetone	2.048	43	82564	49.05	ppb		95
16) 2-Propanol	2.116	45	290530	1083.95	ppb		97
17) Iodomethane	2.146	142	496858	56.59	ppb		100
18) Carbon Disulfide	2.207	76	1132998	51.29	ppb		99
19) Acetonitrile	2.225	40	62055	273.05	ppb	#	83
20) Allyl Chloride	2.280	76	212183	53.43	ppb		98
21) Methyl Acetate	2.274	43	184559	53.82	ppb		98
22) Methylene Chloride	2.359	84	375787	50.13	ppb		96
23) TBA	2.408	59	472964	1051.20	ppb		98
24) Acrylonitrile	2.524	53	444389	277.06	ppb		100
25) Methyl-t-Butyl Ether	2.585	73	908501	54.68	ppb		100
26) trans-1,2-Dichloroethene	2.585	96	381441	52.46	ppb		97
28) 1,1-Diclethane	2.945	63	695356	53.64	ppb		99
29) Vinyl Acetate	2.981	86	51837	48.79	ppb	#	86
30) DIPE	3.018	45	1219111	49.68	ppb		96
31) 2-Chloro-1,3-Butadiene	3.042	53	648809	51.61	ppb		95
32) ETBE	3.396	59	1085531	50.17	ppb		97
33) 2,2-Dichloropropane	3.560	77	565569	55.22	ppb		94
34) cis-1,2-Dichloroethene	3.548	96	421108	51.79	ppb		97
35) 2-Butanone	3.548	43	115659	52.55	ppb		96
36) Propionitrile	3.591	54	164407	277.10	ppb		98
37) Bromochloromethane	3.835	130	232615	51.90	ppb		98

KR 9/10/14

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8735.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:40:41 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Methacrylonitrile	3.804	67	105668	55.89 ppb	91
39) Tetrahydrofuran	3.908	42	72935	52.95 ppb	88
40) Chloroform	3.938	83	668361	50.56 ppb	99
41) 1,1,1-Trichloroethane	4.219	97	581174	52.84 ppb	98
42) TAME	5.024	73	935276	50.56 ppb	97
44) Cyclohexane	4.316	41	355336	52.89 ppb	99
46) Carbontetrachloride	4.475	121	156146	54.82 ppb	89
47) 1,1-Dichloropropene	4.469	75	503340	54.27 ppb	98
49) Benzene	4.786	78	1573713	54.25 ppb	97
50) 1,2-Dichloroethane	4.792	62	465385	53.98 ppb	98
51) Iso-Butyl Alcohol	4.639	43	210932	1092.01 ppb	86
52) n-Heptane	5.334	43	396982	54.35 ppb	94
53) 1-Butanol	5.773	56	305352	2752.47 ppb	98
54) Trichloroethene	5.834	130	410817	53.59 ppb	98
55) Methylcyclohexane	6.109	55	439966	55.49 ppb	95
56) 1,2-Diclpropane	6.115	63	402917	55.16 ppb	97
57) Dibromomethane	6.255	93	188852	53.38 ppb	89
58) 1,4-Dioxane	6.310	88	58487m	989.18 ppb	
59) Methyl Methacrylate	6.334	69	191401	57.25 ppb	94
60) Bromodichloromethane	6.481	83	497743	55.06 ppb	98
61) 2-Nitropropane	6.749	41	92158	102.63 ppb	89
62) 2-Chloroethylvinyl Ether	6.883	63	181790	55.30 ppb	98
63) cis-1,3-Dichloropropene	7.023	75	603367	57.13 ppb	97
64) 4-Methyl-2-pentanone	7.212	43	232241	53.67 ppb	96
66) Toluene	7.395	91	1715646	54.44 ppb	97
67) trans-1,3-Dichloropropene	7.633	75	510204	59.31 ppb	98
68) Ethyl Methacrylate	7.767	69	392932	57.97 ppb	98
69) 1,1,2-Trichloroethane	7.810	97	288829	54.33 ppb	98
72) Tetrachloroethene	7.962	164	318264	53.55 ppb	99
73) 2-Hexanone	8.090	43	169885	52.84 ppb	97
74) 1,3-Dichloropropane	7.974	76	528112	53.45 ppb	96
75) Dibromochloromethane	8.194	129	342863	57.31 ppb	92
76) N-Butyl Acetate	8.242	43	405611	58.19 ppb	98
77) 1,2-Dibromoethane	8.291	107	282439	56.57 ppb	98
78) Chlorobenzene	8.773	112	1126909	54.79 ppb	94
79) 3-CBTF	8.785	180	546884	53.80 ppb	97
80) 4-CBTF	8.840	180	499731	51.17 ppb	98
81) 1,1,1,2-Tetrachloroethane	8.852	131	389301	55.20 ppb	98
82) Ethylbenzene	8.889	106	608204	56.29 ppb	92
83) (m+p)Xylene	8.998	106	1499234	114.50 ppb	99
84) o-Xylene	9.346	106	727994	57.15 ppb	100
85) Styrene	9.358	104	1216192	58.17 ppb	98
87) Bromoform	9.498	173	195453	56.60 ppb	98
88) 2-CBTF	9.577	180	538433	52.37 ppb	97
89) Isopropylbenzene	9.675	105	1776795	54.72 ppb	100
90) Cyclohexanone	9.718	55	823382	1100.90 ppb	99
91) trans-1,4-Dichloro-2-B...	9.962	53	86817	53.75 ppb	93
92) 1,1,2,2-Tetrachloroethane	9.913	83	339807	52.12 ppb	98
93) Bromobenzene	9.913	156	446010	53.49 ppb	96
94) 1,2,3-Trichloropropane	9.943	110	97869	51.75 ppb	93
95) n-Propylbenzene	10.023	91	2081988	54.83 ppb	99
96) 2-Chlorotoluene	10.083	91	1237106	53.65 ppb	98

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8735.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:40:41 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

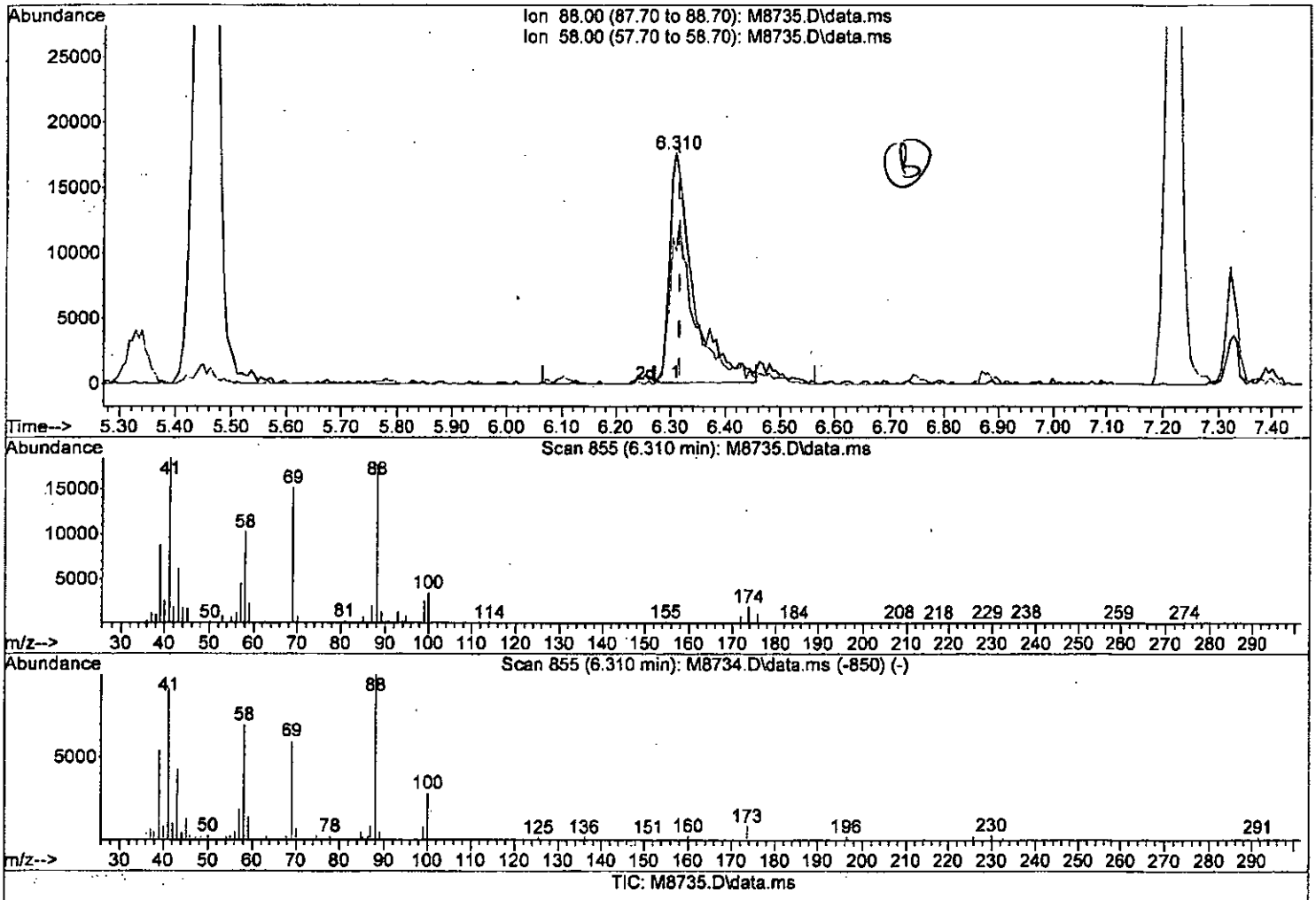
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1311410	51.67 ppb	94
98)	4-Chlorotoluene	10.175	91	1462126	54.61 ppb	99
99)	1,3,5-Trimethylbenzene	10.175	105	1472763	56.74 ppb	99
100)	tert-Butylbenzene	10.443	119	1209889	55.58 ppb	98
101)	1,2,4-Trimethylbenzene	10.480	105	1513373	56.53 ppb	99
102)	3,4-DCBTF	10.535	214	356012	48.65 ppb	95
103)	sec-Butylbenzene	10.620	105	1719950	54.38 ppb	99
104)	p-Isopropyltoluene	10.742	119	1479827	56.09 ppb	98
105)	1,3-Dclbenz	10.699	146	847255	53.81 ppb	99
106)	1,4-Dclbenz	10.772	146	858876	52.78 ppb	99
107)	2,4-DCBTF	10.821	214	324977	51.20 ppb	97
108)	2,5-DCBTF	10.864	214	371278	51.55 ppb	95
109)	n-Butylbenzene	11.071	91	1346770	56.23 ppb	99
110)	1,2-Dclbenz	11.065	146	801128	53.26 ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	64442	55.96 ppb	92
112)	Trielution Dichlorotol...	11.730	125	2032476	162.58 ppb	100
113)	1,3,5 Trichlorobenzene	11.778	180	543731	50.66 ppb	98
114)	Coelution Dichlorotoluene	11.998	125	1478814	110.69 ppb	99
115)	1,2,4-Tcbenzene	12.162	180	488207	55.58 ppb	98
116)	Hexachlorobt	12.266	225	181585	52.27 ppb	99
117)	Naphthalen	12.303	128	1043713	58.06 ppb	99
118)	1,2,3-Tclbenzene	12.443	180	416468	54.72 ppb	100
119)	2,4,5-Trichlorotolene	12.857	159	304826	51.28 ppb	96
120)	2,3,6-Trichlorotoluene	12.918	159	304802	52.22 ppb	98

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

Quantitation Report (Qedit)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8735.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:44 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8735.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.006) 902.23 ppb

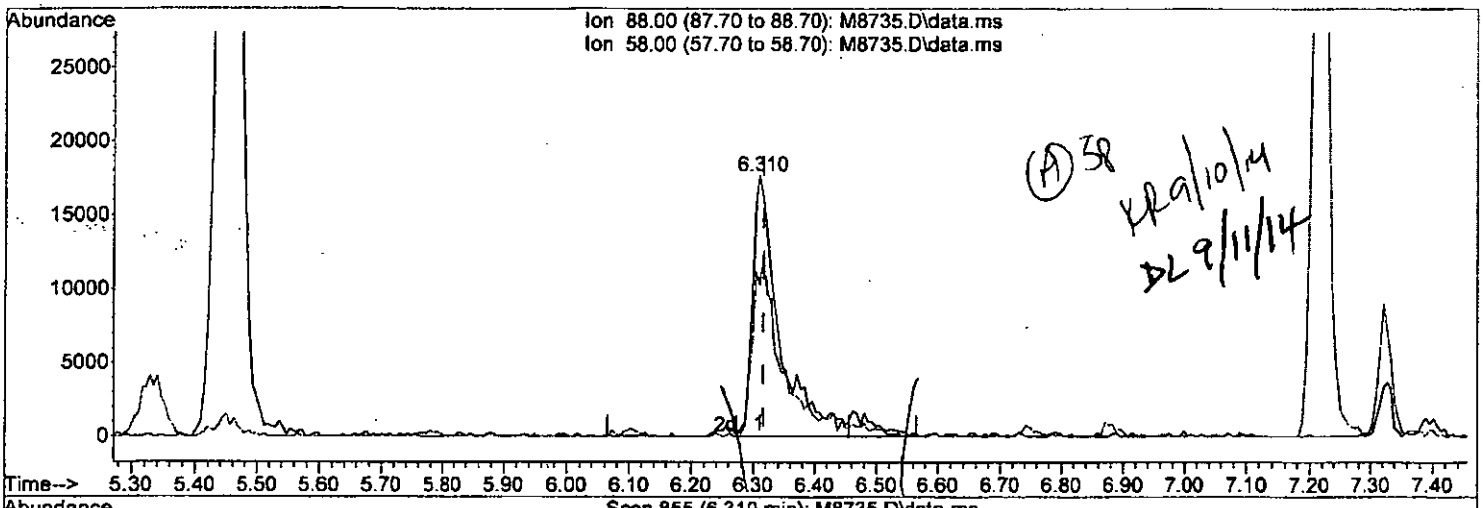
response 53346

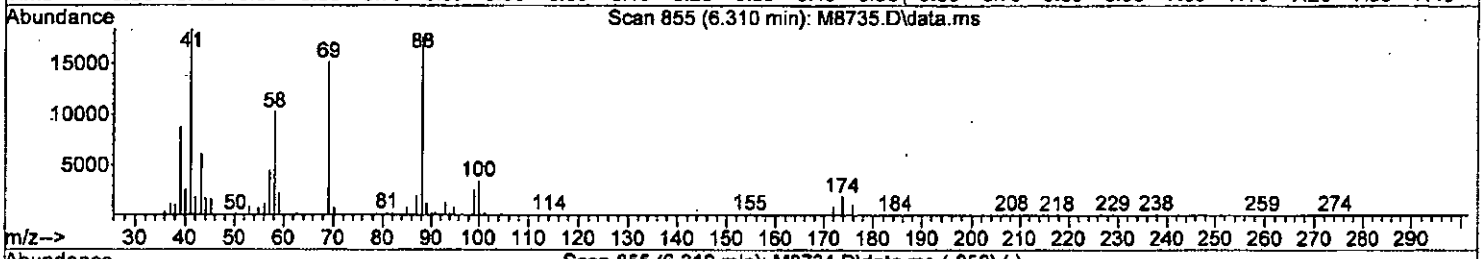
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	57.91
0.00	0.00	0.00
0.00	0.00	0.00

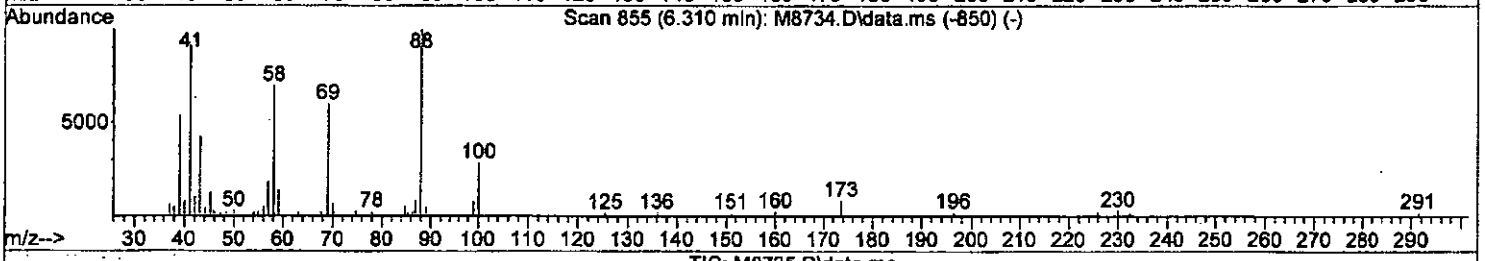
Quantitation Report (Qedit)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8735.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:44 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8735.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.006) 989.18 ppb m

response 58487

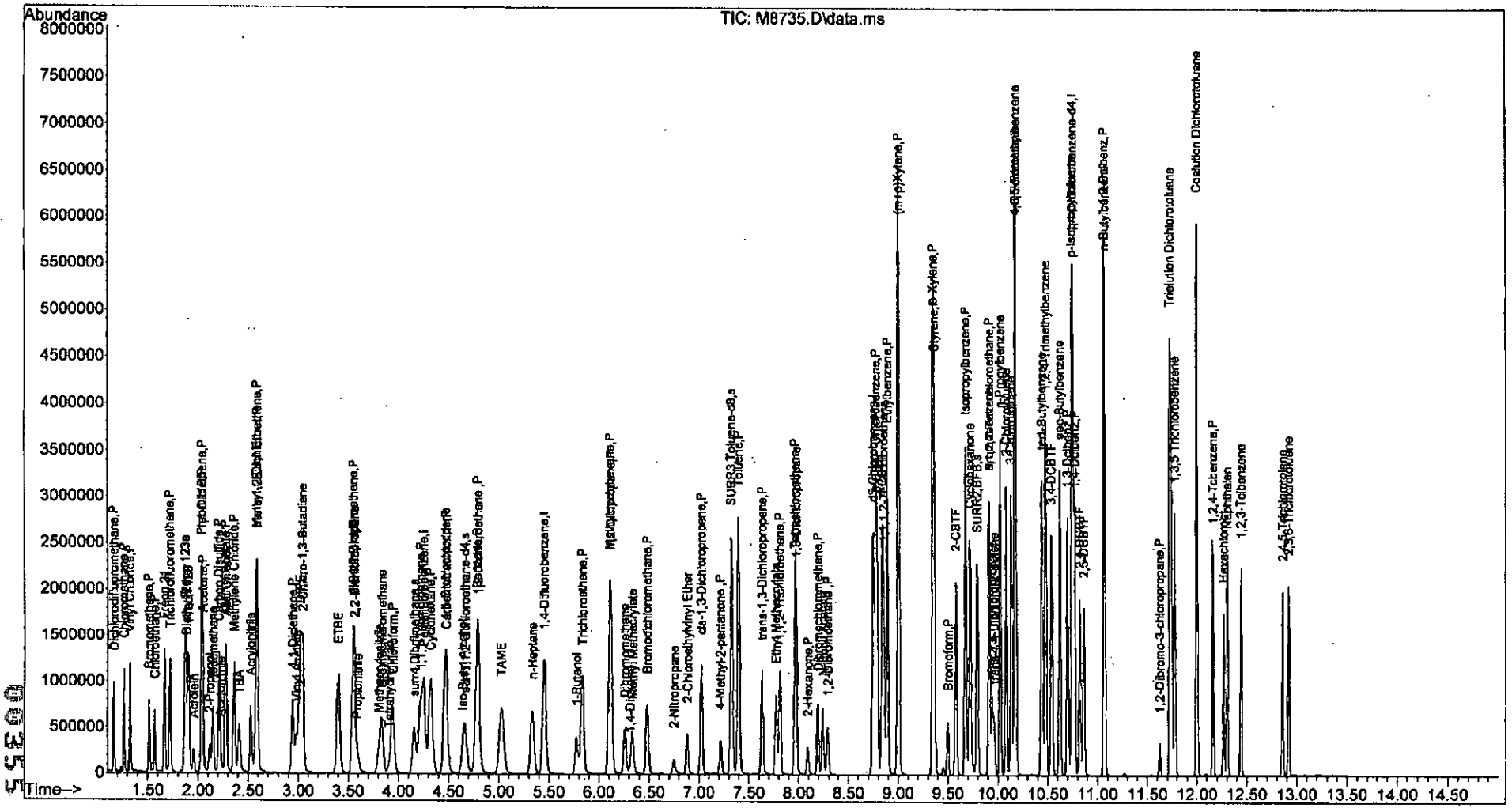
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	57.91
0.00	0.00	0.00
0.00	0.00	0.00

00354

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8735.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 6:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:40:41 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8736.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:18 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:42:16 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	813859	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1307863	50.00	ppb		0.00
71) d5-Chlorobenzene	8.748	117	1201172	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.754	152	658937	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	889639	122.12	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 244.24%#				
48) surr1,1,2-dichloroetha...	4.664	65	967197	123.19	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 246.38%#				
65) SURR3,Toluene-d8	7.328	98	3725933	121.18	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 242.36%#				
70) SURR2,BFB	9.791	95	1351040	122.76	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 245.52%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	864742	109.50	ppb		98
3) Chloromethane	1.262	50	902857	104.81	ppb		98
4) Vinyl Chloride	1.323	62	986256	108.21	ppb		96
5) Bromomethane	1.512	94	514470	98.03	ppb		99
6) Chloroethane	1.567	64	544646	106.89	ppb		99
7) Freon 21	1.664	67	1429040	106.03	ppb		98
8) Trichlorofluoromethane	1.719	101	1147712	104.98	ppb		97
9) Diethyl Ether	1.884	59	566382	107.49	ppb		96
10) Freon 123a	1.872	67	898992	104.82	ppb		100
11) Freon 123	1.902	83	1018540	107.44	ppb		97
12) Acrolein	1.957	56	327086	658.95	ppb		95
13) 1,1-Diclethene	2.042	96	599047	103.28	ppb		99
14) Freon 113	2.036	101	692102	102.56	ppb		99
15) Acetone	2.048	43	168770	100.83	ppb		97
16) 2-Propanol	2.115	45	618494	2320.37	ppb		95
17) Iodomethane	2.146	142	969394	111.03	ppb		99
18) Carbon Disulfide	2.207	76	2192012	99.78	ppb		98
19) Acetonitrile	2.225	40	117549	520.09	ppb	#	87
20) Allyl Chloride	2.280	76	418410	105.95	ppb		99
21) Methyl Acetate	2.274	43	371931	109.06	ppb		99
22) Methylene Chloride	2.359	84	724699	97.21	ppb		98
23) TBA	2.408	59	1019159	2277.75	ppb		98
24) Acrylonitrile	2.524	53	890141	558.04	ppb		96
25) Methyl-t-Butyl Ether	2.585	73	1846444	111.75	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	744733	103.00	ppb		97
28) 1,1-Diclethane	2.945	63	1347141	104.50	ppb		97
29) Vinyl Acetate	2.981	86	117513	111.23	ppb	#	84
30) DIPE	3.018	45	2557188	104.78	ppb		97
31) 2-Chloro-1,3-Butadiene	3.042	53	1298452	103.86	ppb		91
32) ETBE	3.402	59	2299501	106.86	ppb		97
33) 2,2-Dichloropropane	3.560	77	1120630	110.03	ppb		96
34) cis-1,2-Dichloroethene	3.548	96	826818	102.26	ppb		98
35) 2-Butanone	3.548	43	231033	105.56	ppb		97
36) Propionitrile	3.591	54	330936	560.87	ppb		98
37) Bromochloromethane	3.835	130	448024	100.52	ppb		99

KP 9/10/14

00356

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8736.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:18 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:42:16 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.804	67	210263	111.82	ppb		97
39) Tetrahydrofuran	3.908	42	143030	104.42	ppb		93
40) Chloroform	3.944	83	1290674	98.18	ppb		98
41) 1,1,1-Trichloroethane	4.219	97	1141244	104.34	ppb		91
42) TAME	5.030	73	1997342	108.57	ppb		97
44) Cyclohexane	4.322	41	696838	101.27	ppb		98
46) Carbontetrachloride	4.475	121	301936	103.51	ppb		86
47) 1,1-Dichloropropene	4.469	75	993373	104.59	ppb		99
49) Benzene	4.786	78	3071410	103.39	ppb		99
50) 1,2-Dichloroethane	4.792	62	914014	103.51	ppb		97
51) Iso-Butyl Alcohol	4.645	43	457441	2312.40	ppb		93
52) n-Heptane	5.334	43	775655	103.70	ppb		92
53) 1-Butanol	5.773	56	701777	6176.85	ppb		95
54) Trichloroethene	5.834	130	801807	102.13	ppb		96
55) Methylcyclohexane	6.109	55	894501	110.15	ppb		97
56) 1,2-Diclpropane	6.115	63	790284	105.65	ppb		97
57) Dibromomethane	6.255	93	382504	105.56	ppb		91
58) 1,4-Dioxane	6.310	88	120158m	1984.33	ppb		
59) Methyl Methacrylate	6.334	69	387427	113.16	ppb		98
60) Bromodichloromethane	6.481	83	977707	105.60	ppb		98
61) 2-Nitropropane	6.749	41	201586	219.21	ppb		92
62) 2-Chloroethylvinyl Ether	6.883	63	370046	109.91	ppb		96
63) cis-1,3-Dichloropropene	7.023	75	1210938	111.96	ppb		98
64) 4-Methyl-2-pentanone	7.218	43	492523	111.13	ppb		96
66) Toluene	7.395	91	3349944	103.79	ppb		97
67) trans-1,3-Dichloropropene	7.633	75	1016661	115.39	ppb		98
68) Ethyl Methacrylate	7.773	69	820102	118.14	ppb		97
69) 1,1,2-Trichloroethane	7.809	97	572143	105.09	ppb		98
72) Tetrachloroethene	7.962	164	625980	101.74	ppb		99
73) 2-Hexanone	8.090	43	364380	109.48	ppb		98
74) 1,3-Dichloropropane	7.974	76	1062117	103.83	ppb		100
75) Dibromochloromethane	8.194	129	686610	110.86	ppb		96
76) N-Butyl Acetate	8.242	43	871988	120.84	ppb		98
77) 1,2-Dibromoethane	8.291	107	564279	109.17	ppb		95
78) Chlorobenzene	8.773	112	2207769	103.68	ppb		95
79) 3-CBTF	8.785	180	1161986	110.41	ppb		96
80) 4-CBTF	8.840	180	1068053	105.64	ppb		96
81) 1,1,1,2-Tetrachloroethane	8.852	131	778122	106.57	ppb		98
82) Ethylbenzene	8.889	106	1199362	107.23	ppb	#	89
83) (m+p)Xylene	8.998	106	2960156	218.38	ppb		97
84) o-Xylene	9.346	106	1453926	110.25	ppb		97
85) Styrene	9.358	104	2441353	112.80	ppb		99
87) Bromoform	9.498	173	402246	111.98	ppb		99
88) 2-CBTF	9.577	180	1123441	105.05	ppb		94
89) Isopropylbenzene	9.675	105	3481901	103.09	ppb		99
90) Cyclohexanone	9.724	55	1687619	2169.05	ppb		99
91) trans-1,4-Dichloro-2-B...	9.962	53	189559	112.82	ppb		94
92) 1,1,2,2-Tetrachloroethane	9.913	83	698535	102.99	ppb		97
93) Bromobenzene	9.913	156	895406	103.23	ppb		97
94) 1,2,3-Trichloropropane	9.943	110	197001	100.14	ppb		98
95) n-Propylbenzene	10.022	91	4054271	102.64	ppb		98
96) 2-Chlorotoluene	10.083	91	2440652	101.74	ppb		99

00357

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8736.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:18 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:42:16 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration

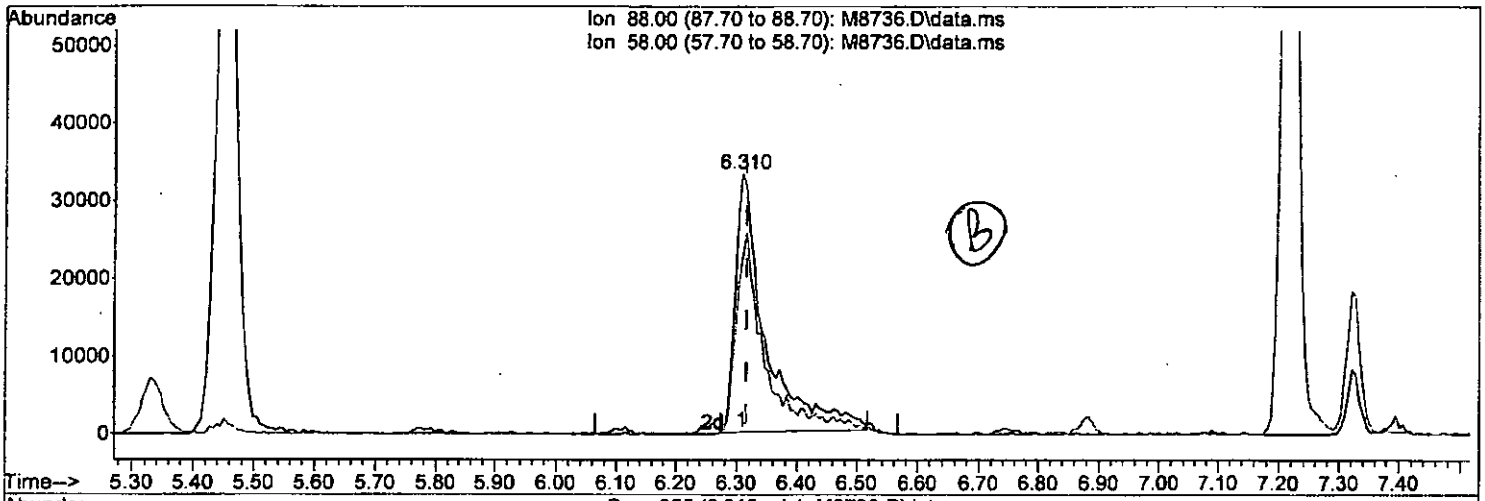
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	2760680	104.57	ppb	94
98)	4-Chlorotoluene	10.175	91	2942497	105.64	ppb	99
99)	1,3,5-Trimethylbenzene	10.175	105	2956949	109.52	ppb	99
100)	tert-Butylbenzene	10.443	119	2361923	104.30	ppb	97
101)	1,2,4-Trimethylbenzene	10.480	105	2964810	106.46	ppb	100
102)	3,4-DCBTF	10.541	214	768460	100.95	ppb	93
103)	sec-Butylbenzene	10.620	105	3362068	102.18	ppb	99
104)	p-Isopropyltoluene	10.742	119	2917849	106.31	ppb	98
105)	1,3-Dclbenz	10.699	146	1663890	101.59	ppb	99
106)	1,4-Dclbenz	10.772	146	1708880	100.96	ppb	100
107)	2,4-DCBTF	10.821	214	702637	106.41	ppb	98
108)	2,5-DCBTF	10.864	214	764623	102.05	ppb	97
109)	n-Butylbenzene	11.071	91	2654720	106.55	ppb	97
110)	1,2-Dclbenz	11.065	146	1635158	104.51	ppb	99
111)	1,2-Dibromo-3-chloropr...	11.626	157	133641	111.56	ppb	92
112)	Trielution Dichlorotol...	11.729	125	4256459	327.30	ppb	99
113)	1,3,5 Trichlorobenzene	11.778	180	1127895	101.02	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	3077064	221.40	ppb	98
115)	1,2,4-Tcbenzene	12.162	180	957353	104.78	ppb	99
116)	Hexachlorobt	12.266	225	337327	93.33	ppb	98
117)	Naphthalen	12.303	128	2105968	112.62	ppb	99
118)	1,2,3-Tclbenzene	12.443	180	807522	102.00	ppb	97
119)	2,4,5-Trichlorotolene	12.857	159	636246	102.88	ppb	98
120)	2,3,6-Trichlorotoluene	12.918	159	617664	101.73	ppb	95

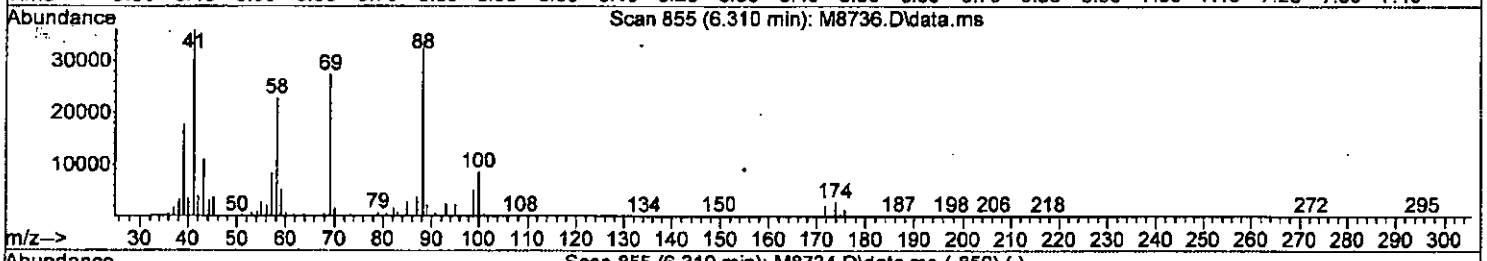
(#) = qualifier out of range (m) = manual integration (+) = signals summed

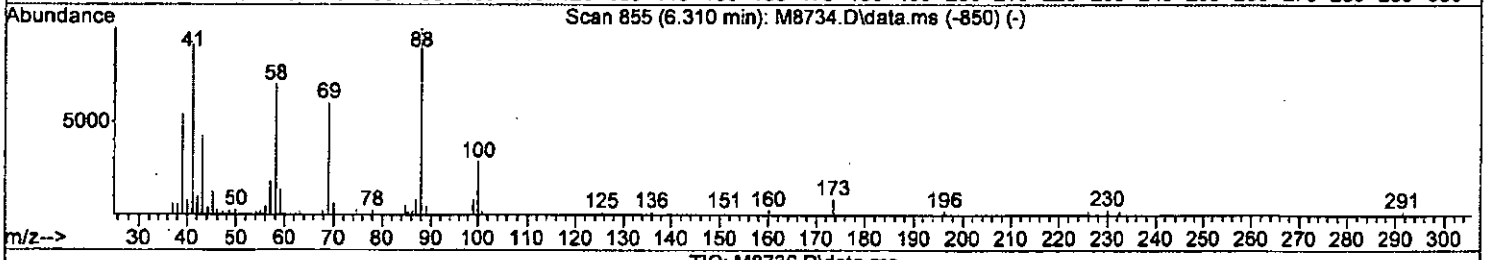
Quantitation Report (Qedit)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8736.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:18 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:49 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration







TIC: M8736.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.006) 1881.18 ppb

response 113912

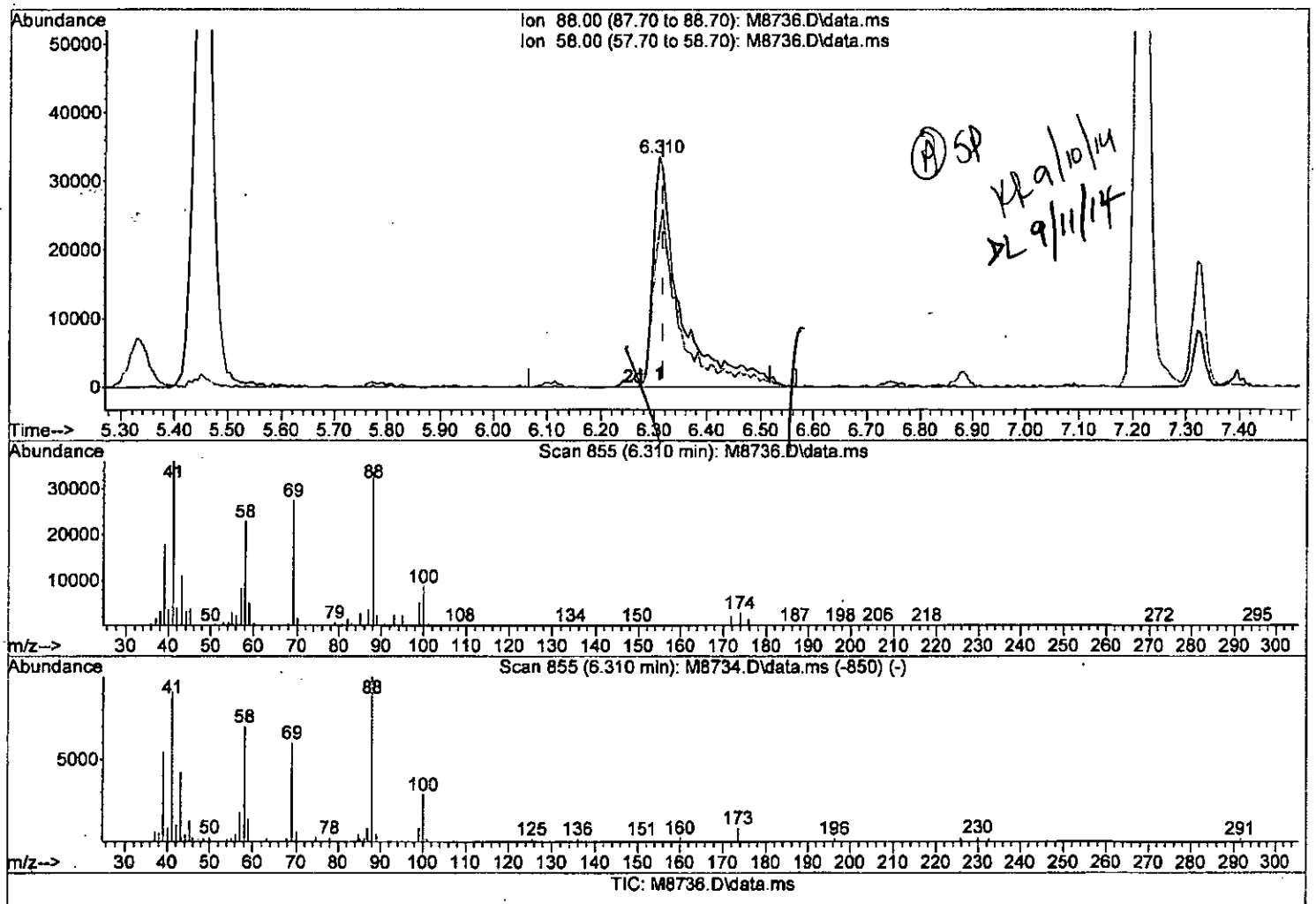
Ion	Exp%	Act%
88.00	100	100
58.00	69.80	67.79
0.00	0.00	0.00
0.00	0.00	0.00

00359

Quantitation Report (Qedit)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8736.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:18 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 08:46:49 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



TIC: M8736.D\data.ms

(58) 1,4-Dioxane

6.310min (-0.006) 1984.33 ppb m

response 120158

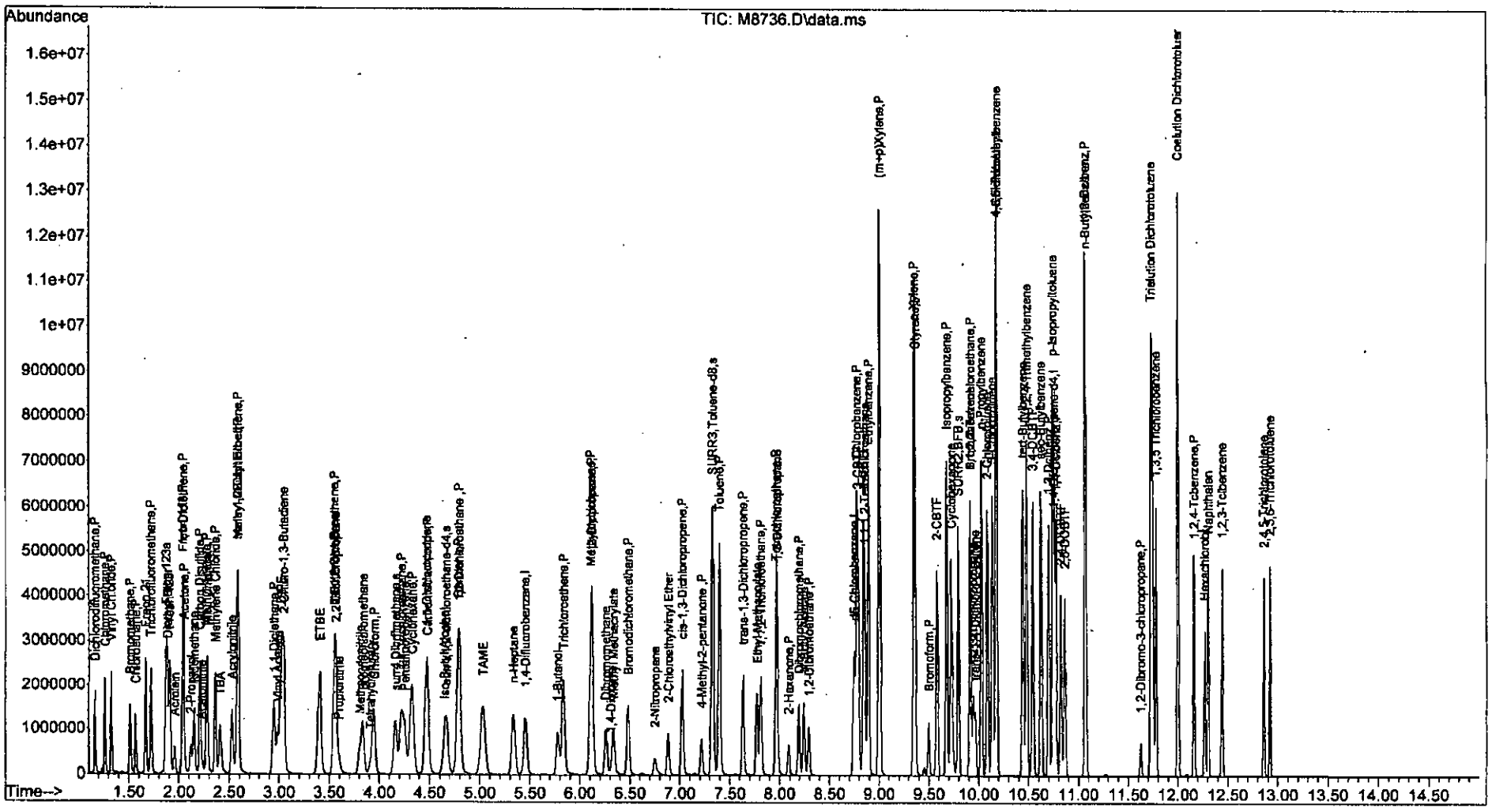
Ion	Exp%	Act%
88.00	100	100
58.00	89.80	67.79
0.00	0.00	0.00
0.00	0.00	0.00

00360

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8736.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:18 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:42:16 2014
QLast Update : Wed Sep 10 08:41:49 2014
Response via : Initial Calibration



W090914.M Wed Sep 10 09:43:04 2014

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8737.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:50 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:46:57 2014
QLast Update : Wed Sep 10 09:45:44 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	853409	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1357501	50.00	ppb	0.00
71) d5-Chlorobenzene	8.748	117	1268084	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.754	152	713250	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.158	113	1107609	146.49	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 292.98%#			
48) surr1,1,2-dichloroetha...	4.670	65	1207918	148.22	ppb	0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 296.44%#			
65) SURR3,Toluene-d8	7.328	98	4664107	146.16	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 292.32%#			
70) SURR2,BFB	9.791	95	1720172	150.57	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 301.14%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.164	85	1803741	217.81	ppb	99
3) Chloromethane	1.262	50	1980518	219.27	ppb	97
4) Vinyl Chloride	1.323	62	2081737	217.81	ppb	100
5) Bromomethane	1.512	94	1147408	206.59	ppb	98
6) Chloroethane	1.567	64	1147912	214.85	ppb	99
7) Freon 21	1.664	67	2951378	208.85	ppb	97
8) Trichlorofluoromethane	1.719	101	2430347	211.99	ppb	100
9) Diethyl Ether	1.878	59	1220233	220.85	ppb	97
10) Freon 123a	1.872	67	1941927	215.94	ppb	97
11) Freon 123	1.902	83	2170372	218.37	ppb	97
12) Acrolein	1.951	56	776161	1491.19	ppb	99
13) 1,1-Diclethene	2.042	96	1312994	215.87	ppb	96
14) Freon 113	2.036	101	1474403	208.35	ppb	99
15) Acetone	2.048	43	368101	209.72	ppb	96
16) 2-Propanol	2.115	45	1388003	4965.28	ppb	97
17) Iodomethane	2.146	142	1967864	214.94	ppb	98
18) Carbon Disulfide	2.207	76	4563589	198.11	ppb	98
19) Acetonitrile	2.225	40	280559	1183.80	ppb	98
20) Allyl Chloride	2.280	76	871964	212.54	ppb	98
21) Methyl Acetate	2.274	43	807072	225.68	ppb	100
22) Methylene Chloride	2.359	84	1561810	199.78	ppb	96
23) TBA	2.408	59	2276064	4851.10	ppb	98
24) Acrylonitrile	2.524	53	1981546	1184.65	ppb	99
25) Methyl-t-Butyl Ether	2.585	73	4004538	231.13	ppb	98
26) trans-1,2-Dichloroethene	2.585	96	1624445	214.25	ppb	96
28) 1,1-Diclethane	2.945	63	2878240	212.93	ppb	97
29) Vinyl Acetate	2.981	86	253175	234.73	ppb	99
30) DIPE	3.018	45	5240631	204.78	ppb	98
31) 2-Chloro-1,3-Butadiene	3.042	53	2744295	208.63	ppb	99
32) ETBE	3.402	59	4795409	212.52	ppb	100
33) 2,2-Dichloropropane	3.560	77	2367570	221.68	ppb	98
34) cis-1,2-Dichloroethene	3.548	96	1791440	210.35	ppb	100
35) 2-Butanone	3.548	43	508882	221.74	ppb	94
36) Propionitrile	3.597	54	753634	1218.06	ppb	99
37) Bromochloromethane	3.835	130	931329	197.77	ppb	97

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8737.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:50 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:46:57 2014
QLast Update : Wed Sep 10 09:45:44 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.804	67	468646	237.52	ppb		95
39) Tetrahydrofuran	3.908	42	319044	222.12	ppb		93
40) Chloroform	3.944	83	2754769	199.85	ppb		99
41) 1,1,1-Trichloroethane	4.219	97	2436871	213.49	ppb		92
42) TAME	5.030	73	4235532	219.56	ppb		99
44) Cyclohexane	4.322	41	1488783	212.06	ppb		99
46) Carbontetrachloride	4.475	121	662734	216.75	ppb		93
47) 1,1-Dichloropropene	4.469	75	2097741	212.78	ppb		98
49) Benzene	4.786	78	6562400	213.01	ppb		97
50) 1,2-Dichloroethane	4.792	62	1983133	216.37	ppb		99
51) Iso-Butyl Alcohol	4.645	43	1011590	4964.36	ppb		95
52) n-Heptane	5.334	43	1633431	210.39	ppb		96
53) 1-Butanol	5.779	56	1465753	12468.79	ppb		99
54) Trichloroethene	5.834	130	1737363	211.91	ppb		98
55) Methylcyclohexane	6.109	55	1897088	225.10	ppb		98
56) 1,2-Diclpropane	6.121	63	1705459	219.65	ppb		100
57) Dibromomethane	6.261	93	821011	218.29	ppb		94
58) 1,4-Dioxane	6.316	88	266627m	4124.16	ppb		
59) Methyl Methacrylate	6.334	69	852049	238.87	ppb		94
60) Bromodichloromethane	6.480	83	2115996	220.20	ppb		99
61) 2-Nitropropane	6.749	41	477951	500.74	ppb		94
62) 2-Chloroethylvinyl Ether	6.883	63	814639	233.12	ppb		96
63) cis-1,3-Dichloropropene	7.023	75	2640250	235.18	ppb		99
64) 4-Methyl-2-pentanone	7.218	43	1077704	234.35	ppb		98
66) Toluene	7.395	91	7011397	209.28	ppb		96
67) trans-1,3-Dichloropropene	7.633	75	2256201	246.72	ppb		98
68) Ethyl Methacrylate	7.773	69	1804273	250.95	ppb		100
69) 1,1,2-Trichloroethane	7.809	97	1253212	221.77	ppb		96
72) Tetrachloroethene	7.968	164	1354559	208.54	ppb		98
73) 2-Hexanone	8.090	43	804903	226.16	ppb		96
74) 1,3-Dichloropropane	7.974	76	2342610	216.92	ppb		97
75) Dibromochloromethane	8.194	129	1535569	234.84	ppb		97
76) N-Butyl Acetate	8.242	43	1901542	249.37	ppb		99
77) 1,2-Dibromoethane	8.291	107	1223962	224.31	ppb		100
78) Chlorobenzene	8.773	112	4756115	211.58	ppb		98
79) 3-CBTF	8.791	180	2438106	219.44	ppb		98
80) 4-CBTF	8.840	180	2230521	208.97	ppb		97
81) 1,1,1,2-Tetrachloroethane	8.852	131	1727754	224.15	ppb		97
82) Ethylbenzene	8.895	106	2620865	221.95	ppb	#	80
83) (m+p)Xylene	9.004	106	6348529	443.67	ppb	#	75
84) o-Xylene	9.352	106	3235149	232.38	ppb		88
85) Styrene	9.358	104	5313402	232.83	ppb		94
87) Bromoform	9.498	173	903684	232.41	ppb		99
88) 2-CBTF	9.584	180	2339788	202.12	ppb		99
89) Isopropylbenzene	9.675	105	7129381	195.01	ppb		95
90) Cyclohexanone	9.724	55	3702101	4361.85	ppb		99
91) trans-1,4-Dichloro-2-B...	9.961	53	414507	227.92	ppb		96
92) 1,1,2,2-Tetrachloroethane	9.913	83	1576631	214.76	ppb		97
93) Bromobenzene	9.913	156	1966257	209.43	ppb		93
94) 1,2,3-Trichloropropane	9.943	110	435458	204.49	ppb		98
95) n-Propylbenzene	10.029	91	8063421	188.59	ppb		91
96) 2-Chlorotoluene	10.083	91	5179598	199.70	ppb		99

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8737.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:50 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:46:57 2014
QLast Update : Wed Sep 10 09:45:44 2014
Response via : Initial Calibration

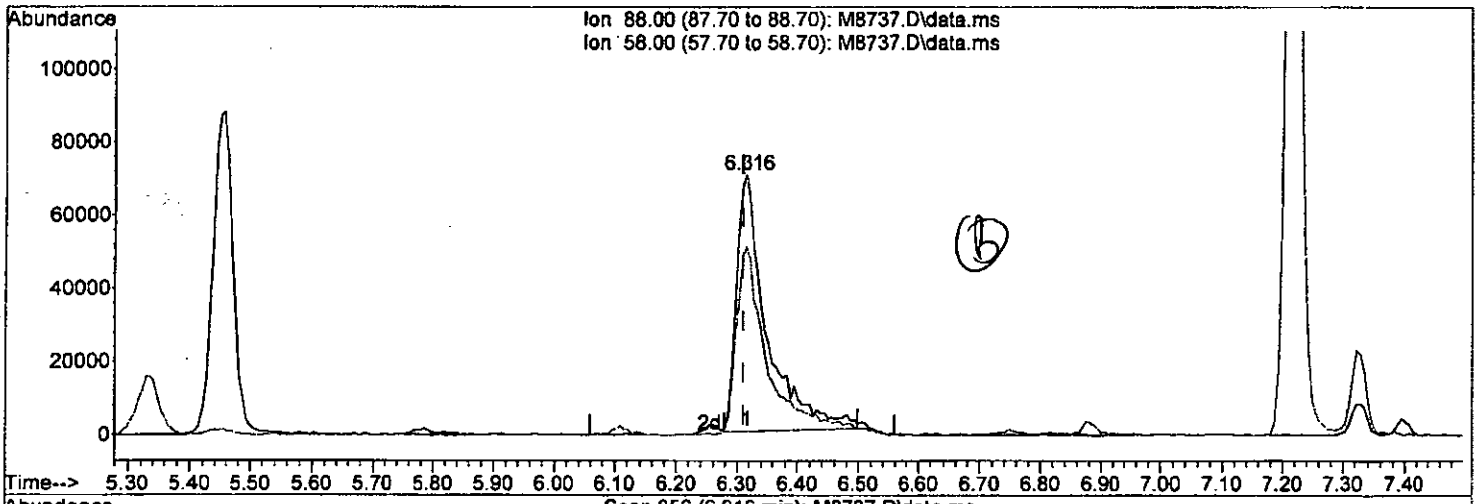
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.138	91	5464223	196.36	ppb		94
98)	4-Chlorotoluene	10.175	91	6280533	208.30	ppb		94
99)	1,3,5-Trimethylbenzene	10.175	105	6242929	213.61	ppb		93
100)	tert-Butylbenzene	10.443	119	5031404	205.26	ppb		98
101)	1,2,4-Trimethylbenzene	10.480	105	6135686	203.54	ppb		95
102)	3,4-DCBTF	10.541	214	1582833	192.11	ppb		98
103)	sec-Butylbenzene	10.626	105	6814239	191.32	ppb		94
104)	p-Isopropyltoluene	10.742	119	5983233	201.40	ppb		95
105)	1,3-Dclbenz	10.699	146	3641236	205.38	ppb		98
106)	1,4-Dclbenz	10.772	146	3708795	202.42	ppb		97
107)	2,4-DCBTF	10.827	214	1414641	198.27	ppb		96
108)	2,5-DCBTF	10.864	214	1579808	194.78	ppb		96
109)	n-Butylbenzene	11.071	91	5558206	206.11	ppb		93
110)	1,2-Dclbenz	11.071	146	3622110	213.87	ppb		97
111)	1,2-Dibromo-3-chloropr...	11.626	157	300448	231.72	ppb		93
112)	Trielution Dichlorotol...	11.736	125	8500626	603.88	ppb		91
113)	1,3,5 Trichlorobenzene	11.784	180	2268751	187.73	ppb		98
114)	Coelution Dichlorotoluene	11.998	125	5915950	393.25	ppb	#	90
115)	1,2,4-Tcbenzene	12.162	180	1994288	201.64	ppb		99
116)	Hexachlorobt	12.266	225	697008	178.17	ppb		99
117)	Naphthalen	12.303	128	4348671	214.84	ppb		98
118)	1,2,3-Tclbenzene	12.443	180	1689948	197.20	ppb		98
119)	2,4,5-Trichlorotolene	12.857	159	1240219	185.27	ppb		98
120)	2,3,6-Trichlorotoluene	12.912	159	1233328	187.67	ppb		95

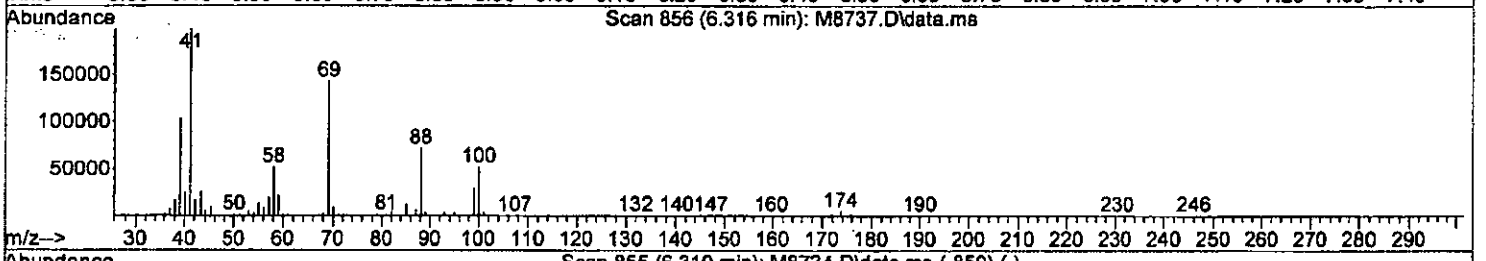
(#) = qualifier out of range (m) = manual integration (+) = signals summed

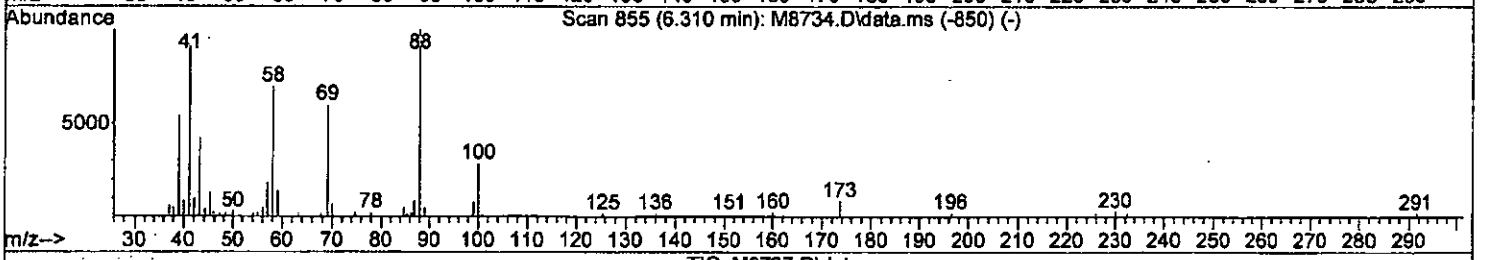
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8737.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:50 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:46:04 2014
QLast Update : Wed Sep 10 09:45:44 2014
Response via : Initial Calibration







TIC: M8737.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 3798.30 ppb

response 245560

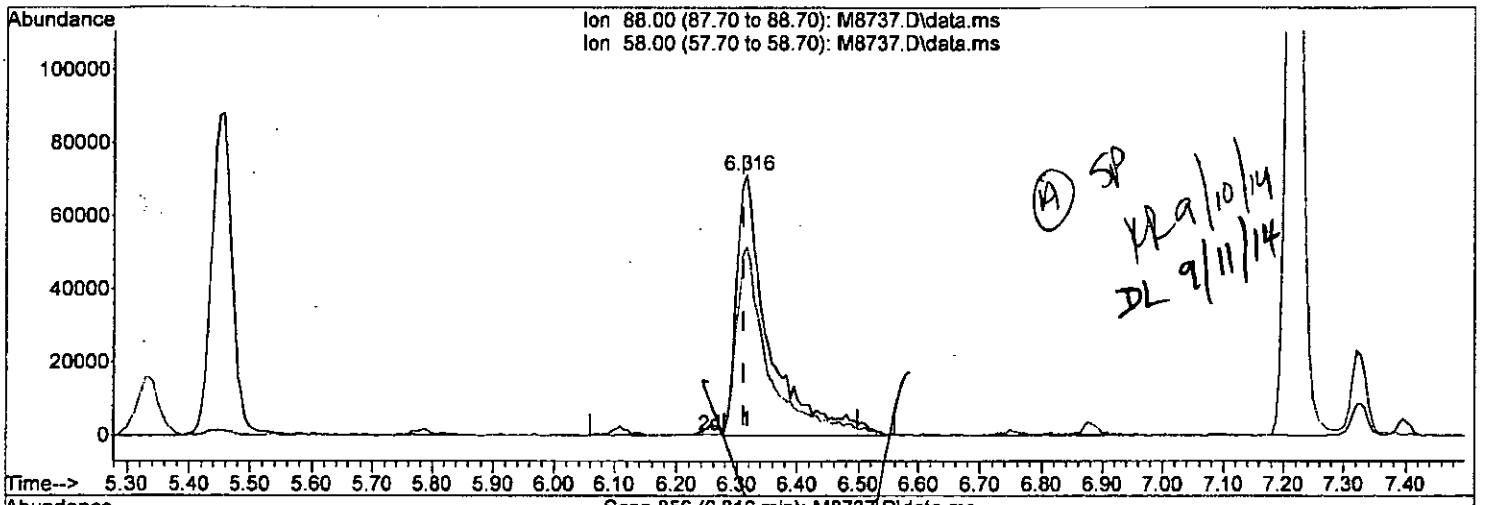
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	72.14
0.00	0.00	0.00
0.00	0.00	0.00

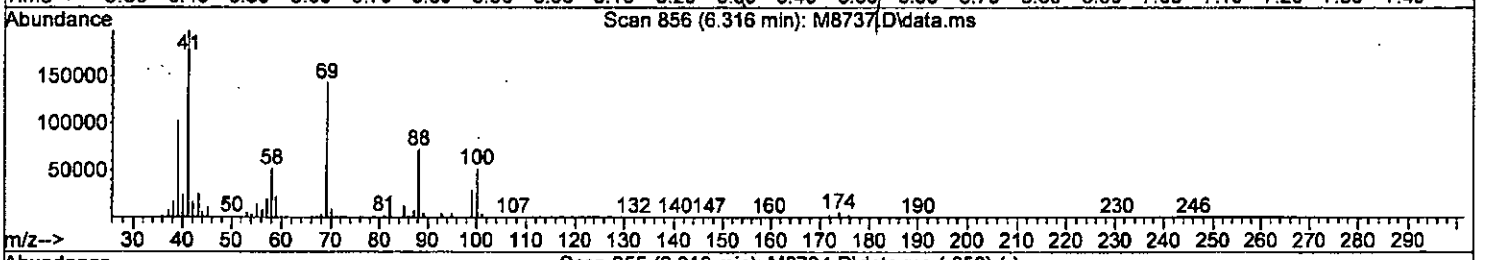
00365

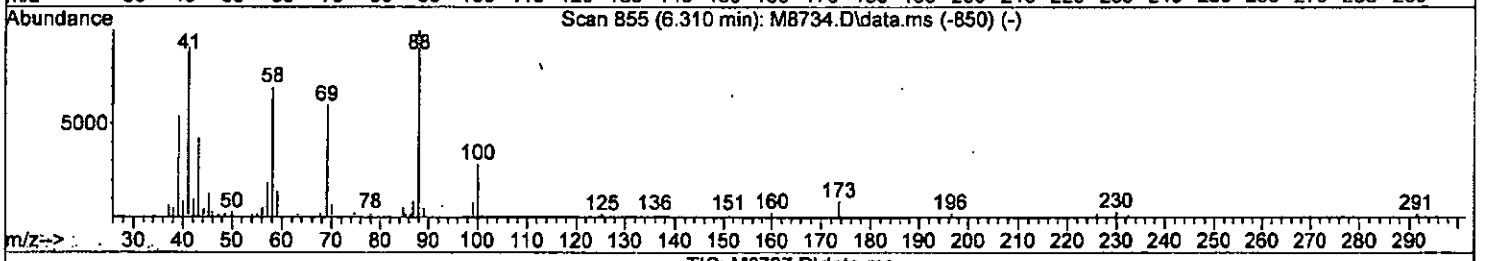
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8737.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:50 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:46:04 2014
QLast Update : Wed Sep 10 09:45:44 2014
Response via : Initial Calibration







TIC: M8737.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.006) 4124.16 ppb m

response 266627

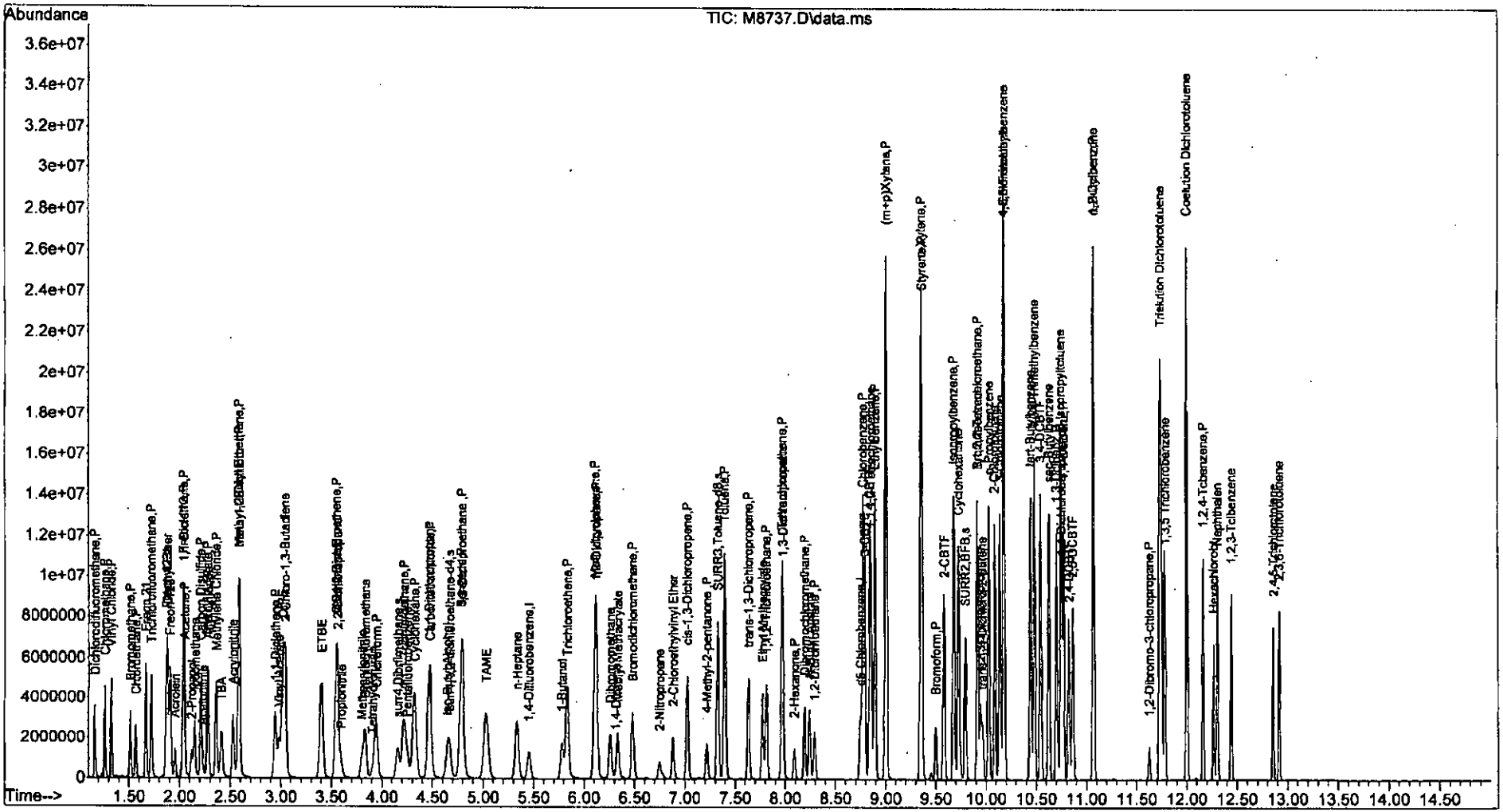
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	72.14
0.00	0.00	0.00
0.00	0.00	0.00

00366

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8737.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 7:50 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 09:46:57 2014
QLast Update : Wed Sep 10 09:45:44 2014
Response via : Initial Calibration



Initial Calibration Verification Summary Report

Calibration ID: RC1400080 W090914 8200 Waters

Instrument ID: R-MS-12

Column Name: 1 XR 9/10/14

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1400080-09	T	Average RF	50	53.78	ppm	7.6	<=30
1,1,1-Trichloroethane (TCA)	RC1400080-09	T	Average RF	50	54.69	ppm	9.4	<=30
1,1,2,2-Tetrachloroethane	RC1400080-09	T	Average RF	50	54.53	ppm	9.1	<=30
1,1,2-Trichloroethane	RC1400080-09	T	Average RF	50	54.19	ppm	8.4	<=30
1,1,2-Trichlorotrifluoroethane	RC1400080-09	T	Average RF	50	51.51	ppm	3.0	<=30
1,1-Dichloroethane (1,1-DCA)	RC1400080-09	T	Average RF	50	54.87	ppm	9.7	<=30
1,1-Dichloroethene (1,1-DCE)	RC1400080-09	T	Average RF	50	59.69	ppm	19.4	<=30
1,1-Dichloropropene	RC1400080-09	T	Average RF	50	55.13	ppm	10.3	<=30
1,2,3-Trichlorobenzene	RC1400080-09	T	Average RF	50	53.47	ppm	6.9	<=30
1,2,3-Trichloropropane	RC1400080-09	T	Average RF	50	54.57	ppm	9.1	<=30
1,2,4-Trichlorobenzene	RC1400080-09	T	Average RF	50	54.91	ppm	9.8	<=30
1,2,4-Trimethylbenzene	RC1400080-09	T	Average RF	50	54.69	ppm	9.4	<=30
1,2-Dibromo-3-chloropropane (DBCP)	RC1400080-09	T	Average RF	50	56.26	ppm	12.5	<=30
1,2-Dibromoethane	RC1400080-09	T	Average RF	50	56.77	ppm	13.5	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1400080-09	T	Average RF	50	57.62	ppm	15.2	<=30
1,2-Dichlorobenzene	RC1400080-09	T	Average RF	50	53.28	ppm	6.6	<=30
1,2-Dichloroethane	RC1400080-09	T	Average RF	50	54.79	ppm	9.6	<=30
1,2-Dichloropropane	RC1400080-09	T	Average RF	50	55.97	ppm	11.9	<=30
1,3,5-Trichlorobenzene	RC1400080-09	T	Average RF	50	47.31	ppm	-5.4	<=30
1,3,5-Trimethylbenzene	RC1400080-09	T	Average RF	50	55.86	ppm	11.7	<=30
1,3-Dichlorobenzene	RC1400080-09	T	Average RF	50	53.10	ppm	6.2	<=30
1,3-Dichloropropane	RC1400080-09	T	Average RF	50	53.91	ppm	7.8	<=30
1,4-Dichlorobenzene	RC1400080-09	T	Average RF	50	52.40	ppm	4.8	<=30
1,4-Dioxane	RC1400080-09	T	Average RF	1000	992.9	ppm	-0.7	<=30
1-Butanol	RC1400080-09	T	Average RF	2500	2911	ppm	16.4	<=30
1-Chloro-4-(trifluoromethyl)benzene	RC1400080-09	T	Average RF	50	47.23	ppm	-5.5	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1400080-09	T	Average RF	50	57.44	ppm	14.9	<=30
2,2-Dichloropropane	RC1400080-09	T	Average RF	50	51.09	ppm	2.2	<=30
2,3,6-Trichlorotoluene	RC1400080-09	T	Average RF	50	49.16	ppm	-1.7	<=30
2,4,5-Trichlorotoluene	RC1400080-09	T	Average RF	50	48.20	ppm	-3.6	<=30
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1400080-09	T	Average RF	150	152.5	ppm	1.7	<=30
2,4-Dichlorobenzotrifluoride	RC1400080-09	T	Average RF	50	46.80	ppm	-6.4	<=30
2,5-Dichlorobenzotrifluoride	RC1400080-09	T	Average RF	50	47.14	ppm	-5.7	<=30
2-Butanone (MEK)	RC1400080-09	T	Average RF	50	51.60	ppm	3.2	<=30
2-Chloro-1,3-butadiene	RC1400080-09	T	Average RF	50	50.18	ppm	0.4	<=30
2-Chlorobenzotrifluoride	RC1400080-09	T	Average RF	50	49.28	ppm	-1.4	<=30
2-Chloroethyl Vinyl Ether	RC1400080-09	T	Average RF	50	61.54	ppm	23.1	<=30
2-Chlorotoluene	RC1400080-09	T	Average RF	50	52.70	ppm	5.4	<=30
2-Hexanone	RC1400080-09	T	Average RF	50	53.35	ppm	6.7	<=30
2-Methyl-1-propanol	RC1400080-09	T	Average RF	1000	1114	ppm	11.4	<=30
2-Methyl-2-propanol	RC1400080-09	T	Average RF	1000	1182	ppm	18.2	<=30
2-Nitropropane	RC1400080-09	T	Average RF	100	120.4	ppm	20.4	<=30
2-Propanol	RC1400080-09	T	Average RF	1000	1273	ppm	27.3	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1400080-09	T	Average RF	100	104.7	ppm	4.7	<=30
3,4-Dichlorobenzotrifluoride	RC1400080-09	T	Average RF	50	45.37	ppm	-9.3	<=30
3-Chloro-1-propene	RC1400080-09	T	Average RF	50	54.69	ppm	9.4	<=30
3-Chlorobenzotrifluoride	RC1400080-09	T	Average RF	50	50.96	ppm	1.9	<=30
3-Chlorotoluene	RC1400080-09	T	Average RF	50	51.07	ppm	2.1	<=30
4-Chlorotoluene	RC1400080-09	T	Average RF	50	53.48	ppm	7.0	<=30
4-Isopropyltoluene	RC1400080-09	T	Average RF	50	55.92	ppm	11.8	<=30
4-Methyl-2-pentanone	RC1400080-09	T	Average RF	50	58.26	ppm	16.5	<=30

Initial Calibration Verification Summary Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1400080-09	T	Average RF	50	45.48	ppm	-9.0	<=30
Acetonitrile	RC1400080-09	T	Average RF	250	270.9	ppm	8.3	<=30
Acrolein	RC1400080-09	T	Average RF	100	133.0	ppm	33.0	<=30
Acrylonitrile	RC1400080-09	T	Average RF	250	293.8	ppm	17.5	<=30
Benzene	RC1400080-09	T	Average RF	50	54.44	ppm	8.9	<=30
Bromobenzene	RC1400080-09	T	Average RF	50	52.86	ppm	5.7	<=30
Bromochloromethane	RC1400080-09	T	Average RF	50	52.23	ppm	4.5	<=30
Bromodichloromethane	RC1400080-09	T	Average RF	50	55.21	ppm	10.4	<=30
Bromoform	RC1400080-09	T	Average RF	50	56.17	ppm	12.3	<=30
Bromomethane	RC1400080-09	T	Average RF	50	51.61	ppm	3.2	<=30
Carbon Disulfide	RC1400080-09	T	Average RF	50	53.76	ppm	7.5	<=30
Carbon Tetrachloride	RC1400080-09	T	Average RF	50	52.81	ppm	5.6	<=30
Chlorobenzene	RC1400080-09	T	Average RF	50	53.92	ppm	7.8	<=30
Chloroethane	RC1400080-09	T	Average RF	50	55.32	ppm	10.6	<=30
Chloroform	RC1400080-09	T	Average RF	50	51.00	ppm	2.0	<=30
Chloromethane	RC1400080-09	T	Average RF	50	56.39	ppm	12.8	<=30
Cyclohexane	RC1400080-09	T	Average RF	50	51.76	ppm	3.5	<=30
Cyclohexanone	RC1400080-09	T	Average RF	1000	769.0	ppm	-23.1	<=30
Dibromochloromethane	RC1400080-09	T	Average RF	50	56.55	ppm	13.1	<=30
Dibromomethane	RC1400080-09	T	Average RF	50	54.01	ppm	8.0	<=30
Dichlorodifluoromethane (CFC 12)	RC1400080-09	T	Average RF	50	61.24	ppm	22.5	<=30
Dichlorofluoromethane (CFC 21)	RC1400080-09	T	Average RF	50	58.66	ppm	17.3	<=30
Dichloromethane	RC1400080-09	T	Average RF	50	52.33	ppm	4.7	<=30
Diethyl Ether	RC1400080-09	T	Average RF	50	58.03	ppm	16.1	<=30
Diisopropyl Ether	RC1400080-09	T	Average RF	50	45.11	ppm	-9.8	<=30
Ethyl Methacrylate	RC1400080-09	T	Average RF	50	61.68	ppm	23.4	<=30
Ethyl tert-Butyl Ether	RC1400080-09	T	Average RF	50	45.05	ppm	-9.9	<=30
Ethylbenzene	RC1400080-09	T	Average RF	50	50.66	ppm	1.3	<=30
Hexachlorobutadiene	RC1400080-09	T	Average RF	50	47.92	ppm	-4.2	<=30
Iodomethane	RC1400080-09	T	Average RF	50	54.75	ppm	9.5	<=30
Isopropylbenzene (Cumene)	RC1400080-09	T	Average RF	50	54.30	ppm	8.6	<=30
Methacrylonitrile	RC1400080-09	T	Average RF	50	60.81	ppm	21.6	<=30
Methyl Acetate	RC1400080-09	T	Average RF	50	53.79	ppm	7.6	<=30
Methyl Methacrylate	RC1400080-09	T	Average RF	50	59.93	ppm	19.9	<=30
Methyl tert-Butyl Ether	RC1400080-09	T	Average RF	50	60.10	ppm	20.2	<=30
Methylcyclohexane	RC1400080-09	T	Average RF	50	55.29	ppm	10.6	<=30
Naphthalene	RC1400080-09	T	Average RF	50	60.00	ppm	20.0	<=30
Propionitrile	RC1400080-09	T	Average RF	250	297.1	ppm	18.8	<=30
Styrene	RC1400080-09	T	Average RF	50	57.83	ppm	15.7	<=30
Tetrachloroethene (PCE)	RC1400080-09	T	Average RF	50	52.36	ppm	4.7	<=30
Tetrahydrofuran (THF)	RC1400080-09	T	Average RF	50	55.20	ppm	10.4	<=30
Toluene	RC1400080-09	T	Average RF	50	54.59	ppm	9.2	<=30
Trichloroethene (TCE)	RC1400080-09	T	Average RF	50	53.22	ppm	6.4	<=30
Trichlorofluoromethane (CFC 11)	RC1400080-09	T	Average RF	50	53.96	ppm	7.9	<=30
Vinyl Acetate	RC1400080-09	T	Average RF	50	63.91	ppm	27.8	<=30
Vinyl Chloride	RC1400080-09	T	Average RF	50	55.18	ppm	10.4	<=30
cis-1,2-Dichloroethene	RC1400080-09	T	Average RF	50	52.03	ppm	4.1	<=30
cis-1,3-Dichloropropene	RC1400080-09	T	Average RF	50	56.92	ppm	13.8	<=30
m,p-Xylenes	RC1400080-09	T	Average RF	100	111.1	ppm	11.1	<=30
n-Butyl Acetate	RC1400080-09	T	Quadratic	50	61.54	ppm	23.1	<=30
n-Butylbenzene	RC1400080-09	T	Average RF	50	54.34	ppm	8.7	<=30

Initial Calibration Verification Summary Report

Calibration ID:	RC1400080	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1400080-09	T	Average RF	50	49.88	ppm	-0.2	<=30
n-Propylbenzene	RC1400080-09	T	Average RF	50	53.83	ppm	7.7	<=30
o-Xylene	RC1400080-09	T	Average RF	50	55.90	ppm	11.8	<=30
sec-Butylbenzene	RC1400080-09	T	Average RF	50	52.80	ppm	5.6	<=30
tert-Amyl Methyl Ether	RC1400080-09	T	Average RF	50	47.51	ppm	-5.0	<=30
tert-Butylbenzene	RC1400080-09	T	Average RF	50	55.21	ppm	10.4	<=30
trans-1,2-Dichloroethene	RC1400080-09	T	Average RF	50	55.67	ppm	11.3	<=30
trans-1,3-Dichloropropene	RC1400080-09	T	Average RF	50	61.77	ppm	23.5	<=30
trans-1,4-Dichloro-2-butene	RC1400080-09	T	Average RF	50	50.22	ppm	0.4	<=30
1,2-Dichloroethane-d4	RC1400080-09	S	Average RF	50	51.72	ppm	3.4	<=30
4-Bromofluorobenzene	RC1400080-09	S	Average RF	50	52.97	ppm	5.9	<=30
Dibromofluoromethane	RC1400080-09	S	Average RF	50	52.49	ppm	5.0	<=30
Toluene-d8	RC1400080-09	S	Average RF	50	52.10	ppm	4.2	<=30

Exceptions

QAP	Method
CRA-OXY	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 30	33.00

Quantitation Report (QT Reviewed)

Sample : ICV
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8741.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 10:00 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 10:42:57 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

KK 9/10/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.255	168	855617	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1365377	50.00	ppb		0.00
71) d5-Chlorobenzene	8.748	117	1240060	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	665703	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	399200	52.49	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.98%				
48) surr1,1,2-dichloroetha...	4.670	65	423919	51.72	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 103.44%				
65) SURR3,Toluene-d8	7.328	98	1672203	52.10	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.20%				
70) SURR2,BFB	9.791	95	608686	52.97	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.94%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	508470	61.24	ppb		99
3) Chloromethane	1.262	50	510628	56.39	ppb		99
4) Vinyl Chloride	1.323	62	528758	55.18	ppb		99
5) Bromomethane	1.512	94	287409	51.61	ppb		99
6) Chloroethane	1.567	64	296329	55.32	ppb		98
7) Freon 21	1.670	67	831132	58.66	ppb		99
8) Trichlorofluoromethane	1.719	101	620252	53.96	ppb		98
9) Diethyl Ether	1.884	59	321470	58.03	ppb		97
10) Freon 123a	1.872	67	519515	57.62	ppb		96
11) Freon 123	1.908	83	572357	57.44	ppb		99
12) Acrolein	1.957	56	69403	133.00	ppb		93
13) 1,1-Diclethene	2.042	96	363985	59.69	ppb		98
14) Freon 113	2.036	101	365476	51.51	ppb		96
15) Acetone	2.048	43	80040	45.48	ppb		95
16) 2-Propanol	2.115	45	356642	1272.52	ppb		96
17) Iodomethane	2.146	142	502524	54.75	ppb		97
18) Carbon Disulfide	2.207	76	1241518	53.76	ppb		100
19) Acetonitrile	2.225	40	64359	270.86	ppb		96
20) Allyl Chloride	2.280	76	224857	54.69	ppb		91
21) Methyl Acetate	2.274	43	192866	53.79	ppb		99
22) Methylene Chloride	2.359	84	410158	52.33	ppb		97
23) TBA	2.408	59	556145	1182.28	ppb		98
24) Acrylonitrile	2.524	53	492775	293.84	ppb		98
25) Methyl-t-Butyl Ether	2.585	73	1043970	60.10	ppb		98
26) trans-1,2-Dichloroethene	2.585	96	423191	55.67	ppb		95
28) 1,1-Diclethane	2.945	63	743663	54.87	ppb		96
29) Vinyl Acetate	2.981	86	69116	63.91	ppb	#	86
30) DIPE	3.018	45	1157365	45.11	ppb		98
31) 2-Chloro-1,3-Butadiene	3.042	53	661771	50.18	ppb		99
32) ETBE	3.402	59	1019072	45.05	ppb		99
33) 2,2-Dichloropropane	3.560	77	547072	51.09	ppb		97
34) cis-1,2-Dichloroethene	3.548	96	444223	52.03	ppb		97
35) 2-Butanone	3.548	43	118736	51.60	ppb		97
36) Propionitrile	3.597	54	184284	297.08	ppb		97
37) Bromochloromethane	3.835	130	246575	52.23	ppb		97

Sample : ICV
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8741.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 10:00 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 10:42:57 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.804	67	120290	60.81	ppb	94
39) Tetrahydrofuran	3.908	42	79494	55.20	ppb	85
40) Chloroform	3.944	83	704879	51.00	ppb	96
41) 1,1,1-Trichloroethane	4.219	97	625840	54.69	ppb	95
42) TAME	5.036	73	918921	47.51	ppb	98
44) Cyclohexane	4.316	41	365523	51.76	ppb	97
46) Carbontetrachloride	4.475	121	162411	52.81	ppb	96
47) 1,1-Dichloropropene	4.469	75	546633	55.13	ppb	99
49) Benzene	4.786	78	1686903	54.44	ppb	98
50) 1,2-Dichloroethane	4.792	62	505121	54.79	ppb	97
51) Iso-Butyl Alcohol	4.652	43	228295	1113.89	ppb	97
52) n-Heptane	5.334	43	389497	49.88	ppb	99
53) 1-Butanol	5.779	56	344211	2911.23	ppb	100
54) Trichloroethene	5.834	130	438819	53.22	ppb	96
55) Methylcyclohexane	6.109	55	468654	55.29	ppb	96
56) 1,2-Diclpropane	6.115	63	437119	55.97	ppb	95
57) Dibromomethane	6.261	93	204331	54.01	ppb	92
58) 1,4-Dioxane	6.316	88	64585m	992.92	ppb	
59) Methyl Methacrylate	6.334	69	214997	59.93	ppb	97
60) Bromodichloromethane	6.480	83	533634	55.21	ppb	99
61) 2-Nitropropane	6.749	41	115544	120.35	ppb	90
62) 2-Chloroethylvinyl Ether	6.883	63	216314	61.54	ppb	99
63) cis-1,3-Dichloropropene	7.023	75	642685	56.92	ppb	98
64) 4-Methyl-2-pentanone	7.212	43	269492	58.26	ppb	96
66) Toluene	7.395	91	1839456	54.59	ppb	99
67) trans-1,3-Dichloropropene	7.633	75	568163	61.77	ppb	100
68) Ethyl Methacrylate	7.767	69	446044	61.68	ppb	98
69) 1,1,2-Trichloroethane	7.809	97	308006	54.19	ppb	98
72) Tetrachloroethene	7.962	164	332550	52.36	ppb	97
73) 2-Hexanone	8.090	43	185681	53.35	ppb	94
74) 1,3-Dichloropropane	7.974	76	569324	53.91	ppb	95
75) Dibromochloromethane	8.194	129	361611	56.55	ppb	95
76) N-Butyl Acetate	8.242	43	485773	61.54	ppb	98
77) 1,2-Dibromoethane	8.291	107	302944	56.77	ppb	95
78) Chlorobenzene	8.773	112	1185239	53.92	ppb	98
79) 3-CBTF	8.785	180	553726	50.96	ppb	99
80) 4-CBTF	8.840	180	493025	47.23	ppb	98
81) 1,1,1,2-Tetrachloroethane	8.852	131	405355	53.78	ppb	100
82) Ethylbenzene	8.889	106	585046	50.66	ppb	95
83) (m+p)Xylene	8.998	106	1554791	111.11	ppb	99
84) o-Xylene	9.346	106	761014	55.90	ppb	100
85) Styrene	9.358	104	1290638	57.83	ppb	98
87) Bromoform	9.498	173	203828	56.17	ppb	97
88) 2-CBTF	9.577	180	532460	49.28	ppb	97
89) Isopropylbenzene	9.675	105	1852698	54.30	ppb	100
90) Cyclohexanone	9.718	55	609183	769.01	ppb	98
91) trans-1,4-Dichloro-2-B...	9.961	53	85239	50.22	ppb	95
92) 1,1,2,2-Tetrachloroethane	9.913	83	373648	54.53	ppb	98
93) Bromobenzene	9.913	156	463164	52.86	ppb	98
94) 1,2,3-Trichloropropane	9.943	110	108465	54.57	ppb	92
95) n-Propylbenzene	10.022	91	2148238	53.83	ppb	99
96) 2-Chlorotoluene	10.083	91	1275695	52.70	ppb	100

Quantitation Report (QT Reviewed)

Sample : ICV
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8741.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 10:00 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 10:42:57 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

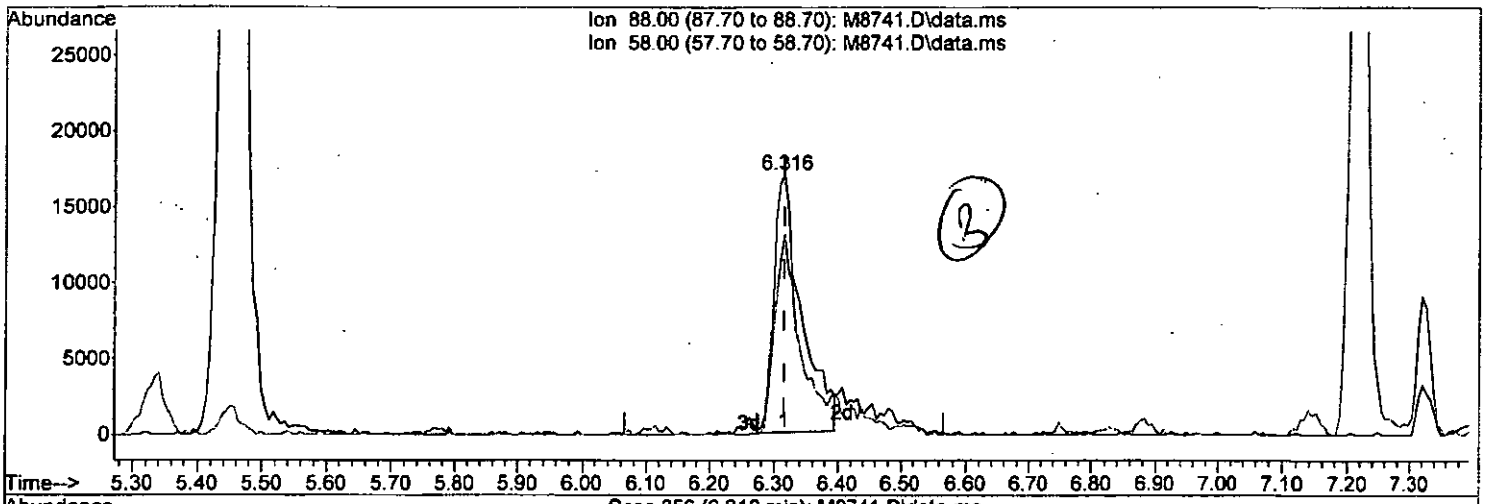
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1326526	51.07	ppb	99
98)	4-Chlorotoluene	10.175	91	1504918	53.48	ppb	98
99)	1,3,5-Trimethylbenzene	10.175	105	1523739	55.86	ppb	99
100)	tert-Butylbenzene	10.443	119	1263009	55.21	ppb	100
101)	1,2,4-Trimethylbenzene	10.480	105	1538655	54.69	ppb	99
102)	3,4-DCBTF	10.535	214	348908	45.37	ppb	97
103)	sec-Butylbenzene	10.620	105	1755338	52.80	ppb	100
104)	p-Isopropyltoluene	10.742	119	1550591	55.92	ppb	99
105)	1,3-Dclbenz	10.699	146	878637	53.10	ppb	100
106)	1,4-Dclbenz	10.772	146	896152	52.40	ppb	99
107)	2,4-DCBTF	10.821	214	311653	46.80	ppb	95
108)	2,5-DCBTF	10.864	214	356836	47.14	ppb	96
109)	n-Butylbenzene	11.071	91	1367813	54.34	ppb	100
110)	1,2-Dclbenz	11.065	146	842274	53.28	ppb	100
111)	1,2-Dibromo-3-chloropr...	11.626	157	68079	56.26	ppb	91
112)	Trielution Dichlorotol...	11.729	125	2004008	152.53	ppb	99
113)	1,3,5 Trichlorobenzene	11.778	180	533669	47.31	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	1470536	104.73	ppb	100
115)	1,2,4-Tcbenzene	12.162	180	506857	54.91	ppb	99
116)	Hexachlorobt	12.266	225	174986	47.92	ppb	96
117)	Naphthalen	12.303	128	1133445	60.00	ppb	99
118)	1,2,3-Tclbenzene	12.443	180	427658	53.47	ppb	99
119)	2,4,5-Trichlorotolene	12.857	159	301147	48.20	ppb	97
120)	2,3,6-Trichlorotoluene	12.918	159	301514	49.16	ppb	99

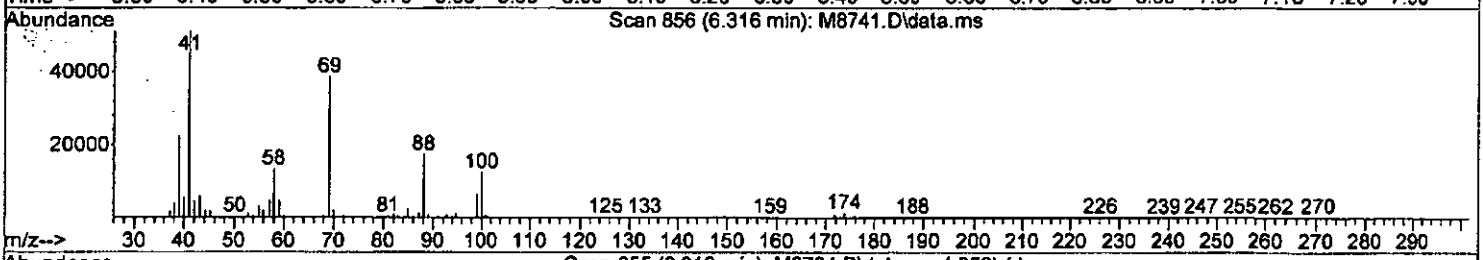
(#) = qualifier out of range (m) = manual integration (+) = signals summed

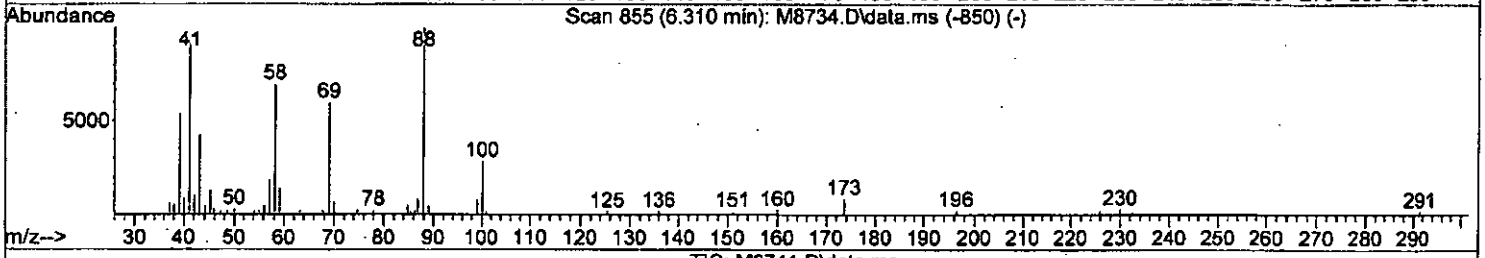
Quantitation Report (Qedit)

Sample : ICV
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8741.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 10:00 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 10:41:38 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M8741.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.000) 783.50 ppb

response 50963

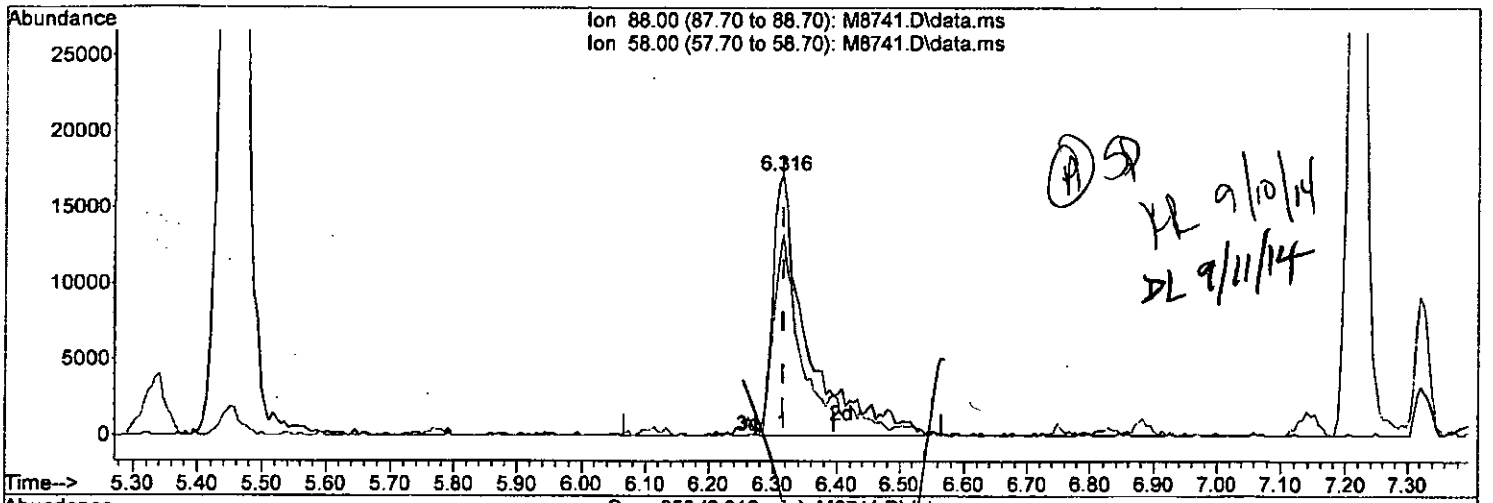
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	76.96
0.00	0.00	0.00
0.00	0.00	0.00

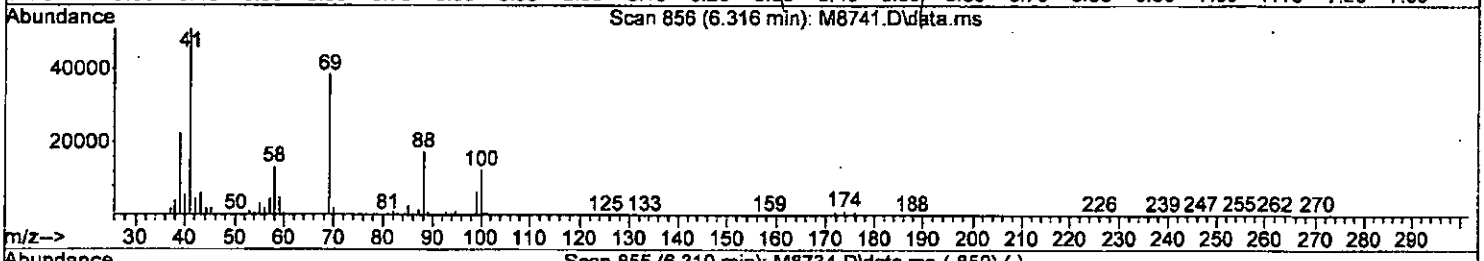
00374

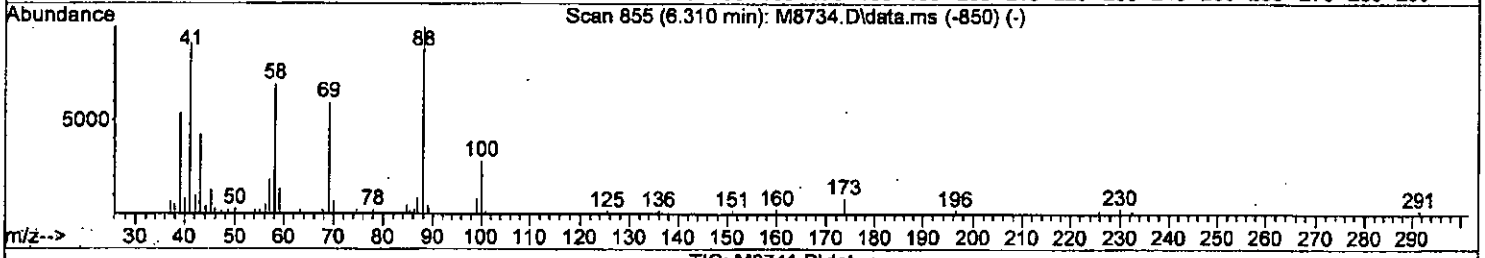
Quantitation Report (Qedit)

Sample : ICV
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8741.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 10:00 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 10:41:38 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M8741.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.000) 992.92 ppb m

response 64585

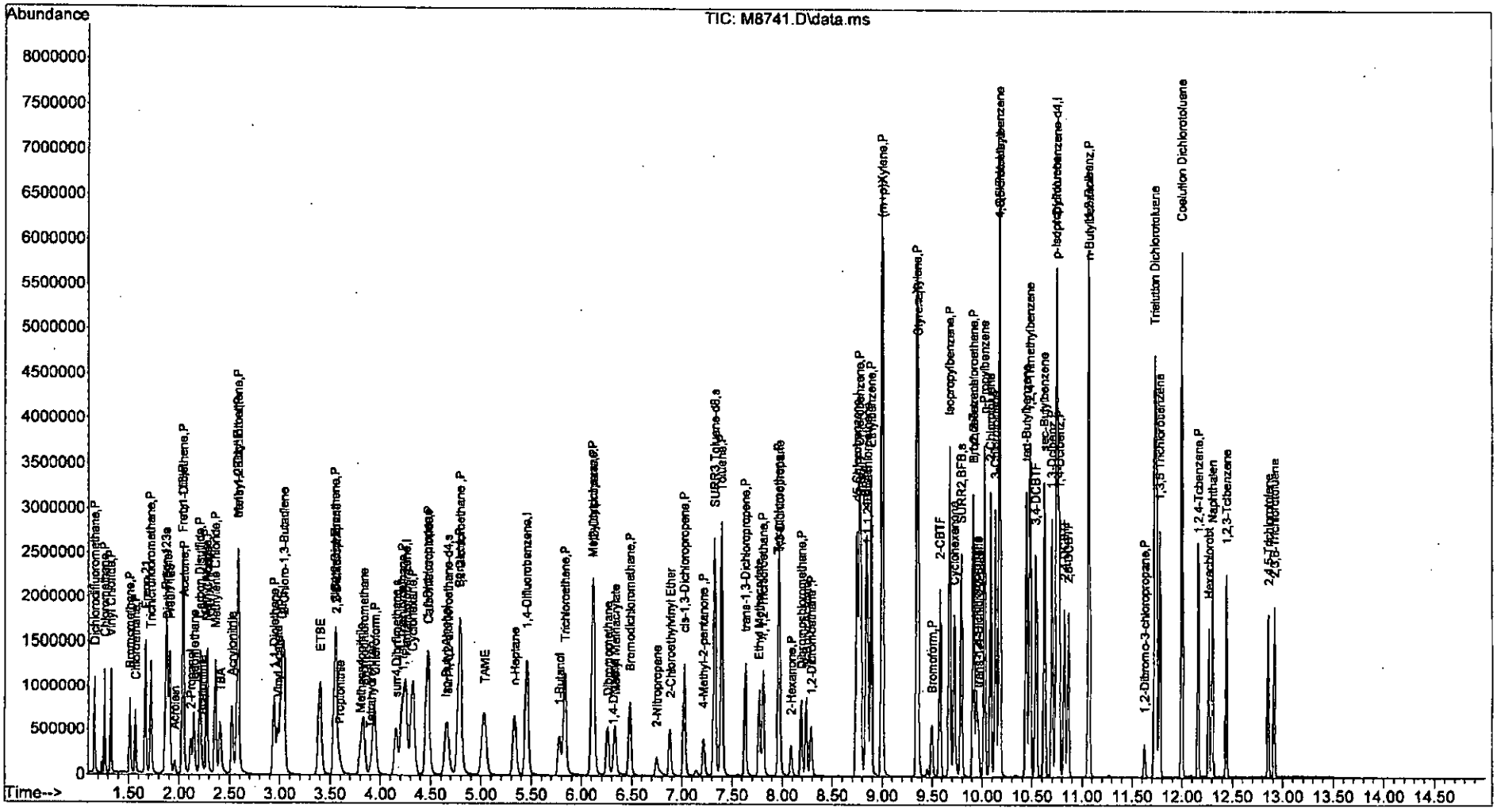
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	76.96
0.00	0.00	0.00
0.00	0.00	0.00

00375

Quantitation Report (QT Reviewed)

Sample : ICV
Data File: I:\ACQUDATA\msvoa12\Data\090914\M8741.D
Misc : 8260 WATER ICAL
Acq On : 9 Sep 2014 10:00 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 10 10:42:57 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



0376

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/22/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D\

Calibration Date: 6/13/14
Calibration ID: RC1400048
Analysis Lot: 412453
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.5	0.7425	0.6621	-10.8	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	45.3	0.8965	0.7180	-19.9	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	49.6	0.3927	0.3536	-10.0	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	54.5	0.2709	0.2791	3.0	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	56.2	0.3273	0.3394	3.7	NA	± 20 %	Average RF
Vinyl Chloride	50.0	45.5	0.6376	0.5094	-20.1 *	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	49.2	0.5403	0.4908	-9.2	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	49.4	0.4855	0.4393	-9.5	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	50.6	0.4652	0.4261	-8.4	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	51.4	0.2865	0.2860	-0.2	NA	± 20 %	Average RF
Toluene-d8	50.0	50.6	1.241	1.190	-4.1	NA	± 20 %	Average RF

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:39:37 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

KR 9/23/14

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	113	0.00
2	P	Dichlorodifluoromethane	0.4852	0.5464	-12.6	111	0.00
3	P	Chloromethane	0.5292	0.3953	25.3#	77	0.00
4	P	Vinyl Chloride	0.5600	0.5094	9.0	93	0.00
5	P	Bromomethane	0.3254	0.2354	27.7#	84	0.00
6	P	Chloroethane	0.3130	0.2713	13.3	90	0.00
7		Freon 21	0.8280	0.6946	16.1	88	0.00
8	P	Trichlorofluoromethane	0.6717	0.6511	3.1	101	0.00
9		Diethyl Ether	0.3237	0.2968	8.3	99	0.00
10		Freon 123a	0.5269	0.4842	8.1	96	0.00
11		Freon 123	0.5823	0.5731	1.6	102	0.00
12		Acrolein	0.0305	0.0368	-20.7#	120	0.00
13	P	1,1-Diclethene	0.3563	0.3536	0.8	106	0.00
14	P	Freon 113	0.4146	0.4166	-0.5	108	0.00
15	P	Acetone	0.1028	0.1070	-4.1	120	0.00
16		2-Propanol	0.0164	0.0146	11.0	93	0.02
17		Iodomethane	0.5364	0.4422	17.6	82	0.00
18	P	Carbon Disulfide	1.3496	1.2707	5.8	104	0.00
19		Acetonitrile	0.0139	0.0105	24.5#	78	0.00
20		Allyl Chloride	0.2402	0.2257	6.0	98	0.00
21	P	Methyl Acetate	0.2095	0.1697	19.0	85	0.00
22	P	Methylene Chloride	0.4580	0.4143	9.5	102	0.00
23		TBA	0.0275	0.0266	3.3	104	0.01
24		Acrylonitrile	0.0980	0.0944	3.7	98	0.00
25	P	Methyl-t-Butyl Ether	1.0151	1.0311	-1.6	105	0.00
26	P	trans-1,2-Dichloroethene	0.4442	0.4393	1.1	106	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-3.01#
28	P	1,1-Diclethane	0.7920	0.7180	9.3	95	0.00
29		Vinyl Acetate	0.0632	0.0536	15.2	95	0.00
~~30~~		~~DIPE~~	~~1.4994~~	~~0.0004~~	~~100.0#~~	~~0#~~	~~0.00~~
31		2-Chloro-1,3-Butadiene	0.7706	0.6628	14.0	94	0.00
~~32~~		~~ETBE~~	~~1.3220~~	~~0.0005~~	~~100.0#~~	~~0#~~	~~0.00~~
33		2,2-Dichloropropane	0.6257	0.5624	10.1	92	0.00
34	P	cis-1,2-Dichloroethene	0.4990	0.4908	1.6	108	0.00
35	P	2-Butanone	0.1345	0.1260	6.3	101	0.00
36		Propionitrile	0.0362	0.0354	2.2	99	0.00
37		Bromochloromethane	0.2759	0.2754	0.2	109	0.00
38		Methacrylonitrile	0.1156	0.1195	-3.4	104	0.00
39		Tetrahydrofuran	0.0842	0.0692	17.8	88	0.00
40	P	Chloroform	0.8076	0.7393	8.5	102	0.00
41	P	1,1,1-Trichloroethane	0.6687	0.6621	1.0	105	0.00
~~42~~		~~TAME~~	~~1.1303~~	~~0.0002~~	~~100.0#~~	~~0#~~	~~0.05~~
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	110	0.00
44	P	Cyclohexane	0.2586	0.2217	14.3	87	0.00
45	s	surr4,Dibrflmethane	0.2785	0.2860	-2.7	110	0.00
46	P	Carbontetrachloride	0.1126	0.1170	-3.9	105	0.00
47		1,1-Dichloropropene	0.3631	0.3445	5.1	96	0.00

903

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:39:37 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	s	surr1,1,2-dichloroethane-d4	0.3002	0.2742	8.7	98	0.00
49	P	Benzene	1.1347	1.1499	-1.3	102	0.00
50	P	1,2-Dichloroethane	0.3376	0.3288	2.6	99	0.00
51		Iso-Butyl Alcohol	0.0075	0.0068	9.3	90	0.01
52		n-Heptane	0.2860	0.2434	14.9	86	0.00
~~53~~		~~1-Butanol~~	~~0.0043~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~-5.78#~~
54	P	Trichloroethene	0.3020	0.3394	-12.4	116	0.00
55	P	Methylcyclohexane	0.3104	0.3022	2.6	96	0.00
56	P	1,2-Diclpropane	0.2860	0.2697	5.7	94	0.00
57		Dibromomethane	0.1385	0.1461	-5.5	108	0.00
58		1,4-Dioxane	0.0024	0.0020	16.7	95	0.02
59		Methyl Methacrylate	0.1314	0.1409	-7.2	103	0.00
60	P	Bromodichloromethane	0.3539	0.3624	-2.4	102	0.00
61		2-Nitropropane	0.0352	0.0335	4.8	102	0.00
62		2-Chloroethylvinyl Ether	0.1287	0.1269	1.4	98	0.00
63	P	cis-1,3-Dichloropropene	0.4135	0.4318	-4.4	100	0.00
64	P	4-Methyl-2-pentanone	0.1694	0.1587	6.3	96	0.00
65	s	SURR3,Toluene-d8	1.1754	1.1897	-1.2	105	0.00
66	P	Toluene	1.2340	1.2862	-4.2	105	0.00
67	P	trans-1,3-Dichloropropene	0.3368	0.3646	-8.3	100	0.00
68		Ethyl Methacrylate	0.2648	0.2932	-10.7	105	0.00
69	P	1,1,2-Trichloroethane	0.2081	0.2300	-10.5	112	0.00
70	s	SURR2,BFB	0.4208	0.4261	-1.3	105	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	111	0.00
72	P	Tetrachloroethene	0.2561	0.2791	-9.0	113	0.00
73	P	2-Hexanone	0.1403	0.1345	4.1	102	0.00
74		1,3-Dichloropropane	0.4258	0.4210	1.1	103	0.00
75	P	Dibromochloromethane	0.2578	0.2983	-15.7	112	0.00
76		N-Butyl Acetate	0.3007	0.2982	4.0 ~~0.8~~	95	0.00
77	P	1,2-Dibromoethane	0.2151	0.2423	-12.6	110	0.00
78	P	Chlorobenzene	0.8864	0.9453	-6.6	108	0.00
~~79~~		~~3-CBTF~~	~~0.4381~~	~~0.0007~~	~~99.8#~~	~~0#~~	~~0.00~~
~~80~~		~~4-CBTF~~	~~0.4209~~	~~0.0005~~	~~99.9#~~	~~0#~~	~~0.00~~
81		1,1,1,2-Tetrachloroethane	0.3039	0.3192	-5.0	105	0.00
82	P	Ethylbenzene	0.4656	0.5024	-7.9	106	0.00
83	P	(m+p)Xylene	0.5642	0.6232	-10.5	107	0.00
84	P	o-Xylene	0.5489	0.6141	-11.9	109	0.00
85	P	Styrene	0.8998	1.0288	-14.3	109	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	112	0.00
87	P	Bromoform	0.2726	0.3196	-17.2	116	0.00
~~88~~		~~2-CBTF~~	~~0.8115~~	~~0.0008~~	~~99.9#~~	~~0#~~	~~0.00~~
89	P	Isopropylbenzene	2.5629	2.7059	-5.6	108	0.00
90		Cyclohexanone	0.0595	0.0645	-8.4	111	0.00
91		trans-1,4-Dichloro-2-Butene	0.1275	0.1150	9.8	94	0.00
92	P	1,1,2,2-Tetrachloroethane	0.5147	0.4942	4.0	103	0.00
93		Bromobenzene	0.6582	0.7098	-7.8	112	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:39:37 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94		1,2,3-Trichloropropane	0.1493	0.1505	-0.8	109	0.00
95		n-Propylbenzene	2.9973	3.0668	-2.3	104	0.00
96		2-Chlorotoluene	1.8182	1.8454	-1.5	105	0.00
~~97~~		~~3-Chlorotoluene~~	~~1.9508~~	~~0.0000~~	~~-100.0#~~	~~0#~~	~~-10.14#~~
98		4-Chlorotoluene	2.1136	2.1380	-1.2	103	0.00
99		1,3,5-Trimethylbenzene	2.0487	2.2239	-8.6	107	0.00
100		tert-Butylbenzene	1.7183	1.8876	-9.9	110	0.00
101		1,2,4-Trimethylbenzene	2.1132	2.2805	-7.9	106	0.00
~~102~~		~~3,4-DCBTF~~	~~0.5776~~	~~0.0012~~	~~99.8#~~	~~0#~~	~~0.00~~
103		sec-Butylbenzene	2.4968	2.6301	-5.3	108	0.00
104		p-Isopropyltoluene	2.0825	2.3050	-10.7	110	0.00
105	P	1,3-Dclbenz	1.2428	1.3208	-6.3	110	0.00
106	P	1,4-Dclbenz	1.2844	1.3623	-6.1	112	0.00
~~107~~		~~2,4-DCBTF~~	~~0.5002~~	~~0.0016~~	~~99.7#~~	~~0#~~	~~0.04~~
~~108~~		~~2,5-DCBTF~~	~~0.5686~~	~~0.0016~~	~~99.7#~~	~~0#~~	~~0.00~~
109		n-Butylbenzene	1.8905	1.9435	-2.8	102	0.00
110	P	1,2-Dclbenz	1.1873	1.3086	-10.2	115	0.00
111	P	1,2-Dibromo-3-chloropropane	0.0909	0.1058	-16.4	116	0.00
~~112~~		~~Trielution Dichlorotoluene~~	~~0.9868~~	~~0.0034~~	~~99.7#~~	~~0#~~	~~0.00~~
~~113~~		~~1,3,5-Trichlorobenzene~~	~~0.8472~~	~~0.0033~~	~~99.6#~~	~~0#~~	~~0.00~~
~~114~~		~~Coelution Dichlorotoluene~~	~~1.0546~~	~~0.0039~~	~~99.6#~~	~~0#~~	~~0.00~~
115	P	1,2,4-Tcbenzene	0.6933	0.7817	-12.8	113	0.00
116		Hexachlorobt	0.2742	0.2933	-7.0	114	0.00
117		Naphthalen	1.4190	1.6495	-16.2	112	0.00
118		1,2,3-Tclbenzene	0.6007	0.6737	-12.2	114	0.00
~~119~~		~~2,4,5-Trichlorotolene~~	~~0.4693~~	~~0.0120~~	~~97.4#~~	~~3#~~	~~0.05~~
~~120~~		~~2,3,6 Trichlorotoluene~~	~~0.4607~~	~~0.0120~~	~~97.4#~~	~~3#~~	~~0.00~~

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

00350

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12 LQ1411227-02

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:15:43 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	923319	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1402268	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1286621	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.754	152	706464	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	401064	51.35	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.70%				
48) surr1,1,2-dichloroetha...	4.664	65	384479	45.67	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.34%				
65) SURR3,Toluene-d8	7.322	98	1668275	50.61	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.22%				
70) SURR2,BFB	9.791	95	597457	50.62	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	504482	56.31	ppb		100
3) Chloromethane	1.262	50	365003	37.35	ppb		98
4) Vinyl Chloride	1.323	62	470367	45.49	ppb		99
5) Bromomethane	1.512	94	217363	36.17	ppb		98
6) Chloroethane	1.567	64	250505	43.34	ppb		99
7) Freon 21	1.664	67	641377	41.95	ppb		98
8) Trichlorofluoromethane	1.719	101	601211	48.47	ppb		97
9) Diethyl Ether	1.884	59	274041	45.84	ppb		93
10) Freon 123a	1.872	67	447058	45.95	ppb		87
11) Freon 123	1.902	83	529139	49.21	ppb		99
12) Acrolein	1.957	56	169805	301.54	ppb		99
13) 1,1-Diclethene	2.042	96	326481	49.61	ppb		93
14) Freon 113	2.036	101	384623	50.24	ppb		100
15) Acetone	2.048	43	98749	52.00	ppb		93
16) 2-Propanol	2.140	45	269482	891.02	ppb		99
17) Iodomethane	2.146	142	408261	41.22	ppb		97
18) Carbon Disulfide	2.207	76	1173235	47.08	ppb		100
19) Acetonitrile	2.231	40	48408	188.79	ppb		91
20) Allyl Chloride	2.280	76	208347	46.96	ppb	#	84
21) Methyl Acetate	2.274	43	156654	40.49	ppb		96
22) Methylene Chloride	2.359	84	382487	45.22	ppb	#	88
23) TBA	2.420	59	491233	967.72	ppb		100
24) Acrylonitrile	2.524	53	435718	240.77	ppb		96
25) Methyl-t-Butyl Ether	2.585	73	952000	50.79	ppb		98
26) trans-1,2-Dichloroethene	2.585	96	405574	49.44	ppb	#	86
28) 1,1-Diclethane	2.945	63	662941	45.33	ppb		96
29) Vinyl Acetate	2.981	86	49477	42.40	ppb	#	64
31) 2-Chloro-1,3-Butadiene	3.042	53	612002	43.00	ppb		90
33) 2,2-Dichloropropane	3.560	77	519272	44.94	ppb		97
34) cis-1,2-Dichloroethene	3.548	96	453138	49.18	ppb		90
35) 2-Butanone	3.548	43	116305	46.84	ppb		97
36) Propionitrile	3.597	54	163462	244.19	ppb		95
37) Bromochloromethane	3.835	130	254304	49.91	ppb	#	86
38) Methacrylonitrile	3.804	67	110362	51.70	ppb	#	72
39) Tetrahydrofuran	3.914	42	63905	41.12	ppb		80

KR 9/23/14

00338

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:15:43 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
40) Chloroform	3.938	83	682608	45.77 ppb		97
41) 1,1,1-Trichloroethane	4.213	97	611369	49.51 ppb		89
44) Cyclohexane	4.316	41	310845	42.86 ppb		94
46) Carbontetrachloride	4.469	121	163999	51.92 ppb		92
47) 1,1-Dichloropropene	4.463	75	483058	47.43 ppb		97
49) Benzene	4.786	78	1612461	50.67 ppb		94
50) 1,2-Dichloroethane	4.792	62	461094	48.70 ppb		93
51) Iso-Butyl Alcohol	4.658	43	190724	906.09 ppb		98
52) n-Heptane	5.334	43	341299	42.56 ppb		90
~~53) 1-Butanol~~	~~5.828~~	~~56~~	~~360~~	~~2.96 ppb~~	~~#~~	~~1~~
54) Trichloroethene	5.834	130	475923	56.20 ppb		95
55) Methylcyclohexane	6.102	55	423732	48.67 ppb		97
56) 1,2-Diclpropane	6.115	63	378236	47.16 ppb		98
57) Dibromomethane	6.255	93	204903	52.74 ppb		93
58) 1,4-Dioxane	6.340	88 ~~51764~~		~~774.88~~ ppb 829.52		90
59) Methyl Methacrylate	6.334	69	197624	53.63 ppb		89
60) Bromodichloromethane	6.480	83	508167	51.19 ppb		97
61) 2-Nitropropane	6.749	41	94032	95.37 ppb		97
62) 2-Chloroethylvinyl Ether	6.883	63	177937	49.29 ppb		93
63) cis-1,3-Dichloropropene	7.023	75	605440	52.21 ppb		99
64) 4-Methyl-2-pentanone	7.218	43	222582	46.86 ppb		97
66) Toluene	7.395	91	1803587	52.12 ppb		99
67) trans-1,3-Dichloropropene	7.633	75	511263	54.12 ppb		94
68) Ethyl Methacrylate	7.767	69	411188	55.36 ppb		92
69) 1,1,2-Trichloroethane	7.809	97	322495	55.25 ppb		94
72) Tetrachloroethene	7.962	164	359151	54.50 ppb		99
73) 2-Hexanone	8.084	43	173008	47.91 ppb		94
74) 1,3-Dichloropropane	7.974	76	541619	49.43 ppb		97
75) Dibromochloromethane	8.193	129	383768	57.85 ppb		97
76) N-Butyl Acetate	8.242	43	383650	48.01 ppb		97
77) 1,2-Dibromoethane	8.291	107	311712	56.30 ppb		97
78) Chlorobenzene	8.773	112	1216275	53.33 ppb		95
81) 1,1,1,2-Tetrachloroethane	8.852	131	410712	52.52 ppb		96
82) Ethylbenzene	8.888	106	646373	53.95 ppb		95
83) (m+p)Xylene	8.998	106	1603717	110.46 ppb		95
84) o-Xylene	9.346	106	790098	55.94 ppb		94
85) Styrene	9.358	104	1323682	57.17 ppb		94
87) Bromoform	9.498	173	225821	58.64 ppb		95
89) Isopropylbenzene	9.675	105	1911632	52.79 ppb		100
90) Cyclohexanone	9.724	55	911016	1083.68 ppb		98
91) trans-1,4-Dichloro-2-B...	9.961	53	81219	45.09 ppb		84
92) 1,1,2,2-Tetrachloroethane	9.913	83	349148	48.01 ppb		98
93) Bromobenzene	9.913	156	501424	53.92 ppb		90
94) 1,2,3-Trichloropropane	9.943	110	106290	50.39 ppb	#	85
95) n-Propylbenzene	10.022	91	2166561	51.16 ppb		97
96) 2-Chlorotoluene	10.083	91	1303732	50.75 ppb		97
~~97) 3-Chlorotoluene~~	~~10.175~~	~~91~~	~~1519028~~	~~55.11 ppb~~		~~97~~
98) 4-Chlorotoluene	10.175	91	1510445	50.58 ppb		97
99) 1,3,5-Trimethylbenzene	10.175	105	1571106	54.27 ppb		99
100) tert-Butylbenzene	10.443	119	1333493	54.92 ppb		99
101) 1,2,4-Trimethylbenzene	10.480	105	1611086	53.96 ppb		97
103) sec-Butylbenzene	10.620	105	1858058	52.67 ppb		99

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:15:43 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

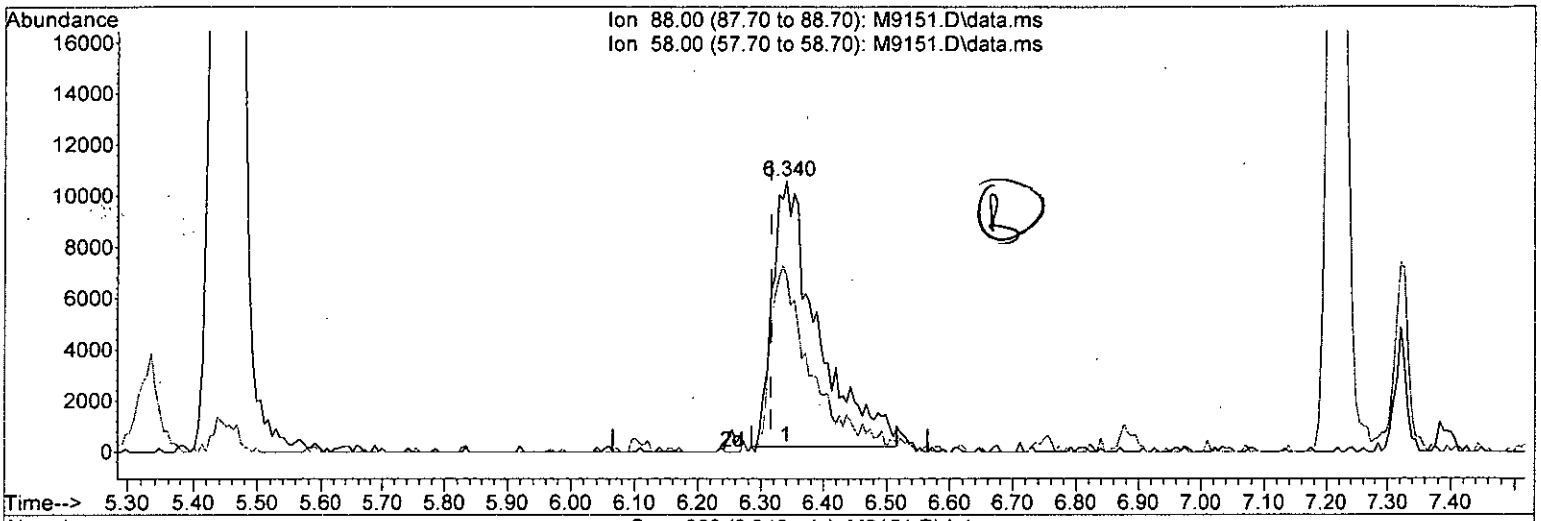
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) p-Isopropyltoluene	10.742	119	1628399	55.34	ppb		99
105) 1,3-Dclbenz	10.699	146	933120	53.14	ppb		97
106) 1,4-Dclbenz	10.772	146	962419	53.03	ppb		97
109) n-Butylbenzene	11.071	91	1372981	51.40	ppb		98
110) 1,2-Dclbenz	11.065	146	924506	55.11	ppb		99
111) 1,2-Dibromo-3-chloropr...	11.626	157	74773	58.22	ppb		89
112) Trielution Dichlorotol...	11.735	125	7300	0.52	ppb	#	81
114) Coelution Dichlorotoluene	11.998	125	5512	0.37	ppb		94
115) 1,2,4-Tcbenzene	12.162	180	552260	56.38	ppb		95
116) Hexachlorobt	12.266	225	207214	53.48	ppb		97
117) Naphthalen	12.302	128	1165305	58.12	ppb		100
118) 1,2,3-Tclbenzene	12.437	180	475956	56.07	ppb		97
119) 2,4,5-Trichlorotolene	12.912	159	8490	1.28	ppb		88
120) 2,3,6-Trichlorotoluene	12.912	159	8490	1.30	ppb	#	88

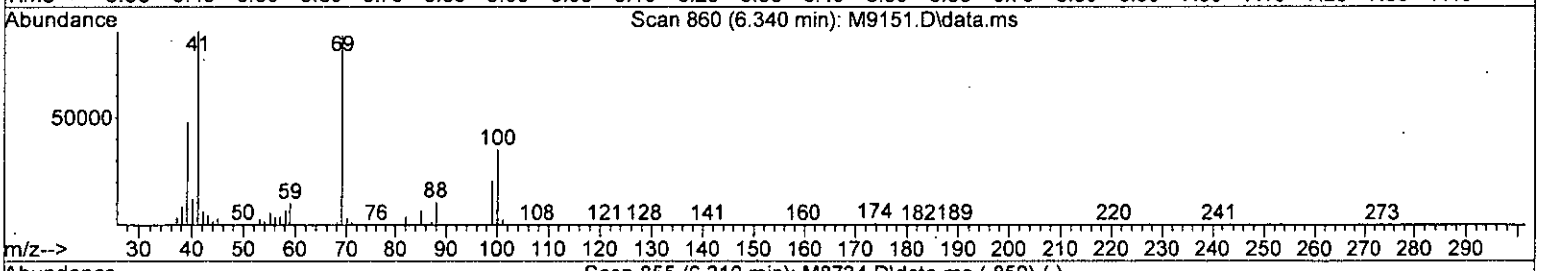
(#) = qualifier out of range (m) = manual integration (+) = signals summed

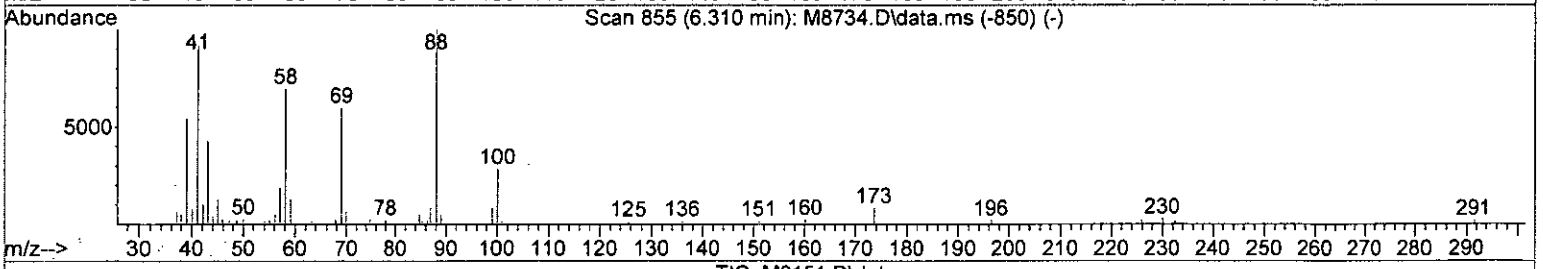
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:15:43 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9151.D\data.ms

(58) 1,4-Dioxane

6.340min (+0.024) 774.88 ppb

response 51764

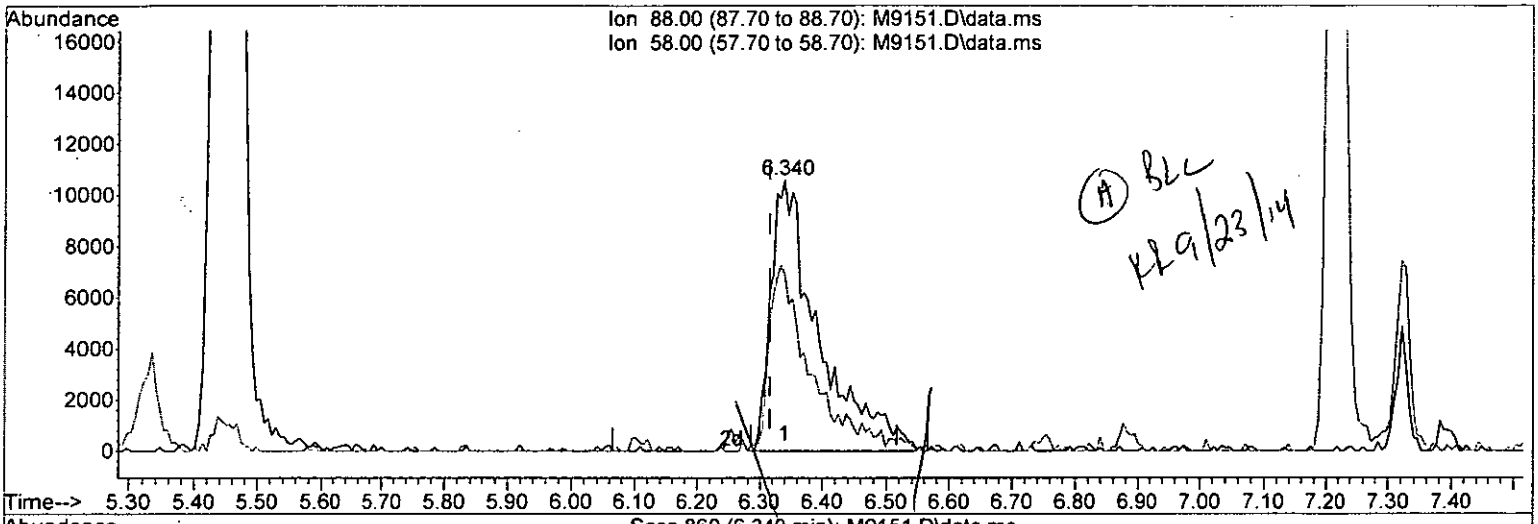
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	64.96
0.00	0.00	0.00
0.00	0.00	0.00

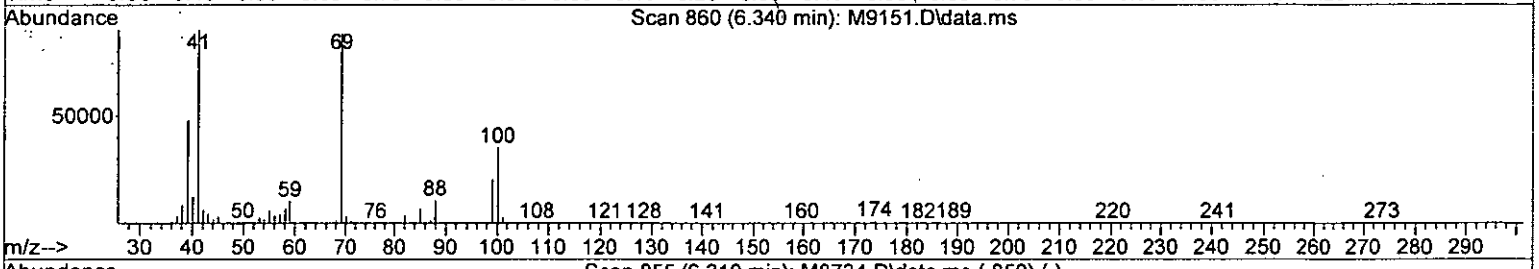
0038

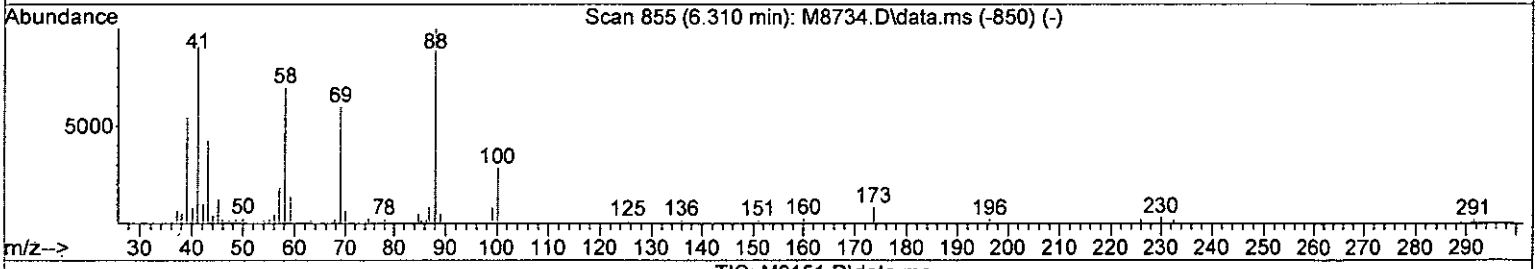
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:15:43 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9151.D\data.ms

(58) 1,4-Dioxane

6.340min (+0.024) 829.52 ppb m

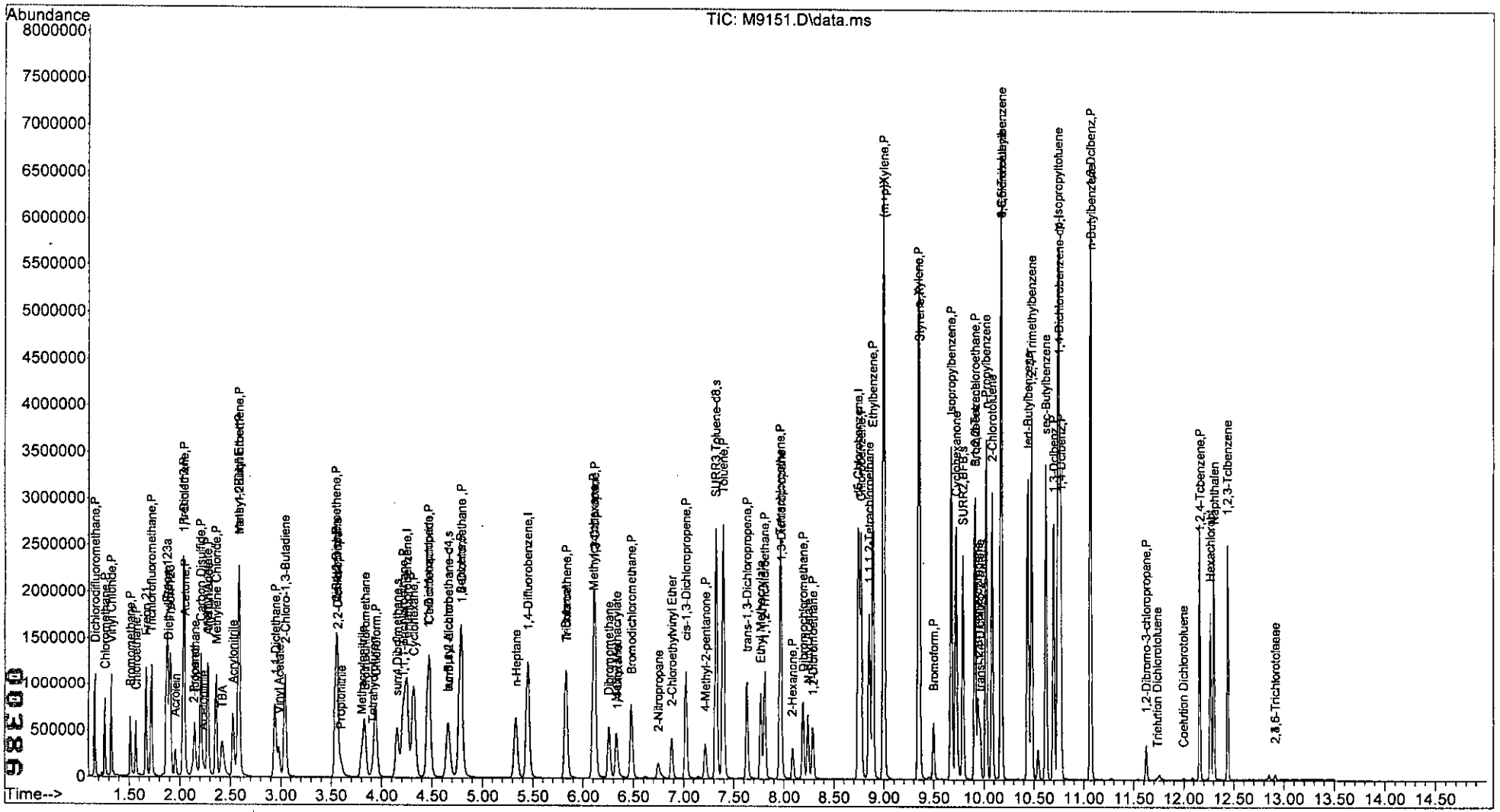
response 55414

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	64.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9151.D
Misc :
Acq On : 22 Sep 2014 10:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:15:43 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/23/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa12\Data\092314\M9175.D\

Calibration Date: 9/9/14
Calibration ID: RC1400080
Analysis Lot: 412669
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	50.4	0.6687	0.6737	0.7	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	44.5	0.7920	0.7054	-10.9	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	49.5	0.3563	0.3524	-1.1	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	55.5	0.2561	0.2842	11.0	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	56.4	0.3020	0.3408	12.8	NA	± 20 %	Average RF
Vinyl Chloride	50.0	44.7	0.5600	0.5008	-10.6	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	49.8	0.4990	0.4970	-0.4	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	50.4	0.4442	0.4476	0.8	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	50.9	0.4208	0.4284	1.8	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	52.0	0.2785	0.2897	4.0	NA	± 20 %	Average RF
Toluene-d8	50.0	51.3	1.175	1.206	2.6	NA	± 20 %	Average RF

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

KR 9/23/14

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	109	0.00
2	P	Dichlorodifluoromethane	0.4852	0.5548	-14.3	109	0.00
3	P	Chloromethane	0.5292	0.3853	27.2#	73	0.00
4	P	Vinyl Chloride	0.5600	0.5008	10.6	89	0.00
5	P	Bromomethane	0.3254	0.3174	2.5	110	0.00
6	P	Chloroethane	0.3130	0.2609	16.6	84	0.00
7		Freon 21	0.8280	0.6754	18.4	83	0.00
8	P	Trichlorofluoromethane	0.6717	0.6571	2.2	99	0.00
9		Diethyl Ether	0.3237	0.2917	9.9	95	0.00
10		Freon 123a	0.5269	0.4638	12.0	89	0.00
11		Freon 123	0.5823	0.5529	5.0	95	0.00
12		Acrolein	0.0305	0.0306	-0.3	97	0.00
13	P	1,1-Dichethene	0.3563	0.3524	1.1	103	0.00
14	P	Freon 113	0.4146	0.4279	-3.2	107	0.00
15	P	Acetone	0.1028	0.0995	3.2	108	0.00
16		2-Propanol	0.0164	0.0119	27.4#	73	0.02
17		Iodomethane	0.5364	0.3300	38.5#	59	0.00
18	P	Carbon Disulfide	1.3496	1.3050	3.3	103	0.00
19		Acetonitrile	0.0139	0.0096	30.9#	69	0.01
20		Allyl Chloride	0.2402	0.2305	4.0	97	0.00
21	P	Methyl Acetate	0.2095	0.1573	24.9#	76	0.00
22	P	Methylene Chloride	0.4580	0.4145	9.5	99	0.00
23		TBA	0.0275	0.0233	15.3	88	0.02
24		Acrylonitrile	0.0980	0.0891	9.1	90	0.00
25	P	Methyl-t-Butyl Ether	1.0151	1.0266	-1.1	101	0.00
26	P	trans-1,2-Dichloroethene	0.4442	0.4476	-0.8	105	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-3.01#
28	P	1,1-Diclethane	0.7920	0.7054	10.9	91	0.00
29		Vinyl Acetate	0.0632	0.0714	-13.0	123	0.00
30		DIPE	1.4994	1.1798	21.3#	87	0.00
31		2-Chloro-1,3-Butadiene	0.7706	0.6881	10.7	95	0.00
32		ETBE	1.3220	1.1504	13.0	95	0.00
33		2,2-Dichloropropane	0.6257	0.6317	-1.0	100	0.00
34	P	cis-1,2-Dichloroethene	0.4990	0.4970	0.4	106	0.00
35	P	2-Butanone	0.1345	0.1182	12.1	91	0.00
36		Propionitrile	0.0362	0.0321	11.3	87	0.00
37		Bromochloromethane	0.2759	0.2806	-1.7	108	0.00
38		Methacrylonitrile	0.1156	0.1148	0.7	97	0.00
39		Tetrahydrofuran	0.0842	0.0685	18.6	84	0.00
40	P	Chloroform	0.8076	0.7556	6.4	101	0.00
41	P	1,1,1-Trichloroethane	0.6687	0.6737	-0.7	104	0.00
42		TAME	1.1303	1.0336	8.6	99	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	105	0.00
44	P	Cyclohexane	0.2586	0.2161	16.4	82	0.00
45	s	surr4,Dibrflmethane	0.2785	0.2897	-4.0	107	0.00
46	P	Carbontetrachloride	0.1126	0.1193	-6.0	103	0.00
47		1,1-Dichloropropene	0.3631	0.3624	0.2	97	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	s	surr1,1,2-dichloroethane-d4	0.3002	0.2769	7.8	95	0.00
49	P	Benzene	1.1347	1.1618	-2.4	99	0.00
50	P	1,2-Dichloroethane	0.3376	0.3297	2.3	95	0.00
51		Iso-Butyl Alcohol	0.0075	0.0060	20.0	76	0.01
52		n-Heptane	0.2860	0.2695	5.8	91	0.00
53		1-Butanol	0.0043	0.0035	18.6	77	0.00
54	P	Trichloroethene	0.3020	0.3408	-12.8	112	0.00
55	P	Methylcyclohexane	0.3104	0.2986	3.8	91	0.00
56	P	1,2-Diclpropane	0.2860	0.2766	3.3	92	0.00
57		Dibromomethane	0.1385	0.1498	-8.2	107	0.00
58		1,4-Dioxane	0.0024	0.0017	M 29.2#	77	0.03
59		Methyl Methacrylate	0.1314	0.1368	-4.1	96	0.00
60	P	Bromodichloromethane	0.3539	0.3703	-4.6	100	0.00
61		2-Nitropropane	0.0352	0.0331	6.0	97	0.00
62		2-Chloroethylvinyl Ether	0.1287	0.1252	2.7	93	0.00
63	P	cis-1,3-Dichloropropene	0.4135	0.4394	-6.3	98	0.00
64	P	4-Methyl-2-pentanone	0.1694	0.1571	7.3	91	0.00
65	s	SURR3,Toluene-d8	1.1754	1.2064	-2.6	102	0.00
66	P	Toluene	1.2340	1.3215	-7.1	104	0.00
67	P	trans-1,3-Dichloropropene	0.3368	0.3654	-8.5	96	0.00
68		Ethyl Methacrylate	0.2648	0.2870	-8.4	98	0.00
69	P	1,1,2-Trichloroethane	0.2081	0.2248	-8.0	105	0.00
70	s	SURR2,BFB	0.4208	0.4284	-1.8	102	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	107	0.00
72	P	Tetrachloroethene	0.2561	0.2842	-11.0	111	0.00
73	P	2-Hexanone	0.1403	0.1283	8.6	94	0.00
74		1,3-Dichloropropane	0.4258	0.4121	3.2	97	0.00
75	P	Dibromochloromethane	0.2578	0.3000	-16.4	108	0.00
76		N-Butyl Acetate	0.3007	0.2762	8.1	84	0.00
77	P	1,2-Dibromoethane	0.2151	0.2450	-13.9	107	0.00
78	P	Chlorobenzene	0.8864	0.9700	-9.4	107	0.00
79		3-CBTF	0.4381	0.5027	-14.7	114	0.00
80		4-CBTF	0.4209	0.4546	-8.0	113	0.00
81		1,1,1,2-Tetrachloroethane	0.3039	0.3398	-11.8	108	0.00
82	P	Ethylbenzene	0.4656	0.5198	-11.6	106	0.00
83	P	(m+p)Xylene	0.5642	0.6372	-12.9	105	0.00
84	P	o-Xylene	0.5489	0.6287	-14.5	107	0.00
85	P	Styrene	0.8998	1.0448	-16.1	106	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	107	0.00
87	P	Bromoform	0.2726	0.3121	-14.5	108	0.00
88		2-CBTF	0.8115	0.8886	-9.5	112	0.00
89	P	Isopropylbenzene	2.5629	2.7833	-8.6	106	0.00
90		Cyclohexanone	0.0595	0.0551	7.4	90	0.00
91		trans-1,4-Dichloro-2-Butene	0.1275	0.0795	M 37.6#	62	0.00
92	P	1,1,2,2-Tetrachloroethane	0.5147	0.5124	0.4	102	0.00
93		Bromobenzene	0.6582	0.7454	-13.2	113	0.00

Evaluate Continuing Calibration Report

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94		1,2,3-Trichloropropane	0.1493	0.1497	-0.3	103	0.00
95		n-Propylbenzene	2.9973	3.1606	-5.4	103	0.00
96		2-Chlorotoluene	1.8182	1.8710	-2.9	102	0.00
97		3-Chlorotoluene	1.9508	1.8798	3.6	97	0.00
98		4-Chlorotoluene	2.1136	2.2322	-5.6	103	0.00
99		1,3,5-Trimethylbenzene	2.0487	2.2971	-12.1	105	0.00
100		tert-Butylbenzene	1.7183	1.9641	-14.3	110	0.00
101		1,2,4-Trimethylbenzene	2.1132	2.3691	-12.1	106	0.00
102		3,4-DCBTF	0.5776	0.6273	-8.6	119	0.00
103		sec-Butylbenzene	2.4968	2.7609	-10.6	109	0.00
104		p-Isopropyltoluene	2.0825	2.4113	-15.8	110	0.00
105	P	1,3-Dclbenz	1.2428	1.4031	-12.9	112	0.00
106	P	1,4-Dclbenz	1.2844	1.4199	-10.5	112	0.00
107		2,4-DCBTF	0.5002	0.5625	-12.5	117	0.00
108		2,5-DCBTF	0.5686	0.6371	-12.0	116	0.00
109		n-Butylbenzene	1.8905	2.0750	-9.8	104	0.00
110	P	1,2-Dclbenz	1.1873	1.3248	-11.6	112	0.00
111	P	1,2-Dibromo-3-chloropropane	0.0909	0.1078	-18.6	113	0.00
112		Trielution Dichlorotoluene	0.9868	1.0797	-9.4	108	0.00
113		1,3,5 Trichlorobenzene	0.8472	0.9171	-8.3	114	0.00
114		Coelution Dichlorotoluene	1.0546	1.1585	-9.9	106	0.00
115	P	1,2,4-Tcbenzene	0.6933	0.8031	-15.8	111	0.00
116		Hexachlorobt	0.2742	0.3062	-11.7	114	0.00
117		Naphthalen	1.4190	1.6607	-17.0	108	0.00
118		1,2,3-Tclbenzene	0.6007	0.6923	-15.2	112	0.00
119		2,4,5-Trichlorotolene	0.4693	0.4733	-0.9	105	0.00
120		2,3,6-Trichlorotoluene	0.4607	0.4839	-5.0	107	0.00

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

Quantitation Report (QT Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12 LQ1411303-02

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	894048	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1344965	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1237991	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	676327	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	389663	52.01	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.02%				
48) surr1,1,2-dichloroetha...	4.664	65	372371	46.12	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.24%				
65) SURR3,Toluene-d8	7.322	98	1622585	51.32	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.64%				
70) SURR2,BFB	9.791	95	576162	50.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	496045	57.18	ppb		100
3) Chloromethane	1.262	50	344479	36.40	ppb		97
4) Vinyl Chloride	1.323	62	447712	44.71	ppb		98
5) Bromomethane	1.512	94	283805	48.78	ppb		100
6) Chloroethane	1.567	64	233296	41.68	ppb		100
7) Freon 21	1.664	67	603876	40.79	ppb		97
8) Trichlorofluoromethane	1.719	101	587503	48.92	ppb		98
9) Diethyl Ether	1.884	59	260782	45.05	ppb		93
10) Freon 123a	1.871	67	414645	44.01	ppb		81
11) Freon 123	1.902	83	494313	47.48	ppb		98
12) Acrolein	1.957	56	136971	251.19	ppb		99
13) 1,1-Diclethene	2.042	96	315070	49.45	ppb		90
14) Freon 113	2.036	101	382549	51.60	ppb		98
15) Acetone	2.054	43	88998	48.40	ppb		99
16) 2-Propanol	2.140	45	213369	728.59	ppb		97
17) Iodomethane	2.146	142	295045	30.76	ppb		100
18) Carbon Disulfide	2.207	76	1166701	48.35	ppb		99
19) Acetonitrile	2.237	40	42730	172.10	ppb		94
20) Allyl Chloride	2.280	76	206111	47.98	ppb	#	88
21) Methyl Acetate	2.274	43	140661	37.54	ppb		92
22) Methylene Chloride	2.359	84	370578	45.25	ppb	#	89
23) TBA	2.426	59	417417	849.22	ppb		97
24) Acrylonitrile	2.530	53	398285	227.29	ppb		100
25) Methyl-t-Butyl Ether	2.585	73	917798	50.57	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	400193	50.38	ppb		90
28) 1,1-Diclethane	2.944	63	630642	44.53	ppb		98
29) Vinyl Acetate	2.981	86	63834	56.49	ppb	#	59
30) DIPE	3.018	45	1054799	39.34	ppb		93
31) 2-Chloro-1,3-Butadiene	3.042	53	615196	44.64	ppb		92
32) ETBE	3.396	59	1028530	43.51	ppb		97
33) 2,2-Dichloropropane	3.560	77	564727	50.47	ppb		99
34) cis-1,2-Dichloroethene	3.548	96	444353	49.81	ppb		90
35) 2-Butanone	3.548	43	105655	43.94	ppb		92
36) Propionitrile	3.597	54	143297	221.08	ppb		95
37) Bromochloromethane	3.835	130	250833	50.84	ppb	#	86

KR 9/23/14

Quantitation Report (QT Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
38) Methacrylonitrile	3.804	67	102627	49.65 ppb	#	78
39) Tetrahydrofuran	3.908	42	61213	40.68 ppb		93
40) Chloroform	3.938	83	675557	46.78 ppb		99
41) 1,1,1-Trichloroethane	4.213	97	602364	50.37 ppb		90
42) TAME	5.023	73	924068	45.72 ppb		96
44) Cyclohexane	4.316	41	290668	41.79 ppb		95
46) Carbontetrachloride	4.469	121	160434	52.96 ppb		96
47) 1,1-Dichloropropene	4.462	75	487471	49.91 ppb		94
49) Benzene	4.786	78	1562621	51.19 ppb		93
50) 1,2-Dichloroethane	4.786	62	443402	48.83 ppb		96
51) Iso-Butyl Alcohol	4.658	43	161121	798.07 ppb		92
52) n-Heptane	5.334	43	362517	47.13 ppb		91
53) 1-Butanol	5.785	56	233817	2007.56 ppb		94
54) Trichloroethene	5.834	130	458319	56.42 ppb		96
55) Methylcyclohexane	6.108	55	401599	48.10 ppb		88
56) 1,2-Diclpropane	6.115	63	371976	48.35 ppb		96
57) Dibromomethane	6.255	93	201521	54.08 ppb		91
58) 1,4-Dioxane	6.346	88	44759m	698.56 ppb		
59) Methyl Methacrylate	6.334	69	183930	52.04 ppb		90
60) Bromodichloromethane	6.480	83	498008	52.31 ppb		98
61) 2-Nitropropane	6.749	41	89158	94.28 ppb		91
62) 2-Chloroethylvinyl Ether	6.883	63	168395	48.64 ppb		94
63) cis-1,3-Dichloropropene	7.023	75	591005	53.13 ppb		97
64) 4-Methyl-2-pentanone	7.218	43	211235	46.36 ppb		94
66) Toluene	7.395	91	1777410	53.55 ppb		99
67) trans-1,3-Dichloropropene	7.633	75	491401	54.24 ppb		96
68) Ethyl Methacrylate	7.773	69	385999	54.19 ppb		87
69) 1,1,2-Trichloroethane	7.809	97	302415	54.01 ppb		97
72) Tetrachloroethene	7.962	164	351820	55.48 ppb		98
73) 2-Hexanone	8.084	43	158868	45.72 ppb		97
74) 1,3-Dichloropropane	7.974	76	510205	48.39 ppb		96
75) Dibromochloromethane	8.193	129	371456	58.19 ppb		95
76) N-Butyl Acetate	8.242	43	341940	44.74 ppb		95
77) 1,2-Dibromoethane	8.291	107	303265	56.93 ppb		95
78) Chlorobenzene	8.773	112	1200870	54.72 ppb		94
79) 3-CBTF	8.785	180	622287	57.37 ppb		96
80) 4-CBTF	8.840	180	562830	54.01 ppb		97
81) 1,1,1,2-Tetrachloroethane	8.852	131	420632	55.90 ppb		99
82) Ethylbenzene	8.888	106	643511	55.82 ppb		92
83) (m+p)Xylene	8.998	106	1577670	112.94 ppb		97
84) o-Xylene	9.346	106	778314	57.27 ppb		93
85) Styrene	9.358	104	1293495	58.06 ppb		96
87) Bromoform	9.498	173	211087	57.25 ppb		100
88) 2-CBTF	9.577	180	600989	54.75 ppb		99
89) Isopropylbenzene	9.675	105	1882407	54.30 ppb		99
90) Cyclohexanone	9.724	55	745027	925.72 ppb		98
91) trans-1,4-Dichloro-2-B...	9.961	53	53790	31.19 ppb		86
92) 1,1,2,2-Tetrachloroethane	9.913	83	346536	49.78 ppb		91
93) Bromobenzene	9.913	156	504143	56.63 ppb		89
94) 1,2,3-Trichloropropane	9.943	110	101263m	50.15 ppb		
95) n-Propylbenzene	10.022	91	2137582	52.72 ppb		97
96) 2-Chlorotoluene	10.083	91	1265405	51.45 ppb		96

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

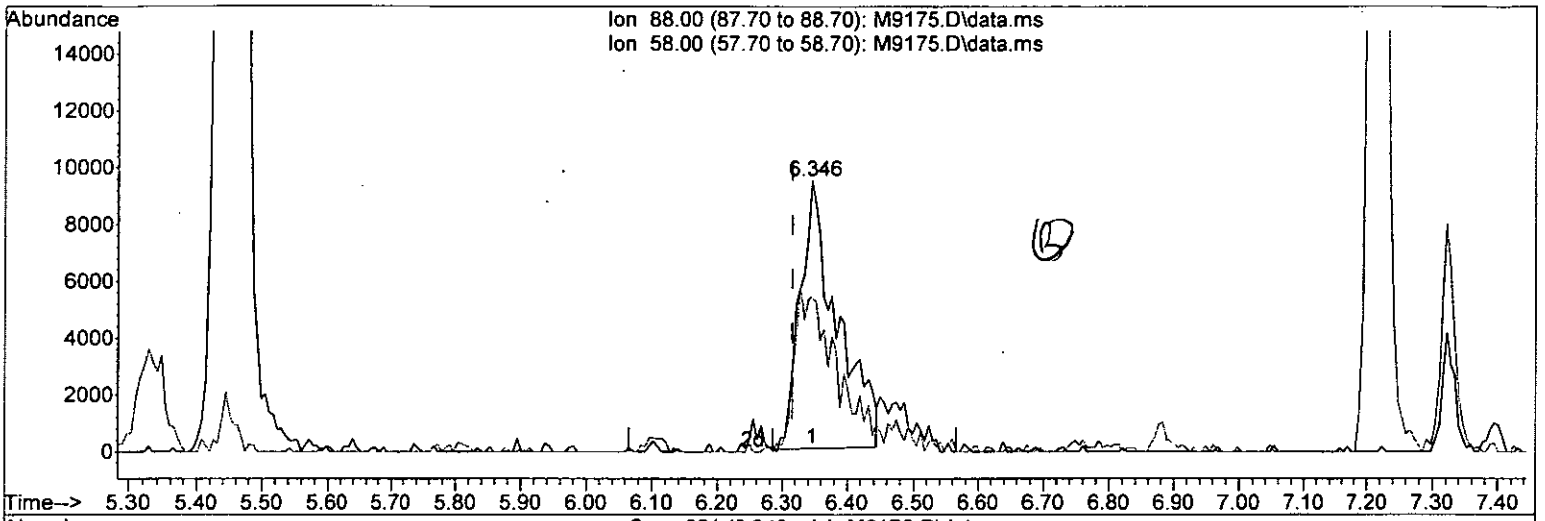
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1271369	48.18	ppb	93
98)	4-Chlorotoluene	10.175	91	1509701	52.81	ppb	97
99)	1,3,5-Trimethylbenzene	10.175	105	1553563	56.06	ppb	98
100)	tert-Butylbenzene	10.443	119	1328395	57.15	ppb	99
101)	1,2,4-Trimethylbenzene	10.480	105	1602253	56.05	ppb	96
102)	3,4-DCBTF	10.534	214	424279	54.31	ppb	99
103)	sec-Butylbenzene	10.620	105	1867259	55.29	ppb	99
104)	p-Isopropyltoluene	10.742	119	1630805	57.89	ppb	97
105)	1,3-Dclbenz	10.699	146	948932	56.45	ppb	95
106)	1,4-Dclbenz	10.772	146	960300	55.27	ppb	99
107)	2,4-DCBTF	10.821	214	380419	56.23	ppb	99
108)	2,5-DCBTF	10.864	214	430857	56.02	ppb	98
109)	n-Butylbenzene	11.071	91	1403347	54.88	ppb	98
110)	1,2-Dclbenz	11.065	146	896003	55.79	ppb	97
111)	1,2-Dibromo-3-chloropr...	11.626	157	72903	59.30	ppb	93
112)	Trielution Dichlorotol...	11.729	125	2190664	164.12	ppb	97
113)	1,3,5 Trichlorobenzene	11.778	180	620271	54.13	ppb	98
114)	Coelution Dichlorotoluene	11.998	125	1567013	109.85	ppb	98
115)	1,2,4-Tcbenzene	12.156	180	543188	57.92	ppb	97
116)	Hexachlorobt	12.266	225	207113	55.83	ppb	97
117)	Naphthalen	12.302	128	1123166	58.52	ppb	98
118)	1,2,3-Tclbenzene	12.437	180	468199	57.62	ppb	96
119)	2,4,5-Trichlorotolene	12.851	159	320086	50.43	ppb	98
120)	2,3,6-Trichlorotoluene	12.912	159	327278	52.52	ppb	98

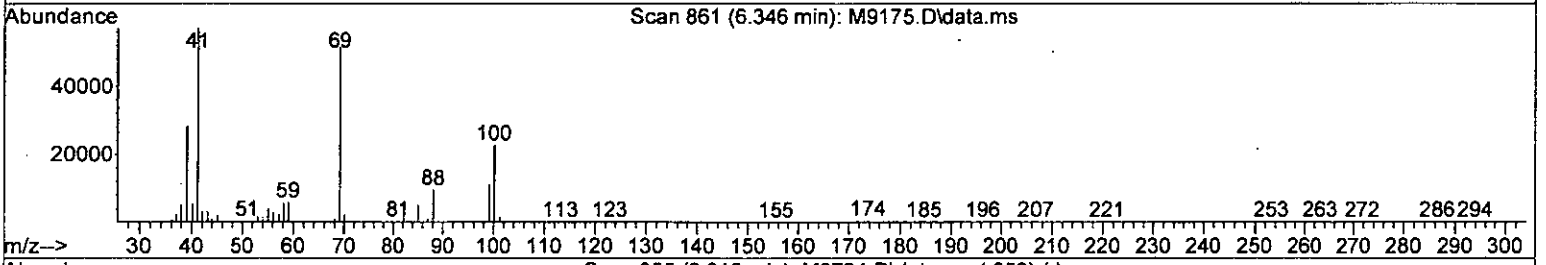
(#) = qualifier out of range (m) = manual integration (+) = signals summed

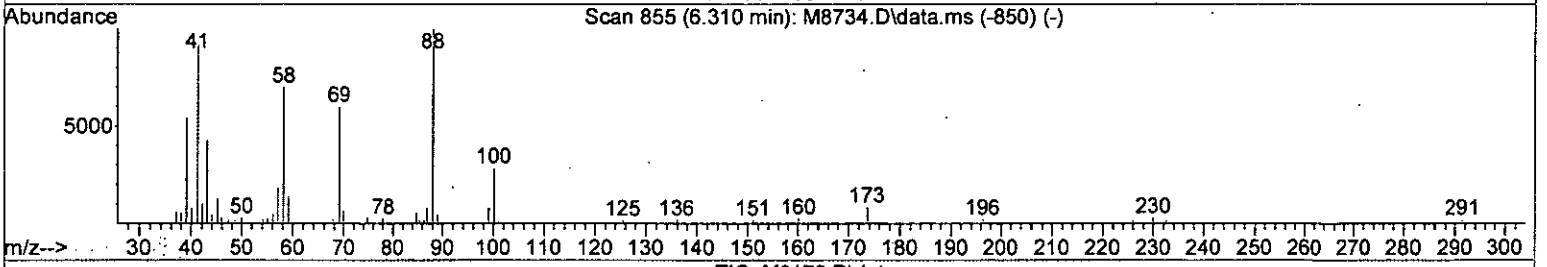
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:09:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9175.D\data.ms

(58) 1,4-Dioxane

6.346min (+0.030) 583.65 ppb

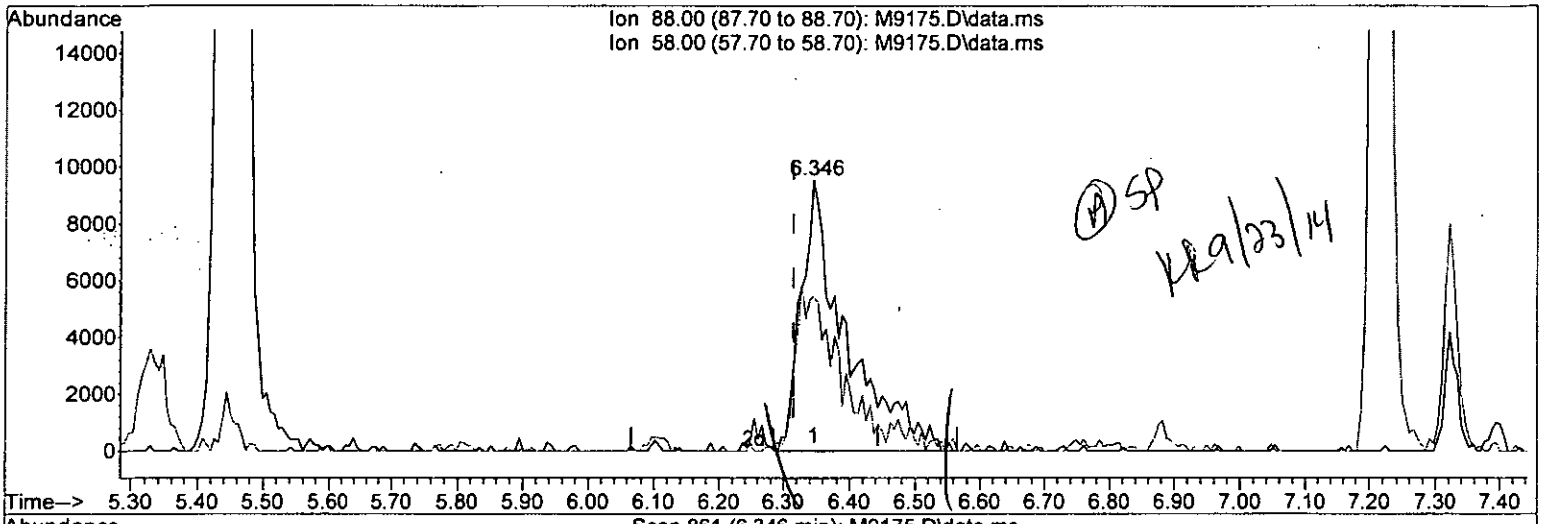
response 37396

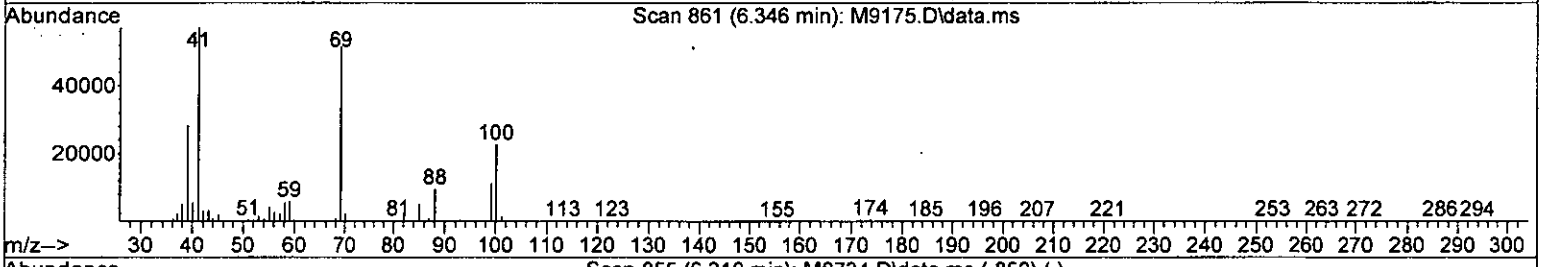
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	56.96
0.00	0.00	0.00
0.00	0.00	0.00

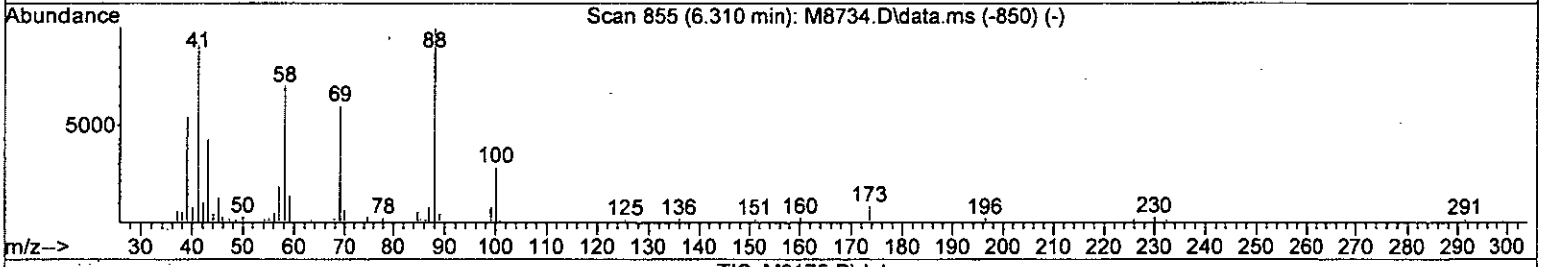
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:09:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9175.D\data.ms

(58) 1,4-Dioxane

6.346min (+0.030) 698.56 ppb m

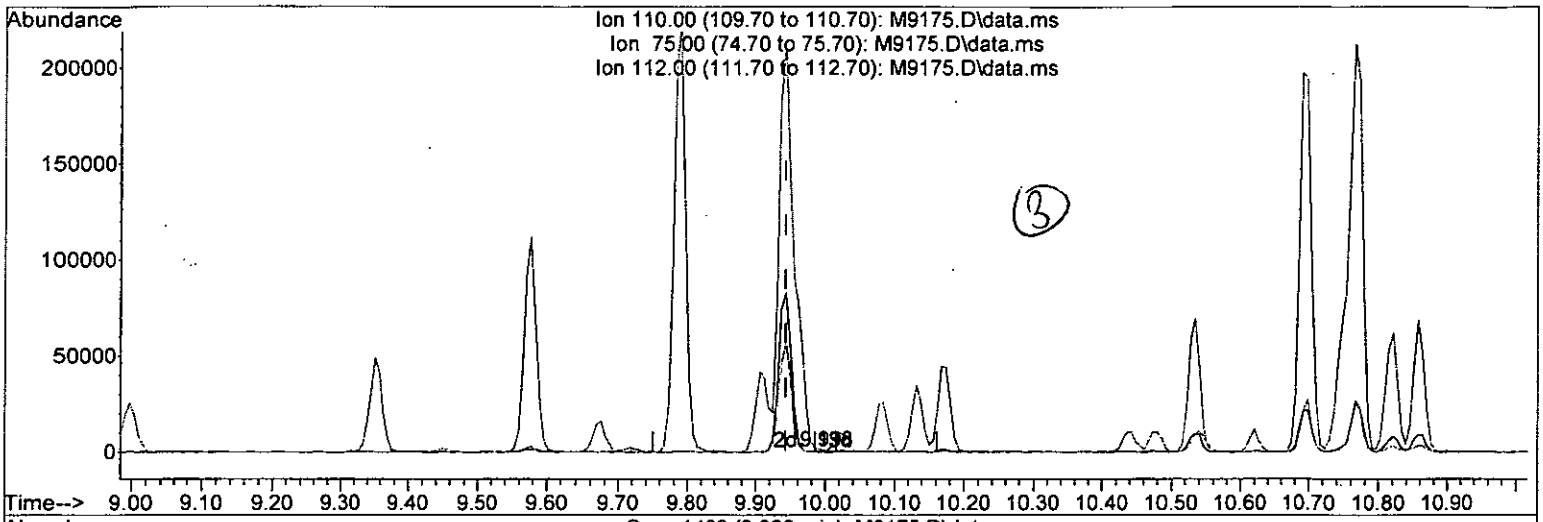
response 44759

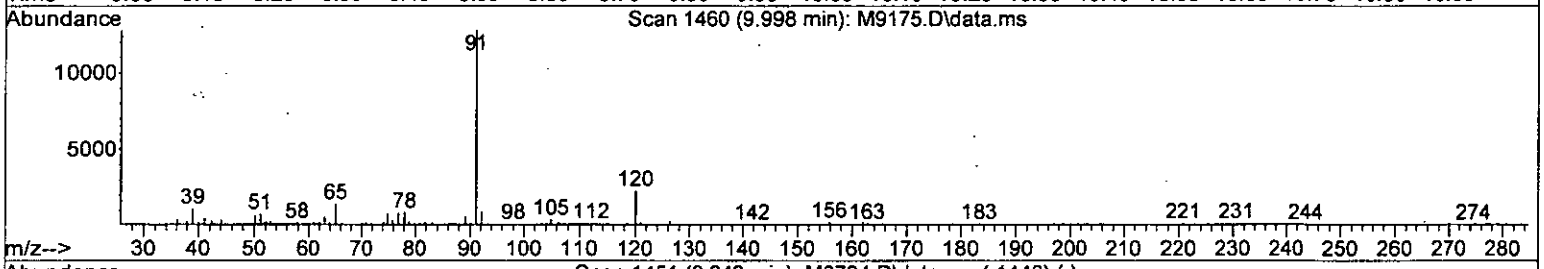
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	56.96
0.00	0.00	0.00
0.00	0.00	0.00

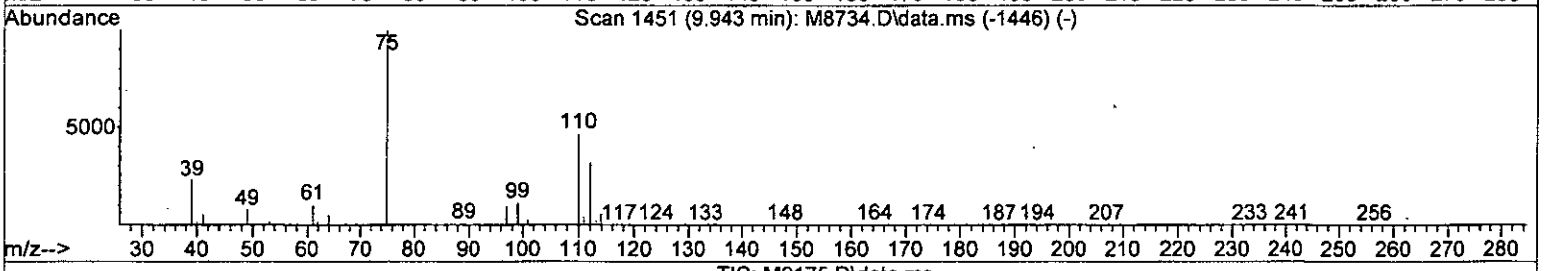
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:09:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9175.D\data.ms

(94) 1,2,3-Trichloropropane

9.998min (+0.055) 0.13 ppb

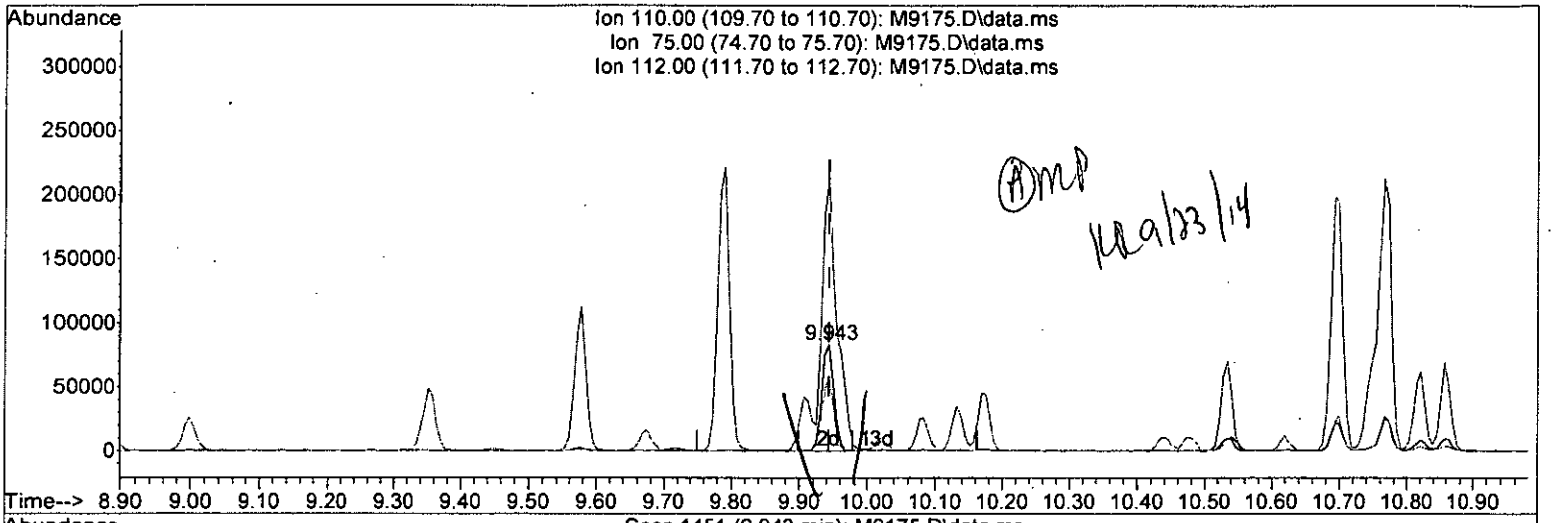
response 266

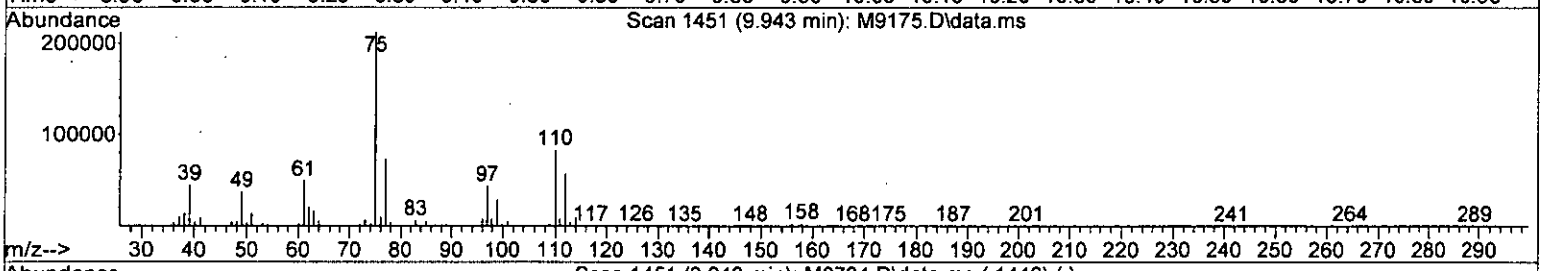
Ion	Exp%	Act%
110.00	100	100
75.00	277.80	276.71
112.00	65.60	57.53
0.00	0.00	0.00

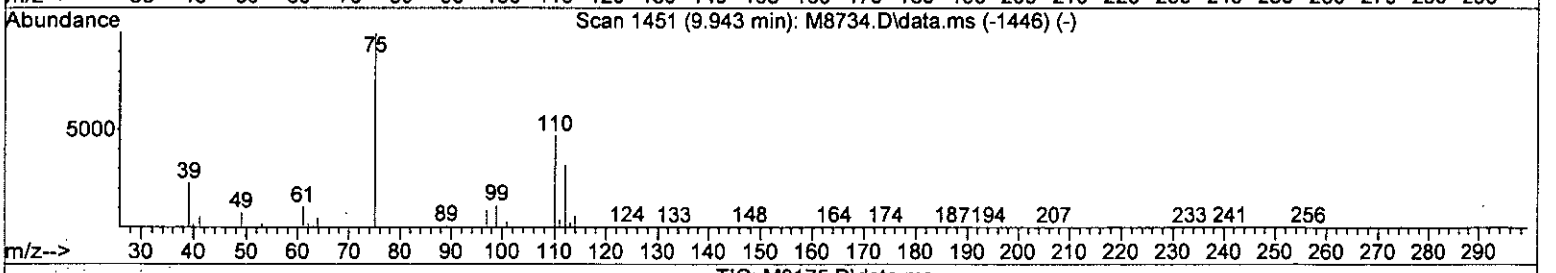
Quantitation Report (Qedit)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:09:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9175.D\data.ms

(94) 1,2,3-Trichloropropane

9.943min (-0.000) 50.15 ppb m

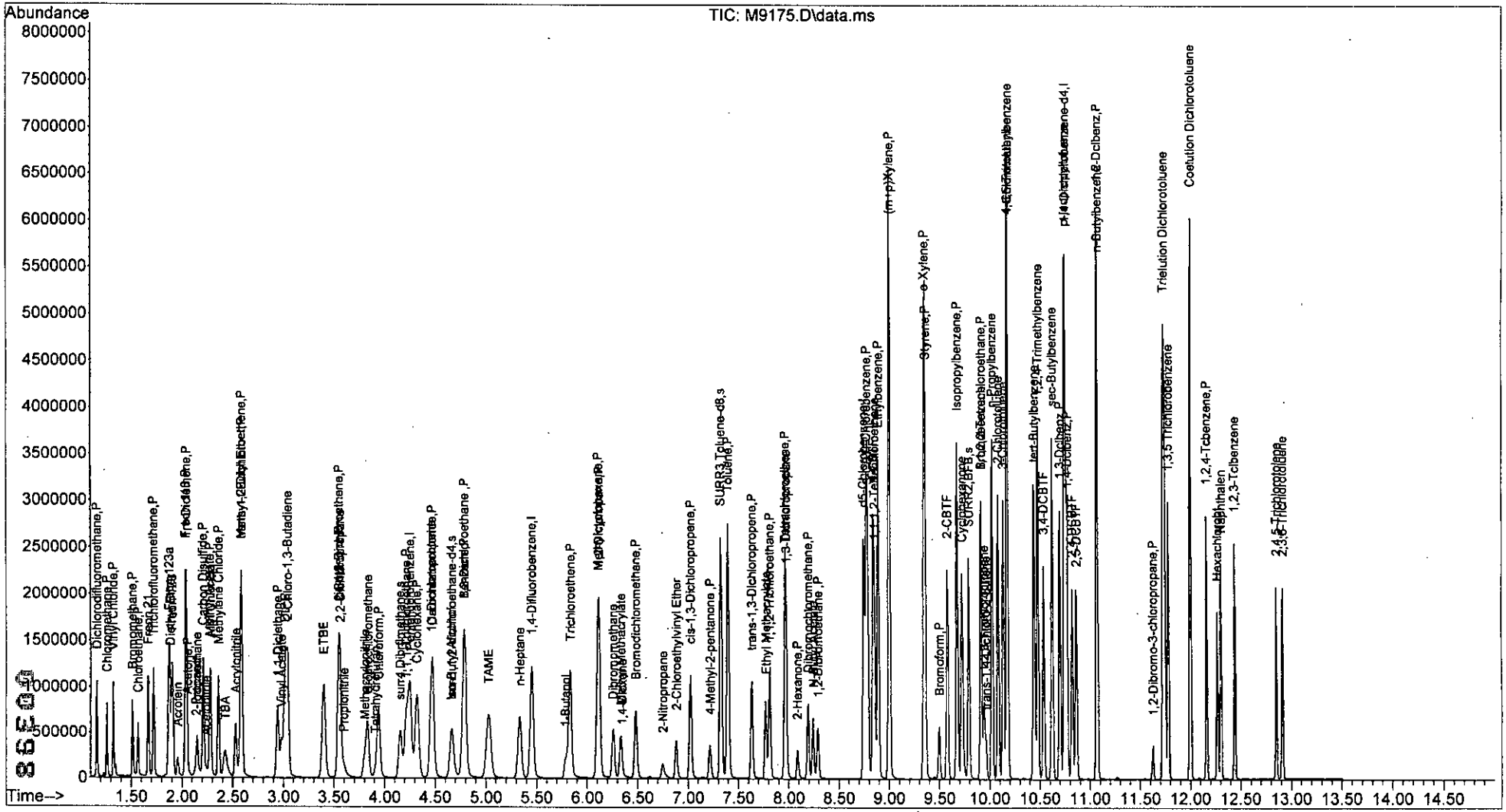
response 101263

Ion	Exp%	Act%
110.00	100	100
75.00	277.80	255.62#
112.00	65.60	68.64
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9175.D
Misc :
Acq On : 23 Sep 2014 10:55 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:11:06 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration


Abundance
TIC: M9175.D\data.ms
Time-->
Dichlorodifluoromethane,P
Chloromethane,P
Vinyl Chloride,P
Bromomethane,P
Chloroethane,P
Freon 21
Trichlorofluoromethane,P
Freon 123a
Dichloromethane,P
Acrolein
Acetone,P
Carbon Disulfide,P
Acrylonitrile
Methyl tert-Butyl Ether,P
Methylene Chloride,P
TBA
Acrylonitrile
Methyl tert-Butyl Ether,P
trans-1,2-Dichloroethene,P
1,1-Dichloroethane,P
Vinyl Acetate
2,2-Dichloropropane,P
2-Butanone,P
Bromochloromethane,P
Chloroform,P
1,1,1-Trichloroethane,P
Cyclohexane,P
Carbon Tetrachloride,P
1,1-Dichloropropene,P
Benzene,P
1,2-Dichloroethane,P
1,2-Dichloroethane-d4,s
Trichloroethene,P
1,2-Dichloropropane,P
Dibromomethane,P
1,4-Dioxane,P
Bromodichloromethane,P
2-Chloroethylvinyl Ether
cis-1,3-Dichloropropene,P
4-Methyl-2-pentanone,P
Toluene-d8,s
Toluene,P
trans-1,3-Dichloropropene,P
1,1,2-Trichloroethane,P
Tetrachloroethene,P
1,3-Dichloropropane,P
2-Hexanone,P
Dibromochloromethane,P
1,2-Dibromoethane,P
Chlorobenzene-d5,s
Chlorobenzene,P
1,1,1,2-Tetrachloroethane,P
Ethylbenzene,P
(m+p)Xylene,P
Styrene,P
o-Xylene,P
Bromoform,P
2-CBTF
Isopropylbenzene,P
Cyclohexanone
SURR1,BFB,s
Bromobenzene,P
1,1,2,2-Tetrachloroethane,P
n-Propylbenzene,P
2-Chlorotoluene,P
4-Chlorotoluene,P
1,3,5-Trimethylbenzene
tert-Butylbenzene,P
1,2,4-Trimethylbenzene
sec-Butylbenzene,P
1,3-Dichlorobenzene,P
p-Isopropyltoluene,P
1,4-Dichlorobenzene,P
n-Butylbenzene,P
1,2-Dichlorobenzene,P
1,2-Dibromo-3-chloropropane,P
1,3,5-Trichlorobenzene,P
Coelution Dichlorotoluene
1,2,4-Trichlorobenzene,P
Hexachlorobutadiene,P
Naphthalene
1,2,3-Trichlorobenzene
2,3,6-Trichlorotoluene
1,2,4,5-Tetramethylbenzene
1,2,3,5-Tetramethylbenzene
1,2,3,4-Tetramethylbenzene
1,2,4,5-Tetrachlorobenzene,P
1,2,3,4-Tetrachlorobenzene,P
Pentachloroethane,P
Dibromofluoromethane,S
1,2-Dichloroethane-d4,S
Toluene-d8,S
4-Bromofluorobenzene,S
SURR2,DBFM,S
Dibromofluoromethane,S
1,2-Dichloroethane-d4,S
Toluene-d8,S
4-Bromofluorobenzene,S
SURR3,Toluene-d8,s
Toluene,P
SURR4,4-BFB,s
4-Bromofluorobenzene,S
SURR5,1,2-DCA-d4,s
1,2-Dichloroethane-d4,S
SURR6,DBFM,s
Dibromofluoromethane,S
SURR7,Toluene-d8,s
Toluene-d8,S
SURR8,4-BFB,s
4-Bromofluorobenzene,S
SURR9,1,2-DCA-d4,s
1,2-Dichloroethane-d4,S
SURR10,DBFM,s
Dibromofluoromethane,S
SURR11,Toluene-d8,s
Toluene-d8,S
SURR12,4-BFB,s
4-Bromofluorobenzene,S
SURR13,1,2-DCA-d4,s
1,2-Dichloroethane-d4,S
SURR14,DBFM,s
Dibromofluoromethane,S
SURR15,Toluene-d8,s
Toluene-d8,S
SURR16,4-BFB,s
4-Bromofluorobenzene,S
SURR17,1,2-DCA-d4,s
1,2-Dichloroethane-d4,S
SURR18,DBFM,s
Dibromofluoromethane,S
SURR19,Toluene-d8,s
Toluene-d8,S
SURR20,4-BFB,s
4-Bromofluorobenzene,S
SURR21,1,2-DCA-d4,s
1,2-Dichloroethane-d4,S
SURR22,DBFM,s
Dibromofluoromethane,S
SURR23,Toluene-d8,s
Toluene-d8,S

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1407413
Date Analyzed: 9/24/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa12\Data\092414\M9196.D\

Calibration Date: 9/9/14
Calibration ID: RC1400080
Analysis Lot: 412923
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	48.0	0.6687	0.6422	-4.0	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	44.0	0.7920	0.6964	-12.1	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	48.8	0.3563	0.3480	-2.3	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	55.2	0.2561	0.2827	10.4	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	55.0	0.3020	0.3319	9.9	NA	± 20 %	Average RF
Vinyl Chloride	50.0	41.1	0.5600	0.4606	-17.7	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	48.6	0.4990	0.4848	-2.8	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	48.7	0.4442	0.4330	-2.5	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	50.1	0.4208	0.4218	0.2	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	51.1	0.2785	0.2847	2.2	NA	± 20 %	Average RF
Toluene-d8	50.0	50.6	1.175	1.189	1.1	NA	± 20 %	Average RF

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

KR 9/24/14

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	105	0.00	
2	P	Dichlorodifluoromethane	0.4852	0.5157	-6.3	98	0.00	
3	P	Chloromethane	0.5292	0.3572	32.5#	65	0.00	⊗ 7320
4	P	Vinyl Chloride	0.5600	0.4606	17.8	79	0.00	
5	P	Bromomethane	0.3254	0.2324	28.6#	78	0.00	⊗ 7320
6	P	Chloroethane	0.3130	0.2548	18.6	79	0.00	
7		Freon 21	0.8280	0.6538	21.0#	77	0.00	
8	P	Trichlorofluoromethane	0.6717	0.6443	4.1	93	0.00	
9		Diethyl Ether	0.3237	0.2719	16.0	85	0.00	
10		Freon 123a	0.5269	0.4367	17.1	81	0.00	
11		Freon 123	0.5823	0.5290	9.2	88	0.00	
12		Acrolein	0.0305	0.0298	2.3	91	0.00	
13	P	1,1-Diclethene	0.3563	0.3480	2.3	98	0.00	
14	P	Freon 113	0.4146	0.4116	0.7	99	0.00	
15	P	Acetone	0.1028	0.1000	2.7	104	0.00	
16		2-Propanol	0.0164	0.0125	23.8#	74	0.05	
17		Iodomethane	0.5364	0.2545	52.6#	44#	0.00	
18	P	Carbon Disulfide	1.3496	1.2910	4.3	98	0.00	
19		Acetonitrile	0.0139	0.0073	47.5#	51	0.02	
20		Allyl Chloride	0.2402	0.2276	5.2	92	0.00	
21	P	Methyl Acetate	0.2095	0.1493	28.7#	70	0.00	⊗ 7320
22	P	Methylene Chloride	0.4580	0.4093	10.6	94	0.00	
23		TBA	0.0275	0.0240	12.7	87	0.02	
24		Acrylonitrile	0.0980	0.0856	12.7	83	0.00	
25	P	Methyl-t-Butyl Ether	1.0151	1.0032	1.2	95	0.00	
26	P	trans-1,2-Dichloroethene	0.4442	0.4330	2.5	98	0.00	
27		Halothane	0.0000	0.0000	0.0	0#	-3.01#	
28	P	1,1-Diclethane	0.7920	0.6964	12.1	86	0.00	
29		Vinyl Acetate	0.0632	0.0735	-16.3	122	0.00	
30		DIPE	1.4994	1.1752	21.6#	83	0.00	
31		2-Chloro-1,3-Butadiene	0.7706	0.6674	13.4	89	0.00	
32		ETBE	1.3220	1.1749	11.1	93	0.00	
33		2,2-Dichloropropane	0.6257	0.6159	1.6	94	0.00	
34	P	cis-1,2-Dichloroethene	0.4990	0.4848	2.8	99	0.00	
35	P	2-Butanone	0.1345	0.1176	12.6	88	0.00	
36		Propionitrile	0.0362	0.0328	9.4	86	0.01	
37		Bromochloromethane	0.2759	0.2841	-3.0	105	0.00	
38		Methacrylonitrile	0.1156	0.1071	7.4	87	0.00	
39		Tetrahydrofuran	0.0842	0.0647	23.2#	76	0.00	
40	P	Chloroform	0.8076	0.7343	9.1	95	0.00	
41	P	1,1,1-Trichloroethane	0.6687	0.6422	4.0	95	0.00	
42		TAME	1.1303	1.0567	6.5	97	0.00	
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	101	0.00	
44	P	Cyclohexane	0.2586	0.2084	19.4	76	0.00	
45	s	surr4,Dibrflmethane	0.2785	0.2847	-2.2	101	0.00	
46	P	Carbontetrachloride	0.1126	0.1191	-5.8	99	0.00	
47		1,1-Dichloropropene	0.3631	0.3495	3.7	90	0.00	

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	s	surr1,1,2-dichloroethane-d4	0.3002	0.2776	7.5	91	0.00
49	P	Benzene	1.1347	1.1172	1.5	92	0.00
50	P	1,2-Dichloroethane	0.3376	0.3187	5.6	89	0.00
51		Iso-Butyl Alcohol	0.0075	0.0061	18.7	74	0.02
52		n-Heptane	0.2860	0.2590	9.4	85	0.00
53		1-Butanol	0.0043	0.0039	9.3	83	0.02
54	P	Trichloroethene	0.3020	0.3319	-9.9	105	0.00
55	P	Methylcyclohexane	0.3104	0.2794	10.0	82	0.00
56	P	1,2-Diclpropane	0.2860	0.2621	8.4	84	0.00
57		Dibromomethane	0.1385	0.1428	-3.1	98	0.00
58		1,4-Dioxane	0.0024	0.0015	M 37.5#	65	0.05
59		Methyl Methacrylate	0.1314	0.1334	-1.5	90	0.00
60	P	Bromodichloromethane	0.3539	0.3552	-0.4	92	0.00
61		2-Nitropropane	0.0352	0.0332	5.7	93	0.00
62		2-Chloroethylvinyl Ether	0.1287	0.1278	0.7	91	0.00
63	P	cis-1,3-Dichloropropene	0.4135	0.4233	-2.4	91	0.00
64	P	4-Methyl-2-pentanone	0.1694	0.1529	9.7	85	0.00
65	s	SURR3,Toluene-d8	1.1754	1.1888	-1.1	97	0.00
66	P	Toluene	1.2340	1.2816	-3.9	97	0.00
67	P	trans-1,3-Dichloropropene	0.3368	0.3542	-5.2	90	0.00
68		Ethyl Methacrylate	0.2648	0.2886	-9.0	95	0.00
69	P	1,1,2-Trichloroethane	0.2081	0.2247	-8.0	101	0.00
70	s	SURR2,BFB	0.4208	0.4218	-0.2	96	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	103	0.00
72	P	Tetrachloroethene	0.2561	0.2827	-10.4	106	0.00
73	P	2-Hexanone	0.1403	0.1276	9.1	90	0.00
74		1,3-Dichloropropane	0.4258	0.4054	4.8	91	0.00
75	P	Dibromochloromethane	0.2578	0.2961	-14.9	103	0.00
76		N-Butyl Acetate	0.3007	0.2703	10.1	79	0.00
77	P	1,2-Dibromoethane	0.2151	0.2398	-11.5	101	0.00
78	P	Chlorobenzene	0.8864	0.9277	-4.7	98	0.00
79		3-CBTF	0.4381	0.5199	-18.7	113	0.00
80		4-CBTF	0.4209	0.4663	-10.8	111	0.00
81		1,1,1,2-Tetrachloroethane	0.3039	0.3249	-6.9	99	0.00
82	P	Ethylbenzene	0.4656	0.5002	-7.4	98	0.00
83	P	(m+p)Xylene	0.5642	0.6156	-9.1	98	0.00
84	P	o-Xylene	0.5489	0.6019	-9.7	99	0.00
85	P	Styrene	0.8998	1.0166	-13.0	100	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	105	0.00
87	P	Bromoform	0.2726	0.3075	-12.8	105	0.00
88		2-CBTF	0.8115	0.8732	-7.6	108	0.00
89	P	Isopropylbenzene	2.5629	2.6149	-2.0	98	0.00
90		Cyclohexanone	0.0595	0.0508	14.6	82	0.00
91		trans-1,4-Dichloro-2-Butene	0.1275	0.0889	M 30.3#	68	0.00
92	P	1,1,2,2-Tetrachloroethane	0.5147	0.4969	3.5	97	0.00
93		Bromobenzene	0.6582	0.6912	-5.0	103	0.00

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94		1,2,3-Trichloropropane	0.1493	0.1469	1.6	100	0.00
95		n-Propylbenzene	2.9973	2.9709	0.9	95	0.00
96		2-Chlorotoluene	1.8182	1.7644	3.0	95	0.00
97		3-Chlorotoluene	1.9508	1.8473	5.3	94	0.00
98		4-Chlorotoluene	2.1136	2.1174	-0.2	96	0.00
99		1,3,5-Trimethylbenzene	2.0487	2.1830	-6.6	99	0.00
100		tert-Butylbenzene	1.7183	1.8359	-6.8	101	0.00
101		1,2,4-Trimethylbenzene	2.1132	2.2082	-4.5	97	0.00
102		3,4-DCBTF	0.5776	0.6266	-8.5	117	0.00
103		sec-Butylbenzene	2.4968	2.6113	-4.6	101	0.00
104		p-Isopropyltoluene	2.0825	2.2861	-9.8	103	0.00
105	P	1,3-Dclbenz	1.2428	1.3113	-5.5	103	0.00
106	P	1,4-Dclbenz	1.2844	1.3538	-5.4	105	0.00
107		2,4-DCBTF	0.5002	0.5648	-12.9	116	0.00
108		2,5-DCBTF	0.5686	0.6238	-9.7	112	0.00
109		n-Butylbenzene	1.8905	1.9273	-1.9	95	0.00
110	P	1,2-Dclbenz	1.1873	1.2633	-6.4	105	0.00
111	P	1,2-Dibromo-3-chloropropane	0.0909	0.1053	-15.8	109	0.00
112		Trielution Dichlorotoluene	0.9868	1.0755	-9.0	106	0.00
113		1,3,5 Trichlorobenzene	0.8472	0.8970	-5.9	110	0.00
114		Coelution Dichlorotoluene	1.0546	1.1635	-10.3	105	0.00
115	P	1,2,4-Tcbenzene	0.6933	0.7824	-12.9	107	0.00
116		Hexachlorobt	0.2742	0.3097	-12.9	114	0.00
117		Naphthalen	1.4190	1.6237	-14.4	104	0.00
118		1,2,3-Tclbenzene	0.6007	0.6541	-8.9	105	0.00
119		2,4,5-Trichlorotolene	0.4693	0.4889	-4.2	107	0.00
120		2,3,6-Trichlorotoluene	0.4607	0.4815	-4.5	105	0.00

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

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12 RQ1411389-02

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	861077	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1295478	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1191712	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	665616	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	368847	51.12	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.24%				
48) surr1,1,2-dichloroetha...	4.670	65	359599	46.24	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.48%				
65) SURR3,Toluene-d8	7.322	98	1540056	50.57	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.14%				
70) SURR2,BFB	9.791	95	546473	50.12	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	444080	53.15	ppb		99
3) Chloromethane	1.262	50	307615	33.75	ppb		95
4) Vinyl Chloride	1.323	62	396611	41.13	ppb		98
5) Bromomethane	1.512	94	200119	35.71	ppb		99
6) Chloroethane	1.567	64	219399	40.70	ppb		98
7) Freon 21	1.664	67	562974	39.48	ppb		98
8) Trichlorofluoromethane	1.719	101	554828	47.97	ppb		97
9) Diethyl Ether	1.884	59	234090	41.99	ppb		93
10) Freon 123a	1.872	67	376069	41.45	ppb		80
11) Freon 123	1.902	83	455490	45.42	ppb		100
12) Acrolein	1.957	56	128107	243.93	ppb		97
13) 1,1-Diclethene	2.042	96	299696	48.84	ppb	#	87
14) Freon 113	2.036	101	354430	49.64	ppb		95
15) Acetone	2.054	43	86095	48.62	ppb		90
16) 2-Propanol	2.164	45	214411m	760.18	ppb		
17) Iodomethane	2.146	142	219126	23.72	ppb		100
18) Carbon Disulfide	2.207	76	1111609	47.83	ppb		99
19) Acetonitrile	2.243	40	31564m	132.00	ppb		
20) Allyl Chloride	2.280	76	196004	47.37	ppb	#	77
21) Methyl Acetate	2.280	43	128543	35.62	ppb		89
22) Methylene Chloride	2.359	84	352429	44.68	ppb		88
23) TBA	2.432	59	412588	871.54	ppb		100
24) Acrylonitrile	2.530	53	368566	218.38	ppb		95
25) Methyl-t-Butyl Ether	2.585	73	863806	49.41	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	372857	48.74	ppb		89
28) 1,1-Diclethane	2.945	63	599642	43.97	ppb		98
29) Vinyl Acetate	2.981	86	63259	58.13	ppb	#	67
30) DIPE	3.018	45	1011916	39.19	ppb		92
31) 2-Chloro-1,3-Butadiene	3.042	53	574680	43.30	ppb		91
32) ETBE	3.402	59	1011667	44.44	ppb		94
33) 2,2-Dichloropropane	3.554	77	530370	49.22	ppb		99
34) cis-1,2-Dichloroethene	3.548	96	417469	48.58	ppb		88
35) 2-Butanone	3.554	43	101240	43.72	ppb		90
36) Propionitrile	3.609	54	141122	226.06	ppb		93
37) Bromochloromethane	3.835	130	244640	51.49	ppb	#	83

KR 9/24/14

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	92244	46.34	ppb		89
39) Tetrahydrofuran	3.914	42	55740	38.46	ppb		97
40) Chloroform	3.938	83	632313	45.46	ppb		95
41) 1,1,1-Trichloroethane	4.219	97	552981	48.02	ppb		98
42) TAME	5.029	73	909922	46.75	ppb		94
44) Cyclohexane	4.316	41	270020	40.30	ppb		92
46) Carbontetrachloride	4.475	121	154341	52.89	ppb		89
47) 1,1-Dichloropropene	4.463	75	452827	48.13	ppb		94
49) Benzene	4.786	78	1447302	49.23	ppb		94
50) 1,2-Dichloroethane	4.792	62	412909	47.21	ppb		95
51) Iso-Butyl Alcohol	4.664	43	156928	806.99	ppb		96
52) n-Heptane	5.334	43	335542	45.29	ppb		89
53) 1-Butanol	5.798	56	253810	2262.47	ppb		95
54) Trichloroethene	5.828	130	429951	54.95	ppb		97
55) Methylcyclohexane	6.109	55	361927	45.00	ppb		83
56) 1,2-Diclpropane	6.115	63	339493	45.82	ppb		99
57) Dibromomethane	6.255	93	185003	51.54	ppb		86
58) 1,4-Dioxane	6.365	88	37747m	611.63	ppb		
59) Methyl Methacrylate	6.334	69	172830	50.77	ppb		92
60) Bromodichloromethane	6.480	83	460153	50.18	ppb		99
61) 2-Nitropropane	6.749	41	85900	94.30	ppb		95
62) 2-Chloroethylvinyl Ether	6.883	63	165598	49.66	ppb		95
63) cis-1,3-Dichloropropene	7.023	75	548421	51.19	ppb		95
64) 4-Methyl-2-pentanone	7.218	43	198094	45.14	ppb		96
66) Toluene	7.395	91	1660303	51.93	ppb		99
67) trans-1,3-Dichloropropene	7.633	75	458809	52.57	ppb		96
68) Ethyl Methacrylate	7.767	69	373811	54.48	ppb		91
69) 1,1,2-Trichloroethane	7.809	97	291080	53.98	ppb		97
72) Tetrachloroethene	7.962	164	336855	55.18	ppb		98
73) 2-Hexanone	8.090	43	152104	45.48	ppb		92
74) 1,3-Dichloropropane	7.974	76	483139	47.60	ppb		94
75) Dibromochloromethane	8.193	129	352836	57.42	ppb		95
76) N-Butyl Acetate	8.242	43	322158	43.86	ppb		94
77) 1,2-Dibromoethane	8.291	107	285735	55.72	ppb		100
78) Chlorobenzene	8.773	112	1105493	52.33	ppb		93
79) 3-CBTF	8.785	180	619560	59.34	ppb		94
80) 4-CBTF	8.840	180	555669	55.39	ppb		98
81) 1,1,1,2-Tetrachloroethane	8.852	131	387217	53.45	ppb		96
82) Ethylbenzene	8.888	106	596073	53.71	ppb		100
83) (m+p)Xylene	8.998	106	1467236	109.11	ppb		96
84) o-Xylene	9.346	106	717246	54.82	ppb		93
85) Styrene	9.358	104	1211538	56.49	ppb		96
87) Bromoform	9.498	173	204698	56.41	ppb		100
88) 2-CBTF	9.577	180	581224	53.80	ppb		98
89) Isopropylbenzene	9.675	105	1740500	51.01	ppb		99
90) Cyclohexanone	9.724	55	676225	853.75	ppb		94
91) trans-1,4-Dichloro-2-B...	9.961	53	59201	34.88	ppb		85
92) 1,1,2,2-Tetrachloroethane	9.913	83	330768	48.28	ppb		97
93) Bromobenzene	9.913	156	460097	52.51	ppb	#	89
94) 1,2,3-Trichloropropane	9.943	110	97796	49.21	ppb	#	84
95) n-Propylbenzene	10.022	91	1977457	49.56	ppb		95
96) 2-Chlorotoluene	10.083	91	1174414	48.52	ppb		98

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

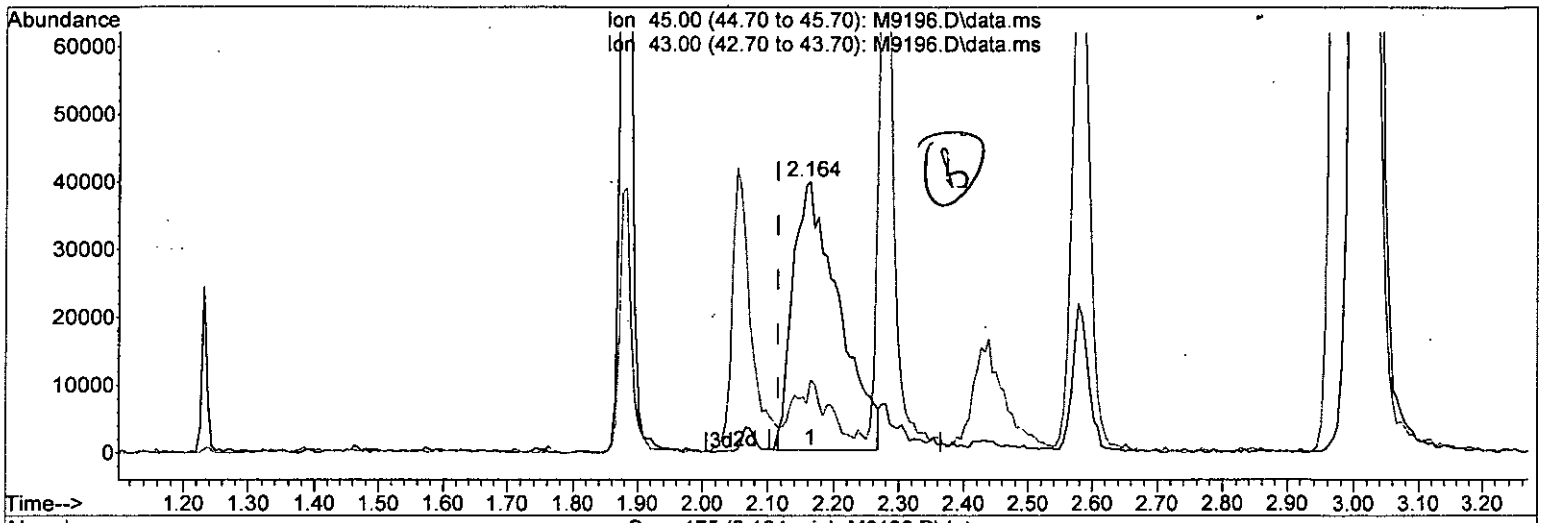
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

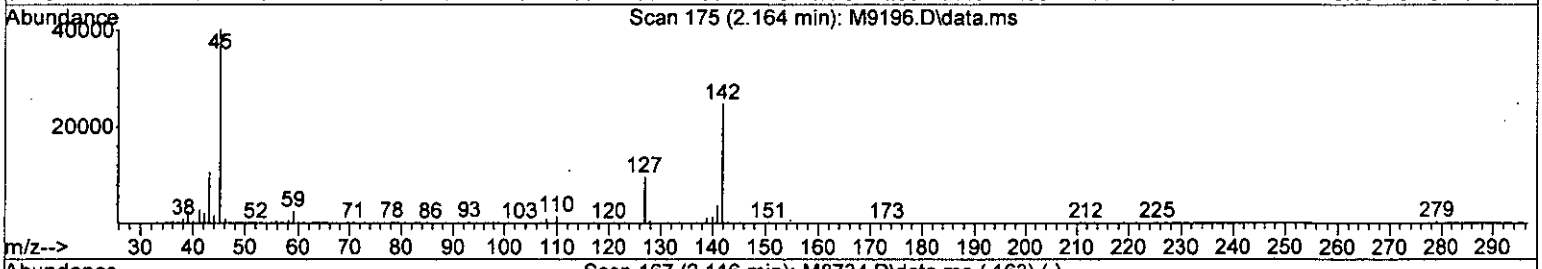
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1229585	47.35	ppb	95
98)	4-Chlorotoluene	10.175	91	1409394	50.09	ppb	96
99)	1,3,5-Trimethylbenzene	10.175	105	1453058	53.28	ppb	97
100)	tert-Butylbenzene	10.443	119	1222004	53.42	ppb	100
101)	1,2,4-Trimethylbenzene	10.480	105	1469782	52.25	ppb	95
102)	3,4-DCBTF	10.534	214	417069	54.24	ppb	97
103)	sec-Butylbenzene	10.620	105	1738092	52.29	ppb	100
104)	p-Isopropyltoluene	10.742	119	1521661	54.89	ppb	96
105)	1,3-Dclbenz	10.699	146	872829	52.75	ppb	98
106)	1,4-Dclbenz	10.772	146	901113	52.70	ppb	98
107)	2,4-DCBTF	10.821	214	375937	56.46	ppb	96
108)	2,5-DCBTF	10.864	214	415233	54.86	ppb	99
109)	n-Butylbenzene	11.065	91	1282815	50.97	ppb	98
110)	1,2-Dclbenz	11.065	146	840866	53.20	ppb	98
111)	1,2-Dibromo-3-chloropr...	11.626	157	70085	57.92	ppb	92
112)	Trielution Dichlorotol...	11.729	125	2147626	163.48	ppb	96
113)	1,3,5 Trichlorobenzene	11.778	180	597076	52.94	ppb	97
114)	Coelution Dichlorotoluene	11.998	125	1548840	110.32	ppb	96
115)	1,2,4-Tcbenzene	12.156	180	520748	56.42	ppb	99
116)	Hexachlorobt	12.266	225	206163	56.47	ppb	96
117)	Naphthalen	12.302	128	1080729	57.21	ppb	99
118)	1,2,3-Tclbenzene	12.437	180	435387	54.44	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	325449	52.10	ppb	97
120)	2,3,6-Trichlorotoluene	12.912	159	320466	52.25	ppb	100

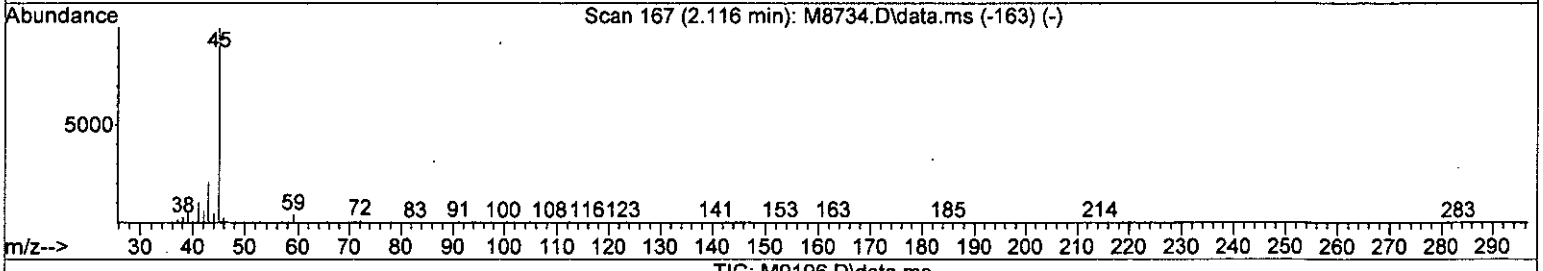
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:39:12 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9196.D\data.ms

(16) 2-Propanol

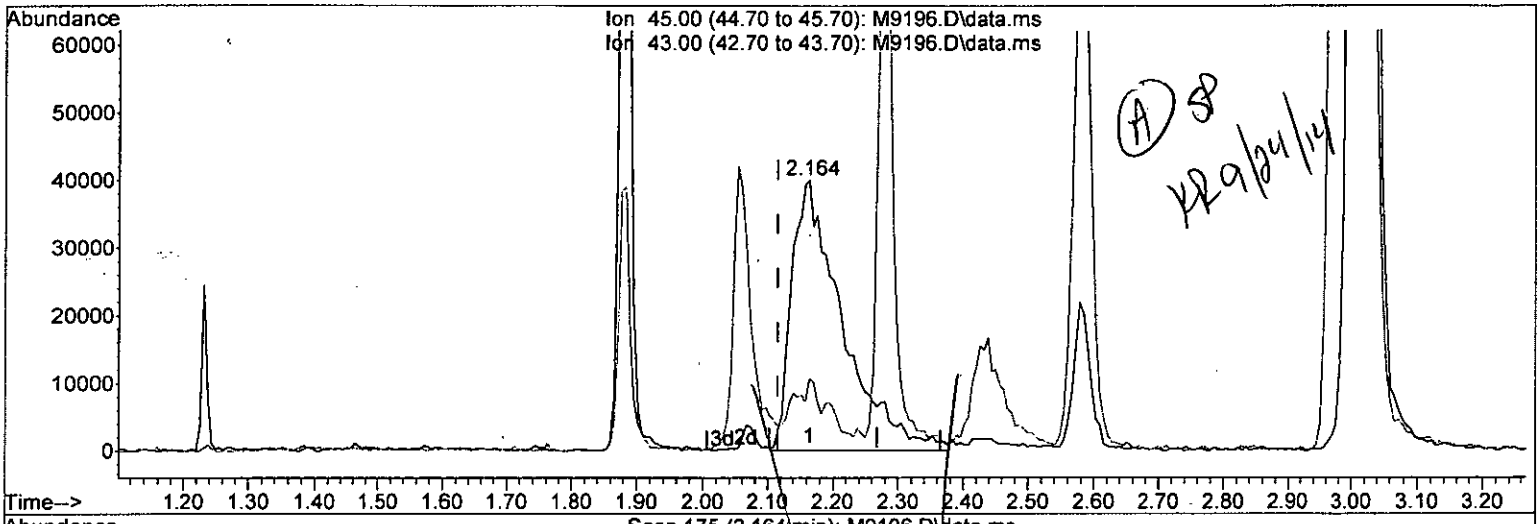
2.164min (+0.049) 681.92 ppb

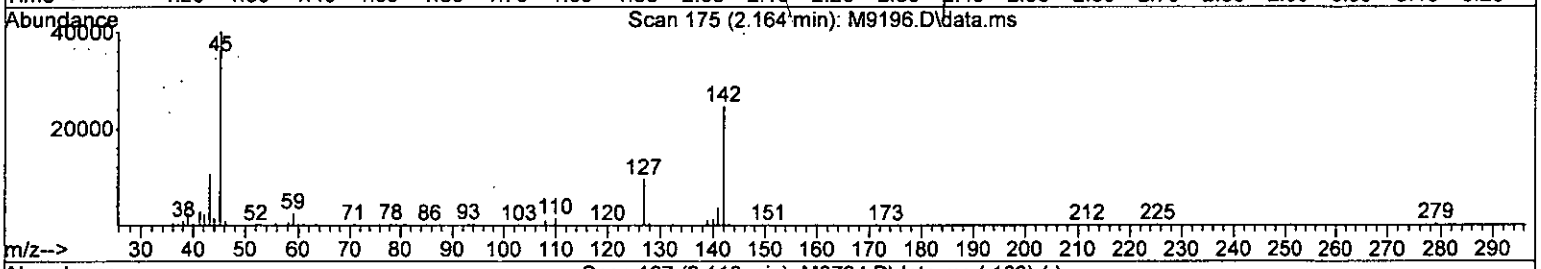
response 192337

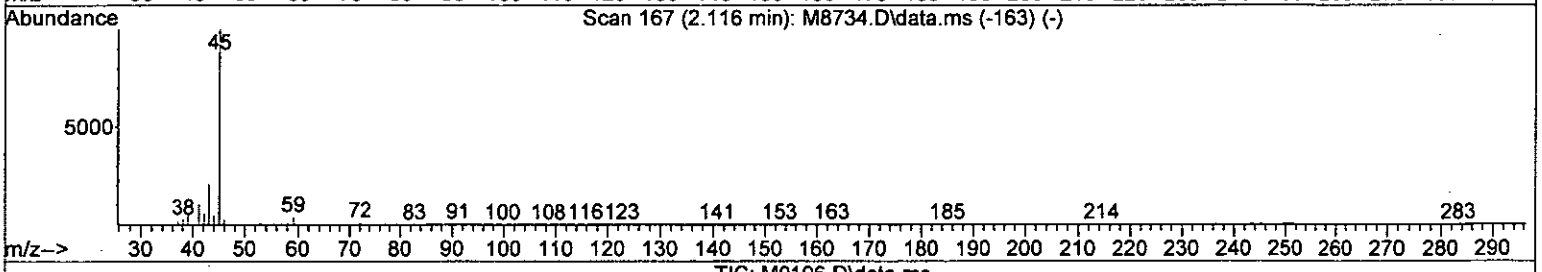
Ion	Exp%	Act%
45.00	100	100
43.00	20.60	26.59
0.00	0.00	0.00
0.00	0.00	0.00

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:39:12 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9196.D\data.ms

(16) 2-Propanol

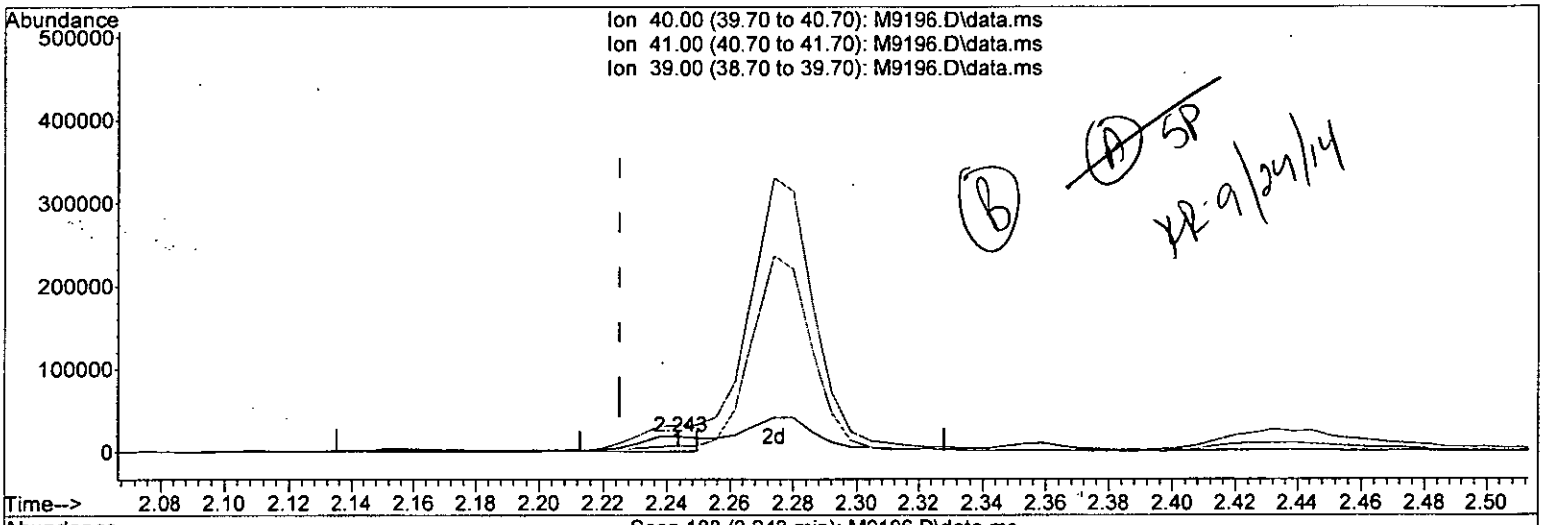
2.164min (+0.049) 760.18 ppb m

response 214411

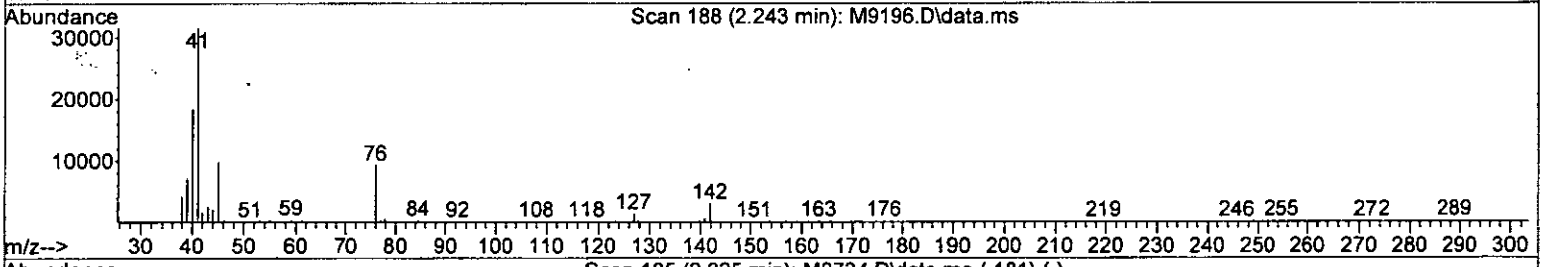
Ion	Exp%	Act%
45.00	100	100
43.00	20.60	26.59
0.00	0.00	0.00
0.00	0.00	0.00

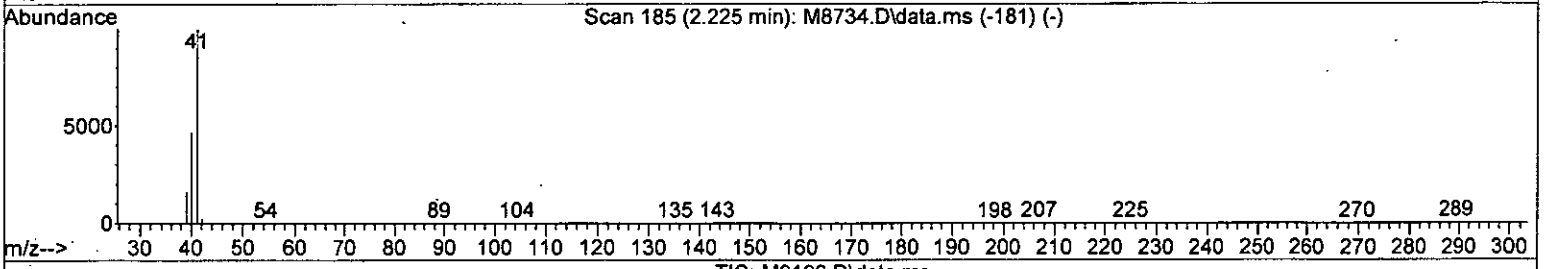
Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
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B (A) SP KR 9/24/14





TIC: M9196.D\data.ms

(19) Acetonitrile

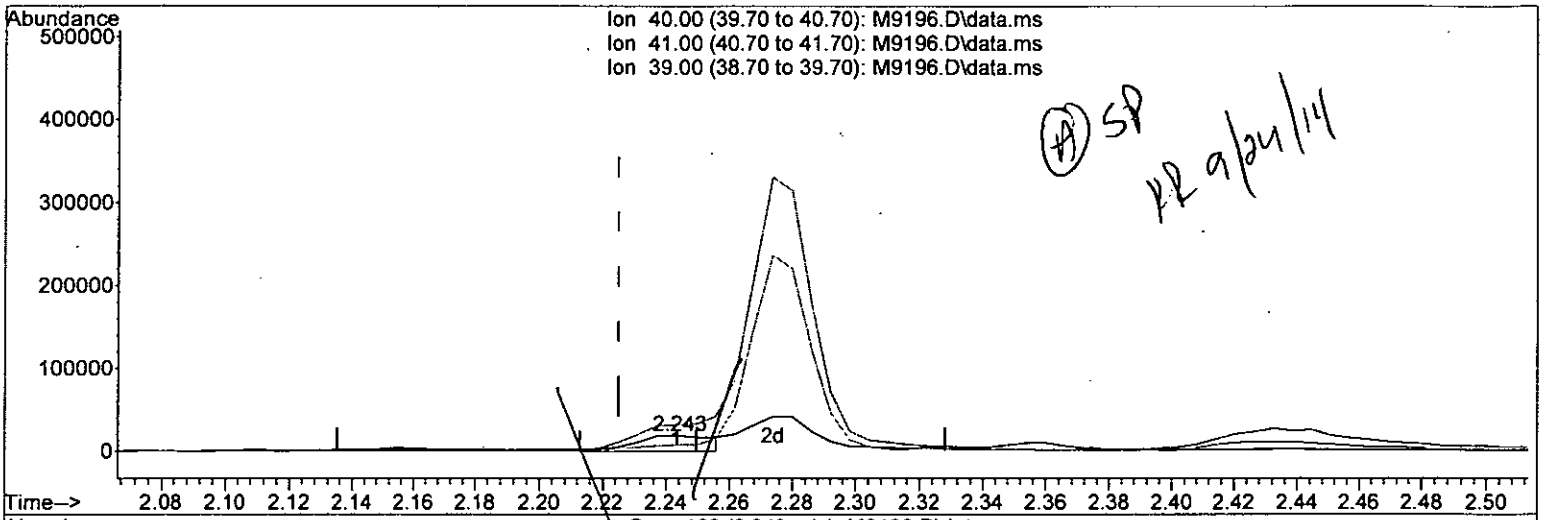
2.243min (+0.018) 100.85 ppb

response 24117

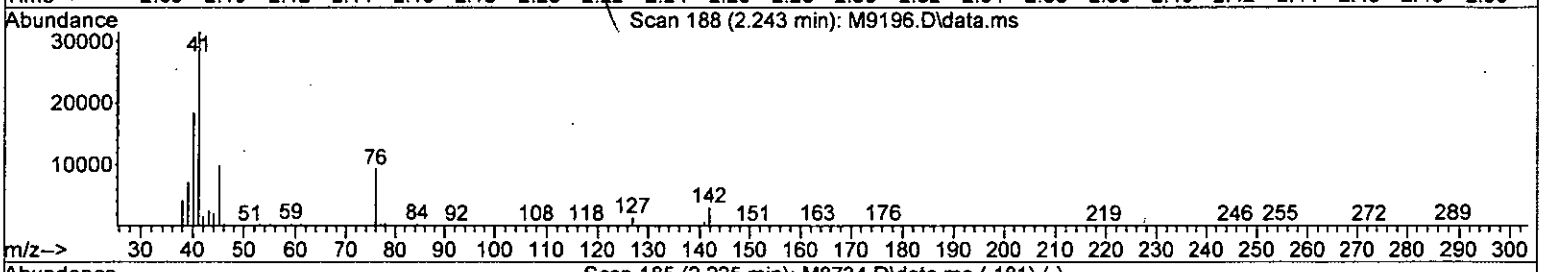
Ion	Exp%	Act%
40.00	100	100
41.00	189.00	170.97
39.00	37.60	38.38
0.00	0.00	0.00

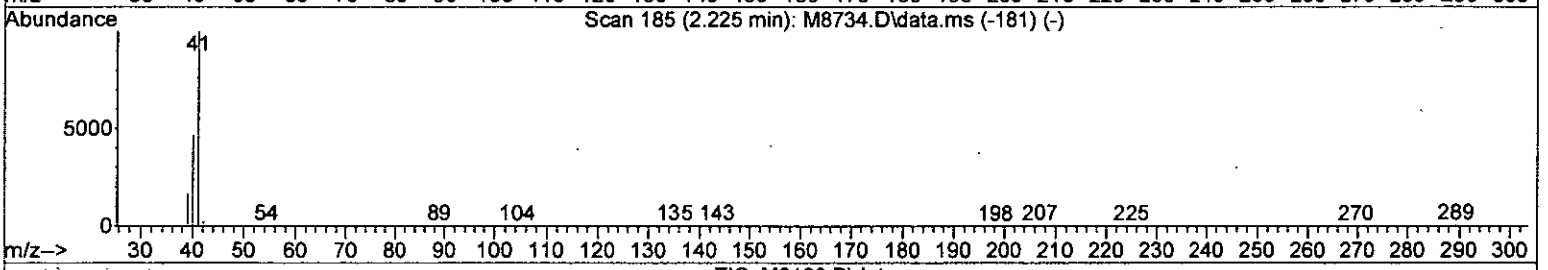
Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:39:12 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



(A) SP KR 9/24/14





TIC: M9196.D\data.ms

(19) Acetonitrile

2.243min (+0.018) 132.00 ppb m

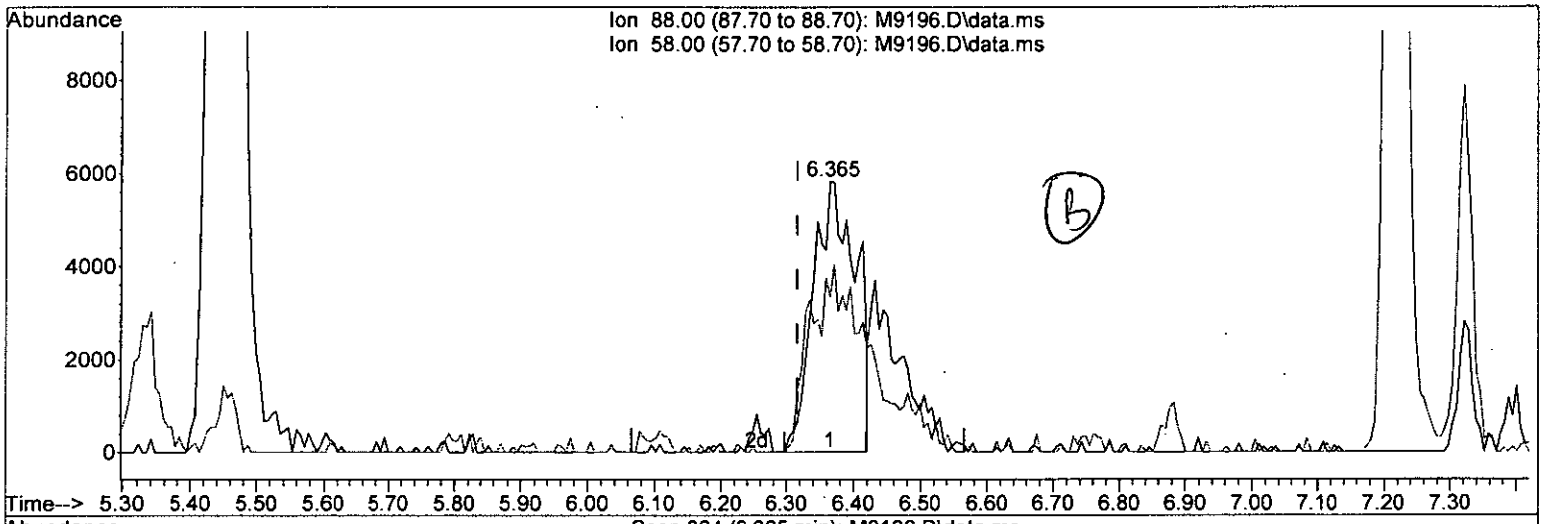
response 31564

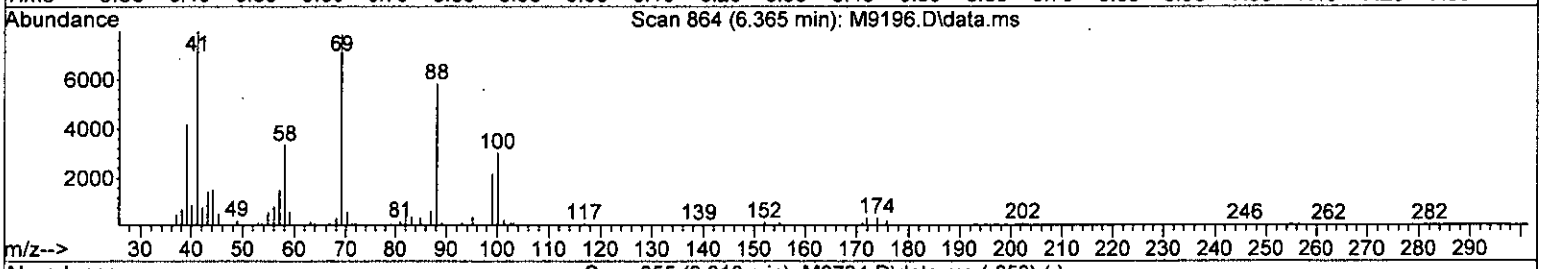
Ion	Exp%	Act%
40.00	100	100
41.00	189.00	170.97
39.00	37.60	38.38
0.00	0.00	0.00

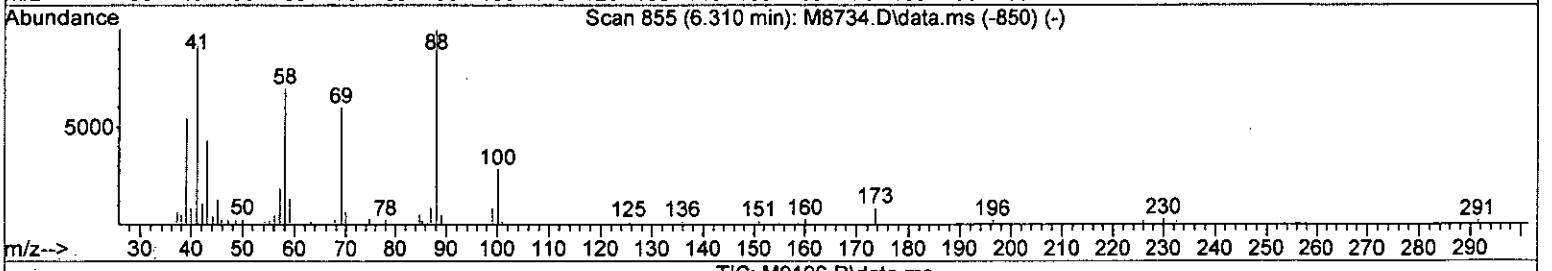
AW 9/25

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:39:12 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9196.D\data.ms

(58) 1,4-Dioxane

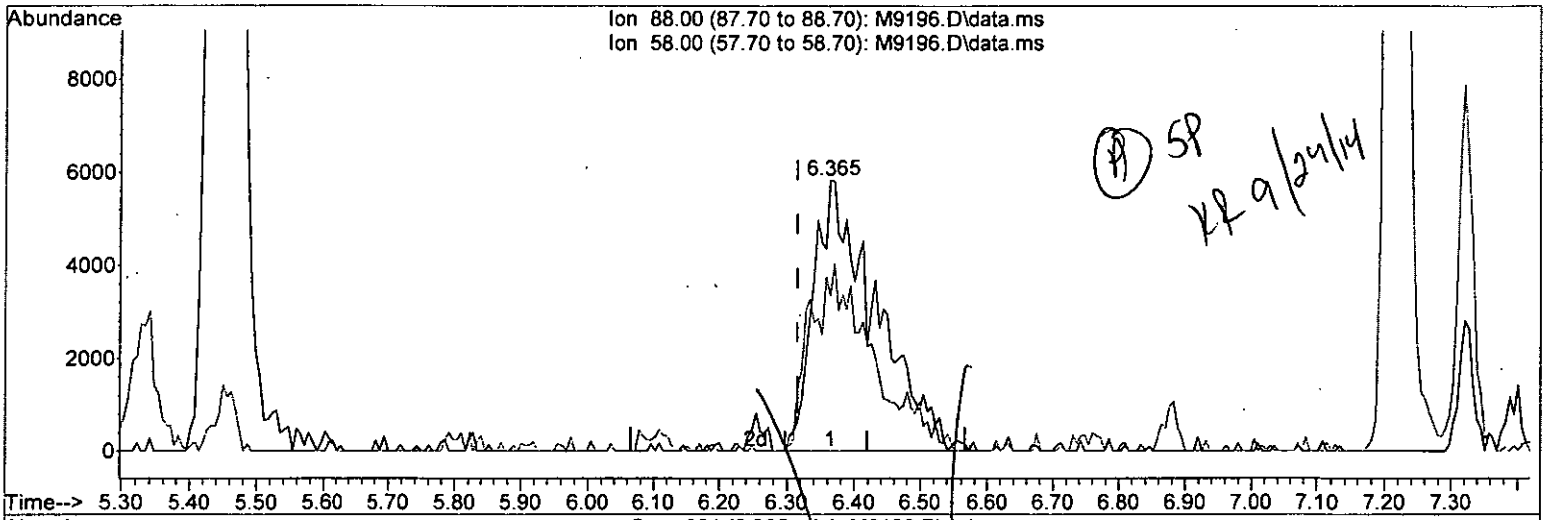
6.365min (+0.049) 411.55 ppb

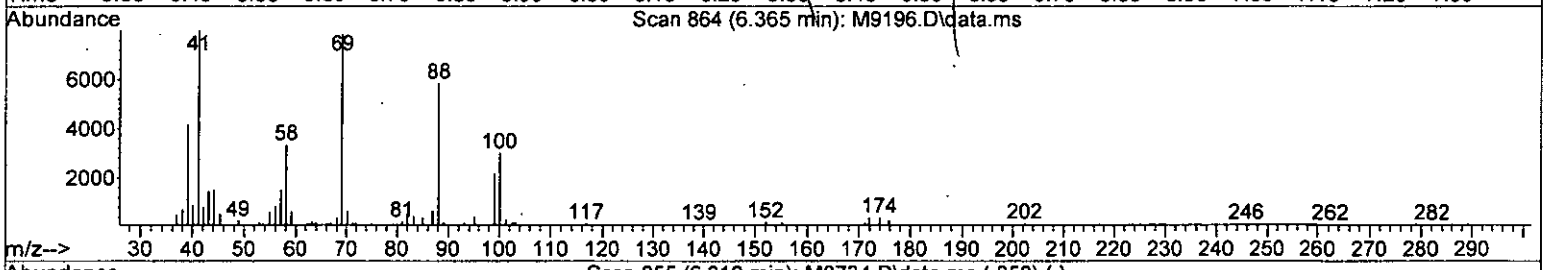
response 25399

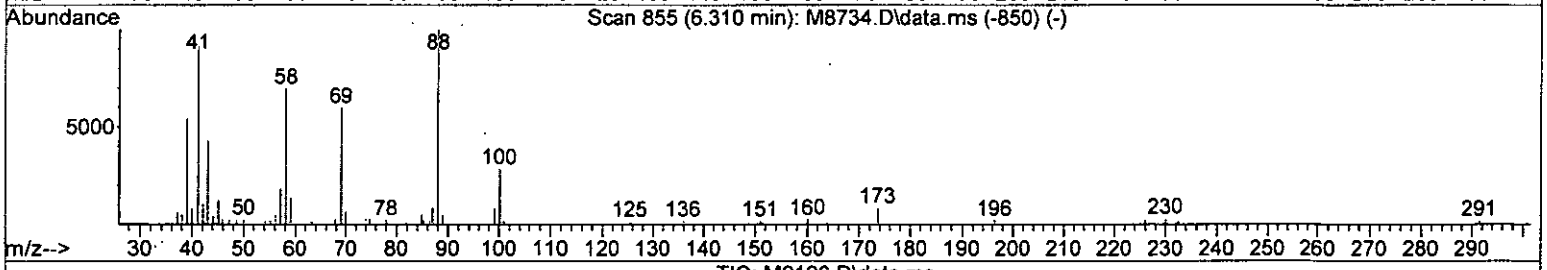
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	57.22
0.00	0.00	0.00
0.00	0.00	0.00

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:39:12 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9196.D\data.ms

(58) 1,4-Dioxane

6.365min (+0.049) 611.63 ppb m

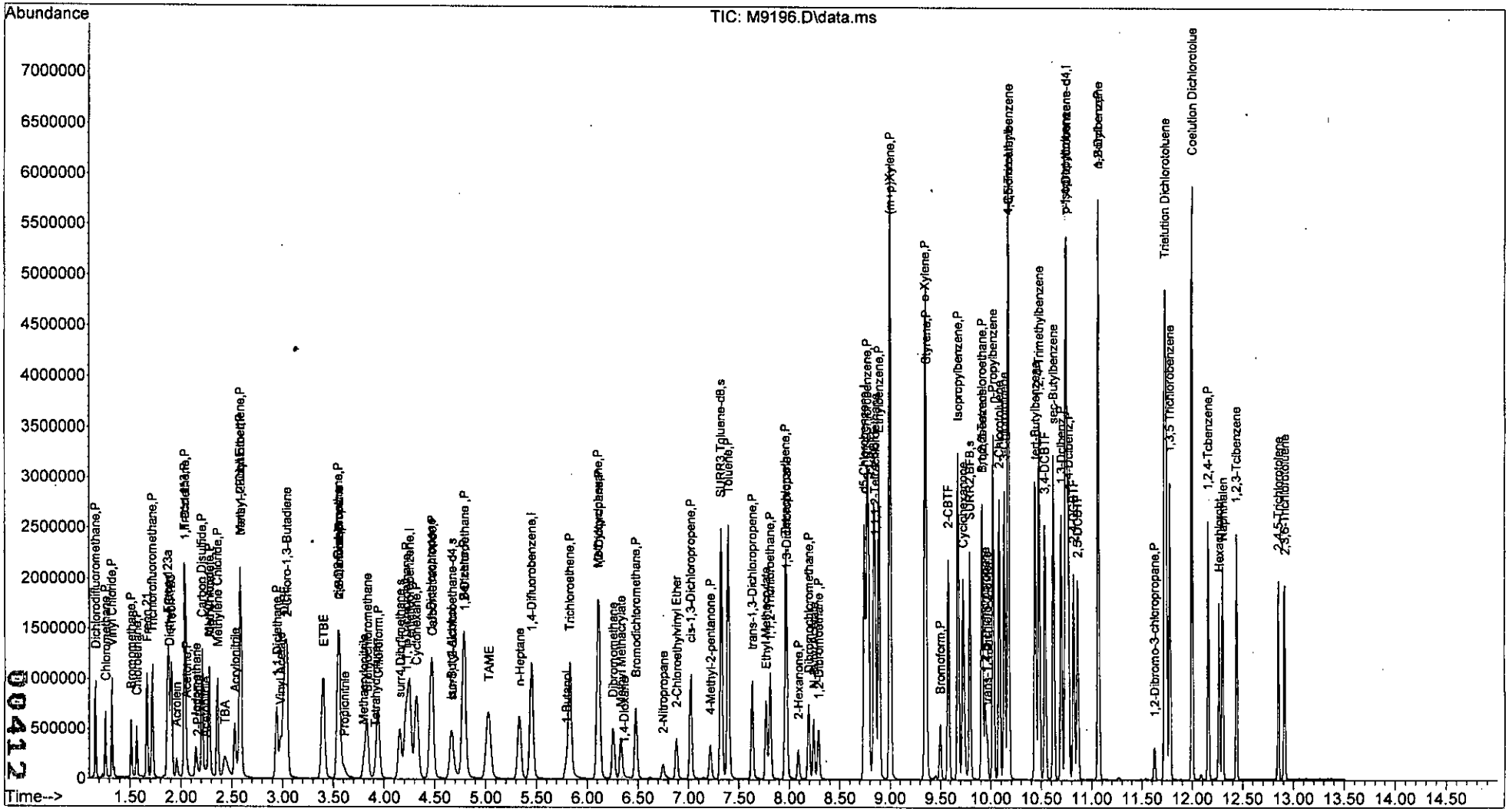
response 37747

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	57.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9196.D
Misc :
Acq On : 24 Sep 2014 10:24 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 10:47:26 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Environmental

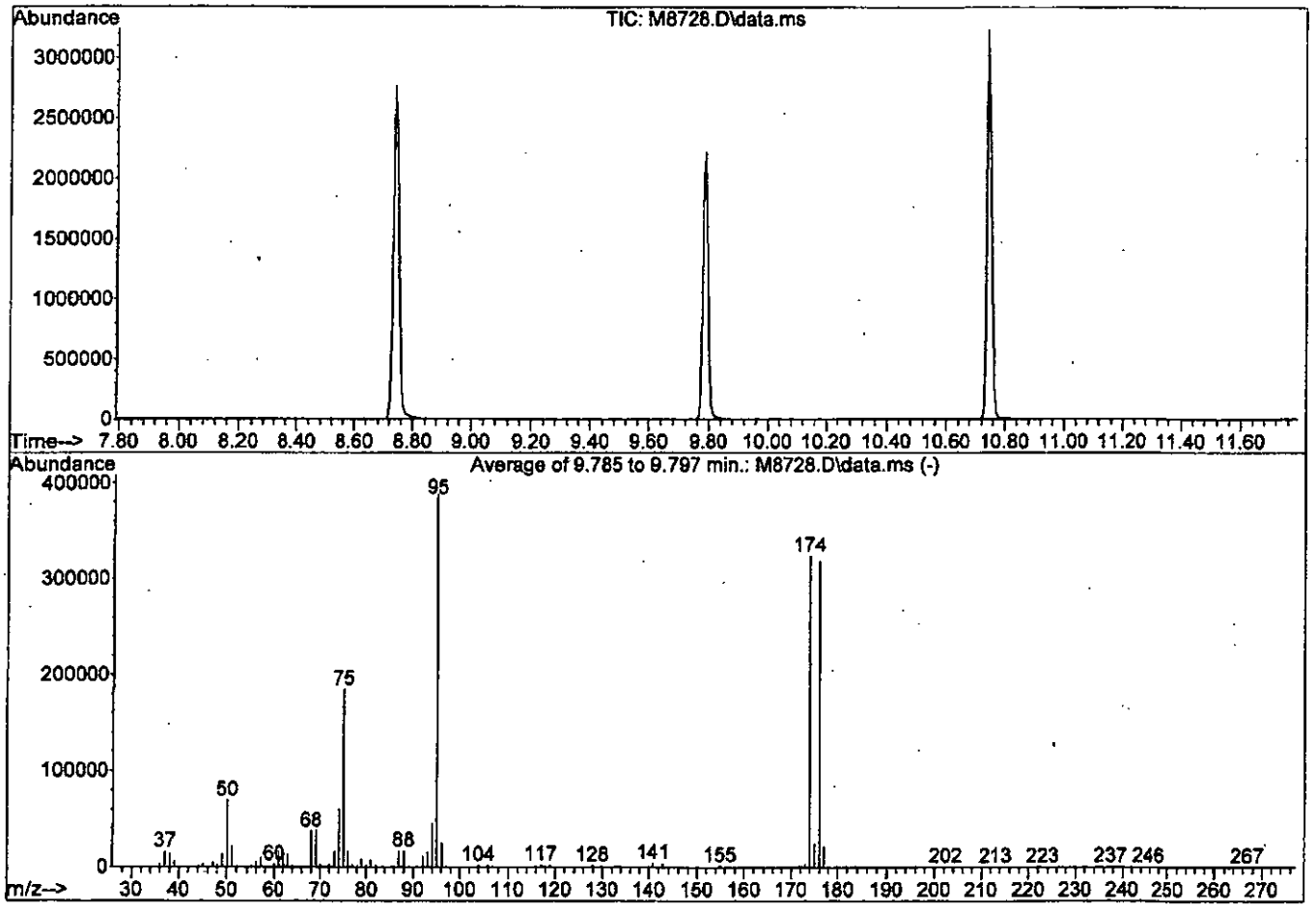
VOLATILE ORGANICS
RAW QC DATA

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

Data Path : I:\ACQUDATA\msvoa12\Data\090914\
Data File : M8728.D
Acq On : 9 Sep 2014 2:37 pm
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Fri Sep 05 08:48:55 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

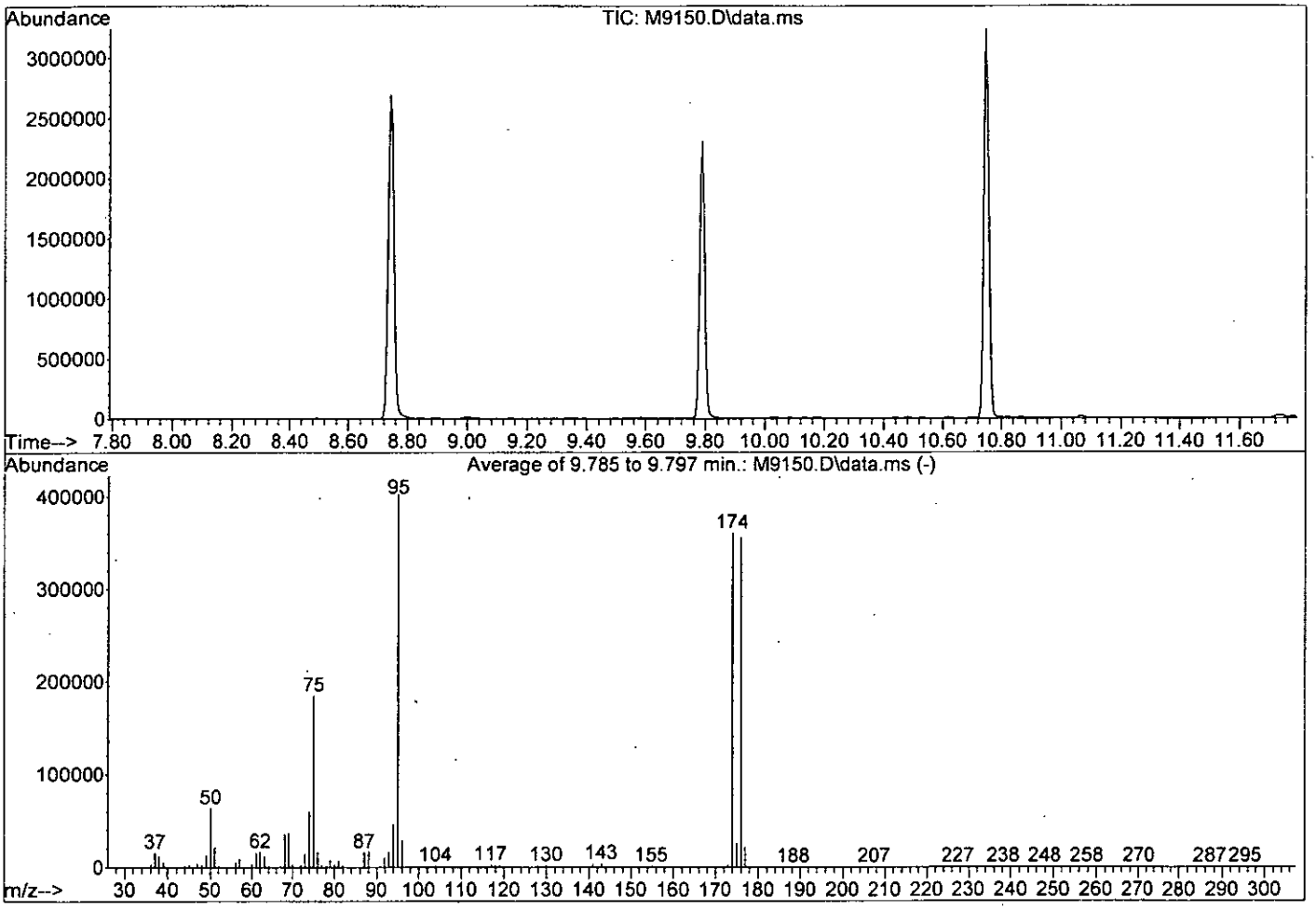
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	69235	PASS
75	95	30	60	47.5	184157	PASS
95	95	100	100	100.0	388011	PASS
96	95	5	9	6.3	24410	PASS
173	174	0.00	2	0.8	2686	PASS
174	95	50	120	83.4	323669	PASS
175	174	5	9	7.1	23053	PASS
176	174	95	101	98.3	318059	PASS
177	176	5	9	6.6	20833	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\092214\
Data File : M9150.D
Acq On : 22 Sep 2014 9:28 pm
Operator : K.Ruest
Sample : TUNE RQ1411227-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: INTP60.P

KF 9/23/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Sep 10 10:41:23 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

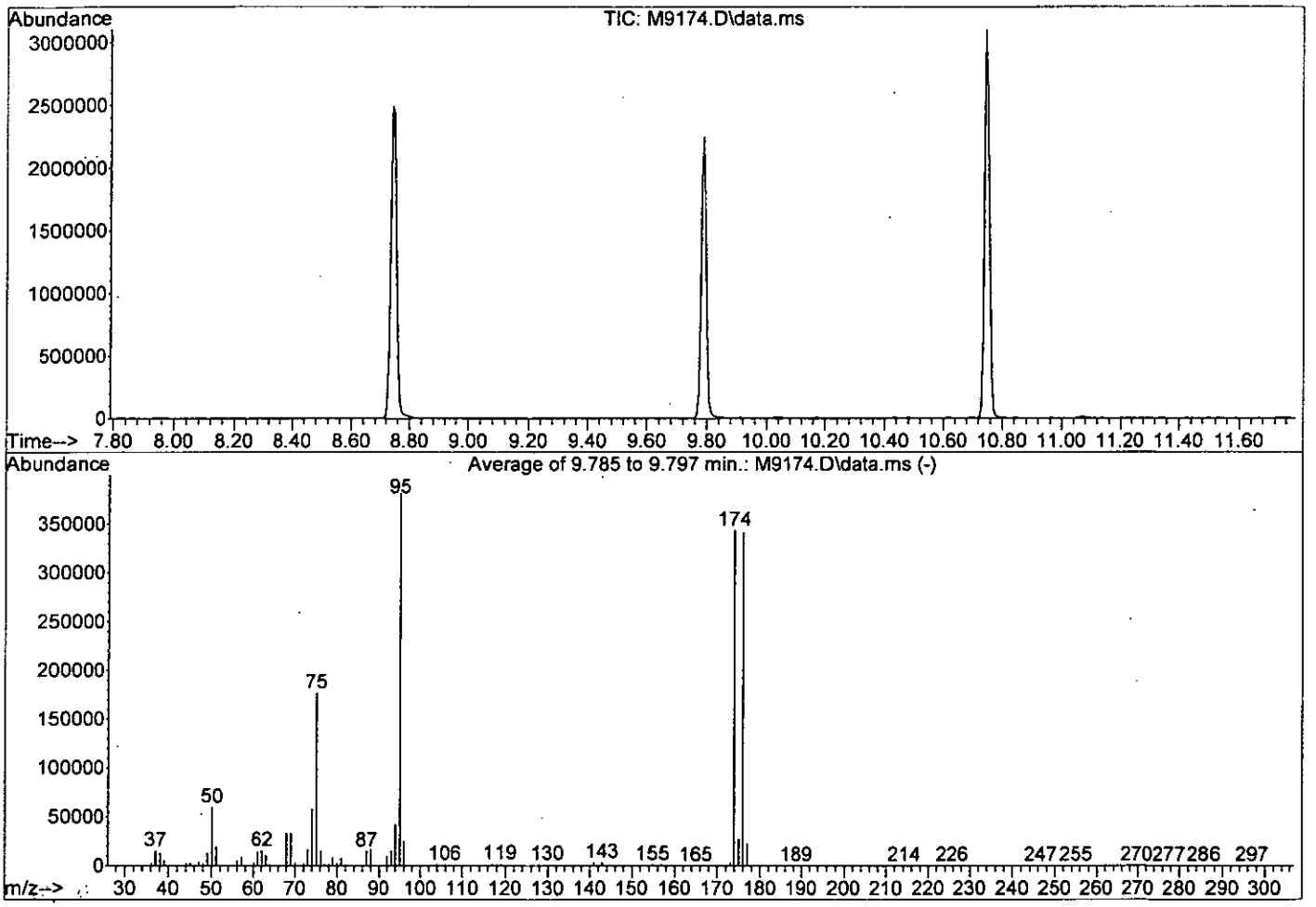
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	63365	PASS
75	95	30	60	45.8	184448	PASS
95	95	100	100	100.0	402389	PASS
96	95	5	9	7.0	28181	PASS
173	174	0.00	2	0.6	2269	PASS
174	95	50	120	89.5	360125	PASS
175	174	5	9	7.0	25059	PASS
176	174	95	101	98.7	355456	PASS
177	176	5	9	6.1	21808	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\092314\
Data File : M9174.D
Acq On : 23 Sep 2014 10:23 am
Operator : K.Ruest
Sample : TUNE RQ1411303-01
Misc :
ALS Vial : 2 Sample Multiplier: 1

KR 9/23/14

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Sep 10 10:41:23 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

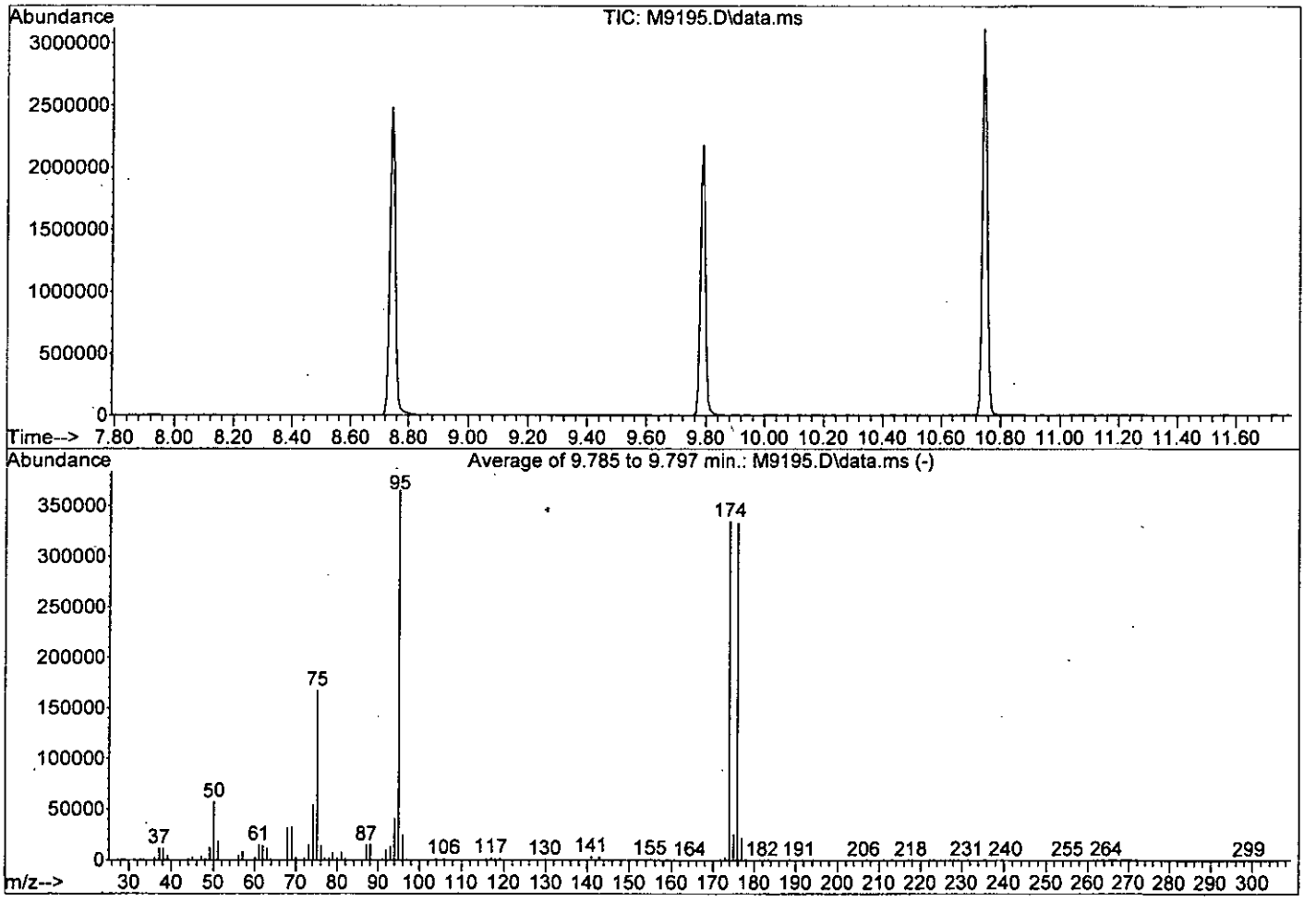
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	59523	PASS
75	95	30	60	46.3	176469	PASS
95	95	100	100	100.0	380949	PASS
96	95	5	9	6.6	25213	PASS
173	174	0.00	2	0.8	2779	PASS
174	95	50	120	90.1	343360	PASS
175	174	5	9	7.8	26952	PASS
176	174	95	101	99.3	341120	PASS
177	176	5	9	6.5	22160	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\092414\
Data File : M9195.D
Acq On : 24 Sep 2014 9:52 am
Operator : K.Ruest
Sample : TUNE RQ1411389-01
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: INTP60.P

KR 9/24/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Sep 10 10:41:23 2014



AutoFind: Scans 1425, 1426, 1427; Background Corrected with Scan 1420

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	57275	PASS
75	95	30	60	45.8	167437	PASS
95	95	100	100	100.0	365653	PASS
96	95	5	9	6.7	24470	PASS
173	174	0.00	2	0.8	2597	PASS
174	95	50	120	91.6	334976	PASS
175	174	5	9	7.5	25277	PASS
176	174	95	101	99.4	333035	PASS
177	176	5	9	6.6	22004	PASS

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/22/14 23:38
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411227-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	9/22/14 23:38	
Dibromofluoromethane	103	89-119	9/22/14 23:38	
Toluene-d8	101	87-121	9/22/14 23:38	

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D
Misc :
Acq On : 22 Sep 2014 11:38 pm
Operator : K.Ruest
InstName : MSVOA-12 RQ 1411277-04

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 23:52:31 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.255	168	904889	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1396077	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1274043	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	667201	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	402172	51.72	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.44%				
48) surr1,1,2-dichloroetha...	4.664	65	393219	46.92	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.84%				
65) SURR3,Toluene-d8	7.322	98	1654976	50.43	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.86%				
70) SURR2,BFB	9.791	95	587947	50.04	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.08%				
Target Compounds							Qvalue
5) Bromomethane	1.512	94	1829	0.31	ppb		90m
~~12) Acrolein~~	~~1.963~~	~~56~~	~~294~~	~~0.53~~	~~ppb~~		~~80~~
~~15) Acetone~~	~~2.073~~	~~43~~	~~377~~	~~0.20~~	~~ppb~~		~~88~~
17) Iodomethane	2.152	142	3467	0.36	ppb		97
~~20) Allyl Chloride~~	~~2.207~~	~~76~~	~~2072~~	~~0.48~~	~~ppb~~	#	~~1~~
~~50) 1,4-Dioxane~~	~~6.395~~	~~88~~	~~228~~	~~3.43~~	~~ppb~~	#	~~22~~
~~90) Cyclohexanone~~	~~9.748~~	~~55~~	~~217~~	~~0.27~~	~~ppb~~		~~91~~
115) 1,2,4-Tcbenzene	12.162	180	4239	0.46	ppb		96m
116) Hexachlorobt	12.266	225	2517	0.69	ppb		89
117) Naphthalen	12.302	128	6671	0.35	ppb		88
118) 1,2,3-Tclbenzene	12.437	180	4235	0.53	ppb		90
119) 2,4,5-Trichlorotolene	12.851	159	1610	0.26	ppb	#	93
120) 2,3,6-Trichlorotoluene	12.912	159	1596	0.26	ppb	#	82

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

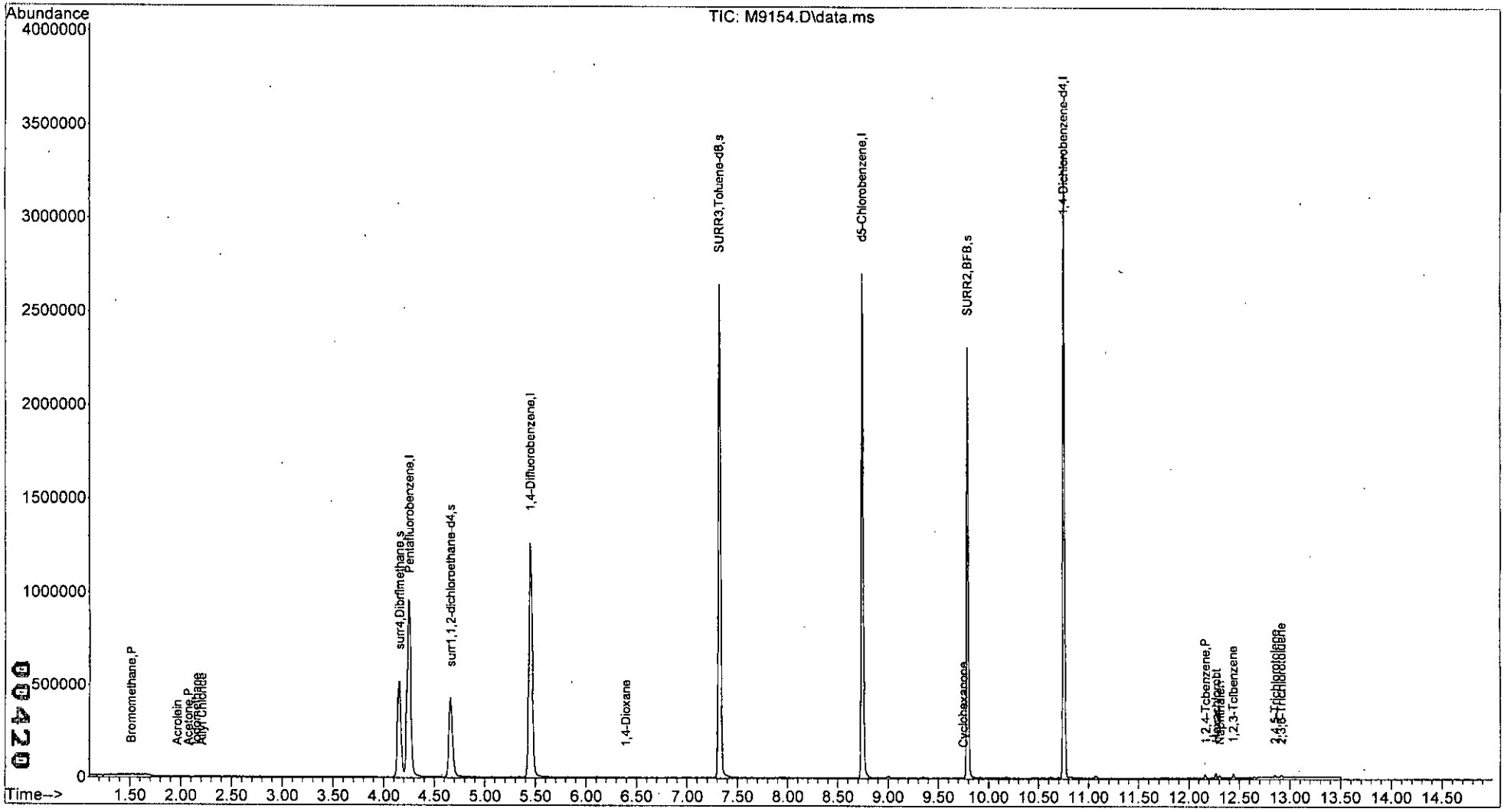
MT 16P

KR 9/24/14

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9154.D
Misc :
Acq On : 22 Sep 2014 11:38 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 23:52:31 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/23/14 12:31
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411303-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9178.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	9/23/14 12:31	
Dibromofluoromethane	101	89-119	9/23/14 12:31	
Toluene-d8	99	87-121	9/23/14 12:31	

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9178.D
Misc :
Acq On : 23 Sep 2014 12:31 pm
Operator : K.Ruest RQ1411303-04
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 12:45:35 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	881572	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1367053	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1226440	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	642144	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	383078	50.31	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.62%				
48) surr1,1,2-dichloroetha...	4.664	65	375944	45.81	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.62%				
65) SURR3,Toluene-d8	7.322	98	1596728	49.69	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.38%				
70) SURR2,BFB	9.791	95	563013	48.93	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.86%				
Target Compounds							Qvalue
5) Bromomethane	1.518	94	3029	0.53	ppb		90
~~12) Acrolein~~	~~1.969~~	~~56~~	~~589~~	~~1.10~~	~~ppb~~	~~#~~	~~15~~
~~15) Acetone~~	~~2.055~~	~~43~~	~~522~~	~~0.29~~	~~ppb~~		~~79~~
17) Iodomethane	2.152	142	4200	0.44	ppb		84
~~20) Allyl Chloride~~	~~2.213~~	~~76~~	~~1914~~	~~0.45~~	~~ppb~~	~~#~~	~~1~~
~~53) 1-Butanol~~	~~5.859~~	~~56~~	~~248~~	~~2.09~~	~~ppb~~	~~#~~	~~23~~
90) Cyclohexanone	9.730	55	706	0.92	ppb		84
112) Trielution Dichlorotol...	11.742	125	5529	0.44	ppb		96
113) 1,3,5 Trichlorobenzene	11.778	180	2259	0.21	ppb	#	94
114) Coelution Dichlorotoluene	11.992	125	5067	0.37	ppb		93
115) 1,2,4-Tcbenzene	12.162	180	2455	0.28	ppb	#	72
116) Hexachlorobt	12.266	225	2115	0.60	ppb		92
117) Naphthalen	12.303	128	5798	0.32	ppb		90
118) 1,2,3-Tclbenzene	12.437	180	3162	0.41	ppb		85
119) 2,4,5-Trichlorotolene	12.851	159	6324	1.05	ppb	#	87
120) 2,3,6-Trichlorotoluene	12.851	159	6324	1.07	ppb		92

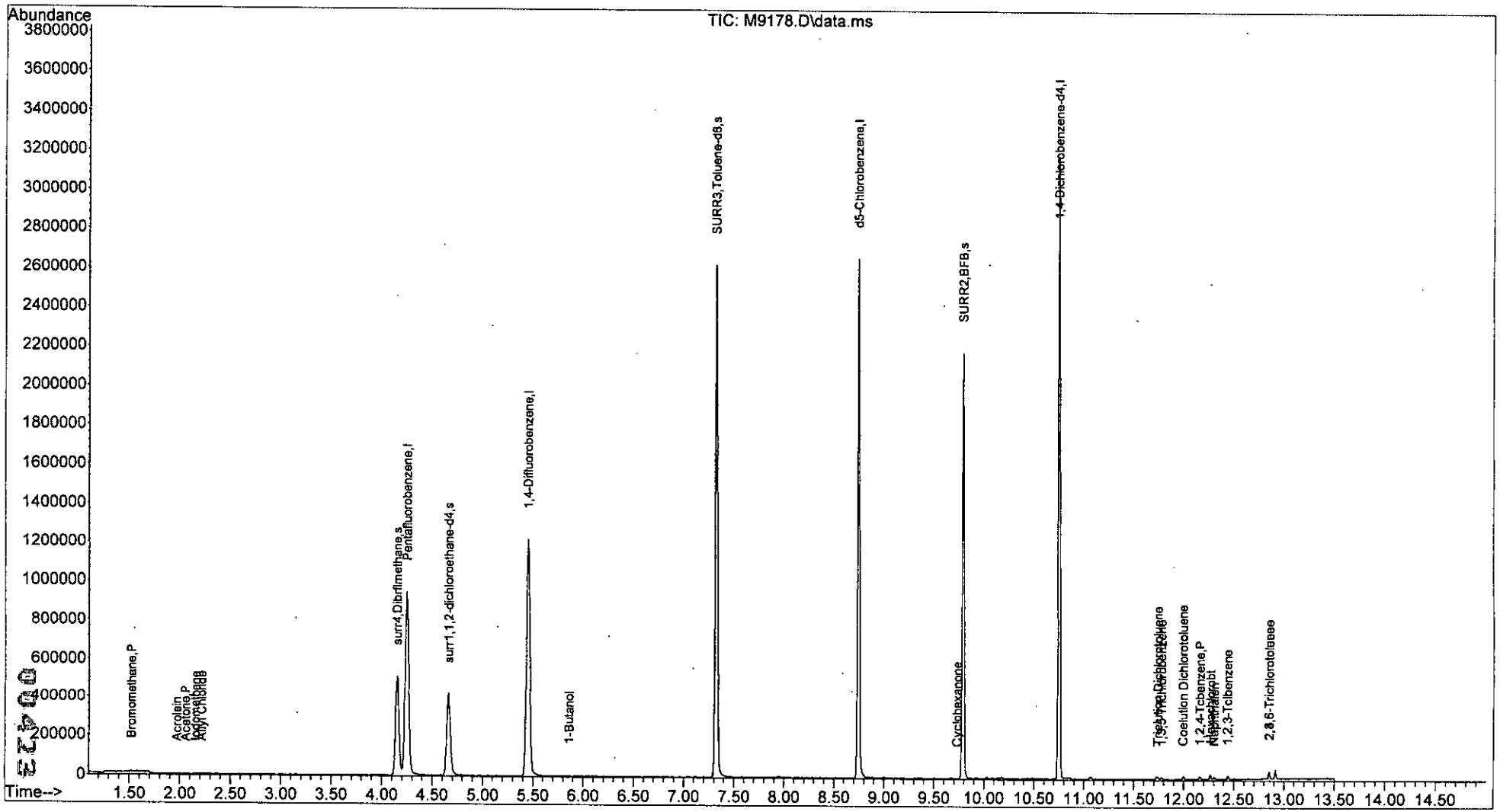
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 9/23/14

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\092314\M9178.D
Misc :
Acq On : 23 Sep 2014 12:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 12:45:35 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



W090914.M Tue Sep 23 12:45:39 2014

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/24/14 12:01
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1411389-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9199.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	9/24/14 12:01	
Dibromofluoromethane	102	89-119	9/24/14 12:01	
Toluene-d8	101	87-121	9/24/14 12:01	

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9199.D
Misc :
Acq On : 24 Sep 2014 12:01 pm
Operator : K.Ruest
InstName : MSVOA-12 RQ 1411389-04

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 12:16:20 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	867272	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1307566	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1191821	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	617847	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	371831	51.05	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.10%				
48) surr1,1,2-dichloroetha...	4.664	65	363385	46.29	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.58%				
65) SURR3,Toluene-d8	7.322	98	1547184	50.34	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.68%				
70) SURR2,BFB	9.791	95	536066	48.71	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.42%				
Target Compounds							Qvalue
~~5) Bromomethane~~	~~1.512~~	~~94~~	~~4407~~	~~0.78~~	~~ppb~~		~~91~~
~~12) Acrolein~~	~~2.048~~	~~56~~	~~217~~	~~0.41~~	~~ppb~~		~~98~~
17) Iodomethane	2.146	142	2025	0.22	ppb		90
~~19) Acetonitrile~~	~~2.268~~	~~40~~	~~607~~	~~2.52~~	~~ppb~~	~~#~~	~~1~~
~~89) Tetrahydrofuran~~	~~3.900~~	~~42~~	~~300~~	~~0.21~~	~~ppb~~		~~77~~
90) Cyclohexanone	9.730	55	623	0.85	ppb		95
112) Trielution Dichlorotol...	11.735	125	5914	0.48	ppb	#	86
114) Coelution Dichlorotoluene	11.998	125	4638	0.36	ppb	#	85
115) 1,2,4-Tcbenzene	12.162	180	2830	0.33	ppb	#	79
116) Hexachlorobt	12.266	225	2218	0.65	ppb		80
117) Naphthalen	12.302	128	4920	0.28	ppb		92
118) 1,2,3-Tclbenzene	12.443	180	2531	0.34	ppb		86
119) 2,4,5-Trichlorotolene	12.857	159	6147	1.06	ppb	#	82
120) 2,3,6-Trichlorotoluene	12.918	159	5489	0.96	ppb	#	80

OK MT/SP MT/SP MT

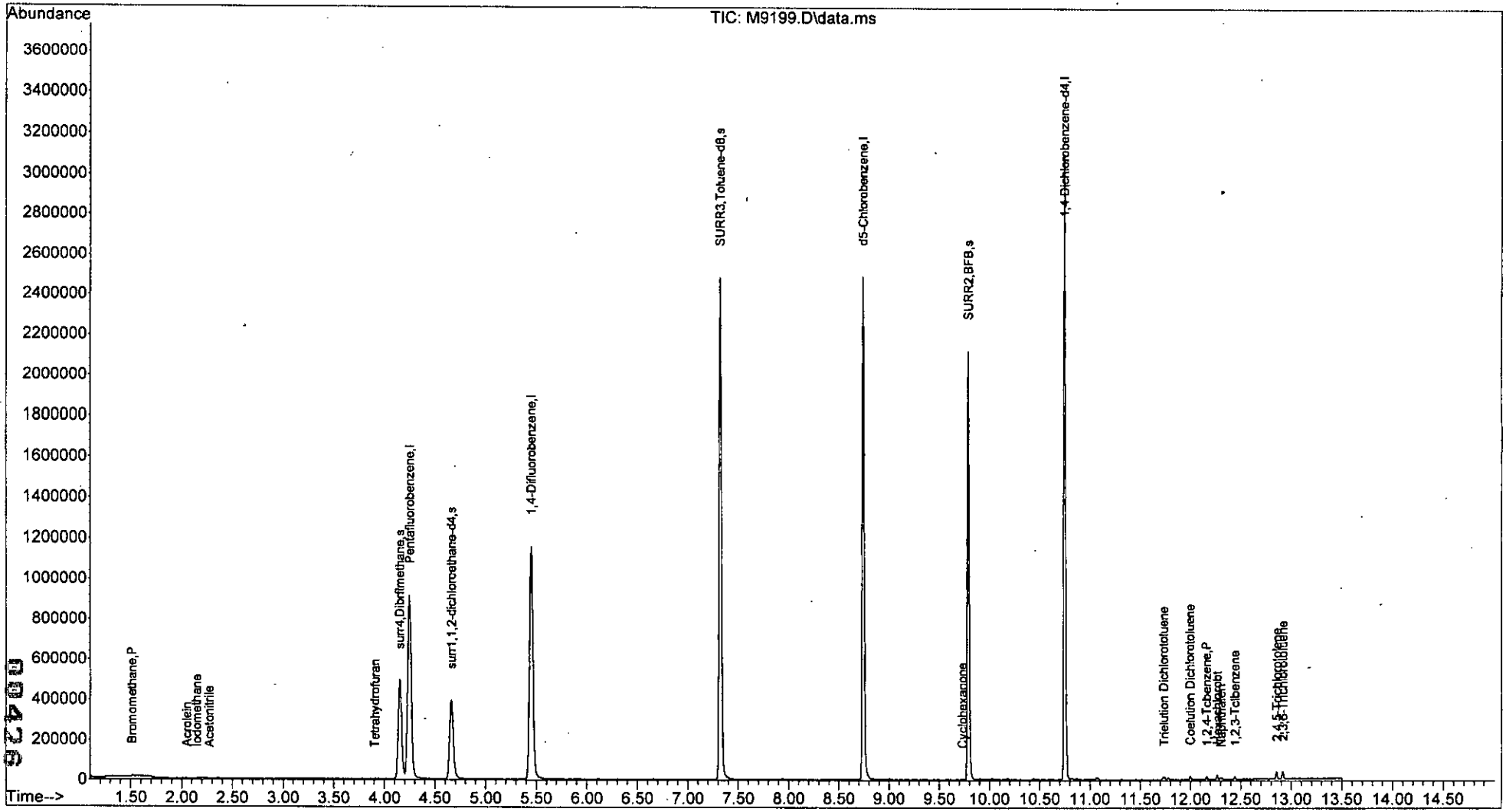
KR 9/26/14

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

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\092414\M9199.D
Misc :
Acq On : 24 Sep 2014 12:01 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 12:16:20 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/22/14 22:33
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1411227-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**21.2**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**18.7**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**23.0**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**23.4**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**24.7**		5.0	0.22	
75-01-4	Vinyl Chloride	**18.1**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**20.2**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**21.3**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/22/14 22:33	
Dibromofluoromethane	102	89-119	9/22/14 22:33	
Toluene-d8	101	87-121	9/22/14 22:33	

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D
Misc :
Acq On : 22 Sep 2014 10:33 pm
Operator : K.Ruest
InstName : MSVOA-12 RQ1411277-03

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:48:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	923289	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1401608	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1272101	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	685017	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	396677	50.81	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.62%				
48) surr1,1,2-dichloroetha...	4.664	65	396615	47.14	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 94.28%				
65) SURR3,Toluene-d8	7.322	98	1660138	50.39	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.78%				
70) SURR2,BFB	9.791	95	597151	50.62	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	187803	20.96	ppb		98
3) Chloromethane	1.262	50	147916	15.14	ppb		96
4) Vinyl Chloride	1.323	62	186807	18.07	ppb		97
5) Bromomethane	1.512	94	84842	14.12	ppb		95
6) Chloroethane	1.567	64	101529	17.56	ppb		99
7) Freon 21	1.664	67	269321	17.62	ppb		98
8) Trichlorofluoromethane	1.719	101	242210	19.53	ppb		99
9) Diethyl Ether	1.884	59	118707	19.86	ppb		92
10) Freon 123a	1.871	67	191438	19.68	ppb		85
11) Freon 123	1.902	83	213306	19.84	ppb		97
12) Acrolein	1.957	56	21980	39.03	ppb		89
13) 1,1-Diclethene	2.042	96	151521	23.03	ppb		96
14) Freon 113	2.036	101	155246	20.28	ppb		99
15) Acetone	2.048	43	34603	18.22	ppb		92
16) 2-Propanol	2.115	45	105483	348.78	ppb		99
17) Iodomethane	2.146	142	141100	14.24	ppb		98
18) Carbon Disulfide	2.207	76	497636	19.97	ppb		98
19) Acetonitrile	2.225	40	21306	83.10	ppb		92
20) Allyl Chloride	2.280	76	85169	19.20	ppb	#	81
21) Methyl Acetate	2.274	43	65246	16.86	ppb		97
22) Methylene Chloride	2.359	84	166203	19.65	ppb	#	86
23) TBA	2.408	59	190571	375.43	ppb		98
24) Acrylonitrile	2.524	53	171757	94.91	ppb		98
25) Methyl-t-Butyl Ether	2.579	73	409839	21.86	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	174696	21.30	ppb		91
28) 1,1-Diclethane	2.944	63	272802	18.65	ppb		97
29) Vinyl Acetate	2.981	86	14426	12.36	ppb	#	67
31) 2-Chloro-1,3-Butadiene	3.042	53	243154	17.09	ppb		93
33) 2,2-Dichloropropane	3.554	77	217823	18.85	ppb		98
34) cis-1,2-Dichloroethene	3.548	96	186460	20.24	ppb		86
35) 2-Butanone	3.548	43	43082	17.35	ppb		95
36) Propionitrile	3.597	54	63560	94.95	ppb		99
37) Bromochloromethane	3.834	130	113290	22.24	ppb	#	85
38) Methacrylonitrile	3.810	67	45735	21.43	ppb	#	62
39) Tetrahydrofuran	3.914	42	25725	16.55	ppb		80

KR 9/23/14

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D
Misc :
Acq On : 22 Sep 2014 10:33 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:48:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	Chloroform	3.938	83	303061	20.32	ppb		97
41)	1,1,1-Trichloroethane	4.212	97	261983	21.22	ppb		95
44)	Cyclohexane	4.316	41	118749	16.38	ppb		94
46)	Carbontetrachloride	4.468	121	68612	21.73	ppb		87
47)	1,1-Dichloropropene	4.462	75	215626	21.18	ppb		93
49)	Benzene	4.785	78	686335	21.58	ppb		93
50)	1,2-Dichloroethane	4.792	62	192445	20.34	ppb		96
51)	Iso-Butyl Alcohol	4.639	43	73377	348.76	ppb		95
52)	n-Heptane	5.334	43	141277	17.62	ppb		93
~~53)~~	~~1-Butanol~~	~~5.852~~	~~56~~	~~468~~	~~3.86~~	~~ppb~~	~~#~~	~~72~~
54)	Trichloroethene	5.834	130	209021	24.69	ppb		97
55)	Methylcyclohexane	6.108	55	166447	19.13	ppb		83
56)	1,2-Diclpropane	6.114	63	164024	20.46	ppb		97
57)	Dibromomethane	6.255	93	85092	21.91	ppb		89
58)	1,4-Dioxane	6.316	88	20872 7072	~~105.91~~	ppb		90
59)	Methyl Methacrylate	6.334	69	78637	21.35	ppb		90
60)	Bromodichloromethane	6.480	83	212869	21.45	ppb		99
61)	2-Nitropropane	6.742	41	40109	40.70	ppb		97
62)	2-Chloroethylvinyl Ether	6.883	63	76447	21.19	ppb		93
63)	cis-1,3-Dichloropropene	7.023	75	253641	21.88	ppb		95
64)	4-Methyl-2-pentanone	7.218	43	91935	19.36	ppb		97
66)	Toluene	7.395	91	769544	22.25	ppb		98
67)	trans-1,3-Dichloropropene	7.632	75	215869	22.86	ppb		99
68)	Ethyl Methacrylate	7.767	69	163033	21.96	ppb		93
69)	1,1,2-Trichloroethane	7.809	97	132071	22.64	ppb		95
72)	Tetrachloroethene	7.962	164	152286	23.37	ppb		93
73)	2-Hexanone	8.090	43	64867	18.17	ppb		96
74)	1,3-Dichloropropane	7.974	76	224326	20.71	ppb		94
75)	Dibromochloromethane	8.193	129	157169	23.96	ppb		97
76)	N-Butyl Acetate	8.242	43	147890	19.82	ppb		87
77)	1,2-Dibromoethane	8.291	107	125804	22.98	ppb		94
78)	Chlorobenzene	8.773	112	513282	22.76	ppb		96
81)	1,1,1,2-Tetrachloroethane	8.852	131	168710	21.82	ppb		99
82)	Ethylbenzene	8.888	106	248422	20.97	ppb		98
83)	(m+p)Xylene	8.998	106	673060	46.89	ppb		93
84)	o-Xylene	9.346	106	325263	23.29	ppb		97
85)	Styrene	9.358	104	527282	23.03	ppb		98
87)	Bromoform	9.498	173	91176	24.42	ppb		91
89)	Isopropylbenzene	9.675	105	795375	22.65	ppb		100
90)	Cyclohexanone	9.717	55	246279	302.13	ppb		98
91)	trans-1,4-Dichloro-2-B...	9.961	53	28682	16.42	ppb		91
92)	1,1,2,2-Tetrachloroethane	9.913	83	133465	18.93	ppb		95
93)	Bromobenzene	9.913	156	208500	23.12	ppb		92
94)	1,2,3-Trichloropropane	9.943	110	45694	22.34	ppb	#	83
95)	n-Propylbenzene	10.022	91	905289	22.05	ppb		98
96)	2-Chlorotoluene	10.083	91	531007	21.32	ppb		98
~~97)~~	~~3-Chlorotoluene~~	~~10.175~~	~~91~~	~~644585~~	~~24.12~~	~~ppb~~		~~96~~
98)	4-Chlorotoluene	10.175	91	642493	22.19	ppb		99
99)	1,3,5-Trimethylbenzene	10.175	105	654440	23.32	ppb		97
100)	tert-Butylbenzene	10.443	119	555659	23.60	ppb		99
101)	1,2,4-Trimethylbenzene	10.479	105	659029	22.76	ppb		99
103)	sec-Butylbenzene	10.620	105	775497	22.67	ppb		97

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D
Misc :
Acq On : 22 Sep 2014 10:33 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:48:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
104) p-Isopropyltoluene	10.742	119	675524	23.68 ppb		97
105) 1,3-Dclbenz	10.699	146	396154	23.27 ppb		96
106) 1,4-Dclbenz	10.772	146	410837	23.35 ppb		97
109) n-Butylbenzene	11.065	91	573825	22.16 ppb		99
110) 1,2-Dclbenz	11.065	146	366437	22.53 ppb		96
111) 1,2-Dibromo-3-chloropr...	11.626	157	30319	24.35 ppb		95
112) Trielution Dichlorotol...	11.735	125	4438	0.33 ppb	#	90
115) 1,2,4-Tcbenzene	12.162	180	230376	24.25 ppb		98
116) Hexachlorobt	12.266	225	94473	25.14 ppb		95
117) Naphthalen	12.302	128	498002	25.62 ppb		98
118) 1,2,3-Tclbenzene	12.436	180	204310	24.82 ppb		98
119) 2,4,5-Trichlorotolene	12.851	159	3433	0.53 ppb		96
120) 2,3,6-Trichlorotoluene	12.851	159	3433	0.54 ppb		96

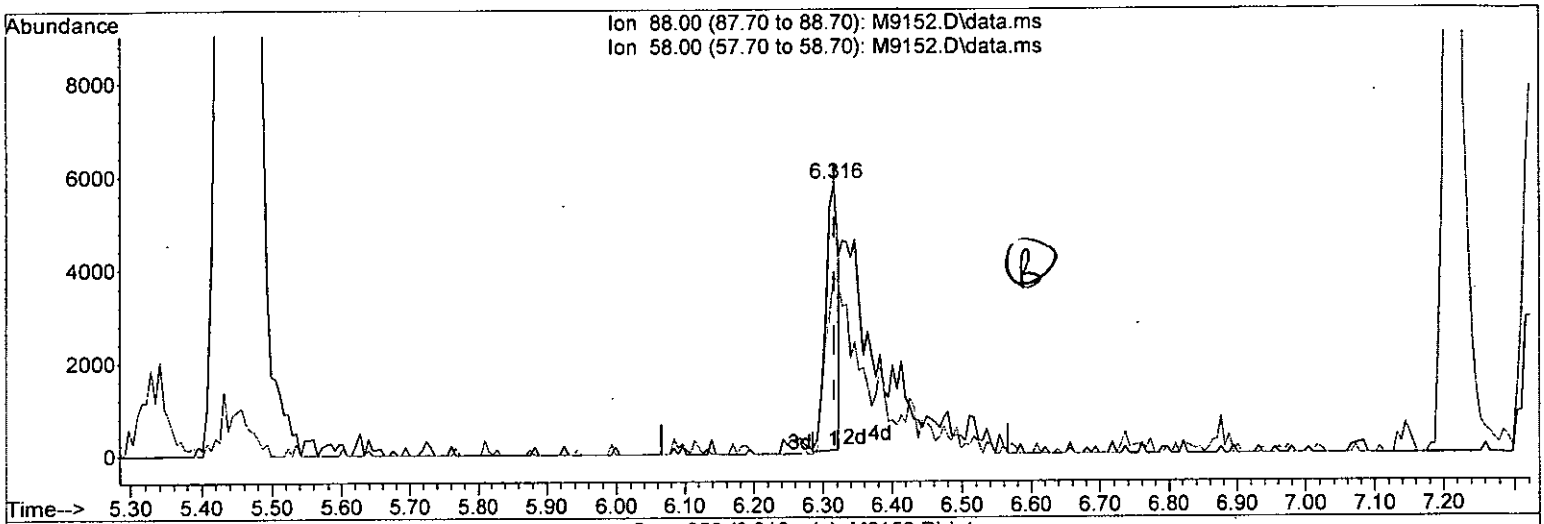
M/WP

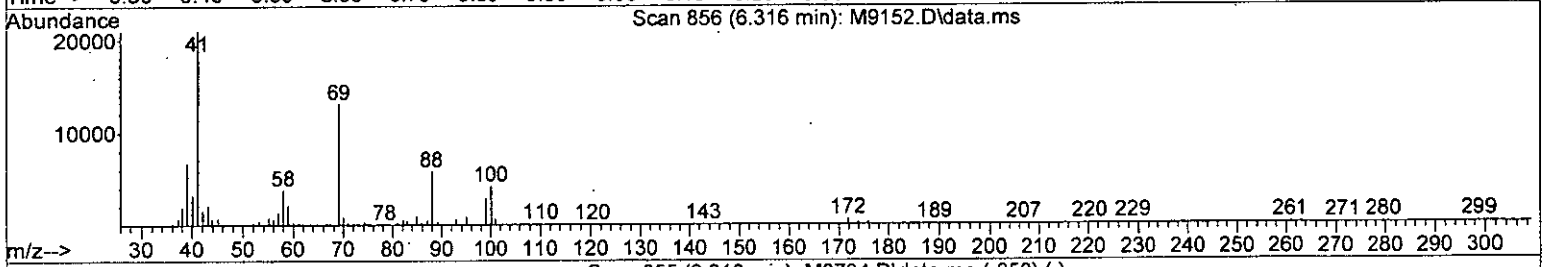
(#) = qualifier out of range (m) = manual integration (+) = signals summed

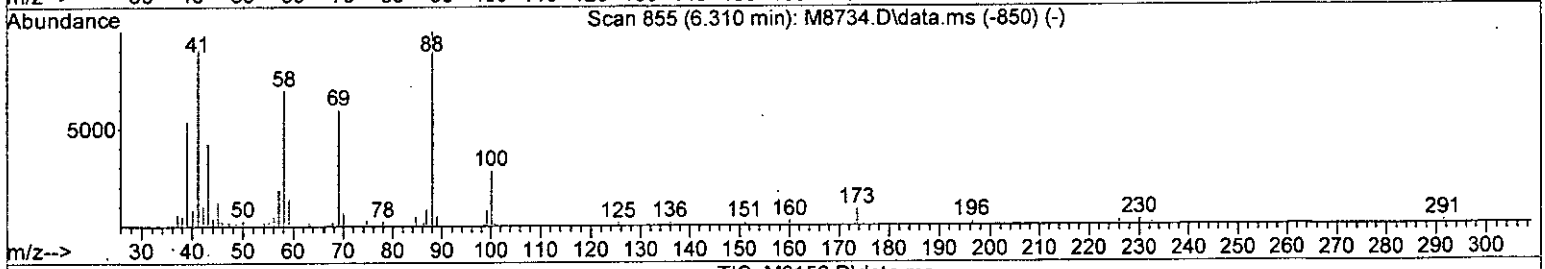
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9152.D
Misc :
Acq On : 22 Sep 2014 10:33 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:48:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9152.D\data.ms

(58) 1,4-Dioxane

6.316min (-0.000) 105.91 ppb

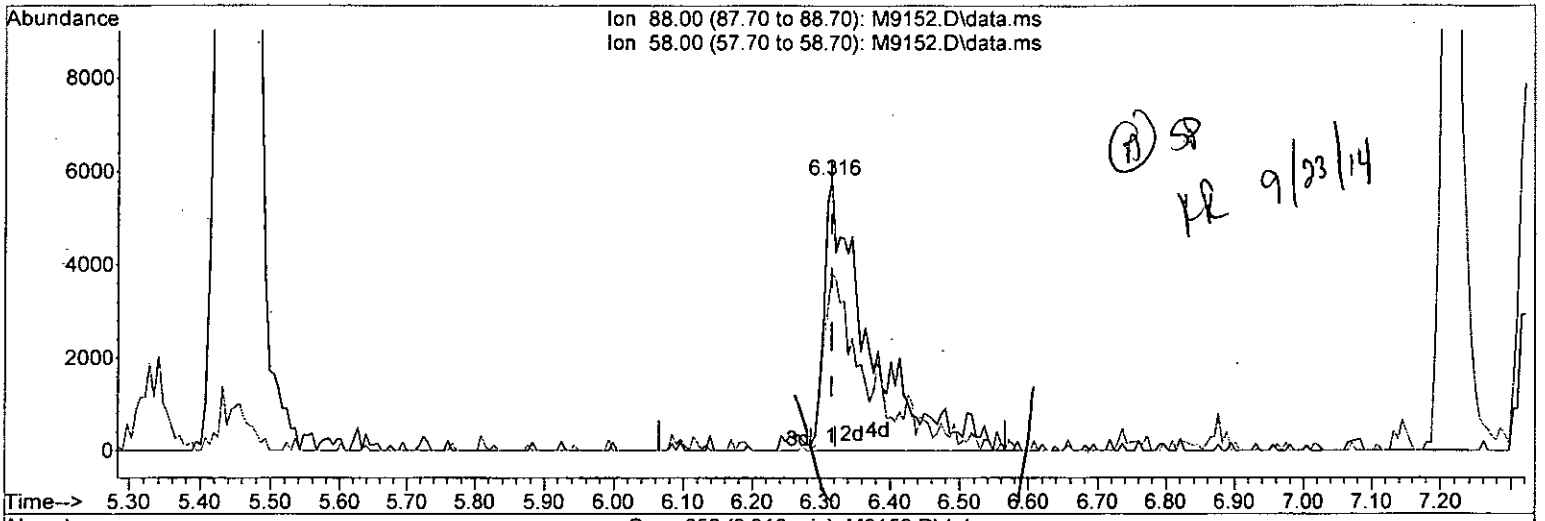
response 7072

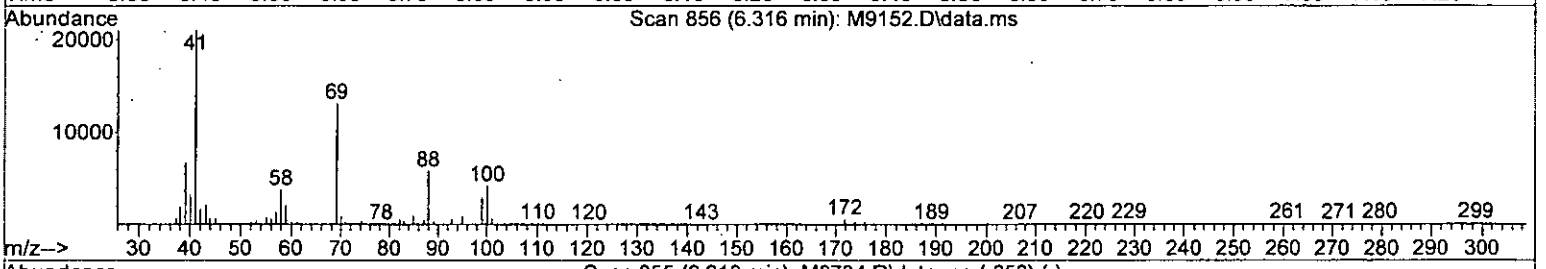
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	65.30
0.00	0.00	0.00
0.00	0.00	0.00

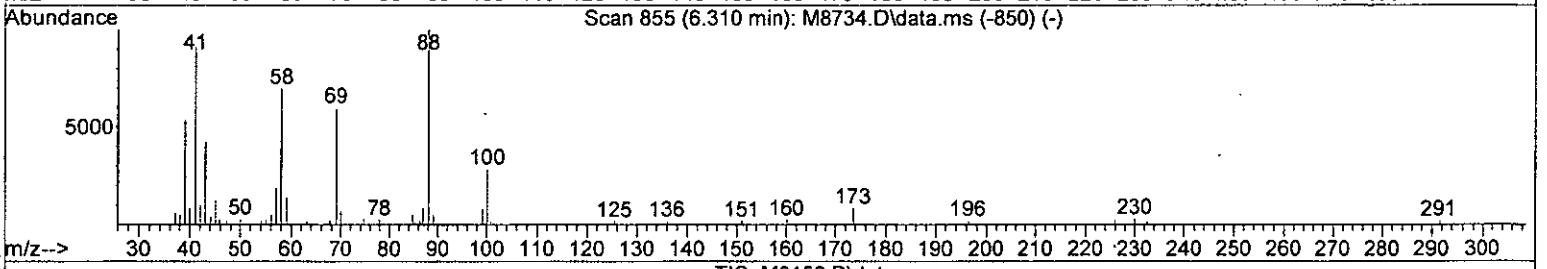
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9152.D
Misc :
Acq On : 22 Sep 2014 10:33 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:48:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9152.D\data.ms

(58) 1,4-Dioxane

6.316min (-0.000) 402.75 ppb m

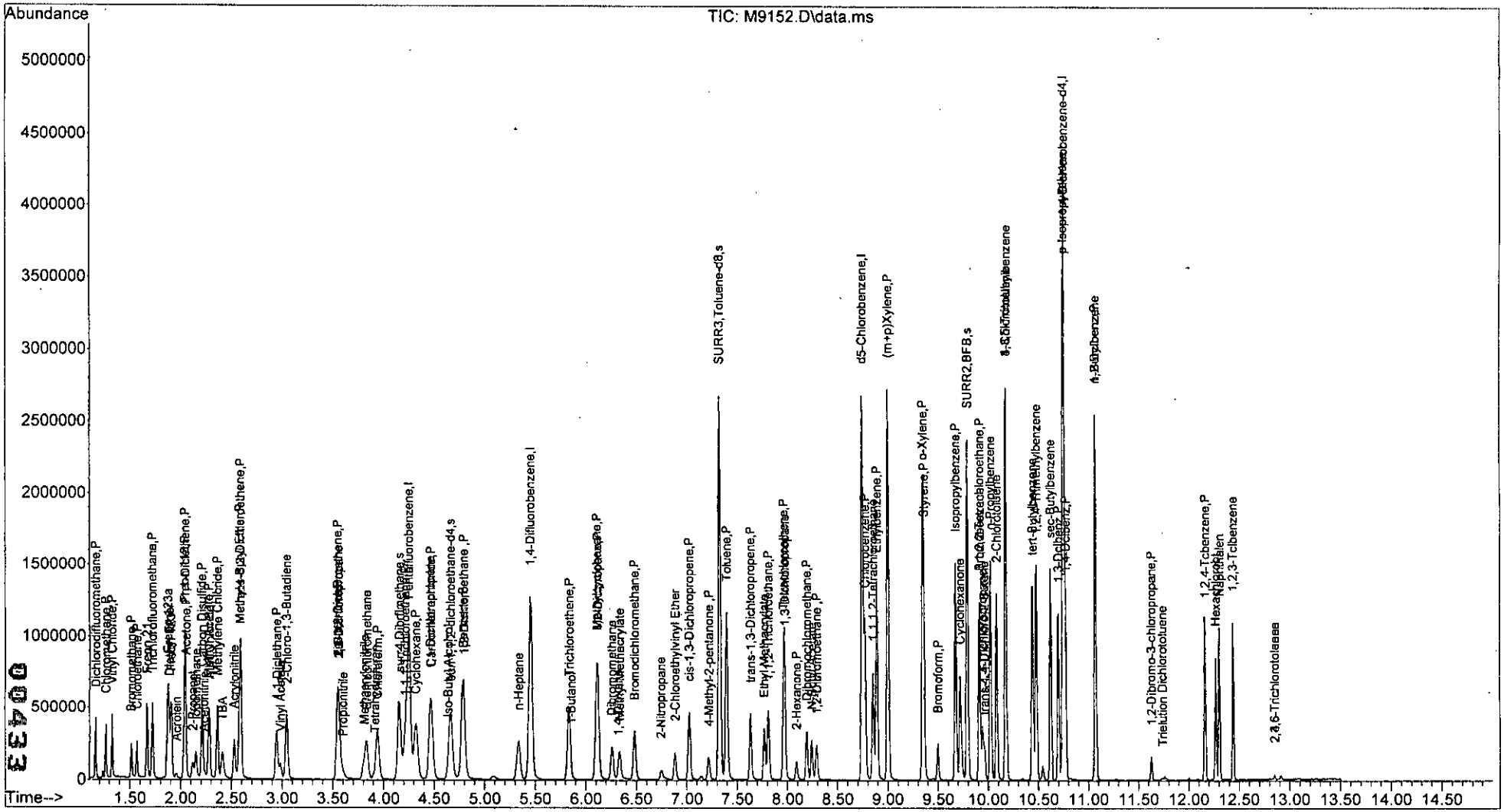
response 26892

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	65.30
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9152.D
Misc :
Acq On : 22 Sep 2014 10:33 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 22 22:48:00 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/23/14 11:27
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1411303-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412669
Data File Name:	I:\ACQUDATA\msvoa12\Data\092314\M9176.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**20.4**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**18.5**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**22.6**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**23.0**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**22.1**		5.0	0.22	
75-01-4	Vinyl Chloride	**16.9**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**19.8**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**20.6**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/23/14 11:27	
Dibromofluoromethane	100	89-119	9/23/14 11:27	
Toluene-d8	101	87-121	9/23/14 11:27	

Quantitation Report (QT Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12 PQ 1411303-03

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:44:52 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	900420	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1365703	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1244438	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	676465	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	380737	50.05	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.10%				
48) surr1,1,2-dichloroetha...	4.664	65	373235	45.52	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.04%				
65) SURR3,Toluene-d8	7.322	98	1618692	50.42	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.84%				
70) SURR2,BFB	9.791	95	568050	49.42	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.84%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	177821	20.35	ppb		98
3) Chloromethane	1.262	50	133240	13.98	ppb		98
4) Vinyl Chloride	1.323	62	170109	16.87	ppb		100
5) Bromomethane	1.512	94	105931	18.08	ppb		96
6) Chloroethane	1.567	64	98800	17.53	ppb		97
7) Freon 21	1.664	67	249757	16.75	ppb		99
8) Trichlorofluoromethane	1.719	101	224340	18.55	ppb		96
9) Diethyl Ether	1.884	59	106478	18.27	ppb		94
10) Freon 123a	1.871	67	163746	17.26	ppb		82
11) Freon 123	1.902	83	201812	19.25	ppb		96
12) Acrolein	1.957	56	14585m	26.56	ppb		
13) 1,1-Diclethene	2.042	96	145081	22.61	ppb		90
14) Freon 113	2.036	101	145121	19.44	ppb		95
15) Acetone	2.054	43	29098	15.71	ppb		99
16) 2-Propanol	2.134	45	95451	323.63	ppb		91
17) Iodomethane	2.146	142	118493	12.27	ppb		98
18) Carbon Disulfide	2.207	76	479941	19.75	ppb		99
19) Acetonitrile	2.237	40	17324	69.28	ppb	#	77
20) Allyl Chloride	2.280	76	80059	18.50	ppb	#	88
21) Methyl Acetate	2.280	43	53223	14.11	ppb		91
22) Methylene Chloride	2.359	84	159575	19.35	ppb	#	87
23) TBA	2.420	59	170053	343.52	ppb		98
24) Acrylonitrile	2.524	53	146233	82.86	ppb		95
25) Methyl-t-Butyl Ether	2.585	73	382170	20.91	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	164878	20.61	ppb	#	84
28) 1,1-Diclethane	2.938	63	263435	18.47	ppb		99
29) Vinyl Acetate	2.981	86	25226	22.17	ppb	#	73
30) DIPE	3.018	45	377497	13.98	ppb		98
31) 2-Chloro-1,3-Butadiene	3.042	53	239431	17.25	ppb		88
32) ETBE	3.402	59	369922	15.54	ppb		95
33) 2,2-Dichloropropane	3.560	77	230026	20.41	ppb		95
34) cis-1,2-Dichloroethene	3.548	96	177655	19.77	ppb		87
35) 2-Butanone	3.548	43	37662	15.55	ppb		92
36) Propionitrile	3.597	54	57767	88.49	ppb		92
37) Bromochloromethane	3.835	130	104997	21.13	ppb	#	82

KP 9/23/14

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:44:52 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.804	67	38543	18.51	ppb		94
39) Tetrahydrofuran	3.920	42	23513	15.51	ppb		77
40) Chloroform	3.938	83	273973	18.84	ppb		99
41) 1,1,1-Trichloroethane	4.213	97	245778	20.41	ppb		98
42) TAME	5.029	73	336789	16.55	ppb		95
44) Cyclohexane	4.322	41	105200	14.89	ppb		86
46) Carbontetrachloride	4.475	121	64809	21.07	ppb		88
47) 1,1-Dichloropropene	4.469	75	203494	20.52	ppb		99
49) Benzene	4.779	78	640952	20.68	ppb		94
50) 1,2-Dichloroethane	4.786	62	180406	19.57	ppb		97
51) Iso-Butyl Alcohol	4.658	43	60715	296.17	ppb		98
52) n-Heptane	5.328	43	138813	17.77	ppb		94
53) 1-Butanol	5.798	56	109068	922.24	ppb		87
54) Trichloroethene	5.834	130	182586	22.14	ppb		94
55) Methylcyclohexane	6.108	55	150954	17.80	ppb	#	79
56) 1,2-Diclpropane	6.115	63	155167	19.86	ppb		99
57) Dibromomethane	6.261	93	82668	21.85	ppb		87
58) 1,4-Dioxane	6.328	88	27225m	418.46	ppb		
59) Methyl Methacrylate	6.328	69	74295	20.70	ppb		92
60) Bromodichloromethane	6.480	83	202106	20.91	ppb		98
61) 2-Nitropropane	6.742	41	35219	36.68	ppb		98
62) 2-Chloroethylvinyl Ether	6.877	63	67923	19.32	ppb		96
63) cis-1,3-Dichloropropene	7.023	75	238407	21.11	ppb		97
64) 4-Methyl-2-pentanone	7.218	43	80429	17.38	ppb		93
66) Toluene	7.395	91	731603	21.71	ppb		98
67) trans-1,3-Dichloropropene	7.633	75	194522	21.14	ppb		92
68) Ethyl Methacrylate	7.767	69	148394	20.52	ppb		98
69) 1,1,2-Trichloroethane	7.809	97	123091	21.65	ppb		99
72) Tetrachloroethene	7.962	164	146436	22.97	ppb		99
73) 2-Hexanone	8.090	43	59936	17.16	ppb		94
74) 1,3-Dichloropropane	7.974	76	207565	19.58	ppb		94
75) Dibromochloromethane	8.193	129	143786	22.41	ppb		94
76) N-Butyl Acetate	8.242	43	129069	17.77	ppb		86
77) 1,2-Dibromoethane	8.291	107	117180	21.88	ppb		89
78) Chlorobenzene	8.773	112	491866	22.30	ppb		94
79) 3-CBTF	8.785	180	261581	23.99	ppb		96
80) 4-CBTF	8.840	180	231574	22.11	ppb		96
81) 1,1,1,2-Tetrachloroethane	8.852	131	166743	22.04	ppb		96
82) Ethylbenzene	8.888	106	235758	20.34	ppb		98
83) (m+p)Xylene	8.998	106	632519	45.04	ppb		95
84) o-Xylene	9.346	106	309357	22.64	ppb		97
85) Styrene	9.358	104	502481	22.44	ppb		95
87) Bromoform	9.498	173	79495	21.56	ppb		97
88) 2-CBTF	9.577	180	250407	22.81	ppb		98
89) Isopropylbenzene	9.675	105	751954	21.69	ppb		99
90) Cyclohexanone	9.724	55	218696	271.68	ppb		100
91) trans-1,4-Dichloro-2-B...	9.961	53	17834	10.34	ppb		90
92) 1,1,2,2-Tetrachloroethane	9.913	83	139042	19.97	ppb		96
93) Bromobenzene	9.913	156	199935	22.45	ppb		94
94) 1,2,3-Trichloropropane	9.943	110	40331	19.97	ppb	#	88
95) n-Propylbenzene	10.022	91	858449	21.17	ppb		97
96) 2-Chlorotoluene	10.083	91	498954	20.28	ppb		99

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:44:52 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

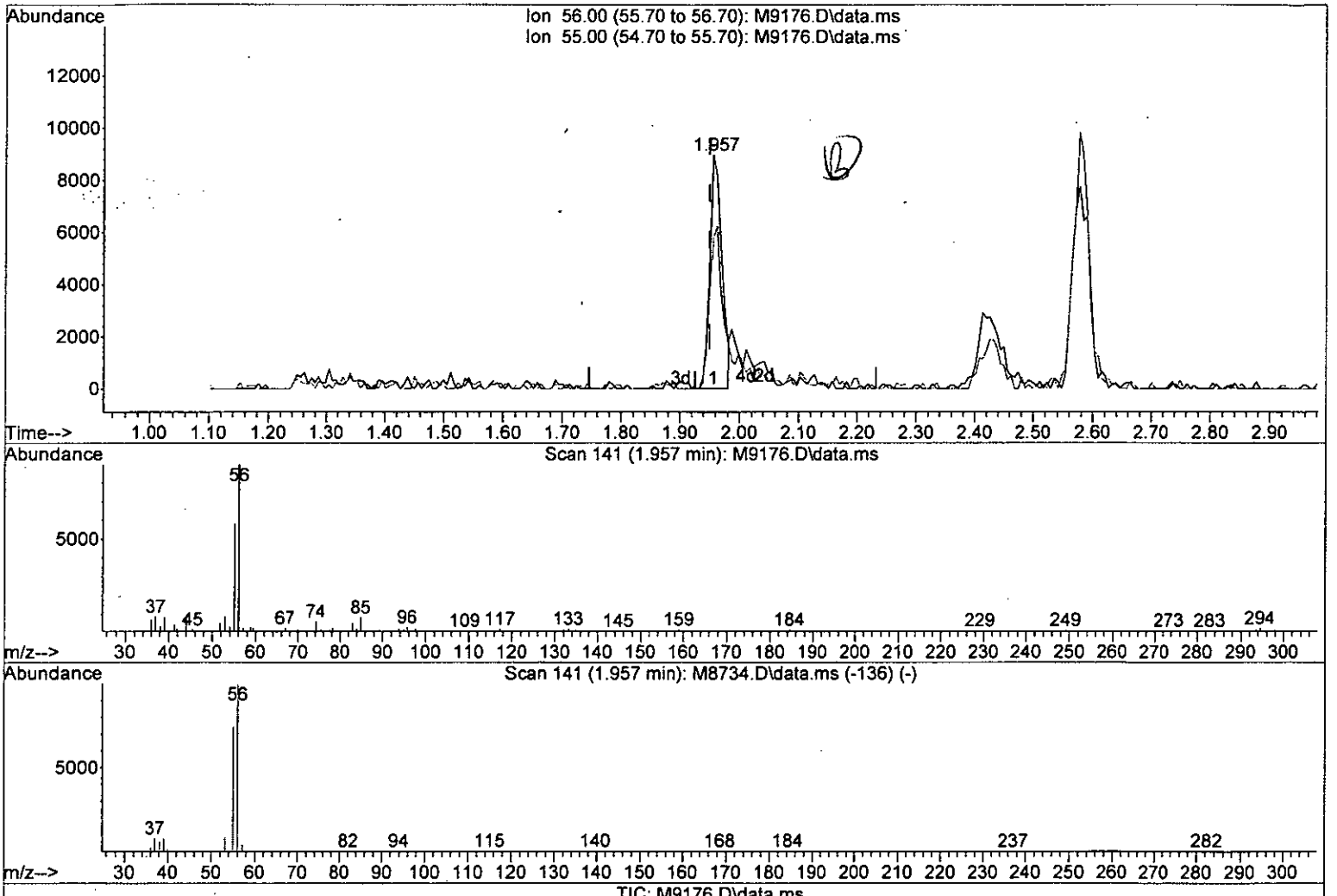
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	527267	19.98	ppb	94
98)	4-Chlorotoluene	10.175	91	608015	21.26	ppb	96
99)	1,3,5-Trimethylbenzene	10.175	105	613600	22.14	ppb	99
100)	tert-Butylbenzene	10.437	119	523717	22.53	ppb	98
101)	1,2,4-Trimethylbenzene	10.480	105	626063	21.90	ppb	97
102)	3,4-DCBTF	10.534	214	172251	22.04	ppb	99
103)	sec-Butylbenzene	10.620	105	720818	21.34	ppb	98
104)	p-Isopropyltoluene	10.742	119	654809	23.24	ppb	98
105)	1,3-Dclbenz	10.693	146	377608	22.46	ppb	95
106)	1,4-Dclbenz	10.766	146	393868	22.67	ppb	97
107)	2,4-DCBTF	10.821	214	152330	22.51	ppb	93
108)	2,5-DCBTF	10.864	214	179150	23.29	ppb	97
109)	n-Butylbenzene	11.065	91	547224	21.40	ppb	99
110)	1,2-Dclbenz	11.065	146	352439	21.94	ppb	97
111)	1,2-Dibromo-3-chloropr...	11.626	157	26671	21.69	ppb	92
112)	Trielution Dichlorotol...	11.729	125	900792	67.47	ppb	96
113)	1,3,5 Trichlorobenzene	11.778	180	255880	22.32	ppb	99
114)	Coelution Dichlorotoluene	11.998	125	645803	45.26	ppb	97
115)	1,2,4-Tcbenzene	12.156	180	230034	24.52	ppb	98
116)	Hexachlorobt	12.266	225	96920	26.12	ppb	96
117)	Naphthalen	12.302	128	462200	24.08	ppb	99
118)	1,2,3-Tclbenzene	12.437	180	197303	24.28	ppb	94
119)	2,4,5-Trichlorotolene	12.851	159	155976	24.57	ppb	99
120)	2,3,6-Trichlorotoluene	12.912	159	155080	24.88	ppb	99

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

Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:41:13 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



TIC: M9176.D\data.ms

(12) Acrolein

1.957min (+0.006) 22.52 ppb

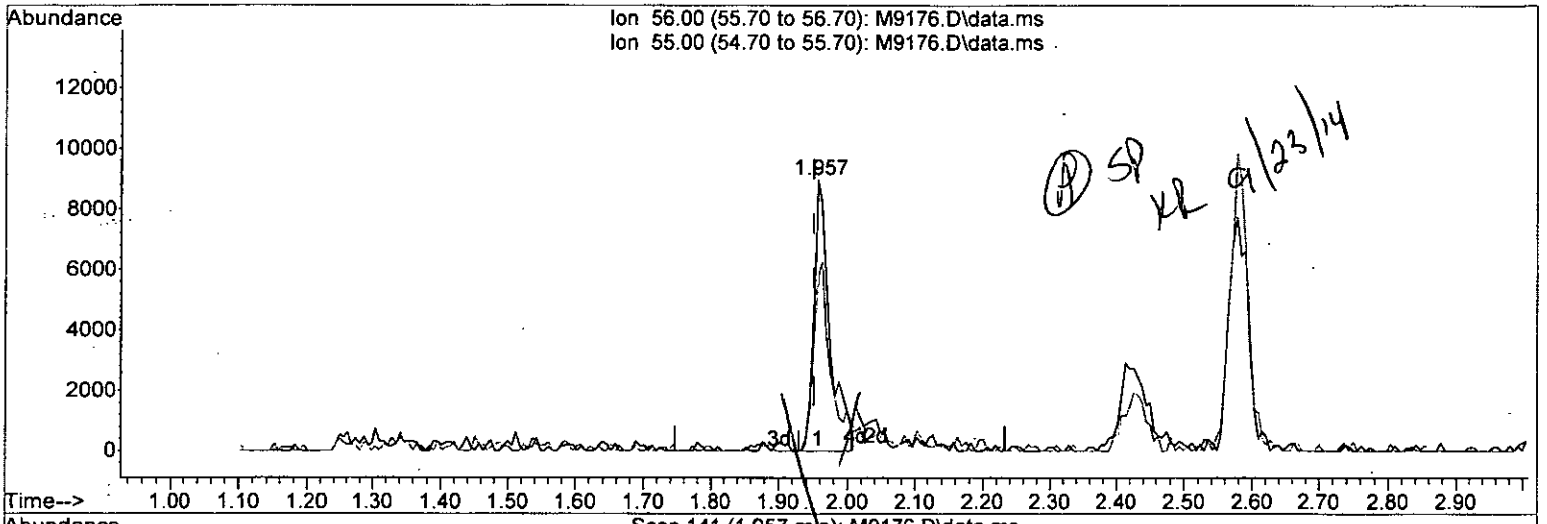
response 12366

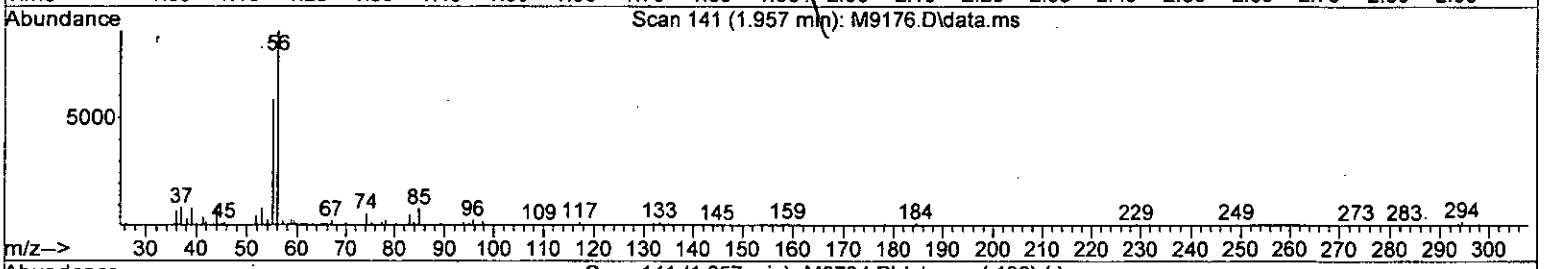
Ion	Exp%	Act%
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55.00	70.20	64.61
0.00	0.00	0.00
0.00	0.00	0.00

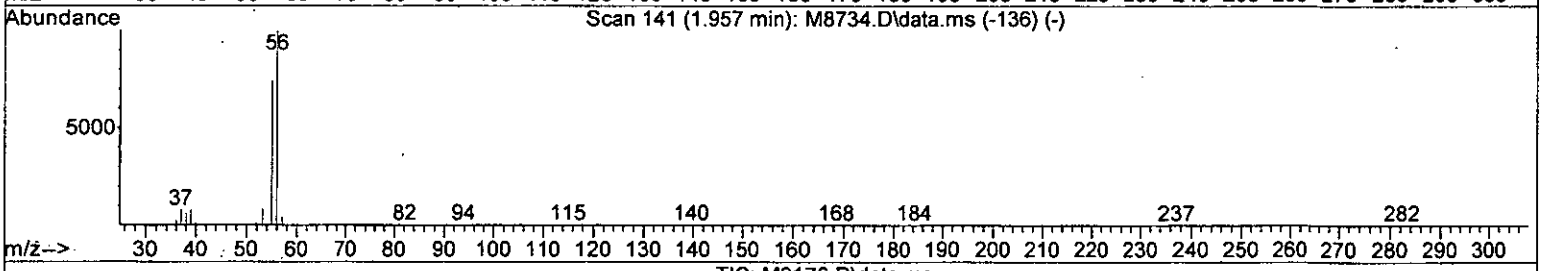
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:41:13 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9176.D\data.ms

(12) Acrolein

1.957min (+0.006) 26.56 ppb m

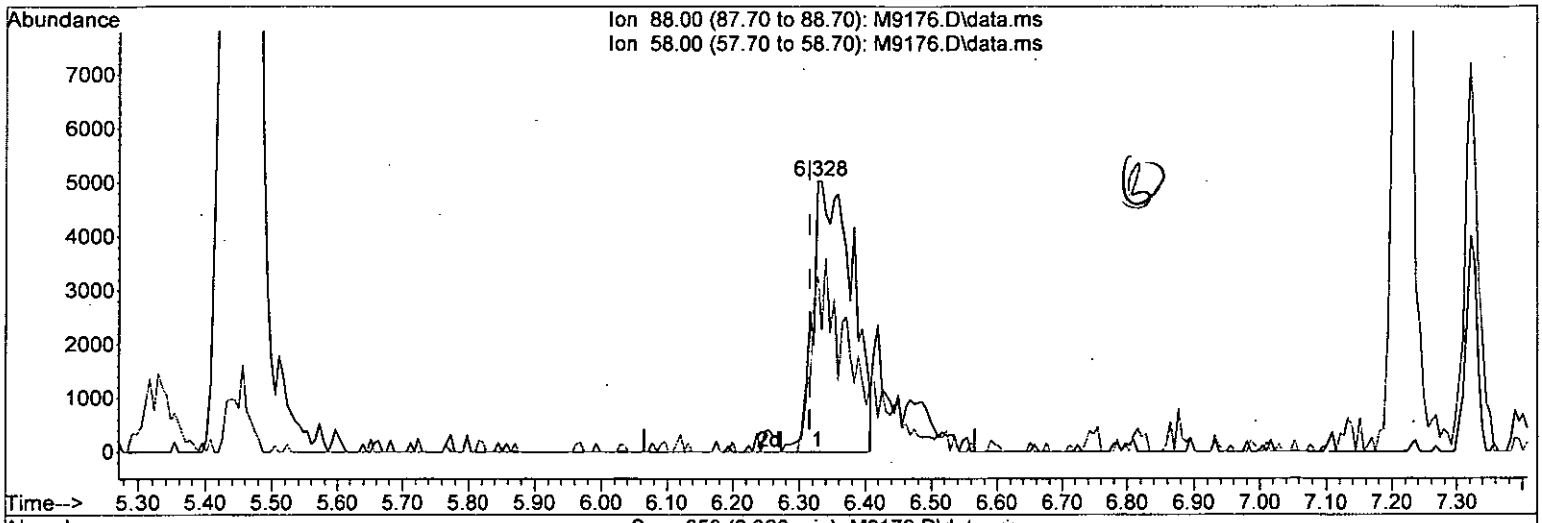
response 14585

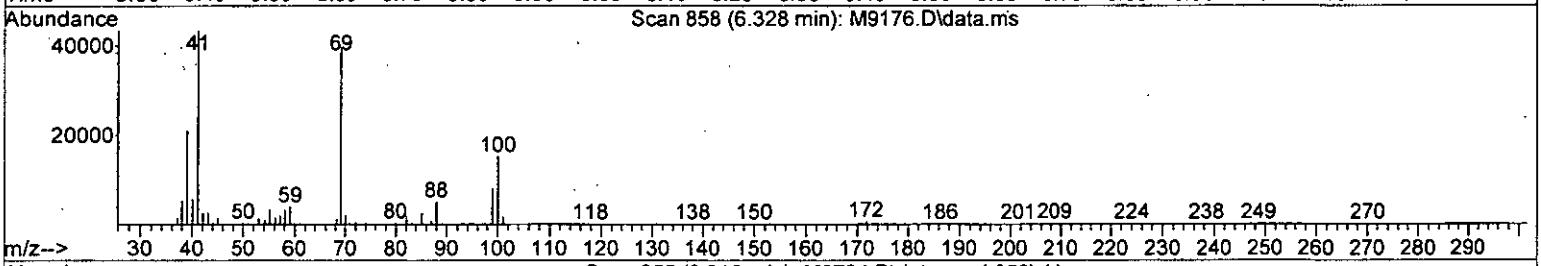
Ion	Exp%	Act%
56.00	100	100
55.00	70.20	64.61
0.00	0.00	0.00
0.00	0.00	0.00

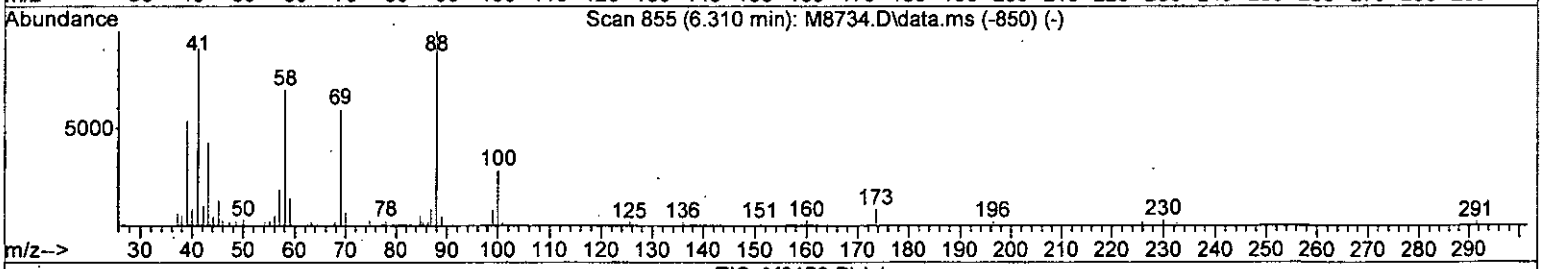
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:41:13 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9176.D\data.ms

(58) 1,4-Dioxane

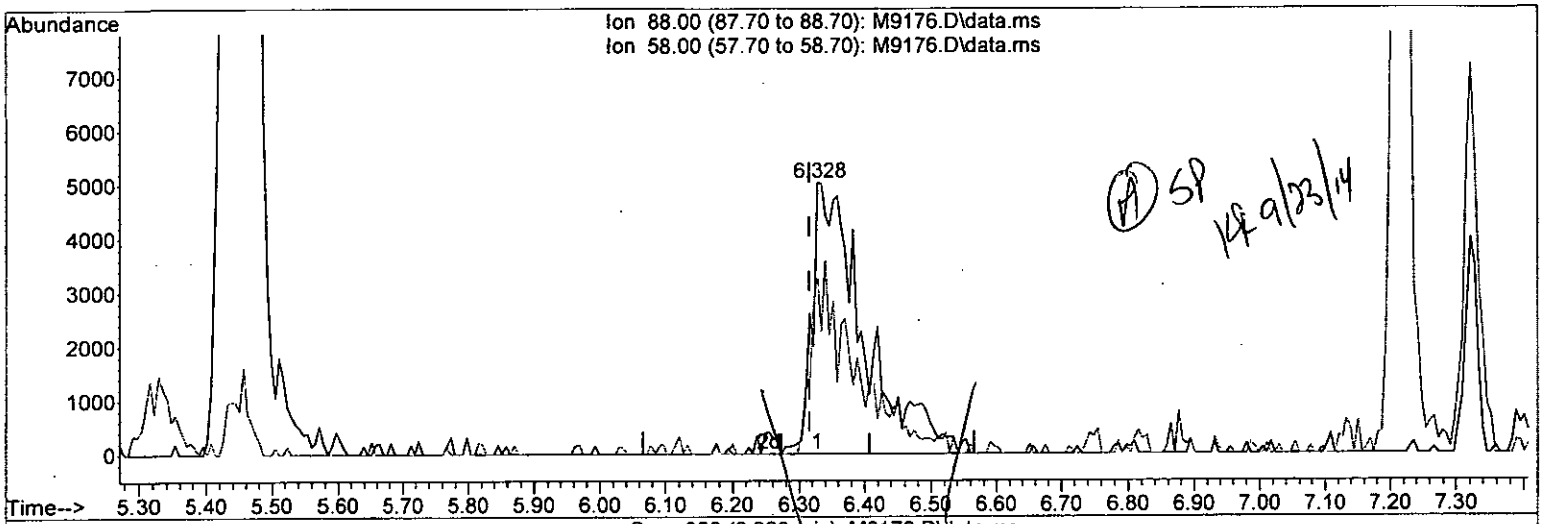
6.328min (+0.012) 318.16 ppb

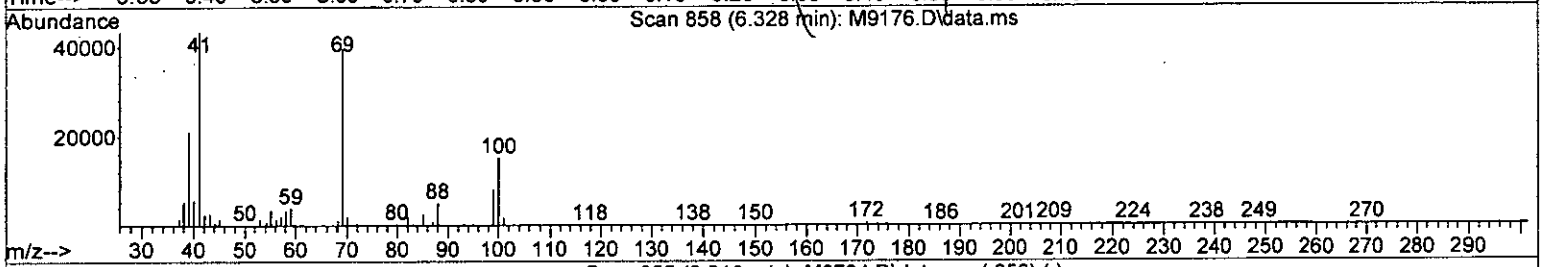
response 20700

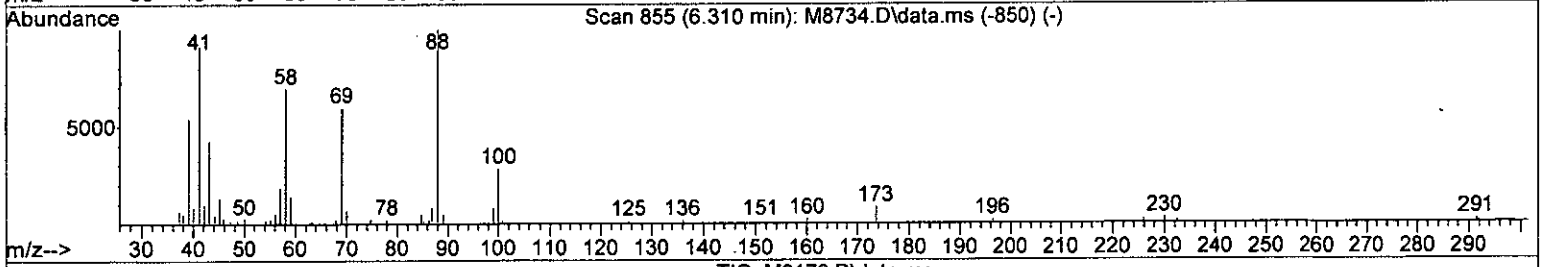
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	64.59
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:41:13 2014
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Response via : Initial Calibration







TIC: M9176.D\data.ms

(58) 1,4-Dioxane

6.328min (+0.012) 418.46 ppb m

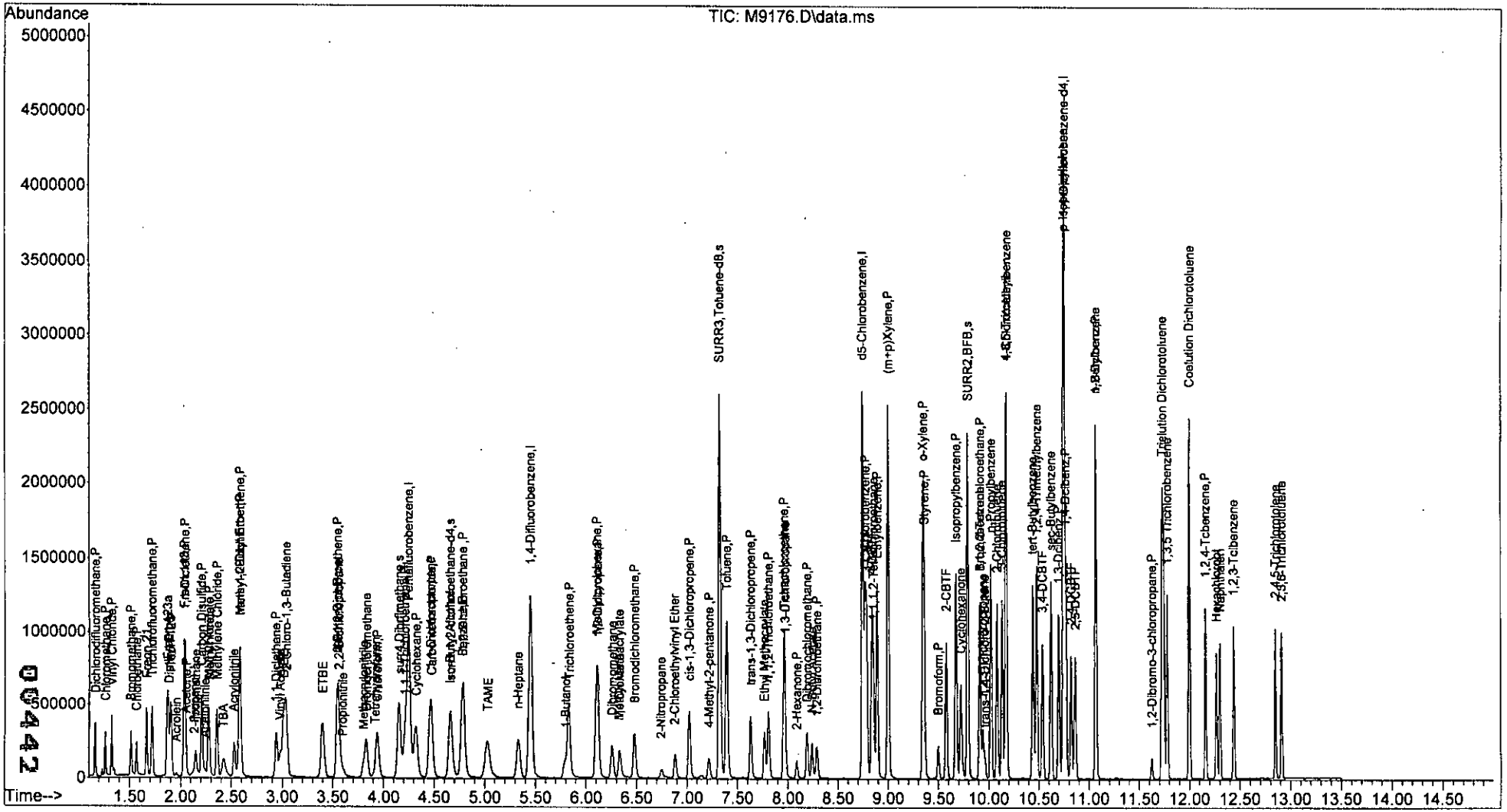
response 27225

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	64.59
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092314\M9176.D
Misc :
Acq On : 23 Sep 2014 11:27 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 11:44:52 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/24/14 10:56
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1411389-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analytical Method:	8260C	**Analysis Lot:**	412923
Data File Name:	I:\ACQUDATA\msvoa12\Data\092414\M9197.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**20.1**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**17.9**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**22.6**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**22.6**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**22.8**		5.0	0.22	
75-01-4	Vinyl Chloride	**17.0**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**20.1**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**20.1**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/24/14 10:56	
Dibromofluoromethane	101	89-119	9/24/14 10:56	
Toluene-d8	100	87-121	9/24/14 10:56	

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12 RQ1411389-03

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:13:31 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

KR 9/24/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	871705	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1328436	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1205369	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	653848	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	372566	50.35	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.70%				
48) surr1,1,2-dichloroetha...	4.664	65	367880	46.13	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 92.26%				
65) SURR3,Toluene-d8	7.322	98	1567889	50.21	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.42%				
70) SURR2,BFB	9.791	95	567007	50.71	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.42%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	187431	22.16	ppb		98
3) Chloromethane	1.256	50	128242	13.90	ppb		97
4) Vinyl Chloride	1.323	62	166144	17.02	ppb		96
5) Bromomethane	1.512	94	88962	15.68	ppb		98
6) Chloroethane	1.567	64	91304	16.73	ppb		98
7) Freon 21	1.664	67	237316	16.44	ppb		98
8) Trichlorofluoromethane	1.719	101	227389	19.42	ppb		96
9) Diethyl Ether	1.878	59	101695	18.02	ppb		94
10) Freon 123a	1.866	67	162799	17.72	ppb		90
11) Freon 123	1.902	83	188191	18.54	ppb		93
12) Acrolein	1.957	56	9454m	17.78	ppb		
13) 1,1-Diclethene	2.036	96	140070	22.55	ppb		97
14) Freon 113	2.036	101	142664	19.74	ppb		96
15) Acetone	2.055	43	29839	16.64	ppb		89
16) 2-Propanol	2.158	45	97733m	342.28	ppb		
17) Iodomethane	2.146	142	116947m	12.51	ppb		
18) Carbon Disulfide	2.207	76	435362	18.50	ppb		99
19) Acetonitrile	2.250	40	12193	50.37	ppb		97
20) Allyl Chloride	2.274	76	77994	18.62	ppb	#	84
21) Methyl Acetate	2.280	43	55241	15.12	ppb		93
22) Methylene Chloride	2.359	84	148063	18.54	ppb	#	85
23) TBA	2.433	59	169086	352.82	ppb		99
24) Acrylonitrile	2.530	53	149961	87.77	ppb		96
25) Methyl-t-Butyl Ether	2.585	73	358154	20.24	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	155846	20.12	ppb	#	88
28) 1,1-Diclethane	2.939	63	246487	17.85	ppb		98
29) Vinyl Acetate	2.981	86	22739	20.64	ppb	#	57
30) DIPE	3.018	45	403724	15.44	ppb		94
31) 2-Chloro-1,3-Butadiene	3.042	53	219457	16.33	ppb		92
32) ETBE	3.396	59	388454	16.85	ppb		96
33) 2,2-Dichloropropane	3.554	77	224554	20.58	ppb		96
34) cis-1,2-Dichloroethene	3.548	96	174590	20.07	ppb		90
35) 2-Butanone	3.560	43	35406	15.10	ppb		81
36) Propionitrile	3.609	54	54912	86.89	ppb		78
37) Bromochloromethane	3.829	130	99350	20.65	ppb		88

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:13:31 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.804	67	37154	18.44	ppb	#	82
39) Tetrahydrofuran	3.926	42	23317	15.89	ppb		90
40) Chloroform	3.938	83	269539	19.14	ppb		97
41) 1,1,1-Trichloroethane	4.213	97	233719	20.05	ppb		94
42) TAME	5.024	73	364426	18.49	ppb		96
44) Cyclohexane	4.316	41	99441	14.47	ppb		86
46) Carbontetrachloride	4.475	121	62693	20.95	ppb		82
47) 1,1-Dichloropropene	4.463	75	196834	20.40	ppb		94
49) Benzene	4.780	78	616946	20.46	ppb		91
50) 1,2-Dichloroethane	4.792	62	173431	19.34	ppb		98
51) Iso-Butyl Alcohol	4.670	43	66579	333.88	ppb		90
52) n-Heptane	5.334	43	128377	16.90	ppb		89
53) 1-Butanol	5.804	56	124728	1084.24	ppb		99
54) Trichloroethene	5.828	130	182583	22.76	ppb		98
55) Methylcyclohexane	6.103	55	144572	17.53	ppb		95
56) 1,2-Diclpropane	6.109	63	146292	19.25	ppb		98
57) Dibromomethane	6.255	93	76854	20.88	ppb	#	84
58) 1,4-Dioxane	6.377	88	23252m	367.42	ppb		
59) Methyl Methacrylate	6.328	69	69800	20.00	ppb		93
60) Bromodichloromethane	6.481	83	196045	20.85	ppb		98
61) 2-Nitropropane	6.749	41	33996	36.40	ppb		85
62) 2-Chloroethylvinyl Ether	6.883	63	64540	18.87	ppb		97
63) cis-1,3-Dichloropropene	7.023	75	229423	20.88	ppb		98
64) 4-Methyl-2-pentanone	7.212	43	73858	16.41	ppb		95
66) Toluene	7.395	91	696639	21.25	ppb		98
67) trans-1,3-Dichloropropene	7.633	75	191677	21.42	ppb		98
68) Ethyl Methacrylate	7.767	69	143996	20.47	ppb		97
69) 1,1,2-Trichloroethane	7.810	97	120253	21.75	ppb		95
72) Tetrachloroethene	7.962	164	139475	22.59	ppb		95
73) 2-Hexanone	8.090	43	52153	15.42	ppb		96
74) 1,3-Dichloropropane	7.974	76	197988	19.29	ppb		96
75) Dibromochloromethane	8.194	129	142073	22.86	ppb		96
76) N-Butyl Acetate	8.242	43	119568	17.03	ppb		97
77) 1,2-Dibromoethane	8.291	107	114459	22.07	ppb		96
78) Chlorobenzene	8.773	112	463664	21.70	ppb		92
79) 3-CBTF	8.785	180	229854	21.76	ppb		95
80) 4-CBTF	8.840	180	209638	20.66	ppb		96
81) 1,1,1,2-Tetrachloroethane	8.852	131	158220	21.59	ppb		94
82) Ethylbenzene	8.889	106	236380	21.06	ppb		95
83) (m+p)Xylene	8.998	106	612314	45.02	ppb		97
84) o-Xylene	9.346	106	296267	22.39	ppb		97
85) Styrene	9.352	104	490419	22.61	ppb		97
87) Bromoform	9.498	173	80504	22.59	ppb		99
88) 2-CBTF	9.578	180	224587	21.16	ppb		98
89) Isopropylbenzene	9.675	105	726663	21.68	ppb		99
90) Cyclohexanone	9.724	55	196037	251.96	ppb		97
91) trans-1,4-Dichloro-2-B...	9.962	53	21350	12.81	ppb		92
92) 1,1,2,2-Tetrachloroethane	9.913	83	135054	20.07	ppb		93
93) Bromobenzene	9.913	156	189358	22.00	ppb		93
94) 1,2,3-Trichloropropane	9.943	110	40551	20.77	ppb	#	69
95) n-Propylbenzene	10.023	91	823437	21.01	ppb		97
96) 2-Chlorotoluene	10.084	91	486907	20.48	ppb		98

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

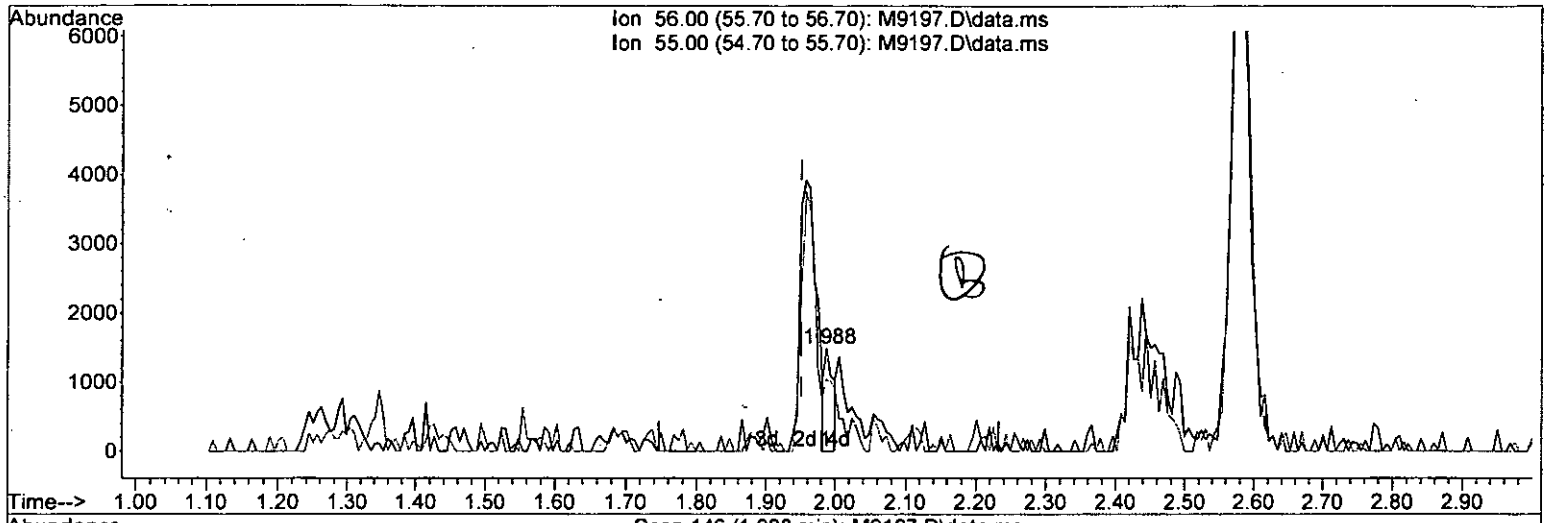
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:13:31 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

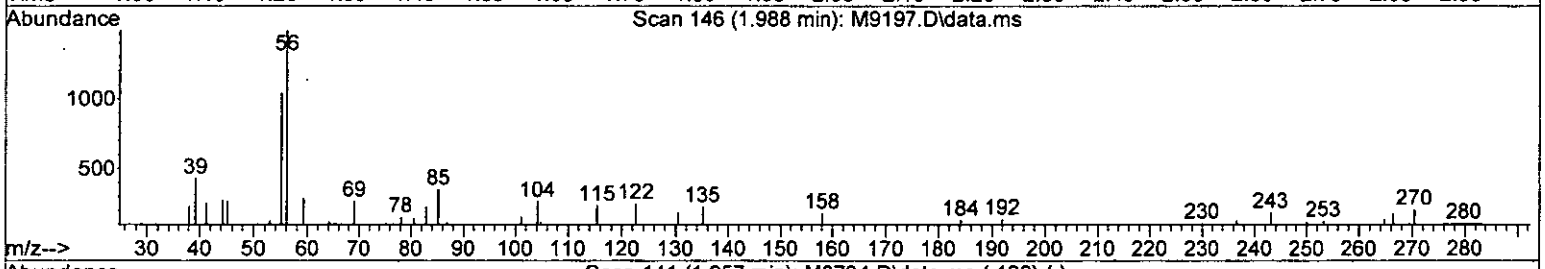
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) 3-Chlorotoluene	10.132	91	460219	18.04 ppb	92
98) 4-Chlorotoluene	10.175	91	585037	21.17 ppb	95
99) 1,3,5-Trimethylbenzene	10.169	105	596186	22.25 ppb	98
100) tert-Butylbenzene	10.437	119	503337	22.40 ppb	98
101) 1,2,4-Trimethylbenzene	10.480	105	595461	21.55 ppb	98
102) 3,4-DCBTF	10.535	214	156599	20.73 ppb	97
103) sec-Butylbenzene	10.620	105	708184	21.69 ppb	99
104) p-Isopropyltoluene	10.742	119	630585	23.15 ppb	97
105) 1,3-Dclbenz	10.699	146	356773	21.95 ppb	97
106) 1,4-Dclbenz	10.766	146	373563	22.24 ppb	98
107) 2,4-DCBTF	10.821	214	138306	21.15 ppb	97
108) 2,5-DCBTF	10.864	214	156350	21.03 ppb	97
109) n-Butylbenzene	11.065	91	521150	21.08 ppb	99
110) 1,2-Dclbenz	11.065	146	335208	21.59 ppb	97
111) 1,2-Dibromo-3-chloropr...	11.626	157	26446	22.25 ppb	85
112) Trielution Dichlorotol...	11.730	125	807140	62.55 ppb	96
113) 1,3,5 Trichlorobenzene	11.778	180	230056	20.77 ppb	97
114) Coelution Dichlorotoluene	11.998	125	575268	41.71 ppb	97
115) 1,2,4-Tcbenzene	12.156	180	218462	24.10 ppb	97
116) Hexachlorobt	12.266	225	87014	24.26 ppb	95
117) Naphthalen	12.303	128	447354	24.11 ppb	98
118) 1,2,3-Tclbenzene	12.437	180	183553	23.37 ppb	93
119) 2,4,5-Trichlorotolene	12.851	159	144559	23.56 ppb	95
120) 2,3,6-Trichlorotoluene	12.912	159	143325	23.79 ppb	98

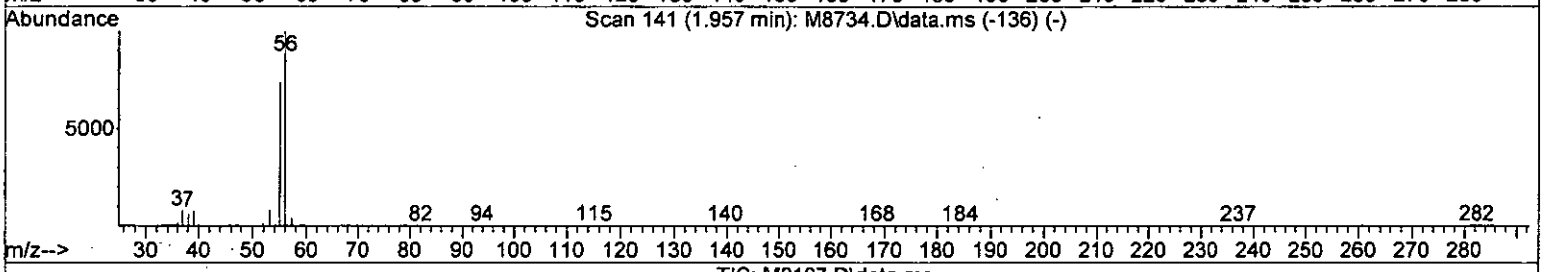
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9197.D\data.ms

(12) Acrolein

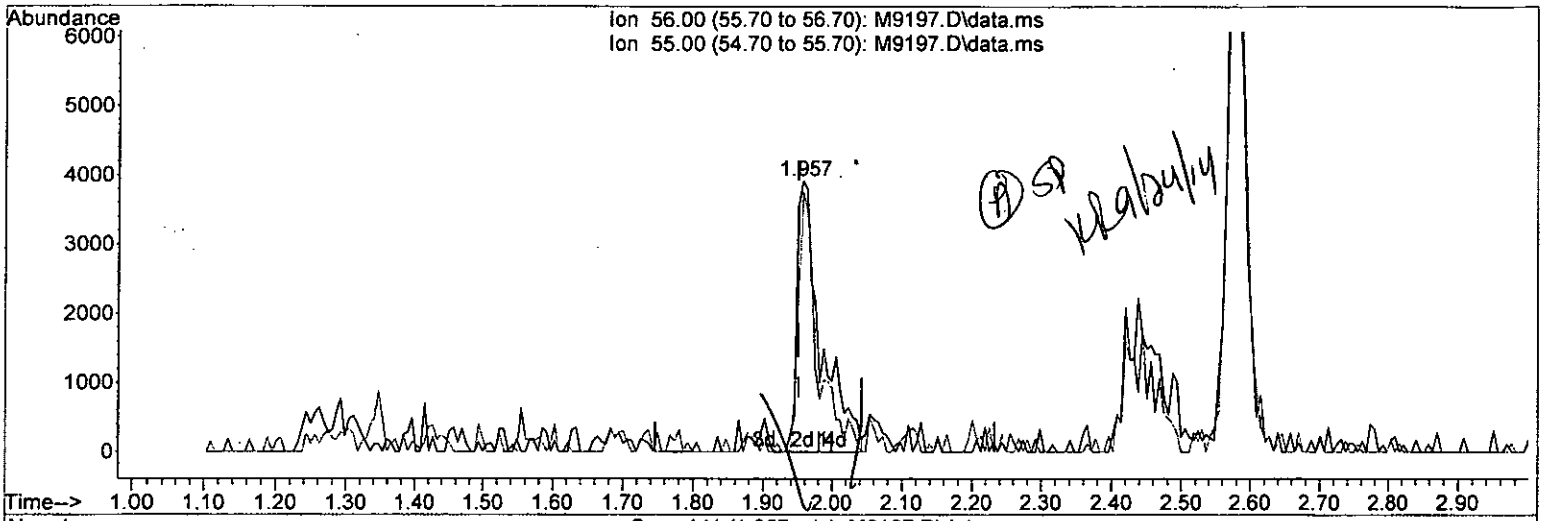
1.988min (+0.037) 2.48 ppb

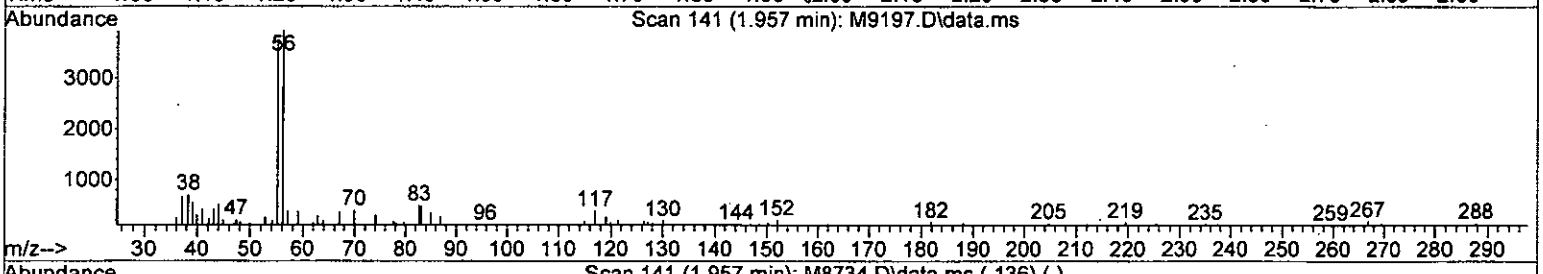
response 1318

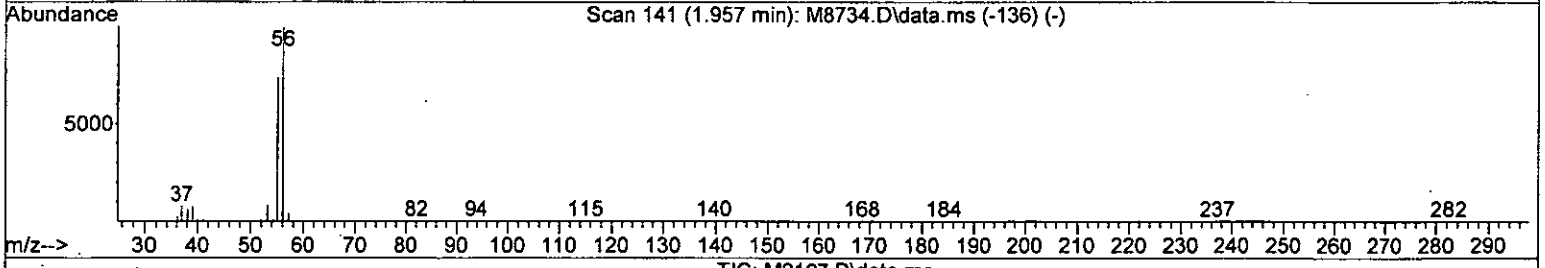
Ion	Exp%	Act%
56.00	100	100
55.00	70.20	69.99
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9197.D\data.ms

(12) Acrolein

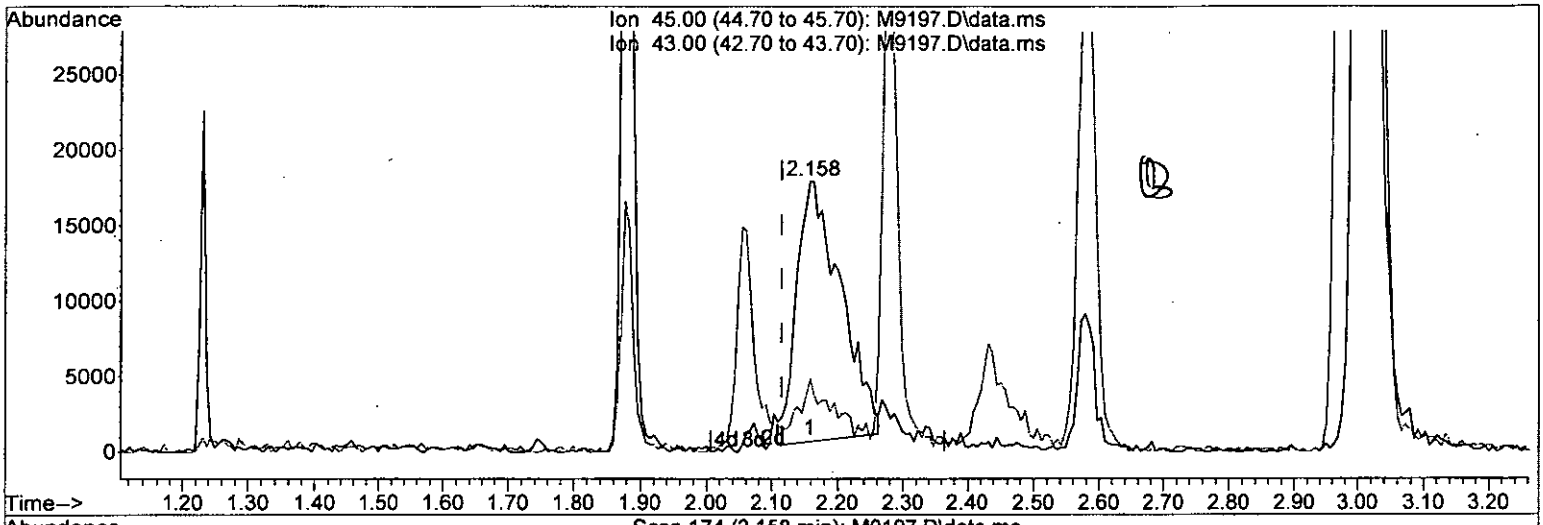
1.957min (+0.006) 17.78 ppb m

response 9454

Ion	Exp%	Act%
56.00	100	100
55.00	70.20	95.79#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



TIC: M9197.D\data.ms

(16) 2-Propanol

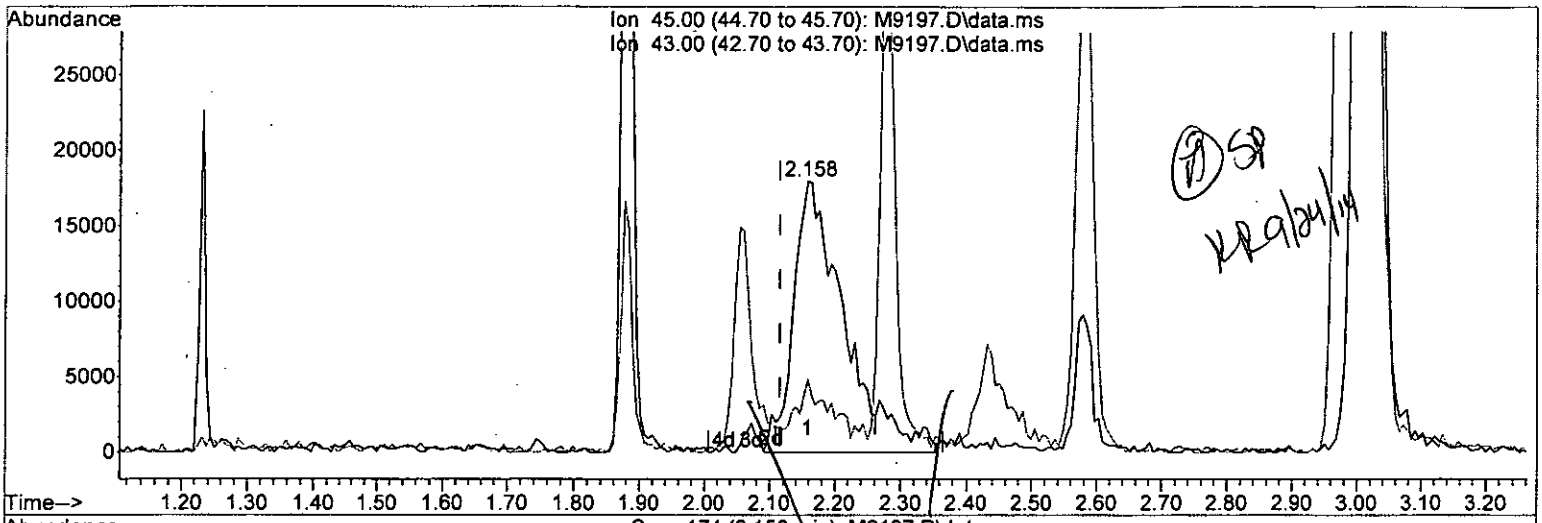
2.158min (+0.043) 279.62 ppb

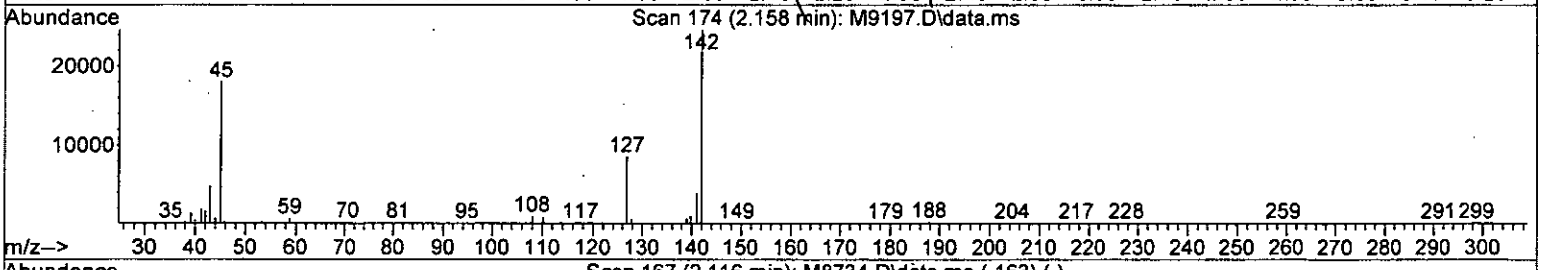
response 79841

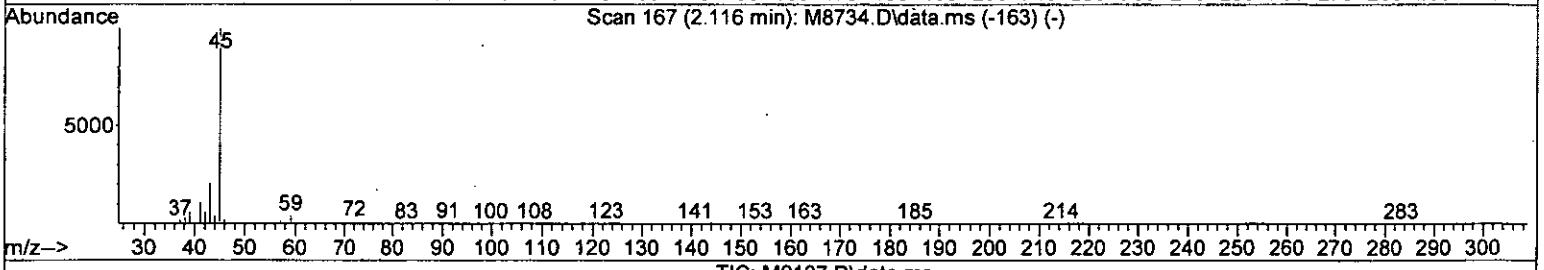
Ion	Exp%	Act%
45.00	100	100
43.00	20.60	26.69
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9197.D\data.ms

(16) 2-Propanol

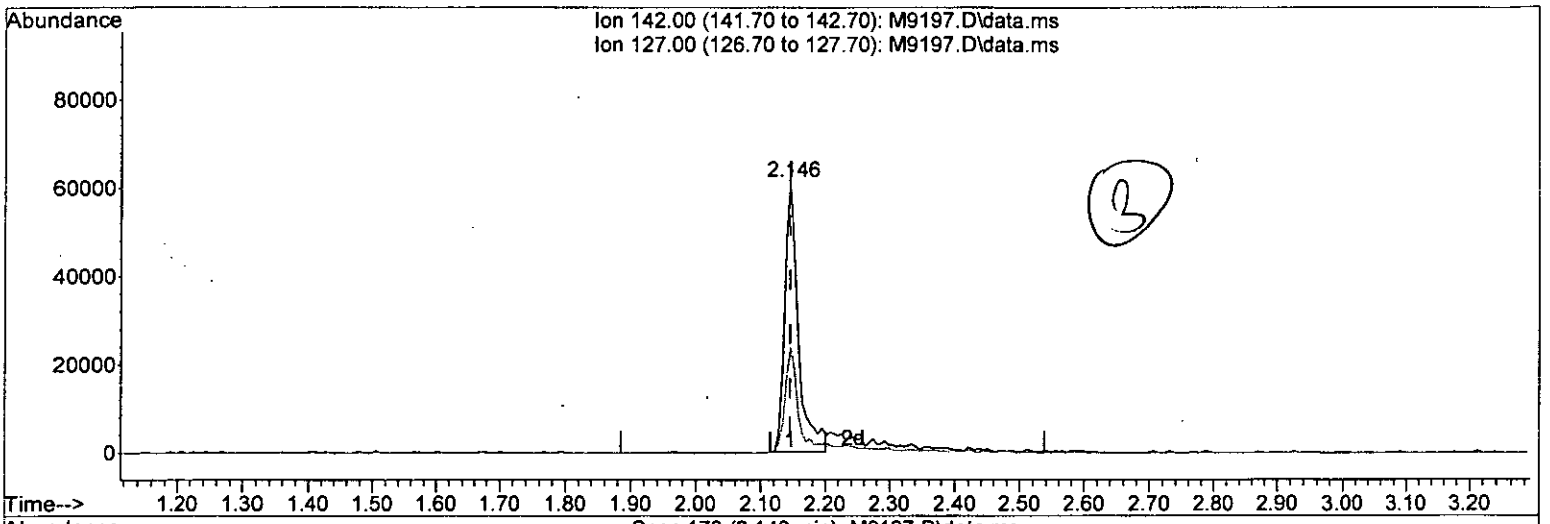
2.158min (+0.043) 342.28 ppb m

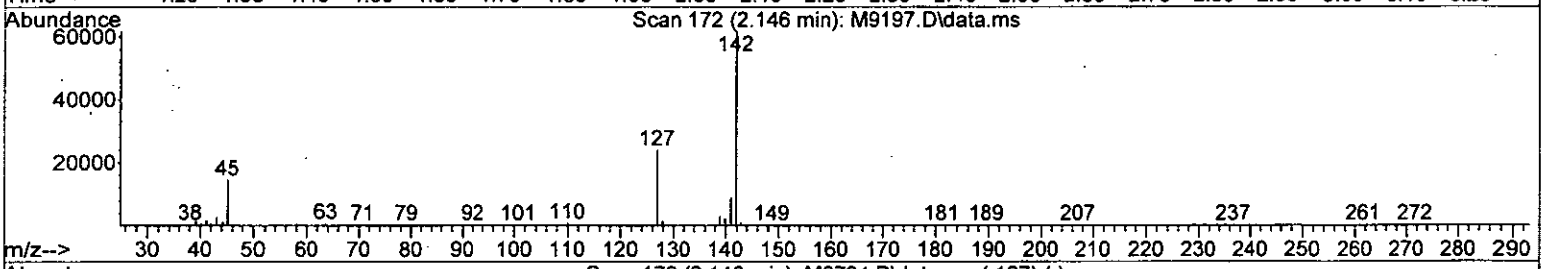
response 97733

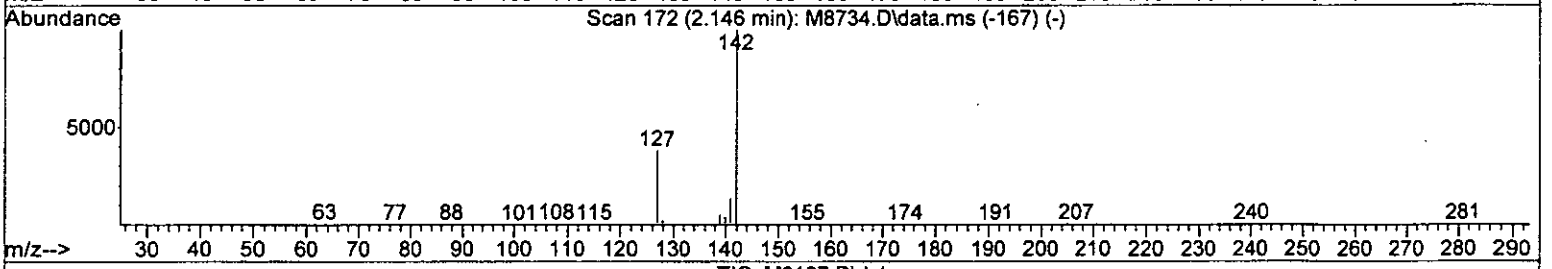
Ion	Exp%	Act%
45.00	100	100
43.00	20.60	26.69
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9197.D\data.ms

(17) Iodomethane

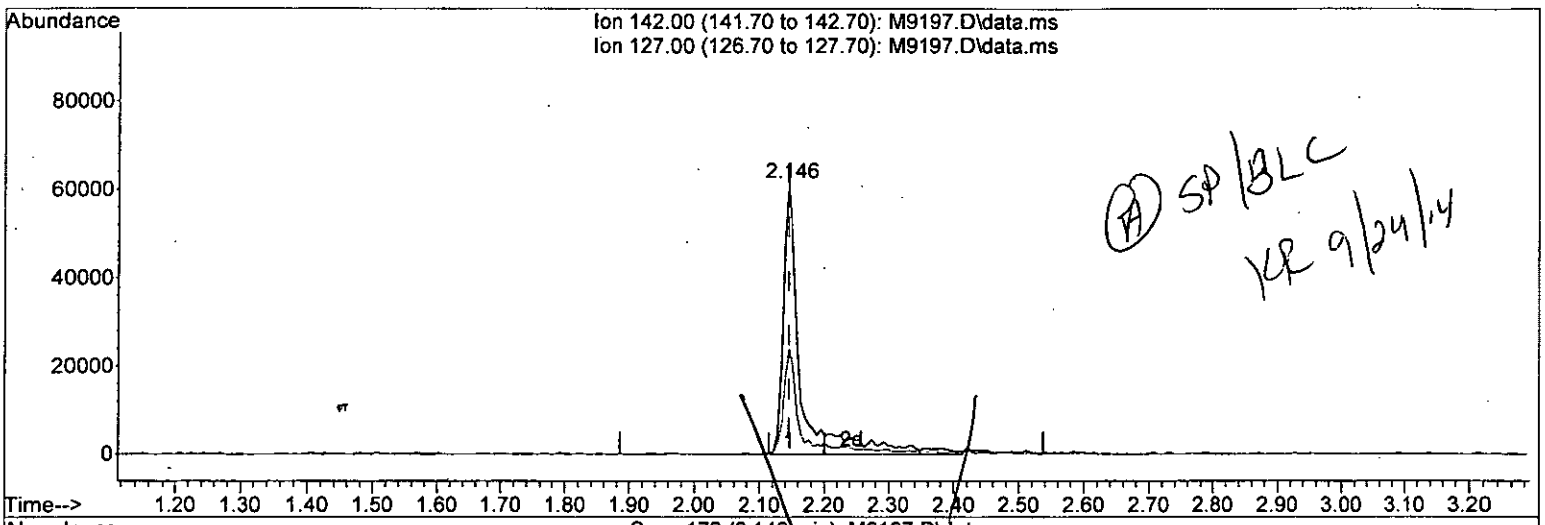
2.146min (+0.000) 9.69 ppb

response 90574

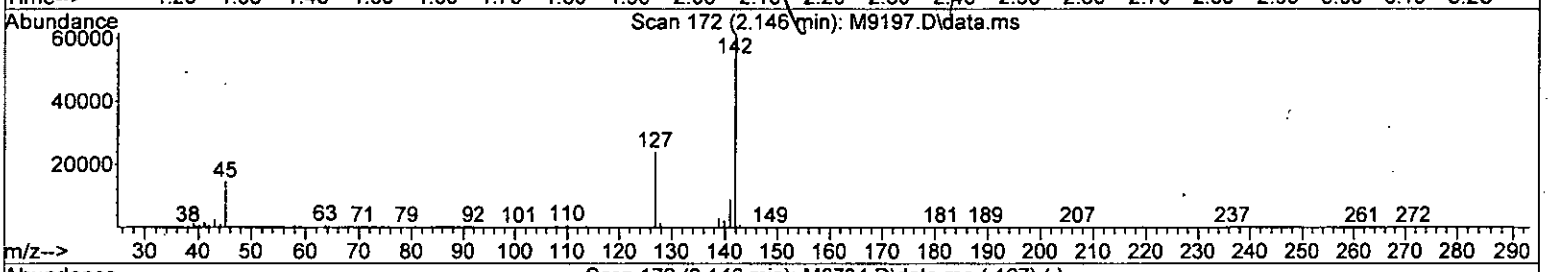
Ion	Exp%	Act%
142.00	100	100
127.00	38.00	38.83
0.00	0.00	0.00
0.00	0.00	0.00

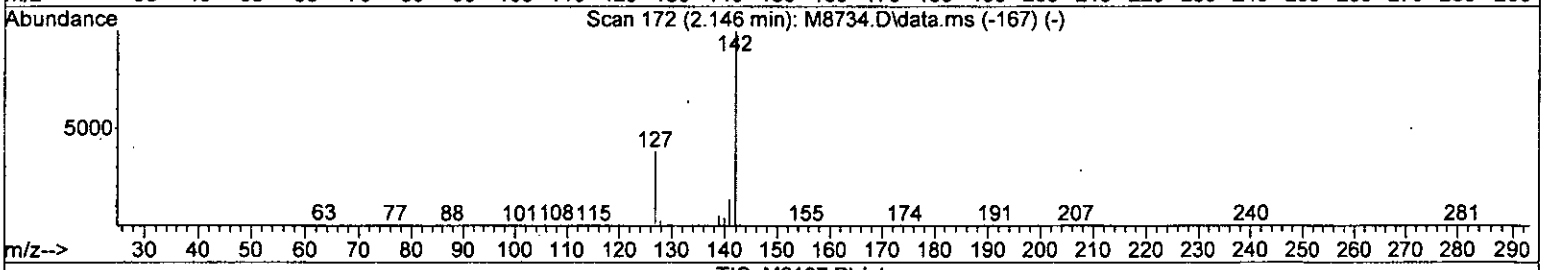
Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



(A) SP/BLC KR 9/24/14





TIC: M9197.D\data.ms

(17) Iodomethane

2.146min (+0.000) 12.51 ppb m

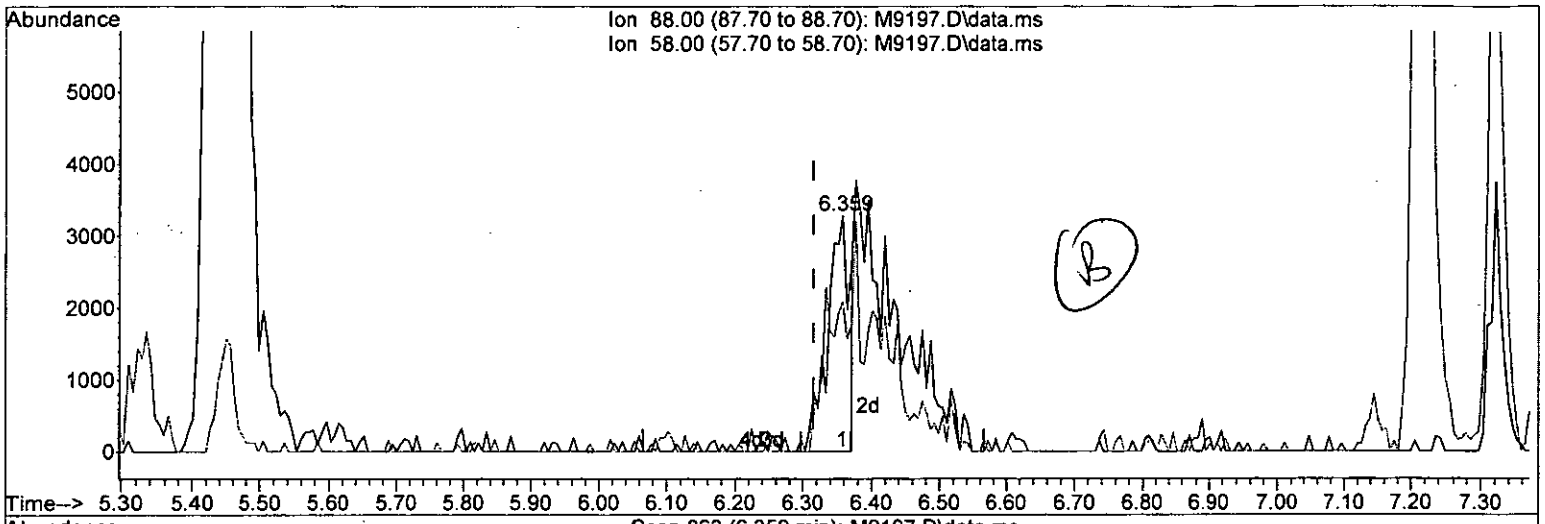
response 116947

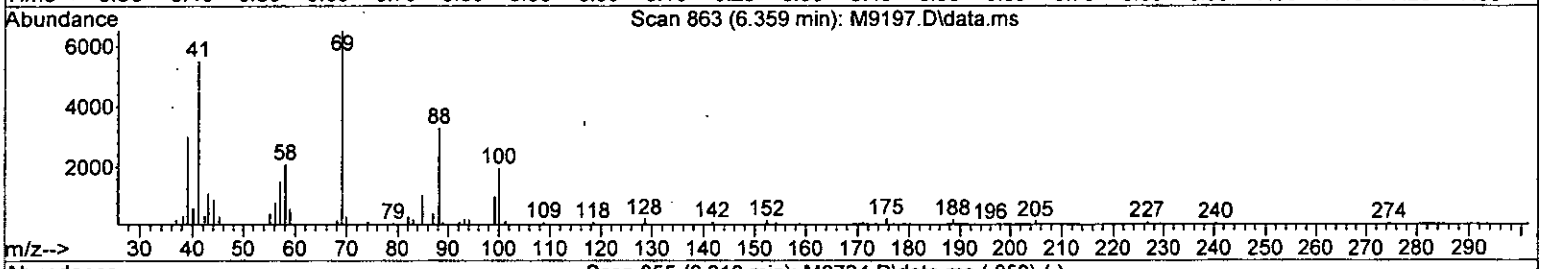
Ion	Exp%	Act%
142.00	100	100
127.00	38.00	38.83
0.00	0.00	0.00
0.00	0.00	0.00

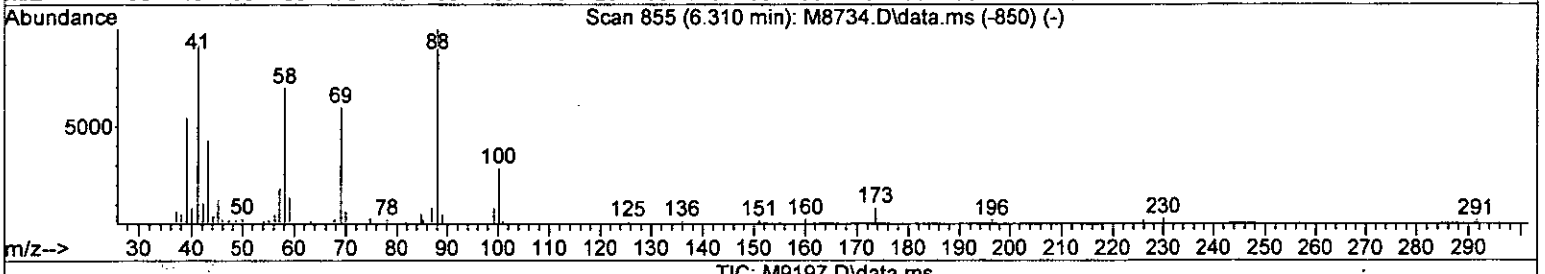
MV 9/24

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9197.D\data.ms

(58) 1,4-Dioxane

6.359min (+0.043) 113.91 ppb

response 7209

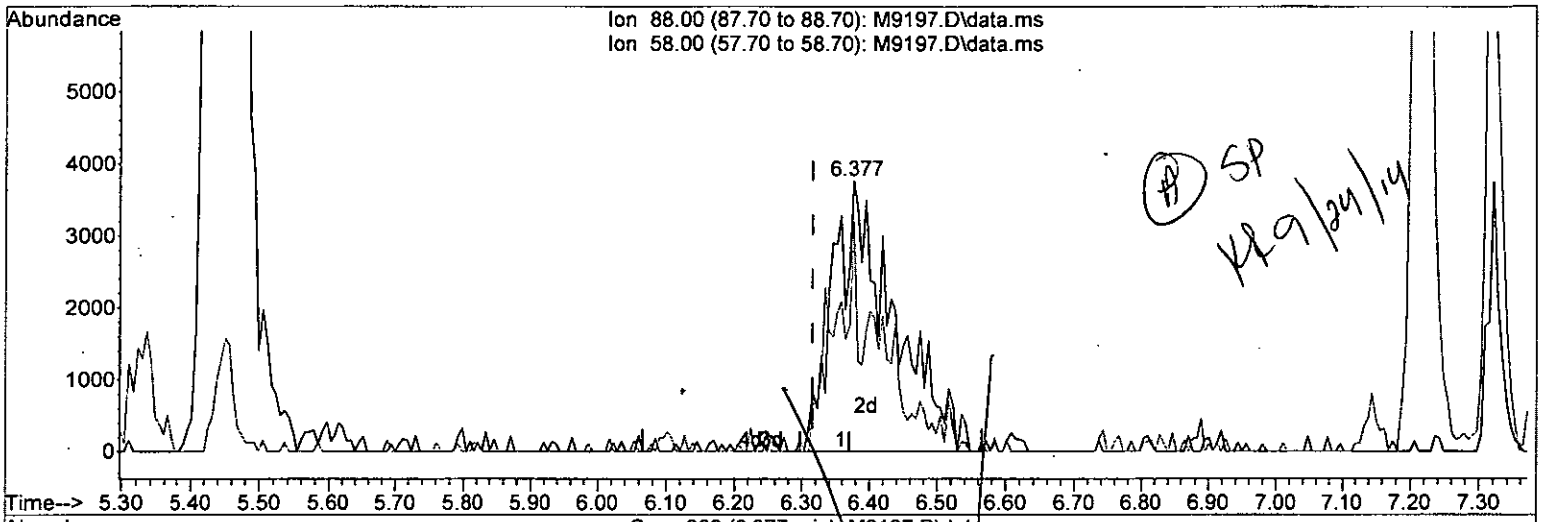
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	63.68
0.00	0.00	0.00
0.00	0.00	0.00

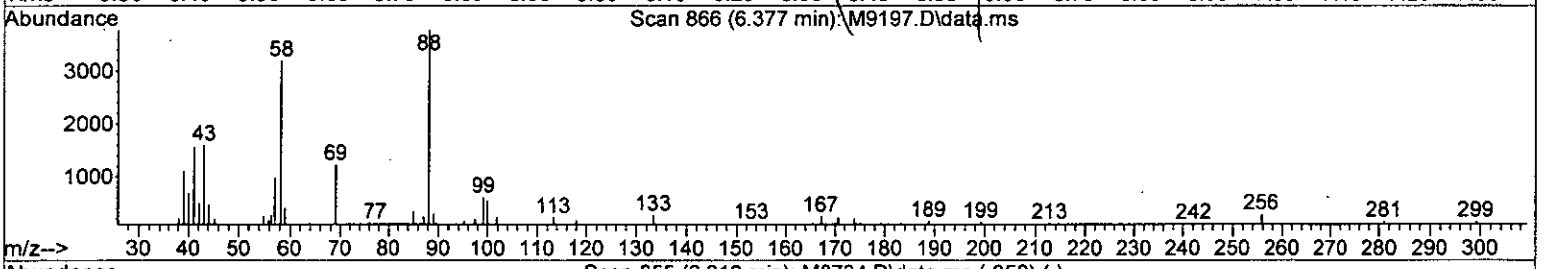
00453

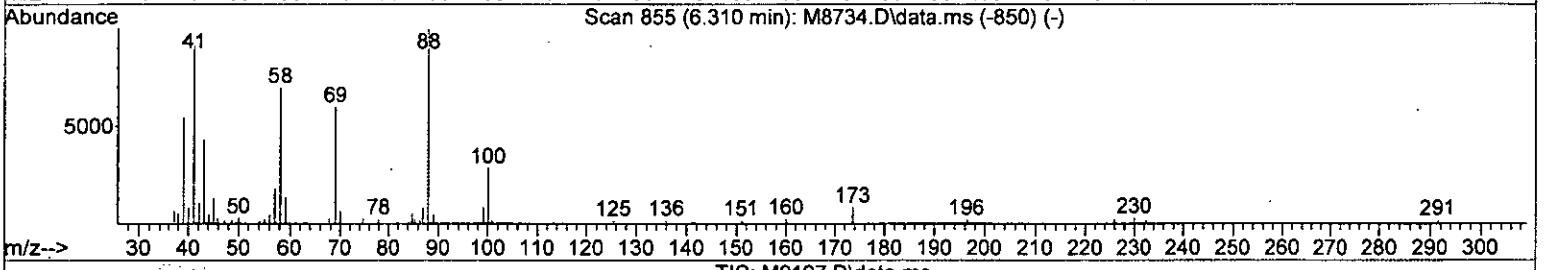
Quantitation Report (Qedit)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:10:54 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9197.D\data.ms

(58) 1,4-Dioxane

6.377min (+0.061) 367.42 ppb m

response 23252

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	84.79#
0.00	0.00	0.00
0.00	0.00	0.00

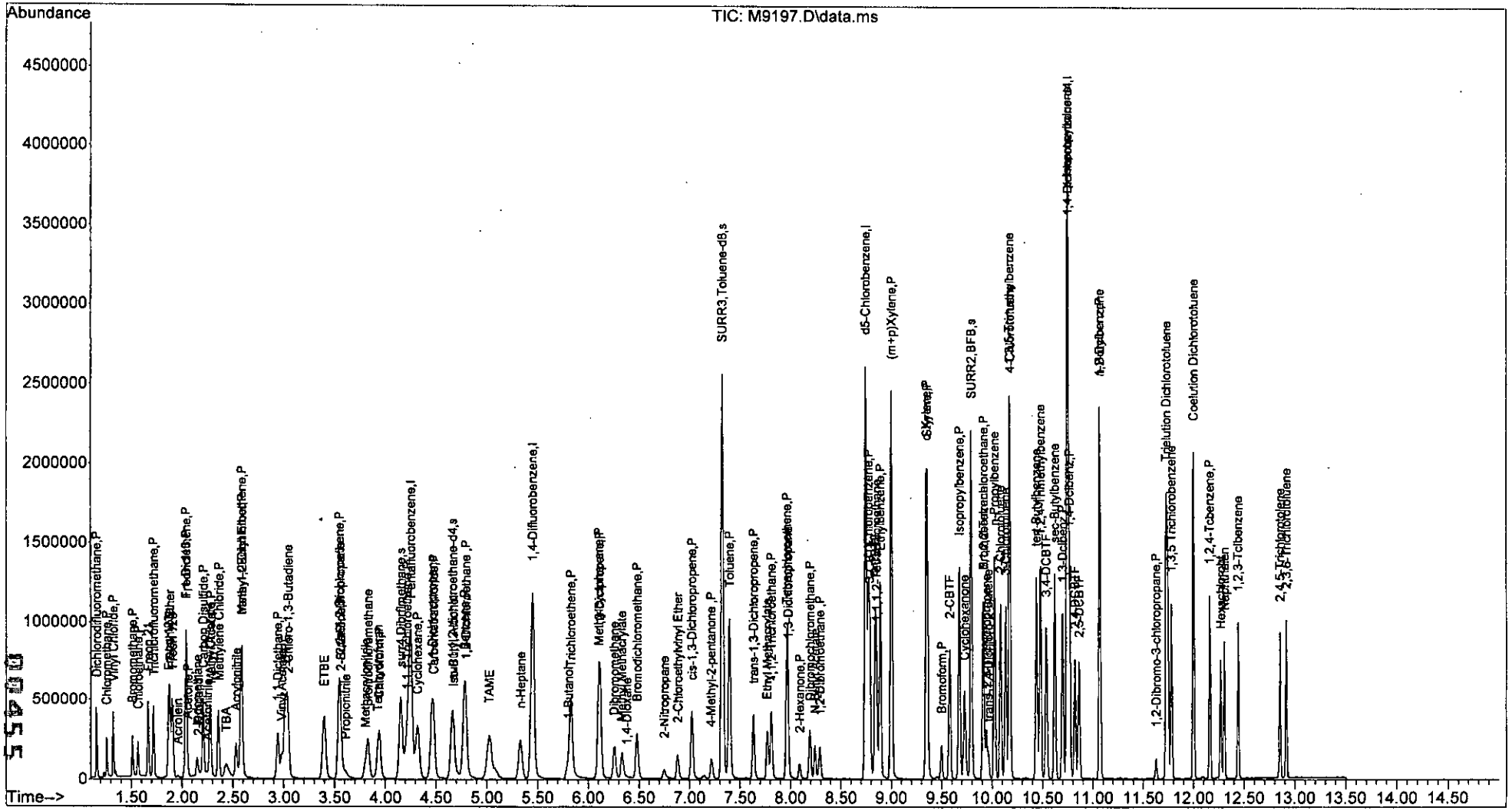
SP 9/24/14

9/24

Quantitation Report (QT Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\092414\M9197.D
Misc :
Acq On : 24 Sep 2014 10:56 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 24 11:13:31 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 0920
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 08:14
Sample Name:	MW-12	**Units:**	µg/L
Lab Code:	RQ1411227-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**50.6**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**45.1**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**56.5**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**56.3**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**56.4**		5.0	0.22	
75-01-4	Vinyl Chloride	**41.5**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**48.7**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**51.9**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	9/23/14 08:14	
Dibromofluoromethane	104	89-119	9/23/14 08:14	
Toluene-d8	102	87-121	9/23/14 08:14	

Quantitation Report (Not Reviewed)

Sample : R1407413-~~005~~013MS|~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:14 am
Operator : K.Ruest
InstName : MSVOA-12 RQ1411227-05

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:28:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	898275	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1347101	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1238180	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	671183	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	388711	51.81	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.62%				
48) surr1,1,2-dichloroetha...	4.664	65	377292	46.66	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 93.32%				
65) SURR3,Toluene-d8	7.322	98	1607085	50.75	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.50%				
70) SURR2,BFB	9.791	95	565323	49.86	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	435046	49.91	ppb		98
3) Chloromethane	1.262	50	349176	36.73	ppb		97
4) Vinyl Chloride	1.323	62	417125	41.46	ppb		91
5) Bromomethane	1.512	94	59381	10.16	ppb		96
6) Chloroethane	1.567	64	239417	42.57	ppb		97
7) Freon 21	1.664	67	667732	44.89	ppb		99
8) Trichlorofluoromethane	1.719	101	571790	47.38	ppb		98
9) Diethyl Ether	1.878	59	268663	46.20	ppb		94
10) Freon 123a	1.872	67	466668	49.30	ppb		87
11) Freon 123	1.902	83	537508	51.38	ppb		98
12) Acrolein	1.957	56	20725	37.83	ppb		97
13) 1,1-Diclethene	2.042	96	361918	56.53	ppb		90
14) Freon 113	2.036	101	352679	47.35	ppb		93
15) Acetone	2.048	43	61468	33.27	ppb		98
16) 2-Propanol	2.115	45	214490	728.97	ppb		95
17) Iodomethane	2.146	142	276537	28.70	ppb		97
18) Carbon Disulfide	2.207	76	841888	34.72	ppb		99
19) Acetonitrile	2.225	40	49800	199.63	ppb		97
20) Allyl Chloride	2.274	76	129591	30.03	ppb	#	87
21) Methyl Acetate	2.274	43	102061	27.11	ppb		95
22) Methylene Chloride	2.359	84	389478	47.33	ppb	#	88
23) TBA	2.408	59	409339	828.87	ppb		98
24) Acrylonitrile	2.524	53	360386	204.69	ppb		98
25) Methyl-t-Butyl Ether	2.579	73	912021	50.01	ppb		100
26) trans-1,2-Dichloroethene	2.585	96	413992	51.87	ppb	#	86
28) 1,1-Diclethane	2.945	63	641119	45.06	ppb		94
29) Vinyl Acetate	2.975	86	35039	30.86	ppb	#	50
31) 2-Chloro-1,3-Butadiene	3.042	53	551920	39.86	ppb		94
33) 2,2-Dichloropropane	3.554	77	338705	30.13	ppb		98
34) cis-1,2-Dichloroethene	3.548	96	436102	48.65	ppb	#	82
35) 2-Butanone	3.548	43	86710	35.90	ppb		94
36) Propionitrile	3.597	54	140691	216.03	ppb		94
37) Bromochloromethane	3.835	130	266249	53.72	ppb	#	83
38) Methacrylonitrile	3.798	67	92649	44.61	ppb	#	82
39) Tetrahydrofuran	3.908	42	53162	35.16	ppb	#	66

KP 9/24/14

Quantitation Report (Not Reviewed)

Sample : R1407413-~~005~~013MS|~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:28:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	Chloroform	3.938	83	671718	46.30	ppb		95
41)	1,1,1-Trichloroethane	4.213	97	607289	50.55	ppb		92
44)	Cyclohexane	4.316	41	292592	42.00	ppb		97
46)	Carbontetrachloride	4.469	121	147132	48.49	ppb		93
47)	1,1-Dichloropropene	4.469	75	504664	51.59	ppb		94
49)	Benzene	4.786	78	1585539	51.86	ppb		96
50)	1,2-Dichloroethane	4.792	62	438702	48.24	ppb		96
51)	Iso-Butyl Alcohol	4.645	43	147805	730.95	ppb		87
52)	n-Heptane	5.334	43	256553	33.30	ppb		88
~~53)~~	~~1-Butanol~~	~~5.792~~	~~56~~	~~506~~	~~4.34~~	~~ppb~~	~~#~~	~~70~~
54)	Trichloroethene	5.828	130	459060	56.43	ppb		96
55)	Methylcyclohexane	6.109	55	394134	47.13	ppb		84
56)	1,2-Diclpropane	6.115	63	367994	47.76	ppb		95
57)	Dibromomethane	6.255	93	196265	52.59	ppb		83
58)	1,4-Dioxane	6.322	88	~~643917~~ 4911	~~684.34~~	ppb		770.02 88
59)	Methyl Methacrylate	6.328	69	169831	47.98	ppb		96
60)	Bromodichloromethane	6.480	83	480431	50.38	ppb		98
61)	2-Nitropropane	6.743	41	87979	92.88	ppb		94
63)	cis-1,3-Dichloropropene	7.023	75	387565	34.79	ppb		98
64)	4-Methyl-2-pentanone	7.218	43	193766	42.46	ppb		97
66)	Toluene	7.395	91	1757336	52.86	ppb		98
67)	trans-1,3-Dichloropropene	7.633	75	324352	35.74	ppb		92
68)	Ethyl Methacrylate	7.767	69	340691	47.75	ppb		91
69)	1,1,2-Trichloroethane	7.809	97	298689	53.26	ppb		98
72)	Tetrachloroethene	7.962	164	356990	56.29	ppb		94
73)	2-Hexanone	8.084	43	130238	37.48	ppb		93
74)	1,3-Dichloropropane	7.974	76	512763	48.63	ppb		96
75)	Dibromochloromethane	8.187	129	335744	52.59	ppb		98
76)	N-Butyl Acetate	8.242	43	223943	30.15	ppb		95
77)	1,2-Dibromoethane	8.291	107	295768	55.51	ppb		100
78)	Chlorobenzene	8.773	112	1158909	52.80	ppb		94
81)	1,1,1,2-Tetrachloroethane	8.852	131	397021	52.75	ppb		97
82)	Ethylbenzene	8.888	106	588948	51.08	ppb		92
83)	(m+p)Xylene	8.998	106	1520249	108.81	ppb		93
84)	o-Xylene	9.346	106	750341	55.20	ppb		92
85)	Styrene	9.358	104	938690	42.13	ppb		98
87)	Bromoform	9.498	173	175943	48.09	ppb		97
89)	Isopropylbenzene	9.675	105	1825664	53.07	ppb		99
90)	Cyclohexanone	9.718	55	116989	146.48	ppb		95
91)	trans-1,4-Dichloro-2-B...	9.961	53	15621	9.13	ppb		98
92)	1,1,2,2-Tetrachloroethane	9.913	83	341956	49.50	ppb		97
93)	Bromobenzene	9.913	156	485337	54.93	ppb		91
94)	1,2,3-Trichloropropane	9.943	110	101105	50.45	ppb	#	82
95)	n-Propylbenzene	10.022	91	2015405	50.09	ppb		97
96)	2-Chlorotoluene	10.083	91	1212294	49.67	ppb		98
~~97)~~	~~3-Chlorotoluene~~	~~10.175~~	~~91~~	~~1442208~~	~~55.07~~	~~ppb~~		~~98~~
98)	4-Chlorotoluene	10.175	91	1423748	50.18	ppb		96
99)	1,3,5-Trimethylbenzene	10.175	105	1428626	51.95	ppb		99
100)	tert-Butylbenzene	10.443	119	1247153	54.07	ppb		99
101)	1,2,4-Trimethylbenzene	10.480	105	1445238	50.95	ppb		98
103)	sec-Butylbenzene	10.620	105	1704908	50.87	ppb		99
104)	p-Isopropyltoluene	10.742	119	1496295	53.52	ppb		98

Quantitation Report (Not Reviewed)

013

Sample : R1407413-~~005~~MS|~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:28:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

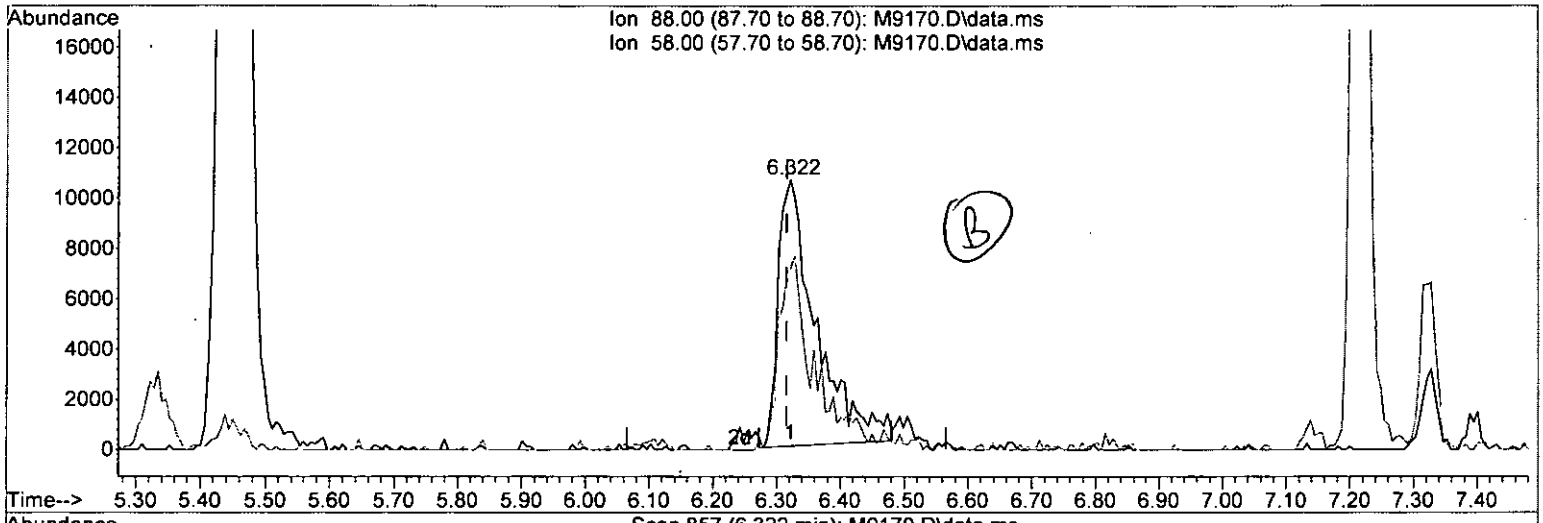
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
105) 1,3-Dclbenz	10.699	146	878116	52.63 ppb	99
106) 1,4-Dclbenz	10.766	146	911763	52.88 ppb	97
109) n-Butylbenzene	11.065	91	1230420	48.49 ppb	99
110) 1,2-Dclbenz	11.065	146	834775	52.38 ppb	99
111) 1,2-Dibromo-3-chloropr...	11.626	157	69439	56.91 ppb	96
115) 1,2,4-Tcbenzene	12.156	180	463614	49.81 ppb	98
116) Hexachlorobt	12.266	225	177471	48.21 ppb	99
117) Naphthalen	12.302	128	993987	52.18 ppb	99
118) 1,2,3-Tclbenzene	12.437	180	411372	51.01 ppb	98

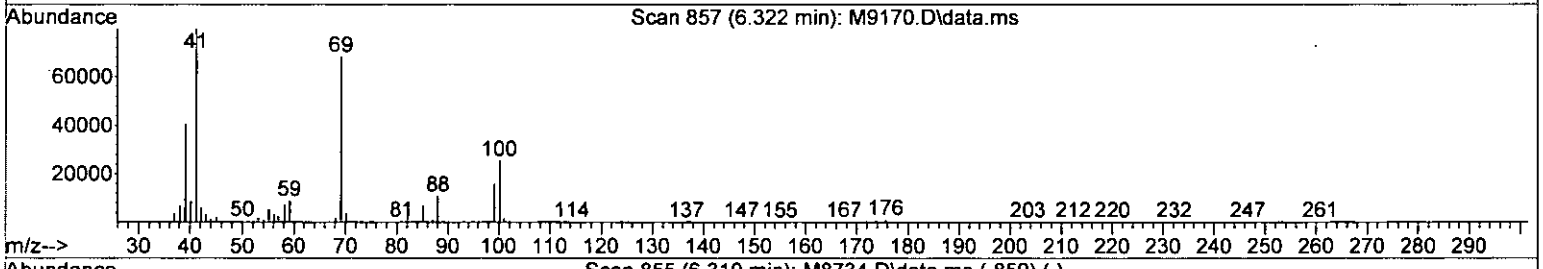
(#) = qualifier out of range (m) = manual integration (+) = signals summed

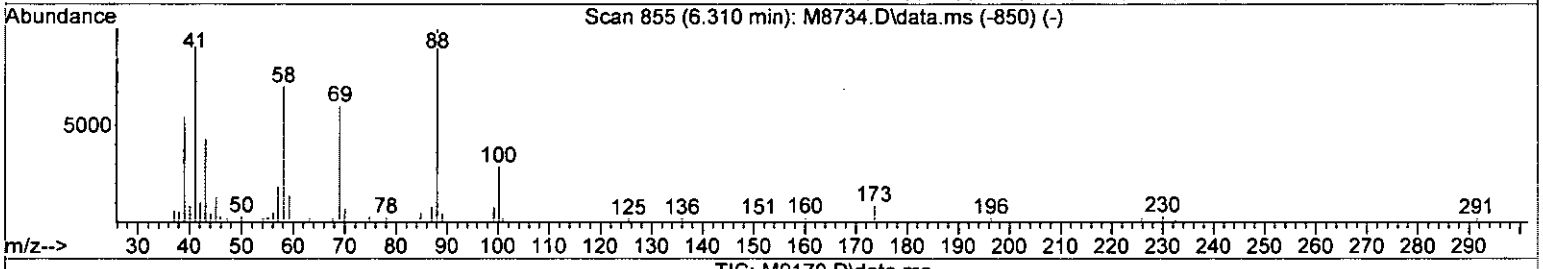
Quantitation Report (Qedit)

Sample : R1407413-013MS|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9170.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:28:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9170.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 684.34 ppb

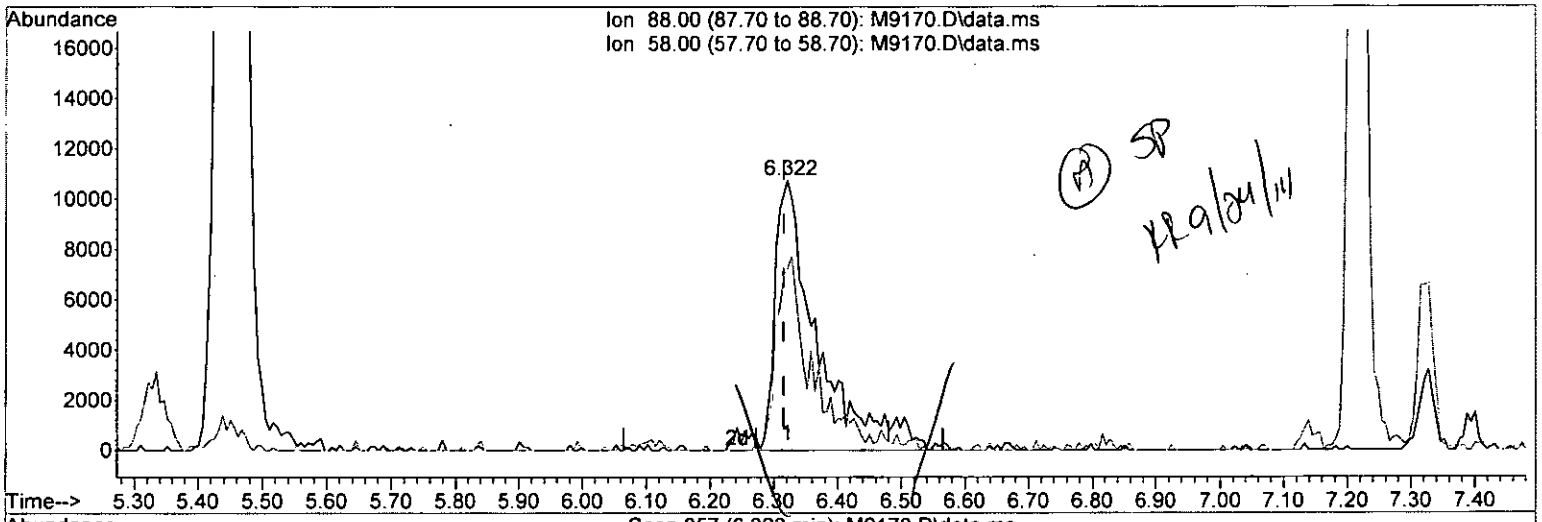
response 43917

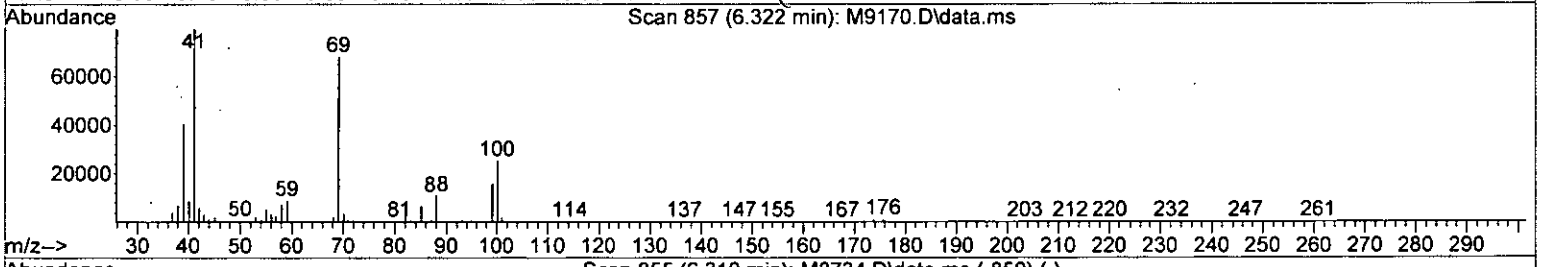
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	67.06
0.00	0.00	0.00
0.00	0.00	0.00

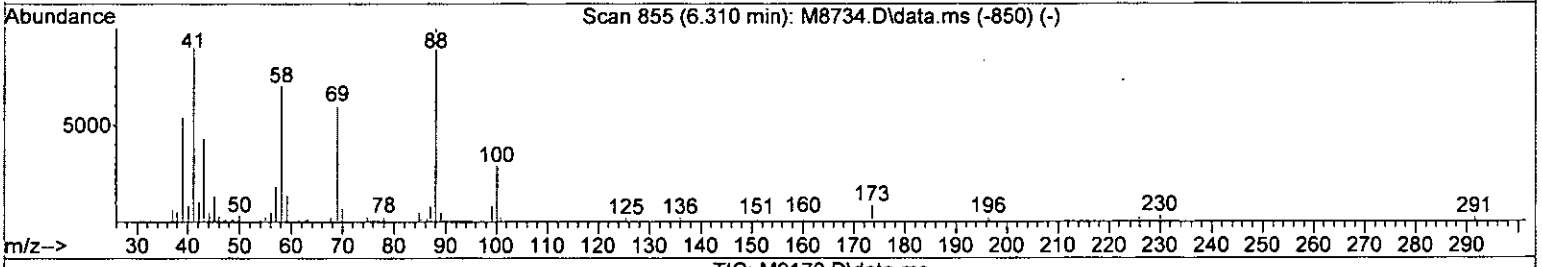
Quantitation Report (Qedit)

Sample : R1407413-013MS|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9170.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:28:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9170.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 770.02 ppb m

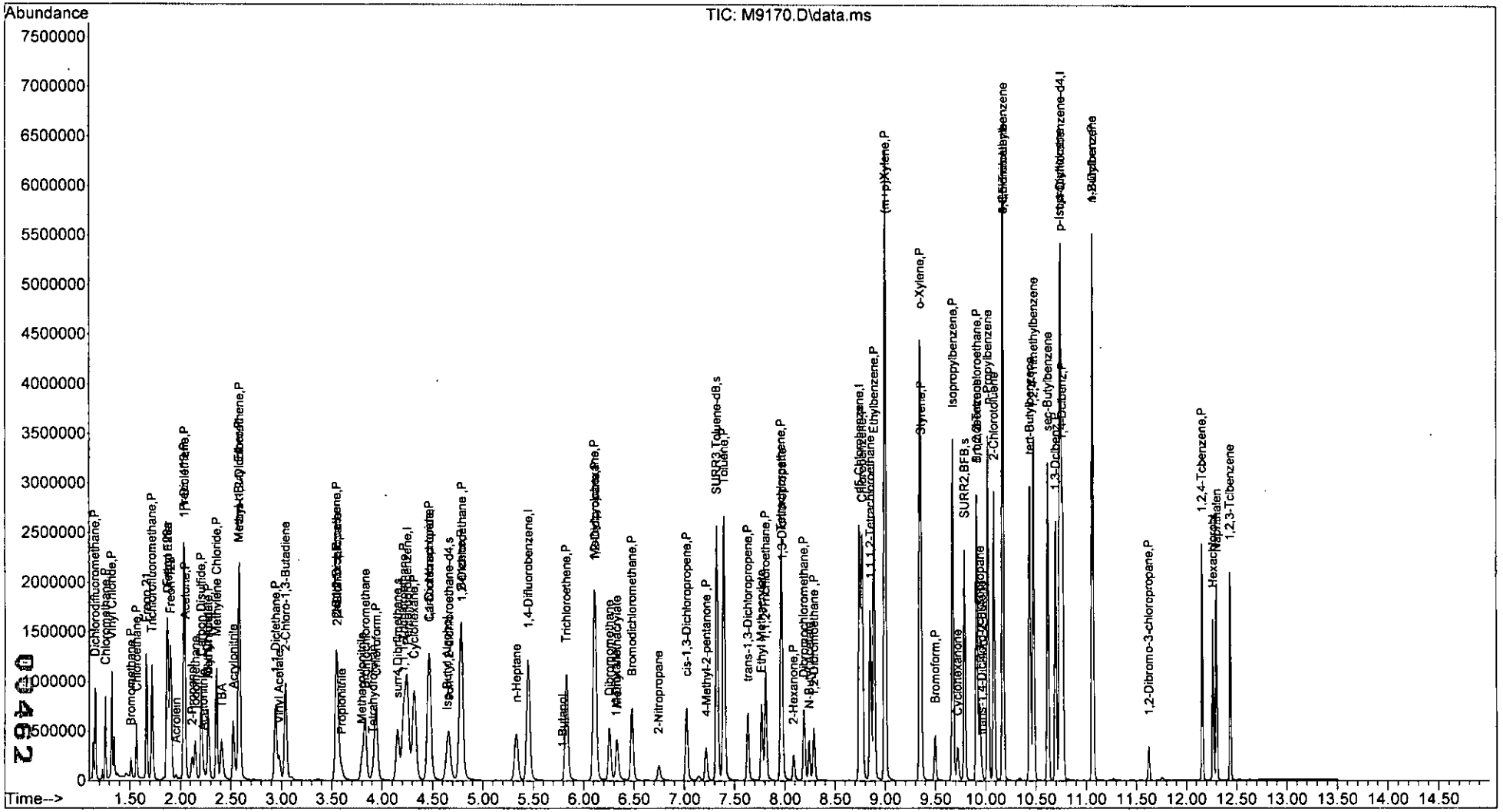
response 49416

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	67.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Sample : R1407413-005MS|100
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9170.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:14 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 08:28:39 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1407413
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	9/18/14 0920
Sample Matrix:	Water	**Date Received:**	9/22/14
		Date Analyzed:	9/23/14 08:46
Sample Name:	MW-12	**Units:**	µg/L
Lab Code:	RQ1411227-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	412453
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**51.9**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**45.5**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**57.6**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**55.8**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**55.6**		5.0	0.22	
75-01-4	Vinyl Chloride	**42.5**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**49.2**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**51.4**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/23/14 08:46	
Dibromofluoromethane	104	89-119	9/23/14 08:46	
Toluene-d8	101	87-121	9/23/14 08:46	

Quantitation Report (Not Reviewed)

Sample : R1407413-~~005~~013DMS|~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12 LQ 1411227-06

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	890943	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1351984	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1248614	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	670865	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.158	113	390928	51.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.82%				
48) surr1,1,2-dichloroetha...	4.664	65	372385	45.88	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 91.76%				
65) SURR3,Toluene-d8	7.322	98	1611251	50.70	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.40%				
70) SURR2,BFB	9.791	95	575984	50.62	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.165	85	435626	50.39	ppb		98
3) Chloromethane	1.262	50	337835	35.83	ppb		100
4) Vinyl Chloride	1.323	62	423635	42.46	ppb		99
5) Bromomethane	1.512	94	69059	11.91	ppb		98
6) Chloroethane	1.567	64	250071	44.83	ppb		96
7) Freon 21	1.664	67	671842	45.54	ppb		97
8) Trichlorofluoromethane	1.719	101	566758	47.35	ppb		99
9) Diethyl Ether	1.884	59	267135	46.31	ppb		94
10) Freon 123a	1.872	67	470059	50.07	ppb		84
11) Freon 123	1.902	83	537836	51.84	ppb		98
12) Acrolein	1.957	56	17644	32.47	ppb		99
13) 1,1-Diclethene	2.042	96	365994	57.64	ppb		91
14) Freon 113	2.036	101	351603	47.59	ppb		93
15) Acetone	2.049	43	69311	37.83	ppb		98
16) 2-Propanol	2.122	45	261837	897.21	ppb		98
17) Iodomethane	2.146	142	330641	34.59	ppb		99
18) Carbon Disulfide	2.207	76	721305	29.99	ppb		100
19) Acetonitrile	2.225	40	49959	201.92	ppb		95
20) Allyl Chloride	2.280	76	122069	28.52	ppb	#	77
21) Methyl Acetate	2.274	43	118406	31.71	ppb		94
22) Methylene Chloride	2.359	84	387501	47.48	ppb		88
23) TBA	2.414	59	462505	944.23	ppb		99
24) Acrylonitrile	2.524	53	396097	226.83	ppb		97
25) Methyl-t-Butyl Ether	2.579	73	953865	52.74	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	406857	51.40	ppb		90
28) 1,1-Diclethane	2.945	63	642602	45.54	ppb		98
29) Vinyl Acetate	2.981	86	42260	37.53	ppb	#	74
31) 2-Chloro-1,3-Butadiene	3.042	53	556264	40.51	ppb		91
33) 2,2-Dichloropropane	3.560	77	339998	30.49	ppb		97
34) cis-1,2-Dichloroethene	3.548	96	437294	49.18	ppb		85
35) 2-Butanone	3.548	43	89638	37.41	ppb		82
36) Propionitrile	3.597	54	151664	234.80	ppb		94
37) Bromochloromethane	3.829	130	252670	51.40	ppb		87
38) Methacrylonitrile	3.804	67	103170	50.09	ppb		88
39) Tetrahydrofuran	3.908	42	60213	40.15	ppb		67

KB 9/24/14

Quantitation Report (Not Reviewed)

Sample : R1407413-~~005~~013 DMS | ~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	Chloroform	3.938	83	675347	46.93	ppb		97
41)	1,1,1-Trichloroethane	4.219	97	618403	51.90	ppb		93
44)	Cyclohexane	4.316	41	296360	42.39	ppb		90
46)	Carbontetrachloride	4.475	121	146963	48.26	ppb		92
47)	1,1-Dichloropropene	4.463	75	498719	50.79	ppb		98
49)	Benzene	4.786	78	1587617	51.74	ppb		92
50)	1,2-Dichloroethane	4.786	62	447769	49.05	ppb		96
51)	Iso-Butyl Alcohol	4.646	43	168015	827.89	ppb		88
52)	n-Heptane	5.334	43	266472	34.46	ppb		94
~~53)~~	~~1-Butanol~~	~~5.798~~	~~56~~	~~1146~~	~~9.79~~	~~ppb~~	~~#~~	~~71~~
54)	Trichloroethene	5.828	130	453932	55.59	ppb		98
55)	Methylcyclohexane	6.109 ~~6.164~~	55	~~3641082393~~	~~0.29~~	ppb	47.23	88
56)	1,2-Diclpropane	6.115	63	375153	48.51	ppb		99
57)	Dibromomethane	6.255	93	198386	52.96	ppb		89
58)	1,4-Dioxane	6.322	88	~~5896146729~~	~~725.52~~	ppb	903.61	84
59)	Methyl Methacrylate	6.334	69	185205	52.13	ppb		90
60)	Bromodichloromethane	6.481	83	466622	48.76	ppb		97
61)	2-Nitropropane	6.749	41	93610	98.47	ppb		95
63)	cis-1,3-Dichloropropene	7.023	75	402102	35.96	ppb		94
64)	4-Methyl-2-pentanone	7.212	43	211374	46.15	ppb		98
66)	Toluene	7.395	91	1759125	52.72	ppb		99
67)	trans-1,3-Dichloropropene	7.633	75	336076	36.90	ppb		96
68)	Ethyl Methacrylate	7.767	69	383620	53.57	ppb		96
69)	1,1,2-Trichloroethane	7.810	97	295373	52.48	ppb		99
72)	Tetrachloroethene	7.962	164	356967	55.81	ppb		93
73)	2-Hexanone	8.090	43	145728	41.58	ppb		95
74)	1,3-Dichloropropane	7.974	76	518756	48.78	ppb		97
75)	Dibromochloromethane	8.194	129	314030	48.77	ppb		97
76)	N-Butyl Acetate	8.242	43	256789	34.01	ppb		94
77)	1,2-Dibromoethane	8.291	107	305593	56.88	ppb		99
78)	Chlorobenzene	8.773	112	1189172	53.73	ppb		94
81)	1,1,1,2-Tetrachloroethane	8.852	131	392579	51.72	ppb		97
82)	Ethylbenzene	8.889	106	593862	51.08	ppb		94
83)	(m+p)Xylene	8.998	106	1528559	108.49	ppb		92
84)	o-Xylene	9.346	106	751369	54.81	ppb		94
85)	Styrene	9.358	104	1155785	51.44	ppb		95
87)	Bromoform	9.498	173	165364	45.22	ppb		97
89)	Isopropylbenzene	9.675	105	1833408	53.32	ppb		99
90)	Cyclohexanone	9.718	55	133168	166.81	ppb		92
91)	trans-1,4-Dichloro-2-B...	9.962	53	17318	10.12	ppb		95
92)	1,1,2,2-Tetrachloroethane	9.913	83	361933	52.41	ppb		97
93)	Bromobenzene	9.913	156	493509	55.89	ppb	#	88
94)	1,2,3-Trichloropropane	9.943	110	108556	54.20	ppb	#	86
95)	n-Propylbenzene	10.023	91	2053915	51.07	ppb		96
96)	2-Chlorotoluene	10.084	91	1234340	50.60	ppb		98
~~97)~~	~~3-Chlorotoluene~~	~~10.175~~	~~91~~	~~1452181~~	~~55.48~~	~~ppb~~		~~99~~
98)	4-Chlorotoluene	10.175	91	1447286	51.03	ppb		95
99)	1,3,5-Trimethylbenzene	10.175	105	1440742	52.41	ppb		97
100)	tert-Butylbenzene	10.443	119	1283394	55.67	ppb		100
101)	1,2,4-Trimethylbenzene	10.480	105	1453169	51.25	ppb		98
103)	sec-Butylbenzene	10.620	105	1735556	51.81	ppb		99
104)	p-Isopropyltoluene	10.742	119	1521776	54.46	ppb		98

Quantitation Report (Not Reviewed)

Sample : R1407413-~~005~~013DMS|~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration

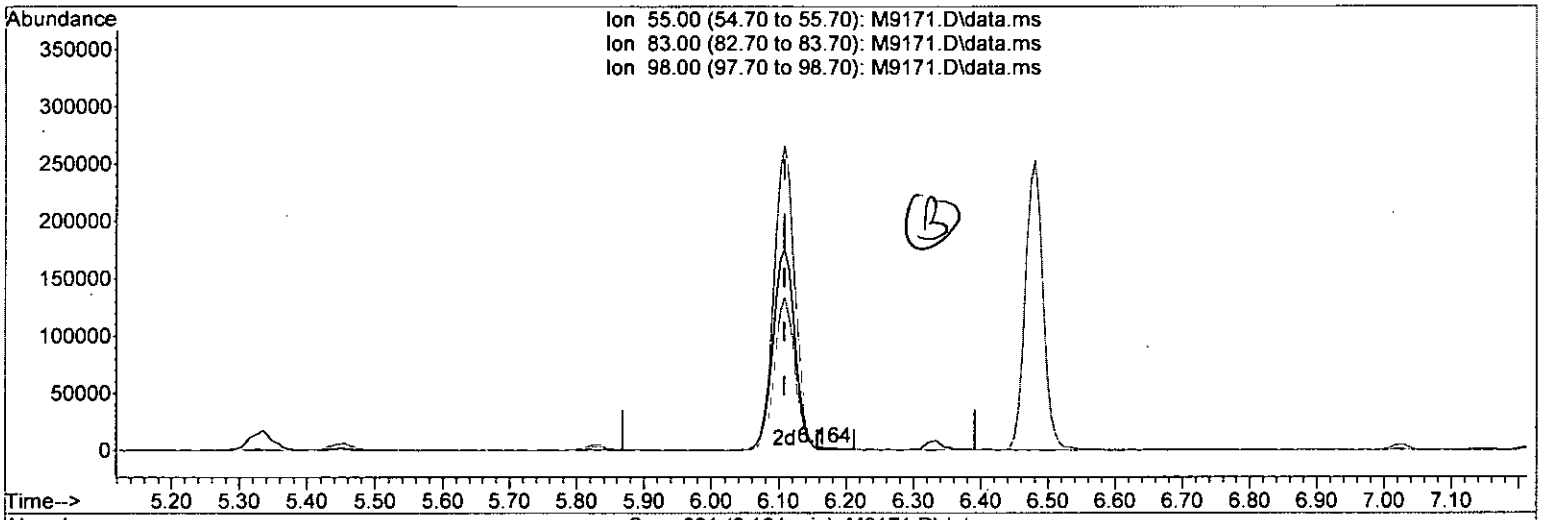
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	10.699	146	891717	53.47	ppb	98
106) 1,4-Dclbenz	10.766	146	936628	54.35	ppb	98
109) n-Butylbenzene	11.065	91	1262765	49.78	ppb	98
110) 1,2-Dclbenz	11.065	146	857341	53.82	ppb	99
111) 1,2-Dibromo-3-chloropr...	11.626	157	71416	58.56	ppb	89
115) 1,2,4-Tcbenzene	12.156	180	510903	54.92	ppb	98
116) Hexachlorobt	12.266	225	196155	53.31	ppb	99
117) Naphthalen	12.303	128	1108410	58.22	ppb	97
118) 1,2,3-Tclbenzene	12.437	180	454250	56.36	ppb	99

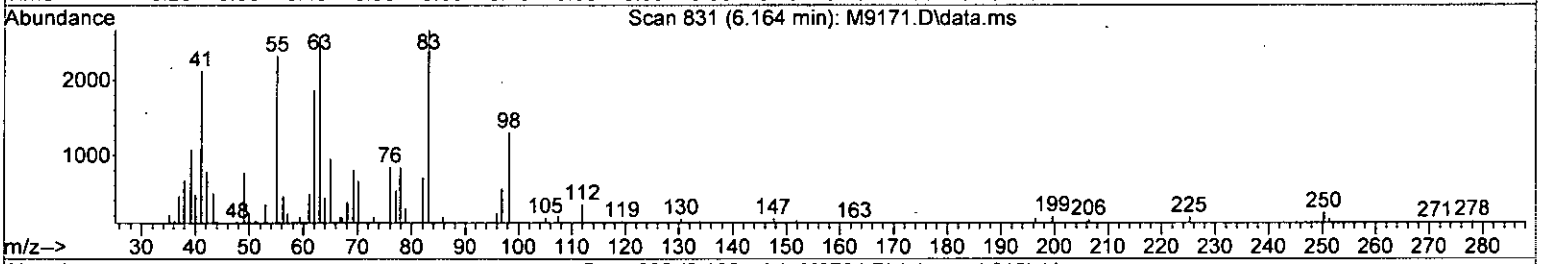
(#) = qualifier out of range (m) = manual integration (+) = signals summed

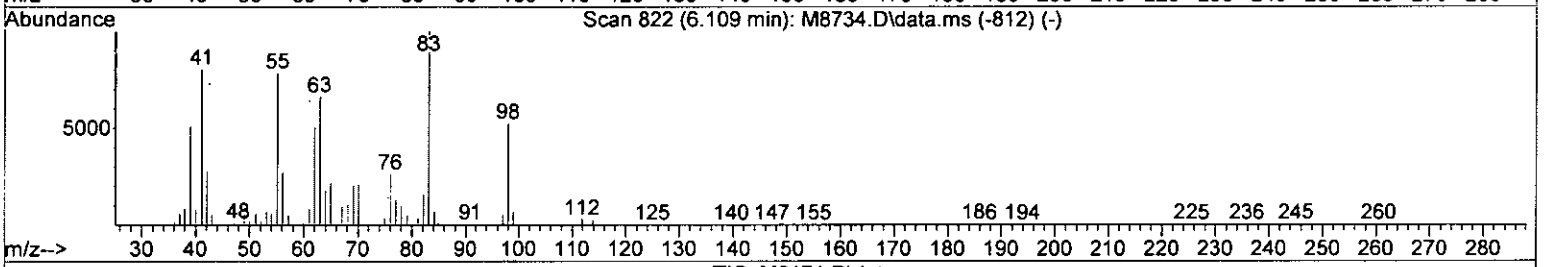
Quantitation Report (Qedit)

Sample : R1407413-013DMS|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration







TIC: M9171.D\data.ms

(55) Methylcyclohexane (P)

6.164min (+0.055) 0.29 ppb

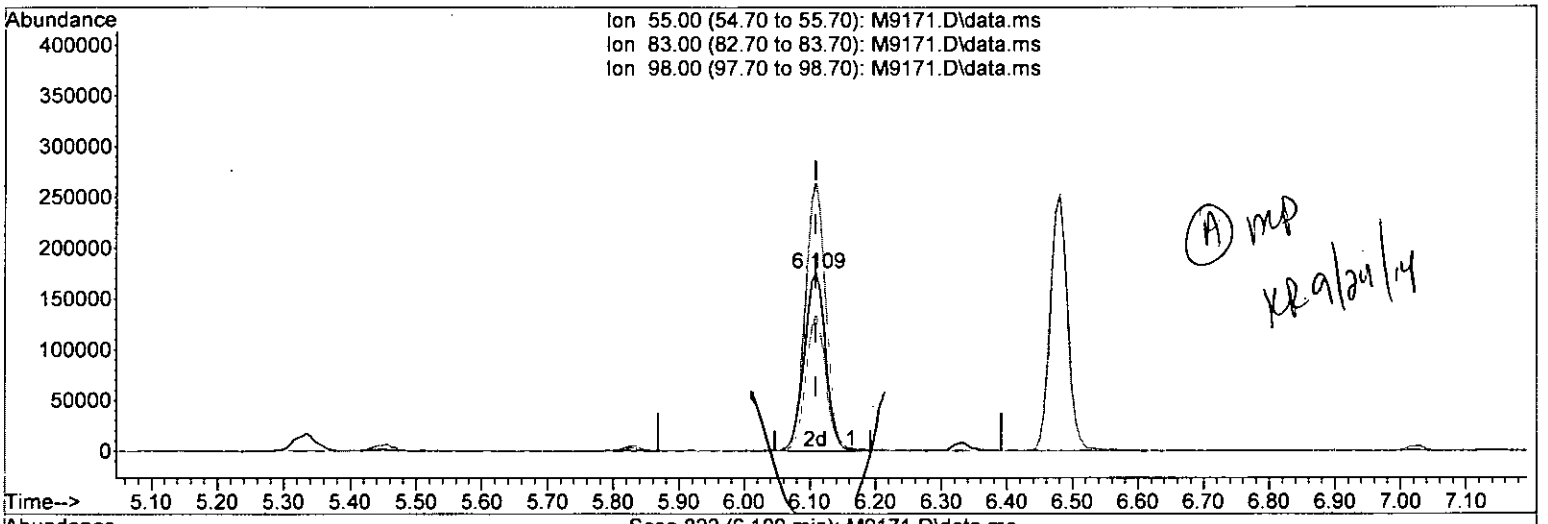
response 2393

Ion	Exp%	Act%
55.00	100	100
83.00	131.20	114.91
98.00	61.40	56.10
0.00	0.00	0.00

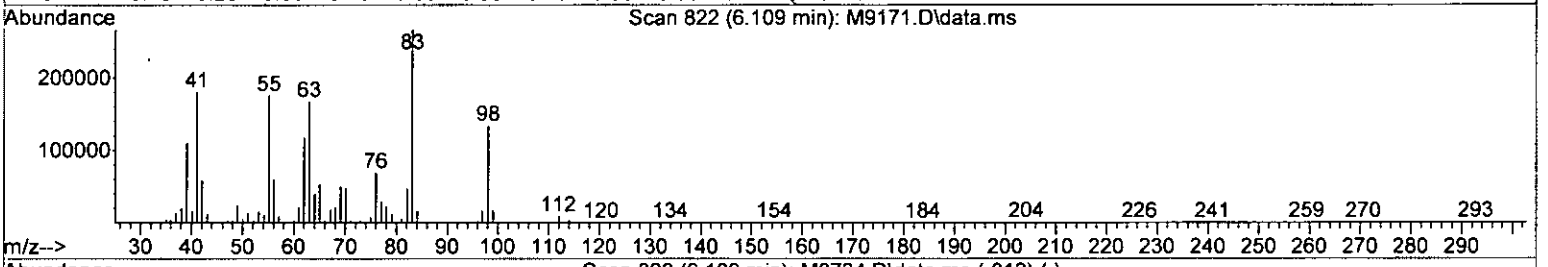
Quantitation Report (Qedit)

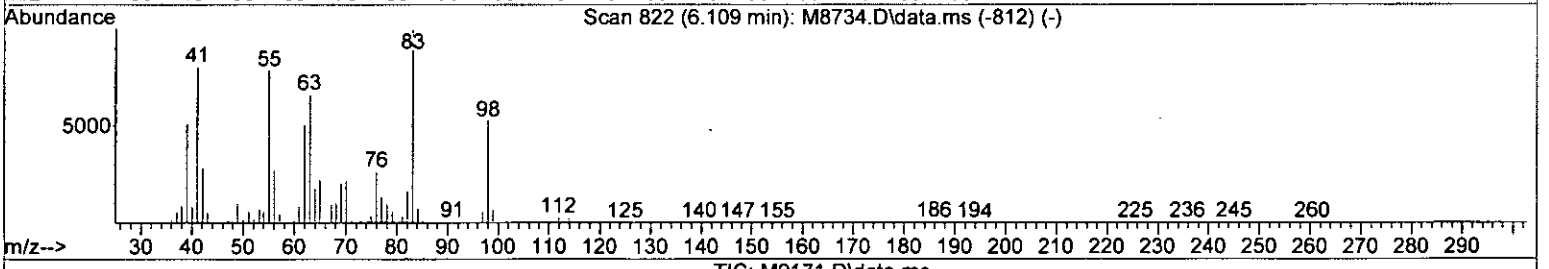
Sample : R1407413-013DMS|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



(A) MP KR 9/24/14





TIC: M9171.D\data.ms

(55) Methylcyclohexane (P)

6.109min (+0.000) 47.23 ppb m

response 396408

Ion	Exp%	Act%
55.00	100	100
83.00	131.20	152.06#
98.00	61.40	76.41
0.00	0.00	0.00

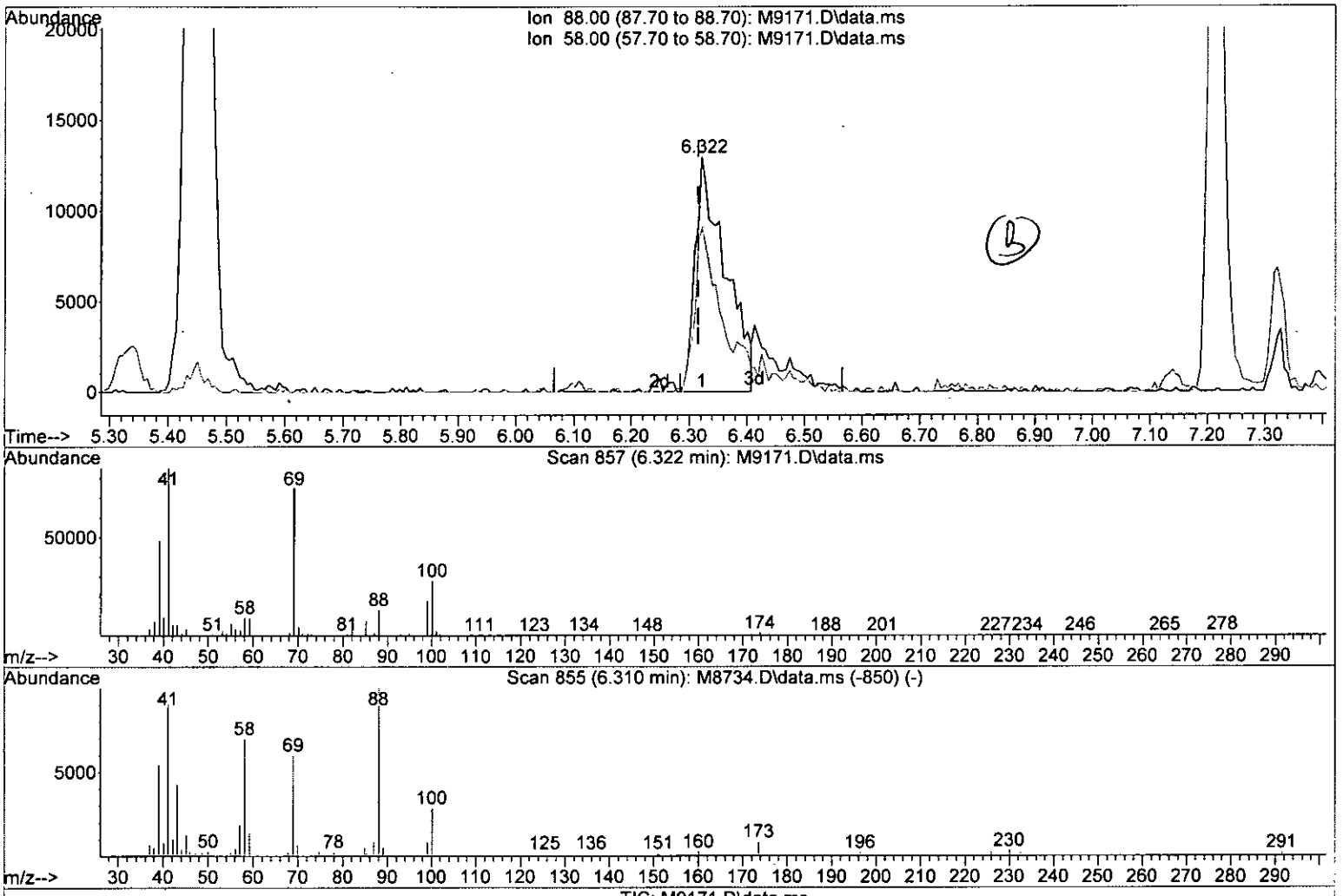
MP 9/25

00468

Quantitation Report (Qedit)

Sample : R1407413-013DMS|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



TIC: M9171.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 725.52 ppb

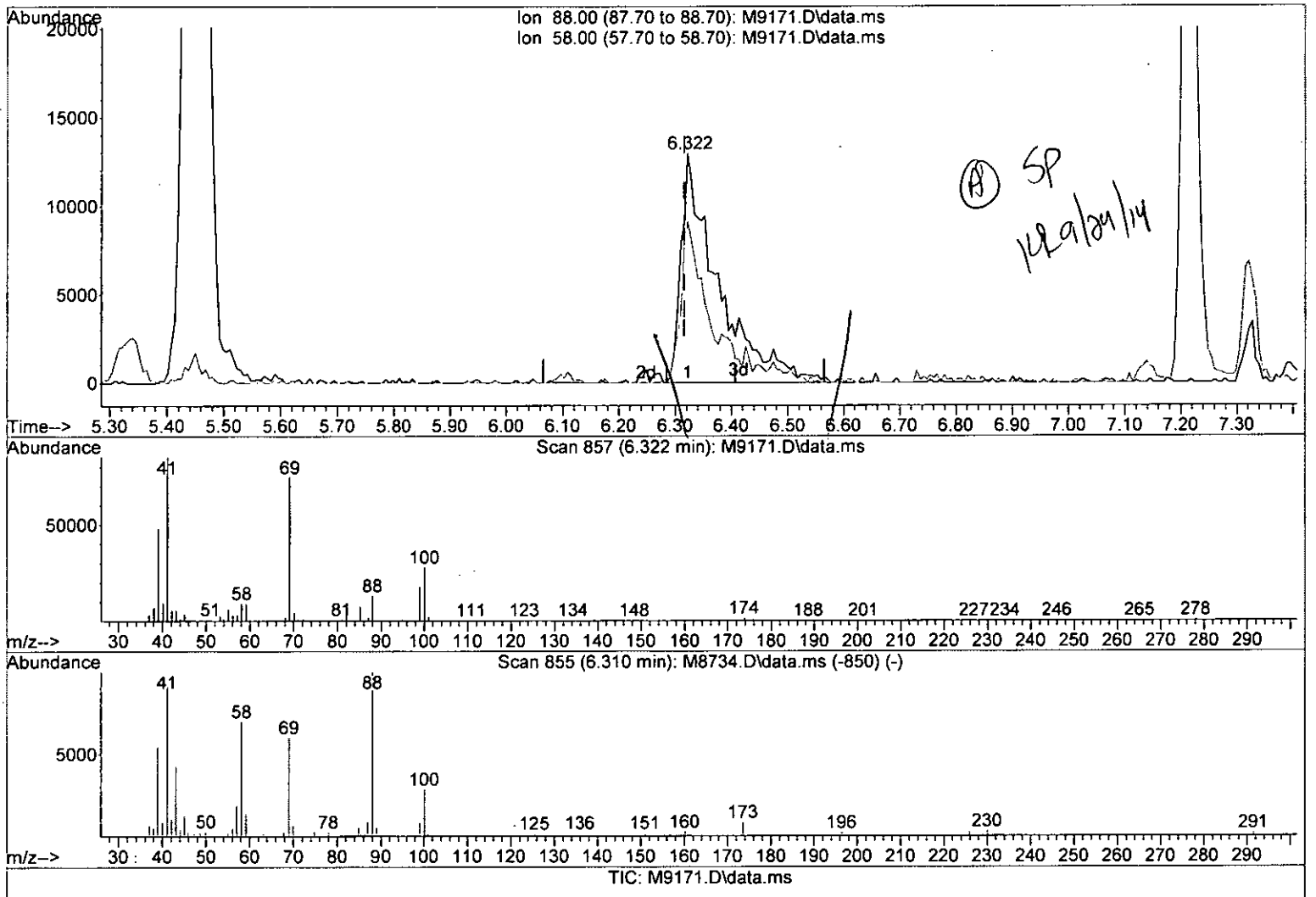
response 46729

Ion	Exp%	Act%
88.00	100	100
58.00	57.90	70.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : R1407413-013DMS|1.0
Data File: I:\ACQUDATA\msvoa12\Data\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



TIC: M9171.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.006) 903.61 ppb m

response 58199

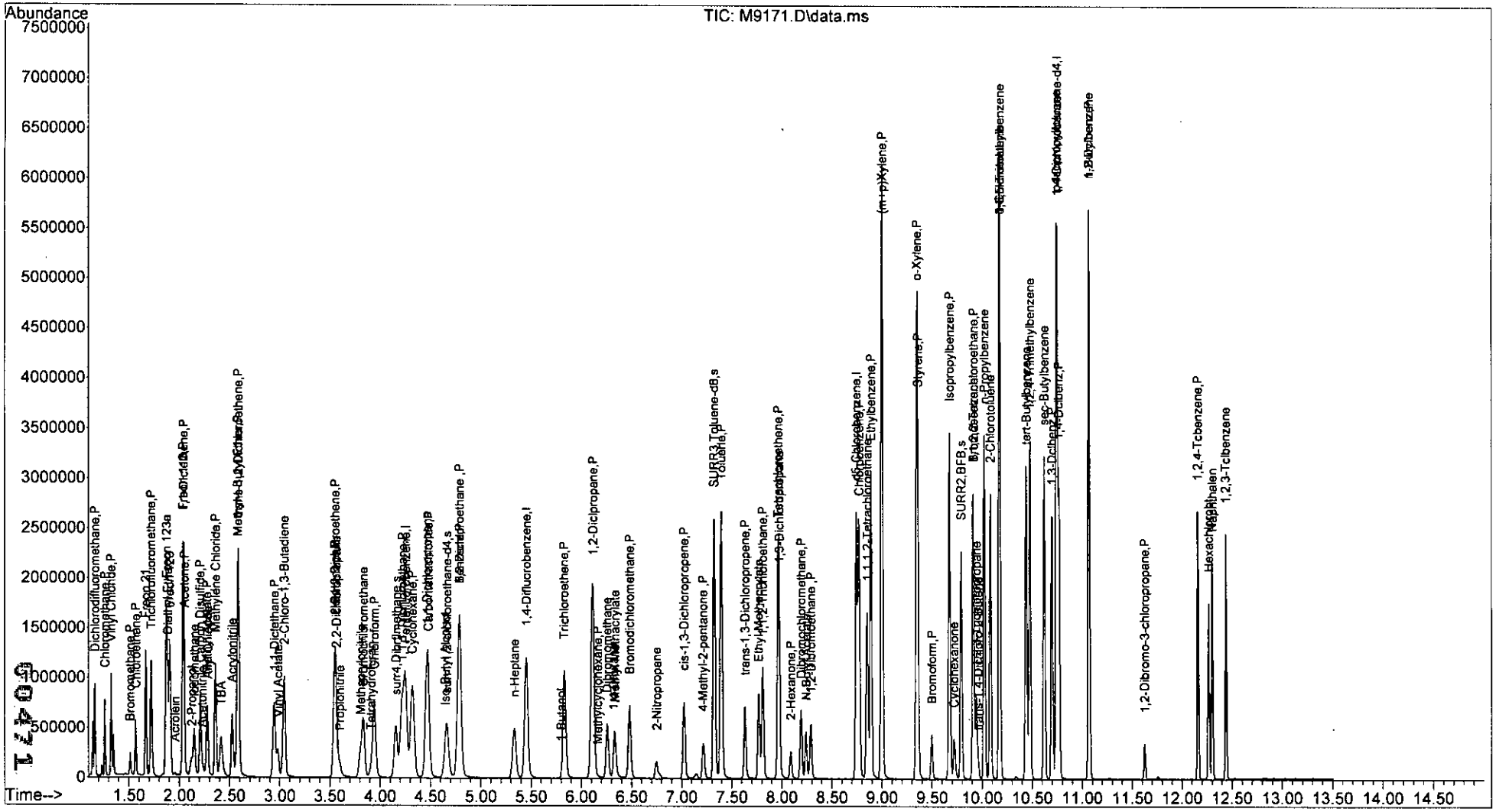
Ion	Exp%	Act%
88.00	100	100
58.00	57.90	70.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

013

Sample : R1407413-~~005~~DMS|~~100~~ 1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\092214\M9171.D
Misc : VERINA 6646/7979 T4
Acq On : 23 Sep 2014 8:46 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W090914.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Sep 23 09:00:58 2014
QLast Update : Wed Sep 10 10:41:23 2014
Response via : Initial Calibration



W090914.M Tue Sep 23 09:01:04 2014

Analysis: 8260 Waters | Analyst: L. Priest | Tune Method: W090914

Date: 9/9/14 | Data Path: j:\acqudata\msvoa12\090914 | Run Method: ↓

Instr. 12 | LIMS Run#: — ICAL —

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MS722		mtune - (auto tune) filament 2
2	↓								MS723		(no tune pass.)
3	↓								MS724		↓
1	BLK								MS725		filament 1 - mtune
2	BLK								MS726		~~Failed #6~~ - not ok
3	TUNE								MS727	YT	W090914
4	~~BLK~~ TUNE								MS728	YT	(auto) 14:37
2	1 BLK	5ppm	SDD ppm SUBD FV						MS729	YB	
3	0.5 ppb	5ml	– – 50mls						MS730	Y	
4	1.0	10ml	– –						MS731	Y	
5	2.0	20ml	– 1ml						MS732	Y	
6	5.0	50ml	– 2ml						MS733	Y	
7	20	–	2ml 5ml						MS734	Y	
8	50	–	5ml –						MS735	Y	
9	100	–	10ml 7.5ml						MS736	Y	
10	200	–	20ml 10ml						MS737	Y	
11	BLK								MS738	–	
12	↓								MS739	–	
13	↓								MS740	–	
14	ICV								MS741	YQ	
15	BLK								MS742	–	

EOD KR 9/9/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

SDD Primary HBD : 73732
Primary CCL : 74202
Primary FH : 74200 10ml → 1.0ml MeOH
Primary HBL : 74156 = 5 ppm
Primary TB : 74199

2DD Secondary FH : 74578 - 12.5ml
SDD Secondary HBD : 73456
Secondary CCL : 74203 5ml
Secondary HB : 74577
Secondary TB : 73925
50mls = ICV

Combined IS/Surr SDD : 74449
Surrogate SDD : 74208
Internal Std :

0042

Analysis: 8260 Waters | Analyst: K. Rivest | Tune Method: W090914

Date: 9/22/14 · Run#2 | Data Path: j:\acqudata\msvoa 12 092214 | Run Method: ↓

Instr. 12 | LIMS Run#: 412453

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
27	DNE (carbon is/su)		PQ1411227 - 01						M9150	Y	(auto) 21:28
28	CCV		02						M9151	Y	
29	LCS		03						M9152	Y	TCE ↑
30	VBLK		—						M9153	N	rpt c/o
31	↓		↓ 04						M9154	Y	
32	R1407413-001	1.0		[redacted]	6646	4	1	12	M9155	Y	
33	002	1.0			7979		1	6	M9156	Y	
34	004	1.0					1	6	M9157	Y	
35	007	1.0					1	6	M9158	Y	
36	009	1.0					1	12	M9159	Y	
37	013	1.0					1	12	M9160	Y	
38	016	1.0					1	6	M9161	Y	
39	019	1.0					1	12	M9162	Y	
40	021	1.0					1	6	M9163	N	TCE 7 MRL
41	008	2.0	25/50mls				1	6	M9164	Y	rpt 5.0
42	010	2.0	↓				1	6	M9165	N	rpt 1.0
43	006	2.5	20/50mls				1	12	M9166	Y	
44	027	2.5	↓				1	6	M9167	Y	
45	003	10	5/50mls				1	12	M9168	N	rpt 5.0
46	005	100	1/100mls				1	12	M9169	Y	
47	MS 013	1.0					2	12	M9170	Y	
48	↓ MSD 013	1.0		↓	↓	↓	3	12	M9171	Y	
49	BLK							—	M9172	—	

EDD 9/23/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary Frt : 74200
↓ Primary HSL : 74907 | 5ml → 50mls
Primary TB : 74750 | = CCV
Primary :
Primary /

200 Secondary Frt : 74518 - 5ml
500 Secondary TB : 73928 | 2ml
↓ Secondary HSL : 74517 | 50mls = LCS
Secondary :
Secondary /

-10.6ml | 4.2ml | 4.2ml vial = MSD

Combined IS/Surr 500 : 74773
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
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0073

Analysis: 8260 Waters | Analyst: K. Quest | Tune Method: W090914

Date: 9/23/14 | Data Path: j:\acqudata\msvoa 12\092314 | Run Method: ↓

Instr. 12 | LIMS Run#: 412669

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	HIGH GASES								M9173		
2	DNT (carbon disk)		RQ1411303-01						M9174	YT	(auto) 10:23
3	CCV		02						M9175	YC	
4	LCS		03						M9176	YD	
5	VBLK		—						M9177	(N)	rpt e/o
6	↓		04						M9178	YB	
7	R1407413-011	1.0		[redacted]	6646	4	1	12	M9179	Y	(FB)
8	020	1.0					1	12	M9180	Y	
9	021	1.0					1	12	M9181	Y	
10	033	1.0					1	12	M9182	Y	↓
11	029	1.0					2	(6)	M9183	Y	
12	010	1.0					2	(6)	M9184	Y	
13	014	1.0					1	12	M9185	Y	
14	022	1.0					1	12	M9186	Y	
15	012	1.0					1	12	M9187	Y	
16	015	1.0					1	(6)	M9188	Y	*should be pres.
17	017	1.0					1	12	M9189	(N)	rpt pos c/o
18	018	1.0					1	12	M9190	Y	
19	031	1.0					1	12	M9191	Y	
20	023	1.0					1	—	M9192		crooked vial - did not
21	008	5.0	10/5D mls				2	(6)	M9193		run ("didn't sense
22	003	5.0	↓				2	12	M9194		water vial" on benchsheet)
23	MS 012	1.0						—	M9195		
24	↓ MSD 012	1.0		↓	↓	↓		—	M9196		(LP)
25	HIGH GASES							—	M9197	—	
26	BLK							—	M9198	—	
											EDD
											KR 9/23/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary HBO : 73932
Primary Acc : 74202
Primary Frt : 74200 — 5ml → 50mls = CCV
Primary HSL : 74907
Primary TG : 74760

200 Secondary Frt : 74518 — 5ml
500 Secondary HBO : 74908
Secondary Acc : 74203 — 2ml
Secondary TG : 73926
Secondary HSL : 74517
→ 50mls = LCS

Combined IS/Surr 500 : 74773
Surrogate :
Internal Std : /

Runlog-MSVOAr2 9/20/13
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00474

Analysis: 8260 Waters	Analyst: K. Ruest		Tune Method: W090914		
Date: 9/24/14	Data Path: j:\acqudata\msvoa12\092414		Run Method: ↓		
Instr. 12			LIMS Run#: 412923		

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	HIGH CASES								M9193		
2	BLK								M9194		
3	TUNE (Carbon 15/5ml)		RQ1411569 - 01						M9195	YT	(auto) 9:52
4	CCV		02						M9196	YC	
5	LCS		03						M9197	YB	
6	VBLK		—						M9198	(N)	rpt c/o
7	↓		↓ 04						M9199	YB	
1	RH07413-001	1.0		[redacted]	6646	4	2	12	M9200	Y	
2	006	5.0	10/50mls				2	(6)	M9201	(Y)	DL
3	003	5.0	↓				2	12	M9202	(Y)	DL
4	(BLK)						—	—	M9203	—	
5	023	1.01					1	12	M9204	Y	
6	024	1.0					1	12	M9205	Y	
7	025	1.0					1	12	M9206	Y	
8	026	1.0					1	12	M9207	Y	
9	028	1.0					1	12	M9208	Y	
10	030	1.0					1	12	M9209	Y	
11	032	1.0					1	12	M9210	Y	
12	RH07320-001	1.0		[redacted]	6721	4	1	12	M9211	Y	
13	002	10	5/50mls				1	5	M9212	(N)	rpt 1.0
14	001	200	1/200mls				1	6	M9213	(N)	rpt 5.0
15	003	200	↓				1	6	M9214	(N)	rpt 5.0
16	MS 002	10	5/50mls				1	5	M9215	(N)	rpt 1.0 w/ parent
17	MSD 002	10		↓	↓	↓	1	5	M9216	(N)	↓
18	BLK						—	—	M9217	—	

KR 9/24/14

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

5mls

Primary HBD : 75032
Primary CC : 74202
Primary FT : 74200 5ml → 50mls
Primary TO : 75017 = CCV
Primary HL : 74907

200 Secondary FT : 74518 - 5ml
300 Secondary HBD : 74908
Secondary CC : 74203 2ml
Secondary TO : 75033
Secondary HL : 74517

50mls = LCS
- 10.6ml
- 0
- 0
- 4.2ml
- 4.2ml

40ml vial = MS/D

Combined IS/Surr 300 : 74773
Surrogate :
Internal Std :

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

December 18, 2014

Analytical Report for Service Request No: R1409379

Ms. Tammy Yuan
Verina Consulting Group, LLC
220 Davidson Avenue, Suite 105
Somerset, NJ 08873

Laboratory Results for: Dover - Kirkwood/5101.0002

Dear Ms. Yuan:

Enclosed are the results of the sample(s) submitted to our laboratory on November 20, 2014. For your reference, these analyses have been assigned our service request number **R1409379**.

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

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

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

CASE NARRATIVE

Client:	Verina Consulting	**Service Request:**	R1409379
Project:	Kirkwood	**Project Number:**	5101.002
Sample Matrix:	Water	**Date Received:**	11/20/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 11/18/14 and received at ALS Rochester on 09/22/14 at a cooler temperature of 3.2 °C in good condition except as noted on the cooler receipt and preservation check form.

Volatile Organics

Water samples were analyzed for a site list of Volatile Organics by Method 8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

The Laboratory Control Sample (LCS) recoveries were all acceptable.

All surrogate standard recoveries were within acceptable limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 5101.0002	Batch Complete: Yes	Date Revised:
Submission: R1409379	Diskette Requested: No	Date Due: 12/15/14
Client: Verina Consulting Group, LLC	Date: 11/20/14	Protocol: SW846
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:
Project: Dover - Kirkwood	Chain of Custody: Present/Absent:	SDG #: MW-5

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1409379-001	Trip Blank	Water	8260C	11/18/14	11/20/14			
R1409379-002	MW-5	Water	8260C	11/18/14	11/20/14			
R1409379-003	MW-17	Water	8260C	11/18/14	11/20/14			
R1409379-004	MW-31	Water	8260C	11/18/14	11/20/14			
R1409379-005	FB-111814	Water	8260C	11/18/14	11/20/14			
R1409379-006	DUP-111814	Water	8260C	11/18/14	11/20/14			

5000

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH NELAP

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

19669

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

Project Name: Dover - Kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC:
Company/Address: 220 Davidson Ave Suite 305, Somerset, NJ 08875	
Phone #: 732 - 412 - 7576	Email: TYUAN@VCG-LLC.com
Sampler's Signature:	Sampler's Printed Name: Kevin Soldo, Mikhail Fradkin

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

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOCs	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		11/11/14	08:15	TB		X	
MW-5		11/18/14	11:35	GW		X	
MW-17		11/18/14	14:15	GW		X	
MW-31		11/18/14	15:45	GW		X	
FB- 111814		11/18/14	16:00	GW		X	Field Blank
DUP- 111814		11/18/14	—	GW		X	Duplicate Sample

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

GCMS VOAs • 8260 • 624 • CLP; GCMS SVOAs • 8270 • 625; GC VOAs • 8021 • 601/602; PESTICIDES • 8081 • 608; PCBs • 8082 • 608; METALS, TOTAL (List in comments below); METALS, DISSOLVED (List in comments below)

SPECIAL INSTRUCTIONS/COMMENTS

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

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS

____ I. Results Only

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

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata X Yes ____ No

INVOICE INFORMATION

PO # 5101.0002

BILL TO: Verina

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	
Printed Name: Mikhail Fradkin	Printed Name: Gregory O. Esmerian	Printed Name:	Printed Name:	Printed Name:	
Firm: Verina	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 11/19/14 13:10	Date/Time: 11/20/14 9:30	Date/Time:	Date/Time:	Date/Time:	

R1409379 5

Verina Consulting Group, LLC
Dover - Kirkwood

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

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R1409379 5
Verina Consulting Group, LLC
Dover - Kirkwood

Cooler Receipt and Preservation Check Form

Project/Client Verina Folder Number R14-9379

Cooler received on 11-20-14 by: ME COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

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

8. Temperature Readings Date: 11-20-14 Time: 09:59 ID: (IR#3) IR#4 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	3.7						
Correction Factor (°C)	-0.5						
Corrected Temp (°C)	3.2						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

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

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

All samples held in storage location: R-002 by ME on 11-20-14 at 10:05
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: MS 11/20/14

Cooler Breakdown: Date: 11/22/14 Time: 1125 by: (P)

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	Client						
	HCl	**	**	4113070	10/15				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client, 4-162-002
Other Comments:

PC Secondary Review: MS 12/2/14 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 0815
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 01:38
Sample Name:	Trip Blank	**Units:**	µg/L
Lab Code:	R1409379-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0979.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85-122	11/25/14 01:38	
Dibromofluoromethane	99	89-119	11/25/14 01:38	
Toluene-d8	101	87-121	11/25/14 01:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1125
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 02:43
Sample Name:	MW-5	**Units:**	µg/L
Lab Code:	R1409379-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0981.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**45**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**2.3**	**J**	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 02:43	
Dibromofluoromethane	99	89-119	11/25/14 02:43	
Toluene-d8	102	87-121	11/25/14 02:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1415
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 03:15
Sample Name:	MW-17	**Units:**	µg/L
Lab Code:	R1409379-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0982.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**1.8**	**J**	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.28**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 03:15	
Dibromofluoromethane	100	89-119	11/25/14 03:15	
Toluene-d8	104	87-121	11/25/14 03:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1545
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 03:47
Sample Name:	MW-31	**Units:**	µg/L
Lab Code:	R1409379-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0983.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.38**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.38**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	11/25/14 03:47	
Dibromofluoromethane	99	89-119	11/25/14 03:47	
Toluene-d8	101	87-121	11/25/14 03:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1600
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 02:10
Sample Name:	FB-111814	**Units:**	µg/L
Lab Code:	R1409379-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0980.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	11/25/14 02:10	
Dibromofluoromethane	101	89-119	11/25/14 02:10	
Toluene-d8	102	87-121	11/25/14 02:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 04:20
Sample Name:	DUP-111814	**Units:**	µg/L
Lab Code:	R1409379-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0984.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	0.39	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	0.37	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 04:20	
Dibromofluoromethane	101	89-119	11/25/14 04:20	
Toluene-d8	103	87-121	11/25/14 04:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/25/14 01:06
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1414574-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\msvoa12\Data\112414\MM0978.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 01:06	
Dibromofluoromethane	101	89-119	11/25/14 01:06	
Toluene-d8	102	87-121	11/25/14 01:06	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1409379
Date Analyzed: 11/25/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 422841

Lab Control Sample
RQ1414574-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	19.5	20.0	98	71 - 123
1,1-Dichloroethane (1,1-DCA)	20.1	20.0	100	76 - 128
1,1-Dichloroethene (1,1-DCE)	19.5	20.0	98	74 - 135
Tetrachloroethene (PCE)	19.9	20.0	100	69 - 124
Trichloroethene (TCE)	20.6	20.0	103	76 - 123
Vinyl Chloride	22.8	20.0	114	69 - 136
cis-1,2-Dichloroethene	20.5	20.0	103	80 - 121
trans-1,2-Dichloroethene	20.4	20.0	102	78 - 124

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

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

ALS Environmental
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Rochester, NY 14623
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December 18, 2014

Analytical Report for Service Request No: R1409379

Ms. Tammy Yuan
Verina Consulting Group, LLC
220 Davidson Avenue, Suite 105
Somerset, NJ 08873

Laboratory Results for: Dover - Kirkwood/5101.0002

Dear Ms. Yuan:

Enclosed are the results of the sample(s) submitted to our laboratory on November 20, 2014. For your reference, these analyses have been assigned our service request number **R1409379**.

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

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

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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CASE NARRATIVE

Client:	Verina Consulting	**Service Request:**	R1409379
Project:	Kirkwood	**Project Number:**	5101.002
Sample Matrix:	Water	**Date Received:**	11/20/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 11/18/14 and received at ALS Rochester on 09/22/14 at a cooler temperature of 3.2 °C in good condition except as noted on the cooler receipt and preservation check form.

Volatile Organics

Water samples were analyzed for a site list of Volatile Organics by Method 8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas were within QC limits.

The Laboratory Control Sample (LCS) recoveries were all acceptable.

All surrogate standard recoveries were within acceptable limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 5101.0002	Batch Complete: Yes	Date Revised:
Submission: R1409379	Diskette Requested: No	Date Due: 12/15/14
Client: Verina Consulting Group, LLC	Date: 11/20/14	Protocol: SW846
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:
Project: Dover - Kirkwood	Chain of Custody: Present/Absent:	SDG #: MW-5

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1409379-001	Trip Blank	Water	8260C	11/18/14	11/20/14			
R1409379-002	MW-5	Water	8260C	11/18/14	11/20/14			
R1409379-003	MW-17	Water	8260C	11/18/14	11/20/14			
R1409379-004	MW-31	Water	8260C	11/18/14	11/20/14			
R1409379-005	FB-111814	Water	8260C	11/18/14	11/20/14			
R1409379-006	DUP-111814	Water	8260C	11/18/14	11/20/14			

5005

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

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ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

19669

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

Project Name: Dover - Kirkwood	Project Number: 5101.0002
Project Manager: Tammy Yuan	Report CC:
Company/Address: 220 Davidson Ave Suite 405, Somerset, NJ 08875	
Phone #: 732 - 412 - 7576	Email: TYUAN@VCG-LLC.com
Sampler's Signature:	Sampler's Printed Name: Kevin Soldo, Mikhail Fradkin

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SSPL VOCs	REMARKS/ ALTERNATE DESCRIPTION
Trip Blank		11/11/14	08:15	TB		X	
MW-5		11/13/14	11:35	GW		X	
MW-17		11/18/14	14:15	GW		X	
MW-31		11/18/14	15:45	GW		X	
FB- 111814		11/18/14	16:00	SB		X	Field Blank
DUP. 111814		11/18/14	—	GW		X	Replicate Sample

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

SPECIAL INSTRUCTIONS/COMMENTS

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

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata X Yes _____ No

INVOICE INFORMATION
PO # 5101.0002
BILL TO: Verina

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	
Printed Name: Mikhail Fradkin	Printed Name: Gregory D. Esmerian	Printed Name:	Printed Name:	Printed Name:	
Firm: Verina	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 11/19/14 13:10	Date/Time: 11/20/14 9:30	Date/Time:	Date/Time:	Date/Time:	

R1409379 5
Verina Consulting Group, LLC
Dover - Kirkwood

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

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R1409379 5
Verina Consulting Group, LLC
Dover - Kirkwood

Cooler Receipt and Preservation Check Form

Project/Client Verina Folder Number R14-9379

Cooler received on 11-20-14 by: ME COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

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

8. Temperature Readings Date: 11-20-14 Time: 09:59 ID: (IR#3) IR#4 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	3.7						
Correction Factor (°C)	-0.5						
Corrected Temp (°C)	3.2°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

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

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

All samples held in storage location: R-002 by ME on 11-20-14 at 10:05
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: MS 11/20/14

Cooler Breakdown: Date: 11/22/14 Time: 1125 by: _____

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	Client	4113070	10/15				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: Client, 4-162-002
Other Comments:

PC Secondary Review: MS 12/2/14 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1409379

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1409379-001.01					
	8260C				
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
		11/24/14	1601	In Lab / KRUEST	
		11/24/14	1628	R-001-S12 / JCUSHMAN	
R1409379-001.02					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-001.03					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-002.01					
	8260C				
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
		11/24/14	1601	In Lab / KRUEST	
		11/24/14	1628	R-001-S12 / JCUSHMAN	
R1409379-002.02					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-002.03					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-003.01					
	8260C				
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
		11/24/14	1601	In Lab / KRUEST	
		11/24/14	1628	R-001-S12 / JCUSHMAN	
R1409379-003.02					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-003.03					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-004.01					
	8260C				
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
		11/24/14	1601	In Lab / KRUEST	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1409379

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/24/14	1628	R-001-S12 / JCUSHMAN	
R1409379-004.02					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-004.03					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-005.01					
	8260C				
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
		11/24/14	1601	In Lab / KRUEST	
		11/24/14	1628	R-001-S12 / JCUSHMAN	
R1409379-005.02					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-005.03					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-006.01					
	8260C				
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
		11/24/14	1601	In Lab / KRUEST	
		11/24/14	1628	R-001-S12 / JCUSHMAN	
R1409379-006.02					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	
R1409379-006.03					
		11/22/14	1127	SMO / GLAFORCE	
		11/22/14	1127	R-001 / GLAFORCE	

ALS Environmental

VOLATILE ORGANICS
QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002
Sample Matrix: Water

Service Request: R1409379
Date Analyzed: 11/25/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 422841

Lab Control Sample
RQ1414574-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	19.5	20.0	98	71 - 123
1,1-Dichloroethane (1,1-DCA)	20.1	20.0	100	76 - 128
1,1-Dichloroethene (1,1-DCE)	19.5	20.0	98	74 - 135
Tetrachloroethene (PCE)	19.9	20.0	100	69 - 124
Trichloroethene (TCE)	20.6	20.0	103	76 - 123
Vinyl Chloride	22.8	20.0	114	69 - 136
cis-1,2-Dichloroethene	20.5	20.0	103	80 - 121
trans-1,2-Dichloroethene	20.4	20.0	102	78 - 124

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Analyzed:**	11/25/14 01:06
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1414574-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\112414\MM0978.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1414574-03	I:\ACQUDATA\msvoa12\Data\112414\MM0976.D\	11/25/14 00:01
Trip Blank	R1409379-001	I:\ACQUDATA\MSVOA12\DATA\112414\MM0979.D\	11/25/14 01:38
FB-111814	R1409379-005	I:\ACQUDATA\MSVOA12\DATA\112414\MM0980.D\	11/25/14 02:10
MW-5	R1409379-002	I:\ACQUDATA\MSVOA12\DATA\112414\MM0981.D\	11/25/14 02:43
MW-17	R1409379-003	I:\ACQUDATA\MSVOA12\DATA\112414\MM0982.D\	11/25/14 03:15
MW-31	R1409379-004	I:\ACQUDATA\MSVOA12\DATA\112414\MM0983.D\	11/25/14 03:47
DUP-111814	R1409379-006	I:\ACQUDATA\MSVOA12\DATA\112414\MM0984.D\	11/25/14 04:20

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Kirkwood/5101.0002

Service Request: R1409379
Date Analyzed: 10/27/14 15:08

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\102714\MM0095.D\
Instrument ID: R-MS-12

Analytical Metbod: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	23.1	98133	Pass
75	95	30	60	53.6	227669	Pass
95	95	100	100	100.0	424533	Pass
96	95	5	9	6.7	28573	Pass
173	174	0	2	1.1	3648	Pass
174	95	50	120	76.3	324011	Pass
175	174	5	9	7.7	25107	Pass
176	174	95	101	96.8	313536	Pass
177	176	5	9	6.8	21386	Pass

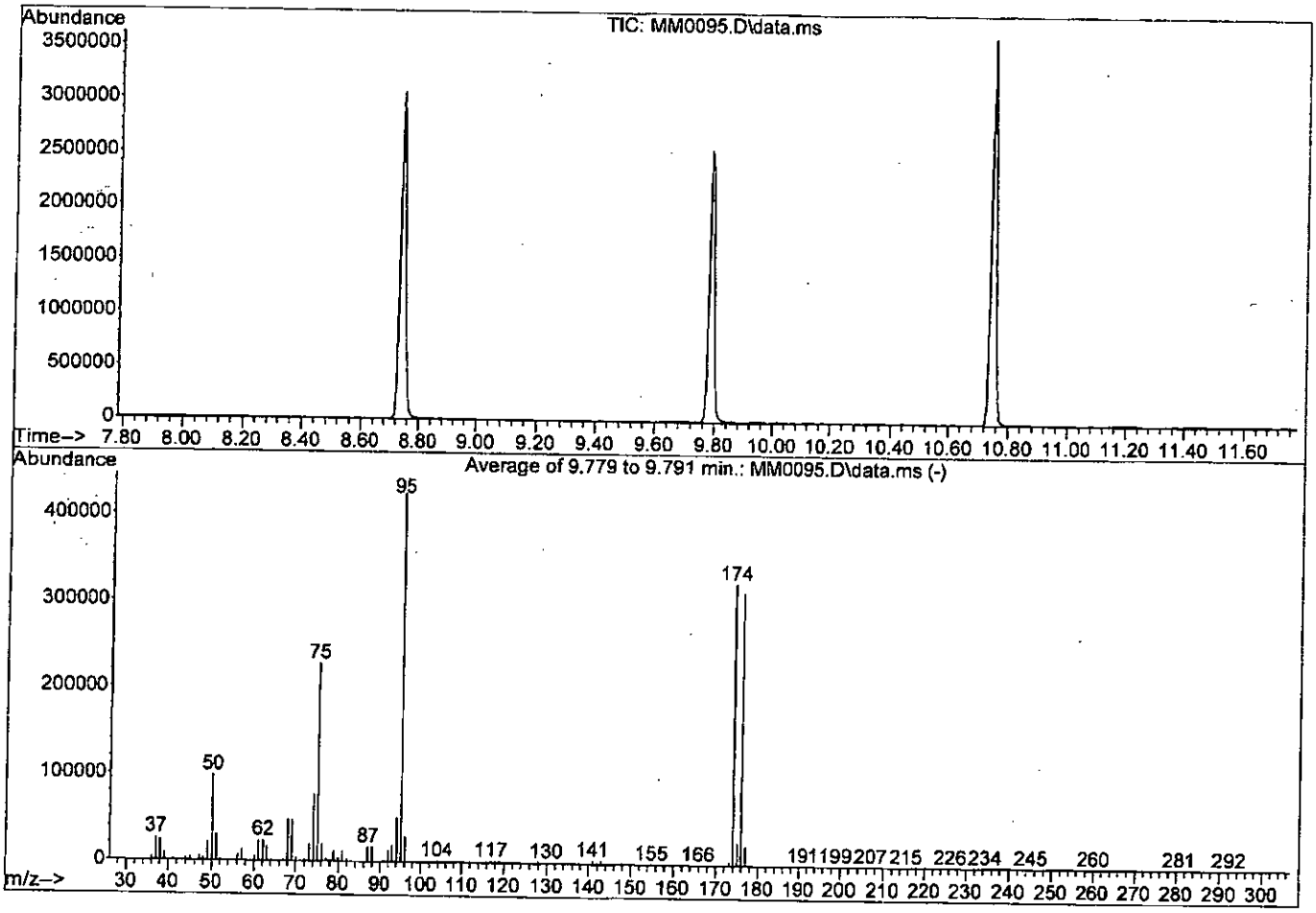
Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0097.D\	10/27/14 16:13	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0098.D\	10/27/14 16:45	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0099.D\	10/27/14 17:17	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0101.D\	10/27/14 17:49	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0102.D\	10/27/14 18:21	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0102.D\	10/27/14 18:54	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0103.D\	10/27/14 19:26	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0104.D\	10/27/14 19:58	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0105.D\	10/27/14 20:31	

Data Path : I:\ACQUDATA\msvoa12\Data\102714\
Data File : MM0095.D
Acq On : 27 Oct 2014 3:08 pm
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

KR 10/27/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Mon Oct 27 15:07:21 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	98133	PASS
75	95	30	60	53.6	227669	PASS
95	95	100	100	100.0	424533	PASS
96	95	5	9	6.7	28573	PASS
173	174	0.00	2	1.1	3648	PASS
174	95	50	120	76.3	324011	PASS
175	174	5	9	7.7	25107	PASS
176	174	95	101	96.8	313536	PASS
177	176	5	9	6.8	21386	PASS

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1409379
Date Analyzed: 11/24/14 22:56

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\112414\MM0974.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 422841

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.37	87811	Pass
75	95	30	60	52.74	216661	Pass
95	95	100	100	100.00	410816	Pass
96	95	5	9	6.76	27771	Pass
173	174	0	2	0.56	1874	Pass
174	95	50	120	81.72	335723	Pass
175	174	5	9	7.97	26771	Pass
176	174	95	101	96.76	324843	Pass
177	176	5	9	6.69	21733	Pass

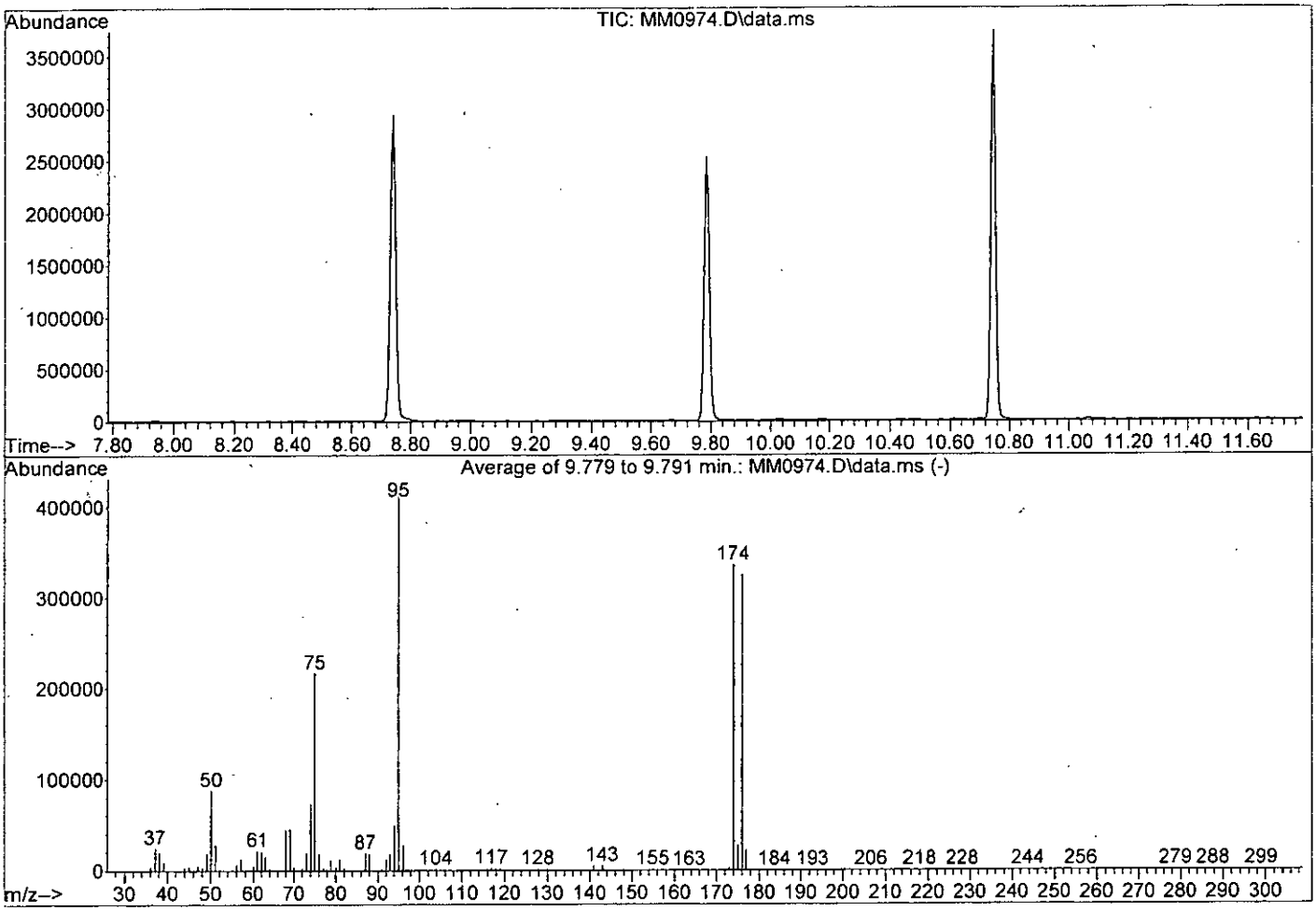
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1414574-02	I:\ACQUDATA\msvoa12\Data\112414\MM0975.D\	11/24/14 23:28	
Lab Control Sample	RQ1414574-03	I:\ACQUDATA\msvoa12\Data\112414\MM0976.D\	11/25/14 00:01	
Method Blank	RQ1414574-04	I:\ACQUDATA\msvoa12\Data\112414\MM0978.D\	11/25/14 01:06	
Trip Blank	R1409379-001	I:\ACQUDATA\MSVOA12\DATA\112414\MM0979.D\	11/25/14 01:38	
FB-111814	R1409379-005	I:\ACQUDATA\MSVOA12\DATA\112414\MM0980.D\	11/25/14 02:10	
MW-5	R1409379-002	I:\ACQUDATA\MSVOA12\DATA\112414\MM0981.D\	11/25/14 02:43	
MW-17	R1409379-003	I:\ACQUDATA\MSVOA12\DATA\112414\MM0982.D\	11/25/14 03:15	
MW-31	R1409379-004	I:\ACQUDATA\MSVOA12\DATA\112414\MM0983.D\	11/25/14 03:47	
DUP-111814	R1409379-006	I:\ACQUDATA\MSVOA12\DATA\112414\MM0984.D\	11/25/14 04:20	

Data Path : I:\ACQUDATA\msvoa12\Data\112414\
Data File : MM0974.D
Acq On : 24 Nov 2014 10:56 pm
Operator : K.Ruest
Sample : TUNE LQ1414574-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

KR 11/25/14

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Tue Oct 28 10:54:16 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.4	87811	PASS
75	95	30	60	52.7	216661	PASS
95	95	100	100	100.0	410816	PASS
96	95	5	9	6.8	27771	PASS
173	174	0.00	2	0.6	1874	PASS
174	95	50	120	81.7	335723	PASS
175	174	5	9	8.0	26771	PASS
176	174	95	101	96.8	324843	PASS
177	176	5	9	6.7	21733	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1409379
Date Analyzed: 11/24/14 23:28

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

File ID: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1414574-02
Analysis Lot: 422841
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	744,056	10.75	1,320,940	5.45	1,250,807	8.74
	Upper Limit ==>	1,488,112	11.25	2,641,880	5.95	2,501,614	9.24
	Lower Limit ==>	372,028	10.25	660,470	4.95	625,404	8.24
	ICAL Result ==>	744,954	10.75	1,362,156	5.45	1,272,285	8.74
Associated Analyses							
Lab Control Sample	RQ1414574-03	725,866	10.75	1,327,505	5.44	1,249,555	8.74
Method Blank	RQ1414574-04	657,355	10.75	1,279,942	5.45	1,200,732	8.74
Trip Blank	R1409379-001	615,622	10.75	1,272,664	5.45	1,187,958	8.74
FB-111814	R1409379-005	628,373	10.75	1,274,361	5.45	1,171,770	8.74
MW-5	R1409379-002	630,488	10.75	1,273,006	5.45	1,195,551	8.74
MW-17	R1409379-003	624,662	10.75	1,242,021	5.45	1,177,989	8.74
MW-31	R1409379-004	633,572	10.75	1,254,882	5.45	1,167,582	8.74
DUP-111814	R1409379-006	632,951	10.75	1,246,673	5.45	1,178,241	8.74

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1409379
Date Analyzed: 11/24/14 23:28

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

File ID: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1414574-02
Analysis Lot: 422841
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	863,211	4.25
	Upper Limit ==>	1,726,422	4.75
	Lower Limit ==>	431,606	3.75
	ICAL Result ==>	896,470	4.24
Associated Analyses			
Lab Control Sample	RQ1414574-03	864,747	4.25
Method Blank	RQ1414574-04	842,080	4.25
Trip Blank	R1409379-001	830,783	4.25
FB-111814	R1409379-005	831,454	4.25
MW-5	R1409379-002	833,974	4.25
MW-17	R1409379-003	821,218	4.25
MW-31	R1409379-004	814,240	4.25
DUP-111814	R1409379-006	813,357	4.25

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

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 0815
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 01:38
Sample Name:	Trip Blank	**Units:**	µg/L
Lab Code:	R1409379-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0979.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85-122	11/25/14 01:38	
Dibromofluoromethane	99	89-119	11/25/14 01:38	
Toluene-d8	101	87-121	11/25/14 01:38	

Quantitation Report (Not Reviewed)

Sample : R1409379-001|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0979.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 1:38 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 01:52:48 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	830783	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1272664	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1187958	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	615622	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	367182	49.54	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.08%				
48) surr1,1,2-dichloroetha...	4.664	65	446885	49.52	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 99.04%				
65) SURR3,Toluene-d8	7.322	98	1579723	50.63	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.26%				
70) SURR2,BFB	9.785	95	574646	47.47	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.94%				
Target Compounds							Qvalue
12) Acrolein	1.969	56	225	0.65	ppb	#	66
15) Acetone	2.055	43	588	0.33	ppb		69
16) 2-Propanol	2.109	45	186	0.53	ppb	#	55
20) Allyl Chloride	2.207	76	2788	0.69	ppb	#	1
39) Tetrahydrofuran	3.908	42	342	0.20	ppb	#	40
90) Cyclohexanone	9.712	55	553	1.53	ppb	#	59
115) 1,2,4-Tcbenzene	12.156	180	2703	0.30	ppb	#	62
116) Hexachlorobt	12.260	225	1488	0.41	ppb		83
118) 1,2,3-Tclbenzene	12.437	180	2493	0.32	ppb	#	81

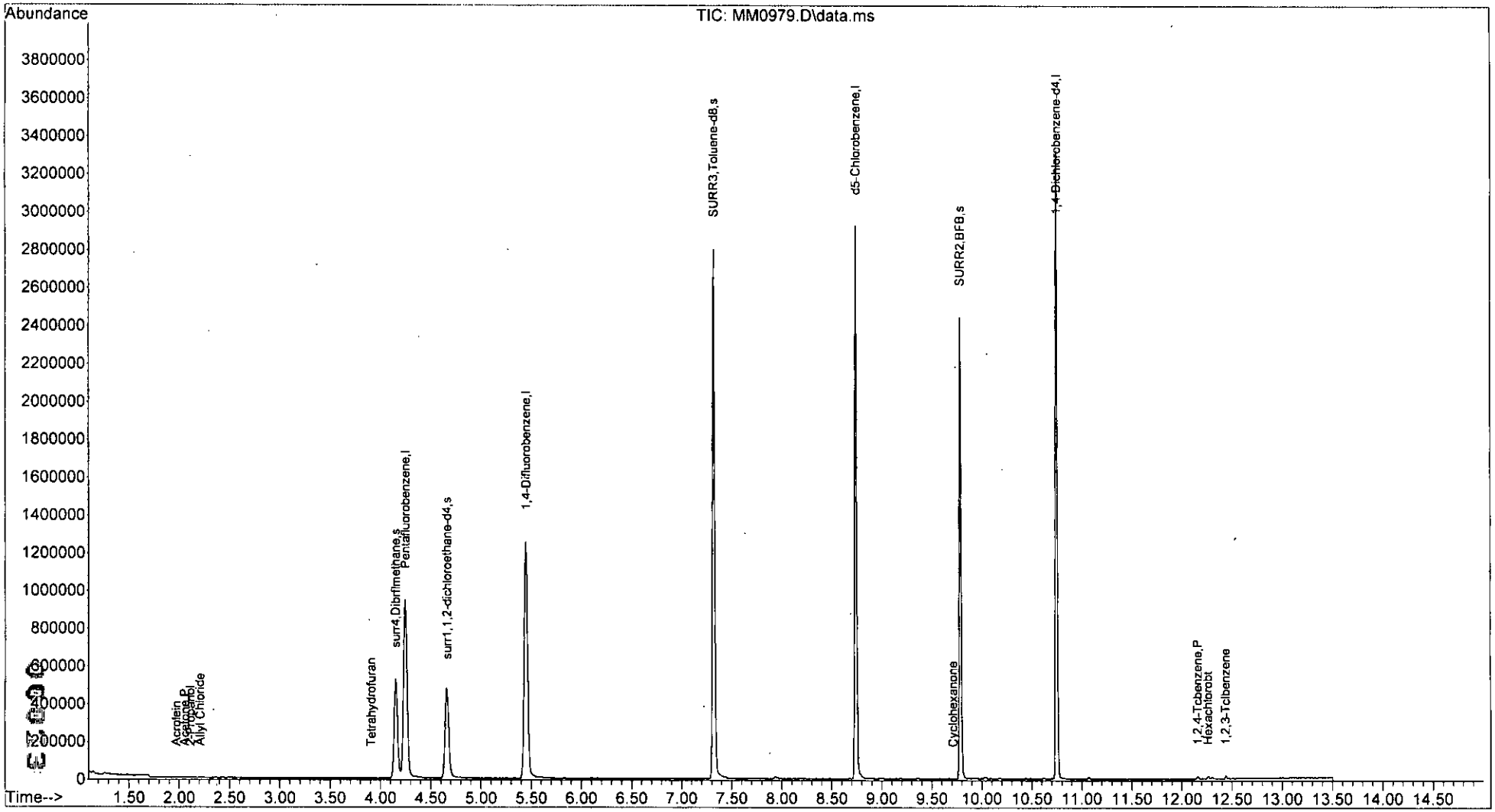
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/1/14

Quantitation Report (Not Reviewed)

Sample : R1409379-001|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0979.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 1:38 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 01:52:48 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1125
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 02:43
Sample Name:	MW-5	**Units:**	µg/L
Lab Code:	R1409379-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0981.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**45**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**2.3**	**J**	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 02:43	
Dibromofluoromethane	99	89-119	11/25/14 02:43	
Toluene-d8	102	87-121	11/25/14 02:43	

Quantitation Report (QT Reviewed)

Sample : R1409379-002|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0981.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 2:43 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:47:37 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	833974	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1273006	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1195551	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	630488	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.158	113	365933	49.36	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.72%			
48) surr1,1,2-dichloroetha...	4.658	65	430677	47.71	ppb	0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 95.42%			
65) SURR3,Toluene-d8	7.322	98	1590183	50.95	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.90%			
70) SURR2,BFB	9.785	95	585054	48.31	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.62%			
Target Compounds						Qvalue
54) Trichloroethene	5.828	130	19264	2.26	ppb	92
72) Tetrachloroethene	7.962	164	312528	45.43	ppb	97

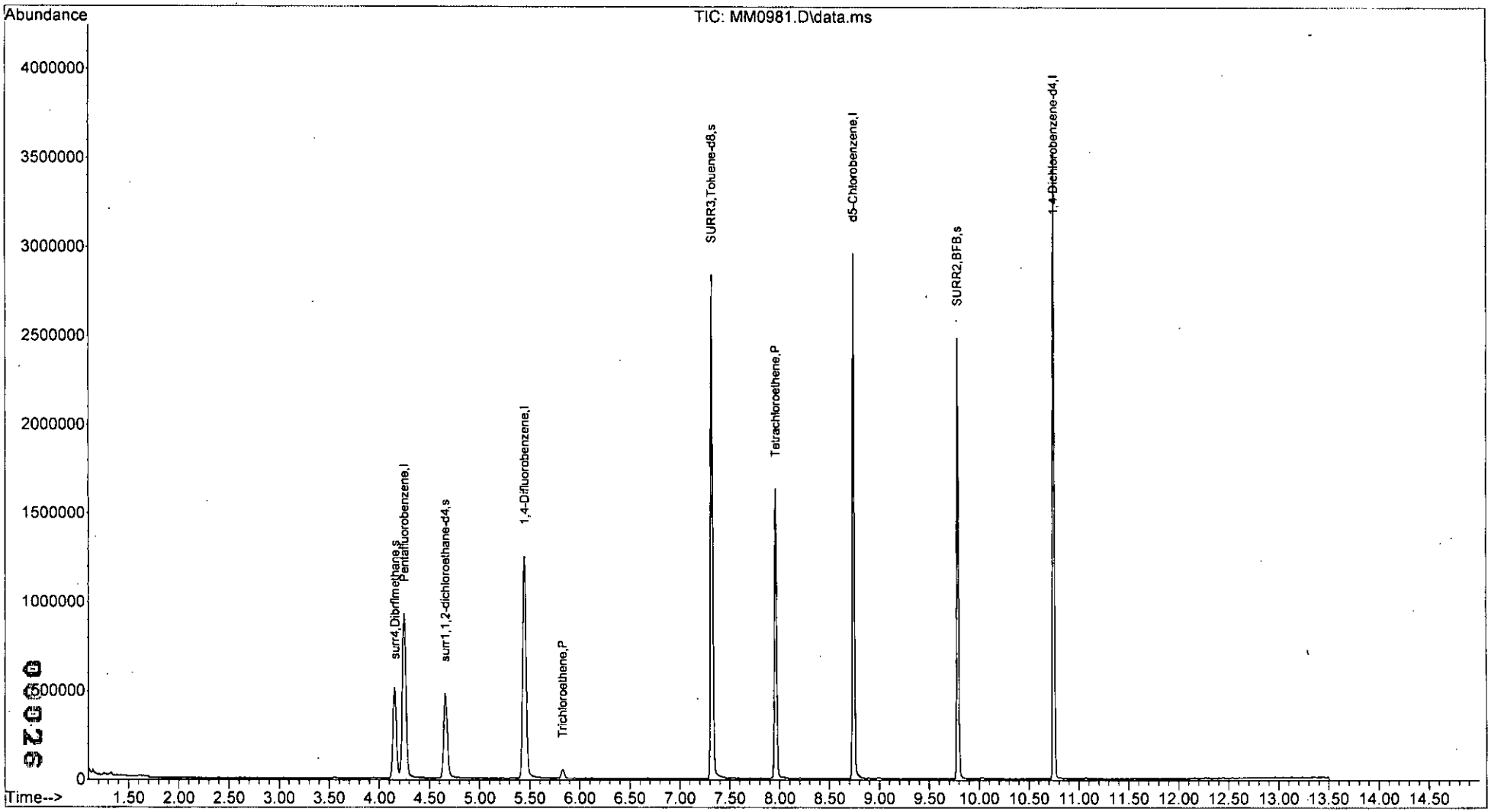
KR 12/1/14

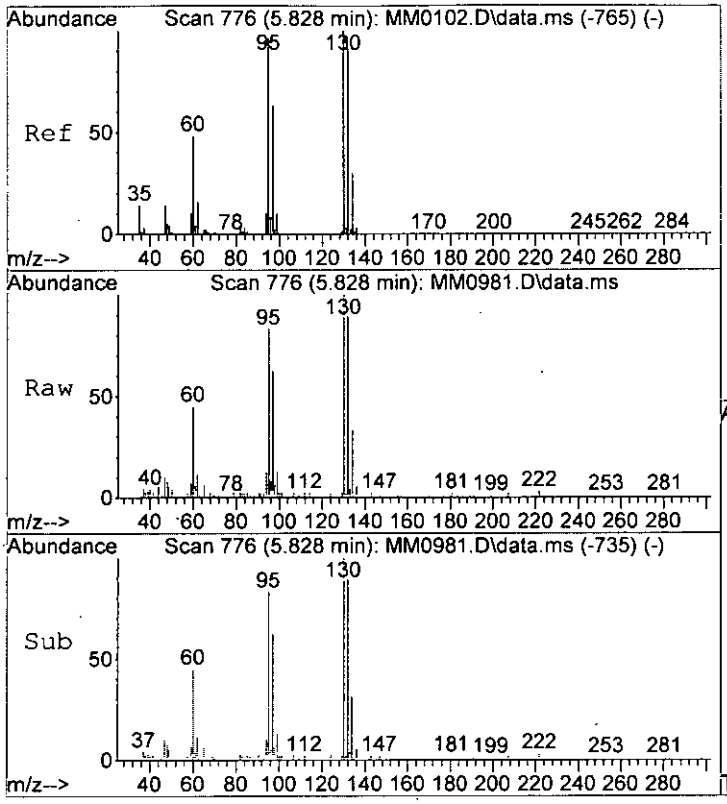
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Sample : R1409379-002|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0981.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 2:43 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:47:37 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

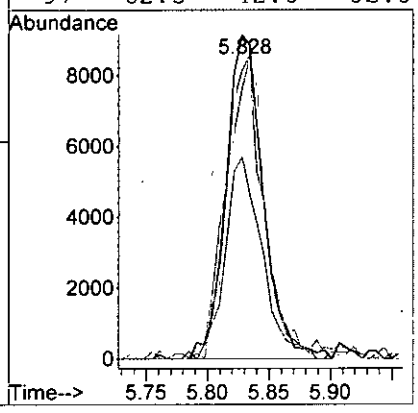


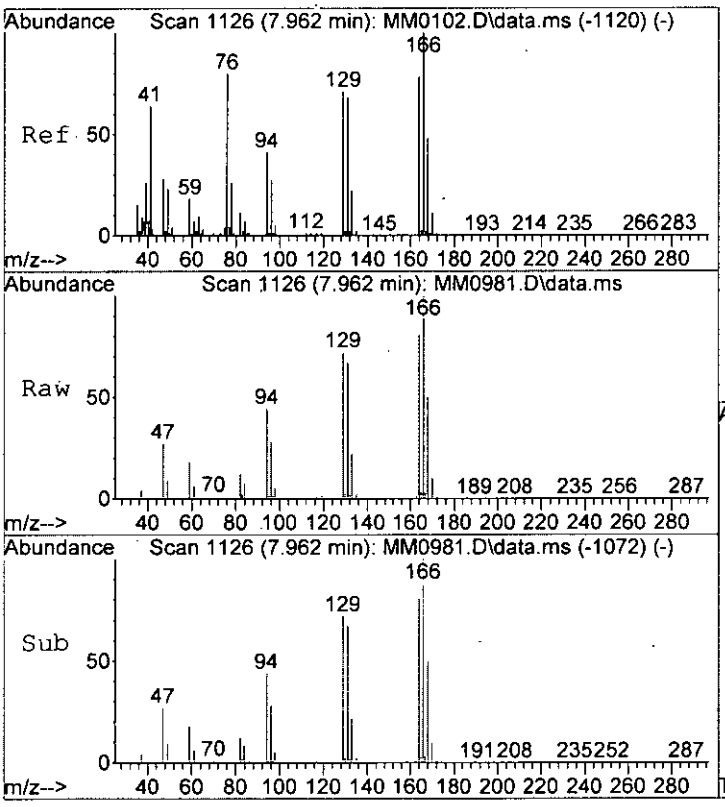


#54
Trichloroethene
Concen: 2.26 ppb
RT: 5.828 min Scan# 776
Delta R.T. 0.000 min
Lab File: MM0981.D
Acq: 25 Nov 2014 2:43 am

Tgt Ion:130 Resp: 19264

Ion	Ratio	Lower	Upper
130	100		
132	89.0	76.9	116.9
95	83.4	76.5	116.5
97	62.3	42.8	82.8

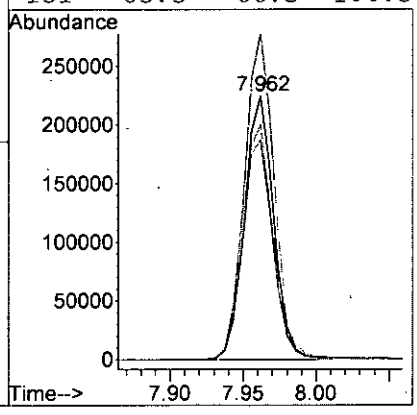




#72
Tetrachloroethene
Concen: 45.43 ppb
RT: 7.962 min Scan# 1126
Delta R.T. 0.000 min
Lab File: MM0981.D
Acq: 25 Nov 2014 2:43 am

Tgt Ion:164 Resp: 312528

Ion	Ratio	Lower	Upper
164	100		
166	123.6	107.7	147.7
129	89.0	70.1	110.1
131	83.3	66.3	106.3



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1415
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 03:15
Sample Name:	MW-17	**Units:**	µg/L
Lab Code:	R1409379-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0982.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**1.8**	**J**	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.28**	**J**	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 03:15	
Dibromofluoromethane	100	89-119	11/25/14 03:15	
Toluene-d8	104	87-121	11/25/14 03:15	

Quantitation Report (QT Reviewed)

Sample : R1409379-003|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0982.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:15 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:49:52 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

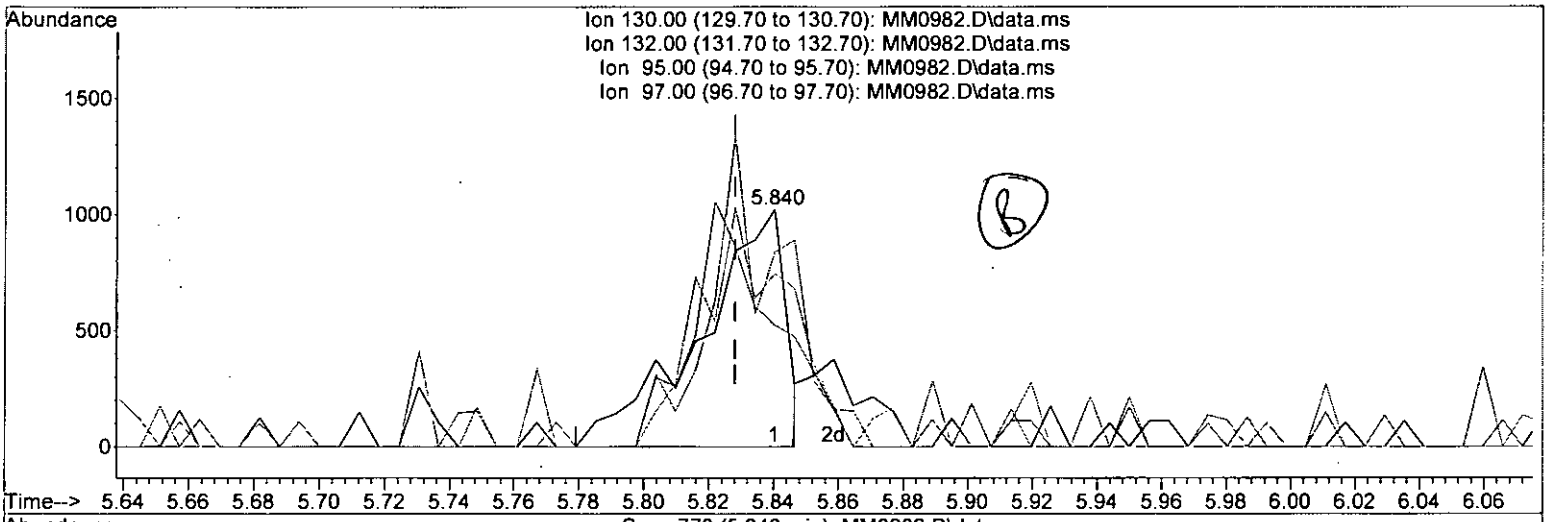
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	821218	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1242021	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1177989	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	624662	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	362352	50.10	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.20%			
48) surr1,1,2-dichloroetha...	4.664	65	428921	48.70	ppb	0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 97.40%			
65) SURR3,Toluene-d8	7.322	98	1577599	51.81	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.62%			
70) SURR2,BFB	9.785	95	571906	48.41	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.82%			
Target Compounds						Qvalue
15) Acetone	2.054	43	1118	0.64	ppb	74
54) Trichloroethene	5.840	130	2296m	0.28	ppb	
72) Tetrachloroethene	7.962	164	12408	1.83	ppb	92

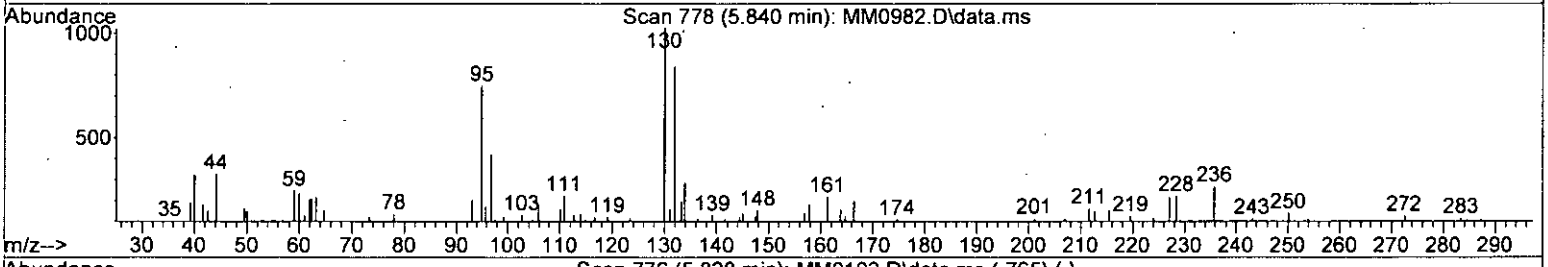
(#) = qualifier out of range (m) = manual integration (+) = signals summed

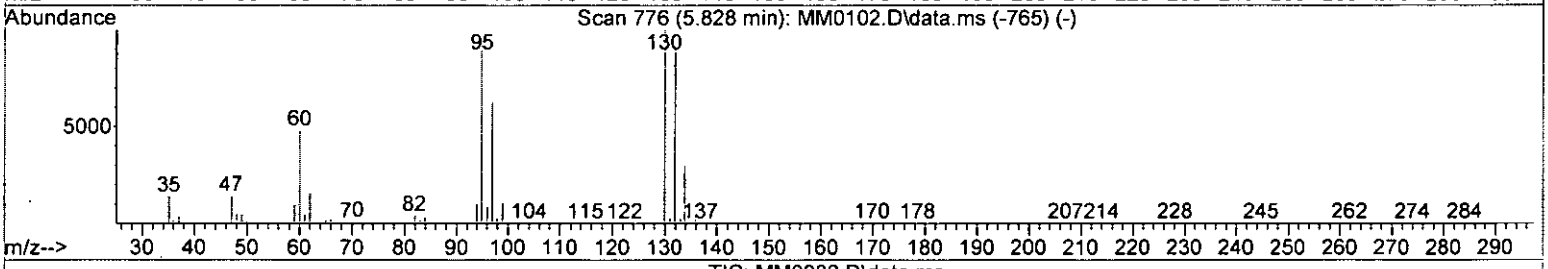
12/1/14

Sample : R1409379-003|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0982.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:15 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 03:29:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0982.D\data.ms

(54) Trichloroethene (P)

5.840min (+0.012) 0.22 ppb

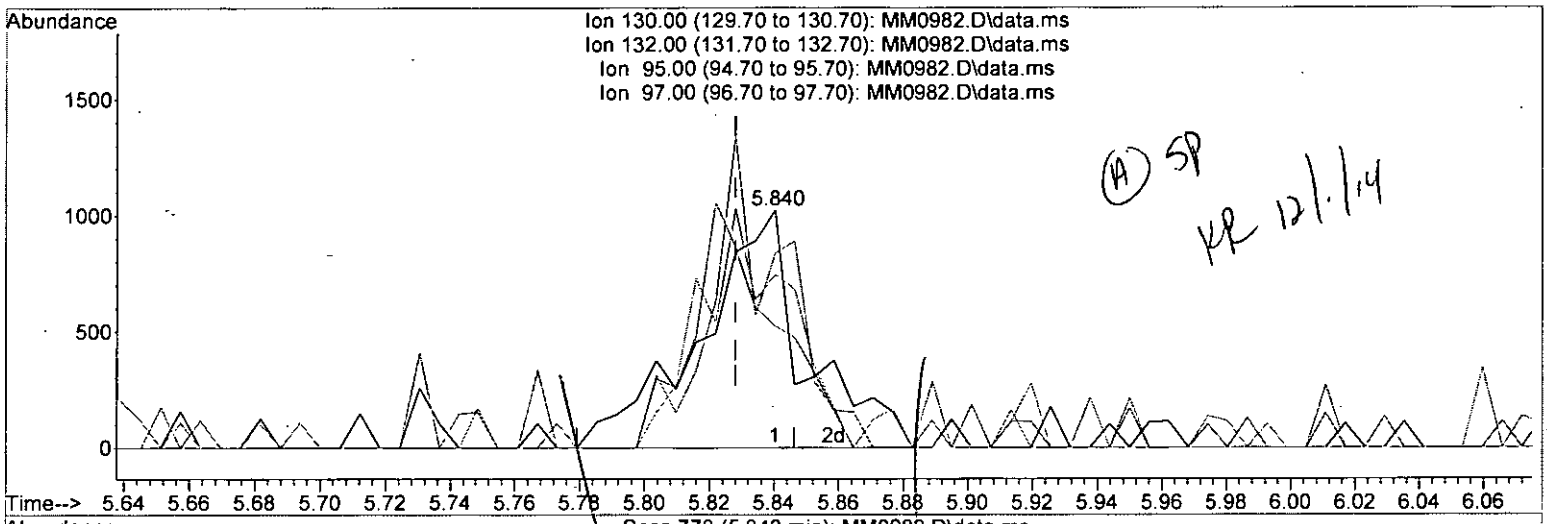
response 1847

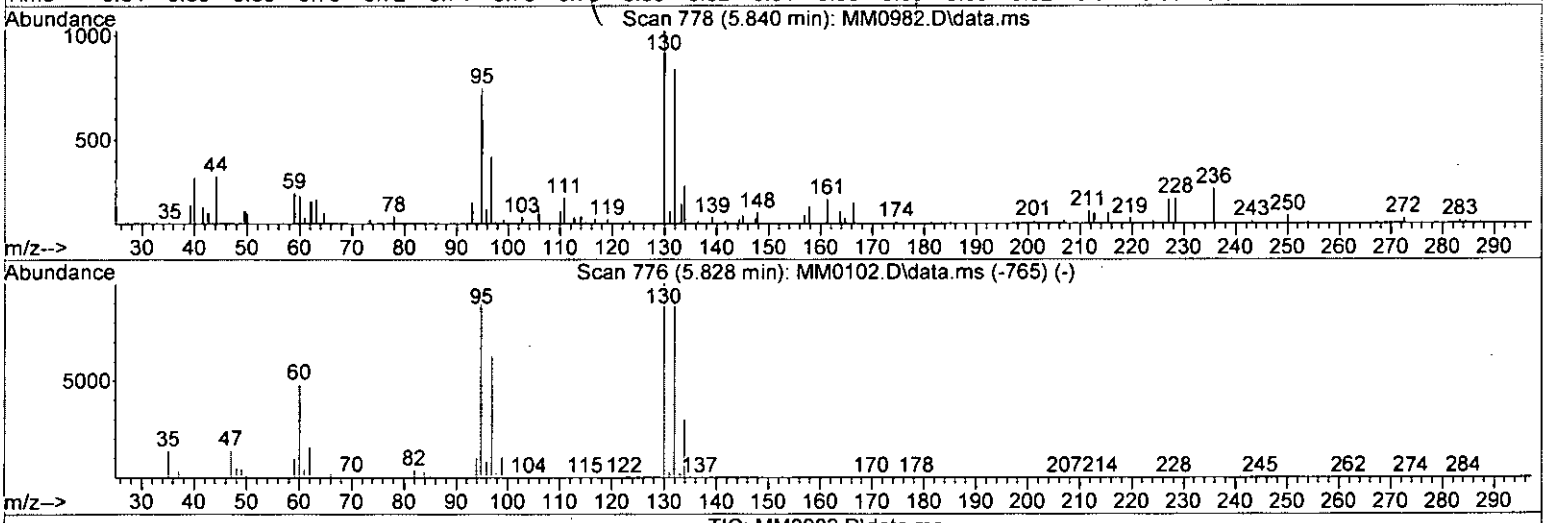
Ion	Exp%	Act%
130.00	100	100
132.00	96.90	81.98
95.00	96.50	73.07#
97.00	62.80	51.32

Quantitation Report (Qedit)

Sample : R1409379-003|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0982.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:15 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 03:29:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration





TIC: MM0982.D\data.ms

(54) Trichloroethene (P)

5.840min (+0.012) 0.28 ppb m

response 2296

Ion	Exp%	Act%
130.00	100	100
132.00	96.90	81.98
95.00	96.50	73.07#
97.00	62.80	40.94#

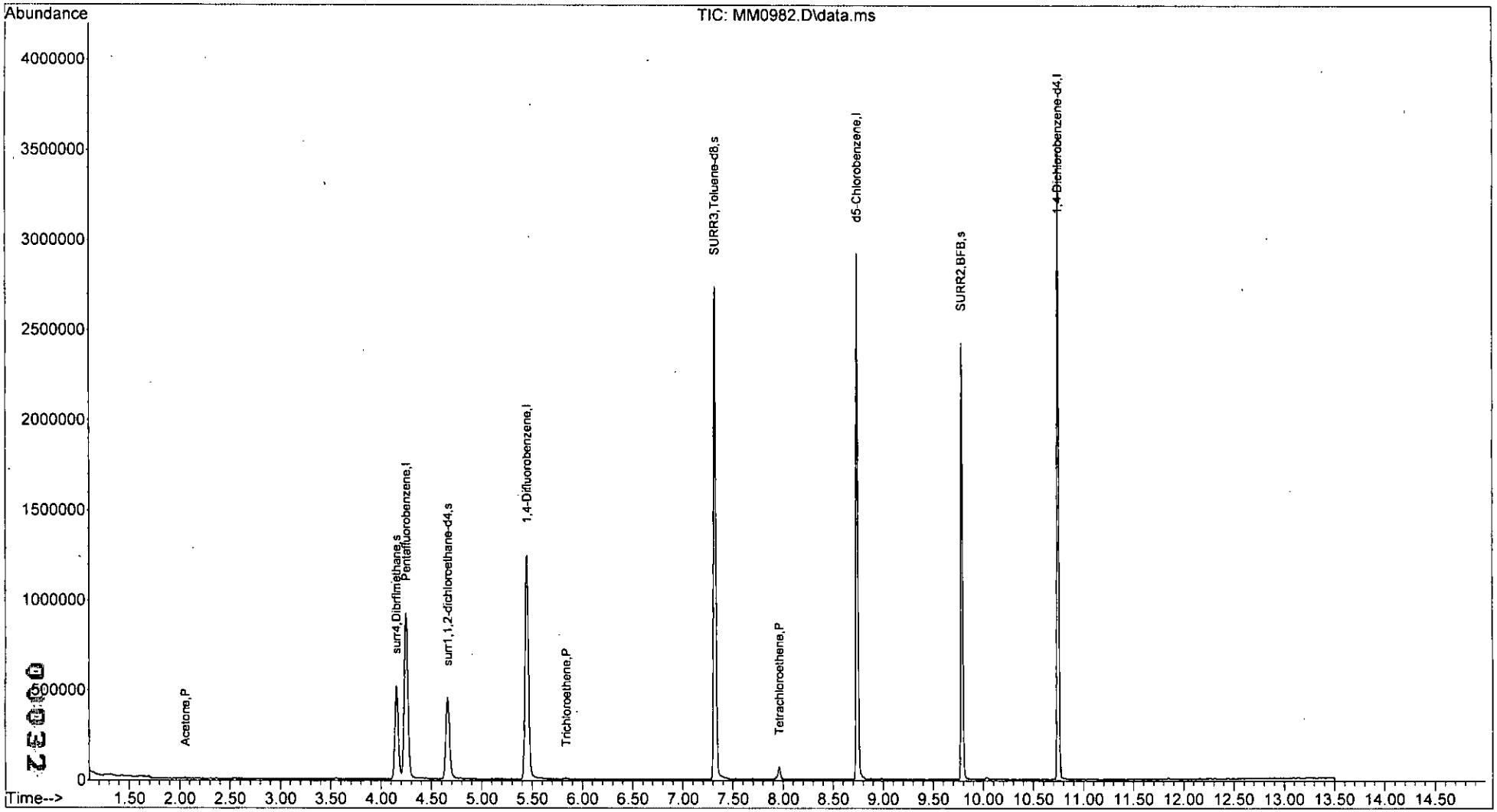
(A) SP KR 12/1/14

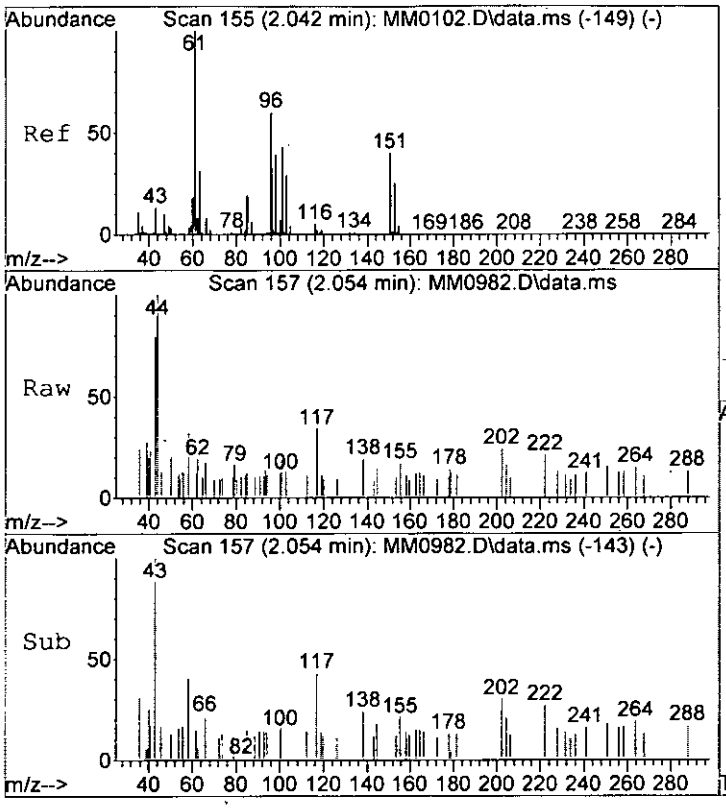
mv 12/2

Quantitation Report (QT Reviewed)

Sample : R1409379-003|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0982.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:15 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:49:52 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

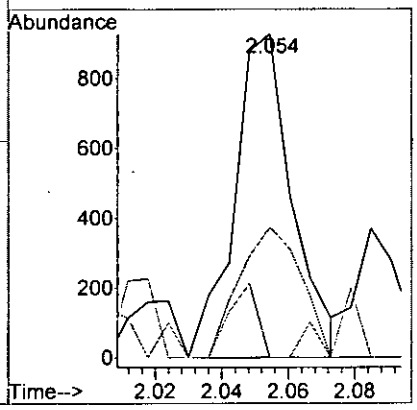


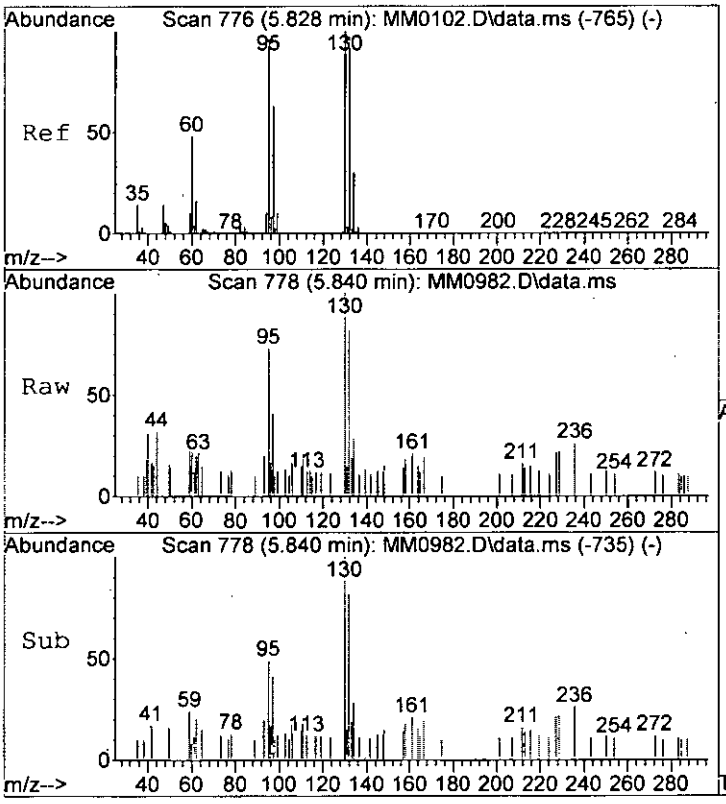


#15
Acetone
Concen: 0.64 ppb
RT: 2.054 min Scan# 157
Delta R.T. 0.012 min
Lab File: MM0982.D
Acq: 25 Nov 2014 3:15 am

Tgt Ion: 43 Resp: 1118

Ion	Ratio	Lower	Upper
43	100		
58	40.2	6.2	46.2
42	0.0	0.0	27.2

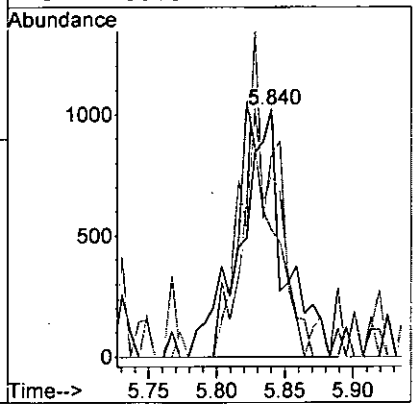


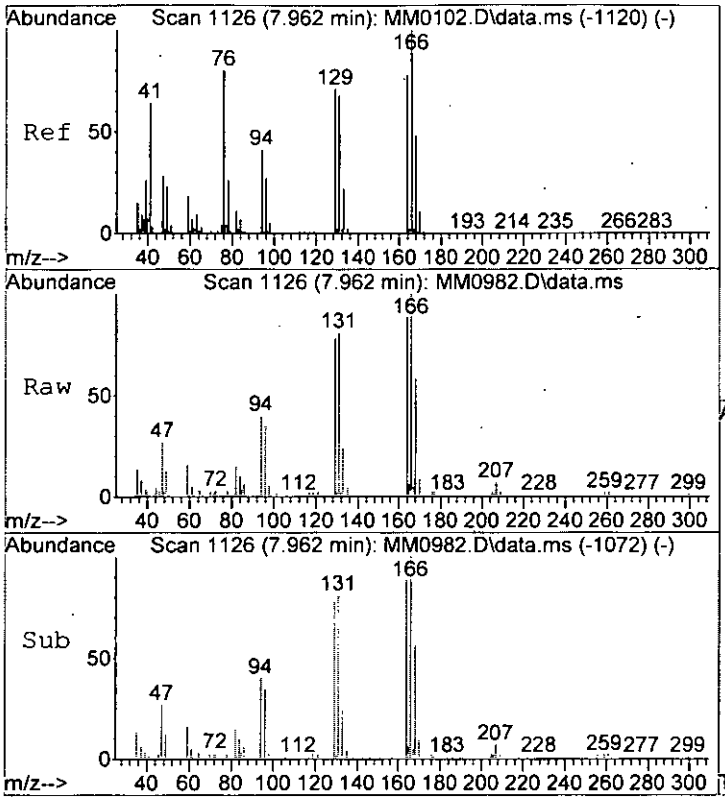


#54
Trichloroethene
Concen: 0.28 ppb m
RT: 5.840 min Scan# 778
Delta R.T. 0.012 min
Lab File: MM0982.D
Acq: 25 Nov 2014 3:15 am

Tgt Ion:130 Resp: 2296

Ion	Ratio	Lower	Upper
130	100		
132	82.0	76.9	116.9
95	73.1	76.5	116.5#
97	40.9	42.8	82.8#

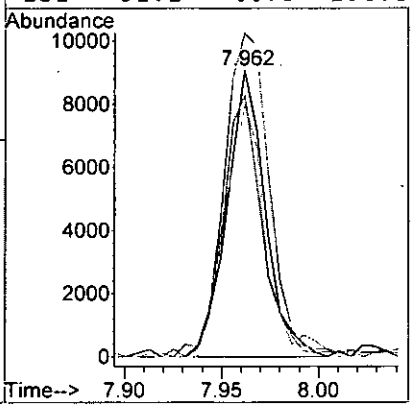




#72
Tetrachloroethene
Concen: 1.83 ppb
RT: 7.962 min Scan# 1126
Delta R.T. 0.000 min
Lab File: MM0982.D
Acq: 25 Nov 2014 3:15 am

Tgt Ion:164 Resp: 12408

Ion	Ratio	Lower	Upper
164	100		
166	113.0	107.7	147.7
129	88.0	70.1	110.1
131	91.2	66.3	106.3



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1545
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 03:47
Sample Name:	MW-31	**Units:**	µg/L
Lab Code:	R1409379-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0983.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.38**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.38**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	11/25/14 03:47	
Dibromofluoromethane	99	89-119	11/25/14 03:47	
Toluene-d8	101	87-121	11/25/14 03:47	

Quantitation Report (QT Reviewed)

Sample : R1409379-004|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0983.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:47 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:52:40 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	814240	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1254882	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1167582	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	633572	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	361947	49.53	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.06%				
48) surr1,1,2-dichloroetha...	4.658	65	432774	48.64	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 97.28%				
65) SURR3,Toluene-d8	7.322	98	1558414	50.66	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.32%				
70) SURR2,BFB	9.785	95	574655	48.14	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.28%				
Target Compounds							Qvalue
15) Acetone	2.048	43	1904	1.10	ppb		89
34) cis-1,2-Dichloroethene	3.554	96	3169	0.38	ppb	#	53
54) Trichloroethene	5.822	130	3171m	0.38	ppb		
64) 4-Methyl-2-pentanone	7.212	43	2598	0.45	ppb		83

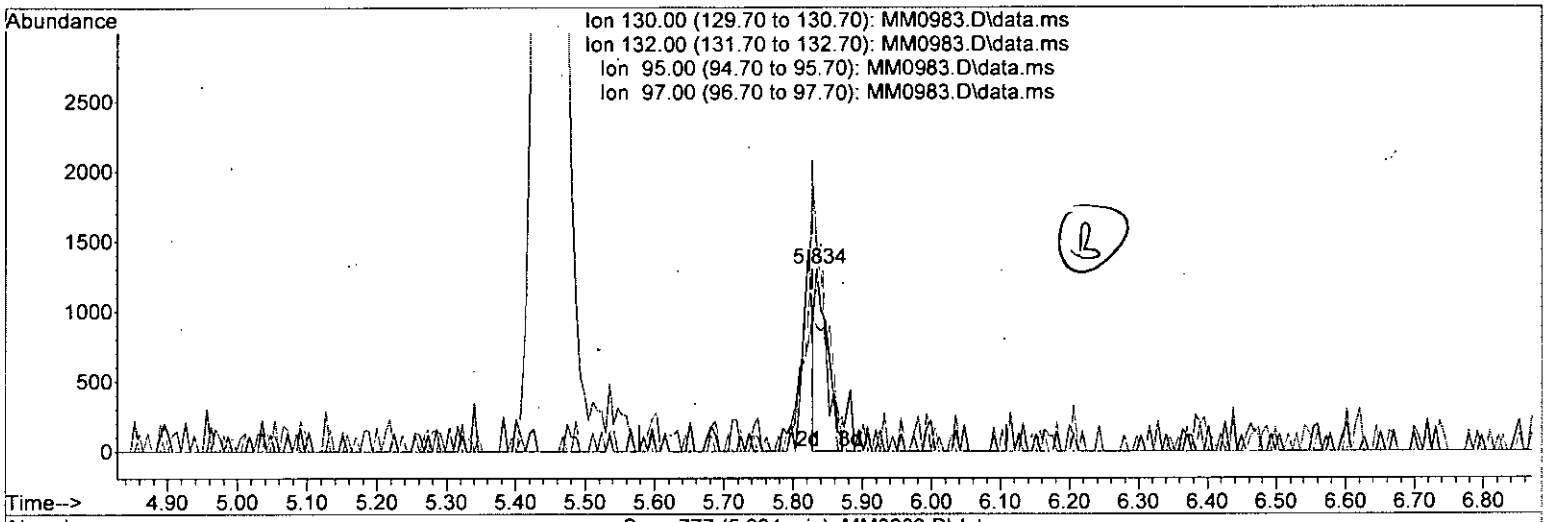
(#) = qualifier out of range (m) = manual integration (+) = signals summed

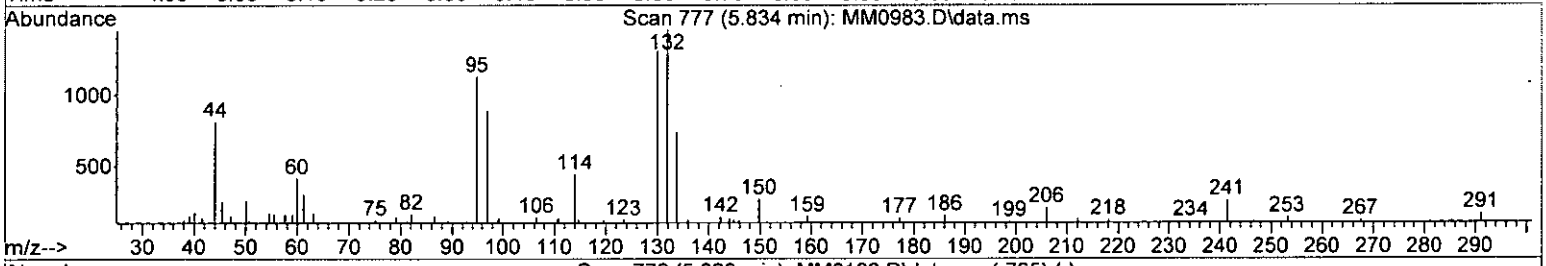
12/1/14

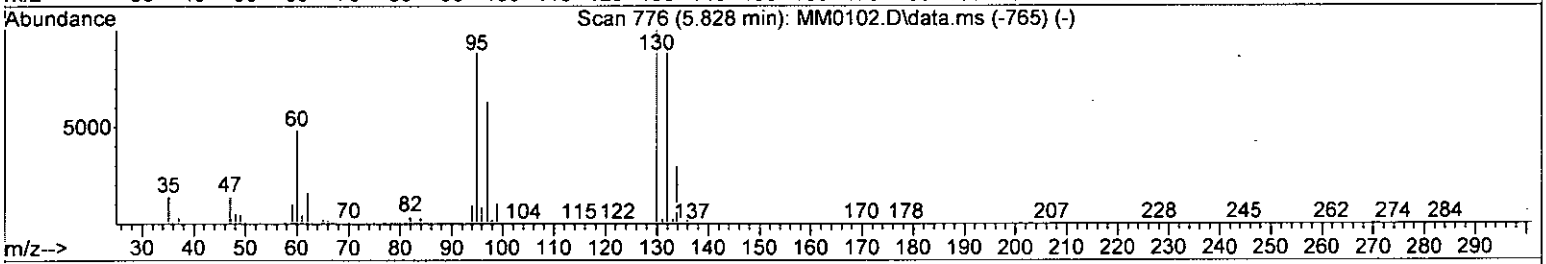
Quantitation Report (Qedit)

Sample : R1409379-004|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0983.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:47 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 04:01:53 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0983.D\data.ms

(54) Trichloroethene (P)

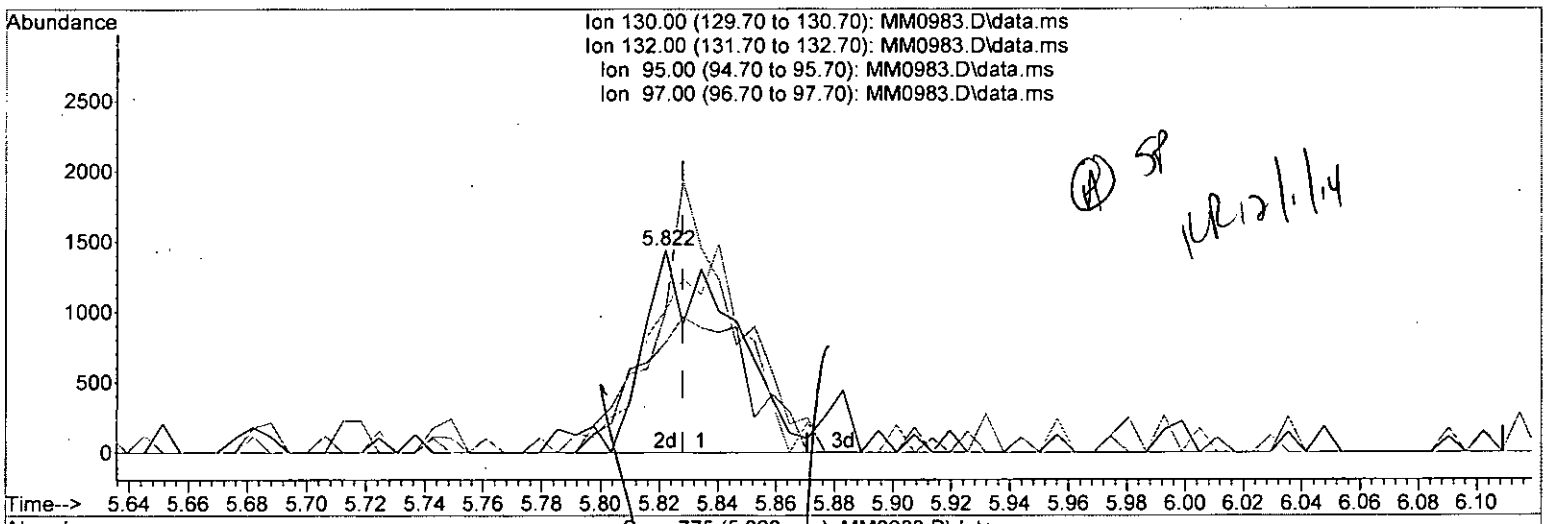
5.834min (+0.006) 0.20 ppb

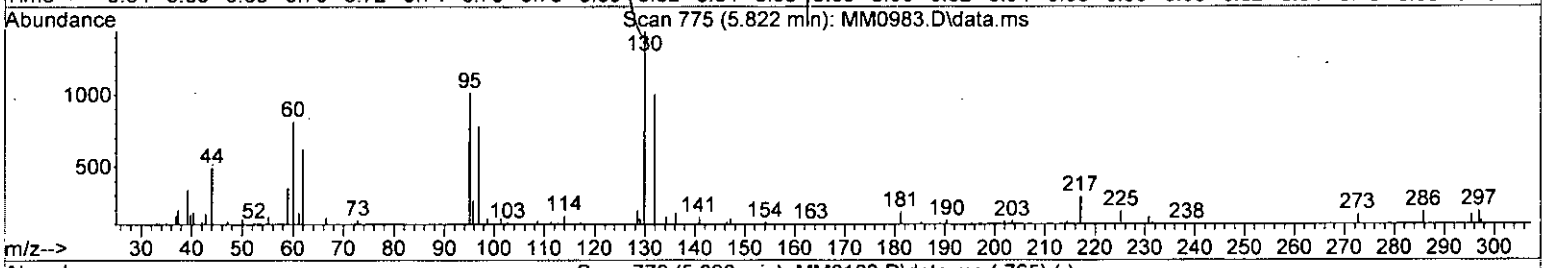
response 1655

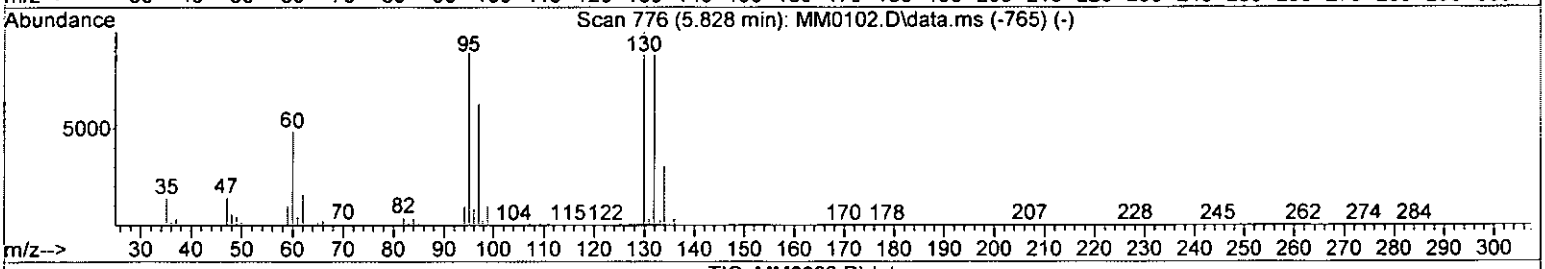
Ion	Exp%	Act%
130.00	100	100
132.00	96.90	111.42
95.00	96.50	86.28
97.00	62.80	68.05

Sample : R1409379-004|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0983.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:47 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 04:01:53 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0983.D\data.ms

(54) Trichloroethene (P)

5.822min (-0.006) 0.38 ppb m

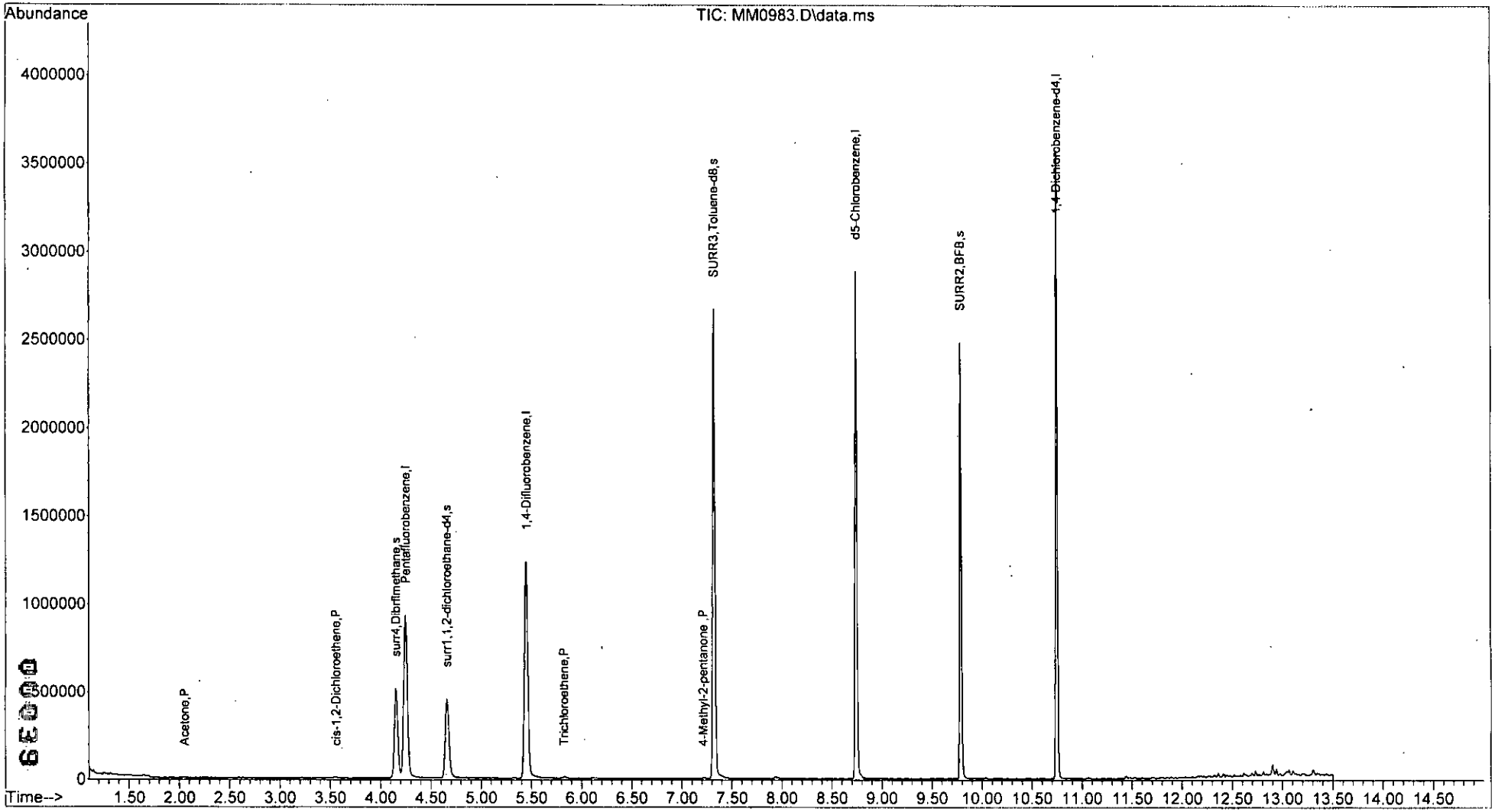
response 3171

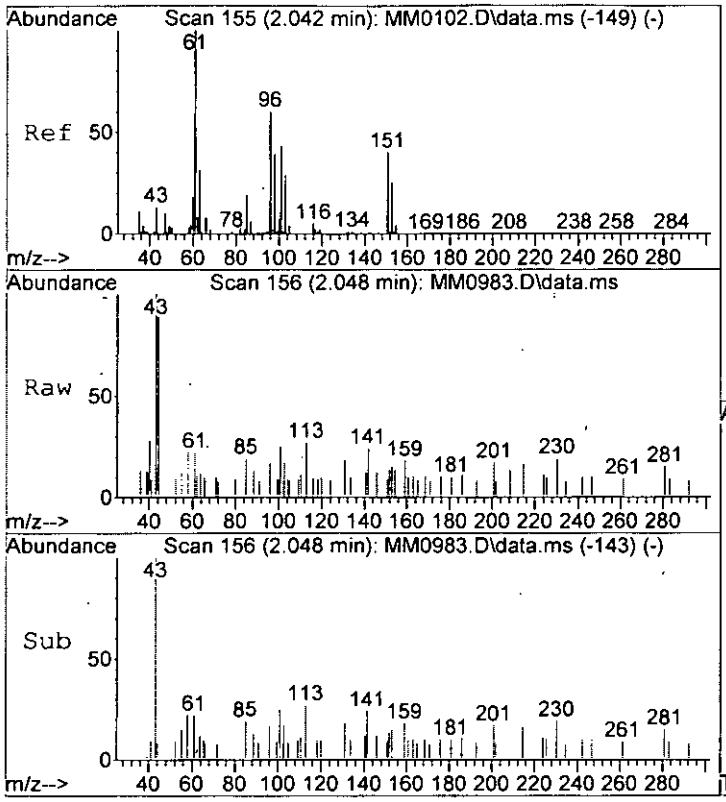
Ion	Exp%	Act%
130.00	100	100
132.00	96.90	69.63#
95.00	96.50	70.54#
97.00	62.80	54.20

Quantitation Report (QT Reviewed)

Sample : R1409379-004|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0983.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 3:47 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:52:40 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

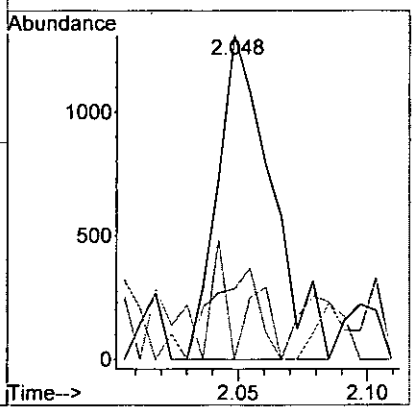


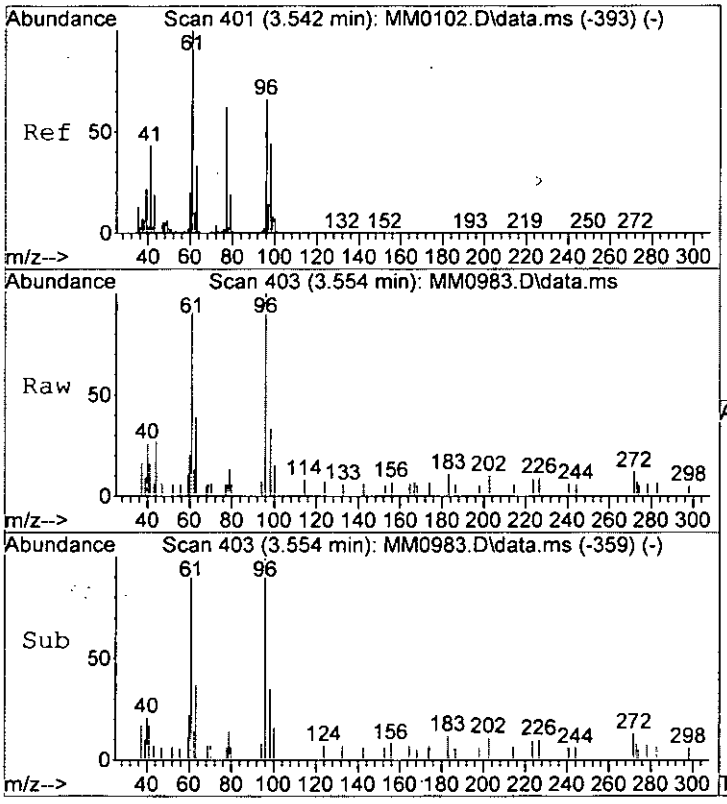


#15
Acetone
Concen: 1.10 ppb
RT: 2.048 min Scan# 156
Delta R.T. 0.006 min
Lab File: MM0983.D
Acq: 25 Nov 2014 3:47 am

Tgt Ion: 43 Resp: 1904

Ion	Ratio	Lower	Upper
43	100		
58	21.7	6.2	46.2
42	0.0	0.0	27.2

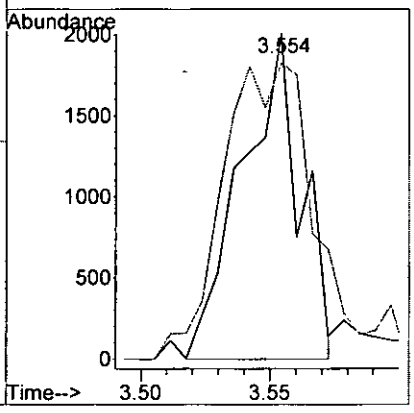


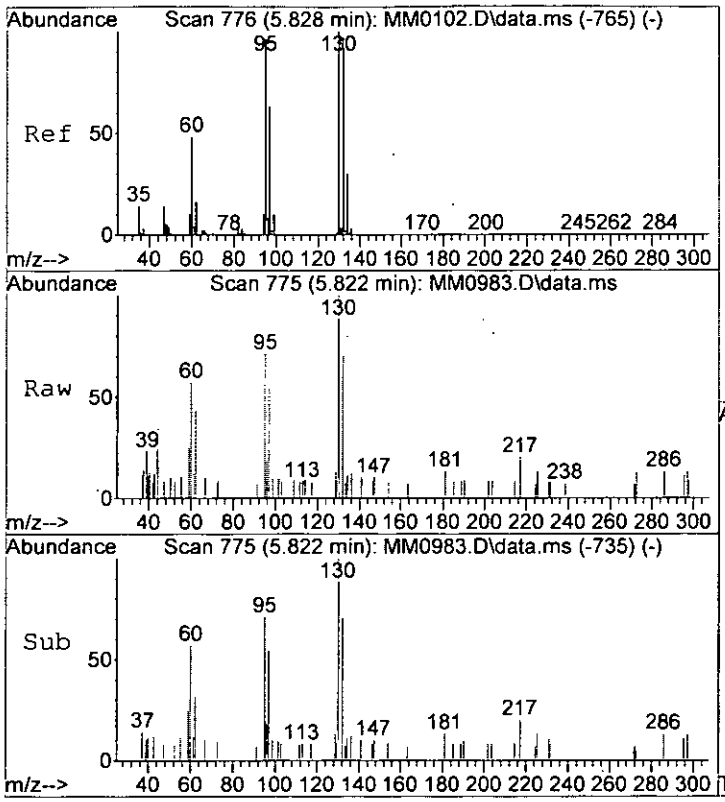


#34
cis-1,2-Dichloroethene
Concen: 0.38 ppb
RT: 3.554 min Scan# 403
Delta R.T. 0.006 min
Lab File: MM0983.D
Acq: 25 Nov 2014 3:47 am

Tgt Ion: 96 Resp: 3169

Ion	Ratio	Lower	Upper
96	100		
61	90.9	130.9	170.9#

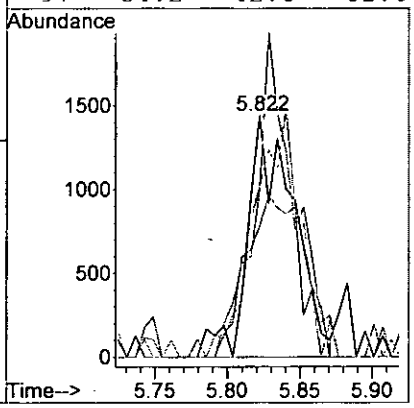


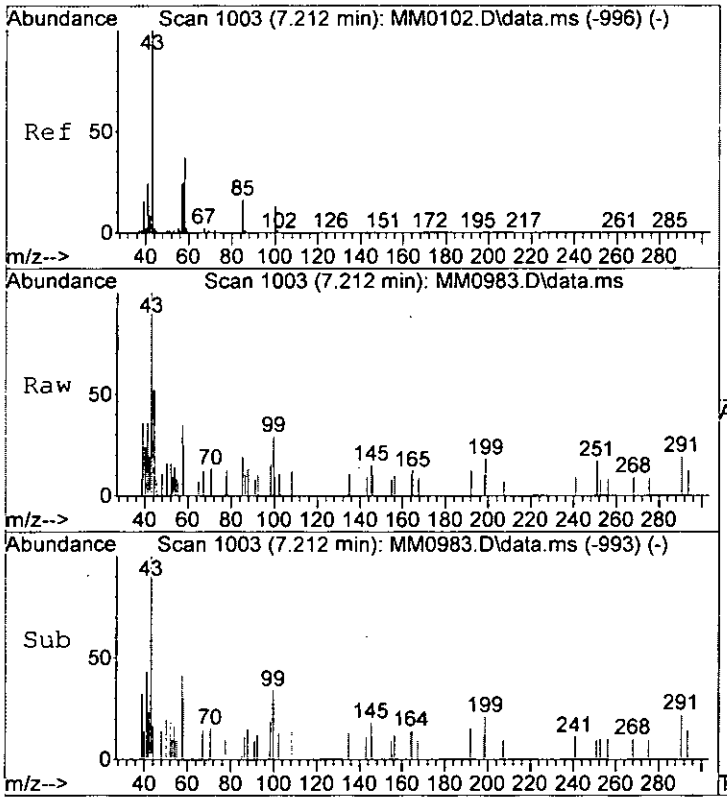


#54
Trichloroethene
Concen: 0.38 ppb m
RT: 5.822 min Scan# 775
Delta R.T. -0.006 min
Lab File: MM0983.D
Acq: 25 Nov 2014 3:47 am

Tgt Ion:130 Resp: 3171

Ion	Ratio	Lower	Upper
130	100		
132	69.6	76.9	116.9#
95	70.5	76.5	116.5#
97	54.2	42.8	82.8

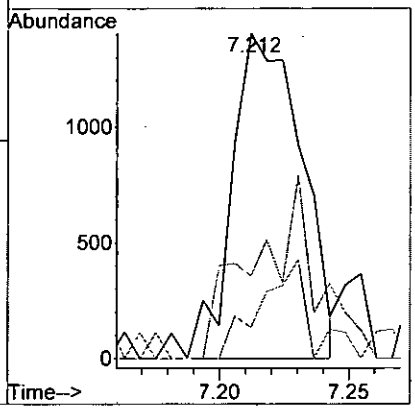




#64
4-Methyl-2-pentanone
Concen: 0.45 ppb
RT: 7.212 min Scan# 1003
Delta R.T. 0.000 min
Lab File: MM0983.D
Acq: 25 Nov 2014 3:47 am

Tgt Ion: 43 Resp: 2598

Ion	Ratio	Lower	Upper
43	100		
58	25.3	17.2	57.2
100	9.5	0.0	33.2



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14 1600
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 02:10
Sample Name:	FB-111814	**Units:**	µg/L
Lab Code:	R1409379-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0980.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	11/25/14 02:10	
Dibromofluoromethane	101	89-119	11/25/14 02:10	
Toluene-d8	102	87-121	11/25/14 02:10	

Quantitation Report (Not Reviewed)

Sample : R1409379-005|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0980.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 2:10 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 02:24:55 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	831454	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1274361	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1171770	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	628373	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	373809	50.37	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.74%				
48) surr1,1,2-dichloroetha...	4.664	65	432032	47.81	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 95.62%				
65) SURR3,Toluene-d8	7.322	98	1589440	50.88	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.76%				
70) SURR2,BFB	9.785	95	582083	48.02	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.04%				
Target Compounds							Qvalue
15) Acetone	2.055	43	2126	1.21	ppb		74
~~16) 2-Propanol~~	~~2.030~~	~~45~~	~~164~~	~~0.47~~	~~ppb~~	~~#~~	~~33~~
20) Allyl Chloride	2.213	76	1082	0.27	ppb	#	1
36) Propionitrile	~~3.670~~	54	348	0.47	ppb		58
53) 1-Butanol	5.682	56	216	1.36	ppb	#	23
~~90) Cyclohexanone~~	~~9.724~~	~~55~~	~~375~~	~~1.02~~	~~ppb~~		~~96~~
116) Hexachlorobt	12.266	225	792	0.22	ppb		96

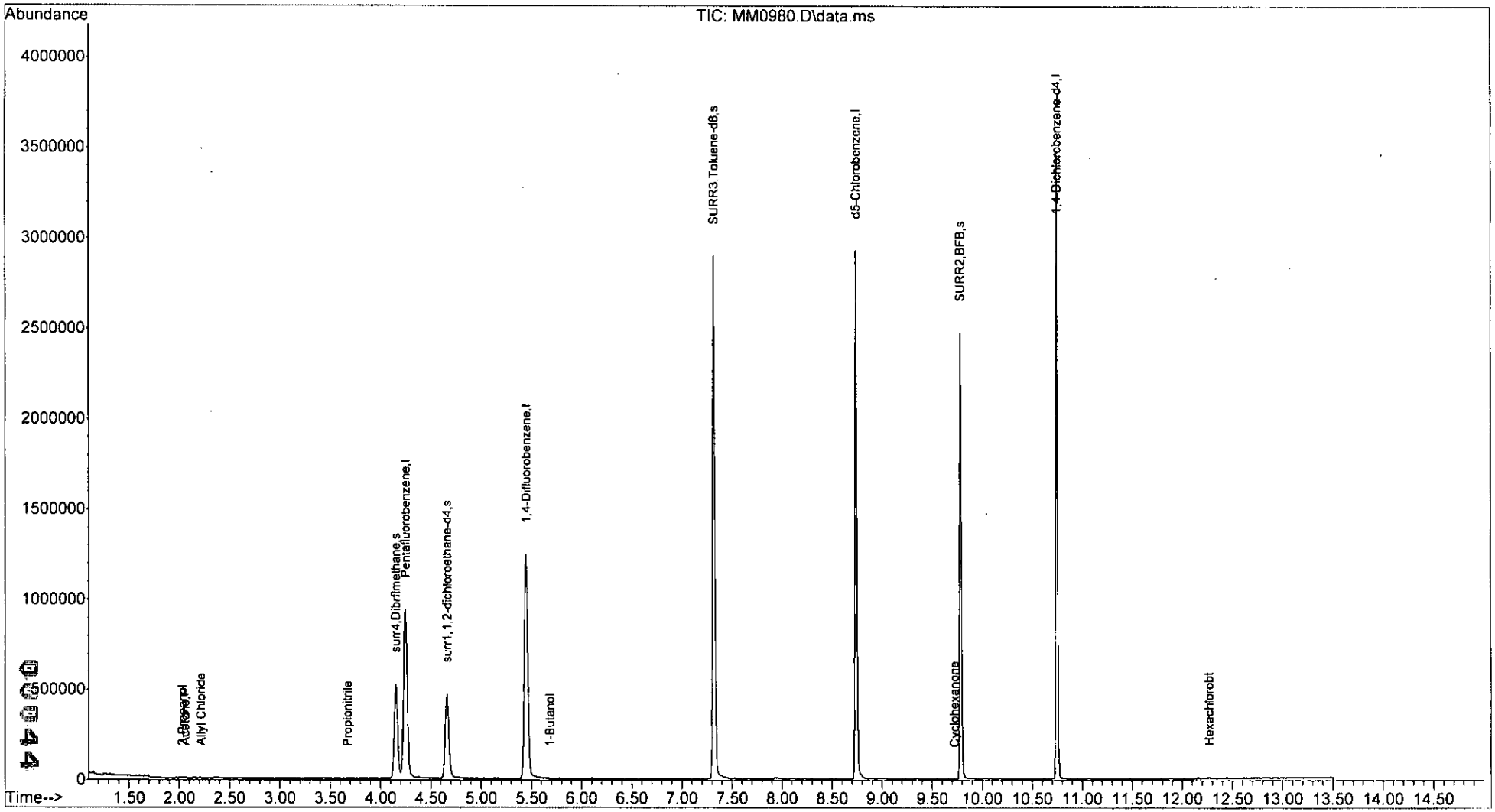
KR 12/1/14

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

Quantitation Report (Not Reviewed)

Sample : R1409379-005|1.0
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0980.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 2:10 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 02:24:55 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	11/18/14
Sample Matrix:	Water	**Date Received:**	11/20/14
		Date Analyzed:	11/25/14 04:20
Sample Name:	DUP-111814	**Units:**	µg/L
Lab Code:	R1409379-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\112414\MM0984.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**0.39**	J	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**0.37**	J	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 04:20	
Dibromofluoromethane	101	89-119	11/25/14 04:20	
Toluene-d8	103	87-121	11/25/14 04:20	

Quantitation Report (QT Reviewed)

Sample : R1409379-006|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0984.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 4:20 am
Operator : K.Ruest
InstName : MSVOA-12

KR 12/1/14

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:54:31 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

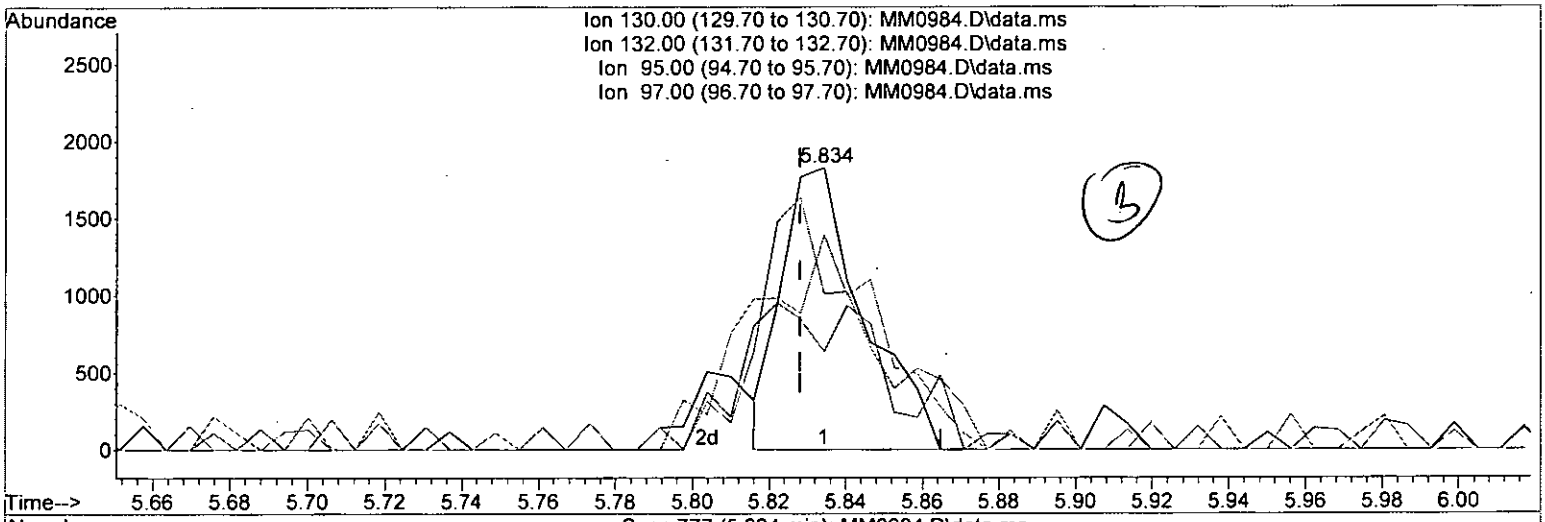
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	813357	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1246673	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1178241	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	632951	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	365677	50.37	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.74%				
48) surr1,1,2-dichloroetha...	4.658	65	429740	48.61	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 97.22%				
65) SURR3,Toluene-d8	7.322	98	1568505	51.32	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.64%				
70) SURR2,BFB	9.785	95	573537	48.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.72%				
Target Compounds							Qvalue
15) Acetone	2.055	43	2165	1.26	ppb		83
34) cis-1,2-Dichloroethene	3.554	96	3056	0.37	ppb	#	50
54) Trichloroethene	5.834	130	3260m	0.39	ppb		
64) 4-Methyl-2-pentanone	7.224	43	2309m	0.41	ppb		

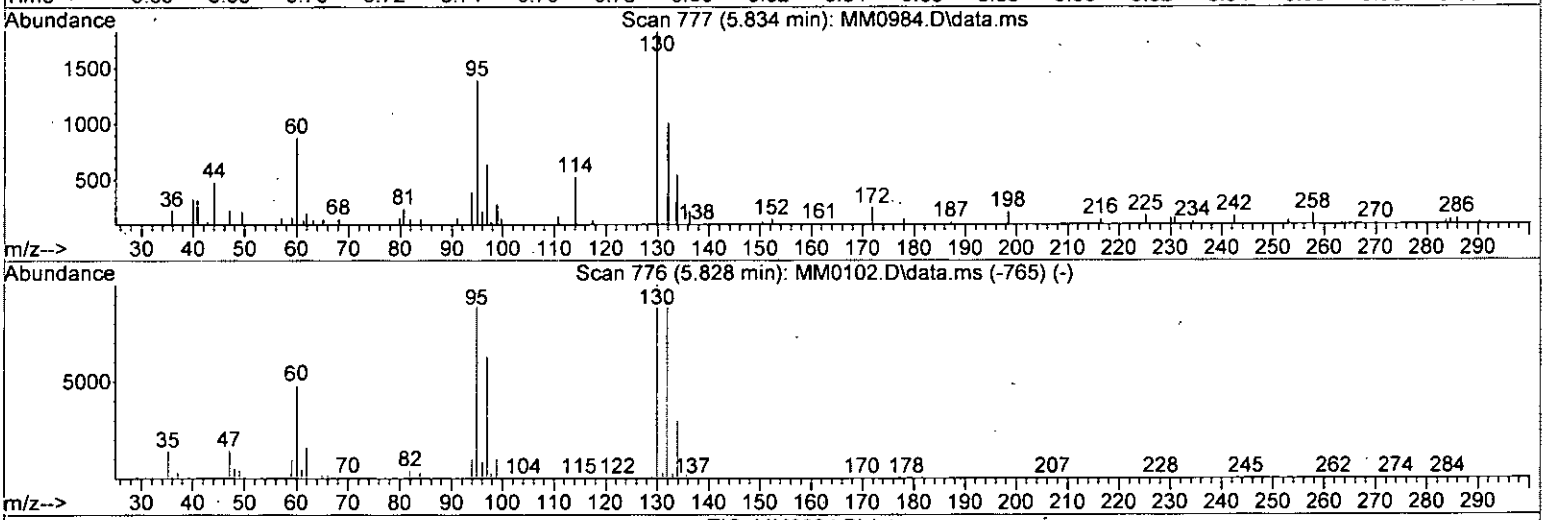
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Sample : R1409379-006|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0984.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 4:20 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 04:34:18 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration





TIC: MM0984.D\data.ms

(54) Trichloroethene (P)

5.834min (+0.006) 0.32 ppb

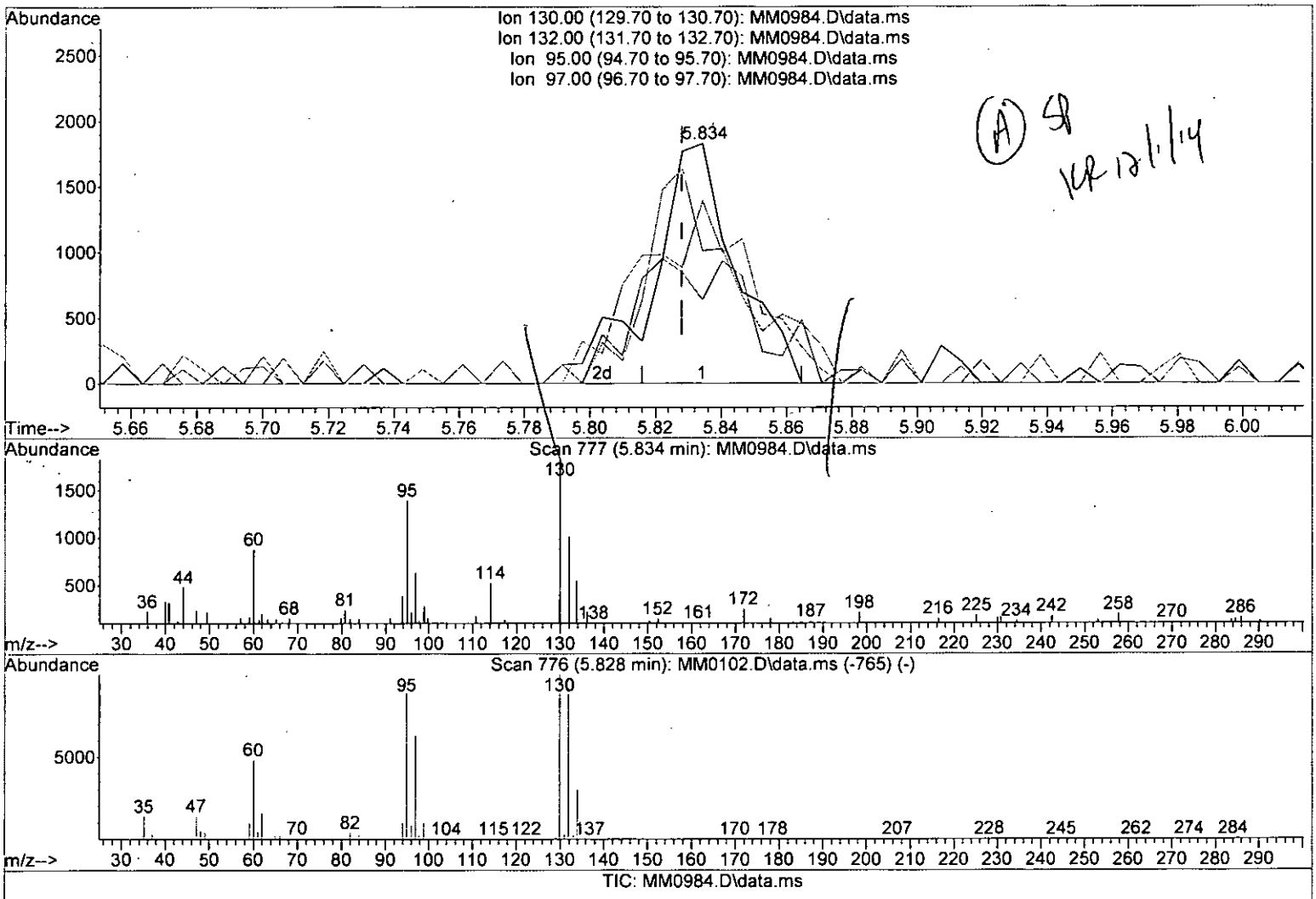
response 2679

Ion	Exp%	Act%
130.00	100	100
132.00	96.90	55.31#
95.00	96.50	76.01#
97.00	62.80	34.72#

Quantitation Report (Qedit)

Sample : R1409379-006|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0984.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 4:20 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 04:34:18 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



TIC: MM0984.D\data.ms

(54) Trichloroethene (P)

5.834min (+0.006) 0.39 ppb m

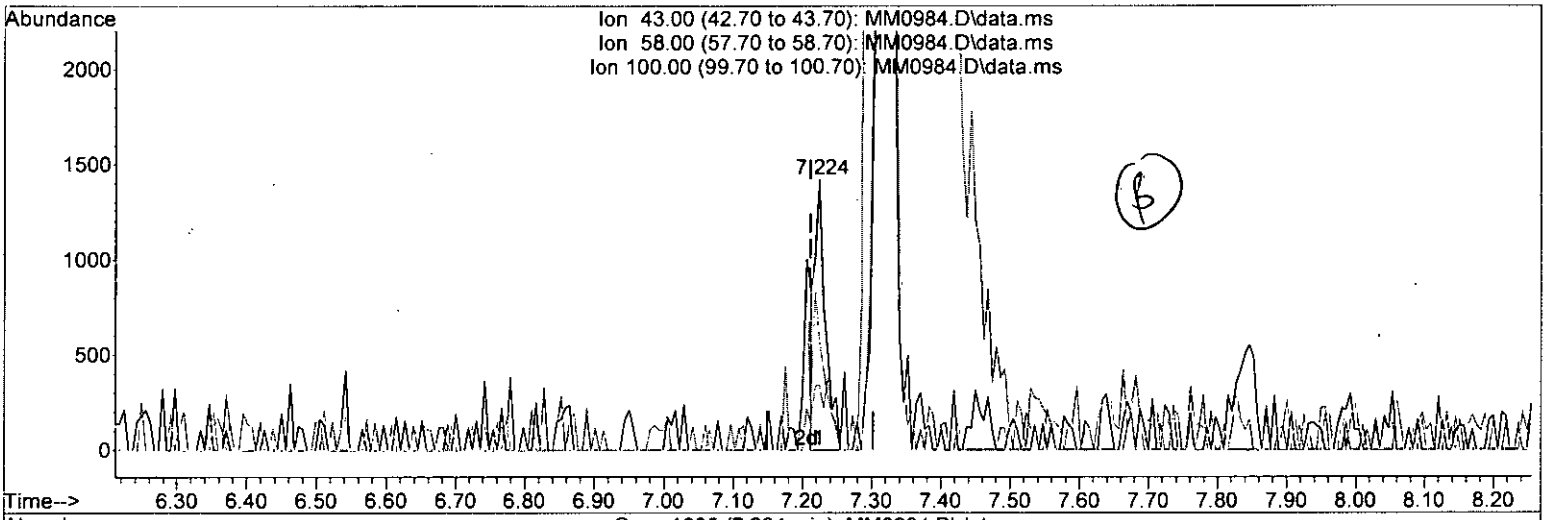
response 3260

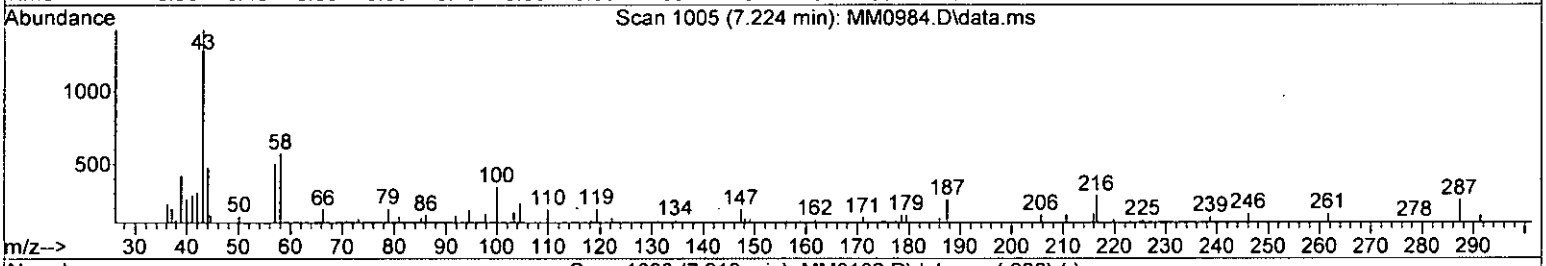
Ion	Exp%	Act%
130.00	100	100
132.00	96.90	55.31#
95.00	96.50	76.01#
97.00	62.80	34.72#

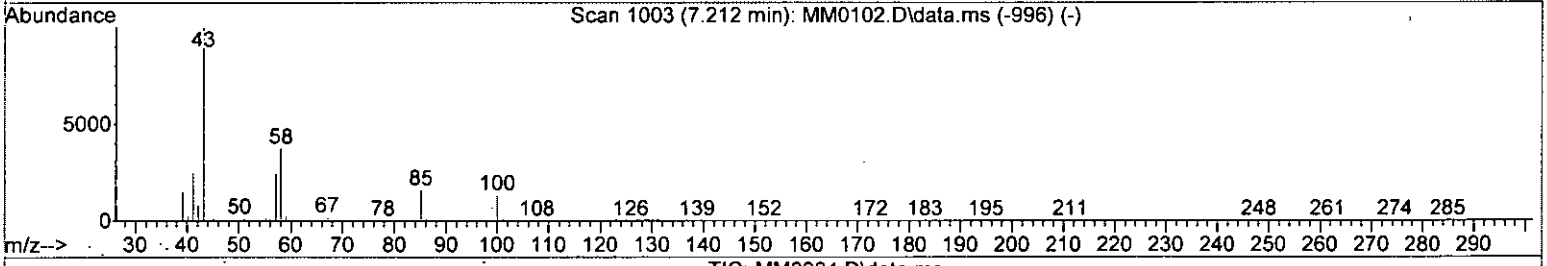
Quantitation Report (Qedit)

Sample : R1409379-006|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0984.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 4:20 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 04:34:18 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0984.D\data.ms

(64) 4-Methyl-2-pentanone (P)

7.224min (+0.012) 0.27 ppb

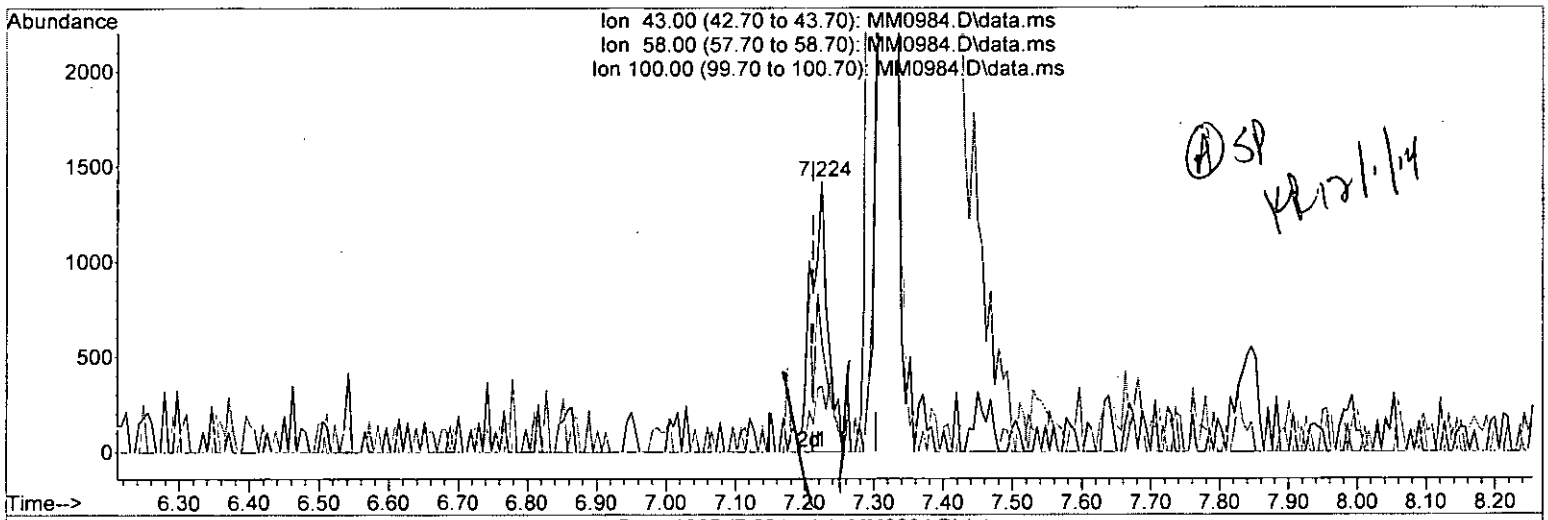
response 1529

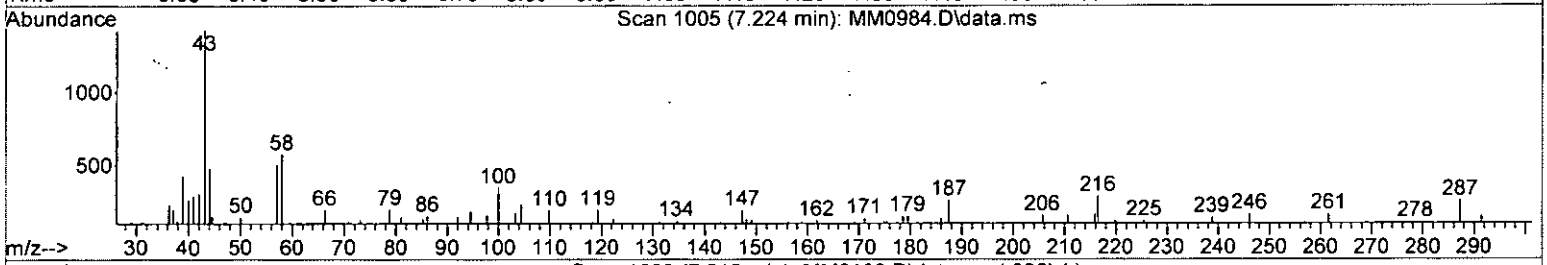
Ion	Exp%	Act%
43.00	100	100
58.00	37.20	40.42
100.00	13.20	24.23
0.00	0.00	0.00

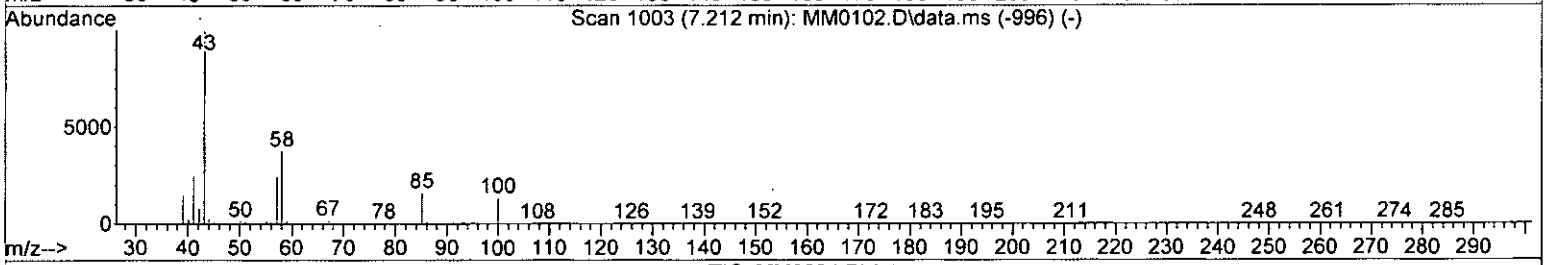
Quantitation Report (Qedit)

Sample : R1409379-006|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0984.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 4:20 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 04:34:18 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0984.D\data.ms

(64) 4-Methyl-2-pentanone (P)

7.224min (+0.012) 0.41 ppb m

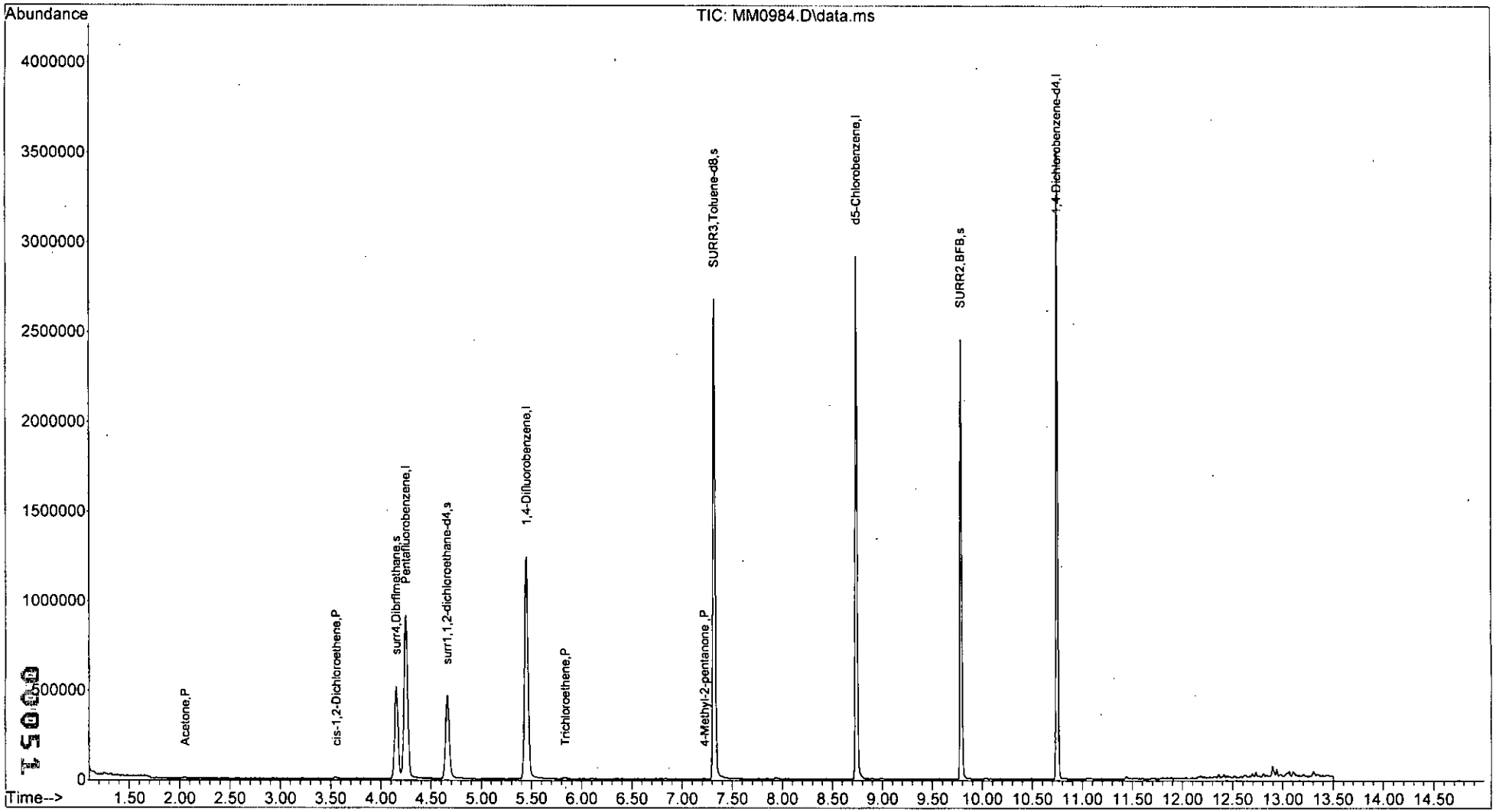
response 2309

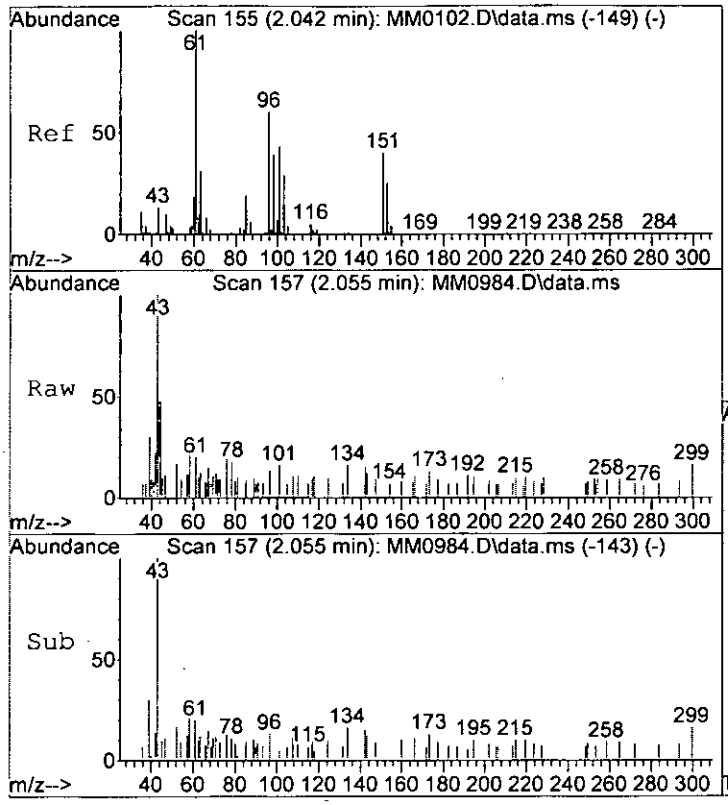
Ion	Exp%	Act%
43.00	100	100
58.00	37.20	40.42
100.00	13.20	24.23
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : R1409379-006|1.0
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0984.D
Misc : VERINA 6646 T4
Acq On : 25 Nov 2014 4:20 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Dec 01 16:54:31 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

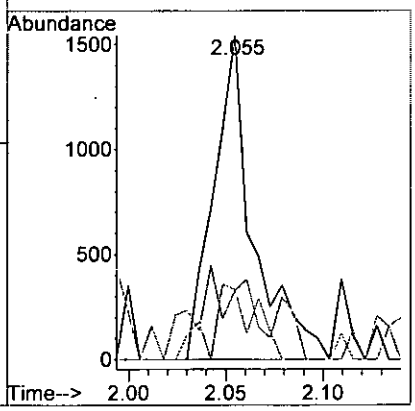


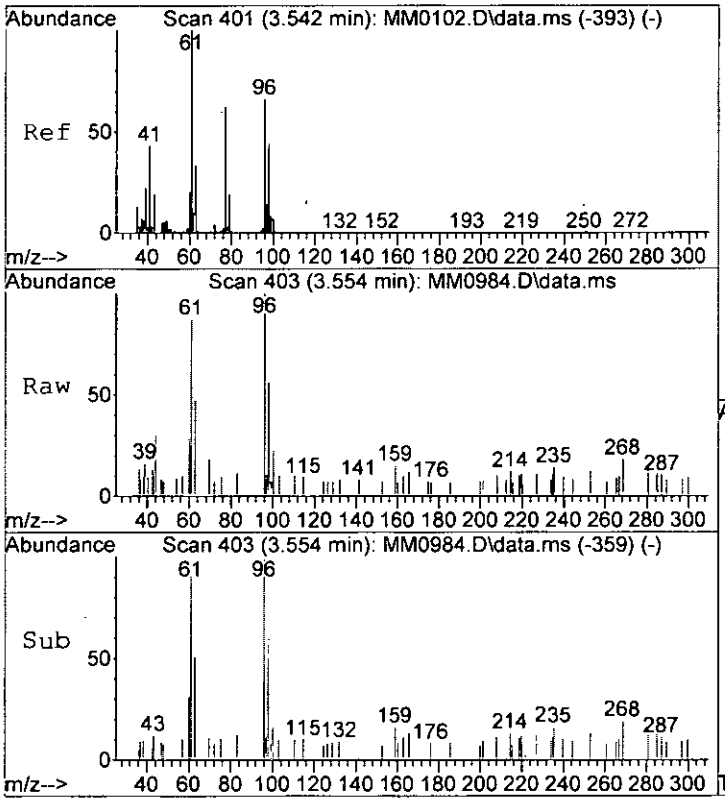


#15
Acetone
Concen: 1.26 ppb
RT: 2.055 min Scan# 157
Delta R.T. 0.012 min
Lab File: MM0984.D
Acq: 25 Nov 2014 4:20 am

Tgt Ion: 43 Resp: 2165

Ion	Ratio	Lower	Upper
43	100		
58	21.2	6.2	46.2
42	21.6	0.0	27.2

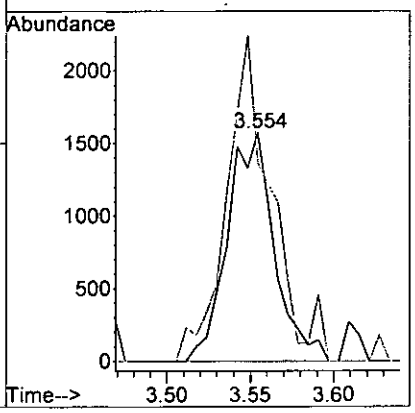


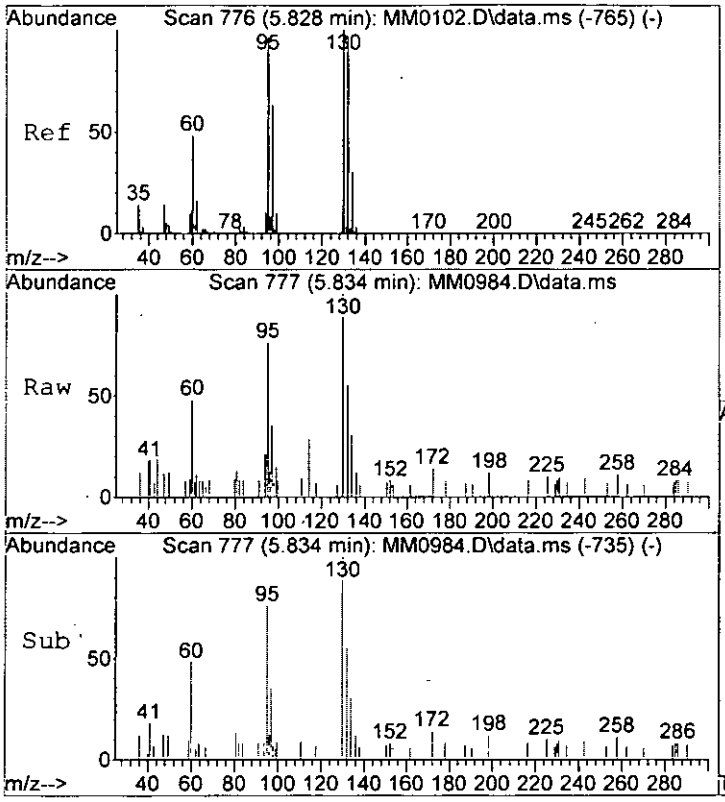


#34
cis-1,2-Dichloroethene
Concen: 0.37 ppb
RT: 3.554 min Scan# 403
Delta R.T. 0.006 min
Lab File: MM0984.D
Acq: 25 Nov 2014 4:20 am

Tgt Ion: 96 Resp: 3056

Ion	Ratio	Lower	Upper
96	100		
61	87.0	130.9	170.9#

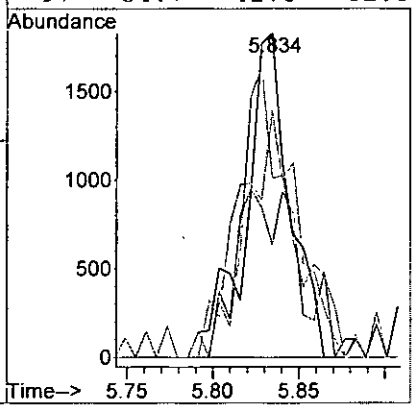


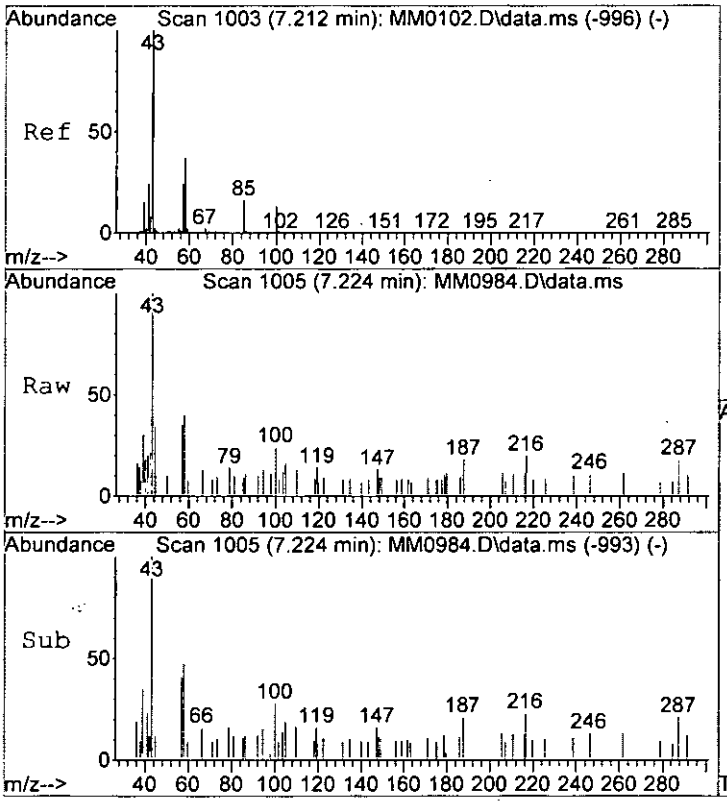


#54
Trichloroethene
Concen: 0.39 ppb m
RT: 5.834 min Scan# 777
Delta R.T. 0.006 min
Lab File: MM0984.D
Acq: 25 Nov 2014 4:20 am

Tgt Ion:130 Resp: 3260

Ion	Ratio	Lower	Upper
130	100		
132	55.3	76.9	116.9#
95	76.0	76.5	116.5#
97	34.7	42.8	82.8#

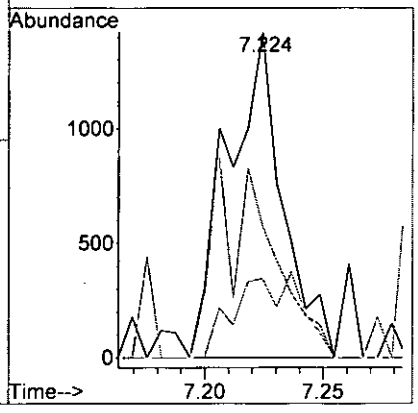




#64
4-Methyl-2-pentanone
Concen: 0.41 ppb m
RT: 7.224 min Scan# 1005
Delta R.T. 0.012 min
Lab File: MM0984.D
Acq: 25 Nov 2014 4:20 am

Tgt Ion: 43 Resp: 2309

Ion	Ratio	Lower	Upper
43	100		
58	40.4	17.2	57.2
100	24.2	0.0	33.2



ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

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

Initial Calibration - Summary Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
8260 Waters W102714 **Column Name:** 1 KR 10/28/14

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.3183	<=20	9.7
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.7789	<=20	7.4
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5200	<=20	5.1
1,1,2-Trichloroethane	T	Average RF		0.100	0.2327	<=20	4.8
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.4424	<=20	3.0
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8626	<=20	4.4
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4319	<=20	7.7
1,1-Dichloropropene	T	Average RF			0.4368	<=20	3.0
1,2,3-Trichlorobenzene	T	Average RF			0.6298	<=20	6.8
1,2,3-Trichloropropane	T	Average RF			0.1577	<=20	14.4
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.7405	<=20	6.8
1,2,4-Trimethylbenzene	T	Average RF			2.270	<=20	6.1
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.08752	<=20	8.5
1,2-Dibromoethane	T	Average RF		0.100	0.2348	<=20	6.2
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5897	<=20	5.9
1,2-Dichlorobenzene	T	Average RF		0.400	1.265	<=20	2.6
1,2-Dichloroethane	T	Average RF		0.100	0.4315	<=20	4.5
1,2-Dichloropropane	T	Average RF		0.100	0.3355	<=20	4.5
1,3,5-Trichlorobenzene	T	Average RF			0.8672	<=20	3.6
1,3,5-Trimethylbenzene	T	Average RF			2.314	<=20	4.6
1,3-Dichlorobenzene	T	Average RF		0.600	1.344	<=20	3.3
1,3-Dichloropropane	T	Average RF			0.4486	<=20	4.7
1,4-Dichlorobenzene	T	Average RF		0.500	1.406	<=20	5.9
1,4-Dioxane	T	Average RF			0.002526	<=20	10.8
1-Butanol	T	Average RF			0.006254	<=20	7.5
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.4746	<=20	5.5
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6221	<=20	3.5
2,2-Dichloropropane	T	Average RF			0.7655	<=20	4.7
2,3,6-Trichlorotoluene	T	Average RF			0.3936	<=20	6.5
2,4,5-Trichlorotoluene	T	Average RF			0.4265	<=20	6.1
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			1.037	<=20	4.1
2,4-Dichlorobenzotrifluoride	T	Average RF			0.5688	<=20	2.5
2,5-Dichlorobenzotrifluoride	T	Average RF			0.6438	<=20	4.4
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1508	<=20	3.9
2-Chloro-1,3-butadiene	T	Average RF			0.7976	<=20	3.9
2-Chlorobenzotrifluoride	T	Average RF			0.8807	<=20	4.1
2-Chloroethyl Vinyl Ether	T	Average RF			0.1564	<=20	3.3
2-Chlorotoluene	T	Average RF			1.874	<=20	5.8
2-Hexanone	T	Average RF		0.05	0.1683	<=20	4.1
2-Methyl-1-propanol	T	Average RF			0.01014	<=20	9.8
2-Methyl-2-propanol	T	Average RF			0.03476	<=20	5.6
2-Nitropropane	T	Average RF			0.05290	<=20	12.3
2-Propanol	T	Average RF			0.02100	<=20	5.9
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			1.086	<=20	5.5
3,4-Dichlorobenzotrifluoride	T	Average RF			0.6633	<=20	7.0
3-Chloro-1-propene	T	Average RF			0.2447	<=20	8.7
3-Chlorobenzotrifluoride	T	Average RF			0.5304	<=20	5.7
3-Chlorotoluene	T	Average RF			1.994	<=20	5.4
4-Chlorotoluene	T	Average RF			2.350	<=20	4.8
4-Isopropyltoluene	T	Average RF			2.283	<=20	6.5
4-Methyl-2-pentanone	T	Average RF		0.05	0.2284	<=20	5.5

Initial Calibration - Summary Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Acetone	T	Average RF		0.05	0.1059	<=20	3.7
Acetonitrile	T	Average RF			0.01684	<=20	9.2
Acrolein	T	Average RF			0.02090	<=20	16.1
Acrylonitrile	T	Average RF			0.1138	<=20	5.3
Benzene	T	Average RF		0.500	1.281	<=20	2.8
Bromobenzene	T	Average RF			0.7038	<=20	2.9
Bromochloromethane	T	Average RF			0.2863	<=20	8.0
Bromodichloromethane	T	Average RF		0.200	0.3975	<=20	3.8
Bromoform	T	Average RF		0.100	0.2484	<=20	15.3
Bromomethane	T	Average RF		0.100	0.3313	<=20	9.6
Carbon Disulfide	T	Average RF		0.100	1.452	<=20	10.1
Carbon Tetrachloride	T	Average RF		0.05	0.1306	<=20	3.7
Chlorobenzene	T	Average RF		0.500	0.9683	<=20	3.8
Chloroethane	T	Average RF		0.100	0.4268	<=20	5.6
Chloroform	T	Average RF		0.200	0.8684	<=20	7.3
Chloromethane	T	Average RF		0.100	0.6451	<=20	8.5
Cyclohexane	T	Average RF		0.100	0.3702	<=20	6.5
Cyclohexanone	T	Average RF			0.02932	<=20	17.8
Dibromochloromethane	T	Average RF		0.100	0.2690	<=20	8.9
Dibromomethane	T	Average RF			0.1587	<=20	4.0
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.4730	<=20	5.4
Dichlorofluoromethane (CFC 21)	T	Average RF			1.066	<=20	7.0
Dichloromethane	T	Average RF		0.100	0.4706	<=20	7.6
Diethyl Ether	T	Average RF			0.3709	<=20	6.5
Diisopropyl Ether	T	Average RF			1.734	<=20	4.6
Ethyl Methacrylate	T	Average RF			0.3285	<=20	8.0
Ethyl tert-Butyl Ether	T	Average RF			1.505	<=20	3.7
Ethylbenzene	T	Average RF		0.100	0.5223	<=20	4.5
Hexachlorobutadiene	T	Average RF			0.2928	<=20	8.5
Iodomethane	T	Average RF			0.6235	<=20	5.9
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.668	<=20	8.0
Methacrylonitrile	T	Average RF			0.1320	<=20	5.5
Methyl Acetate	T	Average RF		0.100	0.2444	<=20	5.6
Methyl Methacrylate	T	Average RF			0.1548	<=20	7.1
Methyl tert-Butyl Ether	T	Average RF		0.100	1.211	<=20	3.2
Methylcyclohexane	T	Average RF		0.100	0.4296	<=20	6.9
Naphthalene	T	Average RF			1.407	<=20	5.5
Propionitrile	T	Average RF			0.04437	<=20	8.1
Styrene	T	Average RF		0.300	1.051	<=20	10.3
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2877	<=20	4.3
Tetrahydrofuran (THF)	T	Average RF			0.1015	<=20	3.6
Toluene	T	Average RF		0.400	1.381	<=20	3.2
Trichloroethene (TCE)	T	Average RF		0.200	0.3348	<=20	5.2
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.8147	<=20	4.6
Vinyl Acetate	T	Average RF			0.07817	<=20	7.5
Vinyl Chloride	T	Average RF		0.100	0.6851	<=20	7.7
cis-1,2-Dichloroethene	T	Average RF		0.100	0.5060	<=20	2.0
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4952	<=20	4.9
m,p-Xylenes	T	Average RF		0.100	0.6320	<=20	6.5
n-Butyl Acetate	T	Average RF			0.4346	<=20	5.8
n-Butylbenzene	T	Average RF			2.020	<=20	5.2
n-Heptane	T	Average RF			0.4142	<=20	11.5

Initial Calibration - Summary Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Propylbenzene	T	Average RF			3.094	<=20	10.2
o-Xylene	T	Average RF		0.300	0.6354	<=20	6.8
sec-Butylbenzene	T	Average RF			2.628	<=20	7.3
tert-Amyl Methyl Ether	T	Average RF			1.260	<=20	3.6
tert-Butylbenzene	T	Average RF			1.869	<=20	5.2
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4668	<=20	3.5
trans-1,3-Dichloropropene	T	Average RF		0.100	0.4221	<=20	8.1
trans-1,4-Dichloro-2-butene	T	Average RF			0.1604	<=20	8.2
1,2-Dichloroethane-d4	S	Average RF			0.3545	<=20	4.1
4-Bromofluorobenzene	S	Average RF			0.4756	<=20	2.1
Dibromofluoromethane	S	Average RF			0.2912	<=20	2.9
Toluene-d8	S	Average RF			1.226	<=20	3.4

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
5260 waters W102714 **Signal ID:** 1 KR 10/28/14

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1400098-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0097.D	10/27/14 16:13
02	RC1400098-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0098.D	10/27/14 16:45
03	RC1400098-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0099.D	10/27/14 17:17
04	RC1400098-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0100.D	10/27/14 17:49
05	RC1400098-05	20ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0101.D	10/27/14 18:21
06	RC1400098-06	50ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0102.D	10/27/14 18:54
07	RC1400098-07	100ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0103.D	10/27/14 19:26
08	RC1400098-08	150ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0104.D	10/27/14 19:58
09	RC1400098-09	200ppb	I:\ACQUDATA\msvoa12\Data\102714\MM0105.D	10/27/14 20:31

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 9.7 Average RF = 0.3183

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2987	02	1.000	0.2688	03	2.000	0.2935	04	5.000	0.2938
05	20.000	0.3286	06	50.000	0.3329	07	100.000	0.3382	08	150.000	0.3475
09	200.000	0.3629									

1,1,1-Trichloroethane (TCA) Average RF RSD = 7.4 Average RF = 0.7789

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9197	02	1.000	0.7699	03	2.000	0.7901	04	5.000	0.7527
05	20.000	0.7986	06	50.000	0.7630	07	100.000	0.7310	08	150.000	0.7441
09	200.000	0.7408									

1,1,2,2-Tetrachloroethane Average RF RSD = 5.1 Average RF = 0.5200

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4712	02	1.000	0.5503	03	2.000	0.5352	04	5.000	0.5275
05	20.000	0.5519	06	50.000	0.5186	07	100.000	0.5161	08	150.000	0.4893
09	200.000	0.5203									

1,1,2-Trichloroethane Average RF RSD = 4.8 Average RF = 0.2327

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2091	02	1.000	0.2297	03	2.000	0.2289	04	5.000	0.2331
05	20.000	0.2487	06	50.000	0.2322	07	100.000	0.2380	08	150.000	0.2311
09	200.000	0.2438									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 3.0 Average RF = 0.4424

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4372	02	1.000	0.4652	03	2.000	0.4266	04	5.000	0.4375
05	20.000	0.4591	06	50.000	0.4393	07	100.000	0.4267	08	150.000	0.4417
09	200.000	0.4479									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 4.4 Average RF = 0.8626

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8883	02	1.000	0.9305	03	2.000	0.8679	04	5.000	0.8560
05	20.000	0.8974	06	50.000	0.8560	07	100.000	0.8199	08	150.000	0.8237
09	200.000	0.8235									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 7.7 Average RF = 0.4319

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5117	02	1.000	0.4421	03	2.000	0.4132	04	5.000	0.3957
05	20.000	0.4319	06	50.000	0.4177	07	100.000	0.4119	08	150.000	0.4259
09	200.000	0.4375									

00058

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

1,1-Dichloropropene Average RF RSD = 3.0 Average RF = 0.4368

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4479	02	1.000	0.4568	03	2.000	0.4332	04	5.000	0.4238
05	20.000	0.4553	06	50.000	0.4335	07	100.000	0.4241	08	150.000	0.4274
09	200.000	0.4294									

1,2,3-Trichlorobenzene Average RF RSD = 6.8 Average RF = 0.6298

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6427	02	1.000	0.7150	03	2.000	0.6081	04	5.000	0.6188
05	20.000	0.6715	06	50.000	0.6422	07	100.000	0.5997	08	150.000	0.5853
09	200.000	0.5847									

1,2,3-Trichloropropane Average RF RSD = 14.4 Average RF = 0.1577

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2078	02	1.000	0.1745	03	2.000	0.1460	04	5.000	0.1687
05	20.000	0.1528	06	50.000	0.1454	07	100.000	0.1463	08	150.000	0.1337
09	200.000	0.1442									

1,2,4-Trichlorobenzene Average RF RSD = 6.8 Average RF = 0.7405

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8196	02	1.000	0.6583	03	2.000	0.7456	04	5.000	0.7518
05	20.000	0.7898	06	50.000	0.7756	07	100.000	0.7114	08	150.000	0.7102
09	200.000	0.7022									

1,2,4-Trimethylbenzene Average RF RSD = 6.1 Average RF = 2.270

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.220	02	1.000	2.400	03	2.000	2.234	04	5.000	2.309
05	20.000	2.472	06	50.000	2.384	07	100.000	2.226	08	150.000	2.160
09	200.000	2.022									

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 8.5 Average RF = 0.08752

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.07249	02	1.000	0.08449	03	2.000	0.08218	04	5.000	0.08677
05	20.000	0.09012	06	50.000	0.09217	07	100.000	0.09738	08	150.000	0.08723
09	200.000	0.09486									

1,2-Dibromoethane Average RF RSD = 6.2 Average RF = 0.2348

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2170	02	1.000	0.2150	03	2.000	0.2176	04	5.000	0.2386
05	20.000	0.2535	06	50.000	0.2433	07	100.000	0.2439	08	150.000	0.2359
09	200.000	0.2481									

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 5.9 Average RF = 0.5897

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6251	02	1.000	0.6394	03	2.000	0.6262	04	5.000	0.5868
05	20.000	0.5933	06	50.000	0.5772	07	100.000	0.5411	08	150.000	0.5525
09	200.000	0.5655									

1,2-Dichlorobenzene Average RF RSD = 2.6 Average RF = 1.265

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.252	02	1.000	1.287	03	2.000	1.194	04	5.000	1.254
05	20.000	1.311	06	50.000	1.276	07	100.000	1.266	08	150.000	1.262
09	200.000	1.283									

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 4.5 Average RF = 0.4315

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4722	02	1.000	0.4183	03	2.000	0.4188	04	5.000	0.4390
05	20.000	0.4504	06	50.000	0.4248	07	100.000	0.4215	08	150.000	0.4115
09	200.000	0.4273									

1,2-Dichloroethane-d4 Average RF RSD = 4.1 Average RF = 0.3545

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.3603	03	60.000	0.3696	04	70.000	0.3686	05	100.000	0.3481
07	125.000	0.3487	08	150.000	0.3319						

1,2-Dichloropropane Average RF RSD = 4.5 Average RF = 0.3355

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3373	02	1.000	0.3705	03	2.000	0.3380	04	5.000	0.3277
05	20.000	0.3435	06	50.000	0.3294	07	100.000	0.3195	08	150.000	0.3214
09	200.000	0.3323									

1,3,5-Trichlorobenzene Average RF RSD = 3.6 Average RF = 0.8672

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8924	02	1.000	0.8966	03	2.000	0.8924	04	5.000	0.8698
05	20.000	0.8874	06	50.000	0.8851	07	100.000	0.8337	08	150.000	0.8263
09	200.000	0.8213									

1,3,5-Trimethylbenzene Average RF RSD = 4.6 Average RF = 2.314

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.414	02	1.000	2.384	03	2.000	2.284	04	5.000	2.286
05	20.000	2.444	06	50.000	2.401	07	100.000	2.278	08	150.000	2.231
09	200.000	2.108									

1,3-Dichlorobenzene Average RF RSD = 3.3 Average RF = 1.344

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.370	02	1.000	1.397	03	2.000	1.351	04	5.000	1.331
05	20.000	1.410	06	50.000	1.357	07	100.000	1.306	08	150.000	1.294
09	200.000	1.282									

1,3-Dichloropropane Average RF RSD = 4.7 Average RF = 0.4486

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4843	02	1.000	0.4082	03	2.000	0.4311	04	5.000	0.4527
05	20.000	0.4621	06	50.000	0.4514	07	100.000	0.4508	08	150.000	0.4396
09	200.000	0.4574									

1,4-Dichlorobenzene Average RF RSD = 5.9 Average RF = 1.406

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.541	02	1.000	1.523	03	2.000	1.357	04	5.000	1.363
05	20.000	1.460	06	50.000	1.409	07	100.000	1.348	08	150.000	1.331
09	200.000	1.319									

1,4-Dioxane Average RF RSD = 10.8 Average RF = 0.002526

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.002918	04	100.000	0.002886	05	400.000	0.002410	06	1000.000	0.002314
07	2000.000	0.002431	08	3000.000	0.002222	09	4000.000	0.002499			

1-Butanol Average RF RSD = 7.5 Average RF = 0.006254

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.006394	03	100.000	0.006237	04	250.000	0.005875	05	1000.000	0.005789
06	2500.000	0.006061	07	5000.000	0.006829	08	7500.000	0.005821	09	10000.000	0.007026

00960

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting									
1-Chloro-4-(trifluoromethyl)benzene	Average RF			RSD = 5.5		Average RF = 0.4746					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4653	02	1.000	0.4524	03	2.000	0.4547	04	5.000	0.4386
05	20.000	0.4677	06	50.000	0.4808	07	100.000	0.4929	08	150.000	0.4991
09	200.000	0.5201									
2,2-Dichloro-1,1,1-trifluoroethane (CFC	Average RF			RSD = 3.5		Average RF = 0.6221					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5791	02	1.000	0.6319	03	2.000	0.6307	04	5.000	0.6250
05	20.000	0.6505	06	50.000	0.6354	07	100.000	0.6000	08	150.000	0.6125
09	200.000	0.6337									
2,2-Dichloropropane	Average RF			RSD = 4.7		Average RF = 0.7655					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7679	02	1.000	0.8371	03	2.000	0.7217	04	5.000	0.7428
05	20.000	0.8007	06	50.000	0.7834	07	100.000	0.7436	08	150.000	0.7523
09	200.000	0.7397									
2,3,6-Trichlorotoluene	Average RF			RSD = 6.5		Average RF = 0.3936					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3823	02	1.000	0.4478	03	2.000	0.3550	04	5.000	0.3963
05	20.000	0.3937	06	50.000	0.4120	07	100.000	0.3842	08	150.000	0.3797
09	200.000	0.3912									
2,4,5-Trichlorotoluene	Average RF			RSD = 6.1		Average RF = 0.4265					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4877	02	1.000	0.4134	03	2.000	0.4389	04	5.000	0.4277
05	20.000	0.4093	06	50.000	0.4362	07	100.000	0.4104	08	150.000	0.4027
09	200.000	0.4125									
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut	Average RF			RSD = 4.1		Average RF = 1.037					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	1.028	02	3.000	1.072	03	6.000	1.029	04	15.000	1.047
05	60.000	1.076	06	150.000	1.091	07	300.000	1.038	08	450.000	0.9963
09	600.000	0.9560									
2,4-Dichlorobenzotrifluoride	Average RF			RSD = 2.5		Average RF = 0.5688					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5938	02	1.000	0.5485	03	2.000	0.5603	04	5.000	0.5616
05	20.000	0.5685	06	50.000	0.5883	07	100.000	0.5702	08	150.000	0.5619
09	200.000	0.5663									
2,5-Dichlorobenzotrifluoride	Average RF			RSD = 4.4		Average RF = 0.6438					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6505	02	1.000	0.7013	03	2.000	0.5929	04	5.000	0.6260
05	20.000	0.6466	06	50.000	0.6573	07	100.000	0.6422	08	150.000	0.6347
09	200.000	0.6426									
2-Butanone (MEK)	Average RF			RSD = 3.9		Average RF = 0.1508					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1480	04	5.000	0.1468	05	20.000	0.1477	06	50.000	0.1457
07	100.000	0.1590	08	150.000	0.1490	09	200.000	0.1595			

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chloro-1,3-butadiene Average RF RSD = 3.9 Average RF = 0.7976

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8282	02	1.000	0.8451	03	2.000	0.7575	04	5.000	0.7991
05	20.000	0.8357	06	50.000	0.7795	07	100.000	0.7684	08	150.000	0.7817
09	200.000	0.7829									

2-Chlorobenzotrifluoride Average RF RSD = 4.1 Average RF = 0.8807

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8652	02	1.000	0.9468	03	2.000	0.9240	04	5.000	0.9002
05	20.000	0.8720	06	50.000	0.8746	07	100.000	0.8554	08	150.000	0.8417
09	200.000	0.8467									

2-Chloroethyl Vinyl Ether Average RF RSD = 3.3 Average RF = 0.1564

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1587	02	1.000	0.1522	03	2.000	0.1463	04	5.000	0.1550
05	20.000	0.1601	06	50.000	0.1556	07	100.000	0.1622	08	150.000	0.1545
09	200.000	0.1628									

2-Chlorotoluene Average RF RSD = 5.8 Average RF = 1.874

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.878	02	1.000	1.971	03	2.000	1.848	04	5.000	1.912
05	20.000	2.058	06	50.000	1.926	07	100.000	1.816	08	150.000	1.767
09	200.000	1.694									

2-Hexanone Average RF RSD = 4.1 Average RF = 0.1683

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1596	04	5.000	0.1658	05	20.000	0.1710	06	50.000	0.1655
07	100.000	0.1779	08	150.000	0.1626	09	200.000	0.1759			

2-Methyl-1-propanol Average RF RSD = 9.8 Average RF = 0.01014

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.01006	03	40.000	0.008150	04	100.000	0.009697	05	400.000	0.01042
06	1000.000	0.01032	07	2000.000	0.01116	08	3000.000	0.009934	09	4000.000	0.01136

2-Methyl-2-propanol Average RF RSD = 5.6 Average RF = 0.03476

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.03148	03	40.000	0.03523	04	100.000	0.03649	05	400.000	0.03507
06	1000.000	0.03417	07	2000.000	0.03659	08	3000.000	0.03241	09	4000.000	0.03667

2-Nitropropane Average RF RSD = 12.3 Average RF = 0.05290

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.06311	02	2.000	0.04522	03	4.000	0.05145	04	10.000	0.04396
05	40.000	0.04998	06	100.000	0.05063	07	200.000	0.05585	08	300.000	0.05460
09	400.000	0.06129									

2-Propanol Average RF RSD = 5.9 Average RF = 0.02100

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.01921	03	40.000	0.02027	04	100.000	0.01999	05	400.000	0.02173
06	1000.000	0.02199	07	2000.000	0.02218	08	3000.000	0.02015	09	4000.000	0.02251

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 5.5 Average RF = 1.086

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.076	02	2.000	1.084	03	4.000	1.087	04	10.000	1.134
05	40.000	1.146	06	100.000	1.158	07	200.000	1.093	08	300.000	1.028
09	400.000	0.9679									

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

3,4-Dichlorobenzotrifluoride Average RF RSD = 7.0 Average RF = 0.6633

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6851	02	1.000	0.6154	03	2.000	0.5915	04	5.000	0.6222
05	20.000	0.6488	06	50.000	0.6788	07	100.000	0.6957	08	150.000	0.7033
09	200.000	0.7292									

3-Chloro-1-propene Average RF RSD = 8.7 Average RF = 0.2447

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2712	02	1.000	0.2180	03	2.000	0.2437	04	5.000	0.2374
05	20.000	0.2736	06	50.000	0.2611	07	100.000	0.2343	08	150.000	0.2492
09	200.000	0.2139									

3-Chlorobenzotrifluoride Average RF RSD = 5.7 Average RF = 0.5304

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5388	02	1.000	0.5009	03	2.000	0.4892	04	5.000	0.5106
05	20.000	0.5095	06	50.000	0.5380	07	100.000	0.5447	08	150.000	0.5586
09	200.000	0.5834									

3-Chlorotoluene Average RF RSD = 5.4 Average RF = 1.994

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.046	02	1.000	2.099	03	2.000	2.043	04	5.000	2.080
05	20.000	2.059	06	50.000	2.026	07	100.000	1.954	08	150.000	1.851
09	200.000	1.788									

4-Bromofluorobenzene Average RF RSD = 2.1 Average RF = 0.4756

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4876	03	60.000	0.4840	04	70.000	0.4767	05	100.000	0.4598
07	125.000	0.4758	08	150.000	0.4699						

4-Chlorotoluene Average RF RSD = 4.8 Average RF = 2.350

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.448	02	1.000	2.414	03	2.000	2.362	04	5.000	2.344
05	20.000	2.502	06	50.000	2.409	07	100.000	2.296	08	150.000	2.245
09	200.000	2.129									

4-Isopropyltoluene Average RF RSD = 6.5 Average RF = 2.283

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.432	02	1.000	2.298	03	2.000	2.312	04	5.000	2.266
05	20.000	2.485	06	50.000	2.394	07	100.000	2.204	08	150.000	2.156
09	200.000	2.004									

4-Methyl-2-pentanone Average RF RSD = 5.5 Average RF = 0.2284

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.2060	04	5.000	0.2248	05	20.000	0.2332	06	50.000	0.2278
07	100.000	0.2426	08	150.000	0.2225	09	200.000	0.2419			

Acetone Average RF RSD = 3.7 Average RF = 0.1059

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1096	04	5.000	0.1007	05	20.000	0.1059	06	50.000	0.1021
07	100.000	0.1101	08	150.000	0.1033	09	200.000	0.1095			

Acetonitrile Average RF RSD = 9.2 Average RF = 0.01684

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.01344	03	10.000	0.01803	04	25.000	0.01803	05	100.000	0.01686
06	250.000	0.01592	07	500.000	0.01703	08	750.000	0.01781	09	1000.000	0.01756

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Acrolein Average RF RSD = 16.1 Average RF = 0.02090

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.02174	03	10.000	0.02092	04	25.000	0.01812	05	100.000	0.01778
06	250.000	0.01609	07	500.000	0.02237	08	750.000	0.02437	09	1000.000	0.02581

Acrylonitrile Average RF RSD = 5.3 Average RF = 0.1138

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1102	02	5.000	0.1085	03	10.000	0.1019	04	25.000	0.1165
05	100.000	0.1184	06	250.000	0.1151	07	500.000	0.1188	08	750.000	0.1133
09	1000.000	0.1212									

Benzene Average RF RSD = 2.8 Average RF = 1.281

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.329	02	1.000	1.278	03	2.000	1.281	04	5.000	1.272
05	20.000	1.349	06	50.000	1.273	07	100.000	1.242	08	150.000	1.248
09	200.000	1.256									

Bromobenzene Average RF RSD = 2.9 Average RF = 0.7038

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7391	02	1.000	0.7201	03	2.000	0.7095	04	5.000	0.6872
05	20.000	0.7232	06	50.000	0.7010	07	100.000	0.6828	08	150.000	0.6785
09	200.000	0.6931									

Bromochloromethane Average RF RSD = 8.0 Average RF = 0.2863

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3406	02	1.000	0.2947	03	2.000	0.2746	04	5.000	0.2867
05	20.000	0.2944	06	50.000	0.2794	07	100.000	0.2677	08	150.000	0.2673
09	200.000	0.2715									

Bromodichloromethane Average RF RSD = 3.8 Average RF = 0.3975

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3792	02	1.000	0.4064	03	2.000	0.3789	04	5.000	0.3774
05	20.000	0.4138	06	50.000	0.3986	07	100.000	0.4032	08	150.000	0.4030
09	200.000	0.4165									

Bromoform Average RF RSD = 15.3 Average RF = 0.2484

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1787	02	1.000	0.2167	03	2.000	0.2239	04	5.000	0.2332
05	20.000	0.2597	06	50.000	0.2693	07	100.000	0.2819	08	150.000	0.2749
09	200.000	0.2976									

Bromomethane Average RF RSD = 9.6 Average RF = 0.3313

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3337	02	1.000	0.3526	03	2.000	0.2877	04	5.000	0.2967
05	20.000	0.3026	06	50.000	0.3241	07	100.000	0.3363	08	150.000	0.3689
09	200.000	0.3792									

Carbon Disulfide Average RF RSD = 10.1 Average RF = 1.452

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.814	02	1.000	1.496	03	2.000	1.412	04	5.000	1.406
05	20.000	1.485	06	50.000	1.402	07	100.000	1.354	08	150.000	1.363
09	200.000	1.336									

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Carbon Tetrachloride Average RF RSD = 3.7 Average RF = 0.1306

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1344	02	1.000	0.1354	03	2.000	0.1250	04	5.000	0.1217
05	20.000	0.1349	06	50.000	0.1290	07	100.000	0.1293	08	150.000	0.1312
09	200.000	0.1341									

Chlorobenzene Average RF RSD = 3.8 Average RF = 0.9683

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.045	02	1.000	0.9265	03	2.000	0.9319	04	5.000	0.9357
05	20.000	0.9962	06	50.000	0.9687	07	100.000	0.9641	08	150.000	0.9705
09	200.000	0.9765									

Chloroethane Average RF RSD = 5.6 Average RF = 0.4268

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4729	02	1.000	0.4430	03	2.000	0.4153	04	5.000	0.4332
05	20.000	0.4443	06	50.000	0.4230	07	100.000	0.4027	08	150.000	0.4056
09	200.000	0.4016									

Chloroform Average RF RSD = 7.3 Average RF = 0.8684

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9523	02	1.000	0.9843	03	2.000	0.8878	04	5.000	0.8430
05	20.000	0.8762	06	50.000	0.8324	07	100.000	0.8081	08	150.000	0.8148
09	200.000	0.8164									

Chloromethane Average RF RSD = 8.5 Average RF = 0.6451

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7759	02	1.000	0.6571	03	2.000	0.6266	04	5.000	0.6014
05	20.000	0.6755	06	50.000	0.6386	07	100.000	0.6127	08	150.000	0.6041
09	200.000	0.6144									

Cyclohexane Average RF RSD = 6.5 Average RF = 0.3702

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4210	02	1.000	0.3797	03	2.000	0.3678	04	5.000	0.3698
05	20.000	0.3846	06	50.000	0.3676	07	100.000	0.3448	08	150.000	0.3432
09	200.000	0.3531									

Cyclohexanone Average RF RSD = 17.8 Average RF = 0.02932

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.03775	02	20.000	0.03583	03	40.000	0.02990	04	100.000	0.03096
05	400.000	0.02766	06	1000.000	0.02323	07	2000.000	0.02634	08	3000.000	0.02206
09	4000.000	0.03014									

Dibromochloromethane Average RF RSD = 8.9 Average RF = 0.2690

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2599	02	1.000	0.2388	03	2.000	0.2558	04	5.000	0.2347
05	20.000	0.2705	06	50.000	0.2768	07	100.000	0.2884	08	150.000	0.2898
09	200.000	0.3059									

Dibromofluoromethane Average RF RSD = 2.9 Average RF = 0.2912

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.2960	03	60.000	0.3008	04	70.000	0.2973	05	100.000	0.2859
07	125.000	0.2889	08	150.000	0.2782						

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting

Dibromomethane — Average RF — RSD = 4.0 — Average RF = 0.1587

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1725	02	1.000	0.1512	03	2.000	0.1602	04	5.000	0.1570
05	20.000	0.1621	06	50.000	0.1577	07	100.000	0.1551	08	150.000	0.1524
09	200.000	0.1603									

Dichlorodifluoromethane (CFC 12) — Average RF — RSD = 5.4 — Average RF = 0.4730

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4746	02	1.000	0.4562	03	2.000	0.4648	04	5.000	0.4296
05	20.000	0.5219	06	50.000	0.4966	07	100.000	0.4747	08	150.000	0.4687
09	200.000	0.4702									

Dichlorofluoromethane (CFC 21) — Average RF — RSD = 7.0 — Average RF = 1.066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.162	02	1.000	1.105	03	2.000	1.138	04	5.000	1.078
05	20.000	1.119	06	50.000	1.069	07	100.000	0.9825	08	150.000	0.9734
09	200.000	0.9659									

Dichloromethane — Average RF — RSD = 7.6 — Average RF = 0.4706

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5615	02	1.000	0.4610	03	2.000	0.4711	04	5.000	0.4695
05	20.000	0.4729	06	50.000	0.4519	07	100.000	0.4360	08	150.000	0.4523
09	200.000	0.4594									

Diethyl Ether — Average RF — RSD = 6.5 — Average RF = 0.3709

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4307	02	1.000	0.3729	03	2.000	0.3533	04	5.000	0.3564
05	20.000	0.3737	06	50.000	0.3646	07	100.000	0.3611	08	150.000	0.3521
09	200.000	0.3736									

Diisopropyl Ether — Average RF — RSD = 4.6 — Average RF = 1.734

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.795	02	1.000	1.767	03	2.000	1.795	04	5.000	1.807
05	20.000	1.777	06	50.000	1.721	07	100.000	1.706	08	150.000	1.561
09	200.000	1.677									

Ethyl Methacrylate — Average RF — RSD = 8.0 — Average RF = 0.3285

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3124	02	1.000	0.2802	03	2.000	0.3046	04	5.000	0.3199
05	20.000	0.3420	06	50.000	0.3427	07	100.000	0.3551	08	150.000	0.3369
09	200.000	0.3622									

Ethyl tert-Butyl Ether — Average RF — RSD = 3.7 — Average RF = 1.505

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.515	02	1.000	1.514	03	2.000	1.527	04	5.000	1.576
05	20.000	1.544	06	50.000	1.499	07	100.000	1.503	08	150.000	1.373
09	200.000	1.498									

Ethylbenzene — Average RF — RSD = 4.5 — Average RF = 0.5223

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5454	02	1.000	0.5059	03	2.000	0.4745	04	5.000	0.5029
05	20.000	0.5358	06	50.000	0.5345	07	100.000	0.5234	08	150.000	0.5357
09	200.000	0.5428									

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** Average RF **Weighting** Weighting

Hexachlorobutadiene Average RF RSD = 8.5 Average RF = 0.2928

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3295	02	1.000	0.3104	03	2.000	0.2852	04	5.000	0.3021
05	20.000	0.3138	06	50.000	0.3017	07	100.000	0.2560	08	150.000	0.2722
09	200.000	0.2642									

Iodomethane Average RF RSD = 5.9 Average RF = 0.6235

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6758	03	2.000	0.5749	04	5.000	0.5793	05	20.000	0.6641
06	50.000	0.6448	07	100.000	0.6235	08	150.000	0.6158	09	200.000	0.6095

Isopropylbenzene (Cumene) Average RF RSD = 8.0 Average RF = 2.668

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.768	02	1.000	2.885	03	2.000	2.686	04	5.000	2.762
05	20.000	2.920	06	50.000	2.740	07	100.000	2.549	08	150.000	2.432
09	200.000	2.273									

Methacrylonitrile Average RF RSD = 5.5 Average RF = 0.1320

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1192	03	2.000	0.1440	04	5.000	0.1309	05	20.000	0.1328
06	50.000	0.1329	07	100.000	0.1321	08	150.000	0.1269	09	200.000	0.1375

Methyl Acetate Average RF RSD = 5.6 Average RF = 0.2444

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2347	02	1.000	0.2200	03	2.000	0.2309	04	5.000	0.2566
05	20.000	0.2597	06	50.000	0.2551	07	100.000	0.2516	08	150.000	0.2397
09	200.000	0.2517									

Methyl Methacrylate Average RF RSD = 7.1 Average RF = 0.1548

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1384	02	1.000	0.1462	03	2.000	0.1414	04	5.000	0.1527
05	20.000	0.1646	06	50.000	0.1606	07	100.000	0.1644	08	150.000	0.1556
09	200.000	0.1696									

Methyl tert-Butyl Ether Average RF RSD = 3.2 Average RF = 1.211

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.260	02	1.000	1.174	03	2.000	1.148	04	5.000	1.227
05	20.000	1.248	06	50.000	1.209	07	100.000	1.214	08	150.000	1.173
09	200.000	1.245									

Methylcyclohexane Average RF RSD = 6.9 Average RF = 0.4296

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5030	02	1.000	0.4130	03	2.000	0.4288	04	5.000	0.4157
05	20.000	0.4403	06	50.000	0.4264	07	100.000	0.4041	08	150.000	0.4105
09	200.000	0.4247									

Naphthalene Average RF RSD = 5.5 Average RF = 1.407

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.372	02	1.000	1.351	03	2.000	1.353	04	5.000	1.455
05	20.000	1.519	06	50.000	1.511	07	100.000	1.453	08	150.000	1.319
09	200.000	1.330									

Initial Calibration - Detailed Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Propionitrile Average RF RSD = 8.1 Average RF = 0.04437

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.05288	02	5.000	0.04358	03	10.000	0.04026	04	25.000	0.04246
05	100.000	0.04446	06	250.000	0.04342	07	500.000	0.04498	08	750.000	0.04159
09	1000.000	0.04575									

Styrene Average RF RSD = 10.3 Average RF = 1.051

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9371	02	1.000	0.9061	03	2.000	0.9288	04	5.000	0.9923
05	20.000	1.112	06	50.000	1.124	07	100.000	1.137	08	150.000	1.160
09	200.000	1.162									

Tetrachloroethene (PCE) Average RF RSD = 4.3 Average RF = 0.2877

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2853	02	1.000	0.2837	03	2.000	0.2623	04	5.000	0.2819
05	20.000	0.2956	06	50.000	0.2926	07	100.000	0.2848	08	150.000	0.2991
09	200.000	0.3043									

Tetrahydrofuran (THF) Average RF RSD = 3.6 Average RF = 0.1015

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1072	04	5.000	0.1010	05	20.000	0.1033	06	50.000	0.1008
07	100.000	0.1014	08	150.000	0.09499	09	200.000	0.1021			

Toluene Average RF RSD = 3.2 Average RF = 1.381

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.345	02	1.000	1.397	03	2.000	1.358	04	5.000	1.381
05	20.000	1.481	06	50.000	1.400	07	100.000	1.376	08	150.000	1.360
09	200.000	1.331									

Toluene-d8 Average RF RSD = 3.4 Average RF = 1.226

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	1.269	03	60.000	1.266	04	70.000	1.250	05	100.000	1.207
07	125.000	1.200	08	150.000	1.164						

Trichloroethene (TCE) Average RF RSD = 5.2 Average RF = 0.3348

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3717	02	1.000	0.3156	03	2.000	0.3139	04	5.000	0.3283
05	20.000	0.3463	06	50.000	0.3324	07	100.000	0.3288	08	150.000	0.3345
09	200.000	0.3414									

Trichlorofluoromethane (CFC 11) Average RF RSD = 4.6 Average RF = 0.8147

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8486	02	1.000	0.8420	03	2.000	0.8214	04	5.000	0.8299
05	20.000	0.8686	06	50.000	0.8079	07	100.000	0.7577	08	150.000	0.7787
09	200.000	0.7774									

Vinyl Acetate Average RF RSD = 7.5 Average RF = 0.07817

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.07252	02	1.000	0.08383	03	2.000	0.06777	04	5.000	0.07162
05	20.000	0.07981	06	50.000	0.08176	07	100.000	0.08095	08	150.000	0.08232
09	200.000	0.08293									

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

Vinyl Chloride Average RF RSD = 7.7 Average RF = 0.6851

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8058	02	1.000	0.6729	03	2.000	0.6523	04	5.000	0.6512
05	20.000	0.7307	06	50.000	0.6920	07	100.000	0.6642	08	150.000	0.6496
09	200.000	0.6475									

cis-1,2-Dichloroethene Average RF RSD = 2.0 Average RF = 0.5060

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4981	02	1.000	0.4923	03	2.000	0.5066	04	5.000	0.5015
05	20.000	0.5229	06	50.000	0.5105	07	100.000	0.4962	08	150.000	0.5075
09	200.000	0.5187									

cis-1,3-Dichloropropene Average RF RSD = 4.9 Average RF = 0.4952

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4455	02	1.000	0.4905	03	2.000	0.4776	04	5.000	0.4813
05	20.000	0.5262	06	50.000	0.5126	07	100.000	0.5068	08	150.000	0.5028
09	200.000	0.5134									

m,p-Xylenes Average RF RSD = 6.5 Average RF = 0.6320

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5573	02	2.000	0.6129	03	4.000	0.5872	04	10.000	0.6137
05	40.000	0.6695	06	100.000	0.6590	07	200.000	0.6581	08	300.000	0.6691
09	400.000	0.6611									

n-Butyl Acetate Average RF RSD = 5.8 Average RF = 0.4346

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4109	02	1.000	0.3932	03	2.000	0.4230	04	5.000	0.4206
05	20.000	0.4499	06	50.000	0.4535	07	100.000	0.4675	08	150.000	0.4312
09	200.000	0.4620									

n-Butylbenzene Average RF RSD = 5.2 Average RF = 2.020

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.117	02	1.000	2.018	03	2.000	1.931	04	5.000	1.994
05	20.000	2.187	06	50.000	2.126	07	100.000	1.997	08	150.000	1.964
09	200.000	1.851									

n-Heptane Average RF RSD = 11.5 Average RF = 0.4142

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5167	02	1.000	0.4698	03	2.000	0.3845	04	5.000	0.3759
05	20.000	0.4154	06	50.000	0.4045	07	100.000	0.3872	08	150.000	0.3879
09	200.000	0.3863									

n-Propylbenzene Average RF RSD = 10.2 Average RF = 3.094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.456	02	1.000	3.211	03	2.000	3.188	04	5.000	3.211
05	20.000	3.420	06	50.000	3.202	07	100.000	2.925	08	150.000	2.733
09	200.000	2.496									

o-Xylene Average RF RSD = 6.8 Average RF = 0.6354

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6127	02	1.000	0.6034	03	2.000	0.5751	04	5.000	0.5861
05	20.000	0.6530	06	50.000	0.6487	07	100.000	0.6568	08	150.000	0.6823
09	200.000	0.7006									

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

sec-Butylbenzene Average RF RSD = 7.3 Average RF = 2.628

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.741	02	1.000	2.794	03	2.000	2.687	04	5.000	2.609
05	20.000	2.850	06	50.000	2.745	07	100.000	2.544	08	150.000	2.429
09	200.000	2.256									

tert-Amyl Methyl Ether Average RF RSD = 3.6 Average RF = 1.260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.313	02	1.000	1.285	03	2.000	1.254	04	5.000	1.270
05	20.000	1.279	06	50.000	1.245	07	100.000	1.268	08	150.000	1.149
09	200.000	1.273									

tert-Butylbenzene Average RF RSD = 5.2 Average RF = 1.869

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.899	02	1.000	1.874	03	2.000	1.949	04	5.000	1.923
05	20.000	2.001	06	50.000	1.911	07	100.000	1.798	08	150.000	1.774
09	200.000	1.693									

trans-1,2-Dichloroethene Average RF RSD = 3.5 Average RF = 0.4668

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4537	02	1.000	0.4488	03	2.000	0.4570	04	5.000	0.4509
05	20.000	0.4902	06	50.000	0.4722	07	100.000	0.4594	08	150.000	0.4793
09	200.000	0.4897									

trans-1,3-Dichloropropene Average RF RSD = 8.1 Average RF = 0.4221

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3865	02	1.000	0.3602	03	2.000	0.4058	04	5.000	0.4047
05	20.000	0.4487	06	50.000	0.4467	07	100.000	0.4481	08	150.000	0.4407
09	200.000	0.4579									

trans-1,4-Dichloro-2-butene Average RF RSD = 8.2 Average RF = 0.1604

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1929	02	1.000	0.1594	03	2.000	0.1649	04	5.000	0.1534
05	20.000	0.1556	06	50.000	0.1535	07	100.000	0.1588	08	150.000	0.1480
09	200.000	0.1566									

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.2	02	1.000	0.84	-15.6	03	2.000	1.84	-7.8
04	5.000	4.61	-7.7	05	20.000	20.65	3.2	06	50.000	52.29	4.6
07	100.000	106.26	6.3	08	150.000	163.75	9.2	09	200.000	227.98	14.0

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.1	02	1.000	0.99	-1.2	03	2.000	2.03	1.4
04	5.000	4.83	-3.4	05	20.000	20.51	2.5	06	50.000	48.98	-2.0
07	100.000	93.85	-6.2	08	150.000	143.30	-4.5	09	200.000	190.22	-4.9

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.4	02	1.000	1.06	5.8	03	2.000	2.06	2.9
04	5.000	5.07	1.4	05	20.000	21.23	6.1	06	50.000	49.87	-0.3
07	100.000	99.24	-0.8	08	150.000	141.14	-5.9	09	200.000	200.09	0.0

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.2	02	1.000	0.99	-1.3	03	2.000	1.97	-1.7
04	5.000	5.01	0.1	05	20.000	21.37	6.9	06	50.000	49.90	-0.2
07	100.000	102.26	2.3	08	150.000	148.93	-0.7	09	200.000	209.47	4.7

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.2	02	1.000	1.05	5.2	03	2.000	1.93	-3.6
04	5.000	4.95	-1.1	05	20.000	20.76	3.8	06	50.000	49.66	-0.7
07	100.000	96.47	-3.5	08	150.000	149.76	-0.2	09	200.000	202.50	1.3

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	3.0	02	1.000	1.08	7.9	03	2.000	2.01	0.6
04	5.000	4.96	-0.8	05	20.000	20.81	4.0	06	50.000	49.62	-0.8
07	100.000	95.05	-4.9	08	150.000	143.23	-4.5	09	200.000	190.95	-4.5

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.5	02	1.000	1.02	2.3	03	2.000	1.91	-4.3
04	5.000	4.58	-8.4	05	20.000	20.00	0.0	06	50.000	48.35	-3.3
07	100.000	95.36	-4.6	08	150.000	147.90	-1.4	09	200.000	202.57	1.3

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	1.05	4.6	03	2.000	1.98	-0.8
04	5.000	4.85	-3.0	05	20.000	20.85	4.2	06	50.000	49.62	-0.8
07	100.000	97.08	-2.9	08	150.000	146.76	-2.2	09	200.000	196.61	-1.7

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Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.1	02	1.000	1.14	13.5	03	2.000	1.93	-3.5
04	5.000	4.91	-1.7	05	20.000	21.33	6.6	06	50.000	50.99	2.0
07	100.000	95.22	-4.8	08	150.000	139.41	-7.1	09	200.000	185.70	-7.2

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.66	31.7	02	1.000	1.11	10.7	03	2.000	1.85	-7.4
04	5.000	5.35	7.0	05	20.000	19.38	-3.1	06	50.000	46.10	-7.8
07	100.000	92.76	-7.2	08	150.000	127.20	-15.2	09	200.000	182.86	-8.6

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	0.89	-11.1	03	2.000	2.01	0.7
04	5.000	5.08	1.5	05	20.000	21.33	6.7	06	50.000	52.37	4.7
07	100.000	96.07	-3.9	08	150.000	143.86	-4.1	09	200.000	189.67	-5.2

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.2	02	1.000	1.06	5.8	03	2.000	1.97	-1.6
04	5.000	5.09	1.7	05	20.000	21.78	8.9	06	50.000	52.52	5.0
07	100.000	98.06	-1.9	08	150.000	142.73	-4.8	09	200.000	178.20	-10.9

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-17.2	02	1.000	0.97	-3.5	03	2.000	1.88	-6.1
04	5.000	4.96	-0.9	05	20.000	20.59	3.0	06	50.000	52.65	5.3
07	100.000	111.26	11.3	08	150.000	149.49	-0.3	09	200.000	216.78	8.4

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.6	02	1.000	0.92	-8.4	03	2.000	1.85	-7.3
04	5.000	5.08	1.6	05	20.000	21.60	8.0	06	50.000	51.82	3.6
07	100.000	103.88	3.9	08	150.000	150.73	0.5	09	200.000	211.35	5.7

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.0	02	1.000	1.08	8.4	03	2.000	2.12	6.2
04	5.000	4.98	-0.5	05	20.000	20.12	0.6	06	50.000	48.94	-2.1
07	100.000	91.77	-8.2	08	150.000	140.53	-6.3	09	200.000	191.78	-4.1

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-1.0	02	1.000	1.02	1.7	03	2.000	1.89	-5.6
04	5.000	4.96	-0.9	05	20.000	20.72	3.6	06	50.000	50.45	0.9
07	100.000	100.06	0.1	08	150.000	149.68	-0.2	09	200.000	202.82	1.4

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Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.4	02	1.000	0.97	-3.1	03	2.000	1.94	-3.0
04	5.000	5.09	1.7	05	20.000	20.87	4.4	06	50.000	49.22	-1.6
07	100.000	97.69	-2.3	08	150.000	143.04	-4.6	09	200.000	198.03	-1.0

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	50.82	1.6	03	60.000	62.55	4.2	04	70.000	72.78	4.0
05	100.000	98.19	-1.8	07	125.000	122.94	-1.7	08	150.000	140.41	-6.4

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.5	02	1.000	1.10	10.4	03	2.000	2.01	0.7
04	5.000	4.88	-2.3	05	20.000	20.48	2.4	06	50.000	49.08	-1.8
07	100.000	95.24	-4.8	08	150.000	143.68	-4.2	09	200.000	198.08	-1.0

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.9	02	1.000	1.03	3.4	03	2.000	2.06	2.9
04	5.000	5.01	0.3	05	20.000	20.47	2.3	06	50.000	51.03	2.1
07	100.000	96.13	-3.9	08	150.000	142.92	-4.7	09	200.000	189.42	-5.3

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.3	02	1.000	1.03	3.0	03	2.000	1.97	-1.3
04	5.000	4.94	-1.2	05	20.000	21.12	5.6	06	50.000	51.87	3.7
07	100.000	98.41	-1.6	08	150.000	144.57	-3.6	09	200.000	182.17	-8.9

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.9	02	1.000	1.04	3.9	03	2.000	2.01	0.5
04	5.000	4.95	-1.0	05	20.000	20.98	4.9	06	50.000	50.47	0.9
07	100.000	97.16	-2.8	08	150.000	144.43	-3.7	09	200.000	190.75	-4.6

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.0	02	1.000	0.91	-9.0	03	2.000	1.92	-3.9
04	5.000	5.05	0.9	05	20.000	20.60	3.0	06	50.000	50.31	0.6
07	100.000	100.48	0.5	08	150.000	146.98	-2.0	09	200.000	203.90	2.0

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.6	02	1.000	1.08	8.4	03	2.000	1.93	-3.5
04	5.000	4.85	-3.0	05	20.000	20.77	3.9	06	50.000	50.11	0.2
07	100.000	95.92	-4.1	08	150.000	142.06	-5.3	09	200.000	187.61	-6.2

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	46.21	15.5	04	100.000	114.25	14.3	05	400.000	381.67	-4.6
06	1000.000	916.13	-8.4	07	2000.000	1,925.16	-3.7	08	3000.000	2,639.46	-12.0
09	4000.000	3,958.01	-1.0								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	51.12	2.2	03	100.000	99.72	-0.3	04	250.000	234.83	-6.1
05	1000.000	925.69	-7.4	06	2500.000	2,422.67	-3.1	07	5000.000	5,459.85	9.2
08	7500.000	6,981.08	-6.9	09	10000.000	11,235.09	12.4				

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	0.95	-4.7	03	2.000	1.92	-4.2
04	5.000	4.62	-7.6	05	20.000	19.71	-1.5	06	50.000	50.65	1.3
07	100.000	103.84	3.8	08	150.000	157.74	5.2	09	200.000	219.18	9.6

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.9	02	1.000	1.02	1.6	03	2.000	2.03	1.4
04	5.000	5.02	0.5	05	20.000	20.91	4.6	06	50.000	51.07	2.1
07	100.000	96.44	-3.6	08	150.000	147.68	-1.5	09	200.000	203.74	1.9

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.09	9.4	03	2.000	1.89	-5.7
04	5.000	4.85	-3.0	05	20.000	20.92	4.6	06	50.000	51.17	2.3
07	100.000	97.14	-2.9	08	150.000	147.42	-1.7	09	200.000	193.25	-3.4

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.9	02	1.000	1.14	13.8	03	2.000	1.80	-9.8
04	5.000	5.03	0.7	05	20.000	20.01	0.0	06	50.000	52.34	4.7
07	100.000	97.61	-2.4	08	150.000	144.72	-3.5	09	200.000	198.78	-0.6

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.4	02	1.000	0.97	-3.1	03	2.000	2.06	2.9
04	5.000	5.01	0.3	05	20.000	19.19	-4.0	06	50.000	51.14	2.3
07	100.000	96.23	-3.8	08	150.000	141.62	-5.6	09	200.000	193.40	-3.3

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.49	-0.9	02	3.000	3.10	3.4	03	6.000	5.95	-0.8
04	15.000	15.15	1.0	05	60.000	62.25	3.7	06	150.000	157.87	5.2
07	300.000	300.14	0.0	08	450.000	432.31	-3.9	09	600.000	553.11	-7.8

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.4	02	1.000	0.96	-3.6	03	2.000	1.97	-1.5
04	5.000	4.94	-1.3	05	20.000	19.99	-0.1	06	50.000	51.71	3.4
07	100.000	100.23	0.2	08	150.000	148.18	-1.2	09	200.000	199.12	-0.4

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.0	02	1.000	1.09	8.9	03	2.000	1.84	-7.9
04	5.000	4.86	-2.8	05	20.000	20.09	0.4	06	50.000	51.05	2.1
07	100.000	99.76	-0.2	08	150.000	147.88	-1.4	09	200.000	199.64	-0.2

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.96	-1.9	04	5.000	4.87	-2.7	05	20.000	19.59	-2.1
06	50.000	48.31	-3.4	07	100.000	105.40	5.4	08	150.000	148.16	-1.2
09	200.000	211.56	5.8								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.8	02	1.000	1.06	6.0	03	2.000	1.90	-5.0
04	5.000	5.01	0.2	05	20.000	20.96	4.8	06	50.000	48.87	-2.3
07	100.000	96.34	-3.7	08	150.000	147.02	-2.0	09	200.000	196.32	-1.8

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.8	02	1.000	1.08	7.5	03	2.000	2.10	4.9
04	5.000	5.11	2.2	05	20.000	19.80	-1.0	06	50.000	49.65	-0.7
07	100.000	97.12	-2.9	08	150.000	143.36	-4.4	09	200.000	192.28	-3.9

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.5	02	1.000	0.97	-2.7	03	2.000	1.87	-6.4
04	5.000	4.96	-0.9	05	20.000	20.48	2.4	06	50.000	49.76	-0.5
07	100.000	103.74	3.7	08	150.000	148.18	-1.2	09	200.000	208.20	4.1

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.2	02	1.000	1.05	5.2	03	2.000	1.97	-1.4
04	5.000	5.10	2.0	05	20.000	21.96	9.8	06	50.000	51.38	2.8
07	100.000	96.89	-3.1	08	150.000	141.40	-5.7	09	200.000	180.75	-9.6

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.90	-5.2	04	5.000	4.93	-1.5	05	20.000	20.32	1.6
06	50.000	49.16	-1.7	07	100.000	105.69	5.7	08	150.000	144.87	-3.4
09	200.000	208.98	4.5								

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	19.85	-0.7	03	40.000	32.16	-19.6	04	100.000	95.66	-4.3
05	400.000	410.96	2.7	06	1000.000	1,017.95	1.8	07	2000.000	2,201.77	10.1
08	3000.000	2,939.73	-2.0	09	4000.000	4,483.16	12.1				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	9.06	-9.4	03	40.000	40.53	1.3	04	100.000	104.97	5.0
05	400.000	403.52	0.9	06	1000.000	982.90	-1.7	07	2000.000	2,105.10	5.3
08	3000.000	2,796.54	-6.8	09	4000.000	4,219.87	5.5				

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.19	19.3	02	2.000	1.71	-14.5	03	4.000	3.89	-2.7
04	10.000	8.31	-16.9	05	40.000	37.80	-5.5	06	100.000	95.72	-4.3
07	200.000	211.17	5.6	08	300.000	309.63	3.2	09	400.000	463.47	15.9

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	9.15	-8.5	03	40.000	38.61	-3.5	04	100.000	95.18	-4.8
05	400.000	413.75	3.4	06	1000.000	1,046.94	4.7	07	2000.000	2,111.72	5.6
08	3000.000	2,878.75	-4.0	09	4000.000	4,286.13	7.2				

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.99	-1.0	02	2.000	2.00	-0.2	03	4.000	4.00	0.1
04	10.000	10.44	4.4	05	40.000	42.22	5.6	06	100.000	106.65	6.6
07	200.000	201.30	0.7	08	300.000	283.98	-5.3	09	400.000	356.48	-10.9

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.3	02	1.000	0.93	-7.2	03	2.000	1.78	-10.8
04	5.000	4.69	-6.2	05	20.000	19.56	-2.2	06	50.000	51.17	2.3
07	100.000	104.87	4.9	08	150.000	159.04	6.0	09	200.000	219.87	9.9

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	0.89	-10.9	03	2.000	1.99	-0.4
04	5.000	4.85	-3.0	05	20.000	22.36	11.8	06	50.000	53.36	6.7
07	100.000	95.76	-4.2	08	150.000	152.73	1.8	09	200.000	174.78	-12.6

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.6	02	1.000	0.94	-5.6	03	2.000	1.84	-7.8
04	5.000	4.81	-3.7	05	20.000	19.21	-3.9	06	50.000	50.72	1.4
07	100.000	102.70	2.7	08	150.000	157.96	5.3	09	200.000	219.99	10.0

00076

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.6	02	1.000	1.05	5.2	03	2.000	2.05	2.4
04	5.000	5.22	4.3	05	20.000	20.65	3.3	06	50.000	50.80	1.6
07	100.000	98.00	-2.0	08	150.000	139.27	-7.2	09	200.000	179.31	-10.3

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	51.26	2.5	03	60.000	61.05	1.8	04	70.000	70.16	0.2
05	100.000	96.68	-3.3	07	125.000	125.05	0.0	08	150.000	148.20	-1.2

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.2	02	1.000	1.03	2.7	03	2.000	2.01	0.5
04	5.000	4.99	-0.3	05	20.000	21.29	6.5	06	50.000	51.26	2.5
07	100.000	97.72	-2.3	08	150.000	143.28	-4.5	09	200.000	181.20	-9.4

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	1.01	0.6	03	2.000	2.02	1.2
04	5.000	4.96	-0.7	05	20.000	21.77	8.8	06	50.000	52.43	4.9
07	100.000	96.54	-3.5	08	150.000	141.60	-5.6	09	200.000	175.52	-12.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.80	-9.8	04	5.000	4.92	-1.6	05	20.000	20.42	2.1
06	50.000	49.86	-0.3	07	100.000	106.23	6.2	08	150.000	146.12	-2.6
09	200.000	211.81	5.9								

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.07	3.5	04	5.000	4.75	-4.9	05	20.000	20.00	0.0
06	50.000	48.22	-3.6	07	100.000	104.00	4.0	08	150.000	146.30	-2.5
09	200.000	206.82	3.4								

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.00	-20.2	03	10.000	10.71	7.1	04	25.000	26.77	7.1
05	100.000	100.16	0.2	06	250.000	236.42	-5.4	07	500.000	505.74	1.1
08	750.000	793.46	5.8	09	1000.000	1,043.07	4.3				

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	5.20	4.0	03	10.000	10.01	0.1	04	25.000	21.67	-13.3
05	100.000	85.09	-14.9	06	250.000	192.45	-23.0	07	500.000	535.09	7.0
08	750.000	874.73	16.6	09	1000.000	1,234.80	23.5				

D0077

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.42	-3.1	02	5.000	4.77	-4.6	03	10.000	8.96	-10.4
04	25.000	25.60	2.4	05	100.000	104.04	4.0	06	250.000	252.84	1.1
07	500.000	522.03	4.4	08	750.000	746.78	-0.4	09	1000.000	1,065.44	6.5

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.8	02	1.000	1.00	-0.2	03	2.000	2.00	0.0
04	5.000	4.96	-0.7	05	20.000	21.07	5.4	06	50.000	49.70	-0.6
07	100.000	96.94	-3.1	08	150.000	146.13	-2.6	09	200.000	196.13	-1.9

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.0	02	1.000	1.02	2.3	03	2.000	2.02	0.8
04	5.000	4.88	-2.4	05	20.000	20.55	2.8	06	50.000	49.80	-0.4
07	100.000	97.01	-3.0	08	150.000	144.60	-3.6	09	200.000	196.94	-1.5

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	19.0	02	1.000	1.03	2.9	03	2.000	1.92	-4.1
04	5.000	5.01	0.1	05	20.000	20.57	2.8	06	50.000	48.79	-2.4
07	100.000	93.51	-6.5	08	150.000	140.03	-6.6	09	200.000	189.63	-5.2

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.6	02	1.000	1.02	2.3	03	2.000	1.91	-4.7
04	5.000	4.75	-5.0	05	20.000	20.82	4.1	06	50.000	50.14	0.3
07	100.000	101.45	1.5	08	150.000	152.10	1.4	09	200.000	209.59	4.8

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.36	-28.1	02	1.000	0.87	-12.8	03	2.000	1.80	-9.9
04	5.000	4.69	-6.1	05	20.000	20.91	4.5	06	50.000	54.21	8.4
07	100.000	113.45	13.5	08	150.000	166.01	10.7	09	200.000	239.59	19.8

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.7	02	1.000	1.06	6.4	03	2.000	1.74	-13.2
04	5.000	4.48	-10.5	05	20.000	18.27	-8.7	06	50.000	48.91	-2.2
07	100.000	101.51	1.5	08	150.000	167.01	11.3	09	200.000	228.93	14.5

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.9	02	1.000	1.03	3.0	03	2.000	1.94	-2.8
04	5.000	4.84	-3.2	05	20.000	20.46	2.3	06	50.000	48.29	-3.4
07	100.000	93.22	-6.8	08	150.000	140.83	-6.1	09	200.000	184.08	-8.0

00078

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.9	02	1.000	1.04	3.7	03	2.000	1.92	-4.2
04	5.000	4.66	-6.8	05	20.000	20.67	3.3	06	50.000	49.41	-1.2
07	100.000	99.01	-1.0	08	150.000	150.69	0.5	09	200.000	205.47	2.7

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.9	02	1.000	0.96	-4.3	03	2.000	1.92	-3.8
04	5.000	4.83	-3.4	05	20.000	20.58	2.9	06	50.000	50.02	0.0
07	100.000	99.56	-0.4	08	150.000	150.33	0.2	09	200.000	201.69	0.8

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	1.04	3.8	03	2.000	1.95	-2.7
04	5.000	5.07	1.5	05	20.000	20.82	4.1	06	50.000	49.55	-0.9
07	100.000	94.34	-5.7	08	150.000	142.53	-5.0	09	200.000	188.17	-5.9

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.7	02	1.000	1.13	13.4	03	2.000	2.04	2.2
04	5.000	4.85	-2.9	05	20.000	20.18	0.9	06	50.000	47.93	-4.1
07	100.000	93.06	-6.9	08	150.000	140.74	-6.2	09	200.000	188.03	-6.0

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.3	02	1.000	1.02	1.8	03	2.000	1.94	-2.9
04	5.000	4.66	-6.8	05	20.000	20.94	4.7	06	50.000	49.49	-1.0
07	100.000	94.97	-5.0	08	150.000	140.46	-6.4	09	200.000	190.47	-4.8

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	1.03	2.6	03	2.000	1.99	-0.6
04	5.000	4.99	-0.1	05	20.000	20.78	3.9	06	50.000	49.66	-0.7
07	100.000	93.13	-6.9	08	150.000	139.06	-7.3	09	200.000	190.79	-4.6

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	12.88	28.8	02	20.000	24.44	22.2	03	40.000	40.79	2.0
04	100.000	105.59	5.6	05	400.000	377.32	-5.7	06	1000.000	792.40	-20.8
07	2000.000	1,796.92	-10.2	08	3000.000	2,257.63	-24.7	09	4000.000	4,112.11	2.8

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.4	02	1.000	0.89	-11.2	03	2.000	1.90	-4.9
04	5.000	4.36	-12.7	05	20.000	20.12	0.6	06	50.000	51.45	2.9
07	100.000	107.23	7.2	08	150.000	161.64	7.8	09	200.000	227.47	13.7

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	50.82	1.6	03	60.000	61.99	3.3	04	70.000	71.46	2.1
05	100.000	98.18	-1.8	07	125.000	124.02	-0.8	08	150.000	143.32	-4.5

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.7	02	1.000	0.95	-4.8	03	2.000	2.02	0.9
04	5.000	4.94	-1.1	05	20.000	20.42	2.1	06	50.000	49.68	-0.6
07	100.000	97.74	-2.3	08	150.000	144.03	-4.0	09	200.000	202.01	1.0

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	0.96	-3.6	03	2.000	1.97	-1.7
04	5.000	4.54	-9.2	05	20.000	22.07	10.3	06	50.000	52.49	5.0
07	100.000	100.34	0.3	08	150.000	148.63	-0.9	09	200.000	198.82	-0.6

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	9.0	02	1.000	1.04	3.7	03	2.000	2.14	6.8
04	5.000	5.06	1.1	05	20.000	20.99	5.0	06	50.000	50.16	0.3
07	100.000	92.19	-7.8	08	150.000	137.00	-8.7	09	200.000	181.26	-9.4

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.3	02	1.000	0.98	-2.0	03	2.000	2.00	0.1
04	5.000	4.99	-0.2	05	20.000	20.10	0.5	06	50.000	48.01	-4.0
07	100.000	92.64	-7.4	08	150.000	144.16	-3.9	09	200.000	195.24	-2.4

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.1	02	1.000	1.01	0.5	03	2.000	1.90	-4.8
04	5.000	4.80	-3.9	05	20.000	20.15	0.7	06	50.000	49.15	-1.7
07	100.000	97.35	-2.7	08	150.000	142.40	-5.1	09	200.000	201.43	0.7

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.5	02	1.000	1.02	1.9	03	2.000	2.07	3.5
04	5.000	5.21	4.2	05	20.000	20.49	2.5	06	50.000	49.62	-0.8
07	100.000	98.36	-1.6	08	150.000	135.05	-10.0	09	200.000	193.39	-3.3

Etbyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	0.85	-14.7	03	2.000	1.85	-7.3
04	5.000	4.87	-2.6	05	20.000	20.83	4.1	06	50.000	52.17	4.3
07	100.000	108.11	8.1	08	150.000	153.86	2.6	09	200.000	220.56	10.3

00080

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.7	02	1.000	1.01	0.6	03	2.000	2.03	1.4
04	5.000	5.23	4.7	05	20.000	20.51	2.5	06	50.000	49.77	-0.5
07	100.000	99.83	-0.2	08	150.000	136.83	-8.8	09	200.000	199.06	-0.5

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.4	02	1.000	0.97	-3.1	03	2.000	1.82	-9.1
04	5.000	4.81	-3.7	05	20.000	20.52	2.6	06	50.000	51.16	2.3
07	100.000	100.20	0.2	08	150.000	153.84	2.6	09	200.000	207.85	3.9

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.5	02	1.000	1.06	6.0	03	2.000	1.95	-2.6
04	5.000	5.16	3.2	05	20.000	21.44	7.2	06	50.000	51.52	3.0
07	100.000	87.43	-12.6	08	150.000	139.48	-7.0	09	200.000	180.49	-9.8

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.4	03	2.000	1.84	-7.8	04	5.000	4.65	-7.1
05	20.000	21.30	6.5	06	50.000	51.71	3.4	07	100.000	100.00	0.0
08	150.000	148.16	-1.2	09	200.000	195.53	-2.2				

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.7	02	1.000	1.08	8.1	03	2.000	2.01	0.7
04	5.000	5.18	3.5	05	20.000	21.89	9.4	06	50.000	51.34	2.7
07	100.000	95.52	-4.5	08	150.000	136.71	-8.9	09	200.000	170.36	-14.8

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.90	-9.7	03	2.000	2.18	9.0	04	5.000	4.96	-0.8
05	20.000	20.11	0.6	06	50.000	50.34	0.7	07	100.000	100.05	0.1
08	150.000	144.11	-3.9	09	200.000	208.28	4.1				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.0	02	1.000	0.90	-10.0	03	2.000	1.89	-5.5
04	5.000	5.25	5.0	05	20.000	21.25	6.3	06	50.000	52.18	4.4
07	100.000	102.95	2.9	08	150.000	147.08	-1.9	09	200.000	205.91	3.0

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.6	02	1.000	0.94	-5.6	03	2.000	1.83	-8.7
04	5.000	4.93	-1.4	05	20.000	21.26	6.3	06	50.000	51.86	3.7
07	100.000	106.17	6.2	08	150.000	150.74	0.5	09	200.000	219.03	9.5

00081

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.1	02	1.000	0.97	-3.1	03	2.000	1.90	-5.2
04	5.000	5.07	1.3	05	20.000	20.61	3.1	06	50.000	49.93	-0.1
07	100.000	100.22	0.2	08	150.000	145.30	-3.1	09	200.000	205.69	2.8

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.1	02	1.000	0.96	-3.9	03	2.000	2.00	-0.2
04	5.000	4.84	-3.2	05	20.000	20.50	2.5	06	50.000	49.63	-0.7
07	100.000	94.06	-5.9	08	150.000	143.33	-4.4	09	200.000	197.71	-1.1

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.5	02	1.000	0.96	-4.0	03	2.000	1.92	-3.8
04	5.000	5.17	3.4	05	20.000	21.59	8.0	06	50.000	53.69	7.4
07	100.000	103.25	3.2	08	150.000	140.66	-6.2	09	200.000	189.09	-5.5

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.98	19.2	02	5.000	4.91	-1.8	03	10.000	9.07	-9.3
04	25.000	23.92	-4.3	05	100.000	100.19	0.2	06	250.000	244.64	-2.1
07	500.000	506.81	1.4	08	750.000	702.89	-6.3	09	1000.000	1,030.94	3.1

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.8	02	1.000	0.86	-13.8	03	2.000	1.77	-11.6
04	5.000	4.72	-5.6	05	20.000	21.15	5.8	06	50.000	53.47	6.9
07	100.000	108.16	8.2	08	150.000	165.60	10.4	09	200.000	221.19	10.6

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.99	-1.4	03	2.000	1.82	-8.8
04	5.000	4.90	-2.0	05	20.000	20.55	2.7	06	50.000	50.85	1.7
07	100.000	98.98	-1.0	08	150.000	155.93	4.0	09	200.000	211.50	5.8

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.11	5.6	04	5.000	4.97	-0.5	05	20.000	20.35	1.7
06	50.000	49.64	-0.7	07	100.000	99.84	-0.2	08	150.000	140.32	-6.5
09	200.000	201.06	0.5								

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.6	02	1.000	1.01	1.2	03	2.000	1.97	-1.7
04	5.000	5.00	0.0	05	20.000	21.45	7.2	06	50.000	50.68	1.4
07	100.000	99.62	-0.4	08	150.000	147.72	-1.5	09	200.000	192.75	-3.6

00082

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	51.75	3.5	03	60.000	61.96	3.3	04	70.000	71.36	1.9
05	100.000	98.50	-1.5	07	125.000	122.32	-2.1	08	150.000	142.39	-5.1

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.0	02	1.000	0.94	-5.7	03	2.000	1.88	-6.2
04	5.000	4.90	-1.9	05	20.000	20.69	3.4	06	50.000	49.65	-0.7
07	100.000	98.22	-1.8	08	150.000	149.87	-0.1	09	200.000	203.95	2.0

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.2	02	1.000	1.03	3.4	03	2.000	2.02	0.8
04	5.000	5.09	1.9	05	20.000	21.32	6.6	06	50.000	49.58	-0.8
07	100.000	93.00	-7.0	08	150.000	143.38	-4.4	09	200.000	190.84	-4.6

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.2	02	1.000	1.07	7.2	03	2.000	1.73	-13.3
04	5.000	4.58	-8.4	05	20.000	20.42	2.1	06	50.000	52.30	4.6
07	100.000	103.55	3.6	08	150.000	157.97	5.3	09	200.000	212.19	6.1

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.6	02	1.000	0.98	-1.8	03	2.000	1.90	-4.8
04	5.000	4.75	-4.9	05	20.000	21.33	6.6	06	50.000	50.50	1.0
07	100.000	96.94	-3.1	08	150.000	142.22	-5.2	09	200.000	189.03	-5.5

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.6	02	1.000	0.97	-2.7	03	2.000	2.00	0.1
04	5.000	4.96	-0.9	05	20.000	20.67	3.3	06	50.000	50.44	0.9
07	100.000	98.05	-1.9	08	150.000	150.45	0.3	09	200.000	205.02	2.5

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-10.0	02	1.000	0.99	-0.9	03	2.000	1.93	-3.6
04	5.000	4.86	-2.8	05	20.000	21.25	6.3	06	50.000	51.76	3.5
07	100.000	102.34	2.3	08	150.000	152.31	1.5	09	200.000	207.34	3.7

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.88	-11.8	02	2.000	1.94	-3.0	03	4.000	3.72	-7.1
04	10.000	9.71	-2.9	05	40.000	42.38	5.9	06	100.000	104.27	4.3
07	200.000	208.27	4.1	08	300.000	317.62	5.9	09	400.000	418.43	4.6

00083

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.5	02	1.000	0.90	-9.5	03	2.000	1.95	-2.7
04	5.000	4.84	-3.2	05	20.000	20.70	3.5	06	50.000	52.17	4.3
07	100.000	107.57	7.6	08	150.000	148.81	-0.8	09	200.000	212.60	6.3

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.8	02	1.000	1.00	-0.1	03	2.000	1.91	-4.4
04	5.000	4.93	-1.3	05	20.000	21.65	8.3	06	50.000	52.60	5.2
07	100.000	98.84	-1.2	08	150.000	145.81	-2.8	09	200.000	183.23	-8.4

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.7	02	1.000	1.13	13.4	03	2.000	1.86	-7.2
04	5.000	4.54	-9.2	05	20.000	20.06	0.3	06	50.000	48.82	-2.4
07	100.000	93.46	-6.5	08	150.000	140.45	-6.4	09	200.000	186.51	-6.7

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.7	02	1.000	1.04	3.8	03	2.000	2.06	3.0
04	5.000	5.19	3.8	05	20.000	22.11	10.6	06	50.000	51.76	3.5
07	100.000	94.54	-5.5	08	150.000	132.52	-11.7	09	200.000	161.36	-19.3

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.6	02	1.000	0.95	-5.0	03	2.000	1.81	-9.5
04	5.000	4.61	-7.8	05	20.000	20.55	2.8	06	50.000	51.05	2.1
07	100.000	103.36	3.4	08	150.000	161.05	7.4	09	200.000	220.52	10.3

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.3	02	1.000	1.06	6.3	03	2.000	2.04	2.2
04	5.000	4.96	-0.7	05	20.000	21.69	8.4	06	50.000	52.22	4.4
07	100.000	96.78	-3.2	08	150.000	138.60	-7.6	09	200.000	171.69	-14.2

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.3	02	1.000	1.02	2.0	03	2.000	1.99	-0.5
04	5.000	5.04	0.8	05	20.000	20.31	1.6	06	50.000	49.43	-1.1
07	100.000	100.69	0.7	08	150.000	136.86	-8.8	09	200.000	202.06	1.0

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.6	02	1.000	1.00	0.3	03	2.000	2.09	4.3
04	5.000	5.14	2.9	05	20.000	21.41	7.1	06	50.000	51.11	2.2
07	100.000	96.19	-3.8	08	150.000	142.39	-5.1	09	200.000	181.16	-9.4

Initial Calibration - Detailed Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.8	02	1.000	0.96	-3.9	03	2.000	1.96	-2.1
04	5.000	4.83	-3.4	05	20.000	21.00	5.0	06	50.000	50.58	1.2
07	100.000	98.42	-1.6	08	150.000	154.02	2.7	09	200.000	209.82	4.9

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.4	02	1.000	0.85	-14.7	03	2.000	1.92	-3.9
04	5.000	4.79	-4.1	05	20.000	21.26	6.3	06	50.000	52.90	5.8
07	100.000	106.16	6.2	08	150.000	156.61	4.4	09	200.000	216.93	8.5

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.3	02	1.000	0.99	-0.6	03	2.000	2.06	2.8
04	5.000	4.78	-4.3	05	20.000	19.40	-3.0	06	50.000	47.87	-4.3
07	100.000	99.00	-1.0	08	150.000	138.48	-7.7	09	200.000	195.38	-2.3

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:51:19 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.243	168	864640	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1308913	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1223196	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	640092	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	384713	50.47	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.94%				
48) surr1,1,2-dichloroetha...	4.658	65	482931	52.03	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 104.06%				
65) SURR3,Toluene-d8	7.322	98	1646922	51.32	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.64%				
70) SURR2,BFB	9.785	95	623001	50.03	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.06%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	4104	0.50	ppb		91
3) Chloromethane	1.262	50	6709	0.60	ppb		99
4) Vinyl Chloride	1.323	62	6967	0.59	ppb		98
5) Bromomethane	1.512	94	2885	0.50	ppb		84
6) Chloroethane	1.567	64	4089	0.55	ppb		96
7) Freon 21	1.664	67	10043	0.54	ppb		94
8) Trichlorofluoromethane	1.719	101	7337	0.52	ppb		85
9) Diethyl Ether	1.878	59	3724	0.58	ppb	#	74
10) Freon 123a	1.871	67	5405	0.53	ppb		95
11) Freon 123	1.908	83	5007	0.47	ppb		90
12) Acrolein	1.957	56	1809	5.14	ppb		87
13) 1,1-Diclethene	2.036	96	4424	0.59	ppb		89
14) Freon 113	2.036	101	3780	0.49	ppb		80
16) 2-Propanol	2.115	45	3322	9.15	ppb		89
17) Iodomethane	2.146	142	5843	0.54	ppb		98
18) Carbon Disulfide	2.207	76	15686	0.62	ppb		95
19) Acetonitrile	2.225	40	581	2.00	ppb	#	63
20) Allyl Chloride	2.280	76	2345	0.56	ppb	#	83
21) Methyl Acetate	2.280	43	2029	0.48	ppb		84
22) Methylene Chloride	2.353	84	4855	0.60	ppb		96
23) TBA	2.408	59	5444	9.06	ppb		73
24) Acrylonitrile	2.524	53	4766	2.42	ppb		91
25) Methyl-t-Butyl Ether	2.579	73	10897	0.52	ppb		94
26) trans-1,2-Dichloroethene	2.585	96	3923	0.49	ppb		90
28) 1,1-Diclethane	2.938	63	7681	0.51	ppb		94
29) Vinyl Acetate	2.981	86	627	0.46	ppb	#	70
30) DIPE	3.018	45	15520m	0.52	ppb		
31) 2-Chloro-1,3-Butadiene	3.042	53	7161	0.52	ppb		98
32) ETBE	3.396	59	13103	0.50	ppb		97
33) 2,2-Dichloropropane	3.548	77	6640	0.50	ppb		91
34) cis-1,2-Dichloroethene	3.542	96	4307	0.49	ppb	#	81
36) Propionitrile	3.603	54	2286m	3.23	ppb		
37) Bromochloromethane	3.828	130	2945	0.60	ppb		92
40) Chloroform	3.938	83	8234	0.55	ppb		84
41) 1,1,1-Trichloroethane	4.206	97	7952	0.59	ppb	#	1

KLR
10/28/14

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:51:19 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) TAME	5.023	73	11355m	0.52	ppb		
44) Cyclohexane	4.310	41	5511	0.57	ppb		82
46) Carbontetrachloride	4.475	121	1759m	0.51	ppb		
47) 1,1-Dichloropropene	4.462	75	5862	0.51	ppb		90
49) Benzene	4.779	78	17395	0.52	ppb		95
50) 1,2-Dichloroethane	4.786	62	6181	0.55	ppb		88
52) n-Heptane	5.322	43	6763	0.62	ppb		87
54) Trichloroethene	5.828	130	4865	0.55	ppb	#	63
55) Methylcyclohexane	6.102	55	6584	0.59	ppb		88
56) 1,2-Diclpropane	6.121	63	4415	0.50	ppb		95
57) Dibromomethane	6.255	93	2258	0.54	ppb		91
59) Methyl Methacrylate	6.340	69	1812m	0.45	ppb		
60) Bromodichloromethane	6.474	83	4964	0.48	ppb		96
61) 2-Nitropropane	6.755	41	1652	1.19	ppb	#	37
62) 2-Chloroethylvinyl Ether	6.889	63	2077	0.51	ppb		86
63) cis-1,3-Dichloropropene	7.023	75	5831	0.45	ppb		97
66) Toluene	7.395	91	17609	0.49	ppb		94
67) trans-1,3-Dichloropropene	7.633	75	5059	0.46	ppb		75
68) Ethyl Methacrylate	7.779	69	4089m	0.48	ppb		
69) 1,1,2-Trichloroethane	7.809	97	2737	0.45	ppb		90
72) Tetrachloroethene	7.962	164	3490	0.50	ppb		83
74) 1,3-Dichloropropane	7.968	76	5924	0.54	ppb		98
75) Dibromochloromethane	8.193	129	3179	0.48	ppb		83
76) N-Butyl Acetate	8.248	43	5026	0.48	ppb		88
77) 1,2-Dibromoethane	8.291	107	2654	0.46	ppb		82
78) Chlorobenzene	8.773	112	12779	0.54	ppb		90
79) 3-CBTF	8.785	180	6591	0.51	ppb		90
80) 4-CBTF	8.840	180	5692	0.49	ppb		89
81) 1,1,1,2-Tetrachloroethane	8.846	131	3654	0.47	ppb		89
82) Ethylbenzene	8.895	106	6671	0.52	ppb	#	58
83) (m+p)Xylene	8.998	106	13633	0.88	ppb	#	81
84) o-Xylene	9.346	106	7495	0.48	ppb		100
85) Styrene	9.358	104	11462	0.45	ppb		91
87) Bromoform	9.492	173	1144	0.36	ppb		95
88) 2-CBTF	9.577	180	5538	0.49	ppb		93
89) Isopropylbenzene	9.669	105	17715	0.52	ppb		95
90) Cyclohexanone	9.724	55	4833	12.88	ppb		88
91) trans-1,4-Dichloro-2-B...	9.961	53	1235	0.60	ppb	#	54
92) 1,1,2,2-Tetrachloroethane	9.913	83	3016	0.45	ppb	#	76
93) Bromobenzene	9.913	156	4731	0.53	ppb		95
94) 1,2,3-Trichloropropane	9.937	110	1330	0.66	ppb	#	87
95) n-Propylbenzene	10.022	91	22120	0.56	ppb		96
96) 2-Chlorotoluene	10.083	91	12018	0.50	ppb		97
97) 3-Chlorotoluene	10.132	91	13099m	0.51	ppb		
98) 4-Chlorotoluene	10.175	91	15671	0.52	ppb		92
99) 1,3,5-Trimethylbenzene	10.169	105	15450	0.52	ppb		92
100) tert-Butylbenzene	10.437	119	12158	0.51	ppb		97
101) 1,2,4-Trimethylbenzene	10.480	105	14207	0.49	ppb		90
102) 3,4-DCBTF	10.534	214	4385	0.52	ppb	#	87
103) sec-Butylbenzene	10.620	105	17547	0.52	ppb		97
104) p-Isopropyltoluene	10.742	119	15565	0.53	ppb		90
105) 1,3-Dclbenz	10.699	146	8768	0.51	ppb		99

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

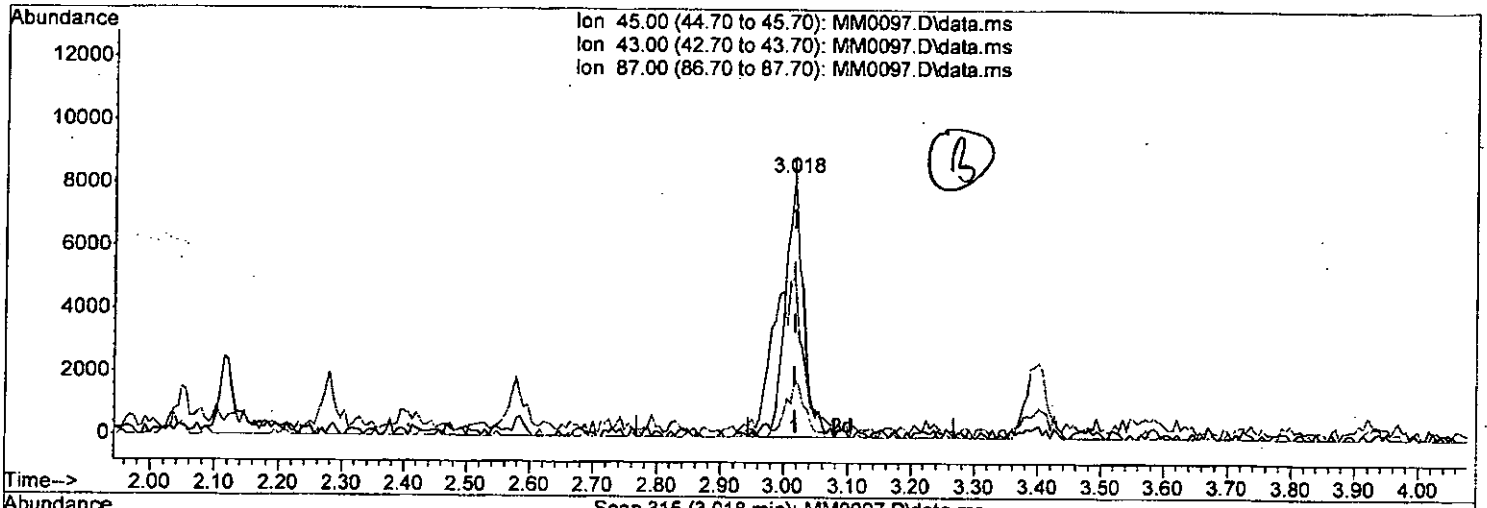
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:51:19 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

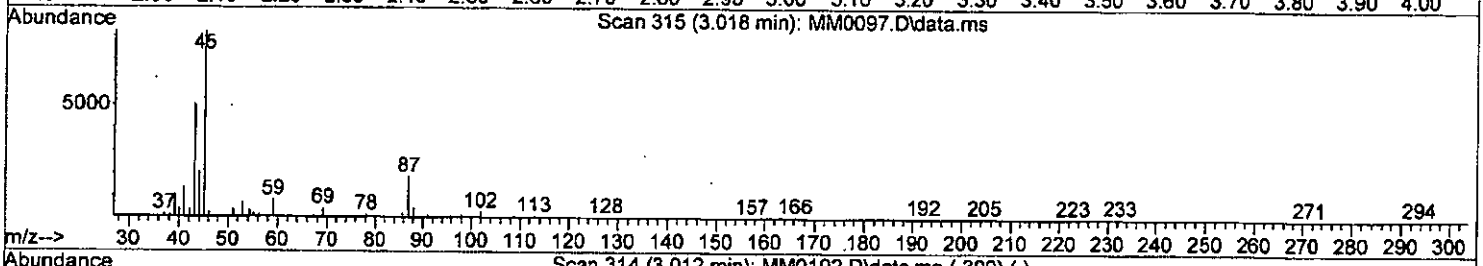
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
106) 1,4-Dclbenz	10.766	146	9862	0.55	ppb		86
107) 2,4-DCBTF	10.821	214	3801	0.52	ppb		97
108) 2,5-DCBTF	10.858	214	4164	0.51	ppb	#	86
109) n-Butylbenzene	11.065	91	13550	0.52	ppb		98
110) 1,2-Dclbenz	11.065	146	8016	0.50	ppb		93
111) 1,2-Dibromo-3-chloropr...	11.626	157	464	0.41	ppb	#	58
112) Trielution Dichlorotol...	11.735	125	19733	1.49	ppb		93
113) 1,3,5 Trichlorobenzene	11.778	180	5712	0.51	ppb		88
114) Coelution Dichlorotoluene	11.998	125	13771	0.99	ppb		98
115) 1,2,4-Tcbenzene	12.162	180	5246	0.55	ppb		84
116) Hexachlorobt	12.266	225	2109	0.56	ppb	#	82
117) Naphthalen	12.302	128	8785	0.49	ppb		91
118) 1,2,3-Tclbenzene	12.443	180	4114	0.51	ppb		94
119) 2,4,5-Trichlorotolene	12.851	159	3122m	0.57	ppb		
120) 2,3,6-Trichlorotoluene	12.912	159	2447	0.49	ppb		91

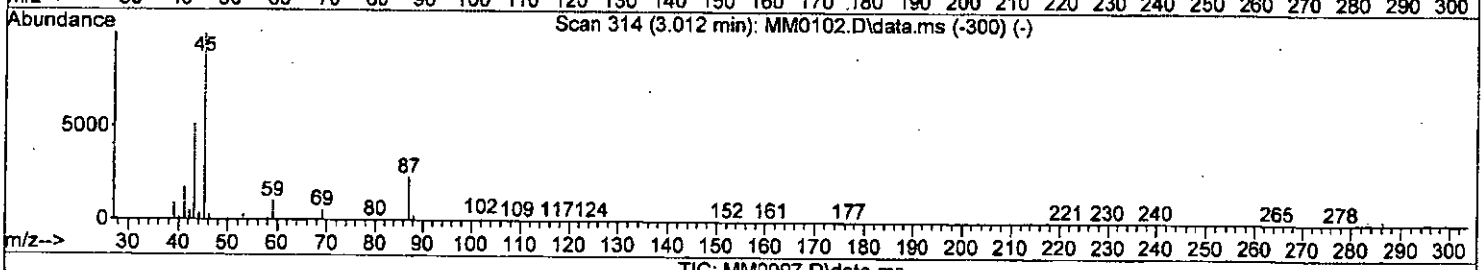
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(30) DIPE

3.018min (-0.000) 0.54 ppb

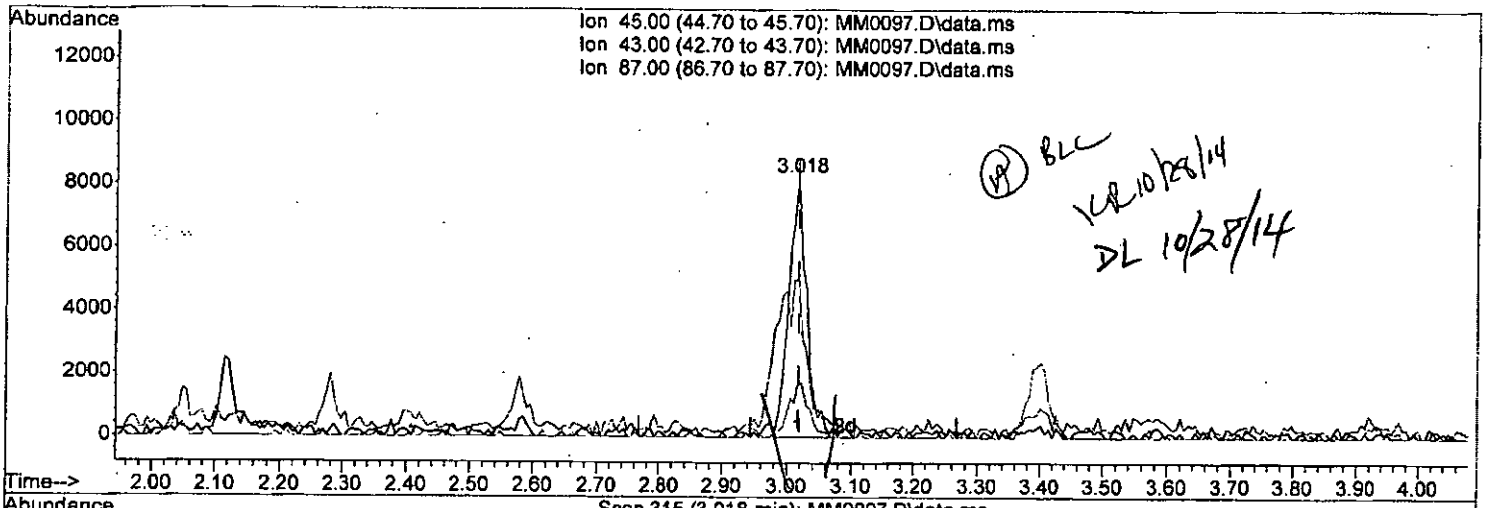
response 16124

Ion	Exp%	Act%
45.00	100	100
43.00	51.40	60.81
87.00	23.30	22.71
0.00	0.00	0.00

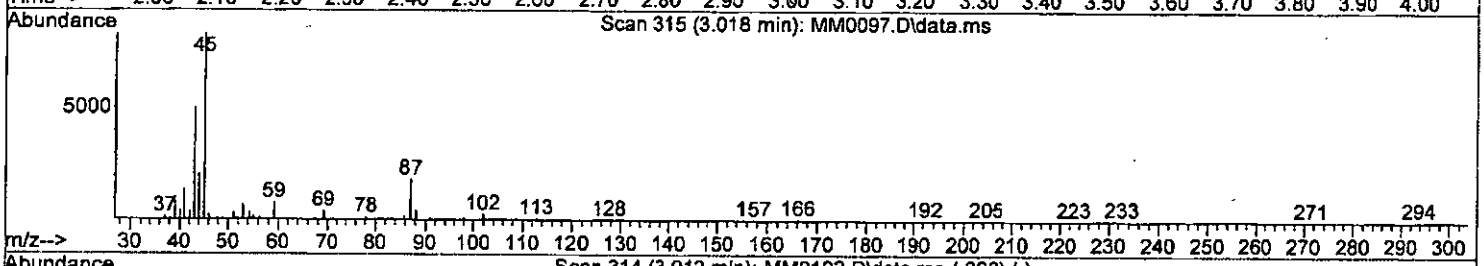
00089

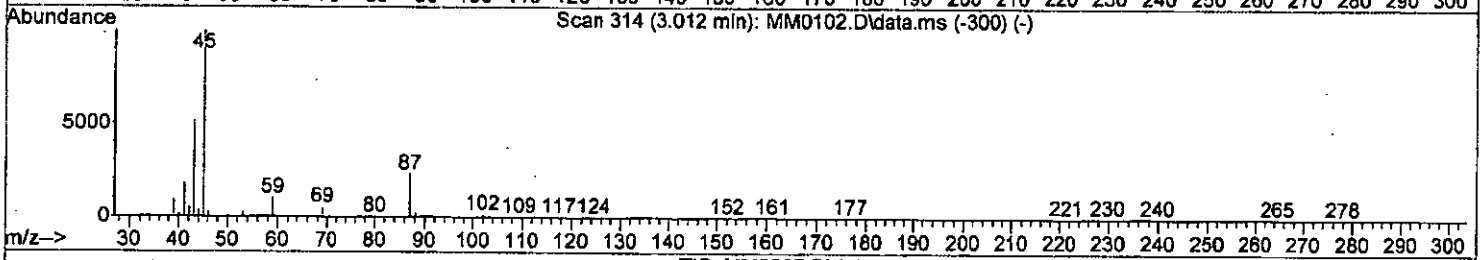
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



BLC 10/28/14
DL 10/28/14





TIC: MM0097.D\data.ms

(30) DIPE

3.018min (-0.000) 0.52 ppb m

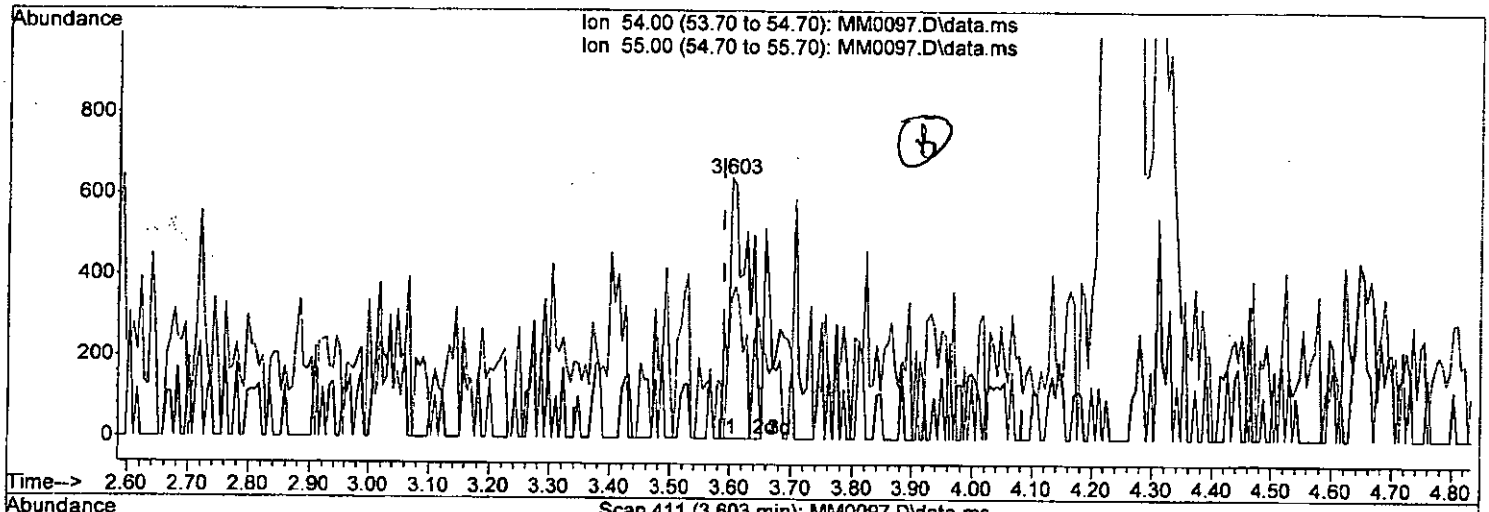
response 15520

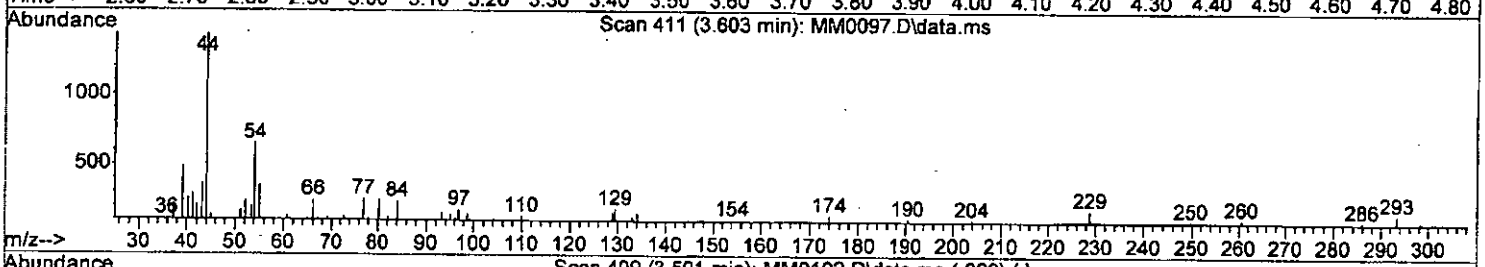
Ion	Exp%	Act%
45.00	100	100
43.00	51.40	60.81
87.00	23.30	22.71
0.00	0.00	0.00

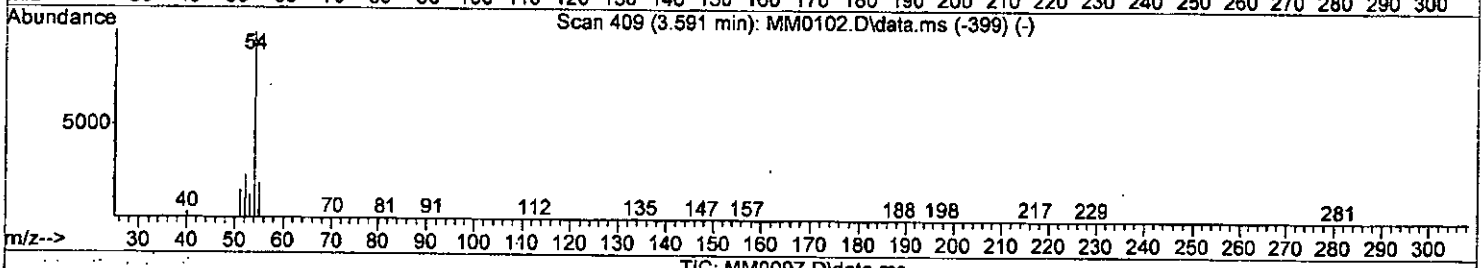
00090

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(36) Propionitrile

3.603min (+0.013) 2.07 ppb

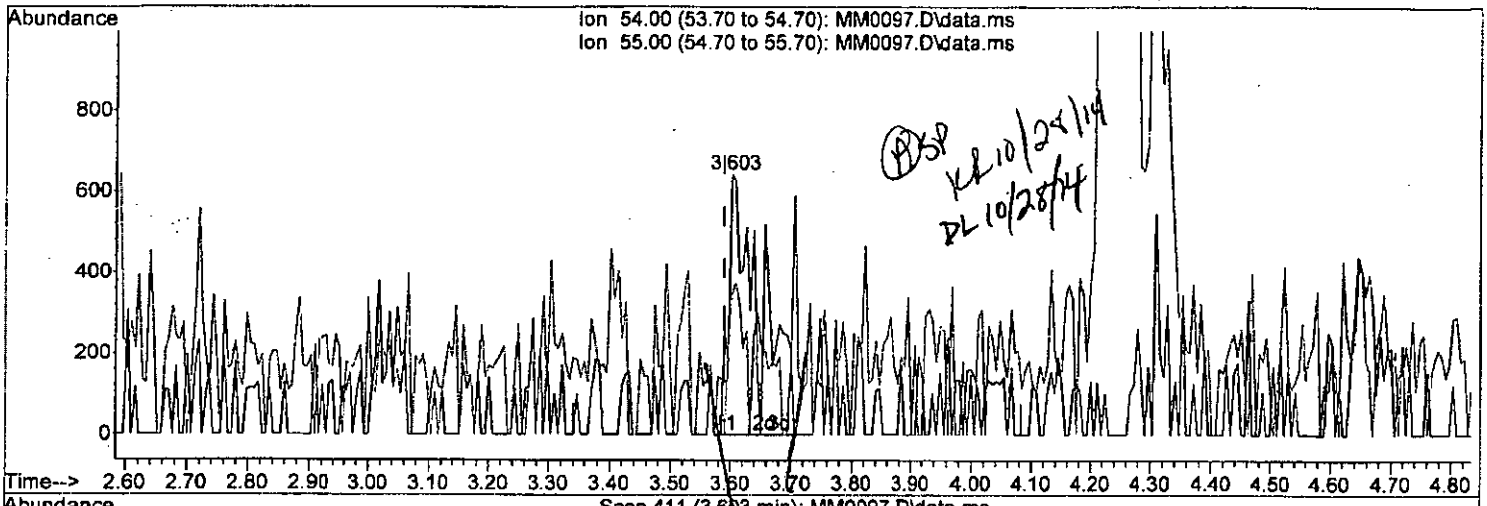
response 1467

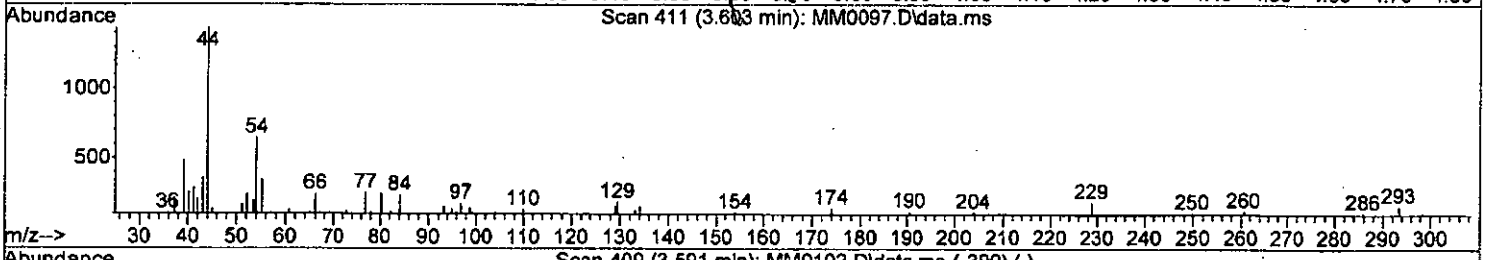
Ion	Exp%	Act%
54.00	100	100
55.00	18.80	53.89#
0.00	0.00	0.00
0.00	0.00	0.00

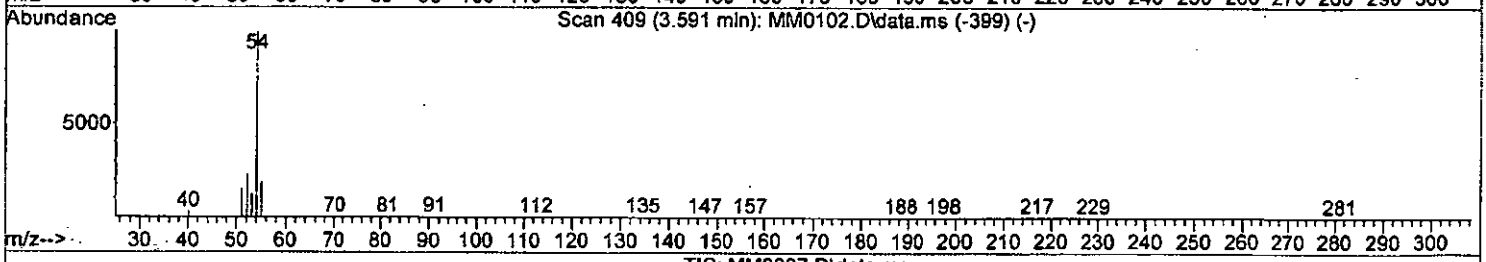
00091

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(36) Propionitrile

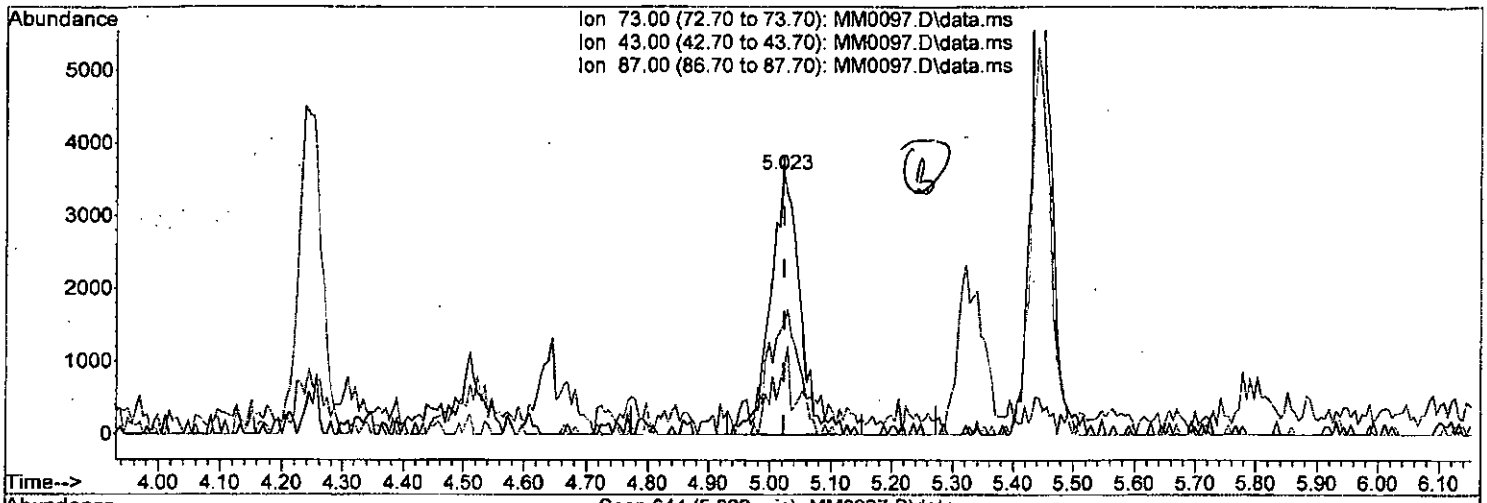
3.603min (+0.013) 3.23 ppb m

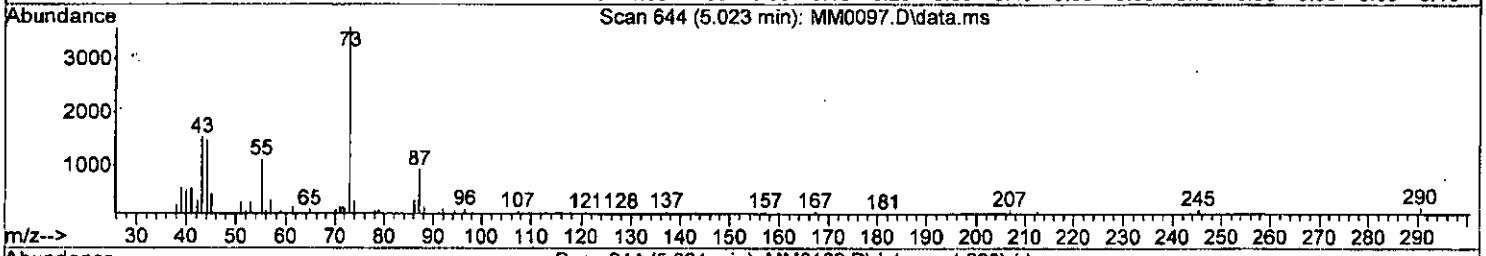
response 2286

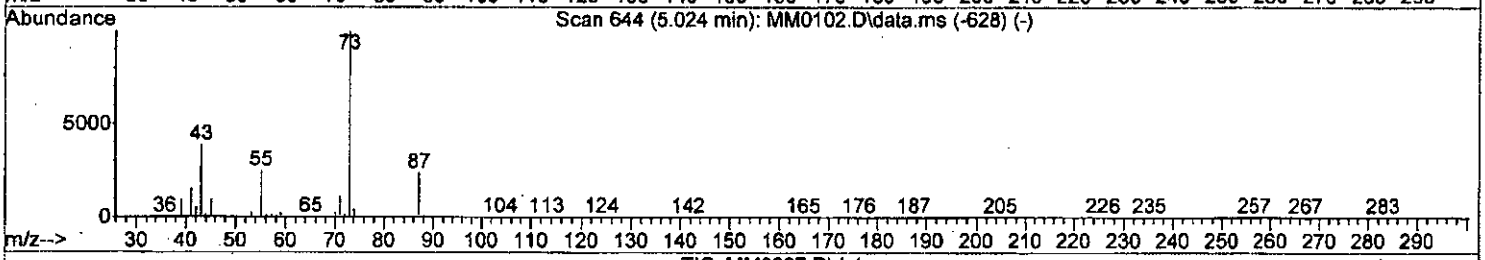
Ion	Exp%	Act%
54.00	100	100
55.00	18.80	53.89#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(42) TAME

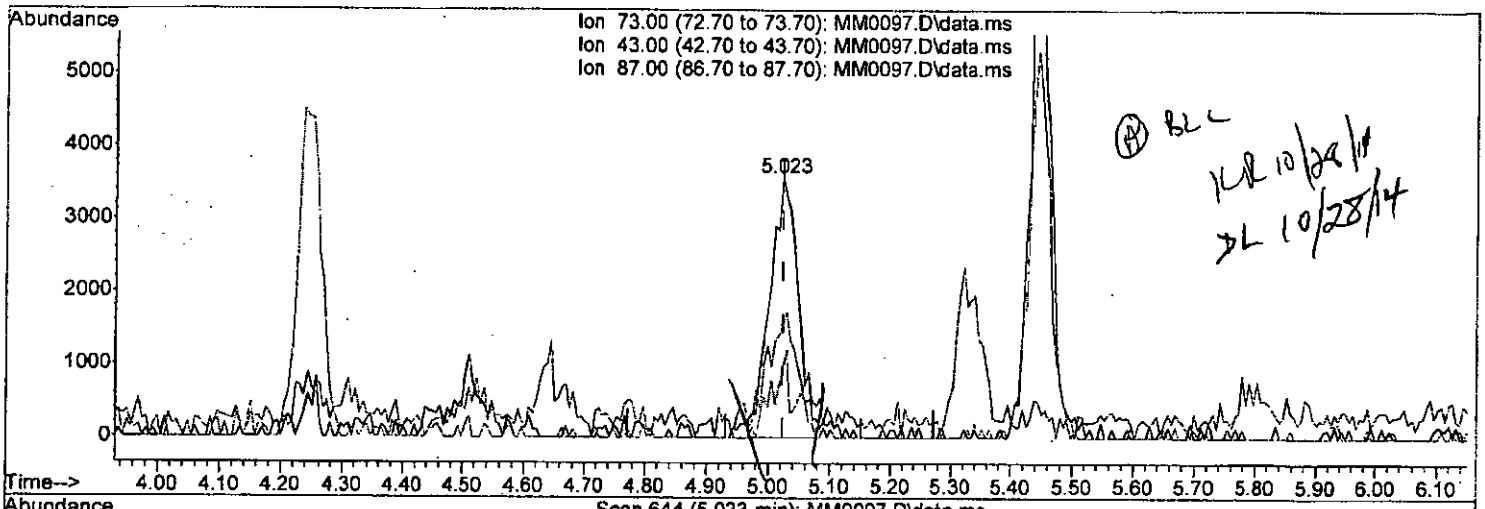
5.023min (-0.000) 0.55 ppb

response 12088

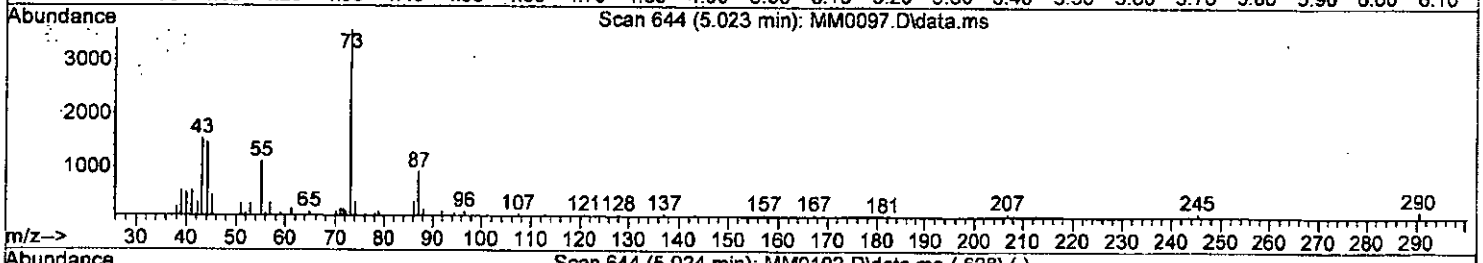
Ion	Exp%	Act%
73.00	100	100
43.00	38.80	42.82
87.00	23.60	25.60
0.00	0.00	0.00

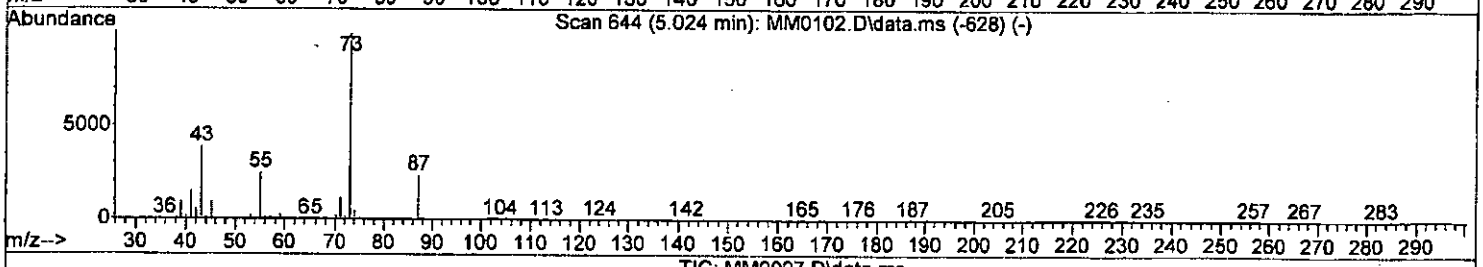
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



BLC
ICL 10/28/14
DL 10/28/14





TIC: MM0097.D\data.ms

(42) TAME

5.023min (-0.000) 0.52 ppb m

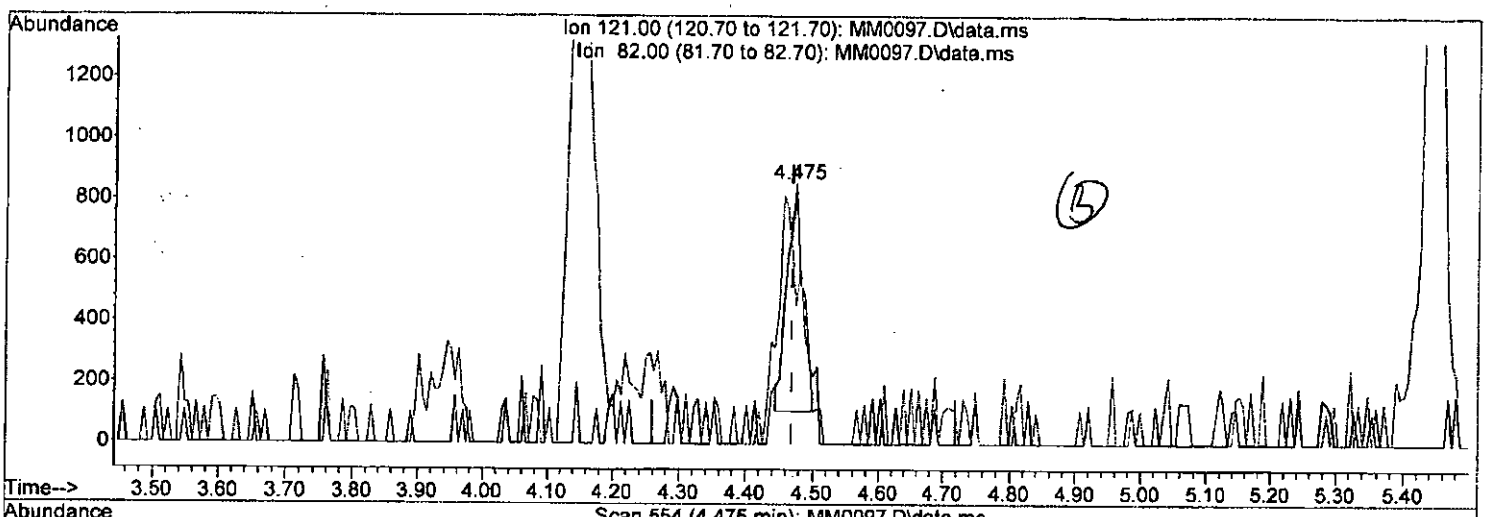
response 11355

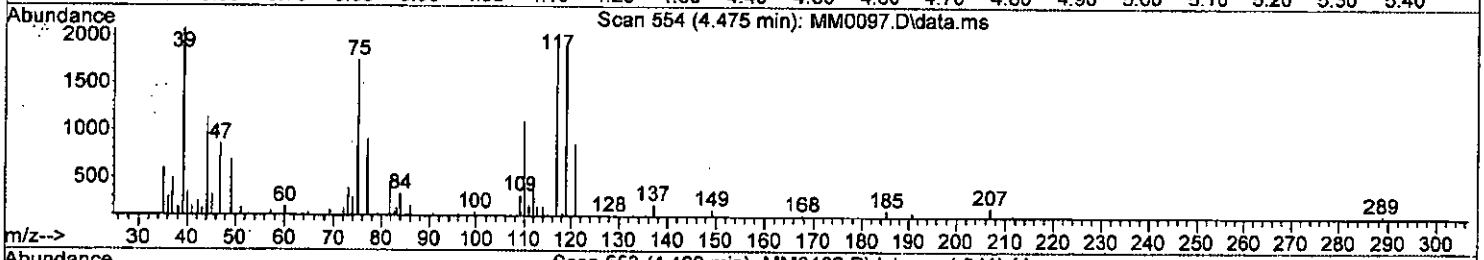
Ion	Exp%	Act%
73.00	100	100
43.00	38.80	42.82
87.00	23.60	25.60
0.00	0.00	0.00

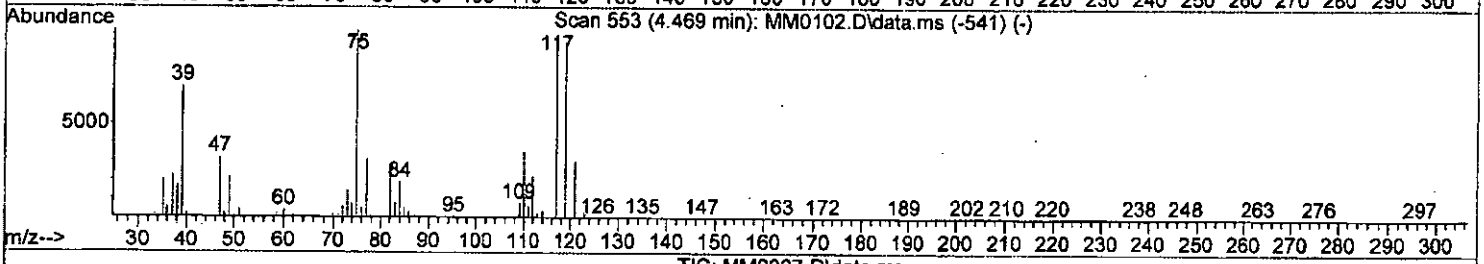
00094

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(46) Carbontetrachloride (P)

4.475min (+0.006) 0.35 ppb

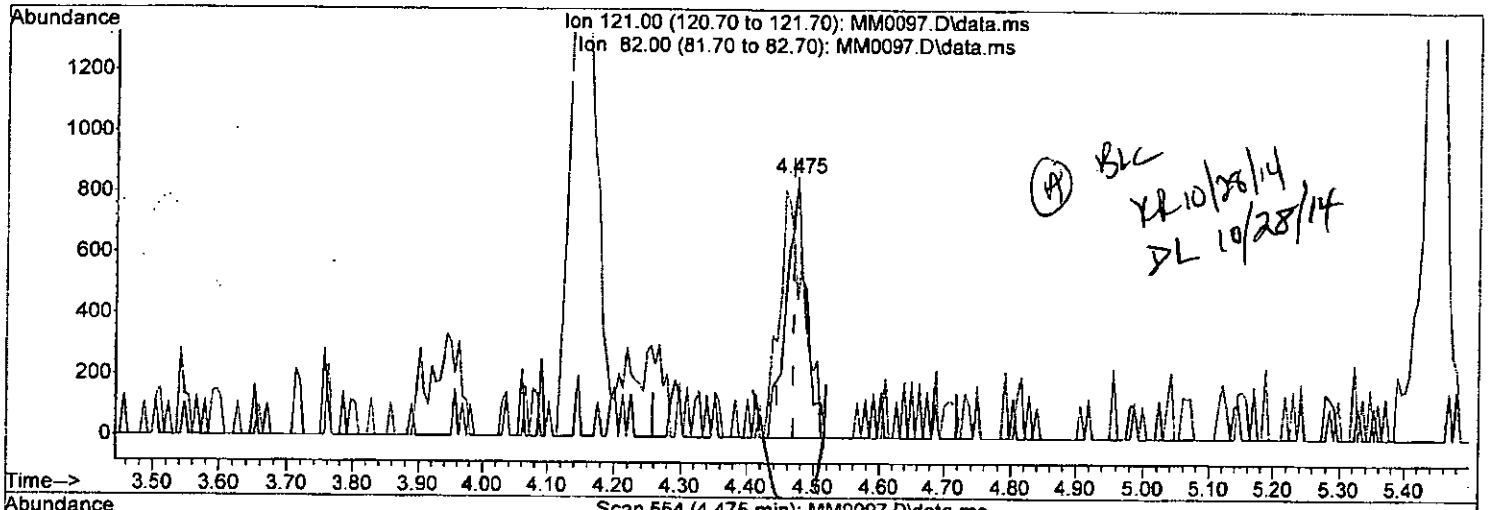
response 1192

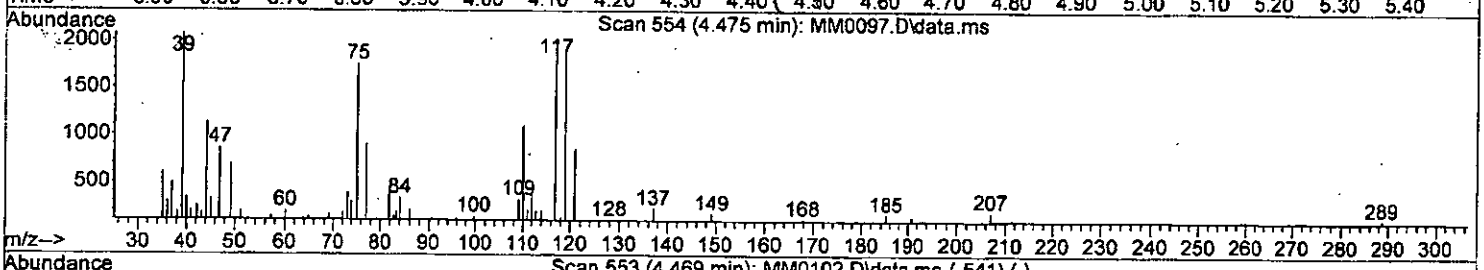
Ion	Exp%	Act%
121.00	100	100
82.00	97.20	52.93#
0.00	0.00	0.00
0.00	0.00	0.00

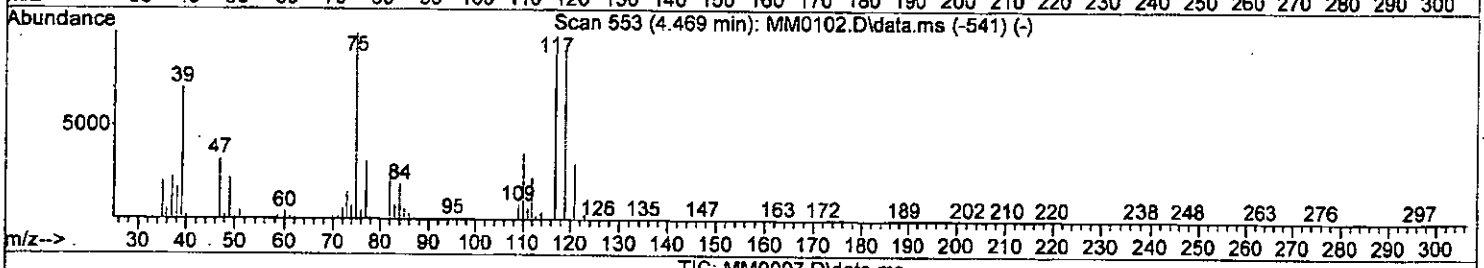
00095

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(46) Carbontetrachloride (P)

4.475min (+0.006) 0.51 ppb m

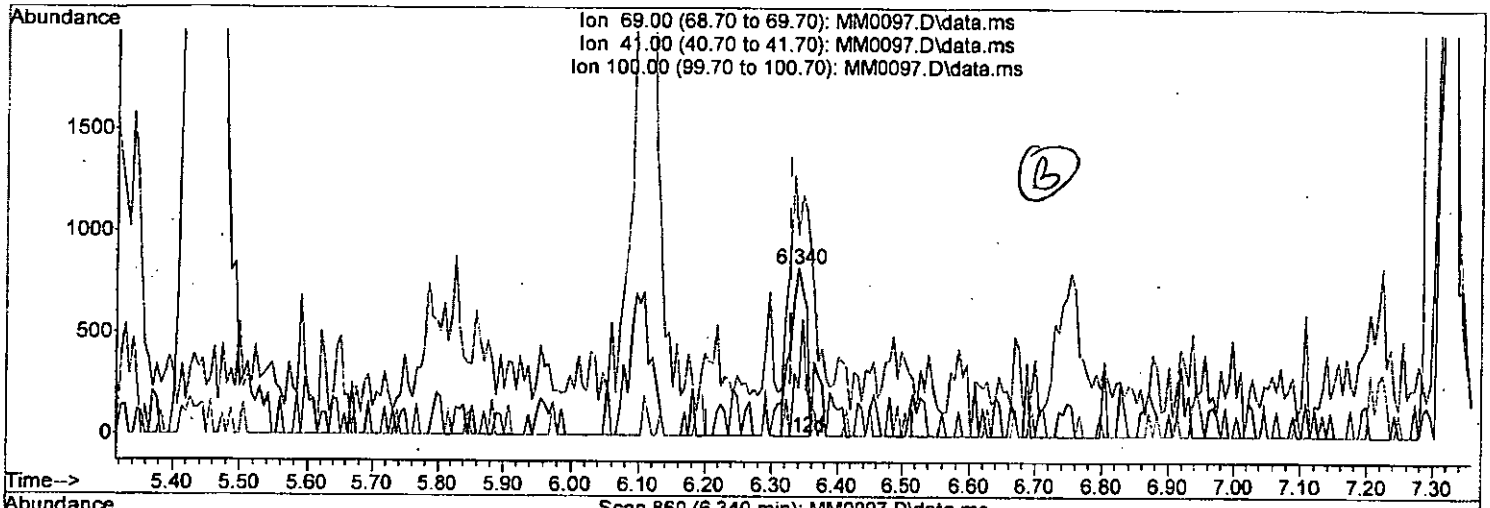
response 1759

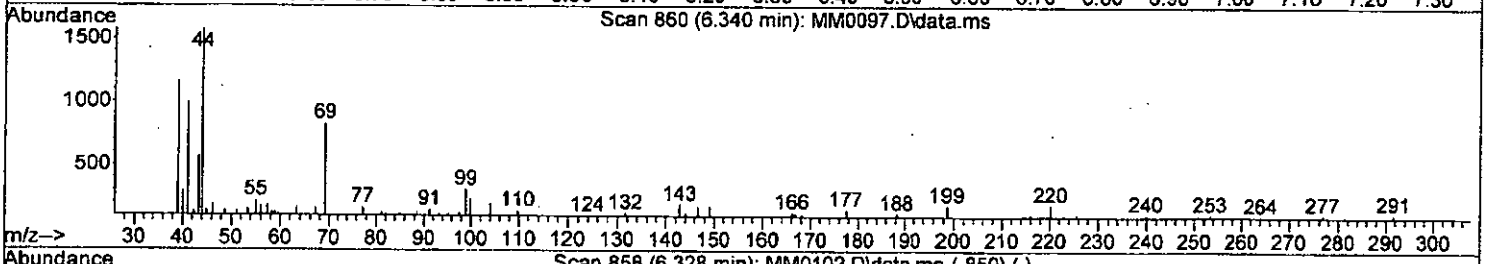
Ion	Exp%	Act%
121.00	100	100
82.00	97.20	52.93#
0.00	0.00	0.00
0.00	0.00	0.00

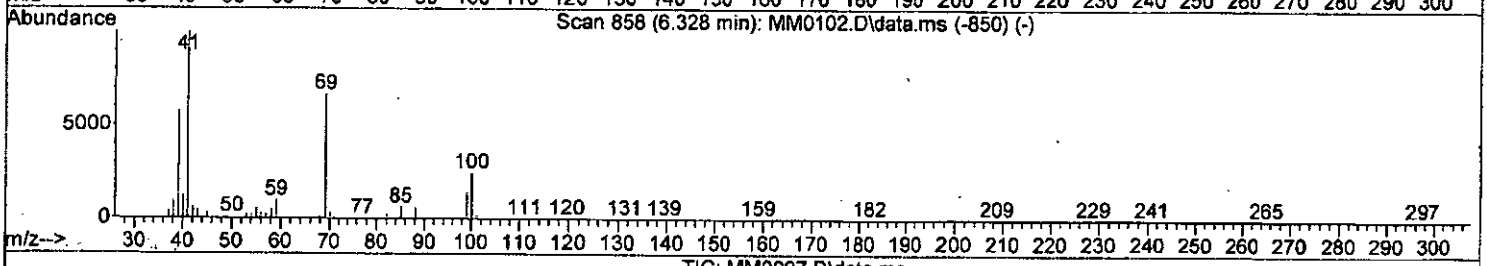
00096

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(59) Methyl Methacrylate

6.340min (+0.012) 0.33 ppb

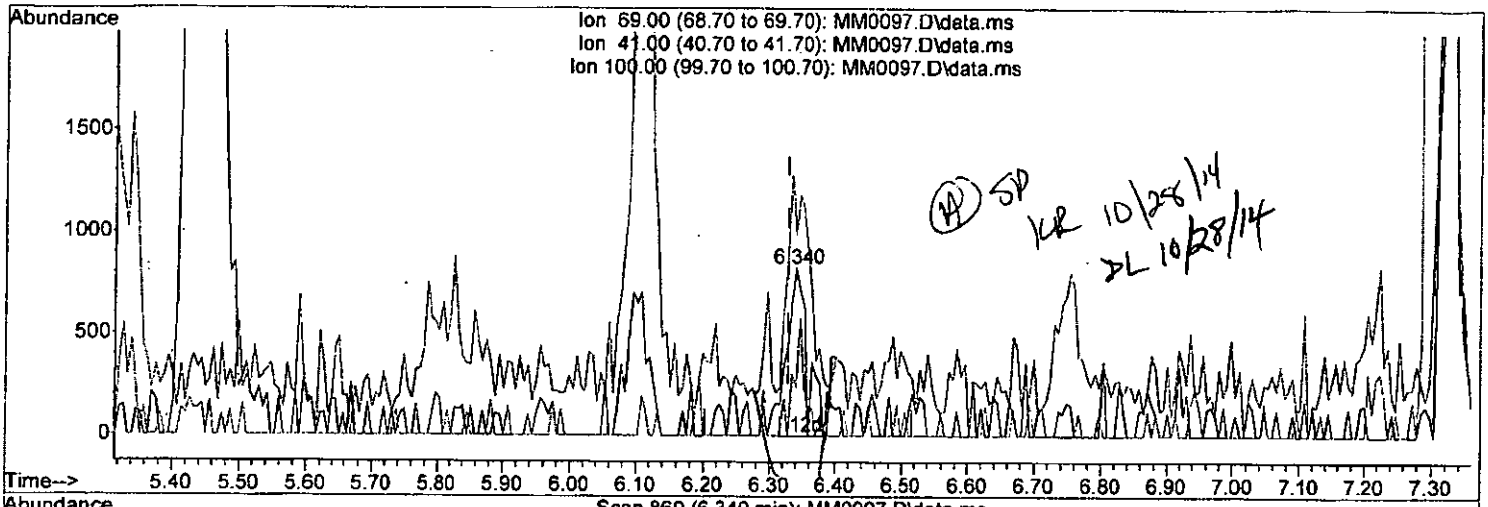
response 1321

Ion	Exp%	Act%
69.00	100	100
41.00	150.30	119.78#
100.00	36.80	28.64
0.00	0.00	0.00

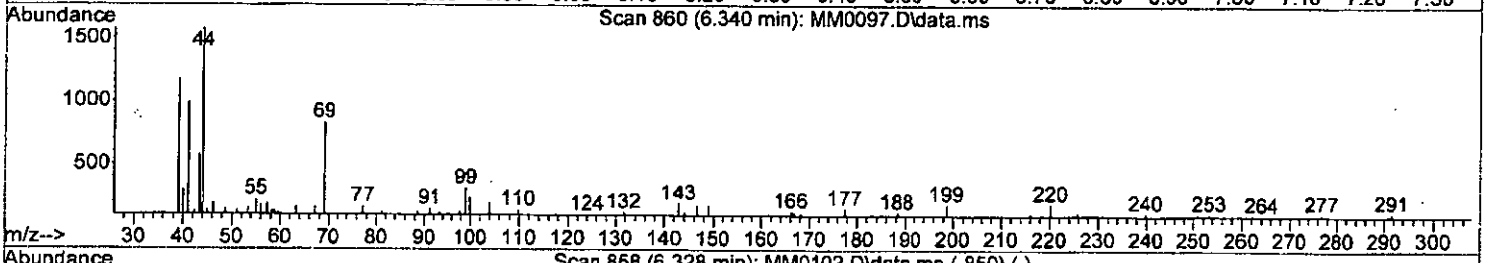
00097

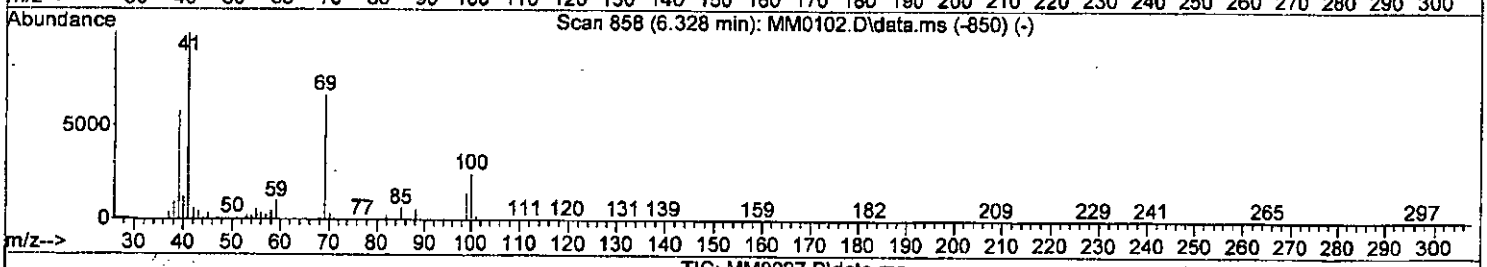
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(A) SP KR 10/28/14 DL 10/28/14





TIC: MM0097.D\data.ms

(59) Methyl Methacrylate

6.340min (+0.012) 0.45 ppb m

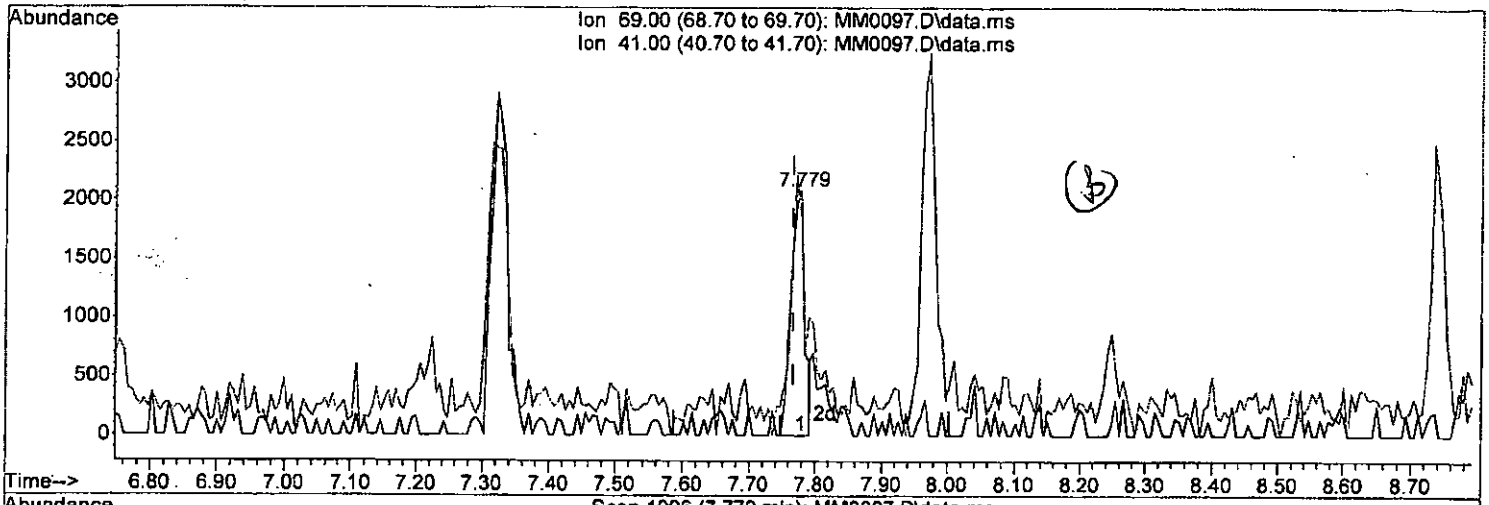
response 1812

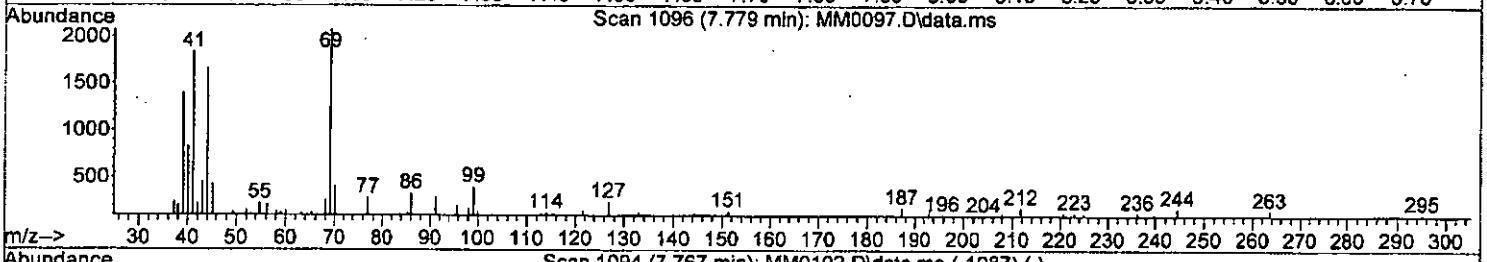
Ion	Exp%	Act%
69.00	100	100
41.00	150.30	119.78#
100.00	36.80	28.64
0.00	0.00	0.00

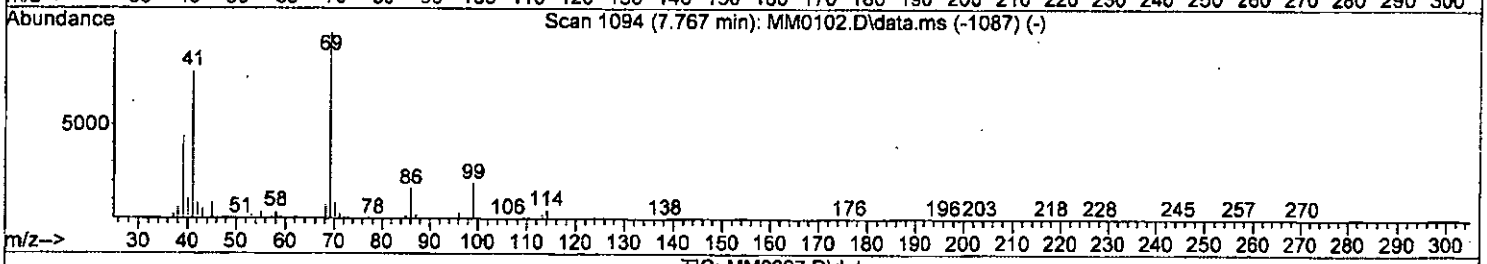
00098

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(68) Ethyl Methacrylate

7.779min (+0.012) 0.35 ppb

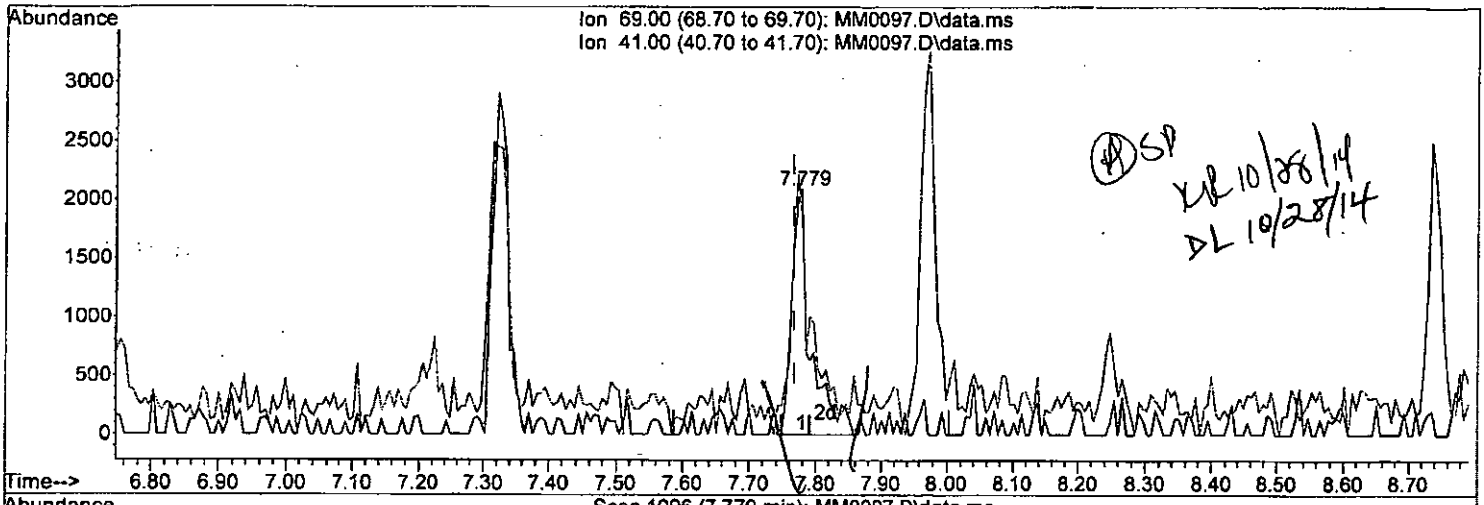
response 2965

Ion	Exp%	Act%
69.00	100	100
41.00	79.20	88.65
0.00	0.00	0.00
0.00	0.00	0.00

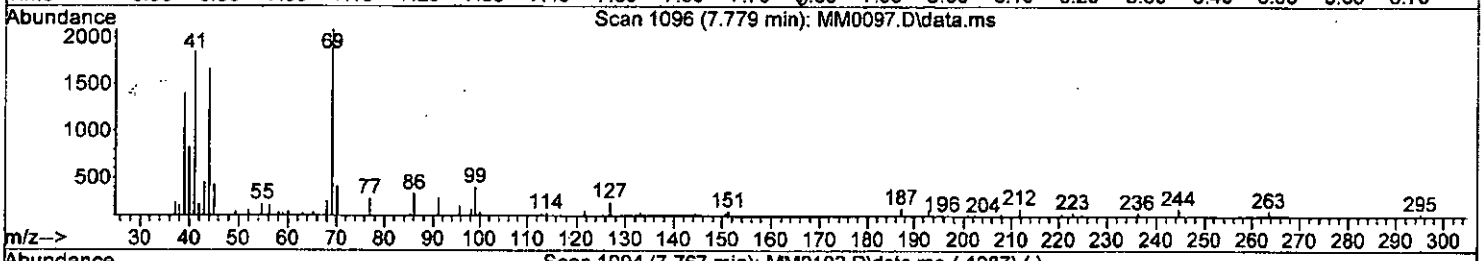
00099

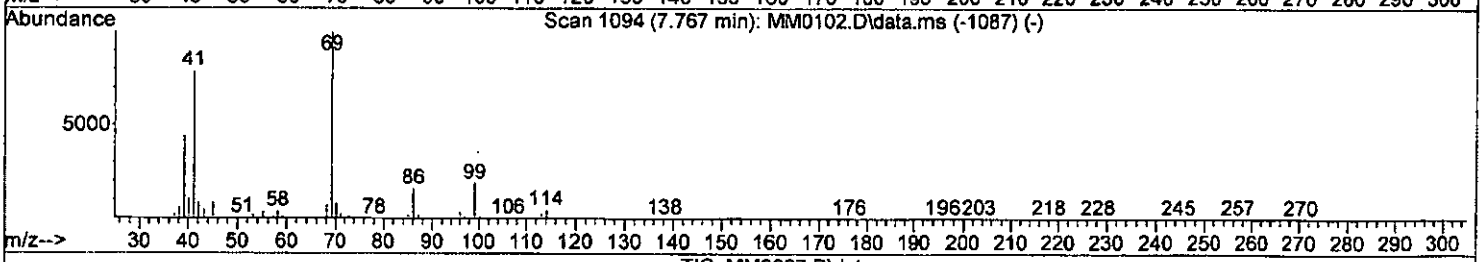
Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



SP 10/28/14
DL 10/28/14





TIC: MM0097.D\data.ms

(68) Ethyl Methacrylate

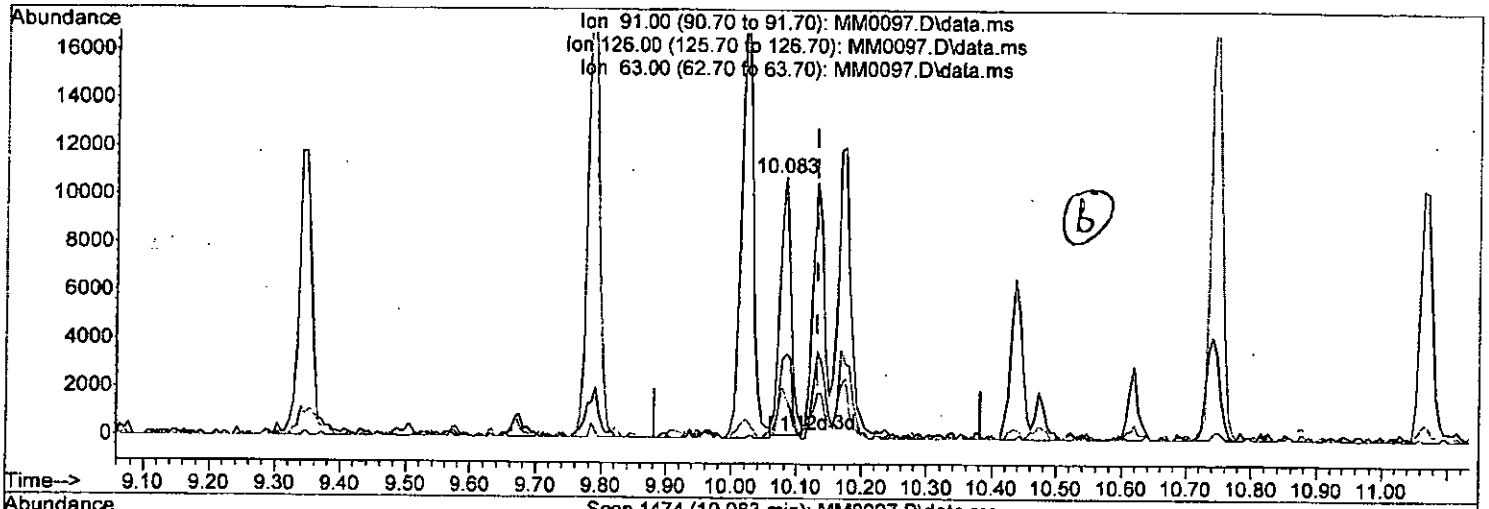
7.779min (+0.012) 0.48 ppb m

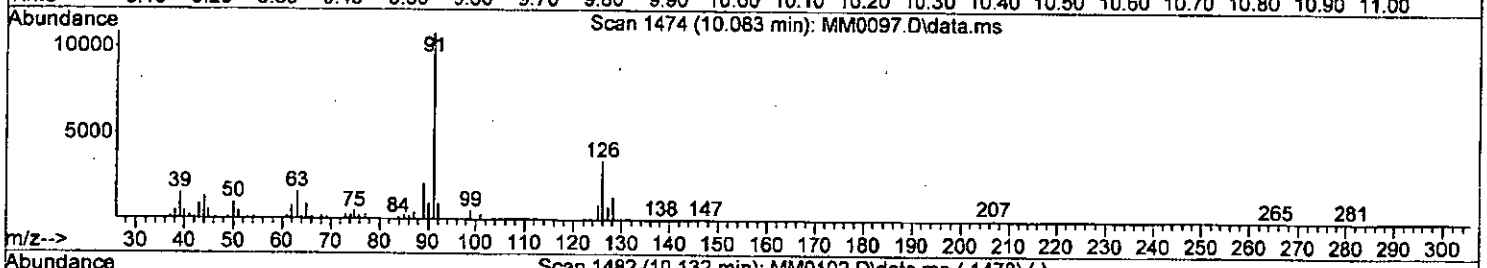
response 4089

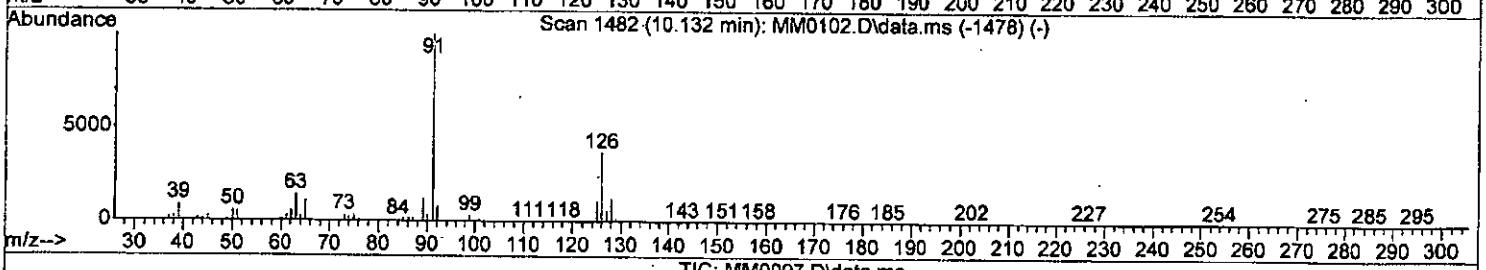
Ion	Exp%	Act%
69.00	100	100
41.00	79.20	88.65
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(97) 3-Chlorotoluene

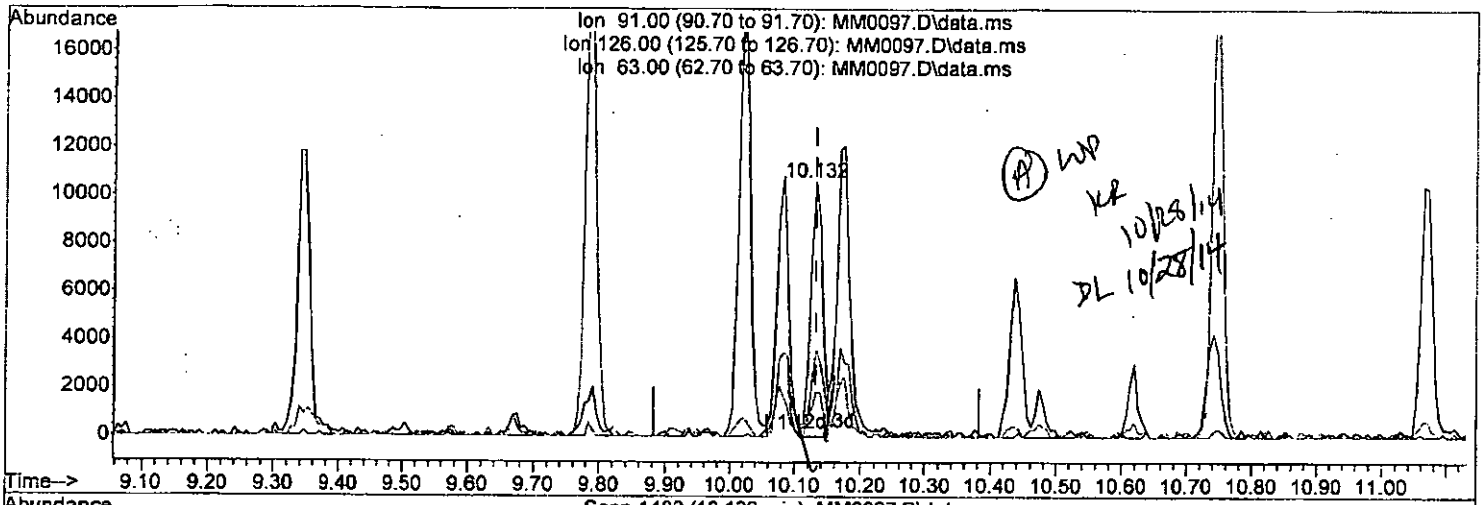
10.083min (-0.049) 0.50 ppb

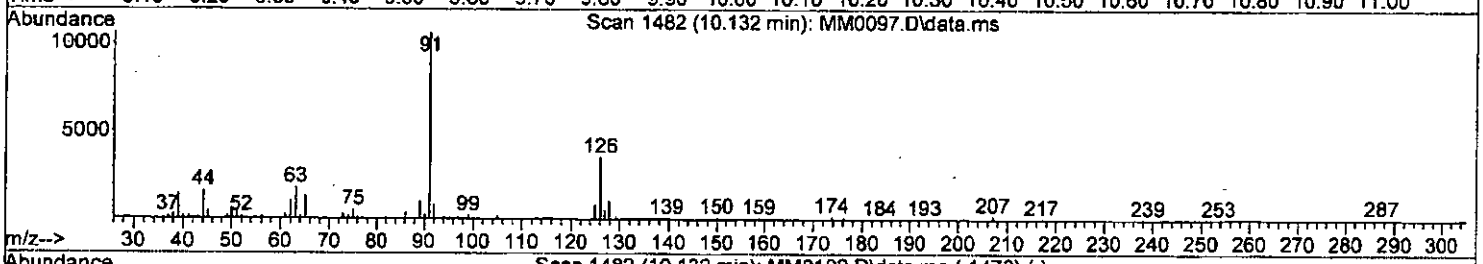
response 12732

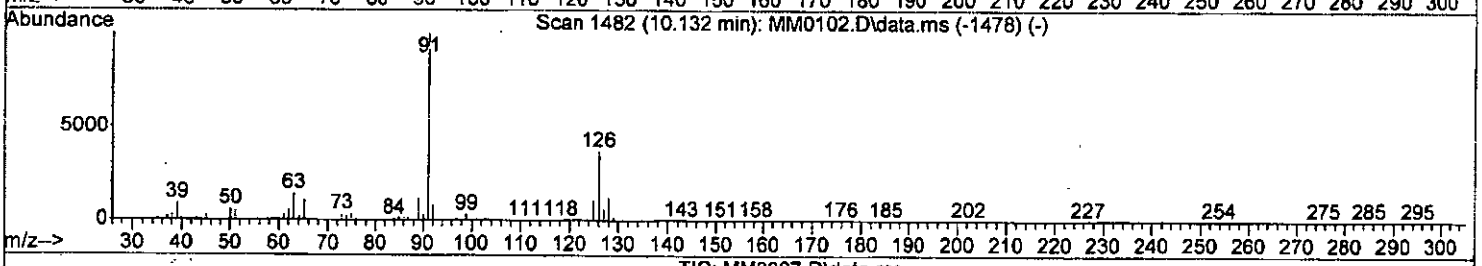
Ion	Exp%	Act%
91.00	100	100
126.00	36.90	32.15
63.00	14.00	15.10
0.00	0.00	0.00

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(97) 3-Chlorotoluene

10.132min (-0.000) 0.51 ppb m

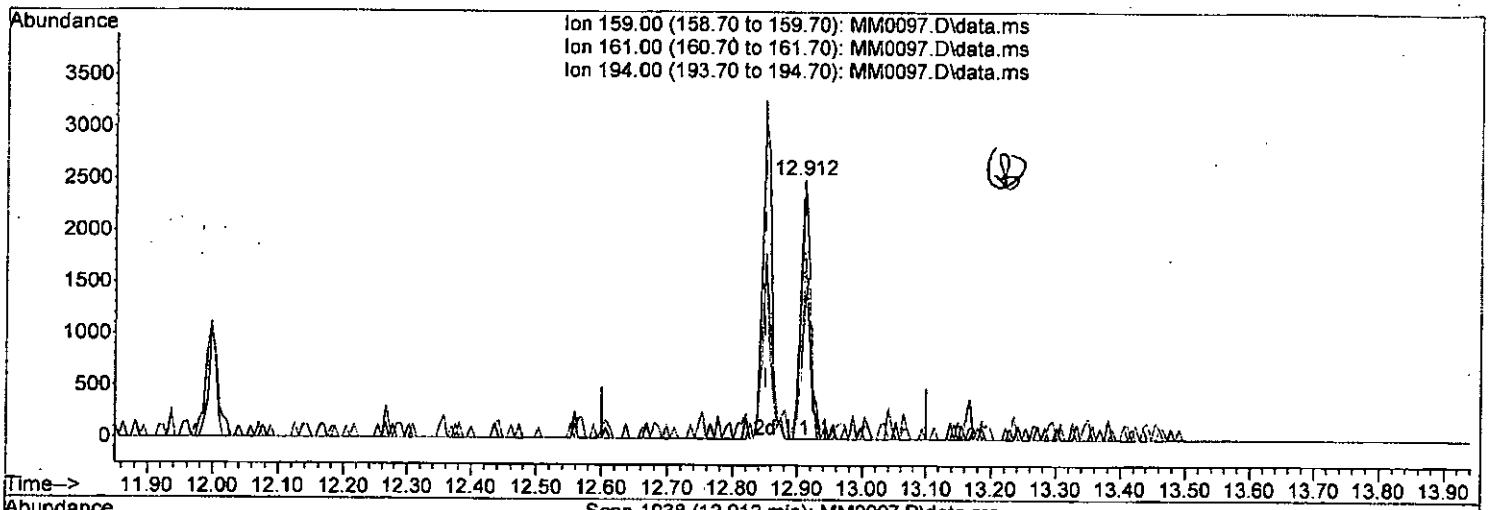
response 13099

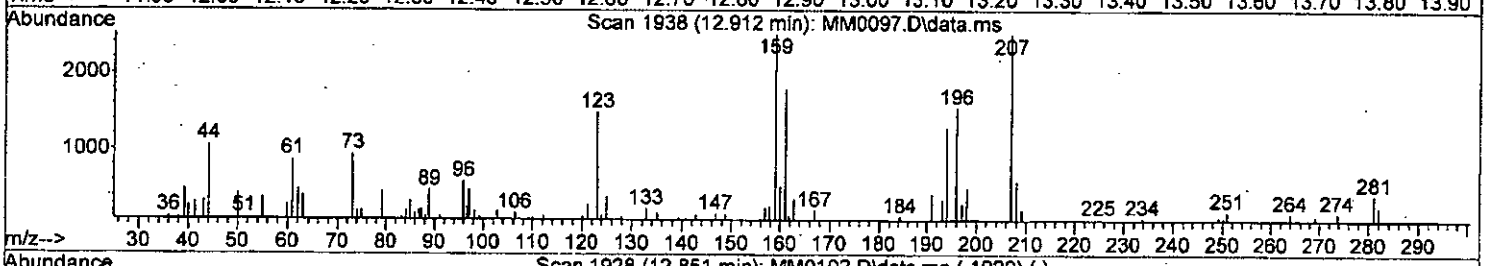
Ion	Exp%	Act%
91.00	100	100
126.00	36.90	33.80
63.00	14.00	17.26#
0.00	0.00	0.00

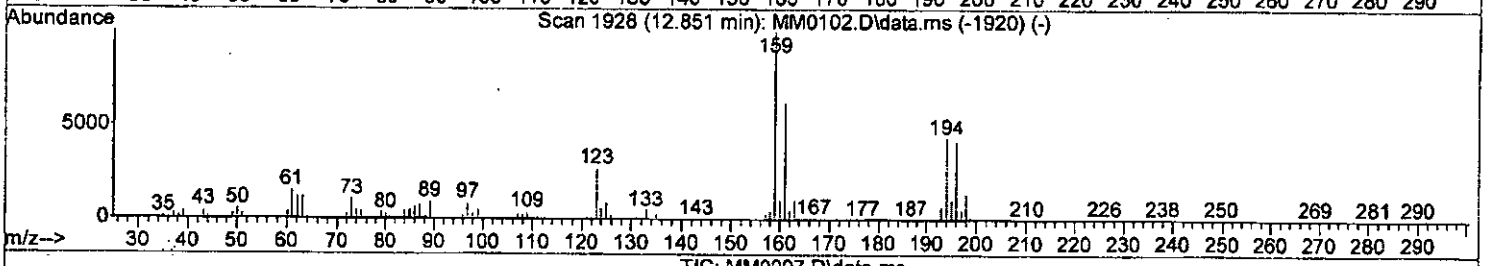
90102

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(119) 2,4,5-Trichlorotolene

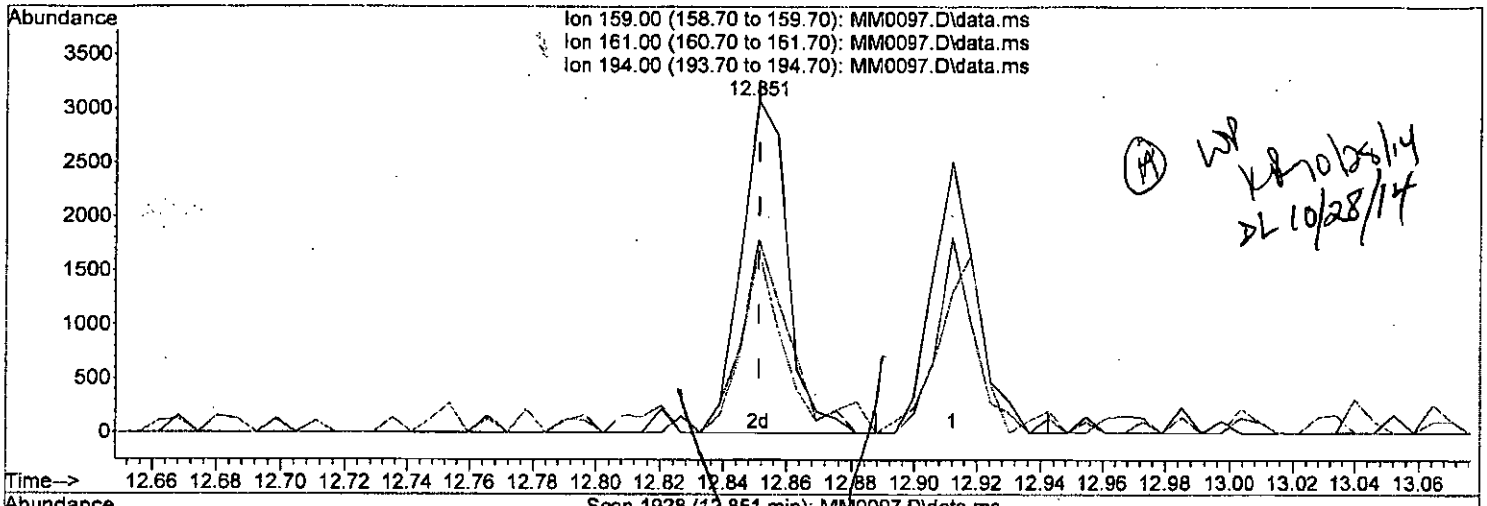
12.912min (+0.061) 0.45 ppb

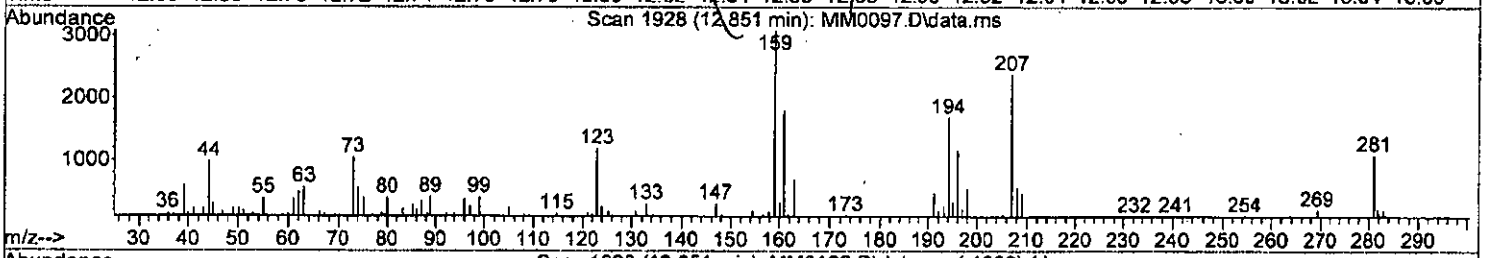
response 2447

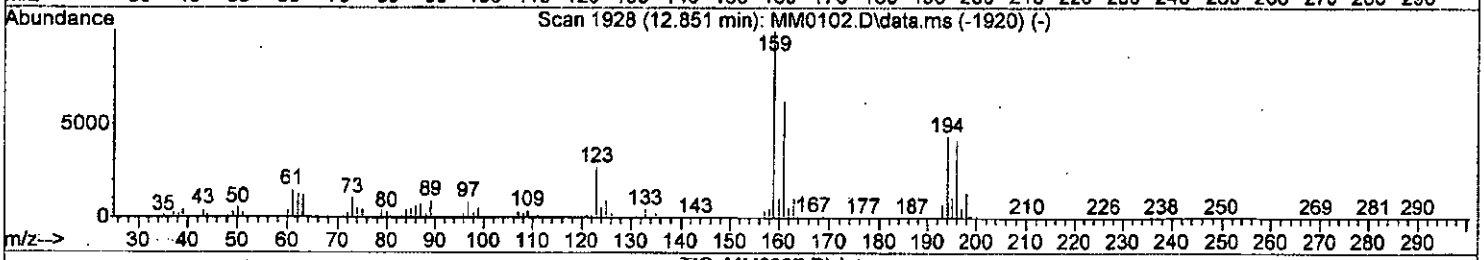
Ion	Exp%	Act%
159.00	100	100
161.00	62.10	71.92
194.00	43.70	51.62
0.00	0.00	0.00

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:25 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0097.D\data.ms

(119) 2,4,5-Trichlorotolene

12.851min (-0.000) 0.57 ppb m

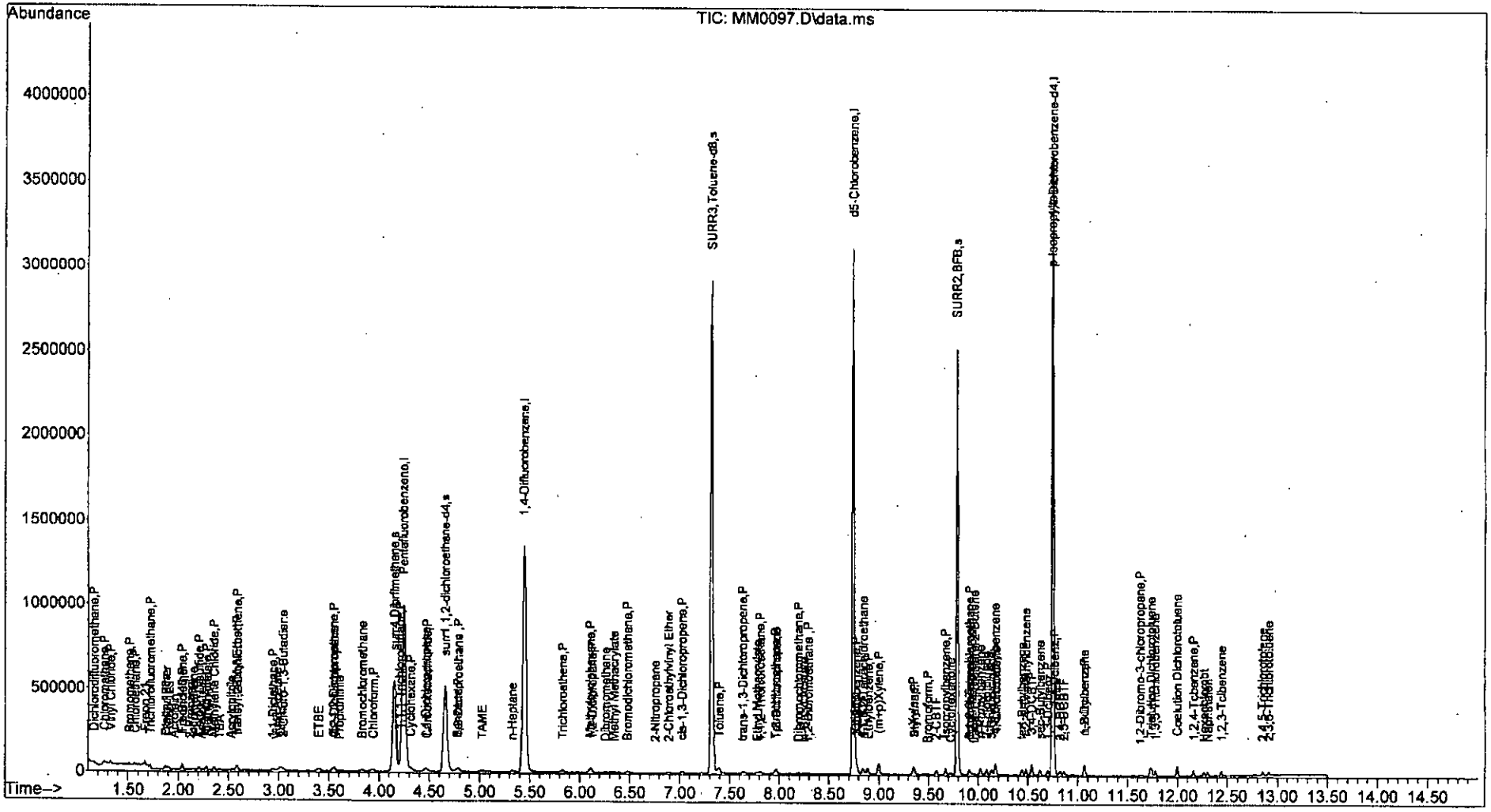
response 3122

Ion	Exp%	Act%
159.00	100	100
161.00	62.10	58.22
194.00	43.70	54.78#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 0.5ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0097.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:13 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:51:19 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



50100

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:57:15 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	860124	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1311491	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1217171	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	632587	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	383041	50.15	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.30%				
48) surr1,1,2-dichloroetha...	4.658	65	483385	51.98	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 103.96%				
65) SURR3,Toluene-d8	7.322	98	1636322	50.89	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.78%				
70) SURR2,BFB	9.785	95	618958	49.61	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.22%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	7847	0.96	ppb		91
3) Chloromethane	1.262	50	11303	1.02	ppb		96
4) Vinyl Chloride	1.323	62	11576	0.98	ppb		95
5) Bromomethane	1.512	94	6066	1.06	ppb		87
6) Chloroethane	1.567	64	7621	1.04	ppb		92
7) Freon 21	1.664	67	19015	1.04	ppb		93
8) Trichlorofluoromethane	1.719	101	14485	1.03	ppb		92
9) Diethyl Ether	1.884	59	6415	1.01	ppb		95
10) Freon 123a	1.865	67	11000	1.09	ppb		94
11) Freon 123	1.902	83	10870	1.02	ppb		97
12) Acrolein	1.951	56	1870	5.34	ppb		99
13) 1,1-Diclethene	2.036	96	7605	1.02	ppb		97
14) Freon 113	2.036	101	8003	1.05	ppb		89
15) Acetone	2.048	43	2477	1.35	ppb		88
16) 2-Propanol	2.115	45	7008	19.40	ppb		79
17) Iodomethane	2.146	142	9677	0.90	ppb		100
18) Carbon Disulfide	2.207	76	25729	1.03	ppb		97
19) Acetonitrile	2.231	40	1061	3.66	ppb	#	89
20) Allyl Chloride	2.274	76	3751	0.89	ppb	#	44
21) Methyl Acetate	2.274	43	3784	0.90	ppb		90
22) Methylene Chloride	2.359	84	7931	0.98	ppb		94
23) TBA	2.408	59	10640	17.79	ppb		87
24) Acrylonitrile	2.530	53	9336	4.77	ppb	#	81
25) Methyl-t-Butyl Ether	2.579	73	20192	0.97	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	7721	0.96	ppb		96
28) 1,1-Diclethane	2.938	63	16007	1.08	ppb		97
29) Vinyl Acetate	2.987	86	1442	1.07	ppb		98
30) DIPE	3.012	45	30404	1.01	ppb		88
31) 2-Chloro-1,3-Butadiene	3.036	53	14537	1.06	ppb		86
32) ETBE	3.396	59	26051	1.01	ppb		96
33) 2,2-Dichloropropane	3.554	77	14401	1.09	ppb		97
34) cis-1,2-Dichloroethene	3.548	96	8468	0.97	ppb	#	82
36) Propionitrile	3.615	54	3748m	5.33	ppb		
37) Bromochloromethane	3.835	130	5069m	1.03	ppb		
38) Methacrylonitrile	3.804	67	2051	0.94	ppb		97

KR 10/28/14

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:57:15 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	Chloroform	3.932	83	16933	1.13	ppb		83
41)	1,1,1-Trichloroethane	4.206	97	13244	0.99	ppb	#	1
42)	TAME	5.011	73	22112	1.01	ppb		95
44)	Cyclohexane	4.316	41	9960m	1.03	ppb		
46)	Carbontetrachloride	4.463	121	3552	1.04	ppb	#	78
47)	1,1-Dichloropropene	4.469	75	11981	1.05	ppb		82
49)	Benzene	4.780	78	33510	1.00	ppb		97
50)	1,2-Dichloroethane	4.786	62	10972	0.97	ppb		88
51)	Iso-Butyl Alcohol	4.639	43	5279m	20.52	ppb		
52)	n-Heptane	5.334	43	12324	1.13	ppb		86
53)	1-Butanol	5.804	56	8386m	50.41	ppb		
54)	Trichloroethene	5.828	130	8277	0.94	ppb		90
55)	Methylcyclohexane	6.102	55	10834	0.96	ppb		93
56)	1,2-Diclpropane	6.109	63	9719	1.10	ppb		100
57)	Dibromomethane	6.261	93	3965	0.95	ppb	#	84
58)	1,4-Dioxane	6.383	88	1617m	24.42	ppb		
59)	Methyl Methacrylate	6.334	69	3835	0.95	ppb		95
60)	Bromodichloromethane	6.487	83	10660	1.02	ppb		95
61)	2-Nitropropane	6.749	41	2372	1.70	ppb		84
62)	2-Chloroethylvinyl Ether	6.889	63	3991	0.97	ppb		70
63)	cis-1,3-Dichloropropene	7.023	75	12867	0.99	ppb		89
64)	4-Methyl-2-pentanone	7.212	43	5944	0.99	ppb		86
66)	Toluene	7.395	91	36645	1.01	ppb		93
67)	trans-1,3-Dichloropropene	7.633	75	9447	0.85	ppb		74
68)	Ethyl Methacrylate	7.767	69	7350	0.86	ppb		93
69)	1,1,2-Trichloroethane	7.809	97	6026	0.99	ppb		90
72)	Tetrachloroethene	7.962	164	6906	0.99	ppb		97
73)	2-Hexanone	8.090	43	4246m	1.05	ppb		
74)	1,3-Dichloropropane	7.974	76	9936	0.91	ppb		93
75)	Dibromochloromethane	8.187	129	5814	0.89	ppb		96
76)	N-Butyl Acetate	8.242	43	9572	0.92	ppb		97
77)	1,2-Dibromoethane	8.285	107	5233	0.92	ppb		95
78)	Chlorobenzene	8.773	112	22554	0.96	ppb		96
79)	3-CBTF	8.785	180	12193	0.94	ppb		93
80)	4-CBTF	8.840	180	11014	0.95	ppb		91
81)	1,1,1,2-Tetrachloroethane	8.852	131	6543	0.84	ppb		89
82)	Ethylbenzene	8.888	106	12315	0.97	ppb		94
83)	(m+p)Xylene	8.998	106	29838	1.94	ppb		95
84)	o-Xylene	9.346	106	14690	0.95	ppb		89
85)	Styrene	9.358	104	22057	0.86	ppb		98
87)	Bromoform	9.498	173	2741	0.87	ppb		88
88)	2-CBTF	9.577	180	11979	1.08	ppb		96
89)	Isopropylbenzene	9.669	105	36500	1.08	ppb		98
90)	Cyclohexanone	9.724	55	9065	24.44	ppb		93
91)	trans-1,4-Dichloro-2-B...	9.961	53	2017	0.99	ppb	#	72
92)	1,1,2,2-Tetrachloroethane	9.913	83	6962	1.06	ppb		98
93)	Bromobenzene	9.913	156	9111	1.02	ppb		92
94)	1,2,3-Trichloropropane	9.943	110	2208	1.11	ppb	#	85
95)	n-Propylbenzene	10.022	91	40630	1.04	ppb		98
96)	2-Chlorotoluene	10.077	91	24939	1.05	ppb		93
97)	3-Chlorotoluene	10.132	91	26550	1.05	ppb		97
98)	4-Chlorotoluene	10.175	91	30536	1.03	ppb		97

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

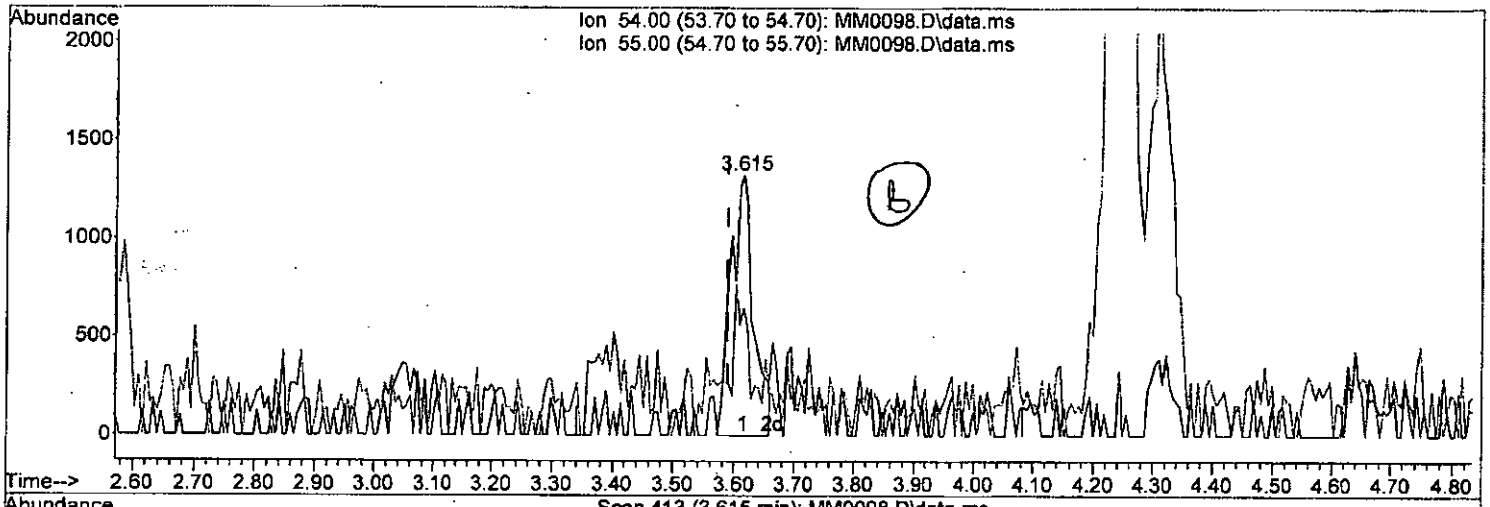
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:57:15 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

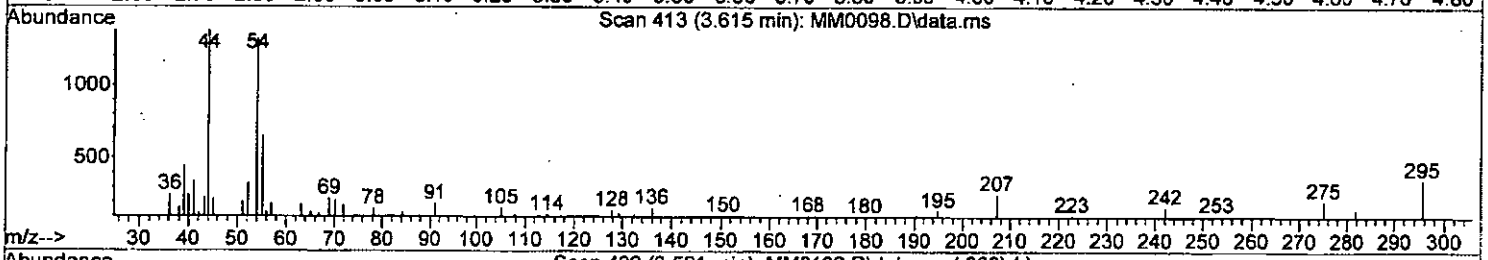
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
99)	1,3,5-Trimethylbenzene	10.169	105	30162	1.03	ppb		97
100)	tert-Butylbenzene	10.437	119	23711	1.00	ppb		99
101)	1,2,4-Trimethylbenzene	10.480	105	30367	1.06	ppb		98
102)	3,4-DCBTF	10.535	214	7786	0.93	ppb		94
103)	sec-Butylbenzene	10.620	105	35355	1.06	ppb		95
104)	p-Isopropyltoluene	10.742	119	29069	1.01	ppb		90
105)	1,3-Dclbenz	10.699	146	17670	1.04	ppb		91
106)	1,4-Dclbenz	10.766	146	19271	1.08	ppb		94
107)	2,4-DCBTF	10.821	214	6940	0.96	ppb		94
108)	2,5-DCBTF	10.858	214	8873	1.09	ppb		90
109)	n-Butylbenzene	11.065	91	25525	1.00	ppb		91
110)	1,2-Dclbenz	11.065	146	16281	1.02	ppb		93
111)	1,2-Dibromo-3-chloropr...	11.620	157	1069	0.97	ppb		91
112)	Trielution Dichlorotol...	11.729	125	40701	3.10	ppb		92
113)	1,3,5 Trichlorobenzene	11.778	180	11344	1.03	ppb		90
114)	Coelution Dichlorotoluene	11.998	125	27433	2.00	ppb		92
115)	1,2,4-Tcbenzene	12.162	180	8329	0.89	ppb		90
116)	Hexachlorobt	12.266	225	3927	1.06	ppb	#	80
117)	Naphthalen	12.302	128	17097	0.96	ppb		94
118)	1,2,3-Tclbenzene	12.437	180	9046	1.14	ppb		80
119)	2,4,5-Trichlorotolene	12.851	159	5230m	0.97	ppb		
120)	2,3,6-Trichlorotoluene	12.912	159	5666	1.14	ppb		93

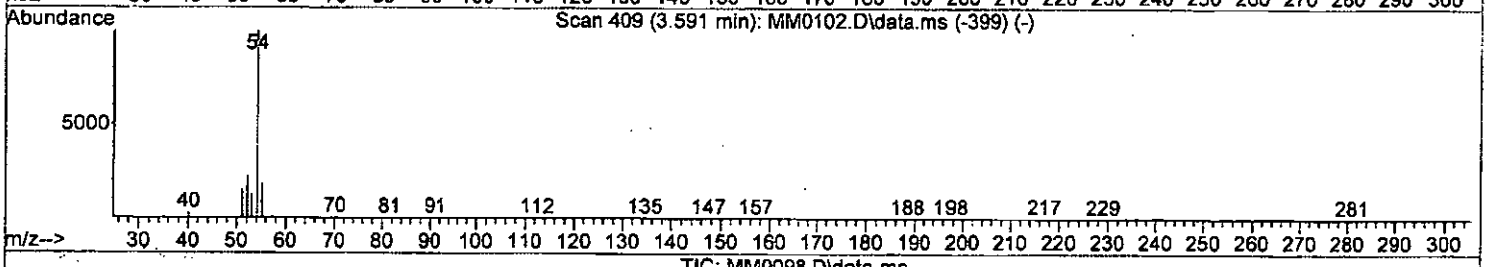
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(36) Propionitrile

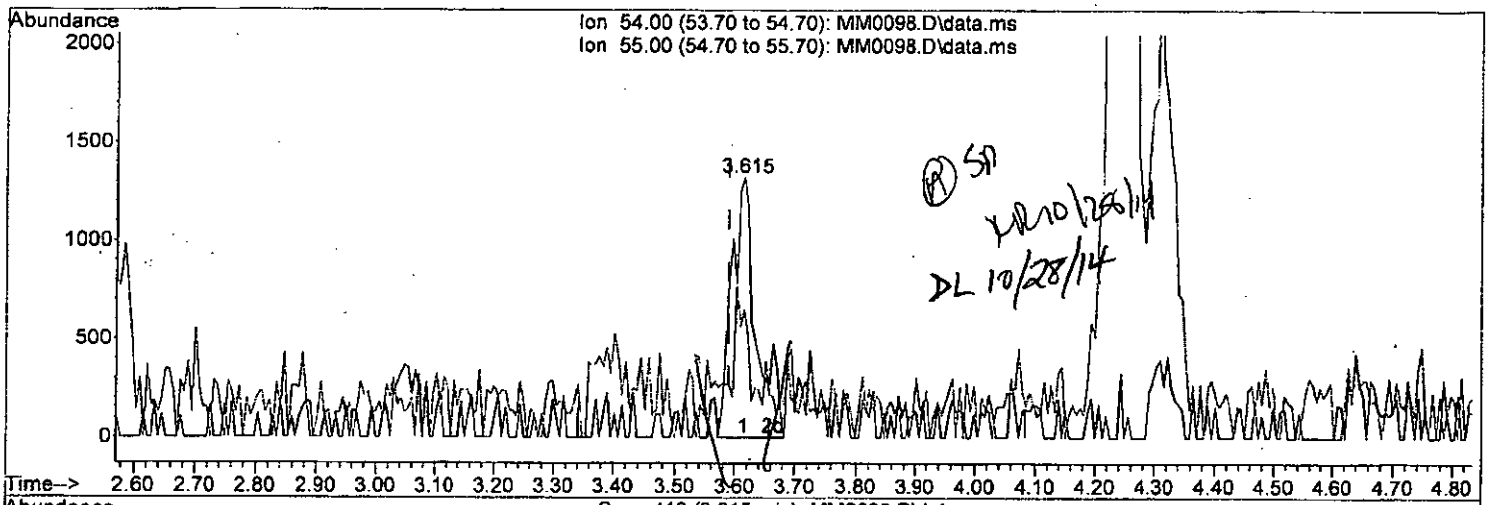
3.615min (+0.025) 4.83 ppb

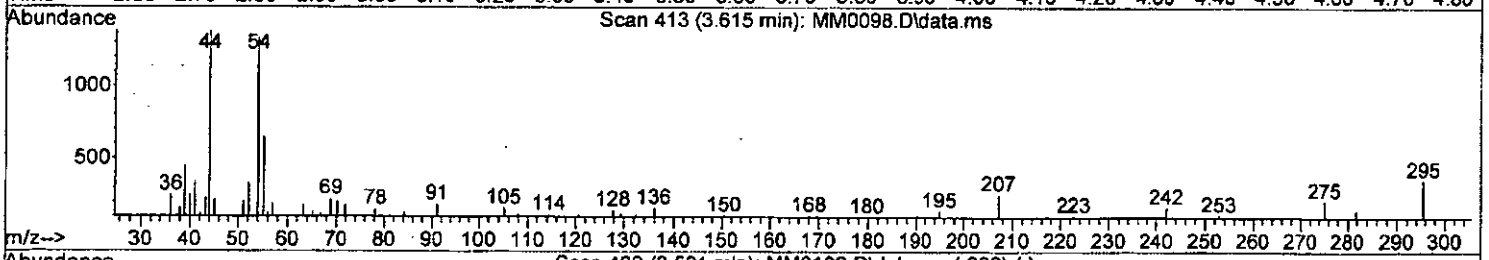
response 3396

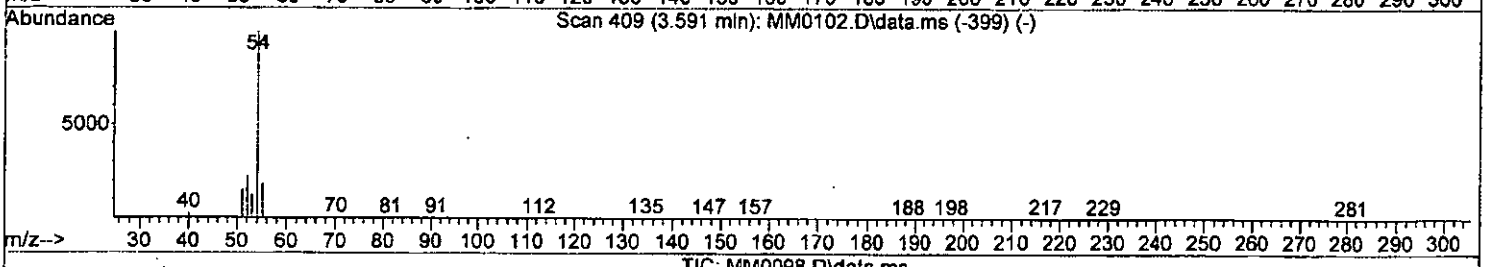
Ion	Exp%	Act%
54.00	100	100
55.00	18.80	49.02#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(36) Propionitrile

3.615min (+0.025) 5.33 ppb m

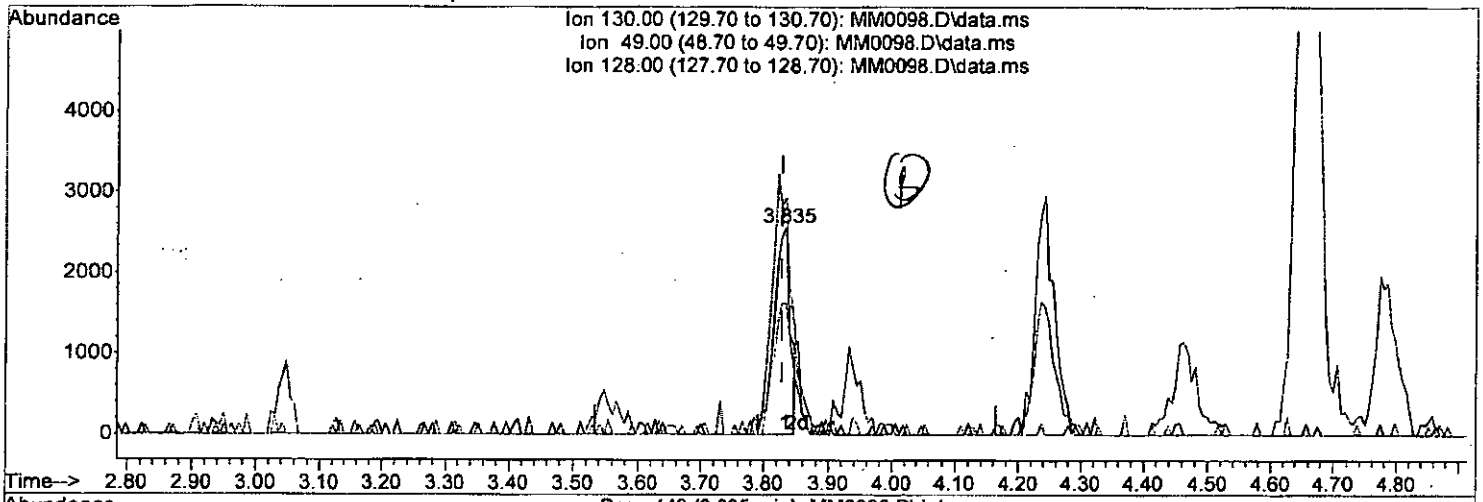
response 3748

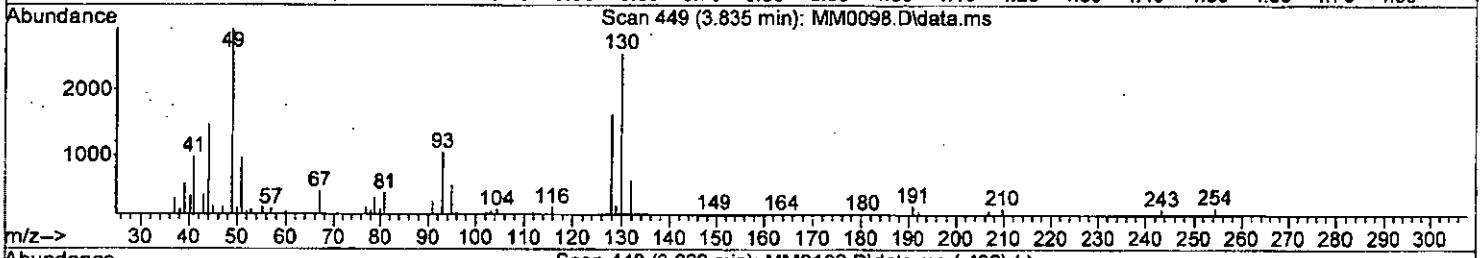
Ion	Exp%	Act%
54.00	100	100
55.00	18.80	49.02#
0.00	0.00	0.00
0.00	0.00	0.00

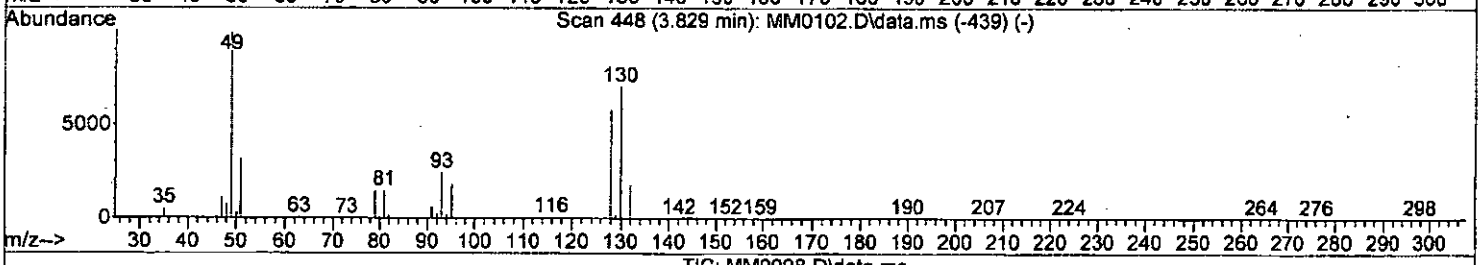
00110

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(37) Bromochloromethane

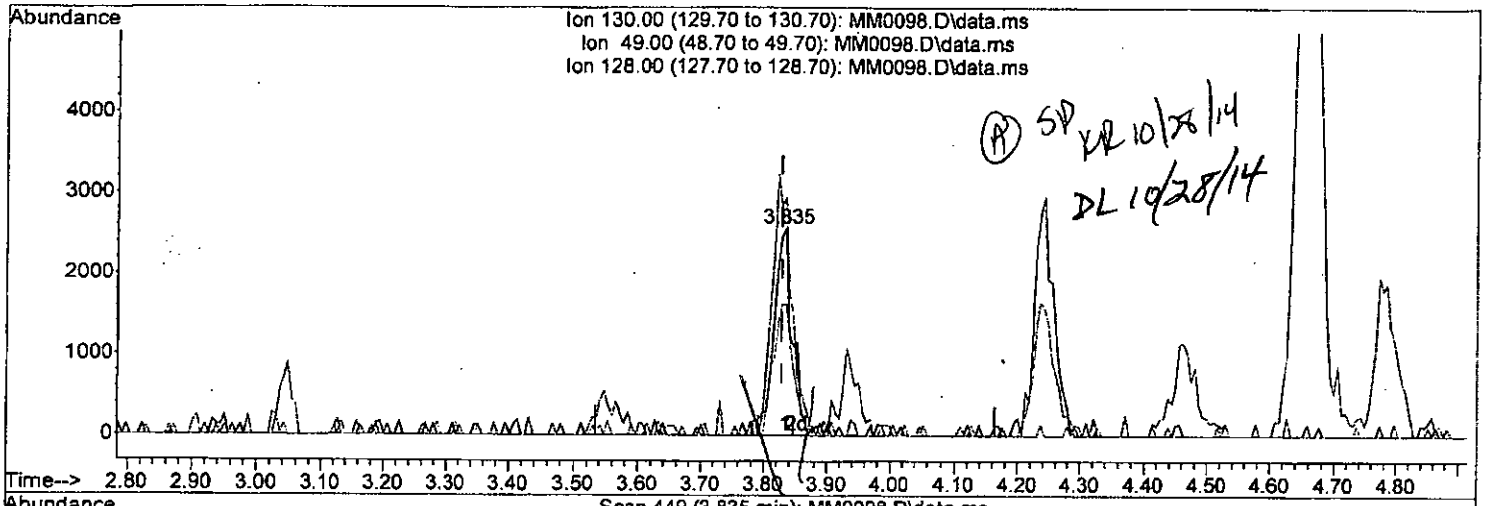
3.835min (+0.006) 0.90 ppb

response 4442

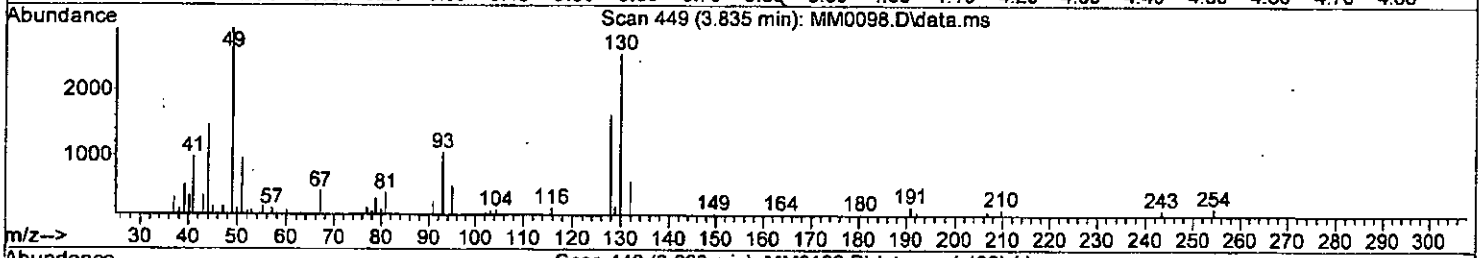
Ion	Exp%	Act%
130.00	100	100
49.00	141.80	114.65#
128.00	81.80	63.35
0.00	0.00	0.00

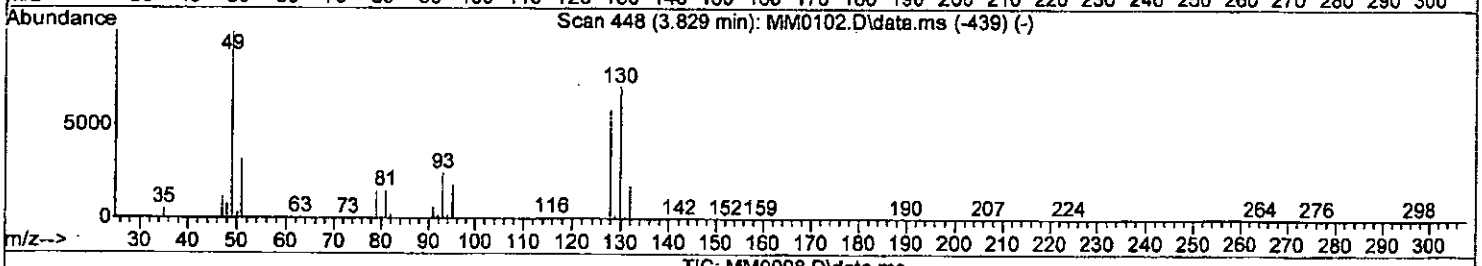
Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(A) SP KR 10/28/14
DL 10/28/14





TIC: MM0098.D\data.ms

(37) Bromochloromethane

3.835min (+0.006) 1.03 ppb m

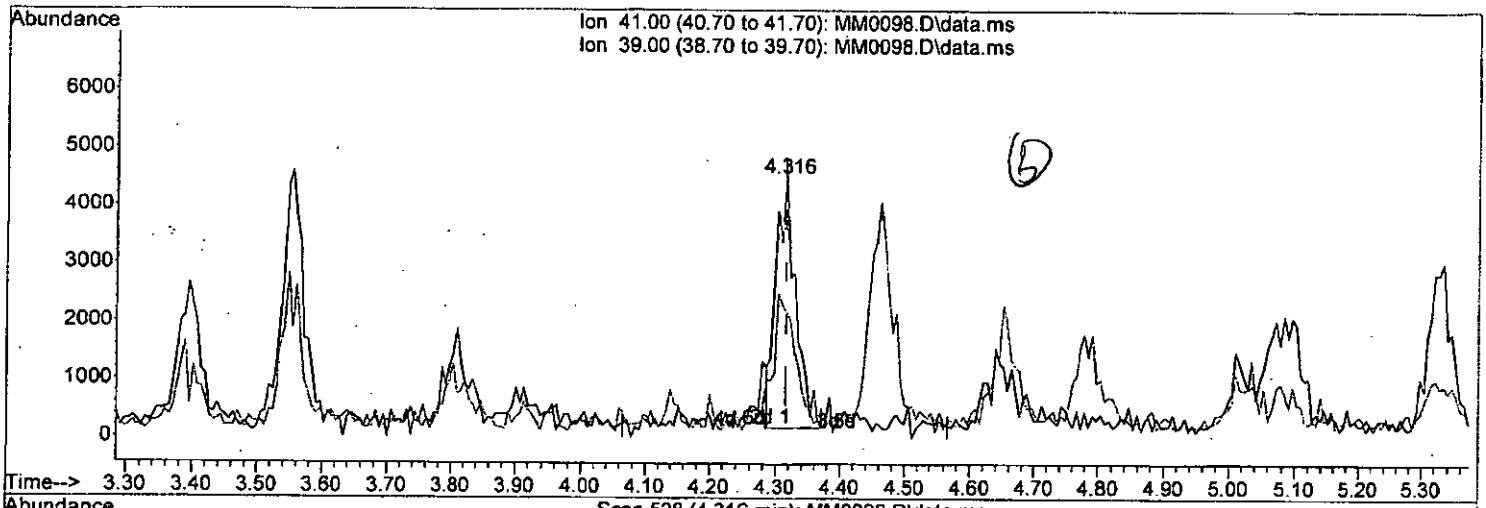
response 5069

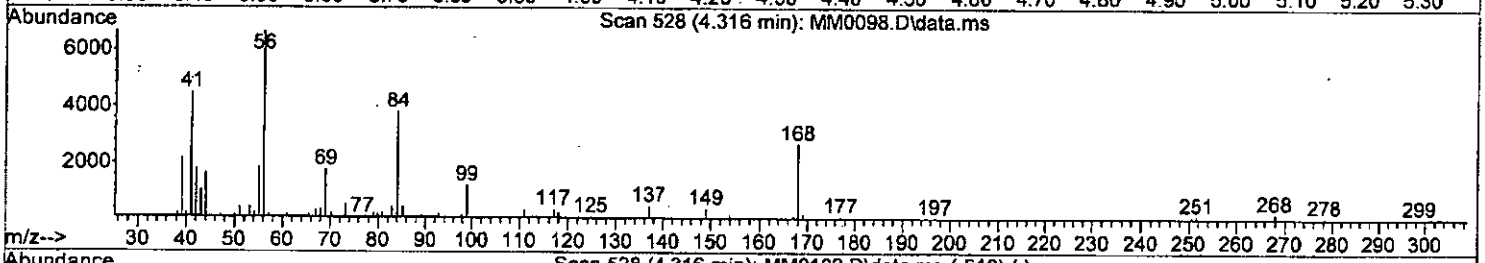
Ion	Exp%	Act%
130.00	100	100
49.00	141.80	114.65#
128.00	81.80	63.35
0.00	0.00	0.00

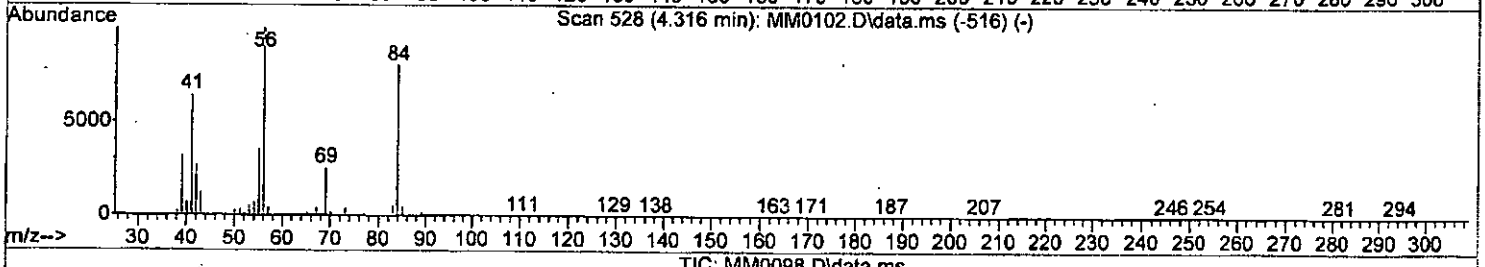
00112

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(44) Cyclohexane (P)

4.316min (-0.000) 0.94 ppb

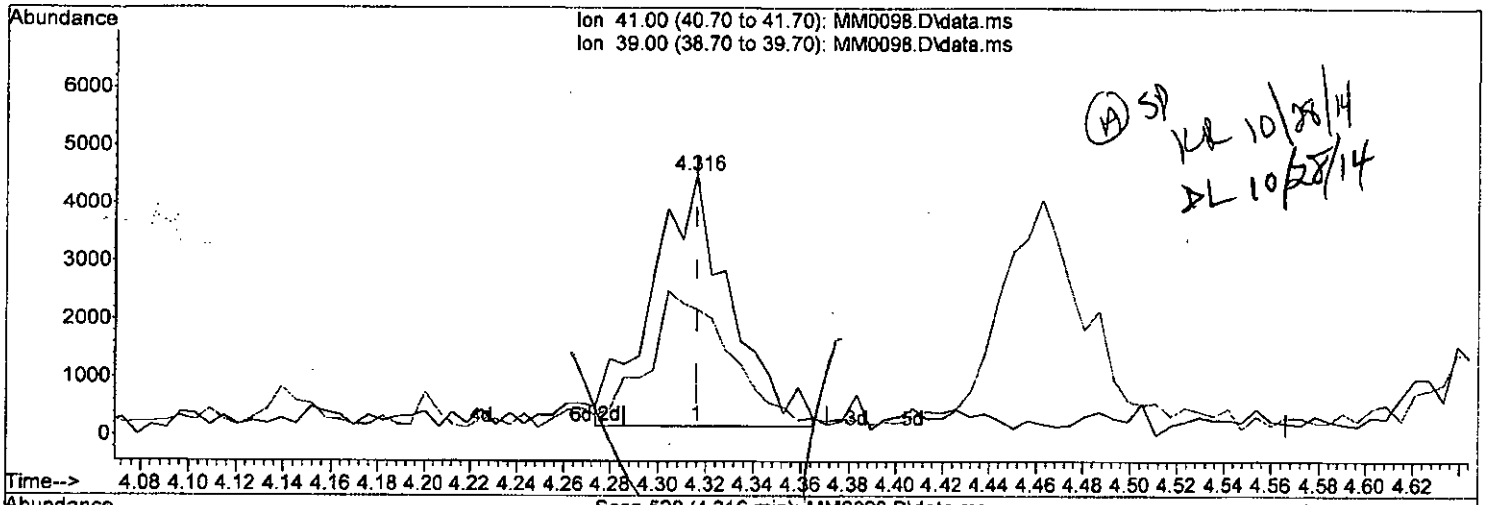
response 9085

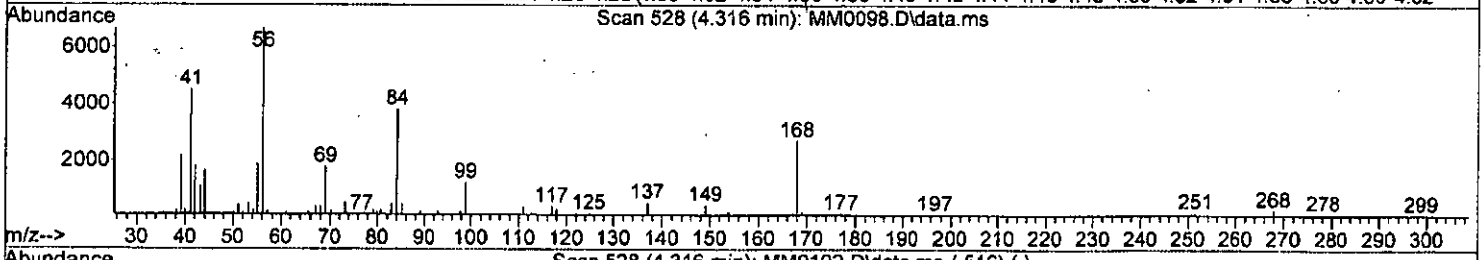
Ion	Exp%	Act%
41.00	100	100
39.00	49.70	48.32
0.00	0.00	0.00
0.00	0.00	0.00

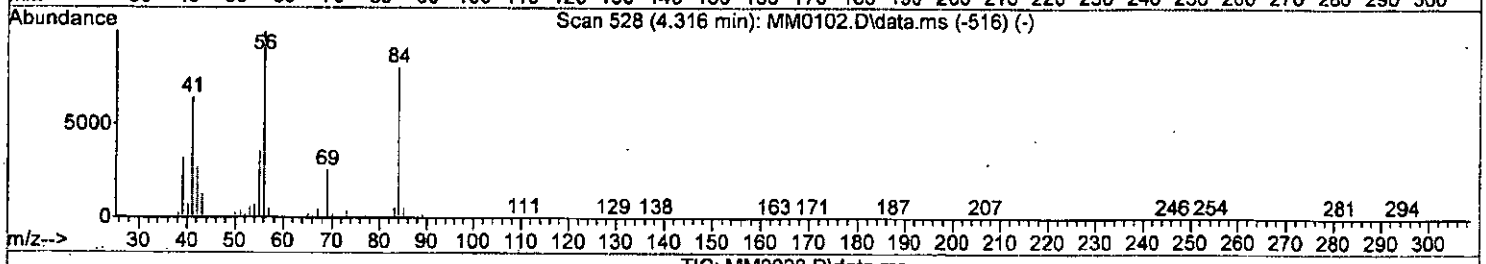
00113

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(44) Cyclohexane (P)

4.316min (-0.000) 1.03 ppb m

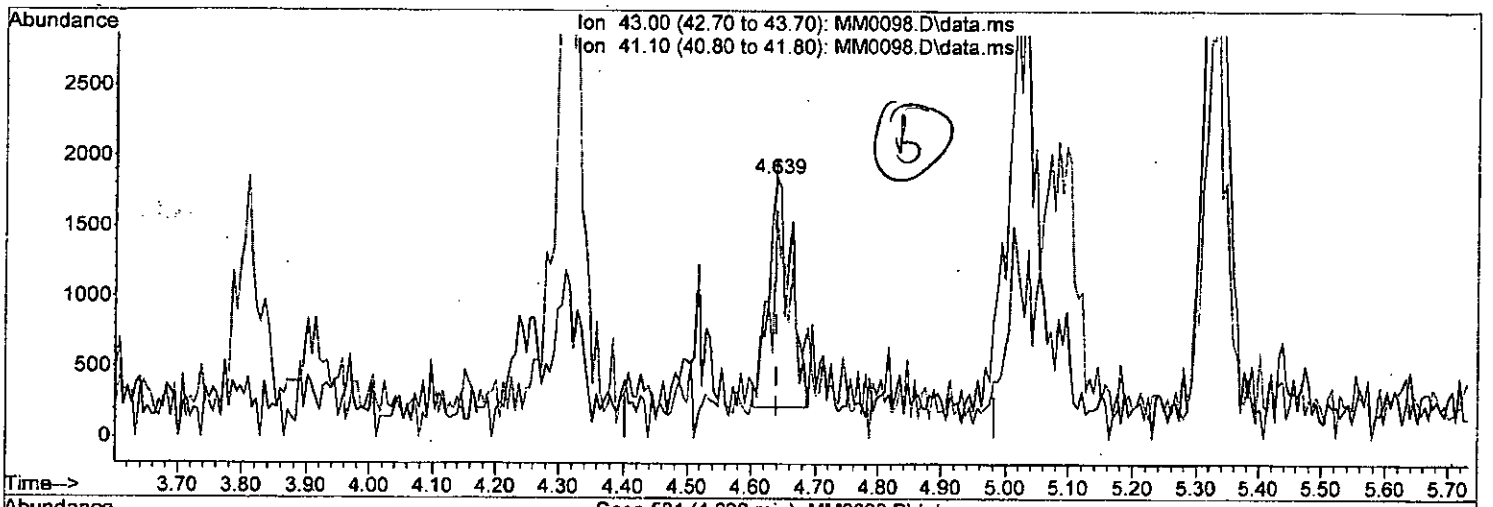
response 9960

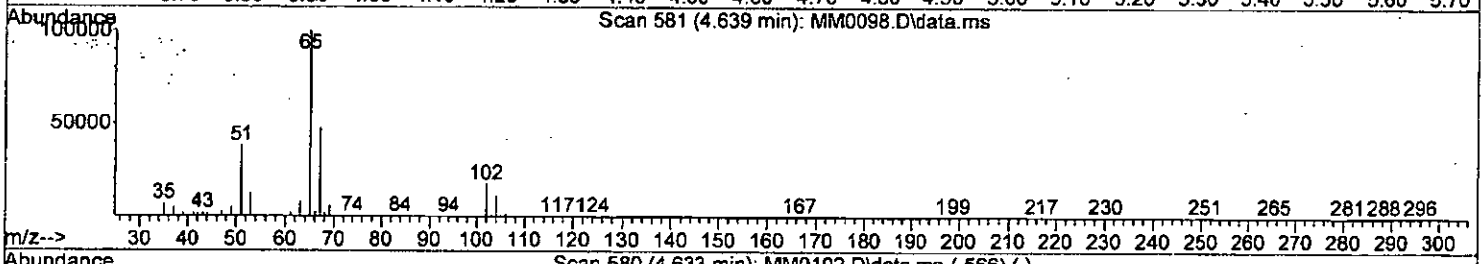
Ion	Exp%	Act%
41.00	100	100
39.00	49.70	48.32
0.00	0.00	0.00
0.00	0.00	0.00

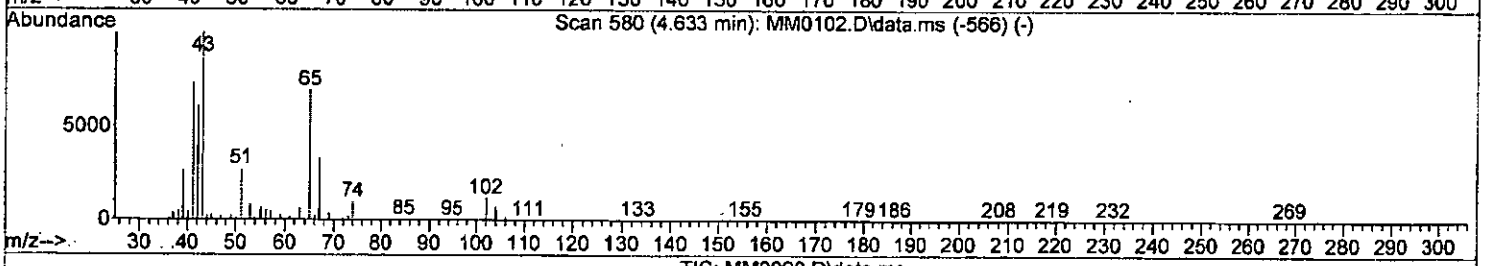
00114

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(51) Iso-Butyl Alcohol

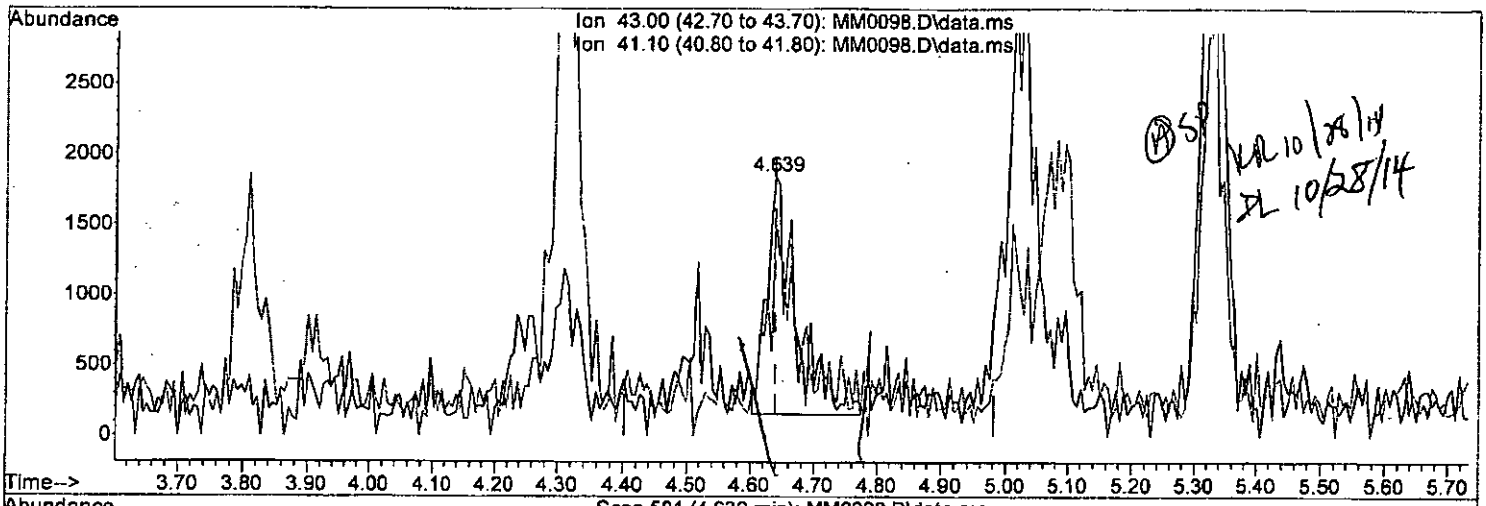
4.639min (+0.000) 15.10 ppb

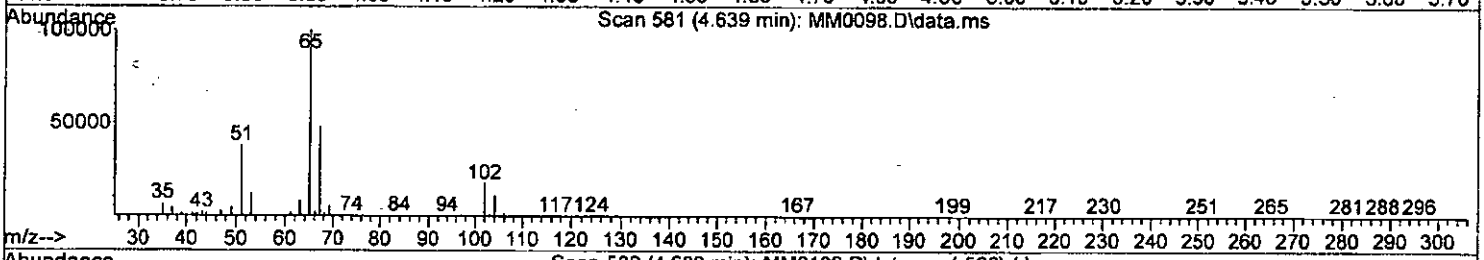
response 3885

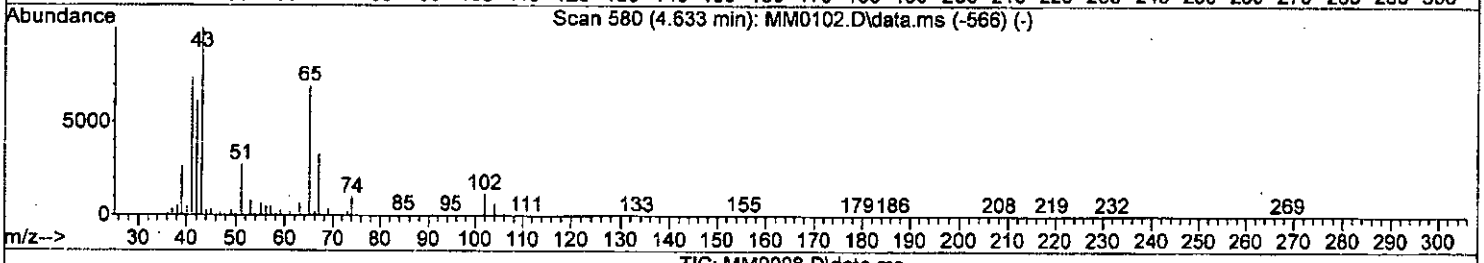
Ion	Exp%	Act%
43.00	100	100
41.10	73.90	84.01
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(51) Iso-Butyl Alcohol

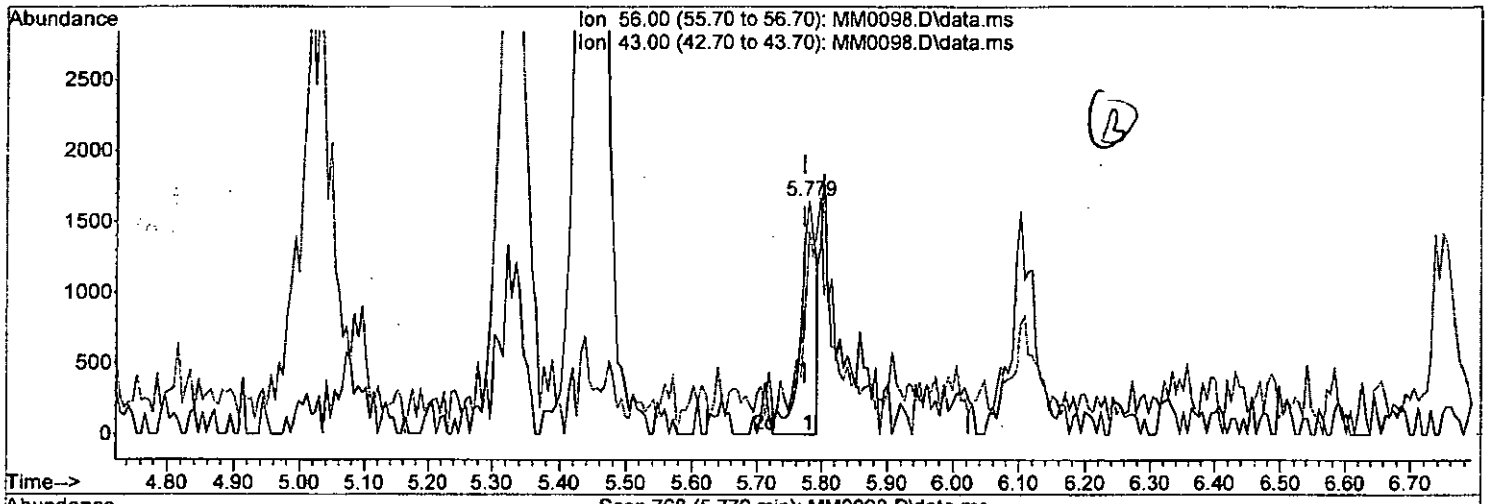
4.639min (+0.000) 20.52 ppb m

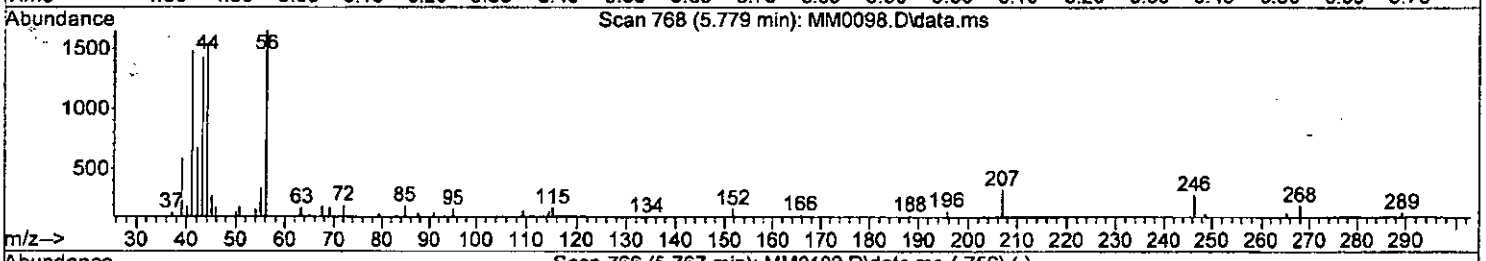
response 5279

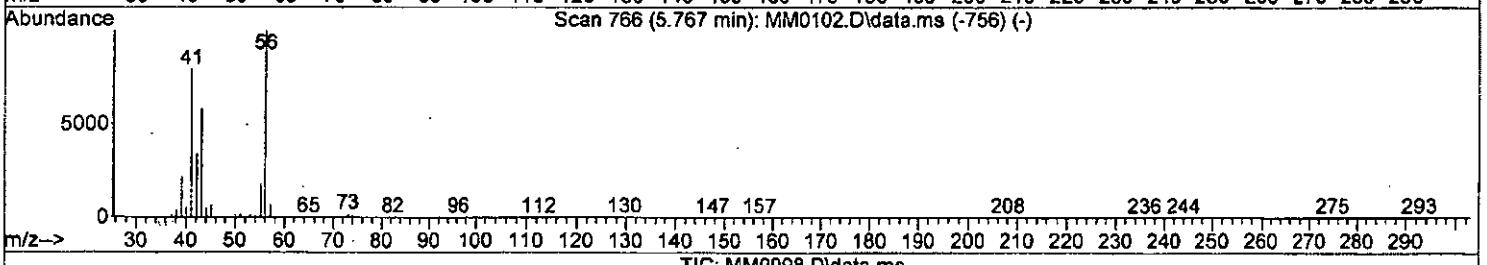
Ion	Exp%	Act%
43.00	100	100
41.10	73.90	84.01
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(53) 1-Butanol

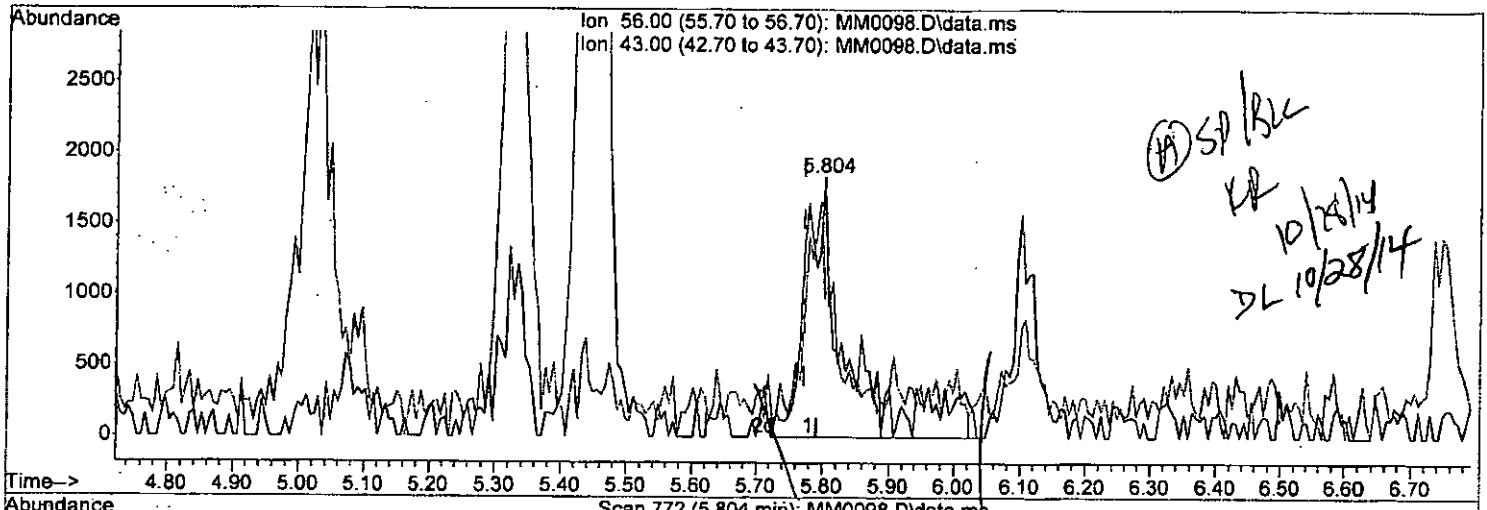
5.779min (+0.006) 16.21 ppb

response 2697

Ion	Exp%	Act%
56.00	100	100
43.00	56.20	151.98#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



TIC: MM0098.D\data.ms

(53) 1-Butanol

5.804min (+0.031) 50.41 ppb m

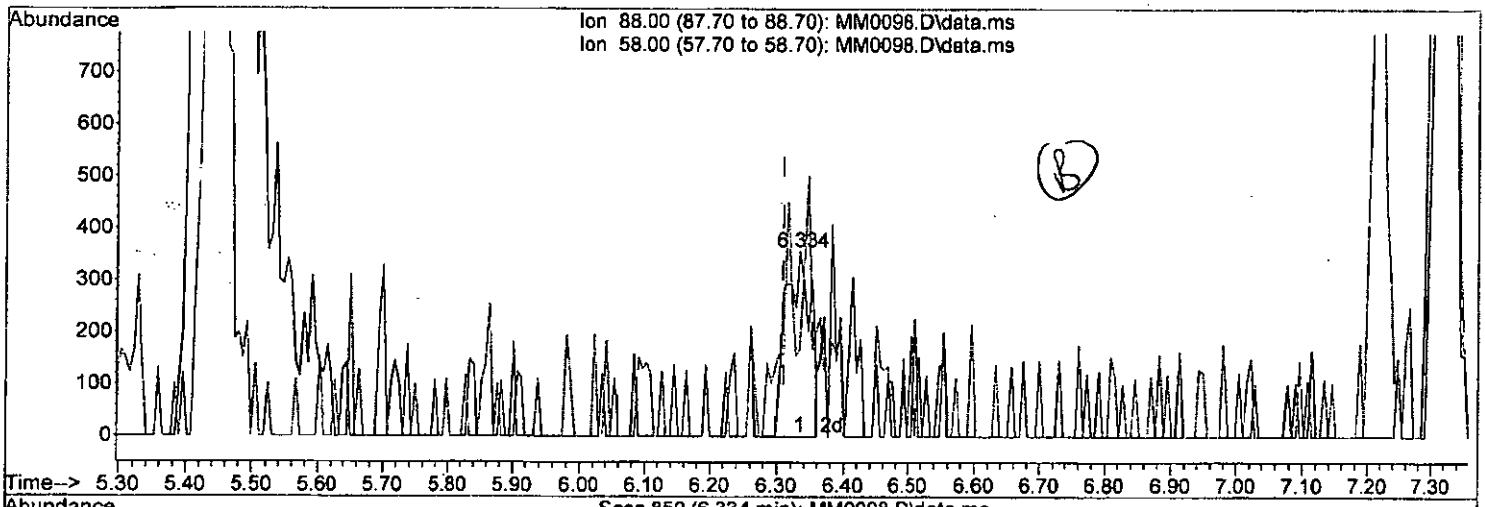
response 8386

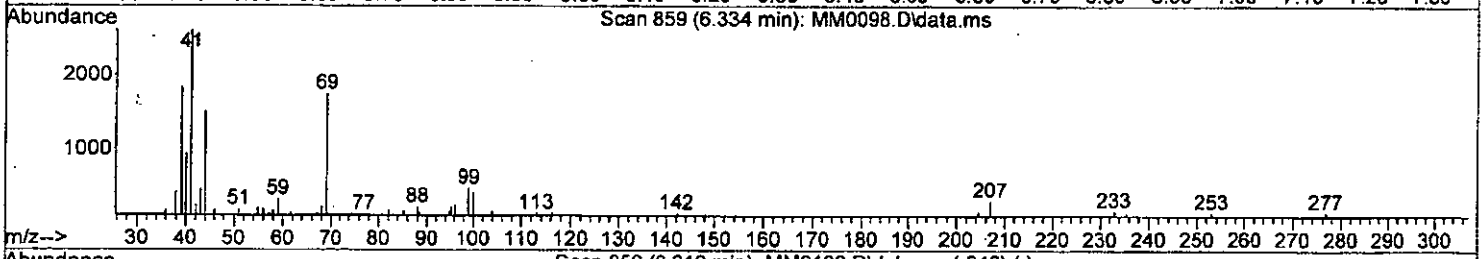
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	48.88
0.00	0.00	0.00
0.00	0.00	0.00

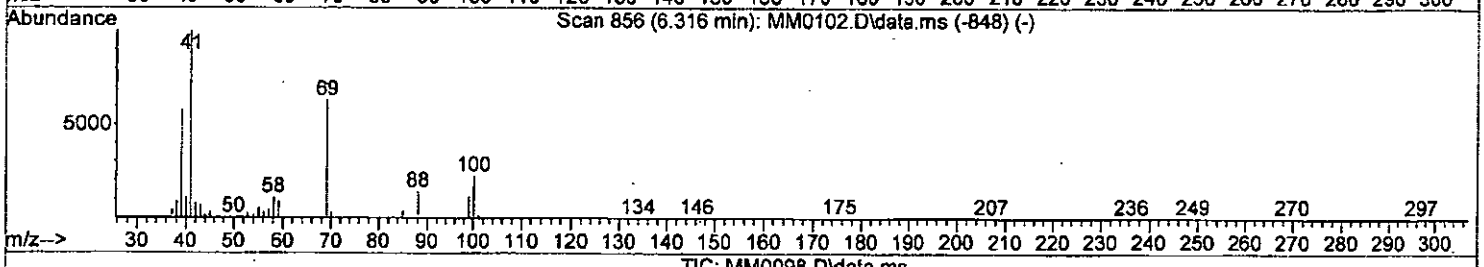
00118

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(58) 1,4-Dioxane

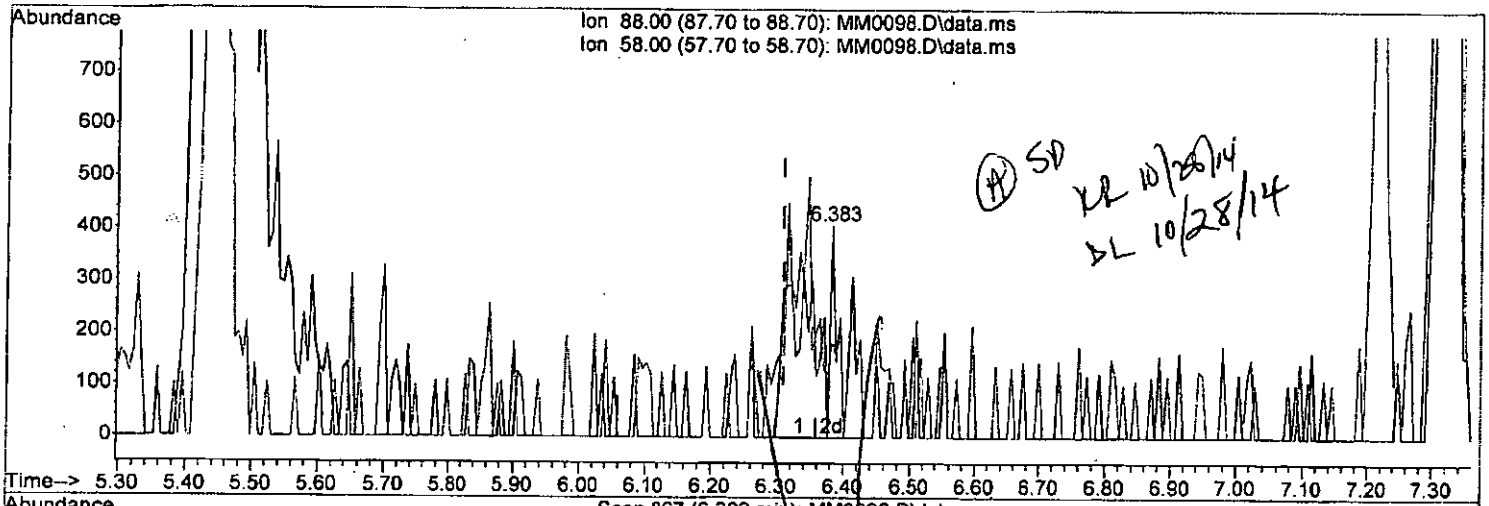
6.334min (+0.025) 13.88 ppb

response 919

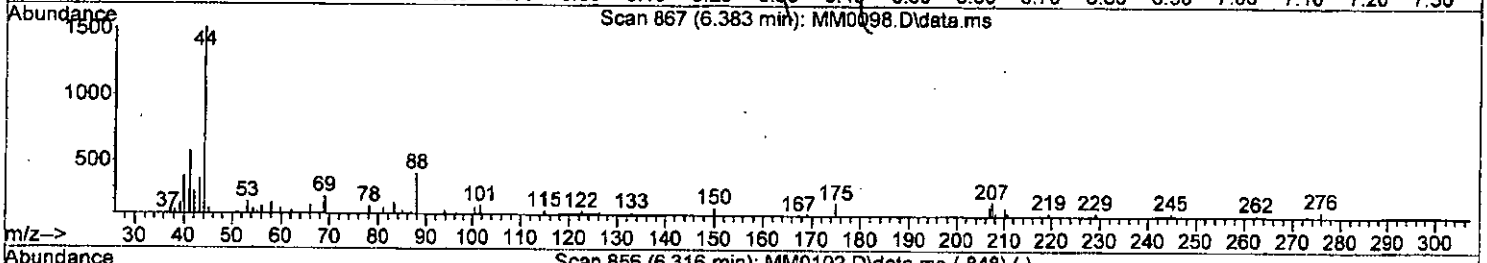
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	47.61#
0.00	0.00	0.00
0.00	0.00	0.00

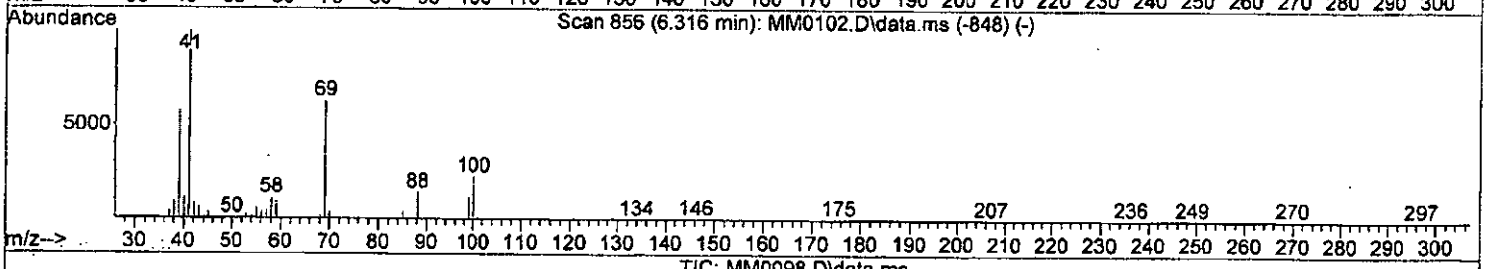
Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(A) SD KR 10/28/14 DL 10/28/14





TIC: MM0098.D\data.ms

(58) 1,4-Dioxane

6.383min (+0.074) 24.42 ppb m

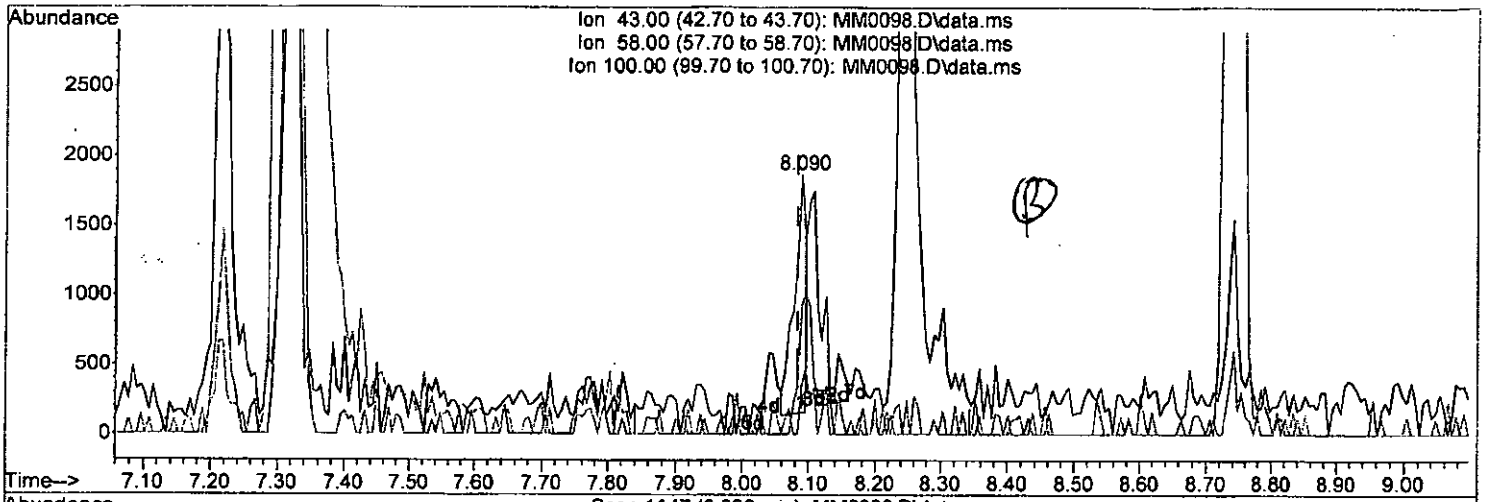
response 1617

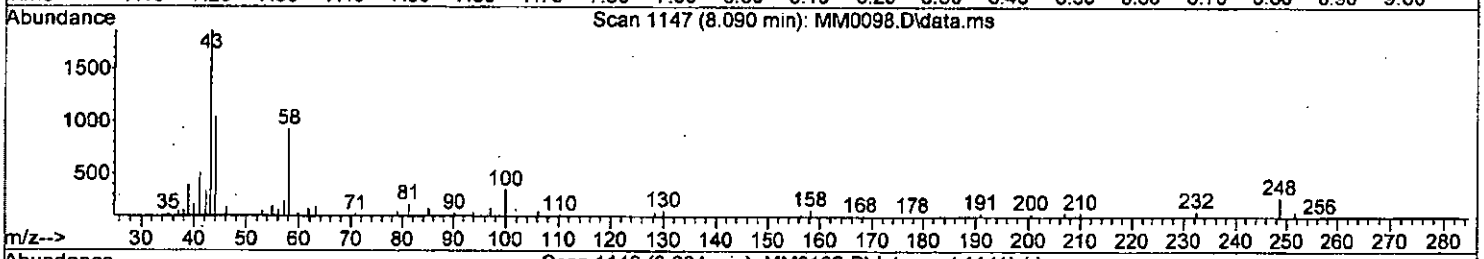
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	44.23#
0.00	0.00	0.00
0.00	0.00	0.00

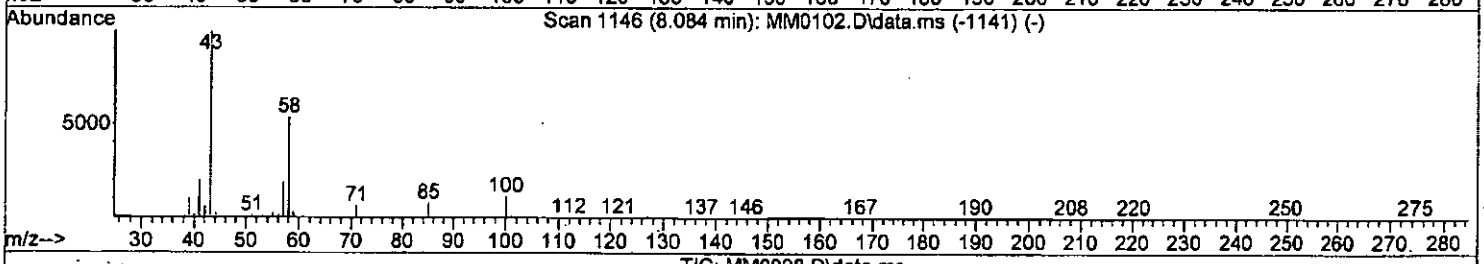
00120

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(73) 2-Hexanone (P)

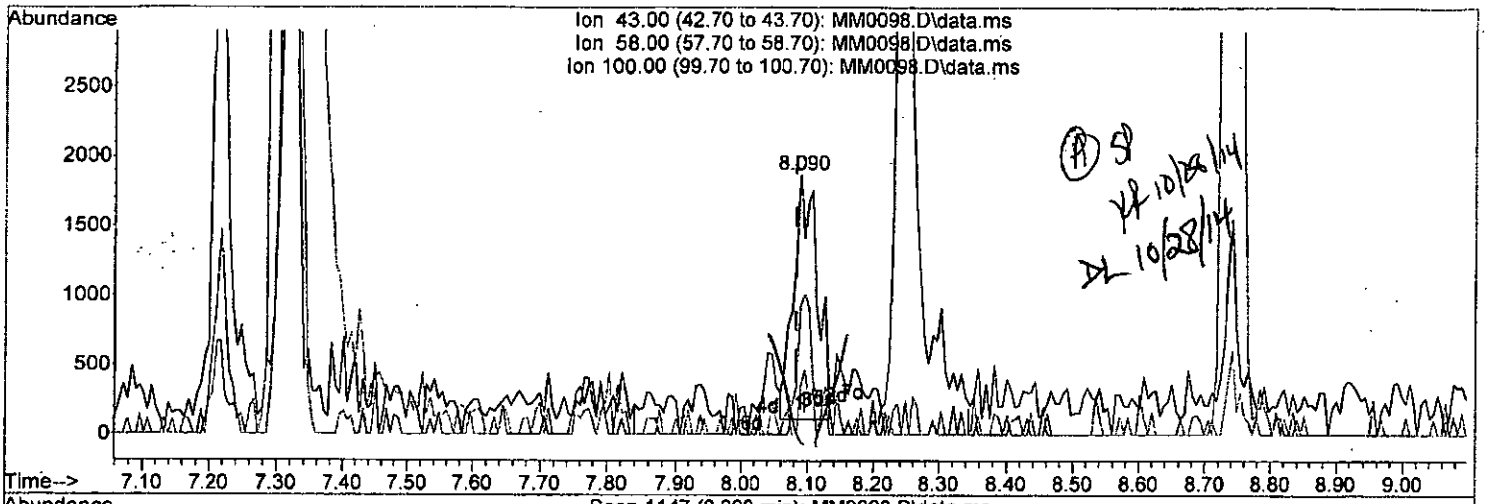
8.090min (+0.006) 0.52 ppb

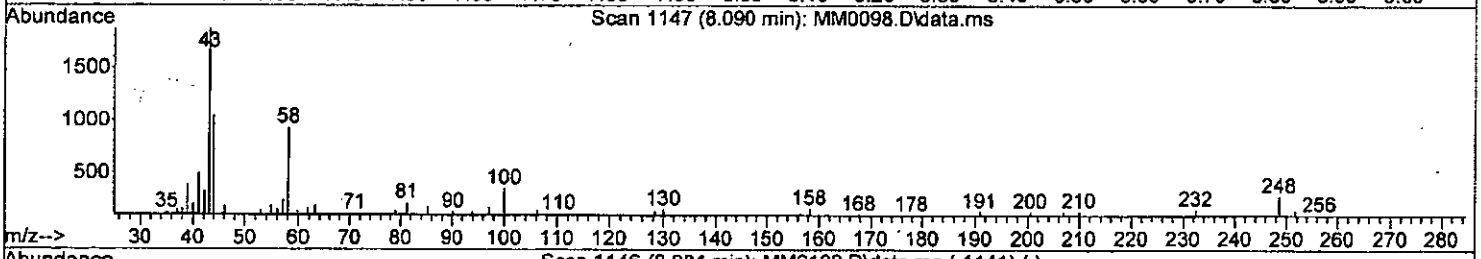
response 2113

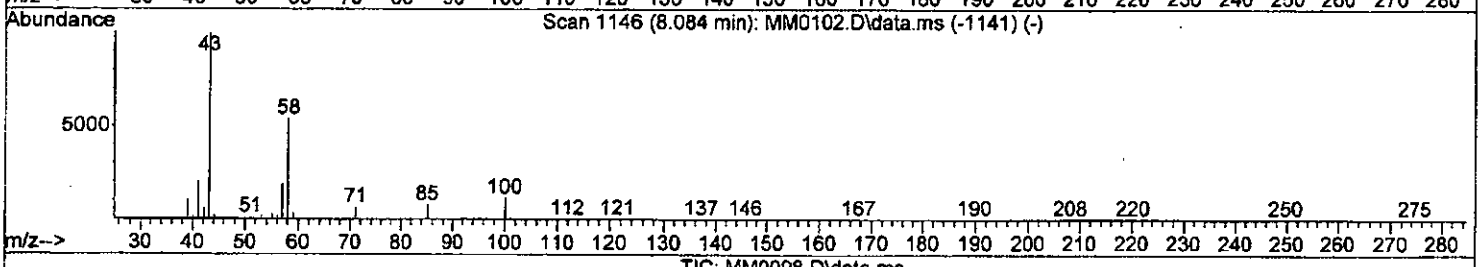
Ion	Exp%	Act%
43.00	100	100
58.00	53.40	49.65
100.00	11.20	18.75
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(73) 2-Hexanone (P)

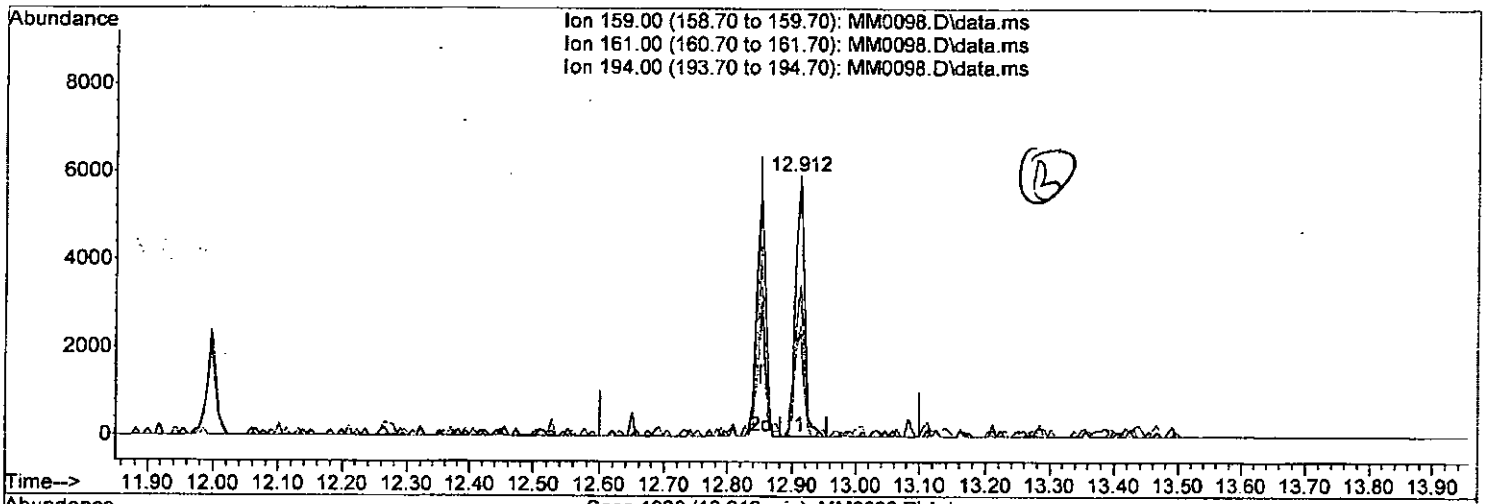
8.090min (+0.006) 1.05 ppb m

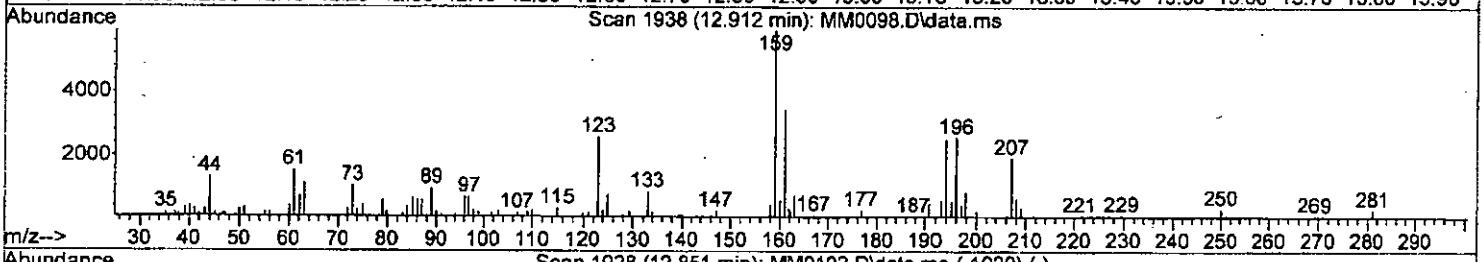
response 4246

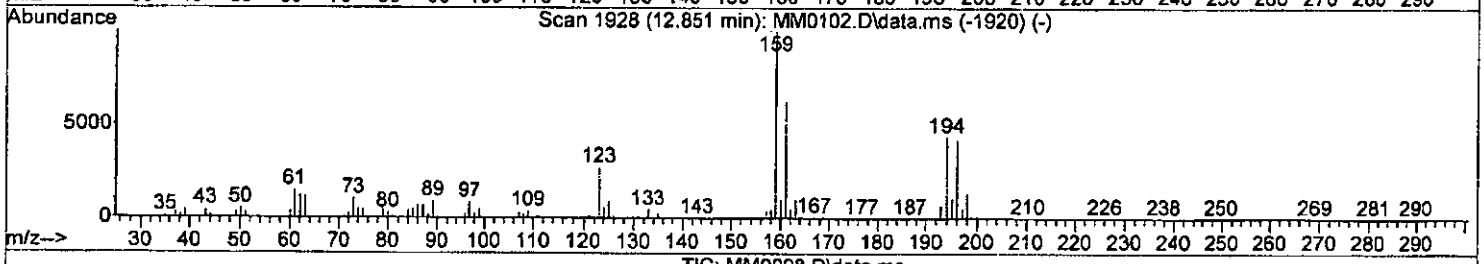
Ion	Exp%	Act%
43.00	100	100
58.00	53.40	49.65
100.00	11.20	18.75
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(119) 2,4,5-Trichlorotolene

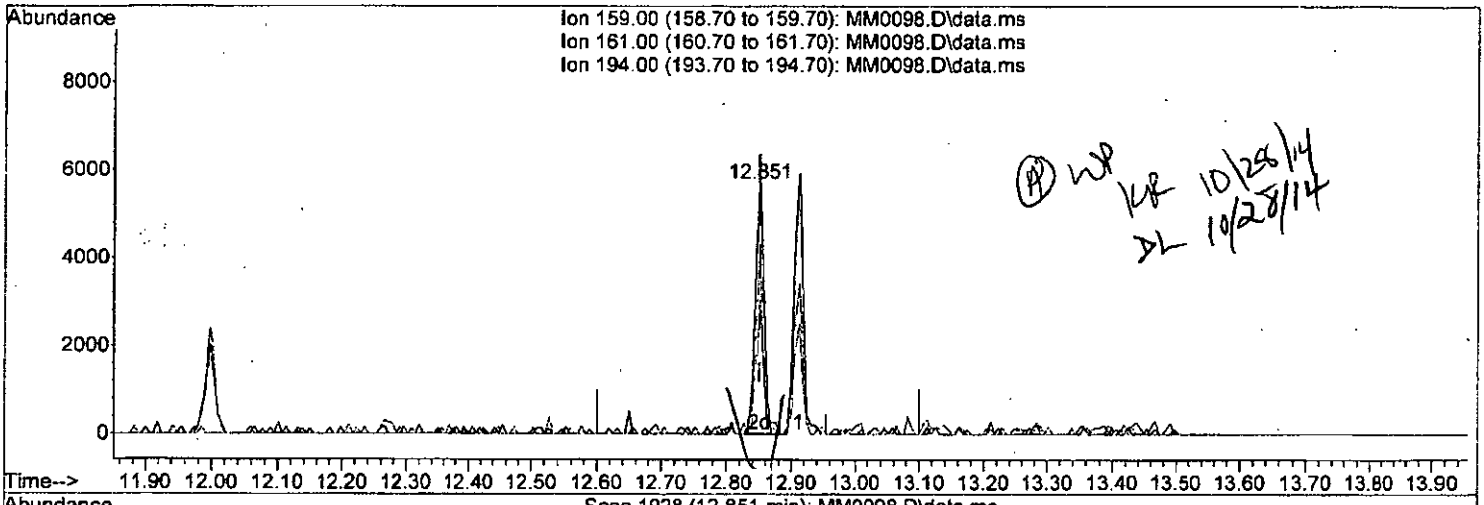
12.912min (+0.061) 1.05 ppb

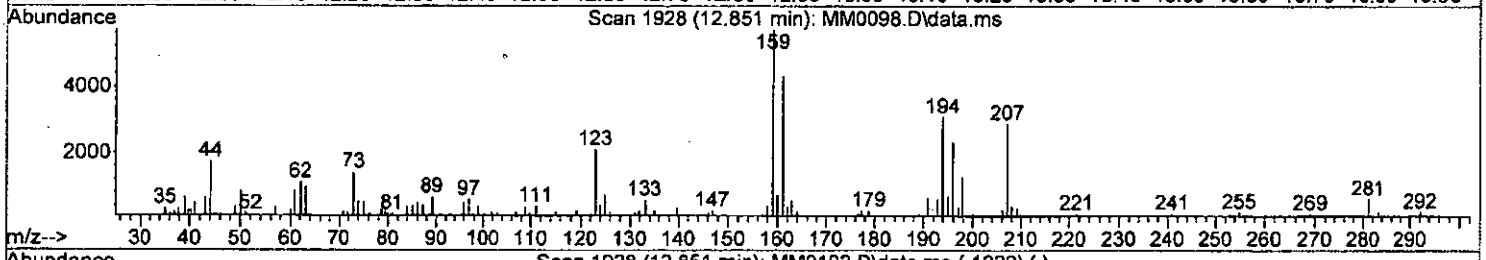
response 5666

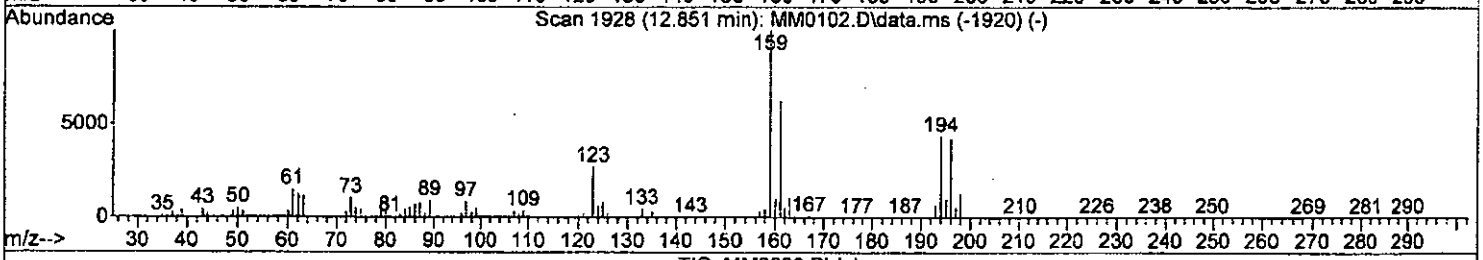
Ion	Exp%	Act%
159.00	100	100
161.00	62.10	58.05
194.00	43.70	42.41
0.00	0.00	0.00

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:30 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0098.D\data.ms

(119) 2,4,5-Trichlorotolene

12.851min (-0.000) 0.97 ppb m

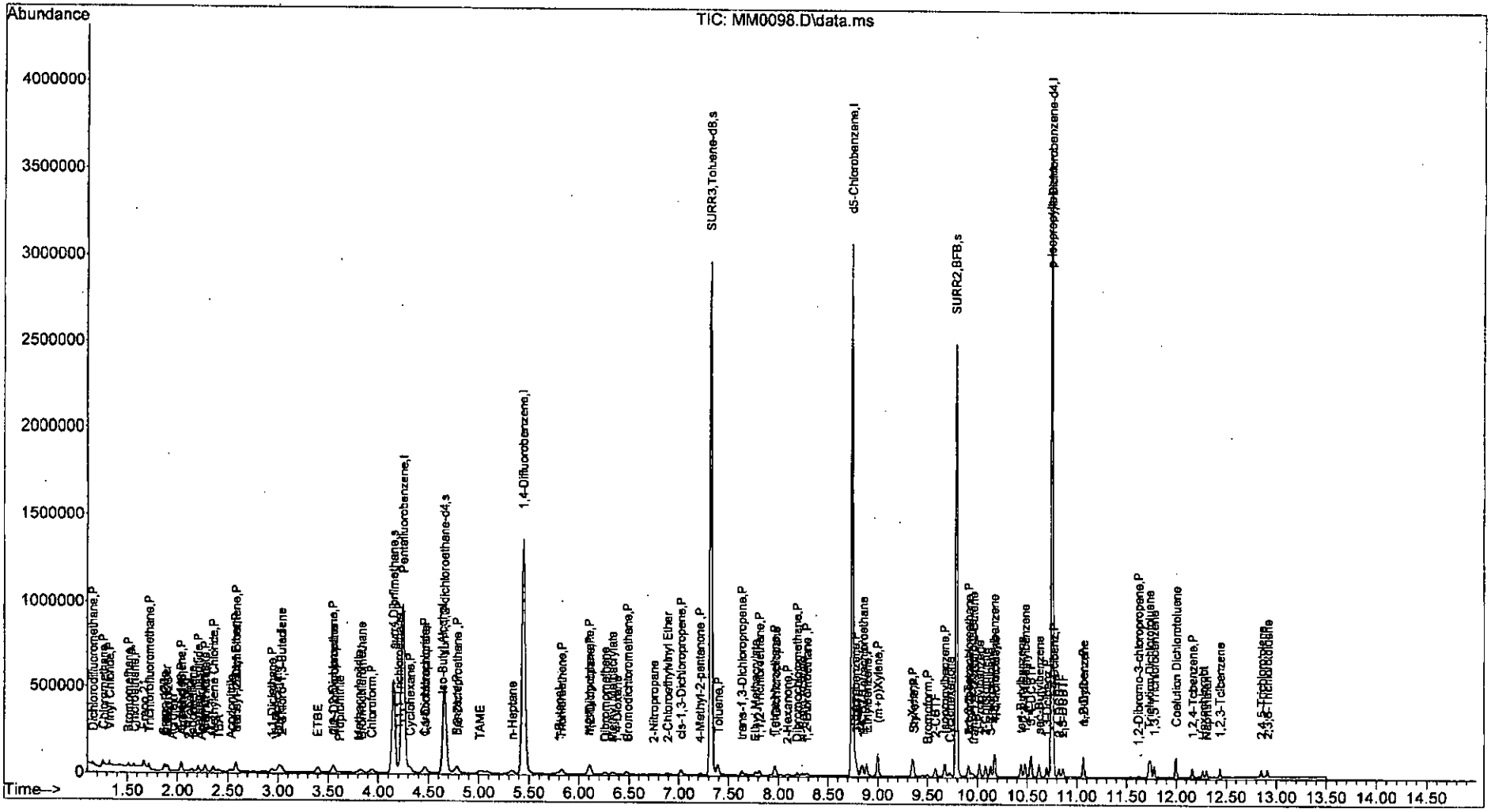
response 5230

Ion	Exp%	Act%
159.00	100	100
161.00	62.10	75.76#
194.00	43.70	53.68#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 1.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0098.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 4:45 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:57:15 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



0125

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:12:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	870593	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1310493	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1222188	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	650686	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	473075	61.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 123.98%#				
48) surr1,1,2-dichloroetha...	4.658	65	581229	62.55	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 125.10%#				
65) SURR3,Toluene-d8	7.322	98	1990755	61.96	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 123.92%#				
70) SURR2,BFB	9.785	95	761099	61.05	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 122.10%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	16186	1.97	ppb		94
3) Chloromethane	1.262	50	21819	1.94	ppb		99
4) Vinyl Chloride	1.323	62	22715	1.90	ppb		99
5) Bromomethane	1.512	94	10018	1.74	ppb		86
6) Chloroethane	1.567	64	14461	1.95	ppb		88
7) Freon 21	1.664	67	39621	2.14	ppb		97
8) Trichlorofluoromethane	1.719	101	28605	2.02	ppb		97
9) Diethyl Ether	1.878	59	12302	1.90	ppb		93
10) Freon 123a	1.865	67	21806	2.14	ppb		99
11) Freon 123	1.902	83	21963	2.03	ppb		94
12) Acrolein	1.957	56	3642m	10.28	ppb		
13) 1,1-Diclethene	2.042	96	14389	1.91	ppb		98
14) Freon 113	2.036	101	14857	1.93	ppb		88
15) Acetone	2.048	43	3817m	2.05	ppb		
16) 2-Propanol	2.115	45	14120	38.61	ppb		81
17) Iodomethane	2.146	142	20019	1.84	ppb		95
18) Carbon Disulfide	2.207	76	49159	1.94	ppb		99
19) Acetonitrile	2.225	40	3140	10.71	ppb	#	81
20) Allyl Chloride	2.280	76	8486	2.00	ppb		92
21) Methyl Acetate	2.274	43	8040	1.89	ppb		88
22) Methylene Chloride	2.353	84	16405	2.00	ppb		96
23) TBA	2.408	59	24535	40.53	ppb		96
24) Acrylonitrile	2.524	53	17742	8.96	ppb		86
25) Methyl-t-Butyl Ether	2.579	73	39970	1.90	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	15914	1.96	ppb		92
28) 1,1-Diclethane	2.938	63	30224	2.01	ppb		96
29) Vinyl Acetate	2.981	86	2360	1.72	ppb	#	71
30) DIPE	3.012	45	62520	2.06	ppb		88
31) 2-Chloro-1,3-Butadiene	3.042	53	26378	1.90	ppb		97
32) ETBE	3.402	59	53176	2.03	ppb		89
33) 2,2-Dichloropropane	3.554	77	25131	1.89	ppb		92
34) cis-1,2-Dichloroethene	3.548	96	17640	2.00	ppb		88
35) 2-Butanone	3.554	43	5154	2.00	ppb		91
36) Propionitrile	3.597	54	7010	9.85	ppb		81
37) Bromochloromethane	3.835	130	9561	1.92	ppb	#	89

KR 10/28/14

00126

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:12:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.804	67	5013m	2.28	ppb		
39) Tetrahydrofuran	3.914	42	3734	2.11	ppb		94
40) Chloroform	3.938	83	30918	2.04	ppb		97
41) 1,1,1-Trichloroethane	4.206	97	27515	2.03	ppb	#	38
42) TAME	5.017	73	43658	1.98	ppb		98
44) Cyclohexane	4.304	41	19281	2.00	ppb		93
46) Carbontetrachloride	4.469	121	6555m	1.92	ppb		
47) 1,1-Dichloropropene	4.462	75	22710	1.98	ppb		94
49) Benzene	4.779	78	67129	2.00	ppb		95
50) 1,2-Dichloroethane	4.786	62	21952	1.94	ppb		93
51) Iso-Butyl Alcohol	4.639	43	8544	33.24	ppb		90
52) n-Heptane	5.334	43	20156	1.86	ppb		88
53) 1-Butanol	5.773	56	16346m	98.32	ppb		
54) Trichloroethene	5.828	130	16457	1.87	ppb		94
55) Methylcyclohexane	6.102	55	22475	2.00	ppb		93
56) 1,2-Diclpropane	6.109	63	17716	2.01	ppb		91
57) Dibromomethane	6.261	93	8398	2.02	ppb		94
58) 1,4-Dioxane	6.310	88	3059m	46.24	ppb		
59) Methyl Methacrylate	6.334	69	7414	1.83	ppb		94
60) Bromodichloromethane	6.474	83	19862	1.91	ppb		97
61) 2-Nitropropane	6.749	41	5394m	3.88	ppb		
62) 2-Chloroethylvinyl Ether	6.883	63	7670	1.87	ppb		90
63) cis-1,3-Dichloropropene	7.023	75	25035	1.93	ppb		95
64) 4-Methyl-2-pentanone	7.218	43	10800	1.80	ppb		86
66) Toluene	7.395	91	71185	1.97	ppb		94
67) trans-1,3-Dichloropropene	7.633	75	21271	1.92	ppb		93
68) Ethyl Methacrylate	7.767	69	15968	1.87	ppb		94
69) 1,1,2-Trichloroethane	7.809	97	11997	1.97	ppb		97
72) Tetrachloroethene	7.962	164	12824	1.82	ppb		91
73) 2-Hexanone	8.090	43	7803m	1.92	ppb		
74) 1,3-Dichloropropane	7.974	76	21073	1.92	ppb		91
75) Dibromochloromethane	8.193	129	12506	1.90	ppb		93
76) N-Butyl Acetate	8.242	43	20680m	1.98	ppb		
77) 1,2-Dibromoethane	8.285	107	10639	1.85	ppb		93
78) Chlorobenzene	8.767	112	45557	1.92	ppb		97
79) 3-CBTF	8.785	180	23916	1.84	ppb		98
80) 4-CBTF	8.840	180	22229	1.92	ppb		93
81) 1,1,1,2-Tetrachloroethane	8.846	131	14349	1.84	ppb		94
82) Ethylbenzene	8.888	106	23199	1.82	ppb	#	88
83) (m+p)Xylene	8.998	106	57409	3.72	ppb		93
84) o-Xylene	9.346	106	28116	1.81	ppb		95
85) Styrene	9.358	104	45407	1.77	ppb		98
87) Bromoform	9.492	173	5827	1.80	ppb		83
88) 2-CBTF	9.577	180	24049	2.10	ppb		91
89) Isopropylbenzene	9.669	105	69911	2.01	ppb		97
90) Cyclohexanone	9.724	55	15564	40.79	ppb		87
91) trans-1,4-Dichloro-2-B...	9.961	53	4291	2.06	ppb		79
92) 1,1,2,2-Tetrachloroethane	9.913	83	13930	2.06	ppb		92
93) Bromobenzene	9.913	156	18467	2.02	ppb	#	82
94) 1,2,3-Trichloropropane	9.943	110	3799	1.85	ppb	#	70
95) n-Propylbenzene	10.022	91	82972	2.06	ppb		99
96) 2-Chlorotoluene	10.083	91	48086	1.97	ppb		98

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:12:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

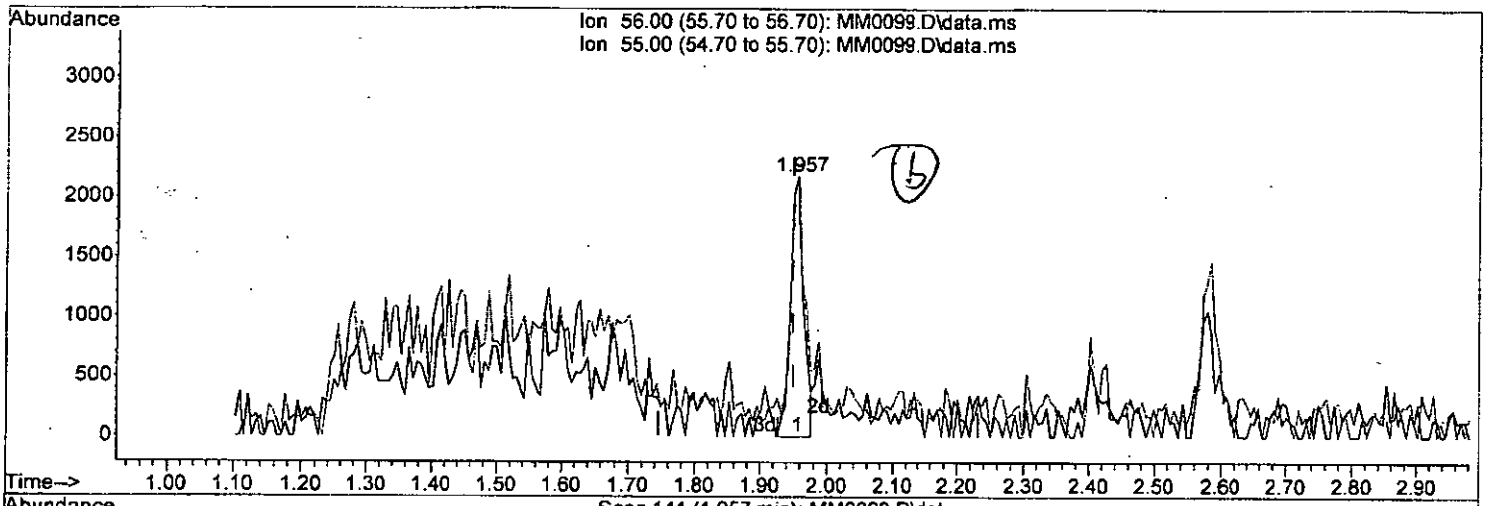
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	53165	2.05	ppb		92
98)	4-Chlorotoluene	10.175	91	61484	2.01	ppb		98
99)	1,3,5-Trimethylbenzene	10.169	105	59455	1.97	ppb		96
100)	tert-Butylbenzene	10.437	119	50717	2.09	ppb		98
101)	1,2,4-Trimethylbenzene	10.480	105	58155	1.97	ppb		98
102)	3,4-DCBTF	10.534	214	15396	1.78	ppb		98
103)	sec-Butylbenzene	10.620	105	69936	2.04	ppb		98
104)	p-Isopropyltoluene	10.742	119	60169	2.02	ppb		94
105)	1,3-Dclbenz	10.699	146	35161	2.01	ppb		96
106)	1,4-Dclbenz	10.766	146	35309	1.93	ppb		98
107)	2,4-DCBTF	10.821	214	14584	1.97	ppb		95
108)	2,5-DCBTF	10.864	214	15432	1.84	ppb		92
109)	n-Butylbenzene	11.065	91	50247	1.91	ppb		90
110)	1,2-Dclbenz	11.065	146	31074	1.89	ppb		96
111)	1,2-Dibromo-3-chloropr...	11.626	157	2139	1.88	ppb		92
112)	Trielution Dichlorotol...	11.729	125	80339	5.95	ppb		96
113)	1,3,5 Trichlorobenzene	11.778	180	23227	2.06	ppb		91
114)	Coelution Dichlorotoluene	11.998	125	56580	4.00	ppb		98
115)	1,2,4-Tcbenzene	12.156	180	19405	2.01	ppb		98
116)	Hexachlorobt	12.266	225	7422	1.95	ppb		96
117)	Naphthalen	12.302	128	35217	1.92	ppb		99
118)	1,2,3-Tclbenzene	12.437	180	15826	1.93	ppb		94
119)	2,4,5-Trichlorotolene	12.851	159	11423	2.06	ppb		89
120)	2,3,6-Trichlorotoluene	12.912	159	9239	1.80	ppb	#	86

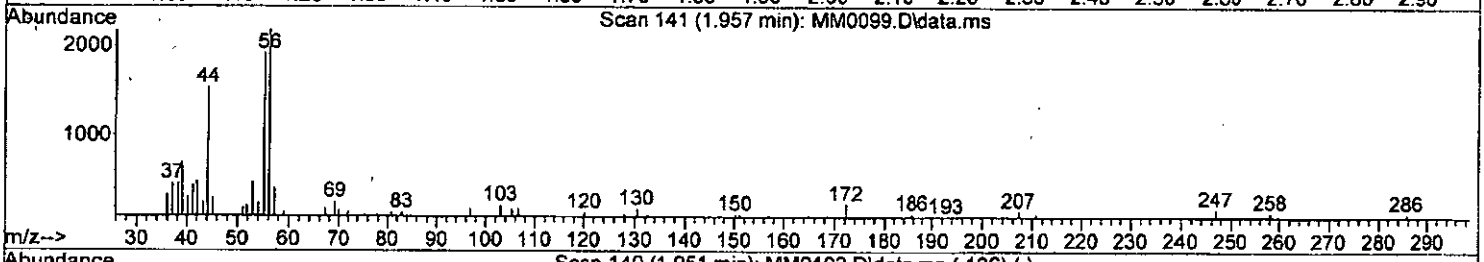
(#) = qualifier out of range (m) = manual integration (+) = signals summed

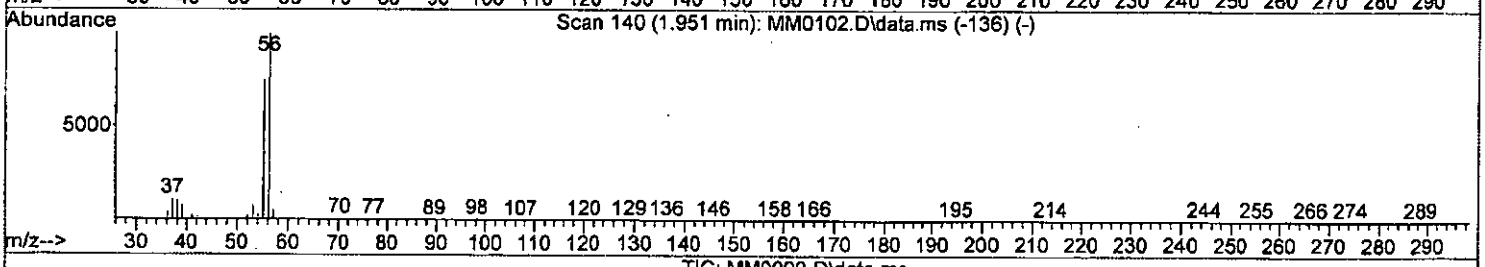
00128

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(12) Acrolein

1.957min (+0.007) 8.14 ppb

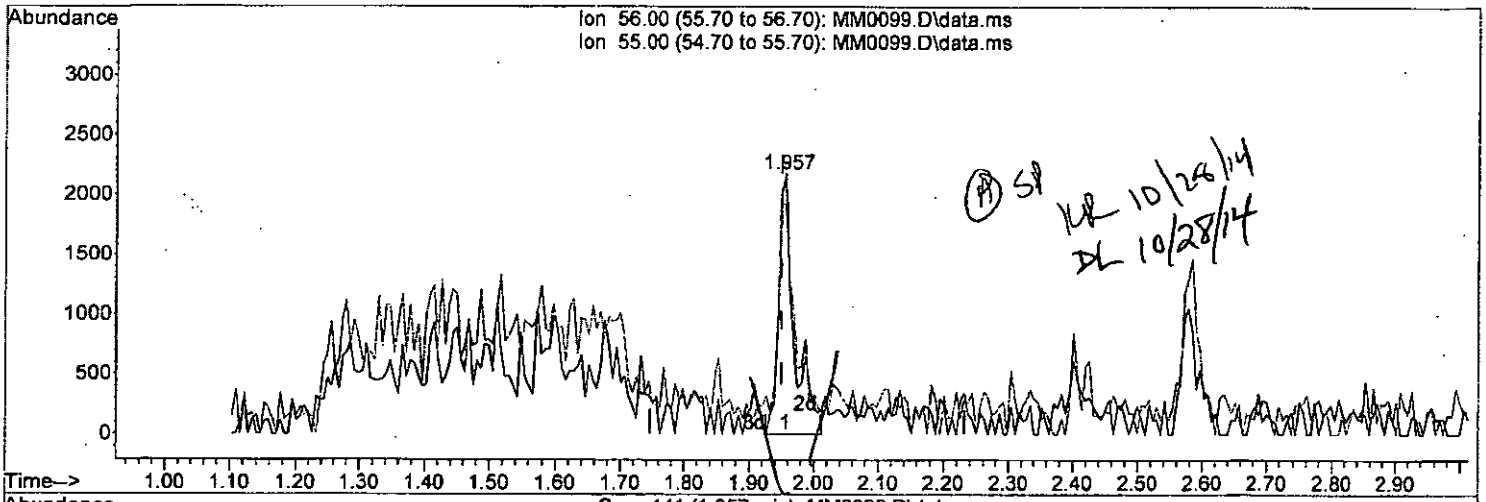
response 2885

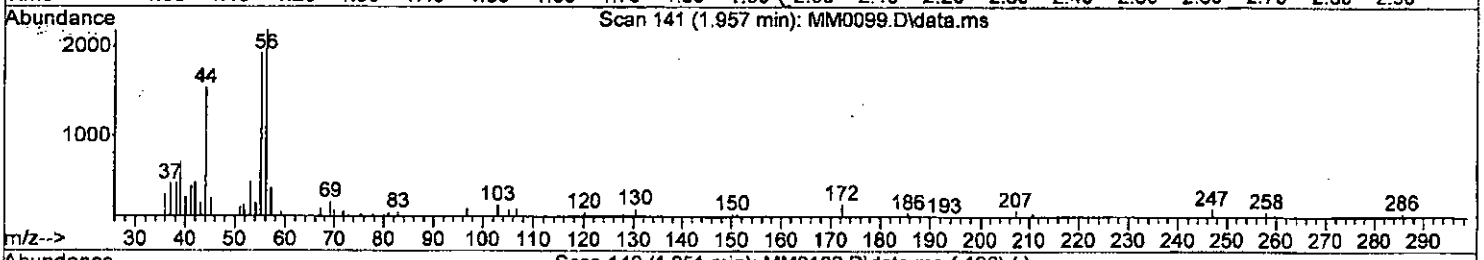
Ion	Exp%	Act%
56.00	100	100
55.00	75.70	88.09
0.00	0.00	0.00
0.00	0.00	0.00

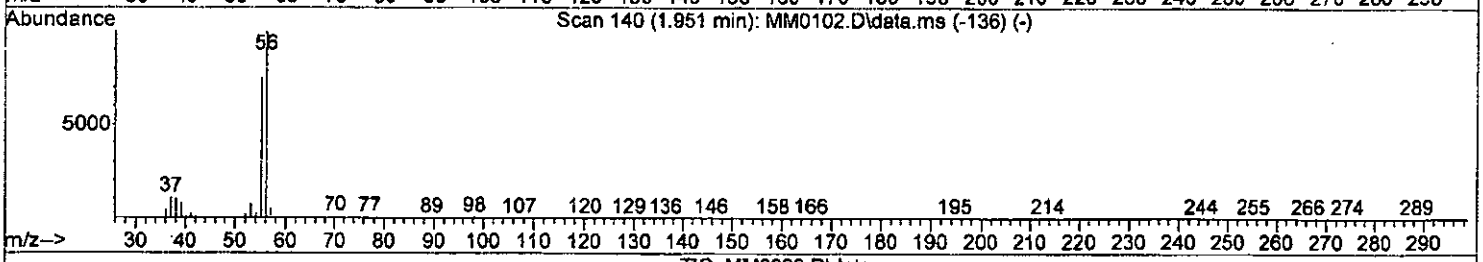
00129

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(12) Acrolein

1.957min (+0.007) 10.28 ppb m

response 3642

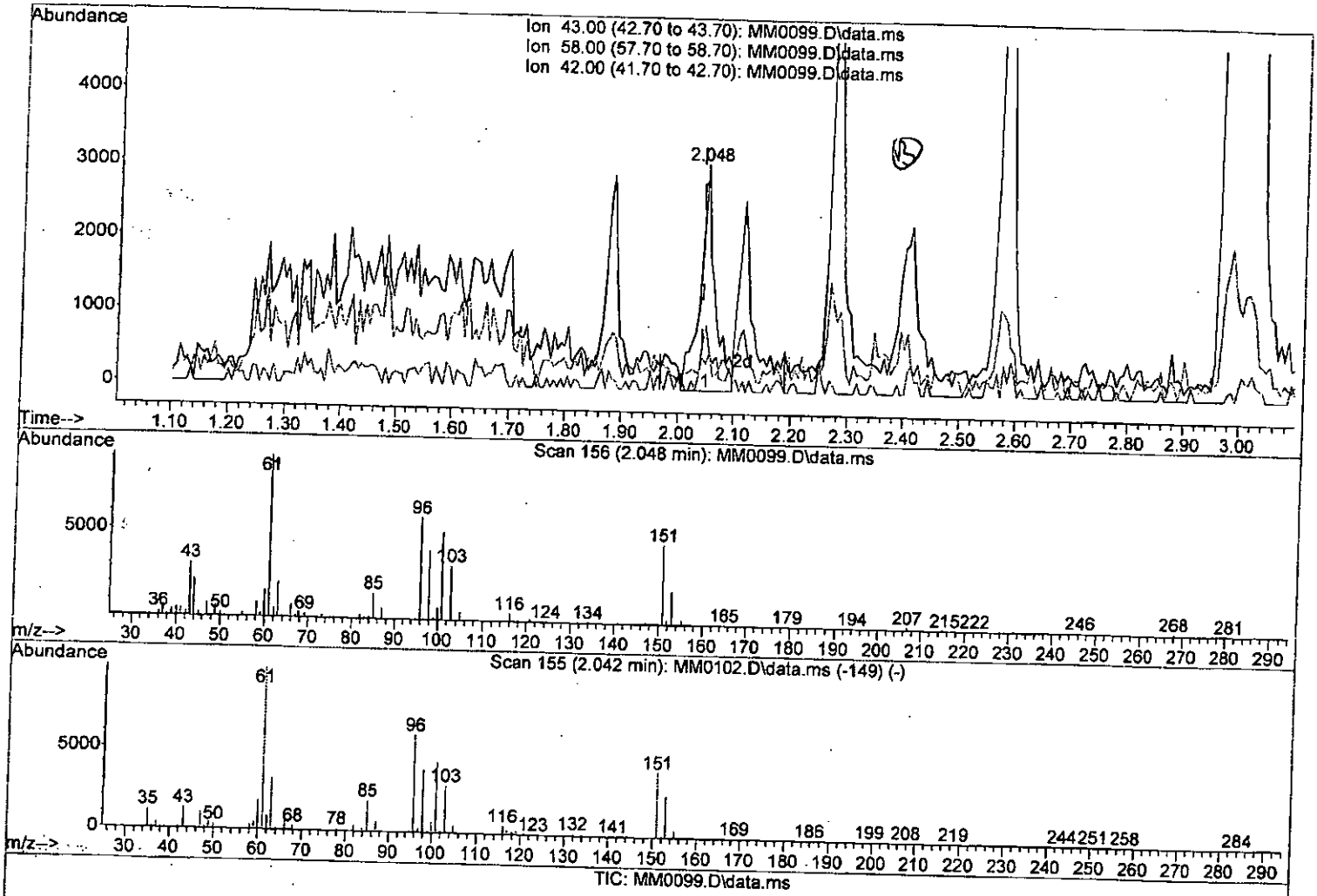
Ion	Exp%	Act%
56.00	100	100
55.00	75.70	88.09
0.00	0.00	0.00
0.00	0.00	0.00

00130

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(15) Acetone (P)

2.048min (+0.006) 3.04 ppb

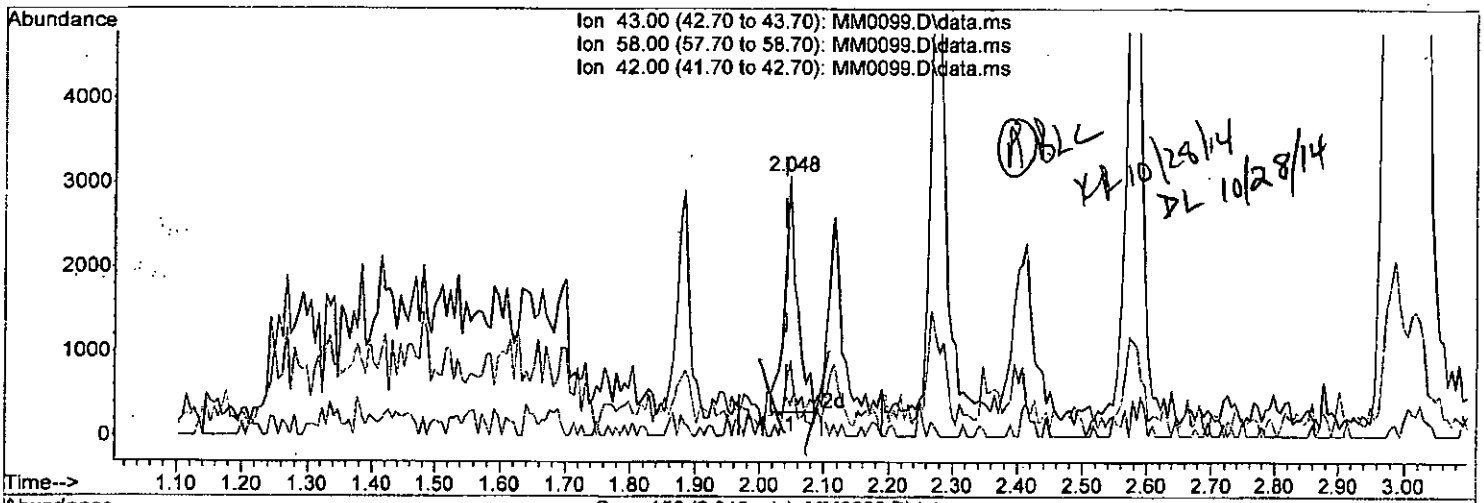
response 5657

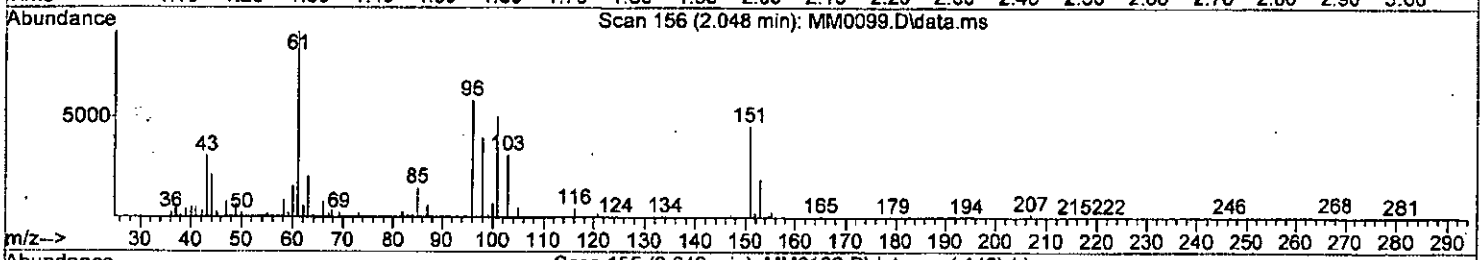
Ion	Exp%	Act%
43.00	100	100
58.00	26.20	28.86
42.00	7.20	11.83
0.00	0.00	0.00

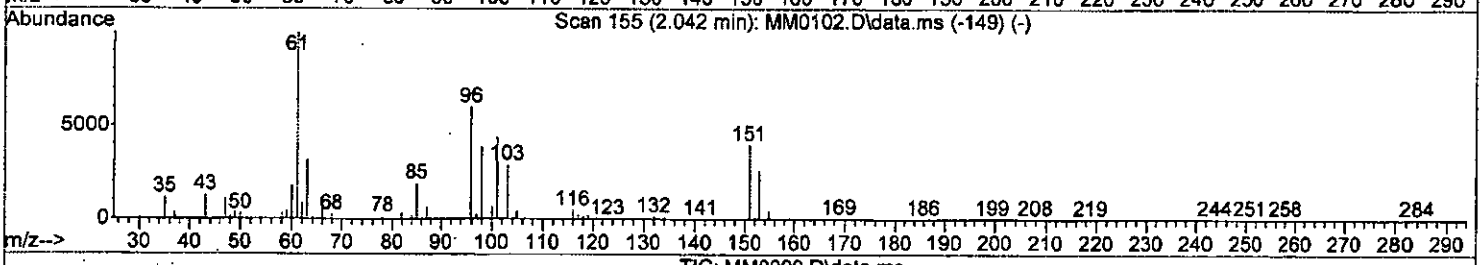
00131

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(15) Acetone (P)

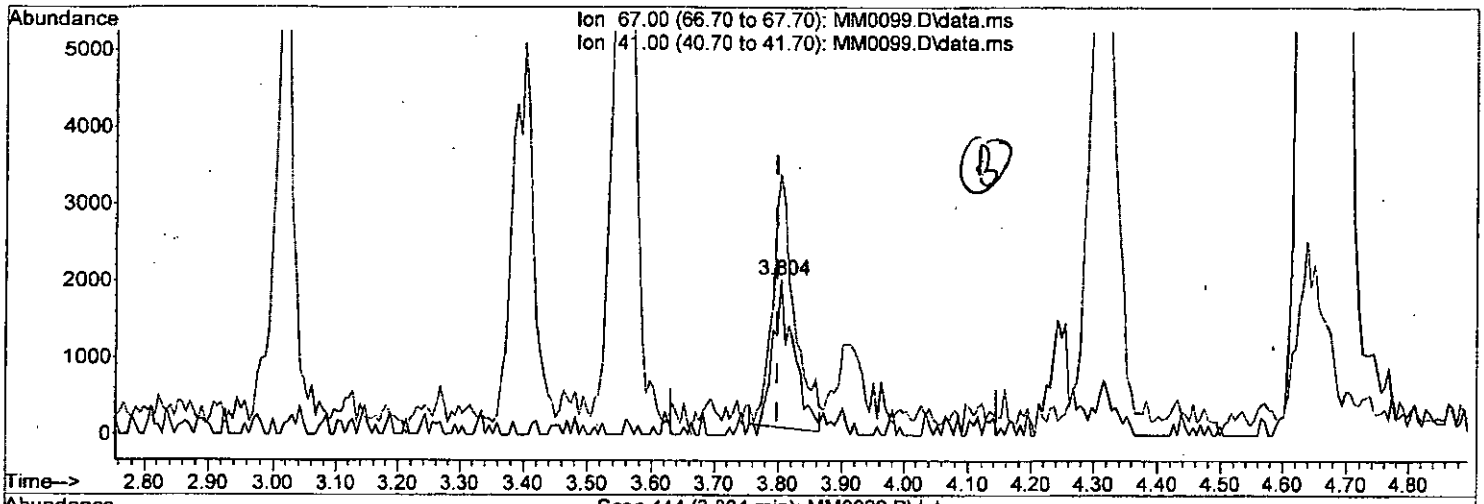
2.048min (+0.006) 2.05 ppb m

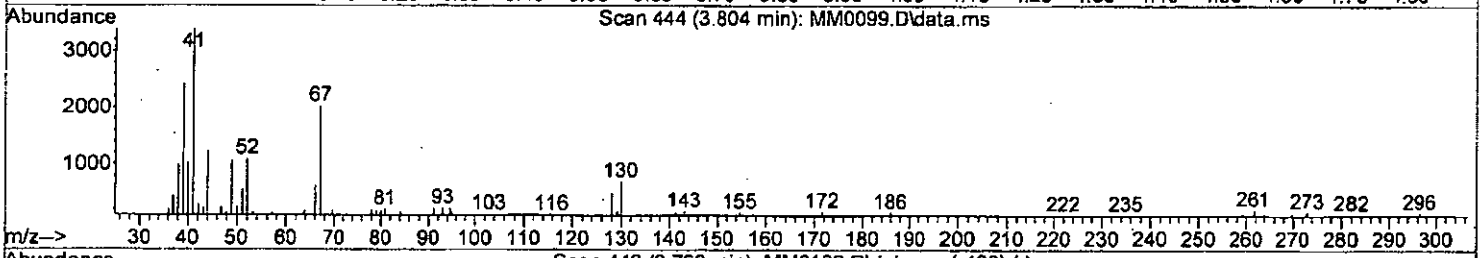
response 3817

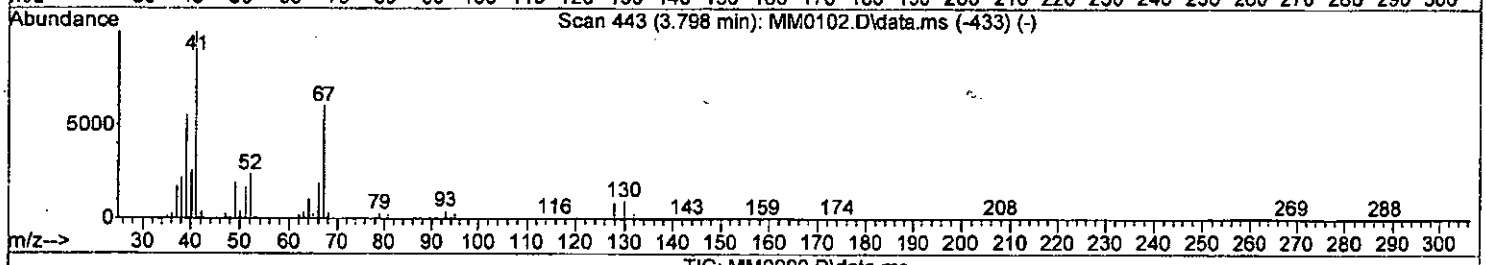
Ion	Exp%	Act%
43.00	100	100
58.00	26.20	28.86
42.00	7.20	11.83
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(38) Methacrylonitrile

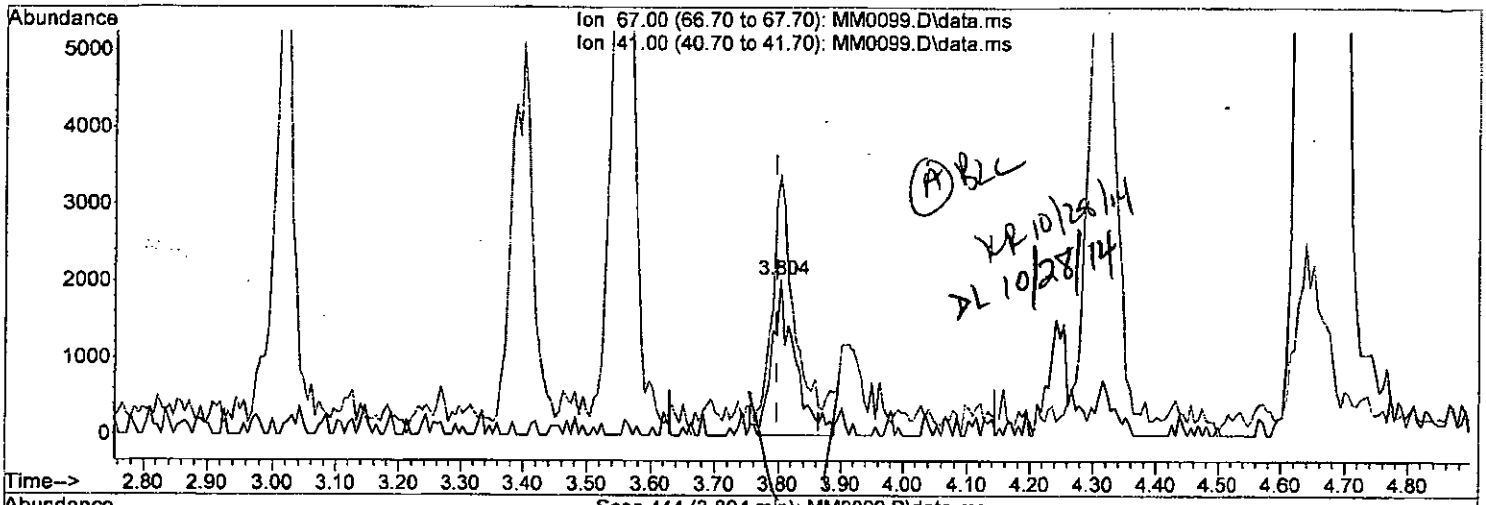
3.804min (+0.006) 1.91 ppb

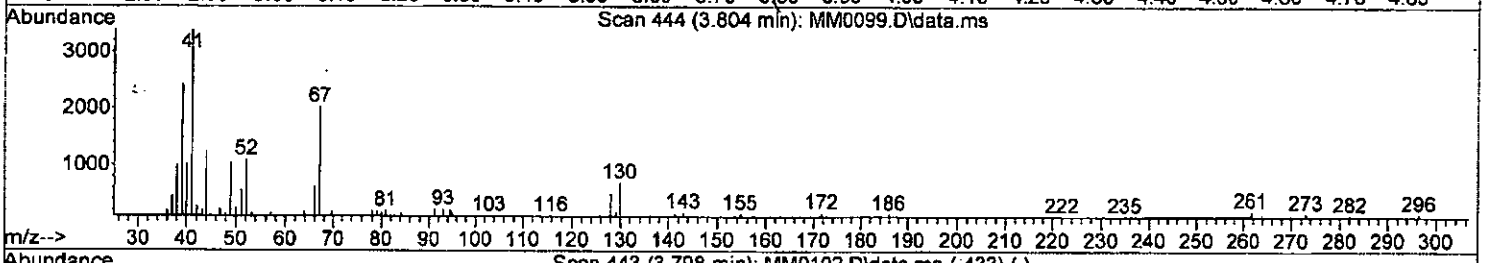
response 4206

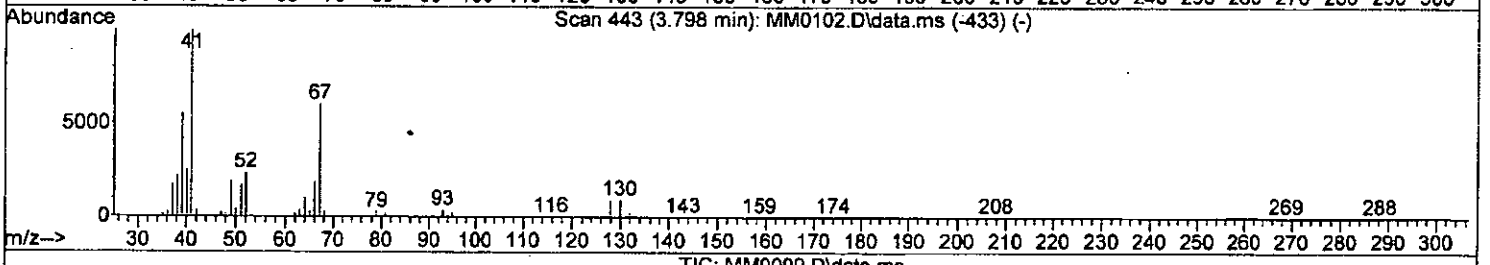
Ion	Exp%	Act%
67.00	100	100
41.00	166.40	167.29
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(38) Methacrylonitrile

3.804min (+0.006) 2.28 ppb m

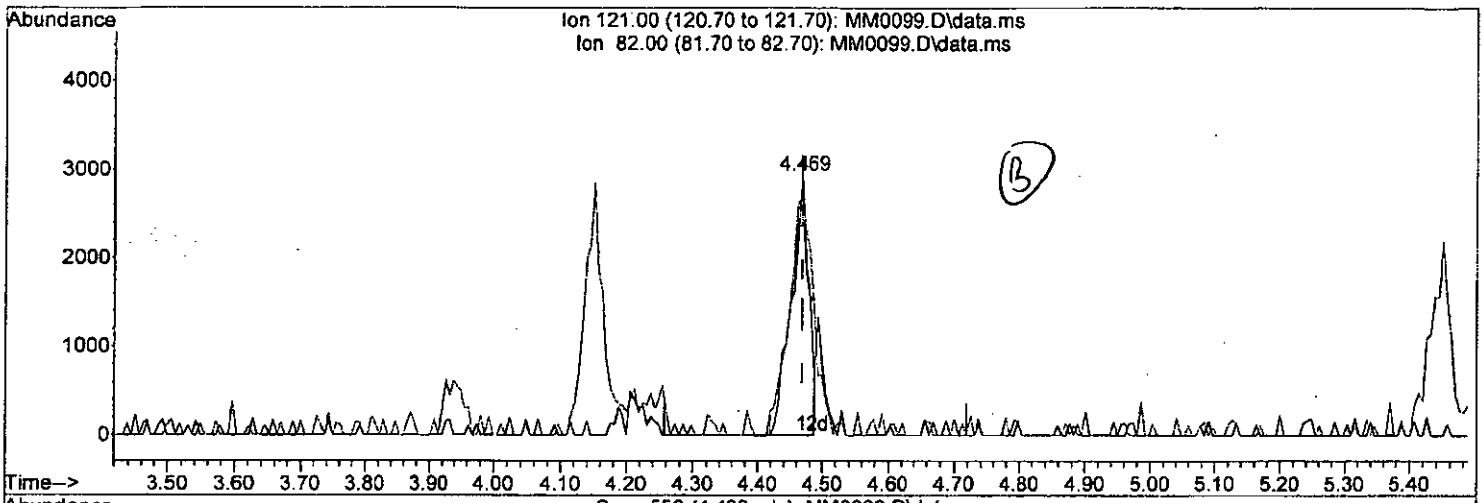
response 5013

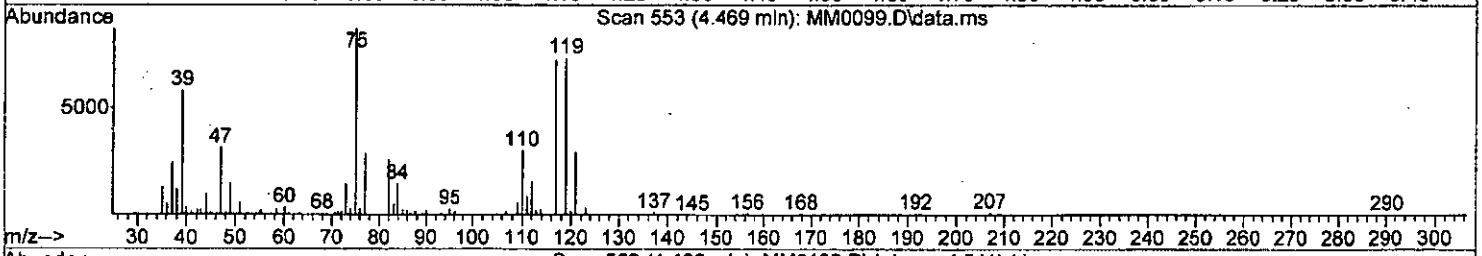
Ion	Exp%	Act%
67.00	100	100
41.00	166.40	167.29
0.00	0.00	0.00
0.00	0.00	0.00

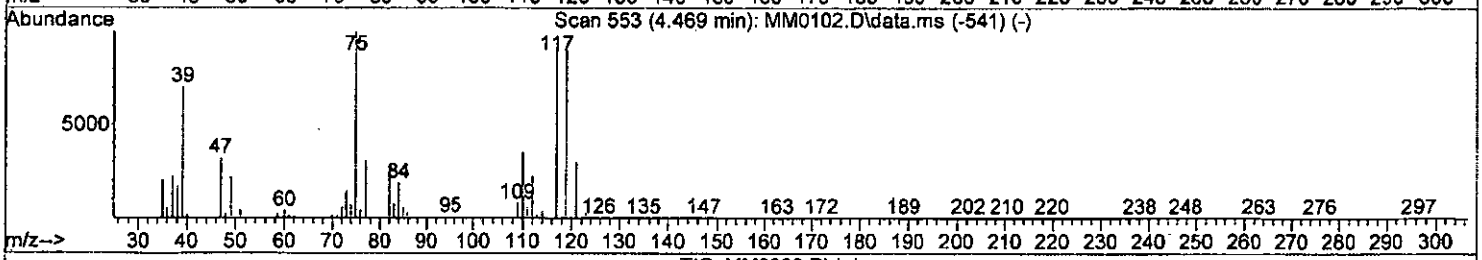
00134

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(46) Carbontetrachloride (P)

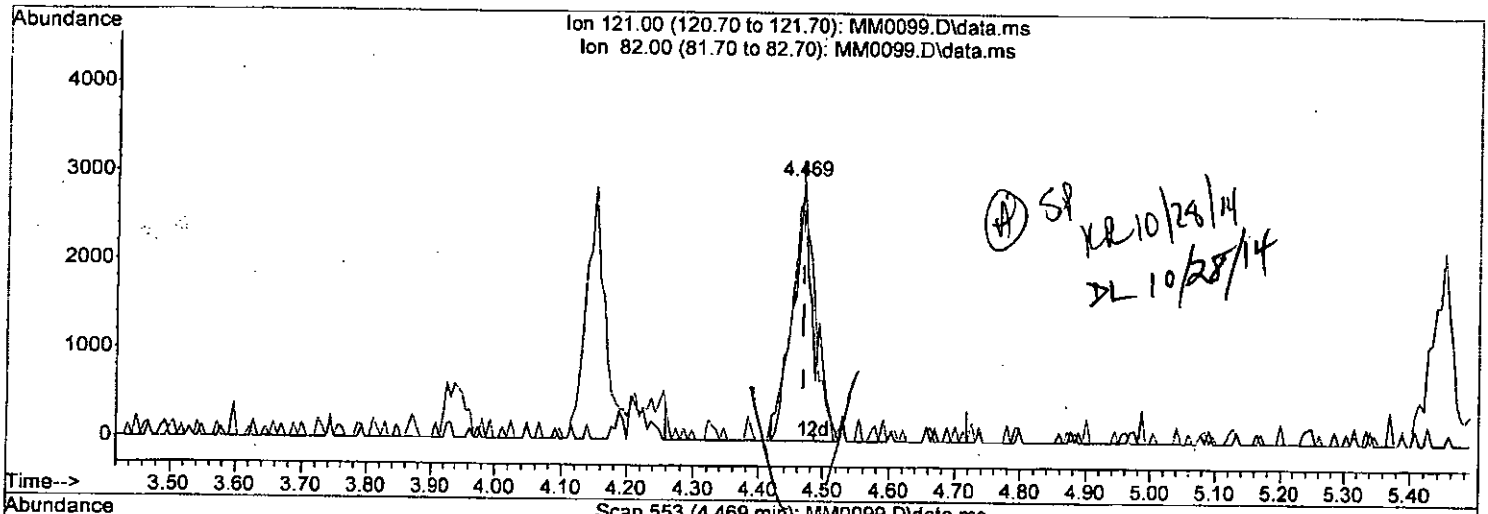
4.469min (-0.000) 1.59 ppb

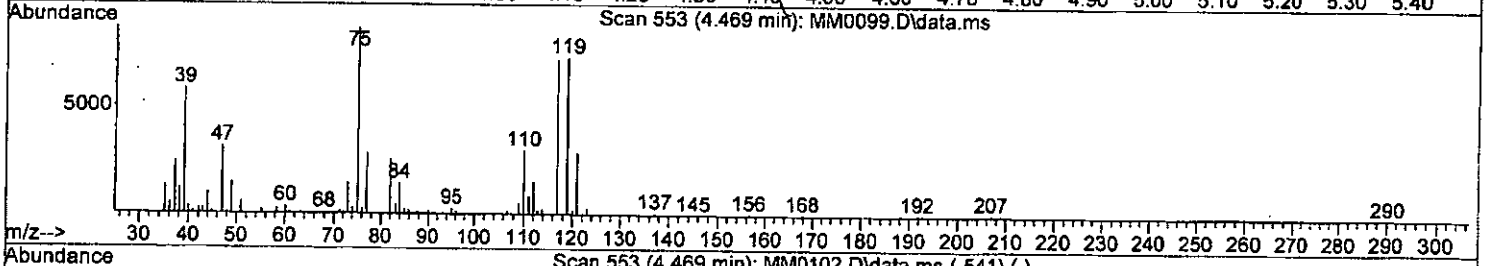
response 5431

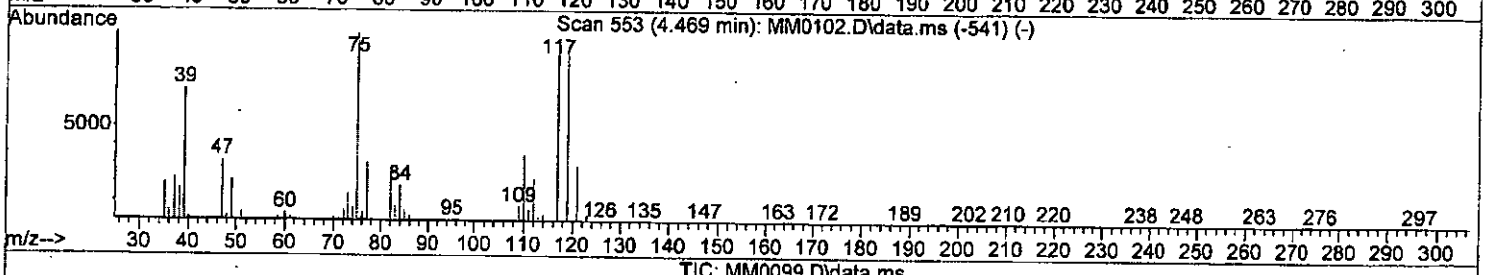
Ion	Exp%	Act%
121.00	100	100
82.00	97.20	87.75
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(46) Carbontetrachloride (P)

4.469min (-0.000) 1.92 ppb m

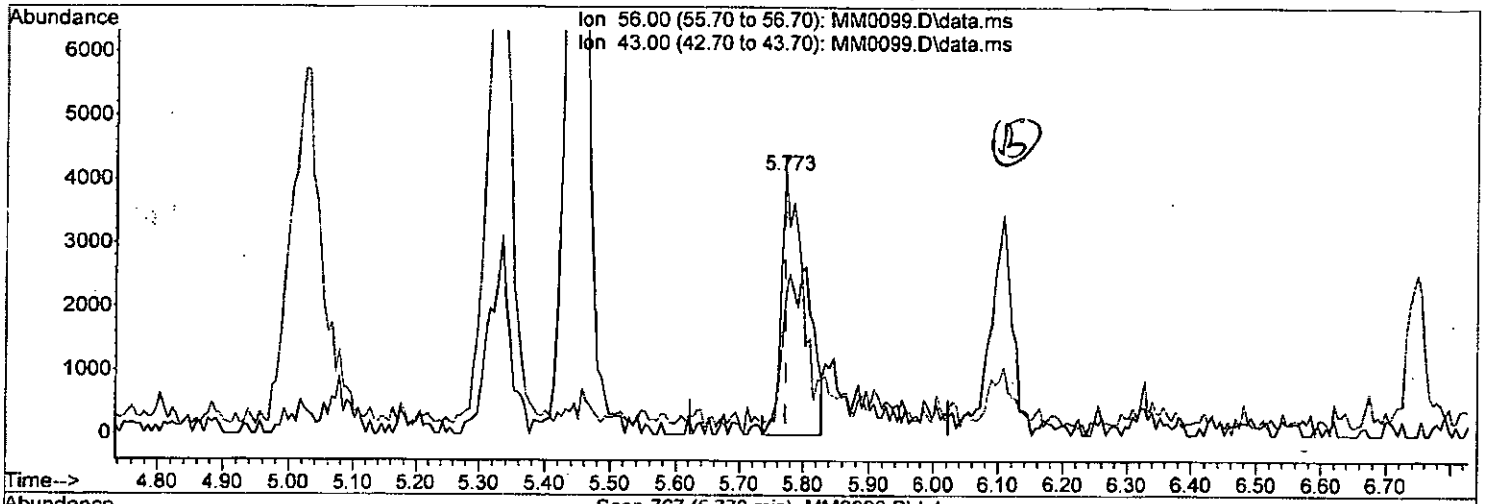
response 6555

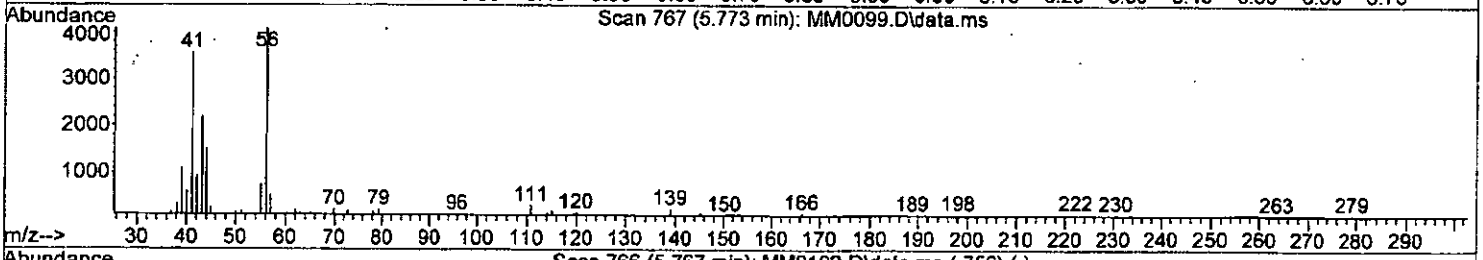
Ion	Exp%	Act%
121.00	100	100
82.00	97.20	87.75
0.00	0.00	0.00
0.00	0.00	0.00

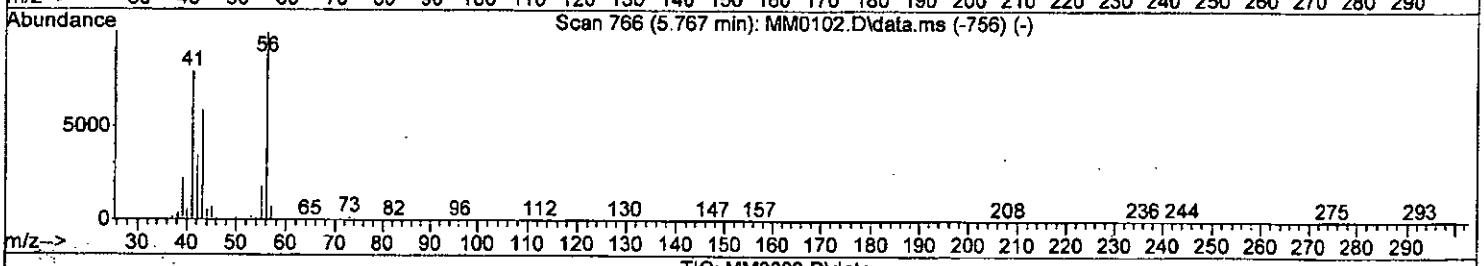
00136

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(53) 1-Butanol

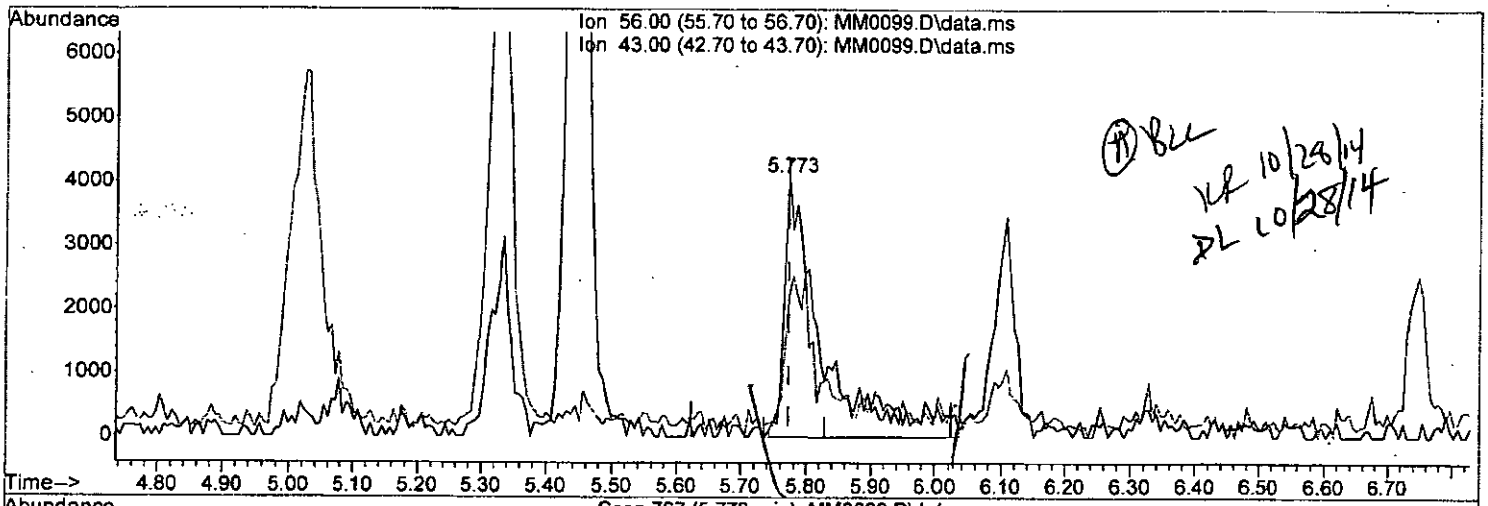
5.773min (+0.000) 64.53 ppb

response 10727

Ion	Exp%	Act%
56.00	100	100
43.00	56.20	55.01
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



TIC: MM0099.D\data.ms

(53) 1-Butanol

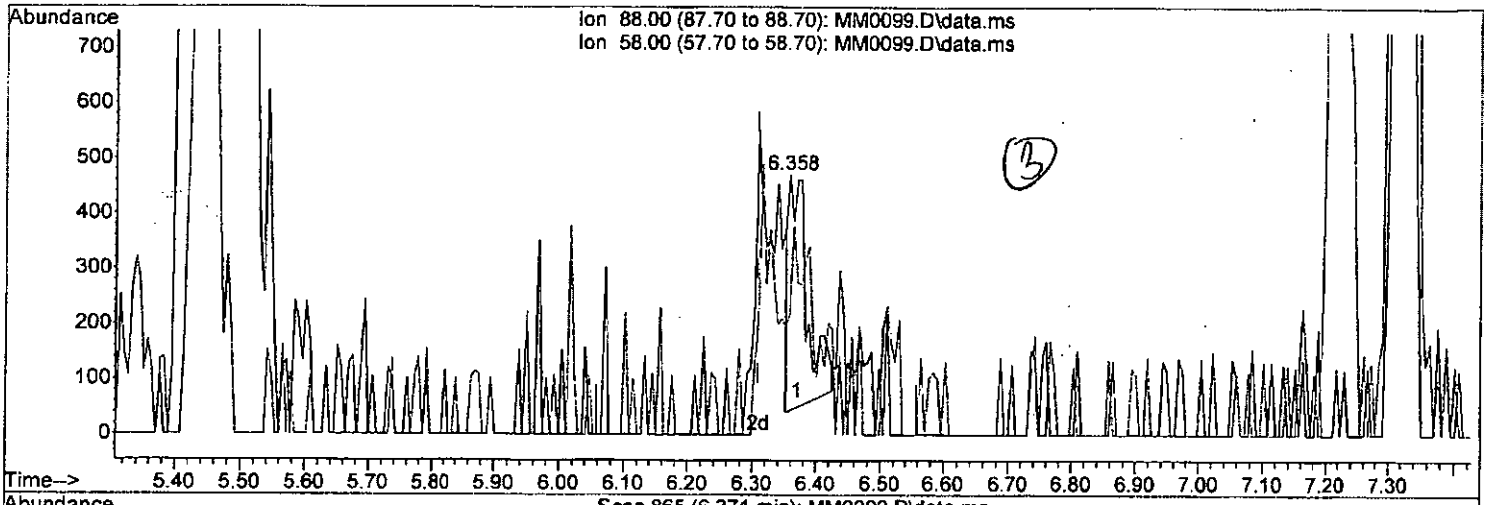
5.773min (+0.000) 98.32 ppb m

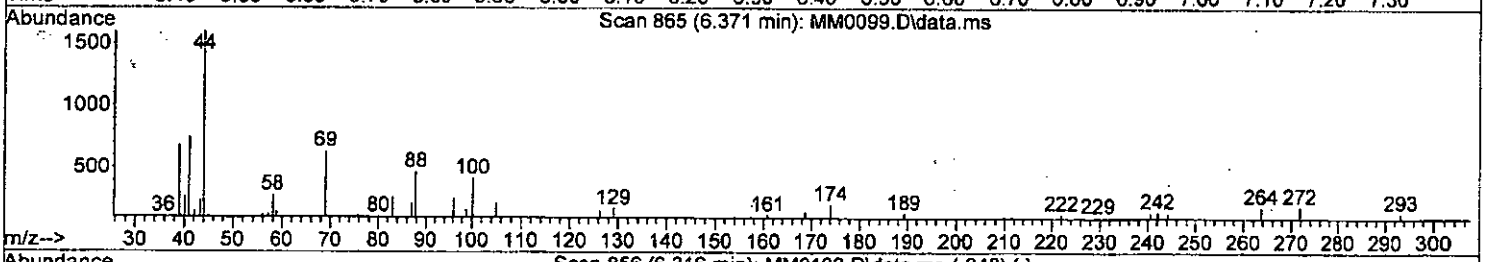
response 16346

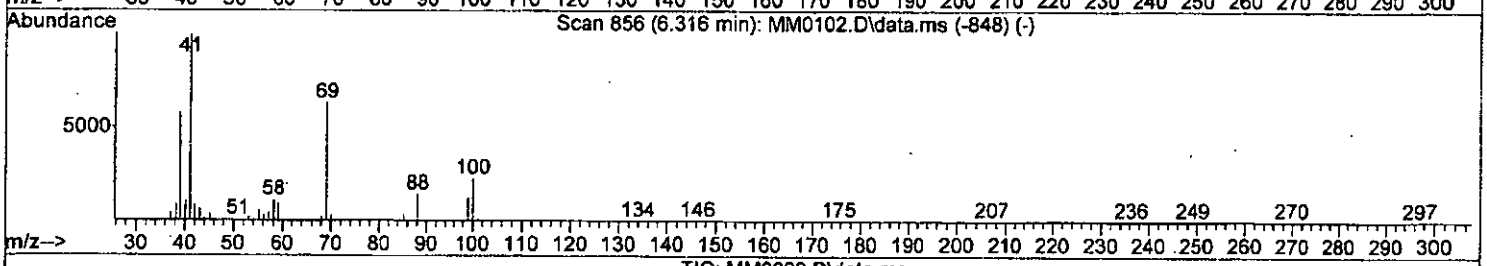
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	36.10#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(58) 1,4-Dioxane

6.371min (+0.062) 12.76 ppb

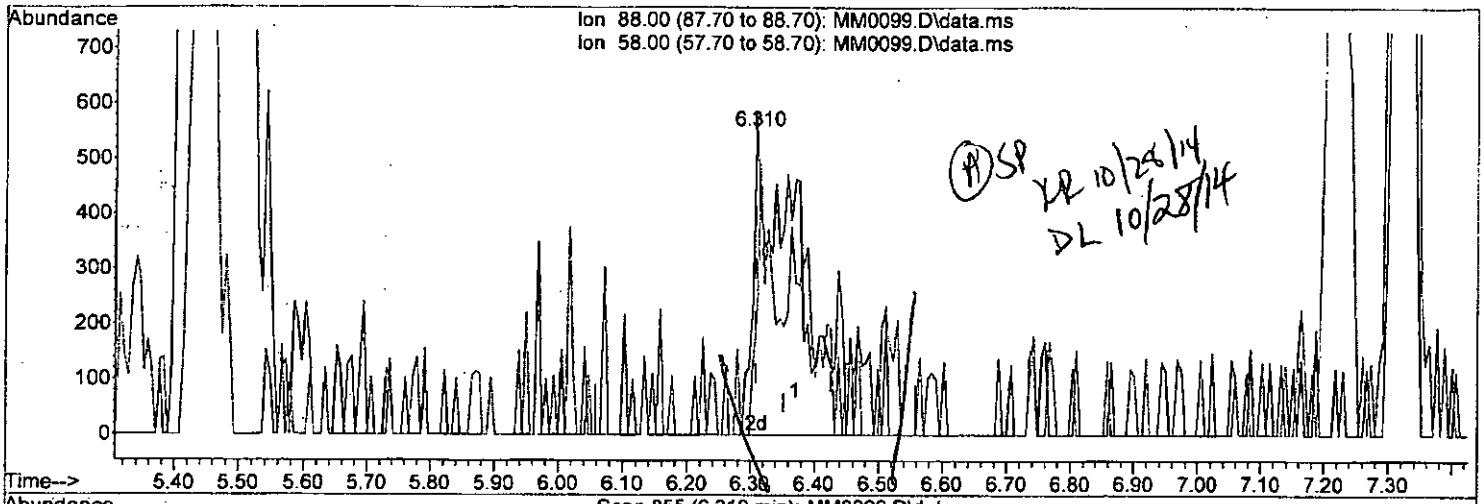
response 844

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	59.74
0.00	0.00	0.00
0.00	0.00	0.00

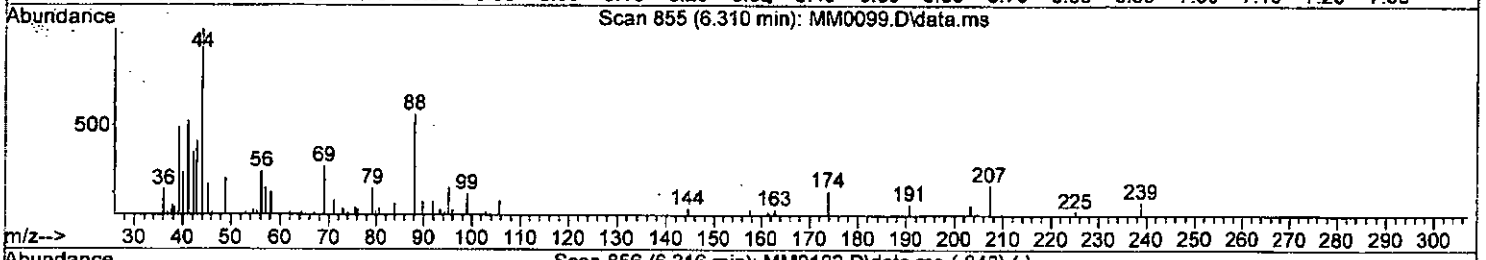
00139

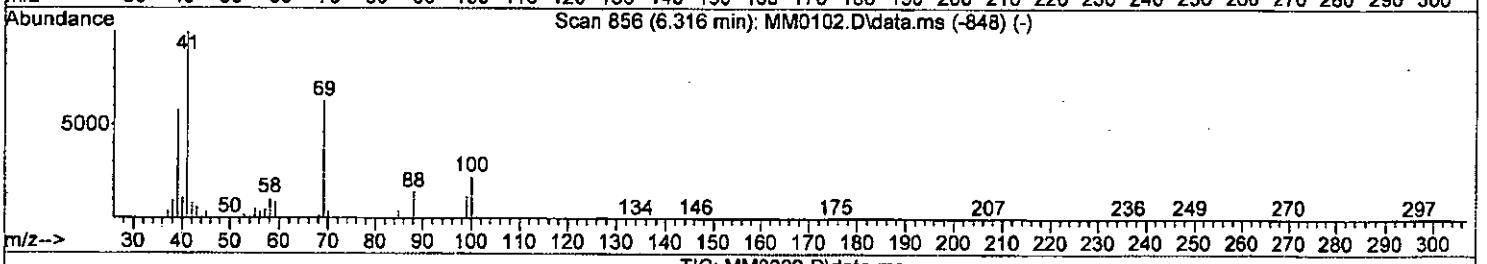
Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(B) SP 10/28/14
DL 10/28/14





TIC: MM0099.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.001) 46.24 ppb m

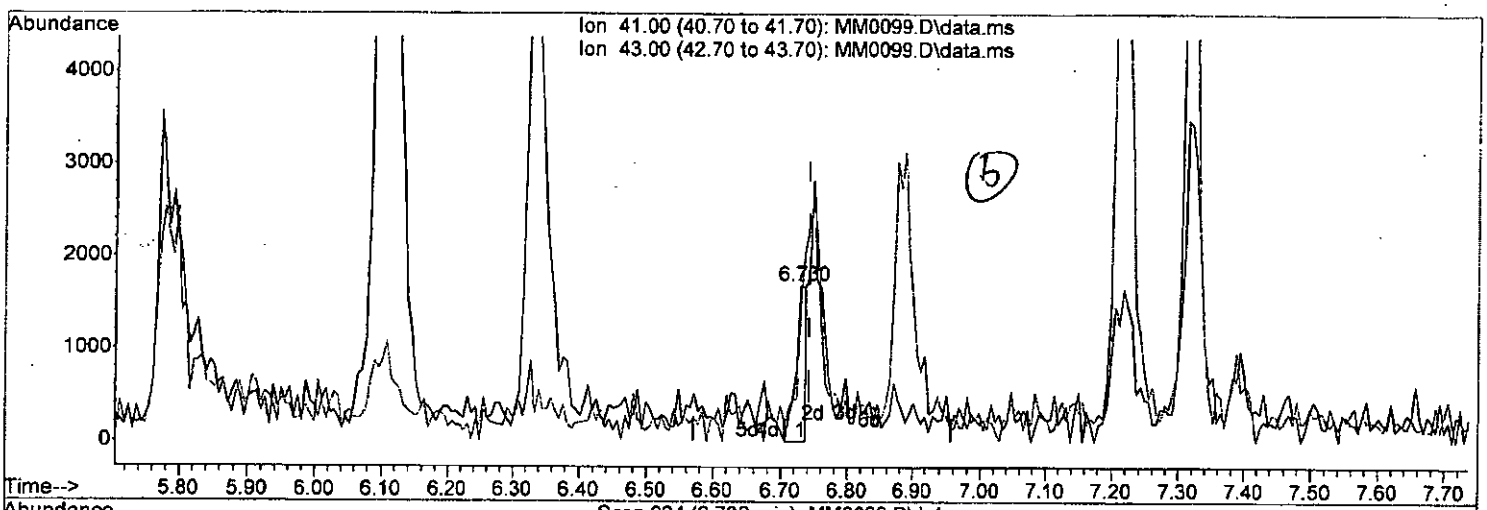
response 3059

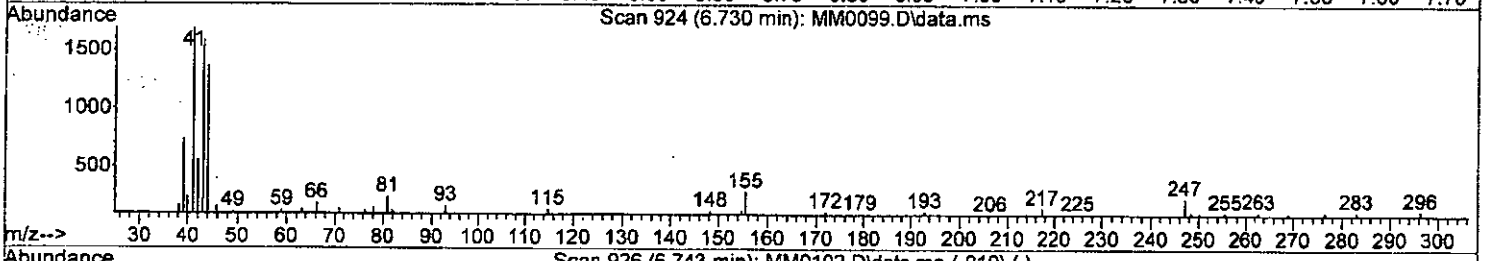
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	36.66#
0.00	0.00	0.00
0.00	0.00	0.00

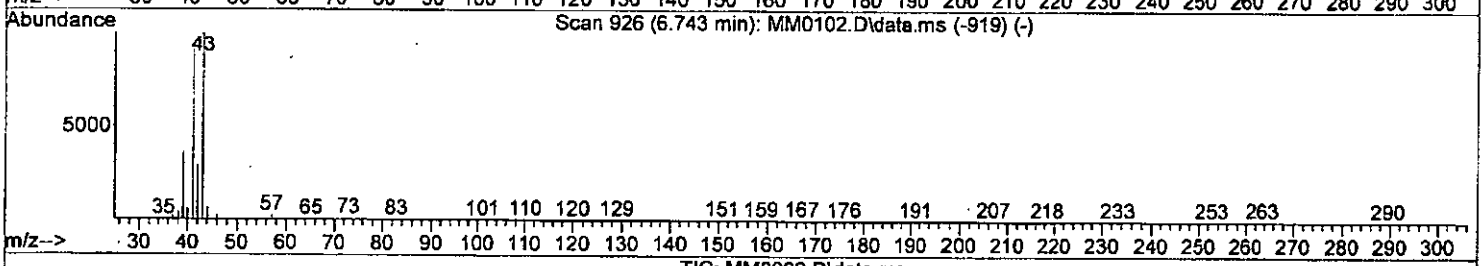
00140

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(61) 2-Nitropropane

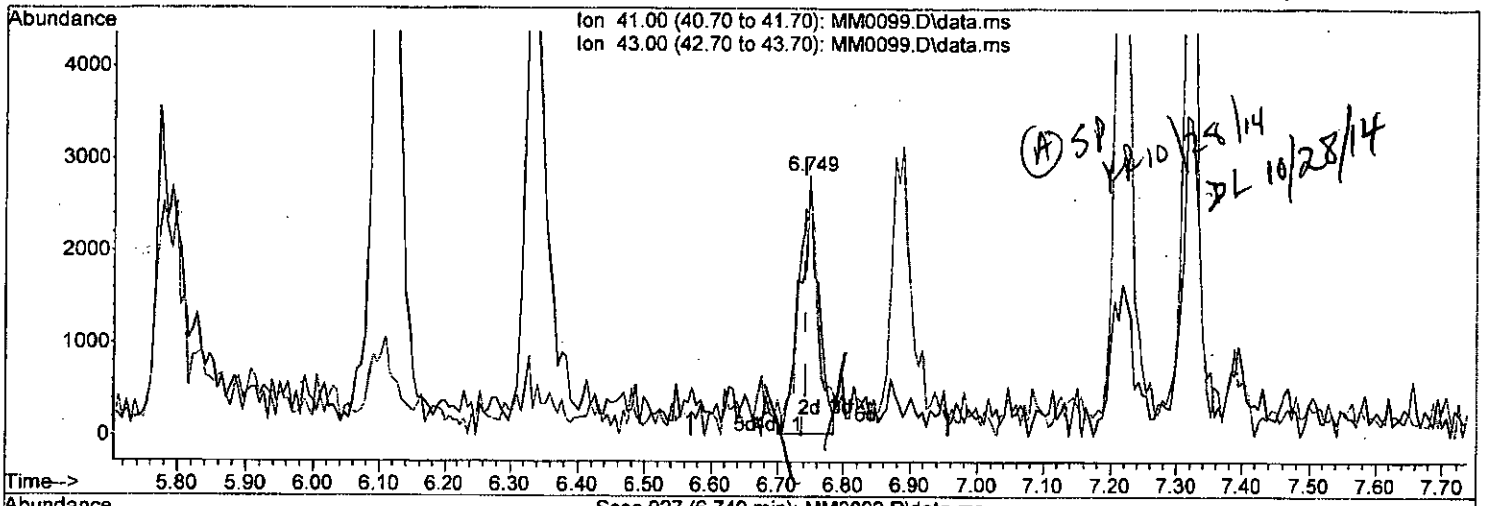
6.730min (-0.012) 1.28 ppb

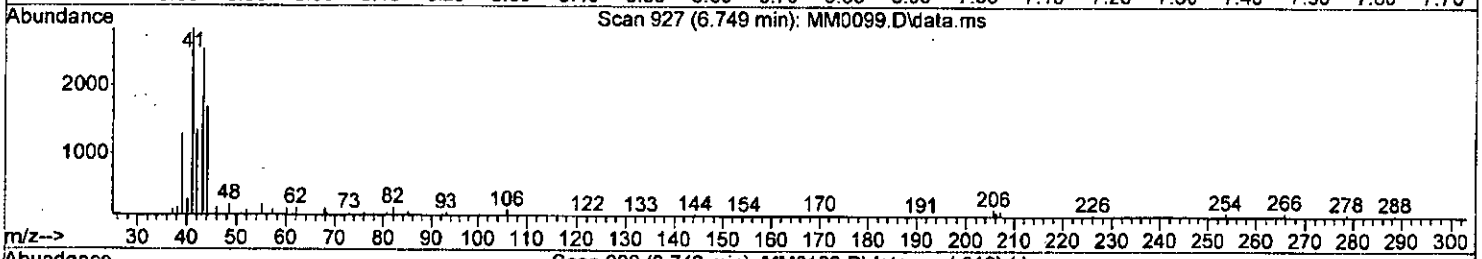
response 1779

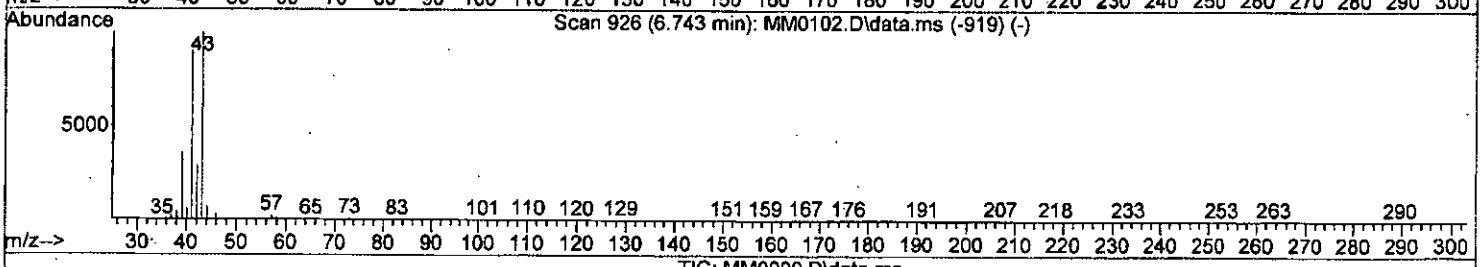
Ion	Exp%	Act%
41.00	100	100
43.00	110.00	93.78
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(61) 2-Nitropropane

6.749min (+0.007) 3.88 ppb m

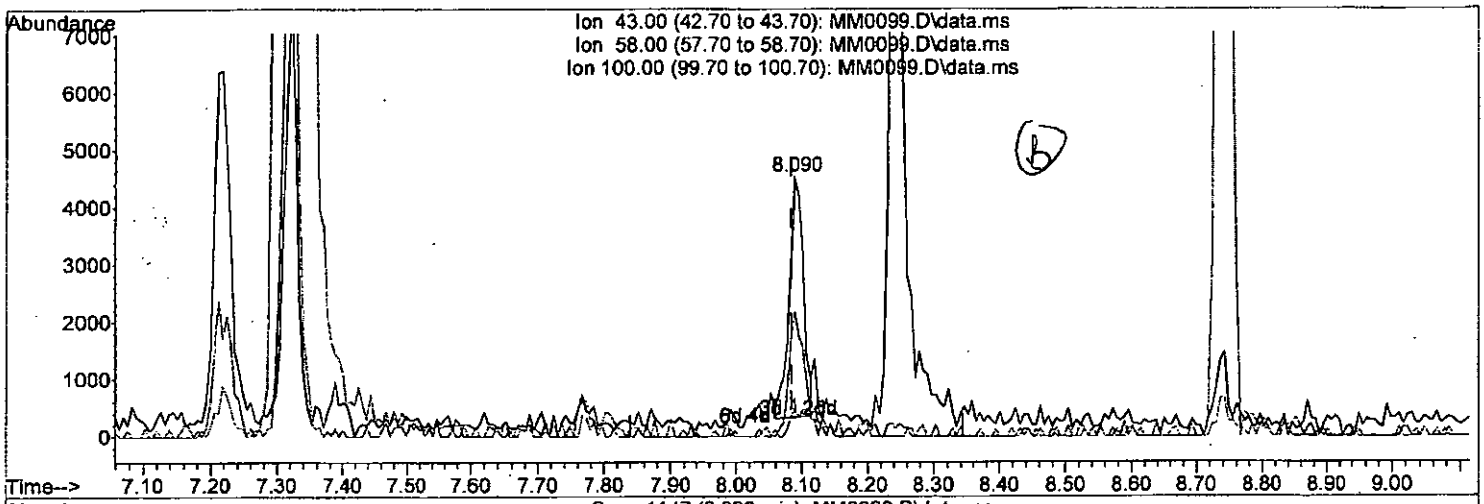
response 5394

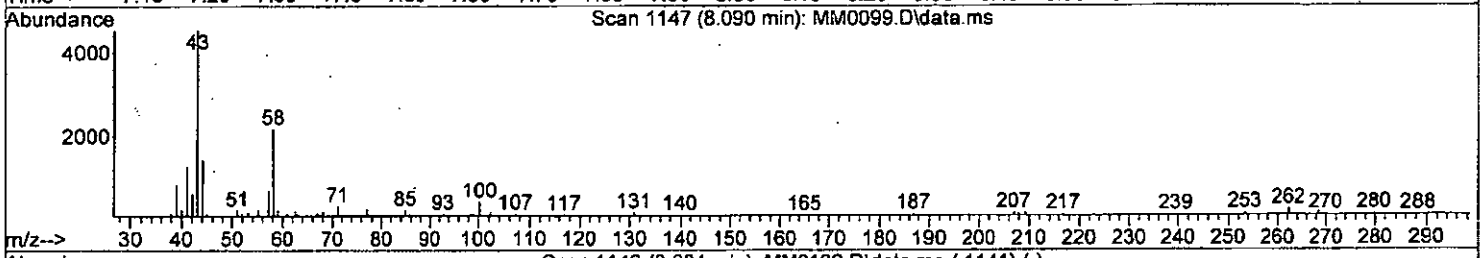
Ion	Exp%	Act%
41.00	100	100
43.00	110.00	89.98#
0.00	0.00	0.00
0.00	0.00	0.00

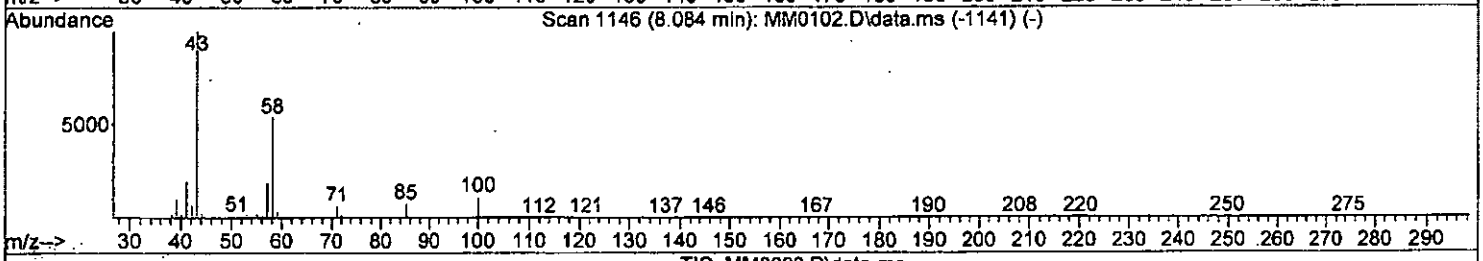
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(73) 2-Hexanone (P)

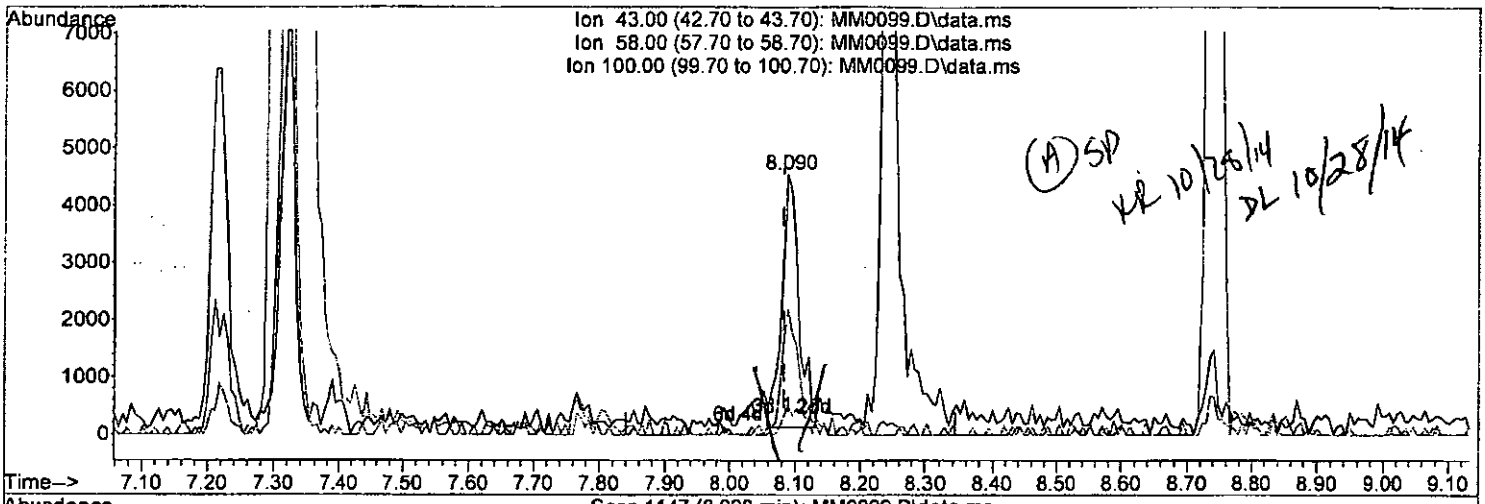
8.090min (+0.006) 1.61 ppb

response 6523

Ion	Exp%	Act%
43.00	100	100
58.00	53.40	47.86
100.00	11.20	11.63
0.00	0.00	0.00

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



TIC: MM0099.D\data.ms

(73) 2-Hexanone (P)

8.090min (+0.006) 1.92 ppb m

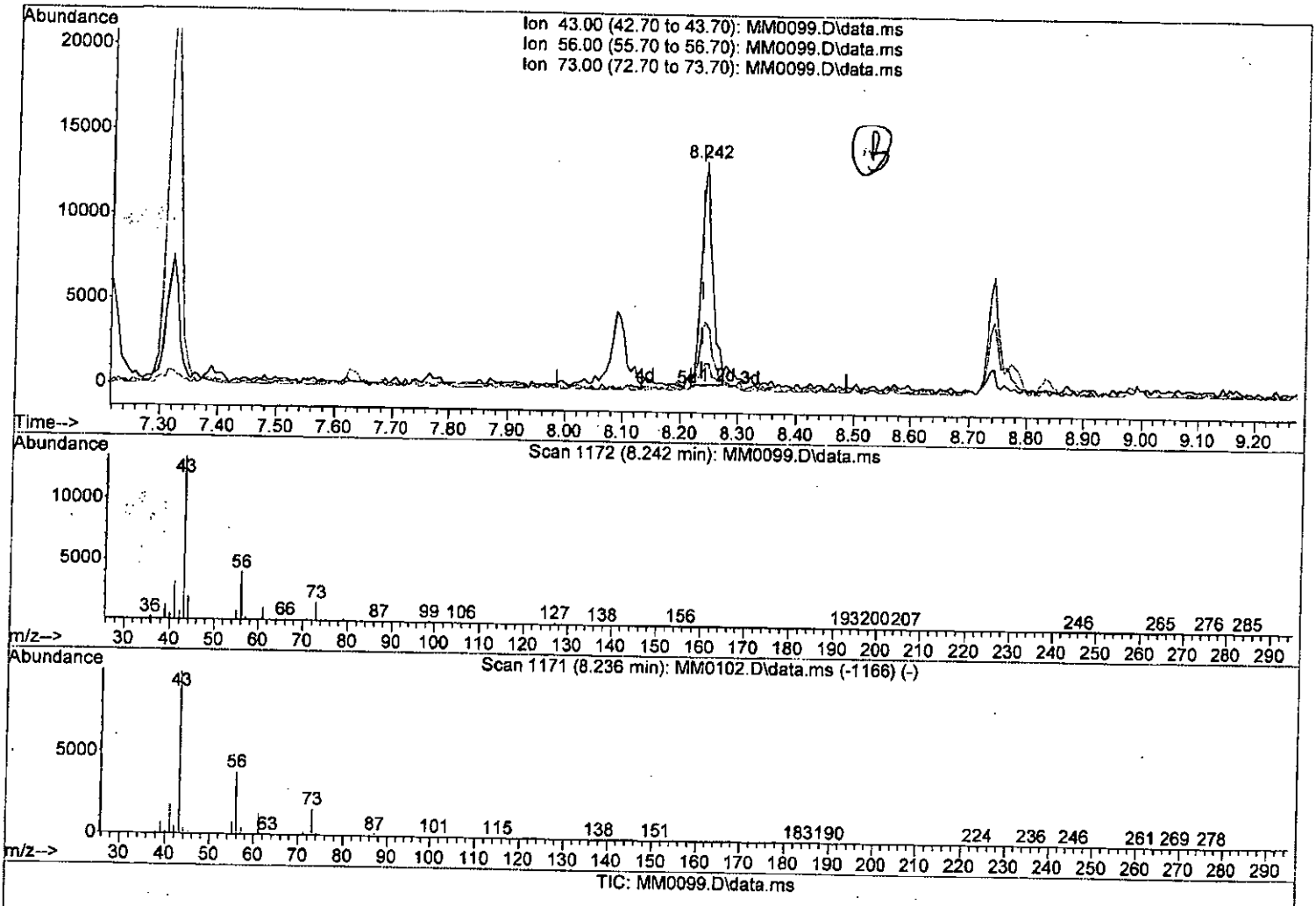
response 7803

Ion	Exp%	Act%
43.00	100	100
58.00	53.40	47.86
100.00	11.20	9.36
0.00	0.00	0.00

Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(76) N-Butyl Acetate

8.242min (+0.006) 1.67 ppb

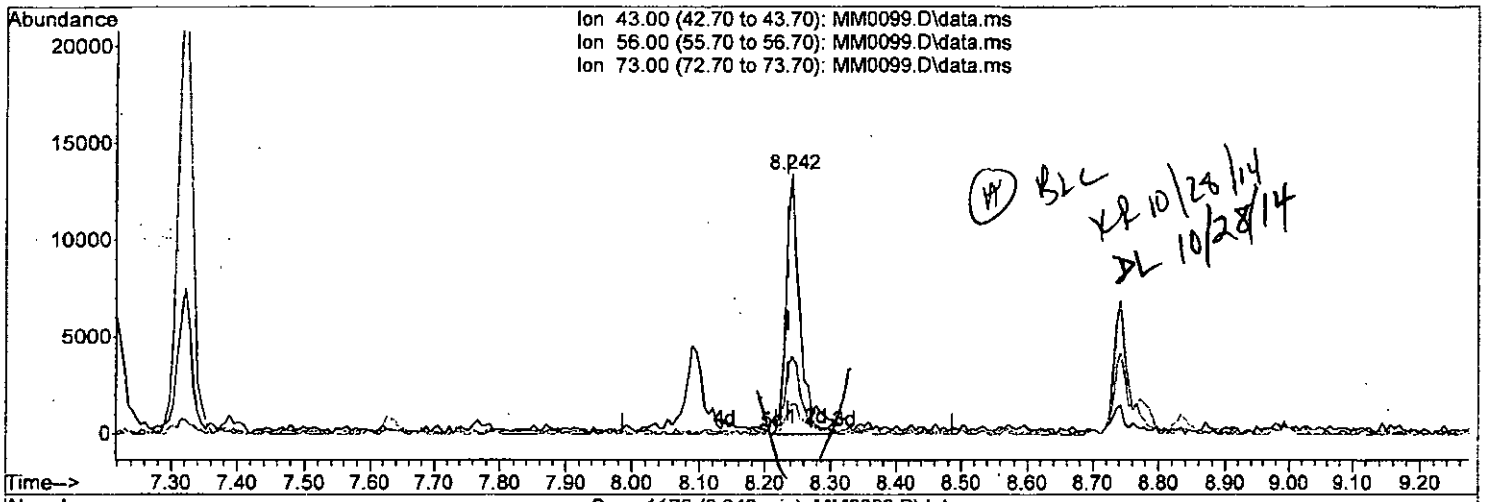
response 17430

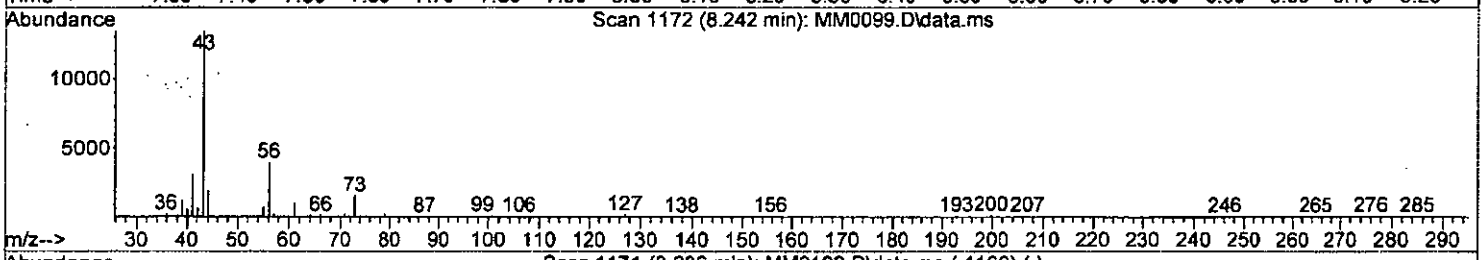
Ion	Exp%	Act%
43.00	100	100
56.00	37.90	29.76
73.00	15.90	11.76
0.00	0.00	0.00

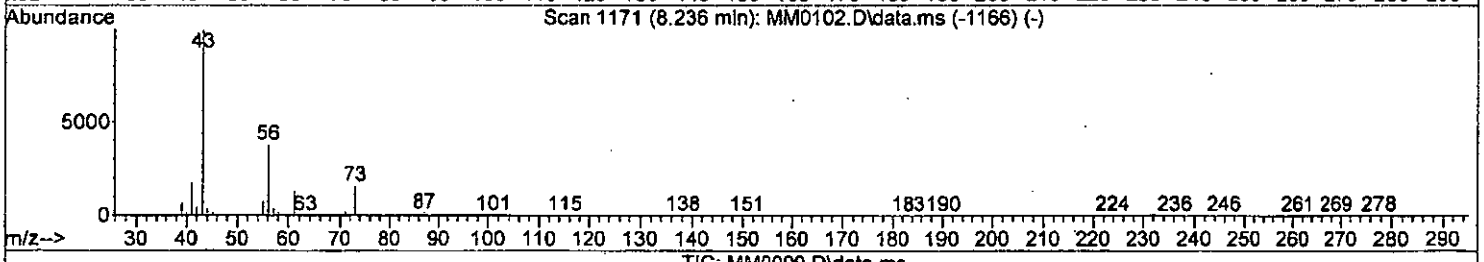
Quantitation Report (Qedit)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:34 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0099.D\data.ms

(76) N-Butyl Acetate

8.242min (+0.006) 1.98 ppb m

response 20680

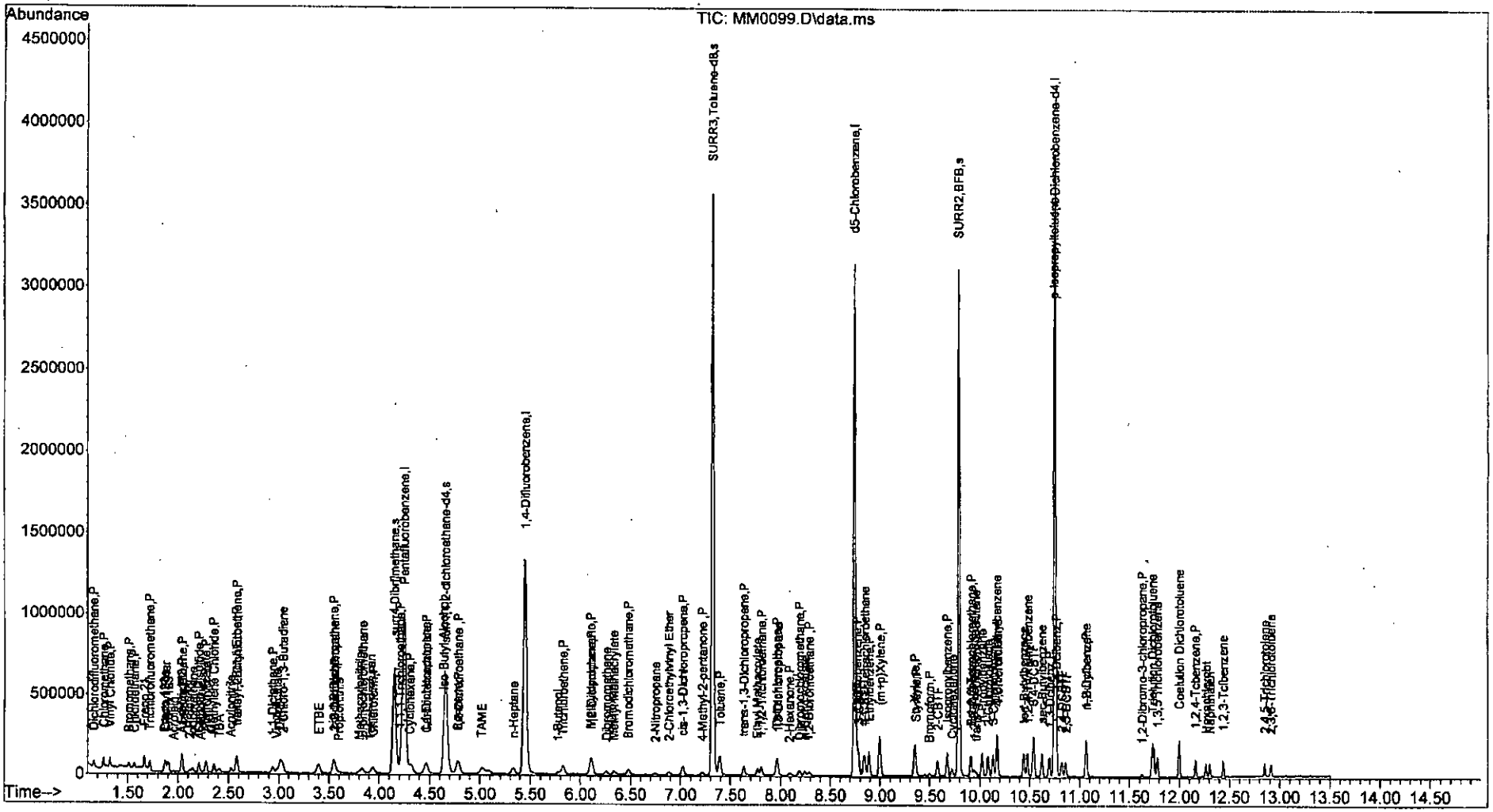
Ion	Exp%	Act%
43.00	100	100
56.00	37.90	29.76
73.00	15.90	11.76
0.00	0.00	0.00

00146

Quantitation Report (QT Reviewed)

Sample : 2.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0099.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:17 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:12:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



W102714.M Tue Oct 28 10:14:13 2014

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:28:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	862320	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1305461	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1218173	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	667035	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	543306	71.46	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 142.92%#				
48) surr1,1,2-dichloroetha...	4.658	65	673748	72.78	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 145.56%#				
65) SURR3,Toluene-d8	7.322	98	2283804	71.36	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 142.72%#				
70) SURR2,BFB	9.785	95	871240	70.16	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 140.32%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	37045	4.54	ppb		94
3) Chloromethane	1.262	50	51861	4.66	ppb		96
4) Vinyl Chloride	1.323	62	56158	4.75	ppb		98
5) Bromomethane	1.512	94	25583	4.48	ppb		98
6) Chloroethane	1.567	64	37353	5.07	ppb		96
7) Freon 21	1.664	67	92928	5.06	ppb		97
8) Trichlorofluoromethane	1.719	101	71564	5.09	ppb		98
9) Diethyl Ether	1.878	59	30731	4.80	ppb		95
10) Freon 123a	1.872	67	50603	5.02	ppb		91
11) Freon 123	1.902	83	53895	5.02	ppb		97
12) Acrolein	1.951	56	7811	22.25	ppb		86
13) 1,1-Diclethene	2.042	96	34120	4.58	ppb		99
14) Freon 113	2.036	101	37727	4.95	ppb		100
15) Acetone	2.048	43	8681	4.72	ppb		90
16) 2-Propanol	2.115	45	34477	95.18	ppb		90
17) Iodomethane	2.146	142	49956	4.65	ppb		93
18) Carbon Disulfide	2.207	76	121228	4.84	ppb		99
19) Acetonitrile	2.225	40	7772	26.77	ppb		94
20) Allyl Chloride	2.274	76	20469	4.87	ppb		96
21) Methyl Acetate	2.274	43	22124	5.25	ppb		99
22) Methylene Chloride	2.359	84	40486	4.99	ppb		93
23) TBA	2.408	59	62934	104.97	ppb		94
24) Acrylonitrile	2.524	53	50235	25.60	ppb		100
25) Methyl-t-Butyl Ether	2.579	73	105794	5.07	ppb		97
26) trans-1,2-Dichloroethene	2.585	96	38881	4.83	ppb		96
28) 1,1-Diclethane	2.938	63	73815	4.96	ppb		98
29) Vinyl Acetate	2.981	86	6176	4.55	ppb	#	30
30) DIPE	3.018	45	155804	5.19	ppb		97
31) 2-Chloro-1,3-Butadiene	3.042	53	68907	5.01	ppb		90
32) ETBE	3.396	59	135880	5.23	ppb		96
33) 2,2-Dichloropropane	3.554	77	64054	4.85	ppb		94
34) cis-1,2-Dichloroethene	3.548	96	43243	4.96	ppb		99
35) 2-Butanone	3.554	43	12659	4.96	ppb		92
36) Propionitrile	3.603	54	18307m	25.96	ppb		
37) Bromochloromethane	3.829	130	24724	5.01	ppb		93

KP 10/28/14

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:28:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.810	67	11292	5.18	ppb	#	70
39) Tetrahydrofuran	3.908	42	8709	4.97	ppb		78
40) Chloroform	3.938	83	72692	4.85	ppb		96
41) 1,1,1-Trichloroethane	4.213	97	64906	4.83	ppb	#	31
42) TAME	5.029	73	109472	5.00	ppb		99
44) Cyclohexane	4.316	41	48271	5.02	ppb		91
46) Carbontetrachloride	4.469	121	15888	4.66	ppb		88
47) 1,1-Dichloropropene	4.463	75	55329	4.85	ppb		97
49) Benzene	4.780	78	166001	4.96	ppb		99
50) 1,2-Dichloroethane	4.786	62	57304	5.09	ppb		99
51) Iso-Butyl Alcohol	4.633	43	25319	98.90	ppb		99
52) n-Heptane	5.328	43	49077	4.54	ppb		96
53) 1-Butanol	5.773	56	38345m	231.54	ppb		
54) Trichloroethene	5.828	130	42861	4.89	ppb		96
55) Methylcyclohexane	6.102	55	54265	4.84	ppb		99
56) 1,2-Diclpropane	6.115	63	42785	4.88	ppb		100
57) Dibromomethane	6.255	93	20491	4.94	ppb		94
58) 1,4-Dioxane	6.322	88	7534m	114.32	ppb		
59) Methyl Methacrylate	6.334	69	19933	4.93	ppb		98
60) Bromodichloromethane	6.474	83	49271	4.75	ppb		97
61) 2-Nitropropane	6.743	41	11477	8.29	ppb		88
62) 2-Chloroethylvinyl Ether	6.883	63	20231	4.96	ppb		92
63) cis-1,3-Dichloropropene	7.023	75	62835	4.86	ppb		97
64) 4-Methyl-2-pentanone	7.212	43	29351	4.92	ppb		93
66) Toluene	7.395	91	180291	5.00	ppb		98
67) trans-1,3-Dichloropropene	7.627	75	52827	4.79	ppb		96
68) Ethyl Methacrylate	7.767	69	41763	4.90	ppb		98
69) 1,1,2-Trichloroethane	7.809	97	30425	5.01	ppb		91
72) Tetrachloroethene	7.962	164	34339	4.90	ppb		89
73) 2-Hexanone	8.090	43	20202	4.99	ppb		91
74) 1,3-Dichloropropane	7.968	76	55152	5.05	ppb		98
75) Dibromochloromethane	8.187	129	28588	4.36	ppb		96
76) N-Butyl Acetate	8.242	43	51231	4.92	ppb		94
77) 1,2-Dibromoethane	8.285	107	29063	5.08	ppb		95
78) Chlorobenzene	8.767	112	113982	4.83	ppb		97
79) 3-CBTF	8.785	180	62196	4.81	ppb		98
80) 4-CBTF	8.834	180	53427	4.62	ppb		95
81) 1,1,1,2-Tetrachloroethane	8.846	131	35790	4.61	ppb		98
82) Ethylbenzene	8.888	106	61264	4.81	ppb		97
83) (m+p)Xylene	8.998	106	149529	9.71	ppb		96
84) o-Xylene	9.346	106	71399	4.61	ppb		95
85) Styrene	9.352	104	120875	4.72	ppb		98
87) Bromoform	9.498	173	15555	4.69	ppb		96
88) 2-CBTF	9.577	180	60047	5.11	ppb		98
89) Isopropylbenzene	9.669	105	184224	5.18	ppb		100
90) Cyclohexanone	9.718	55	41298	105.59	ppb		92
91) trans-1,4-Dichloro-2-B...	9.961	53	10233	4.78	ppb		93
92) 1,1,2,2-Tetrachloroethane	9.913	83	35184	5.07	ppb		99
93) Bromobenzene	9.907	156	45836	4.88	ppb		95
94) 1,2,3-Trichloropropane	9.943	110	11252	5.35	ppb	#	77
95) n-Propylbenzene	10.022	91	214176	5.19	ppb		99
96) 2-Chlorotoluene	10.077	91	127512	5.10	ppb		96

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

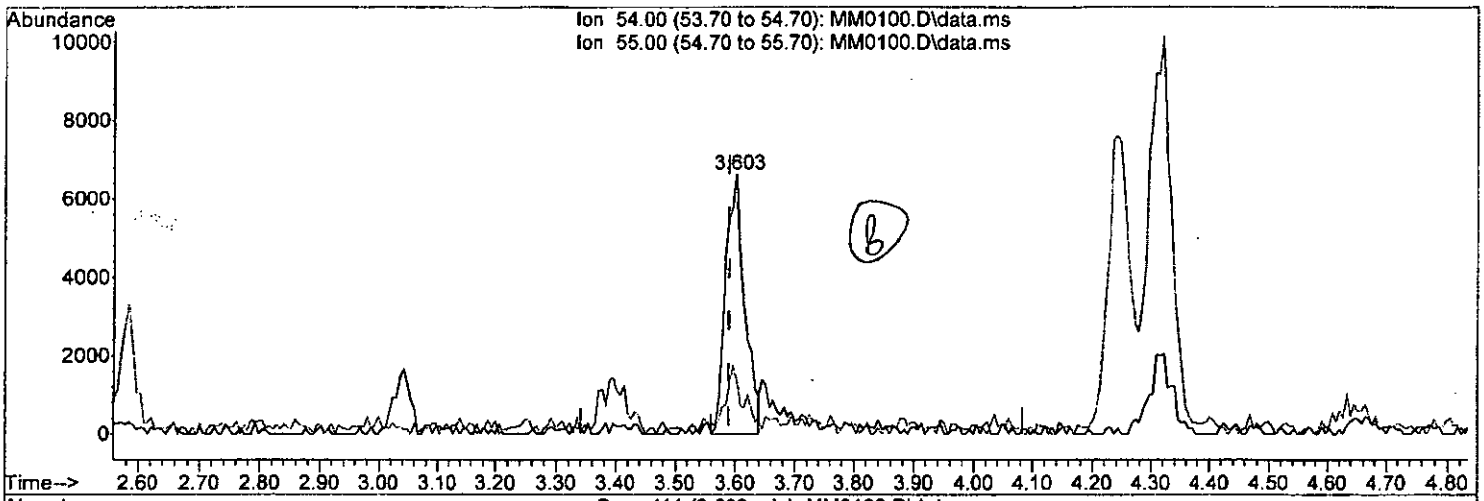
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:28:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

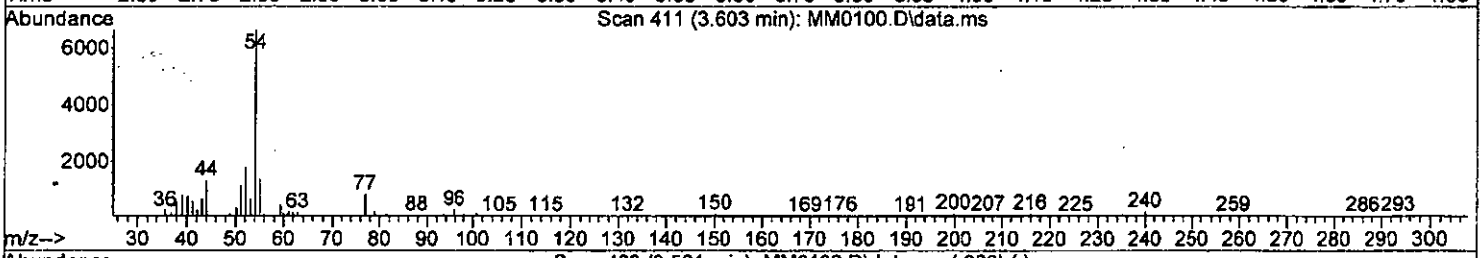
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	138750	5.22	ppb		95
98)	4-Chlorotoluene	10.175	91	156335	4.99	ppb		99
99)	1,3,5-Trimethylbenzene	10.169	105	152511	4.94	ppb		96
100)	tert-Butylbenzene	10.437	119	128268	5.14	ppb		96
101)	1,2,4-Trimethylbenzene	10.474	105	154027	5.09	ppb		100
102)	3,4-DCBTF	10.535	214	41501	4.69	ppb		92
103)	sec-Butylbenzene	10.620	105	174021	4.96	ppb		99
104)	p-Isopropyltoluene	10.742	119	151170	4.96	ppb		98
105)	1,3-Dclbenz	10.699	146	88792	4.95	ppb		96
106)	1,4-Dclbenz	10.766	146	90938	4.85	ppb		95
107)	2,4-DCBTF	10.821	214	37461	4.94	ppb		94
108)	2,5-DCBTF	10.858	214	41754	4.86	ppb		98
109)	n-Butylbenzene	11.065	91	133014	4.93	ppb		97
110)	1,2-Dclbenz	11.065	146	83622	4.96	ppb		98
111)	1,2-Dibromo-3-chloropr...	11.626	157	5788	4.96	ppb	#	86
112)	Trielution Dichlorotol...	11.729	125	209612	15.15	ppb		99
113)	1,3,5 Trichlorobenzene	11.778	180	58017	5.01	ppb		99
114)	Coelution Dichlorotoluene	11.998	125	151274	10.44	ppb		98
115)	1,2,4-Tcbenzene	12.156	180	50150	5.08	ppb		98
116)	Hexachlorobt	12.266	225	20149	5.16	ppb		99
117)	Naphthalen	12.302	128	97021	5.17	ppb		98
118)	1,2,3-Tclbenzene	12.437	180	41274	4.91	ppb		96
119)	2,4,5-Trichlorotolene	12.851	159	28526	5.02	ppb		97
120)	2,3,6-Trichlorotoluene	12.912	159	26435	5.03	ppb		98

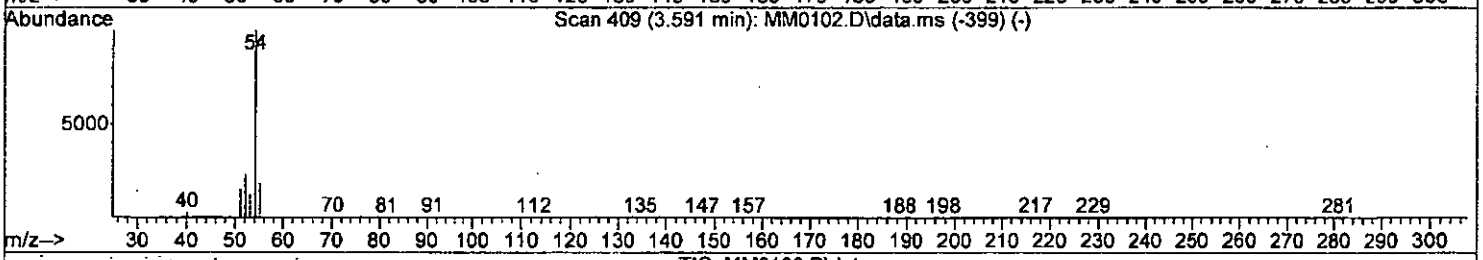
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:38 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0100.D\data.ms

(36) Propionitrile

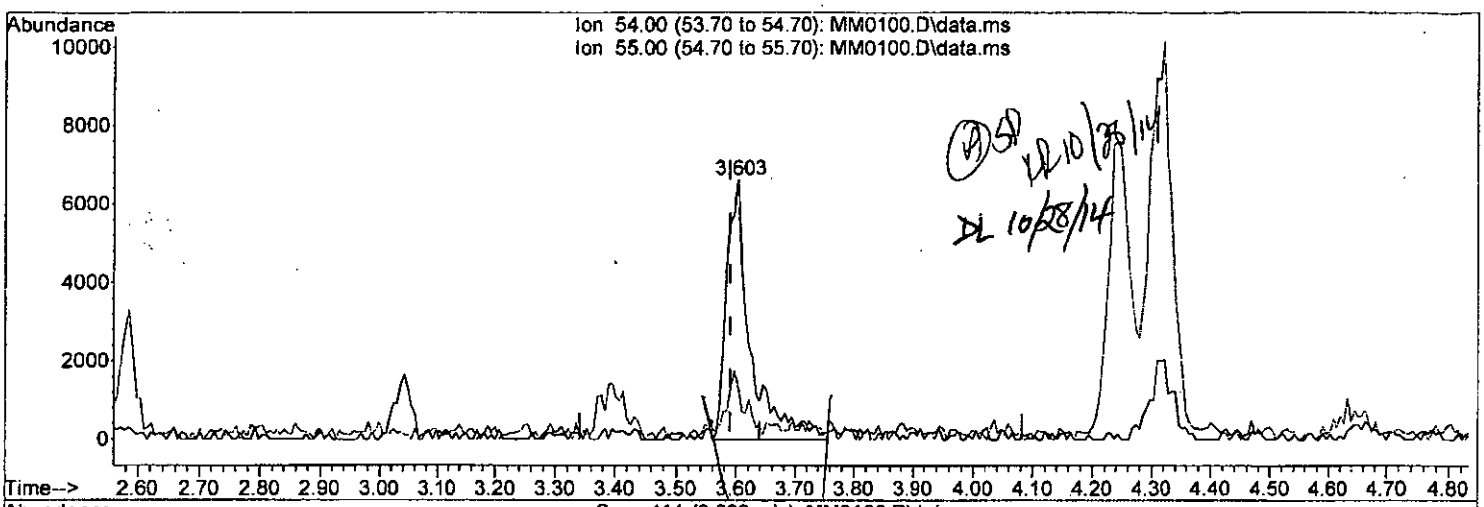
3.603min (+0.013) 20.86 ppb

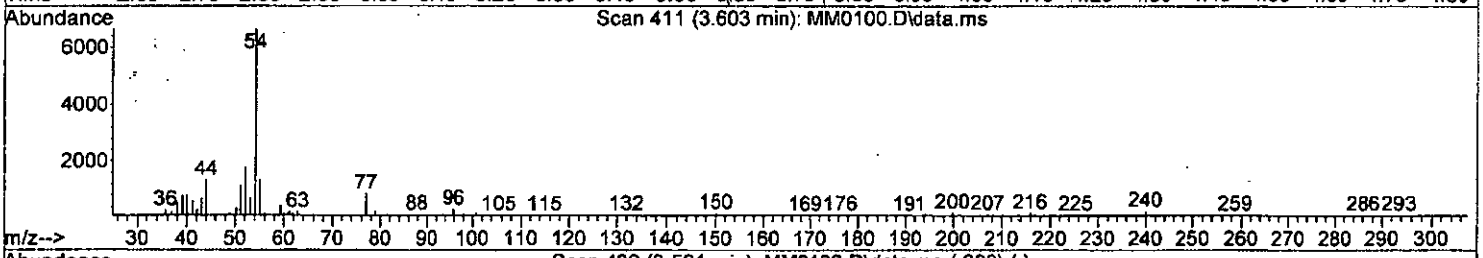
response 14707

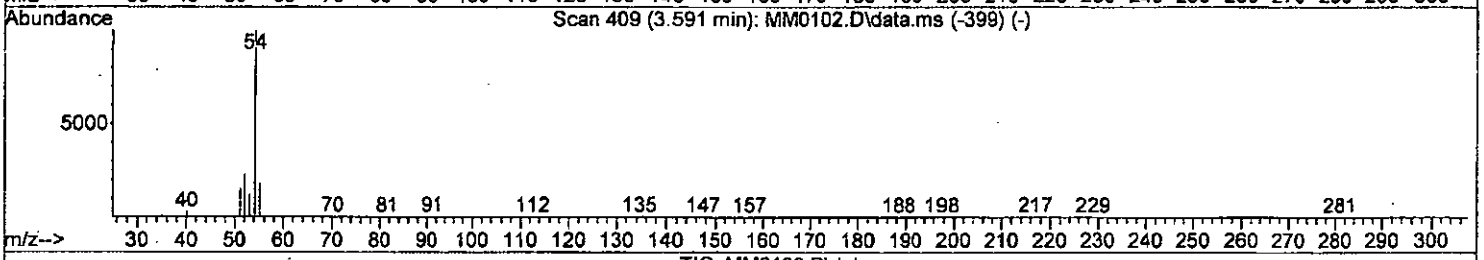
Ion	Exp%	Act%
54.00	100	100
55.00	18.80	20.57
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:38 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0100.D\data.ms

(36) Propionitrile

3.603min (+0.013) 25.96 ppb m

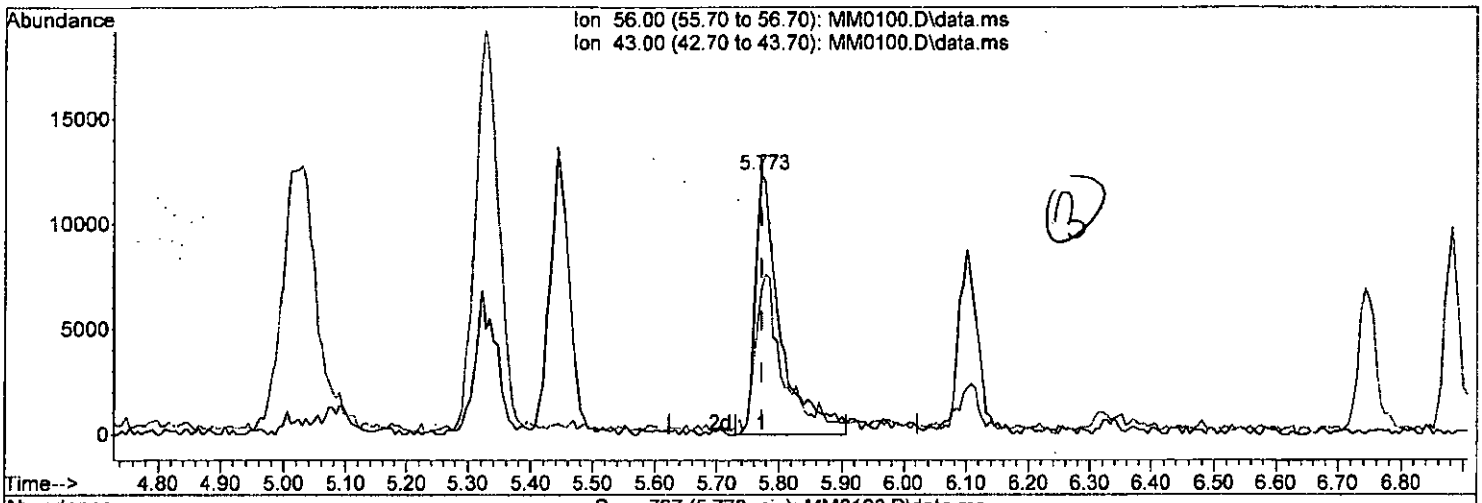
response 18307

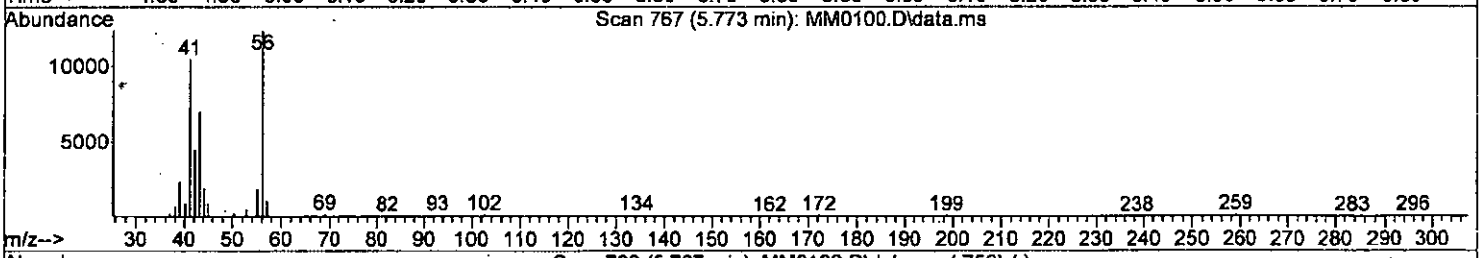
Ion	Exp%	Act%
54.00	100	100
55.00	18.80	20.57
0.00	0.00	0.00
0.00	0.00	0.00

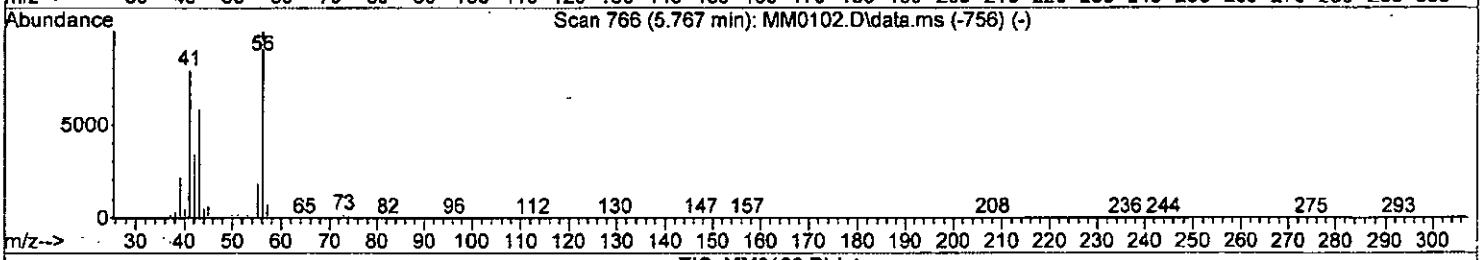
Quantitation Report (Qedit)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:38 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0100.D\data.ms

(53) 1-Butanol

5.773min (+0.000) 211.06 ppb

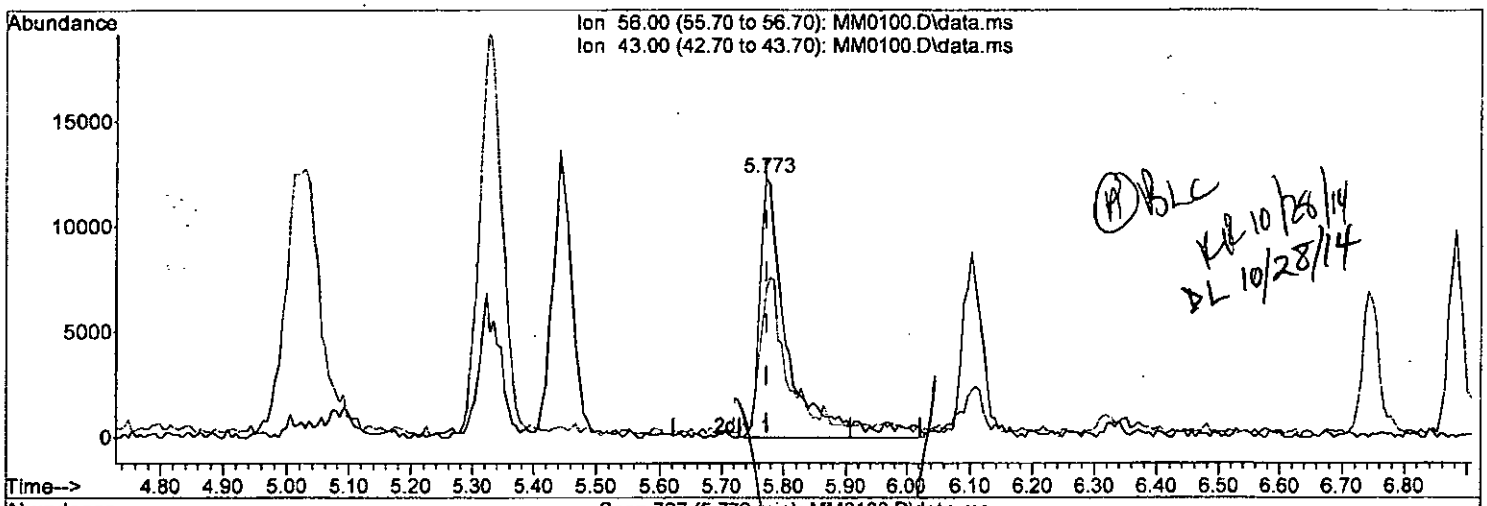
response 34953

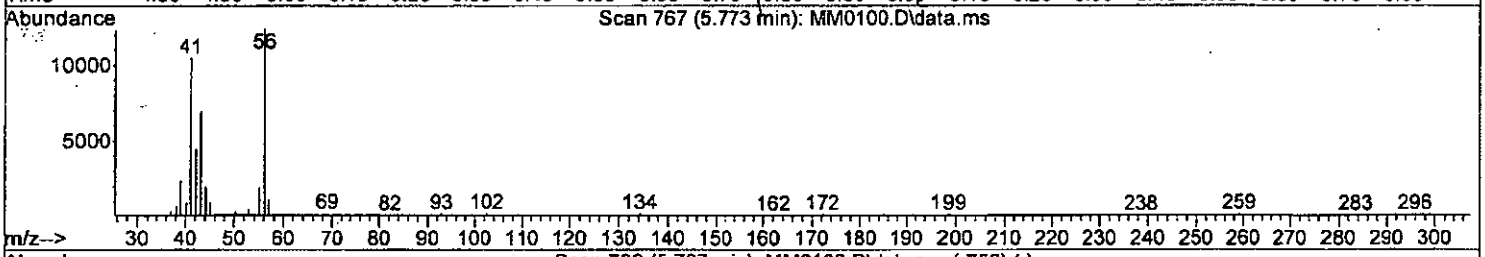
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	59.67
0.00	0.00	0.00
0.00	0.00	0.00

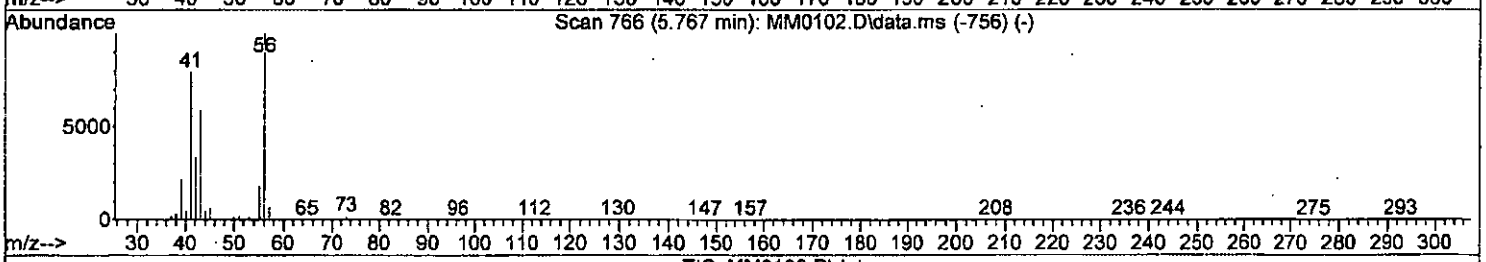
00153

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:38 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0100.D\data.ms

(53) 1-Butanol

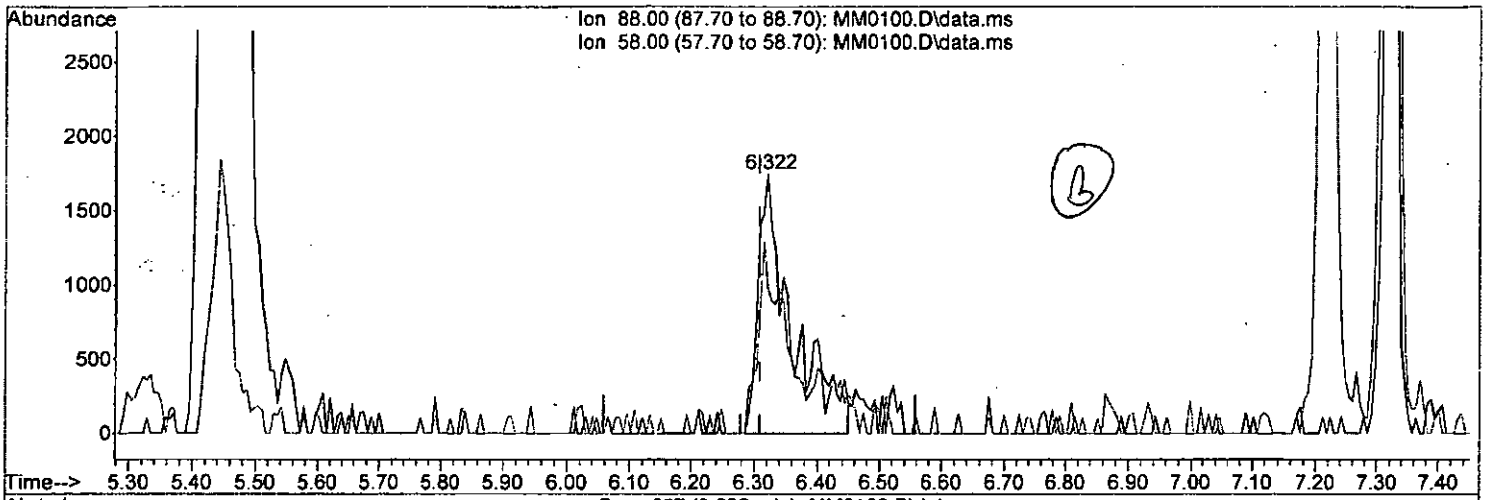
5.773min (+0.000) 231.54 ppb m

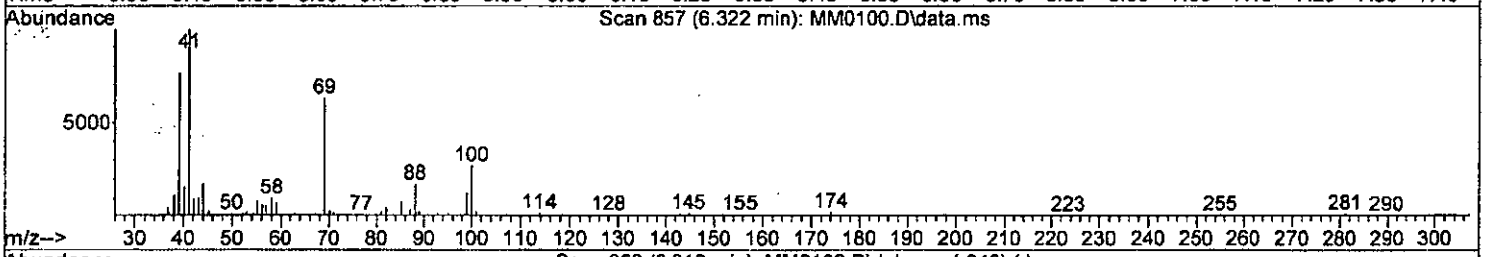
response 38345

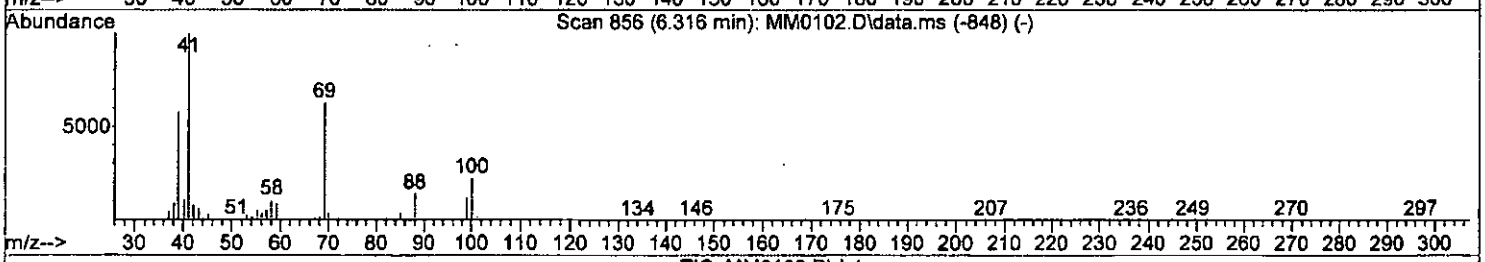
Ion	Exp%	Act%
56.00	100	100
43.00	56.20	54.39
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:38 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0100.D\data.ms

(58) 1,4-Dioxane

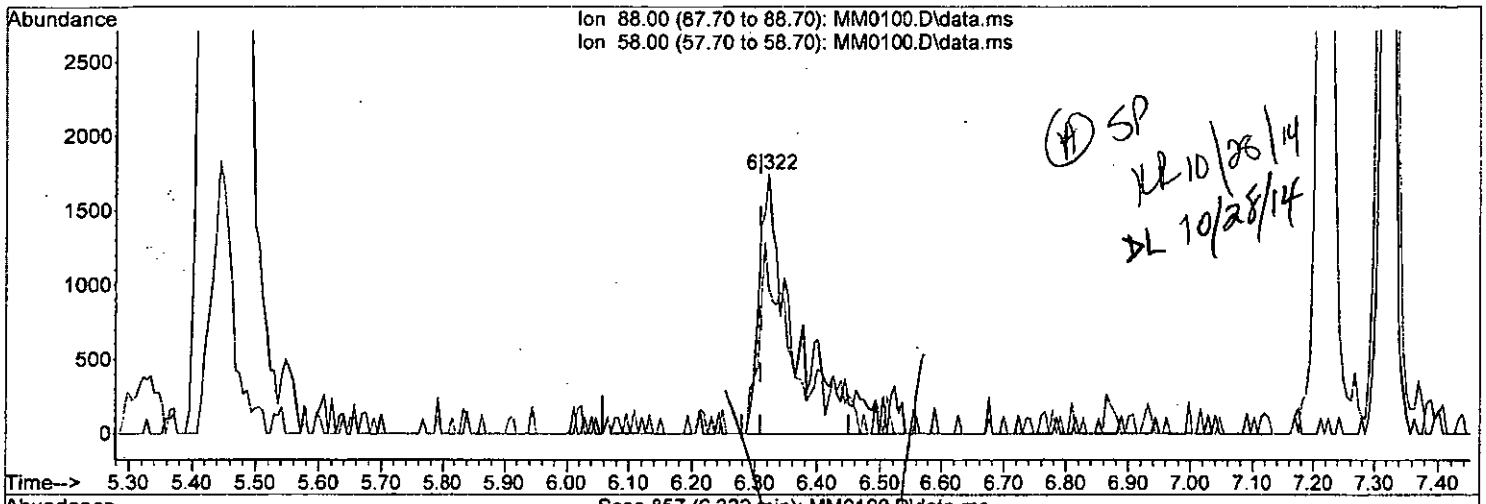
6.322min (+0.013) 99.50 ppb

response 6557

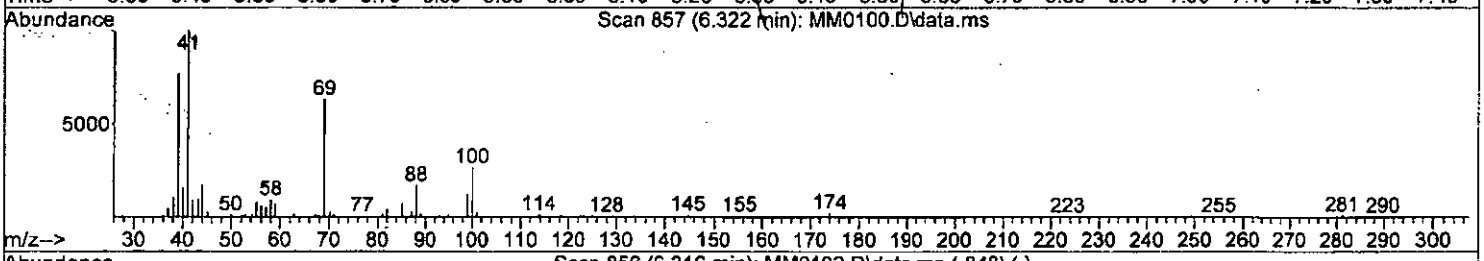
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	56.33#
0.00	0.00	0.00
0.00	0.00	0.00

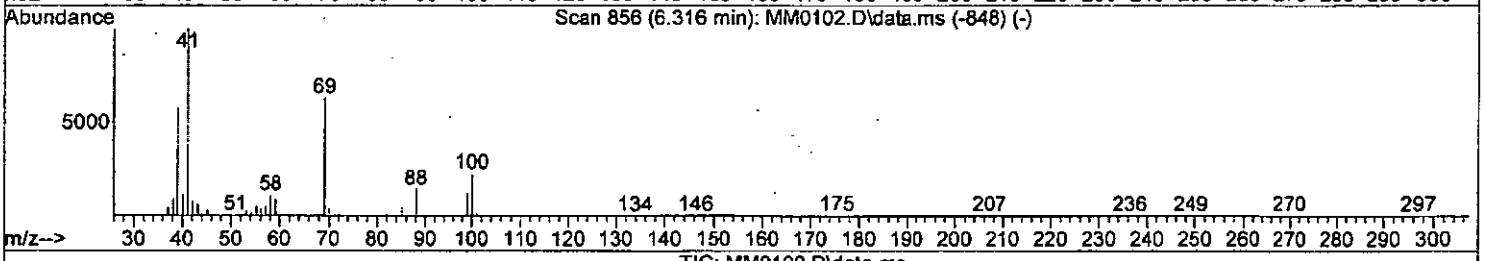
Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:38 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(#) SP KL 10/28/14 DL 10/28/14





TIC: MM0100.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.013) 114.32 ppb m

response 7534

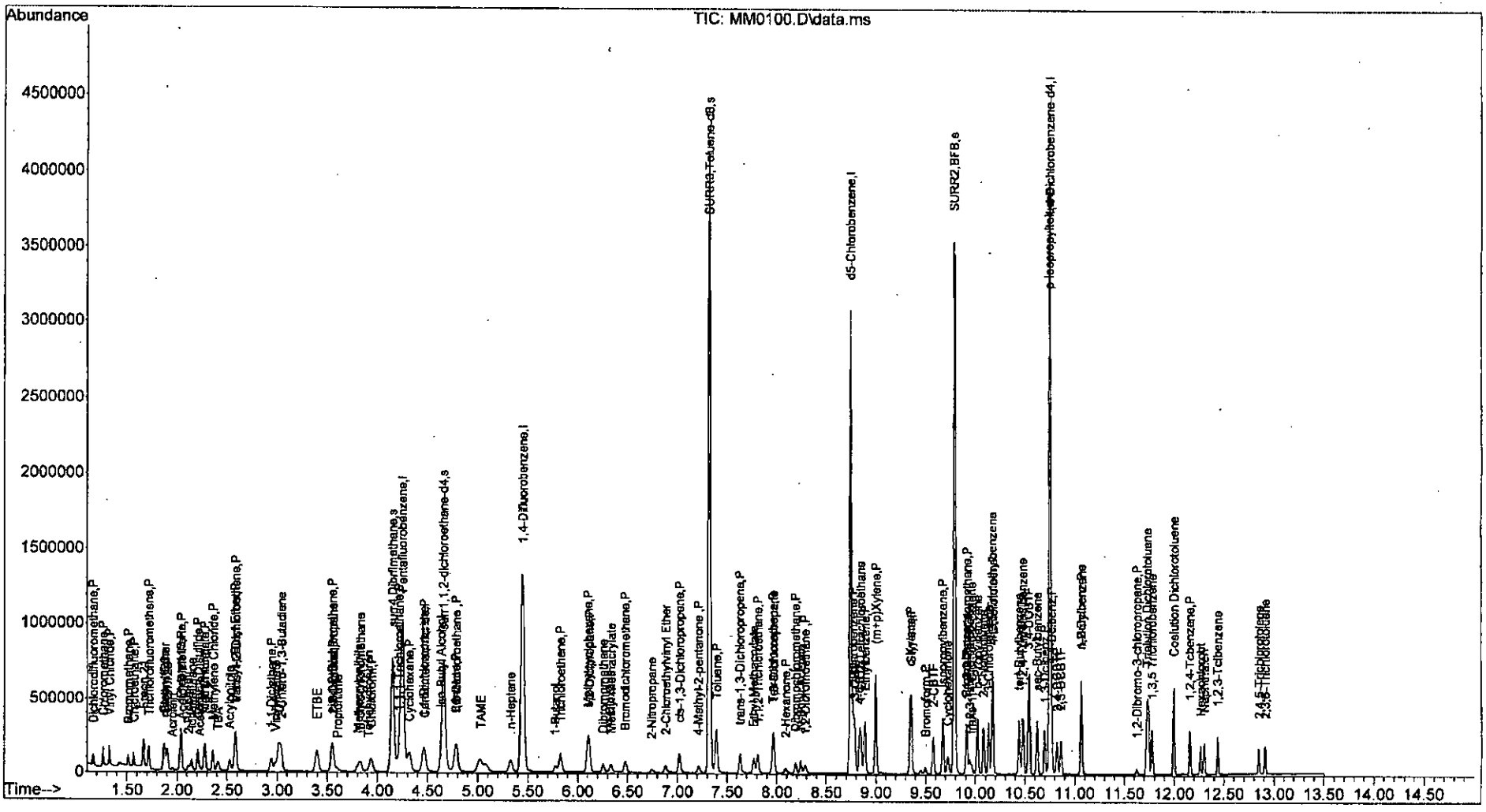
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	56.33#
0.00	0.00	0.00
0.00	0.00	0.00

00156

Quantitation Report (QT Reviewed)

Sample : 5.0ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0100.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 5:49 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:28:02 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



0157

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0101.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:29:45 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.249	168	879258	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.444	114	1325531	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1245376	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	705017	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	757923	98.18	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 196.36%#			
48) surr1,1,2-dichloroetha...	4.658	65	922901	98.19	ppb	0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 196.38%#			
65) SURR3,Toluene-d8	7.322	98	3200714	98.50	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 197.00%#			
70) SURR2,BFB	9.785	95	1219038	96.68	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 193.36%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.164	85	183557	22.07	ppb	100
3) Chloromethane	1.262	50	237579	20.94	ppb	99
4) Vinyl Chloride	1.323	62	256985	21.33	ppb	99
5) Bromomethane	1.512	94	106438	18.27	ppb	100
6) Chloroethane	1.567	64	156265	20.82	ppb	98
7) Freon 21	1.664	67	393424	20.99	ppb	97
8) Trichlorofluoromethane	1.719	101	305493	21.32	ppb	99
9) Diethyl Ether	1.878	59	131425	20.15	ppb	95
10) Freon 123a	1.872	67	208683	20.30	ppb	92
11) Freon 123	1.902	83	228769	20.91	ppb	99
12) Acrolein	1.951	56	31272	87.36	ppb	99
13) 1,1-Diclethene	2.036	96	151898	20.00	ppb	99
14) Freon 113	2.036	101	161458	20.76	ppb	95
15) Acetone	2.048	43	37242	19.84	ppb	93
16) 2-Propanol	2.115	45	152817	413.75	ppb	96
17) Iodomethane	2.146	142	233583	21.30	ppb	99
18) Carbon Disulfide	2.207	76	522301	20.46	ppb	99
19) Acetonitrile	2.225	40	29654	100.16	ppb	99
20) Allyl Chloride	2.274	76	96217	22.44	ppb	94
21) Methyl Acetate	2.274	43	91352	21.25	ppb	95
22) Methylene Chloride	2.359	84	166332	20.10	ppb	98
23) TBA	2.408	59	246679	403.52	ppb	99
24) Acrylonitrile	2.524	53	208144	104.04	ppb	97
25) Methyl-t-Butyl Ether	2.579	73	438950	20.61	ppb	98
26) trans-1,2-Dichloroethene	2.585	96	172405	21.00	ppb	98
28) 1,1-Diclethane	2.938	63	315620	20.81	ppb	100
29) Vinyl Acetate	2.975	86	28070	20.30	ppb	97
30) DIPE	3.012	45	624889	20.40	ppb	98
31) 2-Chloro-1,3-Butadiene	3.042	53	293913	20.96	ppb	97
32) ETBE	3.396	59	542913	20.51	ppb	100
33) 2,2-Dichloropropane	3.554	77	281622	20.92	ppb	98
34) cis-1,2-Dichloroethene	3.542	96	183891	20.67	ppb	100
35) 2-Butanone	3.548	43	51954	19.96	ppb	97
36) Propionitrile	3.585	54	78179	108.73	ppb	96
37) Bromochloromethane	3.829	130	103548	20.59	ppb	90

KP 10/28/14

00158

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0101.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:29:45 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	46701	21.00	ppb	99
39) Tetrahydrofuran	3.902	42	36330	20.34	ppb	92
40) Chloroform	3.938	83	308171	20.18	ppb	99
41) 1,1,1-Trichloroethane	4.213	97	280864	20.51	ppb	87
42) TAME	5.023	73	449995	20.16	ppb	98
44) Cyclohexane	4.316	41	203937	20.88	ppb	95
46) Carbontetrachloride	4.469	121	71529	20.67	ppb	99
47) 1,1-Dichloropropene	4.463	75	241398	20.85	ppb	98
49) Benzene	4.780	78	715398	21.07	ppb	99
50) 1,2-Dichloroethane	4.786	62	238812	20.87	ppb	96
51) Iso-Butyl Alcohol	4.639	43	110450	424.88	ppb	96
52) n-Heptane	5.328	43	220247	20.05	ppb	94
53) 1-Butanol	5.773	56	153477	912.72	ppb	91
54) Trichloroethene	5.828	130	183597	20.65	ppb	98
55) Methylcyclohexane	6.103	55	233460	20.50	ppb	97
56) 1,2-Diclpropane	6.115	63	182119	20.48	ppb	99
57) Dibromomethane	6.255	93	85943	20.42	ppb	96
58) 1,4-Dioxane	6.322	88	25555m	381.91	ppb	
59) Methyl Methacrylate	6.328	69	87282	21.28	ppb	98
60) Bromodichloromethane	6.480	83	219377	20.82	ppb	99
61) 2-Nitropropane	6.743	41	53003	37.69	ppb	99
62) 2-Chloroethylvinyl Ether	6.877	63	84884	20.48	ppb	96
63) cis-1,3-Dichloropropene	7.023	75	278999	21.25	ppb	100
64) 4-Methyl-2-pentanone	7.212	43	123666	20.41	ppb	96
66) Toluene	7.389	91	785171	21.45	ppb	100
67) trans-1,3-Dichloropropene	7.627	75	237930	21.26	ppb	99
68) Ethyl Methacrylate	7.767	69	181352	20.94	ppb	99
69) 1,1,2-Trichloroethane	7.803	97	131876	21.37	ppb	99
72) Tetrachloroethene	7.962	164	147241	20.55	ppb	98
73) 2-Hexanone	8.084	43	85208	20.58	ppb	94
74) 1,3-Dichloropropane	7.968	76	230209	20.60	ppb	96
75) Dibromochloromethane	8.187	129	134773	20.12	ppb	96
76) N-Butyl Acetate	8.236	43	224112	21.06	ppb	97
77) 1,2-Dibromoethane	8.285	107	126296	21.60	ppb	95
78) Chlorobenzene	8.767	112	496265	20.58	ppb	99
79) 3-CBTF	8.785	180	253821	19.21	ppb	99
80) 4-CBTF	8.834	180	232964	19.71	ppb	99
81) 1,1,1,2-Tetrachloroethane	8.846	131	163700	20.65	ppb	98
82) Ethylbenzene	8.889	106	266907	20.52	ppb	93
83) (m+p)Xylene	8.998	106	667073	42.38	ppb	96
84) o-Xylene	9.346	106	325310	20.55	ppb	95
85) Styrene	9.352	104	553728	21.15	ppb	97
87) Bromoform	9.492	173	73234	20.91	ppb	96
88) 2-CBTF	9.577	180	245913	19.80	ppb	97
89) Isopropylbenzene	9.669	105	823516	21.89	ppb	100
90) Cyclohexanone	9.718	55	155982	377.32	ppb	98
91) trans-1,4-Dichloro-2-B...	9.961	53	43871	19.40	ppb	91
92) 1,1,2,2-Tetrachloroethane	9.913	83	155647	21.23	ppb	99
93) Bromobenzene	9.907	156	203951	20.55	ppb	98
94) 1,2,3-Trichloropropane	9.937	110	43094	19.38	ppb	98
95) n-Propylbenzene	10.022	91	964489	22.11	ppb	99
96) 2-Chlorotoluene	10.077	91	580266	21.96	ppb	98

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0101.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:21 pm
Operator : K.Ruest
InstName : MSVOA-12

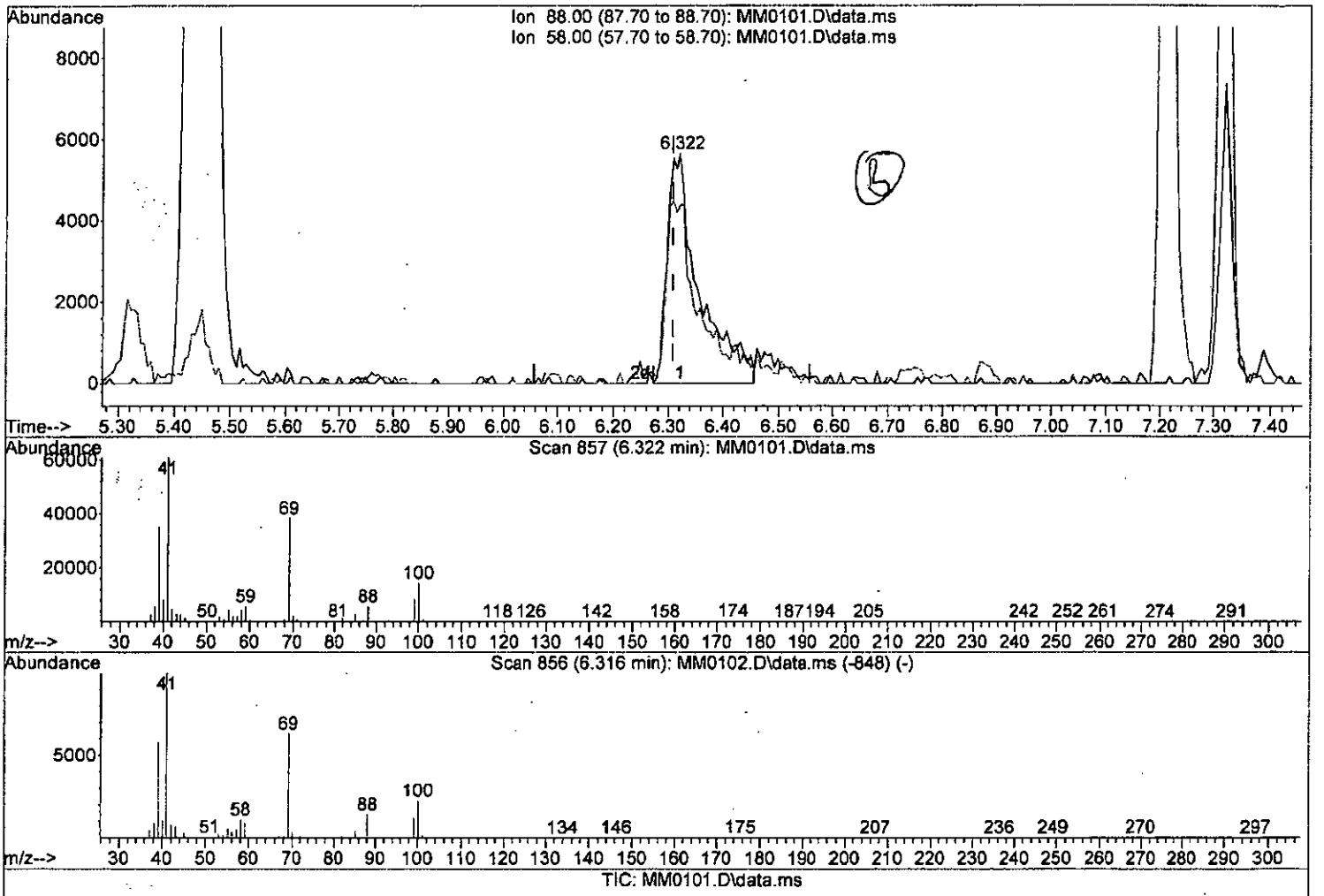
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:29:45 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	580649	20.66	ppb	97
98)	4-Chlorotoluene	10.169	91	705578	21.29	ppb	98
99)	1,3,5-Trimethylbenzene	10.169	105	689159	21.12	ppb	99
100)	tert-Butylbenzene	10.437	119	564350	21.41	ppb	100
101)	1,2,4-Trimethylbenzene	10.474	105	697124	21.78	ppb	99
102)	3,4-DCBTF	10.535	214	182957	19.56	ppb	99
103)	sec-Butylbenzene	10.620	105	803667	21.69	ppb	100
104)	p-Isopropyltoluene	10.742	119	700787	21.77	ppb	98
105)	1,3-Dclbenz	10.693	146	397745	20.98	ppb	100
106)	1,4-Dclbenz	10.766	146	411694	20.77	ppb	99
107)	2,4-DCBTF	10.821	214	160320	19.99	ppb	97
108)	2,5-DCBTF	10.858	214	182336	20.09	ppb	98
109)	n-Butylbenzene	11.065	91	616862	21.65	ppb	99
110)	1,2-Dclbenz	11.065	146	369570	20.72	ppb	99
111)	1,2-Dibromo-3-chloropr...	11.626	157	25414	20.59	ppb	88
112)	Trielution Dichlorotol...	11.729	125	910249	62.25	ppb	100
113)	1,3,5 Trichlorobenzene	11.778	180	250263	20.47	ppb	97
114)	Coelution Dichlorotoluene	11.998	125	646557	42.22	ppb	100
115)	1,2,4-Tcbenzene	12.156	180	222721	21.33	ppb	98
116)	Hexachlorobt	12.266	225	88493	21.44	ppb	97
117)	Naphthalen	12.296	128	428404	21.59	ppb	99
118)	1,2,3-Tclbenzene	12.437	180	189376	21.33	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	115424	19.21	ppb	99
120)	2,3,6-Trichlorotoluene	12.912	159	111038	20.01	ppb	97

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

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0101.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:42 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



TIC: MM0101.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.013) 342.04 ppb

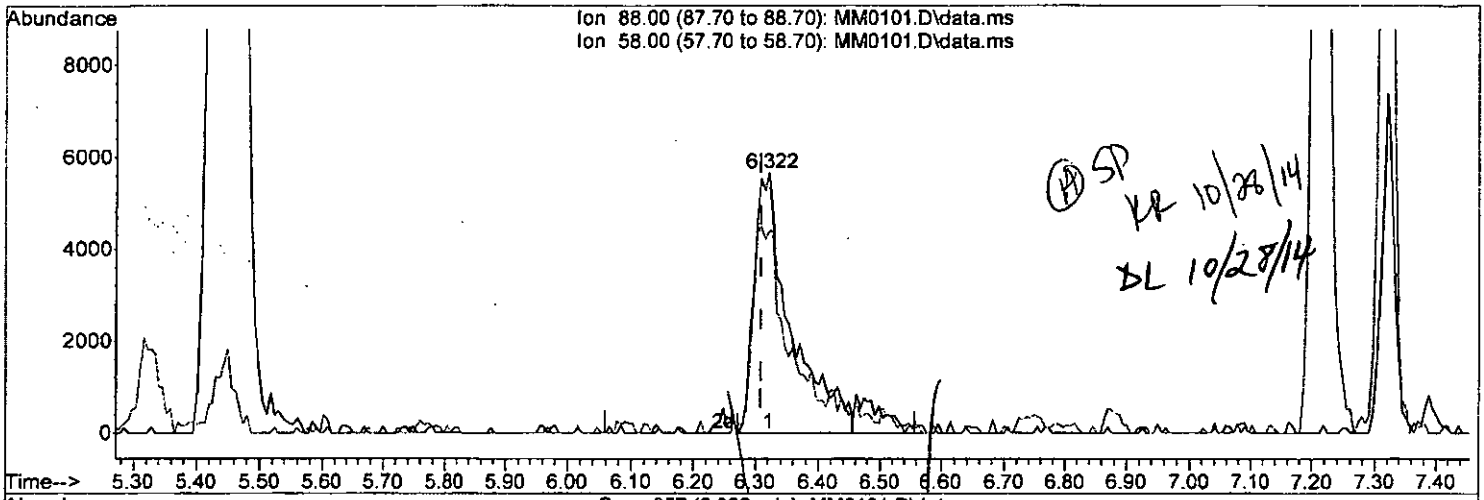
response 22887

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	77.68
0.00	0.00	0.00
0.00	0.00	0.00

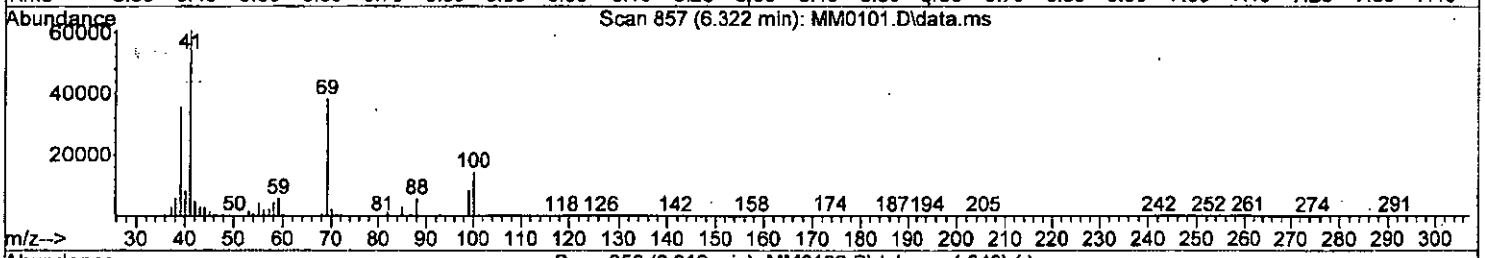
Quantitation Report (Qedit)

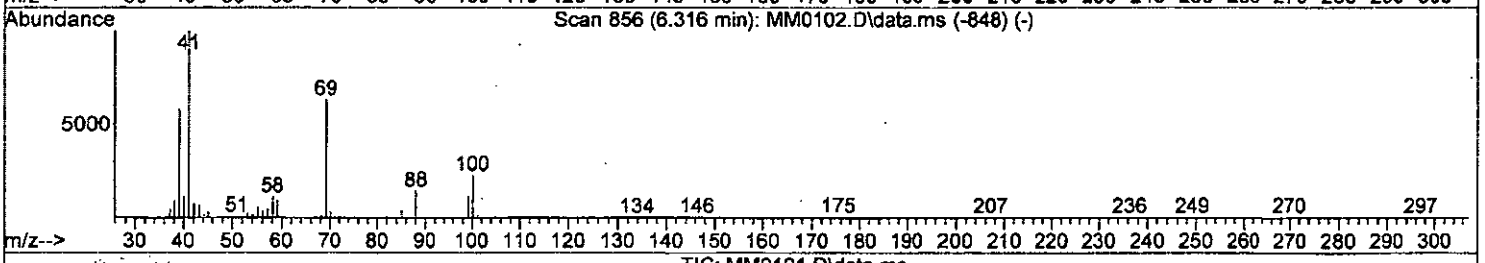
Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0101.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:42 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



SP 10/28/14
DL 10/28/14





TIC: MM0101.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.013) 381.91 ppb m

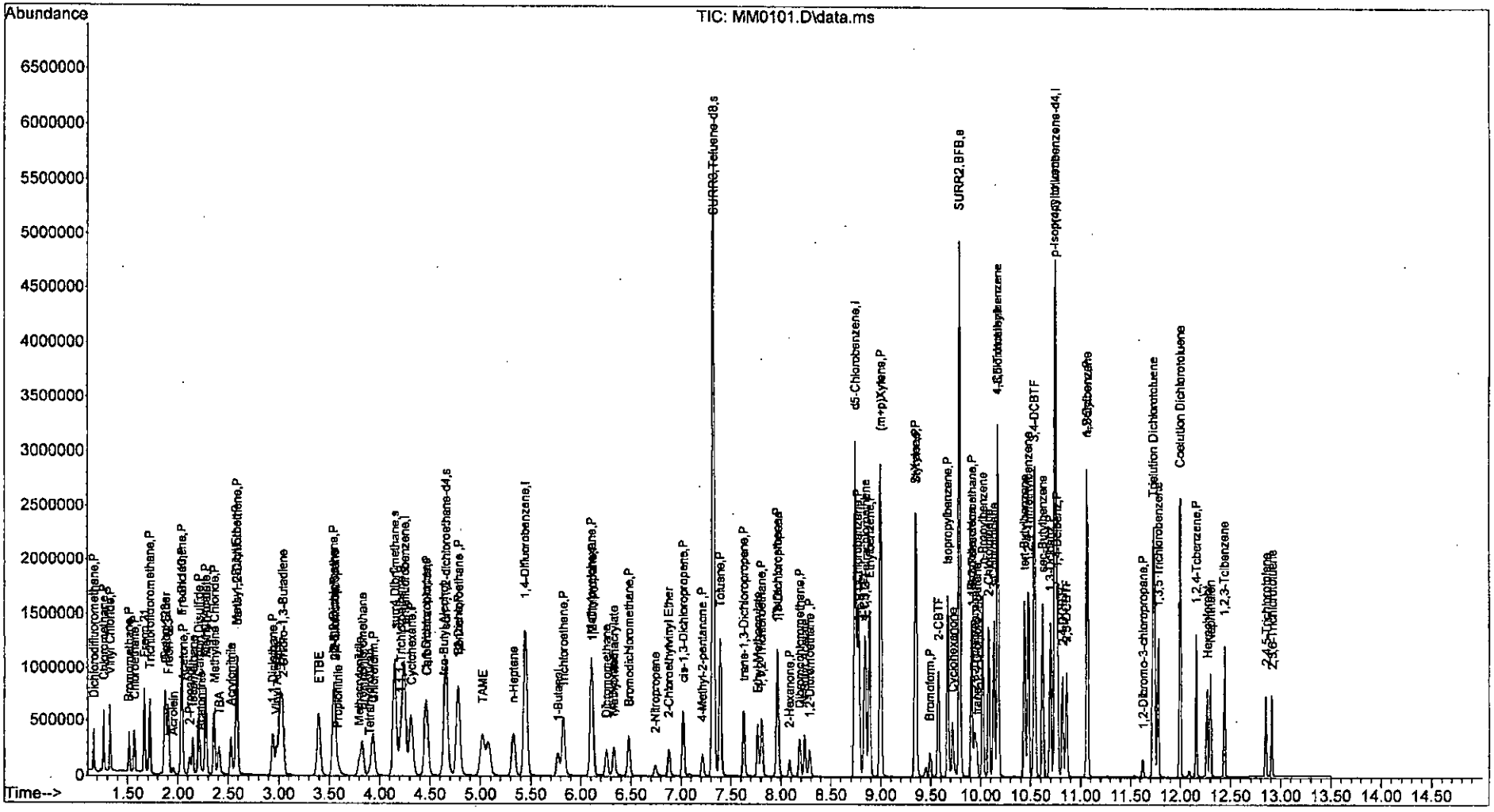
response 25555

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	77.68
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 20ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0101.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:21 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:29:45 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0102.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:32:14 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	4.243	168	896470	50.00	ppb	0.00
43) 1,4-Difluorobenzene	5.450	114	1362156	50.00	ppb	0.00
71) d5-Chlorobenzene	8.742	117	1272285	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	744954	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	4.152	113	403155	50.82	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.64%			
48) surr1,1,2-dichloroetha...	4.658	65	490824	50.82	ppb	0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 101.64%			
65) SURR3,Toluene-d8	7.322	98	1728247	51.75	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.50%			
70) SURR2,BFB	9.785	95	664156	51.26	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.52%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.165	85	445165	52.49	ppb	100
3) Chloromethane	1.262	50	572441	49.49	ppb	100
4) Vinyl Chloride	1.323	62	620342	50.50	ppb	100
5) Bromomethane	1.512	94	290555	48.91	ppb	100
6) Chloroethane	1.567	64	379190	49.55	ppb	100
7) Freon 21	1.665	67	958416	50.16	ppb	100
8) Trichlorofluoromethane	1.719	101	724273	49.58	ppb	100
9) Diethyl Ether	1.878	59	326874	49.15	ppb	100
10) Freon 123a	1.866	67	517474	49.37	ppb	100
11) Freon 123	1.902	83	569640	51.07	ppb	100
12) Acrolein	1.951	56	72113	197.59	ppb	100
13) 1,1-Diclethene	2.036	96	374441	48.35	ppb	100
14) Freon 113	2.036	101	393848	49.66	ppb	100
15) Acetone	2.042	43	91542	47.83	ppb	100
16) 2-Propanol	2.116	45	394249	1046.94	ppb	100
17) Iodomethane	2.146	142	578047	51.71	ppb	100
18) Carbon Disulfide	2.207	76	1257208	48.29	ppb	100
19) Acetonitrile	2.219	40	71364	236.42	ppb	100
20) Allyl Chloride	2.274	76	234107	53.54	ppb	100
21) Methyl Acetate	2.274	43	228686	52.18	ppb	100
22) Methylene Chloride	2.359	84	405140	48.01	ppb	100
23) TBA	2.408	59	612631	982.90	ppb	100
24) Acrylonitrile	2.524	53	515729	252.84	ppb	100
25) Methyl-t-Butyl Ether	2.579	73	1083953	49.93	ppb	100
26) trans-1,2-Dichloroethene	2.585	96	423296	50.58	ppb	100
28) 1,1-Diclethane	2.939	63	767350	49.62	ppb	100
29) Vinyl Acetate	2.975	86	73295	51.98	ppb	100
30) DIPE	3.012	45	1542759	49.40	ppb	100
31) 2-Chloro-1,3-Butadiene	3.042	53	698818	48.87	ppb	100
32) ETBE	3.396	59	1343512	49.77	ppb	100
33) 2,2-Dichloropropane	3.554	77	702319	51.17	ppb	100
34) cis-1,2-Dichloroethene	3.542	96	457622	50.44	ppb	100
35) 2-Butanone	3.542	43	130641	49.22	ppb	100
36) Propionitrile	3.591	54	194638	265.51	ppb	100
37) Bromochloromethane	3.829	130	250443	48.83	ppb	100

KR 10/28/14

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0102.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:32:14 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	119180	52.56	ppb	100
39) Tetrahydrofuran	3.908	42	90378	49.62	ppb	100
40) Chloroform	3.938	83	746211	47.93	ppb	100
41) 1,1,1-Trichloroethane	4.213	97	684047	48.98	ppb	100
42) TAME	5.024	73	1116368	49.06	ppb	100
44) Cyclohexane	4.316	41	500786	49.89	ppb	100
46) Carbontetrachloride	4.469	121	175732	49.41	ppb	100
47) 1,1-Dichloropropene	4.463	75	590556	49.62	ppb	100
49) Benzene	4.780	78	1734163	49.70	ppb	100
50) 1,2-Dichloroethane	4.786	62	578607	49.22	ppb	100
51) Iso-Butyl Alcohol	4.633	43	281142	1052.43	ppb	100
52) n-Heptane	5.328	43	550943	48.81	ppb	100
53) 1-Butanol	5.767	56	412772	2388.74	ppb	100
54) Trichloroethene	5.828	130	452764	49.55	ppb	100
55) Methylcyclohexane	6.103	55	580880	49.63	ppb	100
56) 1,2-Diclpropane	6.109	63	448630	49.08	ppb	100
57) Dibromomethane	6.255	93	214802	49.68	ppb	100
58) 1,4-Dioxane	6.316	88	63035m	916.71	ppb	
59) Methyl Methacrylate	6.328	69	218739	51.90	ppb	100
60) Bromodichloromethane	6.475	83	542953	50.14	ppb	100
61) 2-Nitropropane	6.743	41	137939	95.45	ppb	100
62) 2-Chloroethylvinyl Ether	6.877	63	211971	49.76	ppb	100
63) cis-1,3-Dichloropropene	7.017	75	698240	51.76	ppb	100
64) 4-Methyl-2-pentanone	7.212	43	310242	49.82	ppb	100
66) Toluene	7.389	91	1906441	50.68	ppb	100
67) trans-1,3-Dichloropropene	7.627	75	608427	52.90	ppb	100
68) Ethyl Methacrylate	7.767	69	466796	52.46	ppb	100
69) 1,1,2-Trichloroethane	7.804	97	316354	49.90	ppb	100
72) Tetrachloroethene	7.962	164	372314	50.85	ppb	100
73) 2-Hexanone	8.084	43	210562	49.78	ppb	100
74) 1,3-Dichloropropane	7.968	76	574300	50.31	ppb	100
75) Dibromochloromethane	8.188	129	352108	51.45	ppb	100
76) N-Butyl Acetate	8.236	43	576975	53.07	ppb	100
77) 1,2-Dibromoethane	8.285	107	309516	51.82	ppb	100
78) Chlorobenzene	8.767	112	1232478	50.02	ppb	100
79) 3-CBTF	8.785	180	684493	50.72	ppb	100
80) 4-CBTF	8.834	180	611723	50.65	ppb	100
81) 1,1,1,2-Tetrachloroethane	8.846	131	423508	52.29	ppb	100
82) Ethylbenzene	8.889	106	680015	51.16	ppb	100
83) (m+p)Xylene	8.998	106	1676831	104.27	ppb	100
84) o-Xylene	9.346	106	825346	51.05	ppb	100
85) Styrene	9.352	104	1430057	53.47	ppb	100
87) Bromoform	9.492	173	200642	54.21	ppb	100
88) 2-CBTF	9.578	180	651564	49.65	ppb	100
89) Isopropylbenzene	9.669	105	2041076	51.34	ppb	100
90) Cyclohexanone	9.718	55	346132	792.40	ppb	100
91) trans-1,4-Dichloro-2-B...	9.962	53	114365	47.87	ppb	100
92) 1,1,2,2-Tetrachloroethane	9.913	83	386370	49.87	ppb	100
93) Bromobenzene	9.907	156	522207	49.80	ppb	100
94) 1,2,3-Trichloropropane	9.937	110	108315	46.10	ppb	100
95) n-Propylbenzene	10.023	91	2385646	51.76	ppb	100
96) 2-Chlorotoluene	10.084	91	1434836	51.38	ppb	100

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0102.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

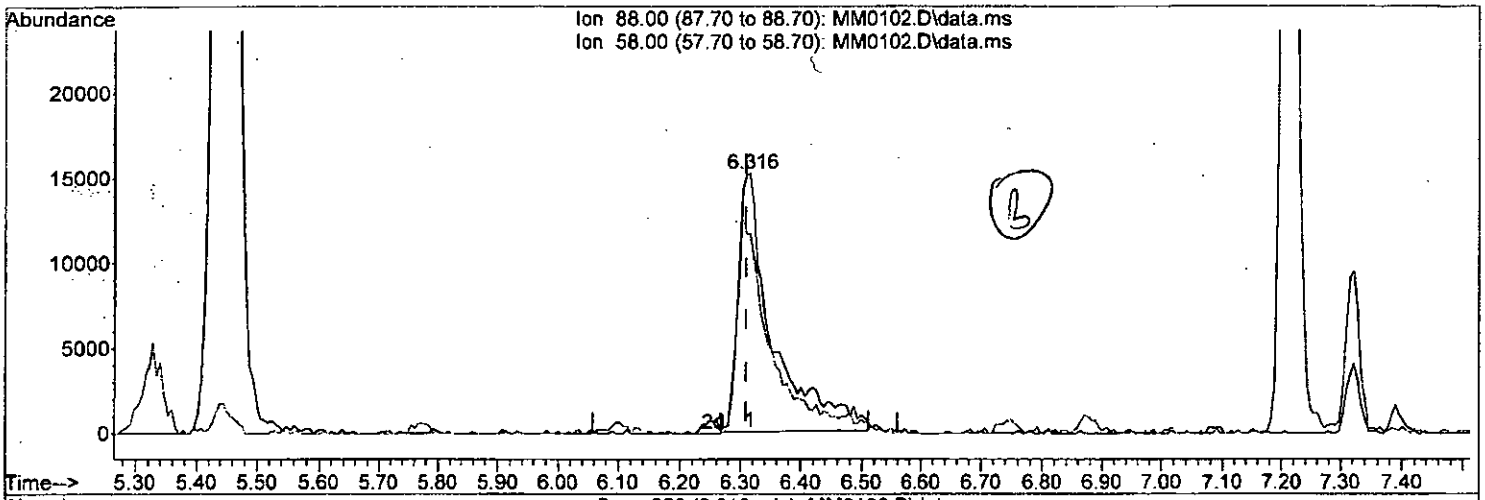
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:32:14 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

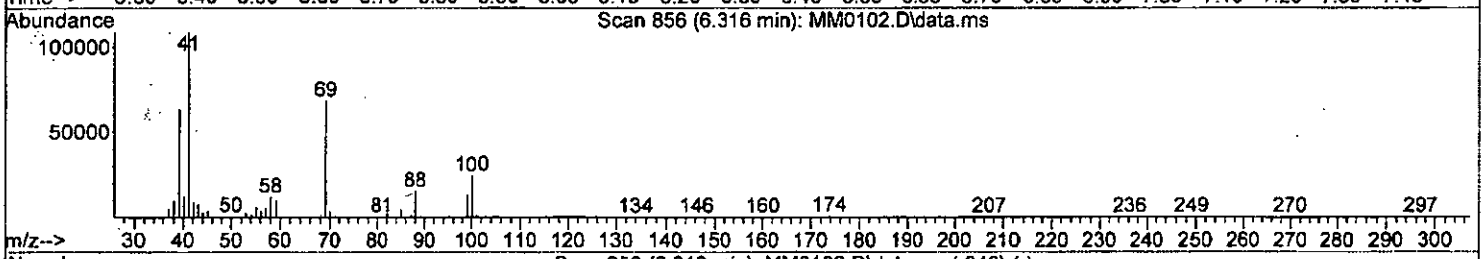
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1509248	50.81	ppb	100
98)	4-Chlorotoluene	10.169	91	1794798	51.26	ppb	100
99)	1,3,5-Trimethylbenzene	10.169	105	1788499	51.87	ppb	100
100)	tert-Butylbenzene	10.437	119	1423251	51.11	ppb	100
101)	1,2,4-Trimethylbenzene	10.474	105	1776031	52.52	ppb	100
102)	3,4-DCBTF	10.535	214	505700	51.17	ppb	100
103)	sec-Butylbenzene	10.620	105	2044869	52.22	ppb	100
104)	p-Isopropyltoluene	10.742	119	1783755	52.43	ppb	100
105)	1,3-Dclbenz	10.693	146	1010822	50.47	ppb	100
106)	1,4-Dclbenz	10.766	146	1049502	50.11	ppb	100
107)	2,4-DCBTF	10.821	214	438246	51.71	ppb	100
108)	2,5-DCBTF	10.858	214	489637	51.05	ppb	100
109)	n-Butylbenzene	11.065	91	1583441	52.60	ppb	100
110)	1,2-Dclbenz	11.065	146	950713	50.45	ppb	100
111)	1,2-Dibromo-3-chloropr...	11.626	157	68659	52.65	ppb	100
112)	Trielution Dichlorotol...	11.730	125	2439306	157.87	ppb	100
113)	1,3,5 Trichlorobenzene	11.778	180	659392	51.03	ppb	100
114)	Coelution Dichlorotoluene	11.998	125	1725672	106.65	ppb	100
115)	1,2,4-Tcbenzene	12.156	180	577805	52.37	ppb	100
116)	Hexachlorobt	12.266	225	224718	51.52	ppb	100
117)	Naphthalen	12.297	128	1125518	53.69	ppb	100
118)	1,2,3-Tclbenzene	12.437	180	478444	50.99	ppb	100
119)	2,4,5-Trichlorotolene	12.851	159	324971	51.20	ppb	100
120)	2,3,6-Trichlorotoluene	12.912	159	306902	52.34	ppb	100

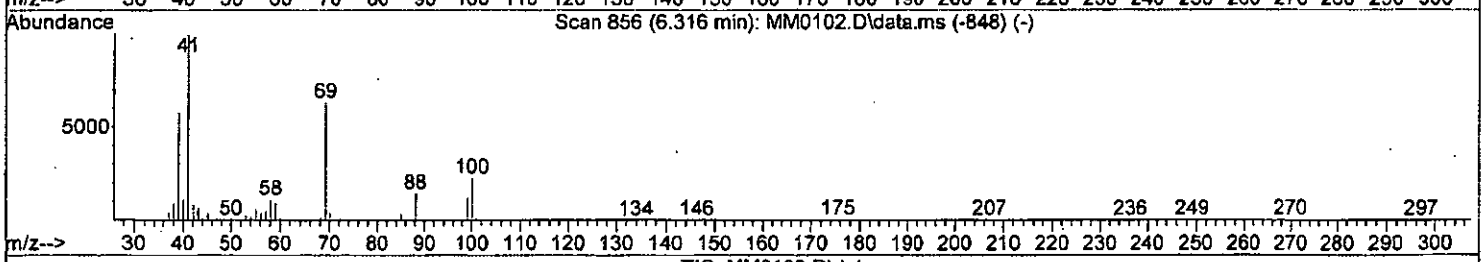
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0102.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:46 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0102.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.007) 881.93 ppb

response 60643

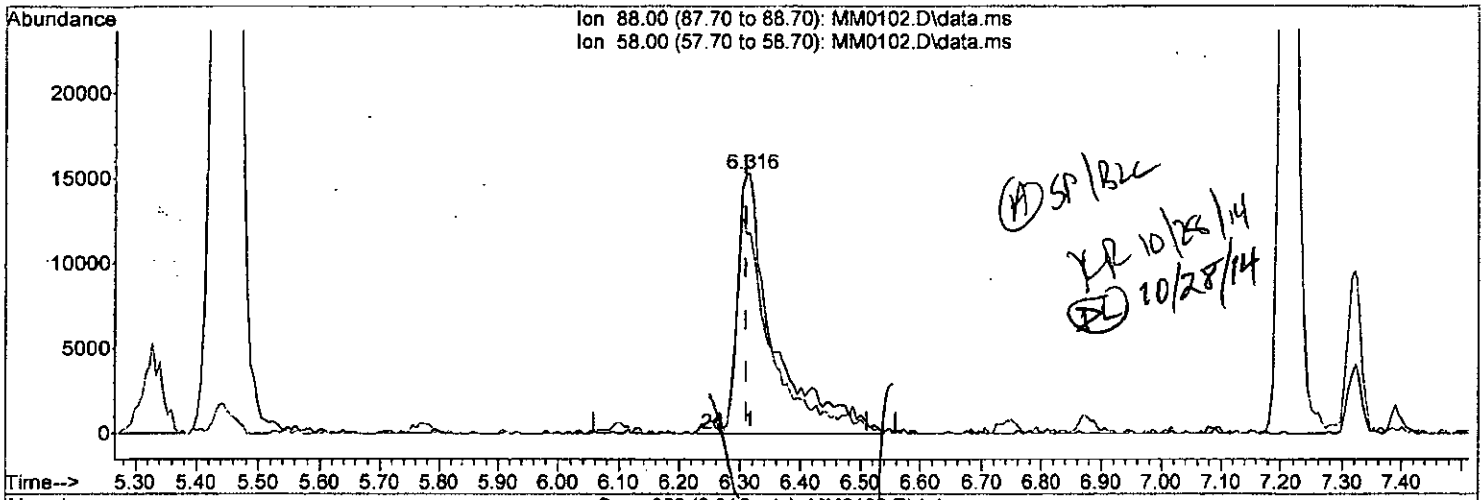
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	77.39
0.00	0.00	0.00
0.00	0.00	0.00

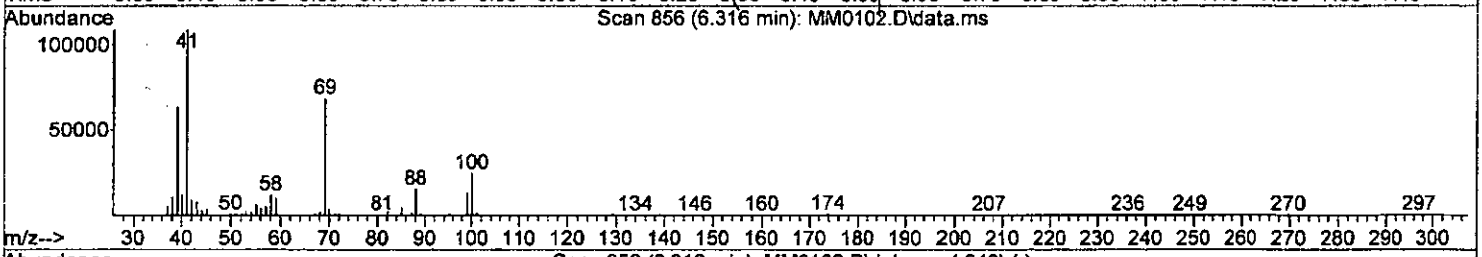
00167

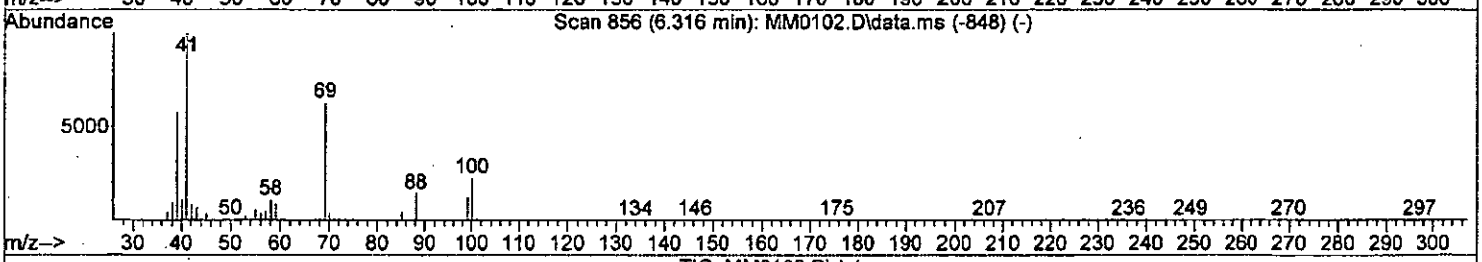
Quantitation Report (Qedit)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0102.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:46 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0102.D\data.ms

(58) 1,4-Dioxane

6.316min (+0.007) 916.71 ppb m

response 63035

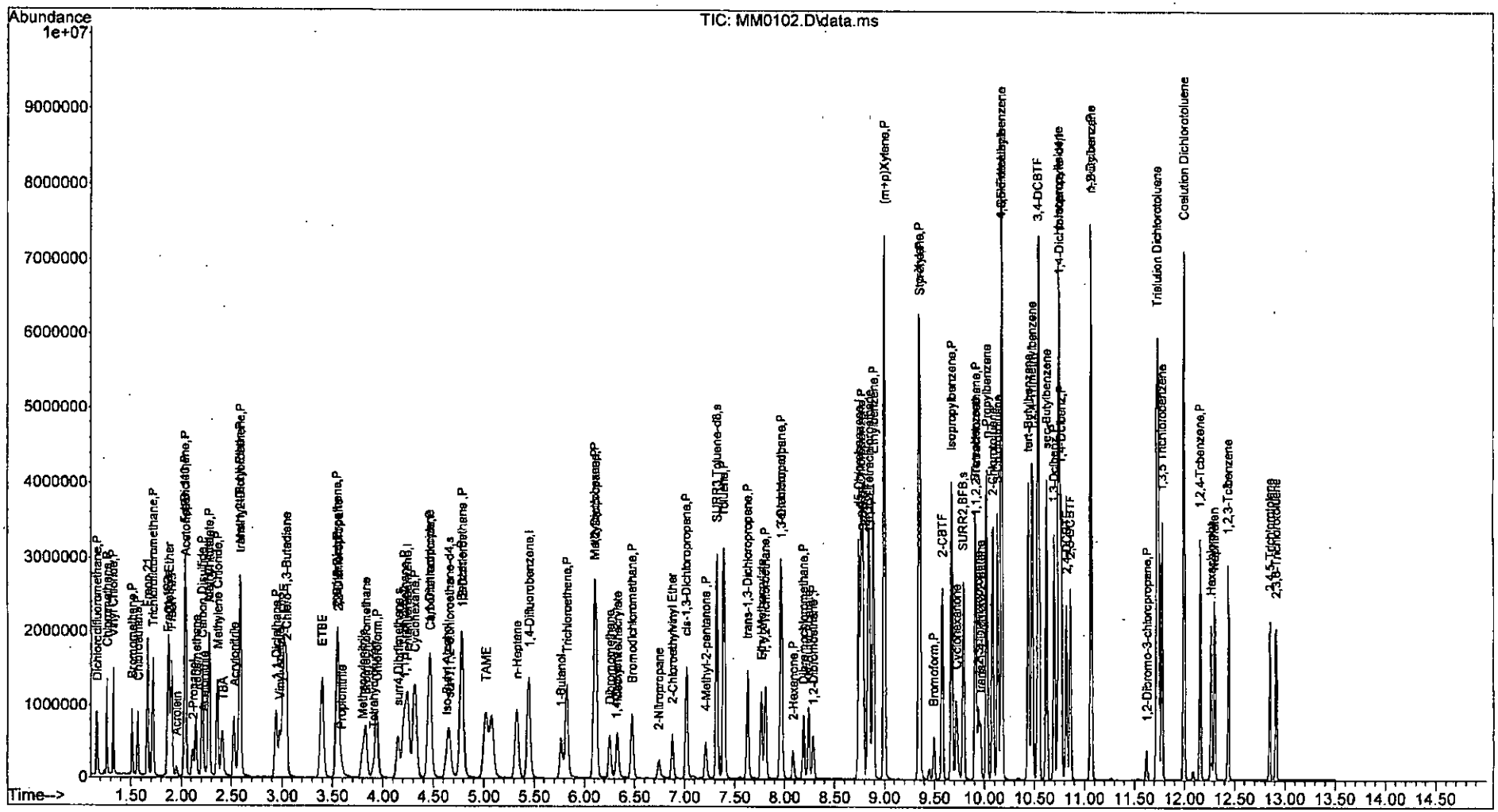
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	77.39
0.00	0.00	0.00
0.00	0.00	0.00

00168

Quantitation Report (QT Reviewed)

Sample : 50ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0102.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 6:54 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:32:14 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



69100

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0103.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:49:07 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	920623	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1374510	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1294552	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	789787	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	992748	124.02	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 248.04%#				
48) surr1,1,2-dichloroetha...	4.658	65	1198187	122.94	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 245.88%#				
65) SURR3,Toluene-d8	7.322	98	4121871	122.32	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 244.64%#				
70) SURR2,BFB	9.791	95	1635051	125.05	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 250.10%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	873972	100.34	ppb		99
3) Chloromethane	1.262	50	1128050	94.97	ppb		97
4) Vinyl Chloride	1.323	62	1222924	96.94	ppb		100
5) Bromomethane	1.512	94	619249	101.51	ppb		99
6) Chloroethane	1.567	64	741459	94.34	ppb		100
7) Freon 21	1.664	67	1809034	92.19	ppb		97
8) Trichlorofluoromethane	1.719	101	1395070	93.00	ppb		99
9) Diethyl Ether	1.878	59	664836	97.35	ppb		99
10) Freon 123a	1.872	67	996356	92.57	ppb		92
11) Freon 123	1.902	83	1104665	96.44	ppb		99
12) Acrolein	1.951	56	205902	549.37	ppb		97
13) 1,1-Diclethene	2.042	96	758394	95.36	ppb		91
14) Freon 113	2.036	101	785738	96.47	ppb		97
15) Acetone	2.042	43	202759	103.17	ppb		96
16) 2-Propanol	2.115	45	816641	2111.72	ppb		99
17) Iodomethane	2.146	142	1147977	100.00	ppb		100
18) Carbon Disulfide	2.207	76	2492175	93.22	ppb		99
19) Acetonitrile	2.225	40	156771	505.74	ppb		98
20) Allyl Chloride	2.274	76	431472	96.09	ppb		94
21) Methyl Acetate	2.274	43	463334	102.95	ppb		98
22) Methylene Chloride	2.359	84	802742	92.64	ppb		99
23) TBA	2.408	59	1347437	2105.10	ppb		99
24) Acrylonitrile	2.524	53	1093482	522.03	ppb		99
25) Methyl-t-Butyl Ether	2.579	73	2234468	100.22	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	845923	98.42	ppb		98
28) 1,1-Diclethane	2.945	63	1509641	95.05	ppb		99
29) Vinyl Acetate	2.975	86	149040	102.93	ppb	#	91
30) DIPE	3.018	45	3140277	97.92	ppb		98
31) 2-Chloro-1,3-Butadiene	3.042	53	1414814	96.34	ppb		99
32) ETBE	3.396	59	2767157	99.83	ppb		98
33) 2,2-Dichloropropane	3.554	77	1369146	97.14	ppb		98
34) cis-1,2-Dichloroethene	3.548	96	913553	98.05	ppb		97
35) 2-Butanone	3.548	43	292679	107.37	ppb		93
36) Propionitrile	3.591	54	414076	550.03	ppb		100
37) Bromochloromethane	3.829	130	492947	93.60	ppb		97

KP 10/28/14

00170

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0103.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:49:07 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	243252	104.47	ppb		98
39) Tetrahydrofuran	3.902	42	186668	99.80	ppb		94
40) Chloroform	3.938	83	1487923	93.06	ppb		100
41) 1,1,1-Trichloroethane	4.213	97	1345859	93.85	ppb		97
42) TAME	5.023	73	2335377	99.94	ppb		99
44) Cyclohexane	4.316	41	947751	93.57	ppb		98
46) Carbontetrachloride	4.469	121	355340	99.01	ppb		98
47) 1,1-Dichloropropene	4.463	75	1165825	97.08	ppb		96
49) Benzene	4.780	78	3412917	96.94	ppb		99
50) 1,2-Dichloroethane	4.786	62	1158848	97.69	ppb		98
51) Iso-Butyl Alcohol	4.639	43	613612	2276.36	ppb		97
52) n-Heptane	5.328	43	1064298	93.45	ppb		98
53) 1-Butanol	5.773	56	938682	5383.39	ppb		96
54) Trichloroethene	5.828	130	903879	98.03	ppb		99
55) Methylcyclohexane	6.109	55	1110871	94.06	ppb		94
56) 1,2-Diclpropane	6.115	63	878379	95.24	ppb		97
57) Dibromomethane	6.255	93	426464	97.74	ppb		98
58) 1,4-Dioxane	6.310	88	133664m	1926.40	ppb		
59) Methyl Methacrylate	6.328	69	451915	106.26	ppb		98
60) Bromodichloromethane	6.474	83	1108493	101.45	ppb		98
61) 2-Nitropropane	6.743	41	307087	210.59	ppb		97
62) 2-Chloroethylvinyl Ether	6.877	63	445933	103.74	ppb		99
63) cis-1,3-Dichloropropene	7.017	75	1393117	102.34	ppb		99
64) 4-Methyl-2-pentanone	7.212	43	667016	106.15	ppb		99
66) Toluene	7.395	91	3781725	99.62	ppb		99
67) trans-1,3-Dichloropropene	7.627	75	1231922	106.14	ppb		100
68) Ethyl Methacrylate	7.767	69	976108	108.71	ppb		98
69) 1,1,2-Trichloroethane	7.809	97	654244	102.26	ppb		98
72) Tetrachloroethene	7.962	164	737368	98.98	ppb		98
73) 2-Hexanone	8.084	43	460637	107.02	ppb		94
74) 1,3-Dichloropropane	7.968	76	1167070	100.48	ppb		99
75) Dibromochloromethane	8.187	129	746707	107.23	ppb		100
76) N-Butyl Acetate	8.236	43	1210523	109.43	ppb		99
77) 1,2-Dibromoethane	8.285	107	631369	103.88	ppb		98
78) Chlorobenzene	8.773	112	2496110	99.56	ppb		96
79) 3-CBTF	8.785	180	1410362	102.70	ppb		97
80) 4-CBTF	8.840	180	1276096	103.84	ppb		98
81) 1,1,1,2-Tetrachloroethane	8.852	131	875753	106.26	ppb		97
82) Ethylbenzene	8.889	106	1355080	100.20	ppb		94
83) (m+p)Xylene	8.998	106	3407805	208.27	ppb		90
84) o-Xylene	9.346	106	1700531	103.36	ppb		96
85) Styrene	9.352	104	2943249	108.16	ppb		98
87) Bromoform	9.492	173	445207	113.45	ppb		100
88) 2-CBTF	9.577	180	1351125	97.12	ppb		99
89) Isopropylbenzene	9.675	105	4025714	95.52	ppb		97
90) Cyclohexanone	9.718	55	832162	1796.92	ppb		98
91) trans-1,4-Dichloro-2-B...	9.961	53	250765	99.00	ppb		96
92) 1,1,2,2-Tetrachloroethane	9.913	83	815159	99.24	ppb		99
93) Bromobenzene	9.907	156	1078473	97.01	ppb		99
94) 1,2,3-Trichloropropane	9.943	110	231090	92.76	ppb	#	88
95) n-Propylbenzene	10.022	91	4619817	94.54	ppb		98
96) 2-Chlorotoluene	10.083	91	2868565	96.89	ppb		98

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0103.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:26 pm
Operator : K.Ruest
InstName : MSVOA-12

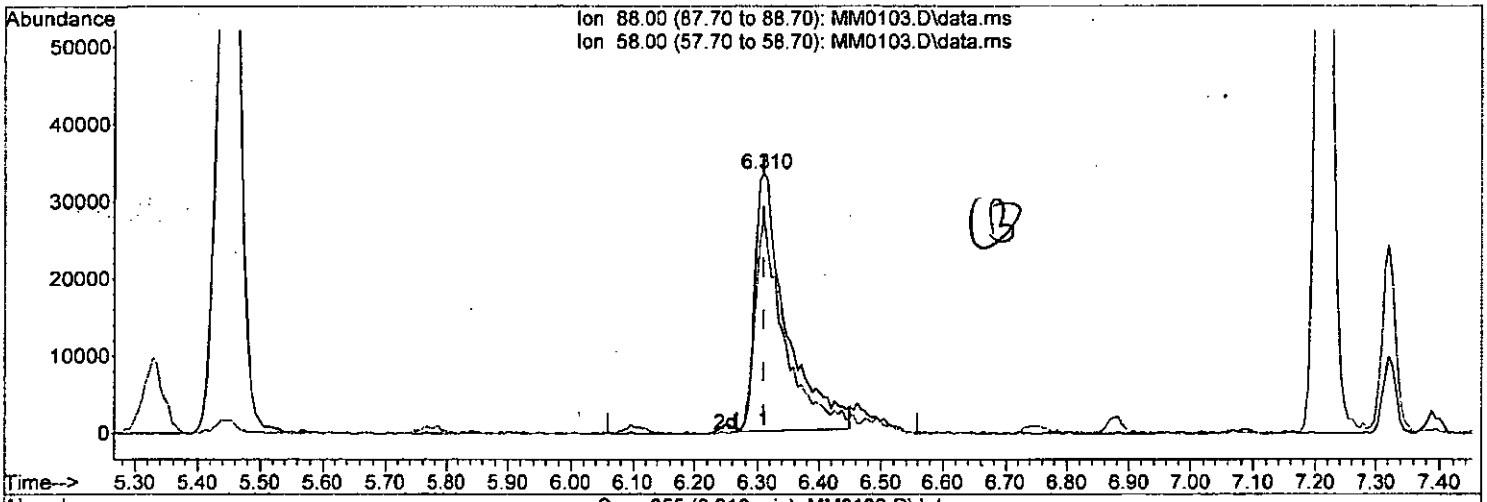
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:49:07 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

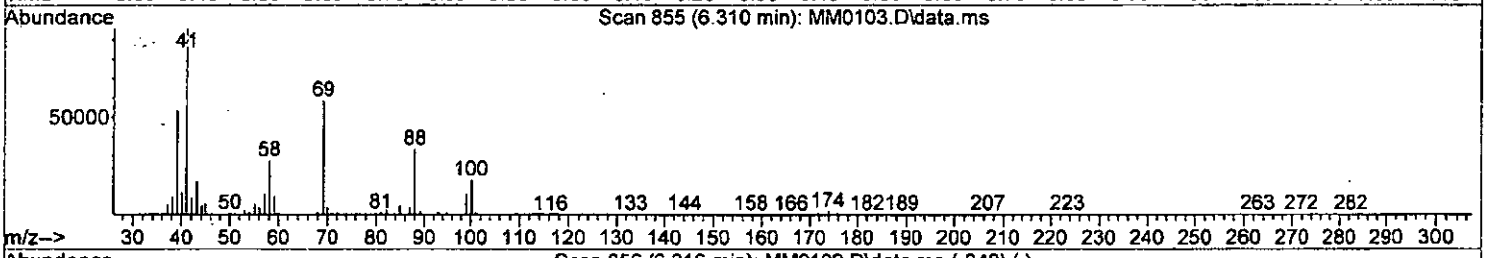
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	3086736	98.03	ppb	100
98)	4-Chlorotoluene	10.175	91	3627234	97.71	ppb	95
99)	1,3,5-Trimethylbenzene	10.175	105	3597702	98.41	ppb	95
100)	tert-Butylbenzene	10.437	119	2840071	96.19	ppb	99
101)	1,2,4-Trimethylbenzene	10.480	105	3515365	98.06	ppb	96
102)	3,4-DCBTF	10.535	214	1098850	104.87	ppb	99
103)	sec-Butylbenzene	10.620	105	4017873	96.78	ppb	99
104)	p-Isopropyltoluene	10.742	119	3481956	96.54	ppb	98
105)	1,3-Dclbenz	10.693	146	2063175	97.16	ppb	99
106)	1,4-Dclbenz	10.766	146	2129678	95.92	ppb	98
107)	2,4-DCBTF	10.821	214	900603	100.23	ppb	100
108)	2,5-DCBTF	10.858	214	1014477	99.76	ppb	99
109)	n-Butylbenzene	11.065	91	3154293	98.84	ppb	99
110)	1,2-Dclbenz	11.065	146	1999215	100.06	ppb	99
111)	1,2-Dibromo-3-chloropr...	11.626	157	153816	111.26	ppb	95
112)	Trielution Dichlorotol...	11.729	125	4916671	300.14	ppb	99
113)	1,3,5 Trichlorobenzene	11.778	180	1316881	96.13	ppb	99
114)	Coelution Dichlorotoluene	11.998	125	3453344	201.30	ppb	95
115)	1,2,4-Tcbenzene	12.156	180	1123715	96.07	ppb	99
116)	Hexachlorobt	12.266	225	404337	87.43	ppb	98
117)	Naphthalen	12.302	128	2294798	103.25	ppb	98
118)	1,2,3-Tclbenzene	12.437	180	947260	95.22	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	648315	96.34	ppb	98
120)	2,3,6-Trichlorotoluene	12.912	159	606817	97.61	ppb	99

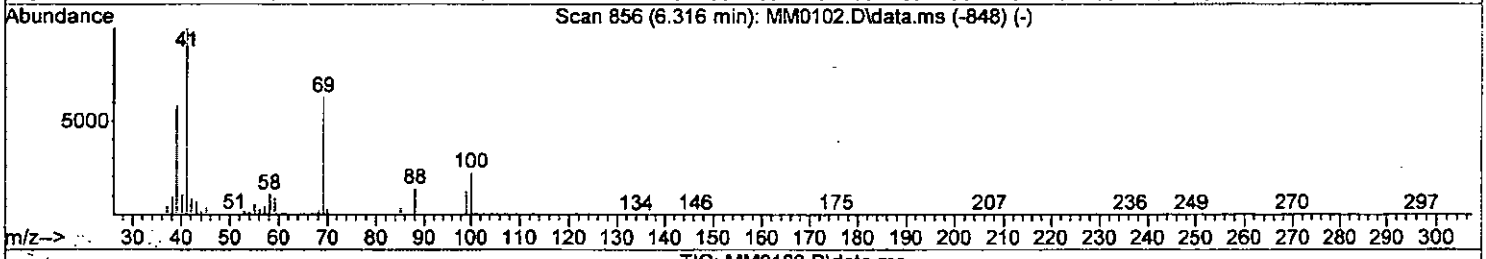
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0103.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:50 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0103.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.001) 1717.52 ppb

response 119171

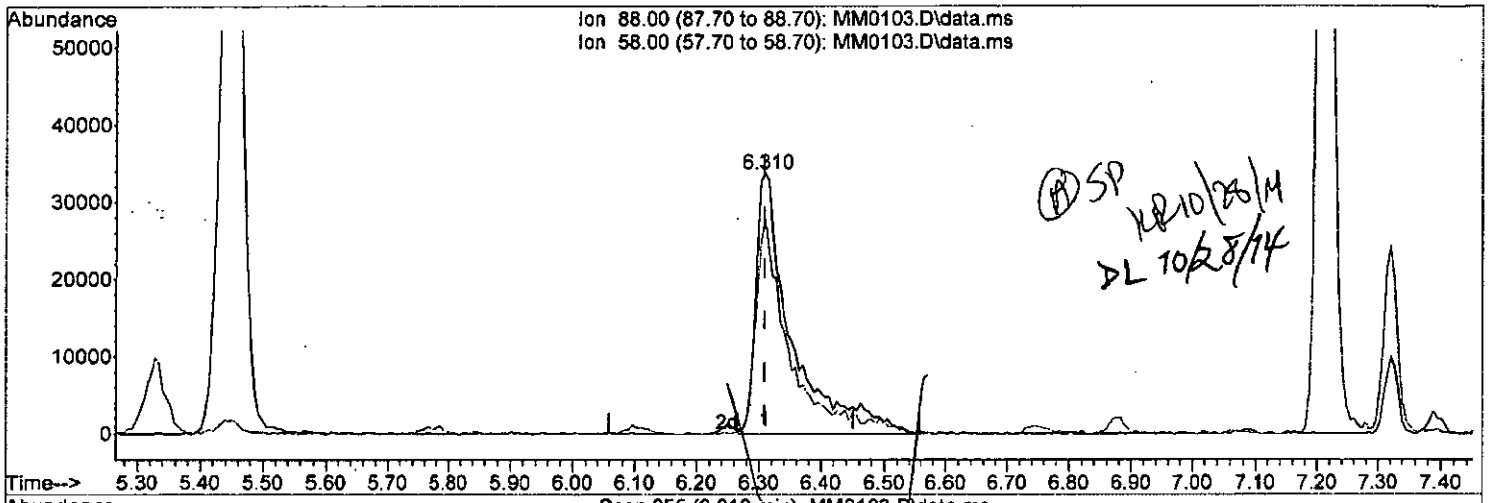
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	83.04
0.00	0.00	0.00
0.00	0.00	0.00

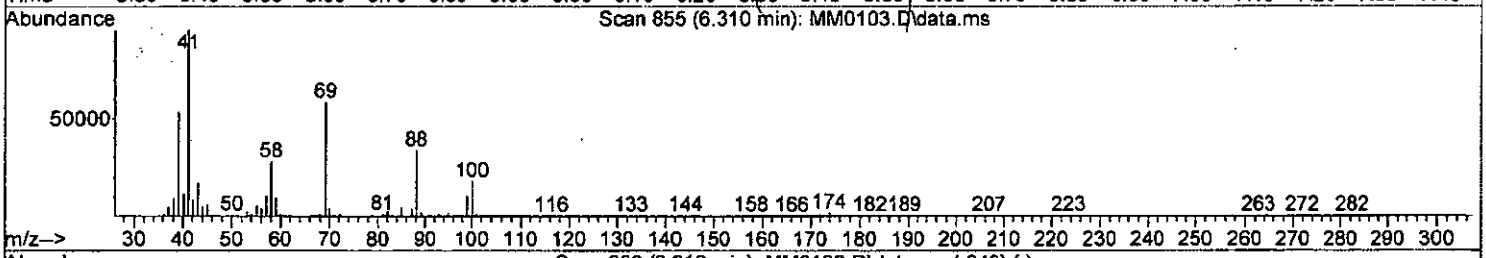
00173

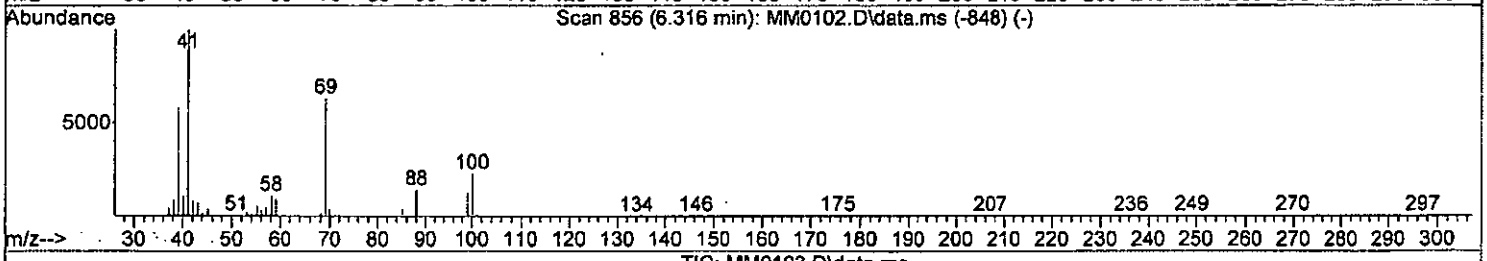
Quantitation Report (Qedit)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0103.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:50 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0103.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.001) 1926.40 ppb m

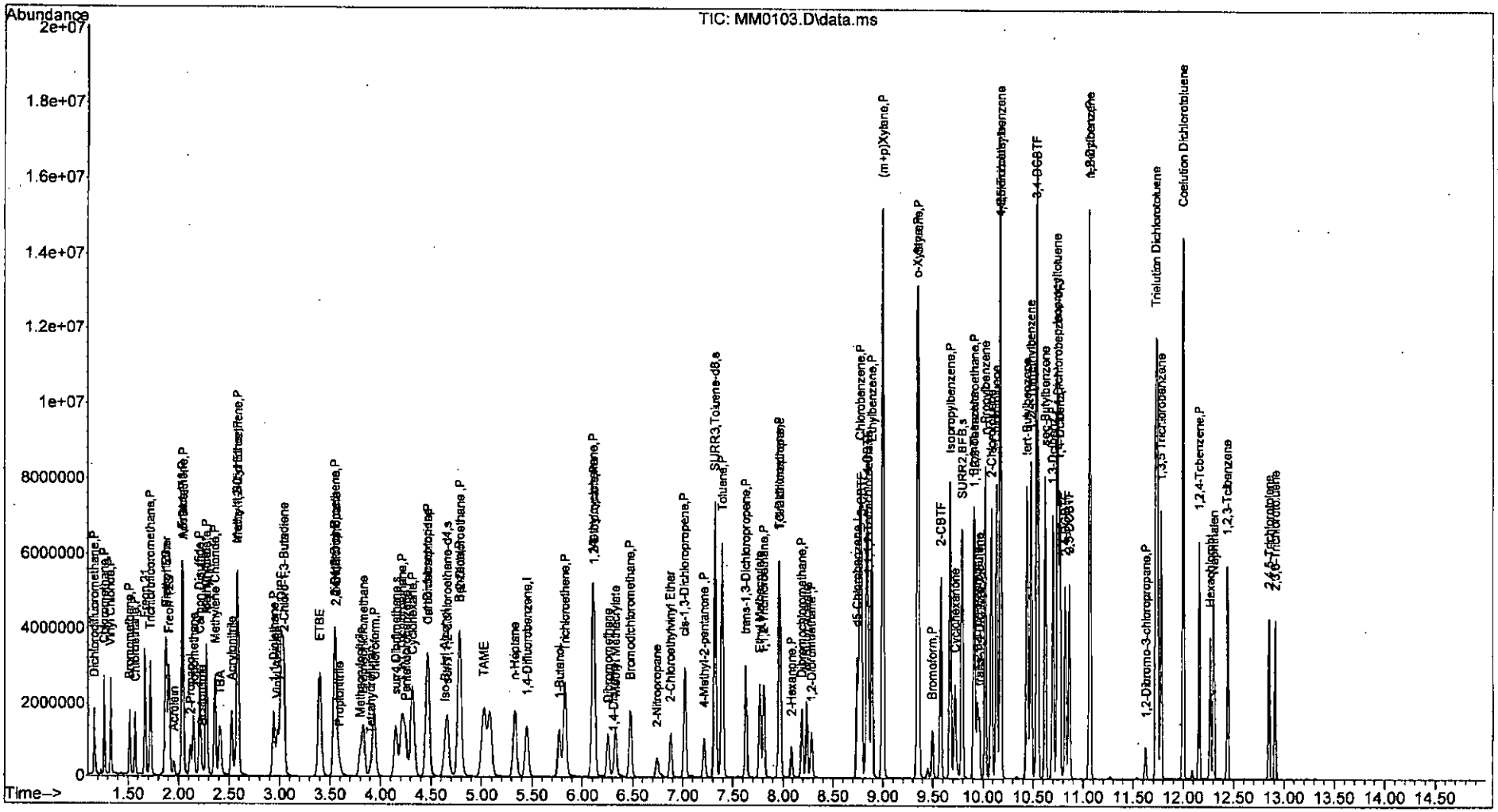
response 133664

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	83.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Sample : 100ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0103.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:26 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:49:07 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



54709

Quantitation Report (QT Reviewed)

Sample : 150ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0104.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:50:51 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	939913	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1417996	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1331100	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	835963	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	1183540	143.32	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 286.64%#				
48) surr1,1,2-dichloroetha...	4.658	65	1411829	140.41	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 280.82%#				
65) SURR3,Toluene-d8	7.322	98	4949801	142.39	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 284.78%#				
70) SURR2,BFB	9.791	95	1999008	148.20	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 296.40%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.158	85	1321664	148.63	ppb		97
3) Chloromethane	1.262	50	1703423	140.46	ppb		96
4) Vinyl Chloride	1.323	62	1831726	142.22	ppb		97
5) Bromomethane	1.512	94	1040138	167.01	ppb		100
6) Chloroethane	1.567	64	1143652	142.53	ppb		99
7) Freon 21	1.664	67	2744751	137.00	ppb		95
8) Trichlorofluoromethane	1.719	101	2195800	143.38	ppb		97
9) Diethyl Ether	1.878	59	992940	142.40	ppb		98
10) Freon 123a	1.865	67	1557843	141.77	ppb		97
11) Freon 123	1.902	83	1726966	147.68	ppb		99
12) Acrolein	1.951	56	343650	898.08	ppb		98
13) 1,1-Diclethene	2.036	96	1200952	147.90	ppb		94
14) Freon 113	2.036	101	1245371	149.76	ppb		99
15) Acetone	2.042	43	291194	145.13	ppb		100
16) 2-Propanol	2.115	45	1136594	2878.75	ppb		97
17) Iodomethane	2.146	142	1736495	148.16	ppb		100
18) Carbon Disulfide	2.207	76	3843943	140.83	ppb		98
19) Acetonitrile	2.219	40	251112	793.46	ppb		98
20) Allyl Chloride	2.274	76	702552	153.25	ppb		96
21) Methyl Acetate	2.274	43	675819	147.08	ppb		99
22) Methylene Chloride	2.353	84	1275419	144.16	ppb		98
23) TBA	2.408	59	1827525	2796.54	ppb		99
24) Acrylonitrile	2.524	53	1597045	746.78	ppb		99
25) Methyl-t-Butyl Ether	2.579	73	3307412	145.30	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	1351524	154.02	ppb		95
28) 1,1-Diclethane	2.938	63	2322556	143.23	ppb		99
29) Vinyl Acetate	2.975	86	232128	157.02	ppb	#	88
30) DIPE	3.012	45	4401903	134.45	ppb		99
31) 2-Chloro-1,3-Butadiene	3.036	53	2204213	147.02	ppb		100
32) ETBE	3.396	59	3872246	136.83	ppb		98
33) 2,2-Dichloropropane	3.554	77	2121403	147.42	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	1431109	150.45	ppb		97
35) 2-Butanone	3.542	43	420042	150.93	ppb		93
36) Propionitrile	3.591	54	586312	762.84	ppb		99
37) Bromochloromethane	3.828	130	753679	140.17	ppb		97

KR 10/29/14

Sample : 150ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0104.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:50:51 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	357705	150.47	ppb		98
39) Tetrahydrofuran	3.902	42	267849	140.26	ppb		100
40) Chloroform	3.932	83	2297495	140.74	ppb		100
41) 1,1,1-Trichloroethane	4.213	97	2098190	143.30	ppb		96
42) TAME	5.023	73	3240728	135.84	ppb		99
44) Cyclohexane	4.316	41	1459942	139.72	ppb		98
46) Carbontetrachloride	4.469	121	557941	150.69	ppb		97
47) 1,1-Dichloropropene	4.462	75	1818147	146.76	ppb		98
49) Benzene	4.779	78	5307576	146.13	ppb		99
50) 1,2-Dichloroethane	4.786	62	1750588	143.04	ppb		98
51) Iso-Butyl Alcohol	4.639	43	845193	3039.31	ppb		99
52) n-Heptane	5.328	43	1649982	140.43	ppb		96
53) 1-Butanol	5.773	56	1238190	6883.32	ppb		95
54) Trichloroethene	5.828	130	1422845	149.58	ppb		98
55) Methylcyclohexane	6.109	55	1746330	143.33	ppb		95
56) 1,2-Diclpropane	6.115	63	1367151	143.68	ppb		96
57) Dibromomethane	6.255	93	648296	144.03	ppb		94
58) 1,4-Dioxane	6.310	88	189055m	2641.14	ppb		
59) Methyl Methacrylate	6.328	69	661902	150.86	ppb		97
60) Bromodichloromethane	6.474	83	1714396	152.10	ppb		98
61) 2-Nitropropane	6.743	41	464508	308.78	ppb		94
62) 2-Chloroethylvinyl Ether	6.877	63	657108	148.18	ppb		99
63) cis-1,3-Dichloropropene	7.017	75	2138996	152.31	ppb		99
64) 4-Methyl-2-pentanone	7.212	43	946558	146.02	ppb		99
66) Toluene	7.395	91	5784987	147.72	ppb		96
67) trans-1,3-Dichloropropene	7.627	75	1874867	156.58	ppb		98
68) Ethyl Methacrylate	7.767	69	1433168	154.71	ppb		100
69) 1,1,2-Trichloroethane	7.803	97	982988	148.93	ppb		100
72) Tetrachloroethene	7.962	164	1194428	155.93	ppb		99
73) 2-Hexanone	8.084	43	649233	146.70	ppb		96
74) 1,3-Dichloropropane	7.968	76	1755376	146.98	ppb		99
75) Dibromochloromethane	8.187	129	1157405	161.64	ppb		100
76) N-Butyl Acetate	8.236	43	1721869	151.38	ppb		99
77) 1,2-Dibromoethane	8.285	107	941966	150.73	ppb		99
78) Chlorobenzene	8.767	112	3875321	150.33	ppb		98
79) 3-CBTF	8.785	180	2230532	157.96	ppb		96
80) 4-CBTF	8.840	180	1993174	157.74	ppb		97
81) 1,1,1,2-Tetrachloroethane	8.852	131	1387648	163.75	ppb		97
82) Ethylbenzene	8.888	106	2139176	153.84	ppb	#	84
83) (m+p)Xylene	8.998	106	5343943	317.62	ppb	#	76
84) o-Xylene	9.346	106	2724444	161.05	ppb		89
85) Styrene	9.352	104	4633665	165.60	ppb		95
87) Bromoform	9.492	173	689544	166.01	ppb		99
88) 2-CBTF	9.577	180	2110998	143.36	ppb		99
89) Isopropylbenzene	9.675	105	6098553	136.71	ppb		92
90) Cyclohexanone	9.718	55	1106649	2257.63	ppb		98
91) trans-1,4-Dichloro-2-B...	9.961	53	371259	138.48	ppb		98
92) 1,1,2,2-Tetrachloroethane	9.913	83	1227168	141.14	ppb		100
93) Bromobenzene	9.913	156	1701592	144.60	ppb	#	87
94) 1,2,3-Trichloropropane	9.943	110	335413	127.20	ppb		94
95) n-Propylbenzene	10.022	91	6854473	132.52	ppb		92
96) 2-Chlorotoluene	10.083	91	4430758	141.40	ppb		96

Sample : 150ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0104.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:50:51 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

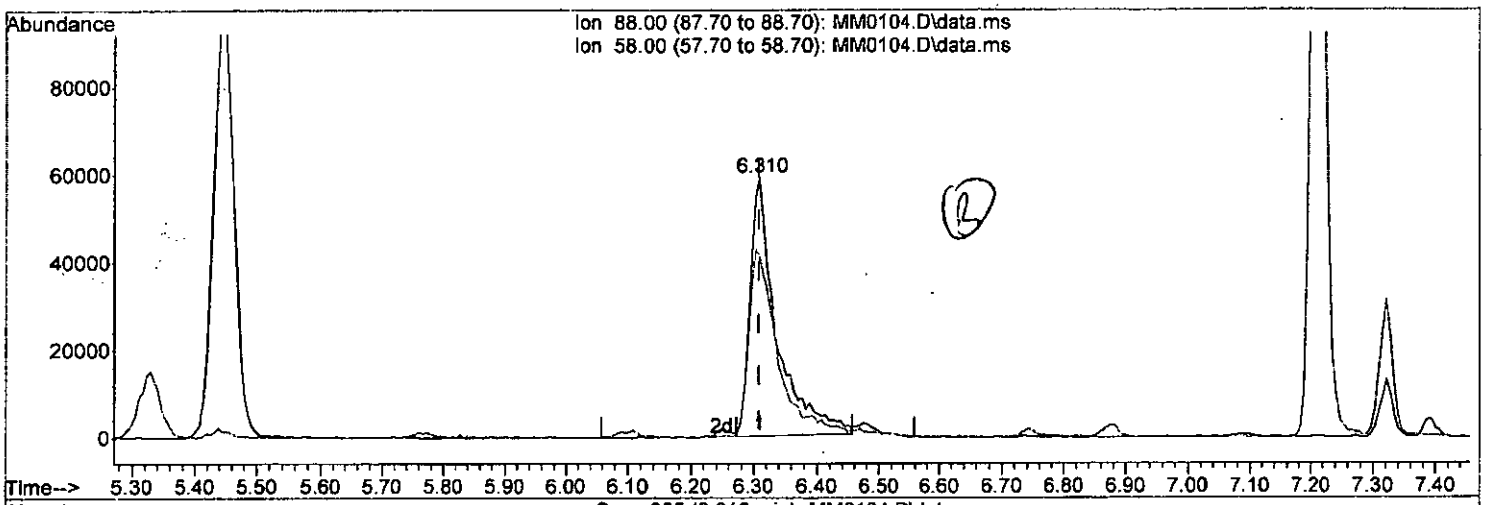
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	4643111	139.31	ppb	98
98)	4-Chlorotoluene	10.175	91	5629177	143.27	ppb	91
99)	1,3,5-Trimethylbenzene	10.175	105	5594262	144.58	ppb	90
100)	tert-Butylbenzene	10.443	119	4449940	142.39	ppb	97
101)	1,2,4-Trimethylbenzene	10.480	105	5416214	142.73	ppb	93
102)	3,4-DCBTF	10.534	214	1763882	159.04	ppb	99
103)	sec-Butylbenzene	10.620	105	6090432	138.60	ppb	95
104)	p-Isopropyltoluene	10.742	119	5406039	141.60	ppb	94
105)	1,3-Dclbenz	10.699	146	3246197	144.43	ppb	98
106)	1,4-Dclbenz	10.766	146	3338650	142.06	ppb	96
107)	2,4-DCBTF	10.821	214	1409289	148.18	ppb	100
108)	2,5-DCBTF	10.864	214	1591712	147.88	ppb	96
109)	n-Butylbenzene	11.065	91	4925609	145.81	ppb	94
110)	1,2-Dclbenz	11.065	146	3165417	149.68	ppb	99
111)	1,2-Dibromo-3-chloropr...	11.626	157	218754	149.49	ppb	94
112)	Trielution Dichlorotol...	11.729	125	7495783	432.31	ppb	95
113)	1,3,5 Trichlorobenzene	11.778	180	2072340	142.92	ppb	99
114)	Coelution Dichlorotoluene	11.998	125	5156489	283.98	ppb	88
115)	1,2,4-Tcbenzene	12.156	180	1781032	143.86	ppb	99
116)	Hexachlorobt	12.266	225	682734	139.48	ppb	98
117)	Naphthalen	12.302	128	3309080	140.66	ppb	98
118)	1,2,3-Tclbenzene	12.437	180	1467913	139.41	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	1009944	141.78	ppb	98
120)	2,3,6-Trichlorotoluene	12.912	159	952316	144.73	ppb	98

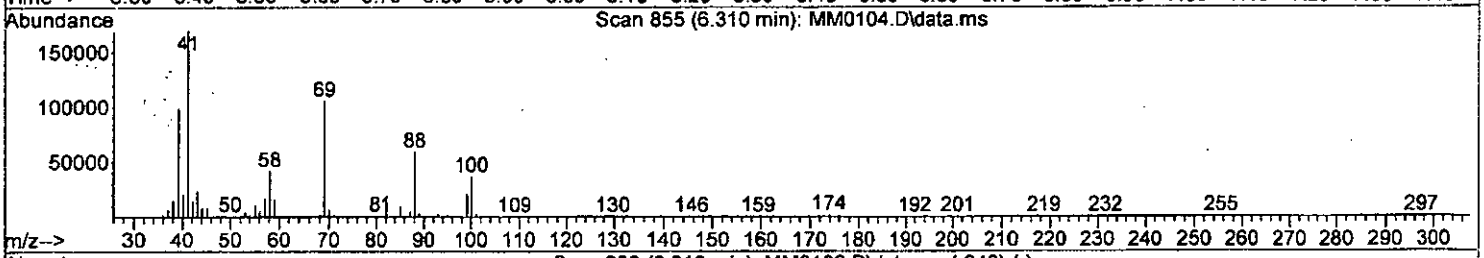
(#) = qualifier out of range (m) = manual integration (+) = signals summed

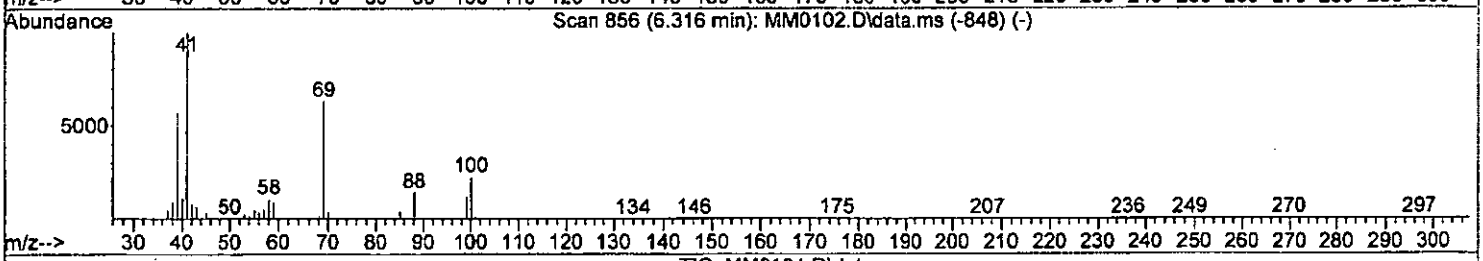
Quantitation Report (Qedit)

Sample : 150ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0104.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:54 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0104.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.001) 2447.29 ppb

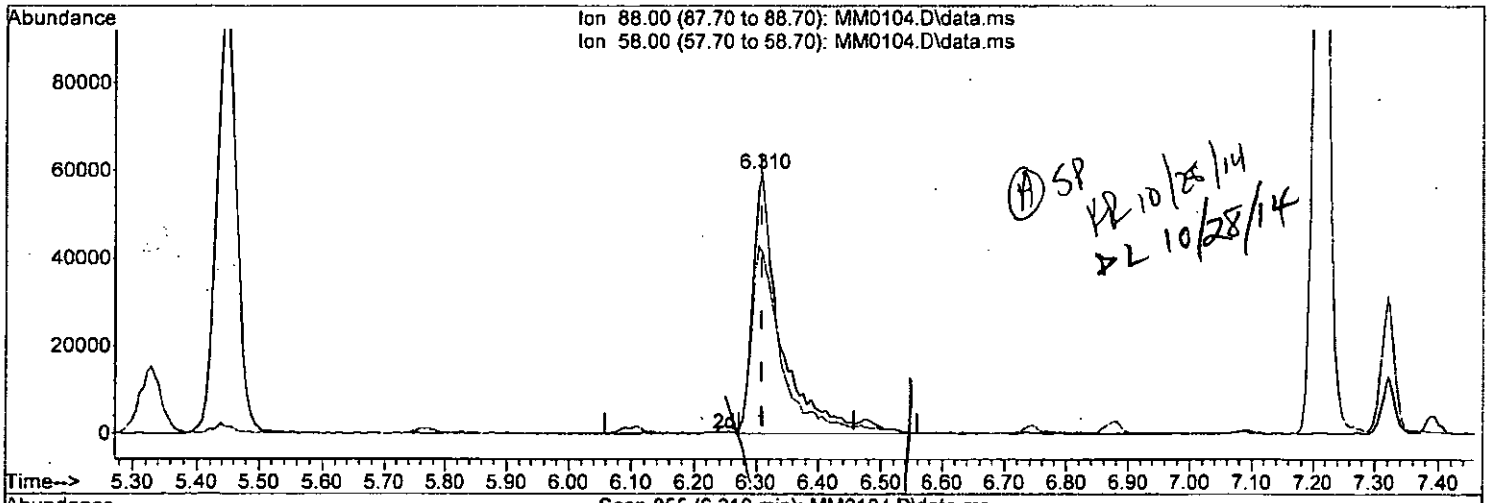
response 175179

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	69.80
0.00	0.00	0.00
0.00	0.00	0.00

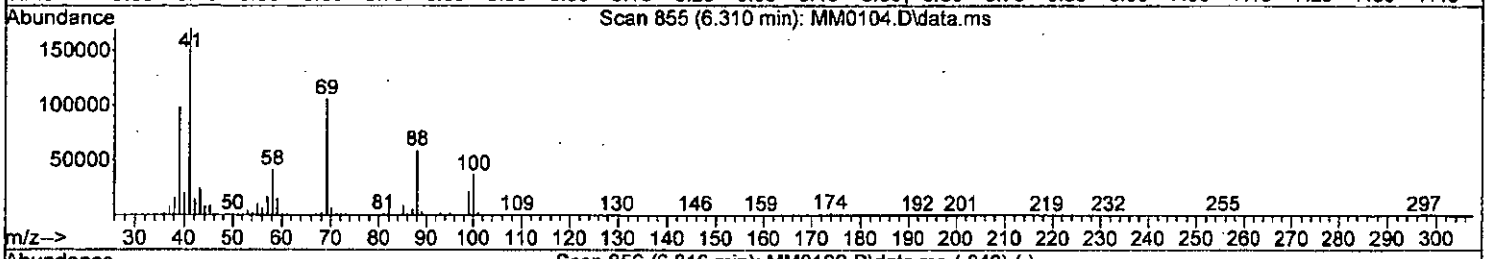
00179

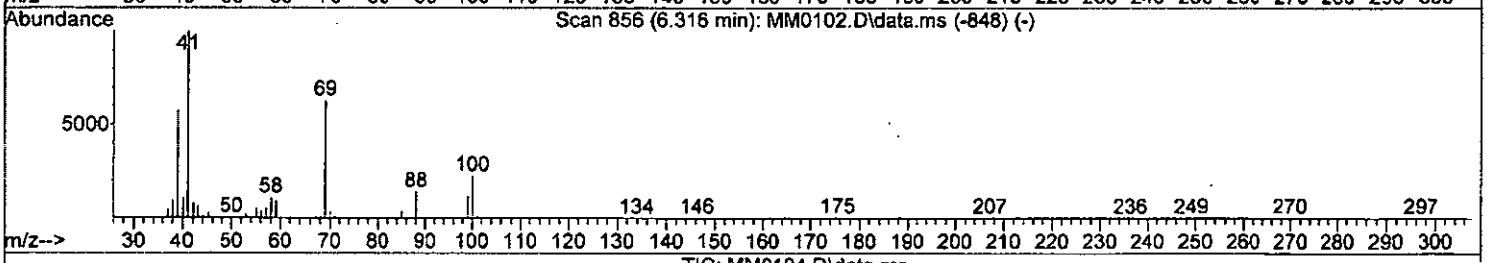
Sample : 150ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0104.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:54 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



Ⓐ SP KR 10/28/14 DL 10/28/14





TIC: MM0104.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.001) 2641.14 ppb m

response 189055

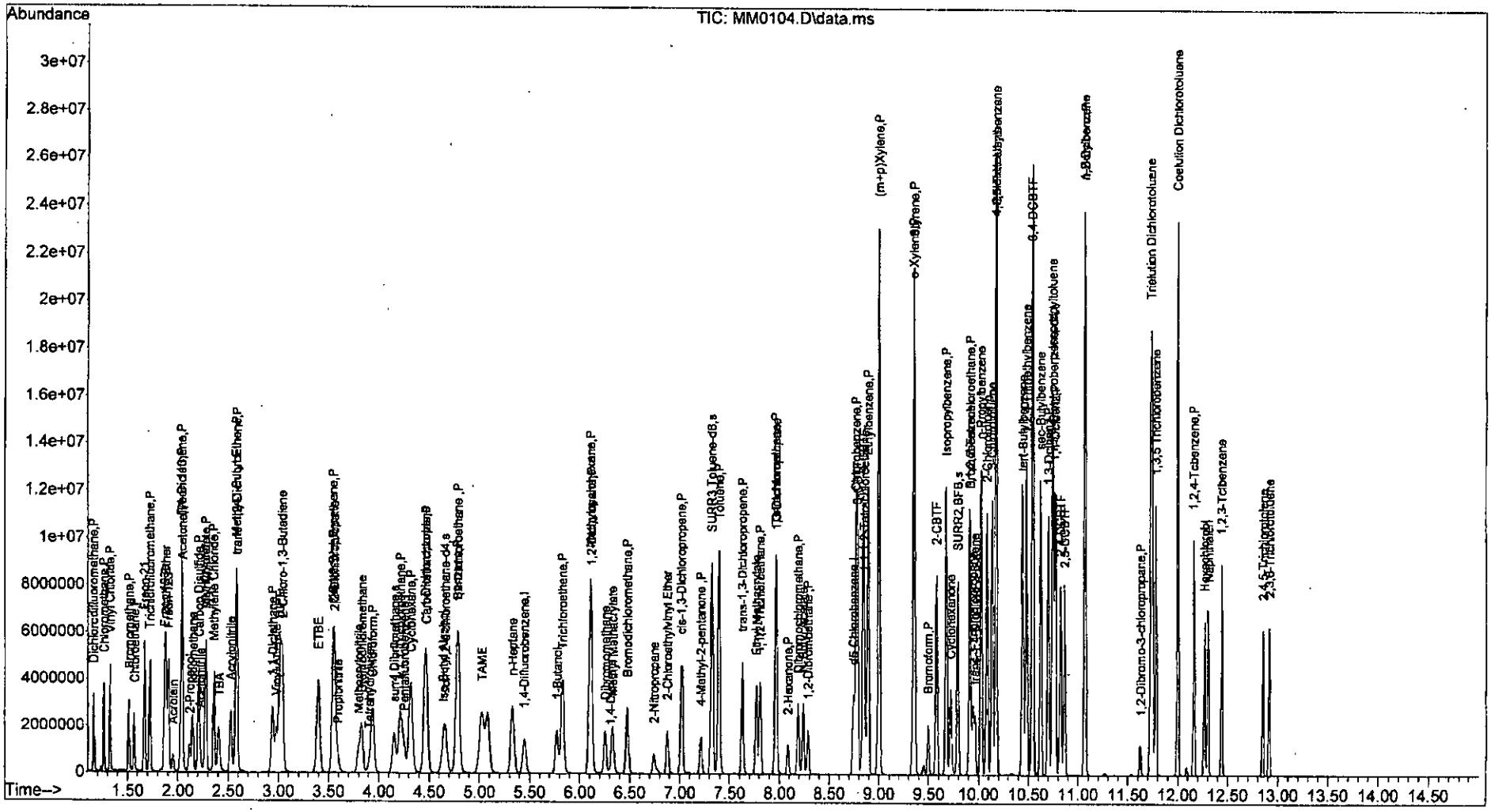
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	69.80
0.00	0.00	0.00
0.00	0.00	0.00

00180

Quantitation Report (QT Reviewed)

Sample : 150ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0104.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 7:58 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:50:51 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:53:21 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	938361	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1405088	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1336420	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	856875	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	419684	51.29	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.58%				
48) surr1,1,2-dichloroetha...	4.664	65	511522	51.34	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 102.68%				
65) SURR3,Toluene-d8	7.322	98	1773951	51.50	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.00%				
70) SURR2,BFB	9.791	95	719916	53.86	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	1765054	198.82	ppb		98
3) Chloromethane	1.262	50	2306111	190.47	ppb		95
4) Vinyl Chloride	1.323	62	2430512	189.03	ppb		97
5) Bromomethane	1.512	94	1423463	228.93	ppb		98
6) Chloroethane	1.567	64	1507341	188.17	ppb		99
7) Freon 21	1.664	67	3625419	181.26	ppb		94
8) Trichlorofluoromethane	1.719	101	2917845	190.84	ppb		96
9) Diethyl Ether	1.878	59	1402184	201.43	ppb		99
10) Freon 123a	1.872	67	2122391m	193.46	ppb		
11) Freon 123	1.902	83	2378566	203.74	ppb		99
12) Acrolein	1.951	56	484305	1267.76	ppb		96
13) 1,1-Diclethene	2.042	96	1642096	202.57	ppb	#	87
14) Freon 113	2.036	101	1681141	202.50	ppb		98
15) Acetone	2.042	43	410958	205.15	ppb		97
16) 2-Propanol	2.115	45	1689463	4286.13	ppb		98
17) Iodomethane	2.146	142	2287822	195.53	ppb		98
18) Carbon Disulfide	2.207	76	5016245	184.08	ppb		97
19) Acetonitrile	2.219	40	329561	1043.07	ppb		95
20) Allyl Chloride	2.274	76	802686	175.39	ppb		98
21) Methyl Acetate	2.274	43	944569	205.91	ppb		98
22) Methylene Chloride	2.359	84	1724511	195.24	ppb		96
23) TBA	2.408	59	2753110	4219.87	ppb		100
24) Acrylonitrile	2.524	53	2274753	1065.44	ppb		98
25) Methyl-t-Butyl Ether	2.579	73	4674222	205.69	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	1838177	209.82	ppb		95
28) 1,1-Diclethane	2.945	63	3091140	190.95	ppb		98
29) Vinyl Acetate	2.975	86	311276	210.91	ppb	#	81
30) DIPE	3.018	45	6293277	192.53	ppb		98
31) 2-Chloro-1,3-Butadiene	3.042	53	2938546	196.32	ppb		98
32) ETBE	3.396	59	5624174	199.06	ppb		97
33) 2,2-Dichloropropane	3.554	77	2776291	193.25	ppb		98
34) cis-1,2-Dichloroethene	3.548	96	1946936	205.02	ppb		93
35) 2-Butanone	3.548	43	598805	215.52	ppb		89
36) Propionitrile	3.591	54	858539	1118.87	ppb		96
37) Bromochloromethane	3.828	130	1018903	189.80	ppb		97

KR 10/28/14

00182

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:53:21 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Methacrylonitrile	3.798	67	516142	217.47	ppb		95
39) Tetrahydrofuran	3.908	42	383136	200.96	ppb		89
40) Chloroform	3.938	83	3064265	188.03	ppb		99
41) 1,1,1-Trichloroethane	4.213	97	2780520	190.22	ppb		95
42) TAME	5.023	73	4776860	200.56	ppb		100
44) Cyclohexane	4.316	41	1984749	191.69	ppb		96
46) Carbontetrachloride	4.469	121	753848	205.47	ppb		96
47) 1,1-Dichloropropene	4.463	75	2413481	196.61	ppb		98
49) Benzene	4.786	78	7058812	196.13	ppb		99
50) 1,2-Dichloroethane	4.786	62	2401468	198.03	ppb		97
51) Iso-Butyl Alcohol	4.639	43	1277205	4635.02	ppb		99
52) n-Heptane	5.328	43	2171110	186.49	ppb		97
53) 1-Butanol	5.773	56	1974558	11077.76	ppb		95
54) Trichloroethene	5.828	130	1918652	203.55	ppb		99
55) Methylcyclohexane	6.109	55	2386890	197.71	ppb		93
56) 1,2-Diclpropane	6.115	63	1867598	198.08	ppb		96
57) Dibromomethane	6.255	93	901034	202.01	ppb		97
58) 1,4-Dioxane	6.310	88	280918m	3960.55	ppb		
59) Methyl Methacrylate	6.328	69	953046	219.21	ppb		95
60) Bromodichloromethane	6.474	83	2340913	209.59	ppb		98
61) 2-Nitropropane	6.743	41	688965	462.19	ppb		96
62) 2-Chloroethylvinyl Ether	6.877	63	914869	208.20	ppb		98
63) cis-1,3-Dichloropropene	7.023	75	2885276	207.34	ppb		98
64) 4-Methyl-2-pentanone	7.212	43	1359586	211.66	ppb		98
66) Toluene	7.395	91	7479987	192.75	ppb		92
67) trans-1,3-Dichloropropene	7.627	75	2573387	216.89	ppb		98
68) Ethyl Methacrylate	7.767	69	2035765	221.79	ppb		98
69) 1,1,2-Trichloroethane	7.809	97	1369977	209.47	ppb		98
72) Tetrachloroethene	7.962	164	1626582	211.50	ppb		100
73) 2-Hexanone	8.084	43	940326	211.63	ppb		98
74) 1,3-Dichloropropane	7.974	76	2444934	203.90	ppb		97
75) Dibromochloromethane	8.187	129	1635278	227.47	ppb		99
76) N-Butyl Acetate	8.236	43	2469918	216.28	ppb		98
77) 1,2-Dibromoethane	8.285	107	1326101	211.35	ppb		100
78) Chlorobenzene	8.773	112	5219945	201.69	ppb		97
79) 3-CBTF	8.785	180	3118772	219.99	ppb		96
80) 4-CBTF	8.840	180	2780493	219.18	ppb		100
81) 1,1,1,2-Tetrachloroethane	8.852	131	1939716	227.98	ppb		97
82) Ethylbenzene	8.888	106	2901724	207.85	ppb	#	71
83) (m+p)Xylene	8.998	106	7068047	418.43	ppb	#	68
84) o-Xylene	9.346	106	3745287	220.52	ppb	#	83
85) Styrene	9.358	104	6213685	221.19	ppb		96
87) Bromoform	9.498	173	1020037	239.59	ppb		100
88) 2-CBTF	9.577	180	2902201	192.28	ppb		98
89) Isopropylbenzene	9.675	105	7790115	170.36	ppb		86
90) Cyclohexanone	9.718	55	2066106	4112.11	ppb		98
91) trans-1,4-Dichloro-2-B...	9.961	53	536912	195.38	ppb		96
92) 1,1,2,2-Tetrachloroethane	9.913	83	1783205	200.09	ppb		100
93) Bromobenzene	9.913	156	2375429	196.94	ppb	#	87
94) 1,2,3-Trichloropropane	9.943	110	494219	182.86	ppb	#	90
95) n-Propylbenzene	10.022	91	8554939	161.36	ppb		85
96) 2-Chlorotoluene	10.083	91	5805537	180.75	ppb		93

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:53:21 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration

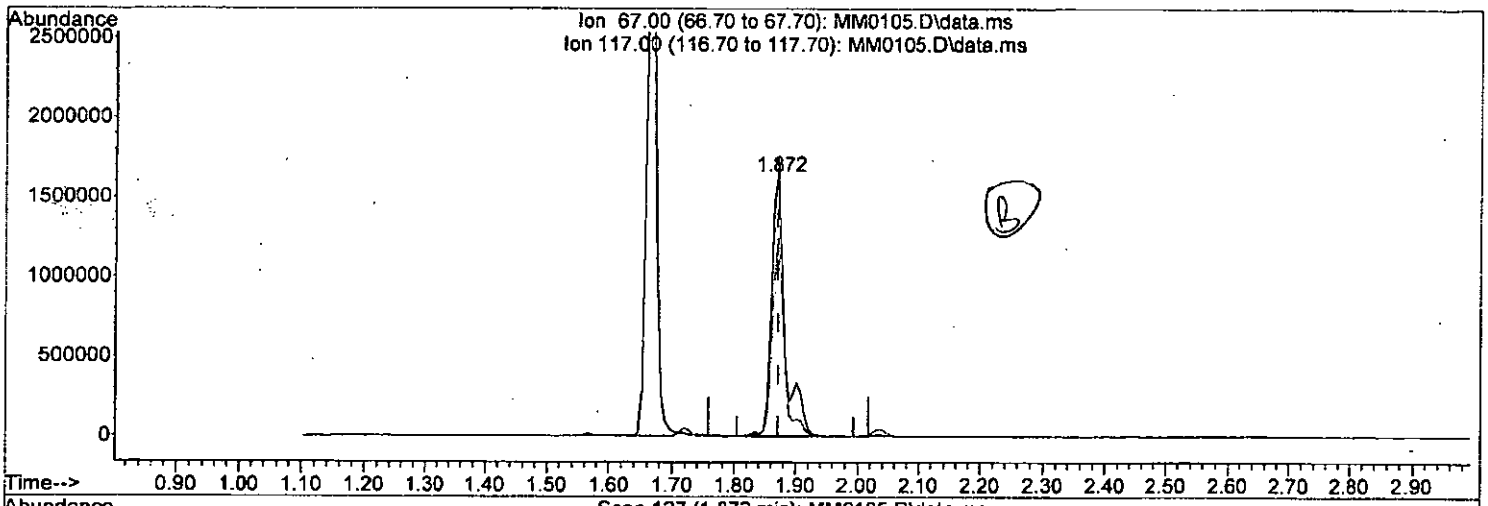
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	3-Chlorotoluene	10.132	91	6127307	179.35	ppb		94
98)	4-Chlorotoluene	10.175	91	7297335	181.19	ppb		86
99)	1,3,5-Trimethylbenzene	10.175	105	7225388	182.18	ppb		83
100)	tert-Butylbenzene	10.443	119	5803111	181.16	ppb		93
101)	1,2,4-Trimethylbenzene	10.480	105	6931393	178.20	ppb		85
102)	3,4-DCBTF	10.541	214	2499503	219.87	ppb		98
103)	sec-Butylbenzene	10.620	105	7733275	171.69	ppb		91
104)	p-Isopropyltoluene	10.742	119	6868515	175.52	ppb		87
105)	1,3-Dclbenz	10.699	146	4394482	190.75	ppb		97
106)	1,4-Dclbenz	10.772	146	4519219	187.61	ppb		96
107)	2,4-DCBTF	10.821	214	1941048	199.12	ppb		98
108)	2,5-DCBTF	10.864	214	2202602	199.64	ppb		95
109)	n-Butylbenzene	11.065	91	6344494	183.23	ppb		88
110)	1,2-Dclbenz	11.065	146	4396618	202.82	ppb		96
111)	1,2-Dibromo-3-chloropr...	11.626	157	325145	216.78	ppb		96
112)	Trielution Dichlorotol...	11.735	125	9830201	553.11	ppb	#	86
113)	1,3,5 Trichlorobenzene	11.778	180	2815163	189.42	ppb		98
114)	Coelution Dichlorotoluene	11.998	125	6634802	356.48	ppb	#	81
115)	1,2,4-Tcbenzene	12.162	180	2406928	189.67	ppb		97
116)	Hexachlorobt	12.266	225	905589	180.49	ppb		99
117)	Naphthalen	12.302	128	4559849	189.09	ppb		96
118)	1,2,3-Tclbenzene	12.437	180	2004227	185.70	ppb		97
119)	2,4,5-Trichlorotolene	12.851	159	1413693	193.62	ppb		99
120)	2,3,6-Trichlorotoluene	12.912	159	1340727	198.78	ppb		98

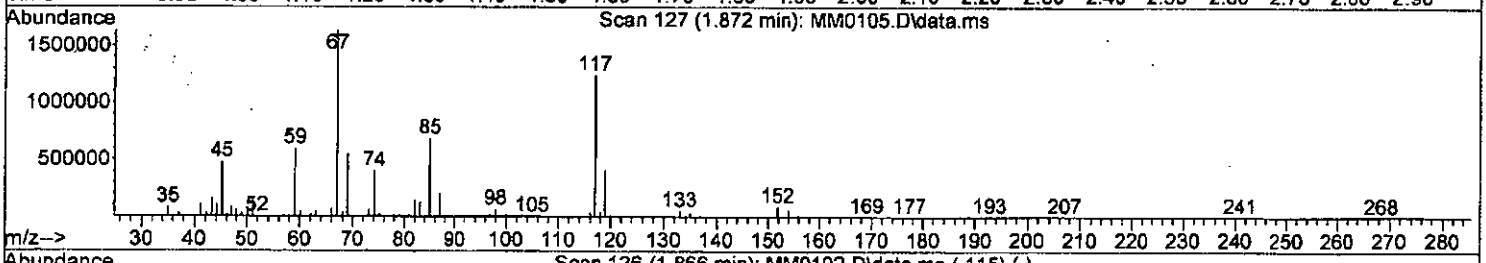
(#) = qualifier out of range (m) = manual integration (+) = signals summed

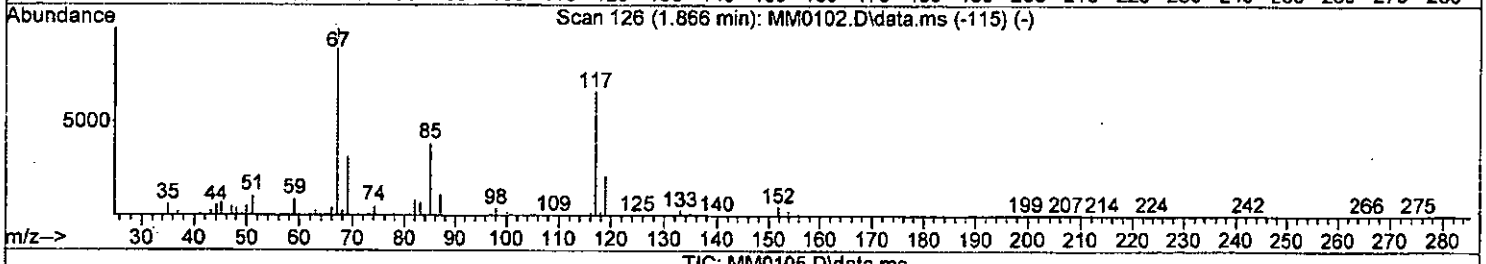
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:58 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0105.D\data.ms

(10) Freon 123a

1.872min (-0.000) 231.26 ppb

response 2537105

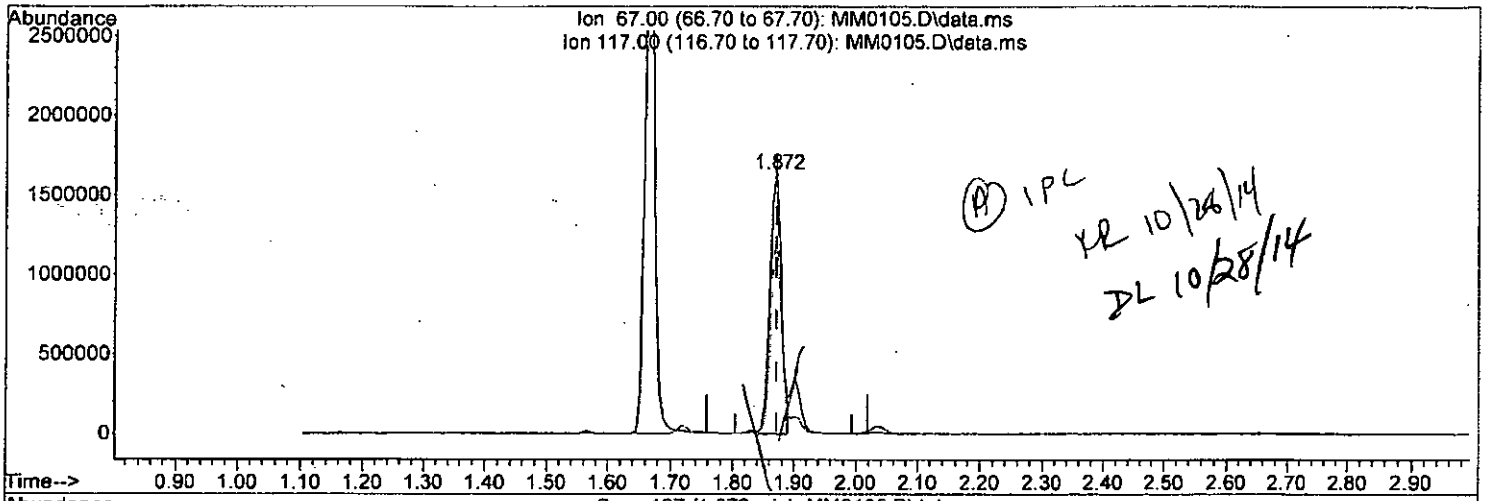
Ion	Exp%	Act%
67.00	100	100
117.00	66.20	76.10
0.00	0.00	0.00
0.00	0.00	0.00

00185

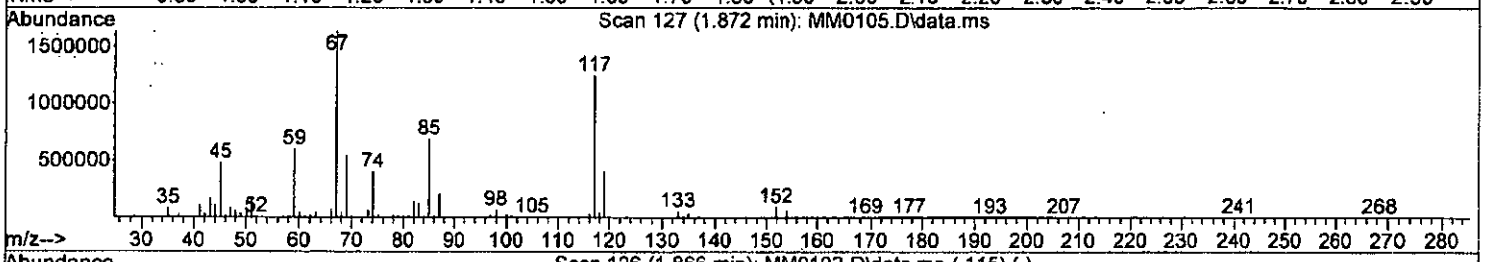
Quantitation Report (Qedit)

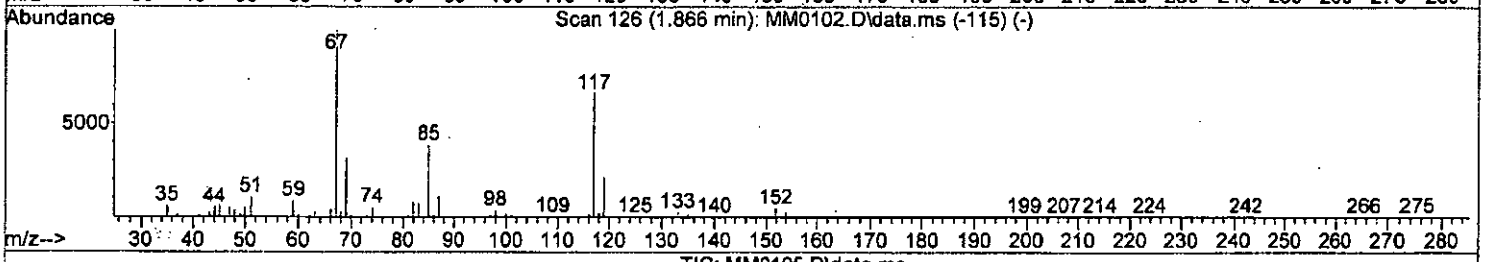
Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:58 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



(A) IPC
KR 10/28/14
DL 10/28/14





TIC: MM0105.D\data.ms

(10) Freon 123a

1.872min (-0.000) 193.46 ppb m

response 2122391

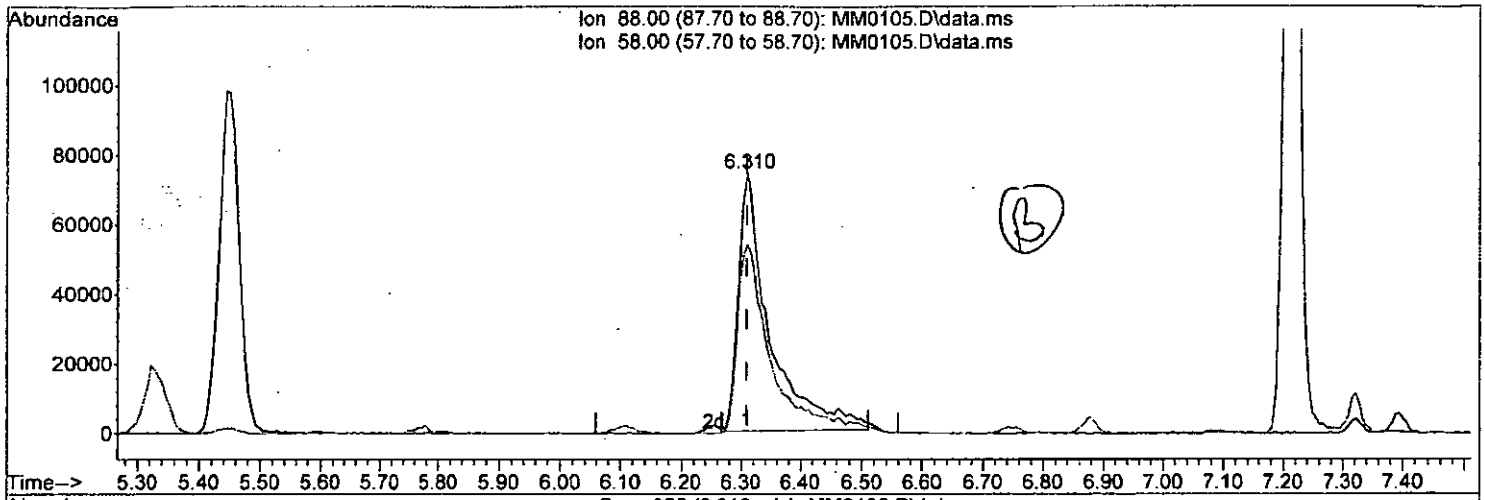
Ion	Exp%	Act%
67.00	100	100
117.00	66.20	76.10
0.00	0.00	0.00
0.00	0.00	0.00

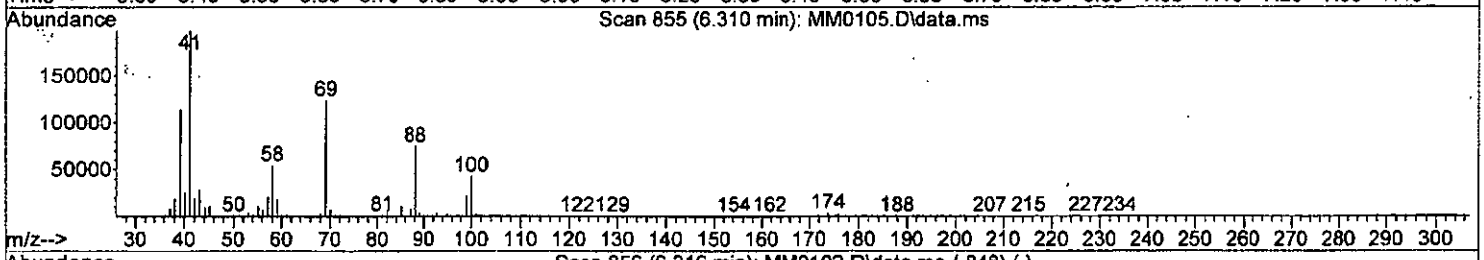
00186

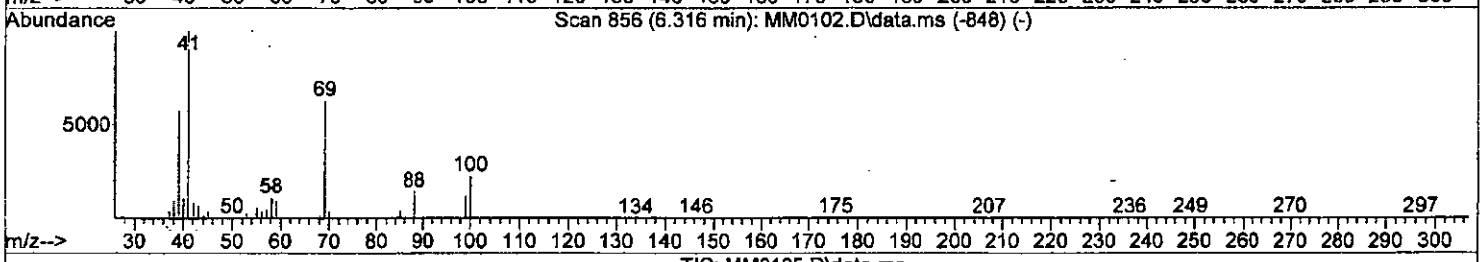
Quantitation Report (Qedit)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:58 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration







TIC: MM0105.D\data.ms

(58) 1,4-Dioxane

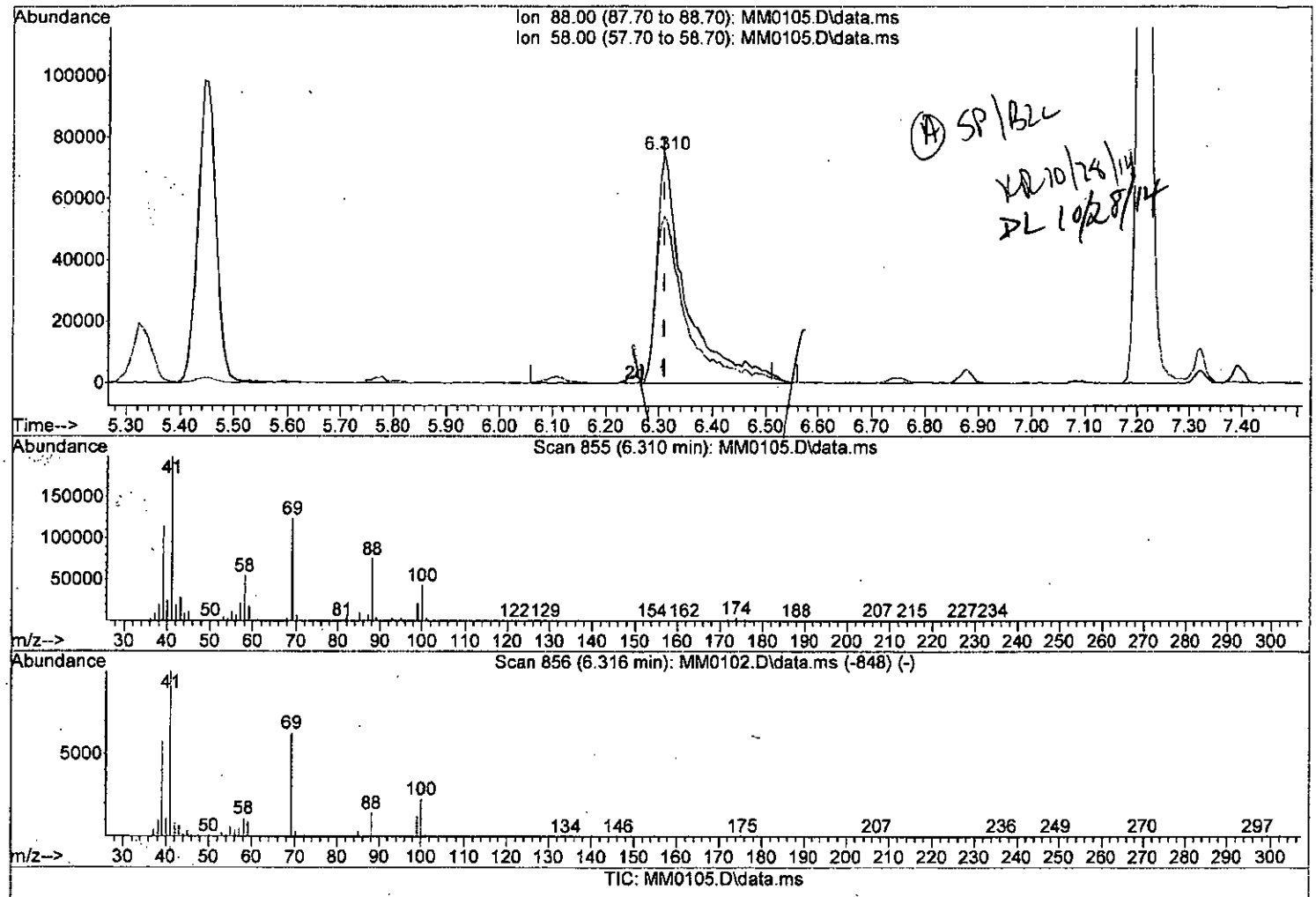
6.310min (+0.001) 3760.25 ppb

response 266711

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	72.47
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 09:42:58 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



TIC: MM0105.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.001) 3960.55 ppb m

response 280918

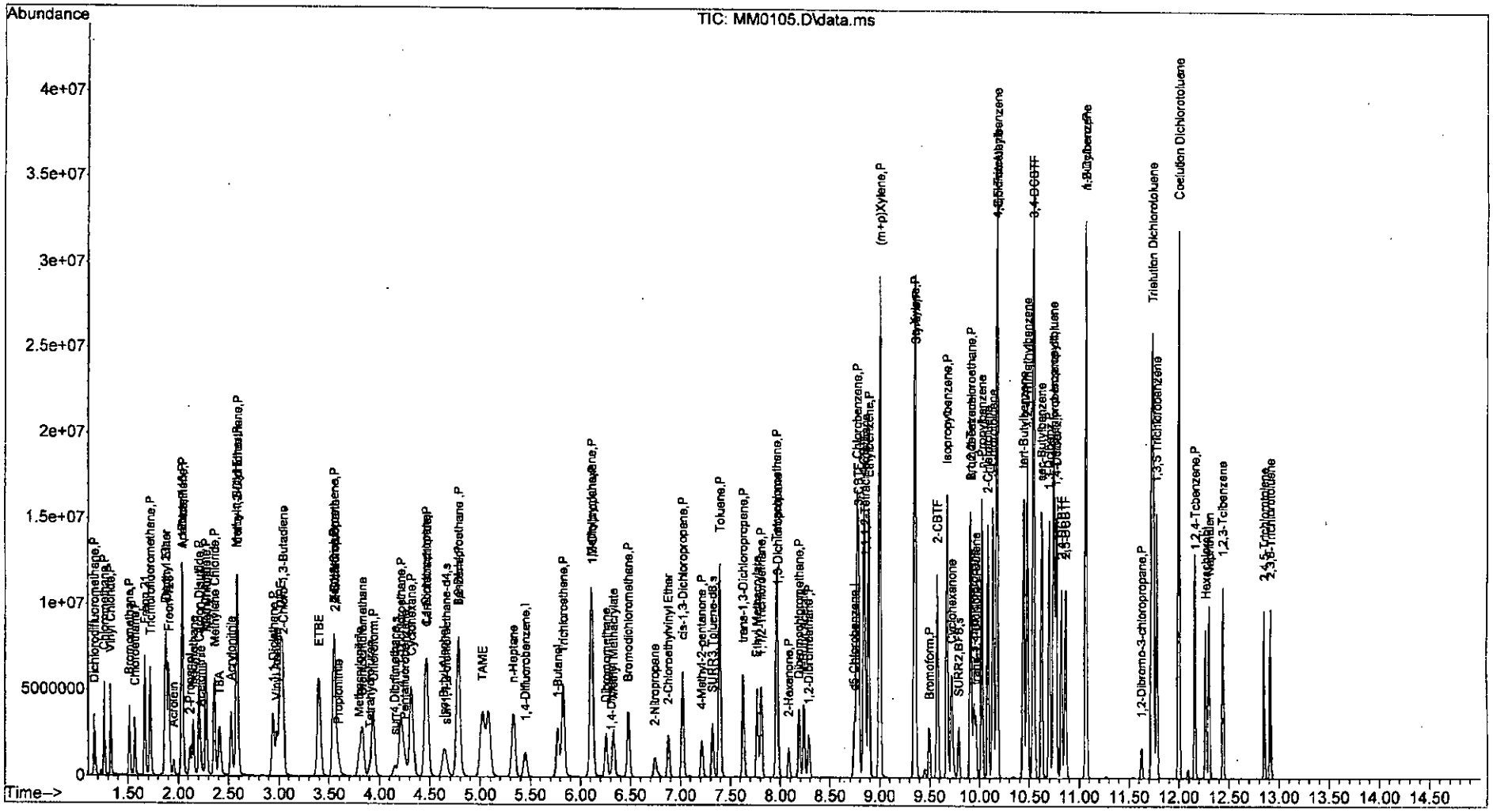
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	72.47
0.00	0.00	0.00
0.00	0.00	0.00

00188

Quantitation Report (QT Reviewed)

Sample : 200ppb
Data File: I:\ACQUDATA\msvoa12\Data\102714\MM0105.D
Misc : 8260 WATER ICAL
Acq On : 27 Oct 2014 8:31 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 10:53:21 2014
QLast Update : Tue Oct 28 09:37:04 2014
Response via : Initial Calibration



68100

Initial Calibration Verification Summary Report

Calibration ID: RC1400098 **Instrument ID:** R-MS-12
5260 Waters W102714 **Column Name:** 1 LR 10/28/14

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1400098-10	T	Average RF	50	50.81	ppm	1.6	<=30
1,1,1-Trichloroethane (TCA)	RC1400098-10	T	Average RF	50	47.16	ppm	-5.7	<=30
1,1,2,2-Tetrachloroethane	RC1400098-10	T	Average RF	50	47.68	ppm	-4.6	<=30
1,1,2-Trichloroethane	RC1400098-10	T	Average RF	50	47.59	ppm	-4.8	<=30
1,1,2-Trichlorotrifluoroethane	RC1400098-10	T	Average RF	50	45.84	ppm	-8.3	<=30
1,1-Dichloroethane (1,1-DCA)	RC1400098-10	T	Average RF	50	47.13	ppm	-5.7	<=30
1,1-Dichloroethene (1,1-DCE)	RC1400098-10	T	Average RF	50	44.23	ppm	-11.5	<=30
1,1-Dichloropropene	RC1400098-10	T	Average RF	50	45.83	ppm	-8.3	<=30
1,2,3-Trichlorobenzene	RC1400098-10	T	Average RF	50	49.89	ppm	-0.2	<=30
1,2,3-Trichloropropane	RC1400098-10	T	Average RF	50	45.36	ppm	-9.3	<=30
1,2,4-Trichlorobenzene	RC1400098-10	T	Average RF	50	52.47	ppm	4.9	<=30
1,2,4-Trimethylbenzene	RC1400098-10	T	Average RF	50	51.18	ppm	2.4	<=30
1,2-Dibromo-3-chloropropane (DBCP)	RC1400098-10	T	Average RF	50	51.40	ppm	2.8	<=30
1,2-Dibromoethane	RC1400098-10	T	Average RF	50	49.29	ppm	-1.4	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1400098-10	T	Average RF	50	49.76	ppm	-0.5	<=30
1,2-Dichlorobenzene	RC1400098-10	T	Average RF	50	49.33	ppm	-1.3	<=30
1,2-Dichloroethane	RC1400098-10	T	Average RF	50	46.57	ppm	-6.9	<=30
1,2-Dichloropropane	RC1400098-10	T	Average RF	50	47.54	ppm	-4.9	<=30
1,3,5-Trichlorobenzene	RC1400098-10	T	Average RF	50	50.75	ppm	1.5	<=30
1,3,5-Trimethylbenzene	RC1400098-10	T	Average RF	50	50.55	ppm	1.1	<=30
1,3-Dichlorobenzene	RC1400098-10	T	Average RF	50	49.00	ppm	-2.0	<=30
1,3-Dichloropropane	RC1400098-10	T	Average RF	50	47.48	ppm	-5.0	<=30
1,4-Dichlorobenzene	RC1400098-10	T	Average RF	50	48.82	ppm	-2.4	<=30
1,4-Dioxane	RC1400098-10	T	Average RF	1000	905.0	ppm	-9.5	<=30
1-Butanol	RC1400098-10	T	Average RF	2500	2549	ppm	1.9	<=30
1-Chloro-4-(trifluoromethyl)benzene	RC1400098-10	T	Average RF	50	50.95	ppm	1.9	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1400098-10	T	Average RF	50	50.14	ppm	0.3	<=30
2,2-Dichloropropane	RC1400098-10	T	Average RF	50	49.20	ppm	-1.6	<=30
2,3,6-Trichlorotoluene	RC1400098-10	T	Average RF	50	56.31	ppm	12.6	<=30
2,4,5-Trichlorotoluene	RC1400098-10	T	Average RF	50	52.75	ppm	5.5	<=30
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1400098-10	T	Average RF	150	157.0	ppm	4.7	<=30
2,4-Dichlorobenzotrifluoride	RC1400098-10	T	Average RF	50	51.68	ppm	3.4	<=30
2,5-Dichlorobenzotrifluoride	RC1400098-10	T	Average RF	50	51.37	ppm	2.7	<=30
2-Butanone (MEK)	RC1400098-10	T	Average RF	50	47.96	ppm	-4.1	<=30
2-Chloro-1,3-butadiene	RC1400098-10	T	Average RF	50	55.43	ppm	10.9	<=30
2-Chlorobenzotrifluoride	RC1400098-10	T	Average RF	50	49.25	ppm	-1.5	<=30
2-Chloroethyl Vinyl Ether	RC1400098-10	T	Average RF	50	50.32	ppm	0.6	<=30
2-Chlorotoluene	RC1400098-10	T	Average RF	50	50.40	ppm	0.8	<=30
2-Hexanone	RC1400098-10	T	Average RF	50	49.61	ppm	-0.8	<=30
2-Methyl-1-propanol	RC1400098-10	T	Average RF	1000	1017	ppm	1.7	<=30
2-Methyl-2-propanol	RC1400098-10	T	Average RF	1000	973.6	ppm	-2.6	<=30
2-Nitropropane	RC1400098-10	T	Average RF	100	99.21	ppm	-0.8	<=30
2-Propanol	RC1400098-10	T	Average RF	1000	1052	ppm	5.2	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1400098-10	T	Average RF	100	106.5	ppm	6.5	<=30
3,4-Dichlorobenzotrifluoride	RC1400098-10	T	Average RF	50	50.88	ppm	1.8	<=30
3-Chloro-1-propene	RC1400098-10	T	Average RF	50	51.10	ppm	2.2	<=30
3-Chlorobenzotrifluoride	RC1400098-10	T	Average RF	50	50.41	ppm	0.8	<=30
3-Chlorotoluene	RC1400098-10	T	Average RF	50	50.45	ppm	0.9	<=30
4-Chlorotoluene	RC1400098-10	T	Average RF	50	50.27	ppm	0.5	<=30
4-Isopropyltoluene	RC1400098-10	T	Average RF	50	52.45	ppm	4.9	<=30
4-Methyl-2-pentanone	RC1400098-10	T	Average RF	50	48.79	ppm	-2.4	<=30

00190

Initial Calibration Verification Summary Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1400098-10	T	Average RF	50	44.04	ppm	-11.9	<=30
Acetonitrile	RC1400098-10	T	Average RF	250	243.3	ppm	-2.7	<=30
Acrolein	RC1400098-10	T	Average RF	100	161.1	ppm	61.1	<=30
Acrylonitrile	RC1400098-10	T	Average RF	250	239.2	ppm	-4.3	<=30
Benzene	RC1400098-10	T	Average RF	50	48.45	ppm	-3.1	<=30
Bromobenzene	RC1400098-10	T	Average RF	50	48.75	ppm	-2.5	<=30
Bromochloromethane	RC1400098-10	T	Average RF	50	48.20	ppm	-3.6	<=30
Bromodichloromethane	RC1400098-10	T	Average RF	50	50.16	ppm	0.3	<=30
Bromoform	RC1400098-10	T	Average RF	50	53.76	ppm	7.5	<=30
Bromomethane	RC1400098-10	T	Average RF	50	56.67	ppm	13.3	<=30
Carbon Disulfide	RC1400098-10	T	Average RF	50	52.10	ppm	4.2	<=30
Carbon Tetrachloride	RC1400098-10	T	Average RF	50	48.70	ppm	-2.6	<=30
Chlorobenzene	RC1400098-10	T	Average RF	50	48.97	ppm	-2.1	<=30
Chloroethane	RC1400098-10	T	Average RF	50	47.43	ppm	-5.1	<=30
Chloroform	RC1400098-10	T	Average RF	50	47.00	ppm	-6.0	<=30
Chloromethane	RC1400098-10	T	Average RF	50	48.91	ppm	-2.2	<=30
Cyclohexane	RC1400098-10	T	Average RF	50	45.05	ppm	-9.9	<=30
Cyclohexanone	RC1400098-10	T	Average RF	1000	653.5	ppm	-34.6	<=30
Dibromochloromethane	RC1400098-10	T	Average RF	50	52.06	ppm	4.1	<=30
Dibromomethane	RC1400098-10	T	Average RF	50	47.45	ppm	-5.1	<=30
Dichlorodifluoromethane (CFC 12)	RC1400098-10	T	Average RF	50	51.33	ppm	2.7	<=30
Dichlorofluoromethane (CFC 21)	RC1400098-10	T	Average RF	50	50.33	ppm	0.7	<=30
Dichloromethane	RC1400098-10	T	Average RF	50	46.24	ppm	-7.5	<=30
Diethyl Ether	RC1400098-10	T	Average RF	50	47.80	ppm	-4.4	<=30
Diisopropyl Ether	RC1400098-10	T	Average RF	50	47.23	ppm	-5.5	<=30
Ethyl Methacrylate	RC1400098-10	T	Average RF	50	50.32	ppm	0.6	<=30
Ethyl tert-Butyl Ether	RC1400098-10	T	Average RF	50	46.92	ppm	-6.2	<=30
Ethylbenzene	RC1400098-10	T	Average RF	50	45.67	ppm	-8.7	<=30
Hexachlorobutadiene	RC1400098-10	T	Average RF	50	51.56	ppm	3.1	<=30
Iodomethane	RC1400098-10	T	Average RF	50	50.49	ppm	1.0	<=30
Isopropylbenzene (Cumene)	RC1400098-10	T	Average RF	50	50.33	ppm	0.7	<=30
Methacrylonitrile	RC1400098-10	T	Average RF	50	48.23	ppm	-3.5	<=30
Methyl Acetate	RC1400098-10	T	Average RF	50	47.48	ppm	-5.0	<=30
Methyl Methacrylate	RC1400098-10	T	Average RF	50	50.48	ppm	1.0	<=30
Methyl tert-Butyl Ether	RC1400098-10	T	Average RF	50	48.66	ppm	-2.7	<=30
Methylcyclohexane	RC1400098-10	T	Average RF	50	46.37	ppm	-7.3	<=30
Naphthalene	RC1400098-10	T	Average RF	50	52.21	ppm	4.4	<=30
Propionitrile	RC1400098-10	T	Average RF	250	222.8	ppm	-10.9	<=30
Styrene	RC1400098-10	T	Average RF	50	51.95	ppm	3.9	<=30
Tetrachloroethene (PCE)	RC1400098-10	T	Average RF	50	49.75	ppm	-0.5	<=30
Tetrahydrofuran (THF)	RC1400098-10	T	Average RF	50	46.69	ppm	-6.6	<=30
Toluene	RC1400098-10	T	Average RF	50	49.36	ppm	-1.3	<=30
Trichloroethene (TCE)	RC1400098-10	T	Average RF	50	49.04	ppm	-1.9	<=30
Trichlorofluoromethane (CFC 11)	RC1400098-10	T	Average RF	50	45.13	ppm	-9.7	<=30
Vinyl Acetate	RC1400098-10	T	Average RF	50	49.10	ppm	-1.8	<=30
Vinyl Chloride	RC1400098-10	T	Average RF	50	49.37	ppm	-1.3	<=30
cis-1,2-Dichloroethene	RC1400098-10	T	Average RF	50	49.06	ppm	-1.9	<=30
cis-1,3-Dichloropropene	RC1400098-10	T	Average RF	50	48.93	ppm	-2.1	<=30
m,p-Xylenes	RC1400098-10	T	Average RF	100	103.7	ppm	3.7	<=30
n-Butyl Acetate	RC1400098-10	T	Average RF	50	47.98	ppm	-4.0	<=30
n-Butylbenzene	RC1400098-10	T	Average RF	50	52.64	ppm	5.3	<=30

00191

Initial Calibration Verification Summary Report

Calibration ID:	RC1400098	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1400098-10	T	Average RF	50	45.74	ppm	-8.5	<=30
n-Propylbenzene	RC1400098-10	T	Average RF	50	50.73	ppm	1.5	<=30
o-Xylene	RC1400098-10	T	Average RF	50	50.90	ppm	1.8	<=30
sec-Butylbenzene	RC1400098-10	T	Average RF	50	51.22	ppm	2.4	<=30
tert-Amyl Methyl Ether	RC1400098-10	T	Average RF	50	48.19	ppm	-3.6	<=30
tert-Butylbenzene	RC1400098-10	T	Average RF	50	50.52	ppm	1.0	<=30
trans-1,2-Dichloroethene	RC1400098-10	T	Average RF	50	48.49	ppm	-3.0	<=30
trans-1,3-Dichloropropene	RC1400098-10	T	Average RF	50	50.64	ppm	1.3	<=30
trans-1,4-Dichloro-2-butene	RC1400098-10	T	Average RF	50	43.19	ppm	-13.6	<=30
1,2-Dichloroethane-d4	RC1400098-10	S	Average RF	50	49.64	ppm	-0.7	<=30
4-Bromofluorobenzene	RC1400098-10	S	Average RF	50	51.49	ppm	3.0	<=30
Dibromofluoromethane	RC1400098-10	S	Average RF	50	51.59	ppm	3.2	<=30
Toluene-d8	RC1400098-10	S	Average RF	50	51.62	ppm	3.2	<=30

Exceptions

QAP	Method
CRA-OXY	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 30	61.10
Cyclohexanone	Percent Difference	<= 30	-34.65

00192

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\102814\MM0112.D
Misc : 50ppb
Acq On : 28 Oct 2014 11:34 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 11:49:50 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

KF 10/25/14

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.243	168	942917	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1419933	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1331669	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	783683	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	426611	51.59	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.18%				
48) surr1,1,2-dichloroetha...	4.658	65	499853	49.64	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 99.28%				
65) SURR3,Toluene-d8	7.322	98	1796948	51.62	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.24%				
70) SURR2,BFB	9.785	95	695509	51.49	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	457869	51.33	ppb		99
3) Chloromethane	1.262	50	595075	48.91	ppb		99
4) Vinyl Chloride	1.323	62	637845	49.37	ppb		99
5) Bromomethane	1.512	94	354073	56.67	ppb		98
6) Chloroethane	1.567	64	381754	47.43	ppb		98
7) Freon 21	1.664	67	1011524	50.33	ppb		98
8) Trichlorofluoromethane	1.719	101	693291	45.13	ppb		98
9) Diethyl Ether	1.878	59	334342	47.80	ppb		97
10) Freon 123a	1.865	67	553348	49.76	ppb		99
11) Freon 123	1.902	83	588218	50.14	ppb		96
12) Acrolein	1.951	56	63493	161.10	ppb		99
13) 1,1-Diclethene	2.036	96	360299	44.23	ppb		99
14) Freon 113	2.036	101	382396	45.84	ppb		96
15) Acetone	2.048	43	87928	44.04	ppb		97
16) 2-Propanol	2.128	45	416714	1052.08	ppb		99
17) Iodomethane	2.146	142	593585	50.49	ppb		99
18) Carbon Disulfide	2.207	76	1426748	52.10	ppb		99
19) Acetonitrile	2.225	40	77246	243.30	ppb		95
20) Allyl Chloride	2.274	76	235825	51.10	ppb		99
21) Methyl Acetate	2.274	43	218861	47.48	ppb		99
22) Methylene Chloride	2.359	84	410394	46.24	ppb		98
23) TBA	2.414	59	638250	973.56	ppb		98
24) Acrylonitrile	2.524	53	513252	239.23	ppb		98
25) Methyl-t-Butyl Ether	2.579	73	1111212	48.66	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	426894	48.49	ppb		96
28) 1,1-Diclethane	2.938	63	766656	47.13	ppb		98
29) Vinyl Acetate	2.981	86	72385	49.10	ppb	#	86
30) DIPE	3.012	45	1544536	47.23	ppb		98
31) 2-Chloro-1,3-Butadiene	3.042	53	833770	55.43	ppb		99
32) ETBE	3.396	59	1332038	46.92	ppb		98
33) 2,2-Dichloropropane	3.554	77	710302	49.20	ppb		98
34) cis-1,2-Dichloroethene	3.542	96	468151	49.06	ppb		98
35) 2-Butanone	3.548	43	136396	47.96	ppb		93
36) Propionitrile	3.591	54	186469	222.83	ppb		98
37) Bromochloromethane	3.828	130	260223	48.20	ppb		94

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\102814\MM0112.D
Misc : 50ppb
Acq On : 28 Oct 2014 11:34 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 11:49:50 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Methacrylonitrile	3.798	67	120104	48.23	ppb	91
39) Tetrahydrofuran	3.902	42	89415	46.69	ppb	93
40) Chloroform	3.938	83	769626	47.00	ppb	99
41) 1,1,1-Trichloroethane	4.213	97	692759	47.16	ppb	99
42) TAME	5.023	73	1144817	48.19	ppb	98
44) Cyclohexane	4.316	41	473633	45.05	ppb	97
46) Carbontetrachloride	4.462	121	180570	48.70	ppb	95
47) 1,1-Dichloropropene	4.462	75	568484	45.83	ppb	98
49) Benzene	4.779	78	1762197	48.45	ppb	100
50) 1,2-Dichloroethane	4.786	62	570681	46.57	ppb	97
51) Iso-Butyl Alcohol	4.651	43	292792	1016.99	ppb	98
52) n-Heptane	5.328	43	538080	45.74	ppb	98
53) 1-Butanol	5.779	56	452641	2548.57	ppb	94
54) Trichloroethene	5.828	130	466244	49.04	ppb	98
55) Methylcyclohexane	6.102	55	565715	46.37	ppb	96
56) 1,2-Diclpropane	6.108	63	452957	47.54	ppb	97
57) Dibromomethane	6.255	93	213867	47.45	ppb	94
58) 1,4-Dioxane	6.322	88	64914m	905.05	ppb	
59) Methyl Methacrylate	6.328	69	221957	50.48	ppb	94
60) Bromodichloromethane	6.474	83	566148	50.16	ppb	99
61) 2-Nitropropane	6.742	41	149044	99.21	ppb	97
62) 2-Chloroethylvinyl Ether	6.877	63	223464	50.32	ppb	98
63) cis-1,3-Dichloropropene	7.017	75	688107	48.93	ppb	98
64) 4-Methyl-2-pentanone	7.212	43	316516	48.79	ppb	98
66) Toluene	7.389	91	1935529	49.36	ppb	99
67) trans-1,3-Dichloropropene	7.626	75	607062	50.64	ppb	99
68) Ethyl Methacrylate	7.767	69	469406	50.32	ppb	100
69) 1,1,2-Trichloroethane	7.809	97	314525	47.59	ppb	98
72) Tetrachloroethene	7.962	164	381277	49.75	ppb	98
73) 2-Hexanone	8.084	43	222431	49.61	ppb	96
74) 1,3-Dichloropropane	7.968	76	567306	47.48	ppb	99
75) Dibromochloromethane	8.187	129	372957	52.06	ppb	99
76) N-Butyl Acetate	8.236	43	555367	47.98	ppb	100
77) 1,2-Dibromoethane	8.285	107	308172	49.29	ppb	98
78) Chlorobenzene	8.767	112	1262882	48.97	ppb	99
79) 3-CBTF	8.785	180	712114	50.41	ppb	99
80) 4-CBTF	8.834	180	644089	50.95	ppb	99
81) 1,1,1,2-Tetrachloroethane	8.846	131	430743	50.81	ppb	99
82) Ethylbenzene	8.888	106	635274	45.67	ppb	96
83) (m+p)Xylene	8.998	106	1746106	103.74	ppb	99
84) o-Xylene	9.346	106	861363	50.90	ppb	98
85) Styrene	9.352	104	1454346	51.95	ppb	99
87) Bromoform	9.492	173	209330	53.76	ppb	99
88) 2-CBTF	9.577	180	679818	49.25	ppb	99
89) Isopropylbenzene	9.669	105	2104650	50.33	ppb	99
90) Cyclohexanone	9.718	55	300306	653.51	ppb	99
91) trans-1,4-Dichloro-2-B...	9.961	53	108545	43.19	ppb	99
92) 1,1,2,2-Tetrachloroethane	9.913	83	388617	47.68	ppb	100
93) Bromobenzene	9.907	156	537758	48.75	ppb	99
94) 1,2,3-Trichloropropane	9.943	110	112131	45.36	ppb	93
95) n-Propylbenzene	10.022	91	2459940	50.73	ppb	100
96) 2-Chlorotoluene	10.083	91	1480490	50.40	ppb	98

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\102814\MM0112.D
Misc : 50ppb
Acq On : 28 Oct 2014 11:34 am
Operator : K.Ruest
InstName : MSVOA-12

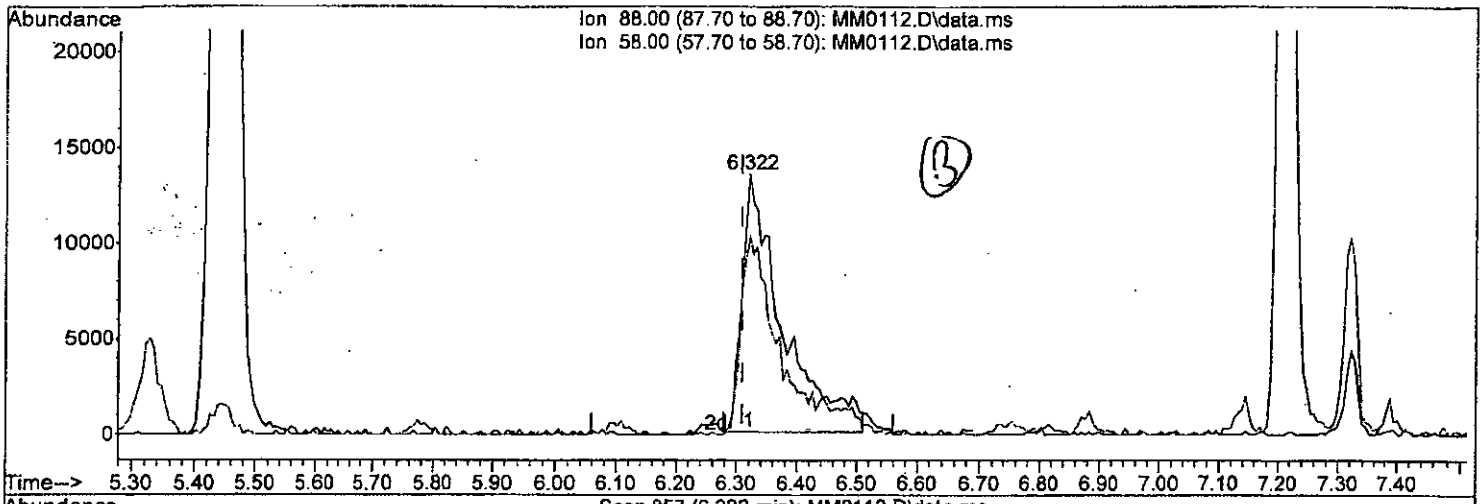
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 11:49:50 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

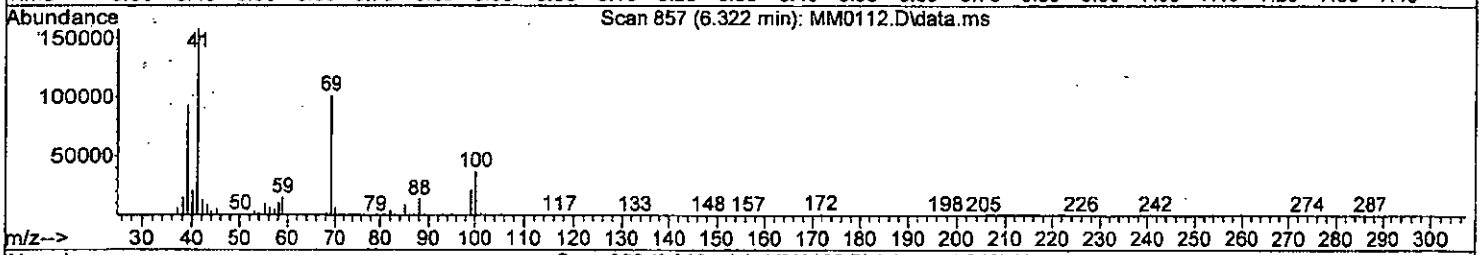
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	3-Chlorotoluene	10.132	91	1576716	50.45	ppb	99
98)	4-Chlorotoluene	10.169	91	1851599	50.27	ppb	100
99)	1,3,5-Trimethylbenzene	10.169	105	1833826	50.55	ppb	99
100)	tert-Butylbenzene	10.437	119	1480067	50.52	ppb	99
101)	1,2,4-Trimethylbenzene	10.473	105	1820594	51.18	ppb	100
102)	3,4-DCBTF	10.534	214	528944	50.88	ppb	100
103)	sec-Butylbenzene	10.620	105	2110226	51.22	ppb	99
104)	p-Isopropyltoluene	10.742	119	1877023	52.45	ppb	99
105)	1,3-Dclbenz	10.693	146	1032346	49.00	ppb	99
106)	1,4-Dclbenz	10.766	146	1075495	48.82	ppb	99
107)	2,4-DCBTF	10.821	214	460780	51.68	ppb	99
108)	2,5-DCBTF	10.858	214	518365	51.37	ppb	97
109)	n-Butylbenzene	11.065	91	1666960	52.64	ppb	99
110)	1,2-Dclbenz	11.065	146	977926	49.33	ppb	97
111)	1,2-Dibromo-3-chloropr...	11.626	157	70506	51.40	ppb	93
112)	Trielution Dichlorotol...	11.729	125	2552099	157.01	ppb	99
113)	1,3,5 Trichlorobenzene	11.778	180	689868	50.75	ppb	100
114)	Coelution Dichlorotoluene	11.998	125	1812374	106.47	ppb	99
115)	1,2,4-Tcbenzene	12.156	180	609007	52.47	ppb	99
116)	Hexachlorobt	12.266	225	236614	51.56	ppb	98
117)	Naphthalen	12.296	128	1151418	52.21	ppb	99
118)	1,2,3-Tclbenzene	12.437	180	492466	49.89	ppb	98
119)	2,4,5-Trichlorotolene	12.851	159	352622	52.75	ppb	98
120)	2,3,6-Trichlorotoluene	12.912	159	347379	56.31	ppb	99

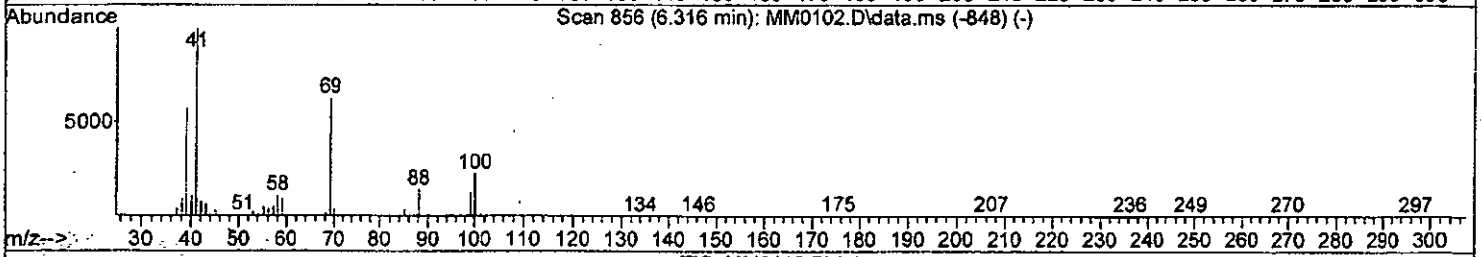
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\102814\MM0112.D
Misc : 50ppb
Acq On : 28 Oct 2014 11:34 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 11:48:28 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0112.D\data.ms

(58) 1,4-Dioxane

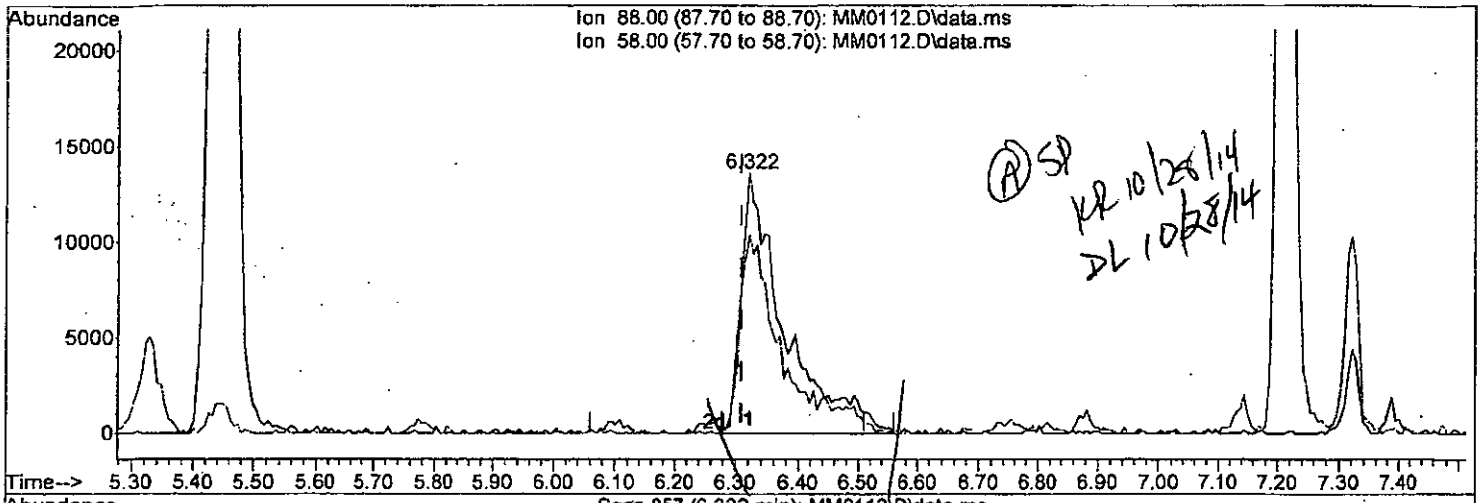
6.322min (+0.012) 859.71 ppb

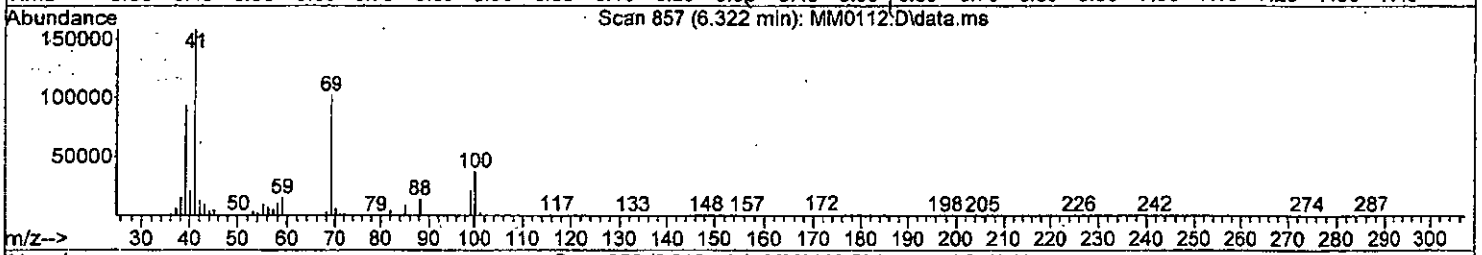
response 61662

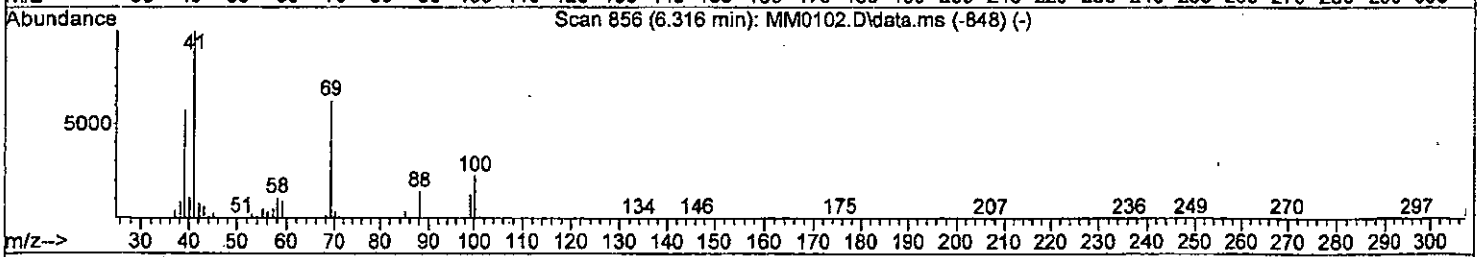
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	76.18
0.00	0.00	0.00
0.00	0.00	0.00

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\102814\MM0112.D
Misc : 50ppb
Acq On : 28 Oct 2014 11:34 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 11:48:28 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0112.D\data.ms

(58) 1,4-Dioxane

6.322min (+0.012) 905.05 ppb m

response 64914

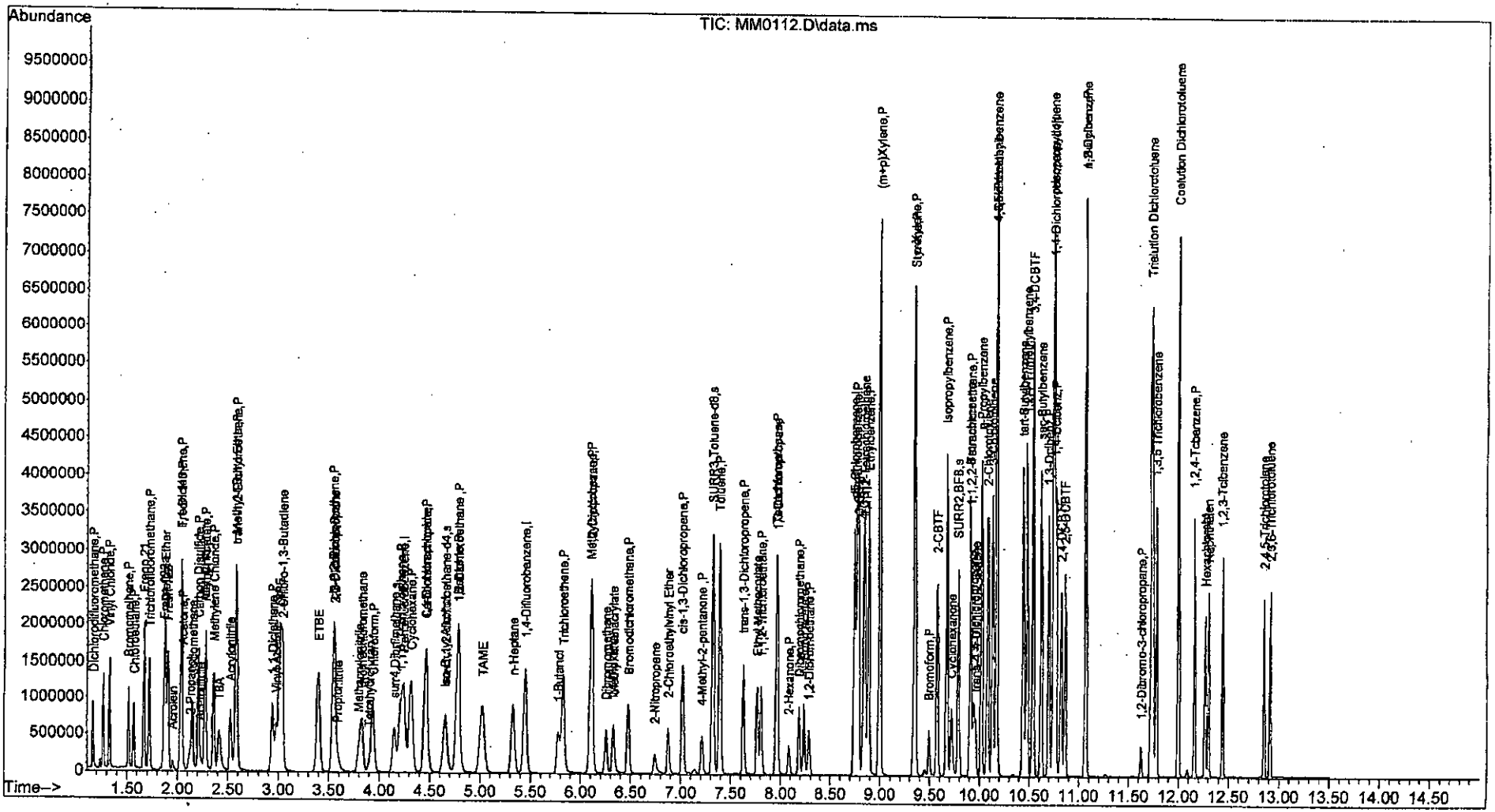
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	76.18
0.00	0.00	0.00
0.00	0.00	0.00

00197

Quantitation Report (QT Reviewed)

Sample : ICV/LCS
Data File: I:\ACQUDATA\msvoa12\Data\102814\MM0112.D
Misc : 50ppb
Acq On : 28 Oct 2014 11:34 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Oct 28 11:49:50 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



W102714.M Tue Oct 28 11:50:41 2014

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood/5101.0002

Service Request: R1409379
Date Analyzed: 11/24/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D\

Calibration Date: 10/27/14
Calibration ID: RC1400098
Analysis Lot: 422841
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	43.6	0.7789	0.6793	-12.8	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	45.9	0.8626	0.7909	-8.3	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	44.1	0.4319	0.3813	-11.7	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	45.6	0.2877	0.2621	-8.9	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	49.4	0.3348	0.3308	-1.2	NA	± 20 %	Average RF
Vinyl Chloride	50.0	54.9	0.6851	0.7525	9.8	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	47.4	0.5060	0.4796	-5.2	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	47.3	0.4668	0.4413	-5.5	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	52.6	0.4756	0.5000	5.1	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	50.6	0.2912	0.2947	1.2	NA	± 20 %	Average RF
Toluene-d8	50.0	51.1	1.226	1.254	2.3	NA	± 20 %	Average RF

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

KP 11/25/14

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 09:21:46 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	96	0.00
2	P	Dichlorodifluoromethane	0.4730	0.4929	-4.2	96	0.00
3	P	Chloromethane	0.6451	0.7117	-10.3	107	0.00
4	P	Vinyl Chloride	0.6851	0.7525	-9.8	105	0.00
5	P	Bromomethane	0.3313	0.3917	-18.2	116	0.00
6	P	Chloroethane	0.4268	0.4138	3.0	94	0.00
7		Freon 21	1.0658	1.1363	-6.6	102	0.00
8	P	Trichlorofluoromethane	0.8147	0.6982	14.3	83	0.00
9		Diethyl Ether	0.3709	0.3432	7.5	91	0.00
10		Freon 123a	0.5897	0.5608	4.9	94	0.00
11		Freon 123	0.6221	0.5996	3.6	91	0.00
12		Acrolein	0.0209	0.0249	-19.1	149	0.00
13	P	1,1-Diclethene	0.4319	0.3813	11.7	88	0.00
14	P	Freon 113	0.4424	0.4035	8.8	88	0.00
15	P	Acetone	0.1059	0.1277	-20.6#	120	0.00
16		2-Propanol	0.0210	0.0193	8.1	85	0.00
17		Iodomethane	0.6235	0.6019	3.5	90	0.00
18	P	Carbon Disulfide	1.4520	1.3447	7.4	92	0.00
19		Acetonitrile	0.0168	0.0162	3.6	98	0.00
20		Allyl Chloride	0.2447	0.2145	12.3	79	0.00
21	P	Methyl Acetate	0.2444	0.2194	10.2	83	0.00
22	P	Methylene Chloride	0.4706	0.4413	6.2	94	0.00
23		TBA	0.0348	0.0309	11.2	87	0.00
24		Acrylonitrile	0.1138	0.1151	-1.1	96	0.00
25	P	Methyl-t-Butyl Ether	1.2109	1.1208	7.4	89	0.00
26	P	trans-1,2-Dichloroethene	0.4668	0.4413	5.5	90	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-3.01#
28	P	1,1-Diclethane	0.8626	0.7909	8.3	89	0.00
29		Vinyl Acetate	0.0782	0.0363	53.6#	43#	0.00
~~30~~		~~DIPE~~	~~1.7339~~	~~0.0014~~	~~99.9#~~	~~0#~~	~~0.02~~
31		2-Chloro-1,3-Butadiene	0.7976	0.7402	7.2	91	0.00
~~32~~		~~ETBE~~	~~1.5055~~	~~0.0007~~	~~100.0#~~	~~0#~~	~~0.00~~
33		2,2-Dichloropropane	0.7655	0.5458	28.7#	67	0.00
34	P	cis-1,2-Dichloroethene	0.5060	0.4796	5.2	90	0.00
35	P	2-Butanone	0.1508	0.1601	-6.2	106	0.00
36		Propionitrile	0.0444	0.0435	2.0	97	0.00
37		Bromochloromethane	0.2863	0.2677	6.5	92	0.00
38		Methacrylonitrile	0.1320	0.1231	6.7	89	0.00
39		Tetrahydrofuran	0.1015	0.0905	10.8	86	0.00
40	P	Chloroform	0.8684	0.7911	8.9	92	0.00
41	P	1,1,1-Trichloroethane	0.7789	0.6793	12.8	86	0.00
~~42~~		~~TAME~~	~~1.2597~~	~~0.0035~~	~~99.7#~~	~~0#~~	~~0.05~~
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	97	0.00
44	P	Cyclohexane	0.3702	0.3215	13.2	85	0.00
45	s	surr4,Dibrflmethane	0.2912	0.2947	-1.2	97	0.00
46	P	Carbontetrachloride	0.1306	0.1174	10.1	88	0.00
47		1,1-Dichloropropene	0.4368	0.3969	9.1	89	0.00

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 09:21:46 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

KP 11/25/14

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

		Compound	AvgRF	CCRF	%Dev Area	%	Dev(min)
48	s	surr1,1,2-dichloroethane-d4	0.3545	0.3381	4.6	91	0.00
49	P	Benzene	1.2807	1.1858	7.4	90	0.00
50	P	1,2-Dichloroethane	0.4315	0.3946	8.6	90	0.00
51		Iso-Butyl Alcohol	0.0101	0.0096	5.0	91	0.00
52		n-Heptane	0.4142	0.3255	21.4#	78	0.00
~~53~~		~~1-Butanol~~	~~0.0063~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~5.77#~~
54	P	Trichloroethene	0.3348	0.3308	1.2	97	0.00
55	P	Methylcyclohexane	0.4296	0.3925	8.6	89	0.00
56	P	1,2-Diclpropane	0.3355	0.3074	8.4	91	0.00
57		Dibromomethane	0.1587	0.1545	2.6	95	0.00
58		1,4-Dioxane	0.0025	0.0025	0.0	106	0.00
59		Methyl Methacrylate	0.1548	0.1463	5.5	88	0.00
60	P	Bromodichloromethane	0.3975	0.3778	5.0	92	0.00
61		2-Nitropropane	0.0529	0.0373	29.5#	71	0.00
62		2-Chloroethylvinyl Ether	0.1564	0.1456	6.9	91	0.00
63	P	cis-1,3-Dichloropropene	0.4952	0.4551	8.1	86	0.00
64	P	4-Methyl-2-pentanone	0.2284	0.2139	6.3	91	0.00
65	s	SURR3,Toluene-d8	1.2258	1.2538	-2.3	96	0.00
66	P	Toluene	1.3809	1.3134	4.9	91	0.00
67	P	trans-1,3-Dichloropropene	0.4221	0.3859	8.6	84	0.00
68		Ethyl Methacrylate	0.3285	0.3040	7.5	86	0.00
69	P	1,1,2-Trichloroethane	0.2327	0.2298	1.2	96	0.00
70	s	SURR2,BFB	0.4756	0.5000	-5.1	99	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00
72	P	Tetrachloroethene	0.2877	0.2621	8.9	88	0.00
73	P	2-Hexanone	0.1683	0.1602	4.8	95	0.00
74		1,3-Dichloropropane	0.4486	0.4398	2.0	96	0.00
75	P	Dibromochloromethane	0.2690	0.2684	0.2	95	0.00
76		N-Butyl Acetate	0.4346	0.3922	9.8	85	0.00
77	P	1,2-Dibromoethane	0.2348	0.2341	0.3	95	0.00
78	P	Chlorobenzene	0.9683	0.8884	8.3	90	0.00
~~79~~		~~3-CBTF~~	~~0.5304~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~8.78#~~
~~80~~		~~4-CBTF~~	~~0.4746~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~8.84#~~
81		1,1,1,2-Tetrachloroethane	0.3183	0.2955	7.2	87	0.00
82	P	Ethylbenzene	0.5223	0.4908	6.0	90	0.00
83	P	(m+p)Xylene	0.6320	0.6036	4.5	90	0.00
84	P	o-Xylene	0.6354	0.6001	5.6	91	0.00
85	P	Styrene	1.0510	1.0237	2.6	90	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	100	0.00
87	P	Bromoform	0.2484	0.2591	-4.3	96	0.00
~~88~~		~~2-CBTF~~	~~0.8807~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~9.58#~~
89	P	Isopropylbenzene	2.6682	2.5101	5.9	92	0.00
90		Cyclohexanone	0.0293	0.0675	-130.4#	290#	0.00
91		trans-1,4-Dichloro-2-Butene	0.1604	0.1153	28.1#	75	0.00
92	P	1,1,2,2-Tetrachloroethane	0.5200	0.4717	9.3	91	0.00
93		Bromobenzene	0.7038	0.6520	7.4	93	0.00

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 09:21:46 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94		1,2,3-Trichloropropane	0.1577	0.1458	7.5	100	0.00
95		n-Propylbenzene	3.0936	3.0245	2.2	94	0.00
96		2-Chlorotoluene	1.8742	1.7954	4.2	93	0.00
~~97~~		~~3-Chlorotoluene~~	~~1.9940~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~10.13#~~
98		4-Chlorotoluene	2.3499	2.2344	4.9	93	0.00
99		1,3,5-Trimethylbenzene	2.3144	2.1909	5.3	91	0.00
100		tert-Butylbenzene	1.8691	1.8000	3.7	94	0.00
101		1,2,4-Trimethylbenzene	2.2696	2.2077	2.7	92	0.00
~~102~~		~~3,4-DCBTF~~	~~0.6633~~	~~0.0004~~	~~99.9#~~	~~0#~~	~~0.00~~
103		sec-Butylbenzene	2.6283	2.5653	2.4	93	0.00
104		p-Isopropyltoluene	2.2834	2.2316	2.3	93	0.00
105	P	1,3-Dclbenz	1.3443	1.2658	5.8	93	0.00
106	P	1,4-Dclbenz	1.4056	1.3094	6.8	93	0.00
~~107~~		~~2,4-DCBTF~~	~~0.5680~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~10.82#~~
~~108~~		~~2,5-DCBTF~~	~~0.6438~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~10.86#~~
109		n-Butylbenzene	2.0204	2.0392	-0.9	96	0.00
110	P	1,2-Dclbenz	1.2649	1.2171	3.8	95	0.00
111	P	1,2-Dibromo-3-chloropropane	0.0875	0.0948	-8.3	103	0.00
~~112~~		~~Trielution Dichlorotoluene~~	~~1.0371~~	~~0.0003~~	~~100.0#~~	~~0#~~	~~0.01~~
~~113~~		~~1,3,5 Trichlorobenzene~~	~~0.8672~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~11.78#~~
~~114~~		~~Coelution Dichlorotoluene~~	~~1.0860~~	~~0.0002~~	~~100.0#~~	~~0#~~	~~0.00~~
115	P	1,2,4-Tcbenzene	0.7405	0.7455	-0.7	96	0.00
116		Hexachlorobt	0.2928	0.2911	0.6	96	0.00
117		Naphthalen	1.4071	1.5700	-11.6	104	0.00
118		1,2,3-Tclbenzene	0.6298	0.6428	-2.1	100	0.00
~~119~~		~~2,4,5-Trichlorotolene~~	~~0.4265~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~12.85#~~
~~120~~		~~2,3,6 Trichlorotoluene~~	~~0.3936~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~12.91#~~

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

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 24 23:43:03 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	863211	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1320940	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1250807	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	744056	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.151	113	389239	50.60	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.20%				
48) surr1,1,2-dichloroetha...	4.657	65	446600	47.68	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 95.36%				
65) SURR3,Toluene-d8	7.322	98	1656176	51.14	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.28%				
70) SURR2,BFB	9.785	95	660404	52.56	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.12%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	425459	52.10	ppb		97
3) Chloromethane	1.268	50	614374	55.16	ppb		99
4) Vinyl Chloride	1.329	62	649553	54.91	ppb		99
5) Bromomethane	1.518	94	338146	59.12	ppb		100
6) Chloroethane	1.573	64	357225	48.48	ppb		96
7) Freon 21	1.670	67	980849	53.31	ppb		99
8) Trichlorofluoromethane	1.719	101	602683	42.85	ppb		98
9) Diethyl Ether	1.884	59	296237	46.26	ppb		96
10) Freon 123a	1.871	67	484108	47.55	ppb		95
11) Freon 123	1.908	83	517561	48.19	ppb		99
12) Acrolein	1.957	56	107449	297.80	ppb		87
13) 1,1-Diclethene	2.042	96	329156	44.14	ppb		95
14) Freon 113	2.036	101	348275	45.60	ppb		92
15) Acetone	2.048	43	110206	60.29	ppb		93
16) 2-Propanol	2.115	45	334033	921.21	ppb		97
17) Iodomethane	2.146	142	519537	48.27	ppb		99
18) Carbon Disulfide	2.207	76	1160774	46.31	ppb		99
19) Acetonitrile	2.225	40	70094	241.16	ppb		95
20) Allyl Chloride	2.280	76	185190	43.83	ppb	#	88
21) Methyl Acetate	2.280	43	189400	44.88	ppb		98
22) Methylene Chloride	2.359	84	380947	46.88	ppb		96
23) TBA	2.408	59	533783	889.39	ppb		97
24) Acrylonitrile	2.524	53	496981	253.04	ppb		100
25) Methyl-t-Butyl Ether	2.585	73	967448	46.28	ppb		100
26) trans-1,2-Dichloroethene	2.585	96	380961	47.27	ppb		99
28) 1,1-Diclethane	2.944	63	682741	45.85	ppb		99
29) Vinyl Acetate	2.981	86	31309	23.20	ppb	#	76
31) 2-Chloro-1,3-Butadiene	3.042	53	638982	46.41	ppb		99
33) 2,2-Dichloropropane	3.560	77	471165	35.65	ppb		97
34) cis-1,2-Dichloroethene	3.548	96	413954	47.39	ppb		97
35) 2-Butanone	3.548	43	138213	53.08	ppb		96
36) Propionitrile	3.597	54	187876	245.24	ppb		97
37) Bromochloromethane	3.834	130	231055	46.74	ppb		95
38) Methacrylonitrile	3.798	67	106243	46.61	ppb		89
39) Tetrahydrofuran	3.908	42	78114	44.56	ppb		90

11/25/14

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 24 23:43:03 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) Chloroform	3.938	83	682876	45.55	ppb		97
41) 1,1,1-Trichloroethane	4.212	97	586355	43.61	ppb		97
44) Cyclohexane	4.322	41	424704	43.43	ppb		97
46) Carbontetrachloride	4.468	121	155136	44.98	ppb		96
47) 1,1-Dichloropropene	4.462	75	524324	45.43	ppb		99
49) Benzene	4.779	78	1566328	46.29	ppb		99
50) 1,2-Dichloroethane	4.785	62	521182	45.72	ppb		98
51) Iso-Butyl Alcohol	4.639	43	254641	950.76	ppb		100
52) n-Heptane	5.328	43	430031	39.29	ppb		94
~~53) 1-Butanol~~	~~5.791~~	~~56~~	~~497~~	~~3.01~~	~~ppb~~	~~#~~	~~1~~
54) Trichloroethene	5.828	130	436938	49.41	ppb		99
55) Methylcyclohexane	6.102	55	518456	45.68	ppb		96
56) 1,2-Diclpropane	6.115	63	406082	45.81	ppb		92
57) Dibromomethane	6.255	93	204070	48.67	ppb		97
58) 1,4-Dioxane	6.303	88	~~6841756938~~	~~853.34~~	ppb	1001.94	90
59) Methyl Methacrylate	6.328	69	193193	47.23	ppb		93
60) Bromodichloromethane	6.474	83	499038	47.53	ppb		96
61) 2-Nitropropane	6.742	41	98480	70.47	ppb		100
62) 2-Chloroethylvinyl Ether	6.877	63	192336	46.56	ppb		97
63) cis-1,3-Dichloropropene	7.017	75	601190	45.95	ppb		99
64) 4-Methyl-2-pentanone	7.212	43	282485	46.81	ppb		98
66) Toluene	7.389	91	1734921	47.56	ppb		98
67) trans-1,3-Dichloropropene	7.626	75	509715	45.70	ppb		98
68) Ethyl Methacrylate	7.767	69	401617	46.28	ppb		95
69) 1,1,2-Trichloroethane	7.803	97	303558	49.37	ppb		99
72) Tetrachloroethene	7.962	164	327883	45.55	ppb		97
73) 2-Hexanone	8.084	43	200346	47.57	ppb		95
74) 1,3-Dichloropropane	7.968	76	550139	49.02	ppb		94
75) Dibromochloromethane	8.187	129	335667	49.89	ppb		99
76) N-Butyl Acetate	8.236	43	490605	45.12	ppb		98
77) 1,2-Dibromoethane	8.285	107	292773	49.85	ppb		99
78) Chlorobenzene	8.766	112	1111268	45.88	ppb		99
81) 1,1,1,2-Tetrachloroethane	8.846	131	369655	46.42	ppb		96
82) Ethylbenzene	8.888	106	613835	46.98	ppb		98
83) (m+p)Xylene	8.998	106	1510080	95.52	ppb		100
84) o-Xylene	9.346	106	750586	47.22	ppb		98
85) Styrene	9.352	104	1280485	48.70	ppb		98
87) Bromoform	9.492	173	192764	52.14	ppb		99
89) Isopropylbenzene	9.669	105	1867660	47.04	ppb		100
90) Cyclohexanone	9.717	55	1005182	2303.93	ppb		94
91) trans-1,4-Dichloro-2-B...	9.955	53	85822	35.97	ppb		88
92) 1,1,2,2-Tetrachloroethane	9.906	83	350952	45.35	ppb		99
93) Bromobenzene	9.906	156	485135	46.32	ppb		98
94) 1,2,3-Trichloropropane	9.937	110	108510	46.24	ppb		96
95) n-Propylbenzene	10.016	91	2250384	48.88	ppb		96
96) 2-Chlorotoluene	10.077	91	1335869	47.90	ppb		98
~~97) 3-Chlorotoluene~~	~~10.077~~	~~91~~	~~1344171~~	~~45.30~~	~~ppb~~		~~95~~
98) 4-Chlorotoluene	10.169	91	1662551	47.54	ppb		99
99) 1,3,5-Trimethylbenzene	10.169	105	1630187	47.33	ppb		99
100) tert-Butylbenzene	10.437	119	1339286	48.15	ppb		99
101) 1,2,4-Trimethylbenzene	10.473	105	1642655	48.64	ppb		99
103) sec-Butylbenzene	10.620	105	1908741	48.80	ppb		99

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

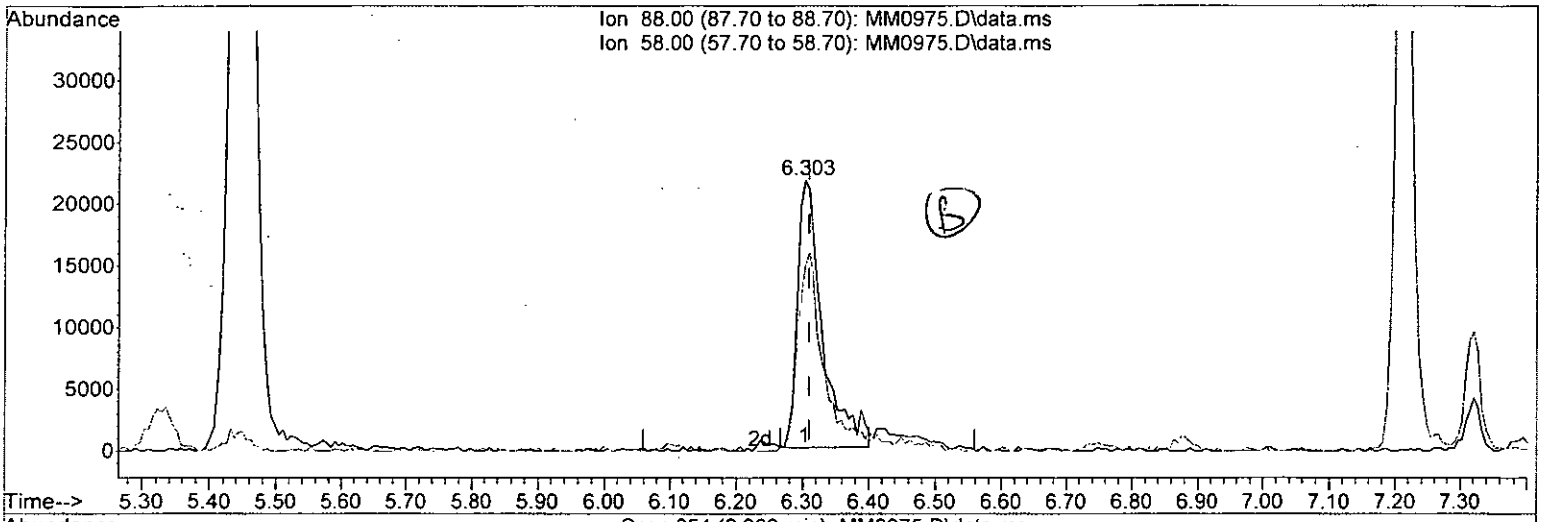
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 24 23:43:03 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

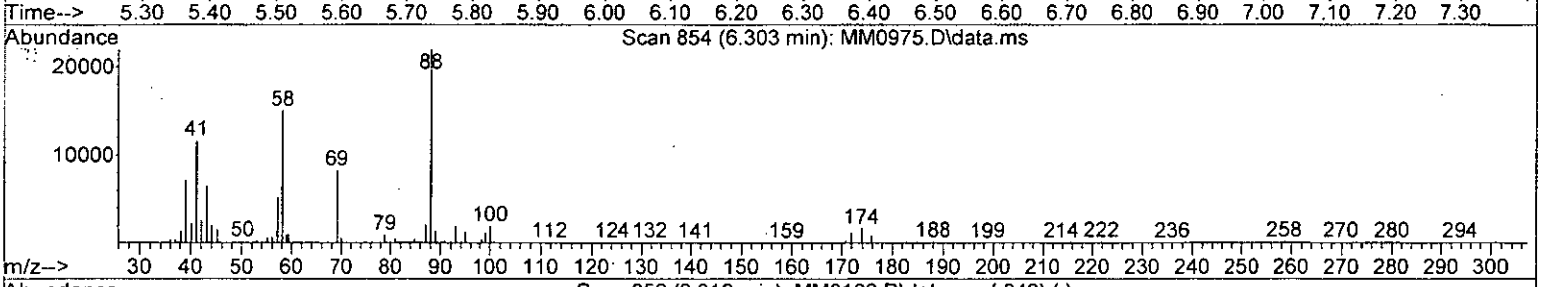
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
104) p-Isopropyltoluene	10.736	119	1660471	48.87 ppb	98
105) 1,3-Dclbenz	10.693	146	941802	47.08 ppb	100
106) 1,4-Dclbenz	10.766	146	974232	46.58 ppb	100
109) n-Butylbenzene	11.065	91	1517302	50.46 ppb	99
110) 1,2-Dclbenz	11.065	146	905555	48.11 ppb	99
111) 1,2-Dibromo-3-chloropr...	11.626	157	70556	54.17 ppb	93
115) 1,2,4-Tcbenzene	12.156	180	554685	50.34 ppb	98
116) Hexachlorobt	12.266	225	216559	49.71 ppb	97
117) Naphthalen	12.296	128	1168182	55.79 ppb	99
118) 1,2,3-Tclbenzene	12.436	180	478255	51.03 ppb	96

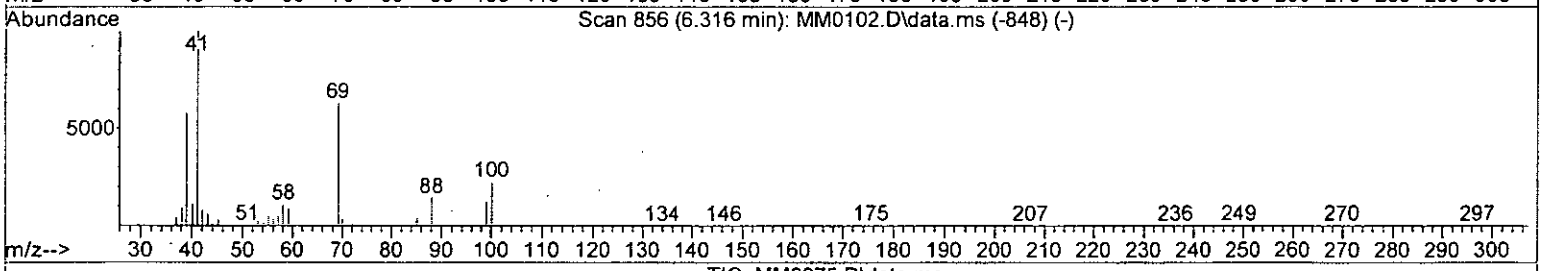
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 24 23:43:03 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0975.D\data.ms

(58) 1,4-Dioxane

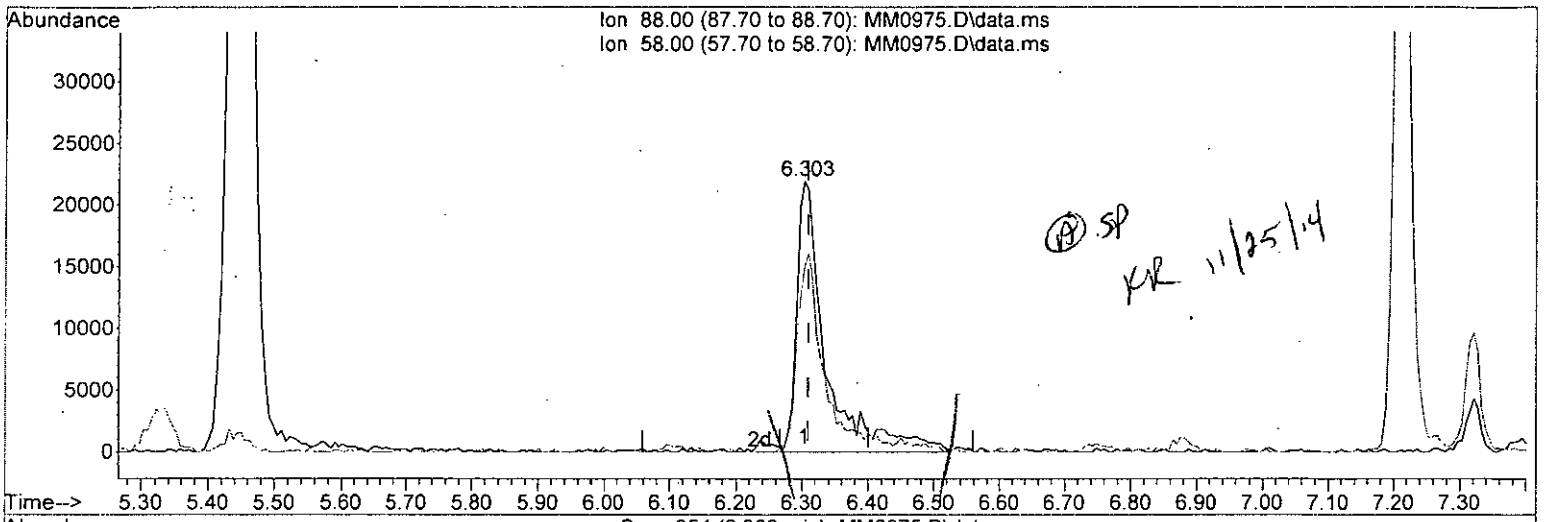
6.303min (-0.006) 853.34 ppb

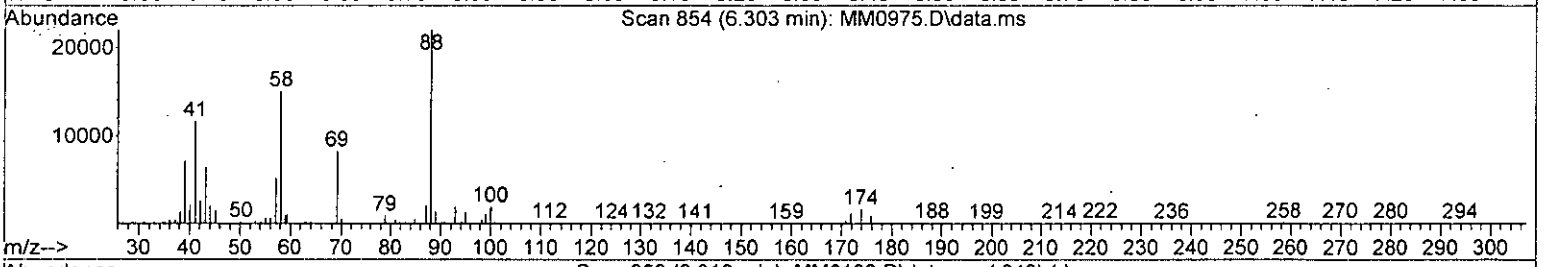
response 56938

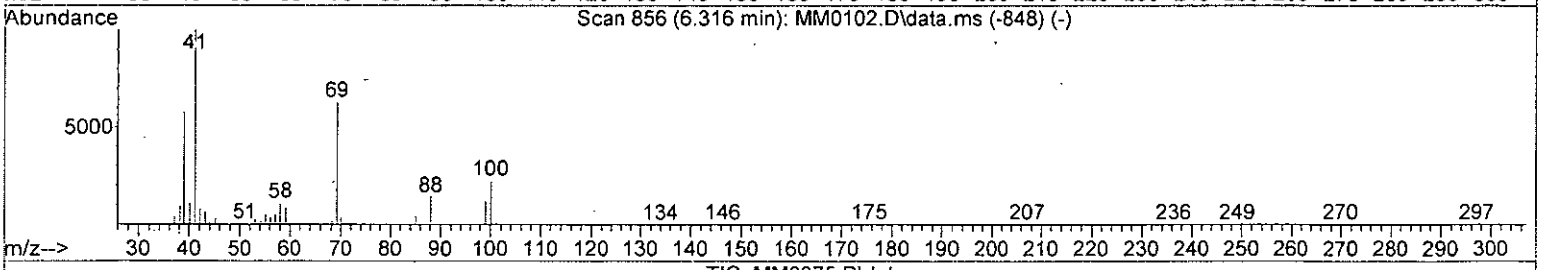
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	68.49
0.00	0.00	0.00
0.00	0.00	0.00

Sample : CCV
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 24 23:43:03 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0975.D\data.ms

(58) 1,4-Dioxane

6.303min (-0.006) 1001.84 ppb m

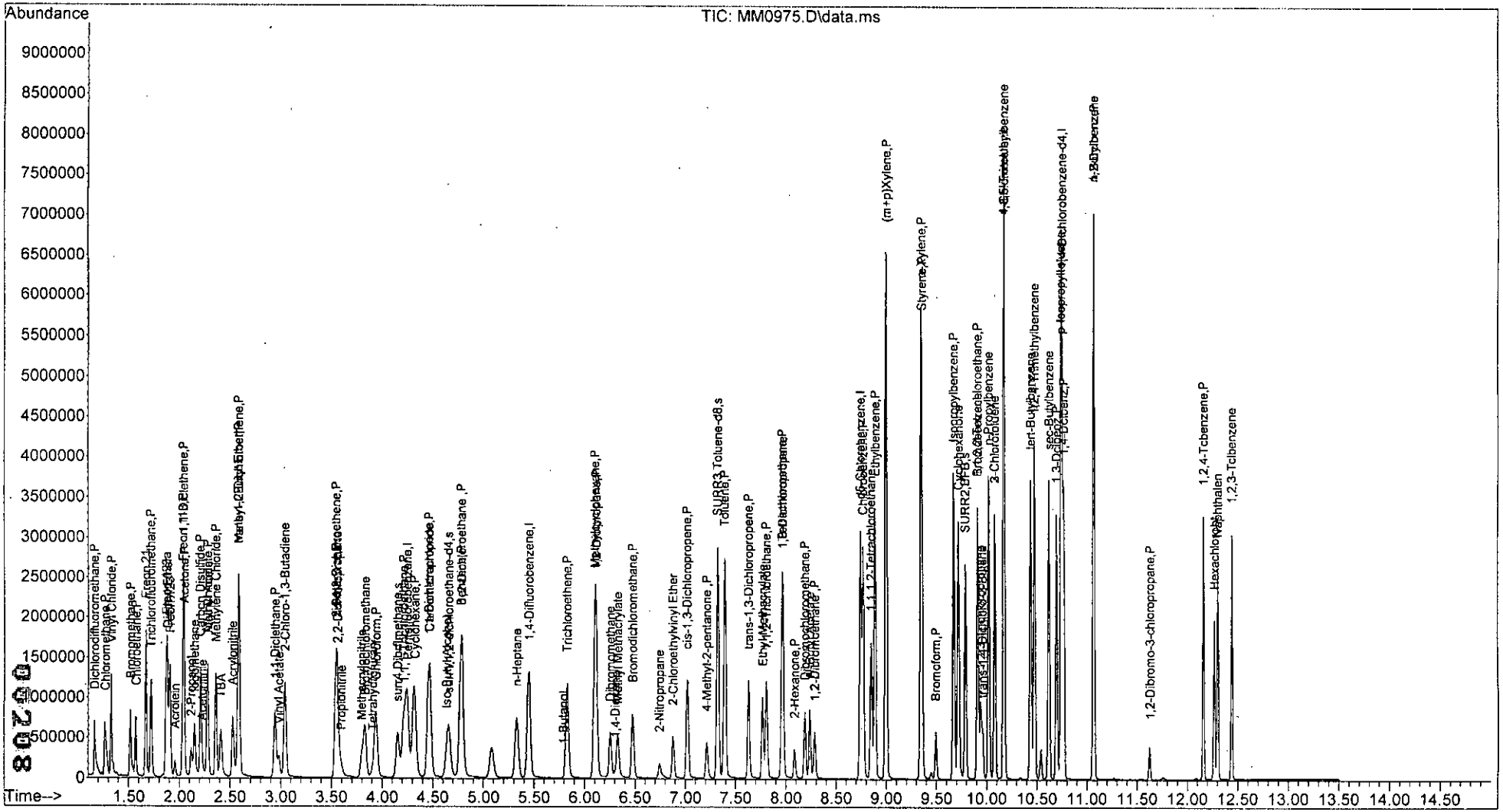
response 66847

Ion	Exp%	Act%
88.00	100	100
58.00	77.40	68.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Sample : CCV
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0975.D
Misc :
Acq On : 24 Nov 2014 11:28 pm
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 24 23:43:03 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



ALS Environmental

VOLATILE ORGANICS
RAW QC DATA

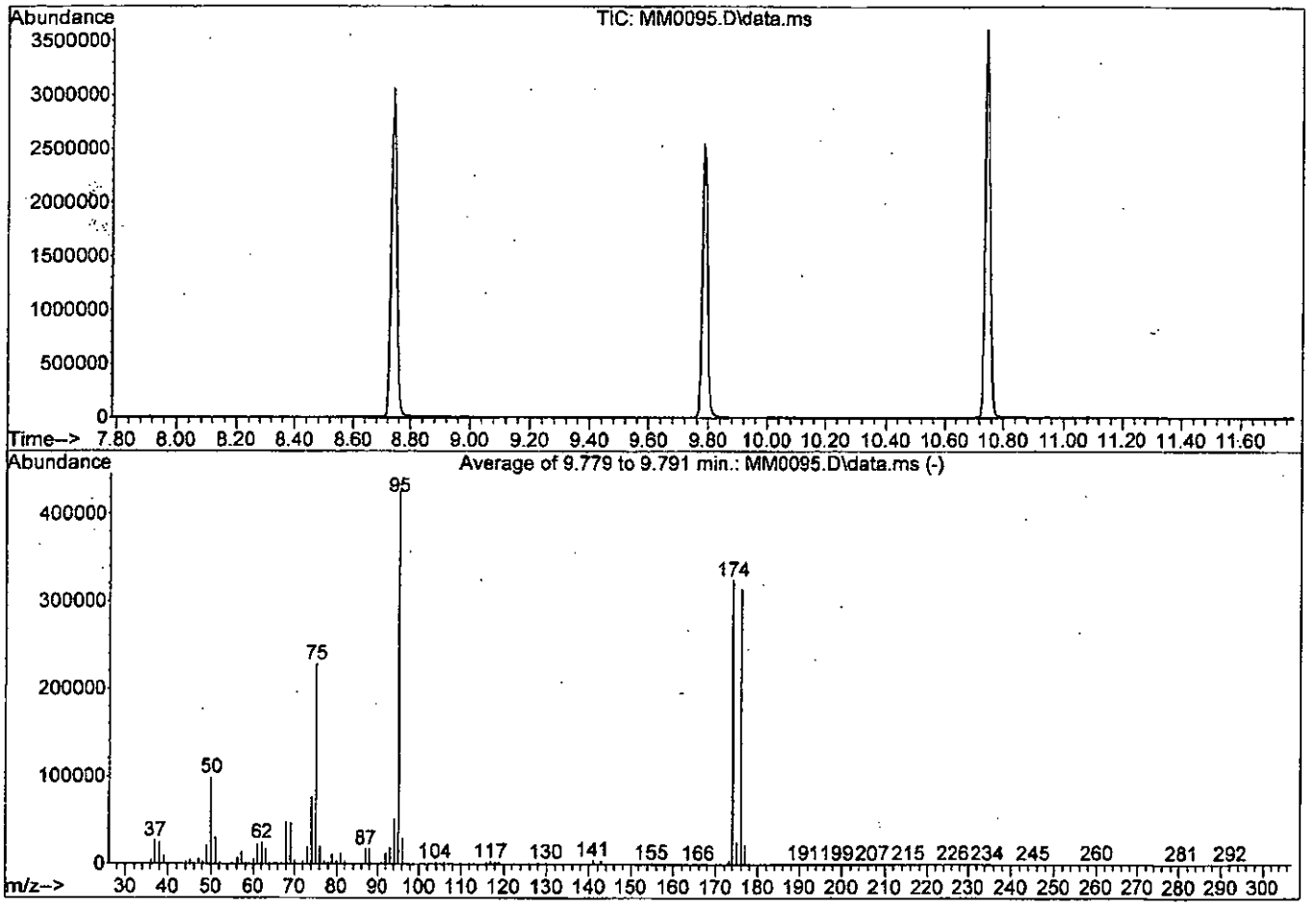
ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Data Path : I:\ACQUDATA\msvoa12\Data\102714\
Data File : MM0095.D
Acq On : 27 Oct 2014 3:08 pm
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

KR 10/27/14

Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Mon Oct 27 15:07:21 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	98133	PASS
75	95	30	60	53.6	227669	PASS
95	95	100	100	100.0	424533	PASS
96	95	5	9	6.7	28573	PASS
173	174	0.00	2	1.1	3648	PASS
174	95	50	120	76.3	324011	PASS
175	174	5	9	7.7	25107	PASS
176	174	95	101	96.8	313536	PASS
177	176	5	9	6.8	21386	PASS

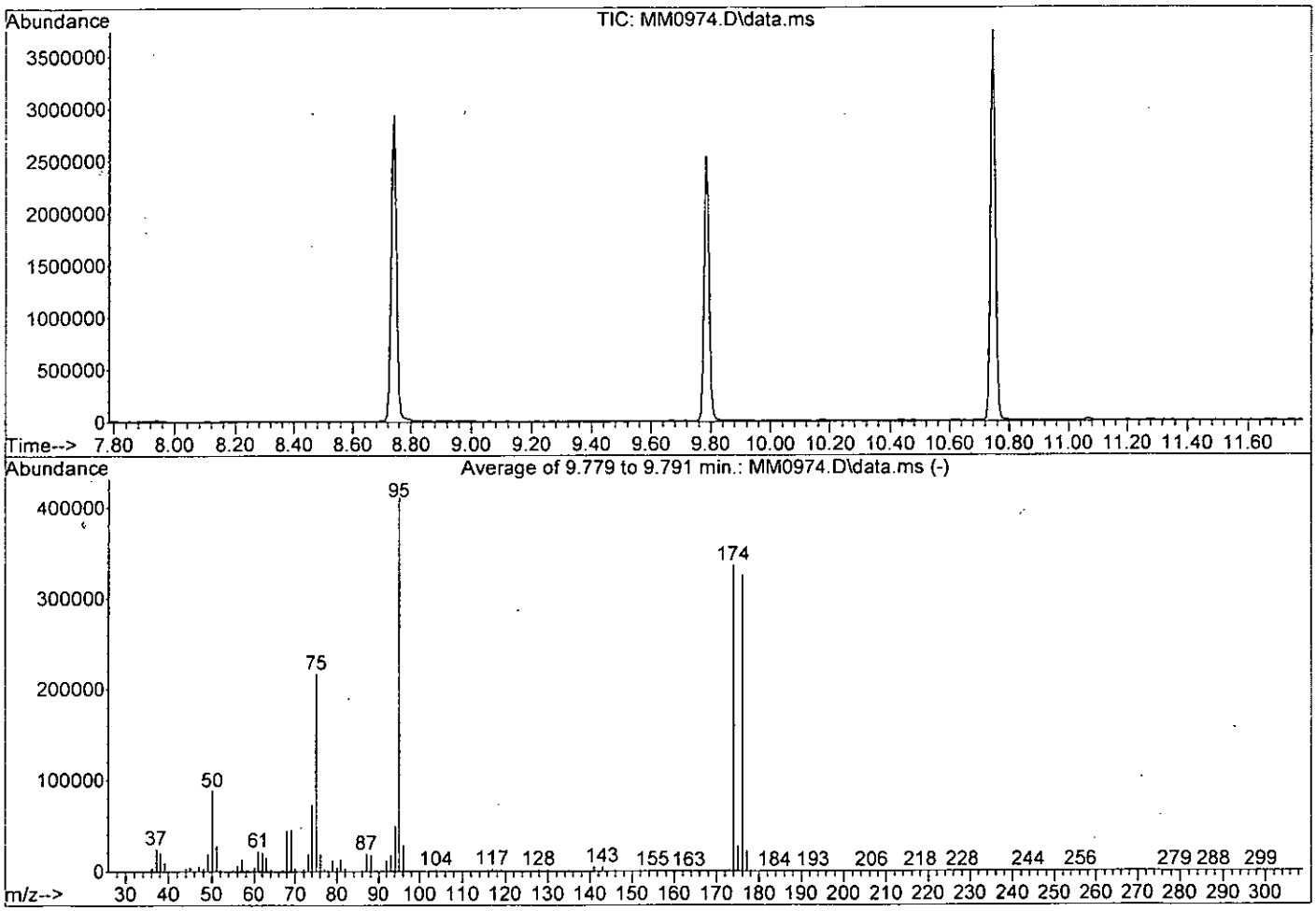
00210

Data Path : I:\ACQUDATA\msvoa12\Data\112414\
Data File : MM0974.D
Acq On : 24 Nov 2014 10:56 pm
Operator : K.Ruest
Sample : TUNE LG1414574-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

KR 11/25/14

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Tue Oct 28 10:54:16 2014



AutoFind: Scans 1424, 1425, 1426; Background Corrected with Scan 1419

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.4	87811	PASS
75	95	30	60	52.7	216661	PASS
95	95	100	100	100.0	410816	PASS
96	95	5	9	6.8	27771	PASS
173	174	0.00	2	0.6	1874	PASS
174	95	50	120	81.7	335723	PASS
175	174	5	9	8.0	26771	PASS
176	174	95	101	96.8	324843	PASS
177	176	5	9	6.7	21733	PASS

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/25/14 01:06
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1414574-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\msvoa12\Data\112414\MM0978.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.22	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85-122	11/25/14 01:06	
Dibromofluoromethane	101	89-119	11/25/14 01:06	
Toluene-d8	102	87-121	11/25/14 01:06	

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0978.D
Misc :
Acq On : 25 Nov 2014 1:06 am
Operator : K.Ruest
InstName : MSVOA-12 PQ 1414574 -04

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 01:20:16 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	842080	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.450	114	1279942	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1200732	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	657355	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	375925	50.43	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.86%				
48) surr1,1,2-dichloroetha...	4.664	65	446510	49.20	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 98.40%				
65) SURR3,Toluene-d8	7.322	98	1602395	51.07	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.14%				
70) SURR2,BFB	9.785	95	590381	48.49	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.98%				
Target Compounds							Qvalue
12) Acrolein	1.963	56	411	1.17	ppb		~~98~~
15) Acetone	2.061	43	1026	0.58	ppb	#	55
16) 2-Propanol	2.079	45	248	0.70	ppb	#	45
19) Acetonitrile	2.250	40	747	2.63	ppb	#	1
20) Allyl Chloride	2.207	76	2112	0.51	ppb	#	1
23) TBA	2.408	59	662	1.13	ppb	#	52
35) 2-Butanone	3.572	43	535	0.21	ppb	#	9
~~58) 1,4 Dioxane~~	~~6.328~~	~~88~~	~~357~~	~~5.52~~	~~ppb~~	~~#~~	~~11~~
90) Cyclohexanone	9.718	55	828	2.15	ppb	#	49
~~111) 1,2-Dibromo 3 chloropr...~~	~~11.626~~	~~157~~	~~277~~	~~0.24~~	~~ppb~~		~~92~~
115) 1,2,4-Tcbenzene	12.162	180	3224	0.33	ppb		88
116) Hexachlorobt	12.266	225	2315	0.60	ppb		86
117) Naphthalen	12.302	128	5703	0.31	ppb		94
118) 1,2,3-Tclbenzene	12.443	180	3873	0.47	ppb	#	79
22) Methyl	7.353		1099	0.21	mk②		

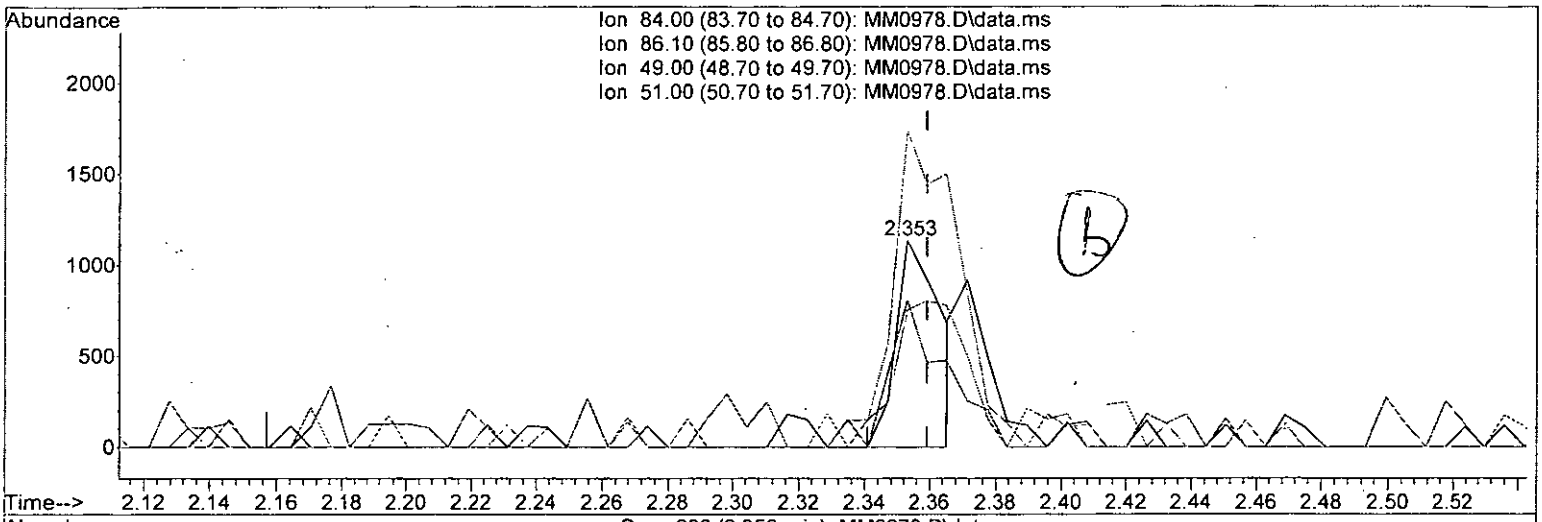
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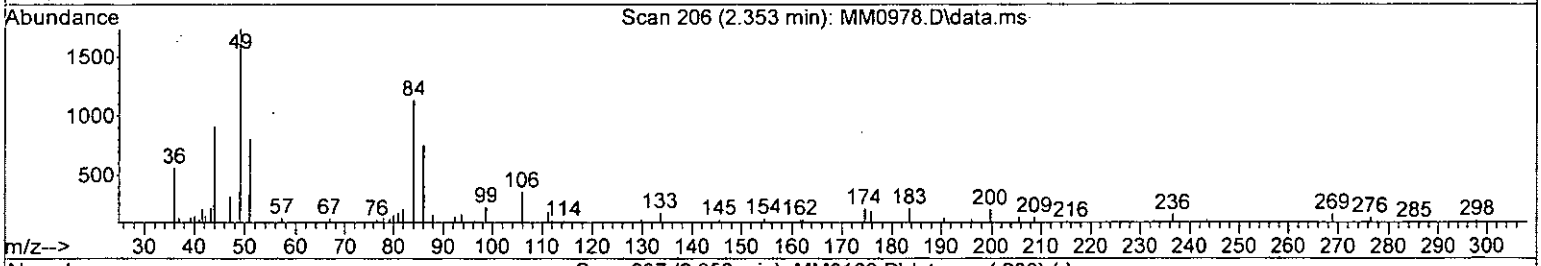
KP 11/25/14

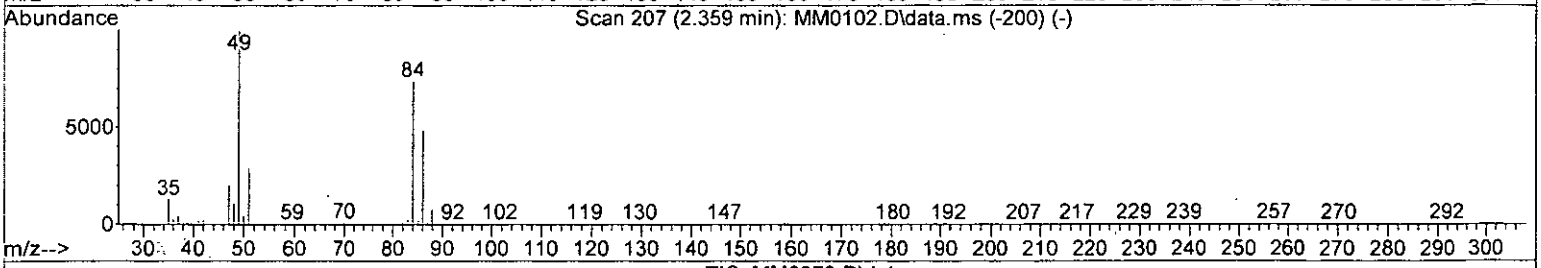
00213

Sample : VBLK
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0978.D
Misc :
Acq On : 25 Nov 2014 1:06 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 01:20:16 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0978.D\data.ms

(22) Methylene Chloride (P)

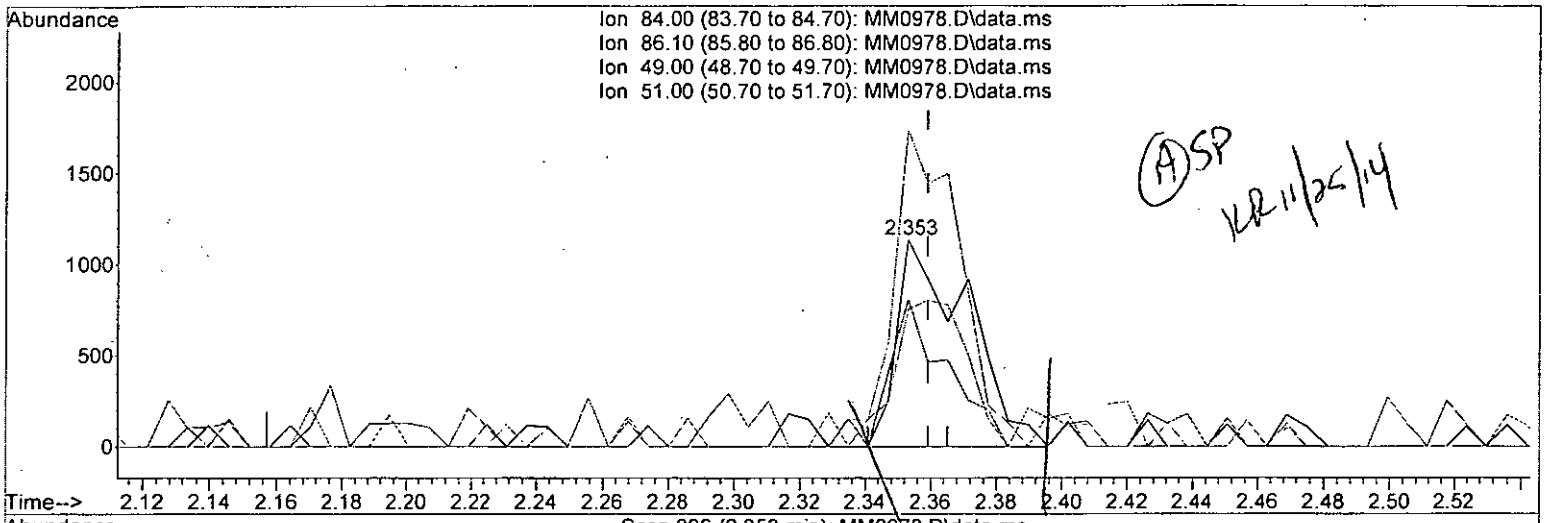
2.353min (-0.006) 0.14 ppb

response 1090

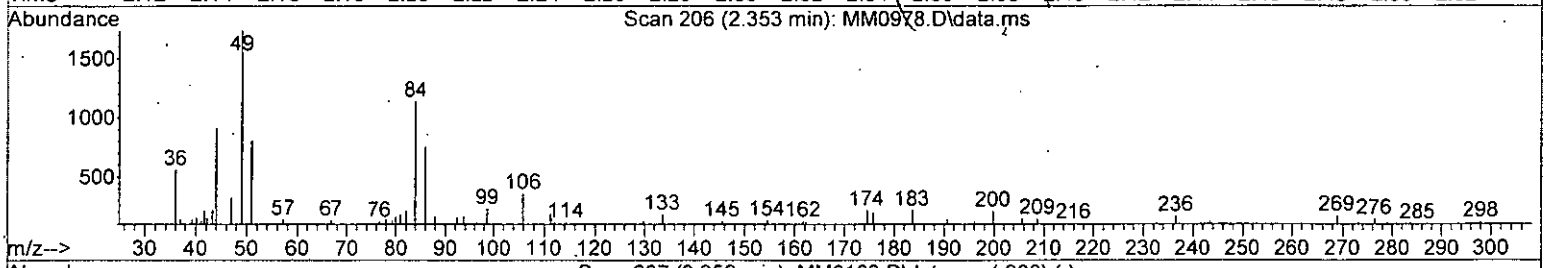
Ion	Exp%	Act%
84.00	100	100
86.10	66.60	66.34
49.00	136.70	153.09
51.00	40.10	71.20#

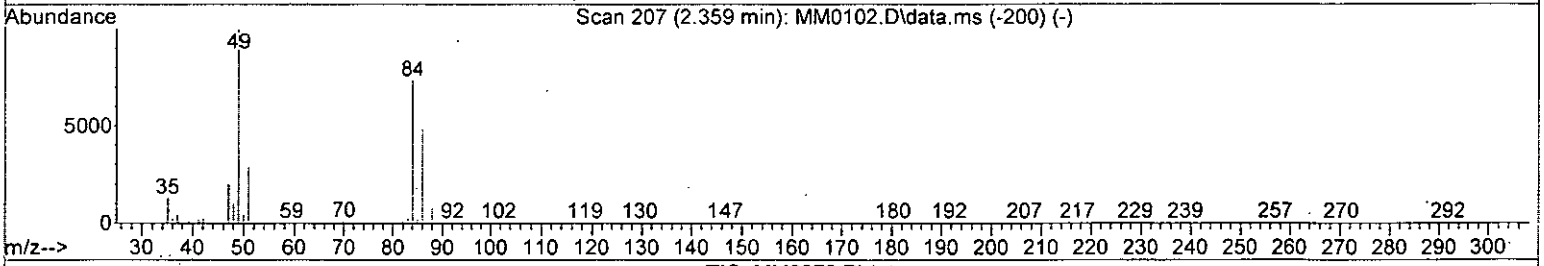
Sample : VBLK
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0978.D
Misc :
Acq On : 25 Nov 2014 1:06 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 01:20:16 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



ASP KR 11/26/14





TIC: MM0978.D\data.ms

(22) Methylene Chloride (P)

2.353min (-0.006) 0.21 ppb m

response 1699

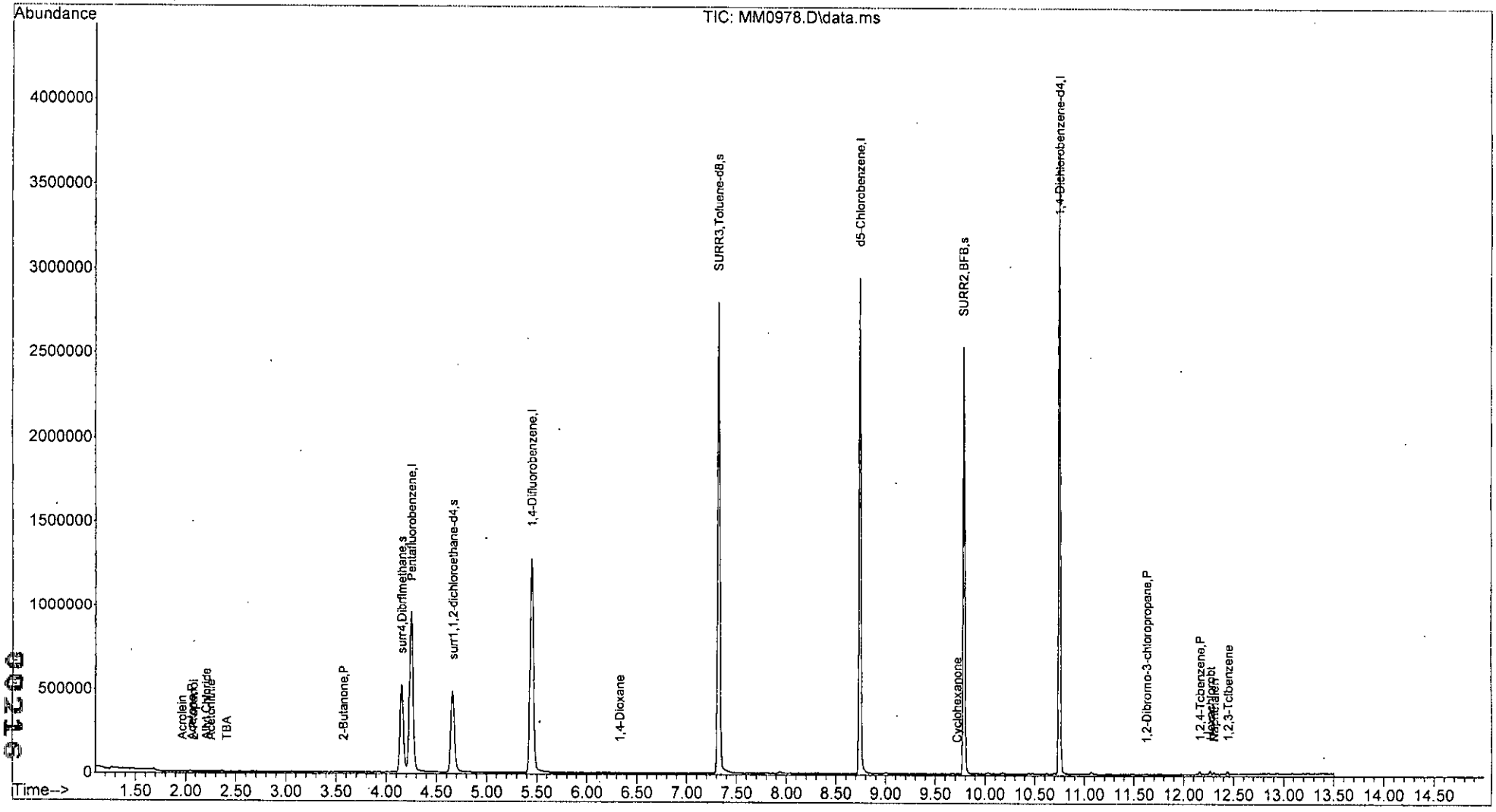
Ion	Exp%	Act%
84.00	100	100
86.10	66.60	66.34
49.00	136.70	153.09
51.00	40.10	71.20#

W KLI

Quantitation Report (Not Reviewed)

Sample : VBLK
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0978.D
Misc :
Acq On : 25 Nov 2014 1:06 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 01:20:16 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Verina Consulting Group, LLC	**Service Request:**	R1409379
Project:	Dover - Kirkwood/5101.0002	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/25/14 00:01
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1414574-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	422841
Data File Name:	I:\ACQUDATA\msvoa12\Data\112414\MM0976.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**19.5**		5.0	0.36	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**20.1**		5.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**19.5**		5.0	0.57	
127-18-4	Tetrachloroethene (PCE)	**19.9**		5.0	0.30	
79-01-6	Trichloroethene (TCE)	**20.6**		5.0	0.22	
75-01-4	Vinyl Chloride	**22.8**		5.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**20.5**		5.0	0.30	
156-60-5	trans-1,2-Dichloroethene	**20.4**		5.0	0.33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	11/25/14 00:01	
Dibromofluoromethane	102	89-119	11/25/14 00:01	
Toluene-d8	104	87-121	11/25/14 00:01	

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0976.D
Misc :
Acq On : 25 Nov 2014 12:01 am
Operator : K.Ruest
InstName : MSVOA-12 RQ1414554-03

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 00:15:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	4.249	168	864747	50.00	ppb		0.00
43) 1,4-Difluorobenzene	5.444	114	1327505	50.00	ppb		0.00
71) d5-Chlorobenzene	8.742	117	1249555	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	10.748	152	725866	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	4.152	113	395017	51.10	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.20%				
48) surr1,1,2-dichloroetha...	4.658	65	457187	48.57	ppb		0.00
Spiked Amount 50.000	Range 78 - 122		Recovery = 97.14%				
65) SURR3,Toluene-d8	7.322	98	1689554	51.92	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.84%				
70) SURR2,BFB	9.785	95	634298	50.23	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.46%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.164	85	223588	27.33	ppb		98
3) Chloromethane	1.268	50	280155	25.11	ppb		99
4) Vinyl Chloride	1.329	62	270540	22.83	ppb		100
5) Bromomethane	1.518	94	154824	27.02	ppb		97
6) Chloroethane	1.573	64	150139	20.34	ppb		100
7) Freon 21	1.670	67	426257	23.13	ppb		99
8) Trichlorofluoromethane	1.719	101	263192	18.68	ppb		99
9) Diethyl Ether	1.884	59	129248	20.15	ppb		96
10) Freon 123a	1.872	67	215873	21.17	ppb		91
11) Freon 123	1.908	83	227827	21.18	ppb		97
12) Acrolein	1.957	56	14798	40.94	ppb		85
13) 1,1-Diclethene	2.042	96	145896	19.53	ppb		97
14) Freon 113	2.036	101	150400	19.66	ppb		94
15) Acetone	2.048	43	42268	23.08	ppb		99
16) 2-Propanol	2.115	45	136673	376.25	ppb		94
17) Iodomethane	2.146	142	201072	18.65	ppb		94
18) Carbon Disulfide	2.207	76	504722	20.10	ppb		99
19) Acetonitrile	2.225	40	29718	102.07	ppb		95
20) Allyl Chloride	2.280	76	83397	19.71	ppb		90
21) Methyl Acetate	2.274	43	79345	18.77	ppb		96
22) Methylene Chloride	2.359	84	171437	21.06	ppb		94
23) TBA	2.408	59	221311	368.09	ppb		89
24) Acrylonitrile	2.524	53	209112	106.28	ppb		100
25) Methyl-t-Butyl Ether	2.585	73	420477	20.08	ppb		99
26) trans-1,2-Dichloroethene	2.585	96	164919	20.43	ppb		97
28) 1,1-Diclethane	2.945	63	299797	20.10	ppb		99
29) Vinyl Acetate	2.981	86	18452	13.65	ppb	#	66
31) 2-Chloro-1,3-Butadiene	3.042	53	284383	20.62	ppb		96
33) 2,2-Dichloropropane	3.554	77	195610	14.78	ppb		99
34) cis-1,2-Dichloroethene	3.548	96	179628	20.53	ppb		94
35) 2-Butanone	3.548	43	52508	20.13	ppb		98
36) Propionitrile	3.597	54	74109	96.57	ppb		96
37) Bromochloromethane	3.829	130	103963	21.00	ppb		90
38) Methacrylonitrile	3.798	67	45979	20.13	ppb		90
39) Tetrahydrofuran	3.908	42	34672	19.74	ppb		80

KR 11/25/14

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0976.D
Misc :
Acq On : 25 Nov 2014 12:01 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 00:15:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40) Chloroform	3.938	83	297821	19.83	ppb		97
41) 1,1,1-Trichloroethane	4.213	97	262848	19.51	ppb		94
44) Cyclohexane	4.310	41	176730	17.98	ppb		92
46) Carbontetrachloride	4.469	121	64627	18.64	ppb		95
47) 1,1-Dichloropropene	4.456	75	217220	18.73	ppb		99
49) Benzene	4.780	78	676470	19.89	ppb		99
50) 1,2-Dichloroethane	4.786	62	217242	18.96	ppb		96
51) Iso-Butyl Alcohol	4.633	43	90565	336.47	ppb		98
52) n-Heptane	5.328	43	183038	16.64	ppb		96
~~53) 1-Butanol~~	~~5.767~~	~~56~~	~~236~~	~~1.42~~	~~ppb~~	~~#~~	~~9~~
54) Trichloroethene	5.828	130	182959	20.59	ppb		97
55) Methylcyclohexane	6.102	55	208433	18.27	ppb		94
56) 1,2-Dichloropropane	6.109	63	173175	19.44	ppb		95
57) Dibromomethane	6.255	93	84303	20.01	ppb		89
58) 1,4-Dioxane	6.310	88	~~2775~~	~~339.64~~	ppb		94
59) Methyl Methacrylate	6.328	69	75587	18.39	ppb		92
60) Bromodichloromethane	6.474	83	214257	20.30	ppb		99
61) 2-Nitropropane	6.743	41	38458	27.38	ppb		85
62) 2-Chloroethylvinyl Ether	6.877	63	79902	19.25	ppb		96
63) cis-1,3-Dichloropropene	7.017	75	244620	18.61	ppb		98
64) 4-Methyl-2-pentanone	7.212	43	110047	18.15	ppb		96
66) Toluene	7.389	91	740065	20.19	ppb		99
67) trans-1,3-Dichloropropene	7.627	75	207815	18.54	ppb		99
68) Ethyl Methacrylate	7.767	69	155125	17.79	ppb		92
69) 1,1,2-Trichloroethane	7.803	97	123628	20.01	ppb		97
72) Tetrachloroethene	7.962	164	143079	19.90	ppb		95
73) 2-Hexanone	8.084	43	75930	18.05	ppb		96
74) 1,3-Dichloropropane	7.968	76	230147	20.53	ppb		95
75) Dibromochloromethane	8.187	129	136675	20.33	ppb		100
76) N-Butyl Acetate	8.236	43	183117	16.86	ppb		100
77) 1,2-Dibromoethane	8.285	107	121149	20.65	ppb		99
78) Chlorobenzene	8.767	112	474946	19.63	ppb		98
81) 1,1,1,2-Tetrachloroethane	8.846	131	153326	19.27	ppb		98
82) Ethylbenzene	8.889	106	237946	18.23	ppb		96
83) (m+p)Xylene	8.998	106	639097	40.46	ppb		98
84) o-Xylene	9.340	106	307102	19.34	ppb		95
85) Styrene	9.352	104	517616	19.71	ppb		98
87) Bromoform	9.492	173	73642	20.42	ppb		98
89) Isopropylbenzene	9.669	105	795604	20.54	ppb		98
90) Cyclohexanone	9.718	55	270798	636.24	ppb		96
91) trans-1,4-Dichloro-2-B...	9.955	53	32838	14.11	ppb		83
92) 1,1,2,2-Tetrachloroethane	9.913	83	147276	19.51	ppb		97
93) Bromobenzene	9.907	156	197324	19.31	ppb		96
94) 1,2,3-Trichloropropane	9.937	110	46706	20.40	ppb		95
95) n-Propylbenzene	10.016	91	936552	20.85	ppb		98
96) 2-Chlorotoluene	10.077	91	554221	20.37	ppb		99
~~97) 3-Chlorotoluene~~	~~10.077~~	~~91~~	~~558510~~	~~19.29~~	~~ppb~~		~~96~~
98) 4-Chlorotoluene	10.169	91	682900	20.02	ppb		98
99) 1,3,5-Trimethylbenzene	10.169	105	670354	19.95	ppb		99
100) tert-Butylbenzene	10.437	119	570184	21.01	ppb		98
101) 1,2,4-Trimethylbenzene	10.474	105	692409	21.01	ppb		99
103) sec-Butylbenzene	10.620	105	804142	21.08	ppb		100

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0976.D
Misc :
Acq On : 25 Nov 2014 12:01 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 00:15:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration

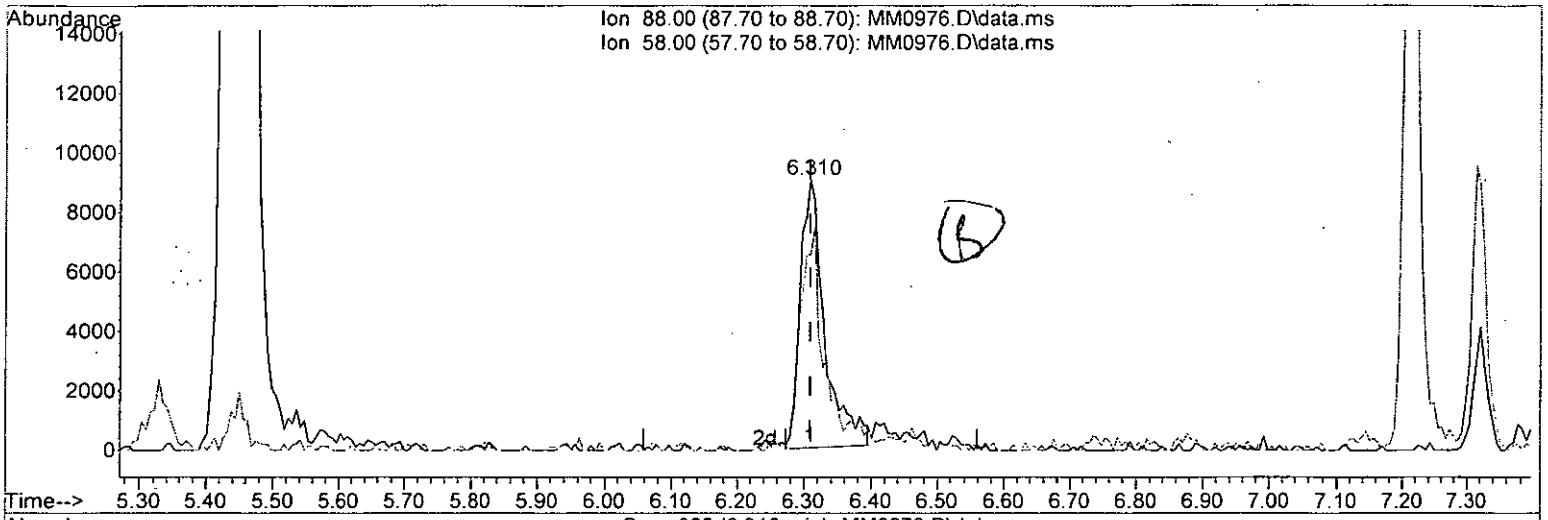
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
104) p-Isopropyltoluene	10.736	119	707619	21.35 ppb	98
105) 1,3-Dclbenz	10.693	146	381031	19.52 ppb	97
106) 1,4-Dclbenz	10.766	146	406644	19.93 ppb	98
109) n-Butylbenzene	11.065	91	625354	21.32 ppb	96
110) 1,2-Dclbenz	11.065	146	370565	20.18 ppb	99
111) 1,2-Dibromo-3-chloropr...	11.626	157	27873	21.94 ppb	89
115) 1,2,4-Tcbenzene	12.156	180	234576	21.82 ppb	98
116) Hexachlorobt	12.266	225	101039	23.77 ppb	98
117) Naphthalen	12.296	128	498531	24.40 ppb	99
118) 1,2,3-Tclbenzene	12.437	180	210703	23.05 ppb	99

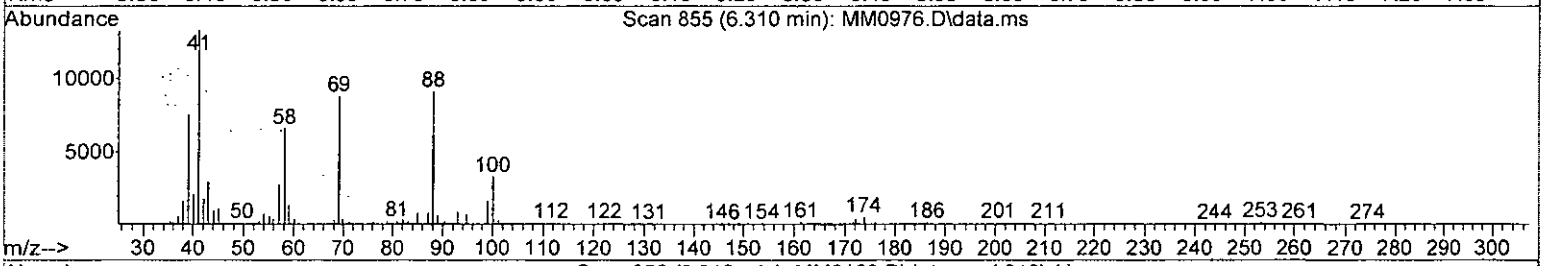
(#) = qualifier out of range (m) = manual integration (+) = signals summed

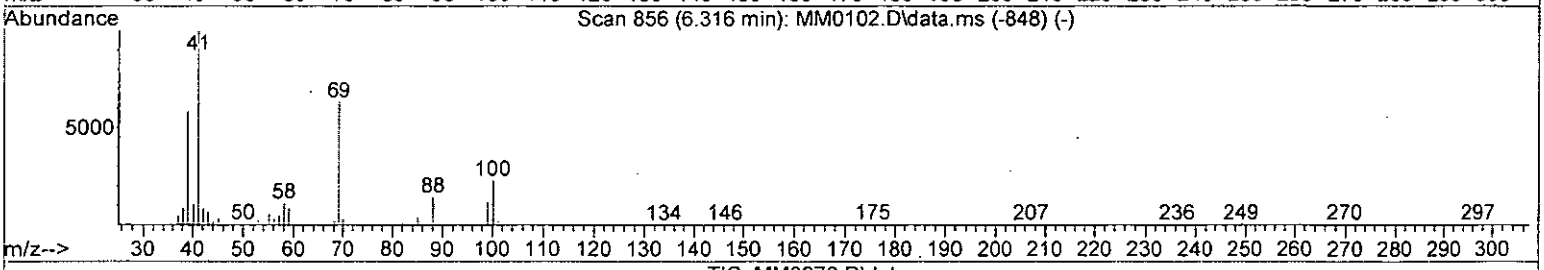
00229

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0976.D
Misc :
Acq On : 25 Nov 2014 12:01 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 00:15:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0976.D\data.ms

(58) 1,4-Dioxane

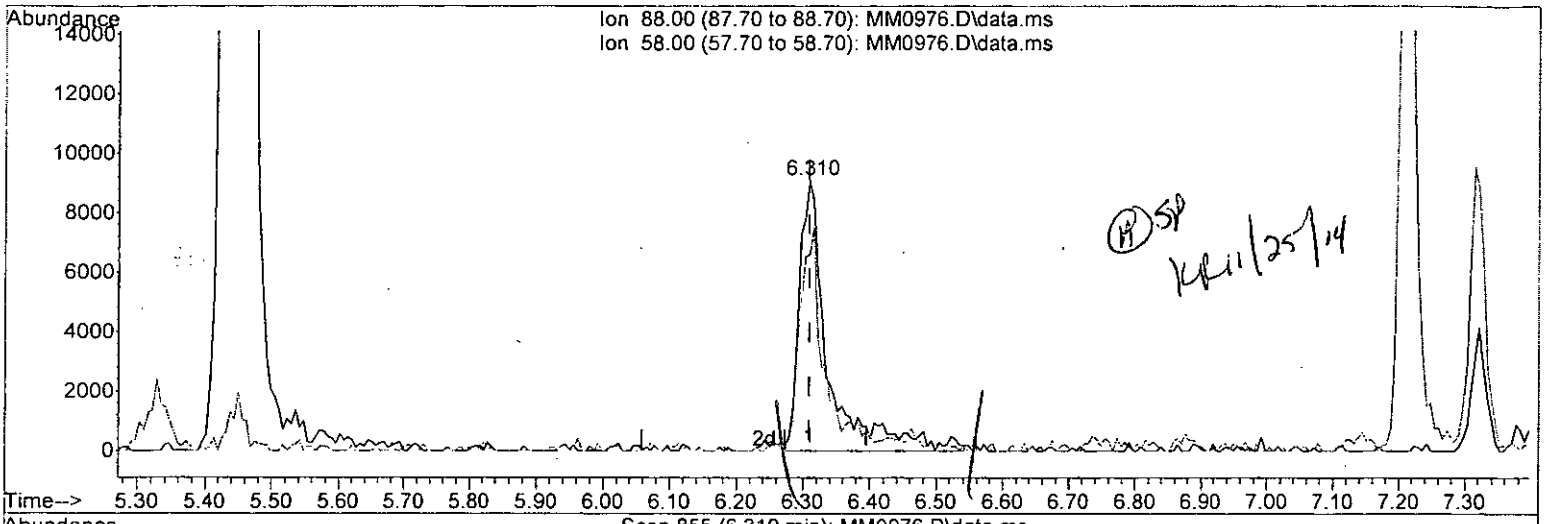
6.310min (+0.000) 339.64 ppb

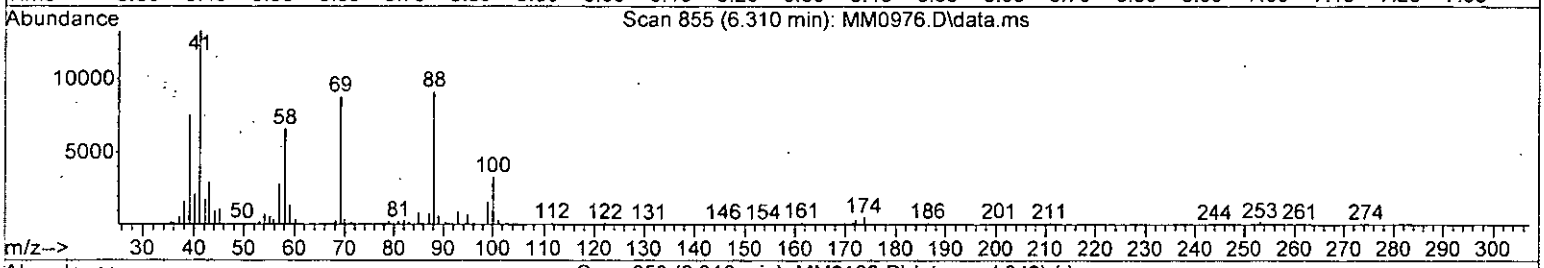
response 22775

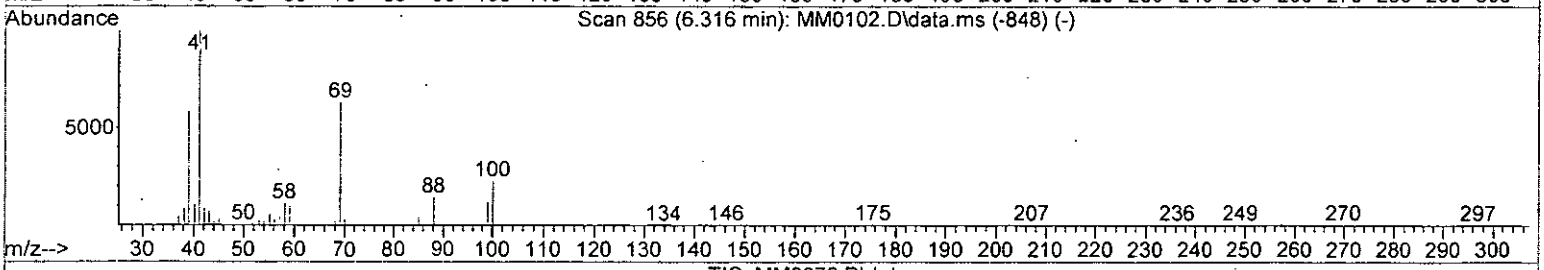
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	72.34
0.00	0.00	0.00
0.00	0.00	0.00

Sample : LCS
Data File: I:\ACQUDATA\msvoa12\Data\112414\MM0976.D
Misc :
Acq On : 25 Nov 2014 12:01 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 00:15:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration







TIC: MM0976.D\data.ms

(58) 1,4-Dioxane

6.310min (+0.000) 407.86 ppb m

response 27349

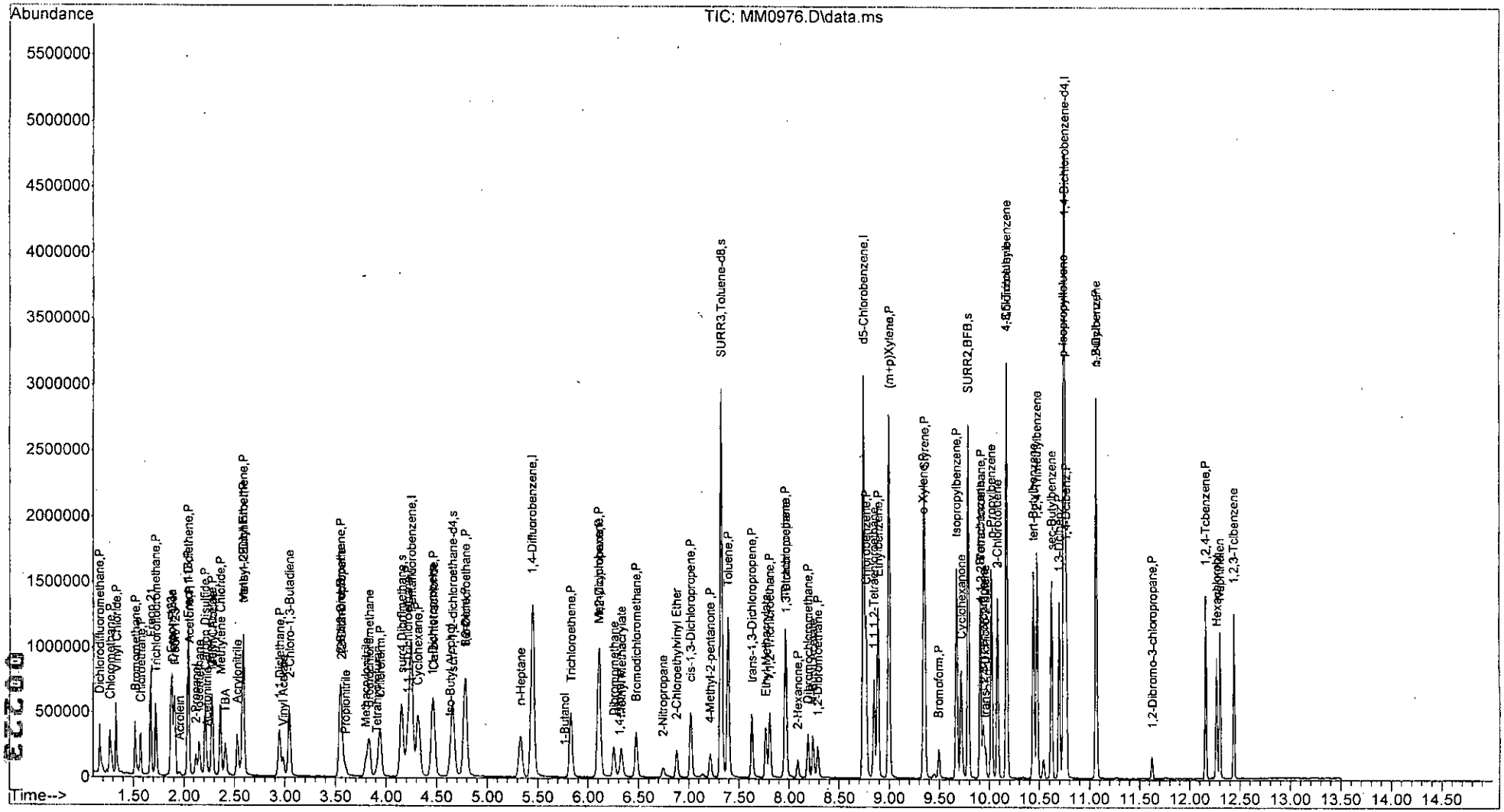
Ion	Exp%	Act%
88.00	100	100
58.00	77.40	72.34
0.00	0.00	0.00
0.00	0.00	0.00

00222

Quantitation Report (Not Reviewed)

Sample : LCS
Data File: I:\ACQUDATA\MSVOA12\DATA\112414\MM0976.D
Misc :
Acq On : 25 Nov 2014 12:01 am
Operator : K.Ruest
InstName : MSVOA-12

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W102714.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Time: Nov 25 00:15:35 2014
QLast Update : Tue Oct 28 10:54:16 2014
Response via : Initial Calibration



Analysis: 8260 waters | Analyst: KLuest | Tune Method: W102714

Date: 10/27/14 | Data Path: j:\acqudata\msvoa \ | Run Method: ↓

Instr. 12 | (source cleaned / new trap 10/25/14) | LIMS Run#: — ICAL —

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM0085		
2	↓								MM0086		
3	TUNE (carbon is 5m)								MM0087	YT	(auto)
4	CCV								MM0088	(N)	↑ - Acrolein very ↓
5	BLK								MM0089	—	
6	↓								MM0090	—	
7	↑ Acrolein std								MM0091		
8	BLK								MM0092	—	
9	H2S 50 ppb (new std)								MM0093		
1	BLK								MM0094		
2	TUNE (carbon is 5m)								MM0095	YT	(auto) 15:08
3	IBLK	5ppm	500ppm 5m500 FV						MM0096	YB	
4	0.5ppb	5ml	- - 50mls						MM0097	Y	
5	1.0	10ml	- -						MM0098	Y	
6	2.0	20ml	- 1ml						MM0099	Y	
7	5.0	50ml	- 2ml						MM0100	Y	
8	20ml	2	2ml 5ml						MM0101	Y	
9	50ml	—	5ml —						MM0102	Y	
10	100ml	—	10ml 7.5ml						MM0103	Y	
11	150ml	—	15ml 10ml						MM0104	Y	
12	200ml	—	20ml — ↓						MM0105	Y	
13	— BLK								MM0106	—	
14	— BLK								MM0107	—	

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary HBO : 76005
Primary OCC : 75766
Primary ~~frt~~ : 76094 (1452)
Primary Hrt : 76096
Primary Tb : 76097

5ml → 50mls = CCV

Secondary :
Secondary :
Secondary :
Secondary :
Secondary :

Combined IS/Surr 500 : 76064
Surrogate 500 : 75340
Internal Std —

Analysis: 8260 waters | Analyst: K. Ruest | Tune Method: W102714
Date: 10/29/14 | Data Path: j:\acqudata\msvoa12\102814 | Run Method: ↓
Instr: 12 | LIMS Run#:

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BFB								MM0108		
2	↓								MM0109		
3	TUNE (carbon is/sm)								mm0110	YT	(auto) 10:31
4	CCV								MM0111	YC	Acrolein ↓
5	ICV/LCS (50ppb)								mm0112	YQ	* Acrolein ↑ (↑)
6	VBLK								MM0113	(N)	ND+/D
7	↓								MM0114		

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 75766
Primary HBO : 76005
Primary Fr : 76078 5ml → 5mls
Primary TG : 76087 = CCV
Primary HSL : 76084

200 Secondary Fr : 76047 -12.5ml
500 Secondary OCC : 75768
Secondary HBO : 75765 5ml → 5mls = ICV/LCS
Secondary TG : 75816
Secondary HSL : 76045

Combined IS/Surr 500 : 76064
Surrogate :
Internal Std :

Analysis: 8260 Waters | Analyst: Y. Ruest | Tune Method: W102314

Date: 11/24/14 - Run#2 | Data Path: j:\acqudata\msvoa12\112414 | Run Method: ↓

Instr. 12 | LIMS Run#: 422891

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
27	DWE (carbon is/su)		RQ1414574-01						MM0974	Y	22:56 (auto)
28	CCV		02						MM0975	YC	
29	LCS		03						MM0976	YQ	
30	VBLK								MM0977	N	
31	↓		↓ 04						MM0978	YB	
32	R1409379-001	1.0		[redacted]	16646	4	1	12	MM0979	Y	
33	005	1.0					1	12	MM0980	Y	
34	002	1.0					1	12	MM0981	Y	
35	003	1.0					1	12	MM0982	Y	
36	004	1.0					1	12	MM0983	Y	
37	006	1.0			↓	↓	1	12	MM0984	Y	
38	R1409378-006	1.0		[redacted]	11902	2	1	12	MM0985	Y	
39	002	1.0					1	12	MM0986	Y	
40	003	1.0					1	12	MM0987	Y	
41	004	1.0					1	12	MM0988	Y	
42	005	1.0					1	12	MM0989	Y	
43	001	1.0					1	12	MM0990	Y	
44	MS 001	1.0	RQ1414574-05				2	12	MM0991	YQ	
45	↓ MSD 001	1.0	↓ 06	↓	↓	↓	3	12	MM0992	YQ	
1	BLK							—	MM0993	—	
2	R1409502-001	1.0		[redacted]	16693	2	1	12	MM0994	Y	

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

0025

Primary TG : 76574

Primary HKL : 76816 | 5mL 4 samples = CCV

Primary FH : 76074

Primary :

Primary :

500 Secondary FH : 76763 - 5mL

500 Secondary TG : 76853 | 2mL

500 Secondary HKL : 76634 | 50mL = LCS | 10.0mL | 4.0mL

Secondary :

Secondary :

4 Surrogate 5ms/0

Combined IS/Surr 500 : 76821

Surrogate :

Internal Std :

Appendix F

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 1/16/2014

Personnel: MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 2/19/2014

Personnel: MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 3/20/2014

Personnel: KFS

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 4/16/2014

Personnel: MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 5/22/2014

Personnel: MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 6/20/2014

Personnel: MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 7/25/2014

Personnel: MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 8/18/2014

Personnel: KFS

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good condition
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

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MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 9/16/2014

Personnel: SJT & DLC

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good condition
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			Excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 10/31/2014

Personnel: KFS

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good condition
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			Excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 12/15/2014

Personnel: KFS, MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good condition
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			Excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			

VERINA Consulting Group, LLC

MONTHLY CAP INSPECTION CHECKLIST

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date: 12/15/2014

Personnel: KFS & MIF

Item No.	Description	Yes	No	Actions	Comments
1	1978 Building Addition floor slab in good condition?	X			Any cracks are filled
2	1984 Building Addition floor slab in good condition?	X			
3	Area 1 (front employee entrance) landscape cover intact?	X			Vegetative cover intact
4	Area 2 (driveway at north catch basin CB-2044) asphalt surface in good condition?	X			Some minor cracks, still in good conidtion
5	Area 3 (transformer pad location) vegetative cover intact?	X			Vegetative cover intact
6	Area 4 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
7	Area 5 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
8	Area 6 (drainage ditch along CR 181) in good condition?	X			Vegetative cover intact, cracked asphalt
9	Area 7 (parking lot at southeast loading dock) asphalt surface in good condition?	X			New asphalt surface, excellent condition
10	ASD system operational?	X			
11	ASD system vacuum readings normal?	X			
12	ASD system components in good condition?	X			Several ASD evacuation points moved due to building construction

Appendix G

VERINA Consulting Group, LLC

ACTIVE SUB-SLAB DEPRESSURIZATION (ASD) INSPECTION LOG

Former Dover Electronics Site, Kirkwood, NY (5101.0002)

Date	Time	System On? (Y/N)	Vaccum Reading (inches water)								Comments
			ASD-1	ASD-2	ASD-3	ASD-4	ASD-5	ASD-6	ASD-7	ASD-8	
1/22/2013	11:10	Y	0.75	0.50	0.25	1.75	1.50	---	2.75	4.50	ASD-6 was not accessible
2/19/2013	13:00	Y	0.50	0.55	0.10	1.40	1.40	---	2.75	4.25	ASD-6 was not accessible
3/12/2013	10:00	Y	0.50	0.50	0.10	1.50	1.50	---	2.75	4.25	ASD-6 was not accessible
4/11/2013	13:20	Y	0.75	0.50	0.10	1.75	1.75	---	2.75	4.40	ASD-6 was not accessible
5/9/2013	14:00	Y	0.75	0.75	0.25	1.75	1.75	---	2.90	4.25	ASD-6 was not accessible
6/12/2013	15:40	Y	0.75	0.75	0.20	1.75	1.75	---	2.90	4.25	ASD-6 was not accessible
8/7/2013	13:15	Y	0.90	0.70	0.20	1.90	1.80	---	2.80	4.20	ASD-6 was not accessible, values as shown on U-tubes
9/5/2013	11:30	Y	0.75	0.75	0.20	1.75	1.75	---	2.75	4.25	ASD-6 was not accessible, values as shown on U-tubes
10/1/2013	11:25	Y	0.85	0.60	0.00	2.45	1.30	---	3.40	3.40	ASD-6 was not accessible, values as shown on U-tubes
11/18/2013	13:00	Y	0.75	0.50	0.10	2.80	1.40	---	3.30	3.50	ASD-6 was not accessible, values as shown on U-tubes
12/11/2013	12:50	Y	0.75	0.75	0.20	1.75	1.40	---	3.00	4.25	ASD-6 was not accessible, values as shown on U-tubes
1/16/2014	10:00	Y	0.75	0.75	0.10	1.50	1.40	---	3.00	4.00	ASD-6 was not accessible, values as shown on U-tubes
2/19/2014	9:00	Y	0.75	0.75	0.10	1.75	1.50	---	2.80	4.50	ASD-6 was not accessible, values as shown on U-tubes
3/20/2014	9:45	Y	0.75	0.375	0.1875	1.75	1.50	---	2.80	4.50	ASD-6 was not accessible, values as shown on U-tubes
4/16/2014	9:00	Y	0.75	0.75	0.20	1.75	1.75	---	3.00	4.00	ASD-6 was not accessible, values as shown on U-tubes
5/22/2014	9:00	Y	0.75	0.75	0.20	1.50	1.75	---	2.80	4.00	ASD-6 was not accessible, values as shown on U-tubes
6/20/2014	10:15	Y	0.50	0.75	0.20	1.50	1.75	---	2.80	4.00	ASD-6 was not accessible, values as shown on U-tubes
7/23/2014	10:30	Y	0.75	0.60	0.20	1.60	1.60	---	2.80	4.00	ASD-6 was not accessible, values as shown on U-tubes
8/18/2014	9:44	Y	0.70	0.60	0.25	1.65	1.60	---	2.75	4.16	ASD-6 was not accessible, values as shown on U-tubes
9/18/2014	16:35	Y	0.45	0.50	0.10	2.45	1.25*	---	3.10	3.40	ASD-6 was not accessible, values as shown on U-tubes
10/31/2014	10:48	Y	1.10	0.625	0.30	1.75	1.33	---	2.8125	4.23	ASD-6 was not accessible, values as shown on U-tubes
11/20/2014	9:40	Y	0.625	0.52	0.125	1.50	1.375	---	2.75	4.50	ASD-6 was not accessible, values as shown on U-tubes
12/16/2014	11:00	Y	0.50	0.50	0.1875	0.875	1.75	---	2.75	4.38	ASD-6 was not accessible, values as shown on U-tubes

NOTES: September reading for ASD-5 was collected on 9/19/2014.

Appendix H

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
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F: +1 805 526 7270
www.alsglobal.com

LABORATORY REPORT

April 15, 2014

Tammy Yuan
Verina Consulting Group, LLC
220 Davidson Avenue, Suite 105
Somerset, NJ 08873

RE: Dover - Kirkwood / 5101.0002

Dear Tammy:

Enclosed are the results of the samples submitted to our laboratory on March 25, 2014. For your reference, these analyses have been assigned our service request number P1401201.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Kate Aguilera

By Kate Aguilera at 3:00 pm, Apr 15, 2014

For Kelly Horiuchi
Laboratory Director

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

Client: Verina Consulting Group, LLC
Project: Dover - Kirkwood / 5101.0002

Service Request No: P1401201
NJ Certification ID: CA009

CASE NARRATIVE

The samples were received intact under chain of custody on March 25, 2014 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is not included on the laboratory's AIHA-LAP scope of accreditation. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

The Summa canisters were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

2655 Park Center Dr., Suite A
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www.alsglobal.com

ALS Environmental – Simi Valley

Certifications, Accreditations, and Registrations

Agency	Web Site	Number
AIHA	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L11-203
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2012039
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	494864
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	CA200007
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-13-4
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA016272013-3
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Verina Consulting Group, LLC
Project ID: Dover - Kirkwood / 5101.0002
Service Request: P1401201

Date Received: 3/25/2014
Time Received: 09:35

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	TO-15 - VOC Cans
Office Area #2	P1401201-001	Air	3/18/2014	16:30	AC00824	3.50	3.61	X
Hallaway	P1401201-002	Air	3/18/2014	16:33	AC01468	-4.36	3.80	X
Office Area #1	P1401201-003	Air	3/18/2014	16:36	AS00261	-2.56	3.53	X
Electrical Area	P1401201-004	Air	3/18/2014	16:41	AS00587	-4.34	3.55	X
Computer Servers	P1401201-005	Air	3/18/2014	16:53	AC00294	-1.42	4.38	X
Cafeteria	P1401201-006	Air	3/18/2014	16:55	AC01096	-4.17	3.62	X
Background	P1401201-007	Air	3/18/2014	17:02	AC01855	-3.68	3.67	X
A/C Area	P1401201-008	Air	3/18/2014	17:06	AC01614	-3.24	3.55	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) (10-Day-Standard)

ALS Project No. 1401201

Company Name & Address (Reporting Information): Verina Consulting Group, LLC

Project Name: Dover - Kirkwood

Project Number: 5101.0002

ALS Contact: Kelly Horiachi

Project Manager: Tammy Yuan

P.O. # / Billing Information: 5101.0002 Invoice Verina

Phone: 7324127576 Fax: 7324127578

Email Address for Result Reporting: tyuan@vcg-llc.com

Sampler (Print & Sign): Mikhail Fradkin / Mikhail Fradkin

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method: TO-15		Comments e.g. Actual Preservative or specific instructions
Office Area #2	1-3.36	3/18/14	8:40 – 16:30	AC00824	FCA00656	-29	-6	6L	✓		
Hallway	2-4.20	3/18/14	8:43 – 16:33	AC01468	FCA00687	-29	-9	6L	✓		
Office Area #1	3-2.35	3/18/14	8:46 – 16:36	AC00261	FCA00802	-30	-7	6L	✓		
Electrical Area	4-4.16	3/18/14	8:51 – 16:41	AS00587	FCA00695	-29	-9	6L	✓		
Computer Servers	5-1.36	3/18/14	9:03 – 16:53	AC00294	FCA00656	-25	-3	6L	✓		
Cafeteria	6-4.00	3/18/14	9:07 – 16:55	AC01096	FCA00769	-30	-10	6L	✓		
Background	7-3.56	3/18/14	9:13 – 17:02	AC01855	FCA00825	-29	-7	6L	✓		
A/C Area	8-3.11	3/18/14	9:16 – 17:06	AC01614	FCA00222	-29	-6	6L	✓		FCA00222
	-13.64										

Report Tier Levels - please select

Tier I - Results (Default in not specified) ____ Tier III (Results + QC & Calibration Summaries) ____

Tier II (Results + QC Summaries X Tier IV (Date Validation Package) 10% Surcharge ____

EDD required (YES) / No Type: NY State Units: ____

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	3/19/14	10:00	[signature]	3/25/14	0935
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: Verina Consulting Group, LLC Work order: P1401201

Project: Dover - Kirkwood / 5101.0002

Sample(s) received on: 3/25/14 Date opened: 3/25/14 by: RMARTENIES

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by ALS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
9	Was a **trip blank** received?	☐	☒	☐
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1401201-001.01	6.0 L Ambient Can					
P1401201-002.01	6.0 L Ambient Can					
P1401201-003.01	6.0 L Silonite Can					
P1401201-004.01	6.0 L Silonite Can					
P1401201-005.01	6.0 L Ambient Can					
P1401201-006.01	6.0 L Ambient Can					
P1401201-007.01	6.0 L Ambient Can					
P1401201-008.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS Environmental
Sample Acceptance Check Form

Client: Verina Consulting Group, LLC Work order: P1401201

Project: Dover - Kirkwood / 5101.0002

Sample(s) received on: 3/25/14 Date opened: 3/25/14 by: RMARTENIES

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1401201-009.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Office Area #2** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-001

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00824

Initial Pressure (psig): 3.50 Final Pressure (psig): 3.61

Canister Dilution Factor: 1.01

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**1.9**	0.51	**0.37**	0.10	
74-87-3	Chloromethane	ND	0.51	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.51	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.51	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.51	ND	0.23	
74-83-9	Bromomethane	ND	0.51	ND	0.13	
75-00-3	Chloroethane	ND	0.51	ND	0.19	
64-17-5	Ethanol	**200**	5.1	**100**	2.7	
75-05-8	Acetonitrile	ND	0.51	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.88	
67-64-1	Acetone	**17**	5.1	**7.3**	2.1	
75-69-4	Trichlorofluoromethane	**4.9**	0.51	**0.88**	0.090	
67-63-0	2-Propanol (Isopropyl Alcohol)	**7.9**	5.1	**3.2**	2.1	
107-13-1	Acrylonitrile	ND	0.51	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.51	ND	0.13	
75-09-2	Methylene Chloride	ND	0.51	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.51	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.51	ND	0.066	
75-15-0	Carbon Disulfide	ND	5.1	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.51	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.51	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.51	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.1	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Office Area #2** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-001

Test Code: EPA TO-15 Date Collected: 3/18/14

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14

Analyst: Elsa Moctezuma Date Analyzed: 4/4/14

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AC00824

Initial Pressure (psig): 3.50 Final Pressure (psig): 3.61

Canister Dilution Factor: 1.01

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.1	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.51	ND	0.13	
110-54-3	n-Hexane	ND	0.51	ND	0.14	
67-66-3	Chloroform	ND	0.51	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.51	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.51	ND	0.093	
71-43-2	Benzene	ND	0.51	ND	0.16	
56-23-5	Carbon Tetrachloride	**0.15**	0.10	**0.024**	0.016	
78-87-5	1,2-Dichloropropane	ND	0.51	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.51	ND	0.075	
79-01-6	Trichloroethene	**0.14**	0.10	**0.026**	0.019	
123-91-1	1,4-Dioxane	ND	0.51	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.51	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.51	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.51	ND	0.093	
108-88-3	Toluene	**1.4**	0.51	**0.37**	0.13	
591-78-6	2-Hexanone	ND	0.51	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.51	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.51	ND	0.066	
123-86-4	n-Butyl Acetate	**1.1**	0.51	**0.23**	0.11	
127-18-4	Tetrachloroethene	**1.3**	0.51	**0.19**	0.075	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Office Area #2** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-001

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00824

Initial Pressure (psig): 3.50 Final Pressure (psig): 3.61

Canister Dilution Factor: 1.01

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.51	ND	0.11	
100-41-4	Ethylbenzene	ND	0.51	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.51	ND	0.12	
75-25-2	Bromoform	ND	0.51	ND	0.049	
100-42-5	Styrene	ND	0.51	ND	0.12	
95-47-6	o-Xylene	ND	0.51	ND	0.12	
111-84-2	n-Nonane	ND	0.51	ND	0.096	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.51	ND	0.074	
98-82-8	Cumene	ND	0.51	ND	0.10	
80-56-8	alpha-Pinene	**0.86**	0.51	**0.15**	0.091	
622-96-8	4-Ethyltoluene	ND	0.51	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.51	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.51	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.51	ND	0.098	
541-73-1	1,3-Dichlorobenzene	ND	0.51	ND	0.084	
106-46-7	1,4-Dichlorobenzene	ND	0.51	ND	0.084	
95-50-1	1,2-Dichlorobenzene	ND	0.51	ND	0.084	
5989-27-5	d-Limonene	**5.5**	0.51	**0.99**	0.091	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.51	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.51	ND	0.068	
91-20-3	Naphthalene	ND	0.51	ND	0.096	
87-68-3	Hexachlorobutadiene	ND	0.51	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Hallaway** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-002

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01468

Initial Pressure (psig): -4.36 Final Pressure (psig): 3.80

Canister Dilution Factor: 1.79

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.1**	0.90	**0.63**	0.18	
74-87-3	Chloromethane	ND	0.90	ND	0.43	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.90	ND	0.13	
75-01-4	Vinyl Chloride	ND	0.90	ND	0.35	
106-99-0	1,3-Butadiene	ND	0.90	ND	0.40	
74-83-9	Bromomethane	ND	0.90	ND	0.23	
75-00-3	Chloroethane	ND	0.90	ND	0.34	
64-17-5	Ethanol	**130**	9.0	**69**	4.8	
75-05-8	Acetonitrile	ND	0.90	ND	0.53	
107-02-8	Acrolein	ND	3.6	ND	1.6	
67-64-1	Acetone	**17**	9.0	**7.2**	3.8	
75-69-4	Trichlorofluoromethane	**2.9**	0.90	**0.52**	0.16	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.0	ND	3.6	
107-13-1	Acrylonitrile	ND	0.90	ND	0.41	
75-35-4	1,1-Dichloroethene	ND	0.90	ND	0.23	
75-09-2	Methylene Chloride	ND	0.90	ND	0.26	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.90	ND	0.29	
76-13-1	Trichlorotrifluoroethane	ND	0.90	ND	0.12	
75-15-0	Carbon Disulfide	ND	9.0	ND	2.9	
156-60-5	trans-1,2-Dichloroethene	ND	0.90	ND	0.23	
75-34-3	1,1-Dichloroethane	ND	0.90	ND	0.22	
1634-04-4	Methyl tert-Butyl Ether	ND	0.90	ND	0.25	
108-05-4	Vinyl Acetate	ND	9.0	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Hallaway** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-002

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01468

Initial Pressure (psig): -4.36 Final Pressure (psig): 3.80

Canister Dilution Factor: 1.79

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	9.0	ND	3.0	
156-59-2	cis-1,2-Dichloroethene	ND	0.90	ND	0.23	
110-54-3	n-Hexane	ND	0.90	ND	0.25	
67-66-3	Chloroform	ND	0.90	ND	0.18	
107-06-2	1,2-Dichloroethane	ND	0.90	ND	0.22	
71-55-6	1,1,1-Trichloroethane	ND	0.90	ND	0.16	
71-43-2	Benzene	ND	0.90	ND	0.28	
56-23-5	Carbon Tetrachloride	**0.31**	0.18	**0.049**	0.028	
78-87-5	1,2-Dichloropropane	ND	0.90	ND	0.19	
75-27-4	Bromodichloromethane	ND	0.90	ND	0.13	
79-01-6	Trichloroethene	ND	0.18	ND	0.033	
123-91-1	1,4-Dioxane	ND	0.90	ND	0.25	
10061-01-5	cis-1,3-Dichloropropene	ND	0.90	ND	0.20	
108-10-1	4-Methyl-2-pentanone	ND	0.90	ND	0.22	
10061-02-6	trans-1,3-Dichloropropene	ND	0.90	ND	0.20	
79-00-5	1,1,2-Trichloroethane	ND	0.90	ND	0.16	
108-88-3	Toluene	**2.7**	0.90	**0.73**	0.24	
591-78-6	2-Hexanone	ND	0.90	ND	0.22	
124-48-1	Dibromochloromethane	ND	0.90	ND	0.11	
106-93-4	1,2-Dibromoethane	ND	0.90	ND	0.12	
123-86-4	n-Butyl Acetate	ND	0.90	ND	0.19	
127-18-4	Tetrachloroethene	ND	0.90	ND	0.13	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Hallaway** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-002

Test Code: EPA TO-15 Date Collected: 3/18/14

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14

Analyst: Elsa Moctezuma Date Analyzed: 4/4/14

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AC01468

Initial Pressure (psig): -4.36 Final Pressure (psig): 3.80

Canister Dilution Factor: 1.79

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.90	ND	0.19	
100-41-4	Ethylbenzene	ND	0.90	ND	0.21	
179601-23-1	m,p-Xylenes	ND	0.90	ND	0.21	
75-25-2	Bromoform	ND	0.90	ND	0.087	
100-42-5	Styrene	ND	0.90	ND	0.21	
95-47-6	o-Xylene	ND	0.90	ND	0.21	
111-84-2	n-Nonane	ND	0.90	ND	0.17	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.90	ND	0.13	
98-82-8	Cumene	ND	0.90	ND	0.18	
80-56-8	alpha-Pinene	**1.6**	0.90	**0.28**	0.16	
622-96-8	4-Ethyltoluene	ND	0.90	ND	0.18	
108-67-8	1,3,5-Trimethylbenzene	ND	0.90	ND	0.18	
95-63-6	1,2,4-Trimethylbenzene	ND	0.90	ND	0.18	
100-44-7	Benzyl Chloride	ND	0.90	ND	0.17	
541-73-1	1,3-Dichlorobenzene	ND	0.90	ND	0.15	
106-46-7	1,4-Dichlorobenzene	ND	0.90	ND	0.15	
95-50-1	1,2-Dichlorobenzene	ND	0.90	ND	0.15	
5989-27-5	d-Limonene	**2.9**	0.90	**0.52**	0.16	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.90	ND	0.093	
120-82-1	1,2,4-Trichlorobenzene	ND	0.90	ND	0.12	
91-20-3	Naphthalene	ND	0.90	ND	0.17	
87-68-3	Hexachlorobutadiene	ND	0.90	ND	0.084	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Office Area #1** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-003

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00261

Initial Pressure (psig): -2.56 Final Pressure (psig): 3.53

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.1**	0.75	**0.64**	0.15	
74-87-3	Chloromethane	ND	0.75	ND	0.36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.75	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.75	ND	0.29	
106-99-0	1,3-Butadiene	ND	0.75	ND	0.34	
74-83-9	Bromomethane	ND	0.75	ND	0.19	
75-00-3	Chloroethane	ND	0.75	ND	0.28	
64-17-5	Ethanol	**330**	7.5	**170**	4.0	
75-05-8	Acetonitrile	ND	0.75	ND	0.45	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	**20**	7.5	**8.3**	3.2	
75-69-4	Trichlorofluoromethane	**5.7**	0.75	**1.0**	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	**13**	7.5	**5.5**	3.1	
107-13-1	Acrylonitrile	ND	0.75	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.75	ND	0.19	
75-09-2	Methylene Chloride	ND	0.75	ND	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.75	ND	0.24	
76-13-1	Trichlorotrifluoroethane	**0.84**	0.75	**0.11**	0.098	
75-15-0	Carbon Disulfide	ND	7.5	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.75	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.75	ND	0.19	
1634-04-4	Methyl tert-Butyl Ether	ND	0.75	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.5	ND	2.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Office Area #1** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-003

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00261

Initial Pressure (psig): -2.56 Final Pressure (psig): 3.53

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.5	ND	2.5	
156-59-2	cis-1,2-Dichloroethene	ND	0.75	ND	0.19	
110-54-3	n-Hexane	ND	0.75	ND	0.21	
67-66-3	Chloroform	ND	0.75	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	0.75	ND	0.19	
71-55-6	1,1,1-Trichloroethane	ND	0.75	ND	0.14	
71-43-2	Benzene	ND	0.75	ND	0.23	
56-23-5	Carbon Tetrachloride	**0.47**	0.15	**0.074**	0.024	
78-87-5	1,2-Dichloropropane	ND	0.75	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.75	ND	0.11	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.75	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.75	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.75	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.75	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.75	ND	0.14	
108-88-3	Toluene	**2.6**	0.75	**0.69**	0.20	
591-78-6	2-Hexanone	ND	0.75	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.75	ND	0.088	
106-93-4	1,2-Dibromoethane	ND	0.75	ND	0.098	
123-86-4	n-Butyl Acetate	**2.2**	0.75	**0.47**	0.16	
127-18-4	Tetrachloroethene	**1.6**	0.75	**0.24**	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Office Area #1** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-003

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00261

Initial Pressure (psig): -2.56 Final Pressure (psig): 3.53

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.75	ND	0.16	
100-41-4	Ethylbenzene	ND	0.75	ND	0.17	
179601-23-1	m,p-Xylenes	**0.85**	0.75	**0.20**	0.17	
75-25-2	Bromoform	ND	0.75	ND	0.073	
100-42-5	Styrene	ND	0.75	ND	0.18	
95-47-6	o-Xylene	ND	0.75	ND	0.17	
111-84-2	n-Nonane	ND	0.75	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.75	ND	0.11	
98-82-8	Cumene	ND	0.75	ND	0.15	
80-56-8	alpha-Pinene	**1.6**	0.75	**0.29**	0.13	
622-96-8	4-Ethyltoluene	ND	0.75	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.75	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.75	ND	0.15	
100-44-7	Benzyl Chloride	ND	0.75	ND	0.14	
541-73-1	1,3-Dichlorobenzene	ND	0.75	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.75	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.75	ND	0.12	
5989-27-5	d-Limonene	**7.3**	0.75	**1.3**	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.75	ND	0.078	
120-82-1	1,2,4-Trichlorobenzene	ND	0.75	ND	0.10	
91-20-3	Naphthalene	ND	0.75	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.75	ND	0.070	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Electrical Area** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-004

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00587

Initial Pressure (psig): -4.34 Final Pressure (psig): 3.55

Canister Dilution Factor: 1.76

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.8**	0.88	**0.78**	0.18	
74-87-3	Chloromethane	ND	0.88	ND	0.43	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.88	ND	0.13	
75-01-4	Vinyl Chloride	ND	0.88	ND	0.34	
106-99-0	1,3-Butadiene	ND	0.88	ND	0.40	
74-83-9	Bromomethane	ND	0.88	ND	0.23	
75-00-3	Chloroethane	ND	0.88	ND	0.33	
64-17-5	Ethanol	**240**	8.8	**130**	4.7	
75-05-8	Acetonitrile	ND	0.88	ND	0.52	
107-02-8	Acrolein	ND	3.5	ND	1.5	
67-64-1	Acetone	**58**	8.8	**24**	3.7	
75-69-4	Trichlorofluoromethane	**9.6**	0.88	**1.7**	0.16	
67-63-0	2-Propanol (Isopropyl Alcohol)	**9.9**	8.8	**4.0**	3.6	
107-13-1	Acrylonitrile	ND	0.88	ND	0.41	
75-35-4	1,1-Dichloroethene	ND	0.88	ND	0.22	
75-09-2	Methylene Chloride	ND	0.88	ND	0.25	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.88	ND	0.28	
76-13-1	Trichlorotrifluoroethane	ND	0.88	ND	0.11	
75-15-0	Carbon Disulfide	ND	8.8	ND	2.8	
156-60-5	trans-1,2-Dichloroethene	ND	0.88	ND	0.22	
75-34-3	1,1-Dichloroethane	ND	0.88	ND	0.22	
1634-04-4	Methyl tert-Butyl Ether	ND	0.88	ND	0.24	
108-05-4	Vinyl Acetate	ND	8.8	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Electrical Area** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-004

Test Code: EPA TO-15 Date Collected: 3/18/14

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14

Analyst: Elsa Moctezuma Date Analyzed: 4/4/14

Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AS00587

Initial Pressure (psig): -4.34 Final Pressure (psig): 3.55

Canister Dilution Factor: 1.76

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	8.8	ND	3.0	
156-59-2	cis-1,2-Dichloroethene	ND	0.88	ND	0.22	
110-54-3	n-Hexane	ND	0.88	ND	0.25	
67-66-3	Chloroform	ND	0.88	ND	0.18	
107-06-2	1,2-Dichloroethane	ND	0.88	ND	0.22	
71-55-6	1,1,1-Trichloroethane	ND	0.88	ND	0.16	
71-43-2	Benzene	ND	0.88	ND	0.28	
56-23-5	Carbon Tetrachloride	**0.49**	0.18	**0.078**	0.028	
78-87-5	1,2-Dichloropropane	ND	0.88	ND	0.19	
75-27-4	Bromodichloromethane	ND	0.88	ND	0.13	
79-01-6	Trichloroethene	ND	0.18	ND	0.033	
123-91-1	1,4-Dioxane	ND	0.88	ND	0.24	
10061-01-5	cis-1,3-Dichloropropene	ND	0.88	ND	0.19	
108-10-1	4-Methyl-2-pentanone	ND	0.88	ND	0.21	
10061-02-6	trans-1,3-Dichloropropene	ND	0.88	ND	0.19	
79-00-5	1,1,2-Trichloroethane	ND	0.88	ND	0.16	
108-88-3	Toluene	**2.9**	0.88	**0.78**	0.23	
591-78-6	2-Hexanone	ND	0.88	ND	0.21	
124-48-1	Dibromochloromethane	ND	0.88	ND	0.10	
106-93-4	1,2-Dibromoethane	ND	0.88	ND	0.11	
123-86-4	n-Butyl Acetate	**1.1**	0.88	**0.24**	0.19	
127-18-4	Tetrachloroethene	**2.7**	0.88	**0.40**	0.13	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Electrical Area** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-004

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00587

Initial Pressure (psig): -4.34 Final Pressure (psig): 3.55

Canister Dilution Factor: 1.76

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.88	ND	0.19	
100-41-4	Ethylbenzene	ND	0.88	ND	0.20	
179601-23-1	m,p-Xylenes	**0.99**	0.88	**0.23**	0.20	
75-25-2	Bromoform	ND	0.88	ND	0.085	
100-42-5	Styrene	ND	0.88	ND	0.21	
95-47-6	o-Xylene	ND	0.88	ND	0.20	
111-84-2	n-Nonane	ND	0.88	ND	0.17	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.88	ND	0.13	
98-82-8	Cumene	ND	0.88	ND	0.18	
80-56-8	alpha-Pinene	**2.8**	0.88	**0.50**	0.16	
622-96-8	4-Ethyltoluene	ND	0.88	ND	0.18	
108-67-8	1,3,5-Trimethylbenzene	ND	0.88	ND	0.18	
95-63-6	1,2,4-Trimethylbenzene	ND	0.88	ND	0.18	
100-44-7	Benzyl Chloride	ND	0.88	ND	0.17	
541-73-1	1,3-Dichlorobenzene	ND	0.88	ND	0.15	
106-46-7	1,4-Dichlorobenzene	ND	0.88	ND	0.15	
95-50-1	1,2-Dichlorobenzene	ND	0.88	ND	0.15	
5989-27-5	d-Limonene	**4.9**	0.88	**0.88**	0.16	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.88	ND	0.091	
120-82-1	1,2,4-Trichlorobenzene	ND	0.88	ND	0.12	
91-20-3	Naphthalene	ND	0.88	ND	0.17	
87-68-3	Hexachlorobutadiene	ND	0.88	ND	0.083	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Computer Servers** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-005

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00294

Initial Pressure (psig): -1.42 Final Pressure (psig): 4.38

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.7**	0.72	**0.75**	0.15	
74-87-3	Chloromethane	ND	0.72	ND	0.35	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.72	ND	0.10	
75-01-4	Vinyl Chloride	ND	0.72	ND	0.28	
106-99-0	1,3-Butadiene	ND	0.72	ND	0.33	
74-83-9	Bromomethane	ND	0.72	ND	0.19	
75-00-3	Chloroethane	ND	0.72	ND	0.27	
64-17-5	Ethanol	**320**	7.2	**170**	3.8	
75-05-8	Acetonitrile	ND	0.72	ND	0.43	
107-02-8	Acrolein	ND	2.9	ND	1.3	
67-64-1	Acetone	**60**	7.2	**25**	3.0	
75-69-4	Trichlorofluoromethane	**12**	0.72	**2.1**	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	**16**	7.2	**6.5**	2.9	
107-13-1	Acrylonitrile	ND	0.72	ND	0.33	
75-35-4	1,1-Dichloroethene	ND	0.72	ND	0.18	
75-09-2	Methylene Chloride	**1.2**	0.72	**0.36**	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.72	ND	0.23	
76-13-1	Trichlorotrifluoroethane	**0.77**	0.72	**0.10**	0.094	
75-15-0	Carbon Disulfide	ND	7.2	ND	2.3	
156-60-5	trans-1,2-Dichloroethene	ND	0.72	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.72	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.72	ND	0.20	
108-05-4	Vinyl Acetate	ND	7.2	ND	2.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Computer Servers** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-005

Test Code: EPA TO-15 Date Collected: 3/18/14

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14

Analyst: Elsa Moctezuma Date Analyzed: 4/3/14

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AC00294

Initial Pressure (psig): -1.42 Final Pressure (psig): 4.38

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.2	ND	2.4	
156-59-2	cis-1,2-Dichloroethene	ND	0.72	ND	0.18	
110-54-3	n-Hexane	**1.5**	0.72	**0.41**	0.20	
67-66-3	Chloroform	ND	0.72	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	0.72	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.72	ND	0.13	
71-43-2	Benzene	**2.0**	0.72	**0.63**	0.23	
56-23-5	Carbon Tetrachloride	**0.47**	0.14	**0.075**	0.023	
78-87-5	1,2-Dichloropropane	ND	0.72	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.72	ND	0.11	
79-01-6	Trichloroethene	**2.1**	0.14	**0.39**	0.027	
123-91-1	1,4-Dioxane	ND	0.72	ND	0.20	
10061-01-5	cis-1,3-Dichloropropene	ND	0.72	ND	0.16	
108-10-1	4-Methyl-2-pentanone	**1.5**	0.72	**0.38**	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.72	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.72	ND	0.13	
108-88-3	Toluene	**21**	0.72	**5.6**	0.19	
591-78-6	2-Hexanone	ND	0.72	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.72	ND	0.085	
106-93-4	1,2-Dibromoethane	ND	0.72	ND	0.094	
123-86-4	n-Butyl Acetate	**1.4**	0.72	**0.29**	0.15	
127-18-4	Tetrachloroethene	**11**	0.72	**1.6**	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Computer Servers** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-005

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00294

Initial Pressure (psig): -1.42 Final Pressure (psig): 4.38

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.72	ND	0.16	
100-41-4	Ethylbenzene	**1.1**	0.72	**0.26**	0.17	
179601-23-1	m,p-Xylenes	**2.8**	0.72	**0.65**	0.17	
75-25-2	Bromoform	ND	0.72	ND	0.070	
100-42-5	Styrene	**1.2**	0.72	**0.28**	0.17	
95-47-6	o-Xylene	**1.2**	0.72	**0.27**	0.17	
111-84-2	n-Nonane	**1.7**	0.72	**0.32**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.72	ND	0.10	
98-82-8	Cumene	ND	0.72	ND	0.15	
80-56-8	alpha-Pinene	**4.3**	0.72	**0.78**	0.13	
622-96-8	4-Ethyltoluene	ND	0.72	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.72	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.72	ND	0.15	
100-44-7	Benzyl Chloride	ND	0.72	ND	0.14	
541-73-1	1,3-Dichlorobenzene	ND	0.72	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.72	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.72	ND	0.12	
5989-27-5	d-Limonene	**10**	0.72	**1.8**	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.72	ND	0.075	
120-82-1	1,2,4-Trichlorobenzene	ND	0.72	ND	0.097	
91-20-3	Naphthalene	ND	0.72	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.72	ND	0.068	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Cafeteria** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-006

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01096

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.62

Canister Dilution Factor: 1.74

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.2**	0.87	**0.64**	0.18	
74-87-3	Chloromethane	ND	0.87	ND	0.42	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.87	ND	0.12	
75-01-4	Vinyl Chloride	ND	0.87	ND	0.34	
106-99-0	1,3-Butadiene	ND	0.87	ND	0.39	
74-83-9	Bromomethane	ND	0.87	ND	0.22	
75-00-3	Chloroethane	ND	0.87	ND	0.33	
64-17-5	Ethanol	**340**	8.7	**180**	4.6	
75-05-8	Acetonitrile	ND	0.87	ND	0.52	
107-02-8	Acrolein	ND	3.5	ND	1.5	
67-64-1	Acetone	**35**	8.7	**15**	3.7	
75-69-4	Trichlorofluoromethane	**8.8**	0.87	**1.6**	0.15	
67-63-0	2-Propanol (Isopropyl Alcohol)	**19**	8.7	**7.7**	3.5	
107-13-1	Acrylonitrile	ND	0.87	ND	0.40	
75-35-4	1,1-Dichloroethene	ND	0.87	ND	0.22	
75-09-2	Methylene Chloride	ND	0.87	ND	0.25	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.87	ND	0.28	
76-13-1	Trichlorotrifluoroethane	ND	0.87	ND	0.11	
75-15-0	Carbon Disulfide	ND	8.7	ND	2.8	
156-60-5	trans-1,2-Dichloroethene	ND	0.87	ND	0.22	
75-34-3	1,1-Dichloroethane	ND	0.87	ND	0.22	
1634-04-4	Methyl tert-Butyl Ether	ND	0.87	ND	0.24	
108-05-4	Vinyl Acetate	ND	8.7	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Cafeteria** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-006

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01096

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.62

Canister Dilution Factor: 1.74

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	8.7	ND	3.0	
156-59-2	cis-1,2-Dichloroethene	ND	0.87	ND	0.22	
110-54-3	n-Hexane	ND	0.87	ND	0.25	
67-66-3	Chloroform	ND	0.87	ND	0.18	
107-06-2	1,2-Dichloroethane	ND	0.87	ND	0.22	
71-55-6	1,1,1-Trichloroethane	ND	0.87	ND	0.16	
71-43-2	Benzene	ND	0.87	ND	0.27	
56-23-5	Carbon Tetrachloride	**0.44**	0.17	**0.071**	0.028	
78-87-5	1,2-Dichloropropane	ND	0.87	ND	0.19	
75-27-4	Bromodichloromethane	ND	0.87	ND	0.13	
79-01-6	Trichloroethene	**0.24**	0.17	**0.045**	0.032	
123-91-1	1,4-Dioxane	ND	0.87	ND	0.24	
10061-01-5	cis-1,3-Dichloropropene	ND	0.87	ND	0.19	
108-10-1	4-Methyl-2-pentanone	ND	0.87	ND	0.21	
10061-02-6	trans-1,3-Dichloropropene	ND	0.87	ND	0.19	
79-00-5	1,1,2-Trichloroethane	ND	0.87	ND	0.16	
108-88-3	Toluene	**2.3**	0.87	**0.61**	0.23	
591-78-6	2-Hexanone	ND	0.87	ND	0.21	
124-48-1	Dibromochloromethane	ND	0.87	ND	0.10	
106-93-4	1,2-Dibromoethane	ND	0.87	ND	0.11	
123-86-4	n-Butyl Acetate	**1.5**	0.87	**0.31**	0.18	
127-18-4	Tetrachloroethene	**2.8**	0.87	**0.41**	0.13	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Cafeteria** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-006

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01096

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.62

Canister Dilution Factor: 1.74

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.87	ND	0.19	
100-41-4	Ethylbenzene	ND	0.87	ND	0.20	
179601-23-1	m,p-Xylenes	ND	0.87	ND	0.20	
75-25-2	Bromoform	ND	0.87	ND	0.084	
100-42-5	Styrene	ND	0.87	ND	0.20	
95-47-6	o-Xylene	ND	0.87	ND	0.20	
111-84-2	n-Nonane	ND	0.87	ND	0.17	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.87	ND	0.13	
98-82-8	Cumene	ND	0.87	ND	0.18	
80-56-8	alpha-Pinene	**1.1**	0.87	**0.19**	0.16	
622-96-8	4-Ethyltoluene	ND	0.87	ND	0.18	
108-67-8	1,3,5-Trimethylbenzene	ND	0.87	ND	0.18	
95-63-6	1,2,4-Trimethylbenzene	ND	0.87	ND	0.18	
100-44-7	Benzyl Chloride	ND	0.87	ND	0.17	
541-73-1	1,3-Dichlorobenzene	ND	0.87	ND	0.14	
106-46-7	1,4-Dichlorobenzene	ND	0.87	ND	0.14	
95-50-1	1,2-Dichlorobenzene	ND	0.87	ND	0.14	
5989-27-5	d-Limonene	**2.3**	0.87	**0.41**	0.16	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.87	ND	0.090	
120-82-1	1,2,4-Trichlorobenzene	ND	0.87	ND	0.12	
91-20-3	Naphthalene	ND	0.87	ND	0.17	
87-68-3	Hexachlorobutadiene	ND	0.87	ND	0.082	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Background** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-007

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01855

Initial Pressure (psig): -3.68 Final Pressure (psig): 3.67

Canister Dilution Factor: 1.67

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	0.84	**0.49**	0.17	
74-87-3	Chloromethane	ND	0.84	ND	0.40	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.84	ND	0.12	
75-01-4	Vinyl Chloride	ND	0.84	ND	0.33	
106-99-0	1,3-Butadiene	ND	0.84	ND	0.38	
74-83-9	Bromomethane	ND	0.84	ND	0.22	
75-00-3	Chloroethane	ND	0.84	ND	0.32	
64-17-5	Ethanol	ND	8.4	ND	4.4	
75-05-8	Acetonitrile	ND	0.84	ND	0.50	
107-02-8	Acrolein	ND	3.3	ND	1.5	
67-64-1	Acetone	ND	8.4	ND	3.5	
75-69-4	Trichlorofluoromethane	**1.4**	0.84	**0.24**	0.15	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	8.4	ND	3.4	
107-13-1	Acrylonitrile	ND	0.84	ND	0.38	
75-35-4	1,1-Dichloroethene	ND	0.84	ND	0.21	
75-09-2	Methylene Chloride	ND	0.84	ND	0.24	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.84	ND	0.27	
76-13-1	Trichlorotrifluoroethane	ND	0.84	ND	0.11	
75-15-0	Carbon Disulfide	ND	8.4	ND	2.7	
156-60-5	trans-1,2-Dichloroethene	ND	0.84	ND	0.21	
75-34-3	1,1-Dichloroethane	ND	0.84	ND	0.21	
1634-04-4	Methyl tert-Butyl Ether	ND	0.84	ND	0.23	
108-05-4	Vinyl Acetate	ND	8.4	ND	2.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Background** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-007

Test Code: EPA TO-15 Date Collected: 3/18/14

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14

Analyst: Elsa Moctezuma Date Analyzed: 4/4/14

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AC01855

Initial Pressure (psig): -3.68 Final Pressure (psig): 3.67

Canister Dilution Factor: 1.67

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	8.4	ND	2.8	
156-59-2	cis-1,2-Dichloroethene	ND	0.84	ND	0.21	
110-54-3	n-Hexane	ND	0.84	ND	0.24	
67-66-3	Chloroform	ND	0.84	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.84	ND	0.21	
71-55-6	1,1,1-Trichloroethane	ND	0.84	ND	0.15	
71-43-2	Benzene	ND	0.84	ND	0.26	
56-23-5	Carbon Tetrachloride	**0.49**	0.17	**0.078**	0.027	
78-87-5	1,2-Dichloropropane	ND	0.84	ND	0.18	
75-27-4	Bromodichloromethane	ND	0.84	ND	0.12	
79-01-6	Trichloroethene	ND	0.17	ND	0.031	
123-91-1	1,4-Dioxane	ND	0.84	ND	0.23	
10061-01-5	cis-1,3-Dichloropropene	ND	0.84	ND	0.18	
108-10-1	4-Methyl-2-pentanone	ND	0.84	ND	0.20	
10061-02-6	trans-1,3-Dichloropropene	ND	0.84	ND	0.18	
79-00-5	1,1,2-Trichloroethane	ND	0.84	ND	0.15	
108-88-3	Toluene	ND	0.84	ND	0.22	
591-78-6	2-Hexanone	ND	0.84	ND	0.20	
124-48-1	Dibromochloromethane	ND	0.84	ND	0.098	
106-93-4	1,2-Dibromoethane	ND	0.84	ND	0.11	
123-86-4	n-Butyl Acetate	ND	0.84	ND	0.18	
127-18-4	Tetrachloroethene	ND	0.84	ND	0.12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**

Client Sample ID: **Background** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-007

Test Code:	EPA TO-15	Date Collected:	3/18/14
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	3/25/14
Analyst:	Elsa Moctezuma	Date Analyzed:	4/4/14
Sample Type:	6.0 L Summa Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			
Container ID:	AC01855		

Initial Pressure (psig): -3.68 Final Pressure (psig): 3.67

Canister Dilution Factor: 1.67

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.84	ND	0.18	
100-41-4	Ethylbenzene	ND	0.84	ND	0.19	
179601-23-1	m,p-Xylenes	ND	0.84	ND	0.19	
75-25-2	Bromoform	ND	0.84	ND	0.081	
100-42-5	Styrene	ND	0.84	ND	0.20	
95-47-6	o-Xylene	ND	0.84	ND	0.19	
111-84-2	n-Nonane	ND	0.84	ND	0.16	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.84	ND	0.12	
98-82-8	Cumene	ND	0.84	ND	0.17	
80-56-8	alpha-Pinene	ND	0.84	ND	0.15	
622-96-8	4-Ethyltoluene	ND	0.84	ND	0.17	
108-67-8	1,3,5-Trimethylbenzene	ND	0.84	ND	0.17	
95-63-6	1,2,4-Trimethylbenzene	ND	0.84	ND	0.17	
100-44-7	Benzyl Chloride	ND	0.84	ND	0.16	
541-73-1	1,3-Dichlorobenzene	ND	0.84	ND	0.14	
106-46-7	1,4-Dichlorobenzene	ND	0.84	ND	0.14	
95-50-1	1,2-Dichlorobenzene	ND	0.84	ND	0.14	
5989-27-5	d-Limonene	ND	0.84	ND	0.15	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.84	ND	0.086	
120-82-1	1,2,4-Trichlorobenzene	ND	0.84	ND	0.11	
91-20-3	Naphthalene	ND	0.84	ND	0.16	
87-68-3	Hexachlorobutadiene	ND	0.84	ND	0.078	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **A/C Area** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-008

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01614

Initial Pressure (psig): -3.24 Final Pressure (psig): 3.55

Canister Dilution Factor: 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.9**	0.80	**0.80**	0.16	
74-87-3	Chloromethane	ND	0.80	ND	0.39	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.80	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.80	ND	0.31	
106-99-0	1,3-Butadiene	ND	0.80	ND	0.36	
74-83-9	Bromomethane	ND	0.80	ND	0.20	
75-00-3	Chloroethane	ND	0.80	ND	0.30	
64-17-5	Ethanol	**260**	8.0	**140**	4.2	
75-05-8	Acetonitrile	ND	0.80	ND	0.47	
107-02-8	Acrolein	ND	3.2	ND	1.4	
67-64-1	Acetone	**83**	8.0	**35**	3.3	
75-69-4	Trichlorofluoromethane	**12**	0.80	**2.1**	0.14	
67-63-0	2-Propanol (Isopropyl Alcohol)	**11**	8.0	**4.4**	3.2	
107-13-1	Acrylonitrile	ND	0.80	ND	0.37	
75-35-4	1,1-Dichloroethene	ND	0.80	ND	0.20	
75-09-2	Methylene Chloride	ND	0.80	ND	0.23	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.80	ND	0.25	
76-13-1	Trichlorotrifluoroethane	ND	0.80	ND	0.10	
75-15-0	Carbon Disulfide	ND	8.0	ND	2.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.80	ND	0.20	
75-34-3	1,1-Dichloroethane	ND	0.80	ND	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	0.80	ND	0.22	
108-05-4	Vinyl Acetate	ND	8.0	ND	2.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **A/C Area** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-008

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01614

Initial Pressure (psig): -3.24 Final Pressure (psig): 3.55

Canister Dilution Factor: 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	8.0	ND	2.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.80	ND	0.20	
110-54-3	n-Hexane	ND	0.80	ND	0.23	
67-66-3	Chloroform	ND	0.80	ND	0.16	
107-06-2	1,2-Dichloroethane	ND	0.80	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	0.80	ND	0.15	
71-43-2	Benzene	ND	0.80	ND	0.25	
56-23-5	Carbon Tetrachloride	**0.45**	0.16	**0.071**	0.025	
78-87-5	1,2-Dichloropropane	ND	0.80	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.80	ND	0.12	
79-01-6	Trichloroethene	ND	0.16	ND	0.030	
123-91-1	1,4-Dioxane	ND	0.80	ND	0.22	
10061-01-5	cis-1,3-Dichloropropene	ND	0.80	ND	0.18	
108-10-1	4-Methyl-2-pentanone	ND	0.80	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.80	ND	0.18	
79-00-5	1,1,2-Trichloroethane	ND	0.80	ND	0.15	
108-88-3	Toluene	**2.8**	0.80	**0.73**	0.21	
591-78-6	2-Hexanone	**1.2**	0.80	**0.30**	0.19	
124-48-1	Dibromochloromethane	ND	0.80	ND	0.093	
106-93-4	1,2-Dibromoethane	ND	0.80	ND	0.10	
123-86-4	n-Butyl Acetate	**1.3**	0.80	**0.27**	0.17	
127-18-4	Tetrachloroethene	**2.8**	0.80	**0.41**	0.12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **A/C Area** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-008

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01614

Initial Pressure (psig): -3.24 Final Pressure (psig): 3.55

Canister Dilution Factor: 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.80	ND	0.17	
100-41-4	Ethylbenzene	ND	0.80	ND	0.18	
179601-23-1	m,p-Xylenes	**1.1**	0.80	**0.25**	0.18	
75-25-2	Bromoform	ND	0.80	ND	0.077	
100-42-5	Styrene	ND	0.80	ND	0.19	
95-47-6	o-Xylene	ND	0.80	ND	0.18	
111-84-2	n-Nonane	ND	0.80	ND	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.80	ND	0.12	
98-82-8	Cumene	ND	0.80	ND	0.16	
80-56-8	alpha-Pinene	**1.7**	0.80	**0.31**	0.14	
622-96-8	4-Ethyltoluene	ND	0.80	ND	0.16	
108-67-8	1,3,5-Trimethylbenzene	ND	0.80	ND	0.16	
95-63-6	1,2,4-Trimethylbenzene	ND	0.80	ND	0.16	
100-44-7	Benzyl Chloride	ND	0.80	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	0.80	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.80	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.80	ND	0.13	
5989-27-5	d-Limonene	ND	0.80	ND	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.80	ND	0.082	
120-82-1	1,2,4-Trichlorobenzene	ND	0.80	ND	0.11	
91-20-3	Naphthalene	ND	0.80	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.80	ND	0.075	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140403-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140403-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140403-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140404-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140404-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Method Blank** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140404-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **Verina Consulting Group, LLC**
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Project ID: P1401201

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 3/18/14
Analyst: Elsa Moctezuma Date(s) Received: 3/25/14
Sample Type: 6.0 L Summa Canister(s) Date(s) Analyzed: 4/3 - 4/4/14
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P140403-MB	**109**	**99**	**103**	70-130	
Method Blank	P140404-MB	**112**	**99**	**101**	70-130	
Lab Control Sample	P140403-LCS	**110**	**98**	**104**	70-130	
Lab Control Sample	P140404-LCS	**110**	**98**	**102**	70-130	
Office Area #2	P1401201-001	**112**	**98**	**103**	70-130	
Hallaway	P1401201-002	**111**	**96**	**102**	70-130	
Office Area #1	P1401201-003	**111**	**97**	**103**	70-130	
Electrical Area	P1401201-004	**109**	**98**	**104**	70-130	
Computer Servers	P1401201-005	**112**	**99**	**102**	70-130	
Cafeteria	P1401201-006	**111**	**98**	**103**	70-130	
Cafeteria	P1401201-006DUP	**111**	**99**	**102**	70-130	
Background	P1401201-007	**111**	**99**	**103**	70-130	
A/C Area	P1401201-008	**109**	**97**	**101**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140403-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	204	**210**	**103**	63-115	
74-87-3	Chloromethane	198	**185**	**93**	58-122	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	204	**216**	**106**	65-115	
75-01-4	Vinyl Chloride	200	**218**	**109**	64-122	
106-99-0	1,3-Butadiene	212	**253**	**119**	57-141	
74-83-9	Bromomethane	200	**200**	**100**	68-122	
75-00-3	Chloroethane	202	**195**	**97**	66-120	
64-17-5	Ethanol	1,020	**1100**	**108**	58-126	
75-05-8	Acetonitrile	202	**197**	**98**	64-136	
107-02-8	Acrolein	214	**211**	**99**	58-129	
67-64-1	Acetone	1,080	**955**	**88**	60-114	
75-69-4	Trichlorofluoromethane	198	**191**	**96**	62-107	
67-63-0	2-Propanol (Isopropyl Alcohol)	420	**437**	**104**	54-118	
107-13-1	Acrylonitrile	208	**220**	**106**	72-143	
75-35-4	1,1-Dichloroethene	214	**198**	**93**	69-119	
75-09-2	Methylene Chloride	216	**186**	**86**	64-113	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	216	**233**	**108**	59-131	
76-13-1	Trichlorotrifluoroethane	214	**210**	**98**	69-117	
75-15-0	Carbon Disulfide	196	**193**	**98**	65-115	
156-60-5	trans-1,2-Dichloroethene	212	**214**	**101**	70-126	
75-34-3	1,1-Dichloroethane	208	**197**	**95**	68-116	
1634-04-4	Methyl tert-Butyl Ether	212	**185**	**87**	69-120	
108-05-4	Vinyl Acetate	1,020	**1030**	**101**	58-160	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140403-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	218	**192**	**88**	70-127	
156-59-2	cis-1,2-Dichloroethene	214	**209**	**98**	70-119	
110-54-3	n-Hexane	210	**177**	**84**	63-115	
67-66-3	Chloroform	214	**200**	**93**	68-110	
107-06-2	1,2-Dichloroethane	210	**215**	**102**	69-118	
71-55-6	1,1,1-Trichloroethane	206	**209**	**101**	68-120	
71-43-2	Benzene	220	**174**	**79**	69-117	
56-23-5	Carbon Tetrachloride	210	**220**	**105**	65-134	
78-87-5	1,2-Dichloropropane	212	**189**	**89**	70-116	
75-27-4	Bromodichloromethane	214	**221**	**103**	71-126	
79-01-6	Trichloroethene	208	**178**	**86**	71-119	
123-91-1	1,4-Dioxane	218	**215**	**99**	72-126	
10061-01-5	cis-1,3-Dichloropropene	226	**232**	**103**	75-132	
108-10-1	4-Methyl-2-pentanone	218	**221**	**101**	70-133	
10061-02-6	trans-1,3-Dichloropropene	216	**233**	**108**	78-136	
79-00-5	1,1,2-Trichloroethane	210	**202**	**96**	72-119	
108-88-3	Toluene	210	**186**	**89**	65-116	
591-78-6	2-Hexanone	222	**222**	**100**	62-132	
124-48-1	Dibromochloromethane	220	**224**	**102**	66-140	
106-93-4	1,2-Dibromoethane	216	**210**	**97**	69-130	
123-86-4	n-Butyl Acetate	224	**229**	**102**	63-136	
127-18-4	Tetrachloroethene	196	**184**	**94**	63-123	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140403-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/3/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
108-90-7	Chlorobenzene	216	**195**	**90**	66-118	
100-41-4	Ethylbenzene	212	**196**	**92**	66-119	
179601-23-1	m,p-Xylenes	420	**394**	**94**	64-118	
75-25-2	Bromoform	216	**239**	**111**	64-140	
100-42-5	Styrene	218	**218**	**100**	68-132	
95-47-6	o-Xylene	206	**195**	**95**	65-120	
111-84-2	n-Nonane	206	**185**	**90**	64-117	
79-34-5	1,1,2,2-Tetrachloroethane	202	**197**	**98**	63-128	
98-82-8	Cumene	204	**193**	**95**	65-121	
80-56-8	alpha-Pinene	208	**198**	**95**	66-123	
622-96-8	4-Ethyltoluene	212	**210**	**99**	64-122	
108-67-8	1,3,5-Trimethylbenzene	212	**205**	**97**	64-125	
95-63-6	1,2,4-Trimethylbenzene	212	**208**	**98**	64-131	
100-44-7	Benzyl Chloride	222	**259**	**117**	67-146	
541-73-1	1,3-Dichlorobenzene	222	**212**	**95**	64-130	
106-46-7	1,4-Dichlorobenzene	214	**206**	**96**	61-124	
95-50-1	1,2-Dichlorobenzene	218	**214**	**98**	63-126	
5989-27-5	d-Limonene	210	**213**	**101**	62-133	
96-12-8	1,2-Dibromo-3-chloropropane	212	**240**	**113**	62-155	
120-82-1	1,2,4-Trichlorobenzene	220	**230**	**105**	59-146	
91-20-3	Naphthalene	204	**242**	**119**	56-143	
87-68-3	Hexachlorobutadiene	218	**218**	**100**	58-133	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140404-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	204	**210**	**103**	63-115	
74-87-3	Chloromethane	198	**153**	**77**	58-122	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	204	**219**	**107**	65-115	
75-01-4	Vinyl Chloride	200	**218**	**109**	64-122	
106-99-0	1,3-Butadiene	212	**250**	**118**	57-141	
74-83-9	Bromomethane	200	**201**	**101**	68-122	
75-00-3	Chloroethane	202	**196**	**97**	66-120	
64-17-5	Ethanol	1,020	**1100**	**108**	58-126	
75-05-8	Acetonitrile	202	**199**	**99**	64-136	
107-02-8	Acrolein	214	**212**	**99**	58-129	
67-64-1	Acetone	1,080	**966**	**89**	60-114	
75-69-4	Trichlorofluoromethane	198	**193**	**97**	62-107	
67-63-0	2-Propanol (Isopropyl Alcohol)	420	**422**	**100**	54-118	
107-13-1	Acrylonitrile	208	**222**	**107**	72-143	
75-35-4	1,1-Dichloroethene	214	**201**	**94**	69-119	
75-09-2	Methylene Chloride	216	**188**	**87**	64-113	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	216	**233**	**108**	59-131	
76-13-1	Trichlorotrifluoroethane	214	**210**	**98**	69-117	
75-15-0	Carbon Disulfide	196	**195**	**99**	65-115	
156-60-5	trans-1,2-Dichloroethene	212	**215**	**101**	70-126	
75-34-3	1,1-Dichloroethane	208	**200**	**96**	68-116	
1634-04-4	Methyl tert-Butyl Ether	212	**157**	**74**	69-120	
108-05-4	Vinyl Acetate	1,020	**1060**	**104**	58-160	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140404-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
78-93-3	2-Butanone (MEK)	218	**198**	**91**	70-127	
156-59-2	cis-1,2-Dichloroethene	214	**209**	**98**	70-119	
110-54-3	n-Hexane	210	**184**	**88**	63-115	
67-66-3	Chloroform	214	**203**	**95**	68-110	
107-06-2	1,2-Dichloroethane	210	**217**	**103**	69-118	
71-55-6	1,1,1-Trichloroethane	206	**205**	**100**	68-120	
71-43-2	Benzene	220	**175**	**80**	69-117	
56-23-5	Carbon Tetrachloride	210	**217**	**103**	65-134	
78-87-5	1,2-Dichloropropane	212	**190**	**90**	70-116	
75-27-4	Bromodichloromethane	214	**221**	**103**	71-126	
79-01-6	Trichloroethene	208	**178**	**86**	71-119	
123-91-1	1,4-Dioxane	218	**212**	**97**	72-126	
10061-01-5	cis-1,3-Dichloropropene	226	**231**	**102**	75-132	
108-10-1	4-Methyl-2-pentanone	218	**219**	**100**	70-133	
10061-02-6	trans-1,3-Dichloropropene	216	**232**	**107**	78-136	
79-00-5	1,1,2-Trichloroethane	210	**199**	**95**	72-119	
108-88-3	Toluene	210	**186**	**89**	65-116	
591-78-6	2-Hexanone	222	**222**	**100**	62-132	
124-48-1	Dibromochloromethane	220	**225**	**102**	66-140	
106-93-4	1,2-Dibromoethane	216	**209**	**97**	69-130	
123-86-4	n-Butyl Acetate	224	**228**	**102**	63-136	
127-18-4	Tetrachloroethene	196	**184**	**94**	63-123	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P140404-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	216	**194**	**90**	66-118	
100-41-4	Ethylbenzene	212	**196**	**92**	66-119	
179601-23-1	m,p-Xylenes	420	**393**	**94**	64-118	
75-25-2	Bromoform	216	**241**	**112**	64-140	
100-42-5	Styrene	218	**215**	**99**	68-132	
95-47-6	o-Xylene	206	**194**	**94**	65-120	
111-84-2	n-Nonane	206	**186**	**90**	64-117	
79-34-5	1,1,2,2-Tetrachloroethane	202	**196**	**97**	63-128	
98-82-8	Cumene	204	**192**	**94**	65-121	
80-56-8	alpha-Pinene	208	**197**	**95**	66-123	
622-96-8	4-Ethyltoluene	212	**210**	**99**	64-122	
108-67-8	1,3,5-Trimethylbenzene	212	**204**	**96**	64-125	
95-63-6	1,2,4-Trimethylbenzene	212	**206**	**97**	64-131	
100-44-7	Benzyl Chloride	222	**258**	**116**	67-146	
541-73-1	1,3-Dichlorobenzene	222	**212**	**95**	64-130	
106-46-7	1,4-Dichlorobenzene	214	**205**	**96**	61-124	
95-50-1	1,2-Dichlorobenzene	218	**213**	**98**	63-126	
5989-27-5	d-Limonene	210	**213**	**101**	62-133	
96-12-8	1,2-Dibromo-3-chloropropane	212	**240**	**113**	62-155	
120-82-1	1,2,4-Trichlorobenzene	220	**227**	**103**	59-146	
91-20-3	Naphthalene	204	**241**	**118**	56-143	
87-68-3	Hexachlorobutadiene	218	**218**	**100**	58-133	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Cafeteria** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-006DUP

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01096

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.62

Canister Dilution Factor: 1.74

Compound	Sample Result µg/m³	Sample Result ppbV	**Duplicate Sample Result µg/m³**	Duplicate Sample Result ppbV	Average µg/m³	**% RPD**	RPD Limit	**Data Qualifier**
Dichlorodifluoromethane (CFC 12)	3.16	0.639	3.08	0.623	3.12	**3**	25	
Chloromethane	ND	ND	ND	ND	-	-	25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	ND	ND	ND	-	-	25	
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
1,3-Butadiene	ND	ND	ND	ND	-	-	25	
Bromomethane	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
Ethanol	344	183	338	179	341	**2**	25	
Acetonitrile	ND	ND	ND	ND	-	-	25	
Acrolein	ND	ND	ND	ND	-	-	25	
Acetone	34.7	14.6	33.6	14.2	34.15	**3**	25	
Trichlorofluoromethane	8.85	1.58	8.54	1.52	8.695	**4**	25	
2-Propanol (Isopropyl Alcohol)	18.8	7.65	18.2	7.42	18.5	**3**	25	
Acrylonitrile	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
Methylene Chloride	ND	ND	ND	ND	-	-	25	
3-Chloro-1-propene (Allyl Chloride)	ND	ND	ND	ND	-	-	25	
Trichlorotrifluoroethane	ND	ND	ND	ND	-	-	25	
Carbon Disulfide	ND	ND	ND	ND	-	-	25	
trans-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
Methyl tert-Butyl Ether	ND	ND	ND	ND	-	-	25	
Vinyl Acetate	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Cafeteria** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-006DUP

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01096

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.62

Canister Dilution Factor: 1.74

Compound	Sample Result µg/m³	Sample Result ppbV	**Duplicate Sample Result µg/m³**	**Duplicate Sample Result ppbV**	Average µg/m³	**% RPD**	RPD Limit	**Data Qualifier**
2-Butanone (MEK)	ND	ND	ND	ND	-	-	25	
cis-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
n-Hexane	ND	ND	ND	ND	-	-	25	
Chloroform	ND	ND	ND	ND	-	-	25	
1,2-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	
Benzene	ND	ND	0.917	0.287	-	-	25	
Carbon Tetrachloride	0.444	0.0706	0.466	0.0742	0.455	**5**	25	
1,2-Dichloropropane	ND	ND	ND	ND	-	-	25	
Bromodichloromethane	ND	ND	ND	ND	-	-	25	
Trichloroethene	0.242	0.0450	0.209	0.0389	0.2255	**15**	25	
1,4-Dioxane	ND	ND	ND	ND	-	-	25	
cis-1,3-Dichloropropene	ND	ND	ND	ND	-	-	25	
4-Methyl-2-pentanone	ND	ND	ND	ND	-	-	25	
trans-1,3-Dichloropropene	ND	ND	ND	ND	-	-	25	
1,1,2-Trichloroethane	ND	ND	ND	ND	-	-	25	
Toluene	2.28	0.606	2.24	0.595	2.26	**2**	25	
2-Hexanone	ND	ND	ND	ND	-	-	25	
Dibromochloromethane	ND	ND	ND	ND	-	-	25	
1,2-Dibromoethane	ND	ND	ND	ND	-	-	25	
n-Butyl Acetate	1.48	0.311	1.45	0.306	1.465	**2**	25	
Tetrachloroethene	2.75	0.406	2.71	0.399	2.73	**1**	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Verina Consulting Group, LLC**
Client Sample ID: **Cafeteria** ALS Project ID: P1401201
Client Project ID: **Dover - Kirkwood / 5101.0002** ALS Sample ID: P1401201-006DUP

Test Code: EPA TO-15 Date Collected: 3/18/14
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/25/14
Analyst: Elsa Moctezuma Date Analyzed: 4/4/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01096

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.62

Canister Dilution Factor: 1.74

Compound	Sample Result µg/m³	Sample Result ppbV	**Duplicate Sample Result µg/m³**	**Duplicate Sample Result ppbV**	Average µg/m³	**% RPD**	RPD Limit	**Data Qualifier**
Chlorobenzene	ND	ND	ND	ND	-	-	25	
Ethylbenzene	ND	ND	ND	ND	-	-	25	
m,p-Xylenes	ND	ND	ND	ND	-	-	25	
Bromoform	ND	ND	ND	ND	-	-	25	
Styrene	ND	ND	ND	ND	-	-	25	
o-Xylene	ND	ND	ND	ND	-	-	25	
n-Nonane	ND	ND	ND	ND	-	-	25	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	-	-	25	
Cumene	ND	ND	ND	ND	-	-	25	
alpha-Pinene	1.06	0.190	1.04	0.186	1.05	**2**	25	
4-Ethyltoluene	ND	ND	ND	ND	-	-	25	
1,3,5-Trimethylbenzene	ND	ND	ND	ND	-	-	25	
1,2,4-Trimethylbenzene	ND	ND	ND	ND	-	-	25	
Benzyl Chloride	ND	ND	ND	ND	-	-	25	
1,3-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,4-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,2-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
d-Limonene	2.31	0.414	2.29	0.412	2.3	**0.9**	25	
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	-	-	25	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	-	-	25	
Naphthalene	ND	ND	ND	ND	-	-	25	
Hexachlorobutadiene	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Client: **Verina Consulting Group, LLC** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002**

Internal Standard Area and RT Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 04031402.D

Analyst: Elsa Moctezuma Date Analyzed: 4/3/14

Sample Type: 6.0 L Summa Canister(s) Time Analyzed: 14:34

Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	109387	11.03	545806	13.16	221834	17.49
	Upper Limit	153142	11.36	764128	13.49	310568	17.82
	Lower Limit	65632	10.70	327484	12.83	133100	17.16
	Client Sample ID						
01	Method Blank	107997	11.03	546741	13.16	217336	17.49
02	Lab Control Sample	104853	11.04	515549	13.17	209723	17.49
03	Computer Servers	103044	11.03	524729	13.16	207944	17.49
04	Cafeteria	104175	11.03	533969	13.16	211922	17.49
05	Cafeteria (Lab Duplicate)	106791	11.03	542579	13.16	214155	17.49
06	Background	106260	11.03	548296	13.16	216974	17.49
07	A/C Area	106720	11.03	534775	13.16	213482	17.49
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the speicified limits.

Client: **Verina Consulting Group, LLC** ALS Project ID: P1401201

Client Project ID: **Dover - Kirkwood / 5101.0002**

Internal Standard Area and RT Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 04041302.D

Analyst: Elsa Moctezuma Date Analyzed: 4/4/14

Sample Type: 6.0 L Summa Canister(s) Time Analyzed: 10:15

Test Notes:

		IS1 (BCM)			IS2 (DFB)			IS3 (CBZ)		
		AREA	#	RT	AREA	#	RT	AREA	#	RT
	24 Hour Standard	109250		11.04	537544		13.17	216769		17.49
	Upper Limit	152950		11.37	752562		13.50	303477		17.82
	Lower Limit	65550		10.71	322526		12.84	130061		17.16
	Client Sample ID									
01	Method Blank	104568		11.03	540174		13.16	217087		17.49
02	Lab Control Sample	104352		11.04	523134		13.17	211672		17.49
03	Office Area #2	113518		11.03	571254		13.15	229358		17.49
04	Hallaway	108707		11.03	552588		13.16	223080		17.49
05	Office Area #1	108962		11.03	556506		13.16	223396		17.49
06	Electrical Area	108844		11.03	548460		13.16	218556		17.49
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

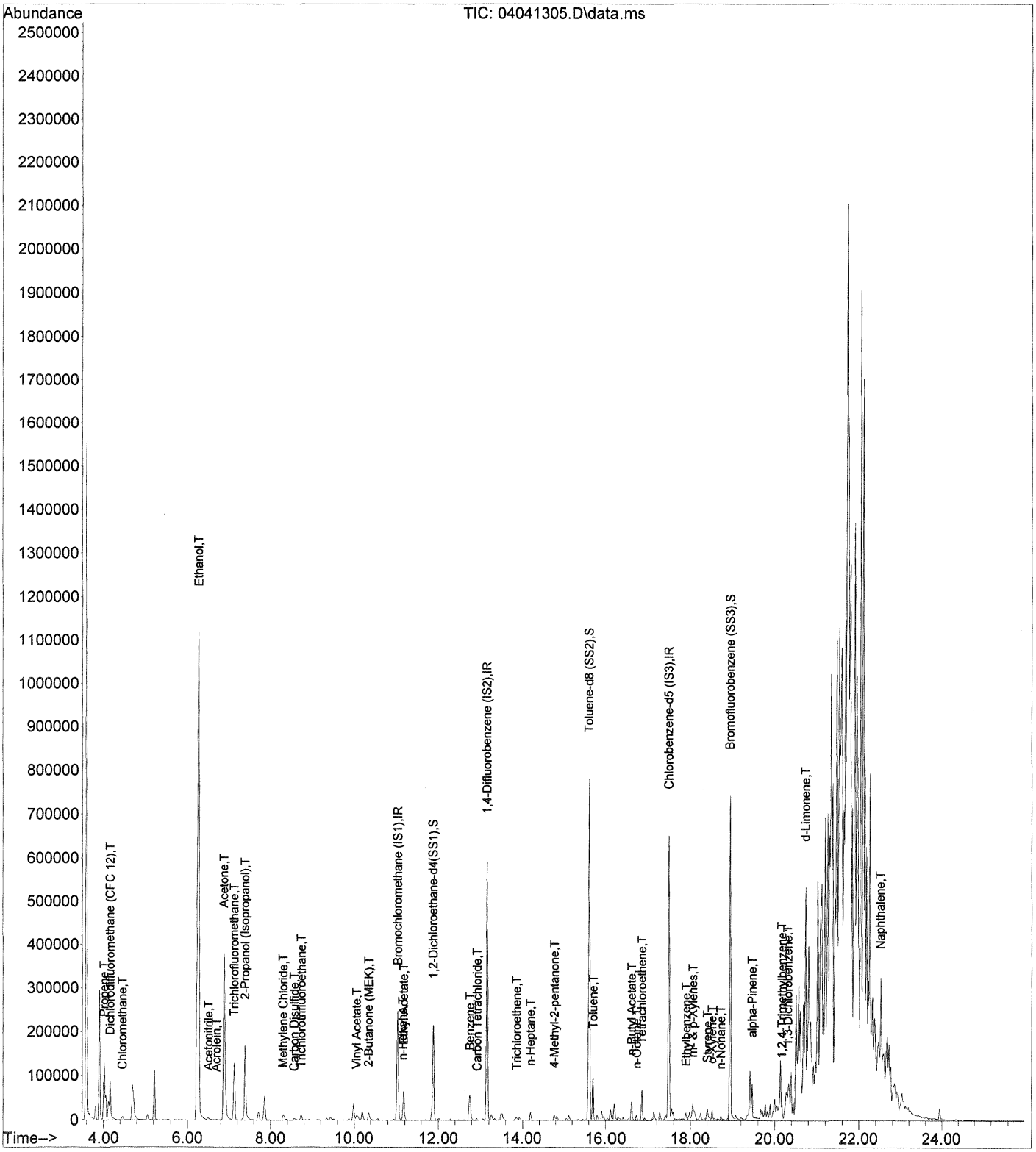
AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the speicified limits.

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 09:56:12 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 09:56:12 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	113518	12.500 ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.15	114	571254	12.500 ng		-0.01
56) Chlorobenzene-d5 (IS3)	17.49	82	229358	12.500 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	11.88	65	177510	14.009 ng		-0.02
Spiked Amount 12.500			Recovery =	112.08%		
57) Toluene-d8 (SS2)	15.61	98	582274	12.206 ng		0.00
Spiked Amount 12.500			Recovery =	97.68%		
73) Bromofluorobenzene (SS3)	18.95	174	255201	12.937 ng		0.00
Spiked Amount 12.500			Recovery =	103.52%		
Target Compounds						Qvalue
2) Propene	4.01	42	37543m	2.227 ng		
3) Dichlorodifluoromethan...	4.16	85	59986	1.833 ng		100
4) Chloromethane	4.45	50	5844	0.265 ng		74
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	1191	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	5.13	54	508	N.D.		
8) Bromomethane	5.55	94	355	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	6.26	45	2010951	195.618 ng		99
11) Acetonitrile	6.50	41	6471	0.222 ng		84
12) Acrolein	6.69	56	3320	0.363 ng		85
13) Acetone	6.87	58	193329	17.120 ng		88
14) Trichlorofluoromethane	7.12	101	136921	4.881 ng		100
15) 2-Propanol (Isopropanol)	7.38	45	284922	7.825 ng		98
16) Acrylonitrile	7.65	53	58	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d		
19) Methylene Chloride	8.30	84	5924	0.377 ng		100
20) 3-Chloro-1-propene (Al...	8.39	41	654	N.D.		
21) Trichlorotrifluoroethane	8.73	151	6030	0.442 ng		97
22) Carbon Disulfide	8.56	76	8464	0.151 ng		92
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	9.99	73	621	N.D.		
26) Vinyl Acetate	10.05	86	2454	0.785 ng	#	53
27) 2-Butanone (MEK)	10.34	72	7071	0.727 ng	#	90
28) cis-1,2-Dichloroethene	10.85	61	125	N.D.		
29) Diisopropyl Ether	11.16	87	103	N.D.		
30) Ethyl Acetate	11.17	61	13022	2.794 ng		90
31) n-Hexane	11.15	57	3698	0.172 ng	#	90
32) Chloroform	11.20	83	1635	N.D.		
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	11.99	62	1350	N.D.		
38) 1,1,1-Trichloroethane	12.27	97	306	N.D.		
39) Isopropyl Acetate	12.74	61	725	N.D.		
40) 1-Butanol	0.00	56	0	N.D. d		
41) Benzene	12.76	78	29702	0.478 ng		99
42) Carbon Tetrachloride	12.92	117	2870	0.149 ng		94
43) Cyclohexane	13.05	84	1141	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	13.60	63	63	N.D.		

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 09:56:12 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

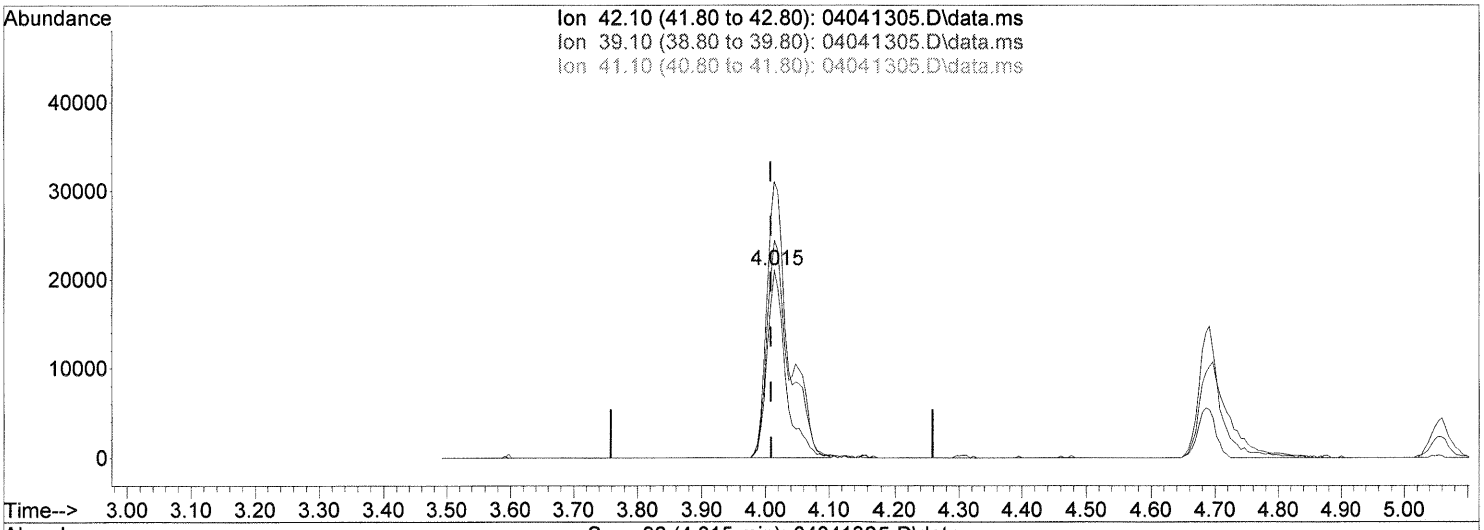
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	13.86	130	2460	0.138 ng		98
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	13.92	57	5258	N.D.		
50) Methyl Methacrylate	14.19	100	452	N.D.		
51) n-Heptane	14.20	71	4305	0.318 ng		91
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.78	58	3834	0.301 ng	#	72
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	85902	1.385 ng		100
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	36768	1.066 ng		99
63) n-Octane	16.72	57	2362	0.189 ng		97
64) Tetrachloroethene	16.85	166	24360	1.272 ng		98
65) Chlorobenzene	17.53	112	1110	N.D.		
66) Ethylbenzene	17.91	91	11247	0.163 ng		93
67) m- & p-Xylenes	18.06	91	27247	0.494 ng		100
68) Bromoform	18.14	173	177	N.D.		
69) Styrene	18.42	104	6220	0.154 ng		89
70) o-Xylene	18.53	91	10630	0.189 ng		96
71) n-Nonane	18.74	43	4152	0.136 ng		84
72) 1,1,2,2-Tetrachloroethane	18.53	83	366	N.D.		
74) Cumene	19.09	105	1287	N.D.		
75) alpha-Pinene	19.46	93	29879	0.852 ng		90
76) n-Propylbenzene	19.57	91	3833	N.D.		
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.71	105	4090	N.D.		
79) 1,3,5-Trimethylbenzene	19.78	105	3132	N.D.		
80) alpha-Methylstyrene	19.93	118	695	N.D.		
81) 2-Ethyltoluene	19.97	105	3642	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	10346	0.178 ng		88
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.31	91	661	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	3921	0.115 ng		97
86) 1,4-Dichlorobenzene	20.39	146	887	N.D.		
87) sec-Butylbenzene	20.43	105	1184	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	20.59	105	4249	N.D.		
90) 1,2-Dichlorobenzene	20.73	146	476	N.D.		
91) d-Limonene	20.73	68	115081	5.440 ng		100
92) 1,2-Dibromo-3-Chloropr...	21.16	157	389	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	22.40	180	1027	N.D.		
95) Naphthalene	22.52	128	10330	0.138 ng		94
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	22.86	225	1377	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.17	119	1776	N.D.		
100) n-Butylbenzene	21.00	91	2205	N.D.		

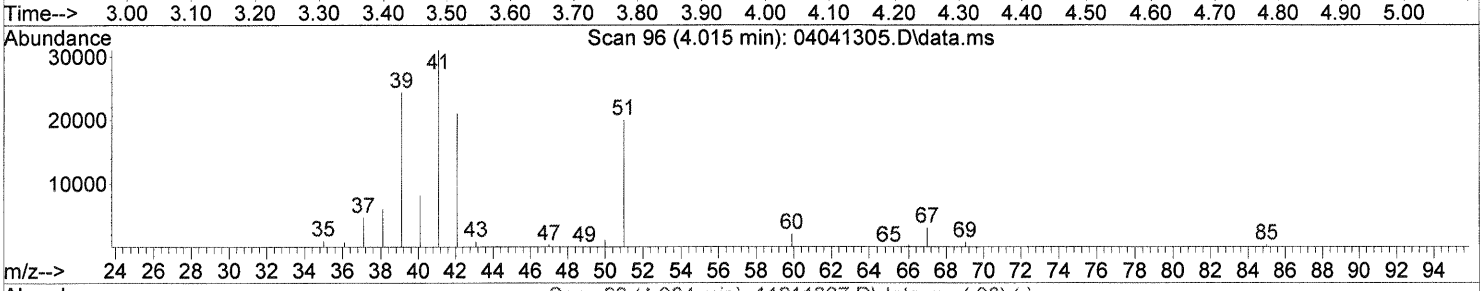
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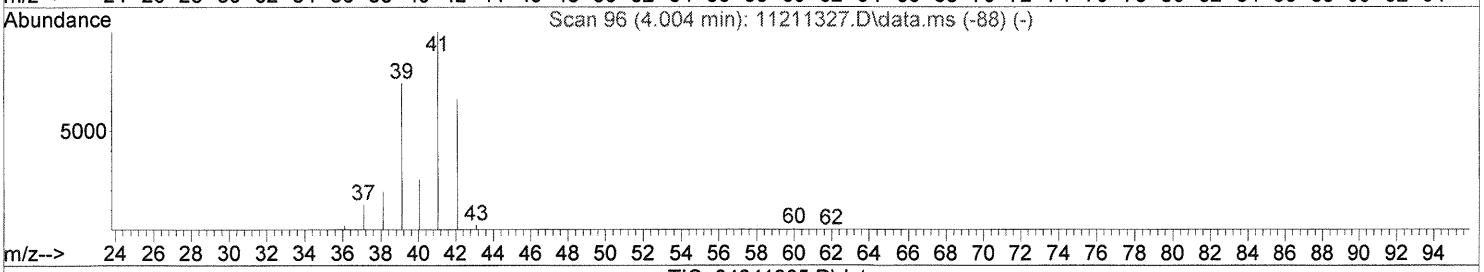
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 13:20:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041305.D\data.ms

(2) Propene (T)

4.015min (+0.005) 2.50ng

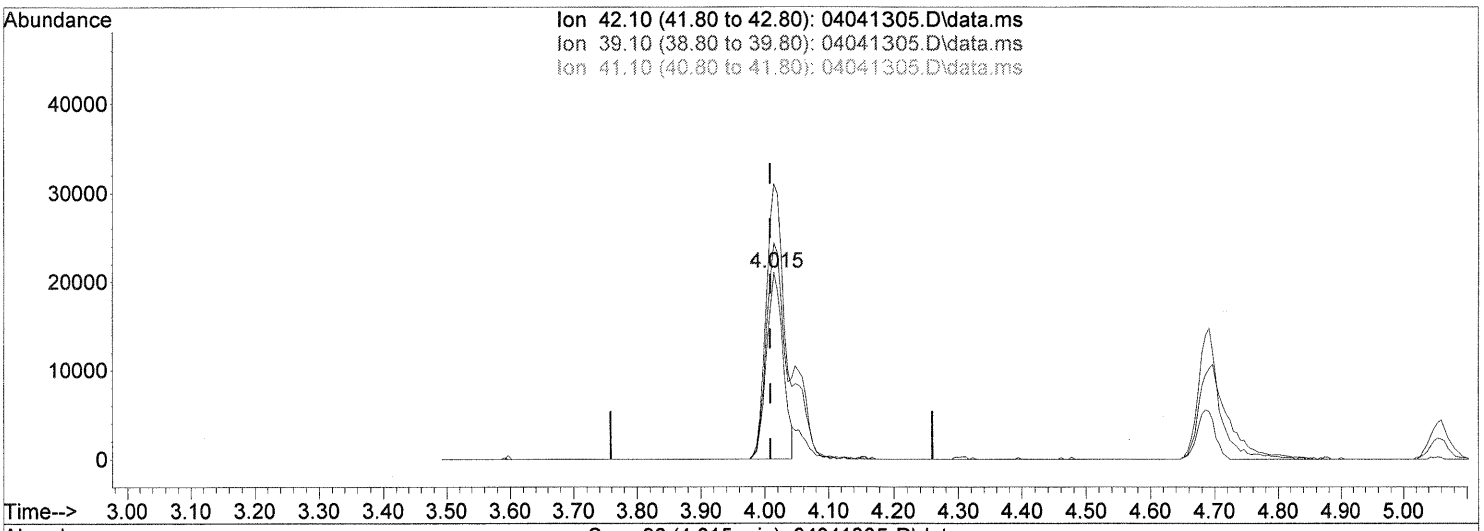
response 42173

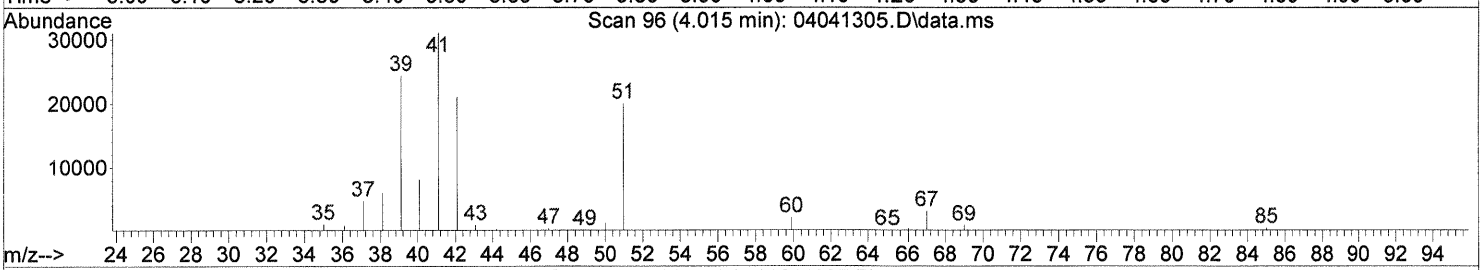
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	105.80
41.10	152.60	169.58
0.00	0.00	0.00

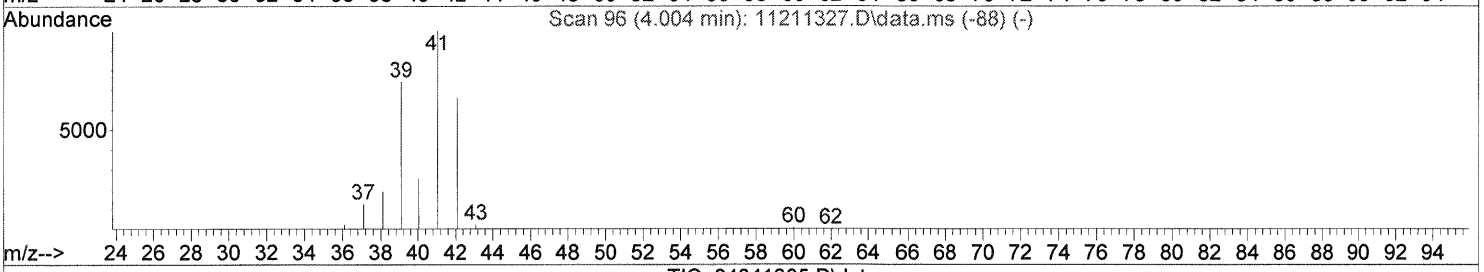
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 13:20:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041305.D\data.ms

(2) Propene (T)

4.015min (+0.005) 2.23ng m

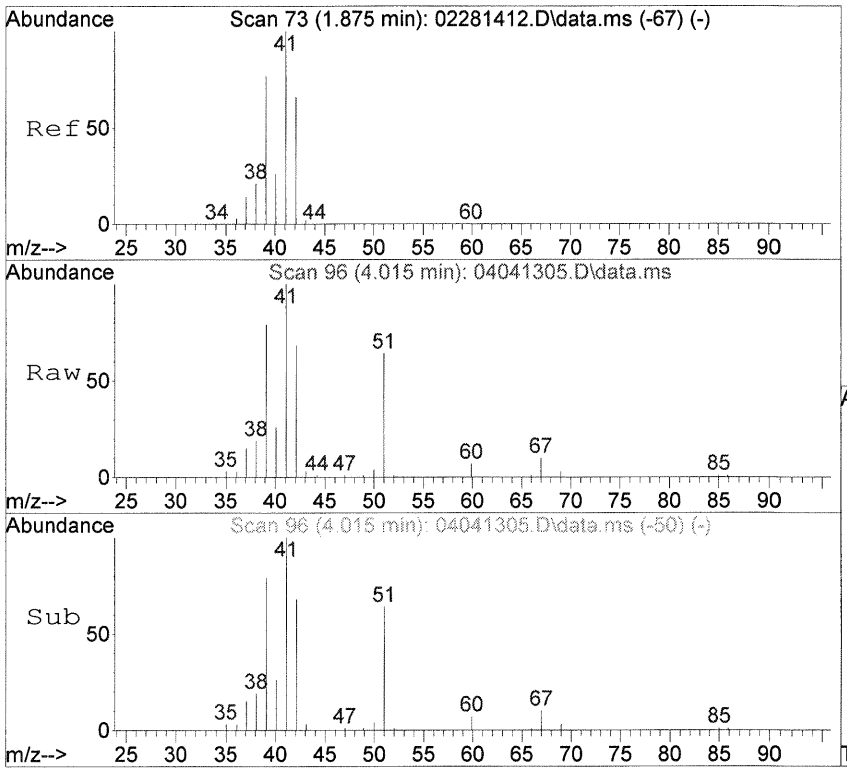
response 37543

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	118.85
41.10	152.60	190.49#
0.00	0.00	0.00

IPC

4/7/14

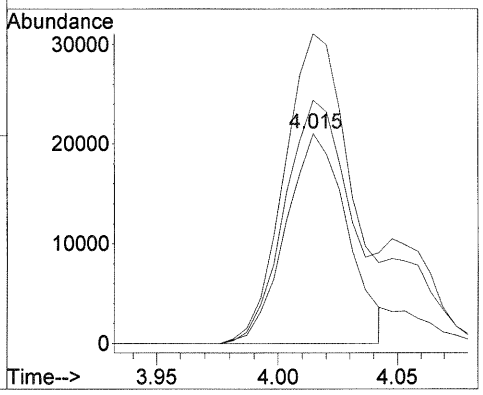
4/5/14

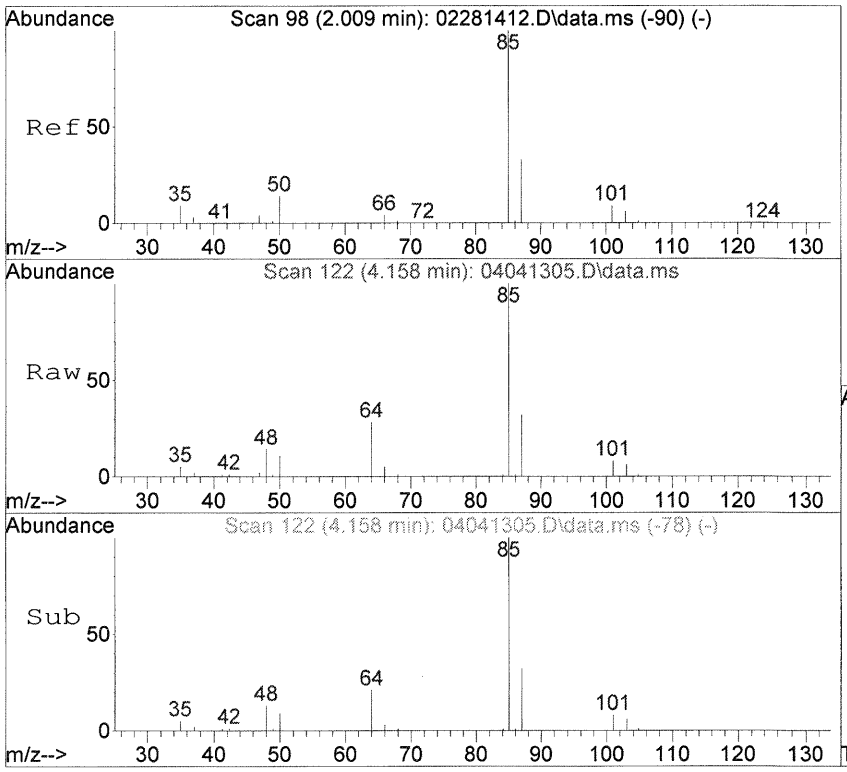


#2
Propene
Concen: 2.23 ng m
RT: 4.01 min Scan# 96
Delta R.T. 0.005 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 42 Resp: 37543

Ion	Ratio	Lower	Upper
42	100		
39	118.8	92.6	132.6
41	190.5	132.6	172.6#

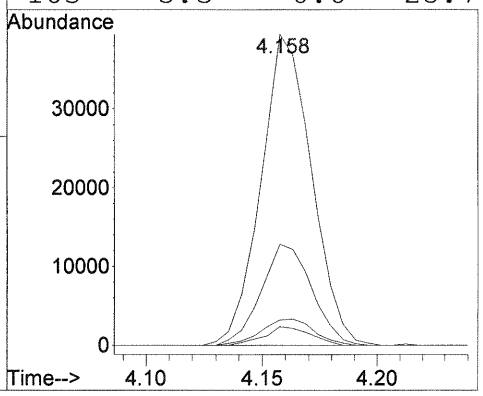


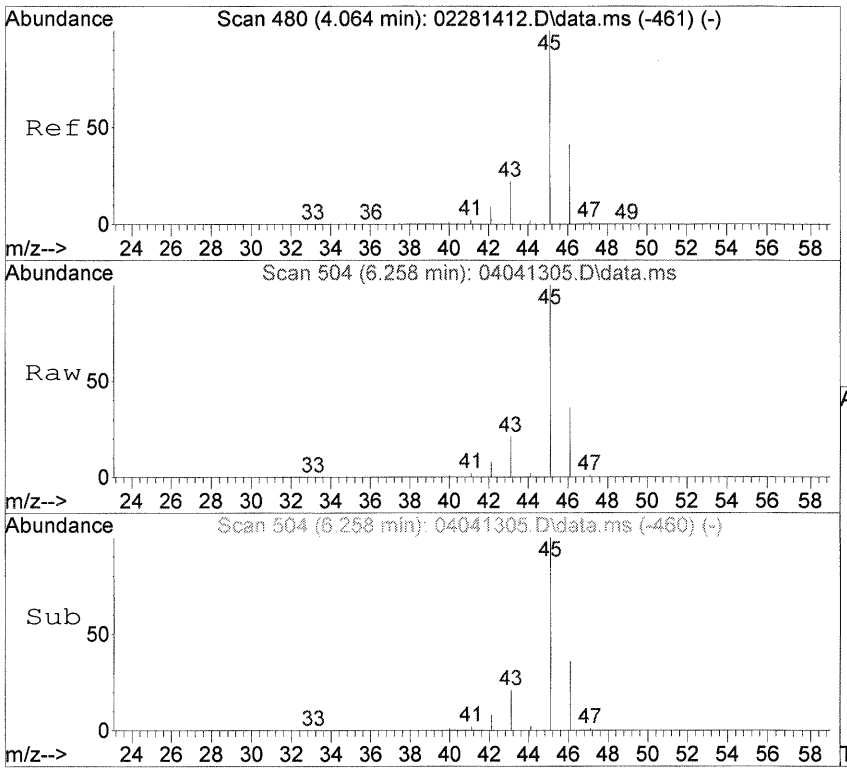


#3
Dichlorodifluoromethane (CFC 1:
Concen: 1.83 ng
RT: 4.16 min Scan# 122
Delta R.T. -0.006 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 85 Resp: 59986

Ion	Ratio	Lower	Upper
85	100		
87	32.5	12.6	52.6
101	8.8	0.0	28.9
103	5.5	0.0	25.7

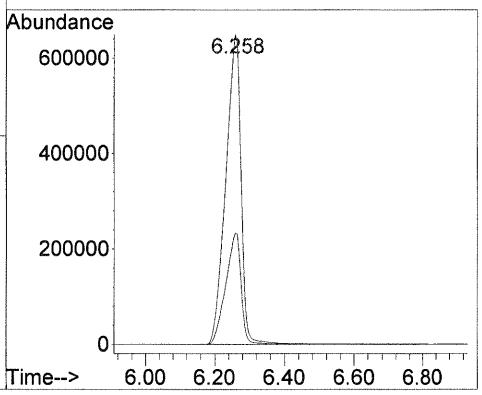


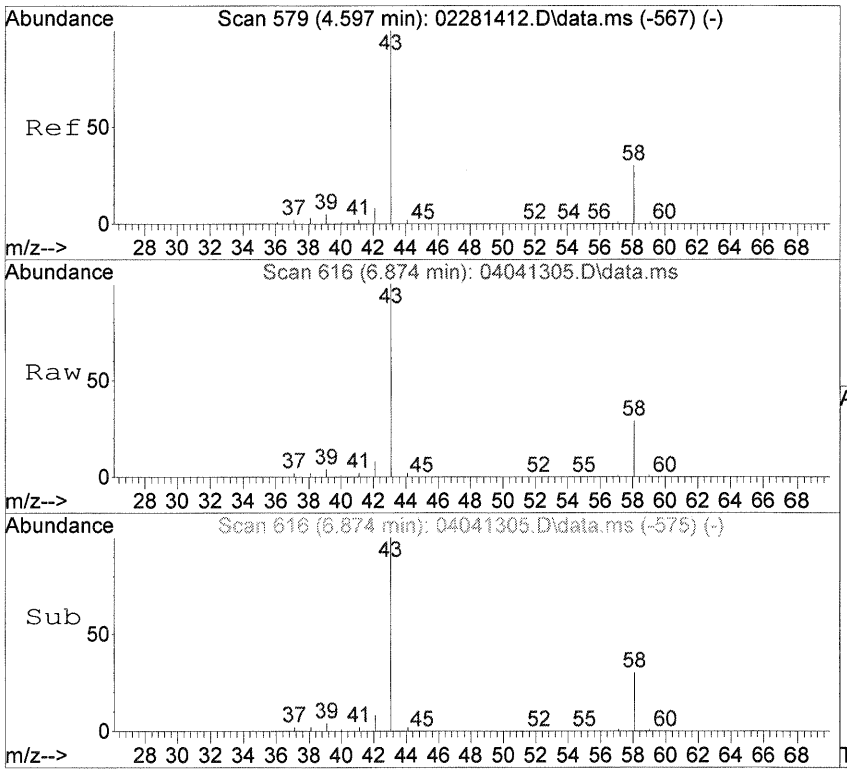


#10
Ethanol
Concen: 195.62 ng
RT: 6.26 min Scan# 504
Delta R.T. -0.006 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 45 Resp: 2010951

Ion	Ratio	Lower	Upper
45	100		
46	36.1	16.5	56.5

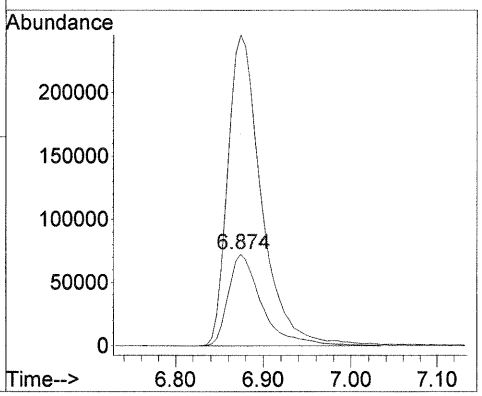


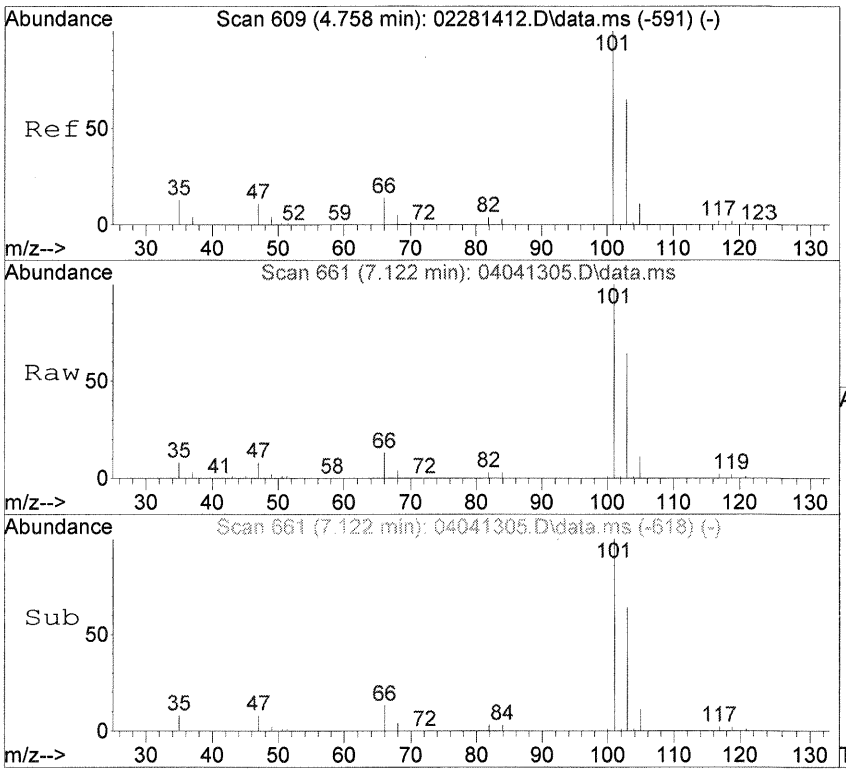


#13
Acetone
Concen: 17.12 ng
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 58 Resp: 193329

Ion	Ratio	Lower	Upper
58	100		
43	343.3	288.8	348.8

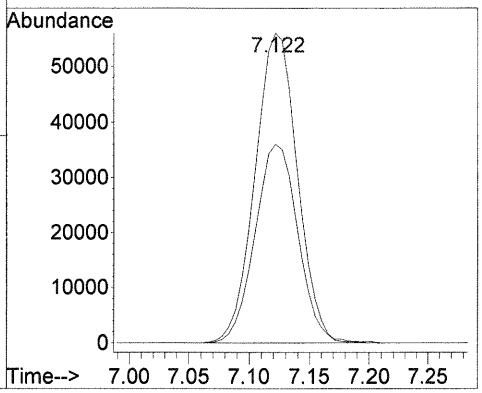


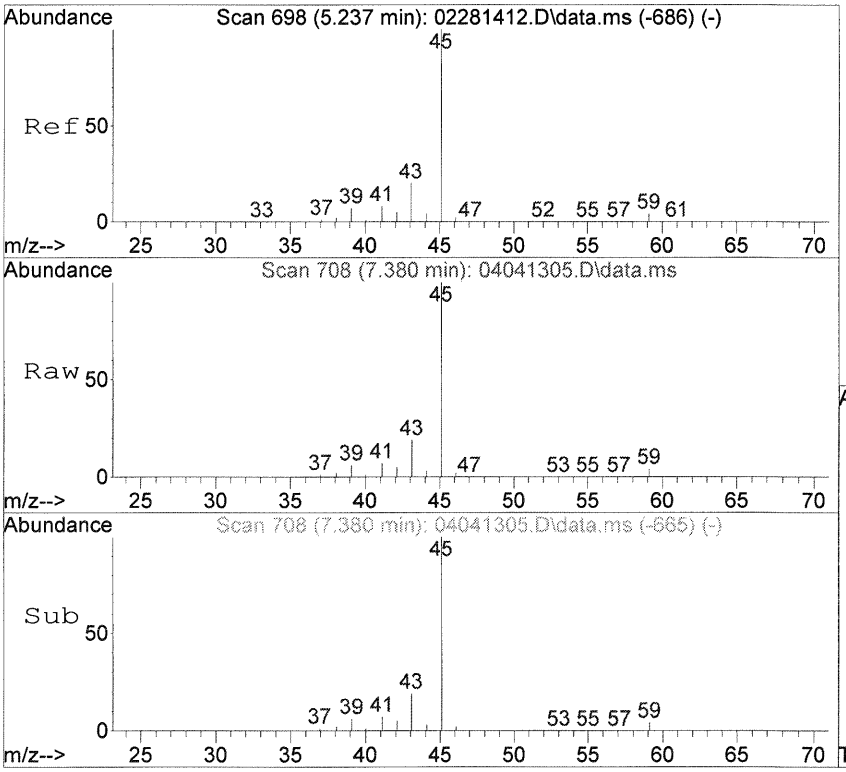


#14
Trichlorofluoromethane
Concen: 4.88 ng
RT: 7.12 min Scan# 661
Delta R.T. -0.011 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion:101 Resp: 136921

Ion	Ratio	Lower	Upper
101	100		
103	64.6	44.9	84.9

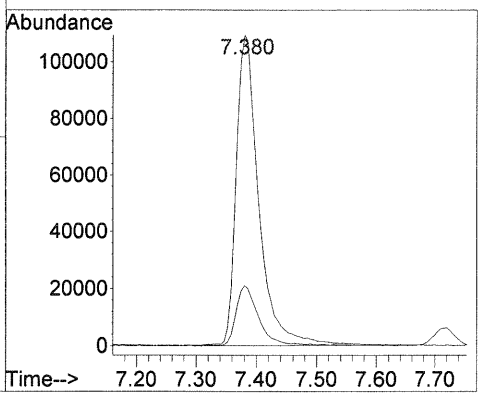


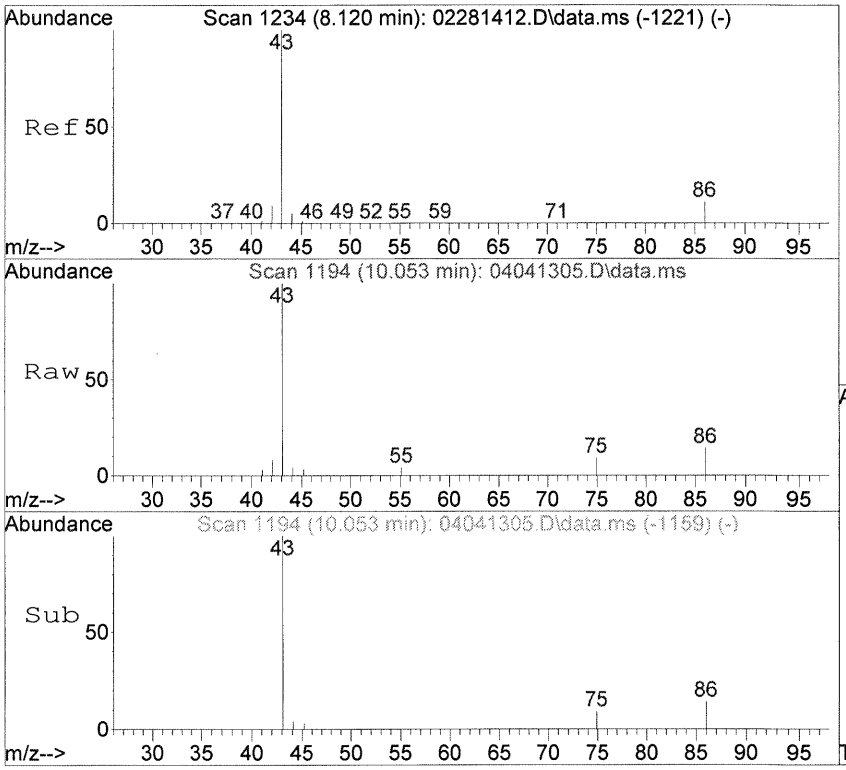


#15
2-Propanol (Isopropanol)
Concen: 7.83 ng
RT: 7.38 min Scan# 708
Delta R.T. -0.011 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 45 Resp: 284922

Ion	Ratio	Lower	Upper
45	100		
43	18.6	0.0	37.8

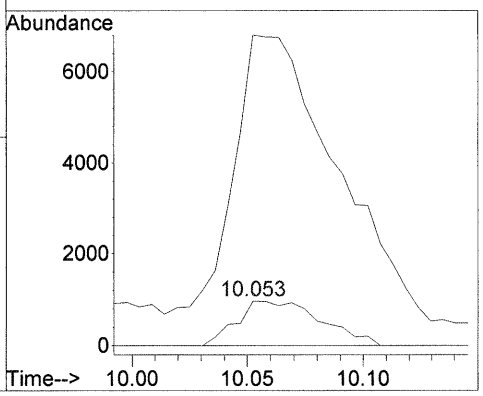


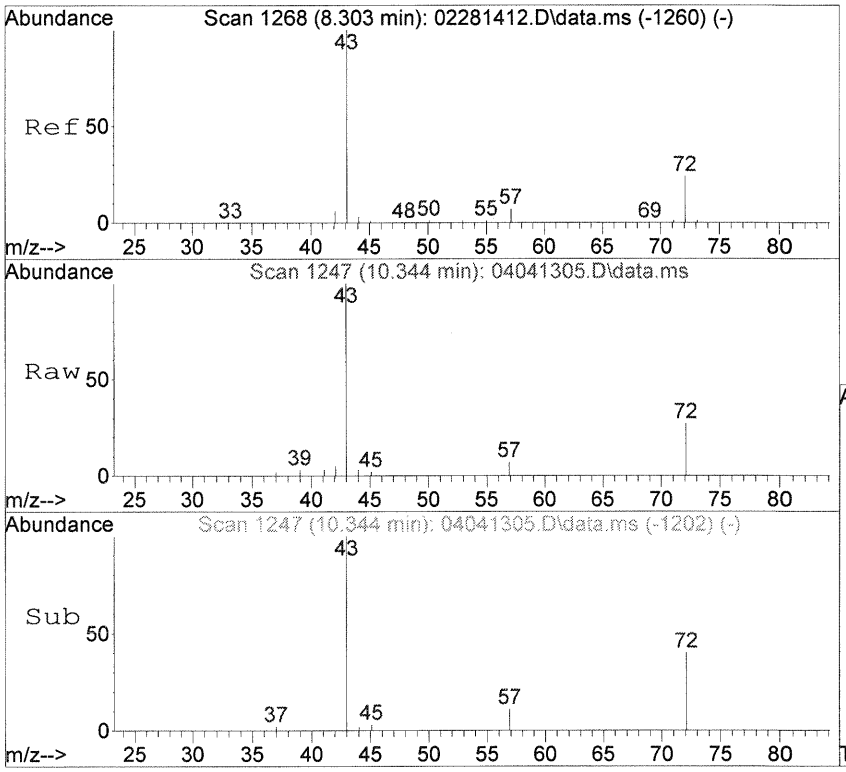


#26
Vinyl Acetate
Concen: 0.78 ng
RT: 10.05 min Scan# 1194
Delta R.T. -0.055 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 86 Resp: 2454

Ion	Ratio	Lower	Upper
86	100		
43	927.7	1142.1	1182.1#

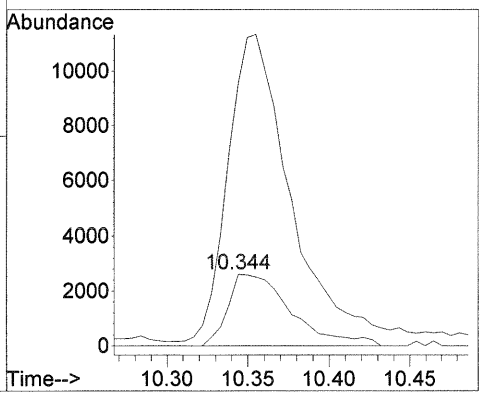


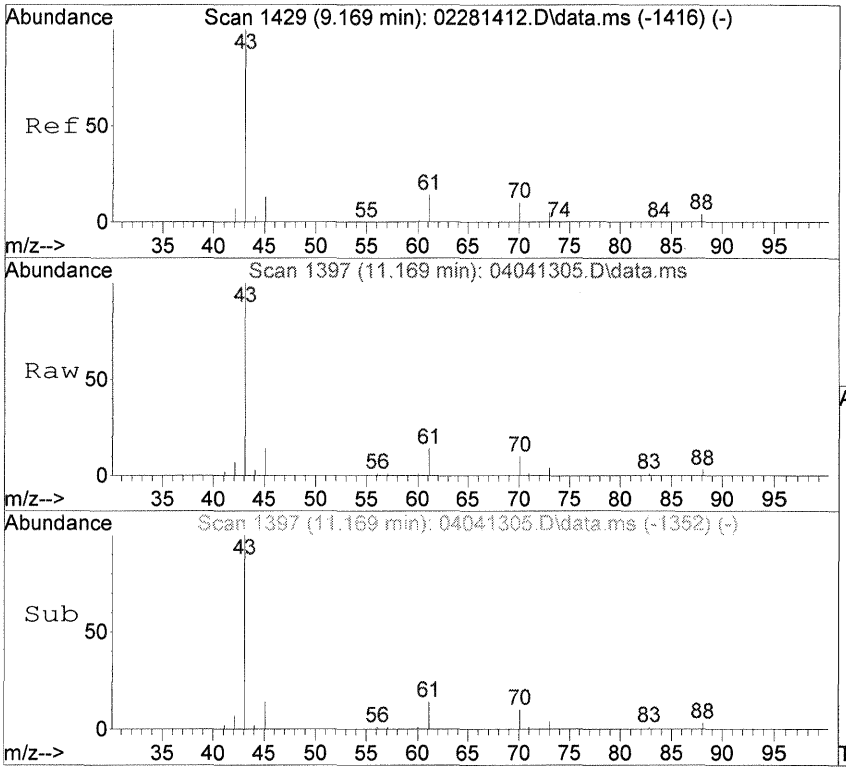


#27
2-Butanone (MEK)
Concen: 0.73 ng
RT: 10.34 min Scan# 1247
Delta R.T. -0.000 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 72 Resp: 7071

Ion	Ratio	Lower	Upper
72	100		
43	439.0	394.5	434.5#

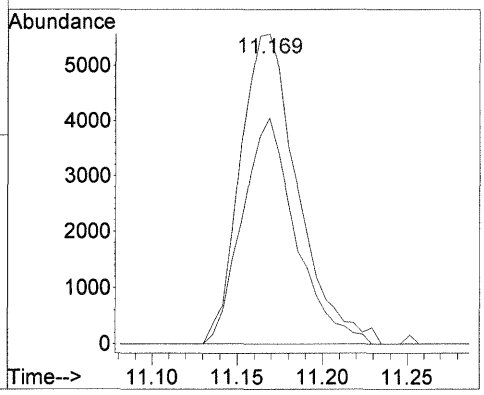


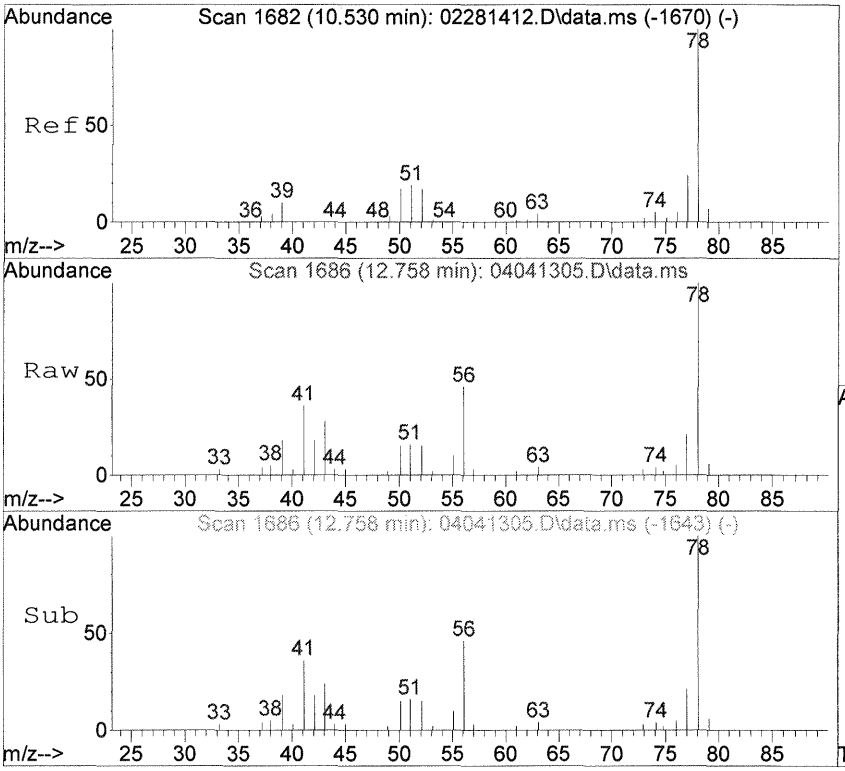


#30
Ethyl Acetate
Concen: 2.79 ng
RT: 11.17 min Scan# 1397
Delta R.T. -0.000 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 61 Resp: 13022

Ion	Ratio	Lower	Upper
61	100		
70	67.4	55.9	95.9

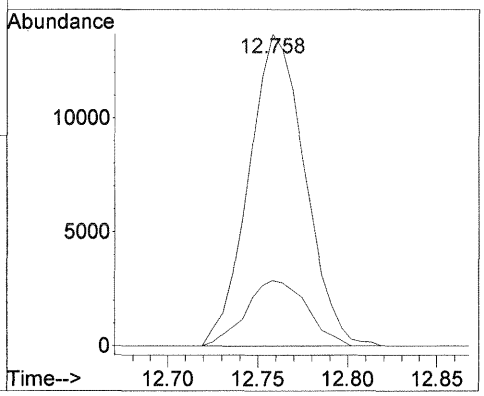




#41
Benzene
Concen: 0.48 ng
RT: 12.76 min Scan# 1686
Delta R.T. -0.011 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 78 Resp: 29702

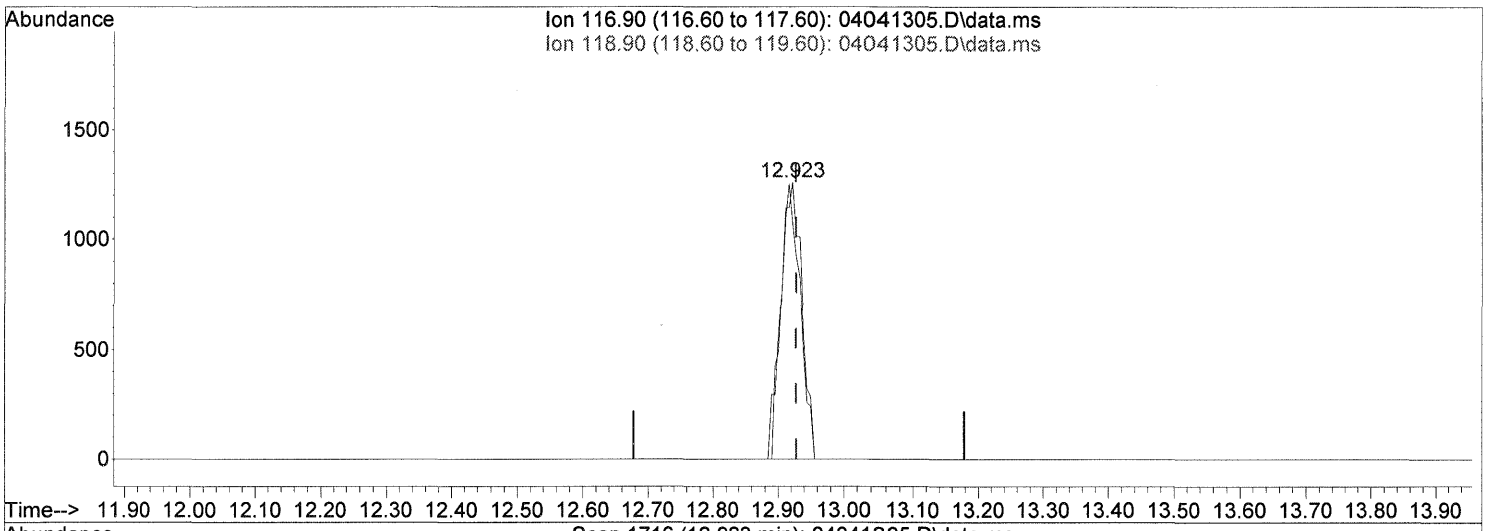
Ion	Ratio	Lower	Upper
78	100		
77	22.9	3.3	43.3

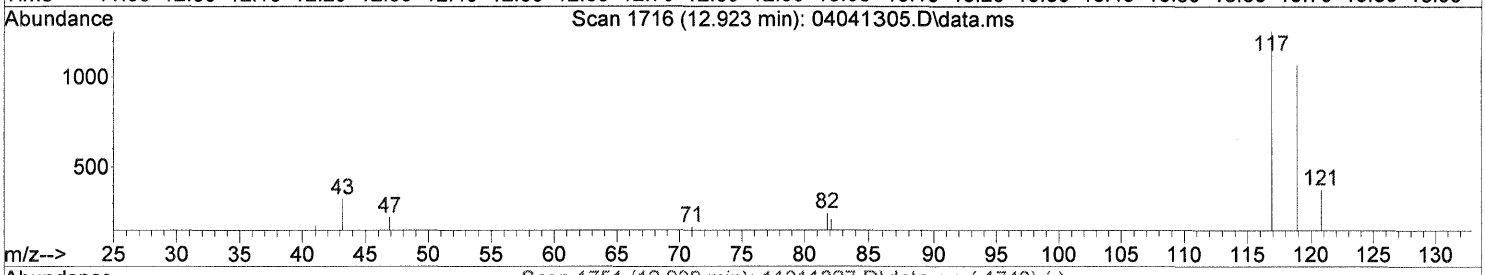


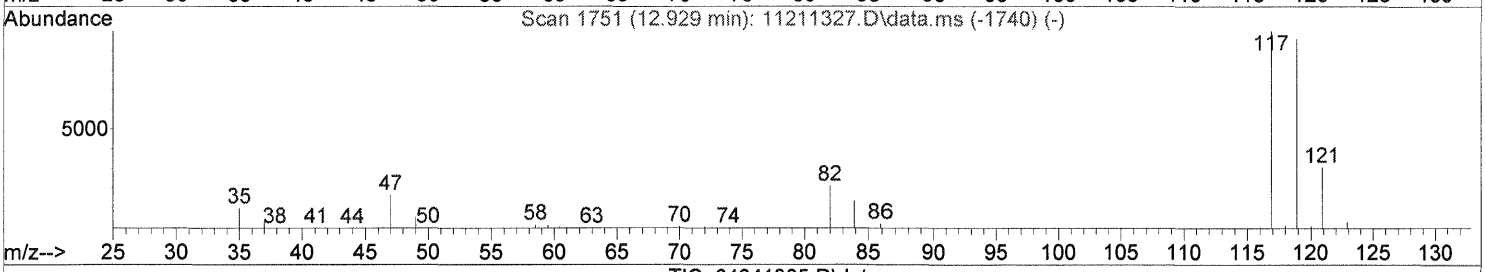
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 13:20:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041305.D\data.ms

(42) Carbon Tetrachloride (T)

12.923min (-0.006) 0.15ng

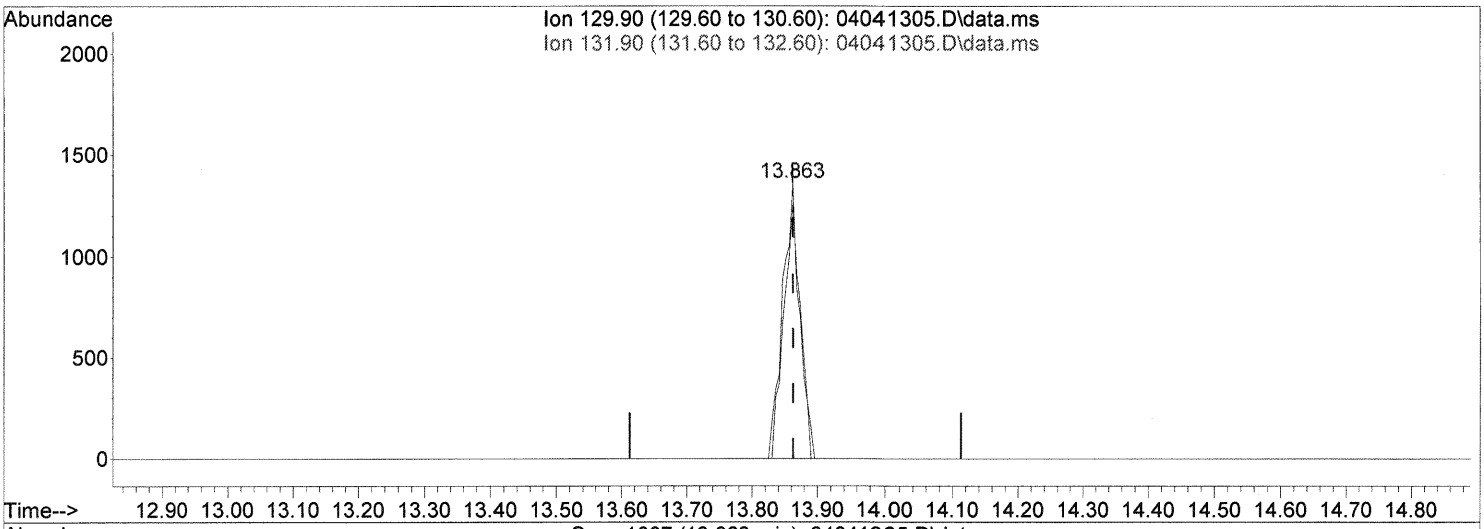
response 2870

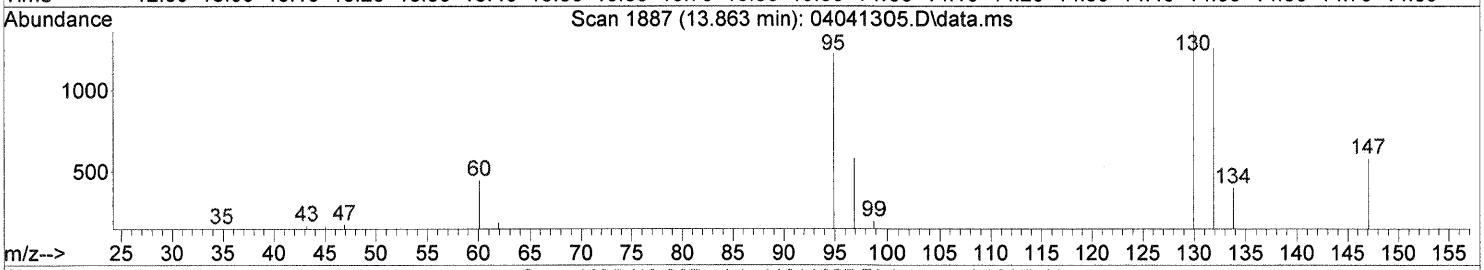
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	90.17
0.00	0.00	0.00
0.00	0.00	0.00

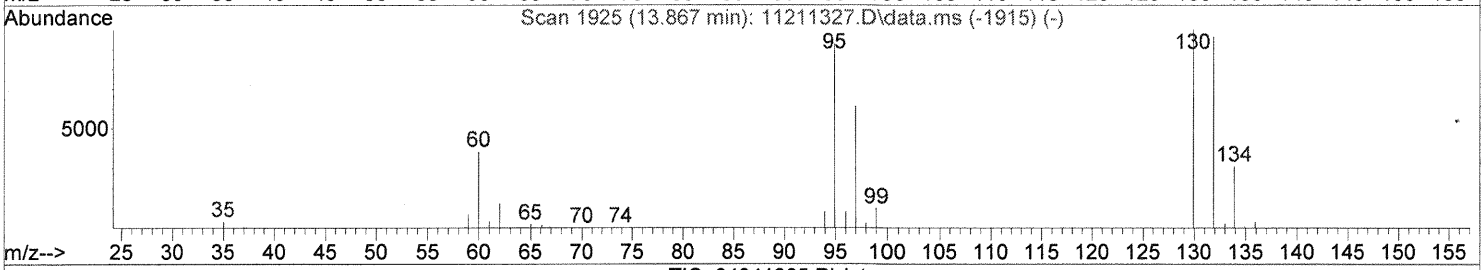
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041305.D
Acq On : 4 Apr 2014 12:18 Operator: EM
Sample : P1401201-001 (1000ml)
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 13:20:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







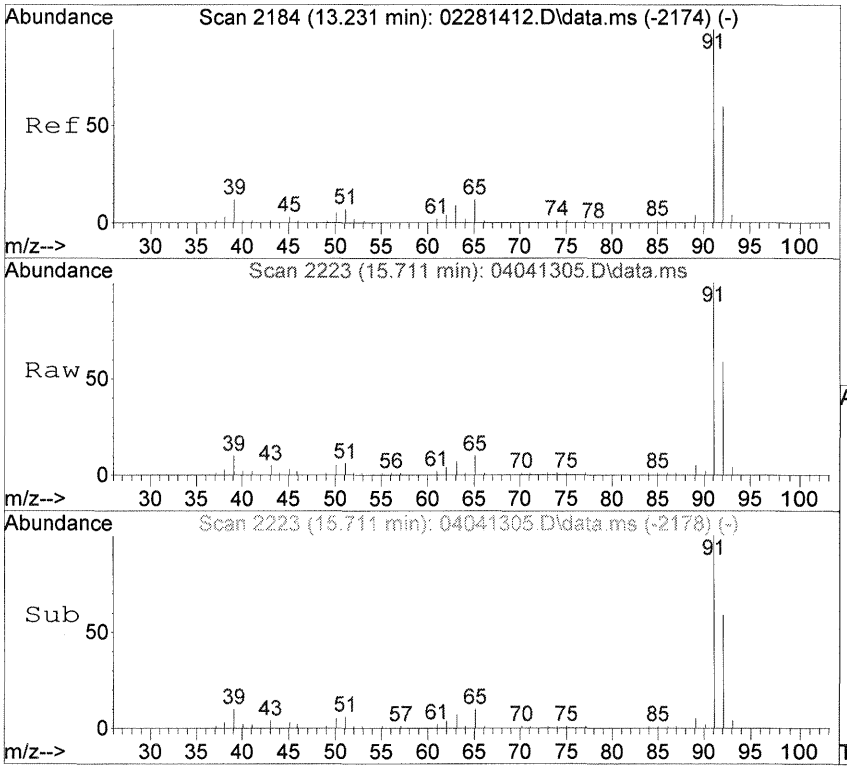
TIC: 04041305.D\data.ms

(47) Trichloroethene (T)

13.863min (-0.000) 0.14ng

response 2460

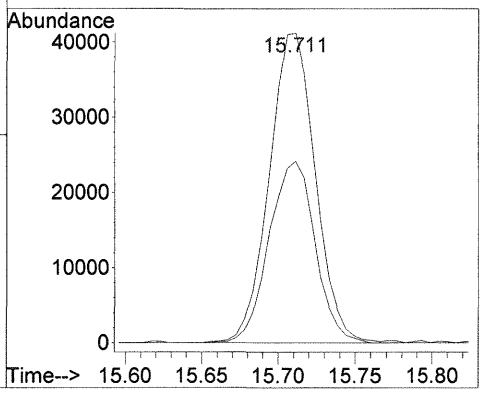
Ion	Exp%	Act%
129.90	100	100
131.90	96.90	94.96
0.00	0.00	0.00
0.00	0.00	0.00

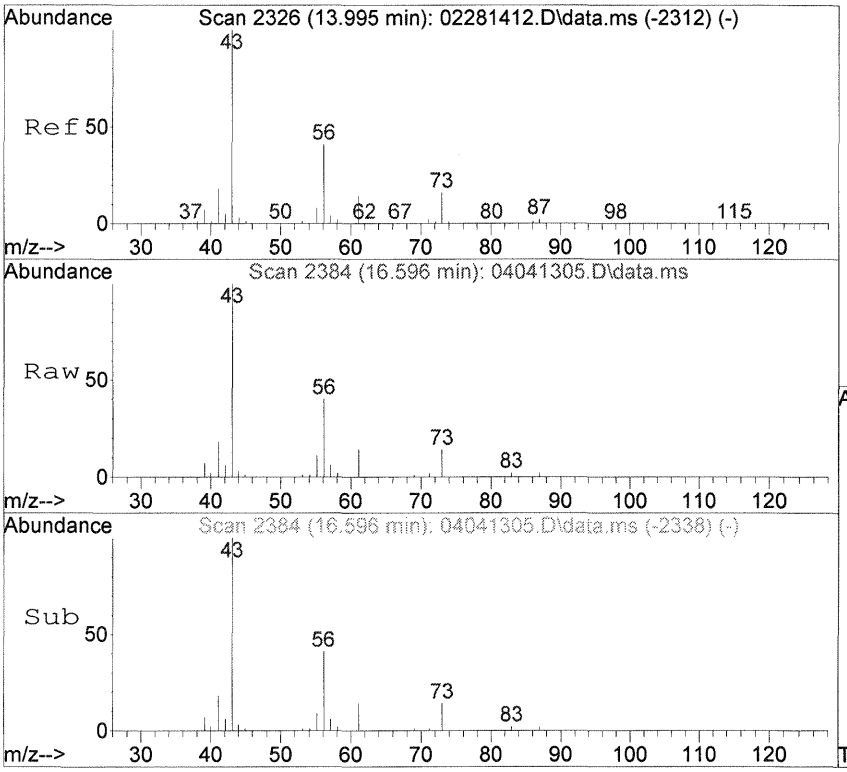


#58
Toluene
Concen: 1.39 ng
RT: 15.71 min Scan# 2223
Delta R.T. -0.000 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 91 Resp: 85902

Ion	Ratio	Lower	Upper
91	100		
92	58.7	39.1	79.1

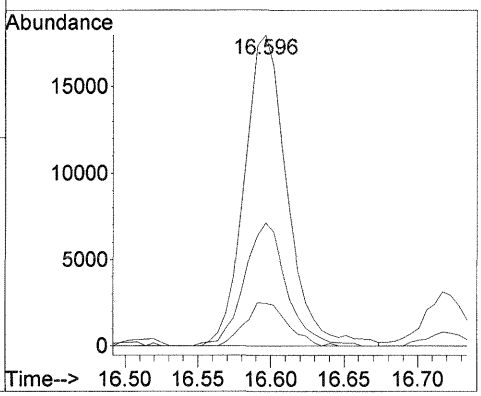


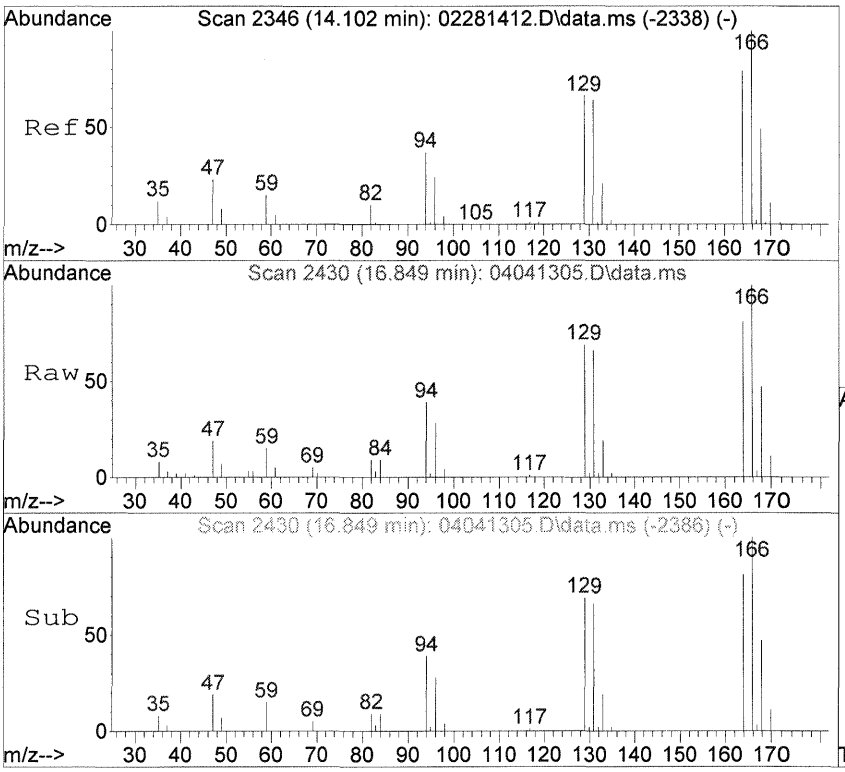


#62
n-Butyl Acetate
Concen: 1.07 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.005 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 43 Resp: 36768

Ion	Ratio	Lower	Upper
43	100		
56	38.9	19.9	59.9
73	13.7	0.0	34.1

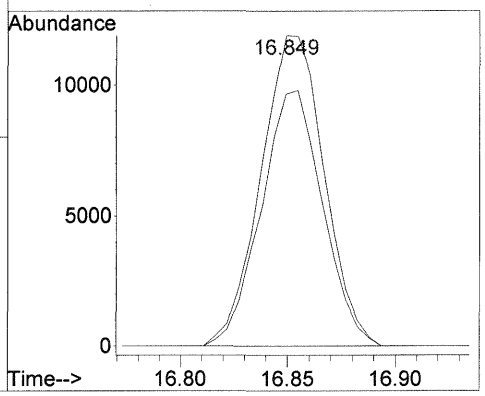


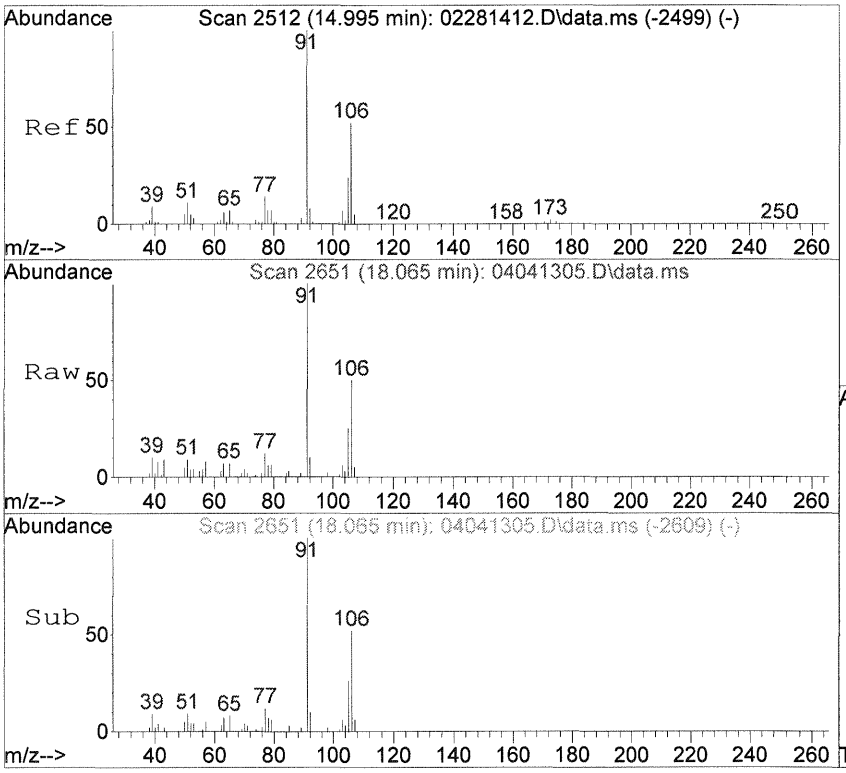


#64
Tetrachloroethene
Concen: 1.27 ng
RT: 16.85 min Scan# 2430
Delta R.T. -0.006 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion:166 Resp: 24360

Ion	Ratio	Lower	Upper
166	100		
164	79.7	57.8	97.8

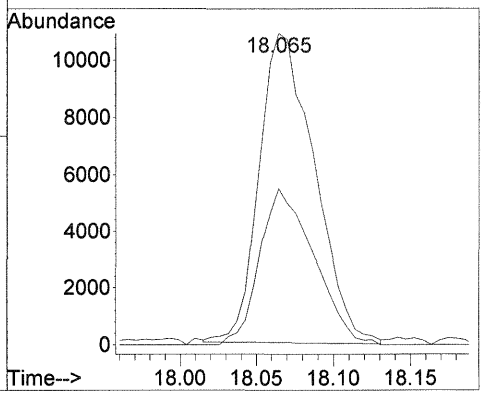


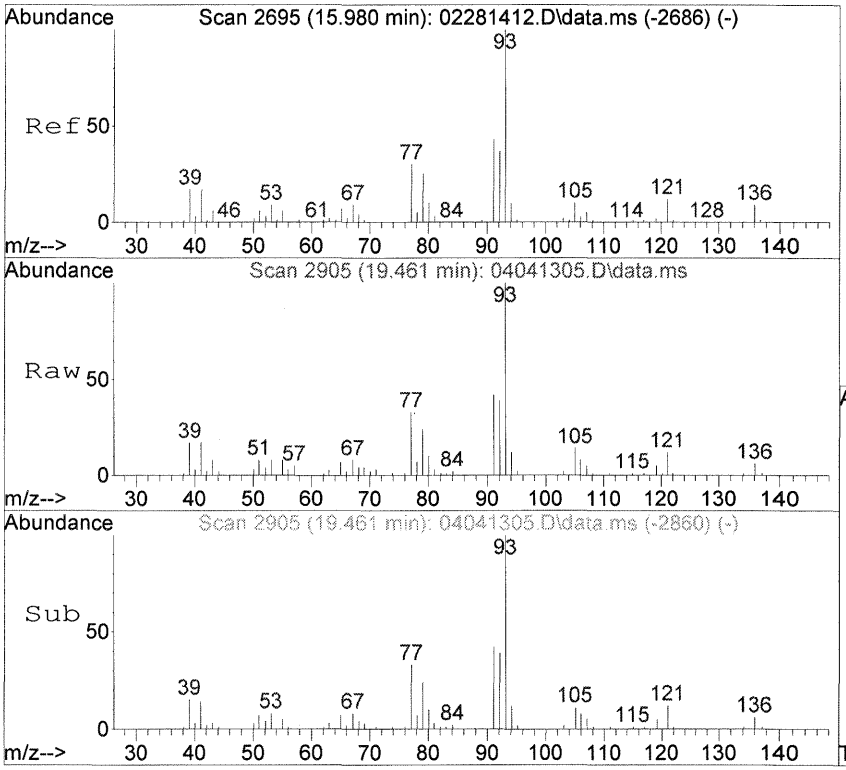


#67
m- & p-Xylenes
Concen: 0.49 ng
RT: 18.06 min Scan# 2651
Delta R.T. -0.017 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 91 Resp: 27247

Ion	Ratio	Lower	Upper
91	100		
106	49.5	29.6	69.6

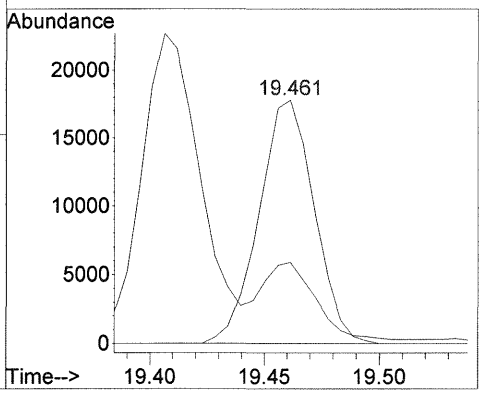


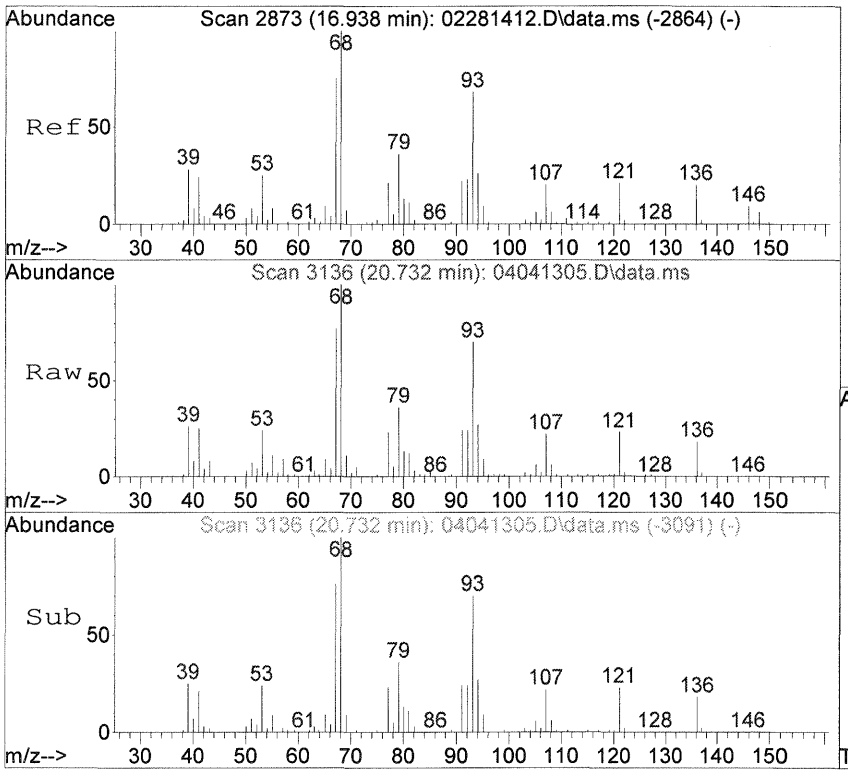


#75
alpha-Pinene
Concen: 0.85 ng
RT: 19.46 min Scan# 2905
Delta R.T. -0.000 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 93 Resp: 29879

Ion	Ratio	Lower	Upper
93	100		
77	34.5	9.1	49.1

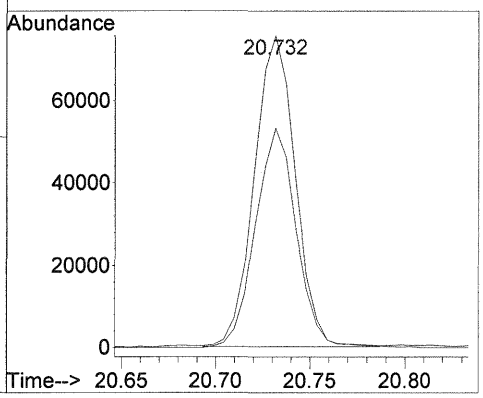




#91
d-Limonene
Concen: 5.44 ng
RT: 20.73 min Scan# 3136
Delta R.T. -0.000 min
Lab File: 04041305.D
Acq: 4 Apr 2014 12:18

Tgt Ion: 68 Resp: 115081

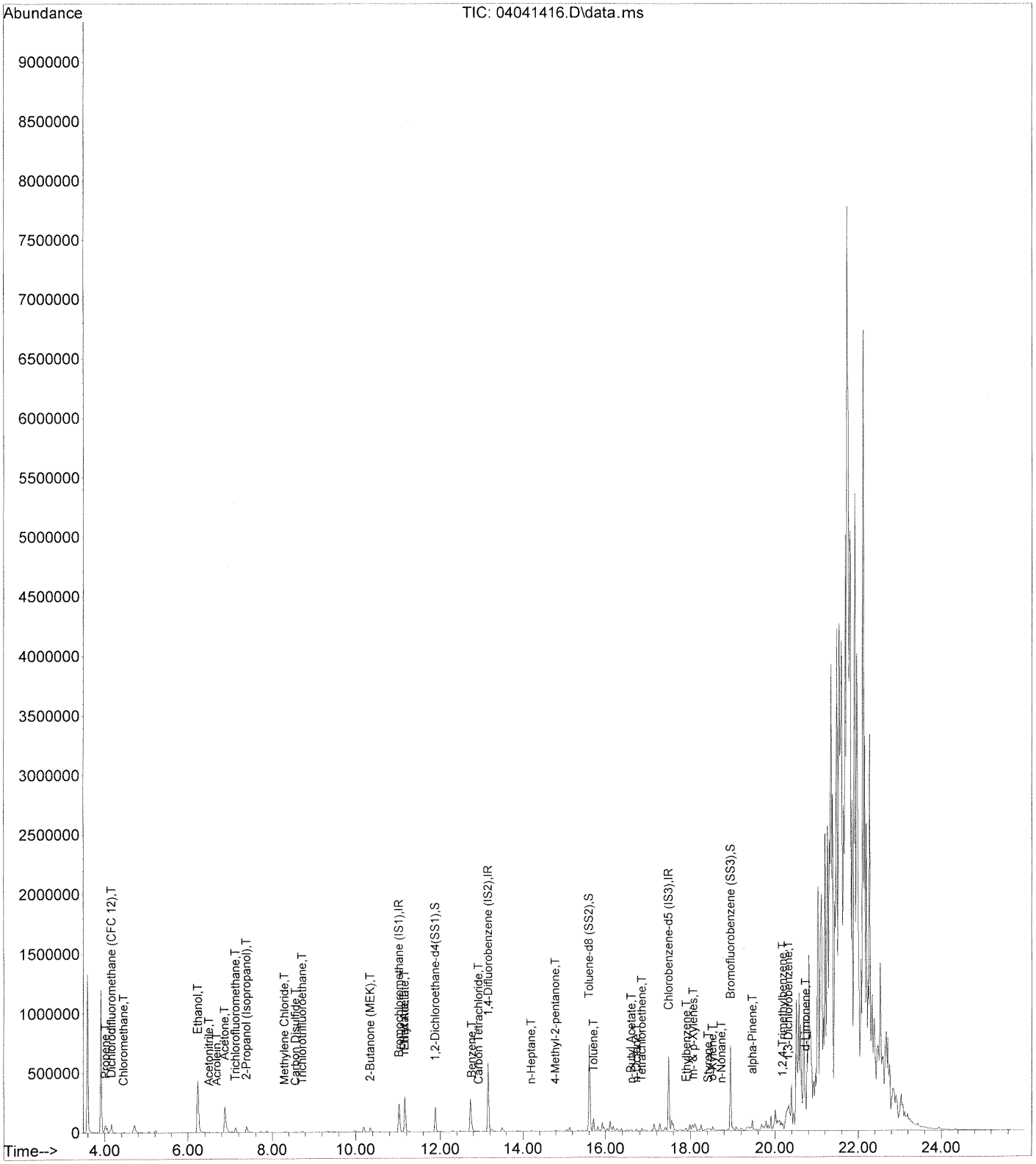
Ion	Ratio	Lower	Upper
68	100		
93	70.7	50.9	90.9



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2014_04\04\04041416.D Vial: 2
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 09:59:59 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2014_04\04\04041416.D Vial: 2
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 09:59:59 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

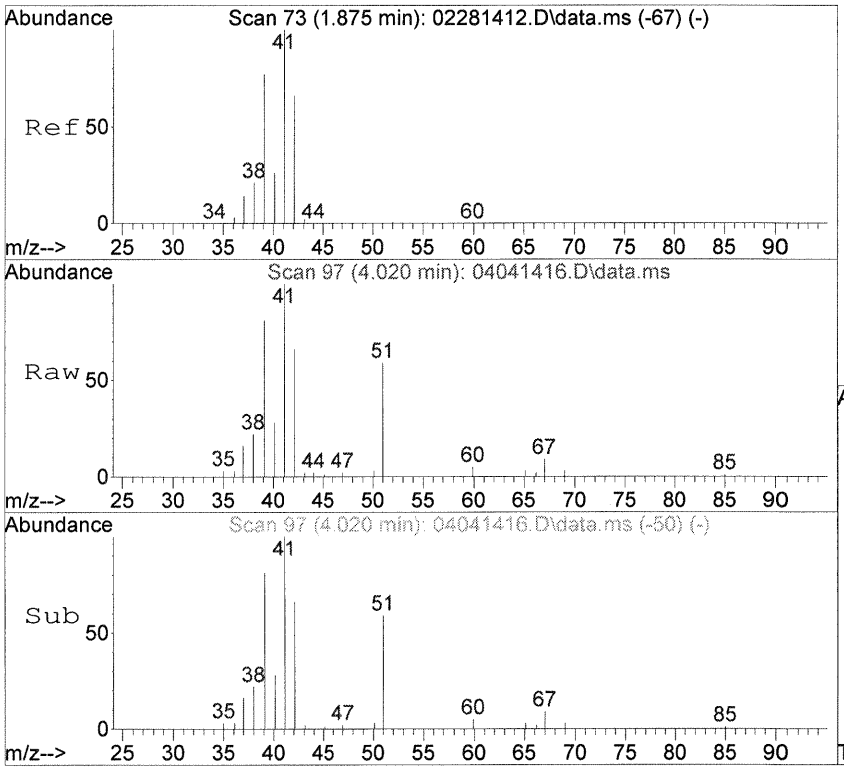
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	108707	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	552588	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	223080	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	168377	13.876	ng		-0.01
Spiked Amount 12.500			Recovery =	111.04%			
57) Toluene-d8 (SS2)	15.61	98	558349	12.034	ng		0.00
Spiked Amount 12.500			Recovery =	96.24%			
73) Bromofluorobenzene (SS3)	18.95	174	245225	12.781	ng		0.00
Spiked Amount 12.500			Recovery =	102.24%			
Target Compounds							Qvalue
2) Propene	4.02	42	16835m	1.043	ng		
3) Dichlorodifluoromethan...	4.16	85	54875	1.751	ng		99
4) Chloromethane	4.45	50	6006	0.284	ng		92
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	900	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.14	54	219	N.D.			
8) Bromomethane	5.55	94	521	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.23	45	716585	72.792	ng		99
11) Acetonitrile	6.49	41	2618	0.094	ng	#	65
12) Acrolein	6.68	56	5019	0.573	ng		94
13) Acetone	6.87	58	102985m	9.523	ng		
14) Trichlorofluoromethane	7.13	101	44130	1.643	ng		100
15) 2-Propanol (Isopropanol)	7.38	45	104607	3.000	ng		98
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	8.30	84	4326	0.287	ng		98
20) 3-Chloro-1-propene (Al...	8.40	41	193	N.D.			
21) Trichlorotrifluoroethane	8.73	151	5702	0.437	ng		96
22) Carbon Disulfide	8.57	76	5499	0.103	ng		89
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	10.07	86	55	N.D.			
27) 2-Butanone (MEK)	10.35	72	15201	1.632	ng		99
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	11.16	87	785	N.D.			
30) Ethyl Acetate	11.16	61	57562	12.895	ng		96
31) n-Hexane	11.15	57	2187	0.106	ng	#	89
32) Chloroform	11.20	83	1169	N.D.			
34) Tetrahydrofuran (THF)	11.68	72	118	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	12.01	62	568	N.D.			
38) 1,1,1-Trichloroethane	12.29	97	104	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.	d		
41) Benzene	12.76	78	24370	0.405	ng		100
42) Carbon Tetrachloride	12.92	117	3236	0.173	ng		100
43) Cyclohexane	13.05	84	497	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			

Data File : I:\MS13\DATA\2014_04\04\04041416.D Vial: 2
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 09:59:59 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
47) Trichloroethene	13.86	130	818	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	13.93	57	3451	N.D.		
50) Methyl Methacrylate	14.20	100	291	N.D.		
51) n-Heptane	14.19	71	1937	0.148 ng		93
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.79	58	2177	0.177 ng	#	71
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	92415	1.532 ng		99
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	5192	0.155 ng	#	39
63) n-Octane	16.72	57	3885	0.320 ng		95
64) Tetrachloroethene	16.85	166	6269	0.337 ng		90
65) Chlorobenzene	17.54	112	318	N.D.		
66) Ethylbenzene	17.91	91	9580	0.143 ng		98
67) m- & p-Xylenes	18.06	91	25065	0.467 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	18.42	104	4611	0.117 ng		96
70) o-Xylene	18.52	91	9574	0.175 ng		97
71) n-Nonane	18.74	43	4253	0.143 ng		96
72) 1,1,2,2-Tetrachloroethane	18.49	83	52	N.D.		
74) Cumene	19.09	105	1140	N.D.		
75) alpha-Pinene	19.46	93	29759	0.872 ng		93
76) n-Propylbenzene	19.57	91	2536	N.D.		
77) 3-Ethyltoluene	19.66	105	5586	N.D.		
78) 4-Ethyltoluene	19.71	105	2942	N.D.		
79) 1,3,5-Trimethylbenzene	19.78	105	2616	N.D.		
80) alpha-Methylstyrene	19.93	118	689	N.D.		
81) 2-Ethyltoluene	19.96	105	2095	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	7091	0.125 ng		86
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.30	91	270	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	5421	0.163 ng		99
86) 1,4-Dichlorobenzene	20.39	146	255	N.D.		
87) sec-Butylbenzene	20.44	105	405	N.D.		
88) 4-Isopropyltoluene (p-...	20.59	119	5538	N.D.		
89) 1,2,3-Trimethylbenzene	20.59	105	3164	N.D.		
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	20.73	68	33235	1.615 ng		93
92) 1,2-Dibromo-3-Chloropr...	21.11	157	115	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	22.52	128	4019	N.D.		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	18.18	55	400	N.D.		
99) tert-Butylbenzene	20.18	119	735	N.D.		
100) n-Butylbenzene	21.01	91	1591	N.D.		

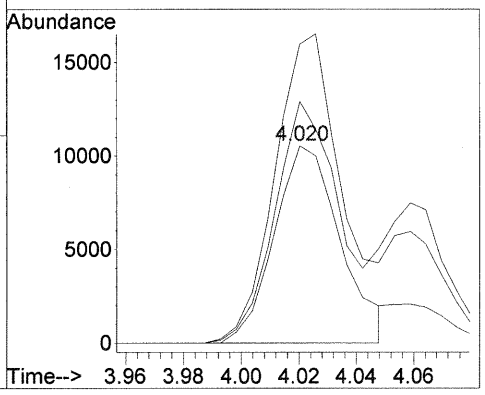
(#) = qualifier out of range (m) = manual integration (+) = signals summed

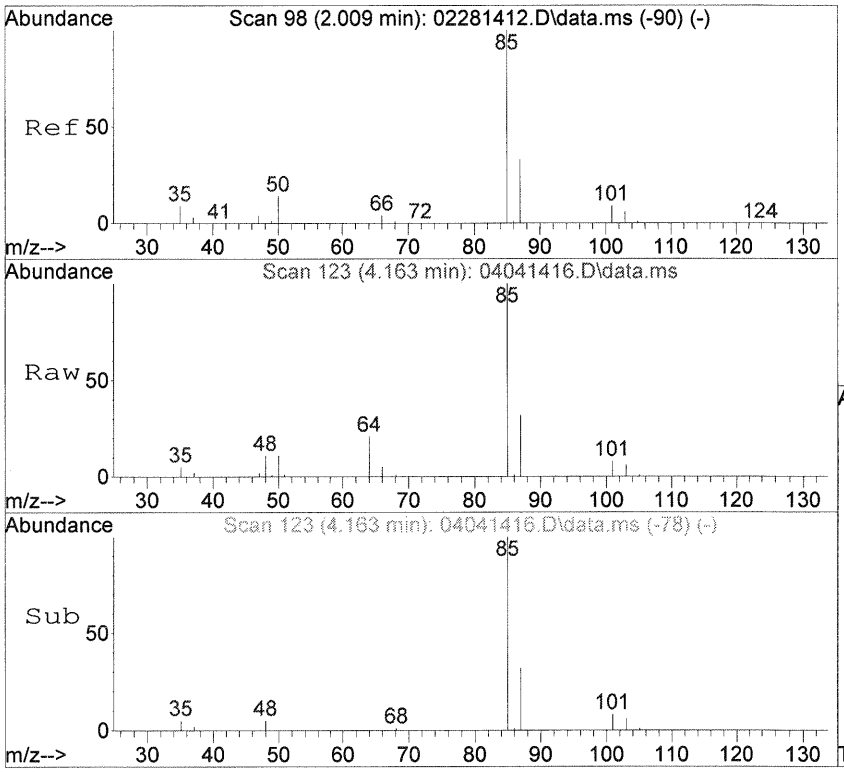


#2
Propene
Concen: 1.04 ng m
RT: 4.02 min Scan# 97
Delta R.T. 0.011 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 42 Resp: 16835

Ion	Ratio	Lower	Upper
42	100		
39	118.2	92.6	132.6
41	160.1	132.6	172.6

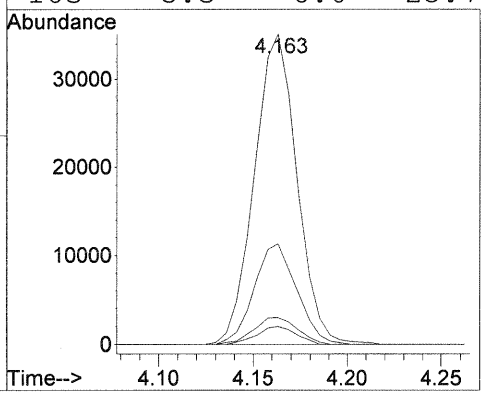


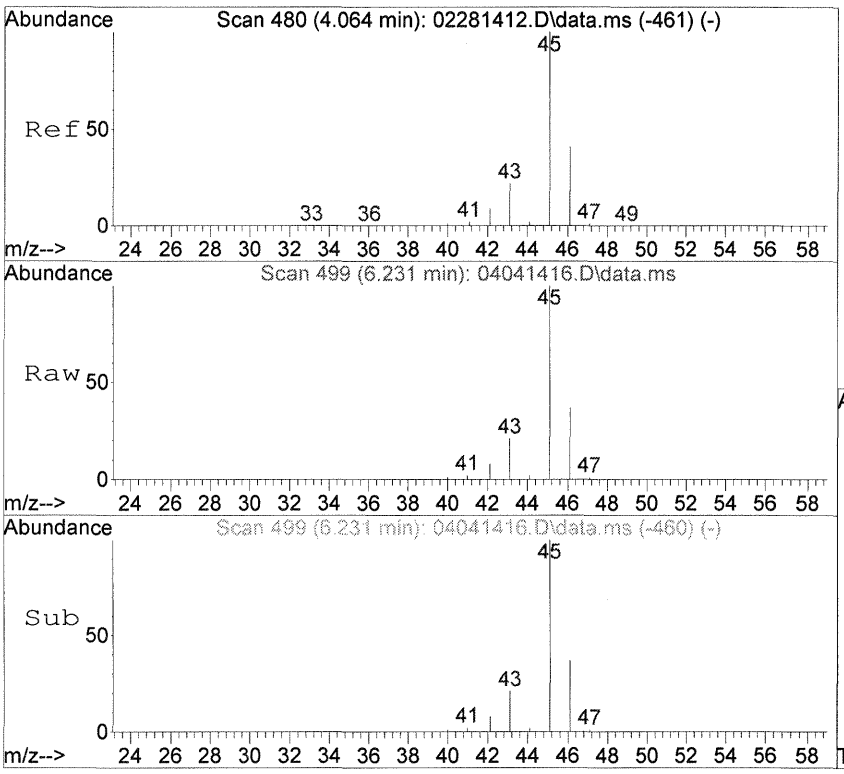


#3
Dichlorodifluoromethane (CFC 1
Concen: 1.75 ng
RT: 4.16 min Scan# 123
Delta R.T. 0.000 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 85 Resp: 54875

Ion	Ratio	Lower	Upper
85	100		
87	32.1	12.6	52.6
101	8.8	0.0	28.9
103	5.3	0.0	25.7

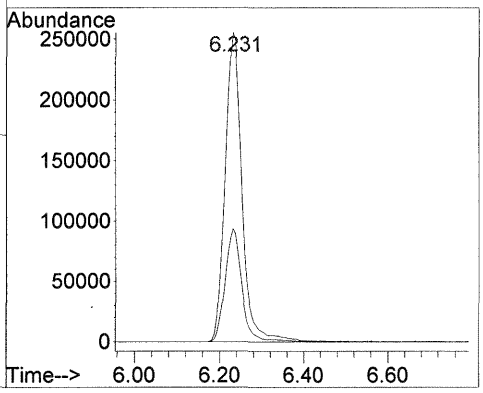


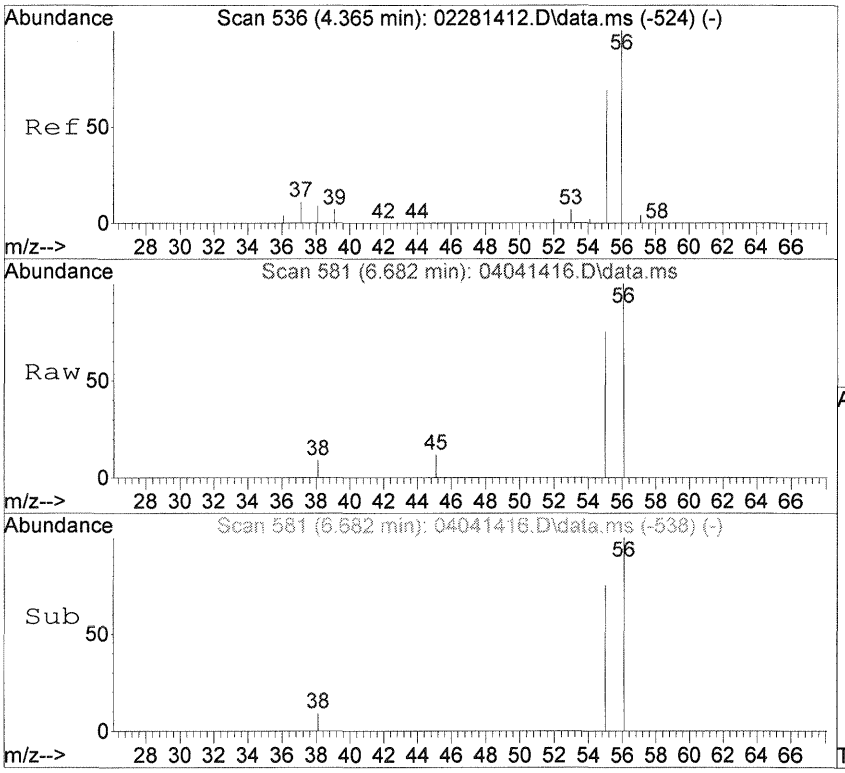


#10
Ethanol
Concen: 72.79 ng
RT: 6.23 min Scan# 499
Delta R.T. -0.033 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 45 Resp: 716585

Ion	Ratio	Lower	Upper
45	100		
46	36.2	16.5	56.5

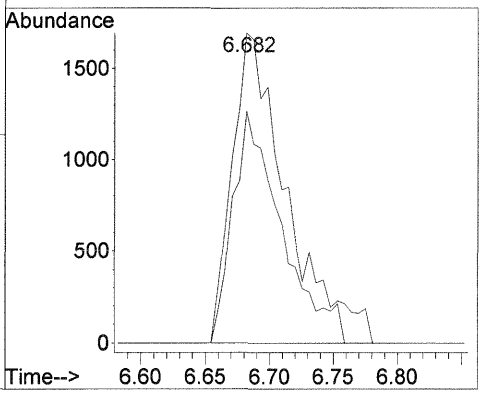


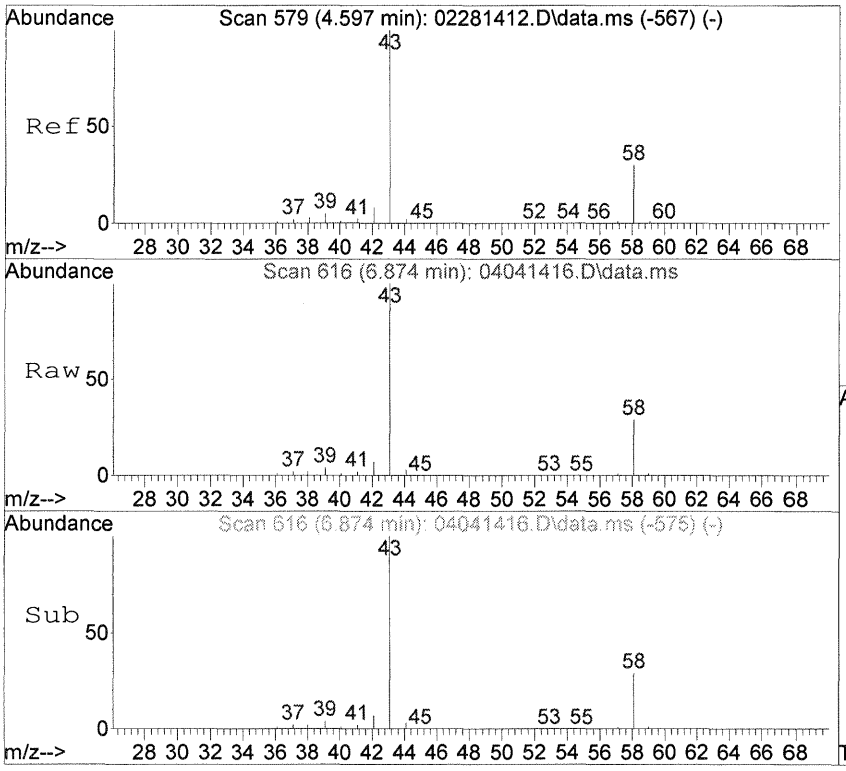


#12
Acrolein
Concen: 0.57 ng
RT: 6.68 min Scan# 581
Delta R.T. -0.011 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 56 Resp: 5019

Ion	Ratio	Lower	Upper
56	100		
55	65.1	49.9	89.9

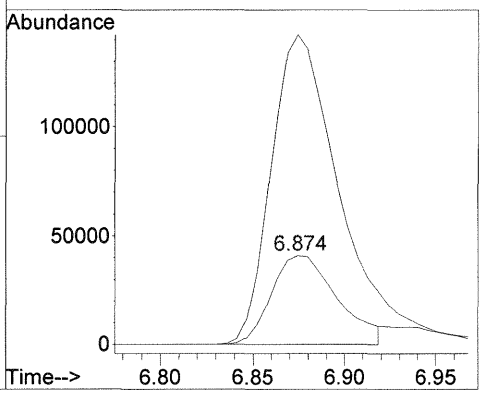


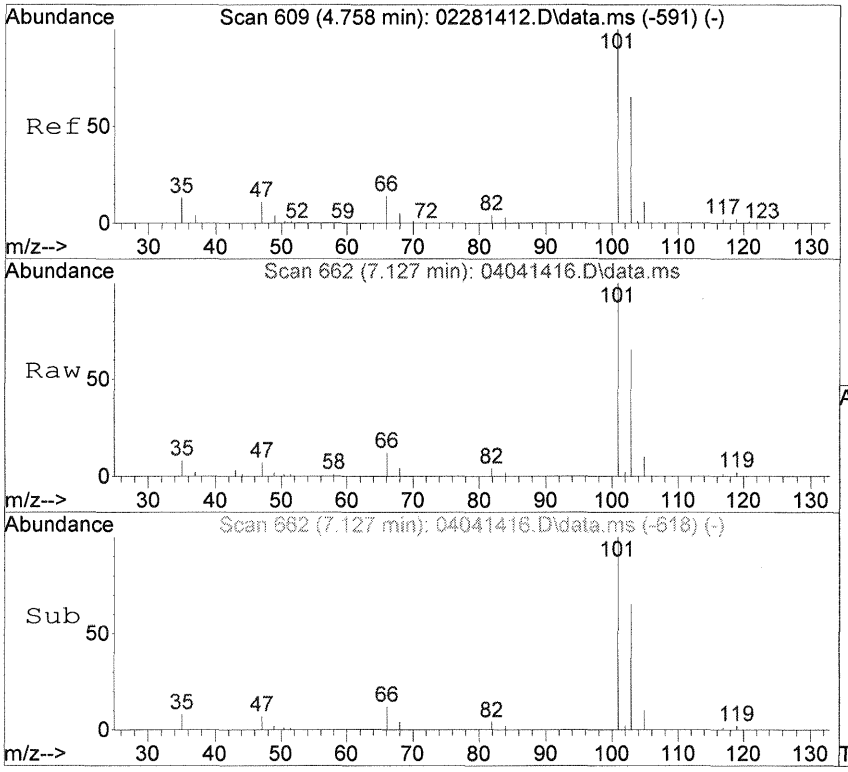


#13
Acetone
Concen: 9.52 ng m
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 58 Resp: 102985

Ion	Ratio	Lower	Upper
58	100		
43	379.2	288.8	348.8#

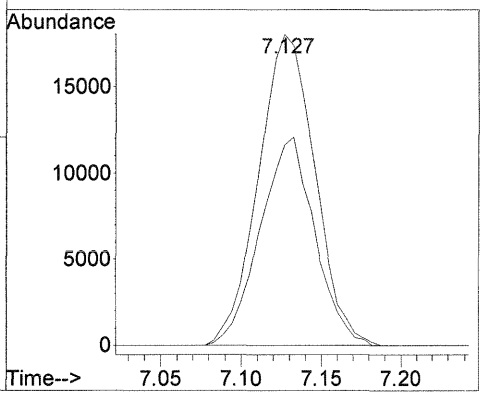


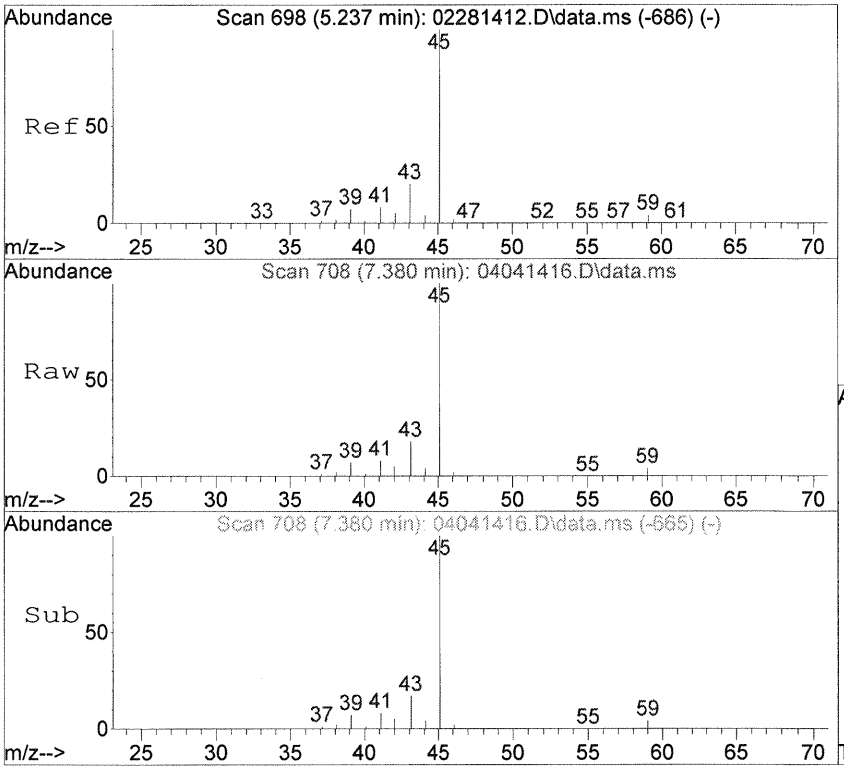


#14
Trichlorofluoromethane
Concen: 1.64 ng
RT: 7.13 min Scan# 662
Delta R.T. -0.005 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion:101 Resp: 44130

Ion	Ratio	Lower	Upper
101	100		
103	64.9	44.9	84.9

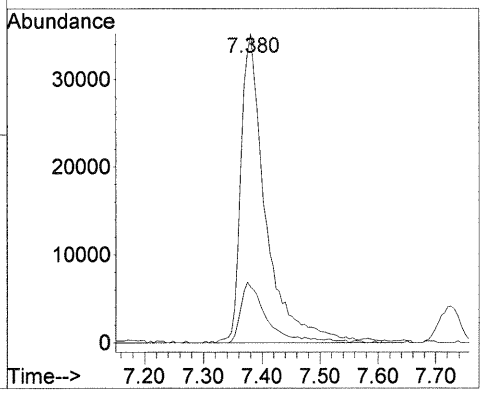


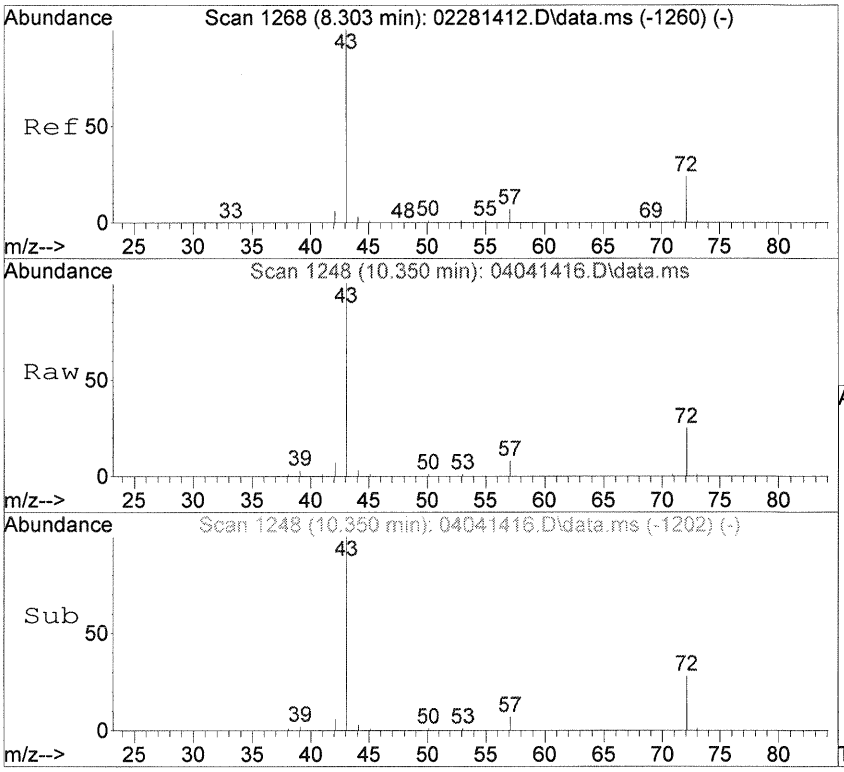


#15
2-Propanol (Isopropanol)
Concen: 3.00 ng
RT: 7.38 min Scan# 708
Delta R.T. -0.011 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 45 Resp: 104607

Ion	Ratio	Lower	Upper
45	100		
43	18.9	0.0	37.8

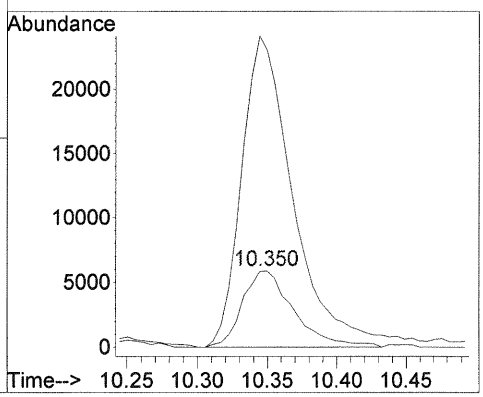




#27
2-Butanone (MEK)
Concen: 1.63 ng
RT: 10.35 min Scan# 1248
Delta R.T. 0.006 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 72 Resp: 15201

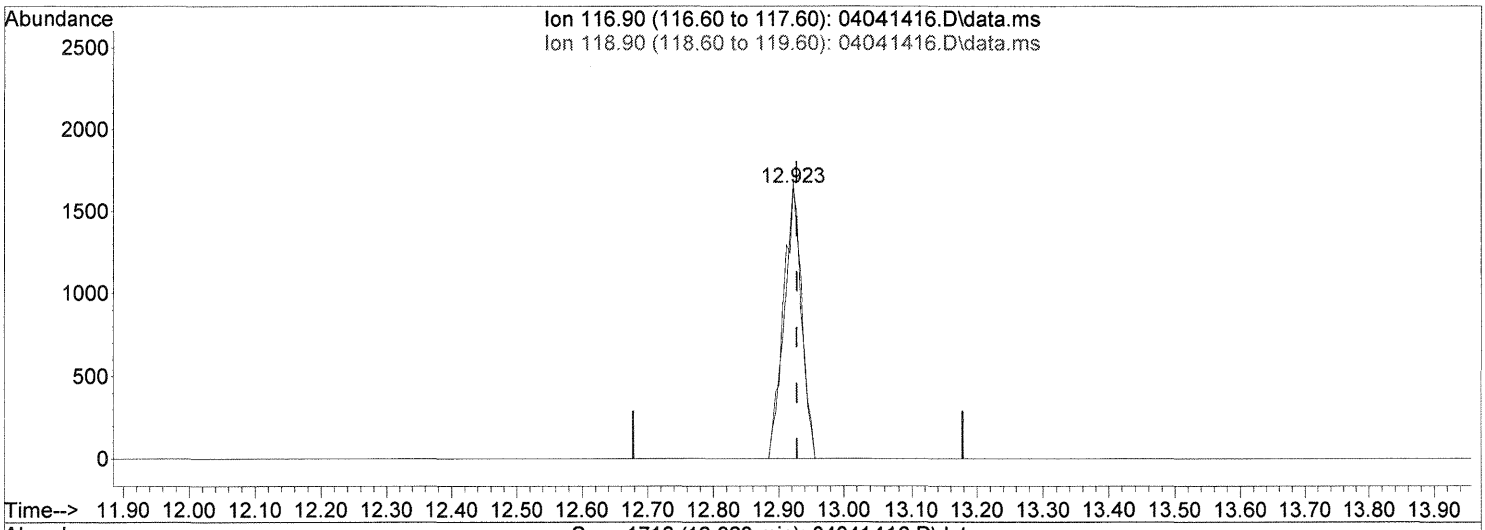
Ion	Ratio	Lower	Upper
72	100		
43	416.9	394.5	434.5

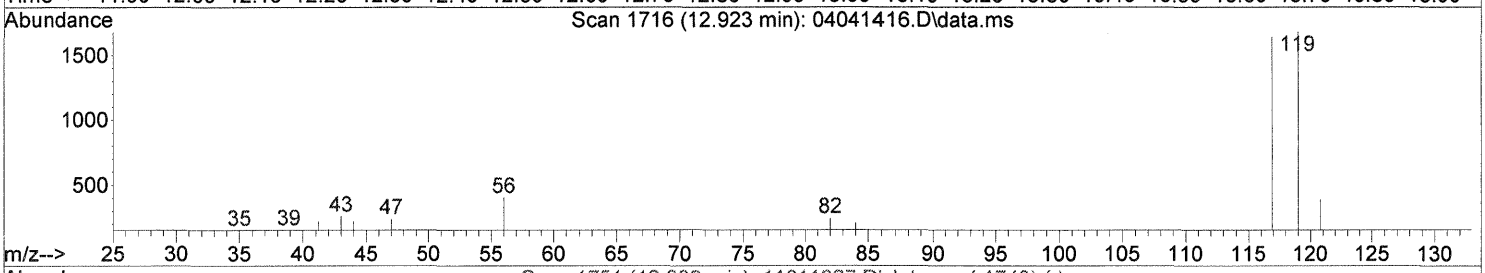


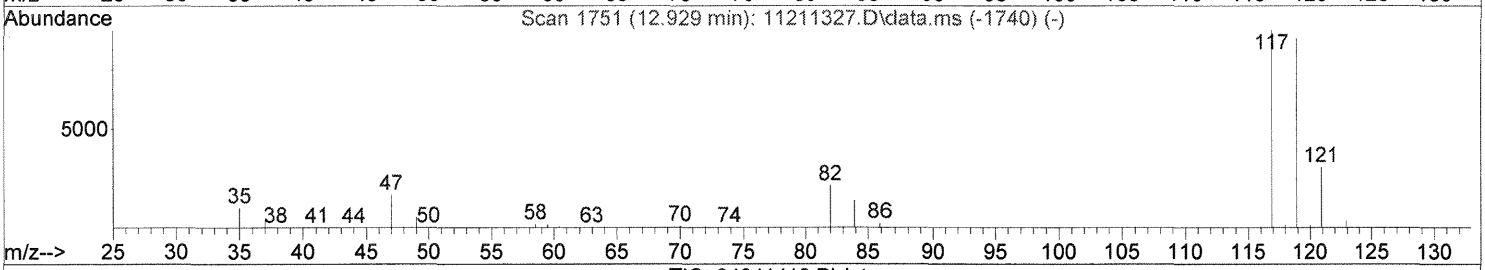
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041416.D
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml)
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 08:04:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







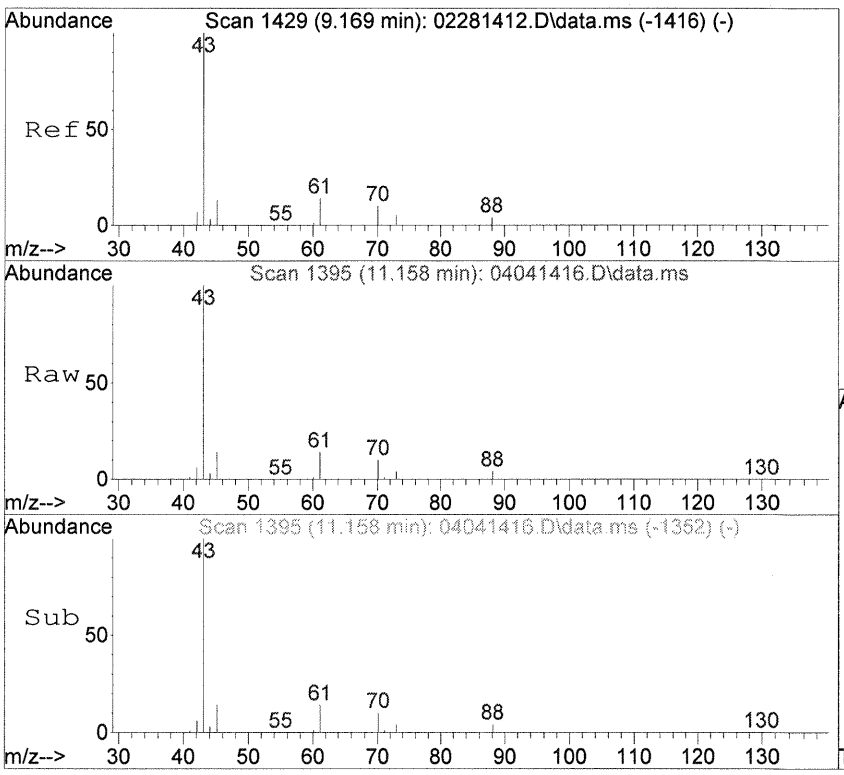
TIC: 04041416.D\data.ms

(42) Carbon Tetrachloride (T)

12.923min (-0.005) 0.17ng

response 3236

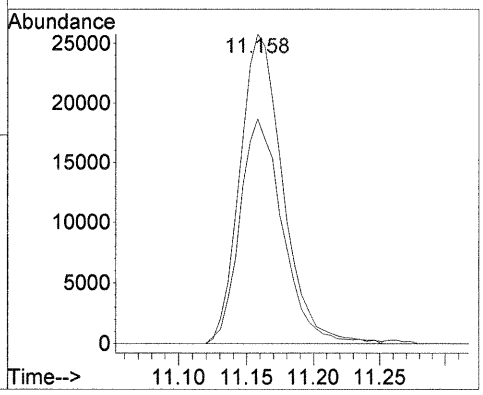
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	96.26
0.00	0.00	0.00
0.00	0.00	0.00

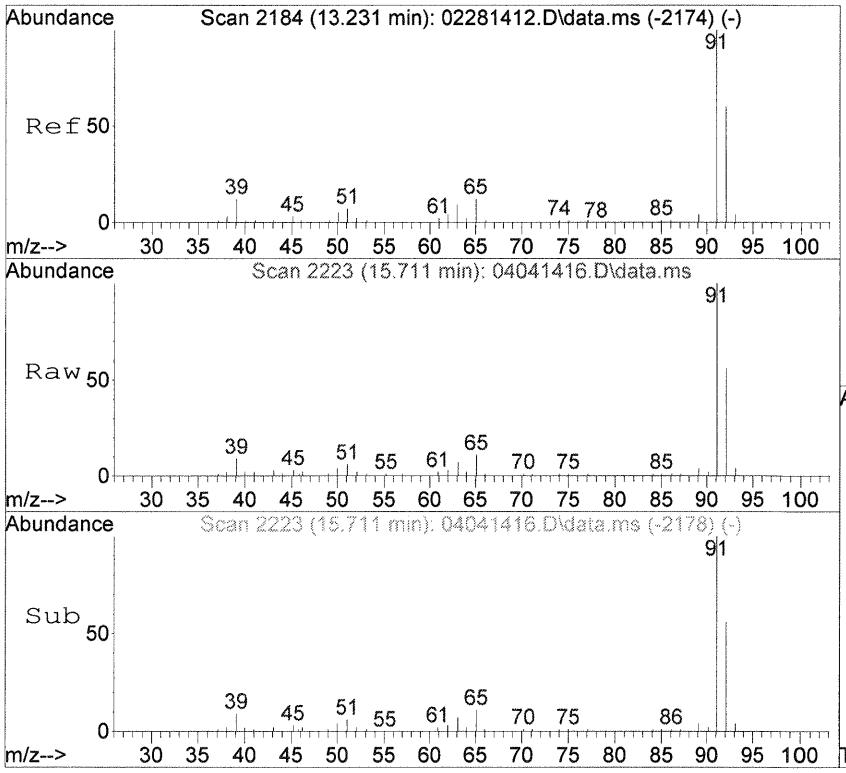


#30
Ethyl Acetate
Concen: 12.90 ng
RT: 11.16 min Scan# 1395
Delta R.T. -0.011 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 61 Resp: 57562

Ion	Ratio	Lower	Upper
61	100		
70	72.3	55.9	95.9

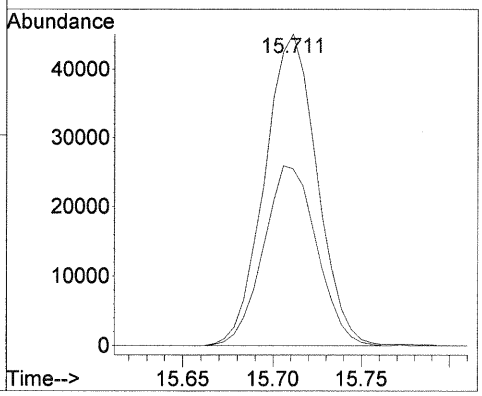


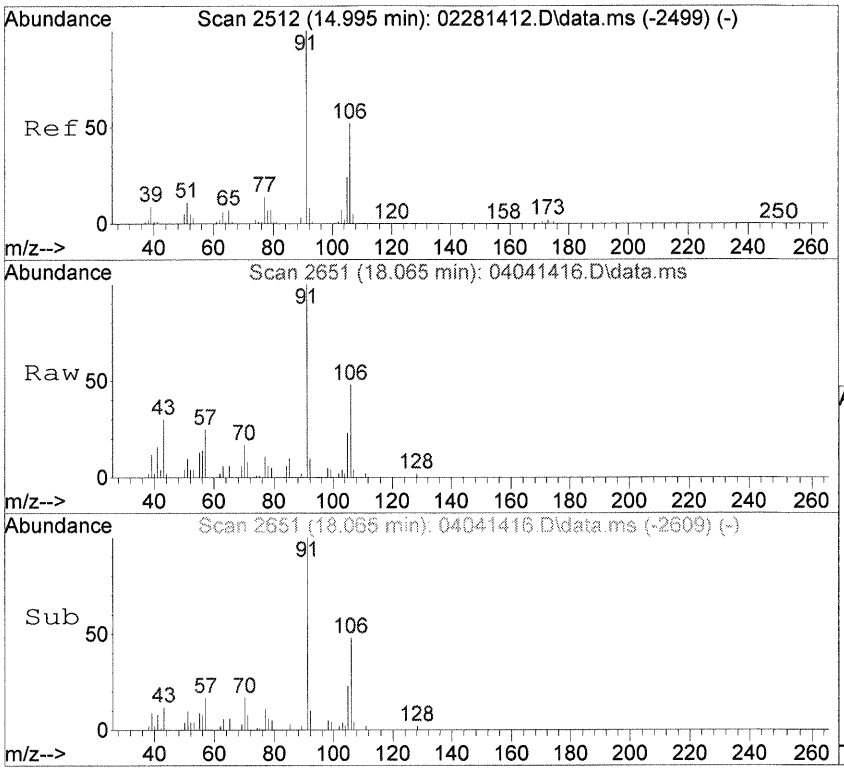


#58
Toluene
Concen: 1.53 ng
RT: 15.71 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 91 Resp: 92415

Ion	Ratio	Lower	Upper
91	100		
92	58.5	39.1	79.1

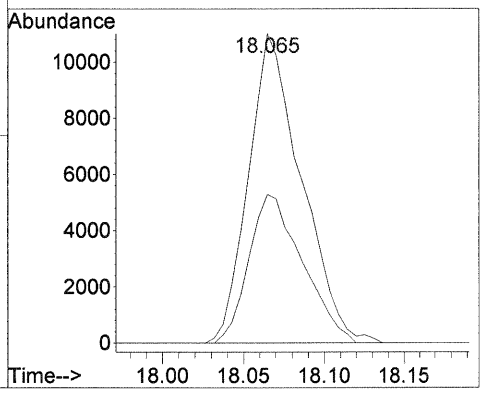


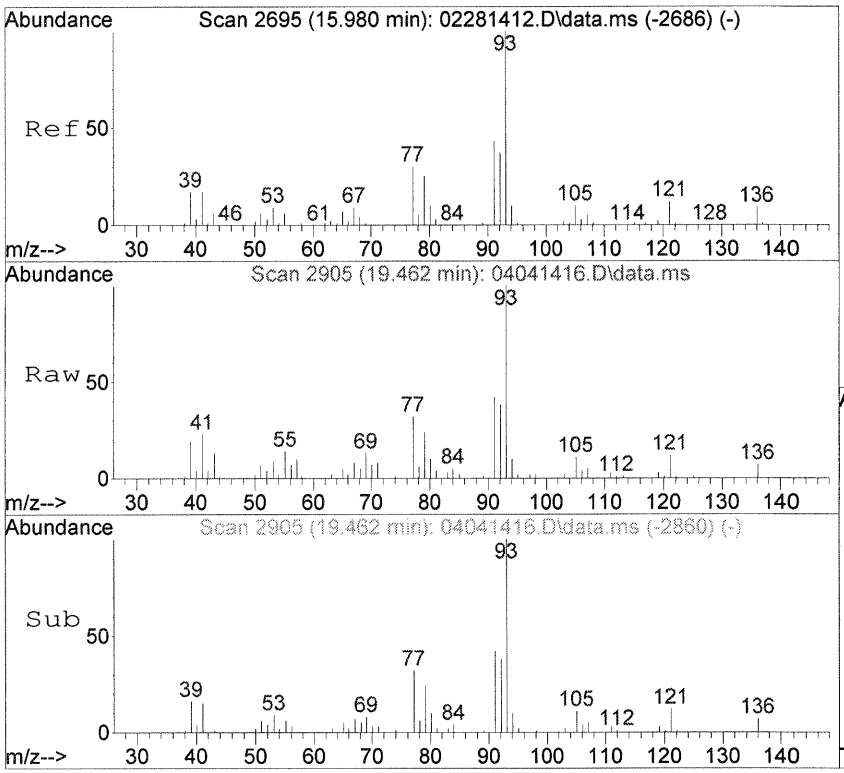


#67
m- & p-Xylenes
Concen: 0.47 ng
RT: 18.06 min Scan# 2651
Delta R.T. -0.016 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 91 Resp: 25065

Ion	Ratio	Lower	Upper
91	100		
106	48.7	29.6	69.6

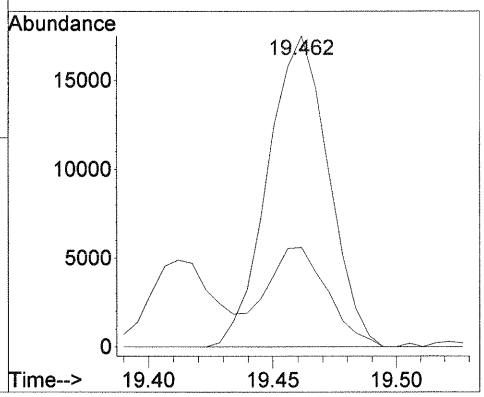


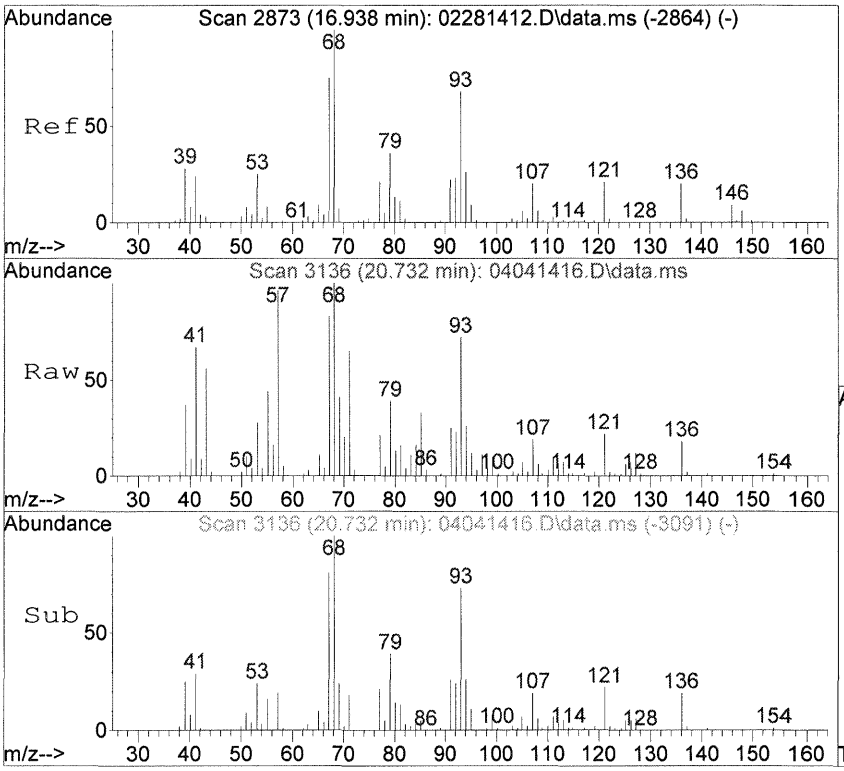


#75
alpha-Pinene
Concen: 0.87 ng
RT: 19.46 min Scan# 2905
Delta R.T. 0.000 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 93 Resp: 29759

Ion	Ratio	Lower	Upper
93	100		
77	33.0	9.1	49.1

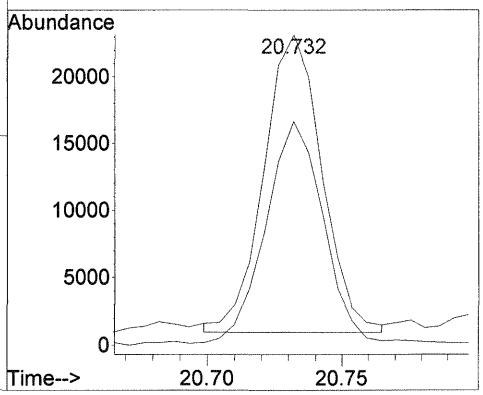




#91
d-Limonene
Concen: 1.62 ng
RT: 20.73 min Scan# 3136
Delta R.T. 0.000 min
Lab File: 04041416.D
Acq: 4 Apr 2014 19:06

Tgt Ion: 68 Resp: 33235

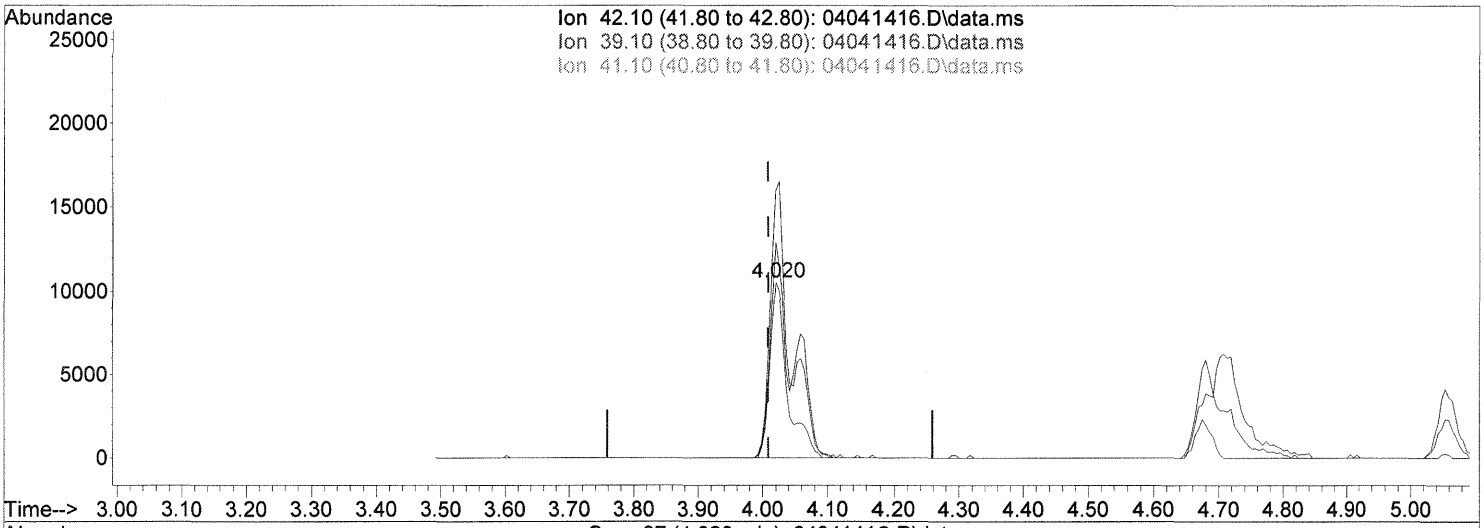
Ion	Ratio	Lower	Upper
68	100		
93	76.6	50.9	90.9

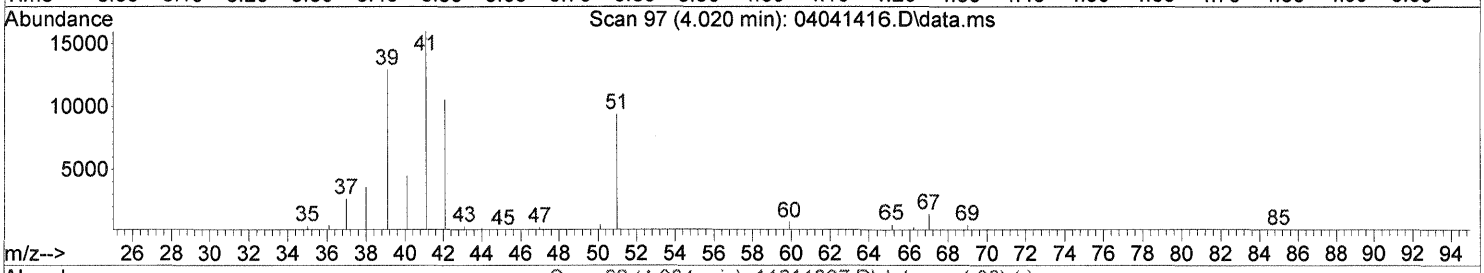


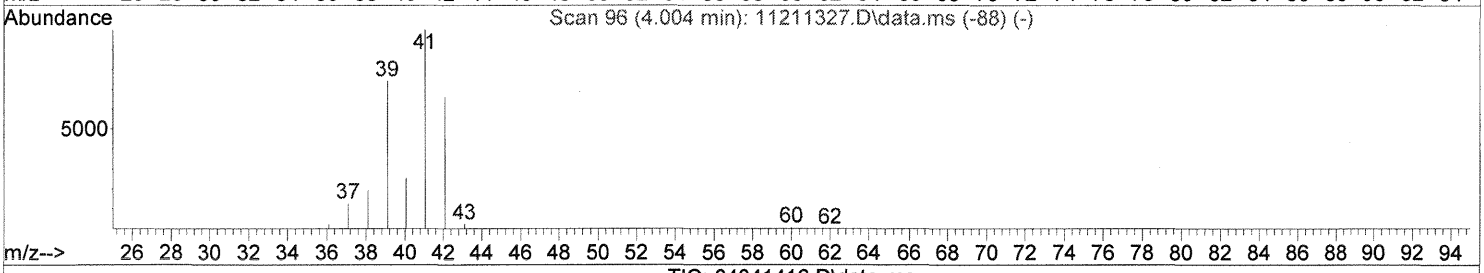
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041416.D
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml)
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 08:04:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041416.D\data.ms

(2) Propene (T)

4.020min (+0.011) 1.23ng

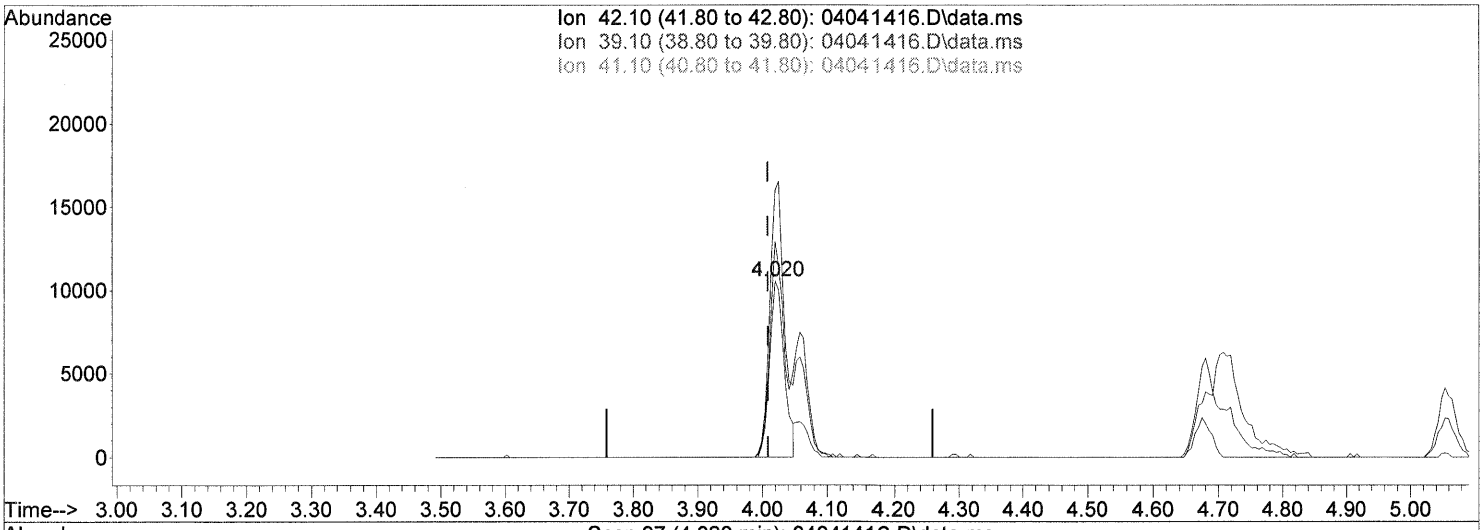
response 19792

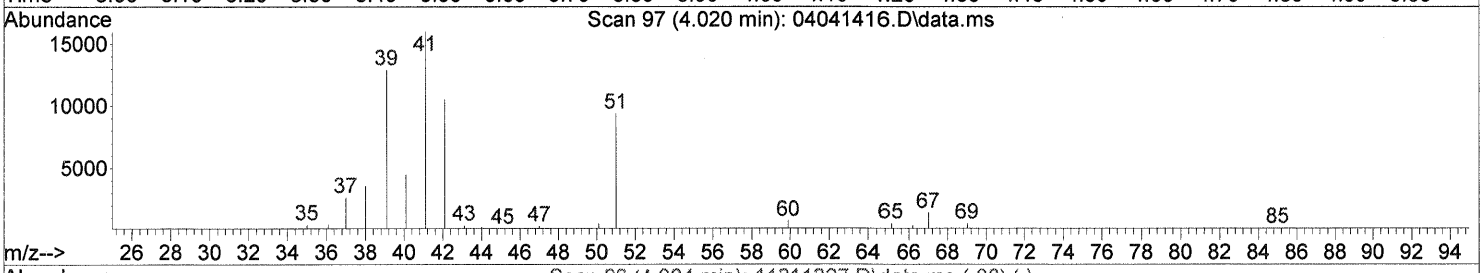
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	100.58
41.10	152.60	136.21
0.00	0.00	0.00

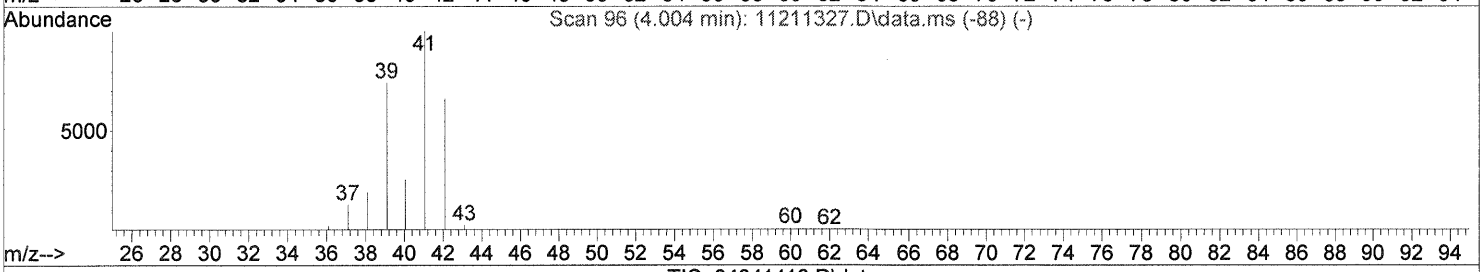
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041416.D
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml)
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 08:04:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041416.D\data.ms

(2) Propene (T)

4.020min (+0.011) 1.04ng m

response 16835

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	118.25
41.10	152.60	160.13
0.00	0.00	0.00

IPC

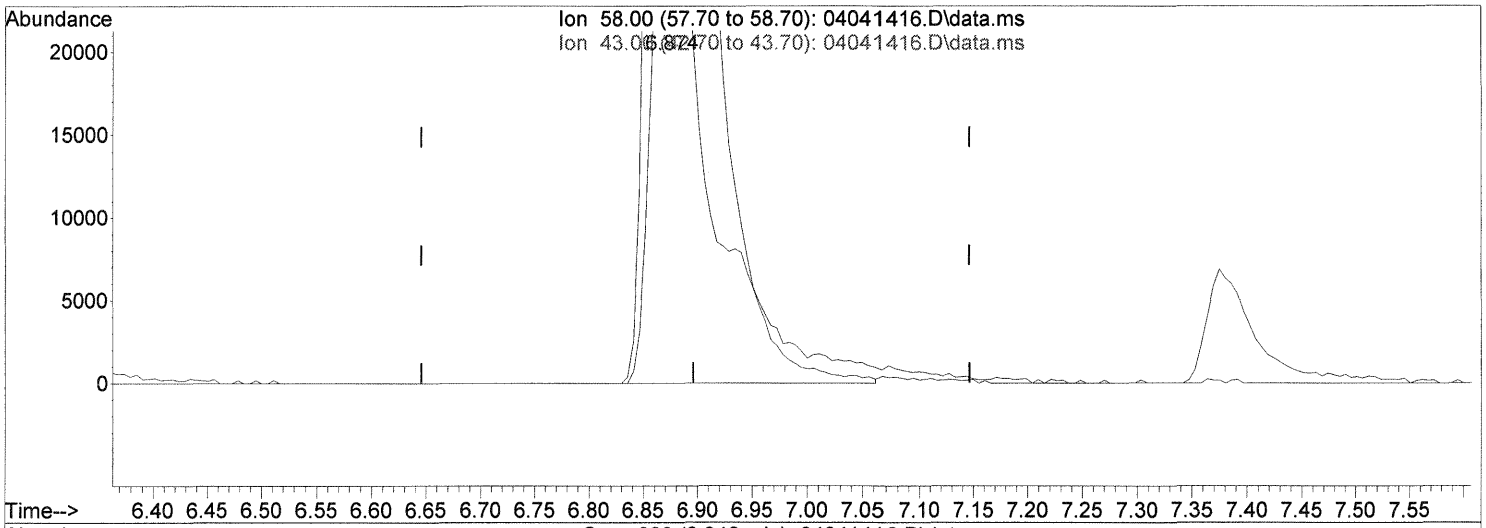
MSA 4/5/14

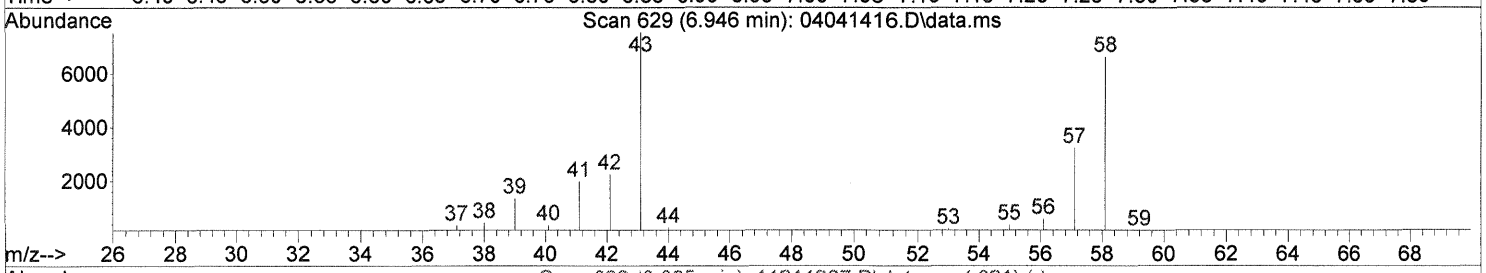
4/7/14

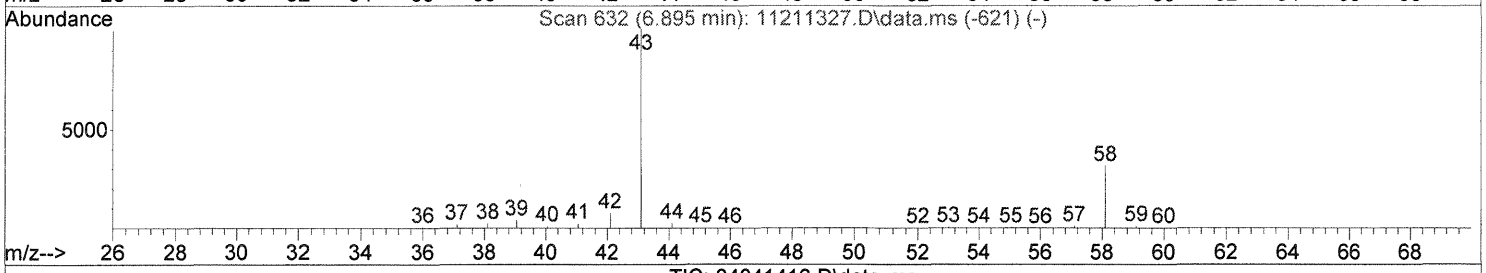
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041416.D
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml)
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 08:04:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041416.D\data.ms

(13) Acetone (T)

6.874min (-0.022) 11.64ng

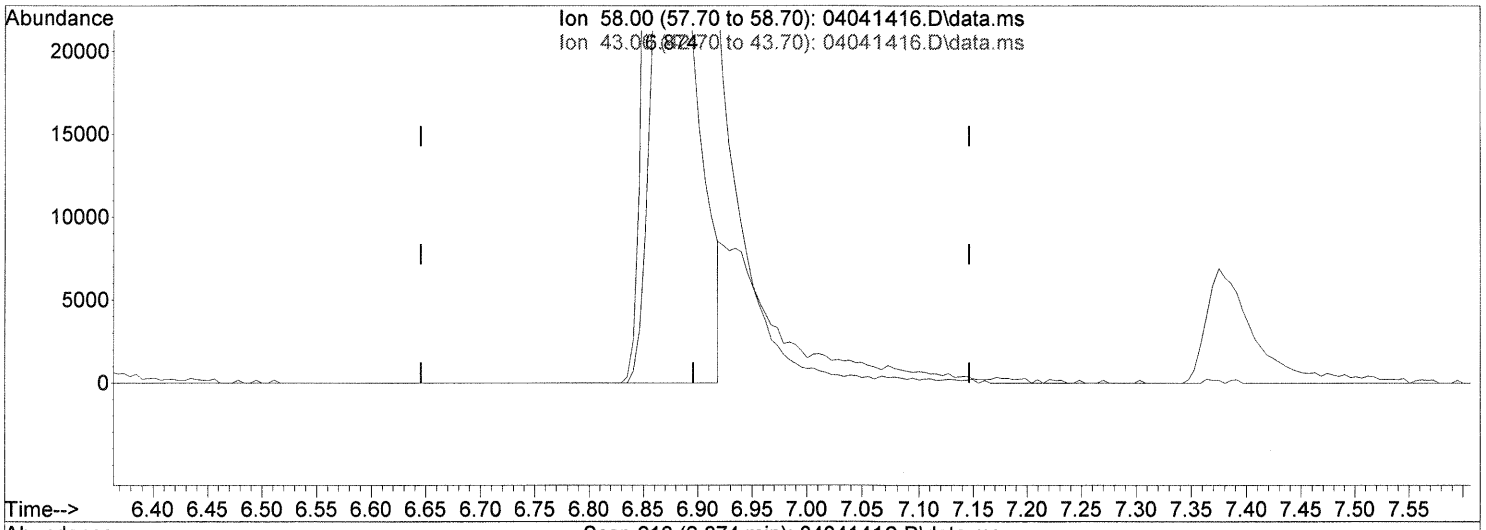
response 125884

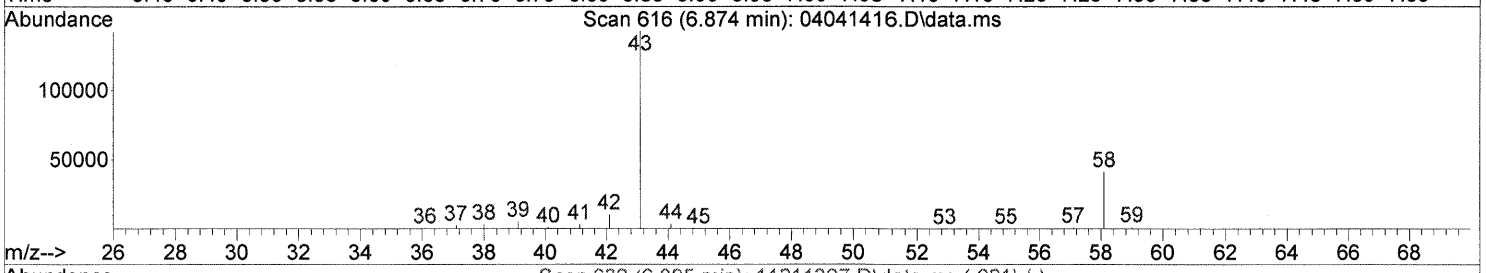
Ion	Exp%	Act%
58.00	100	100
43.00	318.80	310.25
0.00	0.00	0.00
0.00	0.00	0.00

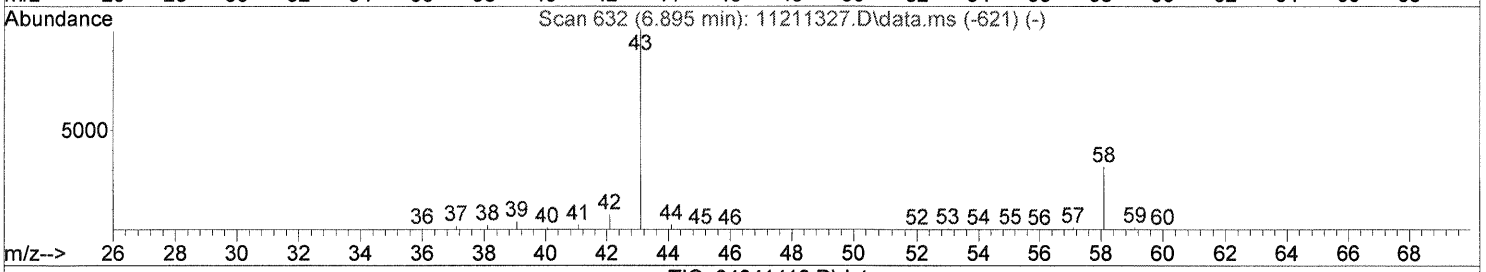
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041416.D
Acq On : 4 Apr 2014 19:06 Operator: EM
Sample : P1401201-002 (1000ml)
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 08:04:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041416.D\data.ms

(13) Acetone (T)

6.874min (-0.022) 9.52ng m

response 102985

Ion	Exp%	Act%
58.00	100	100
43.00	318.80	379.24#
0.00	0.00	0.00
0.00	0.00	0.00

IPC

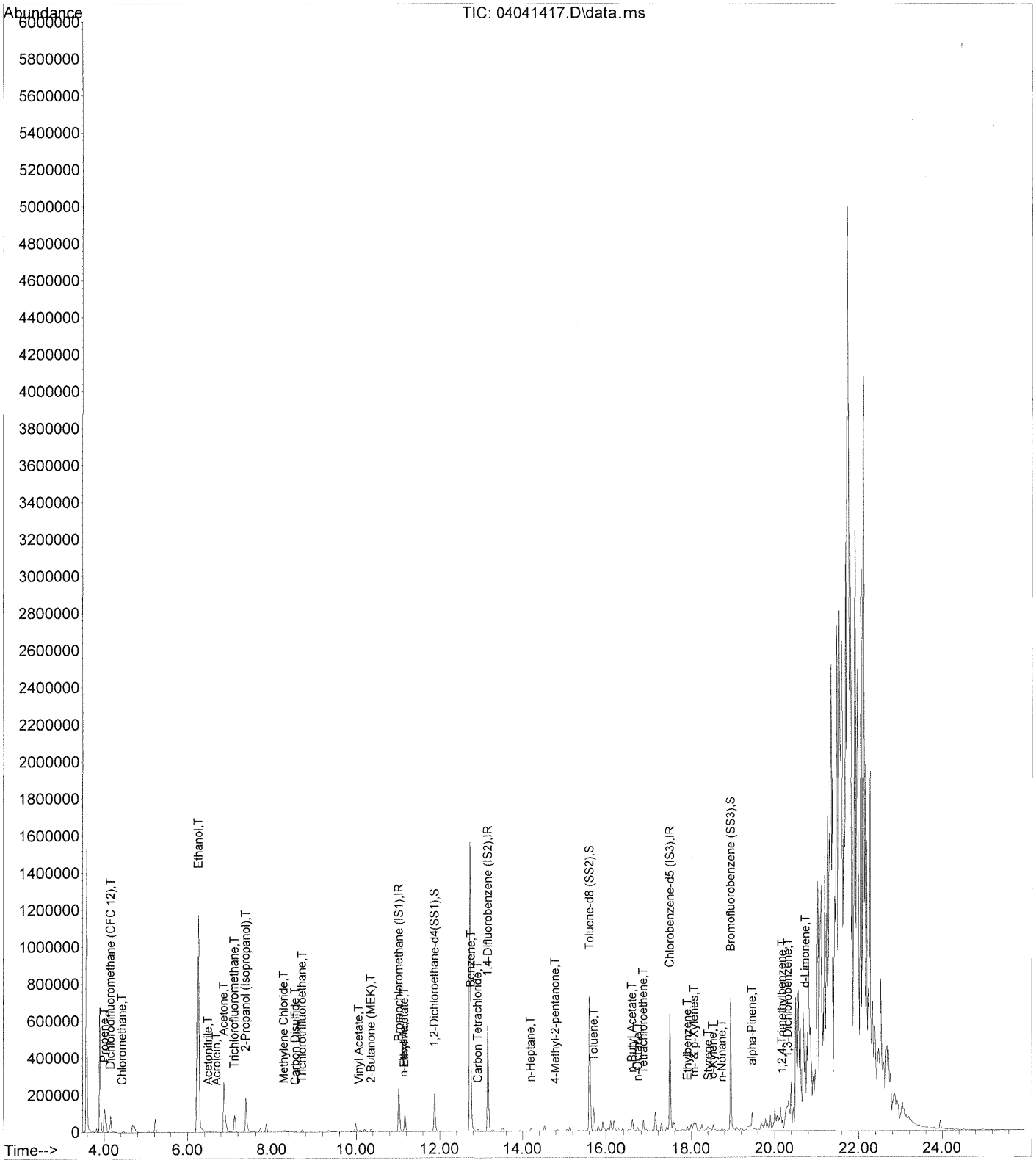
4/7/14

VOA 4/5/14

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2014_04\04\04041417.D Vial: 5
Acq On : 4 Apr 2014 19:40 Operator: EM
Sample : P1401201-003 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 10:01:57 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2014_04\04\04041417.D Vial: 5
Acq On : 4 Apr 2014 19:40 Operator: EM
Sample : P1401201-003 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 10:01:57 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

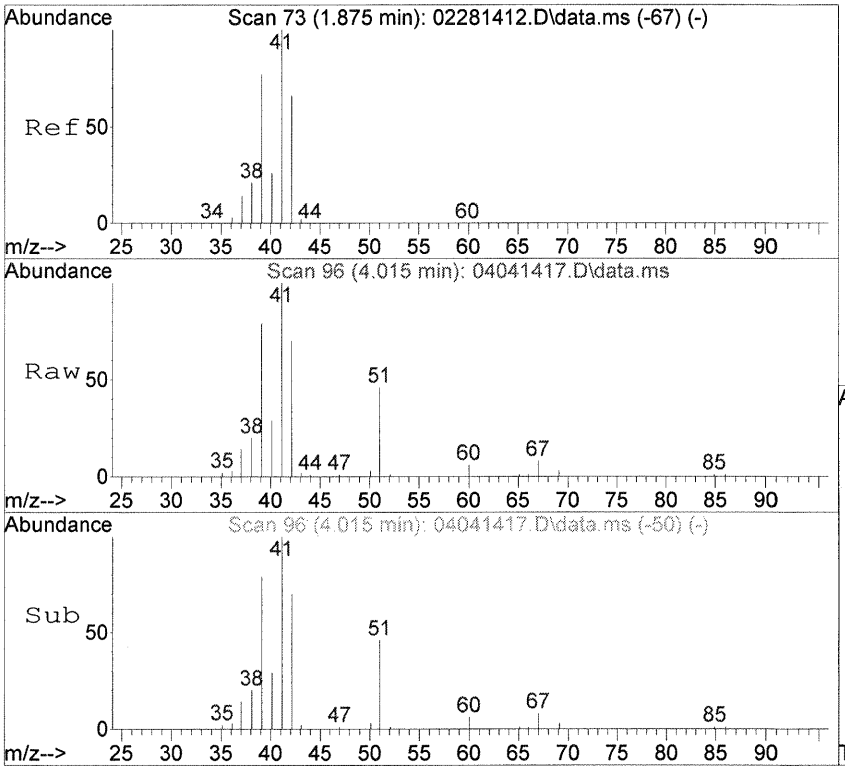
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	108962	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	556506	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	223396	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	168601	13.862	ng		-0.01
Spiked Amount 12.500			Recovery =	110.88%			
57) Toluene-d8 (SS2)	15.61	98	563755	12.133	ng		0.00
Spiked Amount 12.500			Recovery =	97.04%			
73) Bromofluorobenzene (SS3)	18.95	174	246339	12.821	ng		0.00
Spiked Amount 12.500			Recovery =	102.56%			
Target Compounds							Qvalue
2) Propene	4.01	42	39557m	2.445	ng		
3) Dichlorodifluoromethan...	4.16	85	65851	2.097	ng		100
4) Chloromethane	4.44	50	7002	0.331	ng		91
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	1215	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.14	54	441	N.D.			
8) Bromomethane	5.56	94	599	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.26	45	2165996	219.510	ng		100
11) Acetonitrile	6.49	41	4398	0.157	ng		81
12) Acrolein	6.69	56	1845	0.210	ng		87
13) Acetone	6.87	58	141651	13.068	ng		90
14) Trichlorofluoromethane	7.12	101	102027	3.789	ng		100
15) 2-Propanol (Isopropanol)	7.38	45	312441	8.940	ng		99
16) Acrylonitrile	7.72	53	159	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	8.30	84	4698	0.311	ng		98
20) 3-Chloro-1-propene (Al...	8.39	41	399	N.D.			
21) Trichlorotrifluoroethane	8.73	151	7305	0.558	ng		95
22) Carbon Disulfide	8.57	76	7285	0.136	ng		90
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	9.98	73	652	N.D.			
26) Vinyl Acetate	10.06	86	1306	0.435	ng	#	60
27) 2-Butanone (MEK)	10.36	72	6011	0.644	ng		93
28) cis-1,2-Dichloroethene	10.84	61	510	N.D.			
29) Diisopropyl Ether	11.16	87	209	N.D.			
30) Ethyl Acetate	11.16	61	19700	4.403	ng		91
31) n-Hexane	11.15	57	3082	0.150	ng		98
32) Chloroform	11.20	83	1569	N.D.			
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	12.00	62	1068	N.D.			
38) 1,1,1-Trichloroethane	12.28	97	171	N.D.			
39) Isopropyl Acetate	12.73	61	472	N.D.			
40) 1-Butanol	0.00	56	0	N.D.	d		
41) Benzene	12.76	78	25322	0.418	ng		99
42) Carbon Tetrachloride	12.92	117	5830	0.310	ng		94
43) Cyclohexane	13.06	84	809	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			

Data File : I:\MS13\DATA\2014_04\04\04041417.D Vial: 5
Acq On : 4 Apr 2014 19:40 Operator: EM
Sample : P1401201-003 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 10:01:57 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
47) Trichloroethene	13.86	130	427	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	13.94	57	4538	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D. d		
51) n-Heptane	14.20	71	3929	0.298 ng		95
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.79	58	1580	0.127 ng	#	35
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	104891	1.736 ng		100
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	49867	1.485 ng		96
63) n-Octane	16.72	57	3751	0.309 ng		90
64) Tetrachloroethene	16.86	166	20316	1.089 ng		97
65) Chlorobenzene	17.53	112	519	N.D.		
66) Ethylbenzene	17.91	91	12534	0.187 ng		97
67) m- & p-Xylenes	18.07	91	30500	0.568 ng		100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	18.42	104	6227	0.158 ng		98
70) o-Xylene	18.52	91	12097	0.220 ng		98
71) n-Nonane	18.74	43	4023	0.135 ng		89
72) 1,1,2,2-Tetrachloroethane	18.46	83	738	N.D.		
74) Cumene	19.08	105	1056	N.D.		
75) alpha-Pinene	19.46	93	37287	1.091 ng		89
76) n-Propylbenzene	19.57	91	3028	N.D.		
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.71	105	4150	N.D.		
79) 1,3,5-Trimethylbenzene	19.78	105	3360	N.D.		
80) alpha-Methylstyrene	19.92	118	1269	N.D.		
81) 2-Ethyltoluene	19.96	105	3106	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	9911	0.175 ng		85
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.40	91	691	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	5719	0.172 ng		95
86) 1,4-Dichlorobenzene	20.39	146	238	N.D.		
87) sec-Butylbenzene	20.44	105	304	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	20.59	105	3614	N.D.		
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	20.73	68	100629	4.884 ng		96
92) 1,2-Dibromo-3-Chloropr...	21.20	157	291	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	0.00	128	0	N.D. d		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.17	119	1203	N.D.		
100) n-Butylbenzene	21.01	91	560	N.D.		

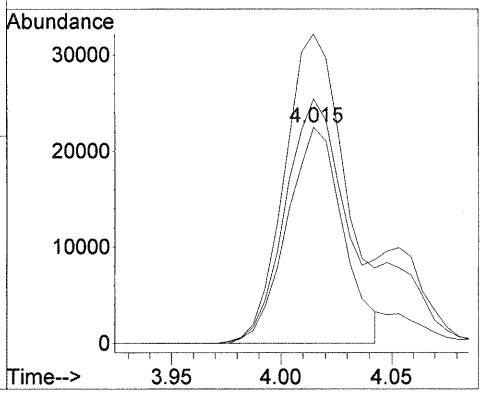
(#) = qualifier out of range (m) = manual integration (+) = signals summed

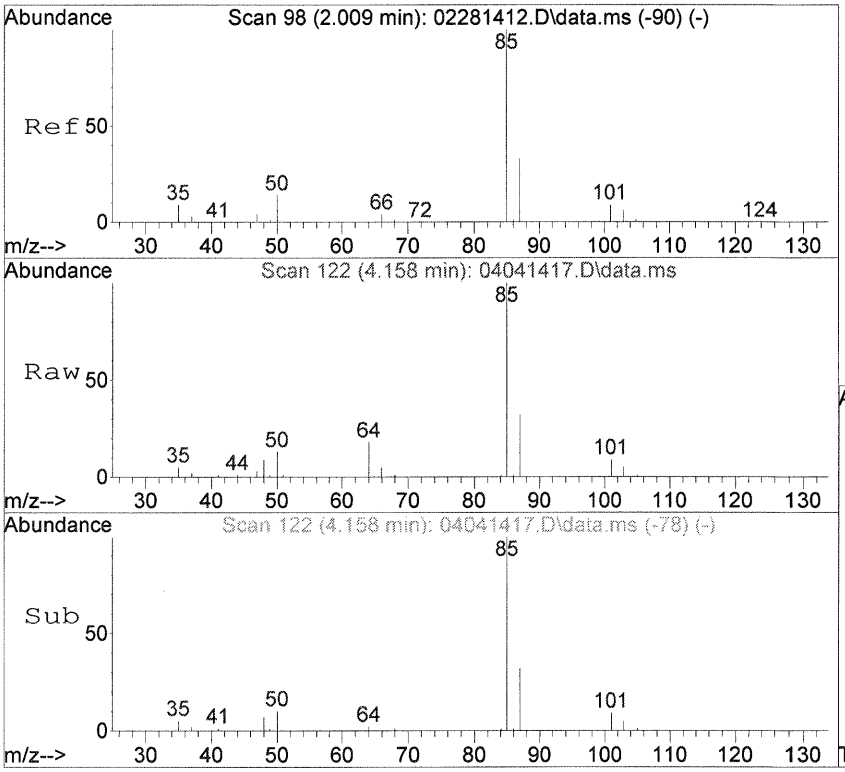


#2
Propene
Concen: 2.45 ng m
RT: 4.01 min Scan# 96
Delta R.T. 0.006 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 42 Resp: 39557

Ion	Ratio	Lower	Upper
42	100		
39	158.8	92.6	132.6#
41	184.2	132.6	172.6#

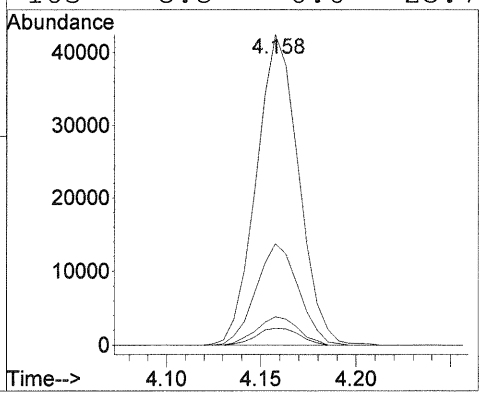


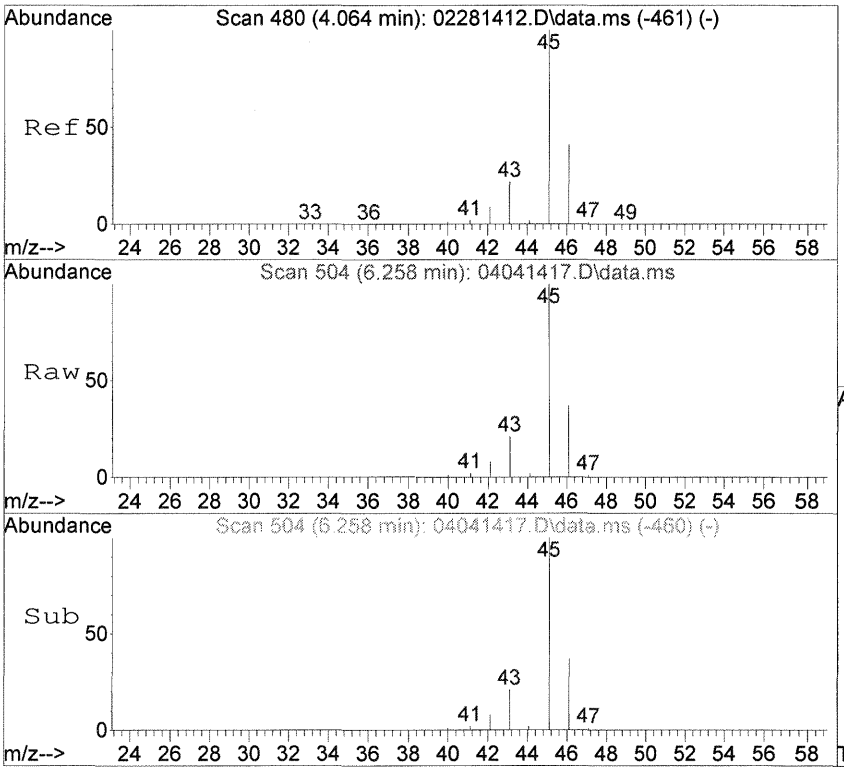


#3
Dichlorodifluoromethane (CFC 1:
Concen: 2.10 ng
RT: 4.16 min Scan# 122
Delta R.T. -0.005 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 85 Resp: 65851

Ion	Ratio	Lower	Upper
85	100		
87	32.5	12.6	52.6
101	9.0	0.0	28.9
103	5.5	0.0	25.7

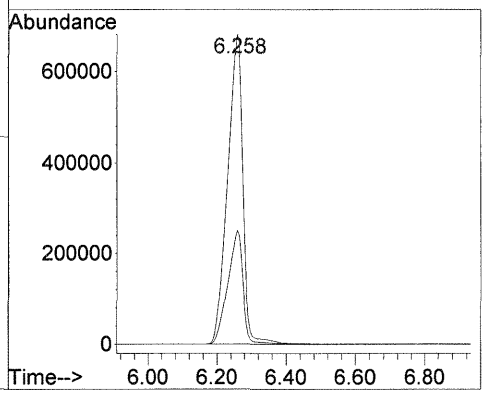


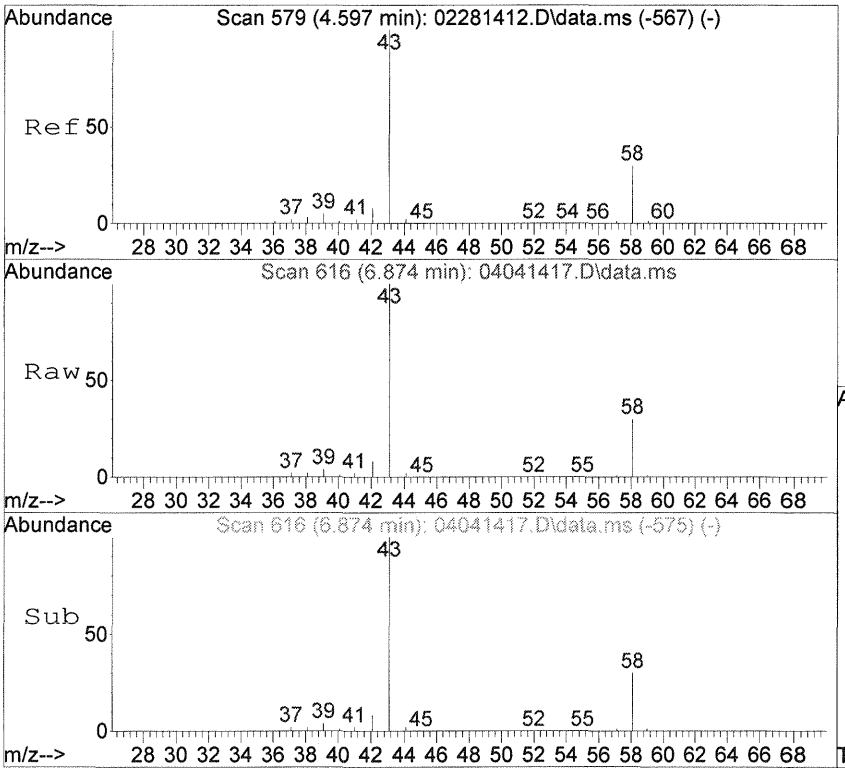


#10
Ethanol
Concen: 219.51 ng
RT: 6.26 min Scan# 504
Delta R.T. -0.005 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 45 Resp: 2165996

Ion	Ratio	Lower	Upper
45	100		
46	36.3	16.5	56.5

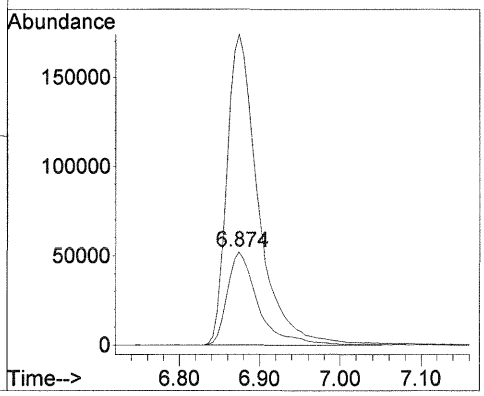


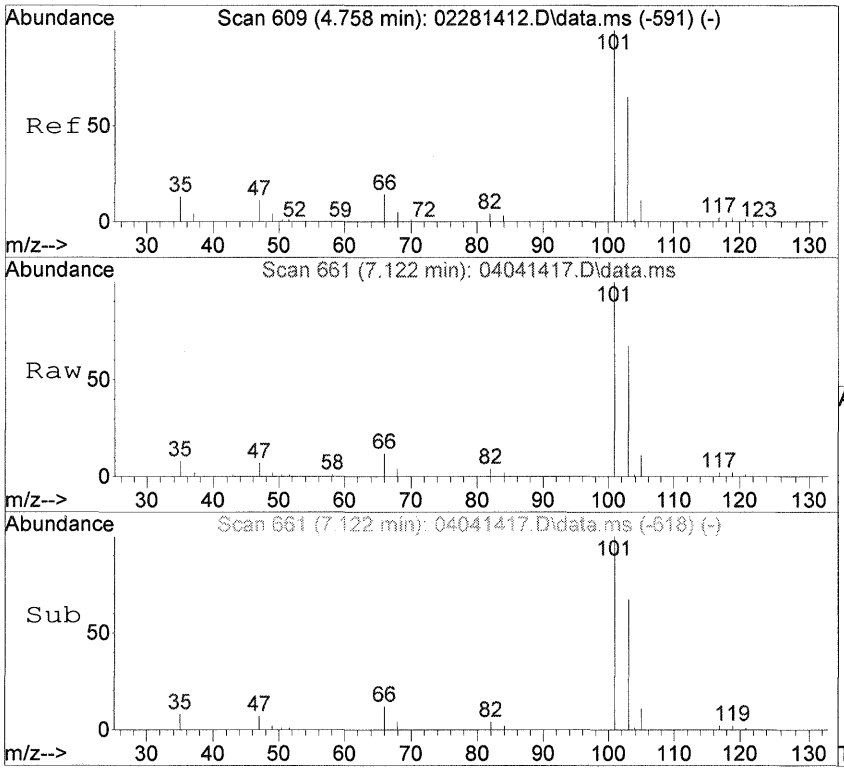


#13
Acetone
Concen: 13.07 ng
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 58 Resp: 141651

Ion	Ratio	Lower	Upper
58	100		
43	338.5	288.8	348.8

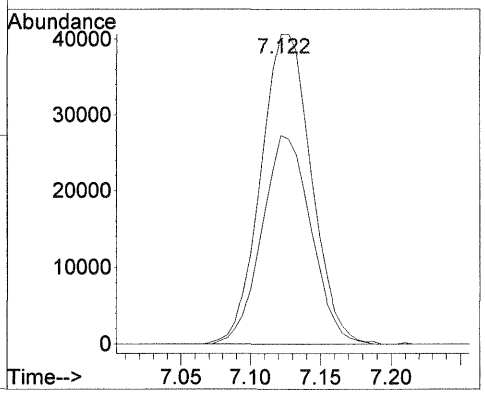


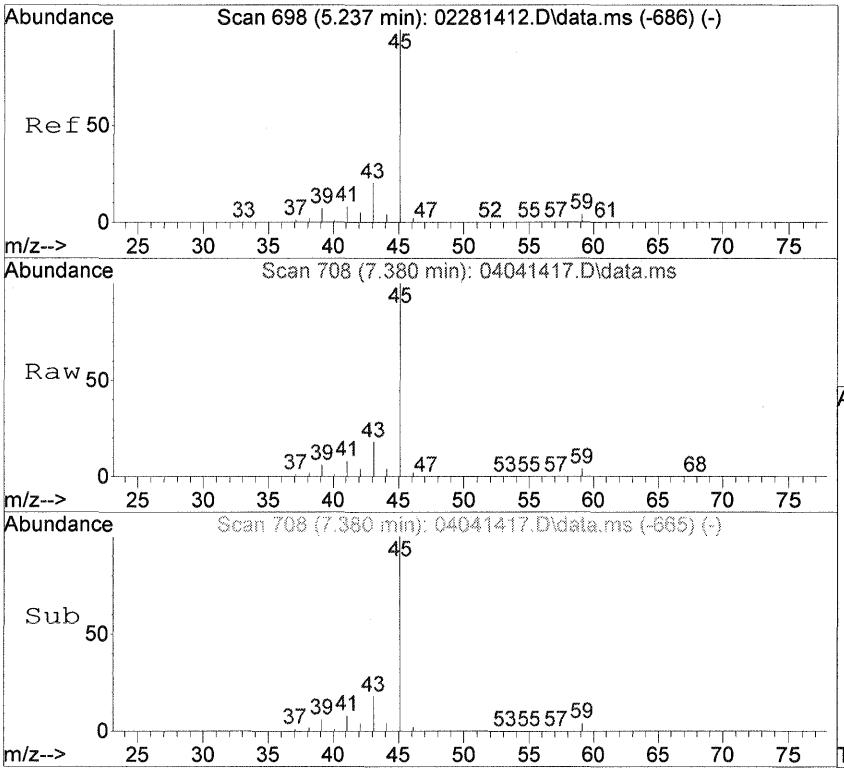


#14
Trichlorofluoromethane
Concen: 3.79 ng
RT: 7.12 min Scan# 661
Delta R.T. -0.011 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion:101 Resp: 102027

Ion	Ratio	Lower	Upper
101	100		
103	65.0	44.9	84.9

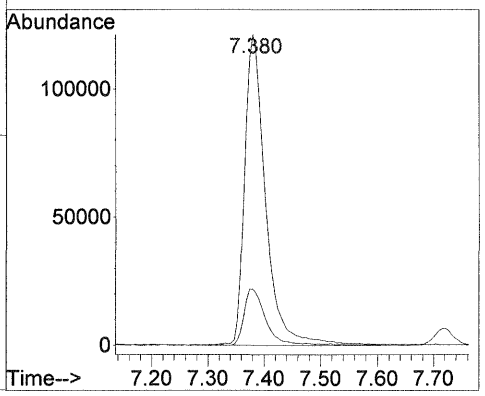


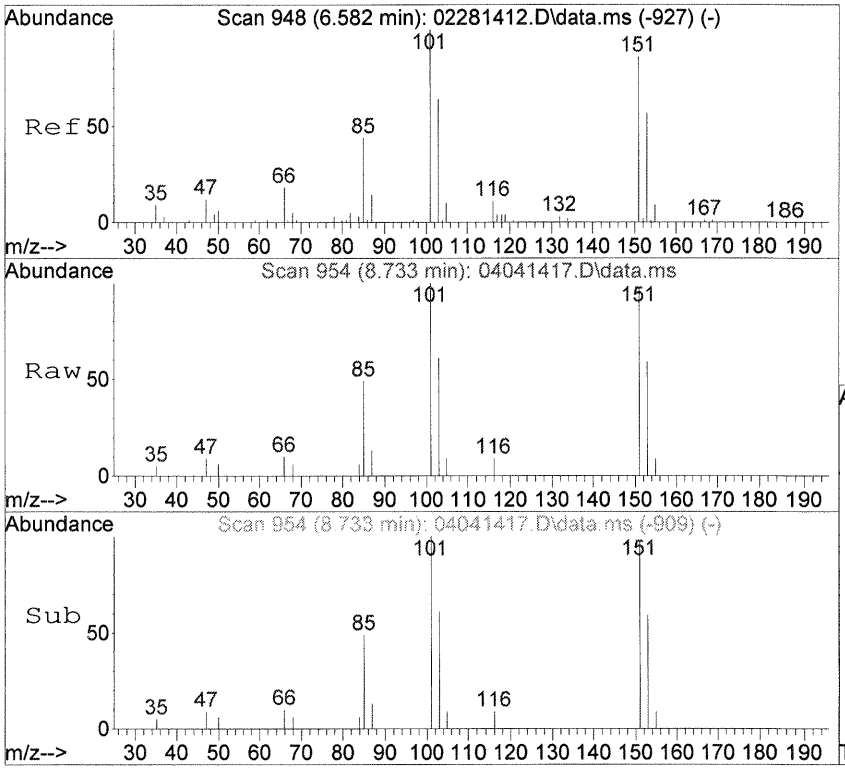


#15
2-Propanol (Isopropanol)
Concen: 8.94 ng
RT: 7.38 min Scan# 708
Delta R.T. -0.011 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 45 Resp: 312441

Ion	Ratio	Lower	Upper
45	100		
43	18.1	0.0	37.8

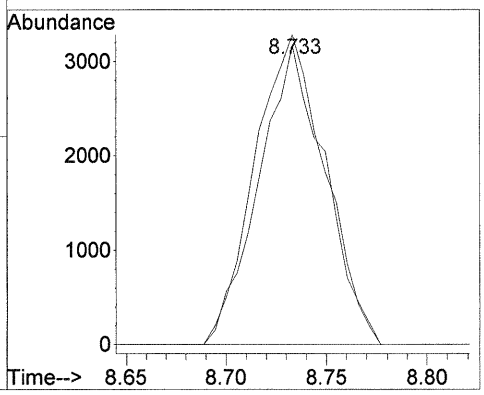


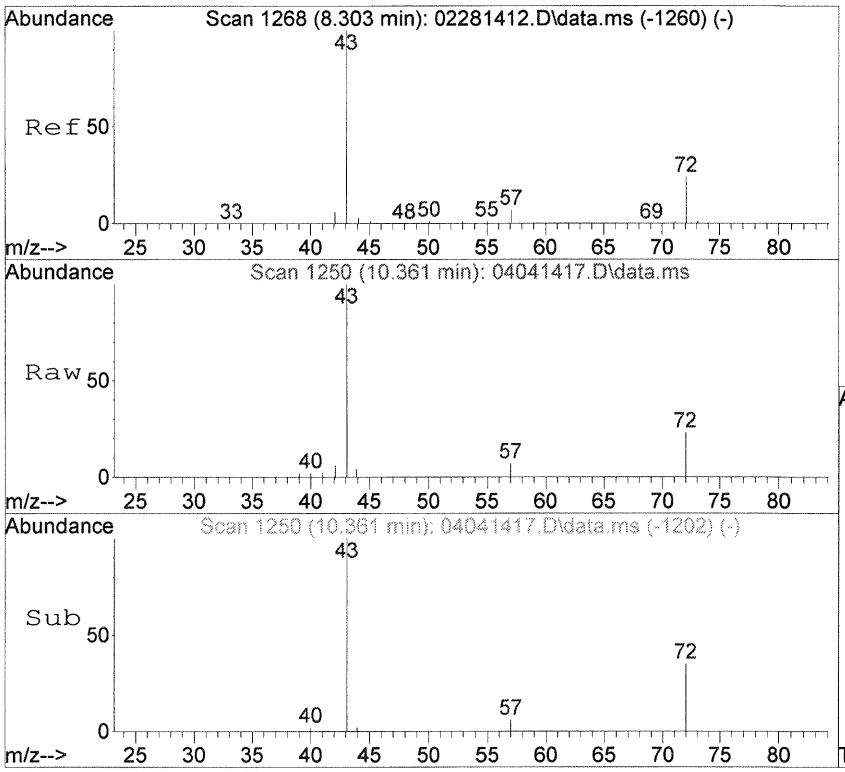


#21
Trichlorotrifluoroethane
Concen: 0.56 ng
RT: 8.73 min Scan# 954
Delta R.T. 0.000 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion:151 Resp: 7305

Ion	Ratio	Lower	Upper
151	100		
101	109.4	94.7	134.7

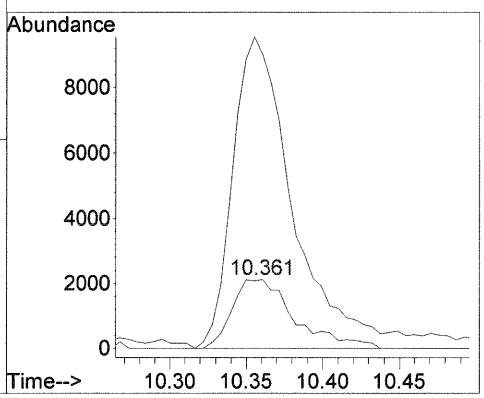




#27
2-Butanone (MEK)
Concen: 0.64 ng
RT: 10.36 min Scan# 1250
Delta R.T. 0.017 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 72 Resp: 6011

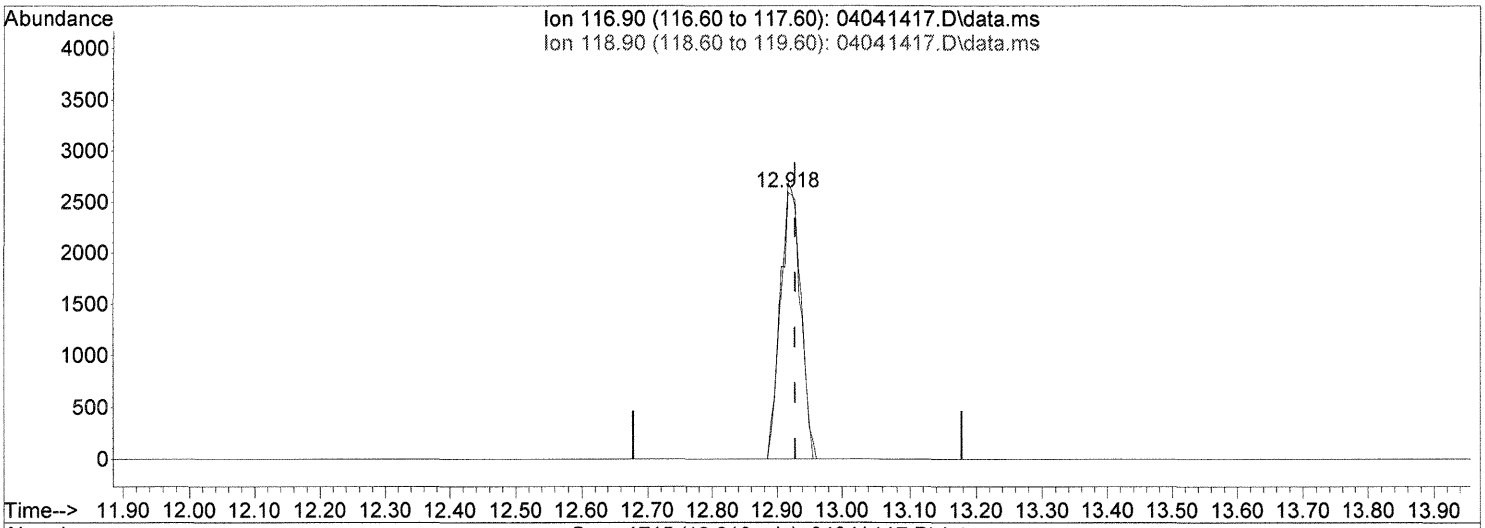
Ion	Ratio	Lower	Upper
72	100		
43	431.7	394.5	434.5

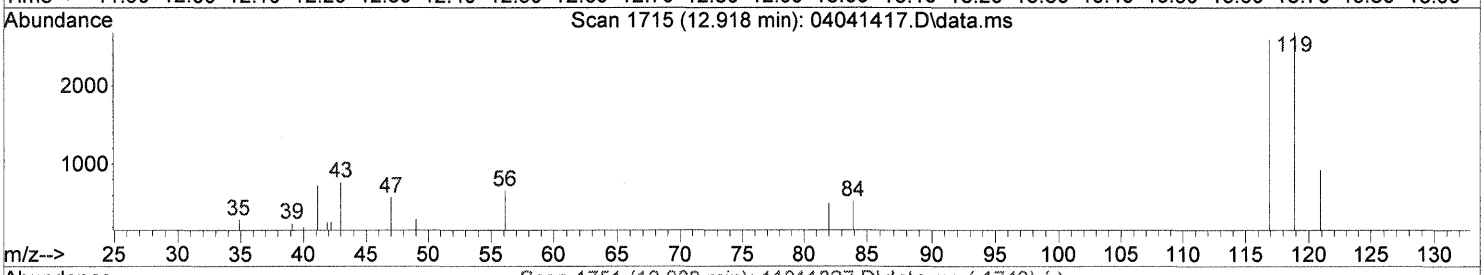


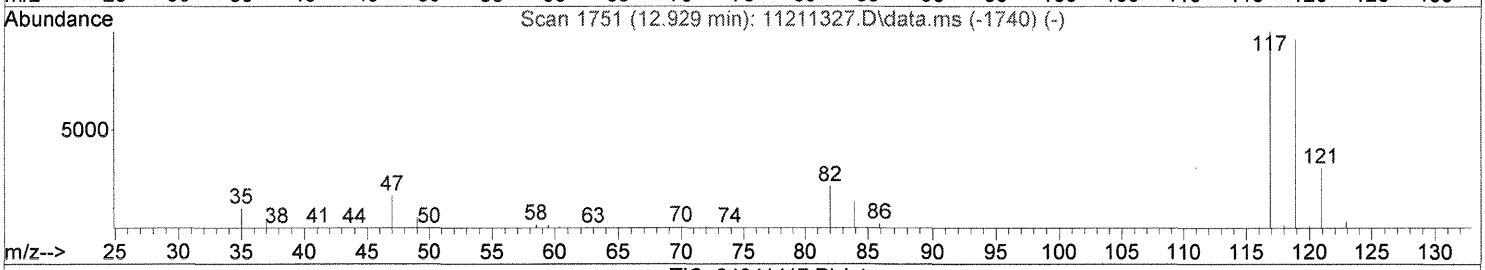
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041417.D
Acq On : 4 Apr 2014 19:40 Operator: EM
Sample : P1401201-003 (1000ml)
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:05:06 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







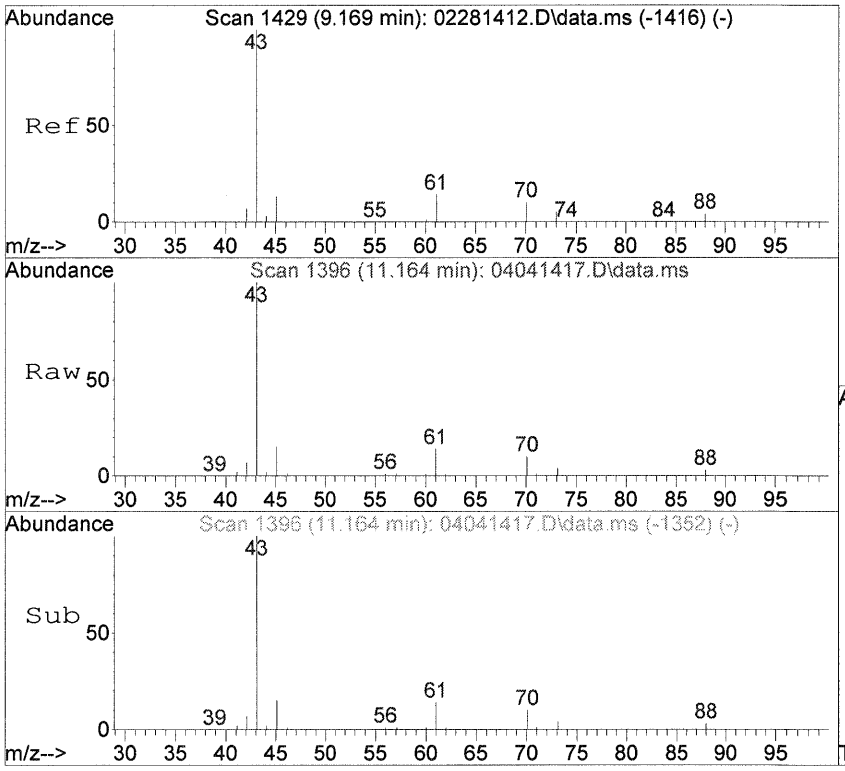
TIC: 04041417.D\data.ms

(42) Carbon Tetrachloride (T)

12.918min (-0.011) 0.31ng

response 5830

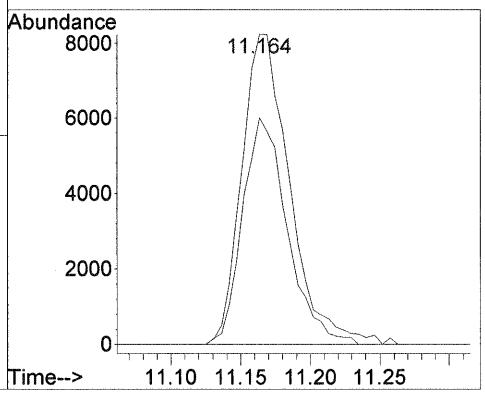
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	101.72
0.00	0.00	0.00
0.00	0.00	0.00

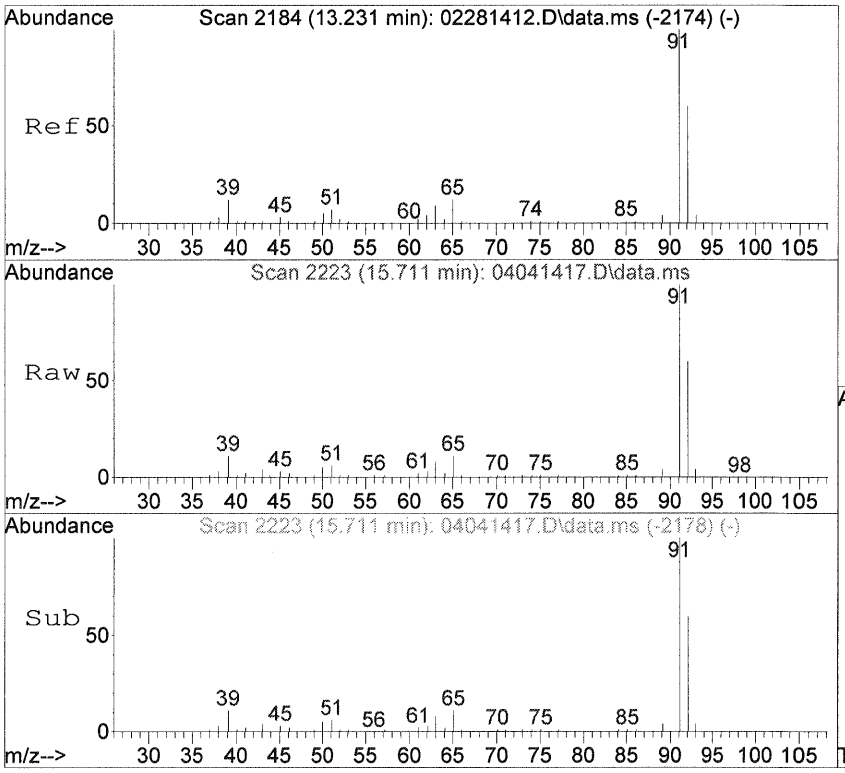


#30
Ethyl Acetate
Concen: 4.40 ng
RT: 11.16 min Scan# 1396
Delta R.T. -0.005 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 61 Resp: 19700

Ion	Ratio	Lower	Upper
61	100		
70	68.5	55.9	95.9

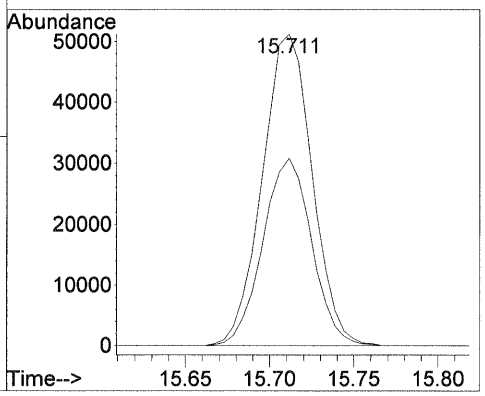


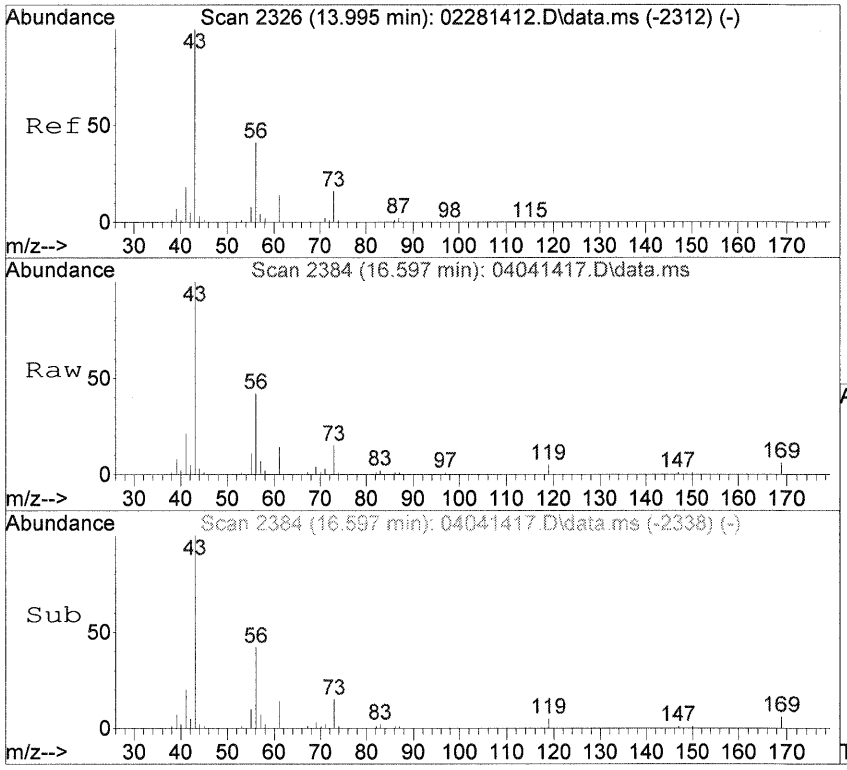


#58
Toluene
Concen: 1.74 ng
RT: 15.71 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 91 Resp: 104891

Ion	Ratio	Lower	Upper
91	100		
92	59.1	39.1	79.1

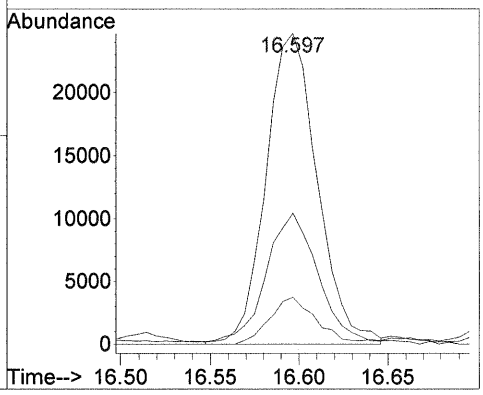


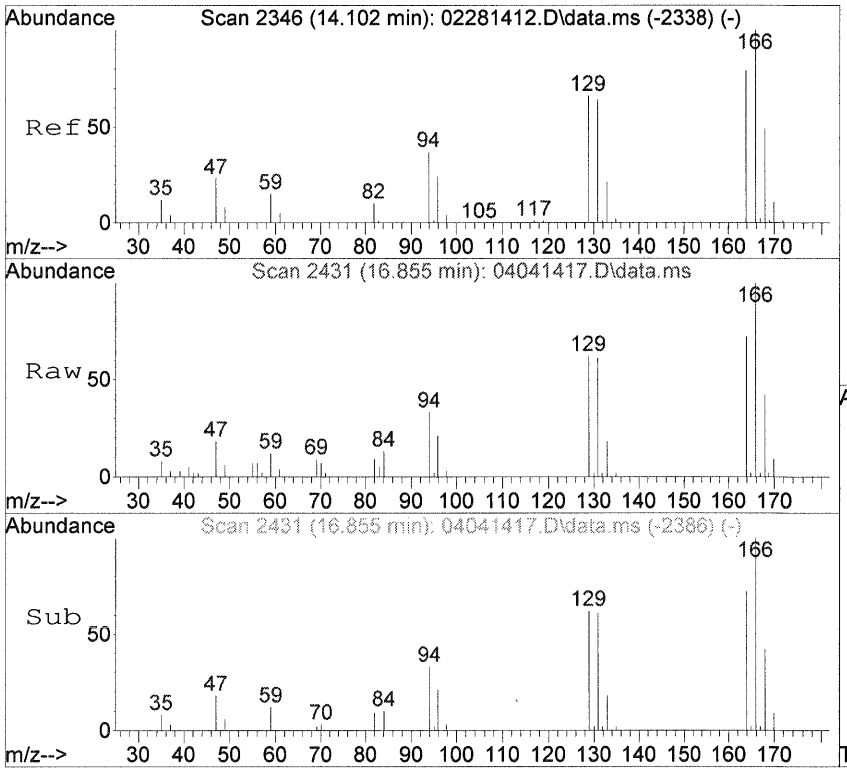


#62
n-Butyl Acetate
Concen: 1.48 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.006 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 43 Resp: 49867

Ion	Ratio	Lower	Upper
43	100		
56	42.9	19.9	59.9
73	14.1	0.0	34.1

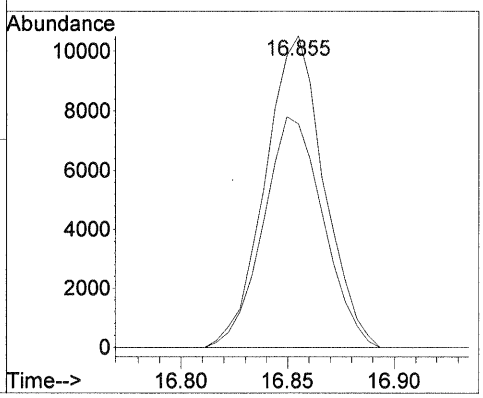


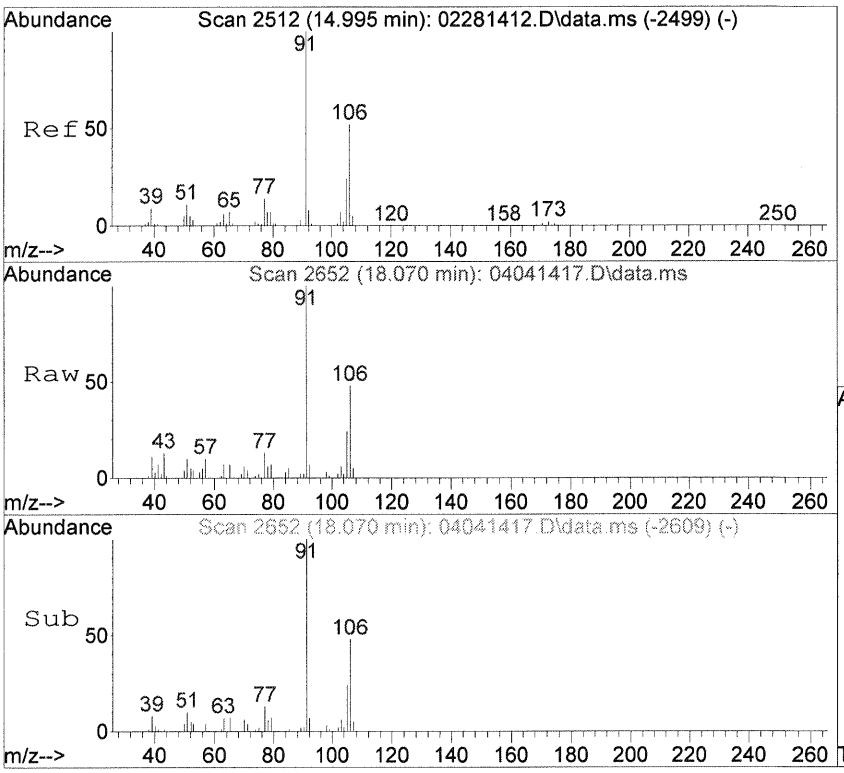


#64
Tetrachloroethene
Concen: 1.09 ng
RT: 16.86 min Scan# 2431
Delta R.T. 0.000 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion:166 Resp: 20316

Ion	Ratio	Lower	Upper
166	100		
164	75.6	57.8	97.8

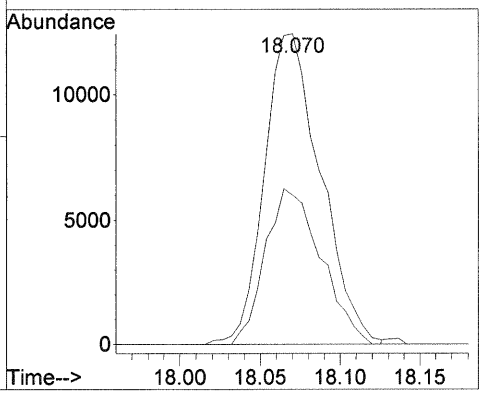


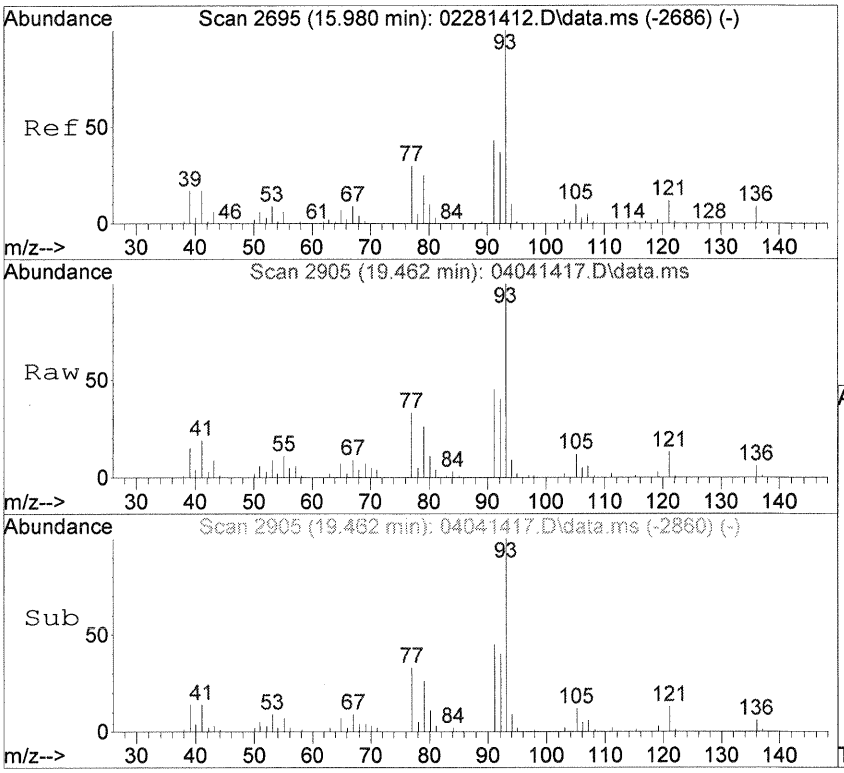


#67
m- & p-Xylenes
Concen: 0.57 ng
RT: 18.07 min Scan# 2652
Delta R.T. -0.011 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 91 Resp: 30500

Ion	Ratio	Lower	Upper
91	100		
106	49.8	29.6	69.6

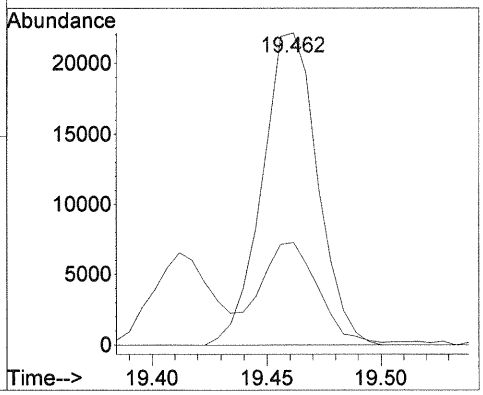


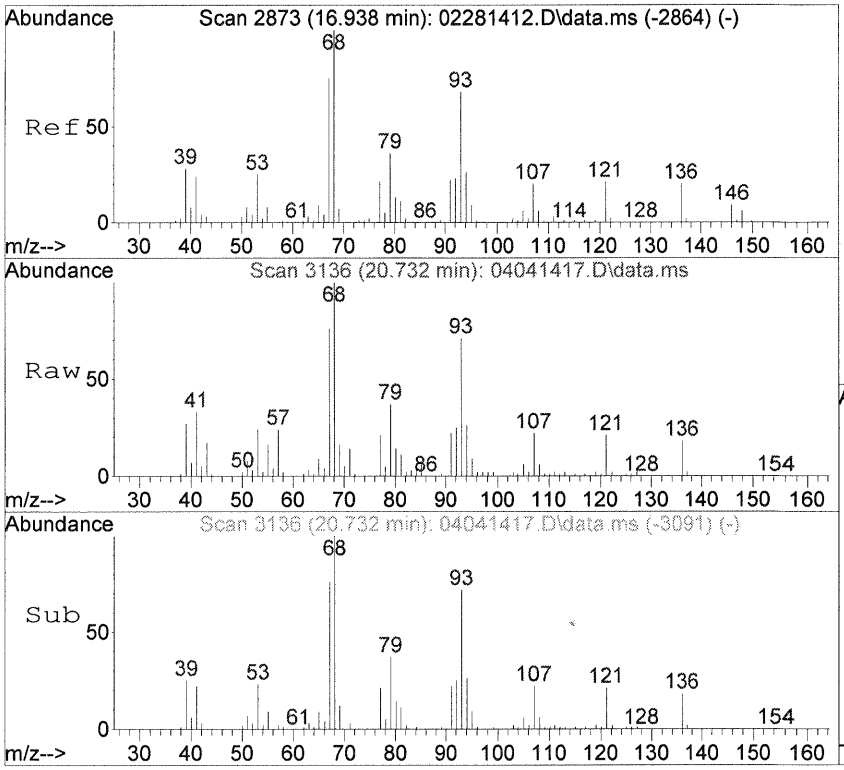


#75
alpha-Pinene
Concen: 1.09 ng
RT: 19.46 min Scan# 2905
Delta R.T. 0.000 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 93 Resp: 37287

Ion	Ratio	Lower	Upper
93	100		
77	34.8	9.1	49.1

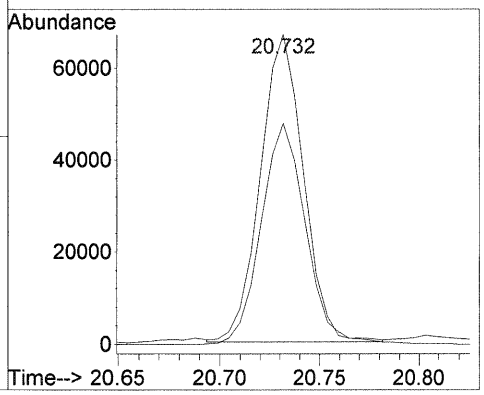




#91
d-Limonene
Concen: 4.88 ng
RT: 20.73 min Scan# 3136
Delta R.T. 0.000 min
Lab File: 04041417.D
Acq: 4 Apr 2014 19:40

Tgt Ion: 68 Resp: 100629

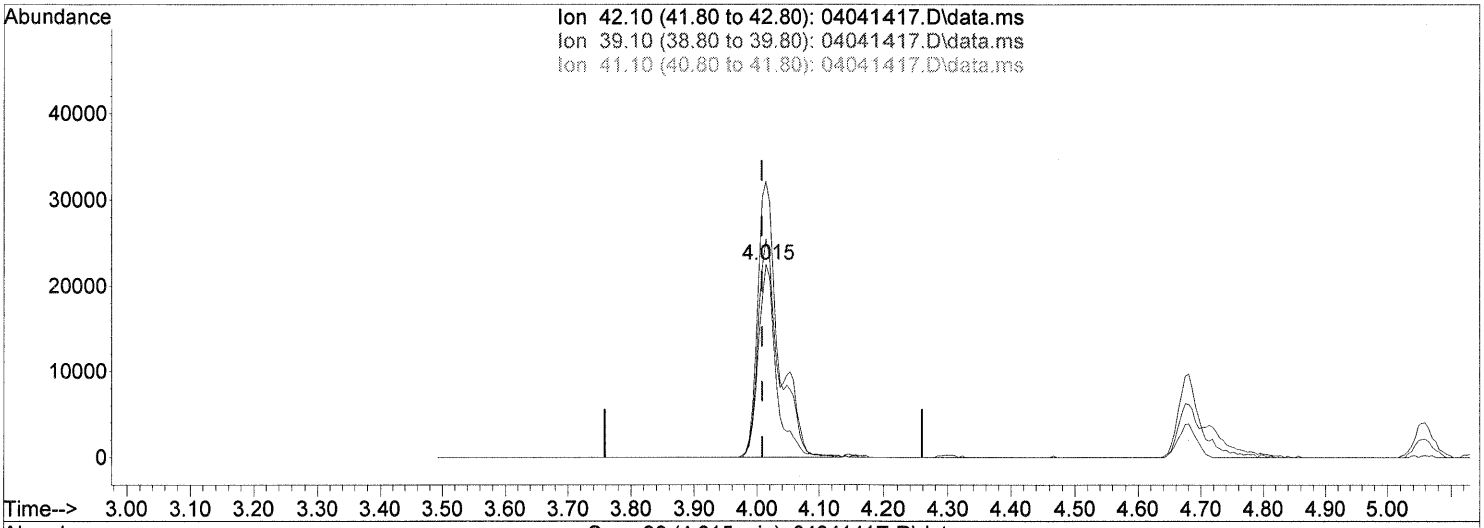
Ion	Ratio	Lower	Upper
68	100		
93	74.6	50.9	90.9

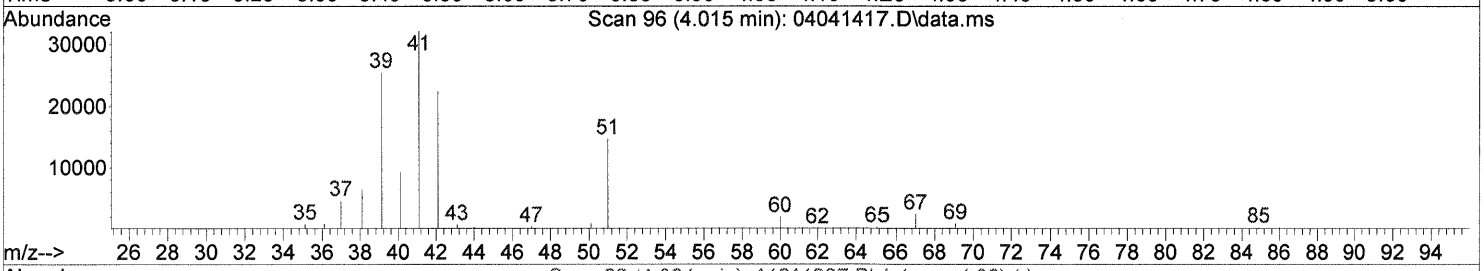


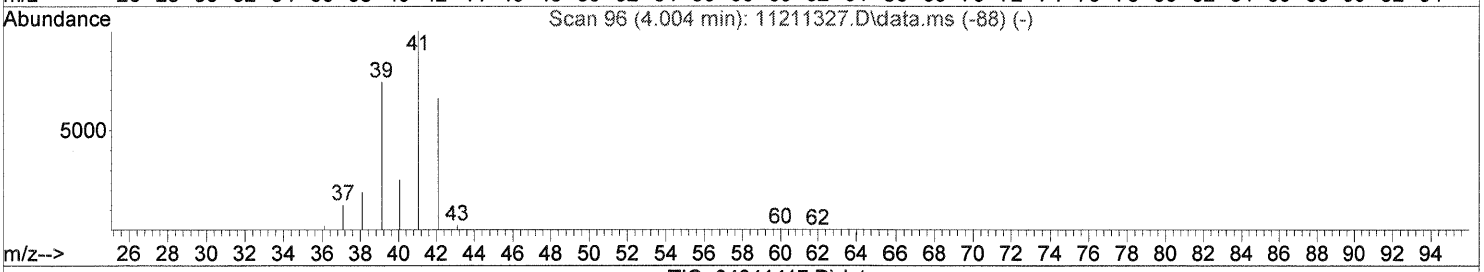
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041417.D
Acq On : 4 Apr 2014 19:40 Operator: EM
Sample : P1401201-003 (1000ml)
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:05:06 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041417.D\data.ms

(2) Propene (T)

4.015min (+0.006) 2.73ng

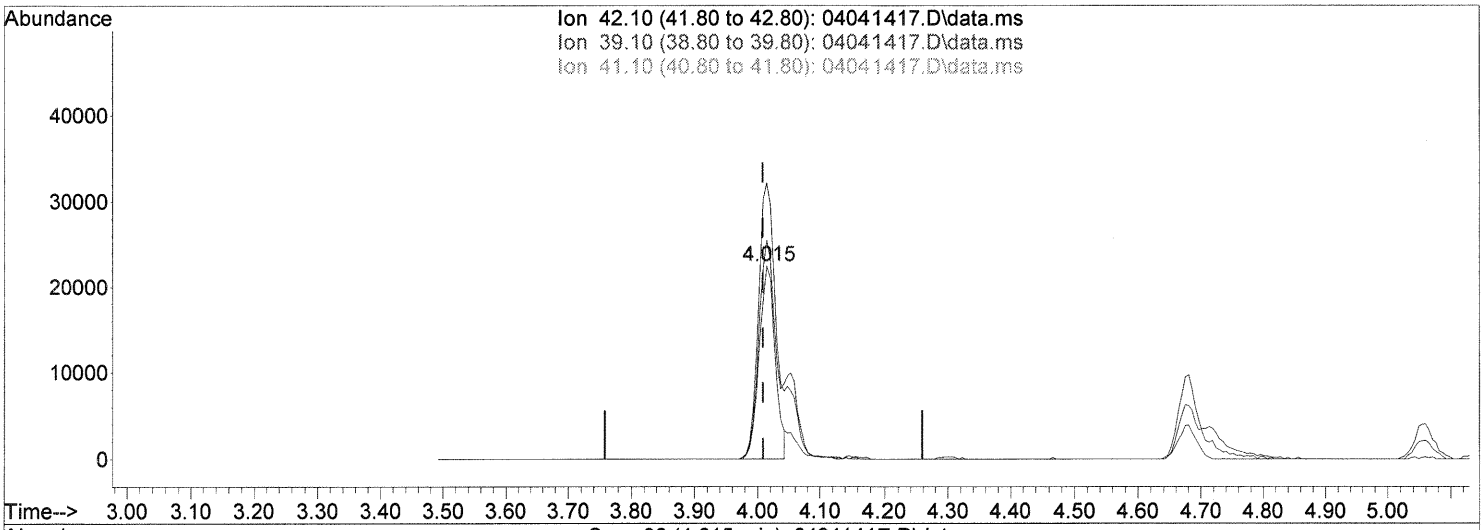
response 44157

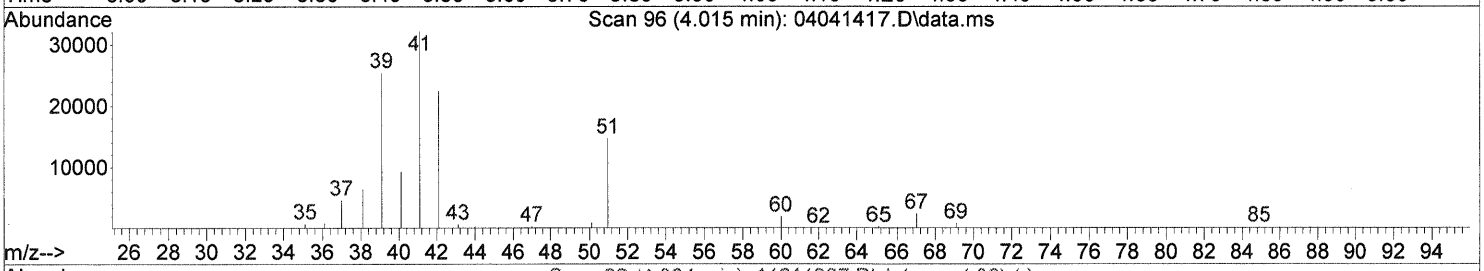
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	142.28#
41.10	152.60	165.01
0.00	0.00	0.00

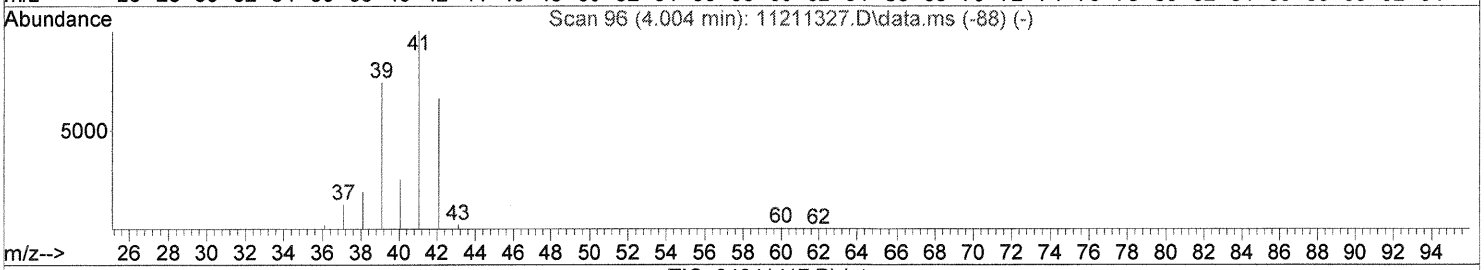
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041417.D
Acq On : 4 Apr 2014 19:40 Operator: EM
Sample : P1401201-003 (1000ml)
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:05:06 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041417.D\data.ms

(2) Propene (T)

4.015min (+0.006) 2.45ng m

response 39557

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	158.83#
41.10	152.60	184.20#
0.00	0.00	0.00

IPC

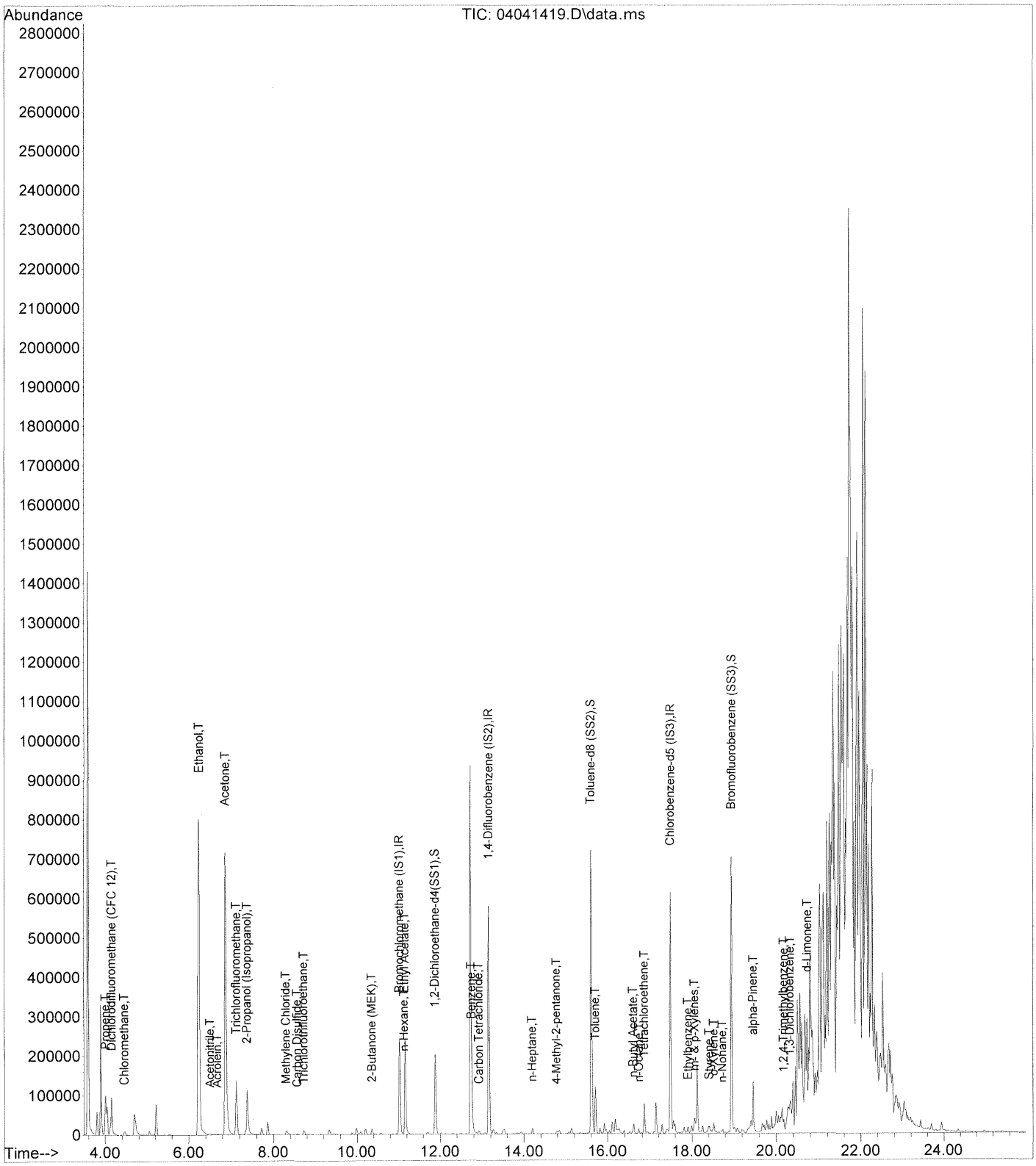
4/5/14

4/7/14

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2014_04\04\04041419.D Vial: 6
Acq On : 4 Apr 2014 20:49 Operator: EM
Sample : P1401201-004 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 10:03:59 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2014_04\04\04041419.D Vial: 6
Acq On : 4 Apr 2014 20:49 Operator: EM
Sample : P1401201-004 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 10:03:59 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	108844	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	548460	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	218556	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	165985	13.662	ng		-0.01
Spiked Amount 12.500			Recovery =	109.28%			
57) Toluene-d8 (SS2)	15.61	98	557629	12.267	ng		0.00
Spiked Amount 12.500			Recovery =	98.16%			
73) Bromofluorobenzene (SS3)	18.95	174	243537	12.956	ng		0.00
Spiked Amount 12.500			Recovery =	103.68%			
Target Compounds							Qvalue
2) Propene	4.01	42	29582m	1.831	ng		
3) Dichlorodifluoromethan...	4.16	85	68476	2.183	ng		99
4) Chloromethane	4.45	50	5364	0.254	ng		76
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	851	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.13	54	453	N.D.			
8) Bromomethane	5.55	94	452	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.24	45	1350916	137.055	ng		100
11) Acetonitrile	6.51	41	3107	0.111	ng		84
12) Acrolein	6.68	56	2228	0.254	ng	#	69
13) Acetone	6.87	58	354207	32.713	ng		88
14) Trichlorofluoromethane	7.13	101	146354	5.441	ng		100
15) 2-Propanol (Isopropanol)	7.37	45	196711	5.635	ng		98
16) Acrylonitrile	7.70	53	57	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	8.30	84	4937	0.327	ng		94
20) 3-Chloro-1-propene (Al...	8.40	41	160	N.D.			
21) Trichlorotrifluoroethane	8.73	151	5998	0.459	ng		100
22) Carbon Disulfide	8.57	76	6233	0.116	ng		88
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	10.09	86	151	N.D.			
27) 2-Butanone (MEK)	10.36	72	6168	0.661	ng	#	84
28) cis-1,2-Dichloroethene	10.86	61	820	N.D.			
29) Diisopropyl Ether	11.15	87	148	N.D.			
30) Ethyl Acetate	11.16	61	46879	10.489	ng		97
31) n-Hexane	11.14	57	3731	0.181	ng	#	91
32) Chloroform	11.20	83	1314	N.D.			
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	11.99	62	846	N.D.			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	12.71	61	52	N.D.			
40) 1-Butanol	0.00	56	0	N.D.	d		
41) Benzene	12.76	78	23901	0.400	ng		97
42) Carbon Tetrachloride	12.92	117	5184	0.280	ng		90
43) Cyclohexane	13.04	84	1074	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			

4/7/14

Data File : I:\MS13\DATA\2014_04\04\04041419.D Vial: 6
Acq On : 4 Apr 2014 20:49 Operator: EM
Sample : P1401201-004 (1000ml) Inst : MS13
Misc :

Quant Time: Apr 05 10:03:59 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

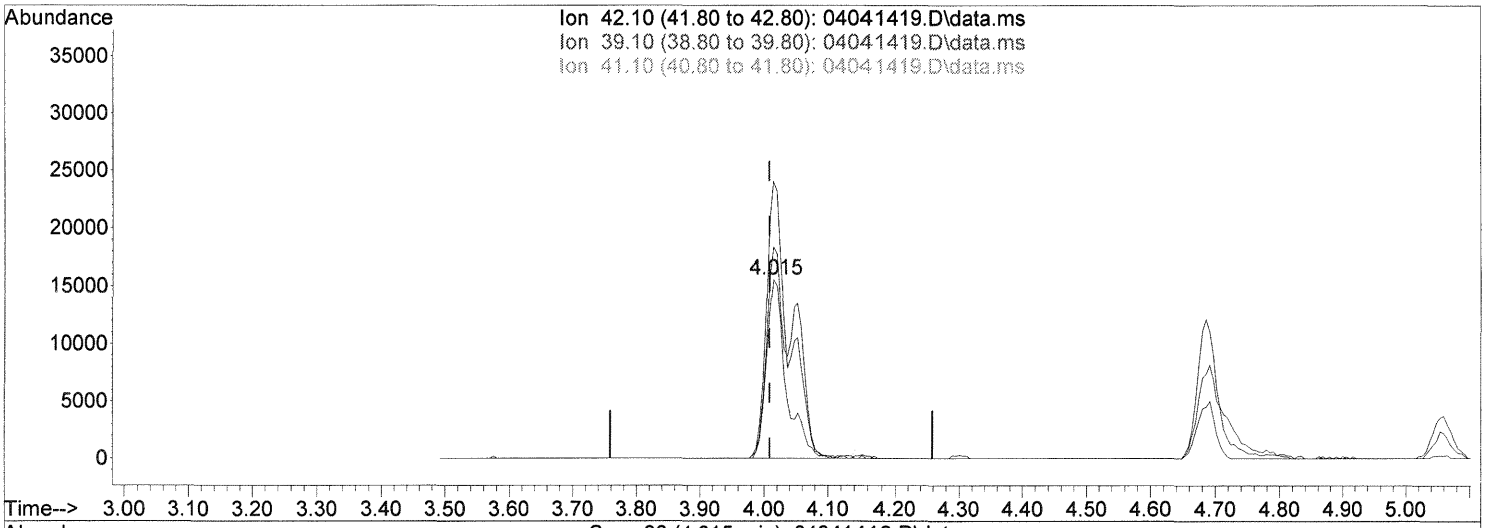
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
47) Trichloroethene	13.85	130	326	N.D.		
48) 1,4-Dioxane	13.88	88	347	N.D.		
49) 2,2,4-Trimethylpentane...	13.94	57	4847	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D. d		
51) n-Heptane	14.20	71	3682	0.283 ng		97
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.78	58	2620	0.214 ng	#	72
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	98045	1.659 ng		100
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	21026	0.640 ng		93
63) n-Octane	16.72	57	2530	0.213 ng		93
64) Tetrachloroethene	16.86	166	28021	1.536 ng		99
65) Chlorobenzene	17.53	112	73	N.D.		
66) Ethylbenzene	17.91	91	11339	0.173 ng		98
67) m- & p-Xylenes	18.06	91	29473	0.561 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	18.42	104	6197	0.161 ng		95
70) o-Xylene	18.53	91	11301	0.210 ng		96
71) n-Nonane	18.74	43	3814	0.131 ng		96
72) 1,1,2,2-Tetrachloroethane	18.53	83	162	N.D.		
74) Cumene	19.08	105	1025	N.D.		
75) alpha-Pinene	19.46	93	52766	1.578 ng		97
76) n-Propylbenzene	19.57	91	2395	N.D.		
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.71	105	3068	N.D.		
79) 1,3,5-Trimethylbenzene	19.78	105	2714	N.D.		
80) alpha-Methylstyrene	19.92	118	2119	N.D.		
81) 2-Ethyltoluene	19.96	105	2536	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	7954	0.144 ng		86
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.40	91	301	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	3104	0.095 ng		98
86) 1,4-Dichlorobenzene	20.39	146	189	N.D.		
87) sec-Butylbenzene	20.44	105	321	N.D.		
88) 4-Isopropyltoluene (p-...	20.59	119	5298	N.D.		
89) 1,2,3-Trimethylbenzene	20.59	105	2740	N.D.		
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	20.73	68	56376	2.797 ng		96
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	0.00	128	0	N.D. d		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.18	119	1123	N.D.		
100) n-Butylbenzene	21.00	91	712	N.D.		

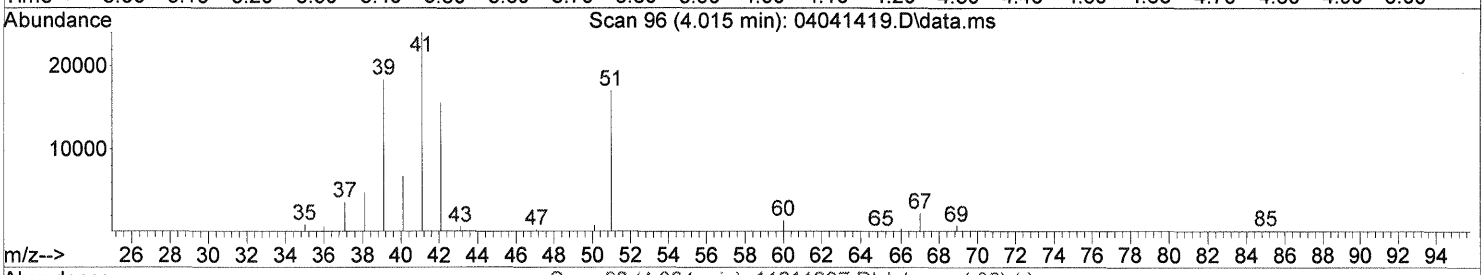
(#) = qualifier out of range (m) = manual integration (+) = signals summed

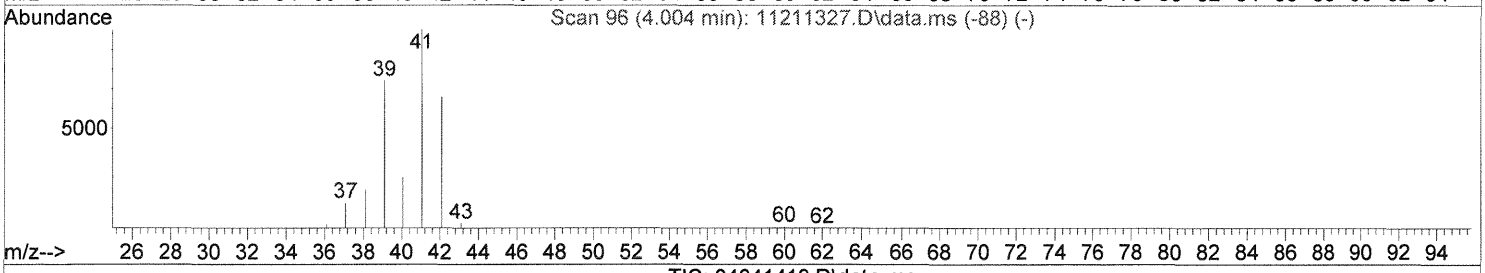
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041419.D
Acq On : 4 Apr 2014 20:49 Operator: EM
Sample : P1401201-004 (1000ml)
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:06:20 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041419.D\data.ms

(2) Propene (T)

4.015min (+0.006) 2.08ng

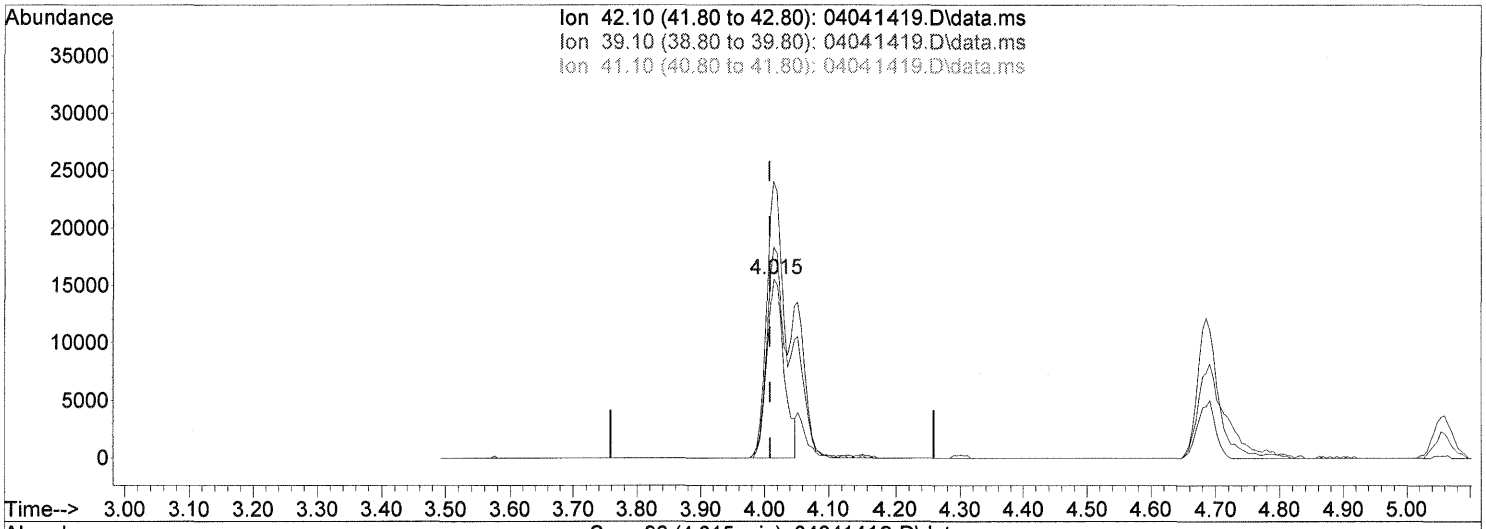
response 33601

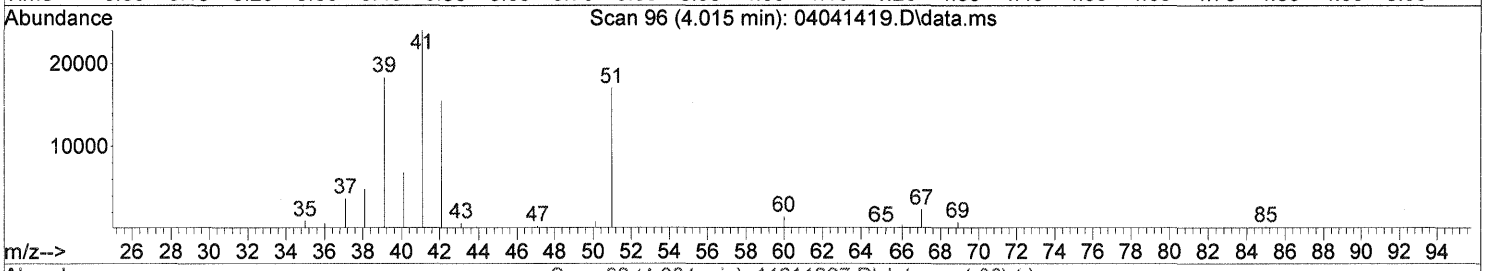
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	99.46
41.10	152.60	126.86#
0.00	0.00	0.00

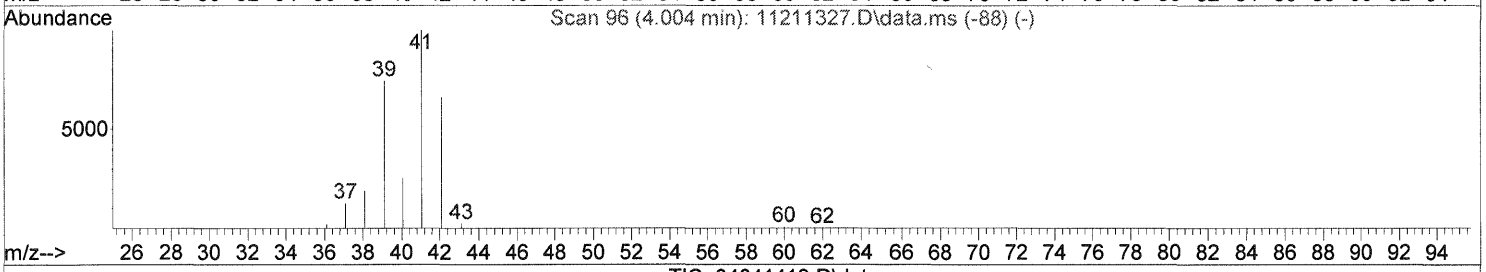
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041419.D
Acq On : 4 Apr 2014 20:49 Operator: EM
Sample : P1401201-004 (1000ml)
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:06:20 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04041419.D\data.ms

(2) Propene (T)

4.015min (+0.006) 1.83ng m

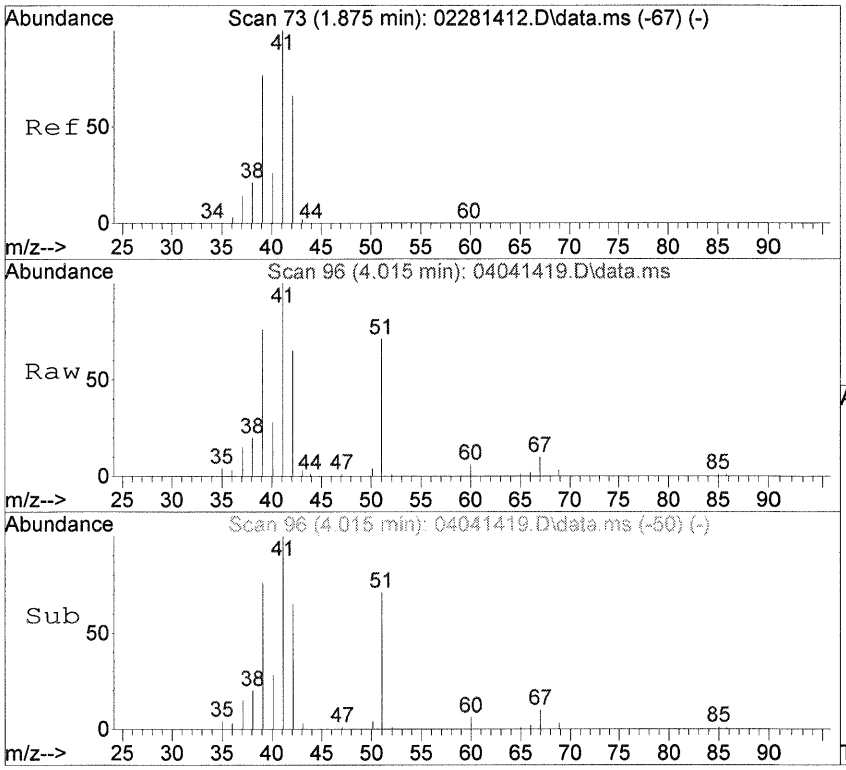
response 29582

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	112.97
41.10	152.60	144.10
0.00	0.00	0.00

IPC

4/7/14

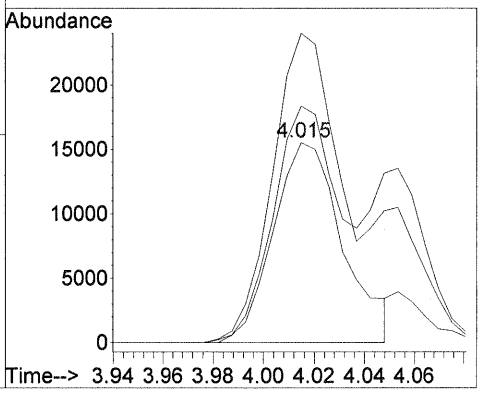
4/5/14

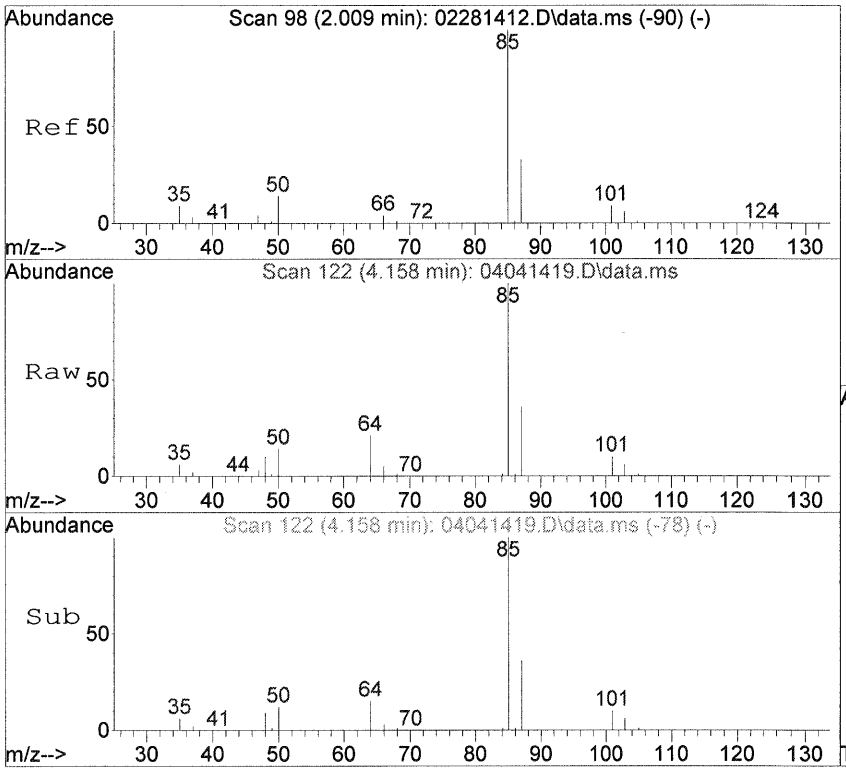


#2
Propene
Concen: 1.83 ng m
RT: 4.01 min Scan# 96
Delta R.T. 0.006 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 42 Resp: 29582

Ion	Ratio	Lower	Upper
42	100		
39	113.0	92.6	132.6
41	144.1	132.6	172.6

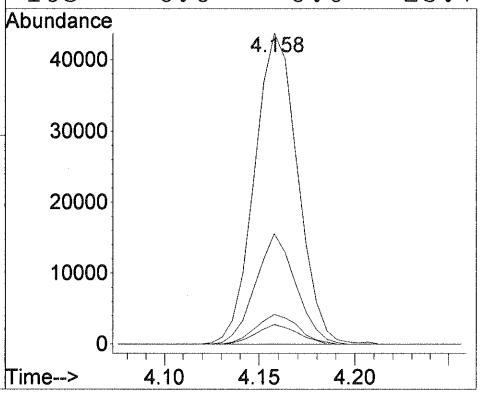


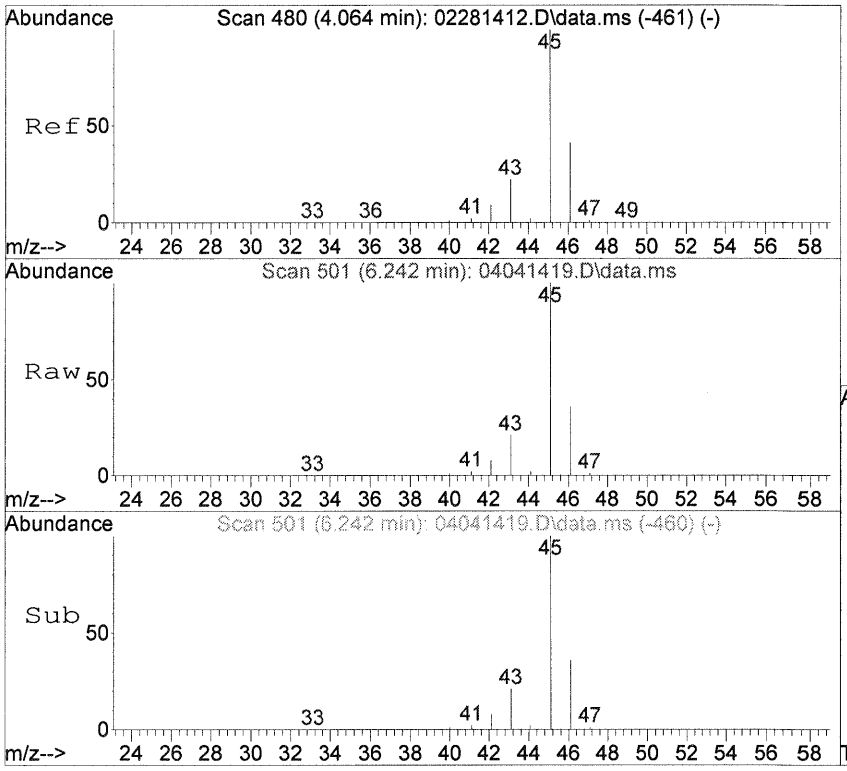


#3
Dichlorodifluoromethane (CFC 1
Concen: 2.18 ng
RT: 4.16 min Scan# 122
Delta R.T. -0.005 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 85 Resp: 68476

Ion	Ratio	Lower	Upper
85	100		
87	33.2	12.6	52.6
101	9.3	0.0	28.9
103	6.0	0.0	25.7

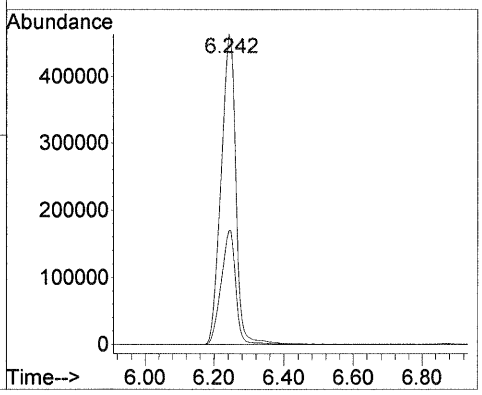


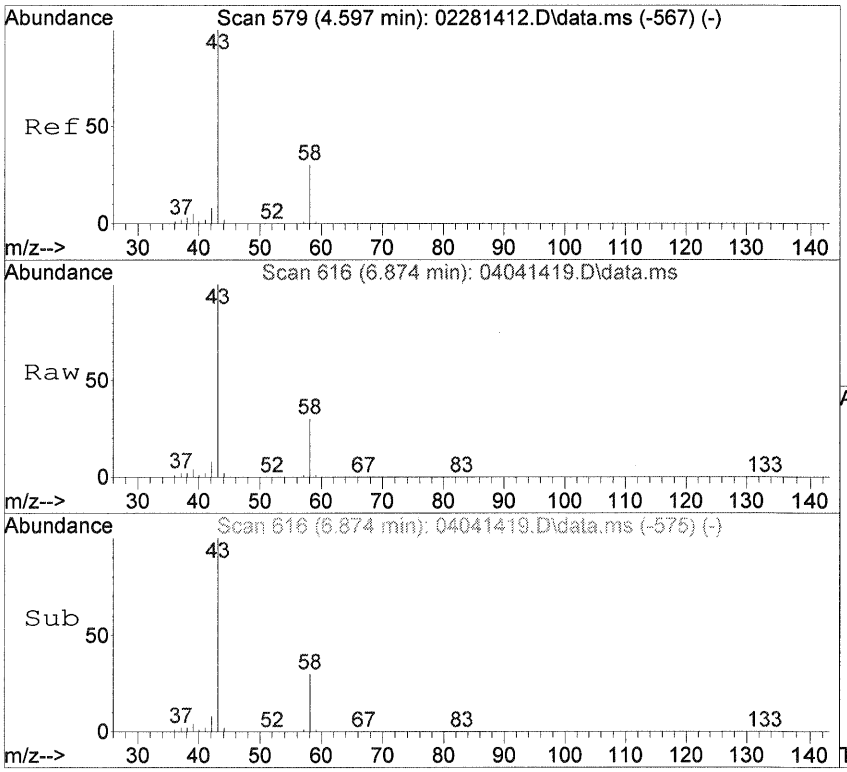


#10
Ethanol
Concen: 137.06 ng
RT: 6.24 min Scan# 501
Delta R.T. -0.022 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 45 Resp: 1350916

Ion	Ratio	Lower	Upper
45	100		
46	36.2	16.5	56.5

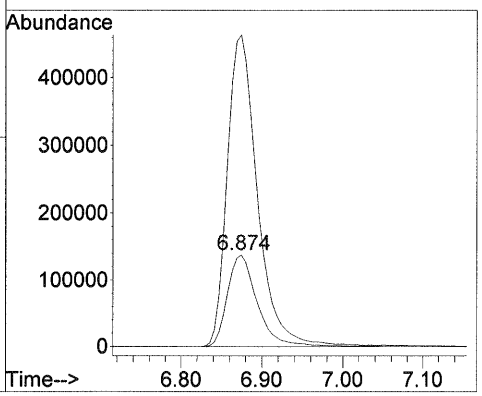


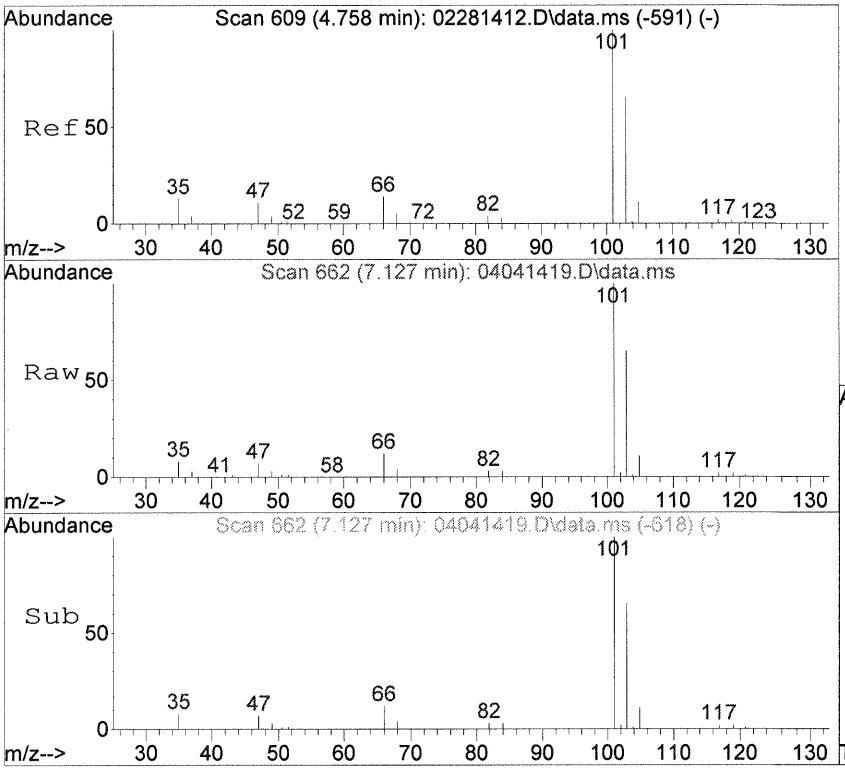


#13
Acetone
Concen: 32.71 ng
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 58 Resp: 354207

Ion	Ratio	Lower	Upper
58	100		
43	342.5	288.8	348.8

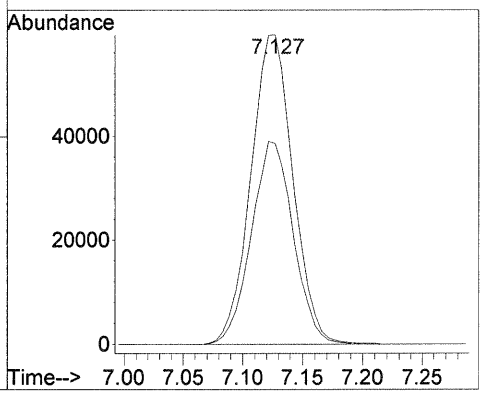


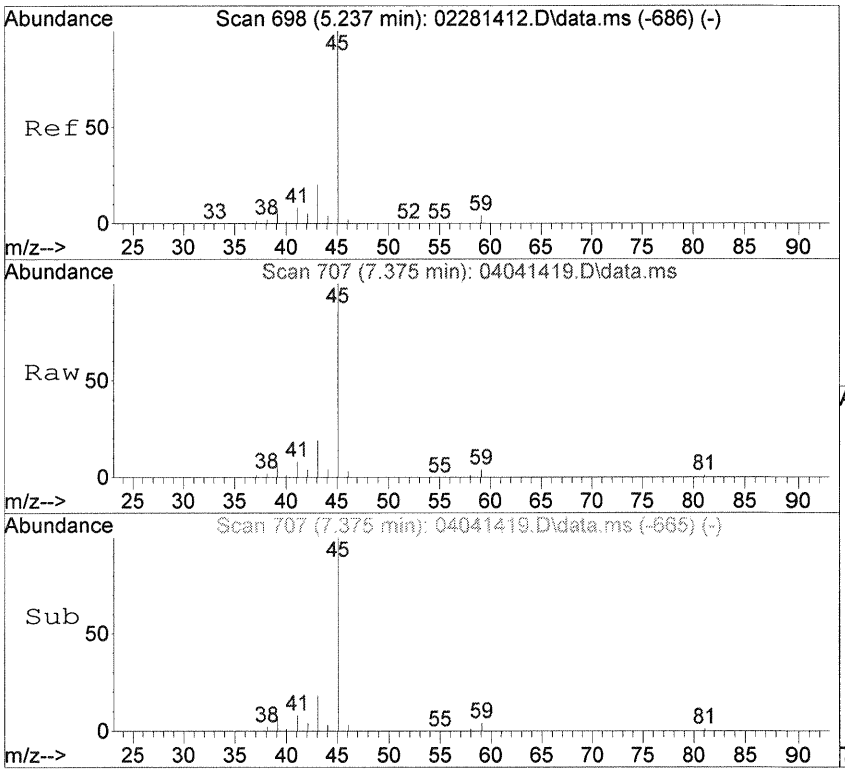


#14
Trichlorofluoromethane
Concen: 5.44 ng
RT: 7.13 min Scan# 662
Delta R.T. -0.005 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion:101 Resp: 146354

Ion	Ratio	Lower	Upper
101	100		
103	65.2	44.9	84.9

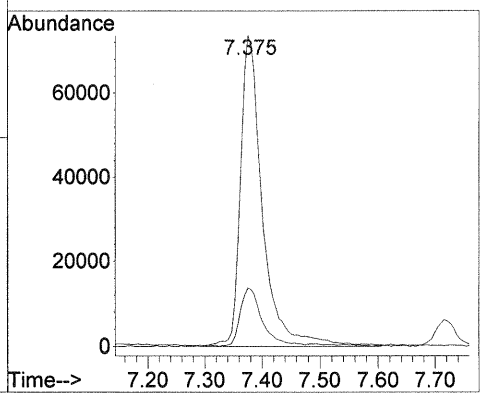


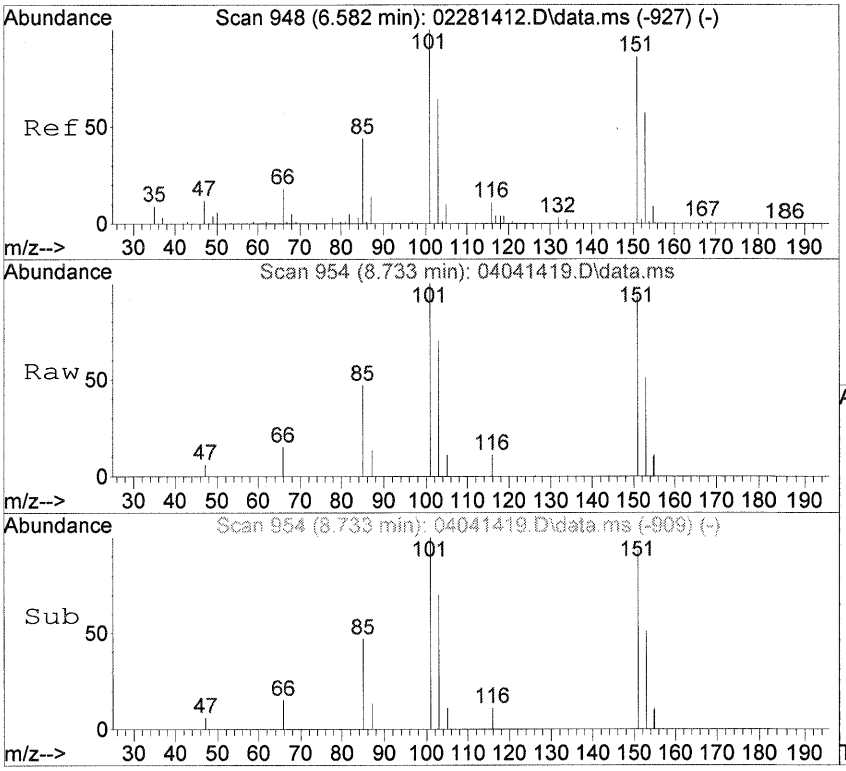


#15
2-Propanol (Isopropanol)
Concen: 5.63 ng
RT: 7.37 min Scan# 707
Delta R.T. -0.016 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 45 Resp: 196711

Ion	Ratio	Lower	Upper
45	100		
43	18.5	0.0	37.8

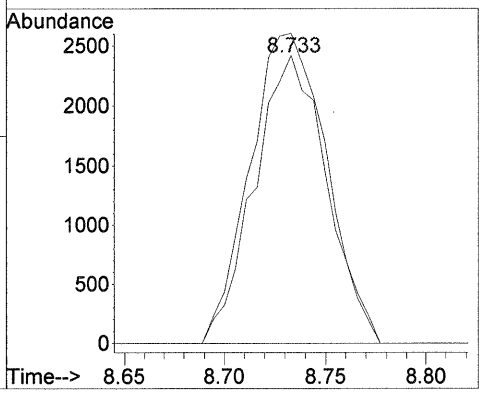


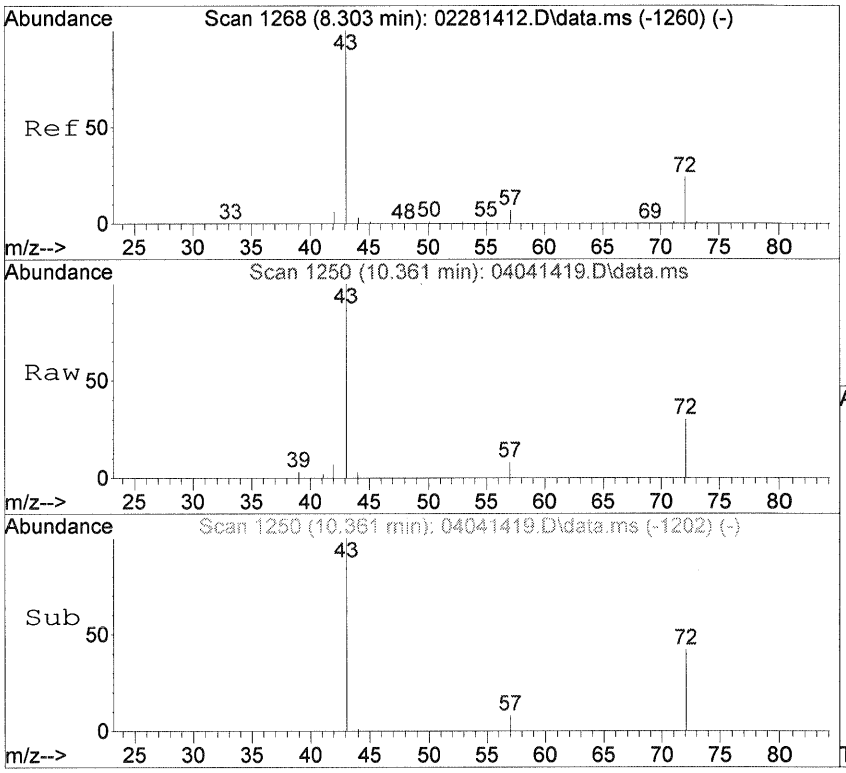


#21
Trichlorotrifluoroethane
Concen: 0.46 ng
RT: 8.73 min Scan# 954
Delta R.T. 0.000 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion:151 Resp: 5998

Ion	Ratio	Lower	Upper
151	100		
101	114.7	94.7	134.7

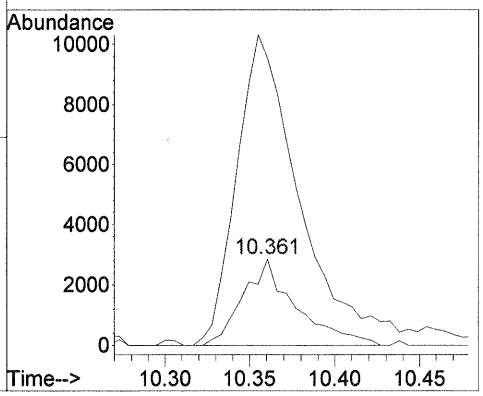




#27
2-Butanone (MEK)
Concen: 0.66 ng
RT: 10.36 min Scan# 1250
Delta R.T. 0.017 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 72 Resp: 6168

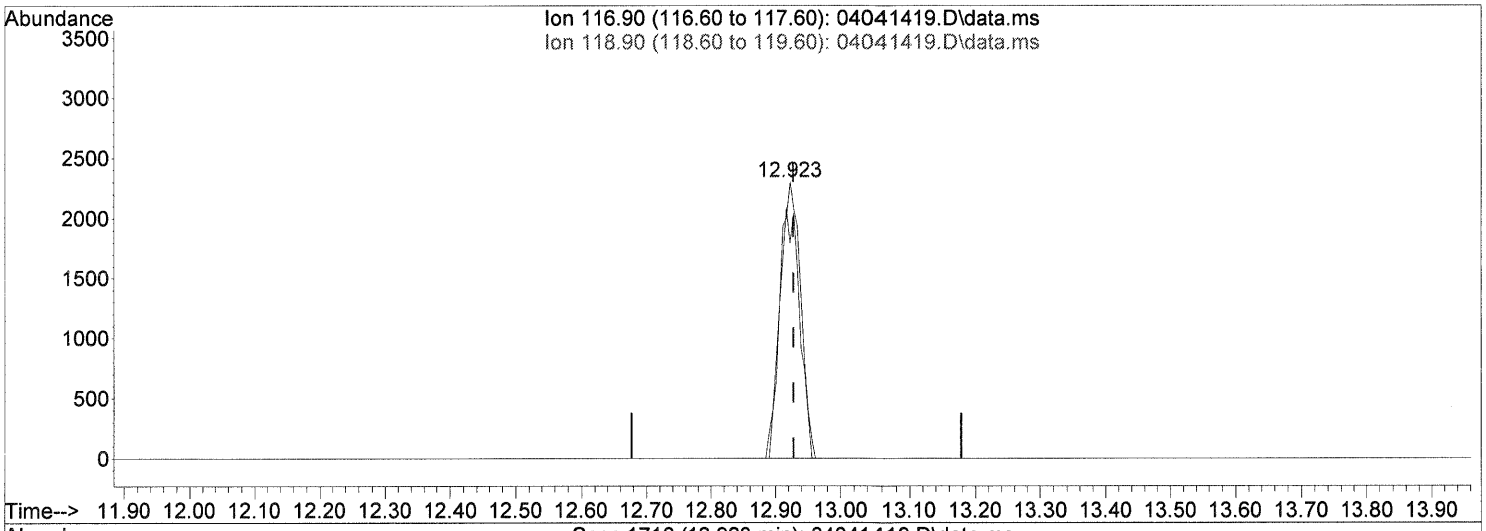
Ion	Ratio	Lower	Upper
72	100		
43	452.2	394.5	434.5#

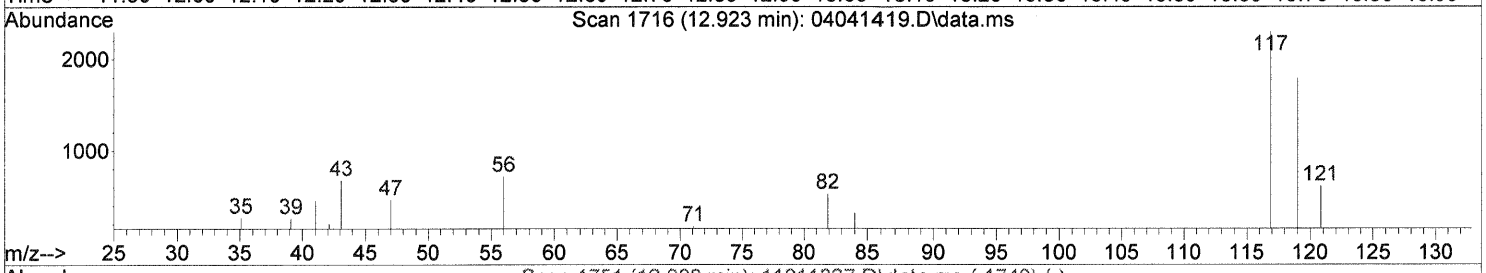


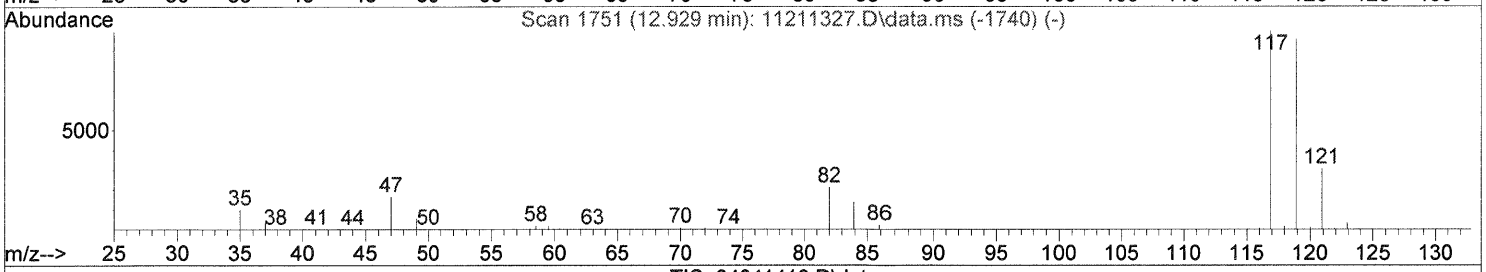
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\04\04041419.D
Acq On : 4 Apr 2014 20:49 Operator: EM
Sample : P1401201-004 (1000ml)
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:06:20 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







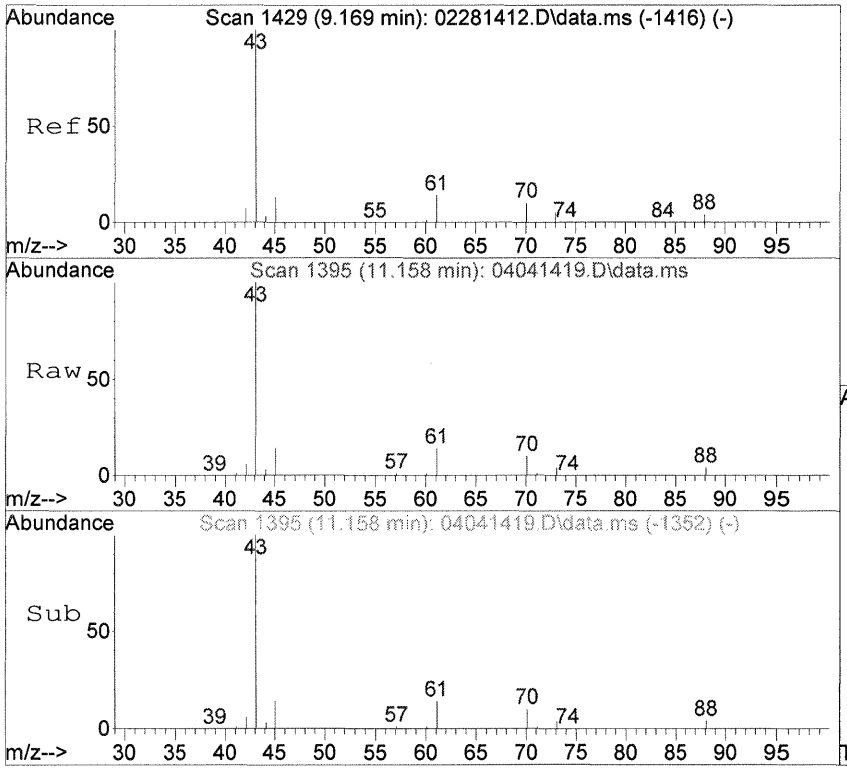
TIC: 04041419.D\data.ms

(42) Carbon Tetrachloride (T)

12.923min (-0.005) 0.28ng

response 5184

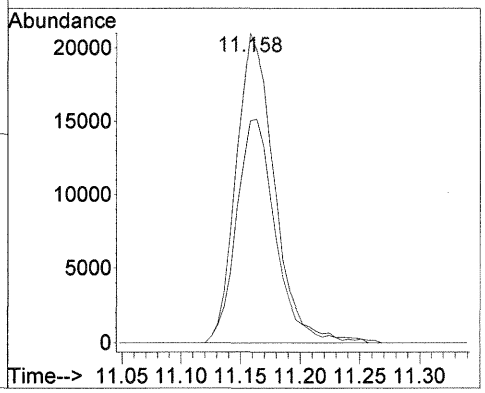
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	86.42
0.00	0.00	0.00
0.00	0.00	0.00

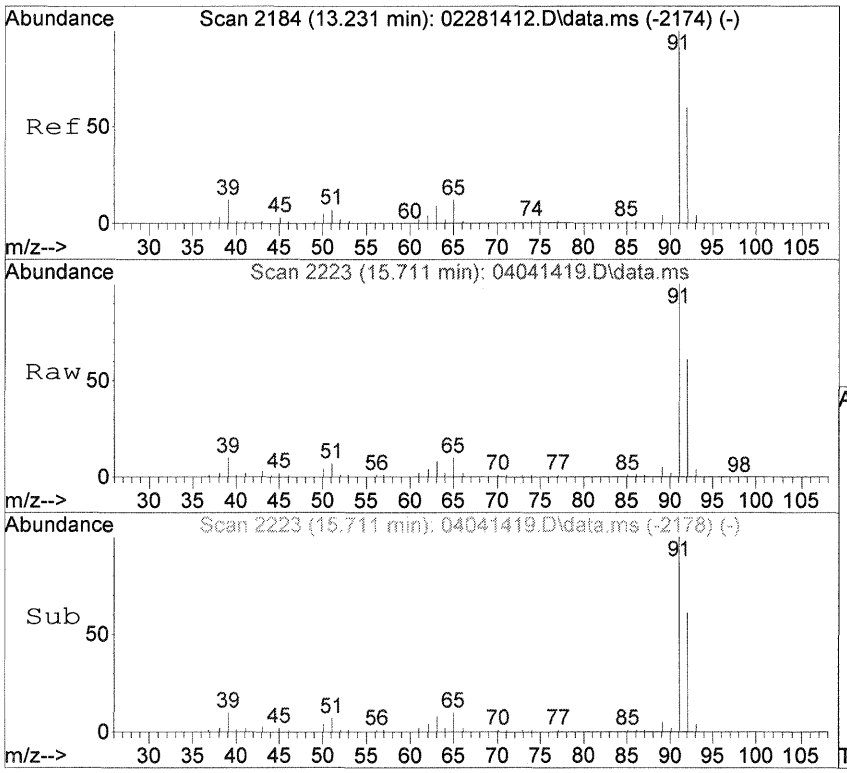


#30
Ethyl Acetate
Concen: 10.49 ng
RT: 11.16 min Scan# 1395
Delta R.T. -0.011 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 61 Resp: 46879

Ion	Ratio	Lower	Upper
61	100		
70	73.0	55.9	95.9

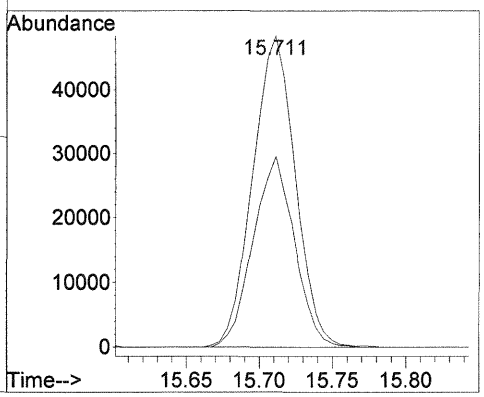


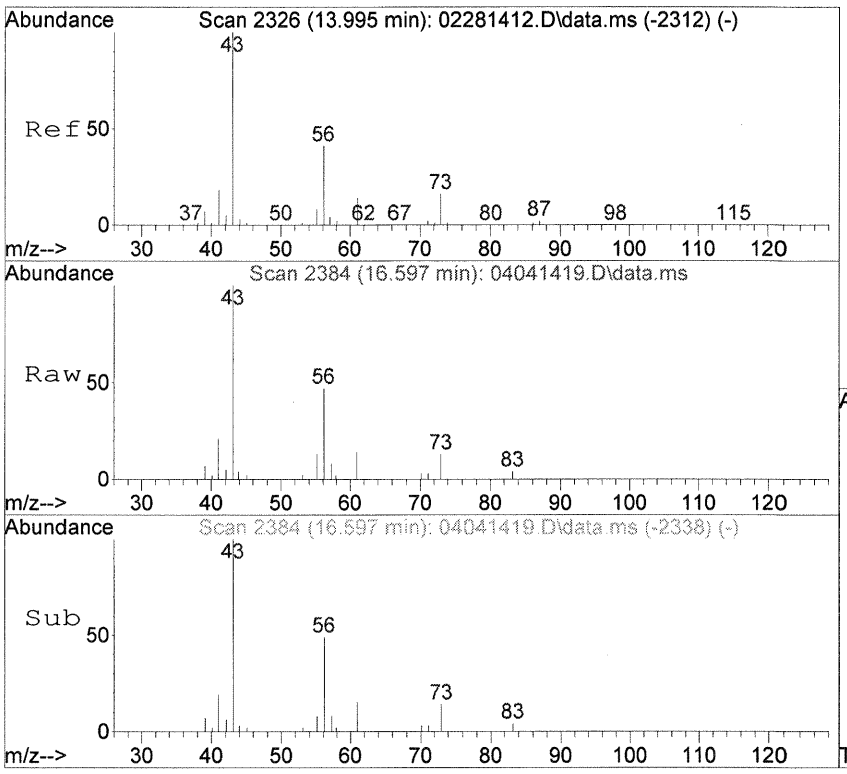


#58
Toluene
Concen: 1.66 ng
RT: 15.71 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 91 Resp: 98045

Ion	Ratio	Lower	Upper
91	100		
92	59.4	39.1	79.1

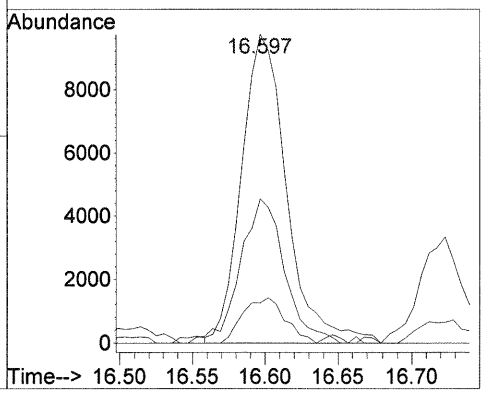


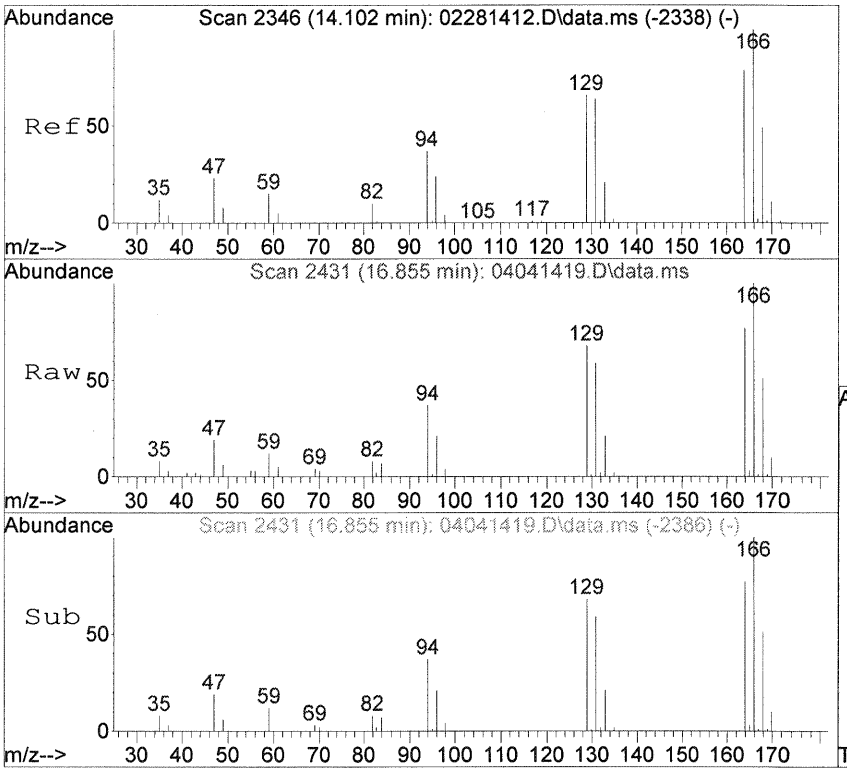


#62
n-Butyl Acetate
Concen: 0.64 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.006 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 43 Resp: 21026

Ion	Ratio	Lower	Upper
43	100		
56	45.8	19.9	59.9
73	13.6	0.0	34.1

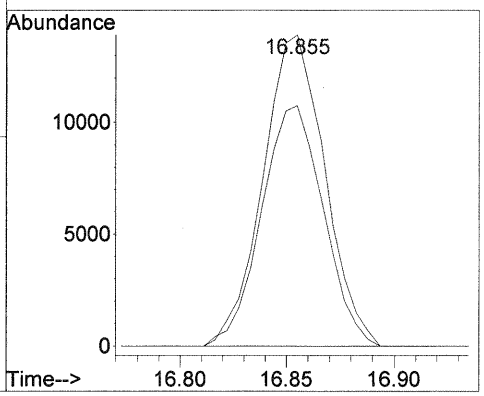


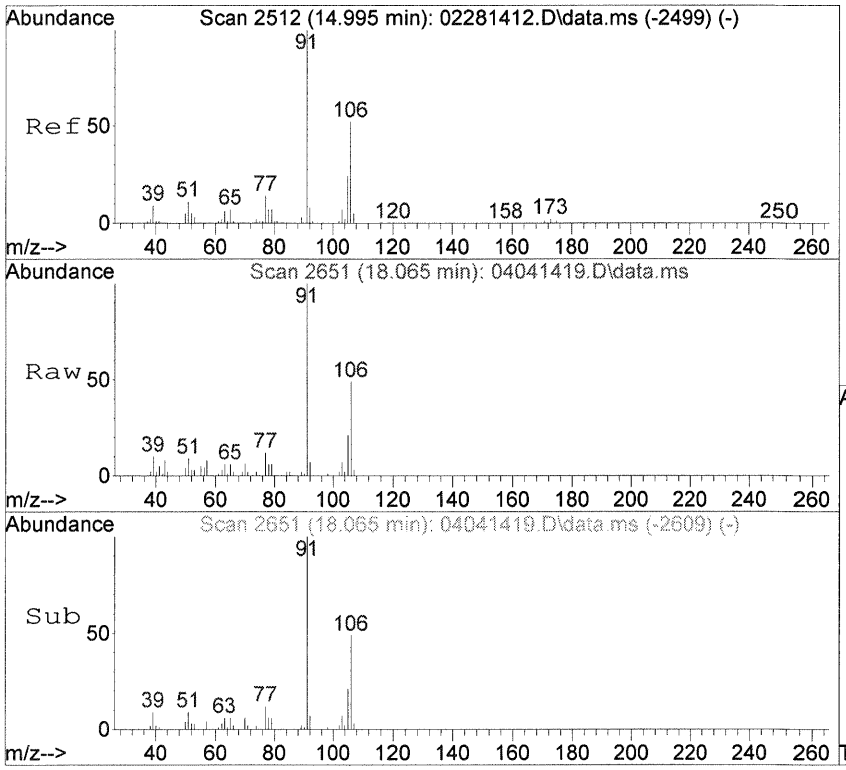


#64
Tetrachloroethene
Concen: 1.54 ng
RT: 16.86 min Scan# 2431
Delta R.T. 0.000 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion:166 Resp: 28021

Ion	Ratio	Lower	Upper
166	100		
164	77.2	57.8	97.8

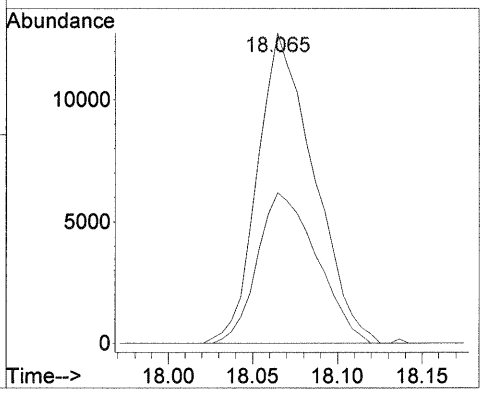


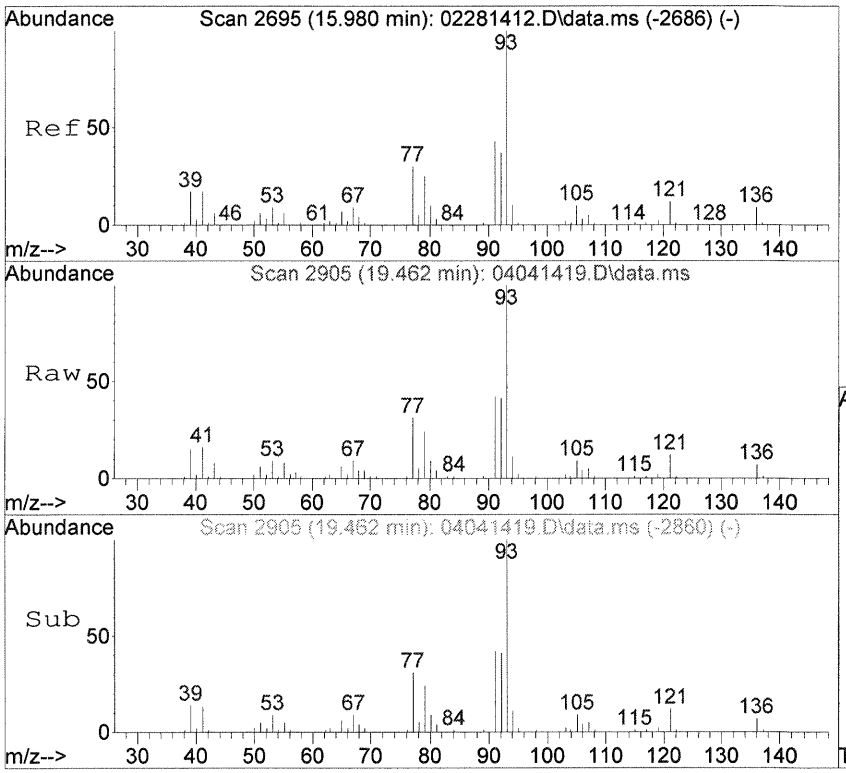


#67
m- & p-Xylenes
Concen: 0.56 ng
RT: 18.06 min Scan# 2651
Delta R.T. -0.016 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 91 Resp: 29473

Ion	Ratio	Lower	Upper
91	100		
106	51.2	29.6	69.6

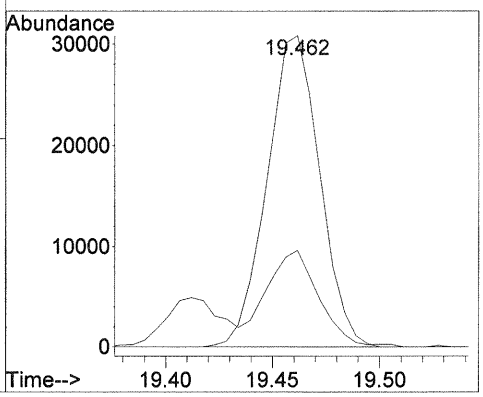


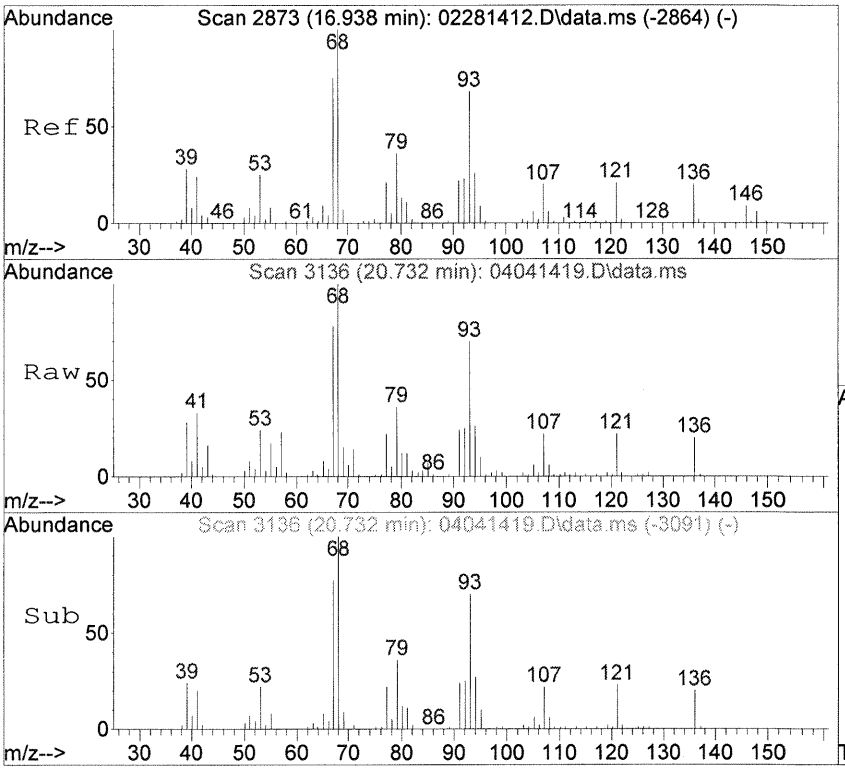


#75
alpha-Pinene
Concen: 1.58 ng
RT: 19.46 min Scan# 2905
Delta R.T. 0.000 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

Tgt Ion: 93 Resp: 52766

Ion	Ratio	Lower	Upper
93	100		
77	30.9	9.1	49.1

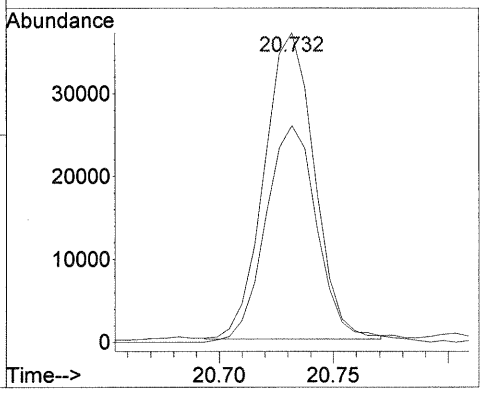




#91
d-Limonene
Concen: 2.80 ng
RT: 20.73 min Scan# 3136
Delta R.T. 0.000 min
Lab File: 04041419.D
Acq: 4 Apr 2014 20:49

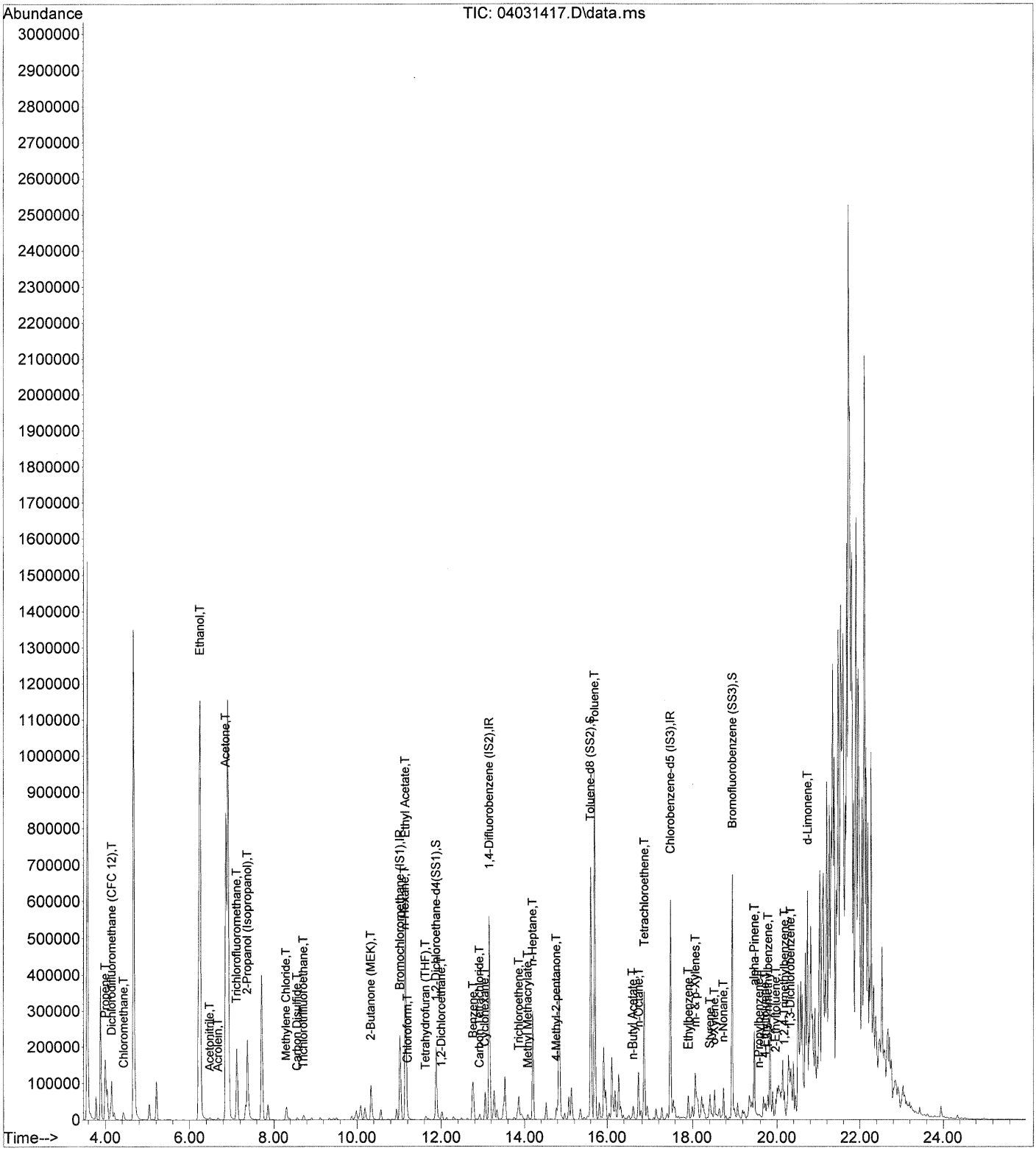
Tgt Ion: 68 Resp: 56376

Ion	Ratio	Lower	Upper
68	100		
93	74.0	50.9	90.9



Data File: I:\MS13\DATA\2014_04\03\04031417.D
Acq On : 3 Apr 2014 23:31 Operator: EM
Sample : P1401201-005 (1000ml)
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 05 09:46:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031417.D
Acq On : 3 Apr 2014 23:31 Operator: EM
Sample : P1401201-005 (1000ml)
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 05 09:46:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	103044	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	524729	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	207944	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	160564	13.959	ng		-0.01
Spiked Amount 12.500			Recovery = 111.68%				
57) Toluene-d8 (SS2)	15.61	98	532589	12.314	ng		0.00
Spiked Amount 12.500			Recovery = 98.48%				
73) Bromofluorobenzene (SS3)	18.95	174	229092	12.809	ng		0.00
Spiked Amount 12.500			Recovery = 102.48%				
Target Compounds							Qvalue
2) Propene	4.00	42	54480m	3.561	ng		
3) Dichlorodifluoromethan...	4.15	85	76209	2.566	ng		98
4) Chloromethane	4.44	50	7171	0.358	ng		77
5) 1,2-Dichloro-1,1,2,2-t...	4.70	135	1021	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.12	54	759	N.D.			
8) Bromomethane	5.55	94	537	N.D.			
9) Chloroethane	5.86	64	142	N.D.			
10) Ethanol	6.26	45	2095267	224.537	ng		100
11) Acetonitrile	6.48	41	7901	0.299	ng		94
12) Acrolein	6.68	56	6764	0.815	ng		98
13) Acetone	6.87	58	429612	41.910	ng	#	30
14) Trichlorofluoromethane	7.12	101	210888	8.282	ng		100
15) 2-Propanol (Isopropanol)	7.37	45	368008	11.135	ng		100
16) Acrylonitrile	7.63	53	553	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	8.30	84	12247	0.858	ng		97
20) 3-Chloro-1-propene (Al...	8.39	41	1043	N.D.			
21) Trichlorotrifluoroethane	8.73	151	6617	0.535	ng		97
22) Carbon Disulfide	8.57	76	14311	0.282	ng		86
23) trans-1,2-Dichloroethene	9.58	61	69	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	9.99	73	656	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.	d		
27) 2-Butanone (MEK)	10.33	72	35618	4.035	ng		94
28) cis-1,2-Dichloroethene	10.87	61	452	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.	d		
30) Ethyl Acetate	11.16	61	123132	29.101	ng		93
31) n-Hexane	11.14	57	19758	1.014	ng		96
32) Chloroform	11.20	83	5576	0.243	ng		91
34) Tetrahydrofuran (THF)	11.63	72	3454	0.426	ng	#	76
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	12.00	62	3820	0.234	ng		96
38) 1,1,1-Trichloroethane	12.28	97	322	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.	d		
40) 1-Butanol	0.00	56	0	N.D.	d		
41) Benzene	12.76	78	79534	1.392	ng		99
42) Carbon Tetrachloride	12.92	117	5827	0.329	ng		98
43) Cyclohexane	13.05	84	32389	1.610	ng		100
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	13.61	63	298	N.D.			

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031417.D
Acq On : 3 Apr 2014 23:31 Operator: EM
Sample : P1401201-005 (1000ml)
Misc :
ALS Vial : 12 Sample Multiplier: 1

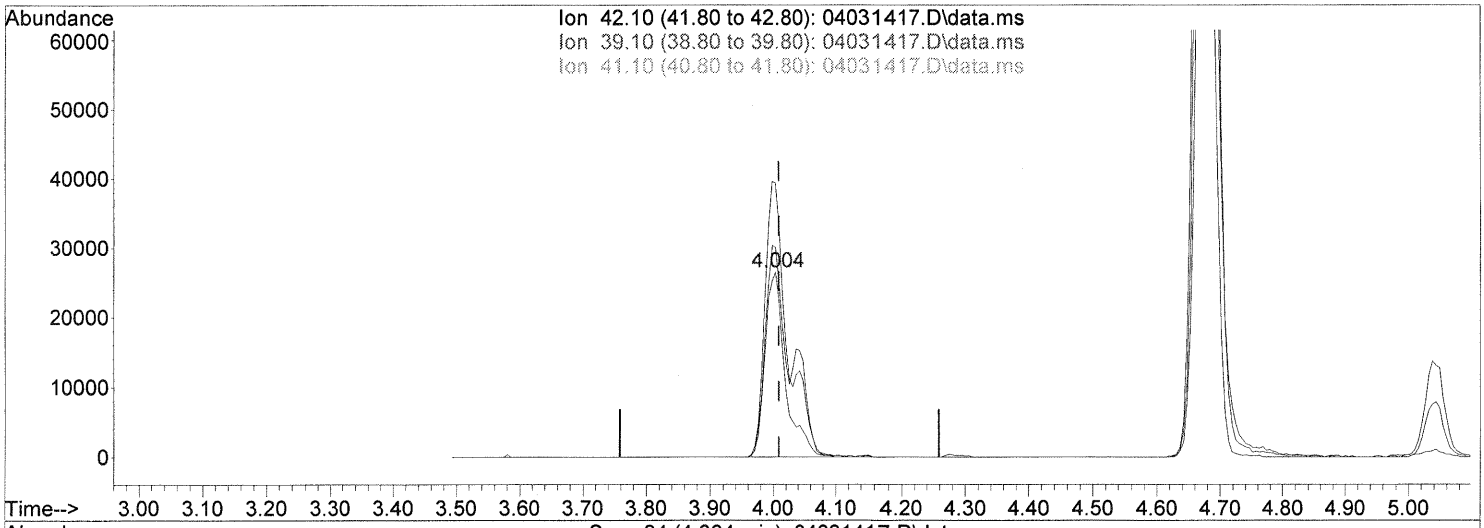
Quant Time: Apr 05 09:46:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

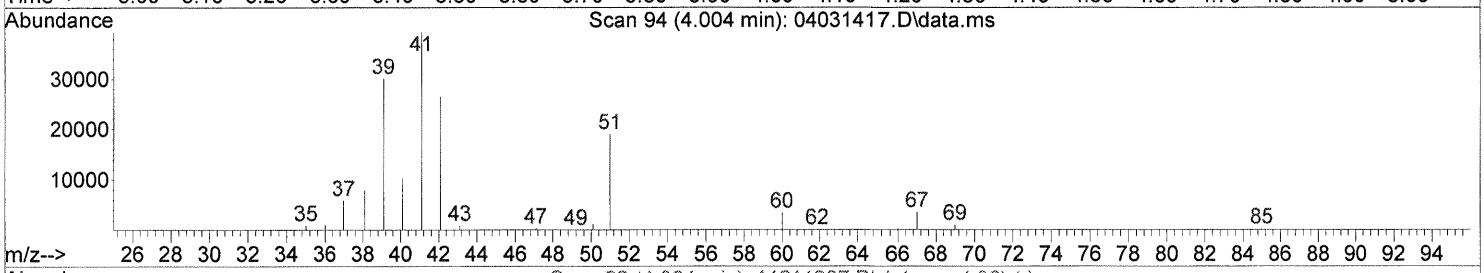
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
46) Bromodichloromethane	13.83	83	1160	N.D.		
47) Trichloroethene	13.86	130	23829	1.458 ng		99
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D. d		
50) Methyl Methacrylate	14.08	100	2078	0.402 ng		98
51) n-Heptane	14.20	71	75279	6.054 ng		100
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.77	58	12485	1.067 ng	#	94
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	15.35	97	77	N.D.		
58) Toluene	15.71	91	818569	14.558 ng		100
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	29596	0.947 ng		94
63) n-Octane	16.72	57	25770	2.279 ng		99
64) Tetrachloroethene	16.86	166	130141	7.497 ng		100
65) Chlorobenzene	17.54	112	1254	N.D.		
66) Ethylbenzene	17.91	91	49800	0.798 ng		99
67) m- & p-Xylenes	18.06	91	98114	1.963 ng		100
68) Bromoform	18.13	173	114	N.D.		
69) Styrene	18.42	104	29997	0.818 ng		99
70) o-Xylene	18.52	91	42036	0.822 ng		97
71) n-Nonane	18.74	43	32648	1.176 ng		99
72) 1,1,2,2-Tetrachloroethane	18.49	83	133	N.D.		
74) Cumene	19.09	105	5668	N.D.		
75) alpha-Pinene	19.46	93	95550	3.004 ng		96
76) n-Propylbenzene	19.57	91	7987	0.099 ng		99
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.71	105	8336	0.140 ng		95
79) 1,3,5-Trimethylbenzene	19.78	105	7230	0.139 ng		96
80) alpha-Methylstyrene	19.93	118	1087	N.D.		
81) 2-Ethyltoluene	19.97	105	7278	0.120 ng		98
82) 1,2,4-Trimethylbenzene	20.18	105	20236	0.384 ng		88
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.30	91	612	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	4271	0.138 ng		97
86) 1,4-Dichlorobenzene	20.39	146	1155	N.D.		
87) sec-Butylbenzene	20.43	105	1726	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D. d		
90) 1,2-Dichlorobenzene	20.72	146	530	N.D.		
91) d-Limonene	20.73	68	134214	6.998 ng		98
92) 1,2-Dibromo-3-Chloropr...	21.19	157	105	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	22.41	180	591	N.D.		
95) Naphthalene	0.00	128	0	N.D. d		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	22.86	225	810	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.17	119	2979	N.D.		
100) n-Butylbenzene	21.00	91	2173	N.D.		

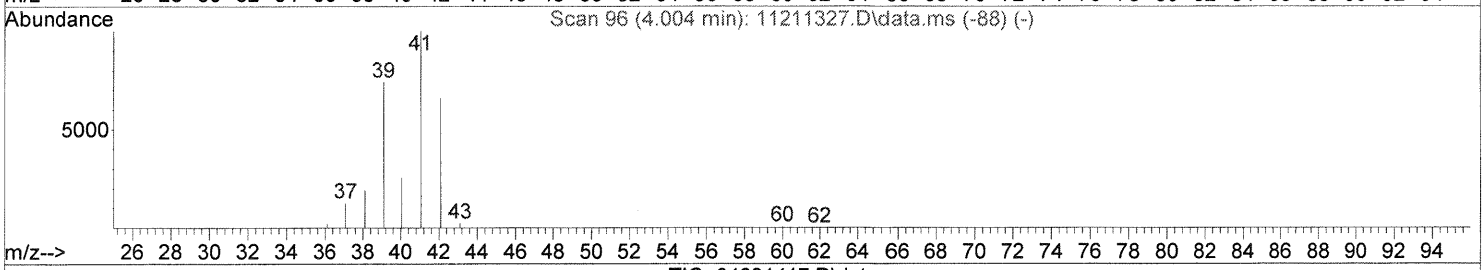
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File: I:\MS13\DATA\2014_04\03\04031417.D
Acq On : 3 Apr 2014 23:31 Operator: EM
Sample : P1401201-005 (1000ml)
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 04 08:26:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031417.D\data.ms

(2) Propene (T)

4.004min (-0.005) 3.89ng

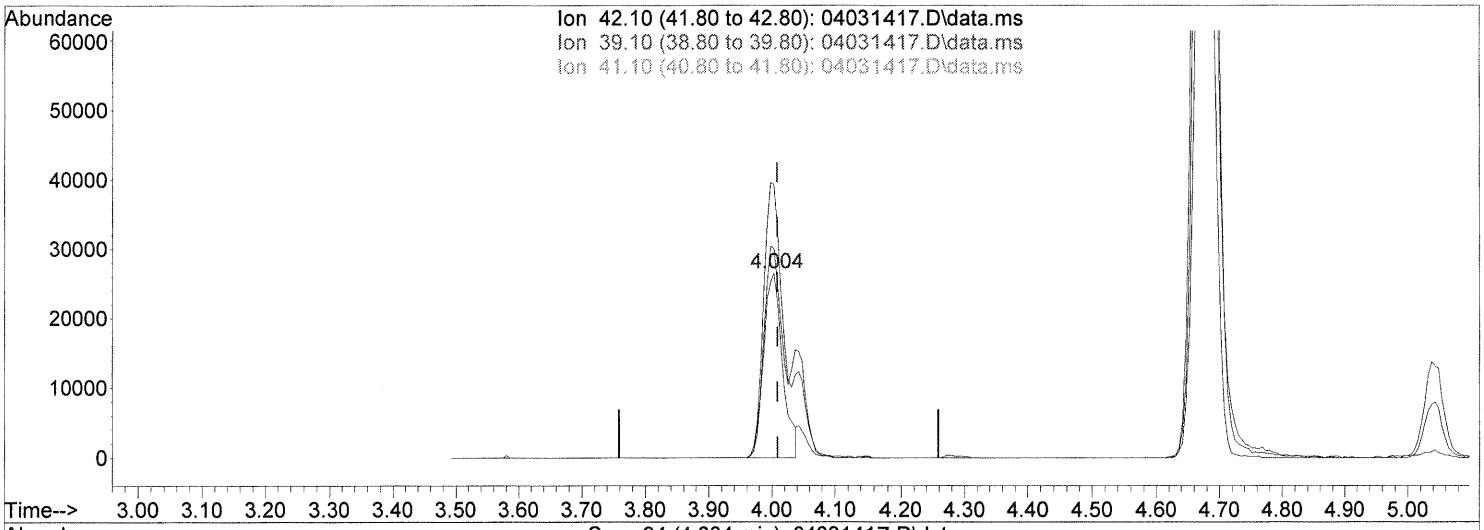
response 59544

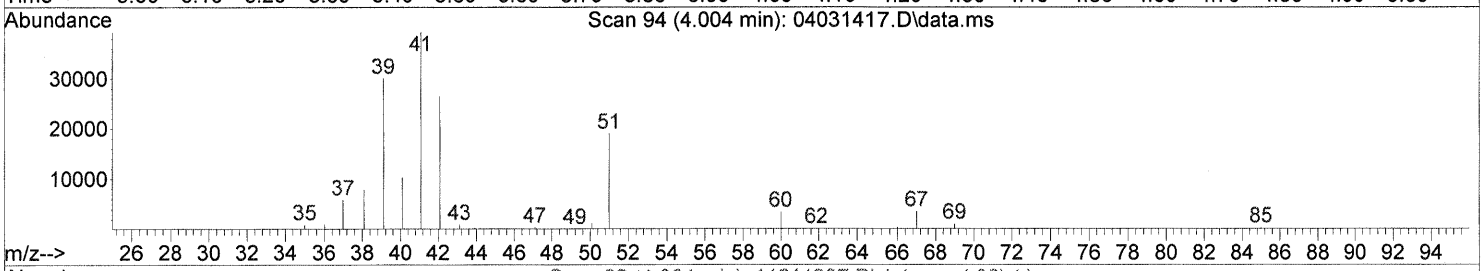
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	102.63
41.10	152.60	137.80
0.00	0.00	0.00

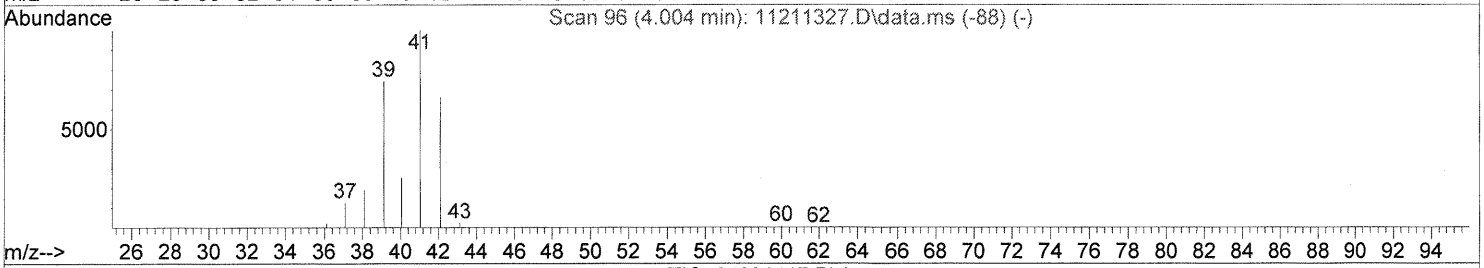
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031417.D
Acq On : 3 Apr 2014 23:31 Operator: EM
Sample : P1401201-005 (1000ml)
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 04 08:26:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031417.D\data.ms

(2) Propene (T)

4.004min (-0.005) 3.56ng m

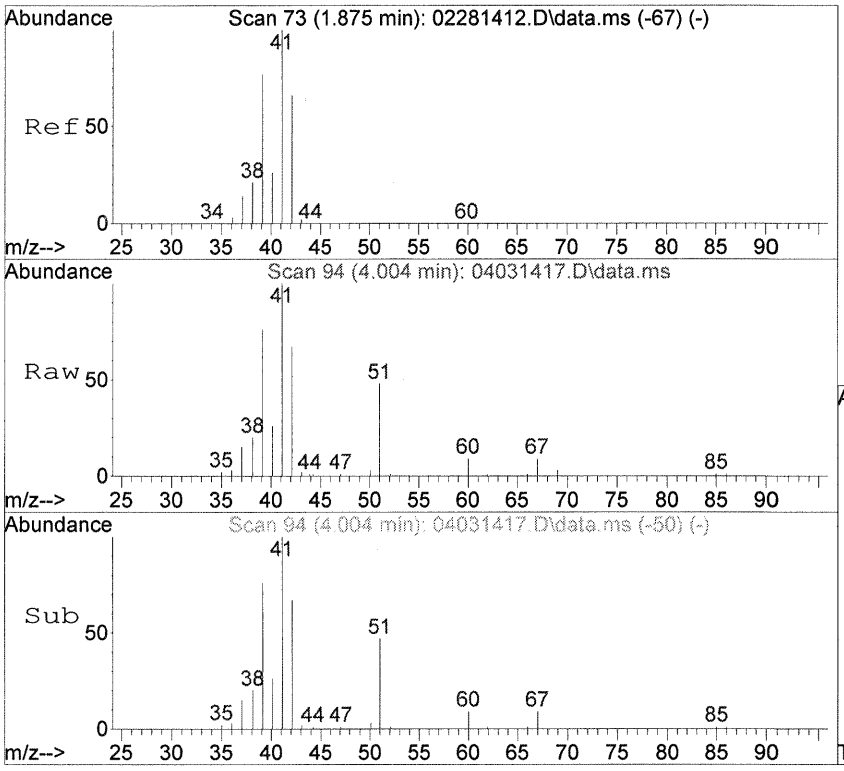
response 54480

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	112.17
41.10	152.60	150.61
0.00	0.00	0.00

IPC

4/5/14

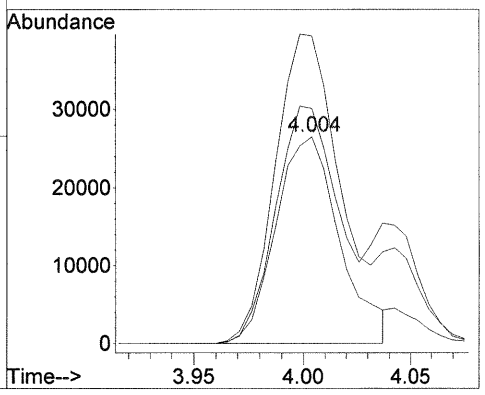
4/7/14

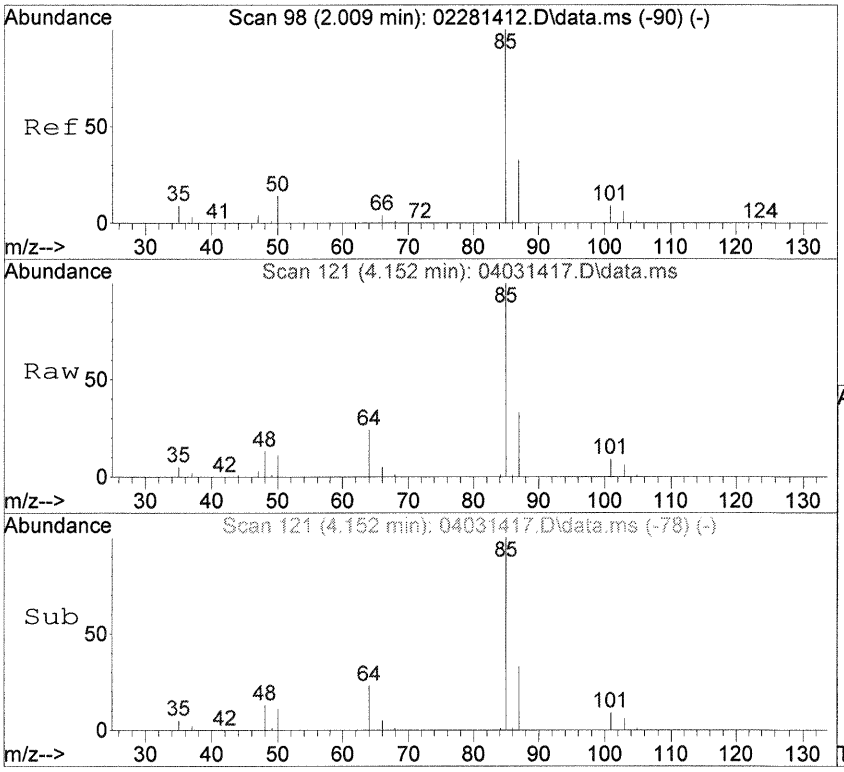


#2
Propene
Concen: 3.56 ng m
RT: 4.00 min Scan# 94
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 42 Resp: 54480

Ion	Ratio	Lower	Upper
42	100		
39	112.2	92.6	132.6
41	150.6	132.6	172.6

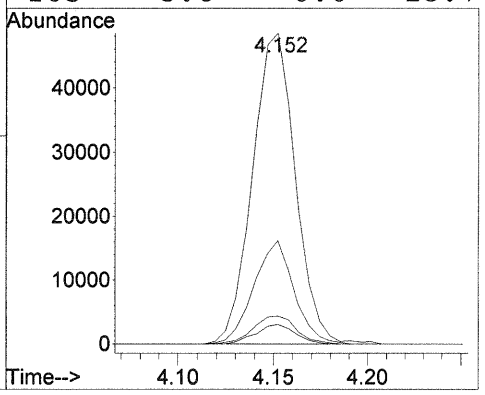


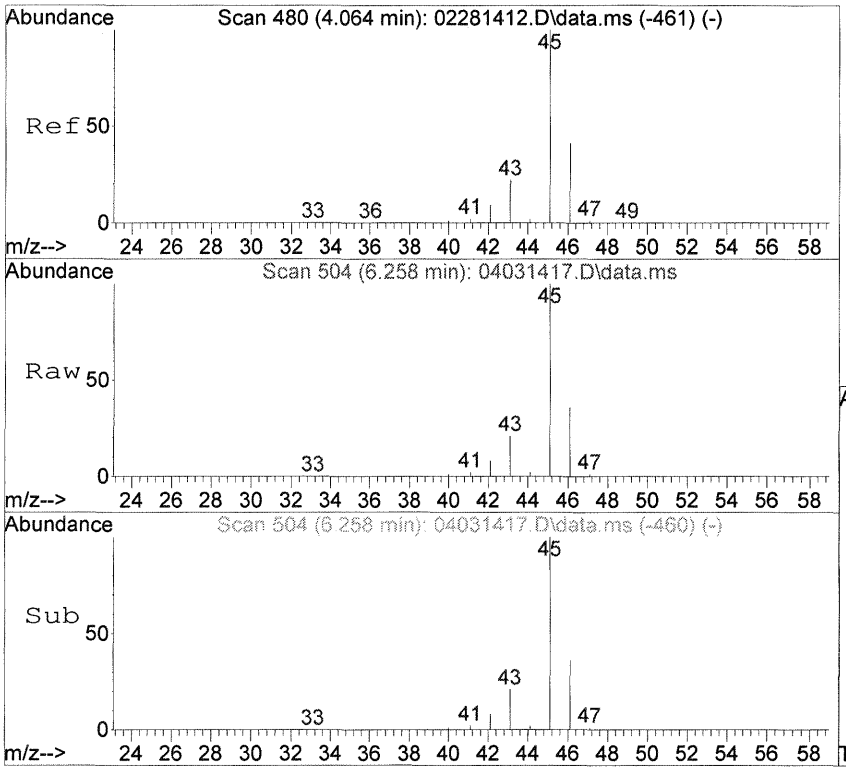


#3
Dichlorodifluoromethane (CFC 1
Concen: 2.57 ng
RT: 4.15 min Scan# 121
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 85 Resp: 76209

Ion	Ratio	Lower	Upper
85	100		
87	31.1	12.6	52.6
101	9.0	0.0	28.9
103	5.8	0.0	25.7

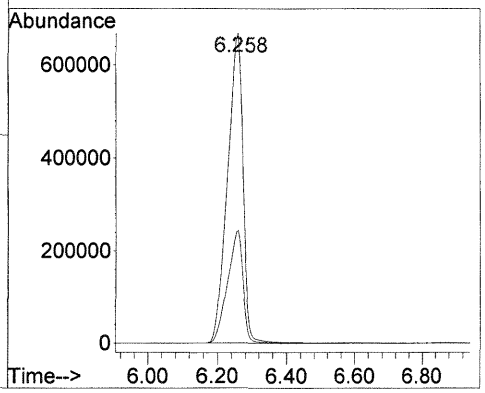


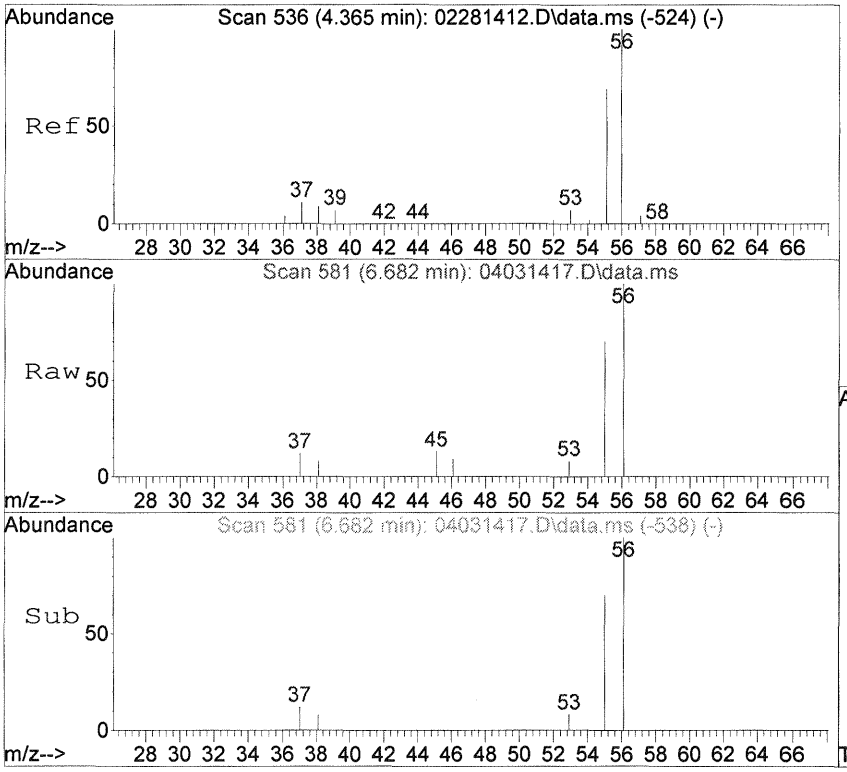


#10
Ethanol
Concen: 224.54 ng
RT: 6.26 min Scan# 504
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 45 Resp: 2095267

Ion	Ratio	Lower	Upper
45	100		
46	36.3	16.5	56.5

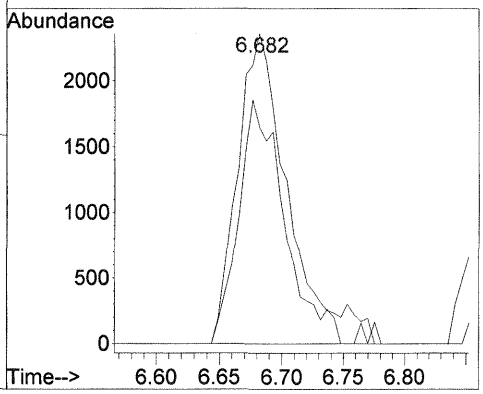


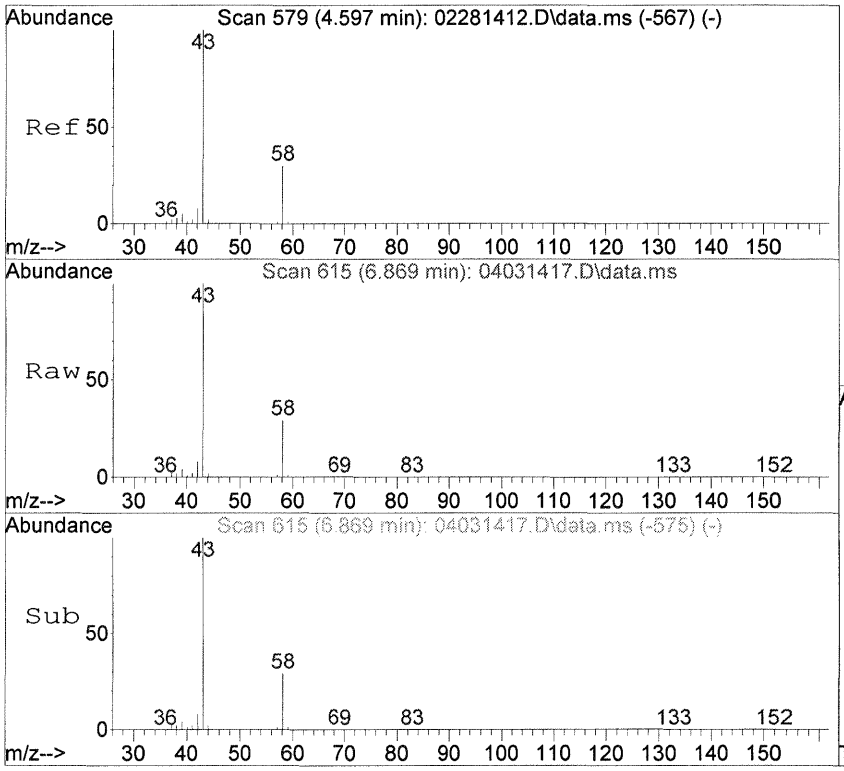


#12
Acrolein
Concen: 0.81 ng
RT: 6.68 min Scan# 581
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 56 Resp: 6764

Ion	Ratio	Lower	Upper
56	100		
55	68.3	49.9	89.9

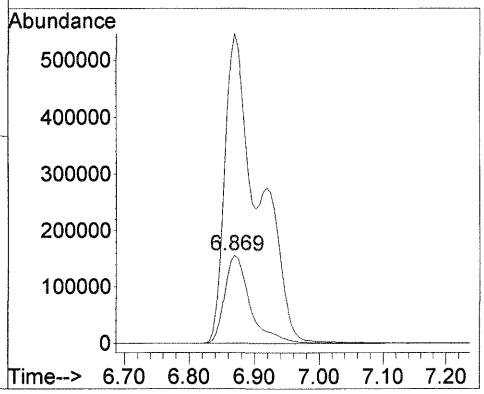


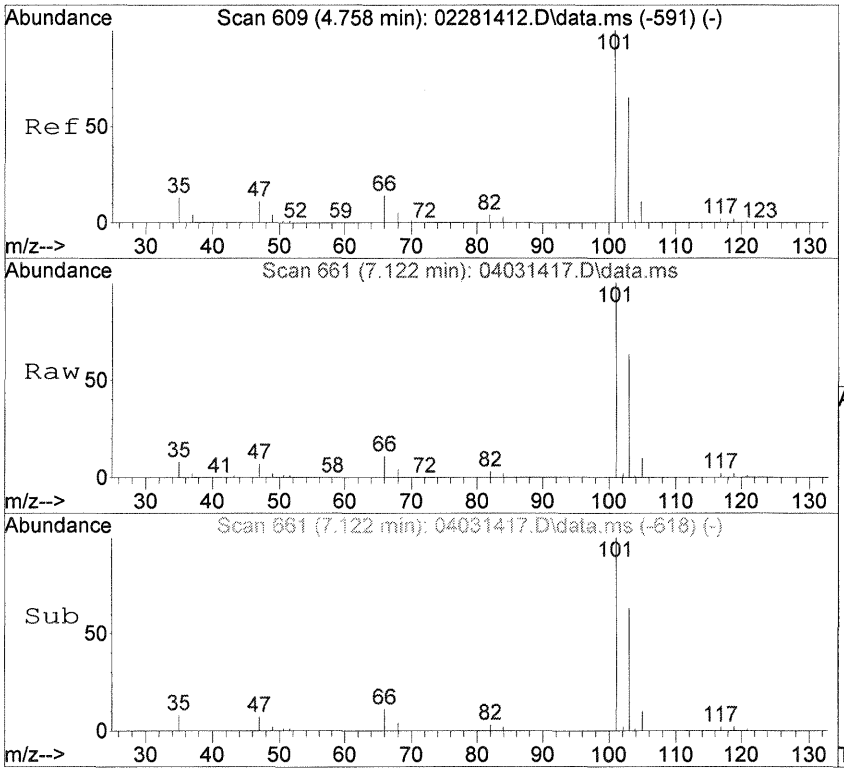


#13
Acetone
Concen: 41.91 ng
RT: 6.87 min Scan# 615
Delta R.T. -0.027 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 58 Resp: 429612

Ion	Ratio	Lower	Upper
58	100		
43	461.7	288.8	348.8#

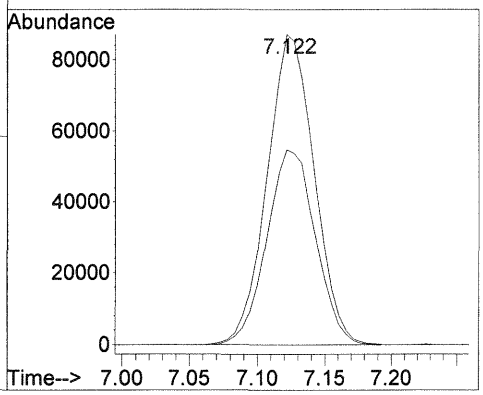


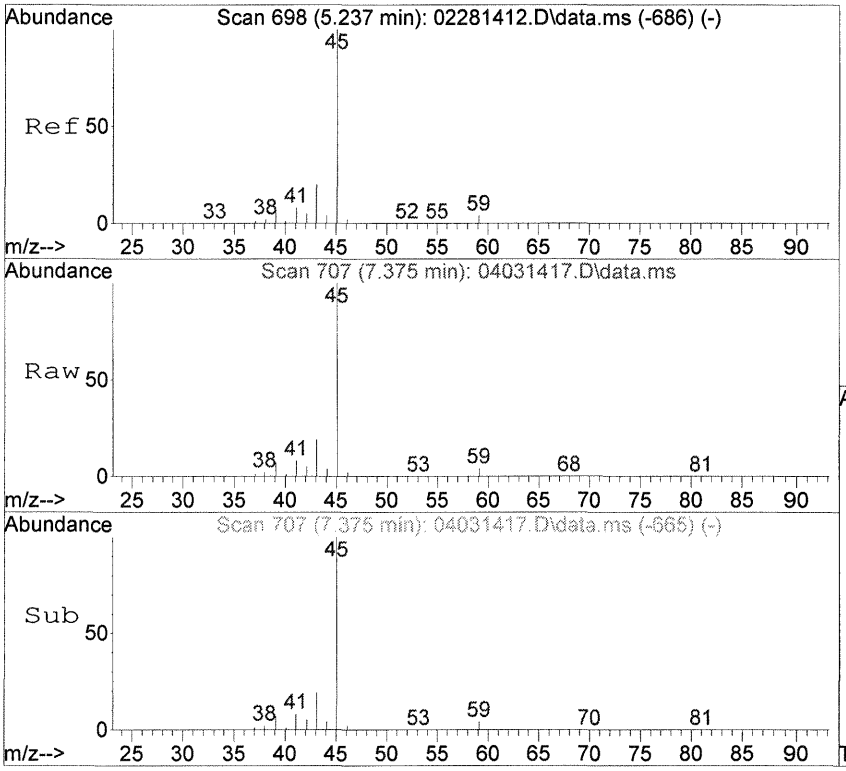


#14
Trichlorofluoromethane
Concen: 8.28 ng
RT: 7.12 min Scan# 661
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion:101 Resp: 210888

Ion	Ratio	Lower	Upper
101	100		
103	64.7	44.9	84.9

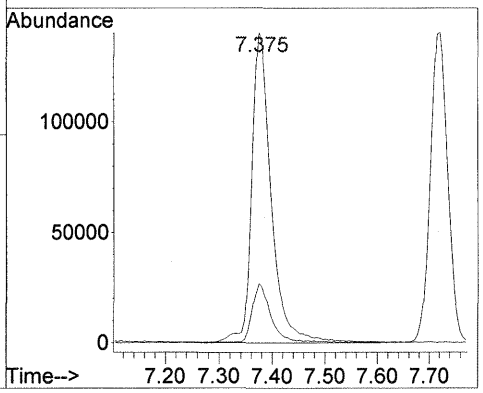


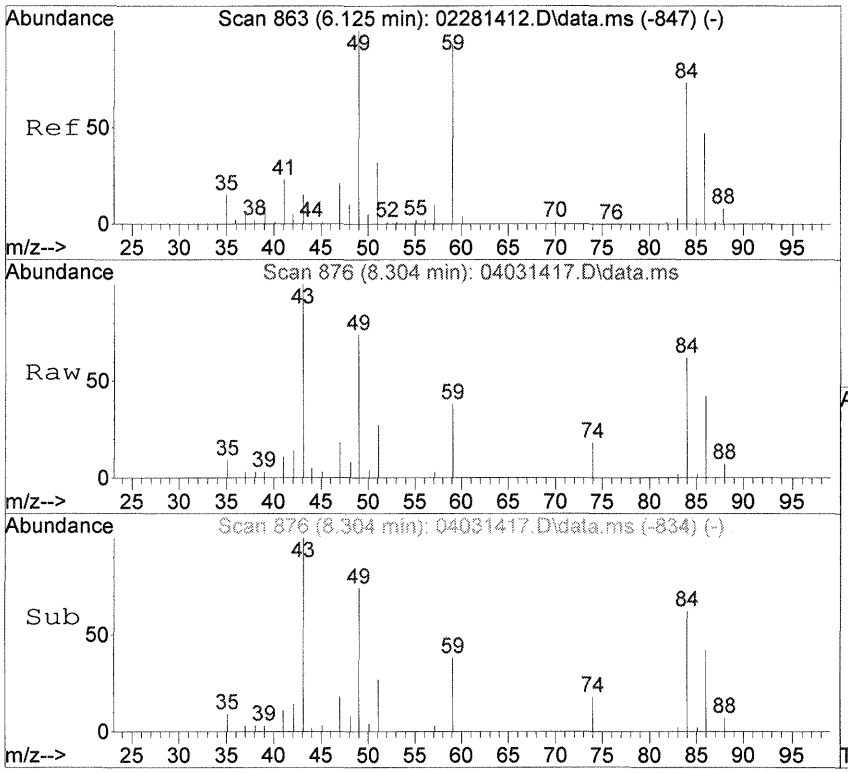


#15
2-Propanol (Isopropanol)
Concen: 11.13 ng
RT: 7.37 min Scan# 707
Delta R.T. -0.016 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 45 Resp: 368008

Ion	Ratio	Lower	Upper
45	100		
43	17.7	0.0	37.8

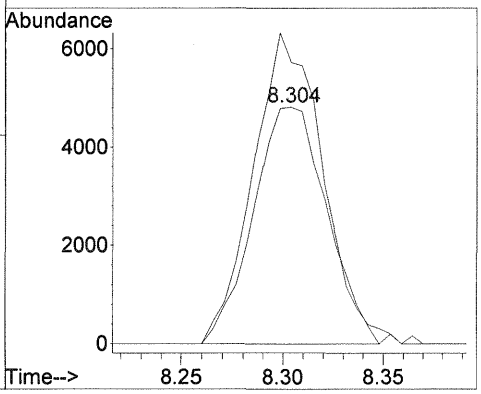


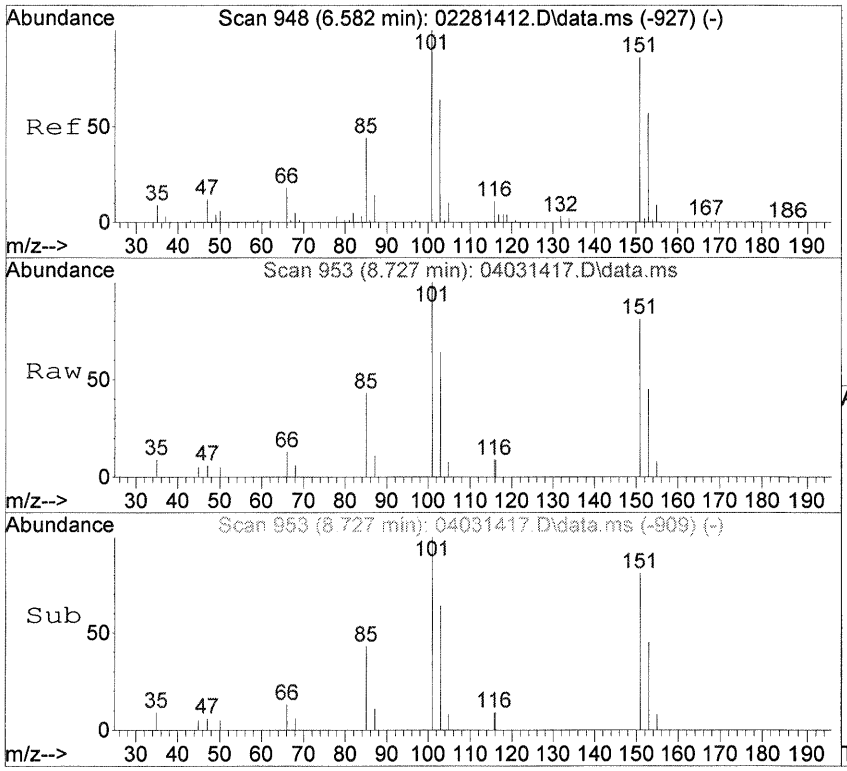


#19
Methylene Chloride
Concen: 0.86 ng
RT: 8.30 min Scan# 876
Delta R.T. -0.016 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 84 Resp: 12247

Ion	Ratio	Lower	Upper
84	100		
49	124.0	102.1	152.1

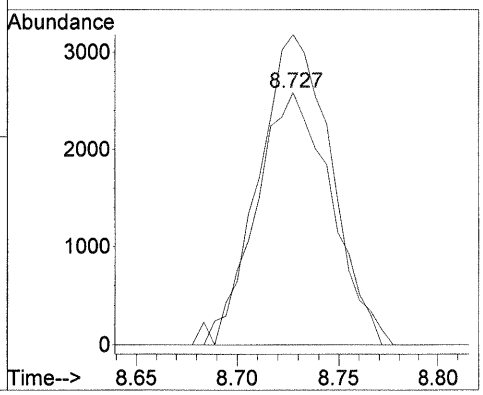


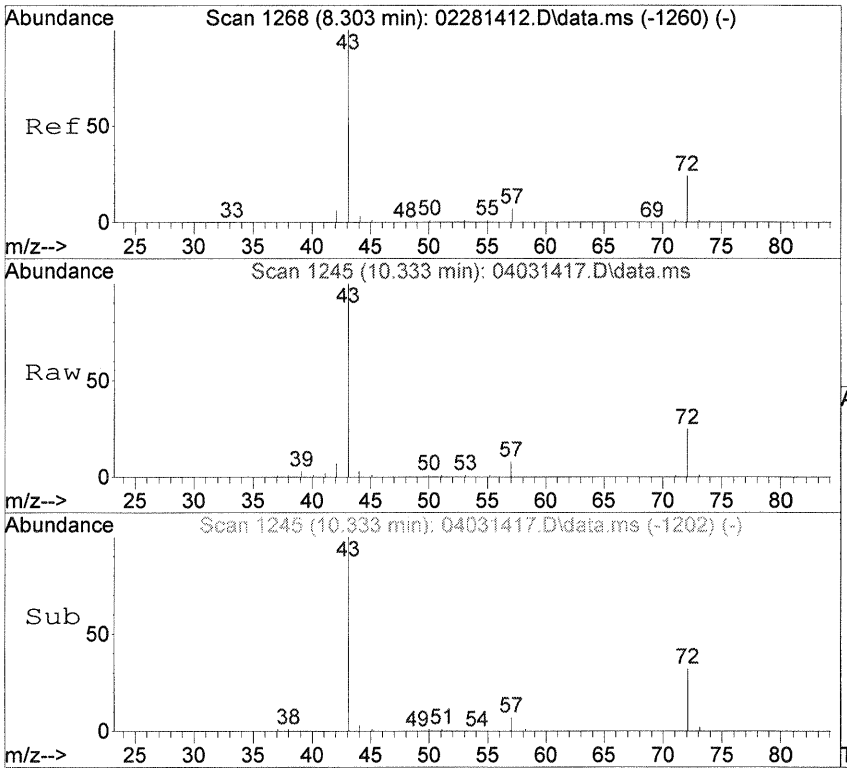


#21
Trichlorotrifluoroethane
Concen: 0.53 ng
RT: 8.73 min Scan# 953
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion:151 Resp: 6617

Ion	Ratio	Lower	Upper
151	100		
101	117.7	94.7	134.7

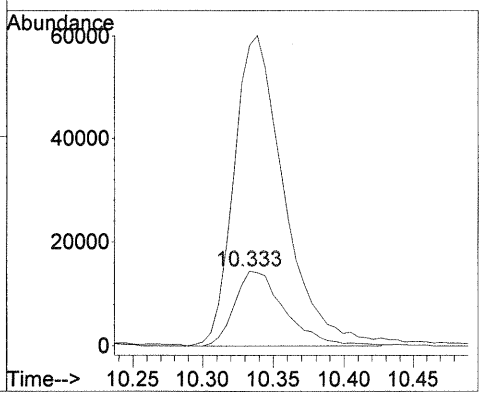


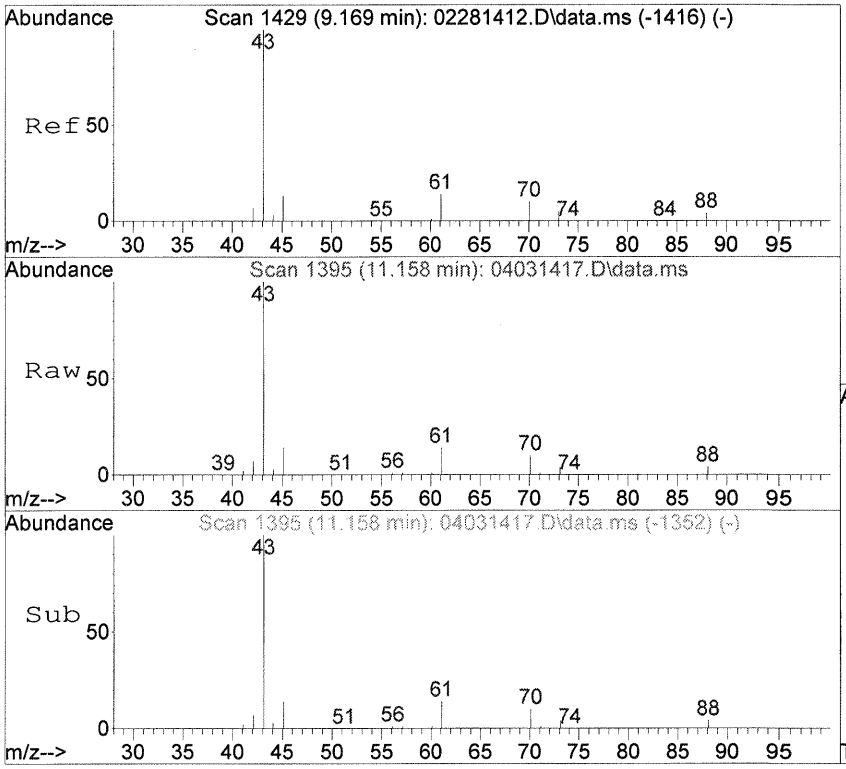


#27
2-Butanone (MEK)
Concen: 4.03 ng
RT: 10.33 min Scan# 1245
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 72 Resp: 35618

Ion	Ratio	Lower	Upper
72	100		
43	428.5	394.5	434.5

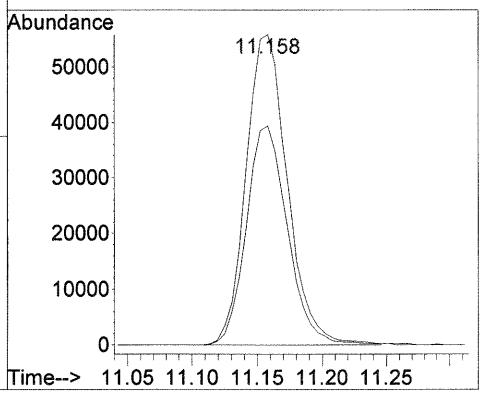


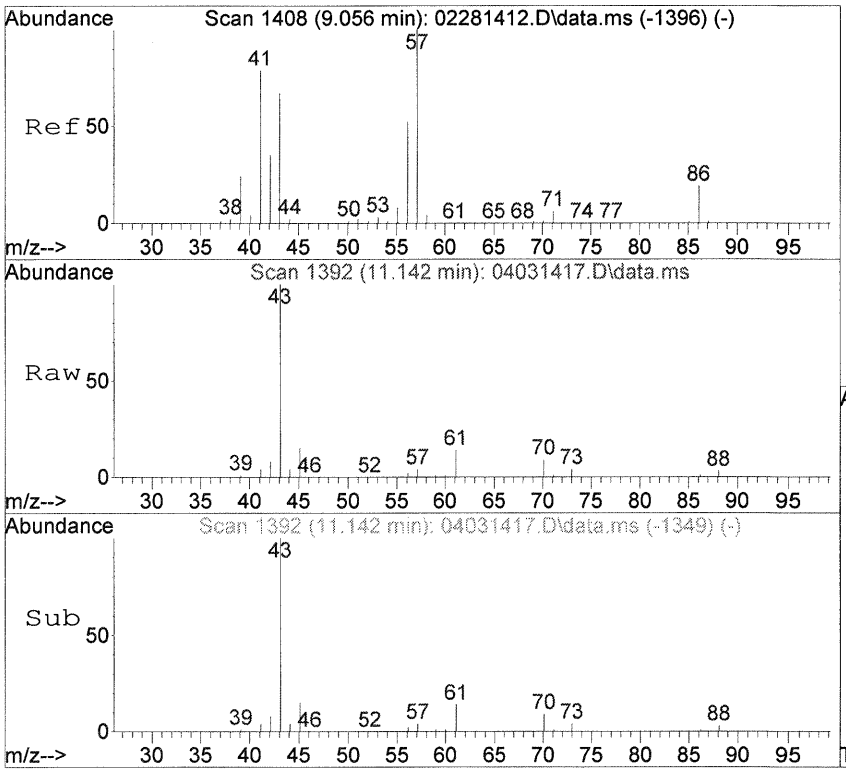


#30
Ethyl Acetate
Concen: 29.10 ng
RT: 11.16 min Scan# 1395
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 61 Resp: 123132

Ion	Ratio	Lower	Upper
61	100		
70	70.2	55.9	95.9

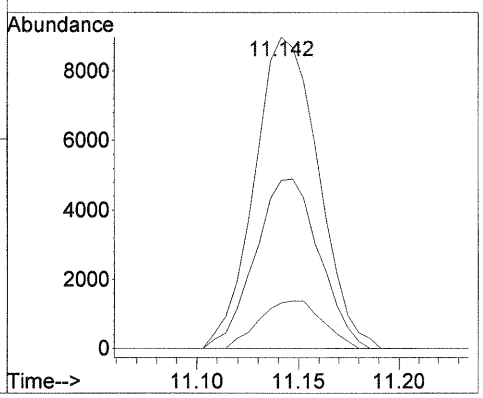




#31
n-Hexane
Concen: 1.01 ng
RT: 11.14 min Scan# 1392
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 57 Resp: 19758

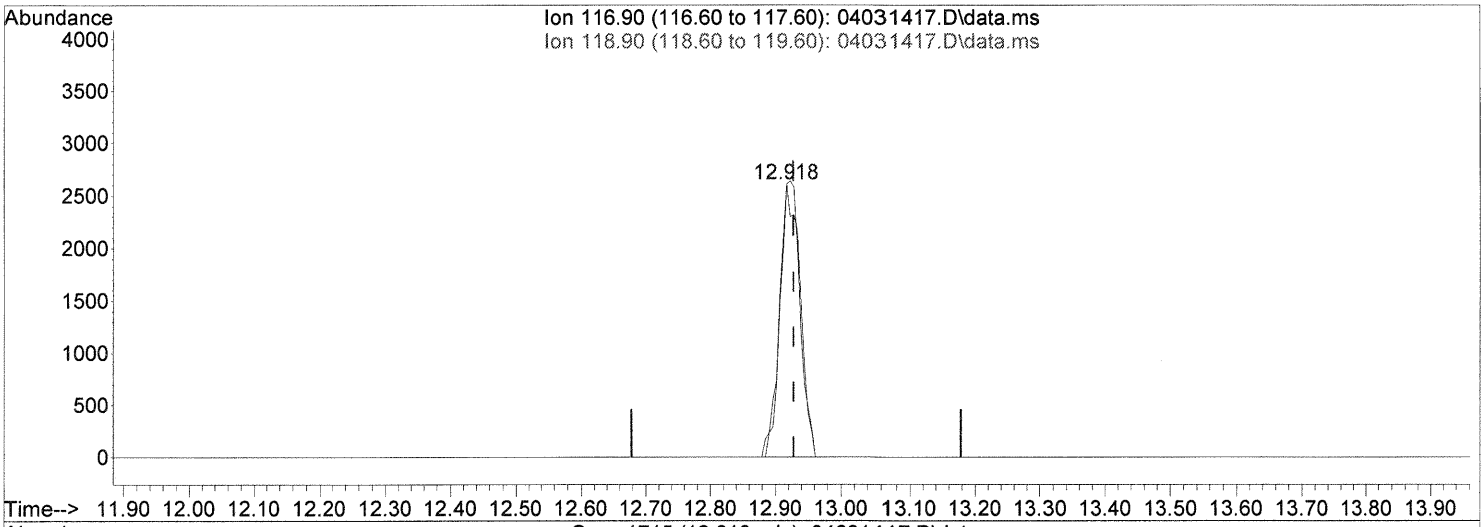
Ion	Ratio	Lower	Upper
57	100		
56	54.6	41.0	61.6
86	15.2	12.2	18.4

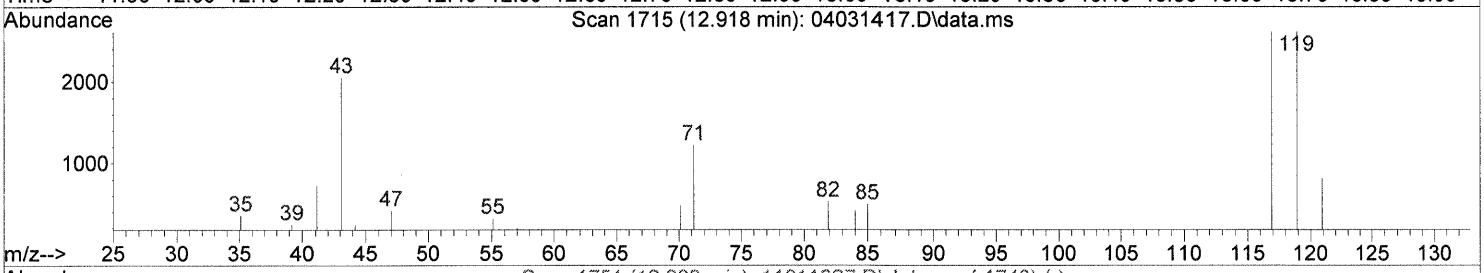


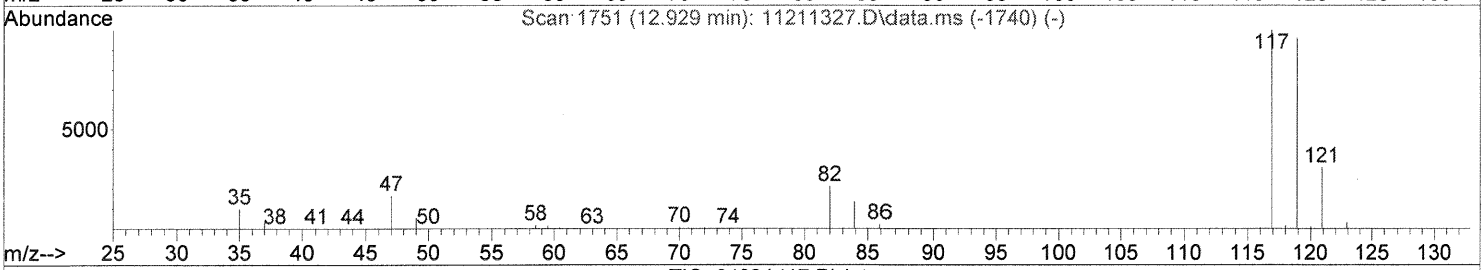
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031417.D
Acq On : 3 Apr 2014 23:31 Operator: EM
Sample : P1401201-005 (1000ml)
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 05 09:46:25 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







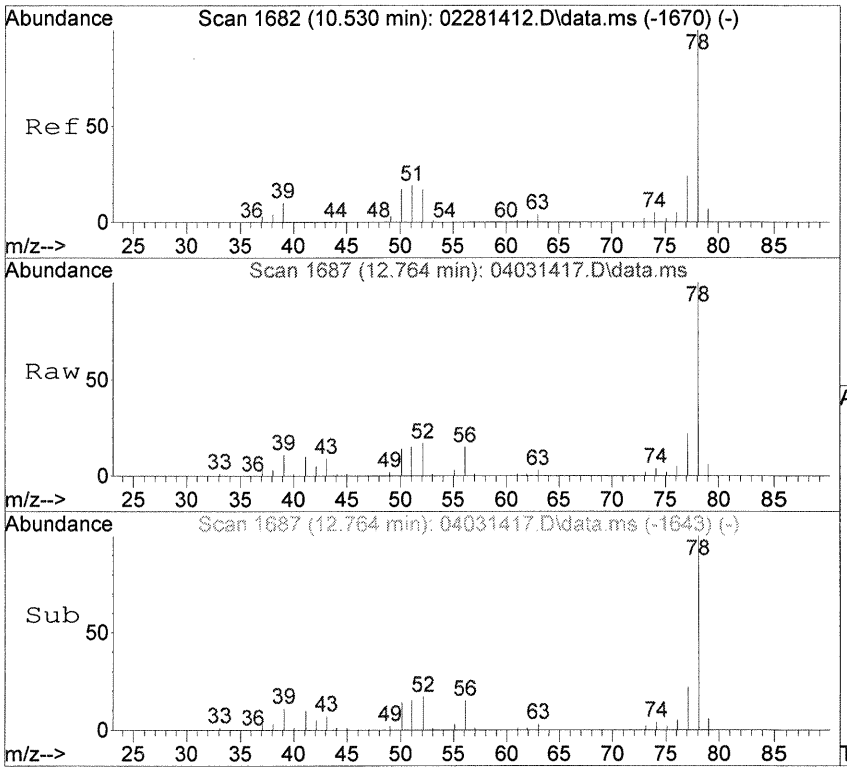
TIC: 04031417.D\data.ms

(42) Carbon Tetrachloride (T)

12.918min (-0.011) 0.33ng

response 5827

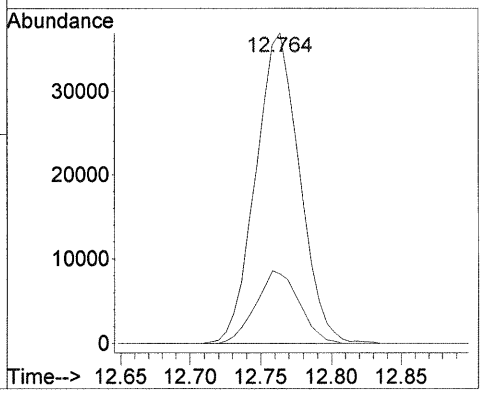
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	98.39
0.00	0.00	0.00
0.00	0.00	0.00

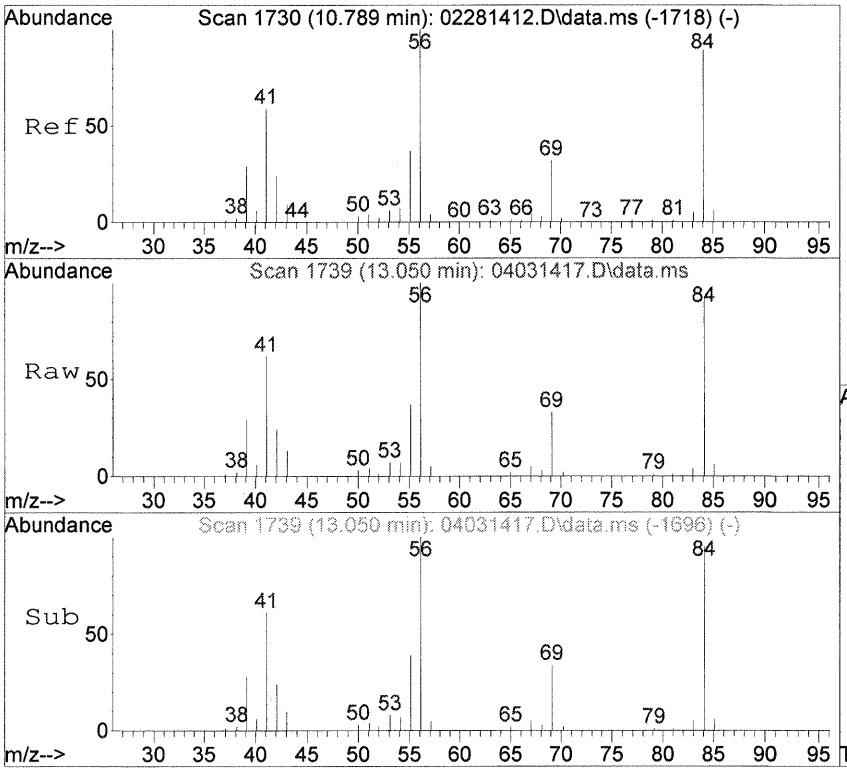


#41
Benzene
Concen: 1.39 ng
RT: 12.76 min Scan# 1687
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 78 Resp: 79534

Ion	Ratio	Lower	Upper
78	100		
77	23.0	3.3	43.3

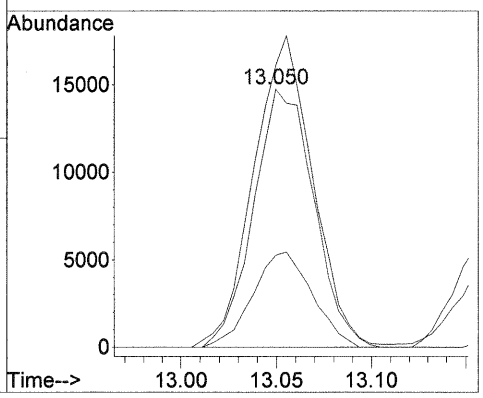


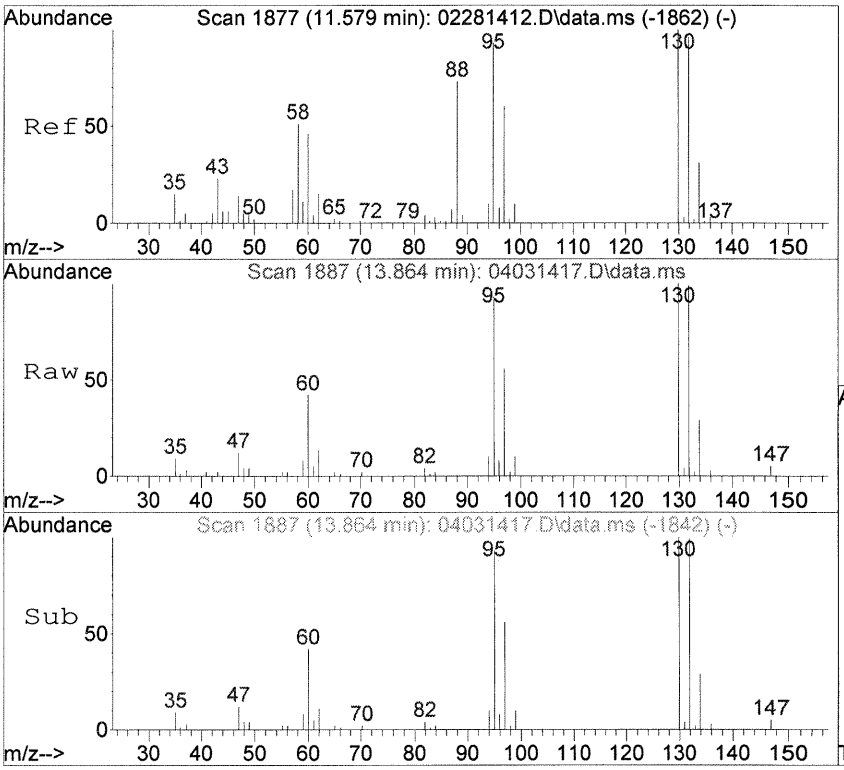


#43
Cyclohexane
Concen: 1.61 ng
RT: 13.05 min Scan# 1739
Delta R.T. -0.011 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 84 Resp: 32389

Ion	Ratio	Lower	Upper
84	100		
69	36.5	16.6	56.6
56	118.2	98.5	138.5

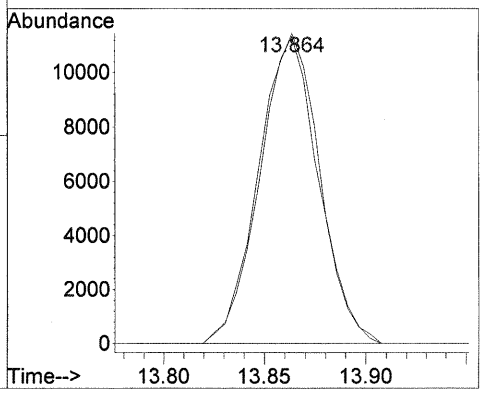


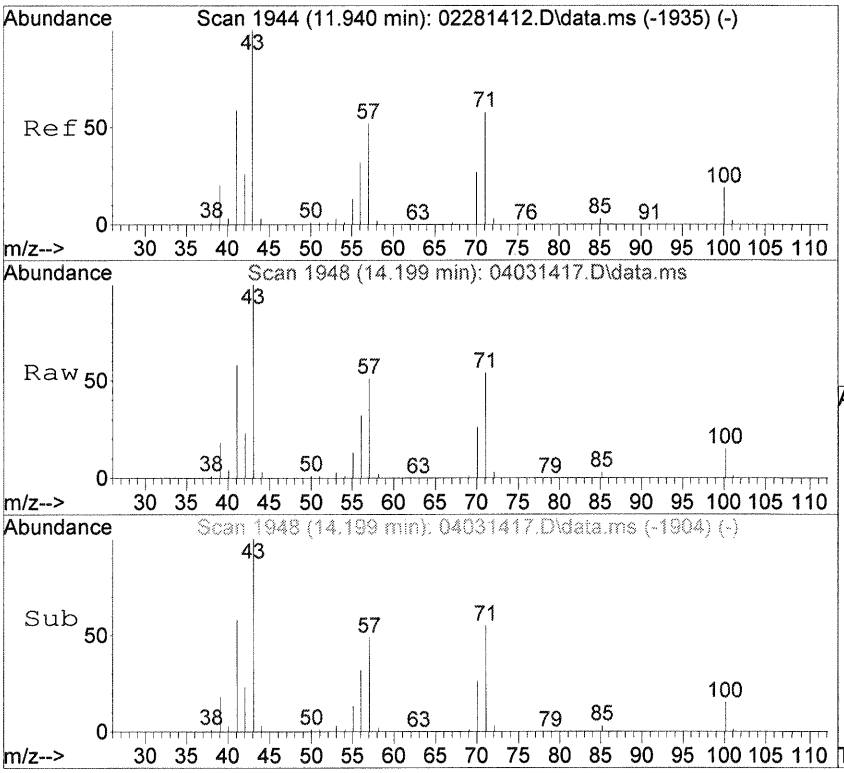


#47
Trichloroethene
Concen: 1.46 ng
RT: 13.86 min Scan# 1887
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion:130 Resp: 23829

Ion	Ratio	Lower	Upper
130	100		
132	95.9	76.9	116.9

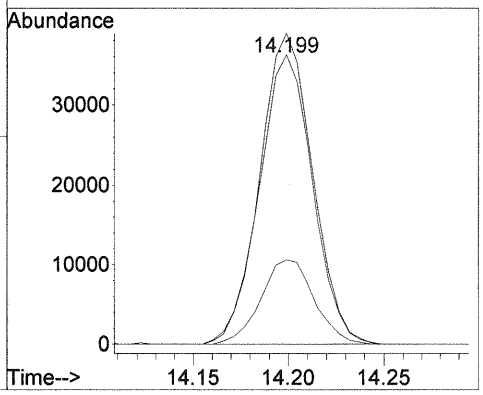


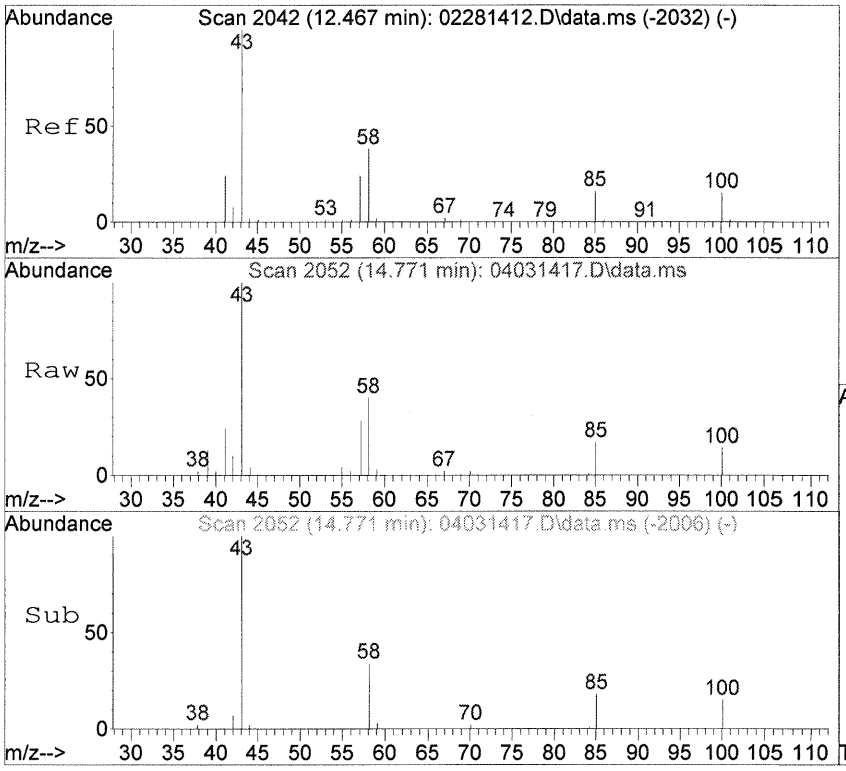


#51
n-Heptane
Concen: 6.05 ng
RT: 14.20 min Scan# 1948
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 71 Resp: 75279

Ion	Ratio	Lower	Upper
71	100		
57	93.4	73.1	113.1
100	27.3	7.4	47.4

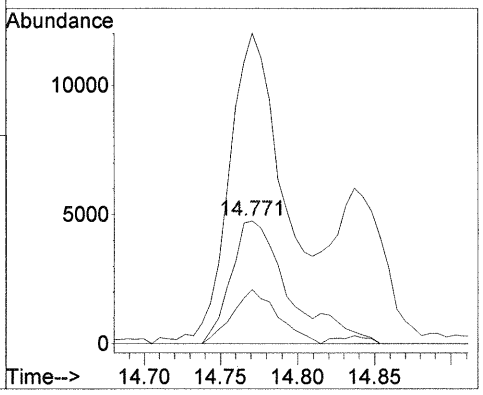


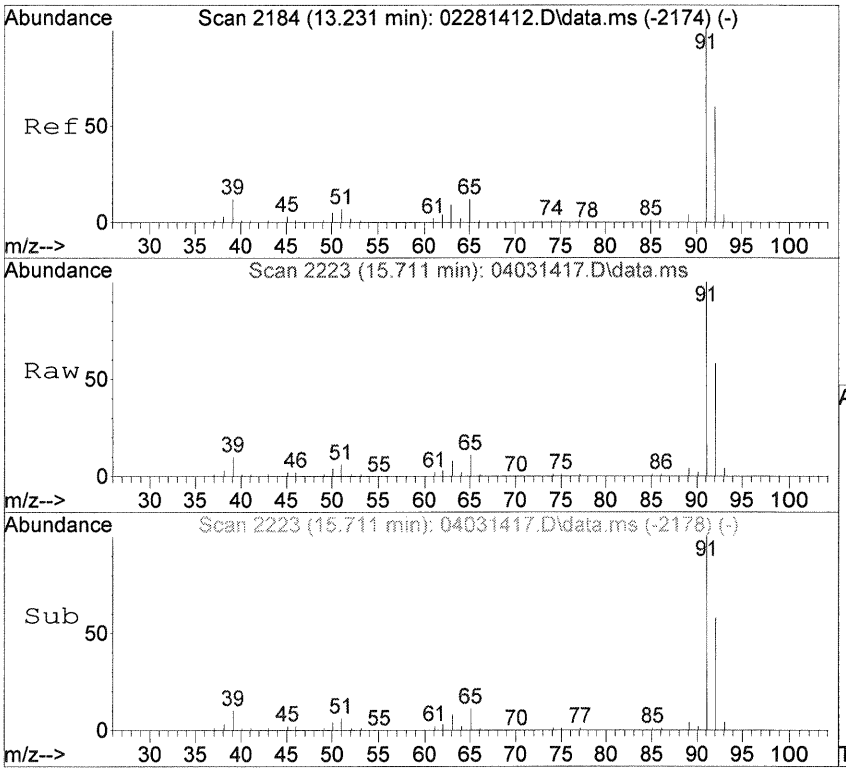


#53
4-Methyl-2-pentanone
Concen: 1.07 ng
RT: 14.77 min Scan# 2052
Delta R.T. 0.006 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 58 Resp: 12485

Ion	Ratio	Lower	Upper
58	100		
43	245.0	202.2	303.4
85	34.5	35.3	52.9#

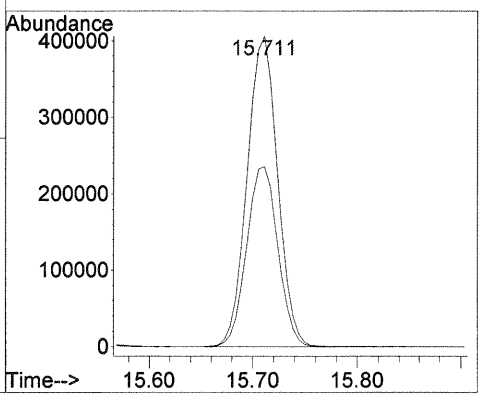


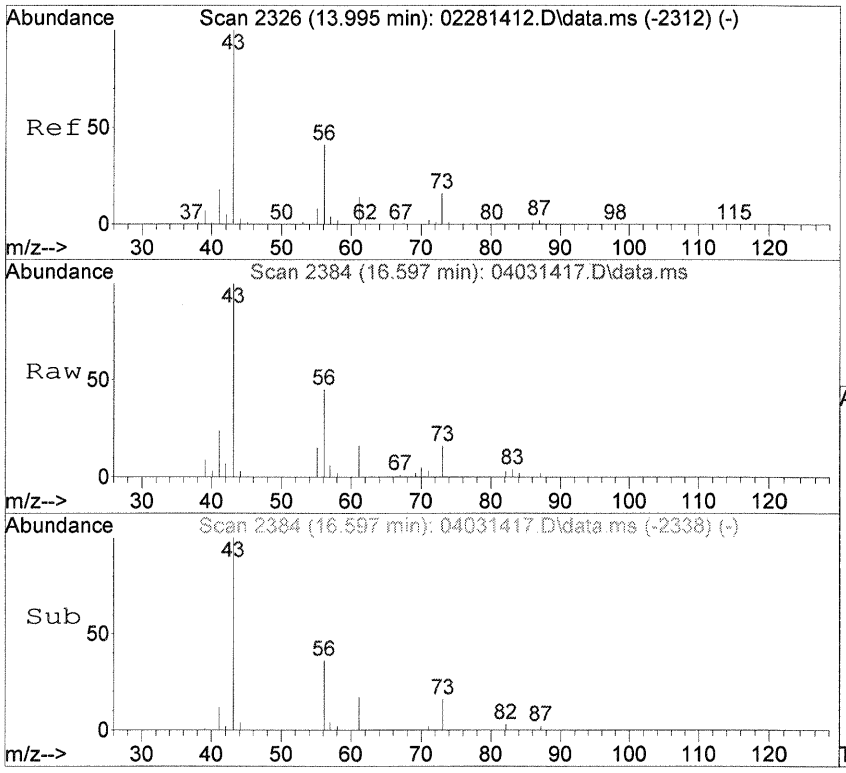


#58
Toluene
Concen: 14.56 ng
RT: 15.71 min Scan# 2223
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 91 Resp: 818569

Ion	Ratio	Lower	Upper
91	100		
92	59.4	39.1	79.1

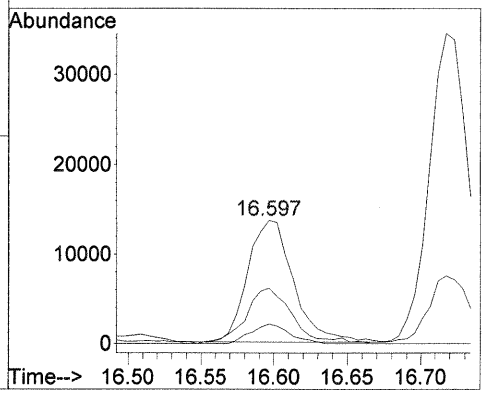


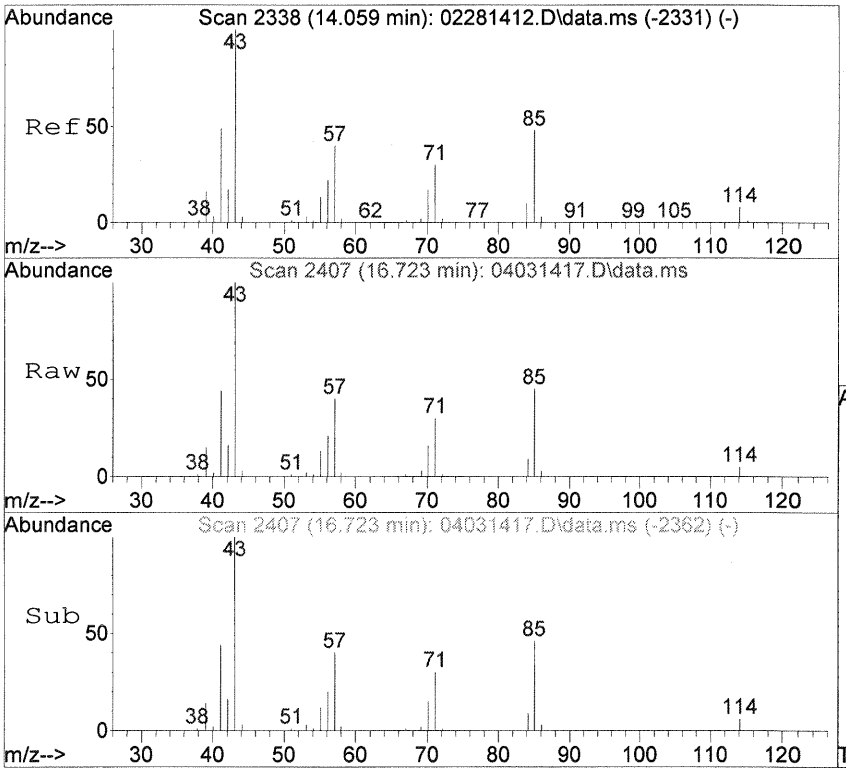


#62
n-Butyl Acetate
Concen: 0.95 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.006 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 43 Resp: 29596

Ion	Ratio	Lower	Upper
43	100		
56	45.0	19.9	59.9
73	13.5	0.0	34.1

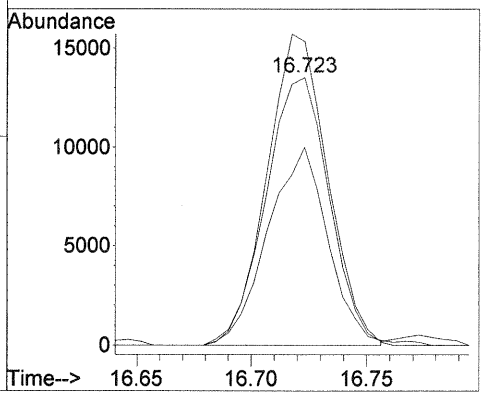


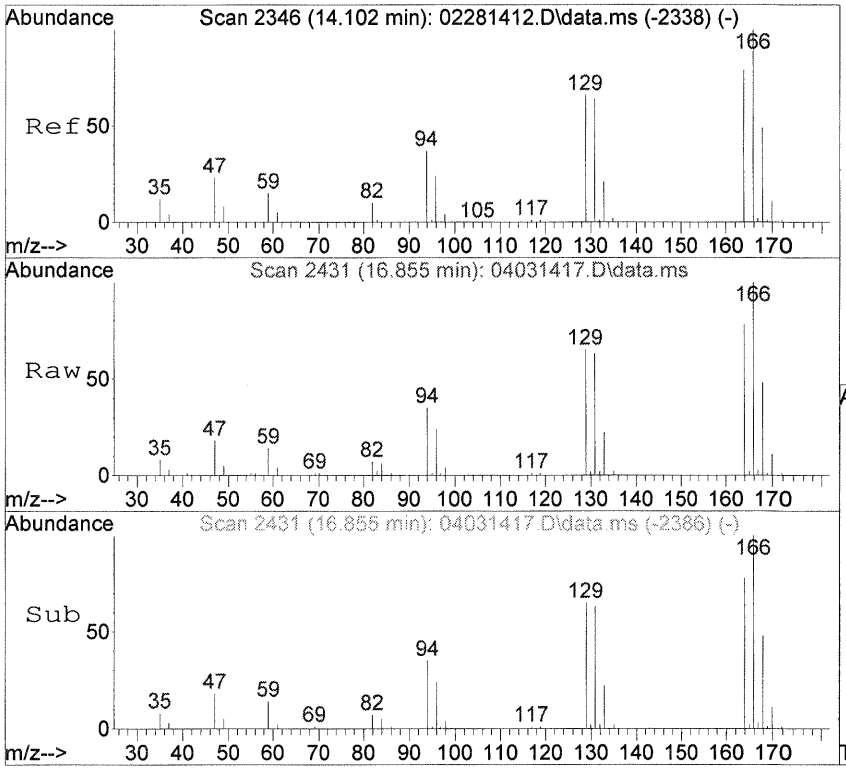


#63
n-Octane
Concen: 2.28 ng
RT: 16.72 min Scan# 2407
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 57 Resp: 25770

Ion	Ratio	Lower	Upper
57	100		
85	111.5	88.6	132.8
71	70.6	55.2	82.8

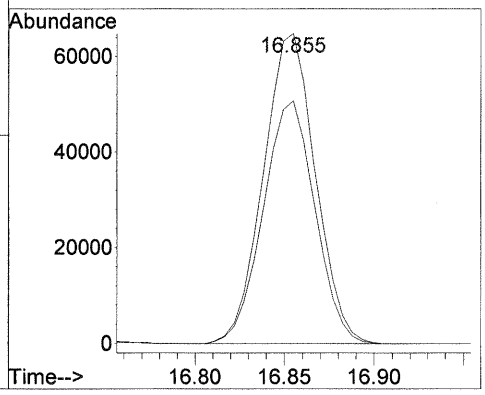


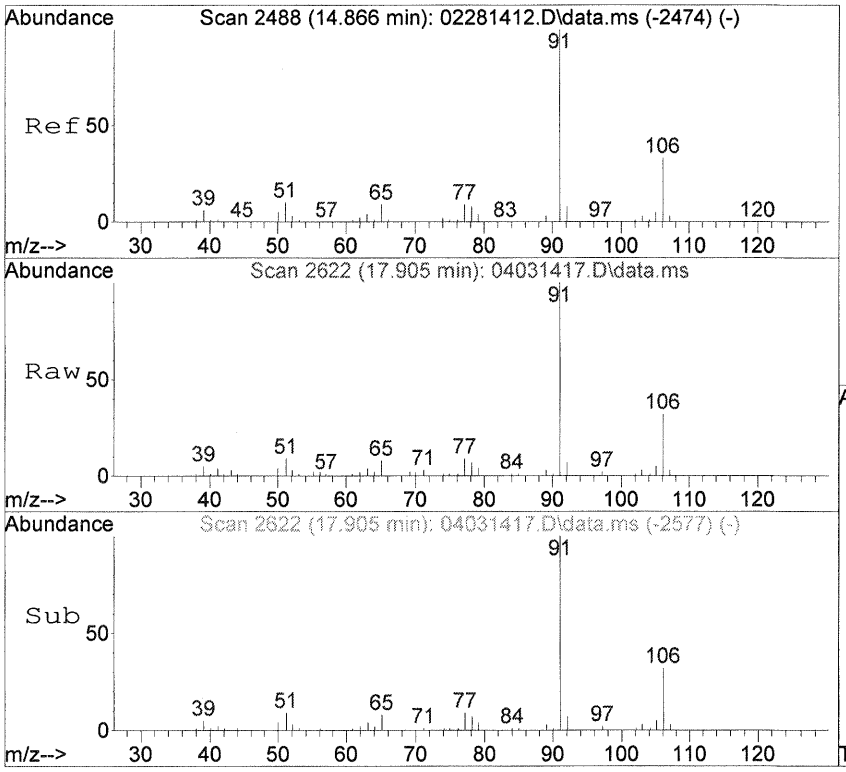


#64
Tetrachloroethene
Concen: 7.50 ng
RT: 16.86 min Scan# 2431
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion:166 Resp: 130141

Ion	Ratio	Lower	Upper
166	100		
164	77.9	57.8	97.8

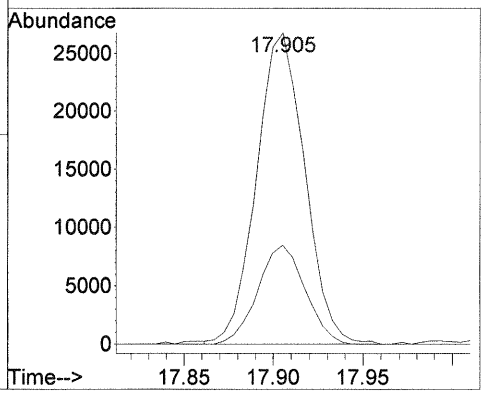


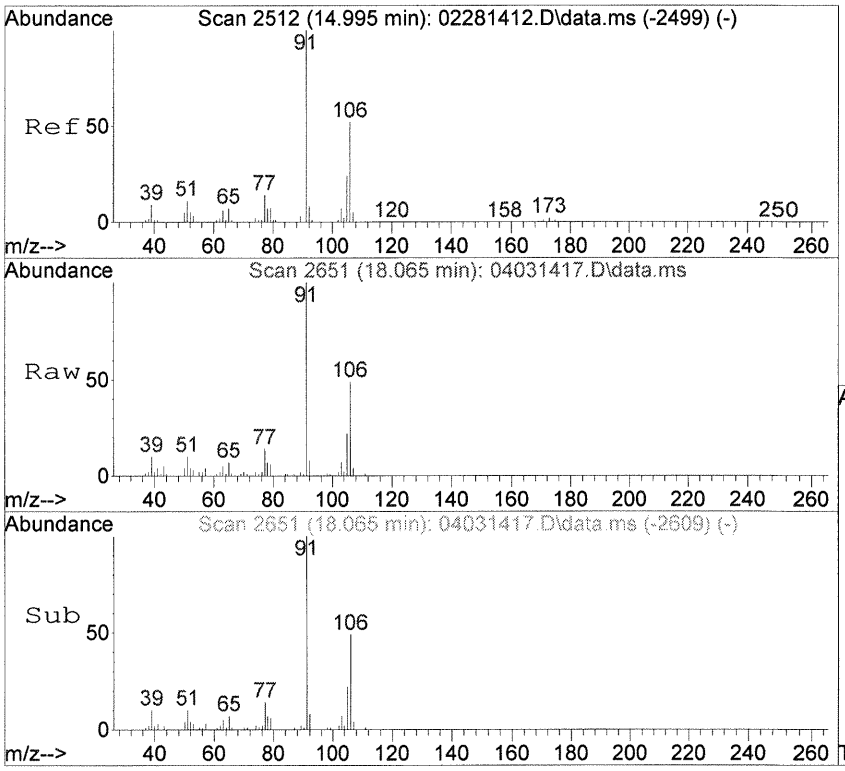


#66
Ethylbenzene
Concen: 0.80 ng
RT: 17.91 min Scan# 2622
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 91 Resp: 49800

Ion	Ratio	Lower	Upper
91	100		
106	31.0	11.5	51.5

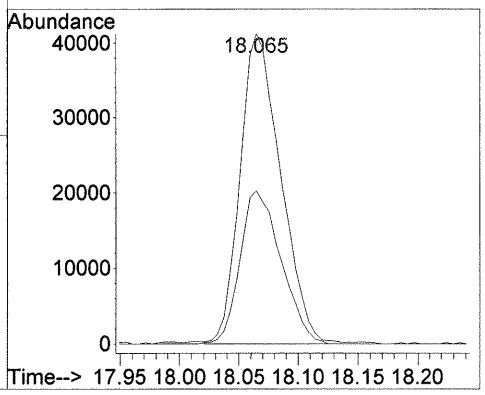


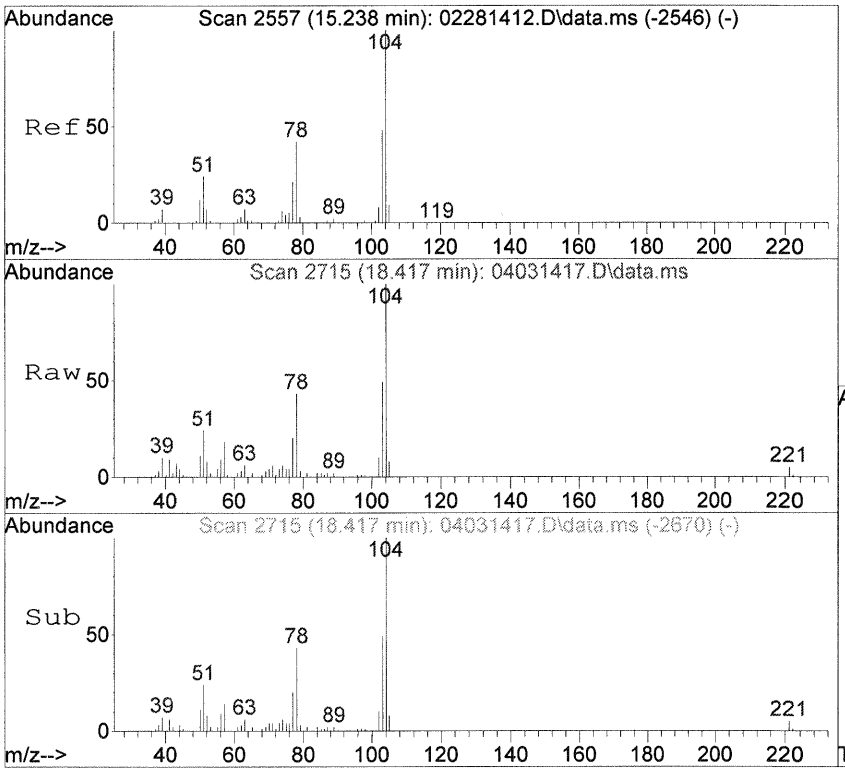


#67
m- & p-Xylenes
Concen: 1.96 ng
RT: 18.06 min Scan# 2651
Delta R.T. -0.016 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 91 Resp: 98114

Ion	Ratio	Lower	Upper
91	100		
106	49.5	29.6	69.6

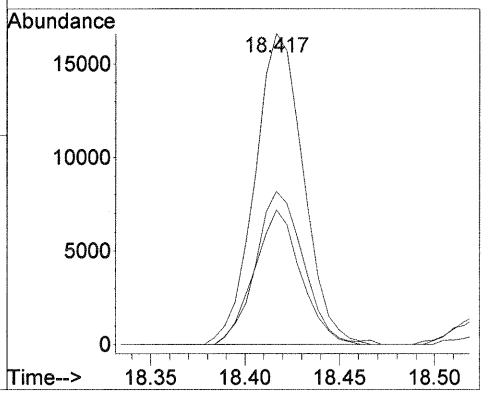


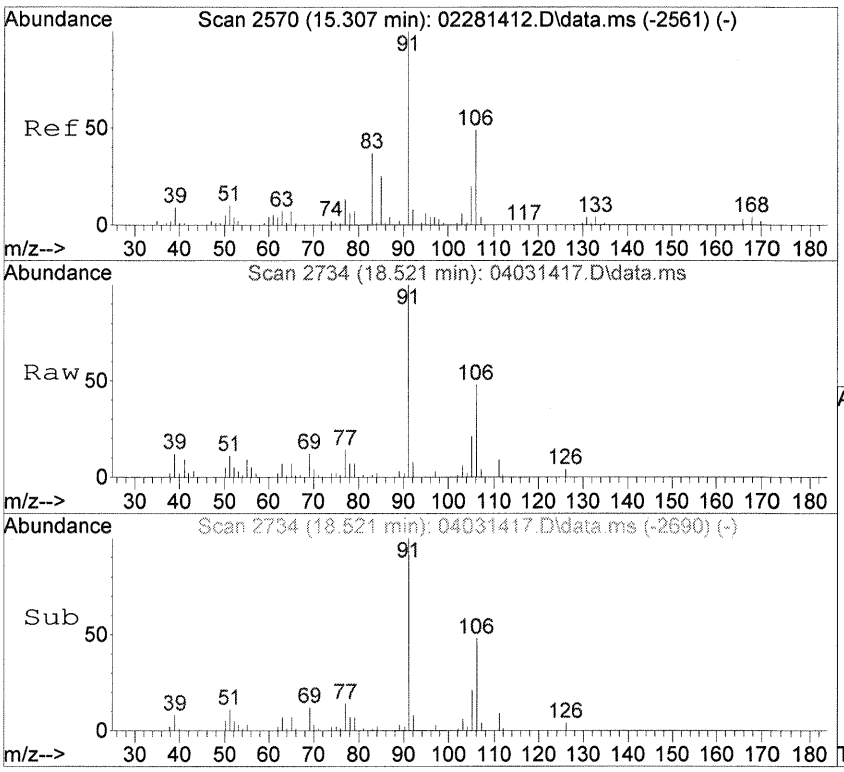


#69
Styrene
Concen: 0.82 ng
RT: 18.42 min Scan# 2715
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion:104 Resp: 29997

Ion	Ratio	Lower	Upper
104	100		
78	41.4	20.6	60.6
103	48.1	27.2	67.2

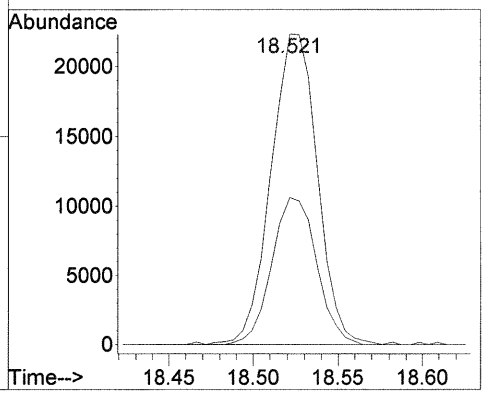


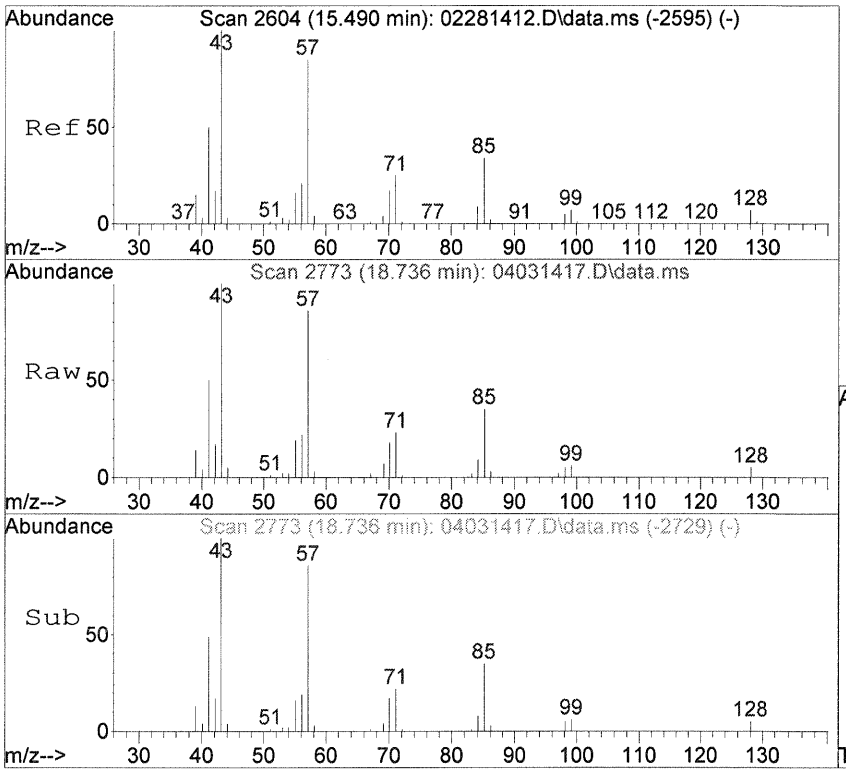


#70
o-Xylene
Concen: 0.82 ng
RT: 18.52 min Scan# 2734
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 91 Resp: 42036

Ion	Ratio	Lower	Upper
91	100		
106	46.1	28.1	68.1

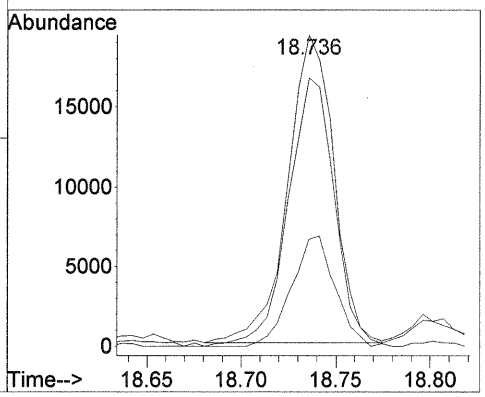


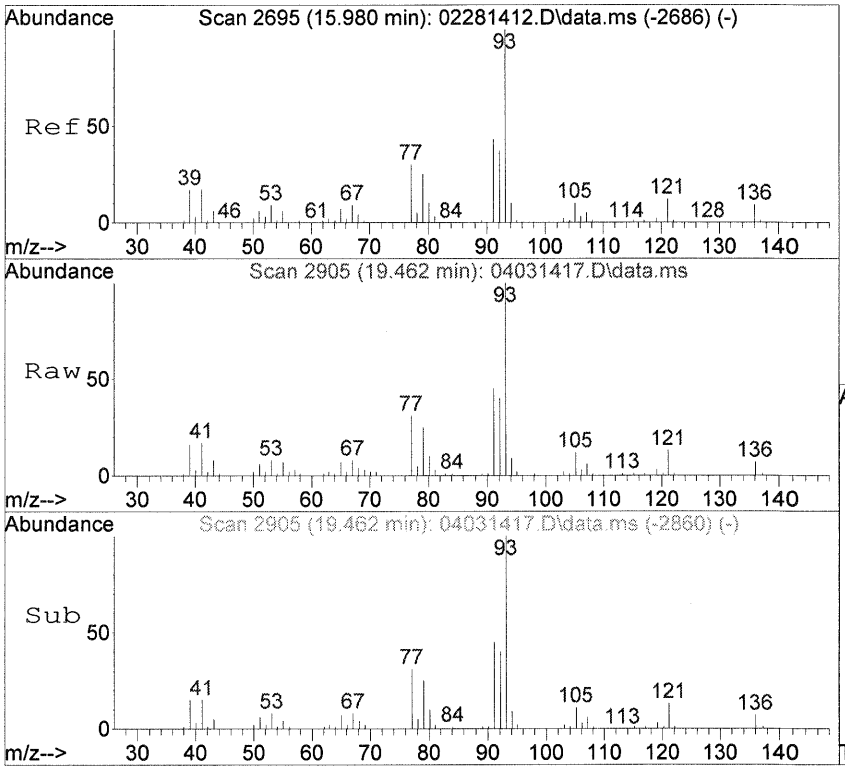


#71
n-Nonane
Concen: 1.18 ng
RT: 18.74 min Scan# 2773
Delta R.T. -0.005 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 43 Resp: 32648

Ion	Ratio	Lower	Upper
43	100		
57	87.2	68.1	108.1
85	33.6	12.9	52.9

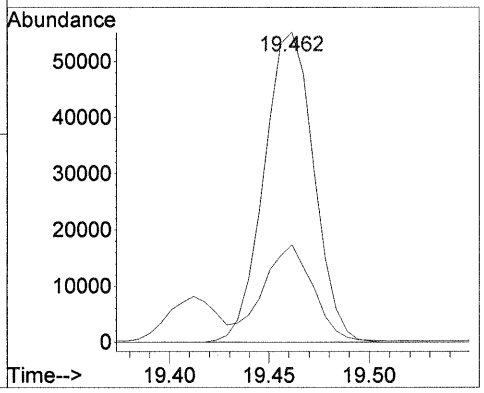


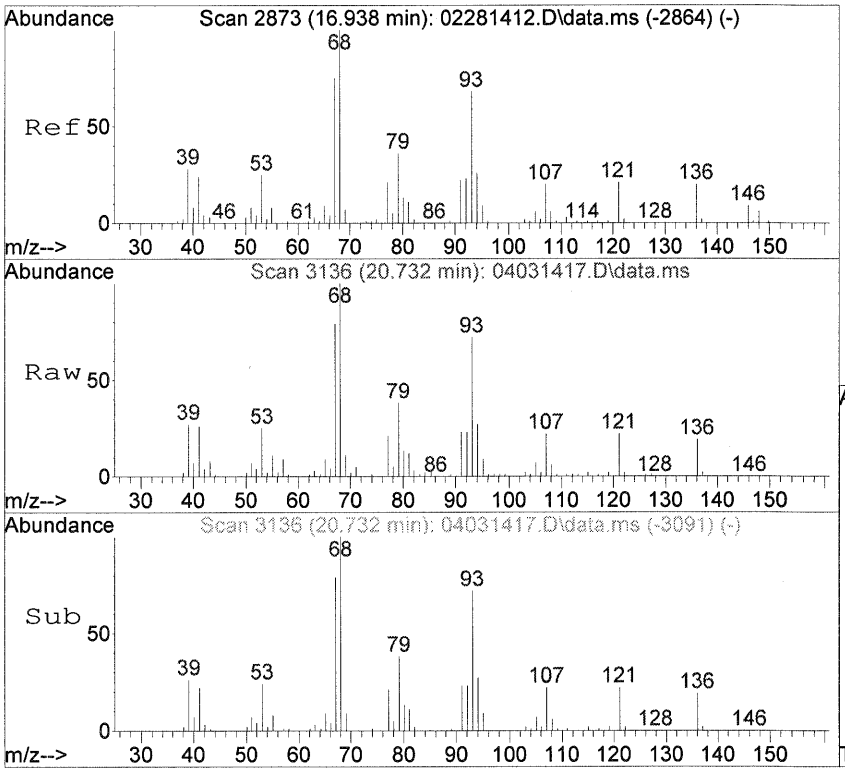


#75
alpha-Pinene
Concen: 3.00 ng
RT: 19.46 min Scan# 2905
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 93 Resp: 95550

Ion	Ratio	Lower	Upper
93	100		
77	31.4	9.1	49.1

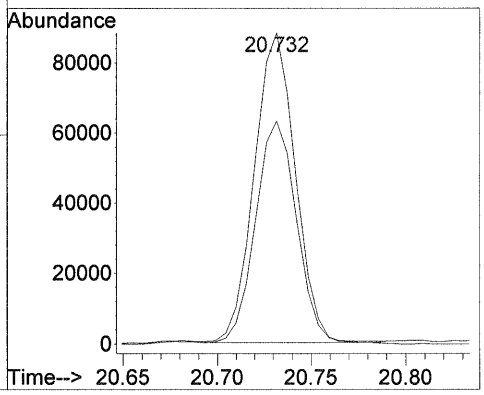




#91
d-Limonene
Concen: 7.00 ng
RT: 20.73 min Scan# 3136
Delta R.T. 0.000 min
Lab File: 04031417.D
Acq: 3 Apr 2014 23:31

Tgt Ion: 68 Resp: 134214

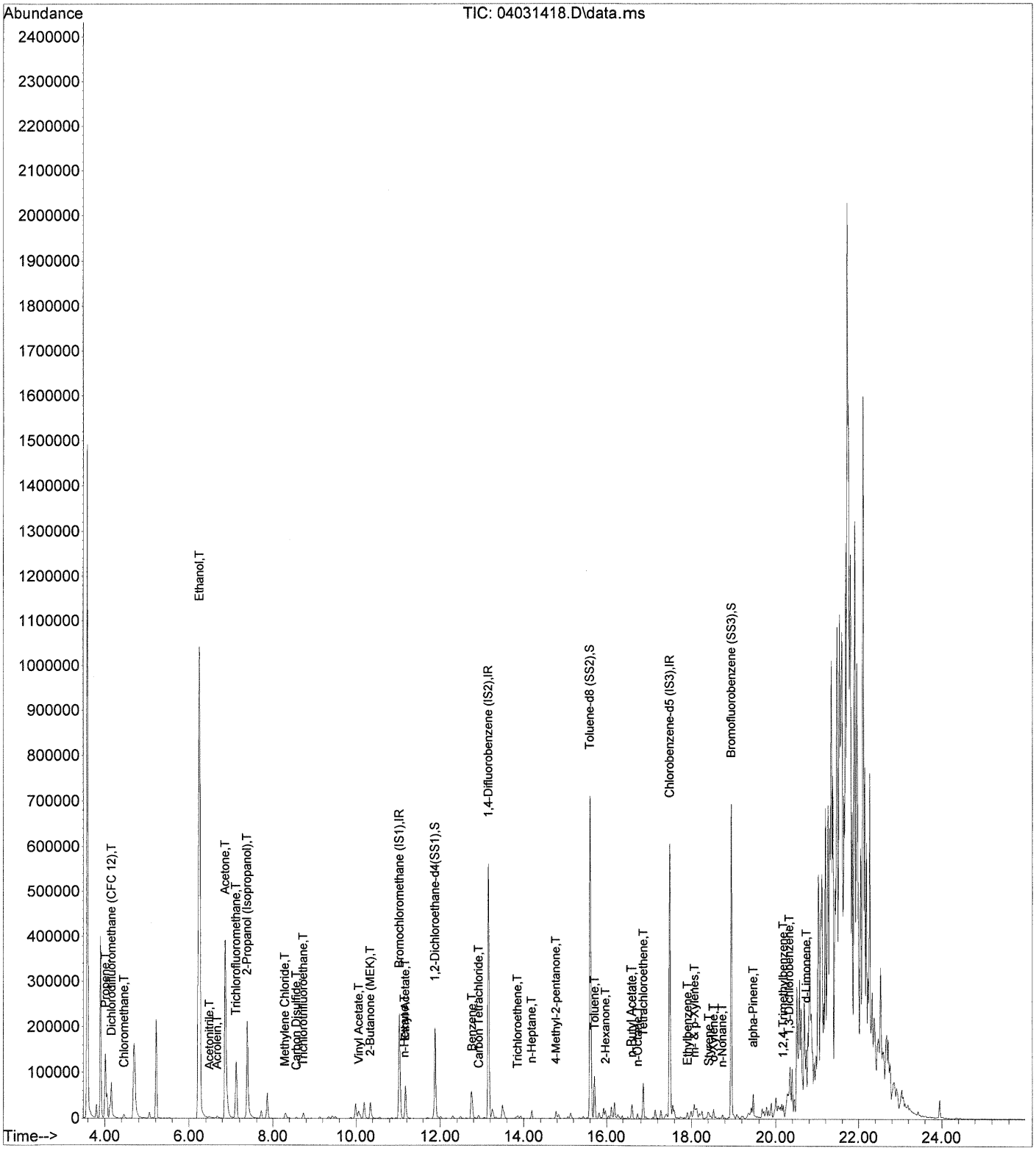
Ion	Ratio	Lower	Upper
68	100		
93	72.6	50.9	90.9



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:48:50 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:48:50 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	104175	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	533969	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	211922	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	161895	13.922	ng		-0.01
Spiked Amount 12.500			Recovery =	111.36%			
57) Toluene-d8 (SS2)	15.61	98	540939	12.272	ng		0.00
Spiked Amount 12.500			Recovery =	98.16%			
73) Bromofluorobenzene (SS3)	18.95	174	233617	12.817	ng		0.00
Spiked Amount 12.500			Recovery =	102.56%			
Target Compounds							Qvalue
2) Propene	4.01	42	43604m	2.819	ng		
3) Dichlorodifluoromethan...	4.16	85	54477	1.814	ng		99
4) Chloromethane	4.46	50	6494	0.321	ng		92
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	973	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.13	54	390	N.D.			
8) Bromomethane	5.56	94	460	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.25	45	1864998	197.691	ng		99
11) Acetonitrile	6.49	41	4943	0.185	ng		77
12) Acrolein	6.68	56	6848	0.816	ng		97
13) Acetone	6.87	58	206662	19.942	ng		97
14) Trichlorofluoromethane	7.12	101	130904	5.085	ng		99
15) 2-Propanol (Isopropanol)	7.37	45	361154	10.809	ng		98
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	8.30	84	4439	0.307	ng		99
20) 3-Chloro-1-propene (Al...	8.40	41	280	N.D.			
21) Trichlorotrifluoroethane	8.73	151	5617	0.449	ng		100
22) Carbon Disulfide	8.57	76	5750	0.112	ng		87
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	9.98	73	207	N.D.			
26) Vinyl Acetate	10.06	86	3996m	1.392	ng		
27) 2-Butanone (MEK)	10.35	72	13367	1.498	ng		92
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	11.17	87	52	N.D.			
30) Ethyl Acetate	11.17	61	13783	3.222	ng		97
31) n-Hexane	11.15	57	2791	0.142	ng	#	95
32) Chloroform	11.20	83	1266	N.D.			
34) Tetrahydrofuran (THF)	11.67	72	116	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	11.99	62	479	N.D.			
38) 1,1,1-Trichloroethane	12.27	97	106	N.D.			
39) Isopropyl Acetate	12.74	61	681	N.D.			
40) 1-Butanol	0.00	56	0	N.D.	d		
41) Benzene	12.76	78	25182	0.433	ng		99
42) Carbon Tetrachloride	12.92	117	4602	0.255	ng		99
43) Cyclohexane	13.05	84	687	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:48:50 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

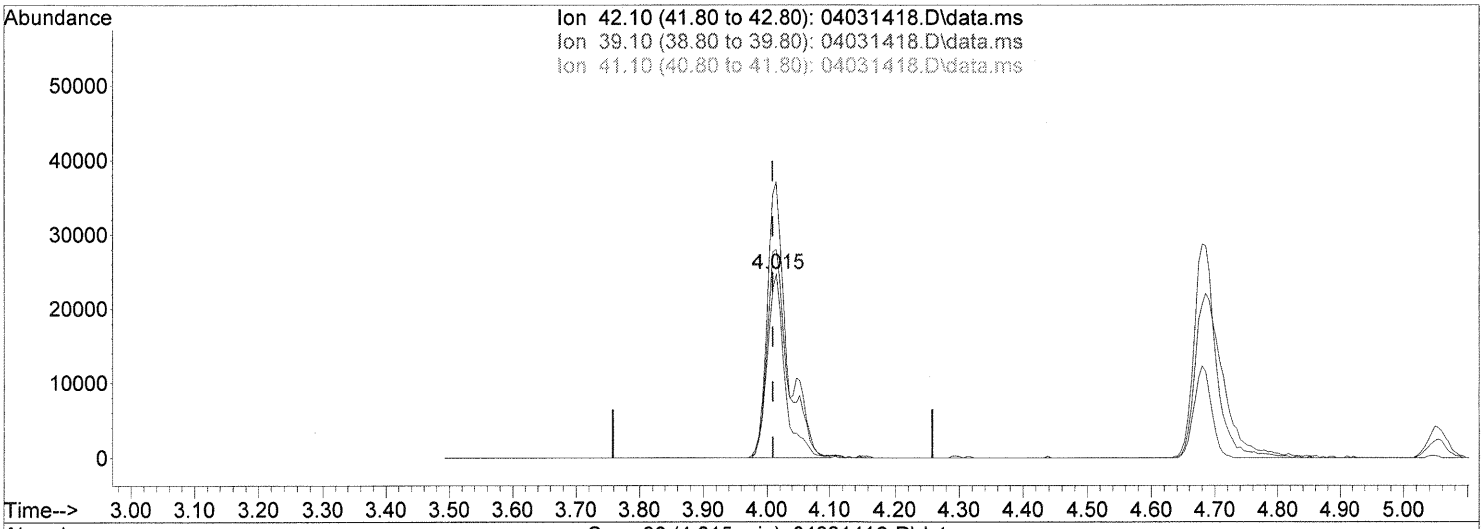
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	13.86	130	2315	0.139 ng		97
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	13.93	57	4761	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D. d		
51) n-Heptane	14.20	71	4164	0.329 ng		98
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.78	58	4917	0.413 ng		76
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	75169	1.312 ng		98
59) 2-Hexanone	15.98	43	12226	0.418 ng		86
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	27070	0.850 ng		99
63) n-Octane	16.72	57	2307	0.200 ng		95
64) Tetrachloroethene	16.85	166	27999	1.583 ng		100
65) Chlorobenzene	17.54	112	278	N.D.		
66) Ethylbenzene	17.91	91	9197	0.145 ng		99
67) m- & p-Xylenes	18.07	91	23955	0.470 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	18.42	104	3957	0.106 ng		99
70) o-Xylene	18.53	91	9029	0.173 ng		98
71) n-Nonane	18.74	43	5212	0.184 ng	#	75
72) 1,1,2,2-Tetrachloroethane	18.46	83	50	N.D.		
74) Cumene	19.08	105	1112	N.D.		
75) alpha-Pinene	19.46	93	19708	0.608 ng		89
76) n-Propylbenzene	19.57	91	2664	N.D.		
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.70	105	2977	N.D.		
79) 1,3,5-Trimethylbenzene	19.79	105	2809	N.D.		
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	19.97	105	2645	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	7986	0.149 ng		85
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.31	91	263	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	2946	0.093 ng		89
86) 1,4-Dichlorobenzene	20.39	146	620	N.D.		
87) sec-Butylbenzene	20.43	105	519	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	20.59	105	2810	N.D.		
90) 1,2-Dichlorobenzene	20.72	146	146	N.D.		
91) d-Limonene	20.73	68	25899	1.325 ng		95
92) 1,2-Dibromo-3-Chloropr...	21.03	157	322	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	22.41	180	217	N.D.		
95) Naphthalene	22.52	128	5613	N.D.		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.17	119	1137	N.D.		
100) n-Butylbenzene	20.98	91	2155	N.D.		

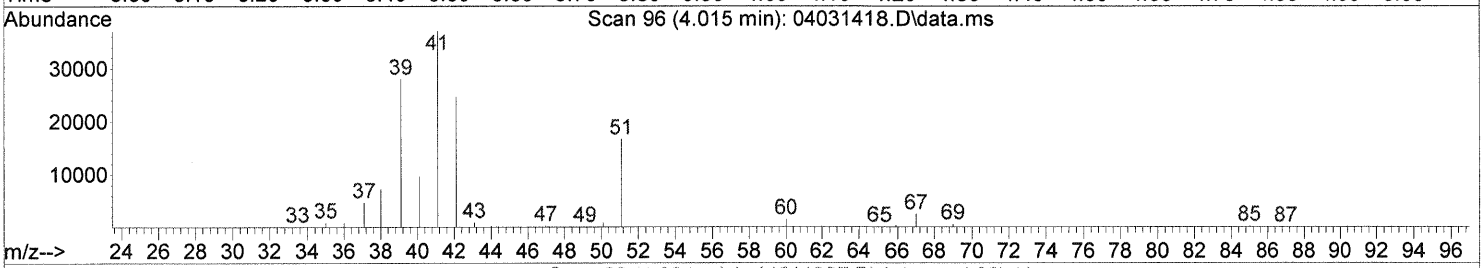
(#) = qualifier out of range (m) = manual integration (+) = signals summed

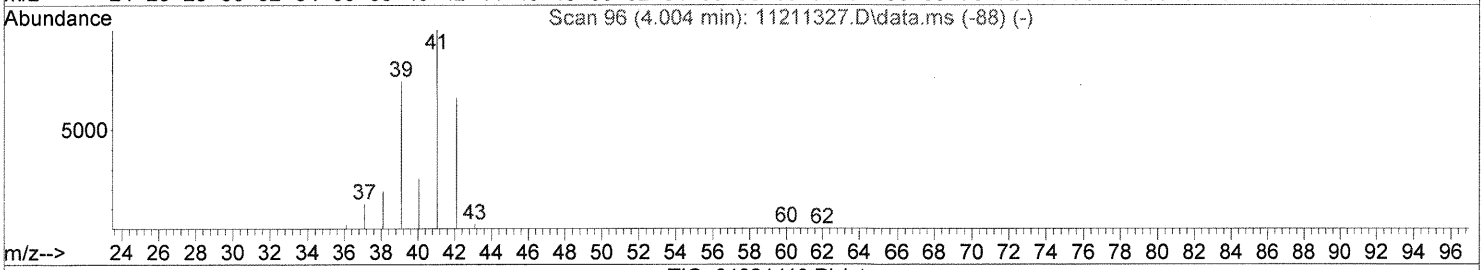
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031418.D\data.ms

(2) Propene (T)

4.015min (+0.005) 3.10ng

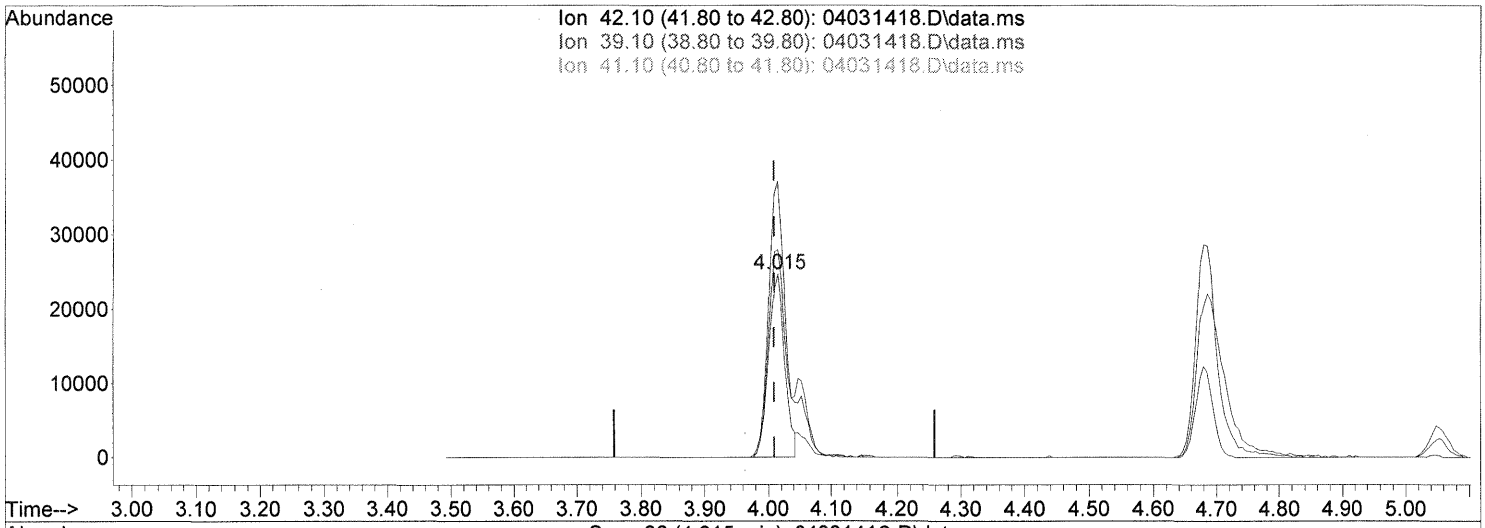
response 47911

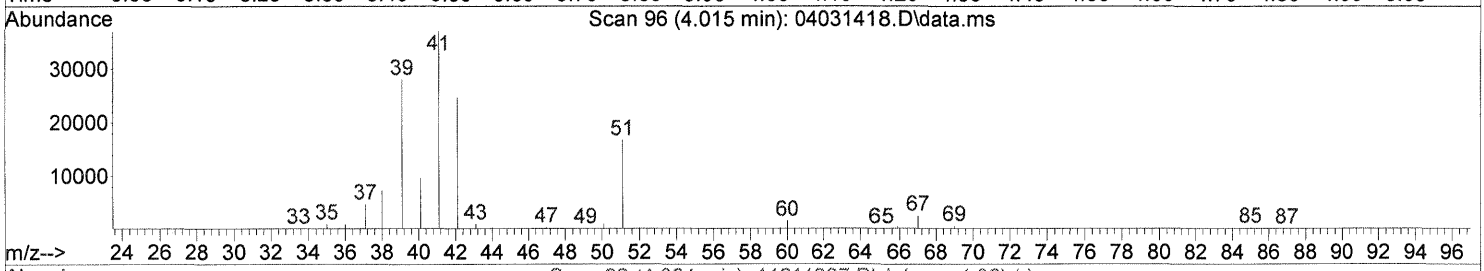
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	108.14
41.10	152.60	164.27
0.00	0.00	0.00

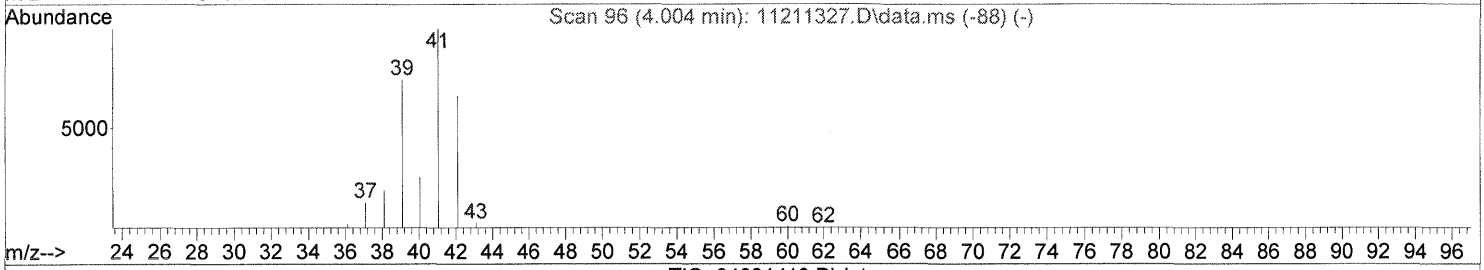
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031418.D\data.ms

(2) Propene (T)

4.015min (+0.005) 2.82ng m

response 43604

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	118.82
41.10	152.60	180.49#
0.00	0.00	0.00

IPC

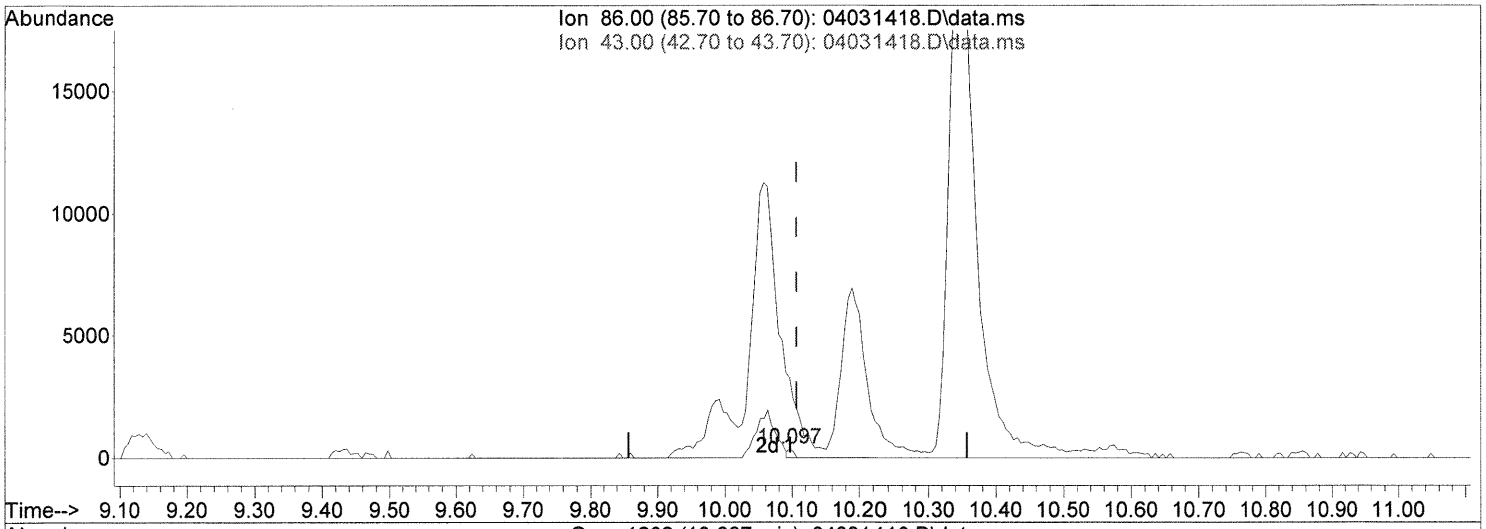
PDA 4/5/14

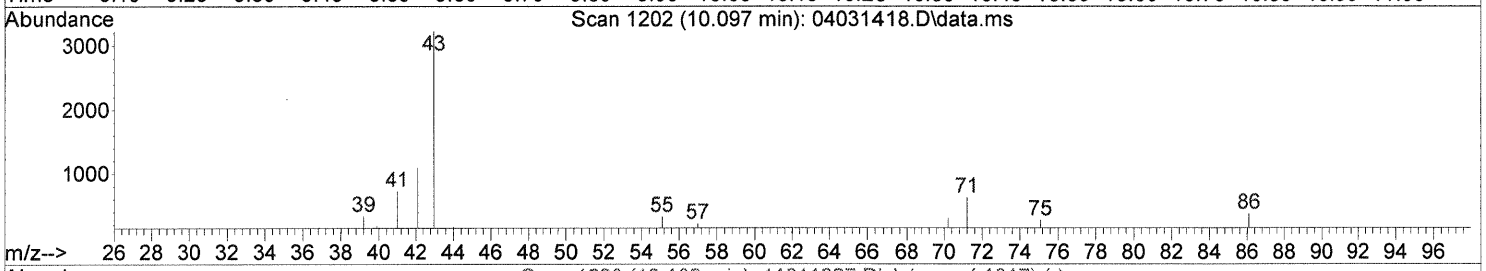
4/7/14

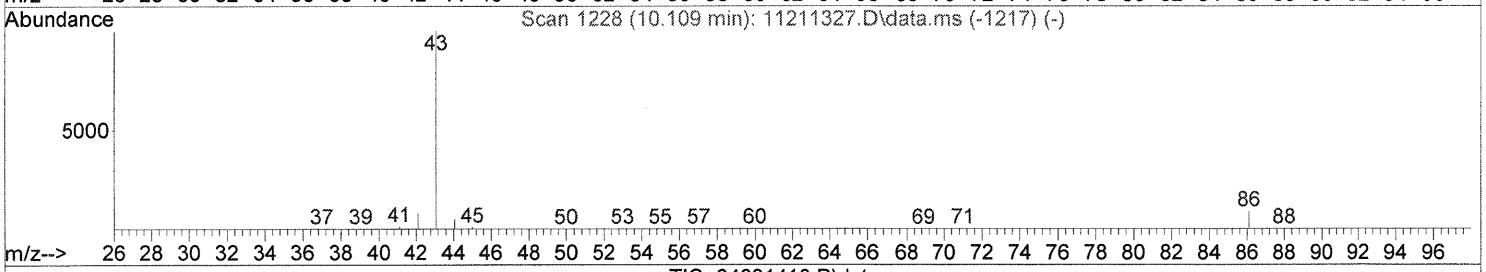
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031418.D\data.ms

(26) Vinyl Acetate (T)

10.097min (-0.011) 0.07ng

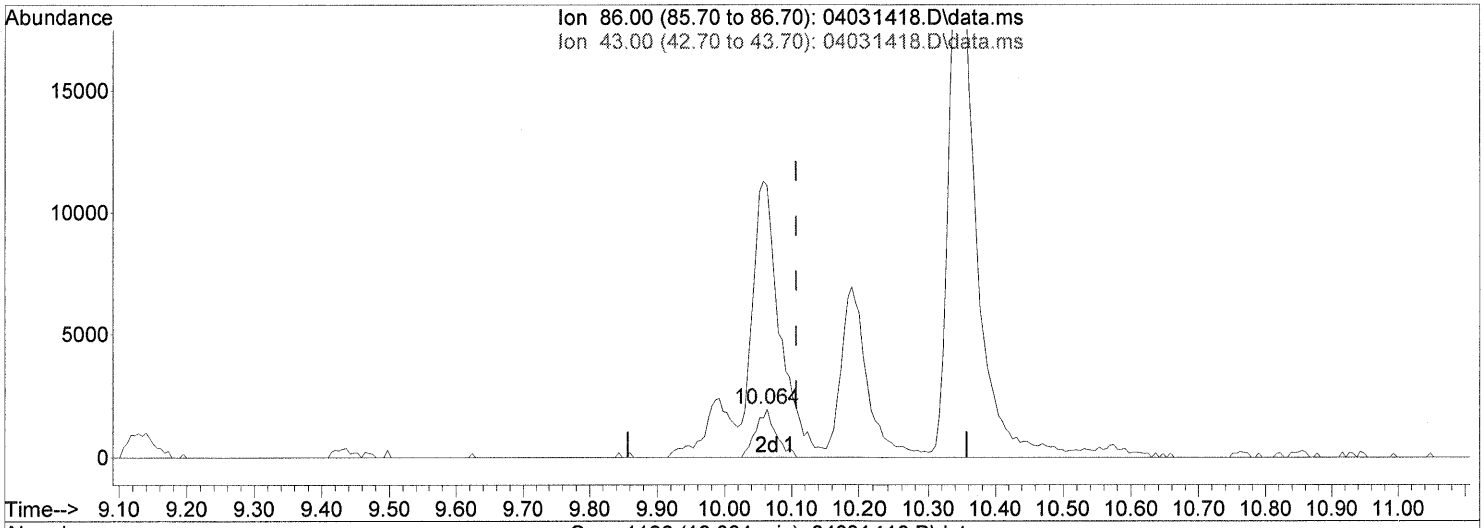
response 200

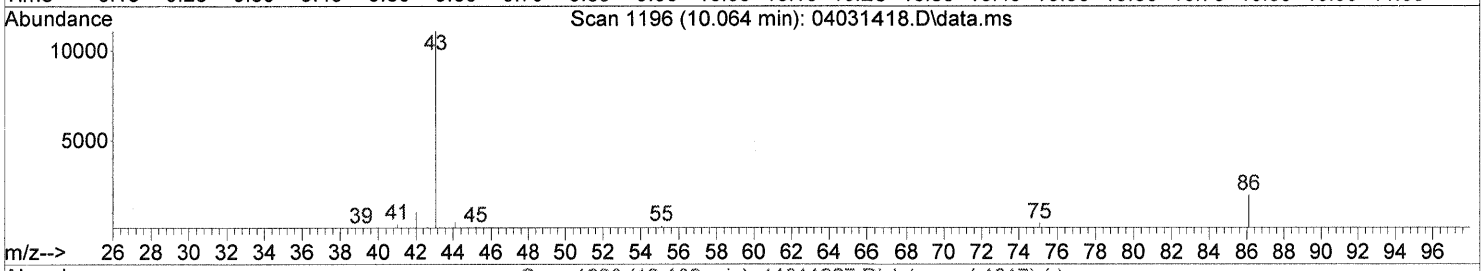
Ion	Exp%	Act%
86.00	100	100
43.00	1162.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

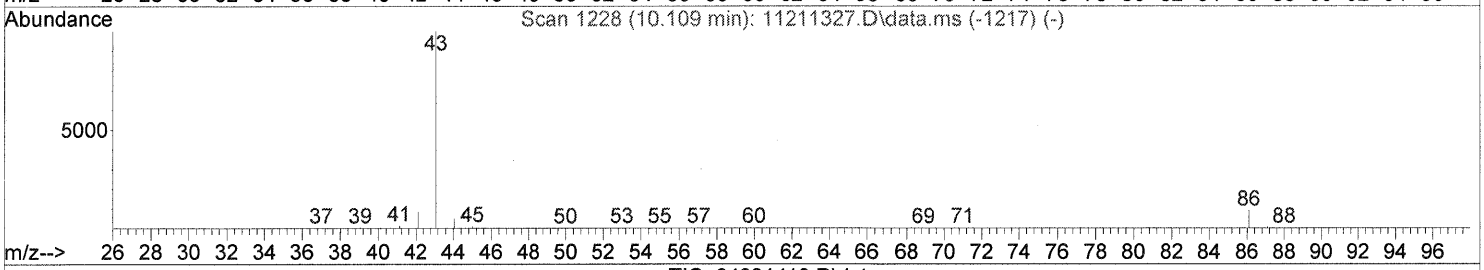
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031418.D\data.ms

(26) Vinyl Acetate (T)

10.064min (-0.044) 1.39ng m

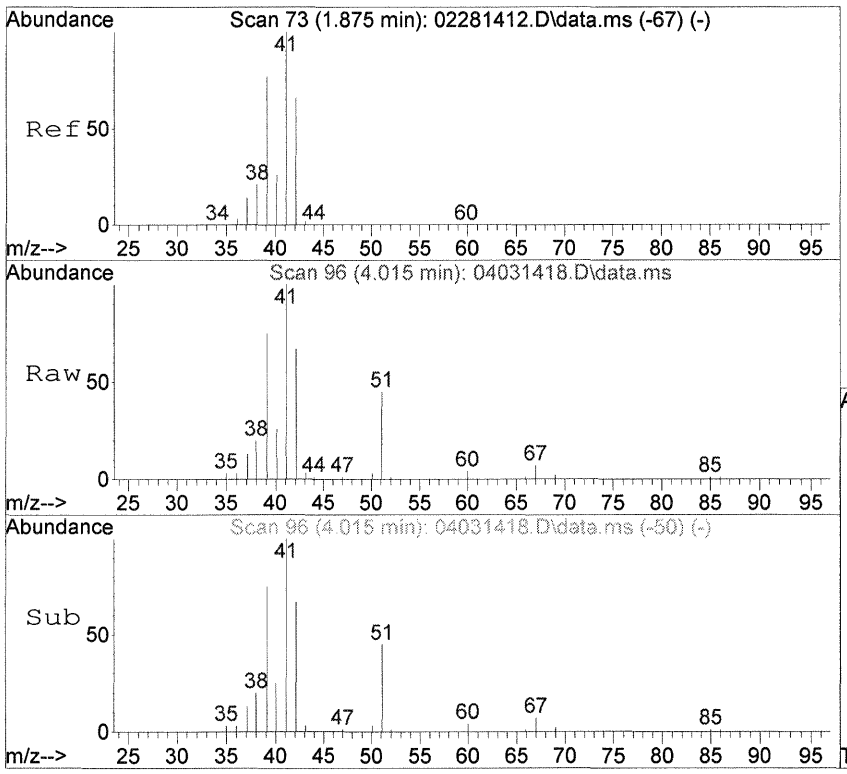
response 3996

Ion	Exp%	Act%
86.00	100	100
43.00	1162.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

HP

4/5/14

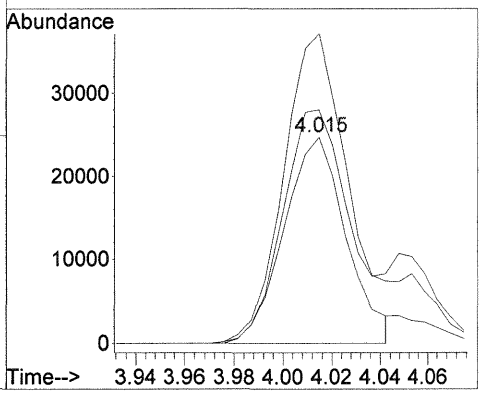
4/7/14

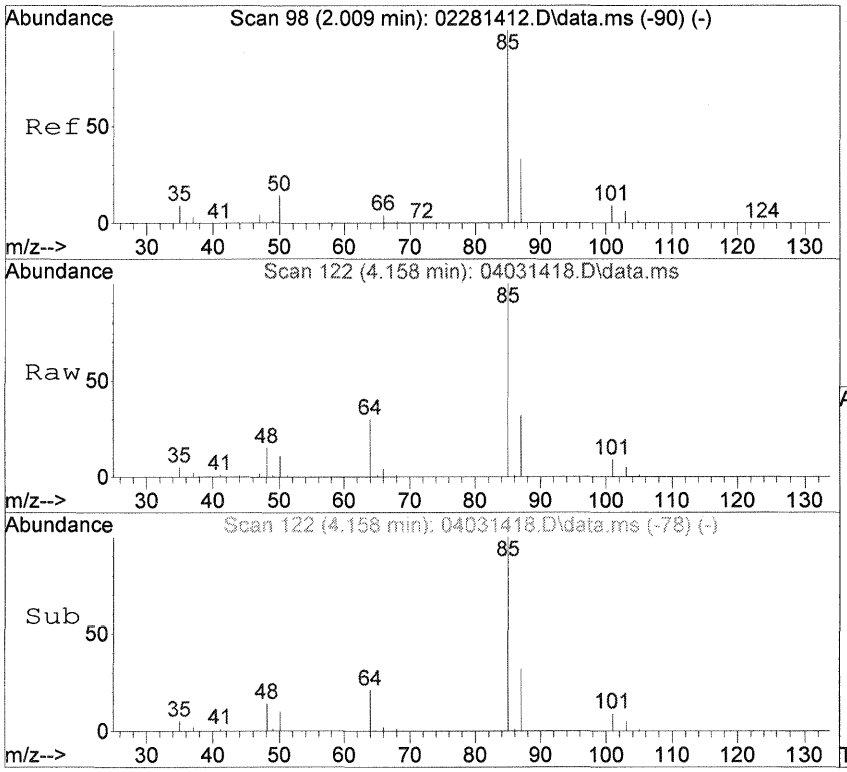


#2
Propene
Concen: 2.82 ng m
RT: 4.01 min Scan# 96
Delta R.T. 0.005 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 42 Resp: 43604

Ion	Ratio	Lower	Upper
42	100		
39	118.8	92.6	132.6
41	180.5	132.6	172.6#

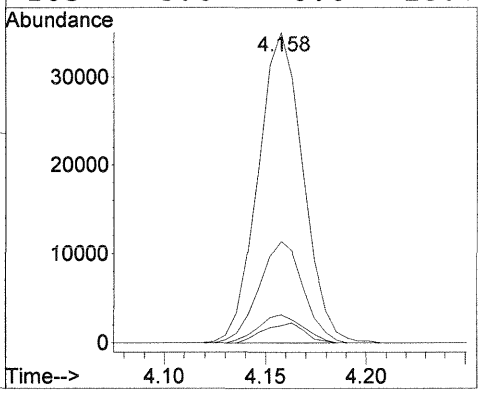


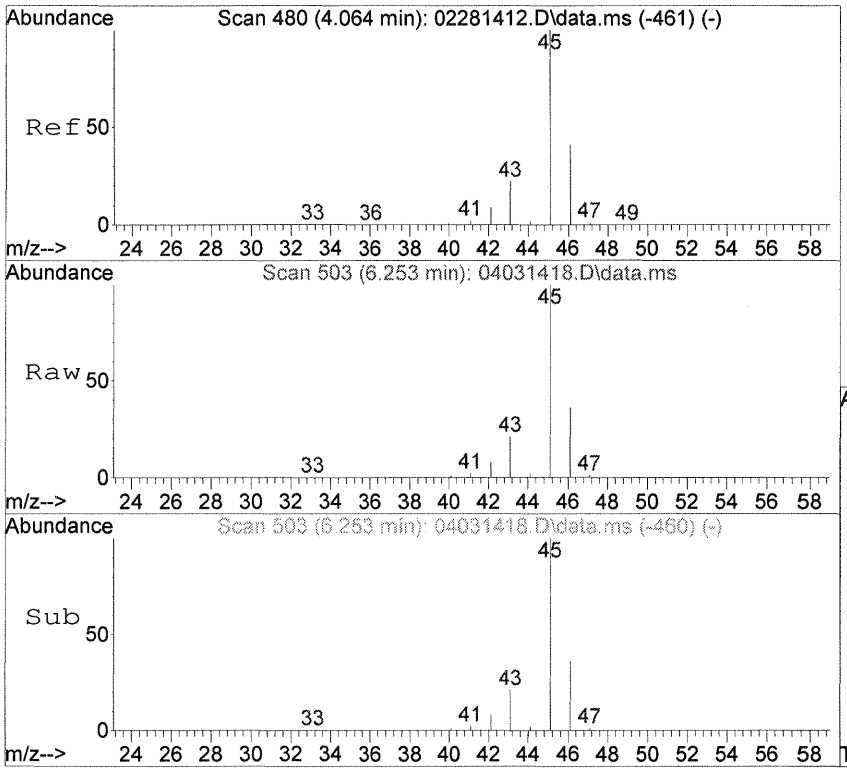


#3
Dichlorodifluoromethane (CFC 1:
Concen: 1.81 ng
RT: 4.16 min Scan# 122
Delta R.T. -0.006 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 85 Resp: 54477

Ion	Ratio	Lower	Upper
85	100		
87	31.8	12.6	52.6
101	8.9	0.0	28.9
103	5.8	0.0	25.7

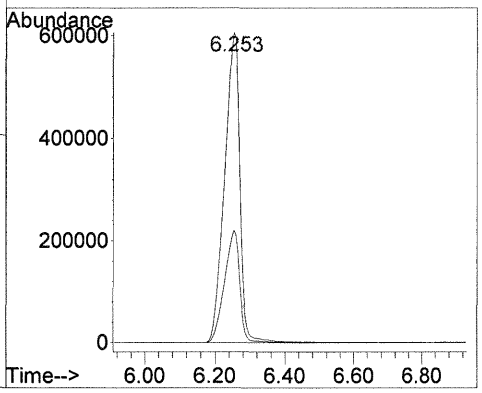


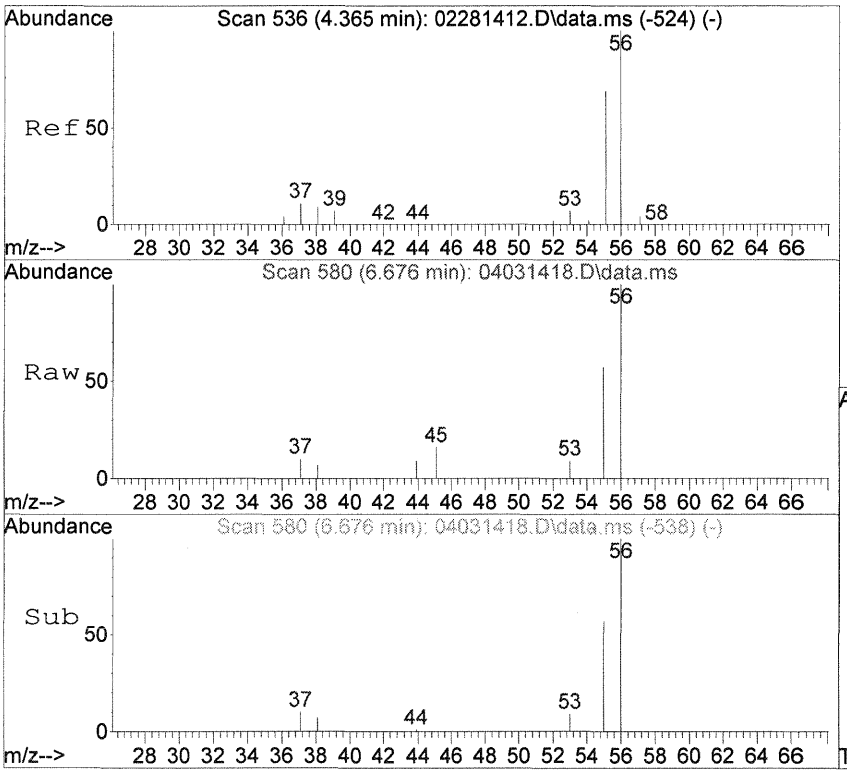


#10
Ethanol
Concen: 197.69 ng
RT: 6.25 min Scan# 503
Delta R.T. -0.011 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 45 Resp: 1864998

Ion	Ratio	Lower	Upper
45	100		
46	36.1	16.5	56.5

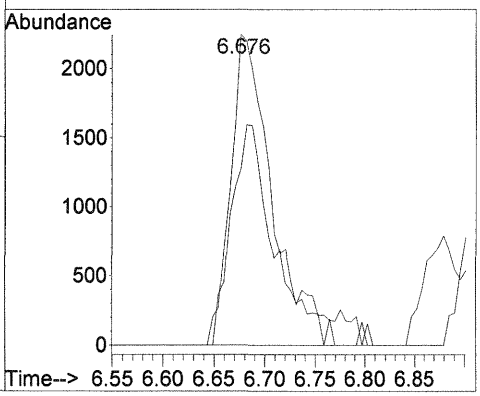


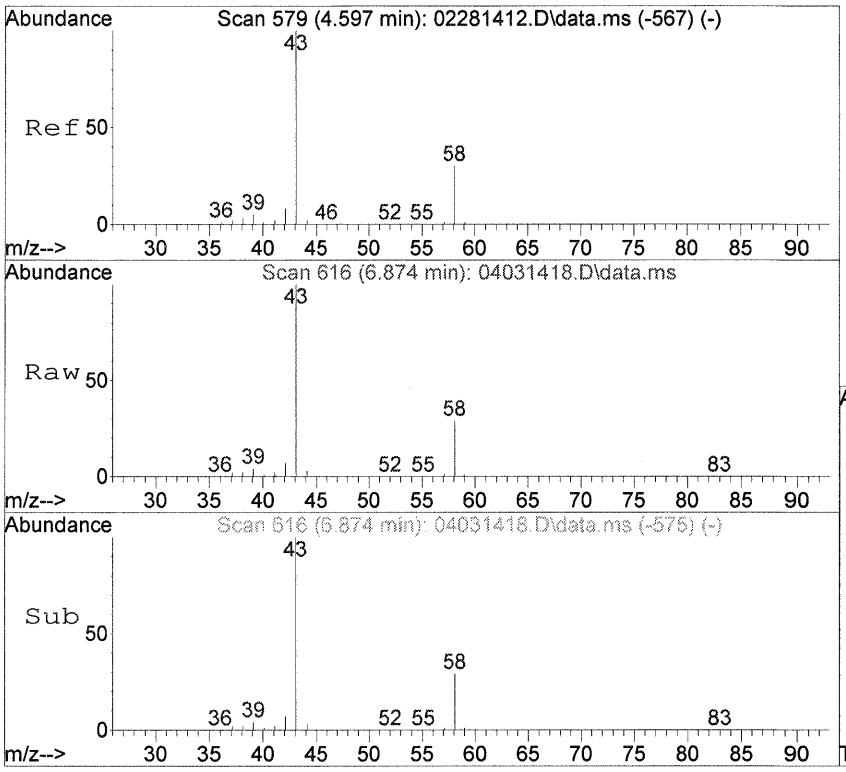


#12
Acrolein
Concen: 0.82 ng
RT: 6.68 min Scan# 580
Delta R.T. -0.017 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 56 Resp: 6848

Ion	Ratio	Lower	Upper
56	100		
55	67.3	49.9	89.9

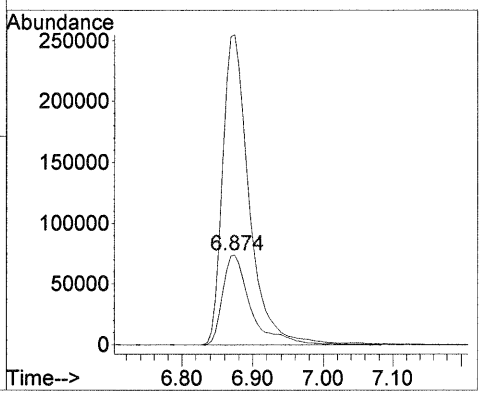


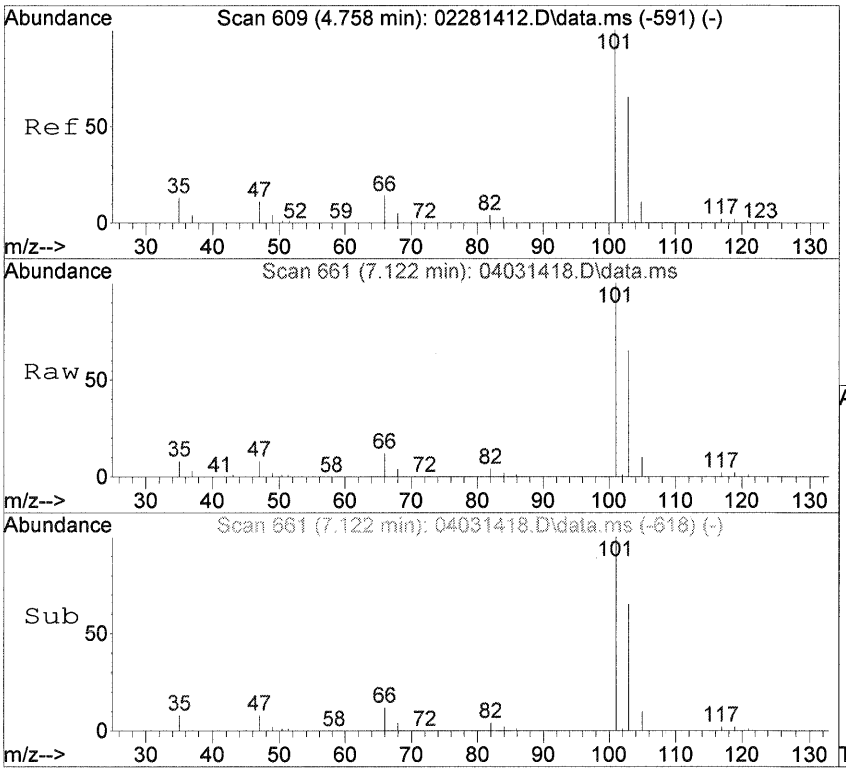


#13
Acetone
Concen: 19.94 ng
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 58 Resp: 206662

Ion	Ratio	Lower	Upper
58	100		
43	325.0	288.8	348.8

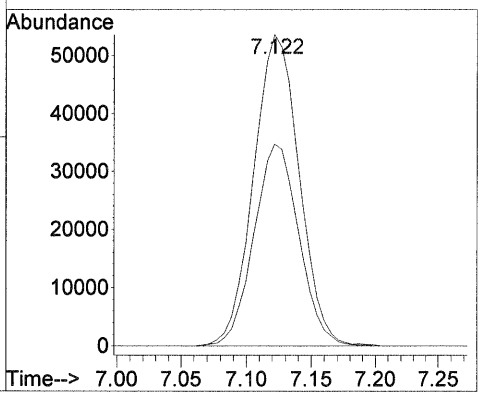


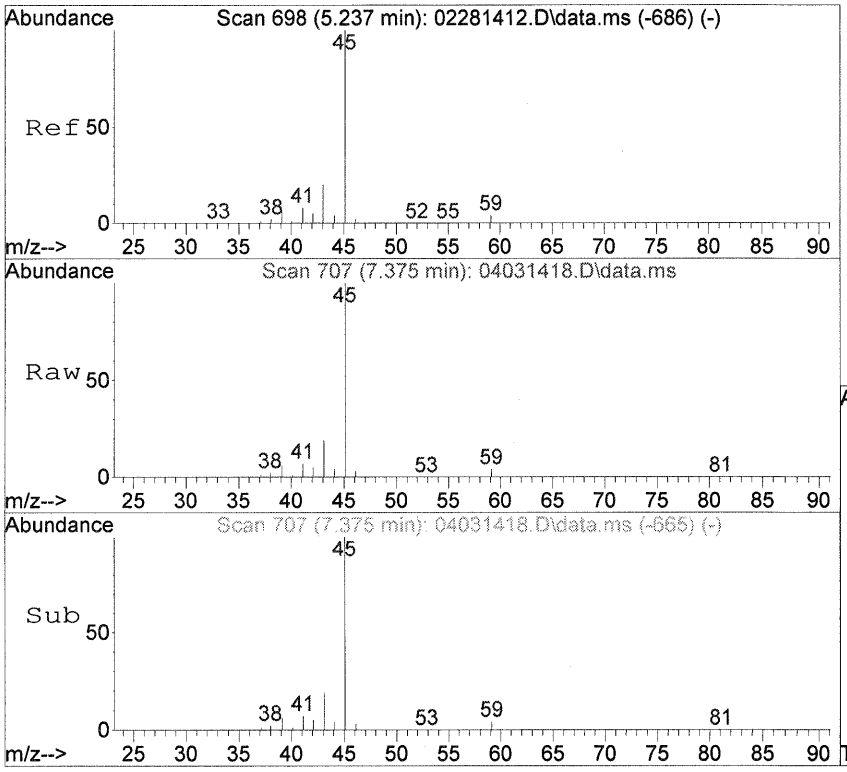


#14
Trichlorofluoromethane
Concen: 5.09 ng
RT: 7.12 min Scan# 661
Delta R.T. -0.011 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion:101 Resp: 130904

Ion	Ratio	Lower	Upper
101	100		
103	63.9	44.9	84.9

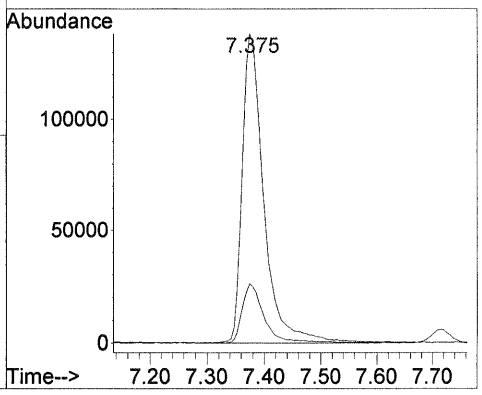


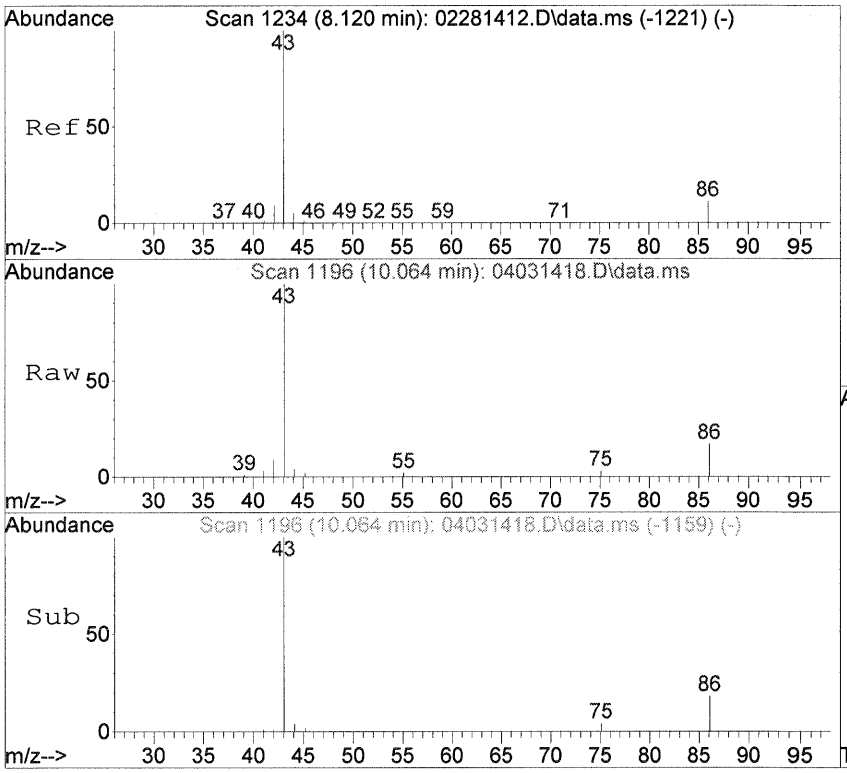


#15
2-Propanol (Isopropanol)
Concen: 10.81 ng
RT: 7.37 min Scan# 707
Delta R.T. -0.017 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 45 Resp: 361154

Ion	Ratio	Lower	Upper
45	100		
43	18.8	0.0	37.8

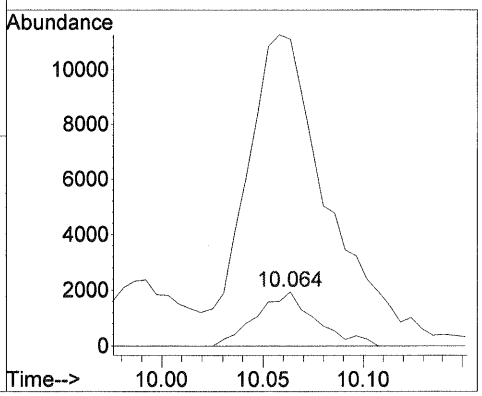


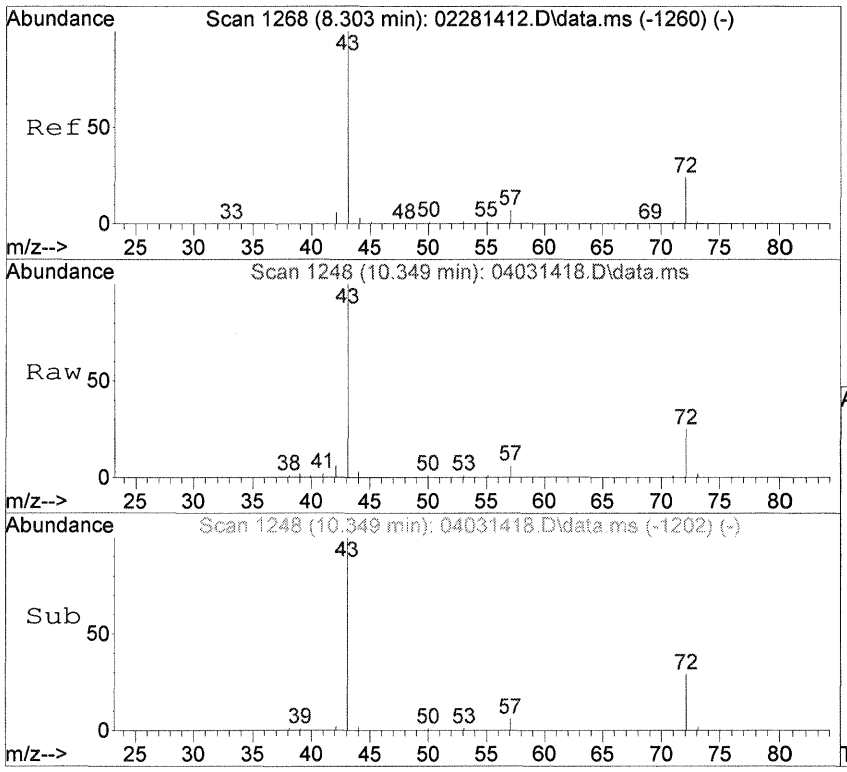


#26
Vinyl Acetate
Concen: 1.39 ng m
RT: 10.06 min Scan# 1196
Delta R.T. -0.044 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 86 Resp: 3996

Ion	Ratio	Lower	Upper
86	100		
43	0.0	1142.1	1182.1#

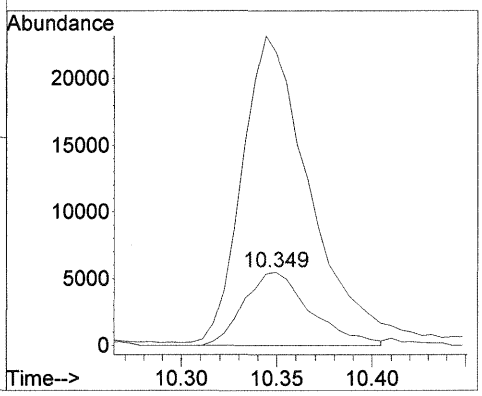


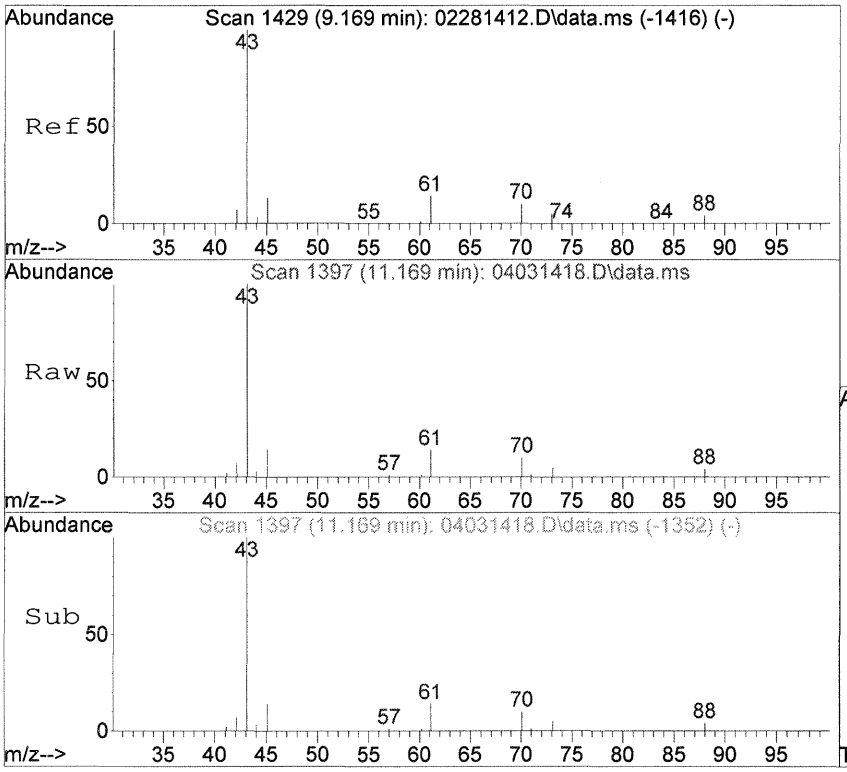


#27
2-Butanone (MEK)
Concen: 1.50 ng
RT: 10.35 min Scan# 1248
Delta R.T. 0.005 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 72 Resp: 13367

Ion	Ratio	Lower	Upper
72	100		
43	433.5	394.5	434.5

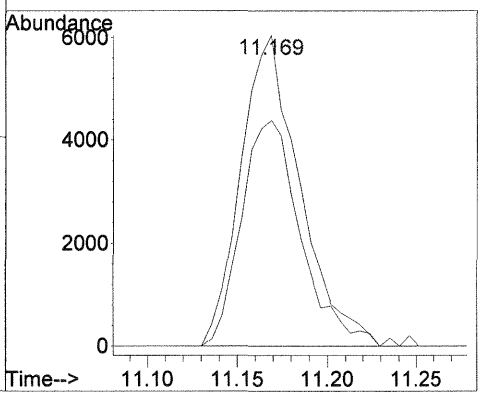




#30
Ethyl Acetate
Concen: 3.22 ng
RT: 11.17 min Scan# 1397
Delta R.T. -0.000 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 61 Resp: 13783

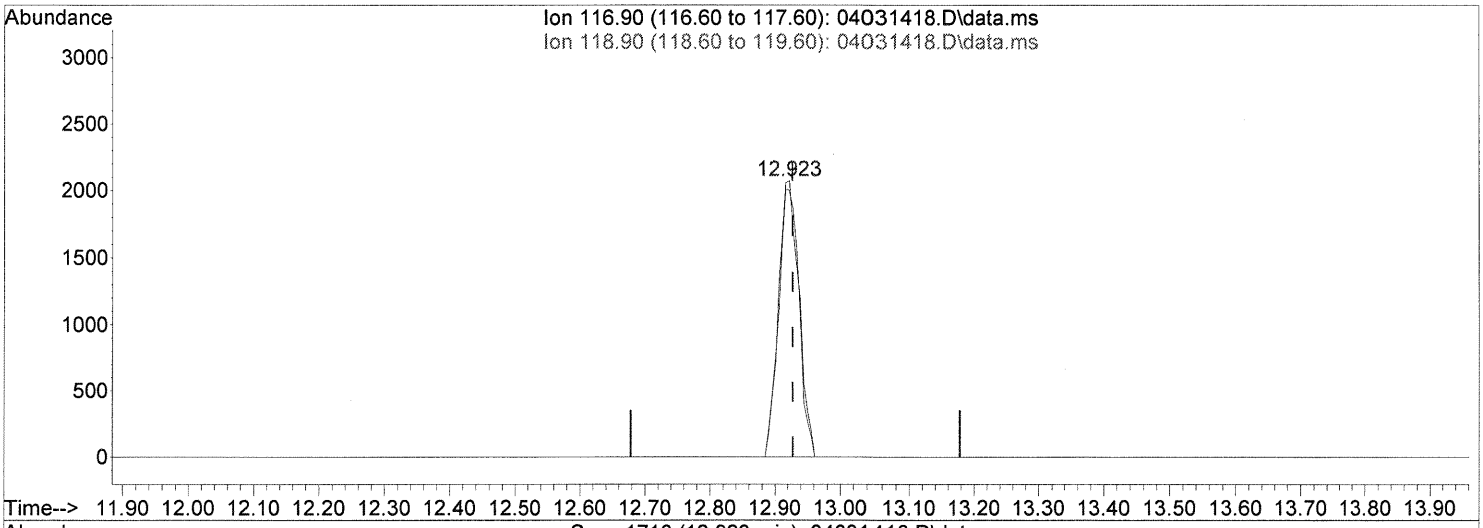
Ion	Ratio	Lower	Upper
61	100		
70	73.3	55.9	95.9

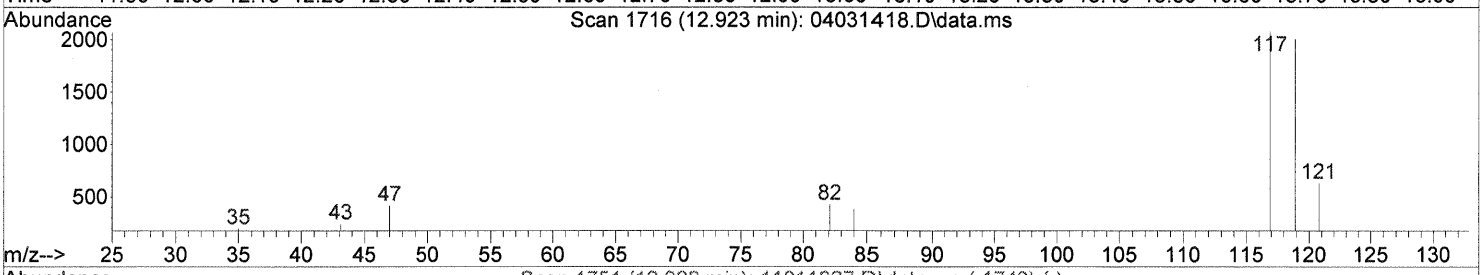


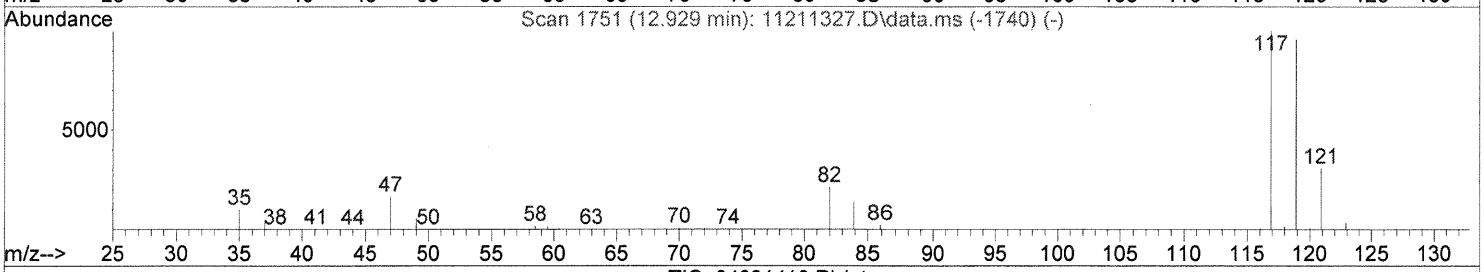
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031418.D\data.ms

(42) Carbon Tetrachloride (T)

12.923min (-0.006) 0.26ng

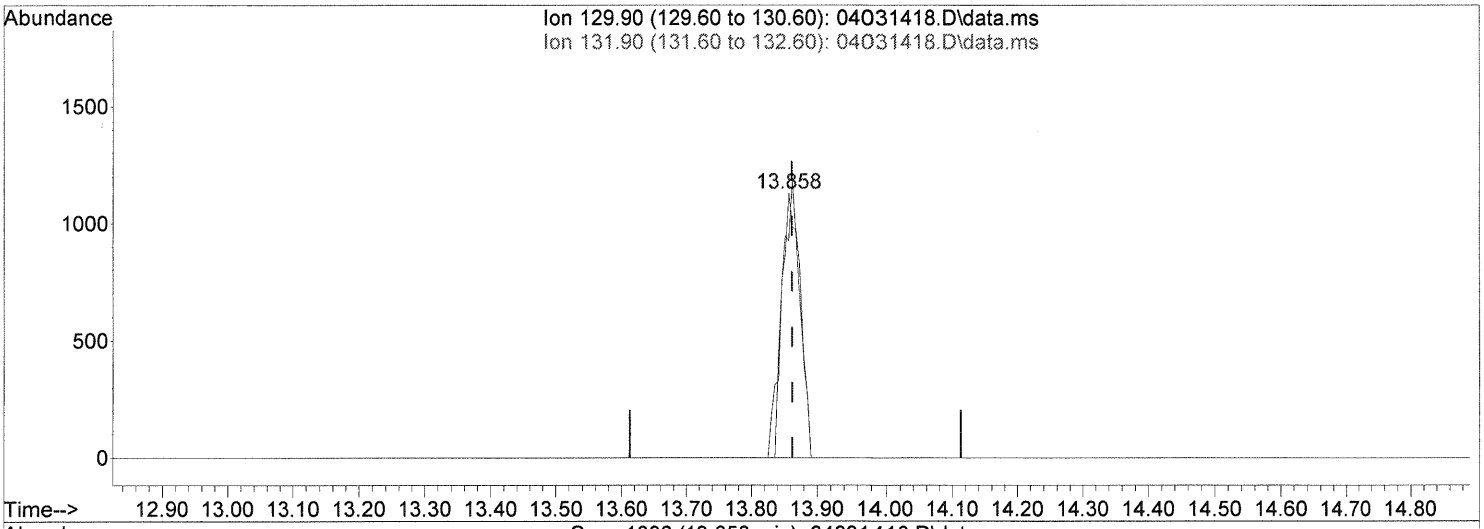
response 4602

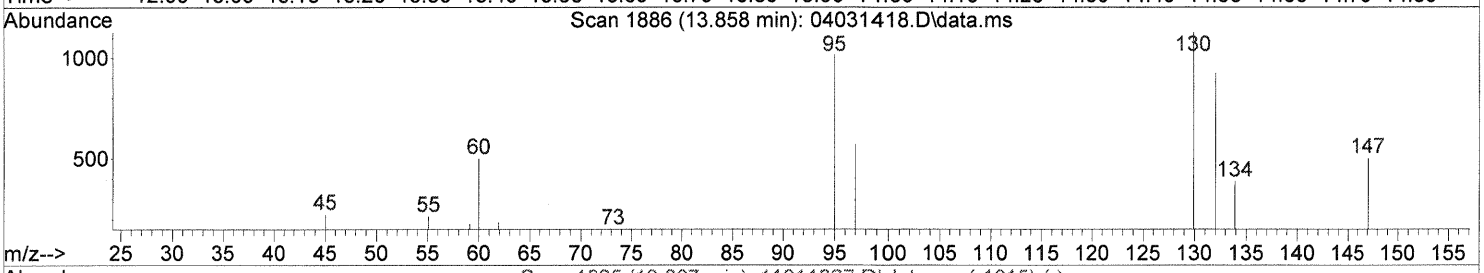
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	97.09
0.00	0.00	0.00
0.00	0.00	0.00

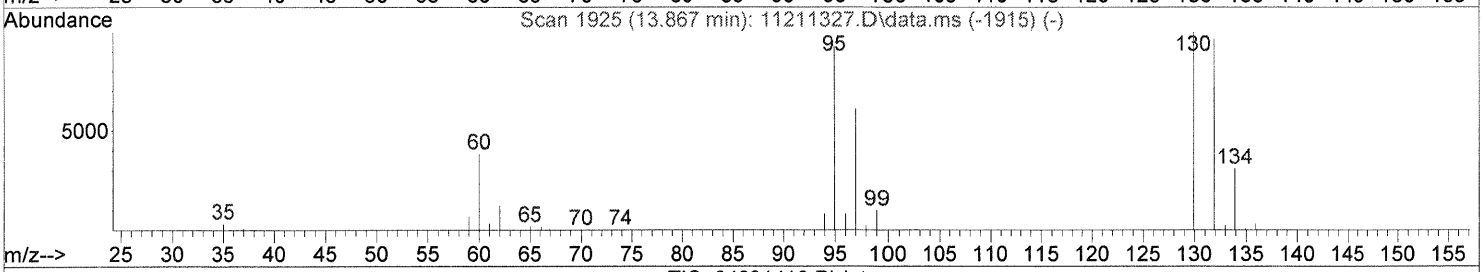
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031418.D
Acq On : 4 Apr 2014 00:05 Operator: EM
Sample : P1401201-006 (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:29 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







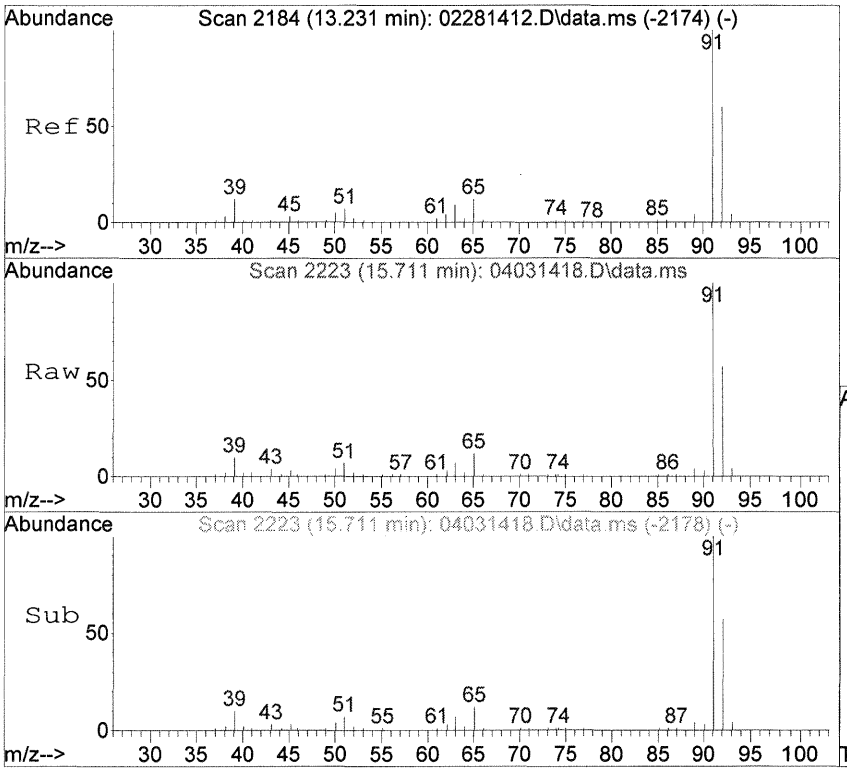
TIC: 04031418.D\data.ms

(47) Trichloroethene (T)

13.858min (-0.006) 0.14ng

response 2315

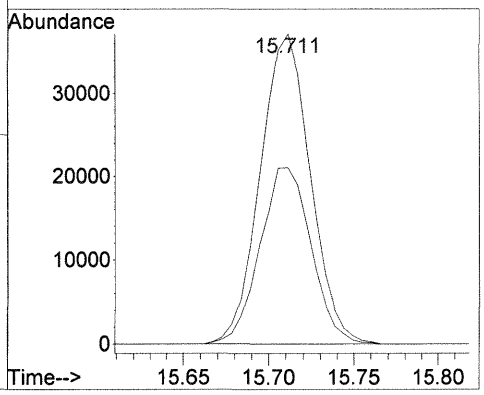
Ion	Exp%	Act%
129.90	100	100
131.90	96.90	93.48
0.00	0.00	0.00
0.00	0.00	0.00

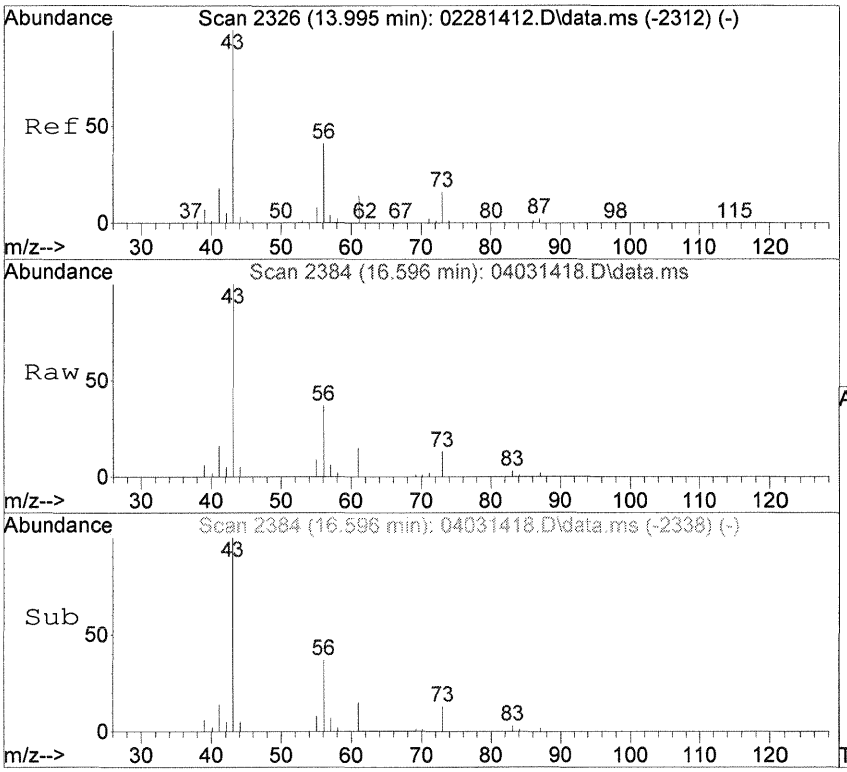


#58
Toluene
Concen: 1.31 ng
RT: 15.71 min Scan# 2223
Delta R.T. -0.000 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 91 Resp: 75169

Ion	Ratio	Lower	Upper
91	100		
92	57.8	39.1	79.1

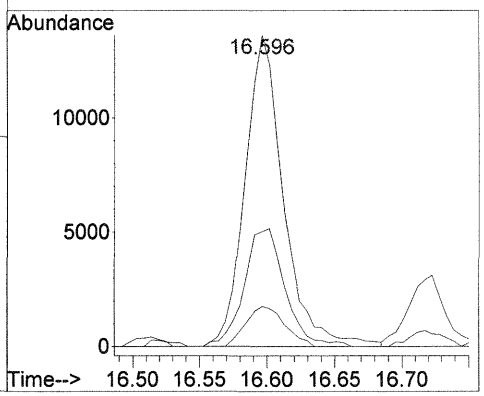


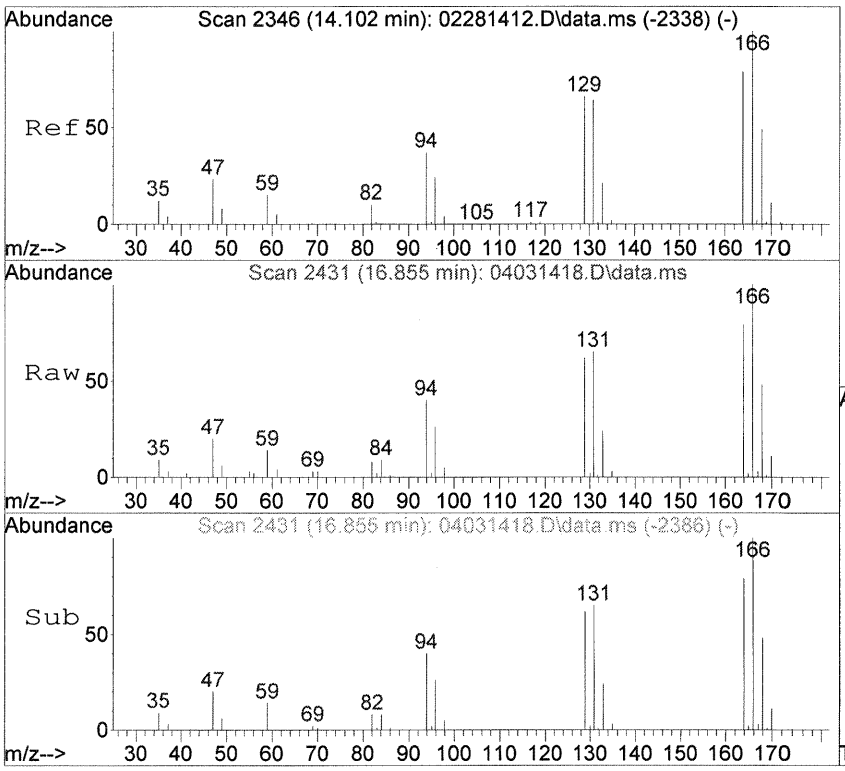


#62
n-Butyl Acetate
Concen: 0.85 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.005 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 43 Resp: 27070

Ion	Ratio	Lower	Upper
43	100		
56	39.9	19.9	59.9
73	13.1	0.0	34.1

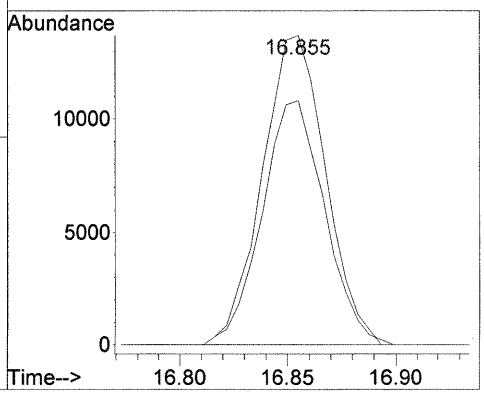


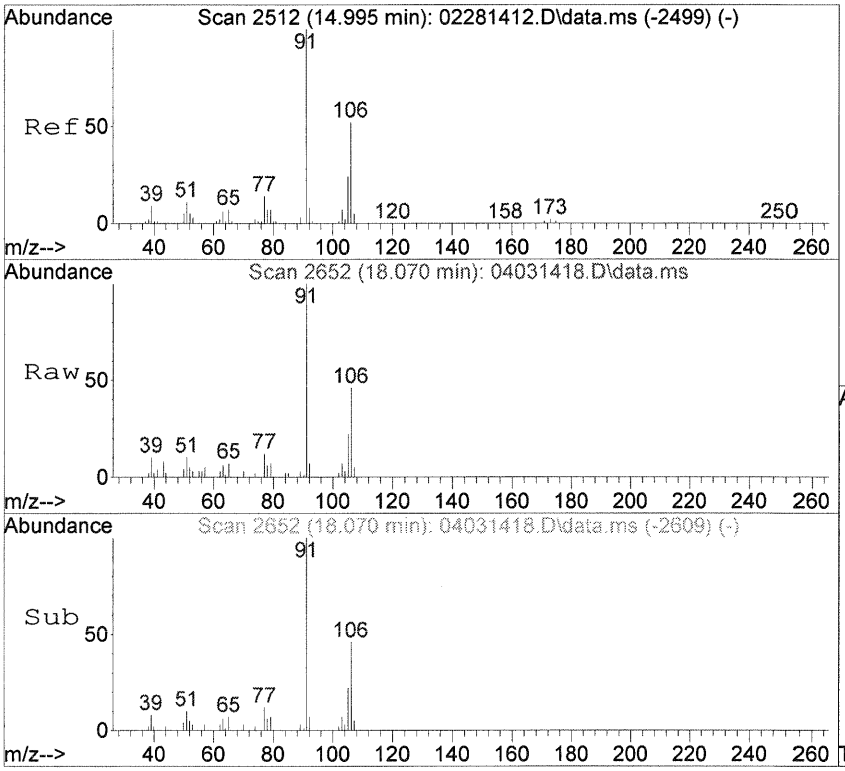


#64
Tetrachloroethene
Concen: 1.58 ng
RT: 16.85 min Scan# 2431
Delta R.T. -0.000 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion:166 Resp: 27999

Ion	Ratio	Lower	Upper
166	100		
164	78.1	57.8	97.8

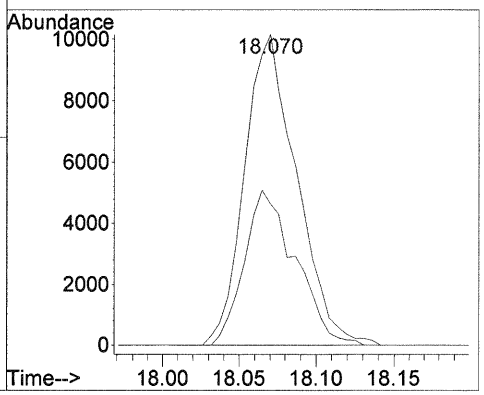


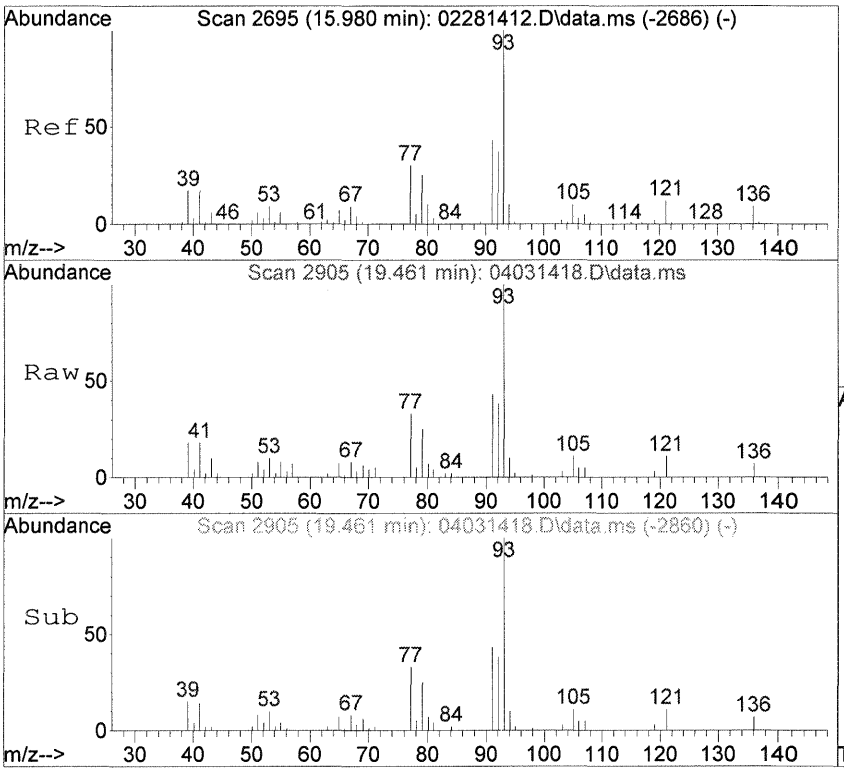


#67
m- & p-Xylenes
Concen: 0.47 ng
RT: 18.07 min Scan# 2652
Delta R.T. -0.011 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 91 Resp: 23955

Ion	Ratio	Lower	Upper
91	100		
106	49.2	29.6	69.6

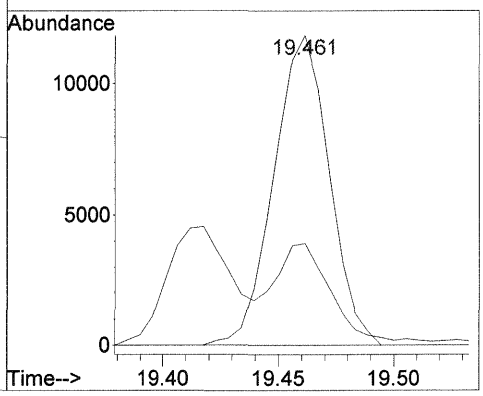


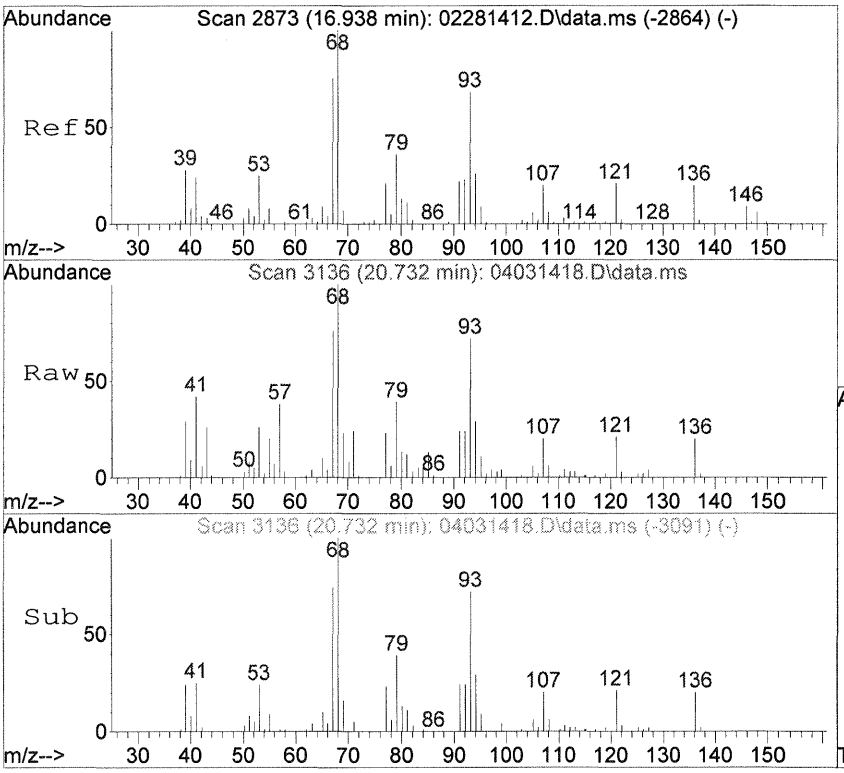


#75
alpha-Pinene
Concen: 0.61 ng
RT: 19.46 min Scan# 2905
Delta R.T. -0.000 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 93 Resp: 19708

Ion	Ratio	Lower	Upper
93	100		
77	34.9	9.1	49.1

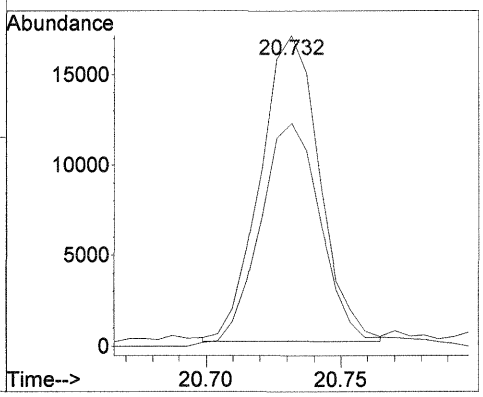




#91
d-Limonene
Concen: 1.33 ng
RT: 20.73 min Scan# 3136
Delta R.T. -0.000 min
Lab File: 04031418.D
Acq: 4 Apr 2014 00:05

Tgt Ion: 68 Resp: 25899

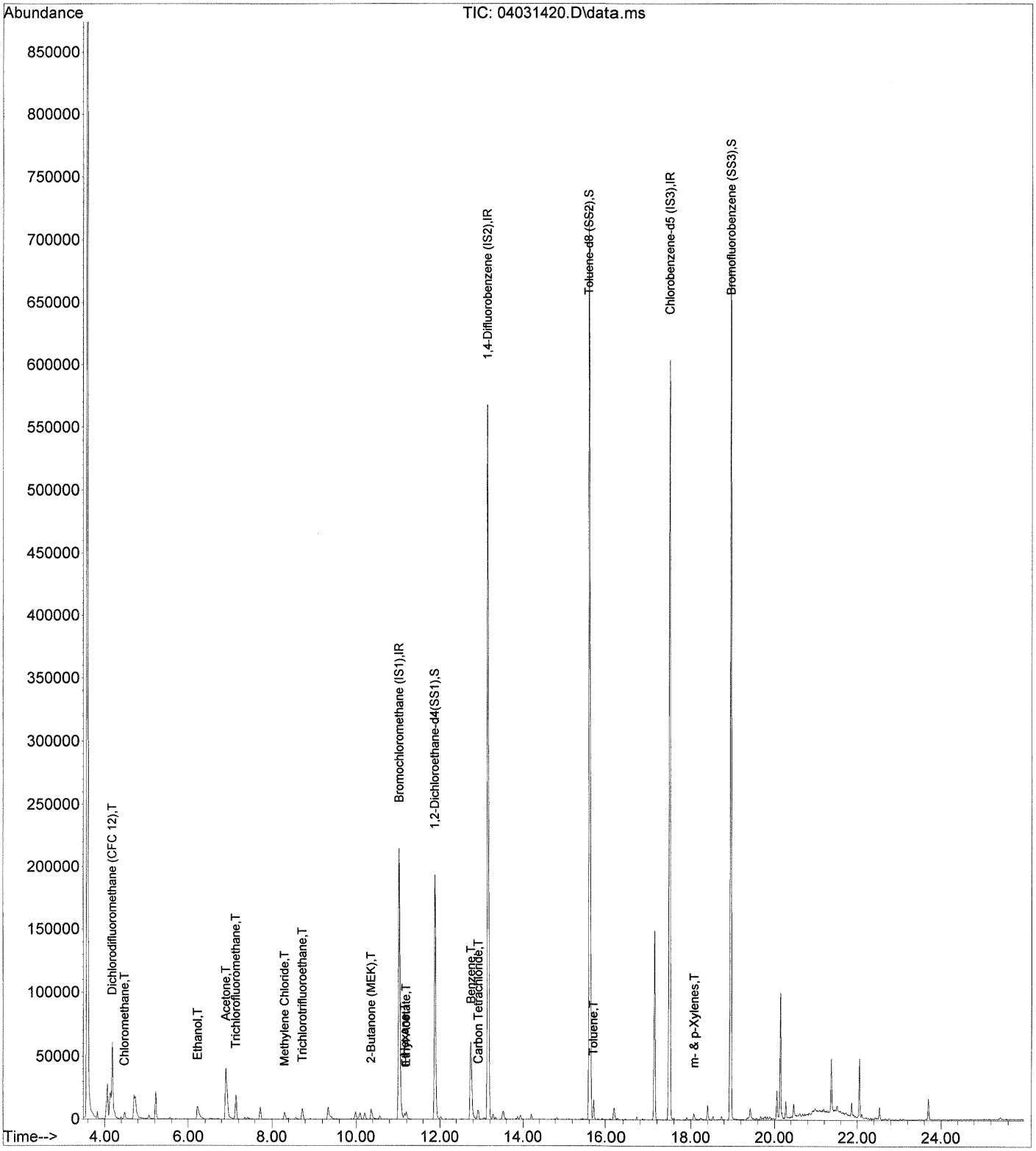
Ion	Ratio	Lower	Upper
68	100		
93	74.9	50.9	90.9



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031420.D
Acq On : 4 Apr 2014 1:15 Operator: EM
Sample : P1401201-007 (1000ml)
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 09:52:39 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031420.D
Acq On : 4 Apr 2014 1:15 Operator: EM
Sample : P1401201-007 (1000ml)
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 09:52:39 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	106260	12.500 ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	548296	12.500 ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	216974	12.500 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	11.88	65	164565	13.874 ng		-0.02
Spiked Amount 12.500			Recovery = 110.96%			
57) Toluene-d8 (SS2)	15.61	98	560421	12.418 ng		0.00
Spiked Amount 12.500			Recovery = 99.36%			
73) Bromofluorobenzene (SS3)	18.95	174	239838	12.852 ng		0.00
Spiked Amount 12.500			Recovery = 102.80%			
Target Compounds						Qvalue
2) Propene	0.00	42	0	N.D. d		
3) Dichlorodifluoromethan...	4.19	85	44824	1.464 ng		99
4) Chloromethane	4.48	50	5726	0.277 ng		96
5) 1,2-Dichloro-1,1,2,2-t...	4.72	135	941	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	5.57	94	559	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	6.22	45	23823	2.476 ng		93
11) Acetonitrile	6.51	41	1833	N.D.		
12) Acrolein	6.71	56	643	N.D.		
13) Acetone	6.90	58	18828	1.781 ng	#	52
14) Trichlorofluoromethane	7.13	101	21271	0.810 ng		98
15) 2-Propanol (Isopropanol)	7.35	45	244	N.D.		
16) Acrylonitrile	0.00	53	0	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	8.34	59	49	N.D.		
19) Methylene Chloride	8.30	84	3851	0.261 ng		98
20) 3-Chloro-1-propene (Al...	8.40	41	62	N.D.		
21) Trichlorotrifluoroethane	8.74	151	4626	0.363 ng		96
22) Carbon Disulfide	8.58	76	3682	N.D.		
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	10.07	86	129	N.D.		
27) 2-Butanone (MEK)	10.37	72	3635	0.399 ng	#	70
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	11.19	61	1062	0.243 ng		89
31) n-Hexane	11.15	57	2294	0.114 ng	#	94
32) Chloroform	11.19	83	1004	N.D.		
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	11.99	62	169	N.D.		
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	0.00	56	0	N.D. d		
41) Benzene	12.76	78	20770	0.348 ng		100
42) Carbon Tetrachloride	12.92	117	5409	0.292 ng		99
43) Cyclohexane	13.07	84	559	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		

DA 4/5/14

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031420.D
Acq On : 4 Apr 2014 1:15 Operator: EM
Sample : P1401201-007 (1000ml)
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 09:52:39 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

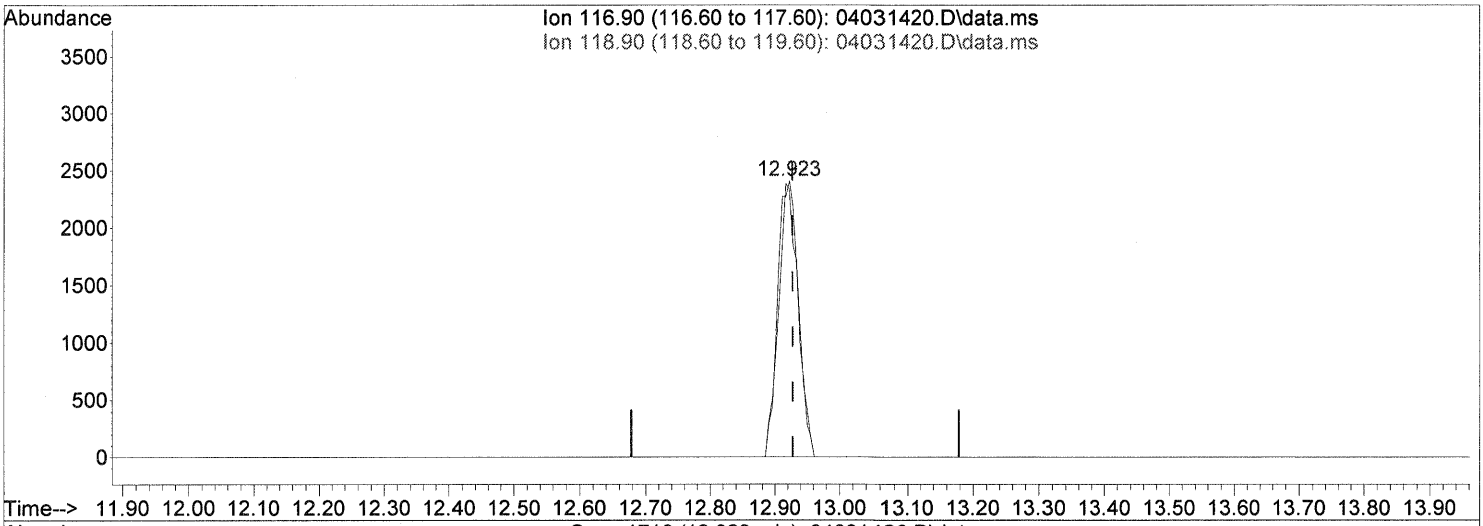
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
46) Bromodichloromethane	0.00	83	0	N.D.	
47) Trichloroethene	13.86	130	959	N.D.	
48) 1,4-Dioxane	0.00	88	0	N.D.	
49) 2,2,4-Trimethylpentane...	13.93	57	3487	N.D.	
50) Methyl Methacrylate	14.20	100	130	N.D.	
51) n-Heptane	14.20	71	877	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	15.71	91	13050	0.222 ng	99
59) 2-Hexanone	15.95	43	129	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	16.62	43	413	N.D.	
63) n-Octane	16.72	57	466	N.D.	
64) Tetrachloroethene	16.85	166	423	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	17.91	91	2719	N.D.	
67) m- & p-Xylenes	18.08	91	5084	0.097 ng	98
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	18.43	104	254	N.D.	
70) o-Xylene	18.53	91	2253	N.D.	
71) n-Nonane	18.74	43	1280	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	19.09	105	175	N.D.	
75) alpha-Pinene	19.47	93	306	N.D.	
76) n-Propylbenzene	19.58	91	786	N.D.	
77) 3-Ethyltoluene	19.68	105	1913	N.D.	
78) 4-Ethyltoluene	19.71	105	1128	N.D.	
79) 1,3,5-Trimethylbenzene	19.79	105	509	N.D.	
80) alpha-Methylstyrene	19.93	118	238	N.D.	
81) 2-Ethyltoluene	19.96	105	743	N.D.	
82) 1,2,4-Trimethylbenzene	20.18	105	2252	N.D.	
83) n-Decane	0.00	57	0	N.D. d	
84) Benzyl Chloride	20.18	91	141	N.D.	
85) 1,3-Dichlorobenzene	20.39	146	103	N.D.	
86) 1,4-Dichlorobenzene	20.39	146	103	N.D.	
87) sec-Butylbenzene	20.60	105	677	N.D.	
88) 4-Isopropyltoluene (p-...	20.59	119	319	N.D.	
89) 1,2,3-Trimethylbenzene	20.60	105	677	N.D.	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	
91) d-Limonene	20.74	68	356	N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	21.51	57	2461	N.D.	
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.	
95) Naphthalene	22.52	128	2326	N.D.	
96) n-Dodecane	0.00	57	0	N.D. d	
97) Hexachlorobutadiene	0.00	225	0	N.D.	
98) Cyclohexanone	18.24	55	477	N.D.	
99) tert-Butylbenzene	20.13	119	2307	N.D.	
100) n-Butylbenzene	21.00	91	233	N.D.	

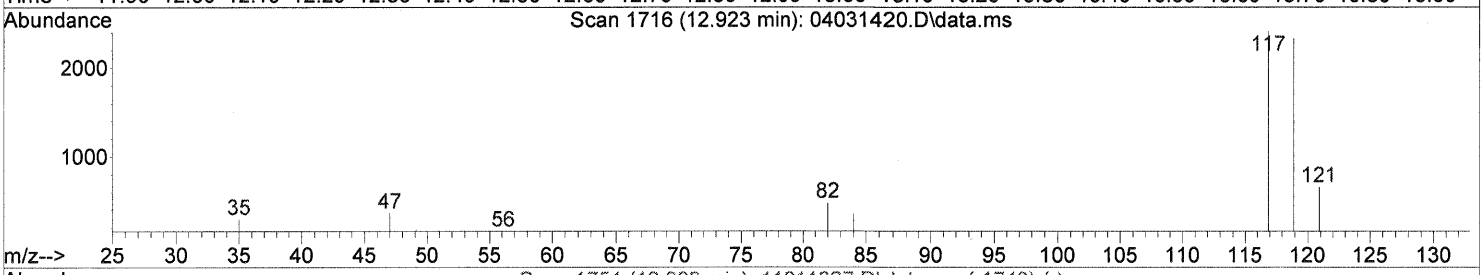
(#) = qualifier out of range (m) = manual integration (+) = signals summed

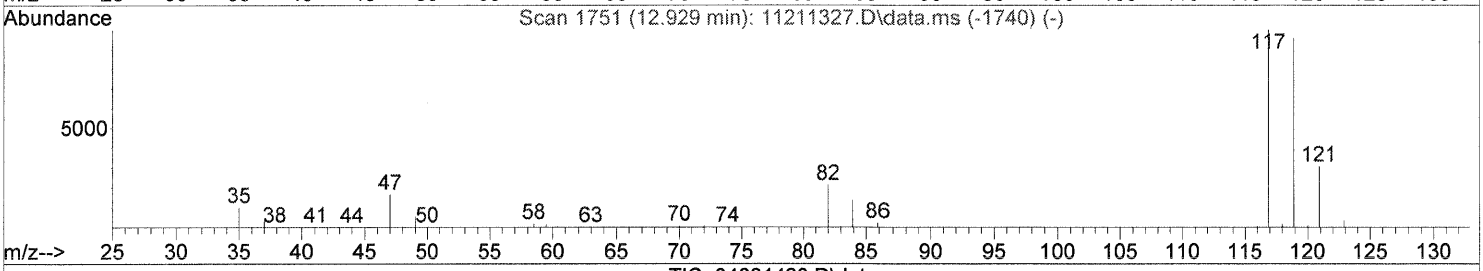
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031420.D
Acq On : 4 Apr 2014 1:15 Operator: EM
Sample : P1401201-007 (1000ml)
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 08:28:12 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







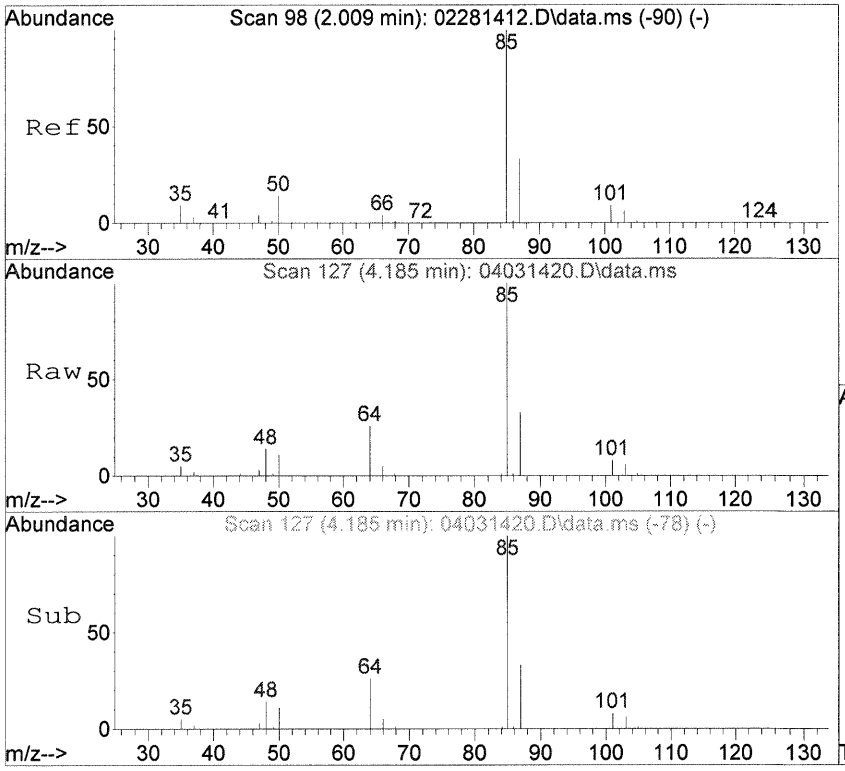
TIC: 04031420.D\data.ms

(42) Carbon Tetrachloride (T)

12.923min (-0.005) 0.29ng

response 5409

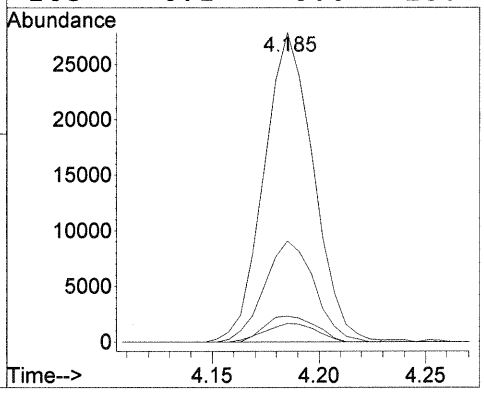
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	95.01
0.00	0.00	0.00
0.00	0.00	0.00

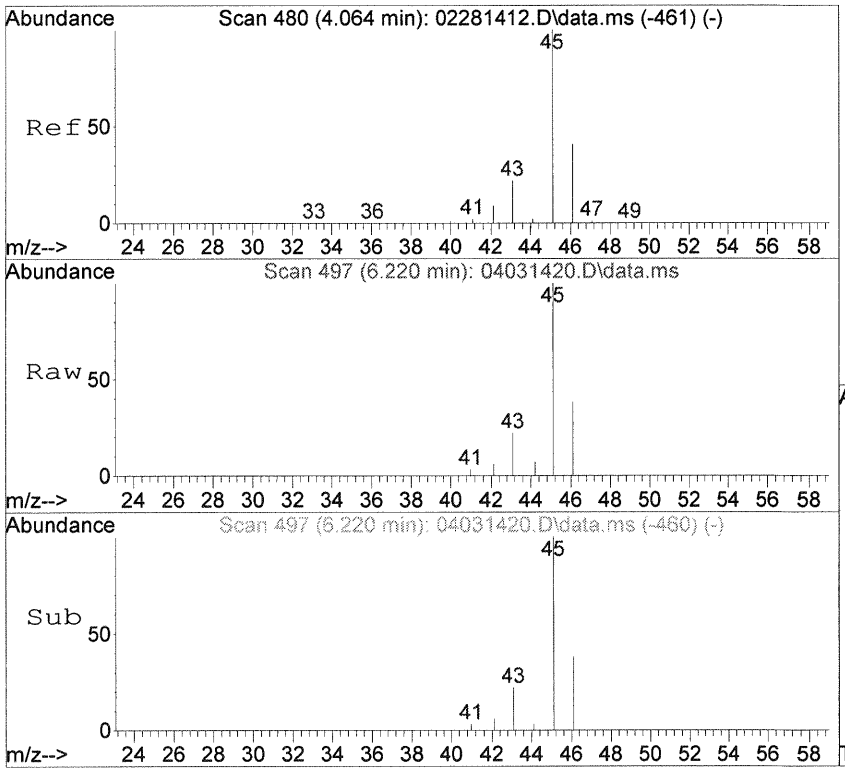


#3
Dichlorodifluoromethane (CFC 1:
Concen: 1.46 ng
RT: 4.19 min Scan# 127
Delta R.T. 0.022 min
Lab File: 04031420.D
Acq: 4 Apr 2014 1:15

Tgt Ion: 85 Resp: 44824

Ion	Ratio	Lower	Upper
85	100		
87	32.8	12.6	52.6
101	8.7	0.0	28.9
103	6.1	0.0	25.7

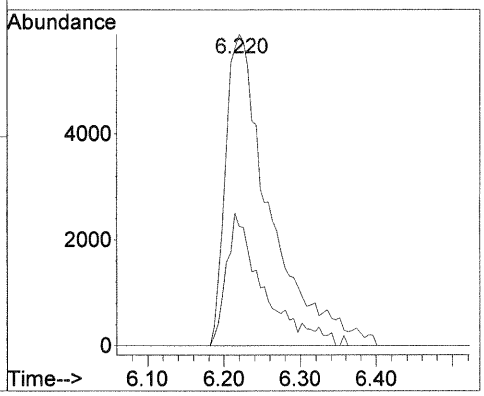


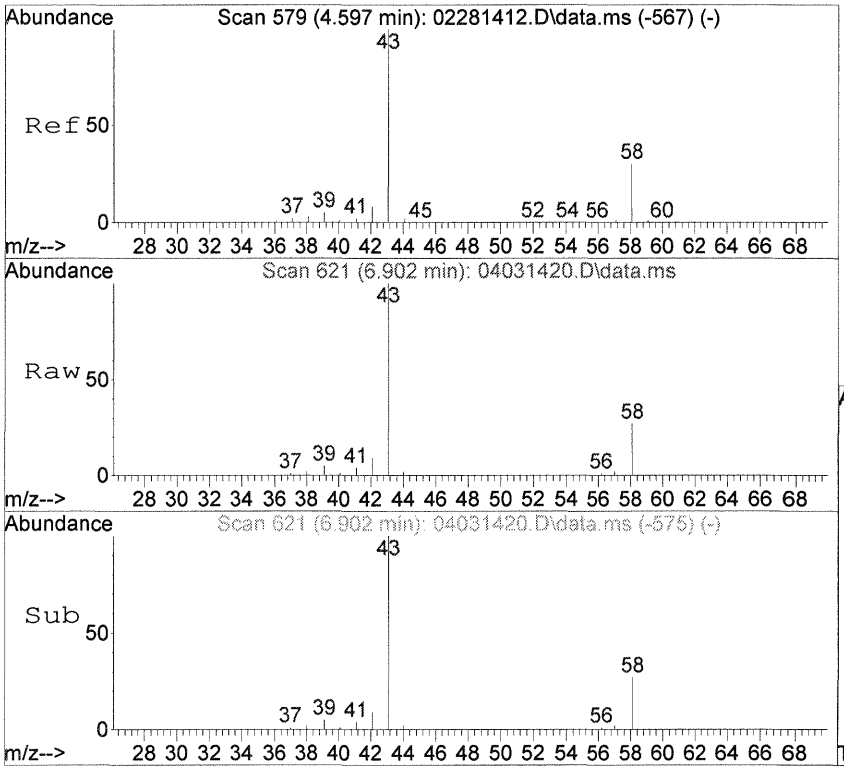


#10
Ethanol
Concen: 2.48 ng
RT: 6.22 min Scan# 497
Delta R.T. -0.044 min
Lab File: 04031420.D
Acq: 4 Apr 2014 1:15

Tgt Ion: 45 Resp: 23823

Ion	Ratio	Lower	Upper
45	100		
46	32.5	16.5	56.5

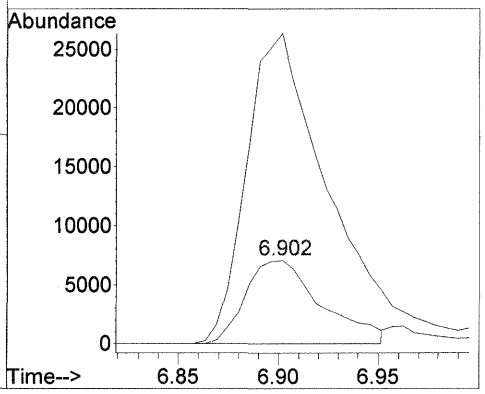


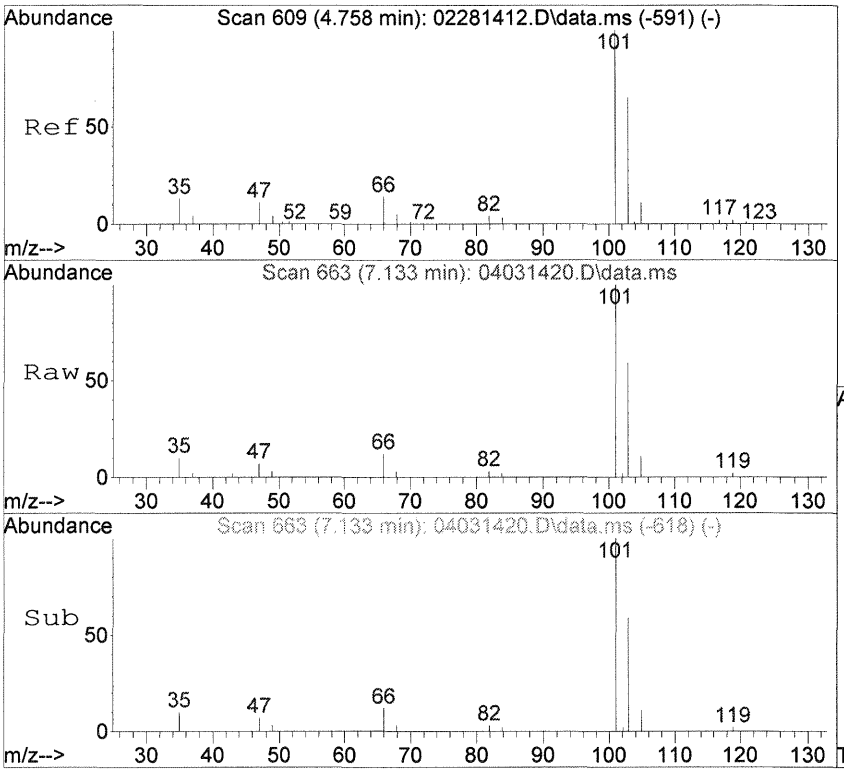


#13
Acetone
Concen: 1.78 ng
RT: 6.90 min Scan# 621
Delta R.T. 0.006 min
Lab File: 04031420.D
Acq: 4 Apr 2014 1:15

Tgt Ion: 58 Resp: 18828

Ion	Ratio	Lower	Upper
58	100		
43	417.4	288.8	348.8#

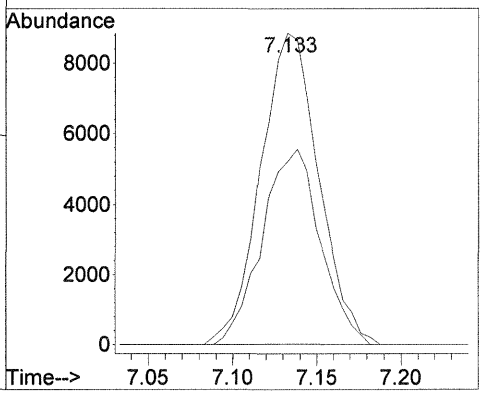




#14
Trichlorofluoromethane
Concen: 0.81 ng
RT: 7.13 min Scan# 663
Delta R.T. 0.000 min
Lab File: 04031420.D
Acq: 4 Apr 2014 1:15

Tgt Ion:101 Resp: 21271

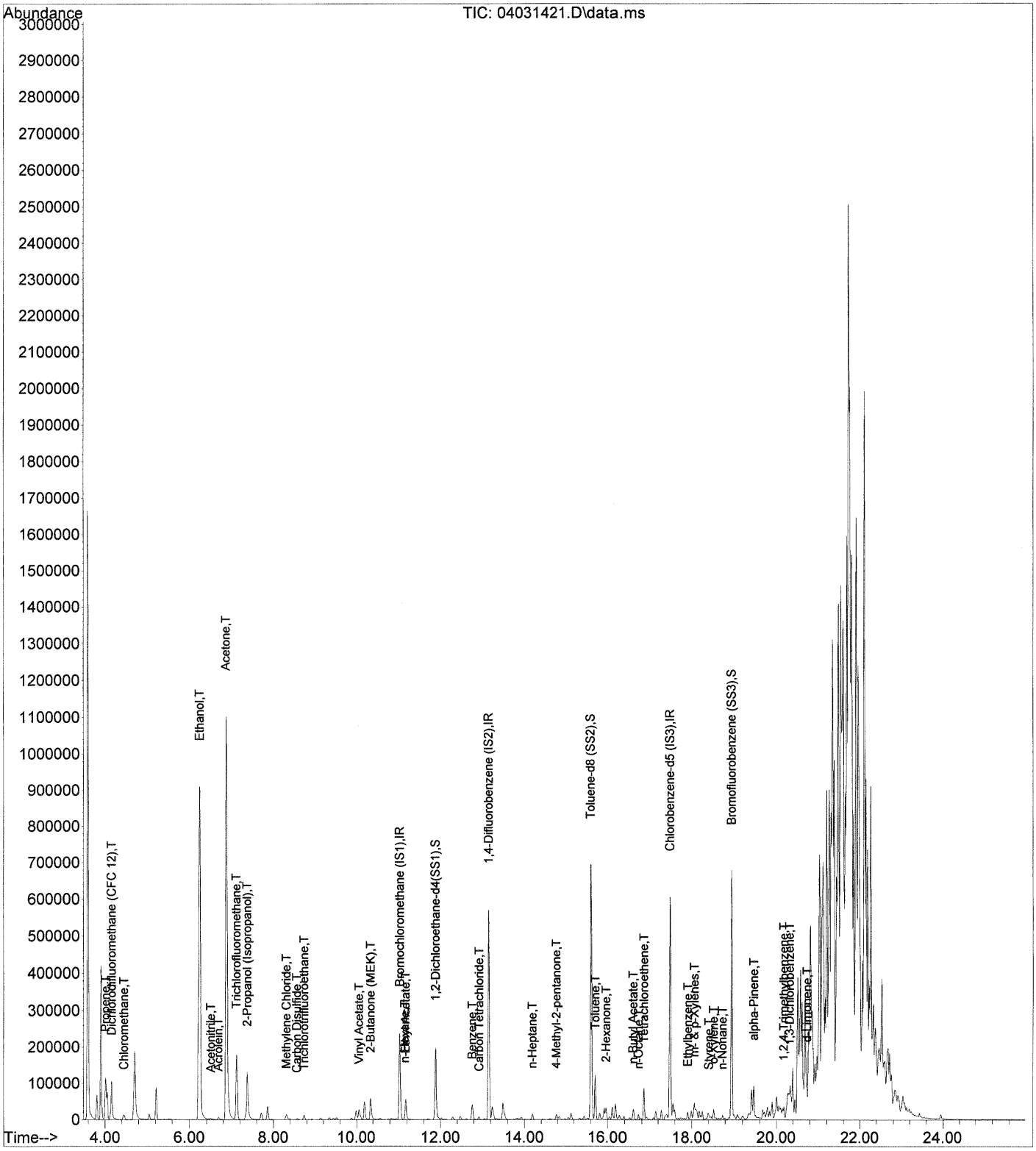
Ion	Ratio	Lower	Upper
101	100		
103	63.0	44.9	84.9



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031421.D
Acq On : 4 Apr 2014 1:49 Operator: EM
Sample : P1401201-008 (1000ml)
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 09:54:21 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031421.D
Acq On : 4 Apr 2014 1:49 Operator: EM
Sample : P1401201-008 (1000ml)
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 09:54:21 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	106720	12.500	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	13.16	114	534775	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	213482	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	162679	13.656	ng		-0.01
Spiked Amount 12.500			Recovery =	109.28%			
57) Toluene-d8 (SS2)	15.61	98	537559	12.107	ng		0.00
Spiked Amount 12.500			Recovery =	96.88%			
73) Bromofluorobenzene (SS3)	18.95	174	231351	12.600	ng		0.00
Spiked Amount 12.500			Recovery =	100.80%			
Target Compounds							Qvalue
2) Propene	4.01	42	32995m	2.082	ng		
3) Dichlorodifluoromethan...	4.16	85	76273	2.480	ng		100
4) Chloromethane	4.45	50	6616	0.319	ng		95
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	1003	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.13	54	425	N.D.			
8) Bromomethane	5.55	94	641	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.25	45	1566934	162.135	ng		100
11) Acetonitrile	6.51	41	4085	0.149	ng		99
12) Acrolein	6.69	56	9348	1.087	ng		96
13) Acetone	6.87	58	553358	52.122	ng		93
14) Trichlorofluoromethane	7.12	101	191653	7.267	ng		99
15) 2-Propanol (Isopropanol)	7.38	45	230928	6.746	ng		99
16) Acrylonitrile	7.70	53	59	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	8.31	84	5162	0.349	ng		98
20) 3-Chloro-1-propene (Al...	8.40	41	686	N.D.			
21) Trichlorotrifluoroethane	8.74	151	6337	0.495	ng		100
22) Carbon Disulfide	8.56	76	6523	0.124	ng		92
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	9.98	73	122	N.D.			
26) Vinyl Acetate	10.06	86	7331	2.493	ng	#	14
27) 2-Butanone (MEK)	10.34	72	22716	2.485	ng		95
28) cis-1,2-Dichloroethene	10.86	61	699	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	11.17	61	11329	2.585	ng		94
31) n-Hexane	11.15	57	3393	0.168	ng	#	90
32) Chloroform	11.21	83	1454	N.D.			
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	12.00	62	948	N.D.			
38) 1,1,1-Trichloroethane	12.29	97	123	N.D.			
39) Isopropyl Acetate	12.74	61	193	N.D.			
40) 1-Butanol	0.00	56	0	N.D.	d		
41) Benzene	12.76	78	28101	0.483	ng		98
42) Carbon Tetrachloride	12.93	117	5054	0.280	ng		99
43) Cyclohexane	13.06	84	1141	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			

4/5/14

Data File: I:\MS13\DATA\2014_04\03\04031421.D
Acq On : 4 Apr 2014 1:49 Operator: EM
Sample : P1401201-008 (1000ml)
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 09:54:21 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

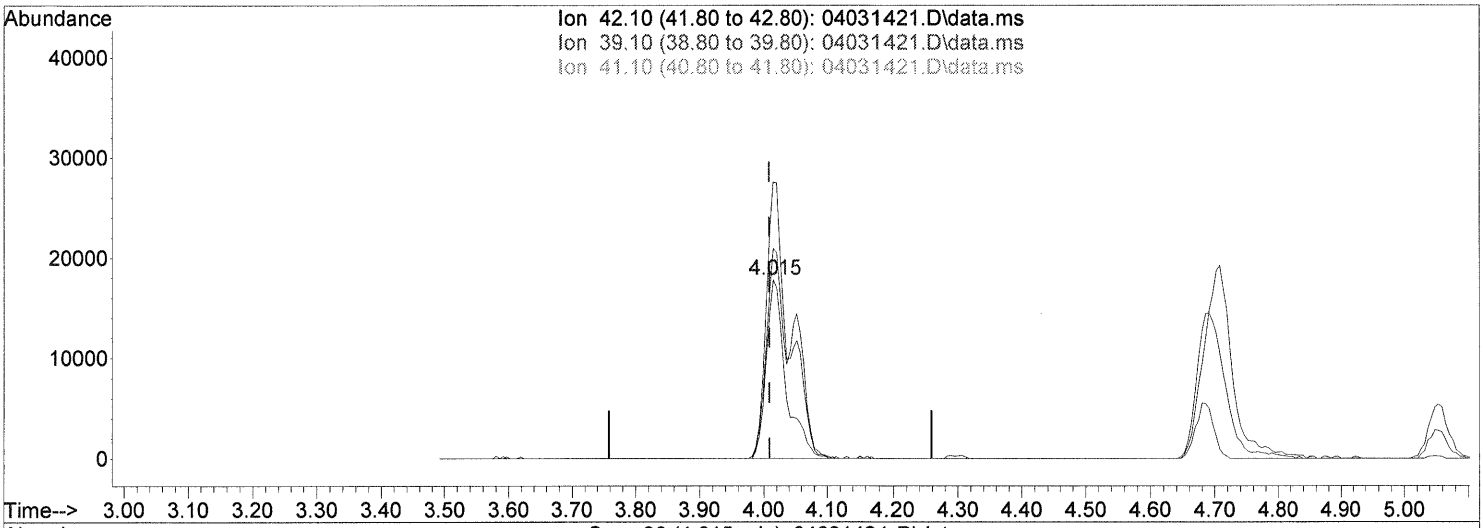
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	13.86	130	274	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D. d		
50) Methyl Methacrylate	0.00	100	0	N.D. d		
51) n-Heptane	14.20	71	3773	0.298 ng		99
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.78	58	4302	0.361 ng	#	70
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	100407	1.739 ng		100
59) 2-Hexanone	15.97	43	22515	0.763 ng		94
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	25532	0.796 ng		97
63) n-Octane	16.72	57	2719	0.234 ng		93
64) Tetrachloroethene	16.85	166	30841	1.731 ng		98
65) Chlorobenzene	17.55	112	449	N.D.		
66) Ethylbenzene	17.91	91	12918	0.202 ng		96
67) m- & p-Xylenes	18.06	91	34541	0.673 ng		100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	18.42	104	3421	0.091 ng		96
70) o-Xylene	18.53	91	12385	0.236 ng		96
71) n-Nonane	18.74	43	4359	0.153 ng	#	78
72) 1,1,2,2-Tetrachloroethane	18.52	83	232	N.D.		
74) Cumene	19.09	105	1090	N.D.		
75) alpha-Pinene	19.46	93	35292	1.081 ng		90
76) n-Propylbenzene	19.57	91	2828	N.D.		
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.71	105	3792	N.D.		
79) 1,3,5-Trimethylbenzene	19.78	105	3015	N.D.		
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	19.96	105	2790	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	8621	0.159 ng		88
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.30	91	51	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	3752	0.118 ng		100
86) 1,4-Dichlorobenzene	20.39	146	286	N.D.		
87) sec-Butylbenzene	20.45	105	166	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	20.59	105	3611	N.D.		
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	20.73	68	8817	0.448 ng		89
92) 1,2-Dibromo-3-Chloropr...	21.03	157	252	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	0.00	128	0	N.D. d		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.18	119	1346	N.D.		
100) n-Butylbenzene	21.00	91	1325	N.D.		

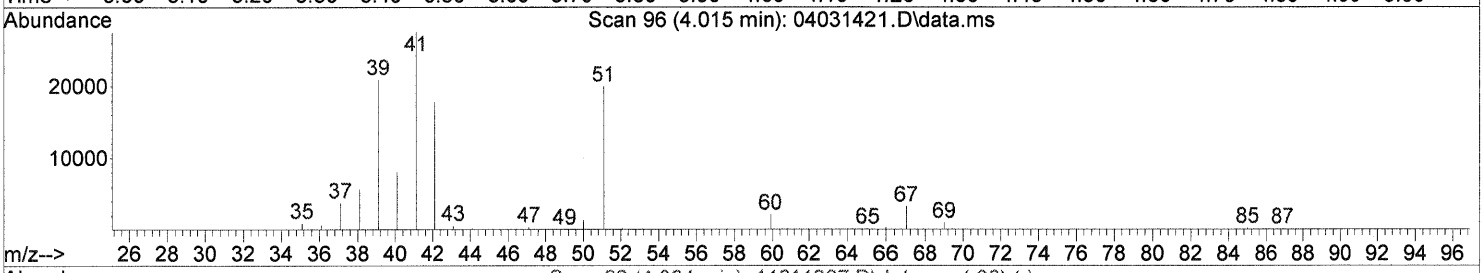
(#) = qualifier out of range (m) = manual integration (+) = signals summed

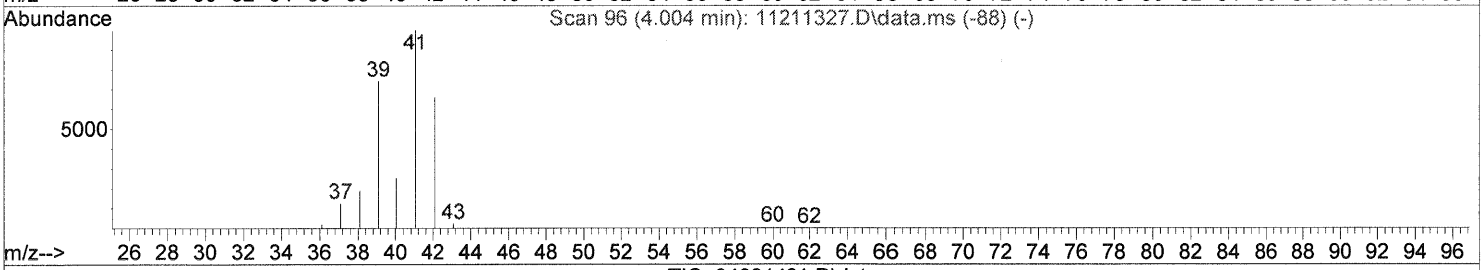
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031421.D
Acq On : 4 Apr 2014 1:49 Operator: EM
Sample : P1401201-008 (1000ml)
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 08:30:17 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031421.D\data.ms

(2) Propene (T)

4.015min (+0.005) 2.46ng

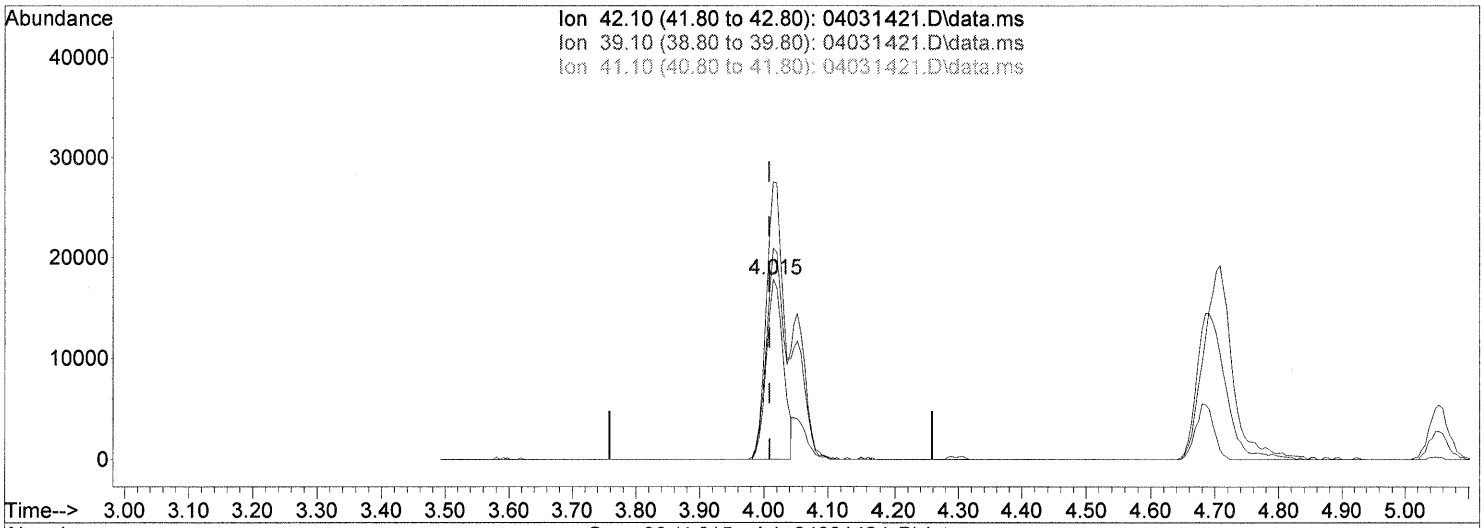
response 39042

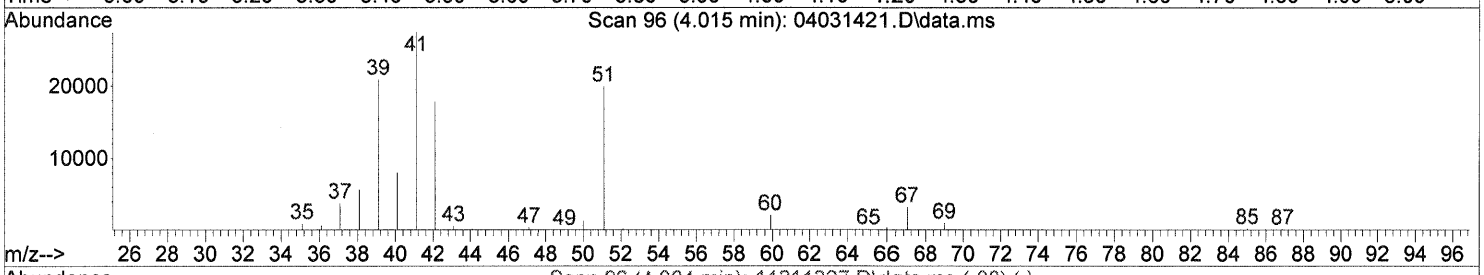
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	99.22
41.10	152.60	177.19#
0.00	0.00	0.00

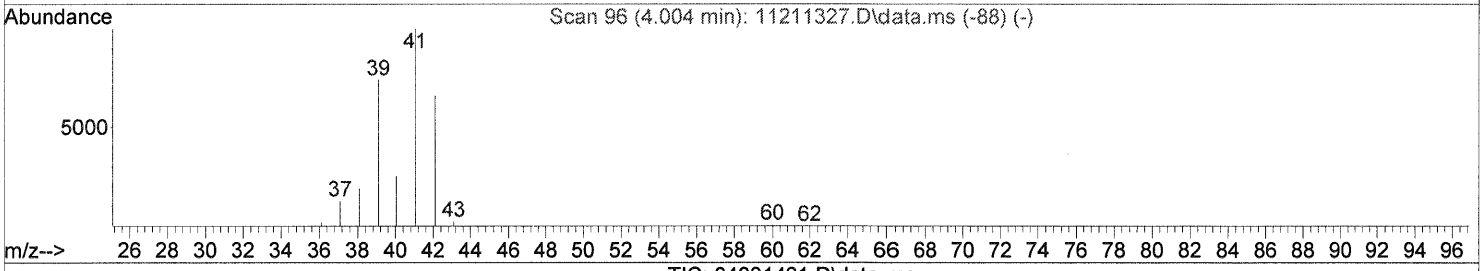
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031421.D
Acq On : 4 Apr 2014 1:49 Operator: EM
Sample : P1401201-008 (1000ml)
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 08:30:17 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031421.D\data.ms

(2) Propene (T)

4.015min (+0.005) 2.08ng m

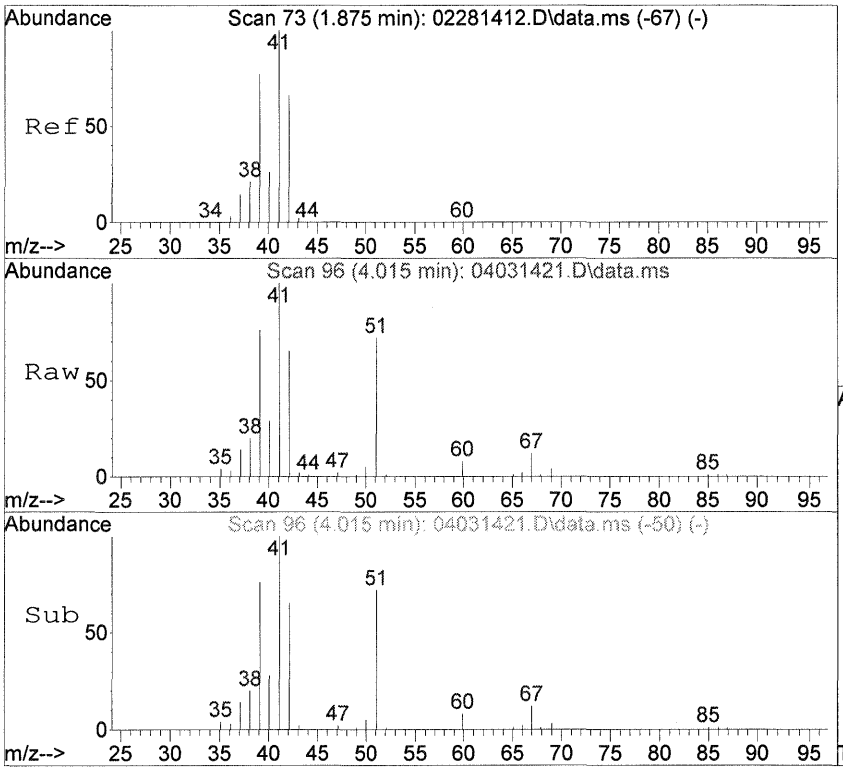
response 32995

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	117.41
41.10	152.60	209.67#
0.00	0.00	0.00

IPC

4/5/14

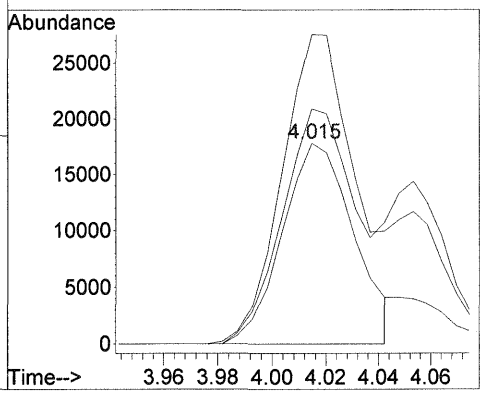
4/7/14

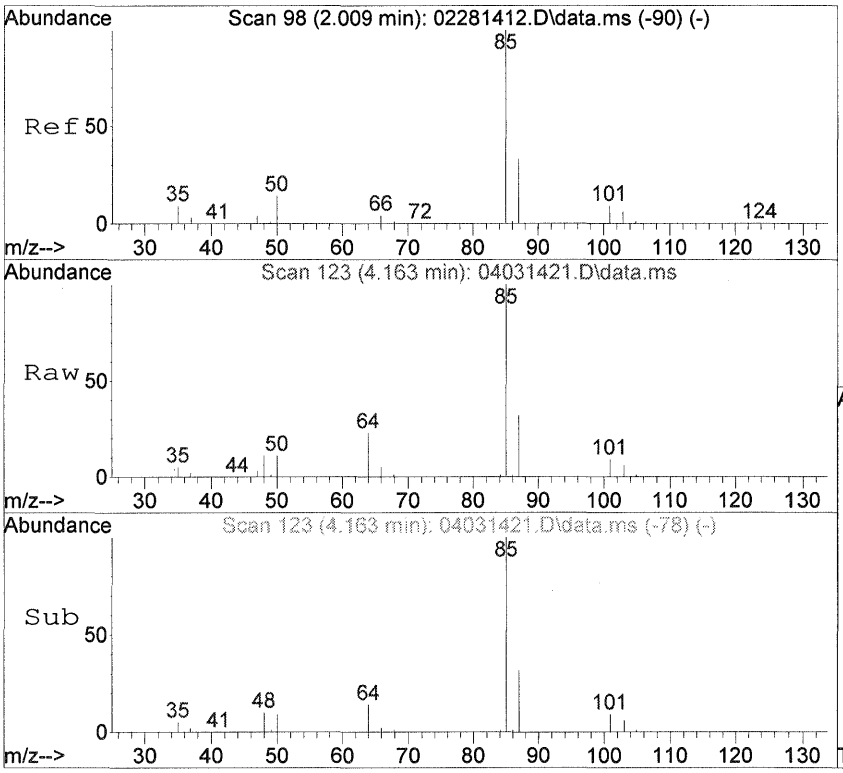


#2
Propene
Concen: 2.08 ng m
RT: 4.01 min Scan# 96
Delta R.T. 0.005 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 42 Resp: 32995

Ion	Ratio	Lower	Upper
42	100		
39	117.4	92.6	132.6
41	209.7	132.6	172.6#

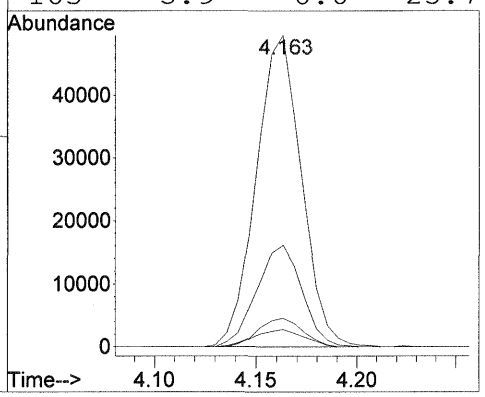


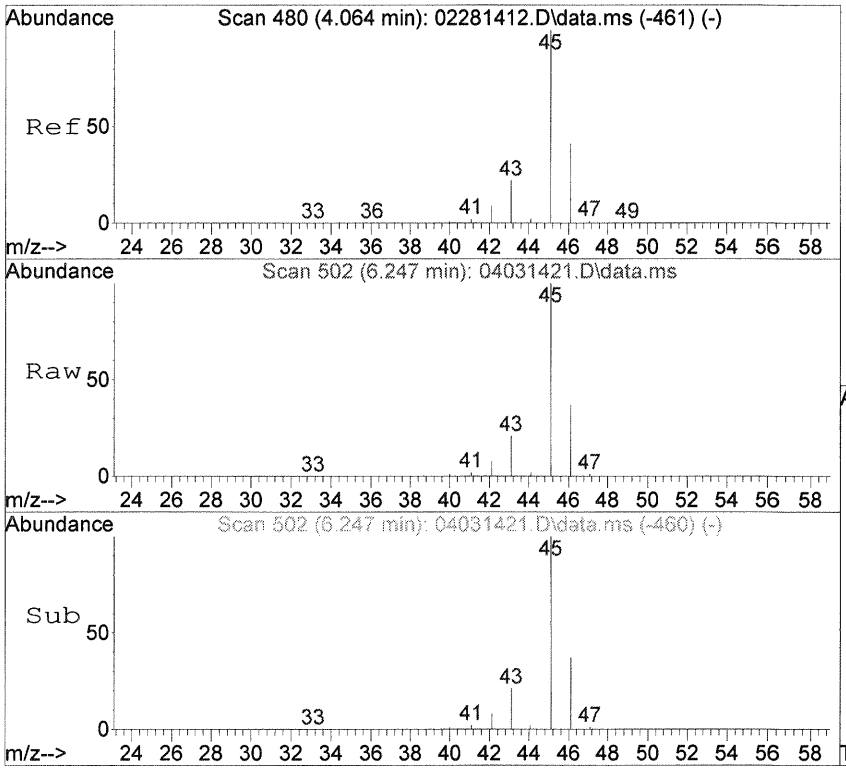


#3
Dichlorodifluoromethane (CFC 1
Concen: 2.48 ng
RT: 4.16 min Scan# 123
Delta R.T. -0.000 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 85 Resp: 76273

Ion	Ratio	Lower	Upper
85	100		
87	32.6	12.6	52.6
101	9.1	0.0	28.9
103	5.9	0.0	25.7

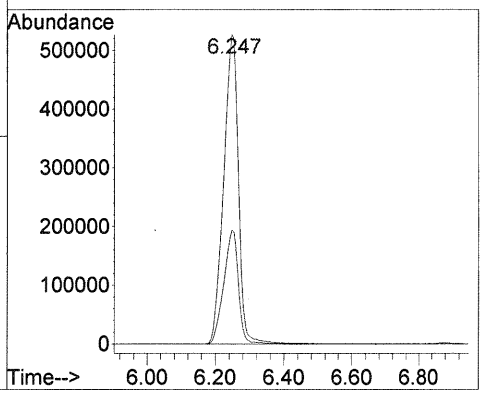


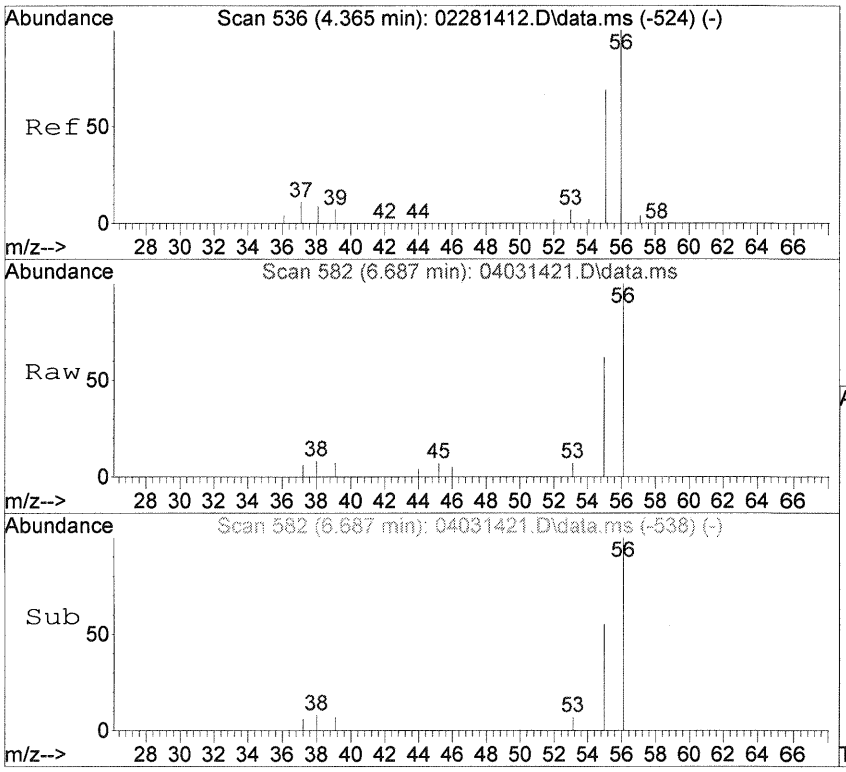


#10
Ethanol
Concen: 162.13 ng
RT: 6.25 min Scan# 502
Delta R.T. -0.017 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 45 Resp: 1566934

Ion	Ratio	Lower	Upper
45	100		
46	36.4	16.5	56.5

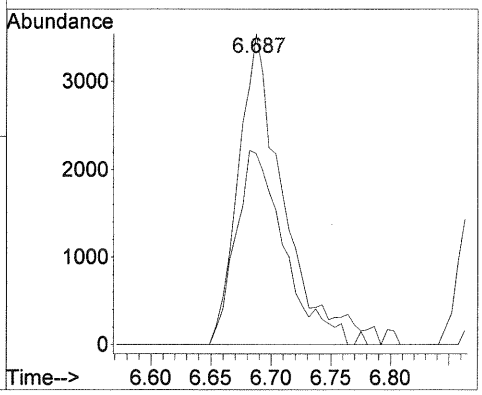


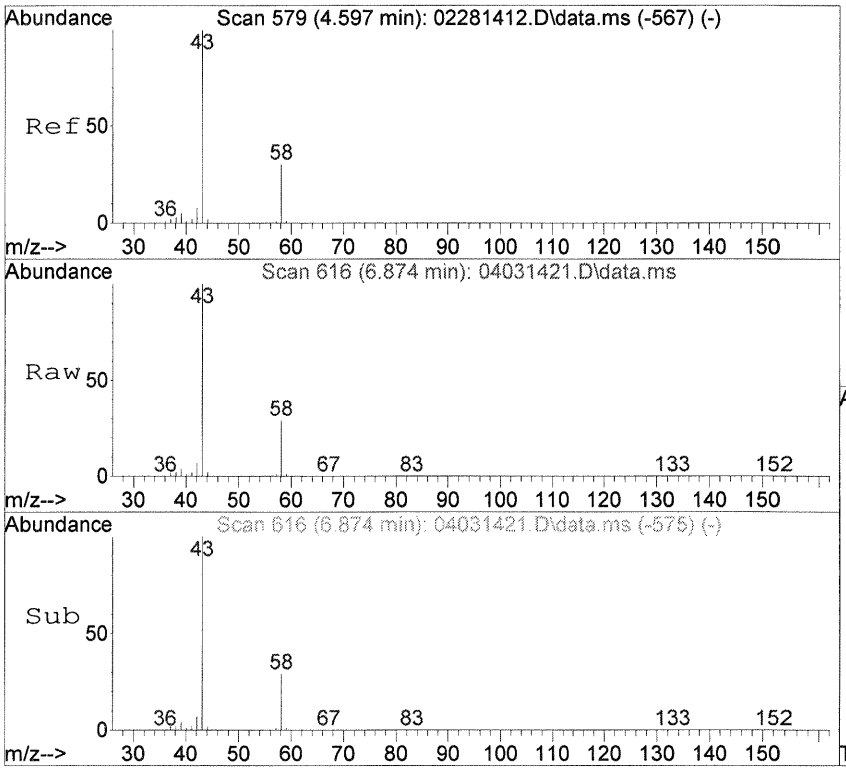


#12
Acrolein
Concen: 1.09 ng
RT: 6.69 min Scan# 582
Delta R.T. -0.006 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 56 Resp: 9348

Ion	Ratio	Lower	Upper
56	100		
55	66.9	49.9	89.9

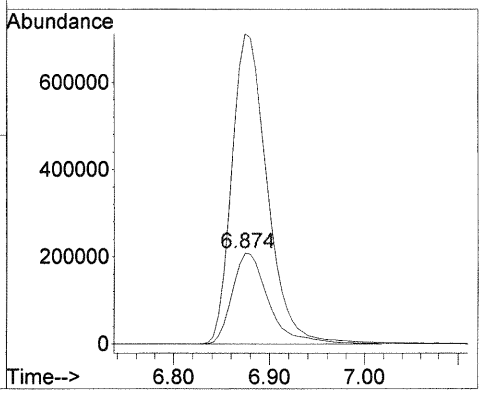


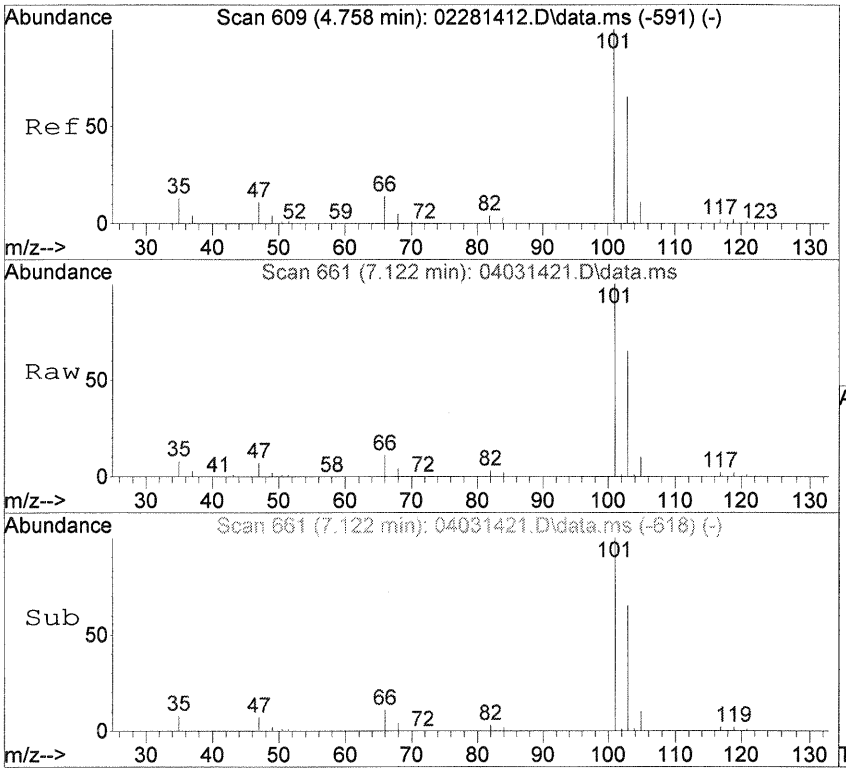


#13
Acetone
Concen: 52.12 ng
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 58 Resp: 553358

Ion	Ratio	Lower	Upper
58	100		
43	332.2	288.8	348.8

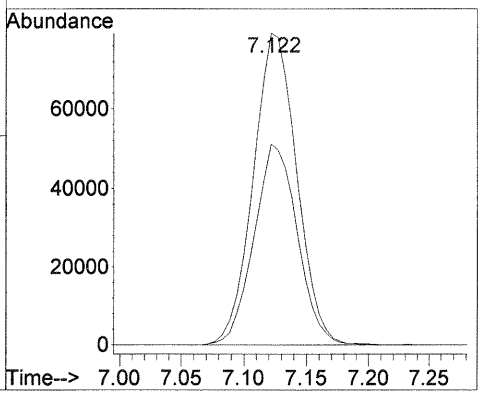


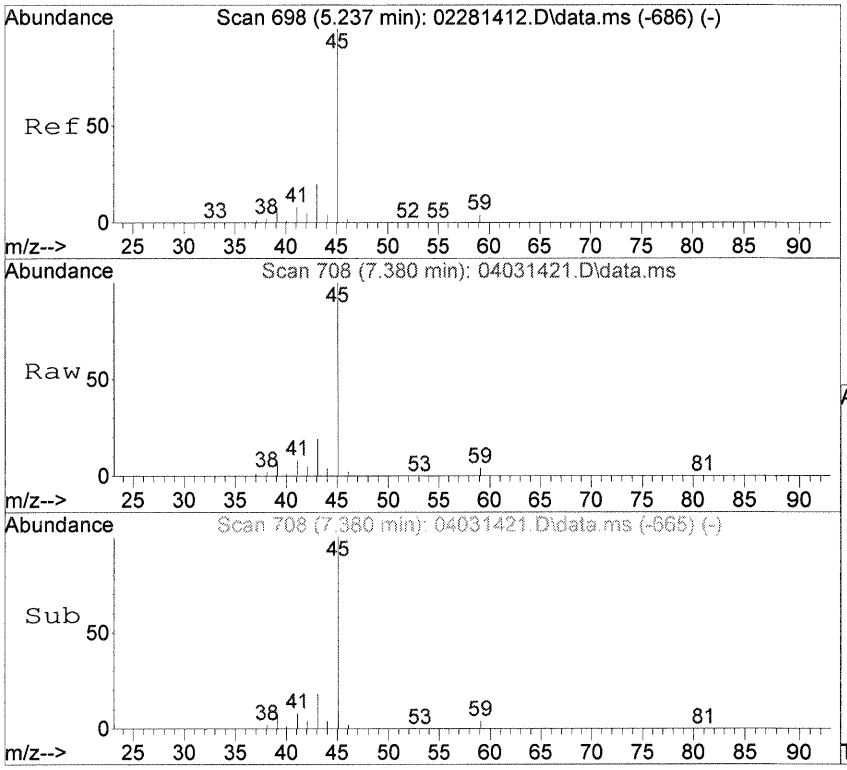


#14
Trichlorofluoromethane
Concen: 7.27 ng
RT: 7.12 min Scan# 661
Delta R.T. -0.011 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion:101 Resp: 191653

Ion	Ratio	Lower	Upper
101	100		
103	64.3	44.9	84.9

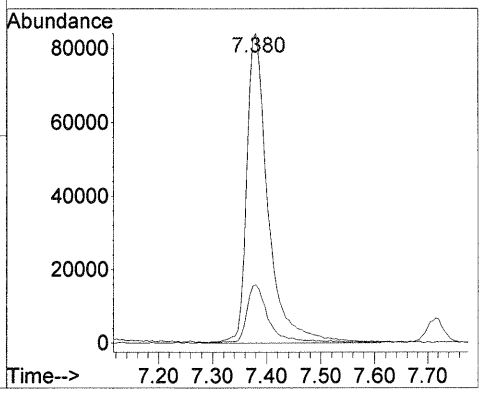


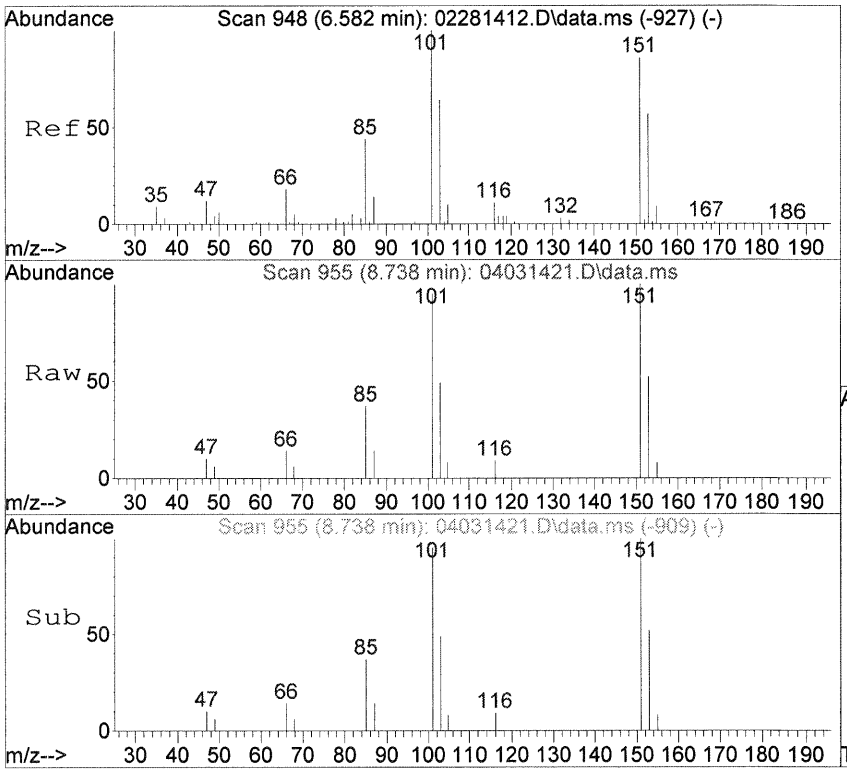


#15
2-Propanol (Isopropanol)
Concen: 6.75 ng
RT: 7.38 min Scan# 708
Delta R.T. -0.011 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 45 Resp: 230928

Ion	Ratio	Lower	Upper
45	100		
43	17.5	0.0	37.8

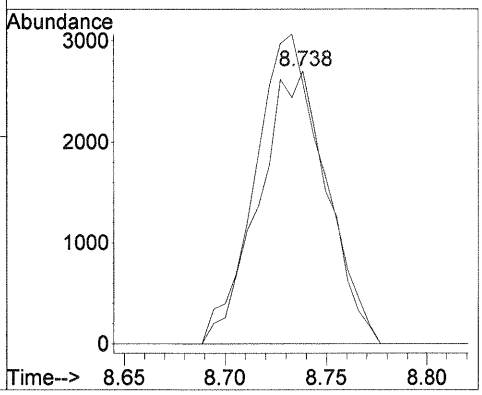


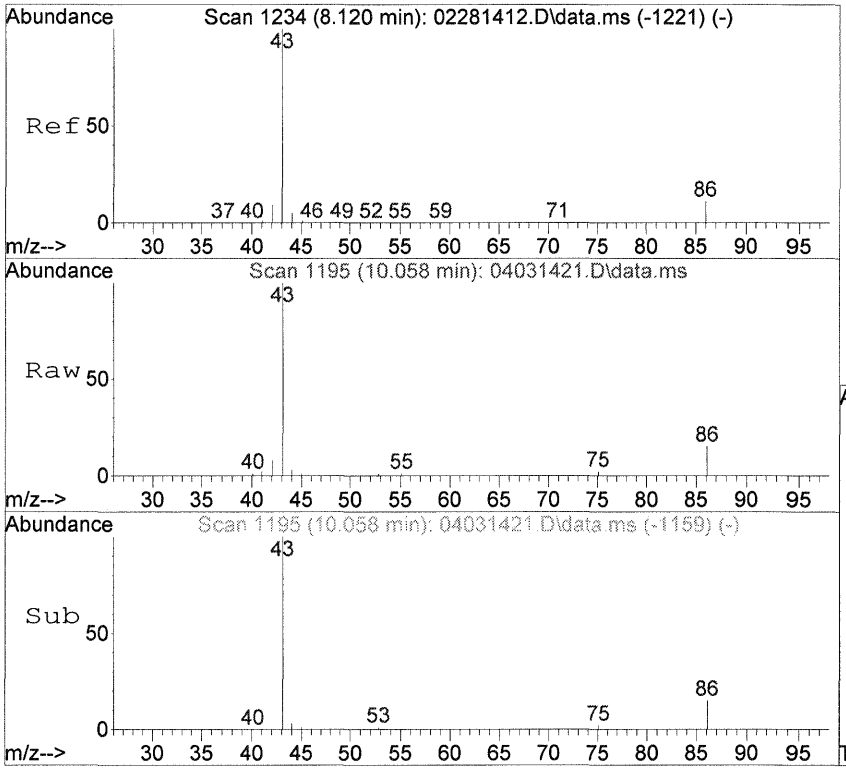


#21
Trichlorotrifluoroethane
Concen: 0.49 ng
RT: 8.74 min Scan# 955
Delta R.T. 0.005 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion:151 Resp: 6337

Ion	Ratio	Lower	Upper
151	100		
101	114.4	94.7	134.7

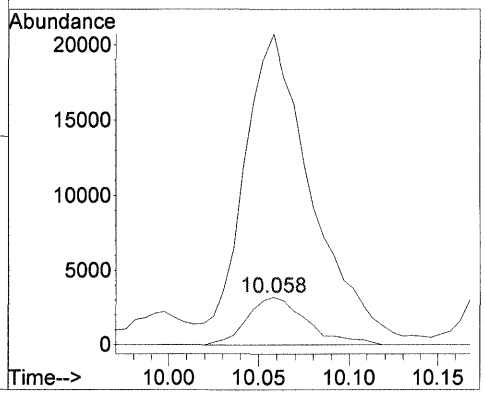


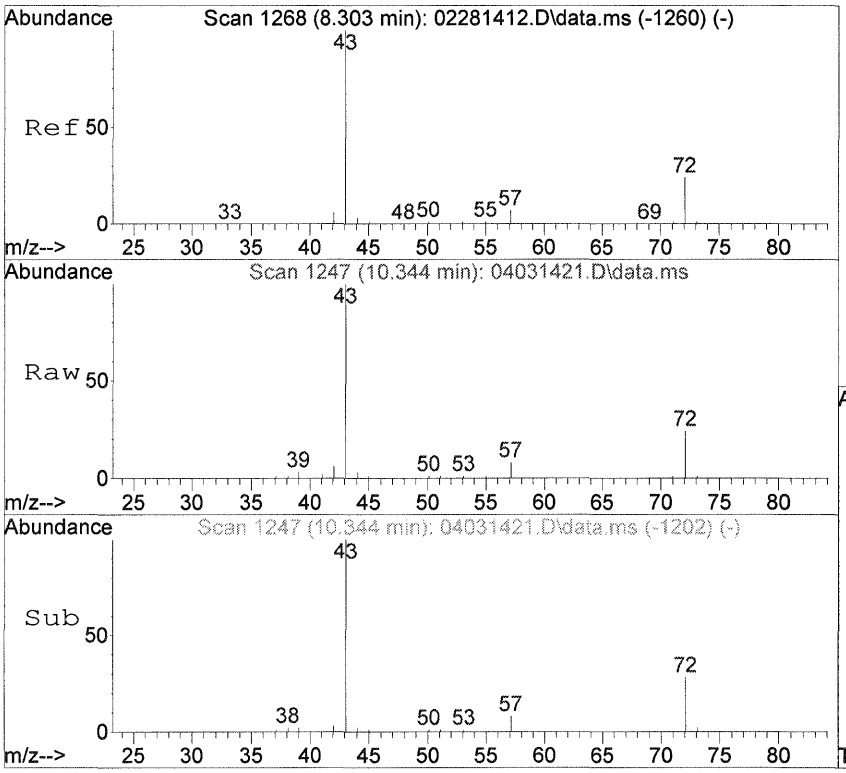


#26
Vinyl Acetate
Concen: 2.49 ng
RT: 10.06 min Scan# 1195
Delta R.T. -0.050 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 86 Resp: 7331

Ion	Ratio	Lower	Upper
86	100		
43	736.7	1142.1	1182.1#

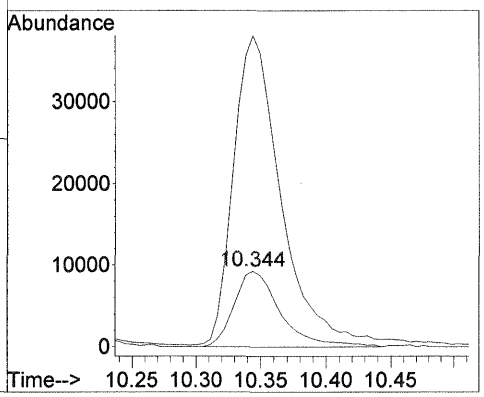


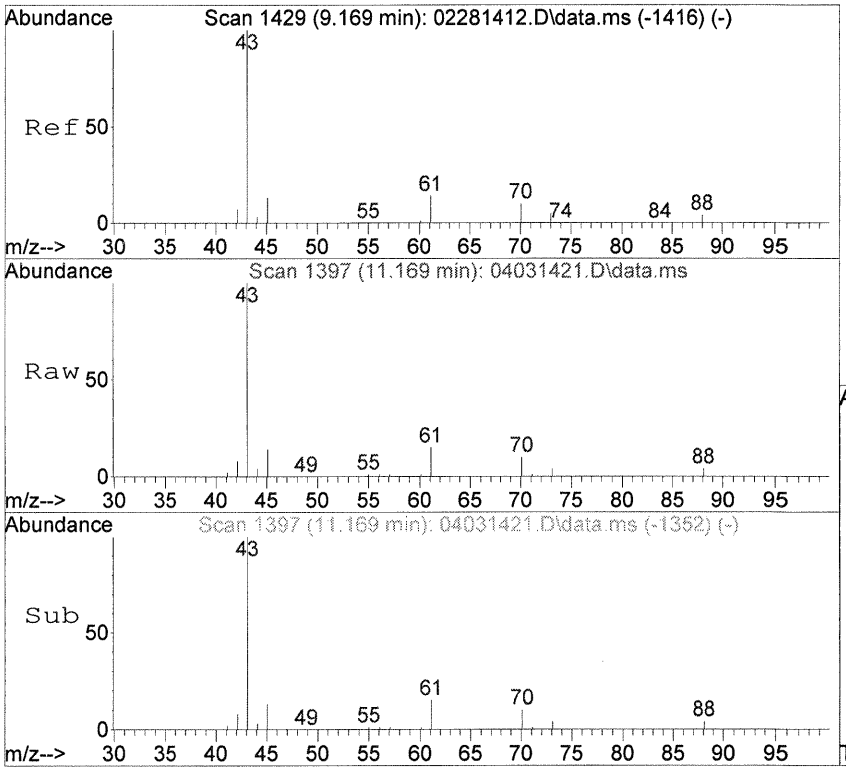


#27
2-Butanone (MEK)
Concen: 2.48 ng
RT: 10.34 min Scan# 1247
Delta R.T. -0.000 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 72 Resp: 22716

Ion	Ratio	Lower	Upper
72	100		
43	425.7	394.5	434.5

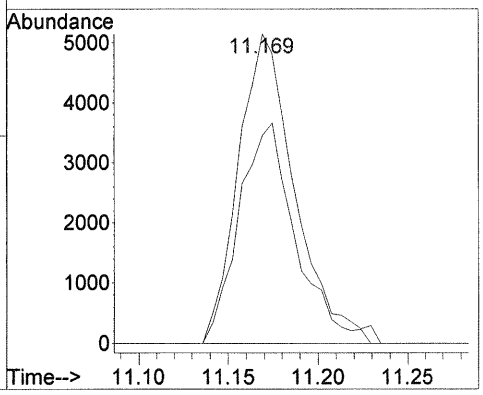


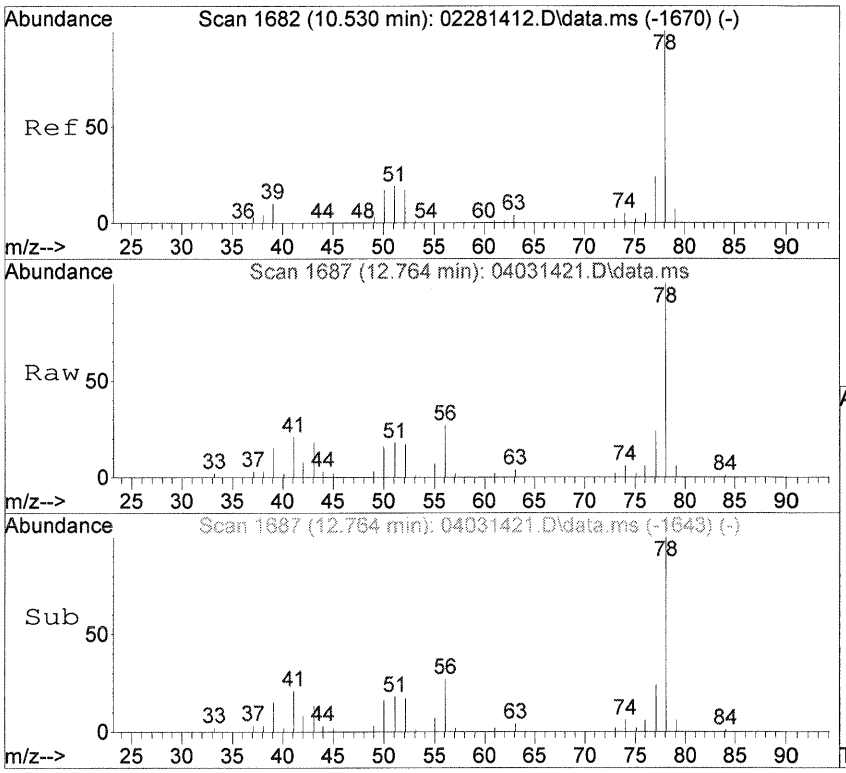


#30
Ethyl Acetate
Concen: 2.59 ng
RT: 11.17 min Scan# 1397
Delta R.T. -0.000 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 61 Resp: 11329

Ion	Ratio	Lower	Upper
61	100		
70	70.9	55.9	95.9

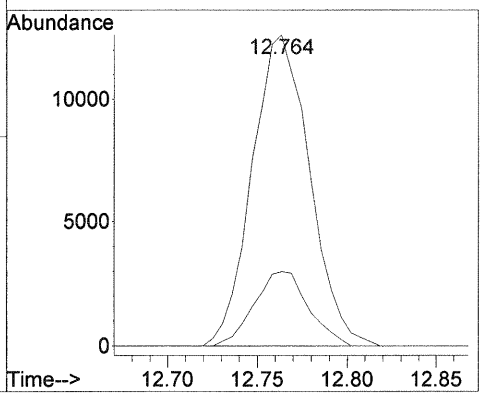




#41
Benzene
Concen: 0.48 ng
RT: 12.76 min Scan# 1687
Delta R.T. -0.006 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 78 Resp: 28101

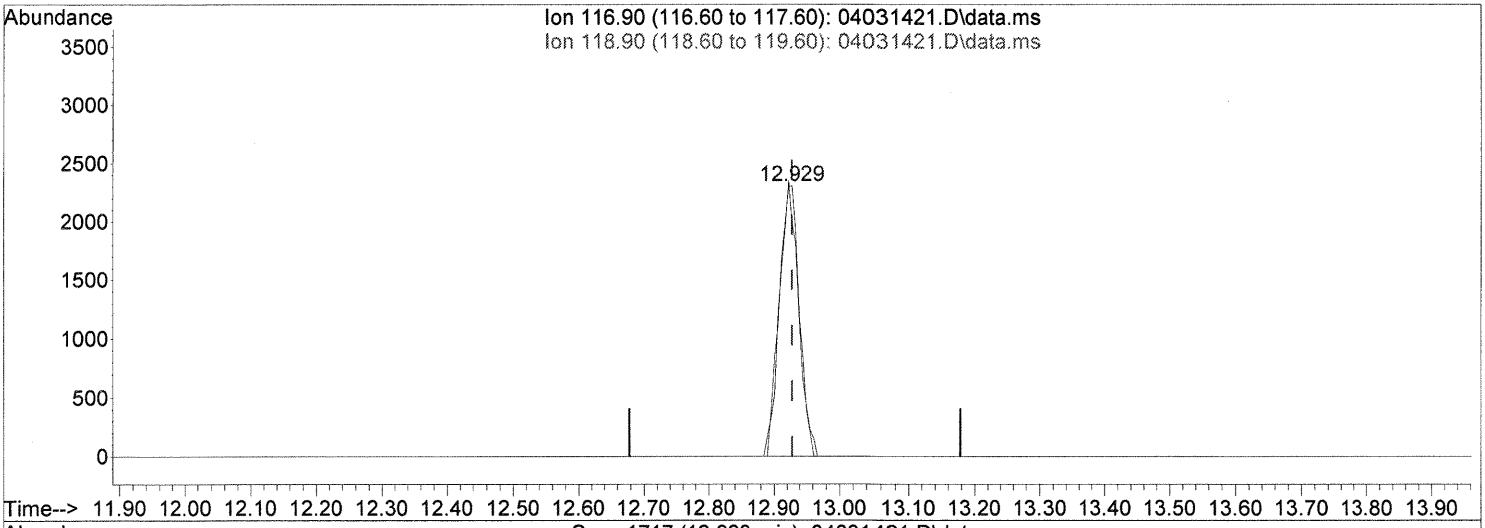
Ion	Ratio	Lower	Upper
78	100		
77	22.4	3.3	43.3

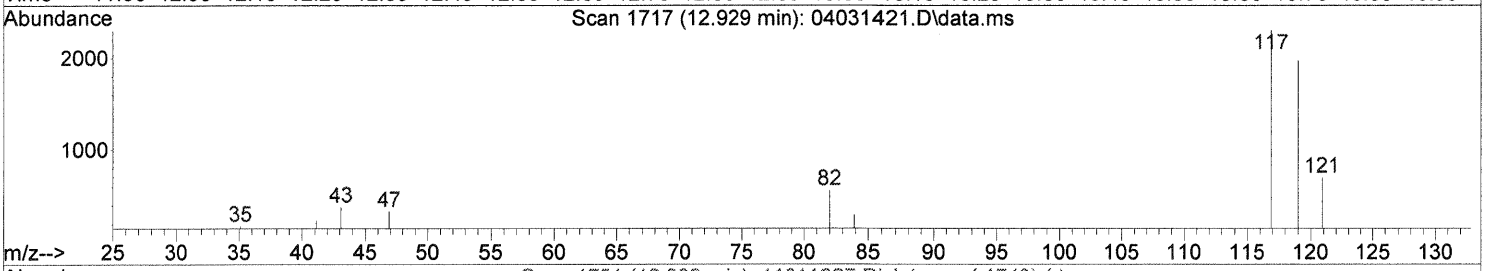


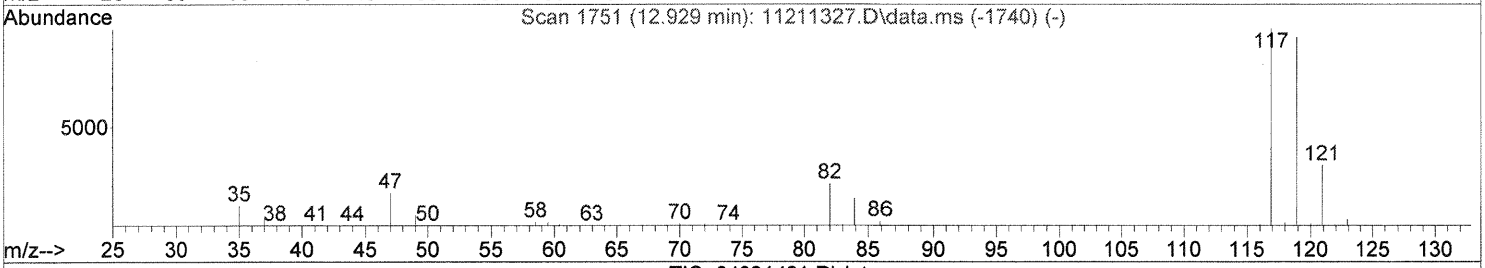
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031421.D
Acq On : 4 Apr 2014 1:49 Operator: EM
Sample : P1401201-008 (1000ml)
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 08:30:17 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







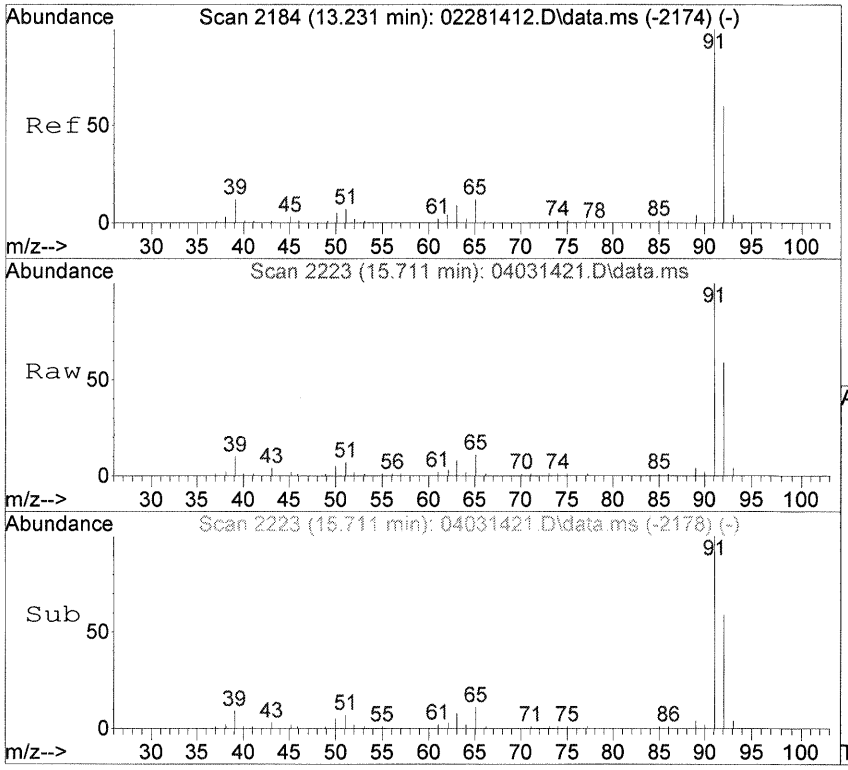
TIC: 04031421.D\data.ms

(42) Carbon Tetrachloride (T)

12.929min (-0.000) 0.28ng

response 5054

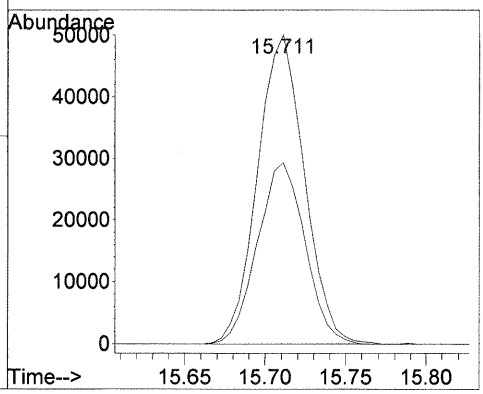
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	95.43
0.00	0.00	0.00
0.00	0.00	0.00

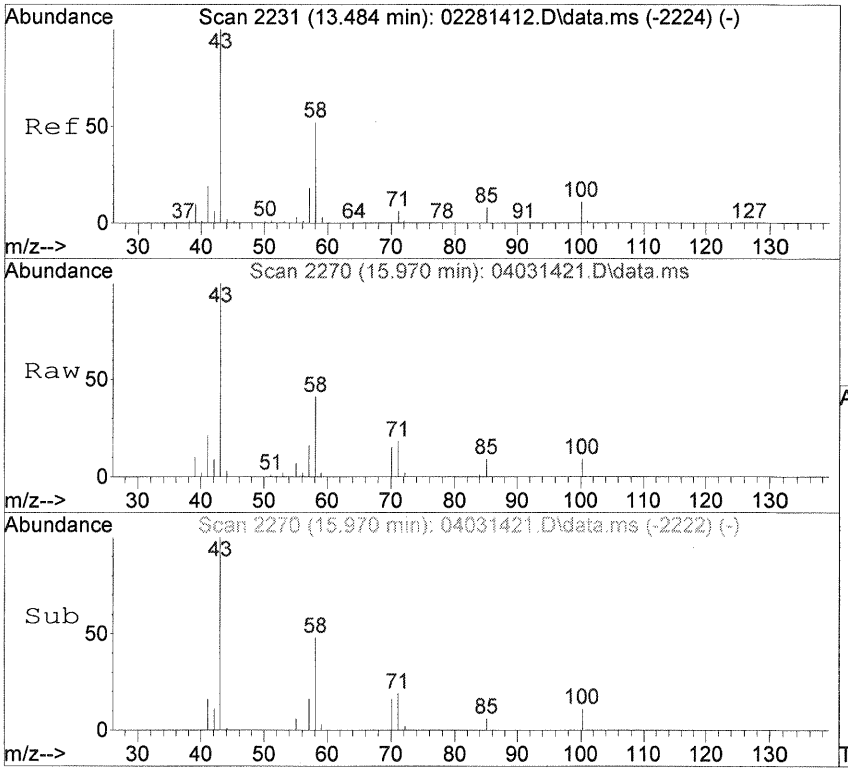


#58
Toluene
Concen: 1.74 ng
RT: 15.71 min Scan# 2223
Delta R.T. -0.000 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 91 Resp: 100407

Ion	Ratio	Lower	Upper
91	100		
92	59.4	39.1	79.1

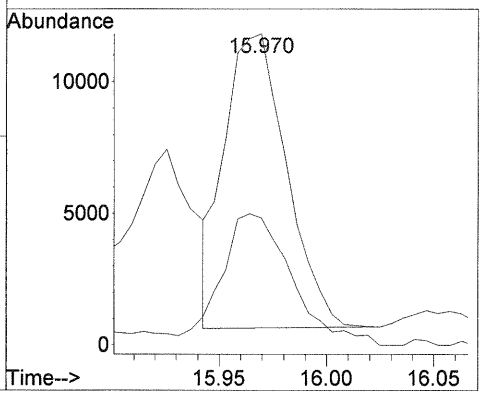


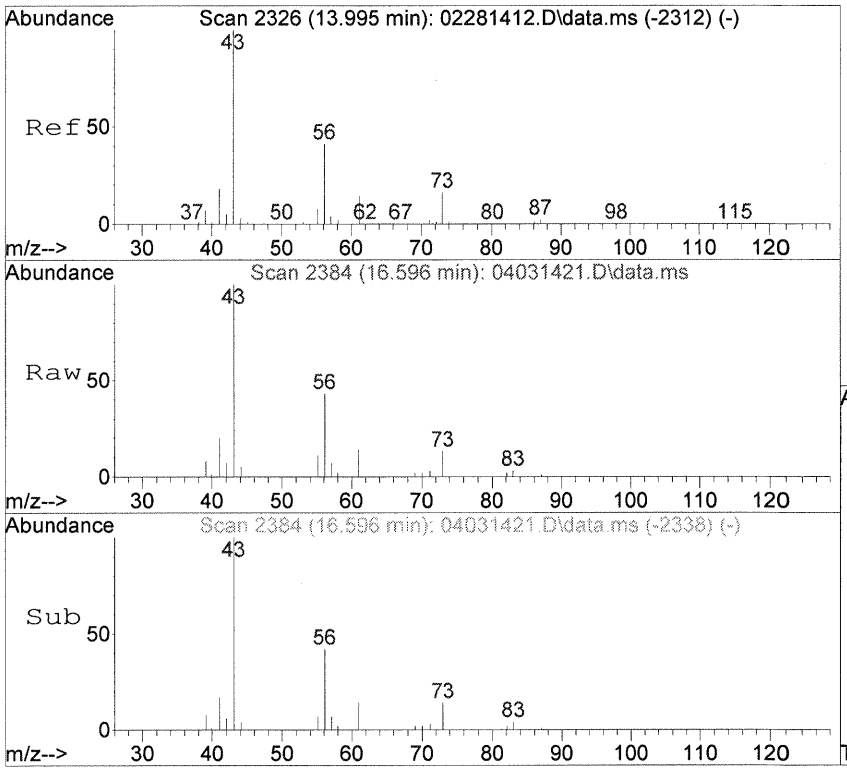


#59
2-Hexanone
Concen: 0.76 ng
RT: 15.97 min Scan# 2270
Delta R.T. 0.016 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 43 Resp: 22515

Ion	Ratio	Lower	Upper
43	100		
58	50.5	35.0	75.0

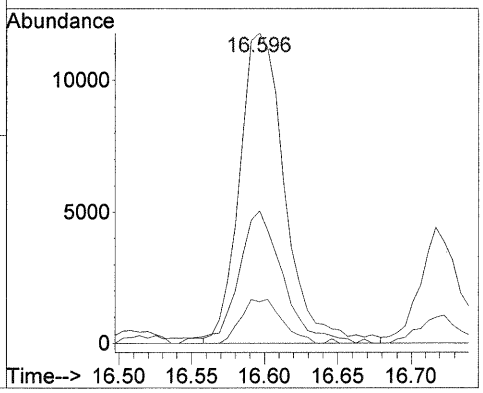


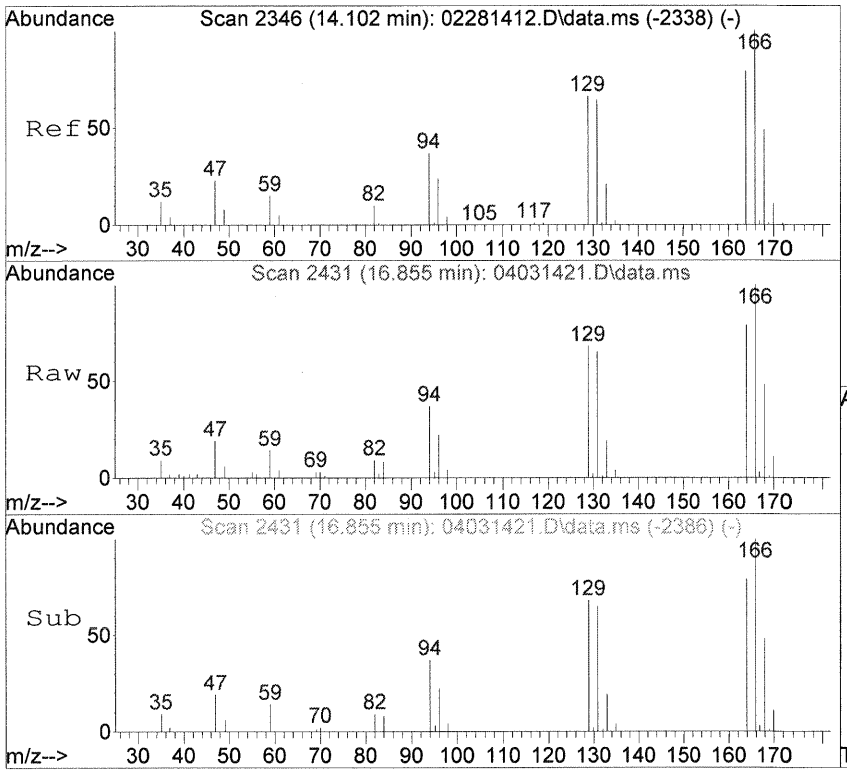


#62
n-Butyl Acetate
Concen: 0.80 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.005 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 43 Resp: 25532

Ion	Ratio	Lower	Upper
43	100		
56	41.8	19.9	59.9
73	12.8	0.0	34.1

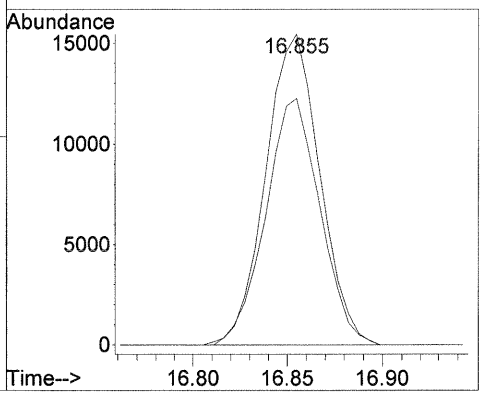


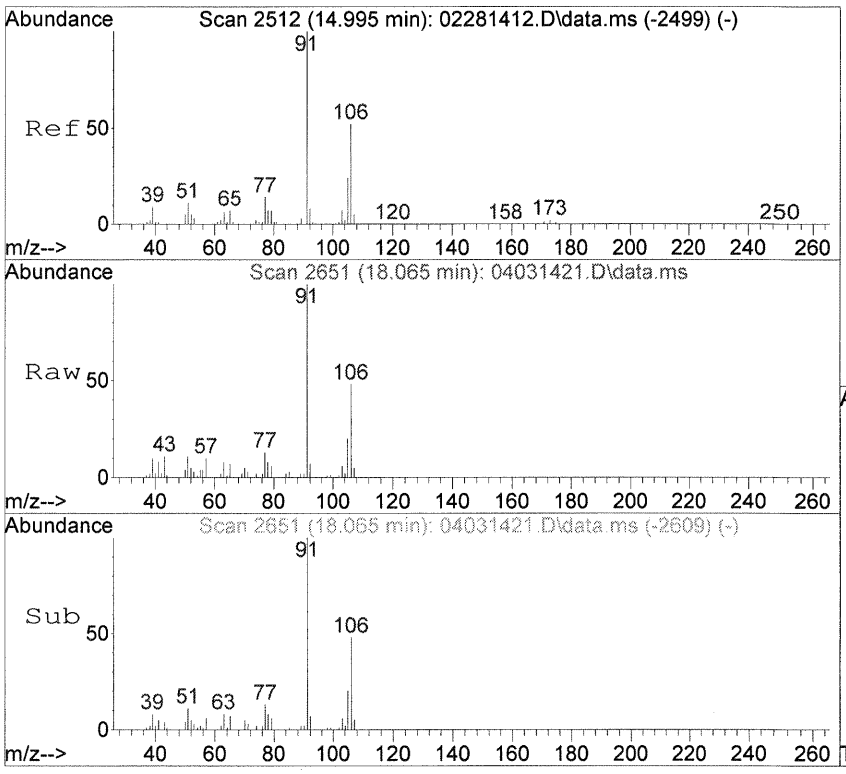


#64
Tetrachloroethene
Concen: 1.73 ng
RT: 16.85 min Scan# 2431
Delta R.T. -0.000 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion:166 Resp: 30841

Ion	Ratio	Lower	Upper
166	100		
164	79.7	57.8	97.8

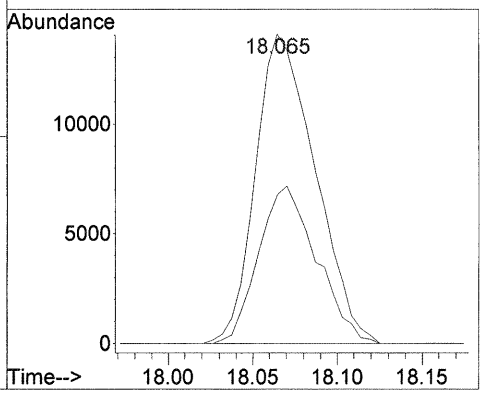


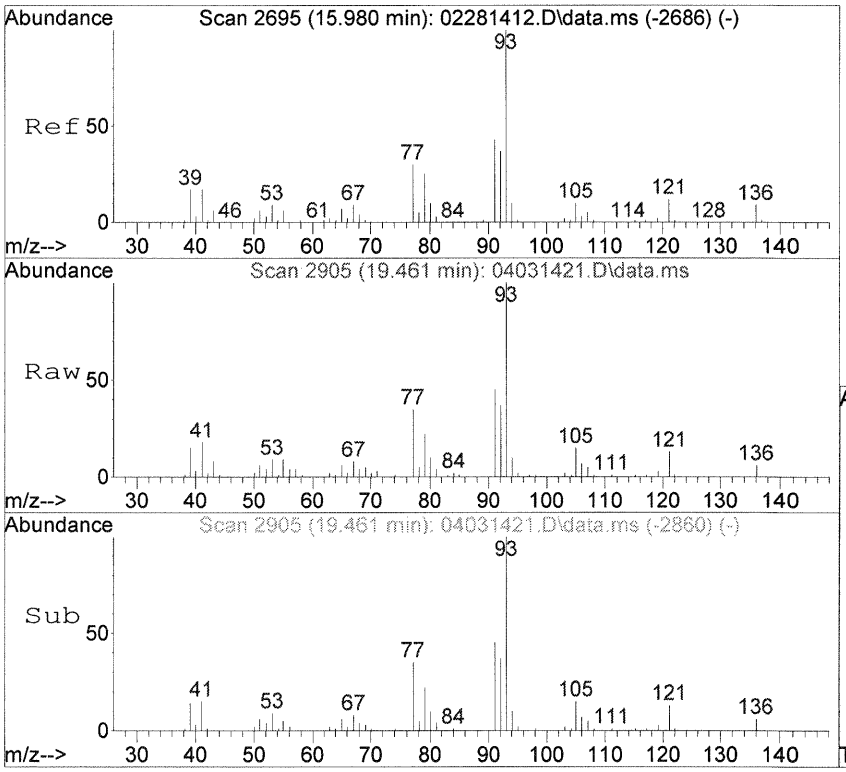


#67
m- & p-Xylenes
Concen: 0.67 ng
RT: 18.06 min Scan# 2651
Delta R.T. -0.017 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

Tgt Ion: 91 Resp: 34541

Ion	Ratio	Lower	Upper
91	100		
106	49.4	29.6	69.6

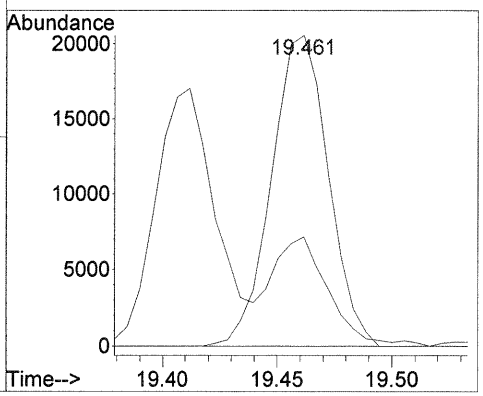




#75
alpha-Pinene
Concen: 1.08 ng
RT: 19.46 min Scan# 2905
Delta R.T. -0.000 min
Lab File: 04031421.D
Acq: 4 Apr 2014 1:49

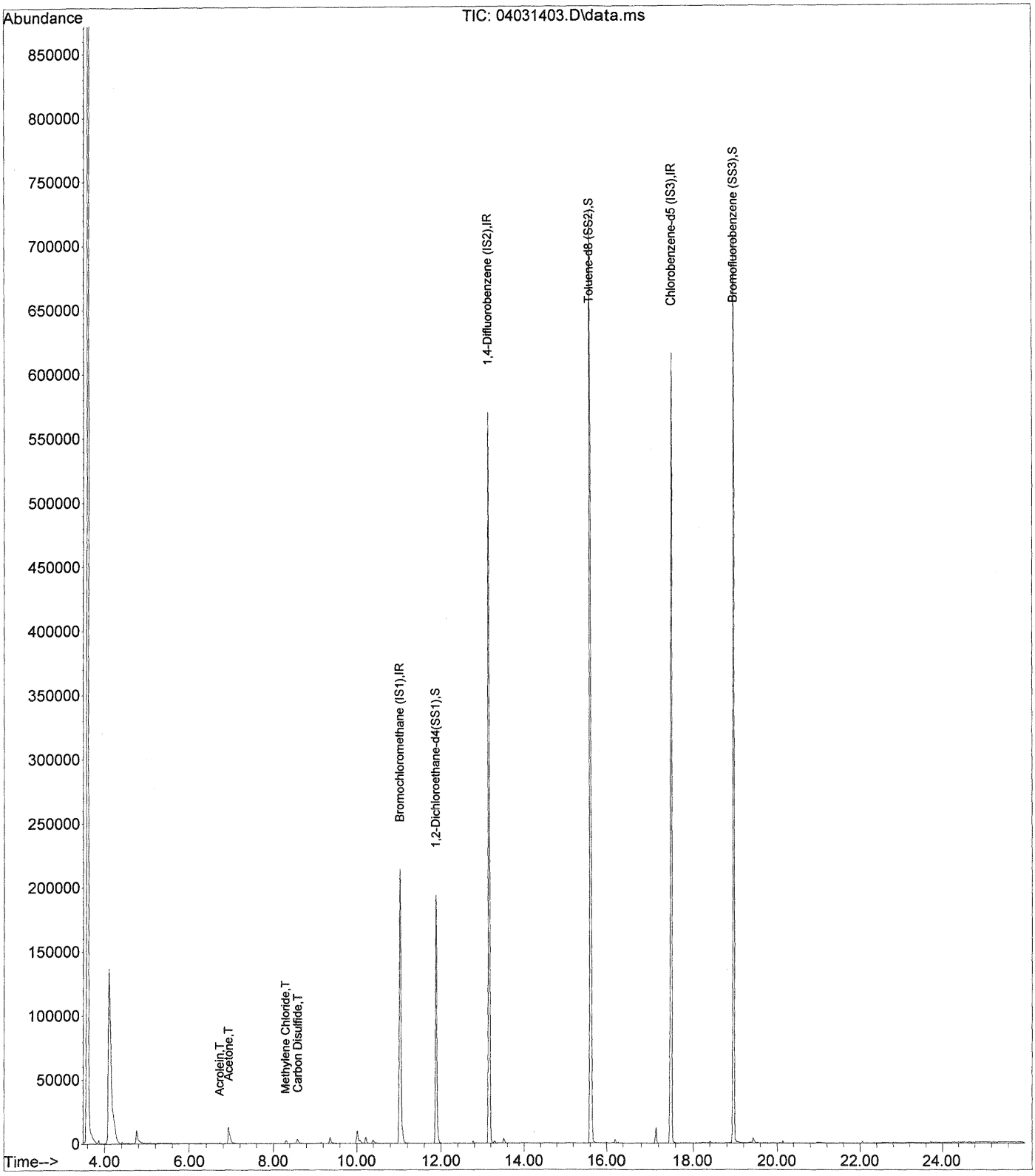
Tgt Ion: 93 Resp: 35292

Ion	Ratio	Lower	Upper
93	100		
77	34.5	9.1	49.1



Data File : I:\MS13\DATA\2014_04\03\04031403.D Vial: 3
Acq On : 3 Apr 2014 15:09 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

Quant Time: Apr 04 09:35:42 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2014_04\03\04031403.D Vial: 3
Acq On : 3 Apr 2014 15:09 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

Quant Time: Apr 04 09:35:42 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	107997	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	546741	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	217336	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	164573	13.652	ng		-0.01
Spiked Amount 12.500			Recovery =	109.20%			
57) Toluene-d8 (SS2)	15.61	98	558542	12.356	ng		0.00
Spiked Amount 12.500			Recovery =	98.88%			
73) Bromofluorobenzene (SS3)	18.95	174	241365	12.912	ng		0.00
Spiked Amount 12.500			Recovery =	103.28%			
Target Compounds							Qvalue
2) Propene	4.06	42	481	N.D.			
3) Dichlorodifluoromethan...	0.00	85	0	N.D.			
4) Chloromethane	0.00	50	0	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	5.54	94	72	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.26	45	863	N.D.			
11) Acetonitrile	6.56	41	107	N.D.			
12) Acrolein	6.71	56	1224	0.141	ng	#	70
13) Acetone	6.92	58	6951m	0.647	ng		
14) Trichlorofluoromethane	0.00	101	0	N.D.			
15) 2-Propanol (Isopropanol)	7.45	45	71	N.D.			
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.			
19) Methylene Chloride	8.30	84	1811	0.121	ng		97
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	8.60	76	8054	0.151	ng		85
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	10.10	86	83	N.D.			
27) 2-Butanone (MEK)	0.00	72	0	N.D.	d		
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	0.00	57	0	N.D.			
32) Chloroform	0.00	83	0	N.D.			
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	12.81	56	77	N.D.			
41) Benzene	12.77	78	2229	N.D.			
42) Carbon Tetrachloride	0.00	117	0	N.D.			
43) Cyclohexane	13.15	84	254	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			

EOM 4/4/14

Data File : I:\MS13\DATA\2014_04\03\04031403.D Vial: 3
Acq On : 3 Apr 2014 15:09 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

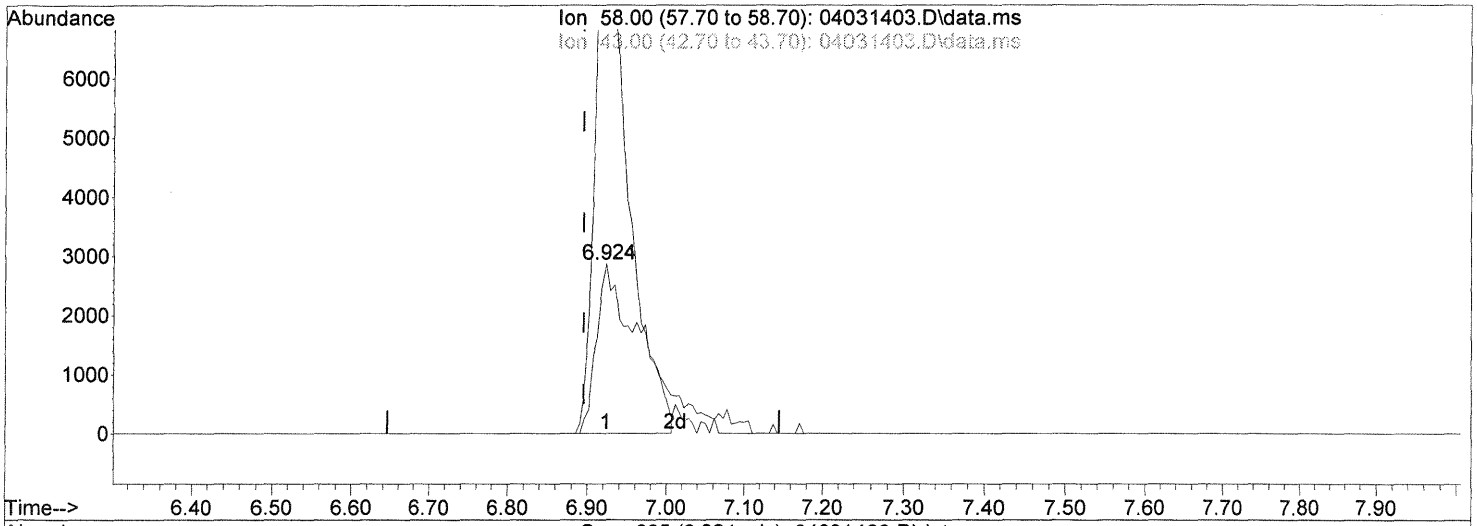
Quant Time: Apr 04 09:35:42 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

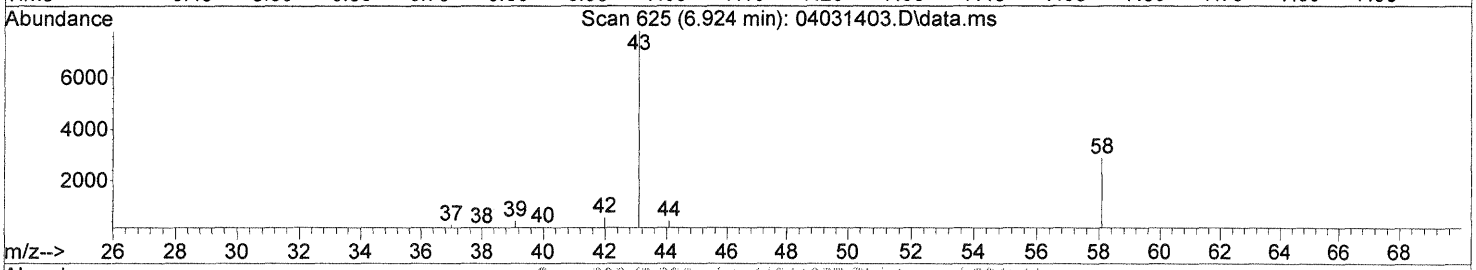
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
47) Trichloroethene	0.00	130	0	N.D.	
48) 1,4-Dioxane	0.00	88	0	N.D.	
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	15.71	91	324	N.D.	
59) 2-Hexanone	16.00	43	802	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	0.00	43	0	N.D.	
63) n-Octane	0.00	57	0	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	17.93	91	213	N.D.	
67) m- & p-Xylenes	18.08	91	175	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	0.00	104	0	N.D.	
70) o-Xylene	0.00	91	0	N.D.	
71) n-Nonane	0.00	43	0	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	19.09	105	94	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	0.00	91	0	N.D.	
77) 3-Ethyltoluene	19.68	105	244	N.D.	
78) 4-Ethyltoluene	19.70	105	110	N.D.	
79) 1,3,5-Trimethylbenzene	19.78	105	83	N.D.	
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	19.78	105	83	N.D.	
82) 1,2,4-Trimethylbenzene	0.00	105	0	N.D.	
83) n-Decane	0.00	57	0	N.D.	
84) Benzyl Chloride	0.00	91	0	N.D.	
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.	
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.	
87) sec-Butylbenzene	0.00	105	0	N.D.	
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D.	
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D.	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	
91) d-Limonene	0.00	68	0	N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	0.00	57	0	N.D.	
94) 1,2,4-Trichlorobenzene	22.41	180	123	N.D.	
95) Naphthalene	22.52	128	461	N.D.	
96) n-Dodecane	0.00	57	0	N.D.	
97) Hexachlorobutadiene	22.86	225	129	N.D.	
98) Cyclohexanone	18.25	55	187	N.D.	
99) tert-Butylbenzene	0.00	119	0	N.D.	
100) n-Butylbenzene	0.00	91	0	N.D.	

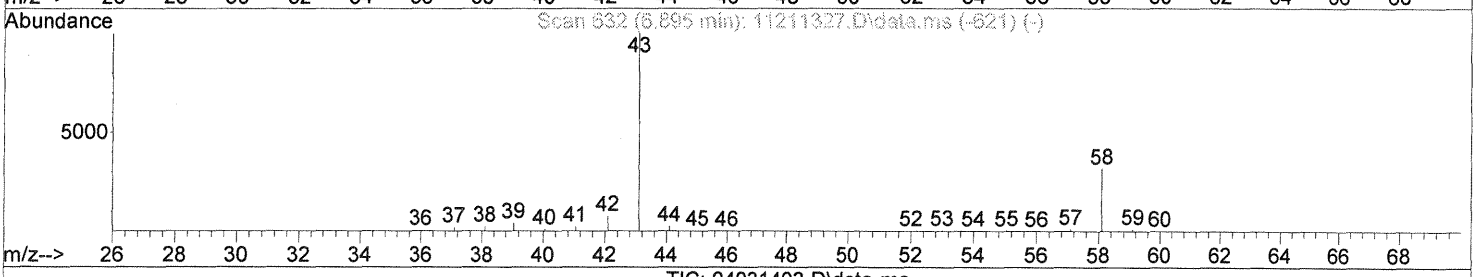
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : I:\MS13\DATA\2014_04\03\04031403.D Vial: 3
Acq On : 3 Apr 2014 15:09 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

Quant Time: Apr 03 15:39:05 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031403.D\data.ms

(13) Acetone (T)

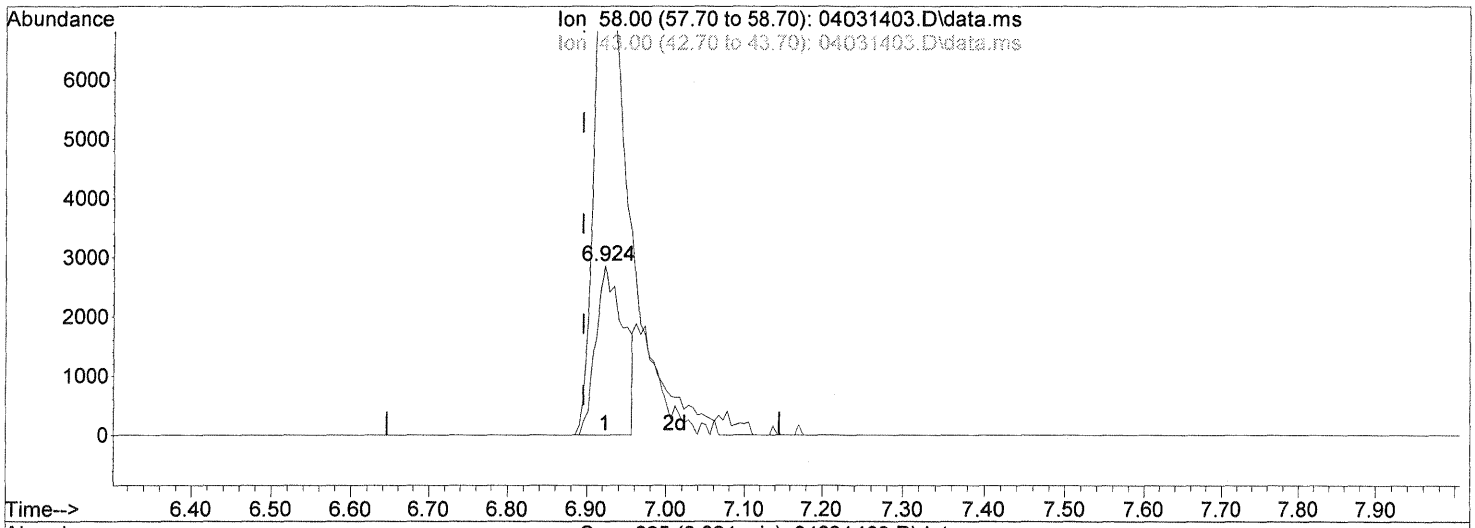
6.924min (+0.028) 0.97ng

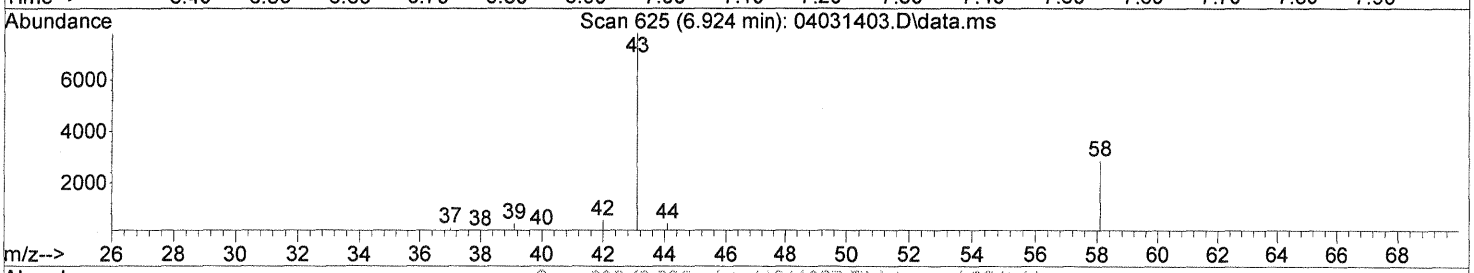
response 10430

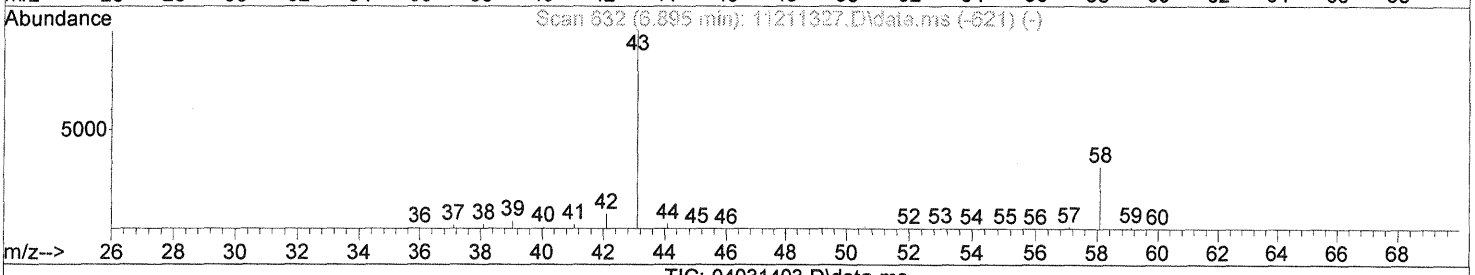
Ion	Exp%	Act%
58.00	100	100
43.00	318.80	254.41#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2014_04\03\04031403.D Vial: 3
Acq On : 3 Apr 2014 15:09 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

Quant Time: Apr 03 15:39:05 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031403.D\data.ms

(13) Acetone (T)

6.924min (+0.028) 0.65ng m

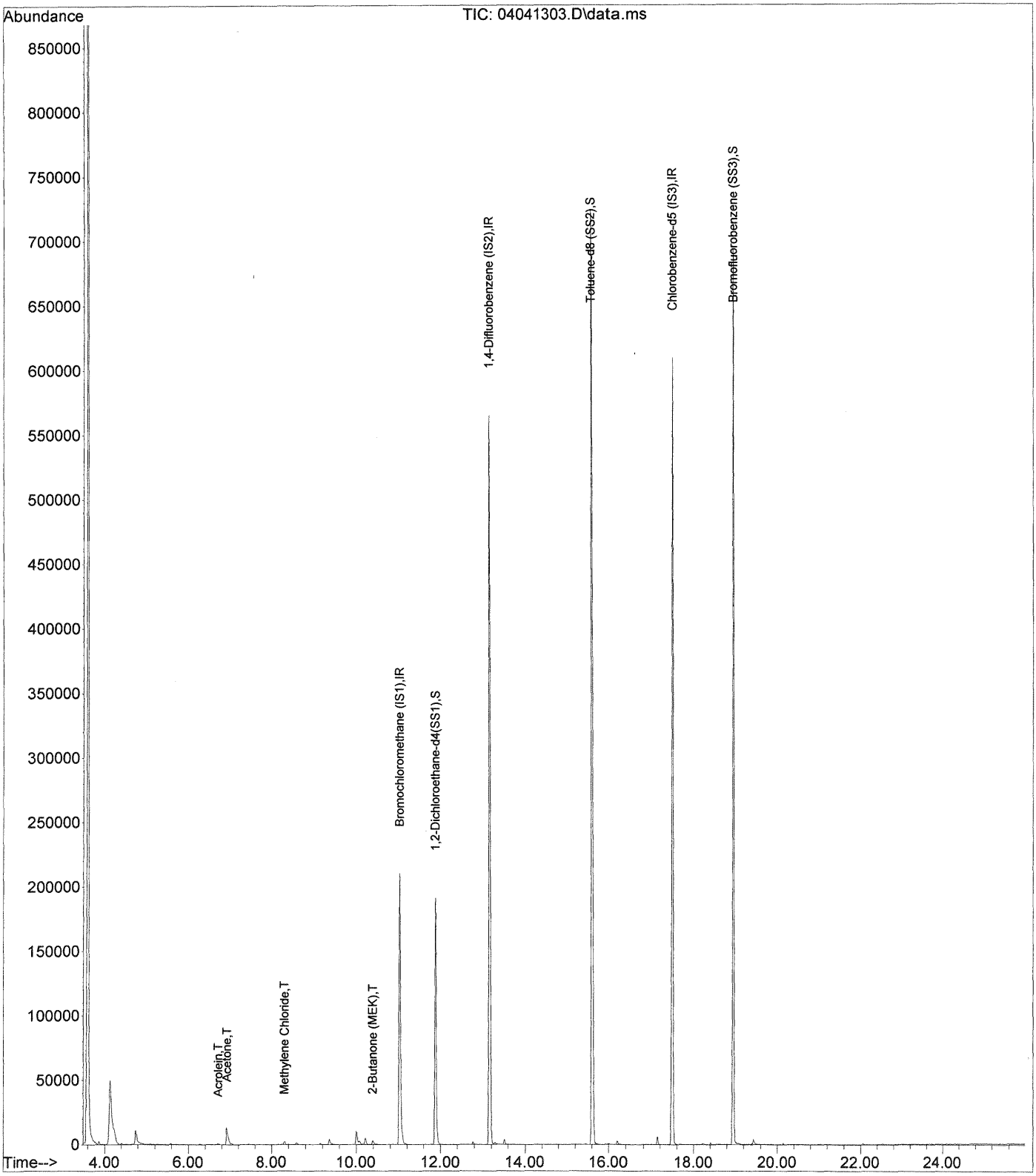
response 6951

Ion	Exp%	Act%
58.00	100	100
43.00	318.80	381.74#
0.00	0.00	0.00
0.00	0.00	0.00

IPC
DM 4/4/14
M 4/4/14

Data File : I:\MS13\DATA\2014_04\04\04041303.D Vial: 3
Acq On : 4 Apr 2014 10:50 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

Quant Time: Apr 04 13:44:18 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2014_04\04\04041303.D Vial: 3
Acq On : 4 Apr 2014 10:50 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

Quant Time: Apr 04 13:44:18 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	104568	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	540174	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	217087	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	163550	14.012	ng		-0.01
Spiked Amount 12.500			Recovery = 112.08%				
57) Toluene-d8 (SS2)	15.61	98	556160	12.318	ng		0.00
Spiked Amount 12.500			Recovery = 98.56%				
73) Bromofluorobenzene (SS3)	18.95	174	236493	12.666	ng		0.00
Spiked Amount 12.500			Recovery = 101.36%				
Target Compounds							Qvalue
2) Propene	4.07	42	686	N.D.			
3) Dichlorodifluoromethan...	0.00	85	0	N.D.			
4) Chloromethane	0.00	50	0	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	5.57	94	274	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	0.00	45	0	N.D.	d		
11) Acetonitrile	0.00	41	0	N.D.			
12) Acrolein	6.72	56	1300	0.154	ng		93
13) Acetone	6.93	58	6509	0.626	ng	#	50
14) Trichlorofluoromethane	0.00	101	0	N.D.			
15) 2-Propanol (Isopropanol)	7.46	45	446	N.D.			
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.			
19) Methylene Chloride	8.31	84	1540	0.106	ng		82
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	8.59	76	3271	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	10.09	86	240	N.D.			
27) 2-Butanone (MEK)	10.39	72	1169	0.130	ng	#	71
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	0.00	57	0	N.D.			
32) Chloroform	0.00	83	0	N.D.			
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	12.80	56	106	N.D.			
41) Benzene	12.76	78	2504	N.D.			
42) Carbon Tetrachloride	0.00	117	0	N.D.			
43) Cyclohexane	13.14	84	58	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			

CM 4/4/14

Data File : I:\MS13\DATA\2014_04\04\04041303.D Vial: 3
Acq On : 4 Apr 2014 10:50 Operator: EM
Sample : TO-15 Method Blank (1000ml) Inst : MS13
Misc : S29-03311401

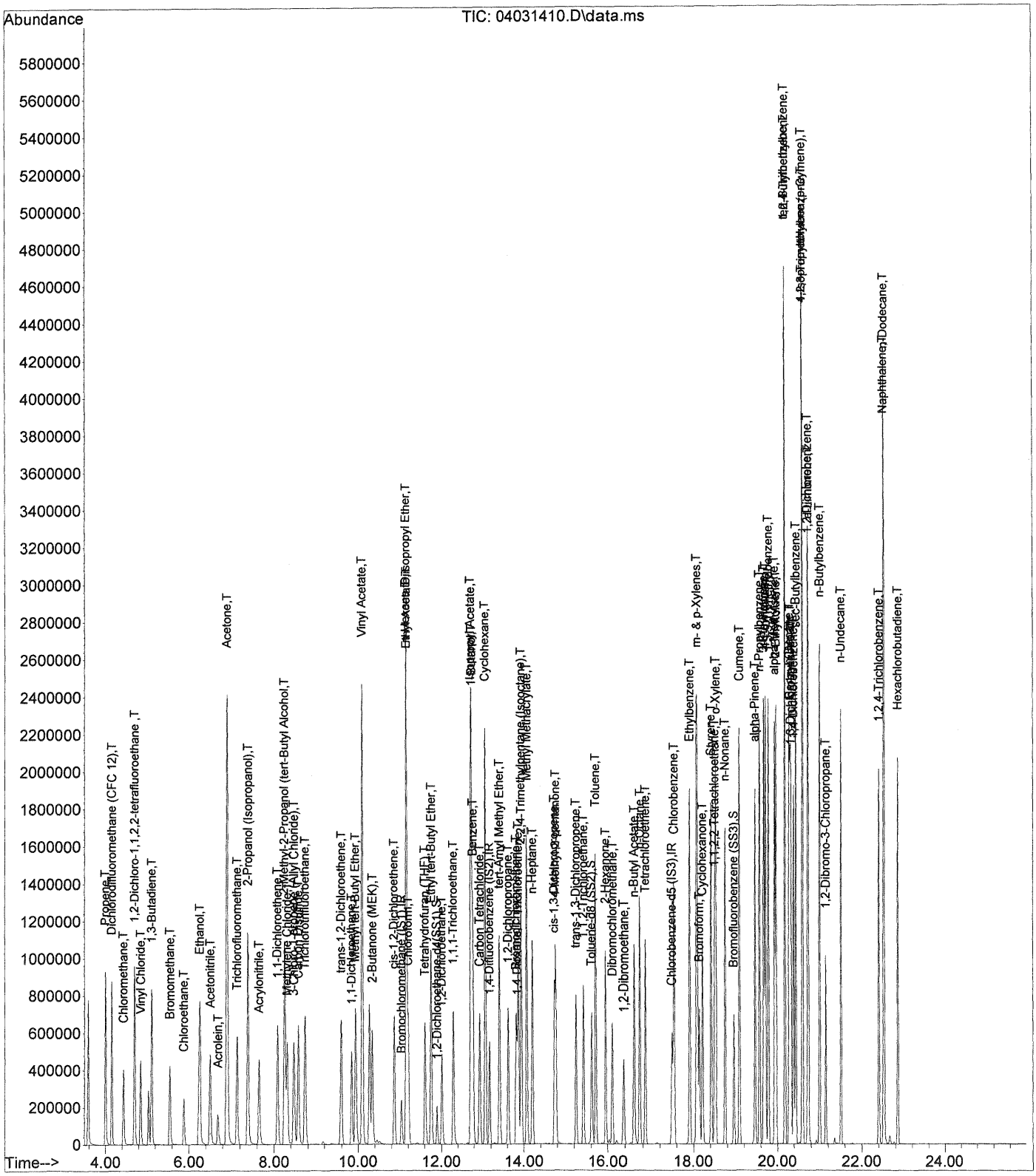
Quant Time: Apr 04 13:44:18 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	0.00	71	0	N.D.		
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	252	N.D.		
59) 2-Hexanone	16.00	43	887	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	0.00	43	0	N.D.		
63) n-Octane	0.00	57	0	N.D.		
64) Tetrachloroethene	0.00	166	0	N.D.		
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	17.92	91	128	N.D.		
67) m- & p-Xylenes	18.09	91	338	N.D.		
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	0.00	104	0	N.D.		
70) o-Xylene	0.00	91	0	N.D.		
71) n-Nonane	0.00	43	0	N.D.		
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	19.10	105	248	N.D.		
75) alpha-Pinene	0.00	93	0	N.D.		
76) n-Propylbenzene	0.00	91	0	N.D.		
77) 3-Ethyltoluene	19.68	105	118	N.D.		
78) 4-Ethyltoluene	19.72	105	124	N.D.		
79) 1,3,5-Trimethylbenzene	19.72	105	124	N.D.		
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	0.00	105	0	N.D.		
82) 1,2,4-Trimethylbenzene	0.00	105	0	N.D.		
83) n-Decane	0.00	57	0	N.D.		
84) Benzyl Chloride	0.00	91	0	N.D.		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.		
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.		
87) sec-Butylbenzene	0.00	105	0	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D.		
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D.		
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	0.00	68	0	N.D.		
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	0.00	57	0	N.D.		
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	22.54	128	706	N.D.		
96) n-Dodecane	0.00	57	0	N.D.		
97) Hexachlorobutadiene	22.86	225	206	N.D.		
98) Cyclohexanone	18.24	55	318	N.D.		
99) tert-Butylbenzene	0.00	119	0	N.D.		
100) n-Butylbenzene	0.00	91	0	N.D.		

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

Data File : I:\MS13\DATA\2014_04\03\04031410.D Vial: 16
Acq On : 3 Apr 2014 19:29 Operator: EM
Sample : 25ng TO-15 LCS STD (125ml) Inst : MS13
Misc : S29-03311401/S29-03171403 (4/15)

Quant Time: Apr 04 08:12:01 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2014_04\03\04031410.D Vial: 16
Acq On : 3 Apr 2014 19:29 Operator: EM
Sample : 25ng TO-15 LCS STD (125ml) Inst : MS13
Misc : S29-03311401/S29-03171403 (4/15)

Quant Time: Apr 04 08:12:01 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.04	130	104853	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	13.17	114	515549	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	209723	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.89	65	161561	13.804	ng		0.00
Spiked Amount 12.500			Recovery =	110.40%			
57) Toluene-d8 (SS2)	15.61	98	531762	12.191	ng		0.00
Spiked Amount 12.500			Recovery =	97.52%			
73) Bromofluorobenzene (SS3)	18.95	174	235213	13.040	ng		0.00
Spiked Amount 12.500			Recovery =	104.32%			
Target Compounds							Qvalue
2) Propene	4.00	42	346310	22.245	ng		98
3) Dichlorodifluoromethan...	4.15	85	792585	26.227	ng		100
4) Chloromethane	4.43	50	470501	23.100	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.70	135	427966	27.034	ng		100
6) Vinyl Chloride	4.85	62	528285	27.235	ng		100
7) 1,3-Butadiene	5.11	54	414753	31.678	ng		97
8) Bromomethane	5.55	94	336740	25.049	ng		100
9) Chloroethane	5.88	64	255390	24.372	ng		100
10) Ethanol	6.26	45	1301802	137.099	ng		99
11) Acetonitrile	6.51	41	662519	24.633	ng		99
12) Acrolein	6.69	56	222899	26.381	ng		99
13) Acetone	6.89	58	1245523	119.408	ng		87
14) Trichlorofluoromethane	7.13	101	618392	23.867	ng		100
15) 2-Propanol (Isopropanol)	7.39	45	1839140	54.686	ng		98
16) Acrylonitrile	7.64	53	461319	27.540	ng		99
17) 1,1-Dichloroethene	8.08	96	332332	24.779	ng		95
18) 2-Methyl-2-Propanol (t...	8.25	59	1591226	51.365	ng		99
19) Methylene Chloride	8.31	84	338100	23.265	ng		99
20) 3-Chloro-1-propene (Al...	8.47	41	509673	29.169	ng		100
21) Trichlorotrifluoroethane	8.73	151	330409	26.250	ng		98
22) Carbon Disulfide	8.57	76	1244973	24.099	ng		100
23) trans-1,2-Dichloroethene	9.59	61	504662	26.787	ng		98
24) 1,1-Dichloroethane	9.84	63	590861	24.655	ng		100
25) Methyl tert-Butyl Ether	9.94	73	904856	23.097	ng		99
26) Vinyl Acetate	10.10	86	370480	128.249	ng	#	95
27) 2-Butanone (MEK)	10.34	72	215476	23.987	ng		98
28) cis-1,2-Dichloroethene	10.86	61	473653	26.147	ng		97
29) Diisopropyl Ether	11.16	87	325388	27.803	ng		100
30) Ethyl Acetate	11.17	61	229932	53.404	ng		100
31) n-Hexane	11.15	57	439126	22.140	ng		99
32) Chloroform	11.21	83	582713	24.971	ng		99
34) Tetrahydrofuran (THF)	11.61	72	207950	25.187	ng		100
35) Ethyl tert-Butyl Ether	11.76	87	402771	26.626	ng		98
36) 1,2-Dichloroethane	12.01	62	448031	26.920	ng		99
38) 1,1,1-Trichloroethane	12.29	97	526855	26.186	ng		100
39) Isopropyl Acetate	12.72	61	401949	52.320	ng	#	90
40) 1-Butanol	12.74	56	727925	65.450	ng		99
41) Benzene	12.77	78	1222986	21.792	ng		99
42) Carbon Tetrachloride	12.93	117	477981	27.443	ng		99
43) Cyclohexane	13.06	84	967365	48.936	ng		99
44) tert-Amyl Methyl Ether	13.41	73	972027	26.282	ng		99
45) 1,2-Dichloropropane	13.62	63	311824	23.644	ng		100
46) Bromodichloromethane	13.81	83	472780	27.606	ng		100

EOM 4/4/14

Data File : I:\MS13\DATA\2014_04\03\04031410.D Vial: 16
Acq On : 3 Apr 2014 19:29 Operator: EM
Sample : 25ng TO-15 LCS STD (125ml) Inst : MS13
Misc : S29-03311401/S29-03171403 (4/15)

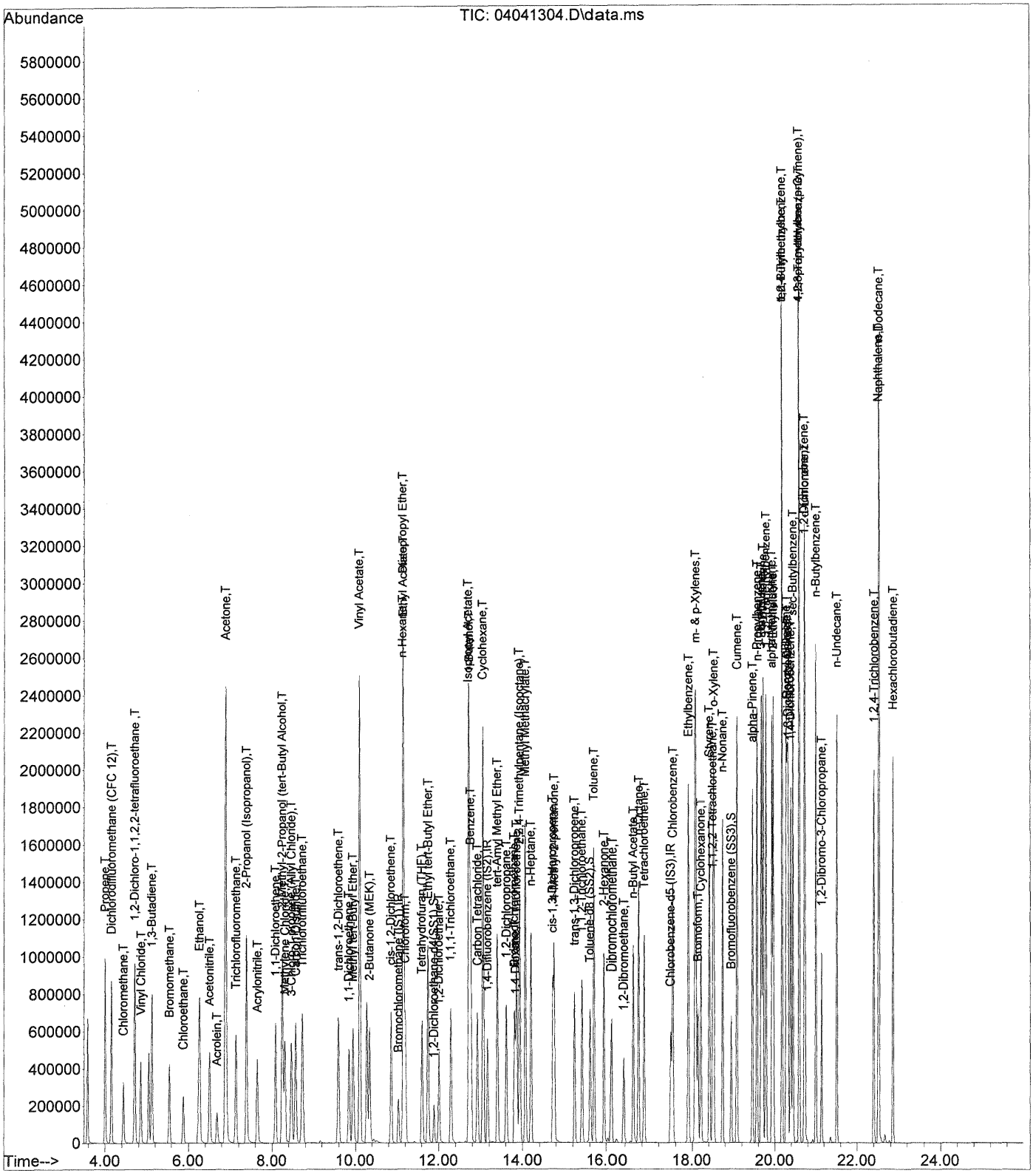
Quant Time: Apr 04 08:12:01 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	357709	22.280	ng	100
48) 1,4-Dioxane	13.84	88	285374	26.854	ng	99
49) 2,2,4-Trimethylpentane...	13.94	57	1370802	23.817	ng	96
50) Methyl Methacrylate	14.07	100	275597	54.332	ng	97
51) n-Heptane	14.20	71	284940	23.323	ng	99
52) cis-1,3-Dichloropropene	14.73	75	562078	28.992	ng	100
53) 4-Methyl-2-pentanone	14.76	58	317543	27.632	ng	97
54) trans-1,3-Dichloropropene	15.24	75	512687	29.123	ng	99
55) 1,1,2-Trichloroethane	15.42	97	324120	25.263	ng	99
58) Toluene	15.71	91	1320154	23.279	ng	100
59) 2-Hexanone	15.95	43	805832	27.810	ng	98
60) Dibromochloromethane	16.12	129	421529	28.062	ng	100
61) 1,2-Dibromoethane	16.37	107	378241	26.268	ng	99
62) n-Butyl Acetate	16.59	43	902036	28.609	ng	99
63) n-Octane	16.72	57	262981	23.058	ng	99
64) Tetrachloroethene	16.86	166	402434	22.987	ng	99
65) Chlorobenzene	17.53	112	905453	24.436	ng	100
66) Ethylbenzene	17.91	91	1545039	24.536	ng	100
67) m- & p-Xylenes	18.08	91	2481407	49.218	ng	99
68) Bromoform	18.14	173	395351	29.915	ng	100
69) Styrene	18.42	104	1007088	27.218	ng	99
70) o-Xylene	18.53	91	1258642	24.412	ng	99
71) n-Nonane	18.74	43	647697	23.125	ng	100
72) 1,1,2,2-Tetrachloroethane	18.50	83	589647	24.611	ng	100
74) Cumene	19.09	105	1609593	24.138	ng	99
75) alpha-Pinene	19.46	93	792158	24.695	ng	98
76) n-Propylbenzene	19.57	91	1921195	23.564	ng	99
77) 3-Ethyltoluene	19.67	105	1608100	25.242	ng	100
78) 4-Ethyltoluene	19.71	105	1577624	26.259	ng	100
79) 1,3,5-Trimethylbenzene	19.78	105	1344502	25.668	ng	100
80) alpha-Methylstyrene	19.93	118	749056	27.433	ng	99
81) 2-Ethyltoluene	19.96	105	1555993	25.336	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	1378233	25.941	ng	100
83) n-Decane	20.28	57	673956	23.415	ng	99
84) Benzyl Chloride	20.30	91	1256459	32.324	ng	100
85) 1,3-Dichlorobenzene	20.32	146	830622	26.562	ng	99
86) 1,4-Dichlorobenzene	20.39	146	841868	25.812	ng	100
87) sec-Butylbenzene	20.44	105	1797350	26.003	ng	100
88) 4-Isopropyltoluene (p-...	20.59	119	1684674	25.239	ng	99
89) 1,2,3-Trimethylbenzene	20.59	105	1437103	26.769	ng	100
90) 1,2-Dichlorobenzene	20.72	146	811494	26.784	ng	100
91) d-Limonene	20.73	68	515982	26.677	ng	99
92) 1,2-Dibromo-3-Chloropr...	21.14	157	310823	30.016	ng	94
93) n-Undecane	21.51	57	725009	24.393	ng	100
94) 1,2,4-Trichlorobenzene	22.40	180	656946	28.763	ng	99
95) Naphthalene	22.51	128	2076428	30.293	ng	100
96) n-Dodecane	22.52	57	761776	27.207	ng	100
97) Hexachlorobutadiene	22.86	225	418165	27.283	ng	100
98) Cyclohexanone	18.21	55	510937	29.645	ng	97
99) tert-Butylbenzene	20.18	119	1348136	26.226	ng	100
100) n-Butylbenzene	21.00	91	1477861	27.598	ng	99

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

Data File : I:\MS13\DATA\2014_04\04\04041304.D Vial: 16
Acq On : 4 Apr 2014 11:24 Operator: EM
Sample : 25ng TO-15 LCS STD (125ml) Inst : MS13
Misc : S29-03311401/S29-03171403 (4/15)

Quant Time: Apr 04 13:10:15 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2014_04\04\04041304.D Vial: 16
Acq On : 4 Apr 2014 11:24 Operator: EM
Sample : 25ng TO-15 LCS STD (125ml) Inst : MS13
Misc : S29-03311401/S29-03171403 (4/15)

Quant Time: Apr 04 13:10:15 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.04	130	104352	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	13.17	114	523134	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	211672	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.89	65	160606	13.788	ng		0.00
Spiked Amount 12.500			Recovery = 110.32%				
57) Toluene-d8 (SS2)	15.61	98	536619	12.189	ng		0.00
Spiked Amount 12.500			Recovery = 97.52%				
73) Bromofluorobenzene (SS3)	18.95	174	231546	12.719	ng		0.00
Spiked Amount 12.500			Recovery = 101.76%				
Target Compounds							Qvalue
2) Propene	4.00	42	360506	23.268	ng		97
3) Dichlorodifluoromethan...	4.16	85	789882	26.263	ng		100
4) Chloromethane	4.44	50	387586	19.120	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	431106	27.363	ng		100
6) Vinyl Chloride	4.86	62	527178	27.308	ng		99
7) 1,3-Butadiene	5.12	54	407816	31.297	ng		97
8) Bromomethane	5.55	94	335977	25.112	ng		100
9) Chloroethane	5.88	64	255600	24.509	ng		100
10) Ethanol	6.26	45	1297898	137.344	ng		100
11) Acetonitrile	6.51	41	664766	24.835	ng		99
12) Acrolein	6.69	56	223129	26.535	ng		99
13) Acetone	6.90	58	1253402	120.740	ng		88
14) Trichlorofluoromethane	7.14	101	621654	24.108	ng		100
15) 2-Propanol (Isopropanol)	7.39	45	1767396	52.805	ng		98
16) Acrylonitrile	7.65	53	463019	27.774	ng		100
17) 1,1-Dichloroethene	8.09	96	335173	25.111	ng		95
18) 2-Methyl-2-Propanol (t...	8.25	59	1463464	47.468	ng		99
19) Methylene Chloride	8.32	84	340314	23.530	ng		99
20) 3-Chloro-1-propene (Al...	8.48	41	505478	29.068	ng		100
21) Trichlorotrifluoroethane	8.73	151	329011	26.264	ng		98
22) Carbon Disulfide	8.58	76	1254583	24.402	ng		100
23) trans-1,2-Dichloroethene	9.60	61	505053	26.937	ng		98
24) 1,1-Dichloroethane	9.84	63	595049	24.949	ng		100
25) Methyl tert-Butyl Ether	9.94	73	764463	19.607	ng		99
26) Vinyl Acetate	10.11	86	380864	132.476	ng		97
27) 2-Butanone (MEK)	10.34	72	220899	24.709	ng		99
28) cis-1,2-Dichloroethene	10.87	61	470958	26.123	ng		98
29) Diisopropyl Ether	11.16	87	325521	27.947	ng		98
30) Ethyl Acetate	11.17	61	232966	54.368	ng		99
31) n-Hexane	11.15	57	453299	22.965	ng		99
32) Chloroform	11.21	83	588276	25.331	ng		100
34) Tetrahydrofuran (THF)	11.61	72	210531	25.622	ng		99
35) Ethyl tert-Butyl Ether	11.76	87	403689	26.815	ng		98
36) 1,2-Dichloroethane	12.01	62	449274	27.124	ng		100
38) 1,1,1-Trichloroethane	12.29	97	523185	25.626	ng		99
39) Isopropyl Acetate	12.72	61	407436	52.265	ng	#	91
40) 1-Butanol	12.74	56	730584	64.736	ng		98
41) Benzene	12.77	78	1244550	21.855	ng		100
42) Carbon Tetrachloride	12.93	117	478300	27.064	ng		99
43) Cyclohexane	13.06	84	975149	48.614	ng		99
44) tert-Amyl Methyl Ether	13.41	73	969808	25.842	ng		99
45) 1,2-Dichloropropane	13.62	63	318428	23.794	ng		99
46) Bromodichloromethane	13.81	83	480608	27.656	ng		99

EM 4/4/14

Data File : I:\MS13\DATA\2014_04\04\04041304.D Vial: 16
Acq On : 4 Apr 2014 11:24 Operator: EM
Sample : 25ng TO-15 LCS STD (125ml) Inst : MS13
Misc : S29-03311401/S29-03171403 (4/15)

Quant Time: Apr 04 13:10:15 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

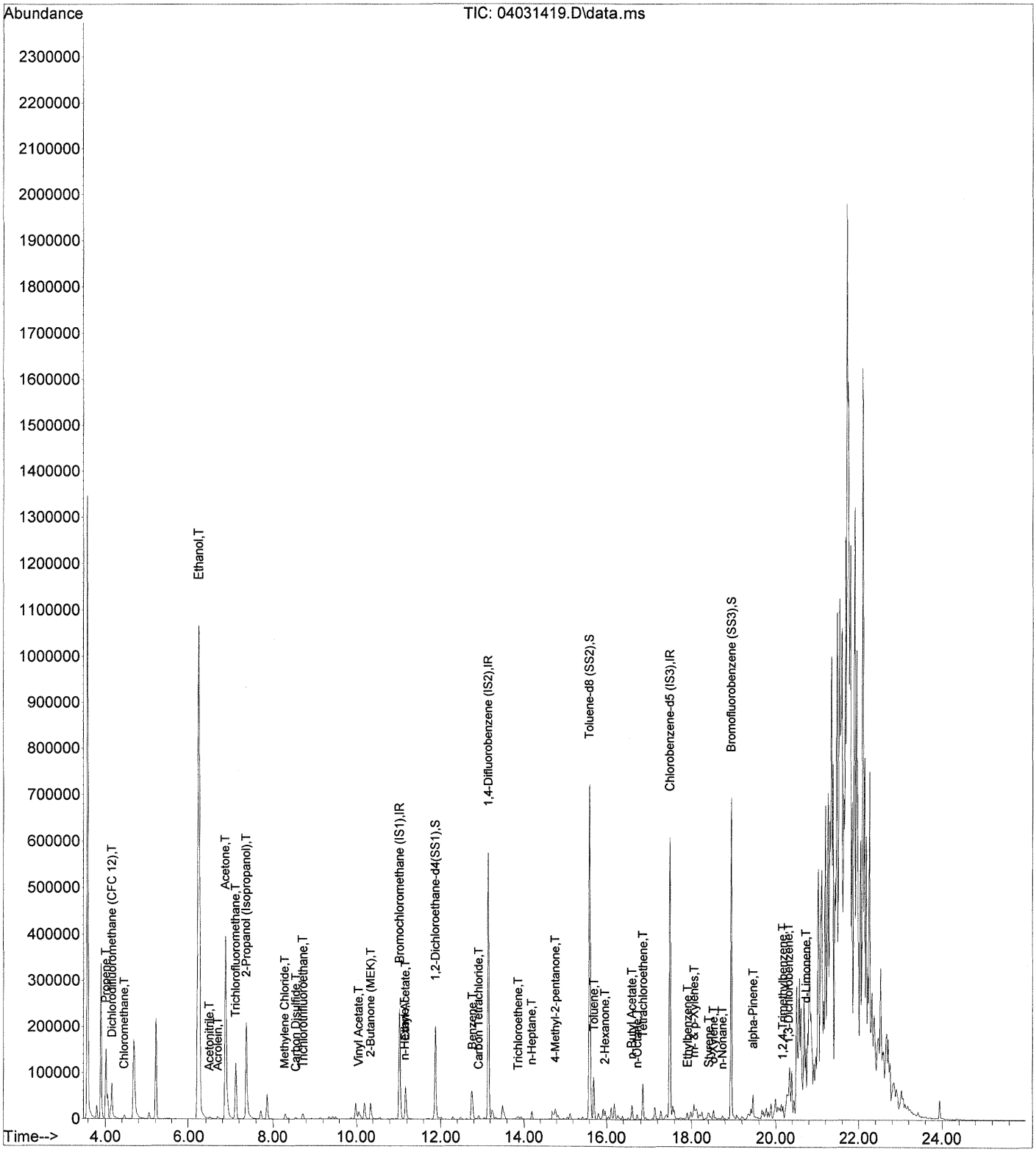
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	361673	22.200	ng	100
48) 1,4-Dioxane	13.84	88	285950	26.518	ng	99
49) 2,2,4-Trimethylpentane...	13.94	57	1374664	23.538	ng	96
50) Methyl Methacrylate	14.07	100	280813	54.558	ng	95
51) n-Heptane	14.20	71	291257	23.494	ng	99
52) cis-1,3-Dichloropropene	14.73	75	567849	28.865	ng	100
53) 4-Methyl-2-pentanone	14.77	58	318664	27.328	ng	97
54) trans-1,3-Dichloropropene	15.25	75	517922	28.994	ng	99
55) 1,1,2-Trichloroethane	15.42	97	324581	24.933	ng	99
58) Toluene	15.71	91	1333645	23.301	ng	100
59) 2-Hexanone	15.95	43	812031	27.766	ng	99
60) Dibromochloromethane	16.12	129	425834	28.087	ng	100
61) 1,2-Dibromoethane	16.37	107	379315	26.100	ng	99
62) n-Butyl Acetate	16.59	43	907066	28.504	ng	99
63) n-Octane	16.72	57	267900	23.273	ng	99
64) Tetrachloroethene	16.86	166	405480	22.948	ng	99
65) Chlorobenzene	17.54	112	906717	24.245	ng	100
66) Ethylbenzene	17.91	91	1553671	24.446	ng	99
67) m- & p-Xylenes	18.08	91	2502155	49.173	ng	99
68) Bromoform	18.14	173	401103	30.071	ng	100
69) Styrene	18.42	104	1001809	26.826	ng	99
70) o-Xylene	18.53	91	1260539	24.224	ng	100
71) n-Nonane	18.74	43	657464	23.257	ng	99
72) 1,1,2,2-Tetrachloroethane	18.50	83	592886	24.518	ng	100
74) Cumene	19.09	105	1615354	24.002	ng	100
75) alpha-Pinene	19.46	93	796689	24.608	ng	98
76) n-Propylbenzene	19.57	91	1934437	23.508	ng	99
77) 3-Ethyltoluene	19.67	105	1607423	24.999	ng	100
78) 4-Ethyltoluene	19.71	105	1591461	26.245	ng	100
79) 1,3,5-Trimethylbenzene	19.78	105	1345079	25.443	ng	100
80) alpha-Methylstyrene	19.93	118	750220	27.223	ng	99
81) 2-Ethyltoluene	19.96	105	1564922	25.247	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	1378497	25.707	ng	100
83) n-Decane	20.28	57	676410	23.284	ng	99
84) Benzyl Chloride	20.30	91	1262860	32.189	ng	100
85) 1,3-Dichlorobenzene	20.32	146	837232	26.526	ng	100
86) 1,4-Dichlorobenzene	20.39	146	844626	25.658	ng	100
87) sec-Butylbenzene	20.44	105	1805330	25.878	ng	100
88) 4-Isopropyltoluene (p-...	20.59	119	1692331	25.120	ng	99
89) 1,2,3-Trimethylbenzene	20.59	105	1435352	26.490	ng	100
90) 1,2-Dichlorobenzene	20.72	146	814946	26.650	ng	100
91) d-Limonene	20.73	68	519408	26.607	ng	98
92) 1,2-Dibromo-3-Chloropr...	21.14	157	312892	29.938	ng	95
93) n-Undecane	21.51	57	725823	24.196	ng	100
94) 1,2,4-Trichlorobenzene	22.40	180	654840	28.407	ng	99
95) Naphthalene	22.51	128	2083285	30.113	ng	100
96) n-Dodecane	22.52	57	763744	27.027	ng	100
97) Hexachlorobutadiene	22.86	225	421550	27.250	ng	99
98) Cyclohexanone	18.21	55	512791	29.479	ng	97
99) tert-Butylbenzene	20.18	119	1352040	26.060	ng	100
100) n-Butylbenzene	21.00	91	1480434	27.392	ng	99

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:51:26 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:51:26 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	106791	12.500 ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	542579	12.500 ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	214155	12.500 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	11.88	65	164665	13.813 ng		-0.01
Spiked Amount 12.500			Recovery =	110.48%		
57) Toluene-d8 (SS2)	15.61	98	549803	12.343 ng		0.00
Spiked Amount 12.500			Recovery =	98.72%		
73) Bromofluorobenzene (SS3)	18.95	174	235404	12.781 ng		0.00
Spiked Amount 12.500			Recovery =	102.24%		
Target Compounds						Qvalue
2) Propene	4.01	42	46876m	2.956 ng		
3) Dichlorodifluoromethan...	4.16	85	54497	1.771 ng		99
4) Chloromethane	4.45	50	5176	0.250 ng		70
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	969	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	5.13	54	443	N.D.		
8) Bromomethane	5.55	94	567	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	6.25	45	1876608	194.048 ng		100
11) Acetonitrile	6.48	41	5079	0.185 ng	#	25
12) Acrolein	6.69	56	6797	0.790 ng		98
13) Acetone	6.87	58	205253	19.320 ng		95
14) Trichlorofluoromethane	7.12	101	129558	4.910 ng		99
15) 2-Propanol (Isopropanol)	7.37	45	358811	10.475 ng		98
16) Acrylonitrile	7.72	53	61	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d		
19) Methylene Chloride	8.30	84	4476	0.302 ng		99
20) 3-Chloro-1-propene (Al...	8.39	41	731	N.D.		
21) Trichlorotrifluoroethane	8.74	151	5658	0.441 ng		98
22) Carbon Disulfide	8.57	76	6175	0.117 ng		86
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	9.99	73	401	N.D.		
26) Vinyl Acetate	10.05	86	3769	1.281 ng	#	36
27) 2-Butanone (MEK)	10.34	72	13744	1.502 ng		96
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	11.16	61	13704	3.125 ng		98
31) n-Hexane	11.15	57	2741	0.136 ng	#	83
32) Chloroform	11.20	83	1329	N.D.		
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	12.00	62	1129	N.D.		
38) 1,1,1-Trichloroethane	12.29	97	142	N.D.		
39) Isopropyl Acetate	12.74	61	727	N.D.		
40) 1-Butanol	0.00	56	0	N.D. d		
41) Benzene	12.76	78	31128	0.527 ng		99
42) Carbon Tetrachloride	12.92	117	4921	0.268 ng		99
43) Cyclohexane	13.06	84	1162	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		

4/5/14

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 09:51:26 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

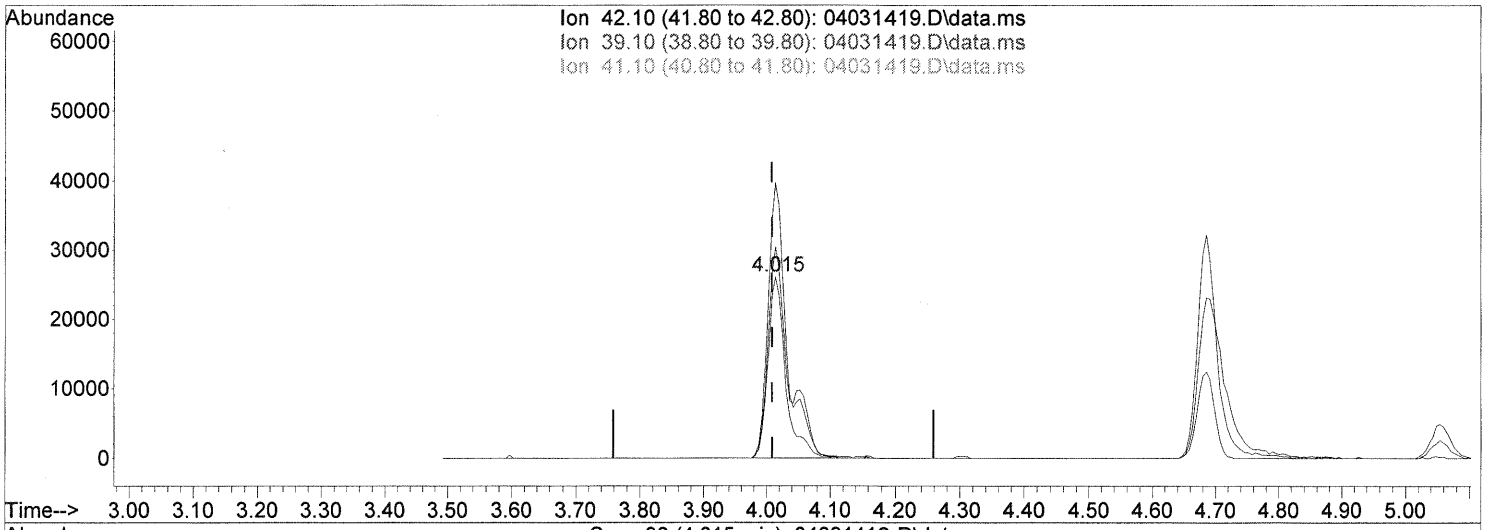
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	13.86	130	2025	0.120 ng		93
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	13.93	57	4673	N.D.		
50) Methyl Methacrylate	14.18	100	50	N.D.		
51) n-Heptane	14.20	71	4221	0.328 ng		96
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	14.78	58	5594	0.463 ng	#	76
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	15.71	91	74609	1.288 ng		100
59) 2-Hexanone	15.97	43	11907	0.402 ng		89
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	16.60	43	26897	0.835 ng		96
63) n-Octane	16.72	57	2325	0.200 ng		90
64) Tetrachloroethene	16.85	166	27800	1.555 ng		99
65) Chlorobenzene	17.54	112	416	N.D.		
66) Ethylbenzene	17.91	91	9900	0.154 ng		97
67) m- & p-Xylenes	18.06	91	24342	0.473 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	18.42	104	4214	0.112 ng		98
70) o-Xylene	18.53	91	9245	0.176 ng		98
71) n-Nonane	18.74	43	4976	0.174 ng	#	77
72) 1,1,2,2-Tetrachloroethane	18.52	83	57	N.D.		
74) Cumene	19.08	105	1134	N.D.		
75) alpha-Pinene	19.46	93	19565	0.597 ng		91
76) n-Propylbenzene	19.57	91	3017	N.D.		
77) 3-Ethyltoluene	0.00	105	0	N.D. d		
78) 4-Ethyltoluene	19.71	105	3142	N.D.		
79) 1,3,5-Trimethylbenzene	19.78	105	2723	N.D.		
80) alpha-Methylstyrene	19.93	118	107	N.D.		
81) 2-Ethyltoluene	19.96	105	2619	N.D.		
82) 1,2,4-Trimethylbenzene	20.18	105	8031	0.148 ng		85
83) n-Decane	0.00	57	0	N.D. d		
84) Benzyl Chloride	20.31	91	141	N.D.		
85) 1,3-Dichlorobenzene	20.32	146	3147	0.099 ng		96
86) 1,4-Dichlorobenzene	20.39	146	543	N.D.		
87) sec-Butylbenzene	20.44	105	603	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	20.59	105	2974	N.D.		
90) 1,2-Dichlorobenzene	20.73	146	169	N.D.		
91) d-Limonene	20.73	68	26033	1.318 ng		96
92) 1,2-Dibromo-3-Chloropr...	21.03	157	119	N.D.		
93) n-Undecane	0.00	57	0	N.D. d		
94) 1,2,4-Trichlorobenzene	22.41	180	287	N.D.		
95) Naphthalene	22.52	128	6277	N.D.		
96) n-Dodecane	0.00	57	0	N.D. d		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D. d		
99) tert-Butylbenzene	20.18	119	1166	N.D.		
100) n-Butylbenzene	21.00	91	868	N.D.		

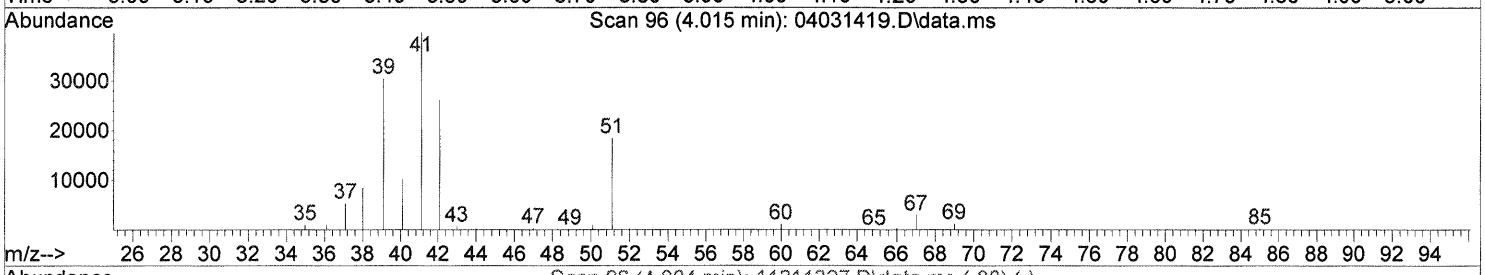
(#) = qualifier out of range (m) = manual integration (+) = signals summed

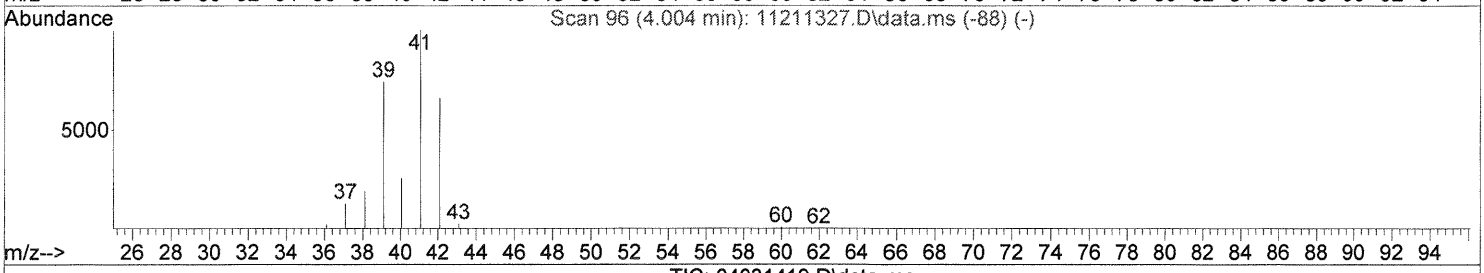
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031419.D\data.ms

(2) Propene (T)

4.015min (+0.005) 3.19ng

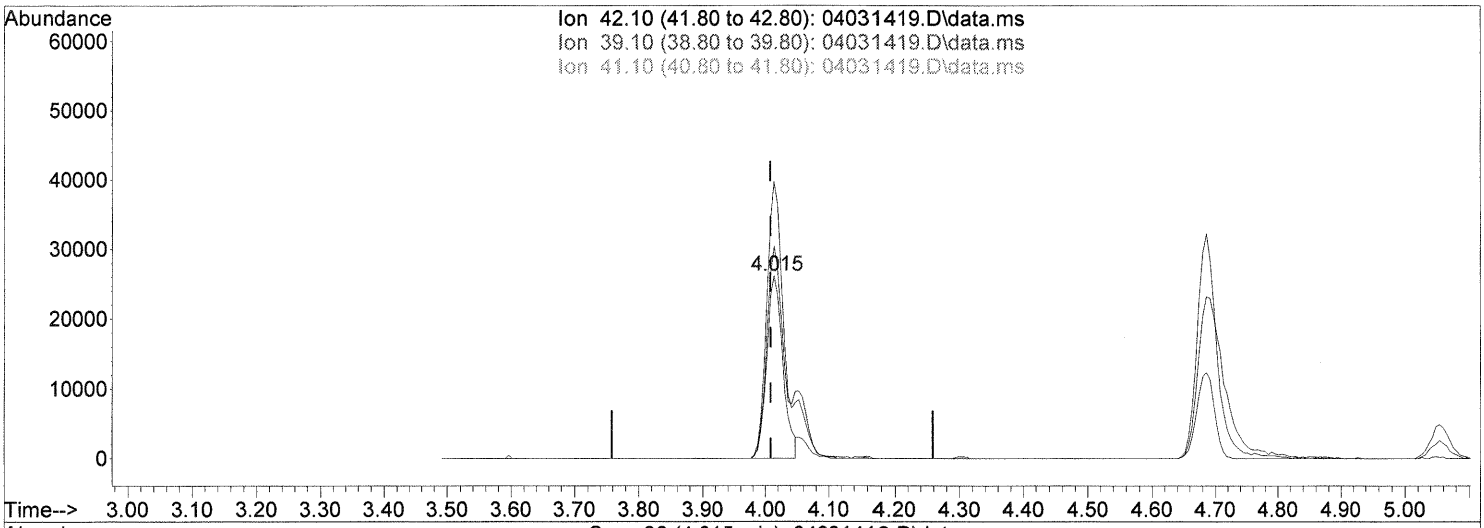
response 50543

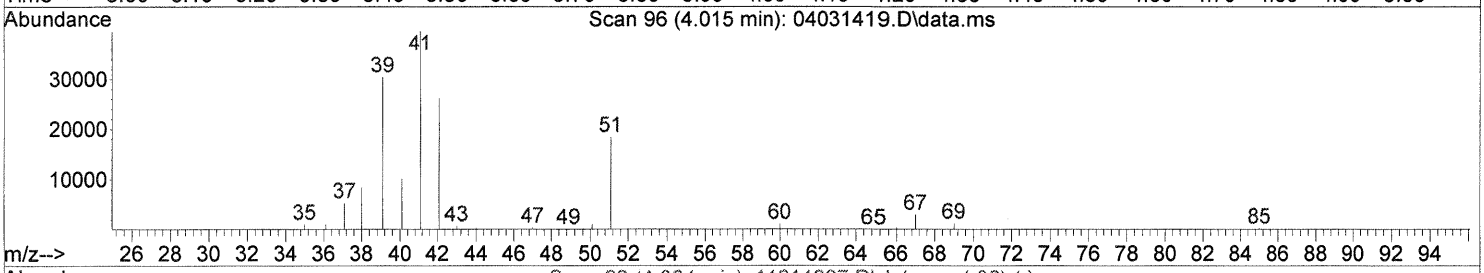
Ion	Exp%	Act%
42.10	100	100
39.10	112.60	109.52
41.10	152.60	163.77
0.00	0.00	0.00

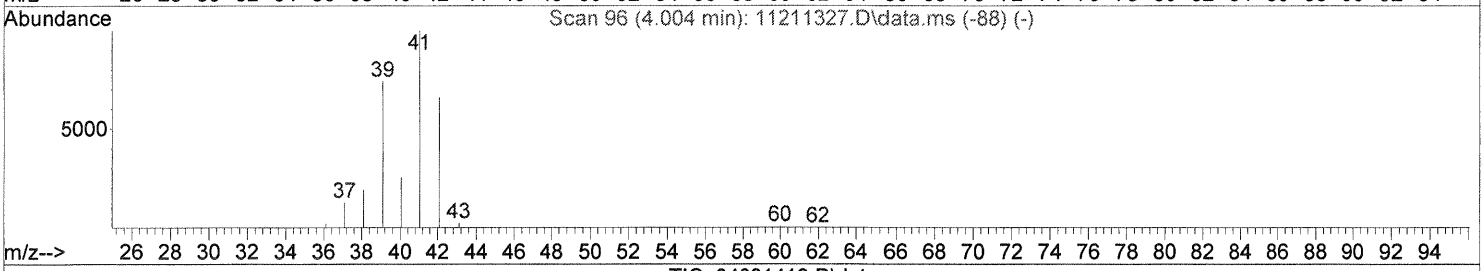
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031419.D\data.ms

(2) Propene (T)

4.015min (+0.005) 2.96ng m

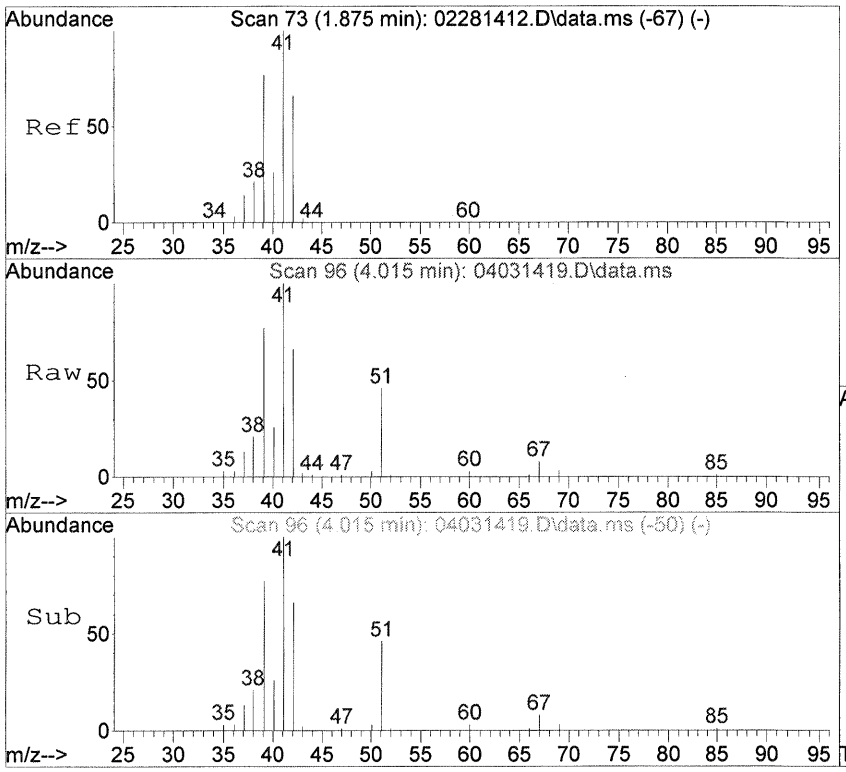
response 46876

Ion	Exp%	Act%
42.10	100	100
39.10	112.60	118.09
41.10	152.60	176.58#
0.00	0.00	0.00

IPC

4/5/14

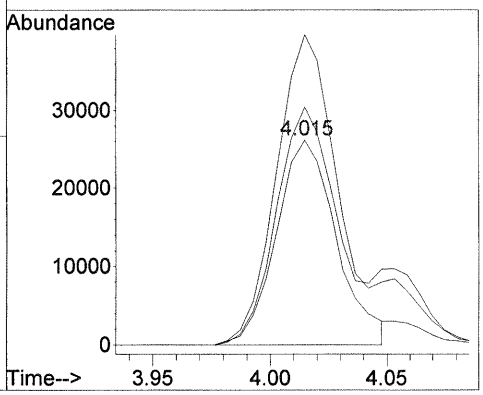
4/7/14

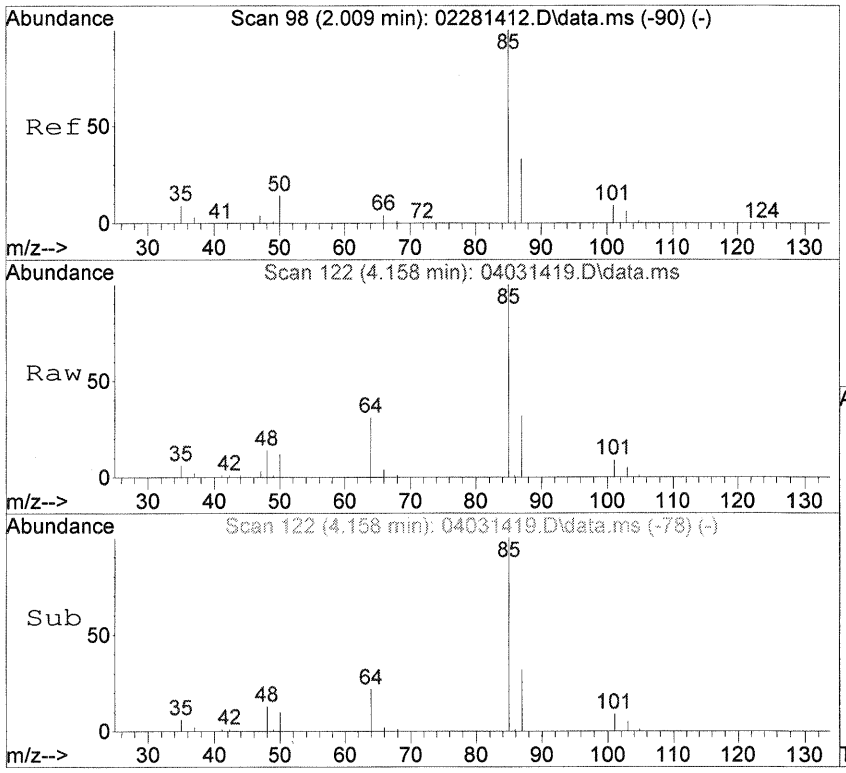


#2
Propene
Concen: 2.96 ng m
RT: 4.01 min Scan# 96
Delta R.T. 0.005 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 42 Resp: 46876

Ion	Ratio	Lower	Upper
42	100		
39	118.1	92.6	132.6
41	176.6	132.6	172.6#

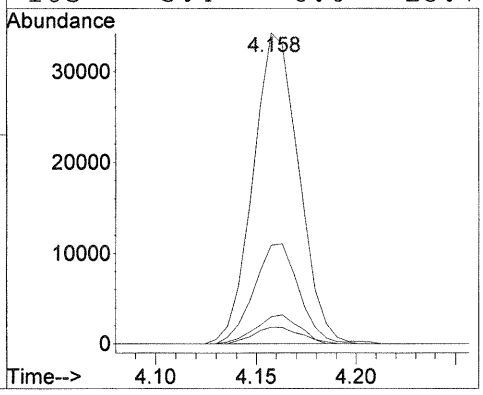


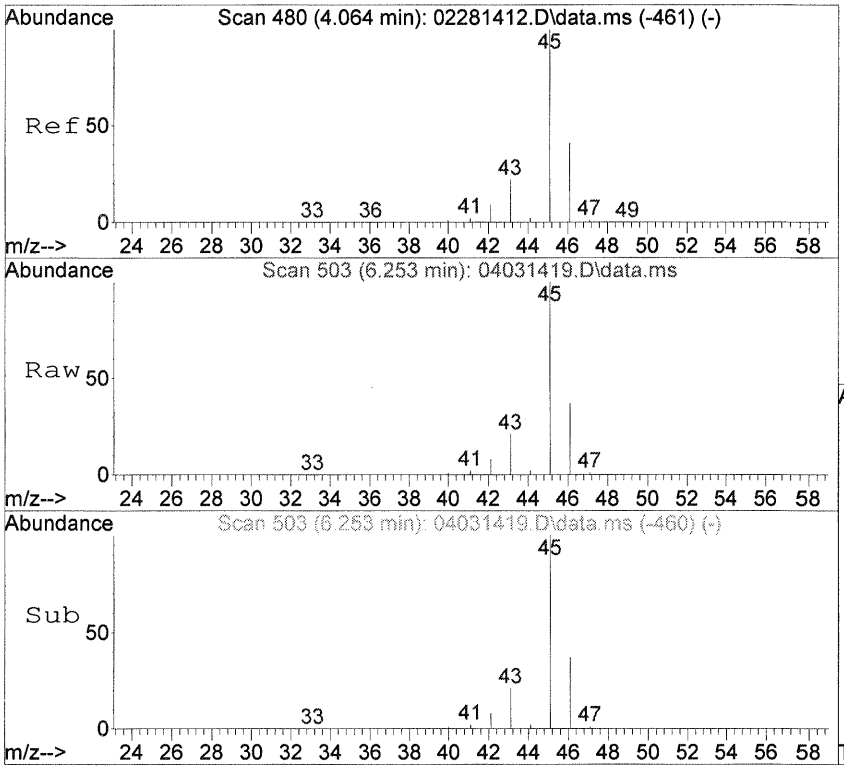


#3
Dichlorodifluoromethane (CFC 1
Concen: 1.77 ng
RT: 4.16 min Scan# 122
Delta R.T. -0.006 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 85 Resp: 54497

Ion	Ratio	Lower	Upper
85	100		
87	31.8	12.6	52.6
101	9.0	0.0	28.9
103	5.4	0.0	25.7

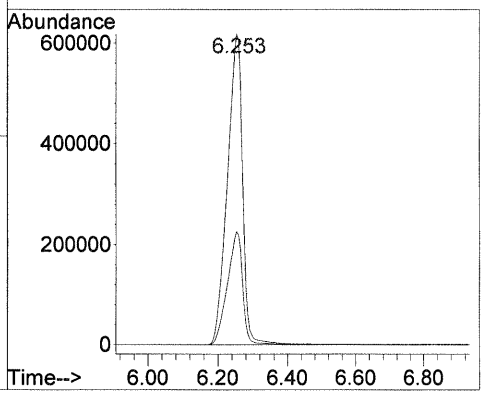


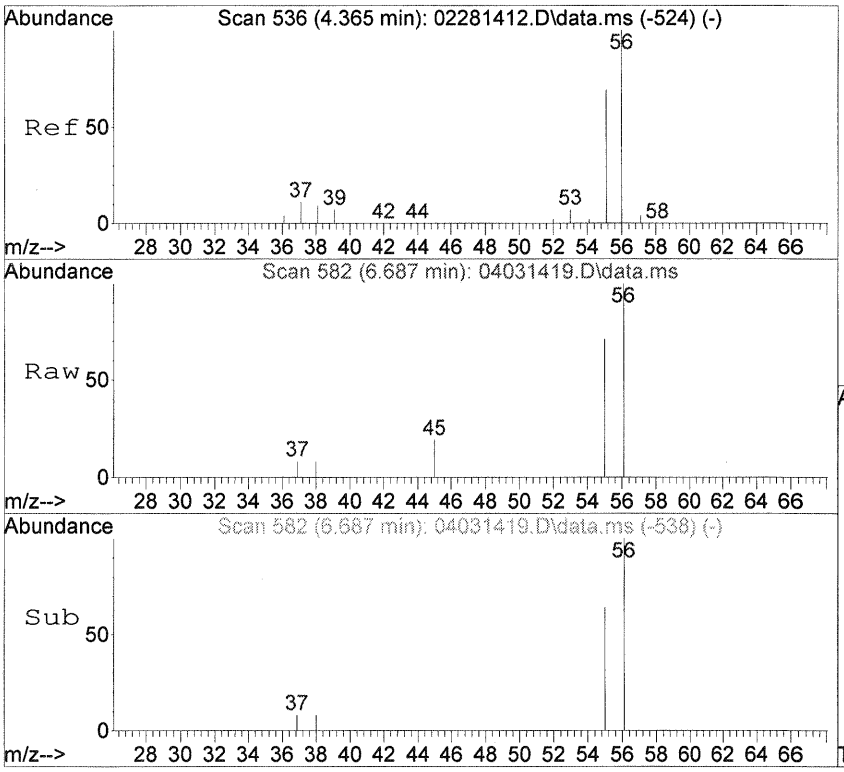


#10
Ethanol
Concen: 194.05 ng
RT: 6.25 min Scan# 503
Delta R.T. -0.011 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 45 Resp: 1876608

Ion	Ratio	Lower	Upper
45	100		
46	36.4	16.5	56.5

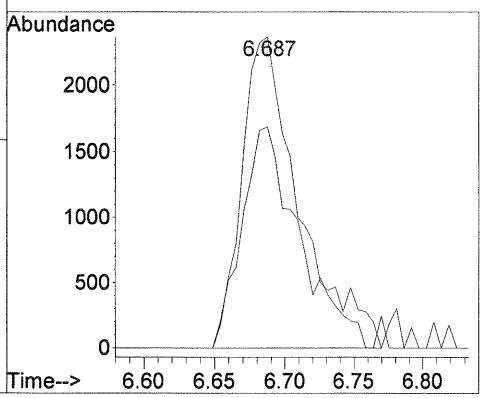


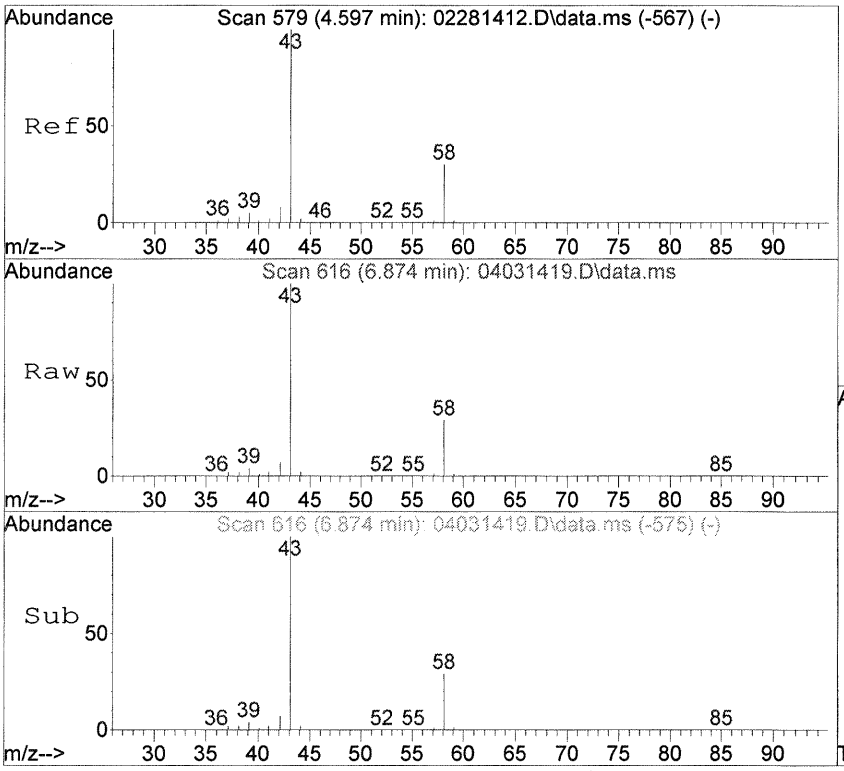


#12
Acrolein
Concen: 0.79 ng
RT: 6.69 min Scan# 582
Delta R.T. -0.006 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 56 Resp: 6797

Ion	Ratio	Lower	Upper
56	100		
55	71.3	49.9	89.9

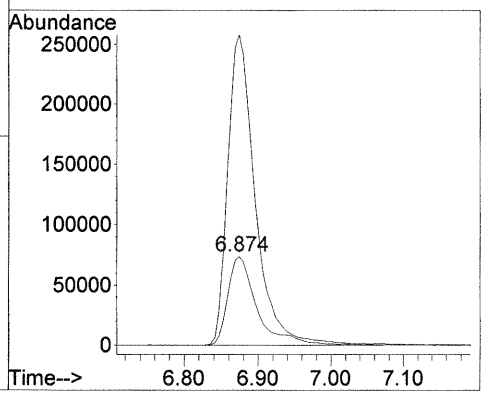


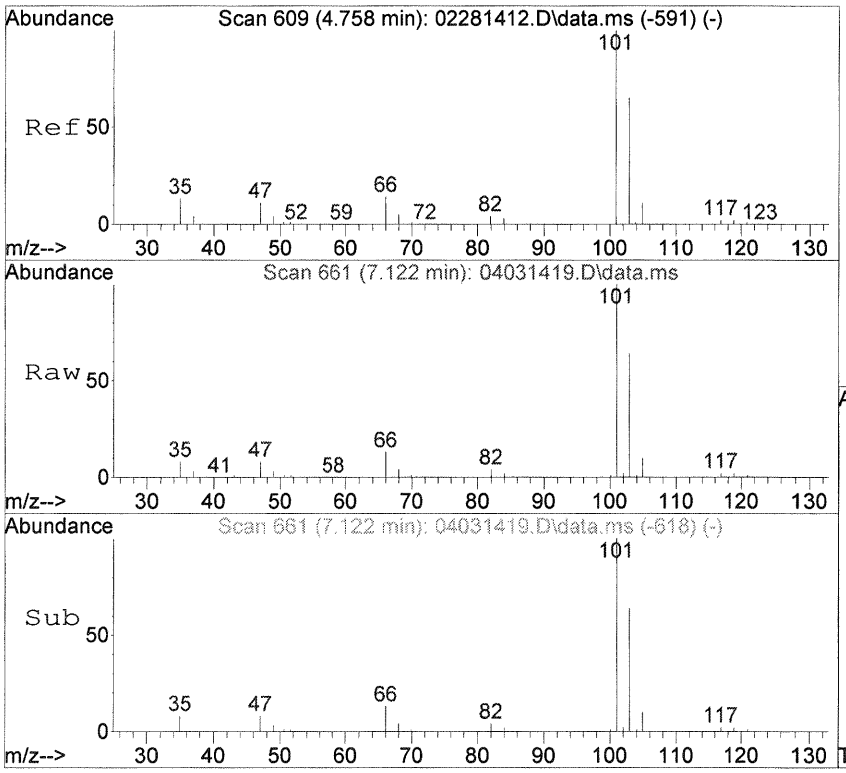


#13
Acetone
Concen: 19.32 ng
RT: 6.87 min Scan# 616
Delta R.T. -0.022 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 58 Resp: 205253

Ion	Ratio	Lower	Upper
58	100		
43	328.2	288.8	348.8

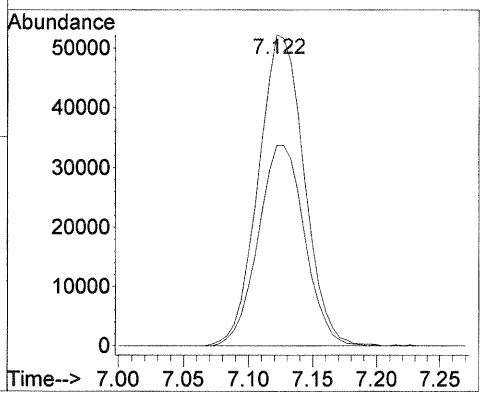


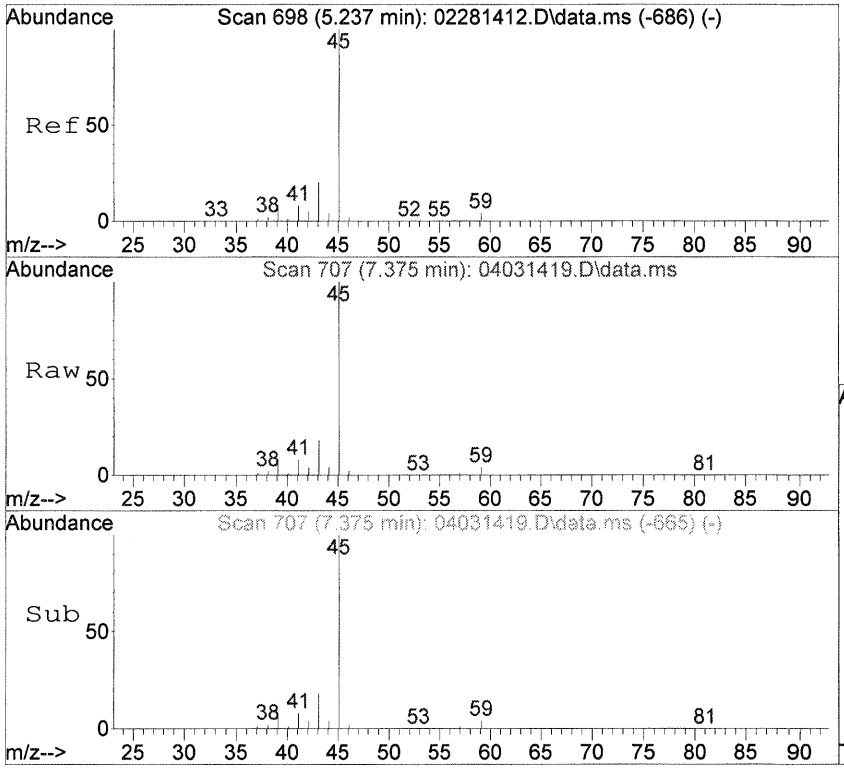


#14
Trichlorofluoromethane
Concen: 4.91 ng
RT: 7.12 min Scan# 661
Delta R.T. -0.011 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion:101 Resp: 129558

Ion	Ratio	Lower	Upper
101	100		
103	65.5	44.9	84.9

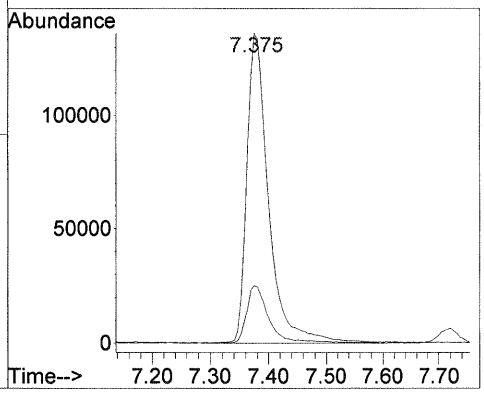


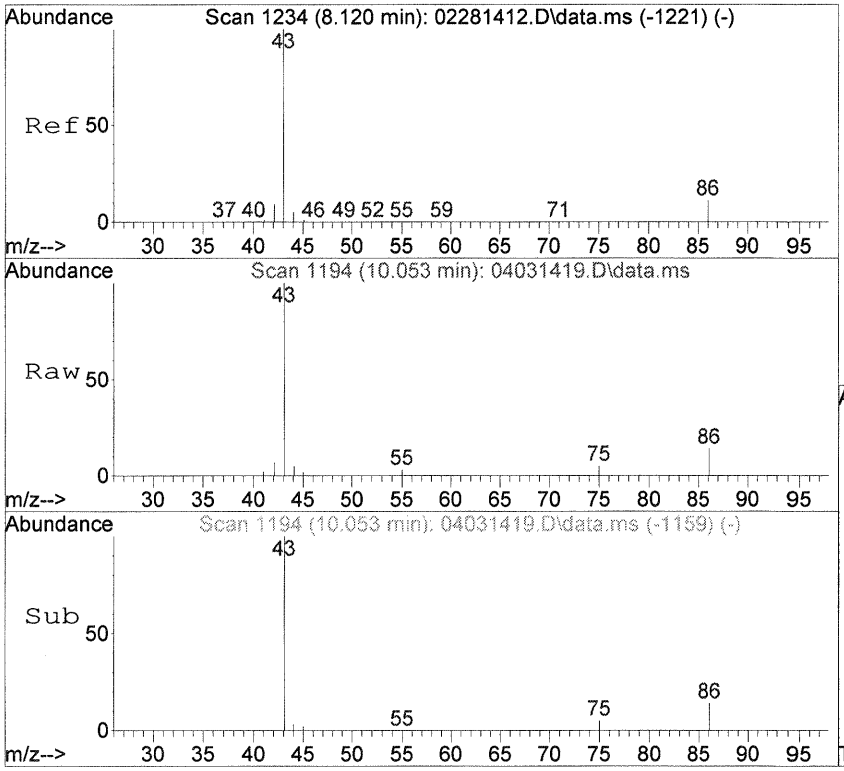


#15
2-Propanol (Isopropanol)
Concen: 10.48 ng
RT: 7.37 min Scan# 707
Delta R.T. -0.017 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 45 Resp: 358811

Ion	Ratio	Lower	Upper
45	100		
43	18.5	0.0	37.8

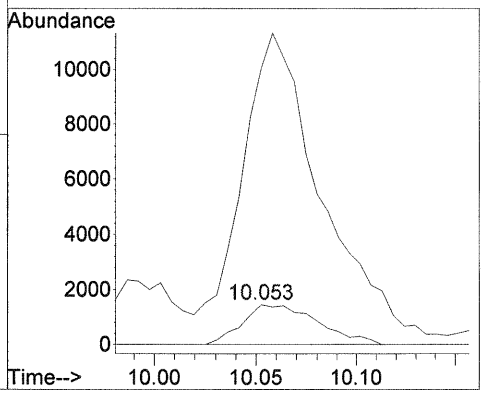


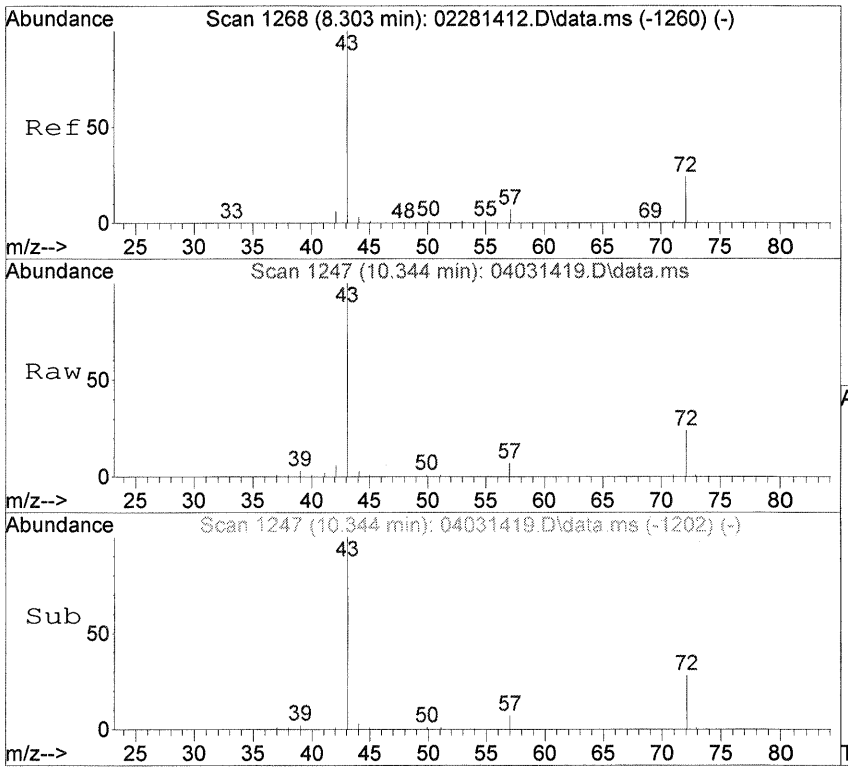


#26
Vinyl Acetate
Concen: 1.28 ng
RT: 10.05 min Scan# 1194
Delta R.T. -0.055 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 86 Resp: 3769

Ion	Ratio	Lower	Upper
86	100		
43	846.4	1142.1	1182.1#

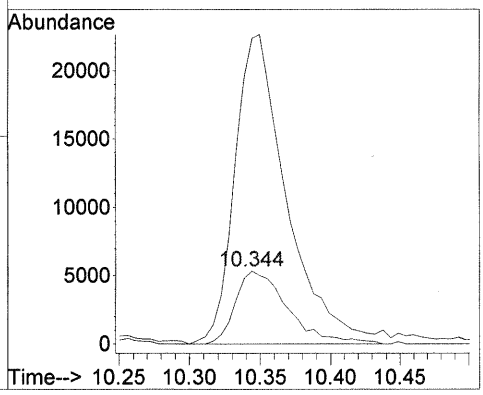


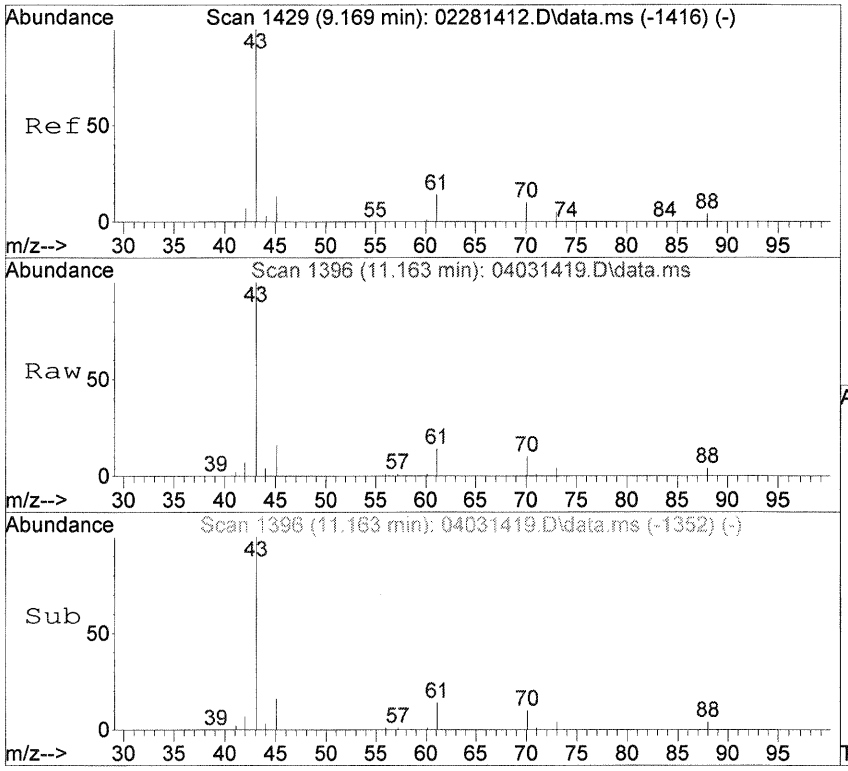


#27
2-Butanone (MEK)
Concen: 1.50 ng
RT: 10.34 min Scan# 1247
Delta R.T. -0.000 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 72 Resp: 13744

Ion	Ratio	Lower	Upper
72	100		
43	423.3	394.5	434.5

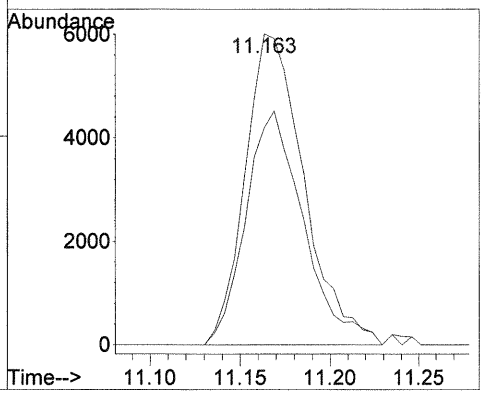




#30
Ethyl Acetate
Concen: 3.13 ng
RT: 11.16 min Scan# 1396
Delta R.T. -0.006 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 61 Resp: 13704

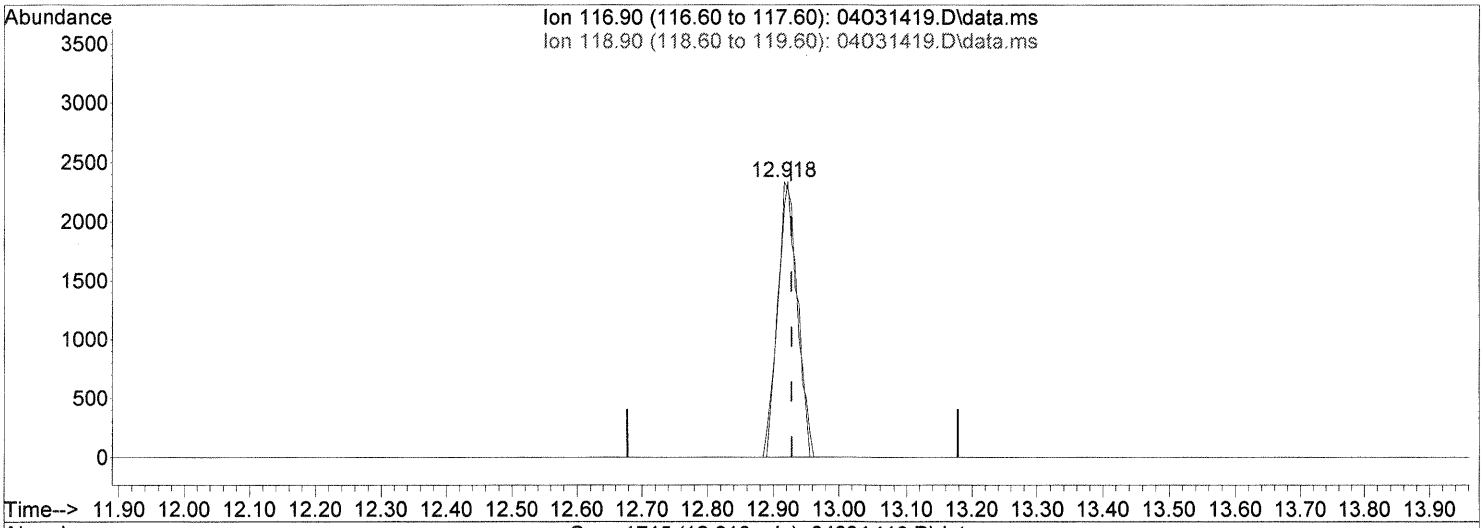
Ion	Ratio	Lower	Upper
61	100		
70	73.9	55.9	95.9

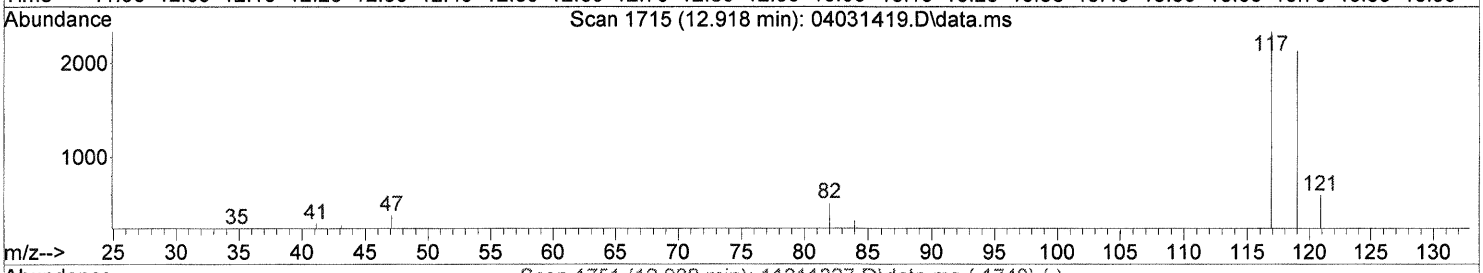


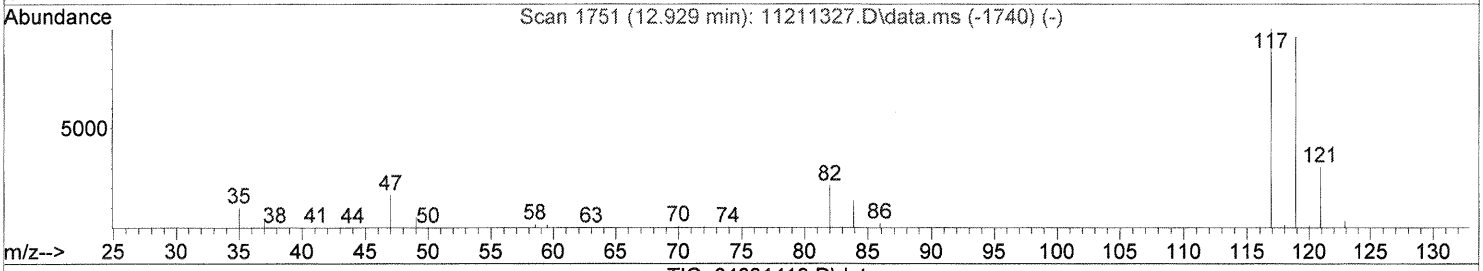
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 04031419.D\data.ms

(42) Carbon Tetrachloride (T)

12.918min (-0.011) 0.27ng

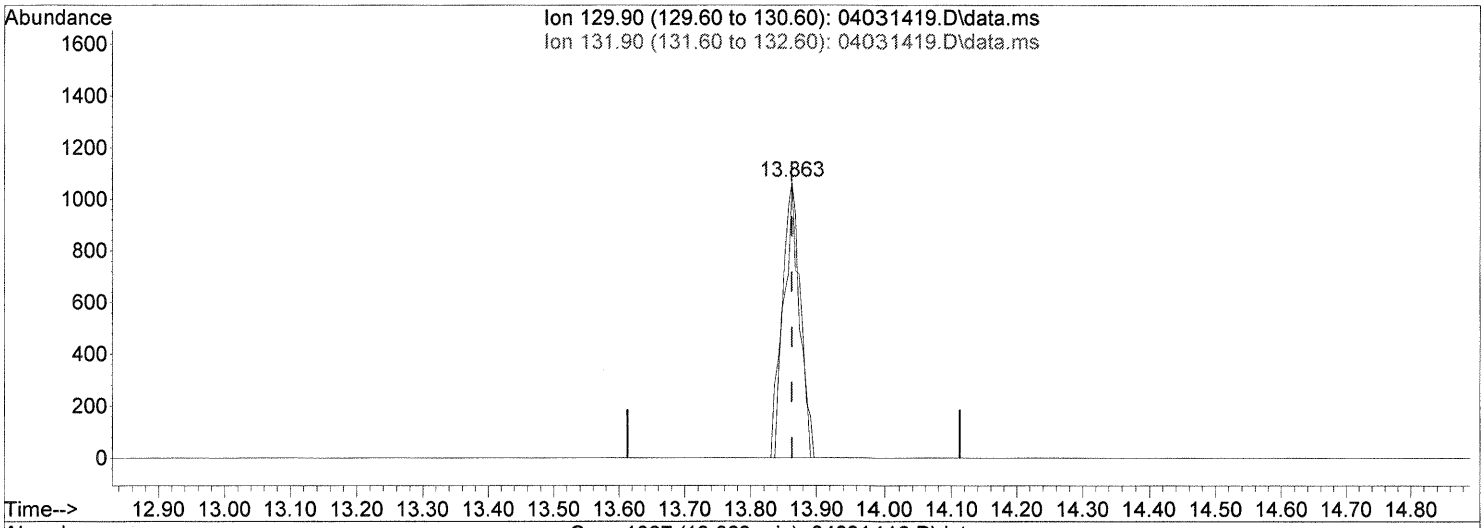
response 4921

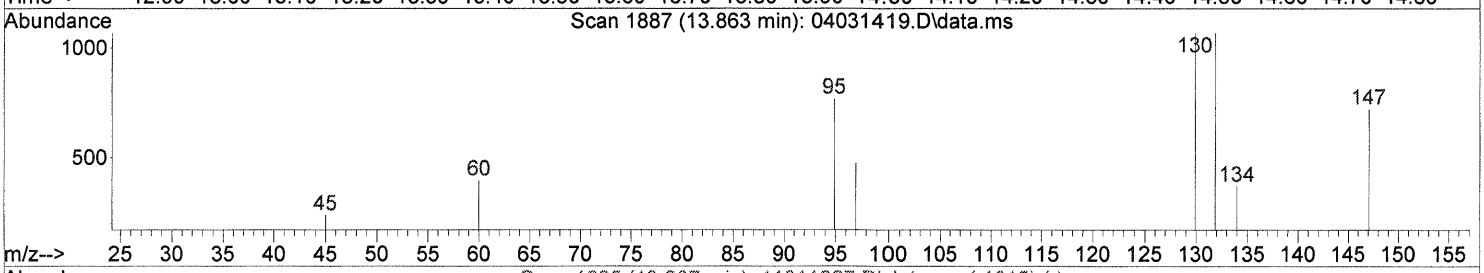
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	96.95
0.00	0.00	0.00
0.00	0.00	0.00

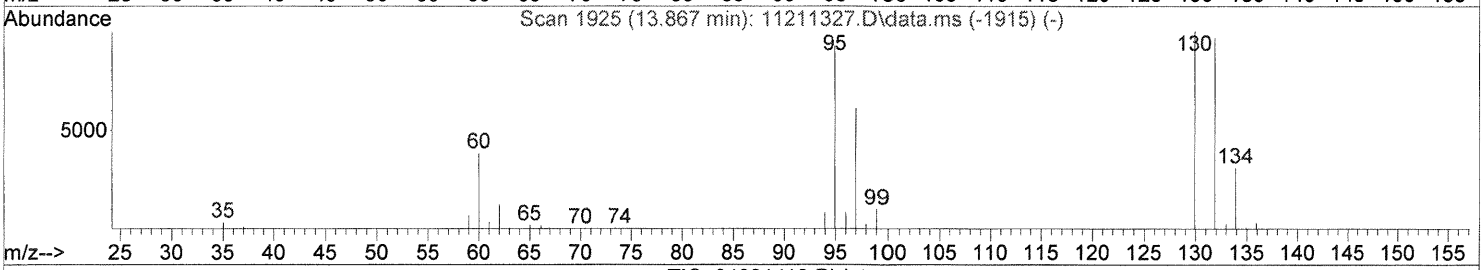
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2014_04\03\04031419.D
Acq On : 4 Apr 2014 00:40 Operator: EM
Sample : P1401201-006 dup (1000ml)
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 04 08:27:44 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M







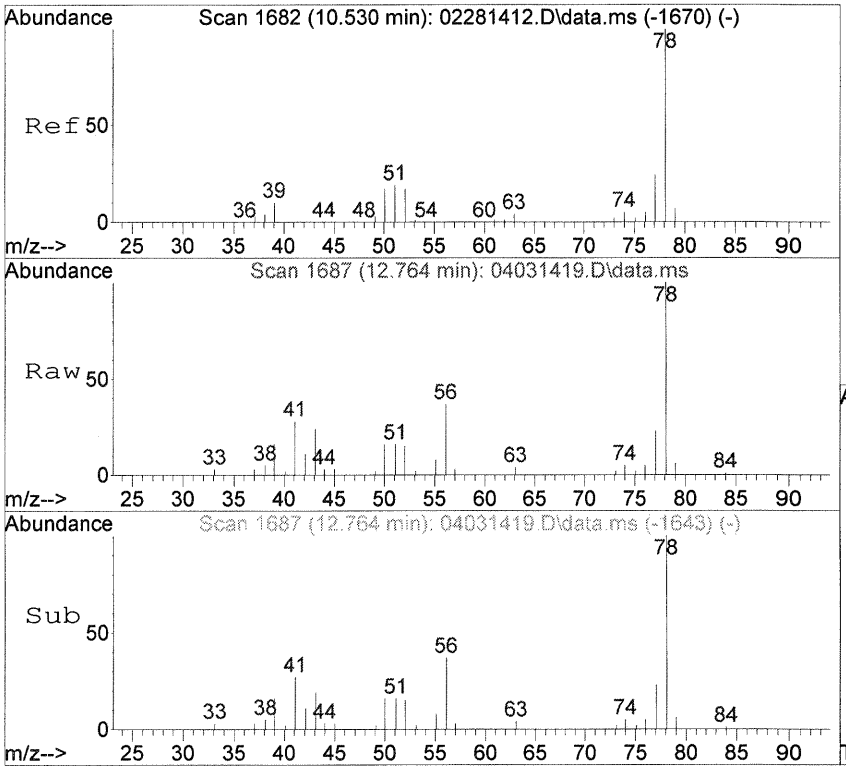
TIC: 04031419.D\data.ms

(47) Trichloroethene (T)

13.863min (-0.000) 0.12ng

response 2025

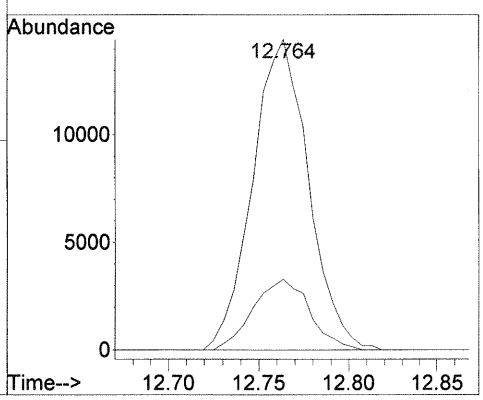
Ion	Exp%	Act%
129.90	100	100
131.90	96.90	90.32
0.00	0.00	0.00
0.00	0.00	0.00

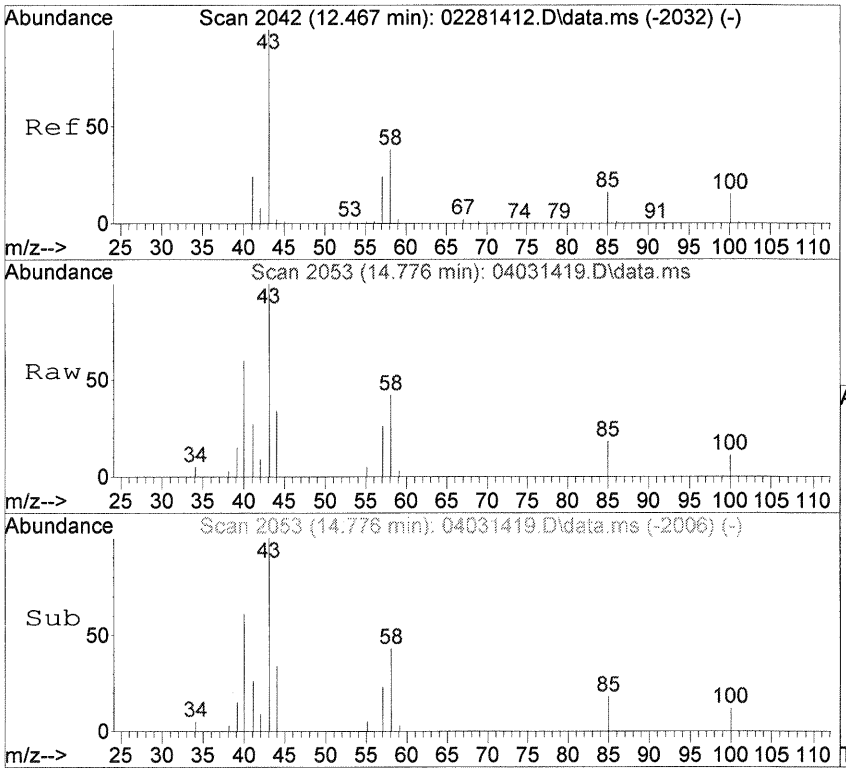


#41
Benzene
Concen: 0.53 ng
RT: 12.76 min Scan# 1687
Delta R.T. -0.006 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 78 Resp: 31128

Ion	Ratio	Lower	Upper
78	100		
77	23.0	3.3	43.3

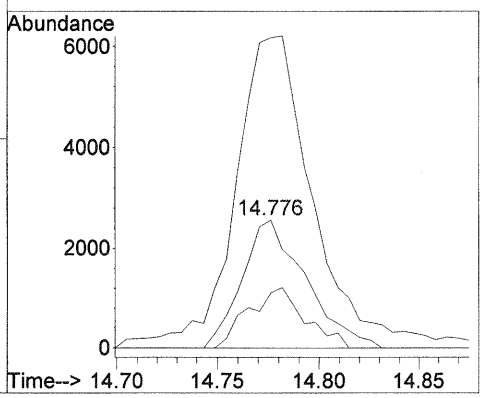


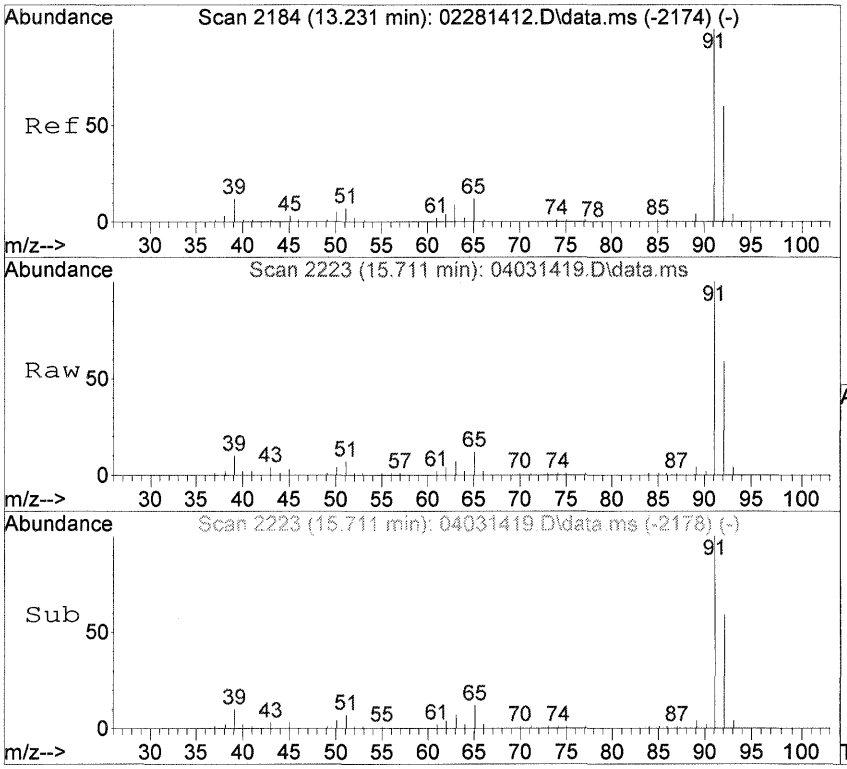


#53
4-Methyl-2-pentanone
Concen: 0.46 ng
RT: 14.78 min Scan# 2053
Delta R.T. 0.011 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 58 Resp: 5594

Ion	Ratio	Lower	Upper
58	100		
43	294.2	202.2	303.4
85	27.9	35.3	52.9#

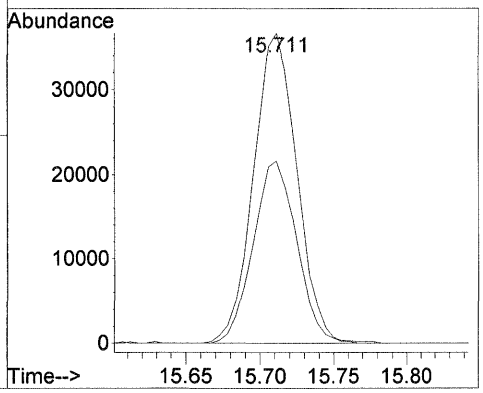


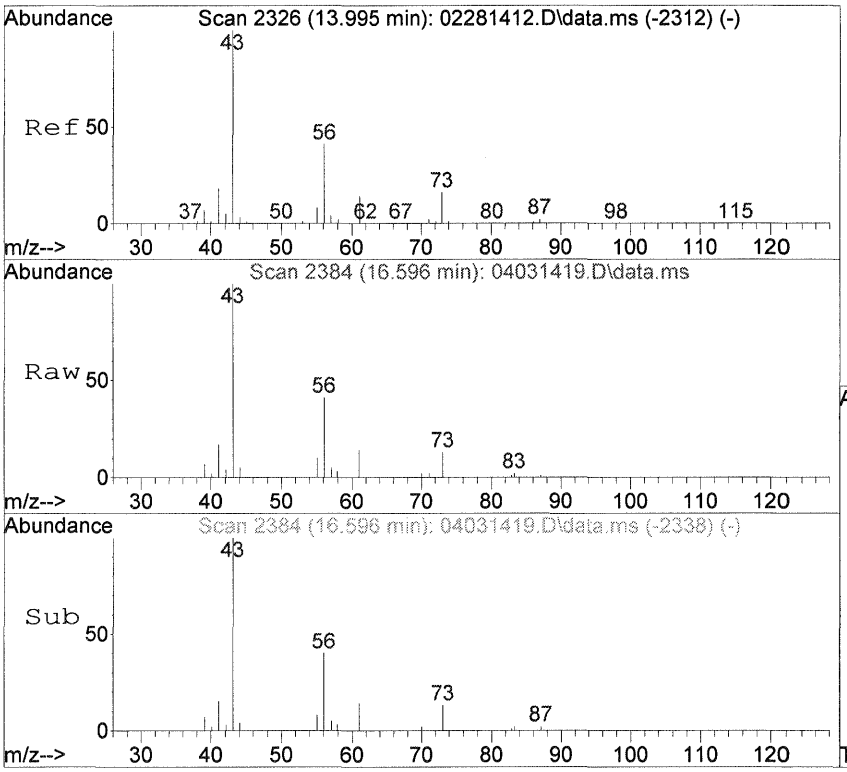


#58
Toluene
Concen: 1.29 ng
RT: 15.71 min Scan# 2223
Delta R.T. -0.000 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 91 Resp: 74609

Ion	Ratio	Lower	Upper
91	100		
92	59.0	39.1	79.1

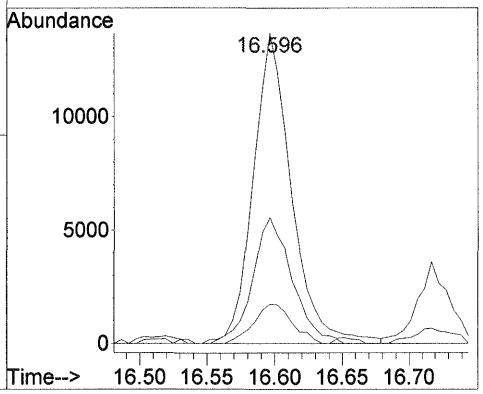


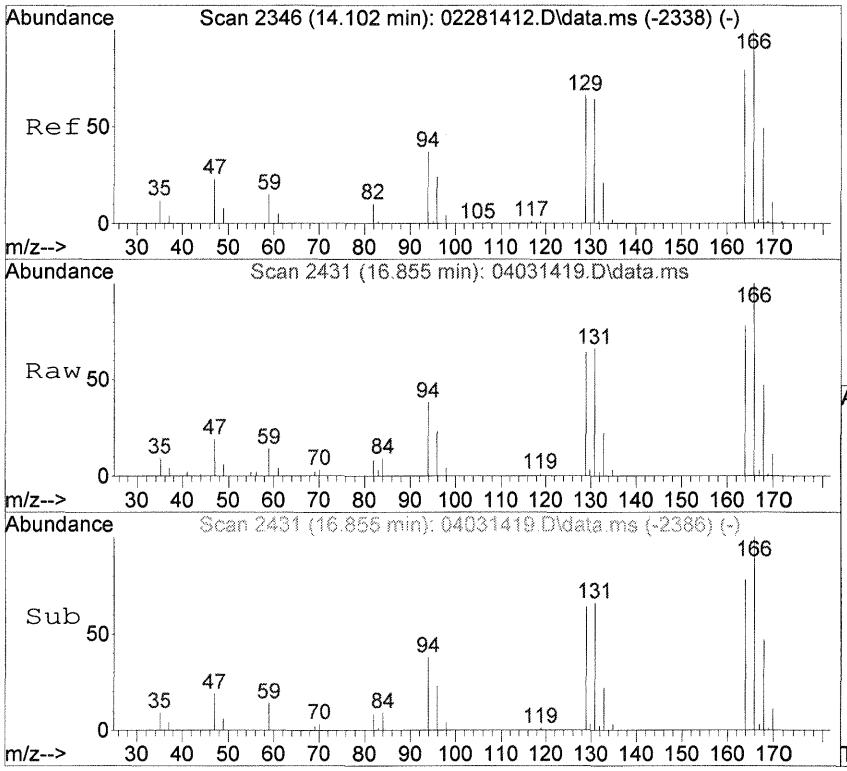


#62
n-Butyl Acetate
Concen: 0.84 ng
RT: 16.60 min Scan# 2384
Delta R.T. 0.005 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 43 Resp: 26897

Ion	Ratio	Lower	Upper
43	100		
56	42.8	19.9	59.9
73	12.8	0.0	34.1

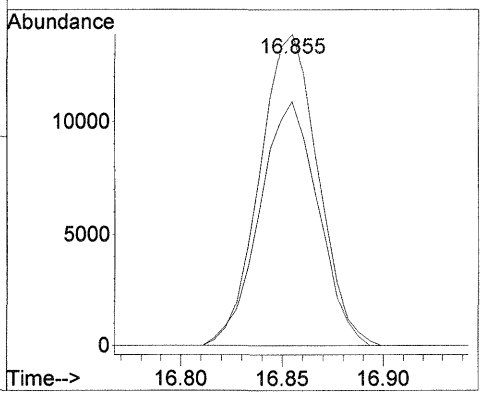


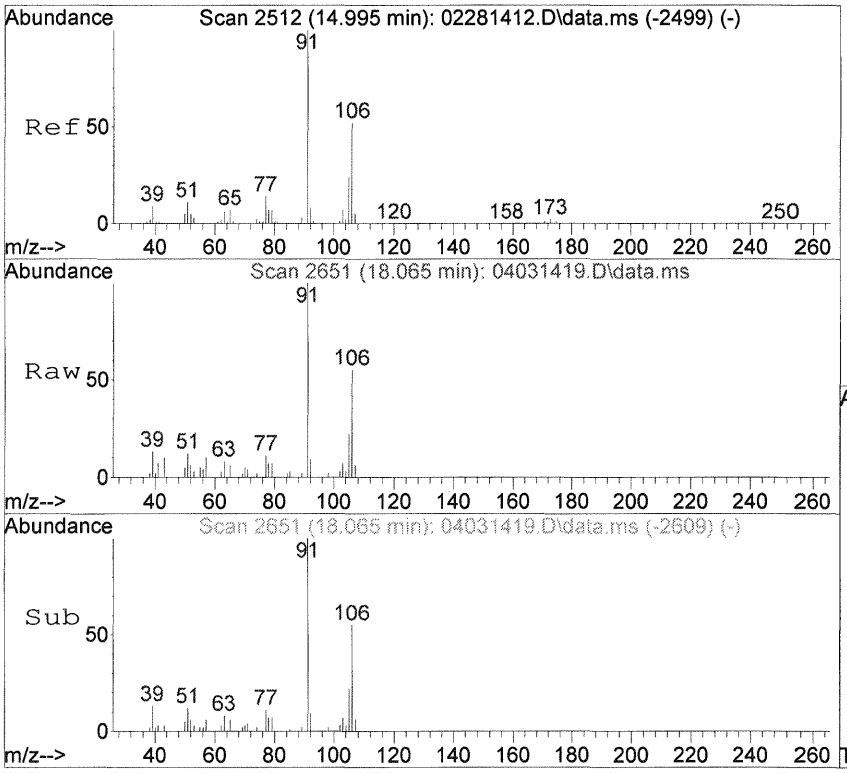


#64
Tetrachloroethene
Concen: 1.56 ng
RT: 16.85 min Scan# 2431
Delta R.T. -0.000 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion:166 Resp: 27800

Ion	Ratio	Lower	Upper
166	100		
164	78.8	57.8	97.8

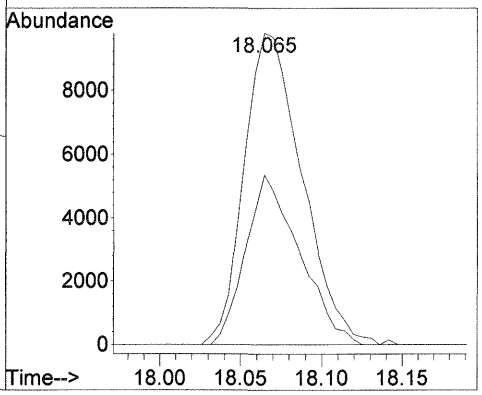


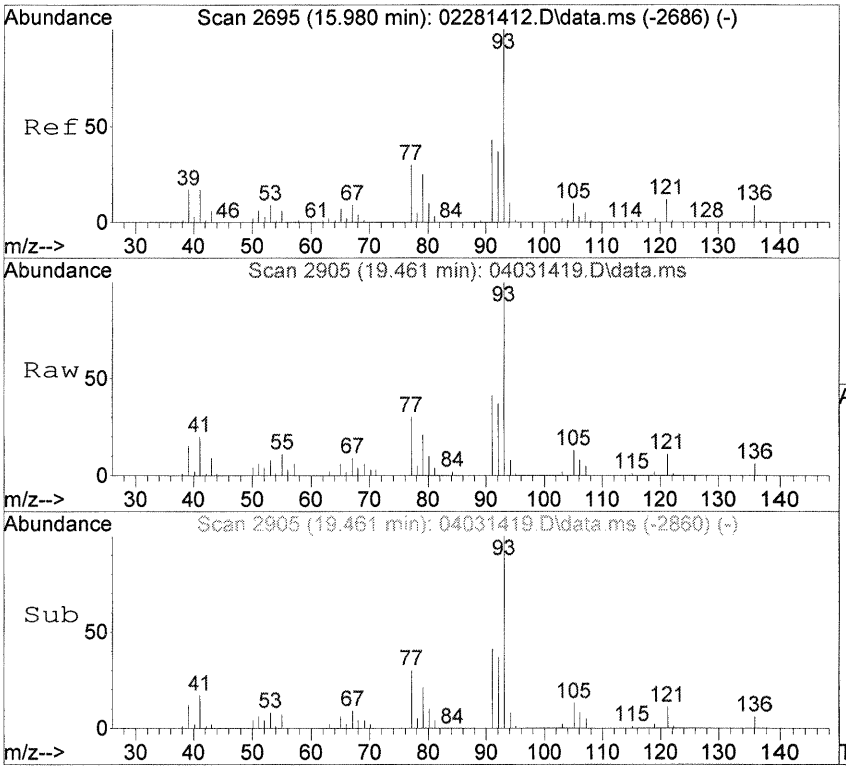


#67
m- & p-Xylenes
Concen: 0.47 ng
RT: 18.06 min Scan# 2651
Delta R.T. -0.017 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 91 Resp: 24342

Ion	Ratio	Lower	Upper
91	100		
106	50.7	29.6	69.6

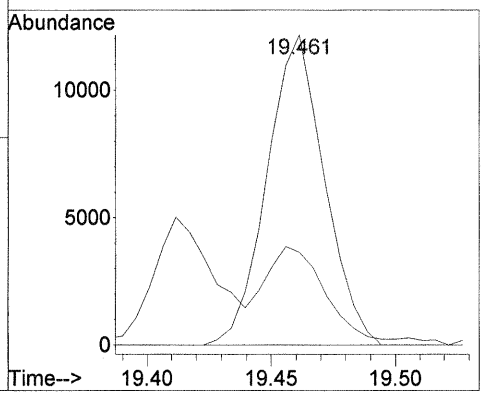


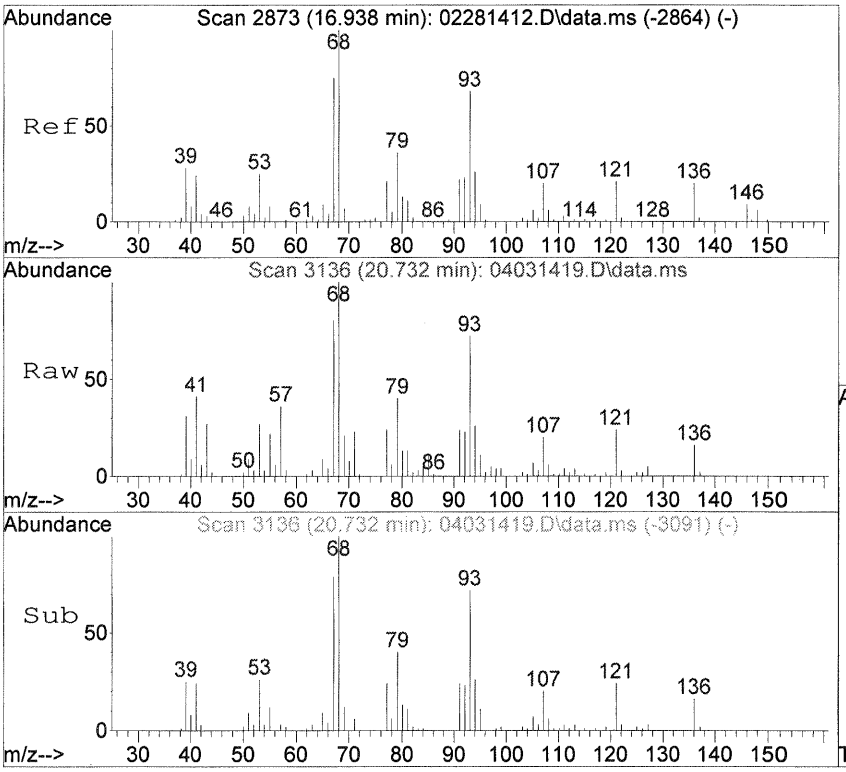


#75
alpha-Pinene
Concen: 0.60 ng
RT: 19.46 min Scan# 2905
Delta R.T. -0.000 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 93 Resp: 19565

Ion	Ratio	Lower	Upper
93	100		
77	34.1	9.1	49.1

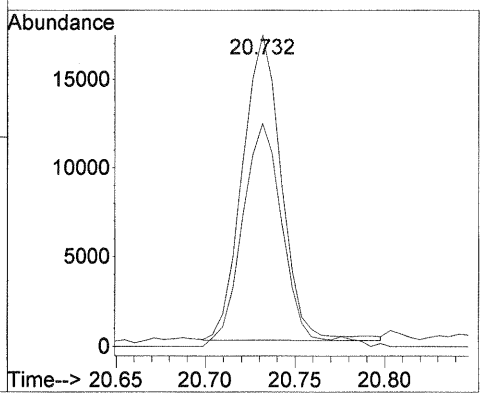




#91
d-Limonene
Concen: 1.32 ng
RT: 20.73 min Scan# 3136
Delta R.T. -0.000 min
Lab File: 04031419.D
Acq: 4 Apr 2014 00:40

Tgt Ion: 68 Resp: 26033

Ion	Ratio	Lower	Upper
68	100		
93	74.5	50.9	90.9



Response Factor Report GCMS13

Method Path : I:\MS13\METHODS\
Method File : R13112113.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Nov 22 07:17:55 2013
Response Via : Initial Calibration

EM 11/22/13

Calibration Files
0.08=11211321.D 0.10=11211322.D 0.20=11211323.D 0.40=11211324.D 1.0 =11211325.D 5.0 =11211326.D
25 =11211327.D 50 =11211328.D 100 =11211329.D

		Compound	0.08	0.10	0.20	0.40	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane...	----------	ISTD	----------								
2)	T	Propene	2.022	2.072	1.887	2.000	1.755	1.716	1.696	1.658	1.898	1.856	8.35
3)	T	Dichlorodifluo...	3.684	3.863	3.833	3.778	3.618	3.563	3.506	3.366	3.213	3.603	6.03
4)	T	Chloromethane	2.601	2.532	2.621	2.417	2.397	2.309	2.301	2.403	2.272	2.428	5.34
5)	T	1,2-Dichloro-1...	2.054	1.898	1.952	1.939	1.883	1.847	1.829	1.781	1.803	1.887	4.52
6)	T	Vinyl Chloride	2.272	2.643	2.324	2.286	2.244	2.264	2.270	2.238	2.271	2.312	5.46
7)	T	1,3-Butadiene	1.451	1.474	1.399	1.456	1.552	1.567	1.741	1.724	1.685	1.561	8.21
8)	T	Bromomethane			2.009	1.652	1.656	1.444	1.580	1.428	1.450	1.603	12.75
9)	T	Chloroethane	1.291	1.279	1.304	1.283	1.279	1.222	1.224	1.196	1.166	1.249	3.89
10)	T	Ethanol	1.184	1.210	1.231	1.161	1.034	1.022	1.172	1.115	1.060	1.132	6.85
11)	T	Acetonitrile	3.388	3.624	3.410	3.294	2.910	2.897	3.184	3.101	3.049	3.206	7.61
12)	T	Acrolein	1.008	1.061	1.040	1.129	0.921	0.978	1.019	0.974	0.936	1.007	6.40
13)	T	Acetone				1.900	1.193	1.177	1.144	1.062	0.985	1.244	26.61
14)	T	Trichlorofluor...	3.150	3.508	3.310	3.257	3.095	2.986	2.921	2.826	2.748	3.089	7.93
15)	T	2-Propanol (Is...	4.052	4.484	4.176	3.909	3.979	3.953	4.238	4.017	3.276	4.009	8.17
16)	T	Acrylonitrile	1.595	1.869	2.004	2.062	1.989	2.058	2.193	2.128	2.074	1.997	8.81
17)	T	1,1-Dichloroet...	1.628	1.701	1.718	1.628	1.590	1.554	1.579	1.520	1.473	1.599	4.98
18)	T	2-Methyl-2-Pro...	3.491	3.930	3.914	3.530	3.890	3.769	4.062	3.747	2.905	3.693	9.46
19)	T	Methylene Chlo...				2.061	1.811	1.673	1.672	1.622	1.556	1.732	10.47
20)	T	3-Chloro-1-pro...	1.925	1.973	1.855	2.085	2.025	2.132	2.320	2.258	2.175	2.083	7.40
21)	T	Trichlorotrifl...	1.371	1.610	1.721	1.537	1.513	1.475	1.469	1.421	1.387	1.501	7.45
22)	T	Carbon Disulfide				7.468	5.932	5.903	6.126	5.849	5.673	6.159	10.68
23)	T	trans-1,2-Dich...	2.259	2.261	2.176	2.329	2.200	2.277	2.310	2.234	2.169	2.246	2.51
24)	T	1,1-Dichloroet...	2.890	2.957	3.127	3.019	2.801	2.796	2.784	2.703	2.636	2.857	5.46
25)	T	Methyl tert-Bu...	4.450	4.936	4.935	4.985	4.648	4.628	4.646	4.498	4.307	4.670	5.10
26)	T	Vinyl Acetate				0.348	0.316	0.351	0.360	0.350	0.341	0.344	4.39
27)	T	2-Butanone (MEK)	1.177	1.048	1.252	1.156	1.022	1.005	1.023	0.989	0.965	1.071	9.27
28)	T	cis-1,2-Dichlo...	2.203	2.375	2.220	2.162	2.140	2.118	2.137	2.075	2.007	2.160	4.77
29)	T	Diisopropyl Ether	1.292	1.516	1.542	1.515	1.490	1.474	1.441	1.178	1.109	1.395	11.54
30)	T	Ethyl Acetate	0.403	0.476	0.533	0.562	0.550	0.554	0.536	0.518	0.488	0.513	9.85
31)	T	n-Hexane			2.891	2.806	2.454	2.365	2.058	2.026	1.951	2.364	16.01
32)	T	Chloroform	3.016	2.964	2.922	2.892	2.775	2.719	2.681	2.569	2.499	2.782	6.47
33)	S	1,2-Dichloroet...	1.391	1.390	1.406	1.418	1.393	1.418	1.375	1.383	1.384	1.395	1.10
34)	T	Tetrahydrofura...	0.893	0.974	0.962	1.062	0.996	0.993	1.024	0.989	0.965	0.984	4.70
35)	T	Ethyl tert-But...	1.705	1.868	1.803	1.786	1.869	1.833	1.846	1.786	1.734	1.803	3.18
36)	T	1,2-Dichloroet...	2.116	2.067	2.074	2.069	1.970	1.948	1.933	1.868	1.812	1.984	5.25
37)	IR	1,4-Difluorobenzen...	----------	ISTD	----------								
38)	T	1,1,1-Trichlor...	0.493	0.479	0.528	0.495	0.474	0.481	0.505	0.478	0.459	0.488	4.15

EM 11/22/13

Method Path : I:\MS13\METHODS\
Method File : R13112113.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

39)	T	Isopropyl Acetate	0.183	0.190	0.192	0.188	0.196	0.185	0.193	0.181	0.168	0.186	4.45
40)	T	1-Butanol			0.250	0.254	0.237	0.254	0.317	0.297	0.278	0.270	10.72
41)	T	Benzene	1.777	1.810	1.495	1.380	1.257	1.179	1.191	1.119	1.038	1.361	20.61
42)	T	Carbon Tetrach...	0.365	0.429	0.422	0.425	0.428	0.426	0.456	0.433	0.416	0.422	5.76
43)	T	Cyclohexane	0.496	0.527	0.496	0.501	0.478	0.469	0.477	0.447	0.422	0.479	6.48
44)	T	tert-Amyl Meth...	0.866	0.929	0.900	0.893	0.910	0.898	0.951	0.900	0.824	0.897	4.04
45)	T	1,2-Dichloropr...	0.329	0.355	0.322	0.336	0.320	0.304	0.316	0.303	0.291	0.320	6.00
46)	T	Bromodichlorom...	0.415	0.429	0.399	0.415	0.412	0.411	0.439	0.417	0.400	0.415	3.09
47)	T	Trichloroethene	0.472	0.477	0.421	0.399	0.357	0.344	0.357	0.343	0.335	0.389	14.34
48)	T	1,4-Dioxane	0.272	0.245	0.281	0.270	0.247	0.241	0.267	0.253	0.242	0.258	5.86
49)	T	2,2,4-Trimethy...	1.420	1.587	1.447	1.410	1.408	1.355	1.413	1.305	1.214	1.396	7.31
50)	T	Methyl Methacr...	0.108	0.105	0.123	0.123	0.130	0.129	0.135	0.130	0.124	0.123	8.12
51)	T	n-Heptane	0.279	0.333	0.337	0.318	0.302	0.285	0.281	0.272	0.258	0.296	9.40
52)	T	cis-1,3-Dichlo...	0.427	0.458	0.463	0.451	0.470	0.473	0.515	0.496	0.477	0.470	5.42
53)	T	4-Methyl-2-pen...	0.232	0.262	0.287	0.292	0.283	0.283	0.307	0.288	0.272	0.279	7.65
54)	T	trans-1,3-Dich...			0.382	0.409	0.392	0.422	0.477	0.462	0.443	0.427	8.30
55)	T	1,1,2-Trichlor...	0.301	0.321	0.328	0.312	0.316	0.300	0.321	0.306	0.295	0.311	3.63
56)	IR	Chlorobenzene-d5 (...	----------	----------	ISTD	----------	----------	----------	----------	----------	----------	----------	
57)	S	Toluene-d8 (SS2)	2.621	2.641	2.624	2.605	2.596	2.572	2.595	2.563	2.582	2.600	0.98
58)	T	Toluene	3.645	3.741	3.747	3.522	3.253	3.179	3.245	3.096	2.991	3.380	8.51
59)	T	2-Hexanone	1.646	1.652	1.766	1.805	1.753	1.729	1.831	1.730	1.630	1.727	4.14
60)	T	Dibromochlorom...	0.809	0.905	0.882	0.885	0.888	0.895	0.962	0.927	0.905	0.895	4.57
61)	T	1,2-Dibromoethane	0.769	0.862	0.823	0.898	0.859	0.850	0.923	0.881	0.859	0.858	5.13
62)	T	n-Butyl Acetate	1.638	1.772	1.864	1.949	1.905	1.902	2.085	1.953	1.846	1.879	6.65
63)	T	n-Octane	0.728	0.754	0.670	0.716	0.681	0.663	0.672	0.632	0.601	0.680	7.03
64)	T	Tetrachloroethene	1.115	1.051	1.076	1.068	1.041	1.003	1.041	1.002	0.994	1.043	3.82
65)	T	Chlorobenzene	2.410	2.410	2.307	2.297	2.168	2.065	2.161	2.057	2.001	2.209	6.96
66)	T	Ethylbenzene	4.250	4.077	3.870	3.796	3.639	3.541	3.744	3.524	3.339	3.753	7.59
67)	T	m- & p-Xylenes	3.327	3.217	3.144	3.018	2.951	2.871	3.009	2.832	2.677	3.005	6.72
68)	T	Bromoform		0.763	0.719	0.764	0.737	0.768	0.877	0.838	0.835	0.788	7.04
69)	T	Styrene	2.112	2.209	2.130	2.218	2.153	2.198	2.392	2.257	2.179	2.205	3.78
70)	T	o-Xylene	3.250	3.239	3.234	3.138	2.999	2.968	3.125	2.925	2.779	3.073	5.36
71)	T	n-Nonane	1.679	1.842	1.809	1.748	1.660	1.653	1.672	1.539	1.422	1.669	7.76
72)	T	1,1,2,2-Tetrac...	1.332	1.455	1.415	1.513	1.377	1.382	1.536	1.447	1.394	1.428	4.65
73)	S	Bromofluoroben...	1.071	1.074	1.073	1.069	1.081	1.070	1.093	1.082	1.062	1.075	0.85
74)	T	Cumene	4.021	4.267	4.155	4.076	3.946	3.875	4.063	3.795	3.570	3.974	5.23
75)	T	alpha-Pinene	1.856	1.938	1.900	1.938	1.896	1.911	2.028	1.909	1.831	1.912	2.92
76)	T	n-Propylbenzene	5.306	5.282	4.915	4.977	4.784	4.713	4.954	4.590	4.215	4.859	6.97
77)	T	3-Ethyltoluene	3.708	4.009	3.884	3.924	3.833	3.797	3.960	3.598	3.461	3.797	4.72
78)	T	4-Ethyltoluene	3.449	3.870	3.570	3.687	3.521	3.484	3.756	3.601	3.292	3.581	4.84
79)	T	1,3,5-Trimethy...	3.088	3.279	3.226	3.215	3.135	3.002	3.242	3.031	2.879	3.122	4.26
80)	T	alpha-Methylst...	1.574	1.505	1.469	1.547	1.584	1.642	1.866	1.760	1.701	1.627	7.87
81)	T	2-Ethyltoluene	3.644	3.753	3.894	3.725	3.646	3.564	3.825	3.560	3.333	3.660	4.55
82)	T	1,2,4-Trimethy...	3.107	3.346	3.176	3.254	3.108	3.082	3.351	3.134	2.942	3.167	4.17
83)	T	n-Decane	1.696	1.860	1.806	1.756	1.733	1.702	1.766	1.620	1.499	1.716	6.19
84)	T	Benzyl Chloride				1.848	1.807	2.185	2.815	2.679	2.567	2.317	18.70
85)	T	1,3-Dichlorobe...	1.930	1.851	1.880	1.923	1.767	1.765	1.984	1.863	1.812	1.864	4.00
86)	T	1,4-Dichlorobe...	2.057	2.057	1.946	1.976	1.823	1.801	2.032	1.931	1.872	1.944	4.97

Method Path : I:\MS13\METHODS\
Method File : R13112113.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

87)	T	sec-Butylbenzene	3.970	4.417	4.277	4.223	4.097	4.063	4.320	4.002	3.708	4.120	5.25
88)	T	4-Isopropyltol...	4.011	3.973	4.097	4.085	3.976	3.904	4.230	3.923	3.607	3.978	4.32
89)	T	1,2,3-Trimethy...	3.154	3.235	3.289	3.230	3.164	3.117	3.430	3.185	2.995	3.200	3.75
90)	T	1,2-Dichlorobe...	1.769	1.930	1.821	1.820	1.714	1.699	1.931	1.807	1.761	1.806	4.58
91)	T	d-Limonene	1.027	1.079	1.137	1.169	1.157	1.169	1.308	1.211	1.119	1.153	6.91
92)	T	1,2-Dibromo-3-...		0.580	0.559	0.593	0.511	0.566	0.739	0.698	0.691	0.617	13.14
93)	T	n-Undecane	1.682	1.790	1.785	1.841	1.749	1.808	1.912	1.754	1.622	1.771	4.79
94)	T	1,2,4-Trichlor...		1.391	1.384	1.406	1.107	1.134	1.539	1.468	1.461	1.361	11.53
95)	T	Naphthalene		3.749	3.995	4.260	3.246	3.455	5.025	4.670	4.284	4.085	14.68
96)	T	n-Dodecane		1.482	1.682	1.824	1.555	1.659	1.910	1.716	1.522	1.669	8.89
97)	T	Hexachlorobuta...	0.884	0.987	0.950	0.984	0.793	0.799	0.966	0.926	0.933	0.914	8.06
98)	T	Cyclohexanone	0.933	0.900	0.992	1.079	1.004	1.025	1.173	1.095	1.044	1.027	8.12
99)	T	tert-Butylbenzene	3.185	3.256	3.042	3.170	3.031	2.957	3.169	2.969	2.796	3.064	4.73
100)	T	n-Butylbenzene	3.044	3.167	3.194	3.308	3.119	3.164	3.487	3.234	3.006	3.192	4.50

(#) = Out of Range

EM 11/22/13

Primary Source Standards Concentrations
(Working & Initial Calibration)

EM 11/22/13

0.2ng/L Std. ID:
1ng/L Std. ID: S25-11191301
4ng/L Std. ID:
20ng/L Std. ID: S25-11181302
200ng/L Std. ID: S25-11181304

Dilution Factors:		5	50	250	1000	5000	Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source)												
	Source Std.	Primary Working Standards					Injection (L):	0.2	0.2	0.2	0.2	1	1	1	1	20	20	200	200	200
Compounds	mg/m³	200ng/L	20ng/L	4ng/L	1ng/L	0.2ng/L	ICAL Points:	0.025	0.050	0.100	0.250	0.080	0.100	0.200	0.400	0.050	0.25	0.125	0.25	0.50
								0.005ng	0.01ng	0.02ng	0.05ng	0.08ng	0.1ng	0.2ng	0.4ng	1ng	5ng	25ng	50ng	100ng
Propene	0.98	196	19.6	3.92	0.98	0.196		0.00490	0.0098	0.0196	0.0490	0.0784	0.098	0.196	0.392	0.98	4.90	24.50	49.0	98
Dichlorodifluoromethane	1.00	200	20.0	4.00	1.00	0.200		0.00500	0.0100	0.0200	0.0500	0.0800	0.100	0.200	0.400	1.00	5.00	25.00	50.0	100
Chloromethane	0.96	192	19.2	3.84	0.96	0.192		0.00480	0.0096	0.0192	0.0480	0.0768	0.096	0.192	0.384	0.96	4.80	24.00	48.0	96
Freon-114	1.00	200	20.0	4.00	1.00	0.200		0.00500	0.0100	0.0200	0.0500	0.0800	0.100	0.200	0.400	1.00	5.00	25.00	50.0	100
Vinyl Chloride	0.97	194	19.4	3.88	0.97	0.194		0.00485	0.0097	0.0194	0.0485	0.0776	0.097	0.194	0.388	0.97	4.85	24.25	48.5	97
1,3-Butadiene	1.18	236	23.6	4.72	1.18	0.236		0.00590	0.0118	0.0236	0.0590	0.0944	0.118	0.236	0.472	1.18	5.90	29.50	59.0	118
Bromomethane	0.97	194	19.4	3.88	0.97	0.194		0.00485	0.0097	0.0194	0.0485	0.0776	0.097	0.194	0.388	0.97	4.85	24.25	48.5	97
Chloroethane	0.97	194	19.4	3.88	0.97	0.194		0.00485	0.0097	0.0194	0.0485	0.0776	0.097	0.194	0.388	0.97	4.85	24.25	48.5	97
Ethanol	5.05	1010	101.0	20.20	5.05	1.010		0.02525	0.0505	0.1010	0.2525	0.4040	0.505	1.010	2.020	5.05	25.25	126.25	252.5	505
Acetonitrile	0.99	198	19.8	3.96	0.99	0.198		0.00495	0.0099	0.0198	0.0495	0.0792	0.099	0.198	0.396	0.99	4.95	24.75	49.5	99
Acrolein	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
Acetone	5.29	1058	105.8	21.16	5.29	1.058		0.02645	0.0529	0.1058	0.2645	0.4232	0.529	1.058	2.116	5.29	26.45	132.25	264.5	529
Trichlorofluoromethane	0.99	198	19.8	3.96	0.99	0.198		0.00495	0.0099	0.0198	0.0495	0.0792	0.099	0.198	0.396	0.99	4.95	24.75	49.5	99
Isopropanol	2.09	418	41.8	8.36	2.09	0.418		0.01045	0.0209	0.0418	0.1045	0.1672	0.209	0.418	0.836	2.09	10.45	52.25	104.5	209
Acrylonitrile	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
1,1-Dichloroethene	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
tert-Butanol	2.08	416	41.6	8.32	2.08	0.416		0.01040	0.0208	0.0416	0.1040	0.1664	0.208	0.416	0.832	2.08	10.40	52.00	104.0	208
Methylene Chloride	1.01	202	20.2	4.04	1.01	0.202		0.00505	0.0101	0.0202	0.0505	0.0808	0.101	0.202	0.404	1.01	5.05	25.25	50.5	101
Allyl Chloride	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
Trichlorotrifluoroethane	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
Carbon Disulfide	0.98	196	19.6	3.92	0.98	0.196		0.00490	0.0098	0.0196	0.0490	0.0784	0.098	0.196	0.392	0.98	4.90	24.50	49.0	98
trans-1,2-Dichloroethene	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
1,1-Dichloroethane	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
Methyl tert-Butyl Ether	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
Vinyl Acetate	5.10	1020	102.0	20.40	5.10	1.020		0.02550	0.0510	0.1020	0.2550	0.4080	0.510	1.020	2.040	5.10	25.50	127.50	255.0	510
2-Butanone	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
cis-1,2-Dichloroethene	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
Diisopropyl Ether	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
Ethyl Acetate	2.09	418	41.8	8.36	2.09	0.418		0.01045	0.0209	0.0418	0.1045	0.1672	0.209	0.418	0.836	2.09	10.45	52.25	104.5	209
n-Hexane	1.03	206	20.6	4.12	1.03	0.206		0.00515	0.0103	0.0206	0.0515	0.0824	0.103	0.206	0.412	1.03	5.15	25.75	51.5	103
Chloroform	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
Tetrahydrofuran	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
Ethyl tert-Butyl Ether	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
1,2-Dichloroethane	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
1,1,1-Trichloroethane	1.03	206	20.6	4.12	1.03	0.206		0.00515	0.0103	0.0206	0.0515	0.0824	0.103	0.206	0.412	1.03	5.15	25.75	51.5	103
Isopropyl Acetate	2.18	436	43.6	8.72	2.18	0.436		0.01090	0.0218	0.0436	0.1090	0.1744	0.218	0.436	0.872	2.18	10.90	54.50	109.0	218
1-Butanol	2.19	438	43.8	8.76	2.19	0.438		0.01095	0.0219	0.0438	0.1095	0.1752	0.219	0.438	0.876	2.19	10.95	54.75	109.5	219
Benzene	1.10	220	22.0	4.40	1.10	0.220		0.00550	0.0110	0.0220	0.0550	0.0880	0.110	0.220	0.440	1.10	5.50	27.50	55.0	110
Carbon Tetrachloride	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
Cyclohexane	2.06	412	41.2	8.24	2.06	0.412		0.01030	0.0206	0.0412	0.1030	0.1648	0.206	0.412	0.824	2.06	10.30	51.50	103.0	206
tert-Amyl Methyl Ether	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
1,2-Dichloropropane	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
Bromodichloromethane	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
Trichloroethene	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
1,4-Dioxane	1.09	218	21.8	4.36	1.09	0.218		0.00545	0.0109	0.0218	0.0545	0.0872	0.109	0.218	0.436	1.09	5.45	27.25	54.5	109
Isooctane	1.03	206	20.6	4.12	1.03	0.206		0.00515	0.0103	0.0206	0.0515	0.0824	0.103	0.206	0.412	1.03	5.15	25.75	51.5	103
Methyl Methacrylate	2.08	416	41.6	8.32	2.08	0.416		0.01040	0.0208	0.0416	0.1040	0.1664	0.208	0.416	0.832	2.08	10.40	52.00	104.0	208

Primary Source Standards Concentrations
(Working & Initial Calibration)

EM 11/22/13

0.2ng/L Std. ID:
1ng/L Std. ID: S25-11191301
4ng/L Std. ID:
20ng/L Std. ID: S25-11181302
200ng/L Std. ID: S25-11181304

Dilution Factors:		5	50	250	1000	5000	Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source)												
								0.2	0.2	0.2	0.2	1	1	1	1	20	20	200	200	200
	Source Std.	Primary Working Standards					Injection (L):	0.025	0.050	0.100	0.250	0.080	0.100	0.200	0.400	0.050	0.25	0.125	0.25	0.50
Compounds	mg/m³	200ng/L	20ng/L	4ng/L	1ng/L	0.2ng/L	ICAL Points:	0.005ng	0.01ng	0.02ng	0.05ng	0.08ng	0.1ng	0.2ng	0.4ng	1ng	5ng	25ng	50ng	100ng
n-Heptane	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
cis-1,3-Dichloropropene	1.02	204	20.4	4.08	1.02	0.204		0.00510	0.0102	0.0204	0.0510	0.0816	0.102	0.204	0.408	1.02	5.10	25.50	51.0	102
4-Methyl-2-pentanone	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
trans-1,3-Dichloropropene	1.03	206	20.6	4.12	1.03	0.206		0.00515	0.0103	0.0206	0.0515	0.0824	0.103	0.206	0.412	1.03	5.15	25.75	51.5	103
1,1,2-Trichloroethane	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
Toluene	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
2-Hexanone	1.11	222	22.2	4.44	1.11	0.222		0.00555	0.0111	0.0222	0.0555	0.0888	0.111	0.222	0.444	1.11	5.55	27.75	55.5	111
Dibromochloromethane	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
1,2-Dibromoethane	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
n-Butyl Acetate	1.12	224	22.4	4.48	1.12	0.224		0.00560	0.0112	0.0224	0.0560	0.0896	0.112	0.224	0.448	1.12	5.60	28.00	56.0	112
n-Octane	1.03	206	20.6	4.12	1.03	0.206		0.00515	0.0103	0.0206	0.0515	0.0824	0.103	0.206	0.412	1.03	5.15	25.75	51.5	103
Tetrachloroethene	0.98	196	19.6	3.92	0.98	0.196		0.00490	0.0098	0.0196	0.0490	0.0784	0.098	0.196	0.392	0.98	4.90	24.50	49.0	98
Chlorobenzene	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
Ethylbenzene	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
m-&p-Xylene	2.10	420	42.0	8.40	2.10	0.420		0.01050	0.0210	0.0420	0.1050	0.1680	0.210	0.420	0.840	2.10	10.50	52.50	105.0	210
Bromoform	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
Styrene	1.09	218	21.8	4.36	1.09	0.218		0.00545	0.0109	0.0218	0.0545	0.0872	0.109	0.218	0.436	1.09	5.45	27.25	54.5	109
o-Xylene	1.03	206	20.6	4.12	1.03	0.206		0.00515	0.0103	0.0206	0.0515	0.0824	0.103	0.206	0.412	1.03	5.15	25.75	51.5	103
n-Nonane	1.02	204	20.4	4.08	1.02	0.204		0.00510	0.0102	0.0204	0.0510	0.0816	0.102	0.204	0.408	1.02	5.10	25.50	51.0	102
1,1,2,2-Tetrachloroethane	1.01	202	20.2	4.04	1.01	0.202		0.00505	0.0101	0.0202	0.0505	0.0808	0.101	0.202	0.404	1.01	5.05	25.25	50.5	101
Cumene	1.01	202	20.2	4.04	1.01	0.202		0.00505	0.0101	0.0202	0.0505	0.0808	0.101	0.202	0.404	1.01	5.05	25.25	50.5	101
alpha-Pinene	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
n-Propylbenzene	1.00	200	20.0	4.00	1.00	0.200		0.00500	0.0100	0.0200	0.0500	0.0800	0.100	0.200	0.400	1.00	5.00	25.00	50.0	100
3-Ethyltoluene	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
4-Ethyltoluene	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
1,3,5-Trimethylbenzene	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
alpha-Methylstyrene	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
2-Ethyltoluene	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
1,2,4-Trimethylbenzene	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
n-Decane	1.02	204	20.4	4.08	1.02	0.204		0.00510	0.0102	0.0204	0.0510	0.0816	0.102	0.204	0.408	1.02	5.10	25.50	51.0	102
Benzyl Chloride	1.10	220	22.0	4.40	1.10	0.220		0.00550	0.0110	0.0220	0.0550	0.0880	0.110	0.220	0.440	1.10	5.50	27.50	55.0	110
1,3-Dichlorobenzene	1.10	220	22.0	4.40	1.10	0.220		0.00550	0.0110	0.0220	0.0550	0.0880	0.110	0.220	0.440	1.10	5.50	27.50	55.0	110
1,4-Dichlorobenzene	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
sec-Butylbenzene	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
p-Isopropyltoluene	1.02	204	20.4	4.08	1.02	0.204		0.00510	0.0102	0.0204	0.0510	0.0816	0.102	0.204	0.408	1.02	5.10	25.50	51.0	102
1,2,3-Trimethylbenzene	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
1,2-Dichlorobenzene	1.08	216	21.6	4.32	1.08	0.216		0.00540	0.0108	0.0216	0.0540	0.0864	0.108	0.216	0.432	1.08	5.40	27.00	54.0	108
d-Limonene	1.05	210	21.0	4.20	1.05	0.210		0.00525	0.0105	0.0210	0.0525	0.0840	0.105	0.210	0.420	1.05	5.25	26.25	52.5	105
1,2-Dibromo-3-chloropropane	1.06	212	21.2	4.24	1.06	0.212		0.00530	0.0106	0.0212	0.0530	0.0848	0.106	0.212	0.424	1.06	5.30	26.50	53.0	106
n-Undecane	1.01	202	20.2	4.04	1.01	0.202		0.00505	0.0101	0.0202	0.0505	0.0808	0.101	0.202	0.404	1.01	5.05	25.25	50.5	101
1,2,4-Trichlorobenzene	1.09	218	21.8	4.36	1.09	0.218		0.00545	0.0109	0.0218	0.0545	0.0872	0.109	0.218	0.436	1.09	5.45	27.25	54.5	109
Naphthalene	1.02	204	20.4	4.08	1.02	0.204		0.00510	0.0102	0.0204	0.0510	0.0816	0.102	0.204	0.408	1.02	5.10	25.50	51.0	102
n-Dodecane	1.04	208	20.8	4.16	1.04	0.208		0.00520	0.0104	0.0208	0.0520	0.0832	0.104	0.208	0.416	1.04	5.20	26.00	52.0	104
Hexachloro-1,3-butadiene	1.09	218	21.8	4.36	1.09	0.218		0.00545	0.0109	0.0218	0.0545	0.0872	0.109	0.218	0.436	1.09	5.45	27.25	54.5	109
Methacrylonitrile	1.01	202	20.2	4.04	1.01	0.202		0.00505	0.0101	0.0202	0.0505	0.0808	0.101	0.202	0.404	1.01	5.05	25.25	50.5	101
Cyclohexanone	1.12	224	22.4	4.48	1.12	0.224		0.00560	0.0112	0.0224	0.0560	0.0896	0.112	0.224	0.448	1.12	5.60	28.00	56.0	112
tert-Butylbenzene	1.07	214	21.4	4.28	1.07	0.214		0.00535	0.0107	0.0214	0.0535	0.0856	0.107	0.214	0.428	1.07	5.35	26.75	53.5	107
n-Butylbenzene	1.10	220	22.0	4.40	1.10	0.220		0.00550	0.0110	0.0220	0.0550	0.0880	0.110	0.220	0.440	1.10	5.50	27.50	55.0	110

Method : I:\MS13\METHODS\R13112113.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Nov 22 07:17:55 2013
Response via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.08	0	13	I:\MS13\DATA\2013_11\21\11211321.D
2	0.10	0	13	I:\MS13\DATA\2013_11\21\11211322.D
3	0.20	0	13	I:\MS13\DATA\2013_11\21\11211323.D
4	0.40	0	13	I:\MS13\DATA\2013_11\21\11211324.D
5	1.0	1	13	I:\MS13\DATA\2013_11\21\11211325.D
6	5.0	5	13	I:\MS13\DATA\2013_11\21\11211326.D
7	25	25	13	I:\MS13\DATA\2013_11\21\11211327.D
8	50	49	13	I:\MS13\DATA\2013_11\21\11211328.D
9	100	98	13	I:\MS13\DATA\2013_11\21\11211329.D

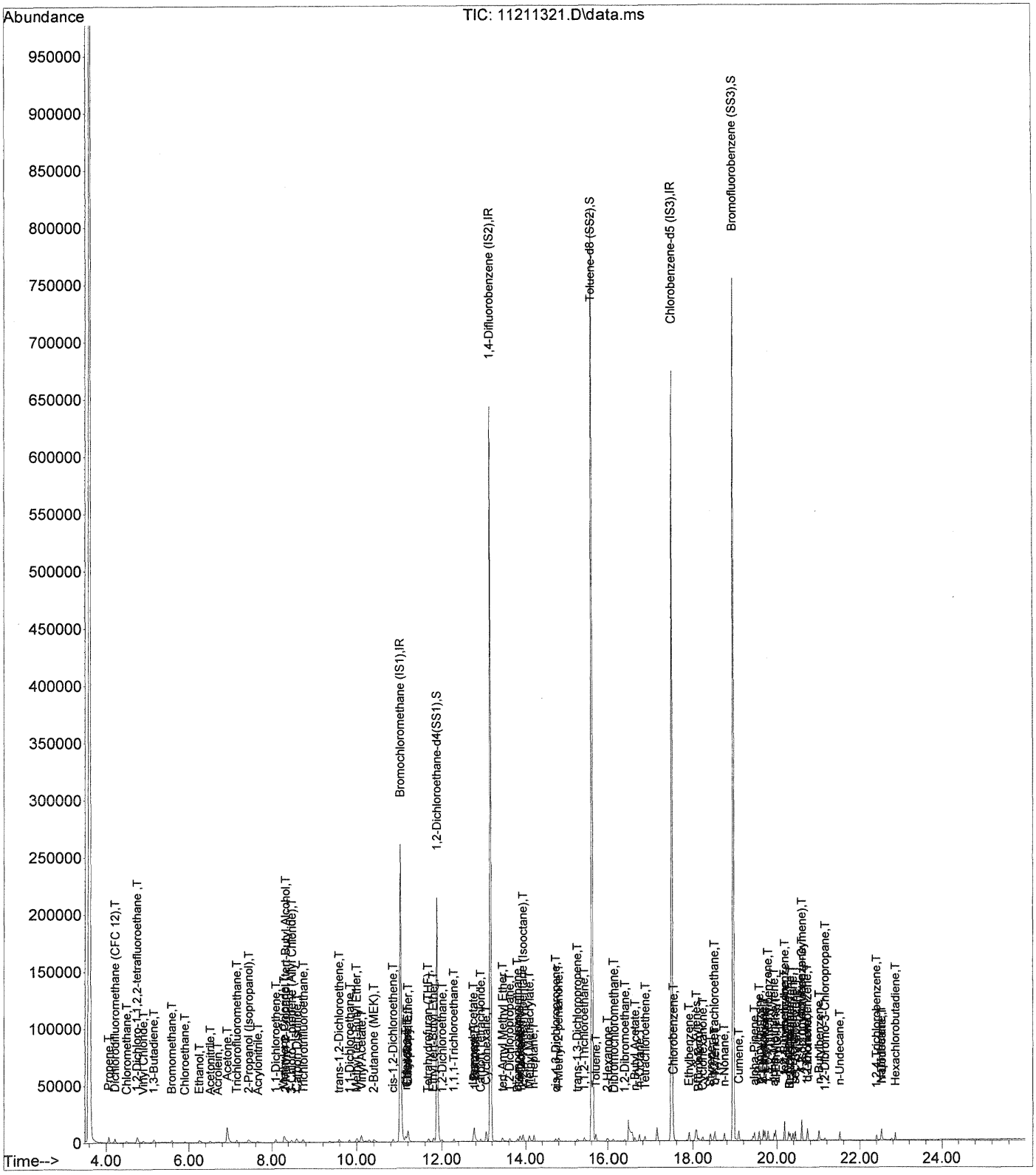
#	ID	Update Time	Quant Time	Acquisition Time
1	0.08	Nov 22 07:08 2013	Nov 22 06:51 2013	21 Nov 2013 22:58
2	0.10	Nov 22 07:08 2013	Nov 22 06:54 2013	21 Nov 2013 23:33
3	0.20	Nov 22 07:16 2013	Nov 22 06:55 2013	22 Nov 2013 00:08
4	0.40	Nov 22 07:17 2013	Nov 22 06:56 2013	22 Nov 2013 00:42
5	1.0	Nov 22 07:17 2013	Nov 22 06:59 2013	22 Nov 2013 1:17
6	5.0	Nov 22 07:17 2013	Nov 22 07:00 2013	22 Nov 2013 1:51
7	25	Nov 22 07:17 2013	Nov 22 06:45 2013	22 Nov 2013 2:26
8	50	Nov 22 07:17 2013	Nov 22 07:03 2013	22 Nov 2013 3:01
9	100	Nov 22 07:17 2013	Nov 22 07:05 2013	22 Nov 2013 3:37

R13112113.M Fri Nov 22 07:51:02 2013

EM 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:03 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:03 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	124057	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	620684	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	241606	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	172553	14.362	ng		-0.01
Spiked Amount 12.500			Recovery = 114.88%				
57) Toluene-d8 (SS2)	15.61	98	633249	11.926	ng		0.00
Spiked Amount 12.500			Recovery = 95.44%				
73) Bromofluorobenzene (SS3)	18.95	174	258766	10.342	ng		0.00
Spiked Amount 12.500			Recovery = 82.72%				
Target Compounds							Qvalue
2) Propene	4.06	42	1573	0.126	ng		92
3) Dichlorodifluoromethan...	4.20	85	2925	0.096	ng		92
4) Chloromethane	4.48	50	2024	0.105	ng		89
5) 1,2-Dichloro-1,1,2,2-t...	4.73	135	1631	0.086	ng		69
6) Vinyl Chloride	4.89	62	1750	0.086	ng		95
7) 1,3-Butadiene	5.15	54	1359	0.103	ng		95
8) Bromomethane	5.58	94	1843	0.122	ng	#	61
9) Chloroethane	5.90	64	994	0.093	ng	#	52
10) Ethanol	6.25	45	4746	0.525	ng	#	58
11) Acetonitrile	6.52	41	2663	0.113	ng		92
12) Acrolein	6.70	56	840	0.109	ng		81
13) Acetone	6.92	58	8333	0.867	ng	#	81
14) Trichlorofluoromethane	7.15	101	2476	0.091	ng	#	74
15) 2-Propanol (Isopropanol)	7.43	45	6724	0.223	ng		72
16) Acrylonitrile	7.66	53	1317	0.083	ng		99
17) 1,1-Dichloroethene	8.10	96	1370	0.097	ng		97
18) 2-Methyl-2-Propanol (t...	8.33	59	5765	0.190	ng	#	63
19) Methylene Chloride	8.30	84	3028	0.197	ng		96
20) 3-Chloro-1-propene (Al...	8.47	41	1651	0.109	ng		86
21) Trichlorotrifluoroethane	8.75	151	1176m	0.076	ng		
22) Carbon Disulfide	8.59	76	6467	0.123	ng		98
23) trans-1,2-Dichloroethene	9.59	61	1865	0.102	ng		92
24) 1,1-Dichloroethane	9.84	63	2386	0.100	ng		94
25) Methyl tert-Butyl Ether	10.00	73	3710	0.091	ng		73
26) Vinyl Acetate	10.12	86	891m	0.315	ng		
27) 2-Butanone (MEK)	10.41	72	1000m	0.123	ng		
28) cis-1,2-Dichloroethene	10.85	61	1889	0.108	ng		88
29) Diisopropyl Ether	11.20	87	1098	0.087	ng	#	79
30) Ethyl Acetate	11.19	61	669	0.158	ng		89
31) n-Hexane	11.15	57	2337	0.129	ng	#	93
32) Chloroform	11.19	83	2538	0.108	ng		94
34) Tetrahydrofuran (THF)	11.67	72	759m	0.090	ng		
35) Ethyl tert-Butyl Ether	11.79	87	1421	0.086	ng	#	88
36) 1,2-Dichloroethane	12.01	62	1764	0.106	ng		78
38) 1,1,1-Trichloroethane	12.28	97	2017	0.093	ng		96
39) Isopropyl Acetate	12.75	61	1582m	0.211	ng		
40) 1-Butanol	12.79	56	1609	0.160	ng	#	46
41) Benzene	12.76	78	7766	0.134	ng		89
42) Carbon Tetrachloride	12.92	117	1506	0.078	ng		95
43) Cyclohexane	13.06	84	4056	0.189	ng		99
44) tert-Amyl Methyl Ether	13.45	73	3576m	0.092	ng		
45) 1,2-Dichloropropane	13.62	63	1387	0.106	ng		93
46) Bromodichloromethane	13.81	83	1762	0.099	ng		100

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

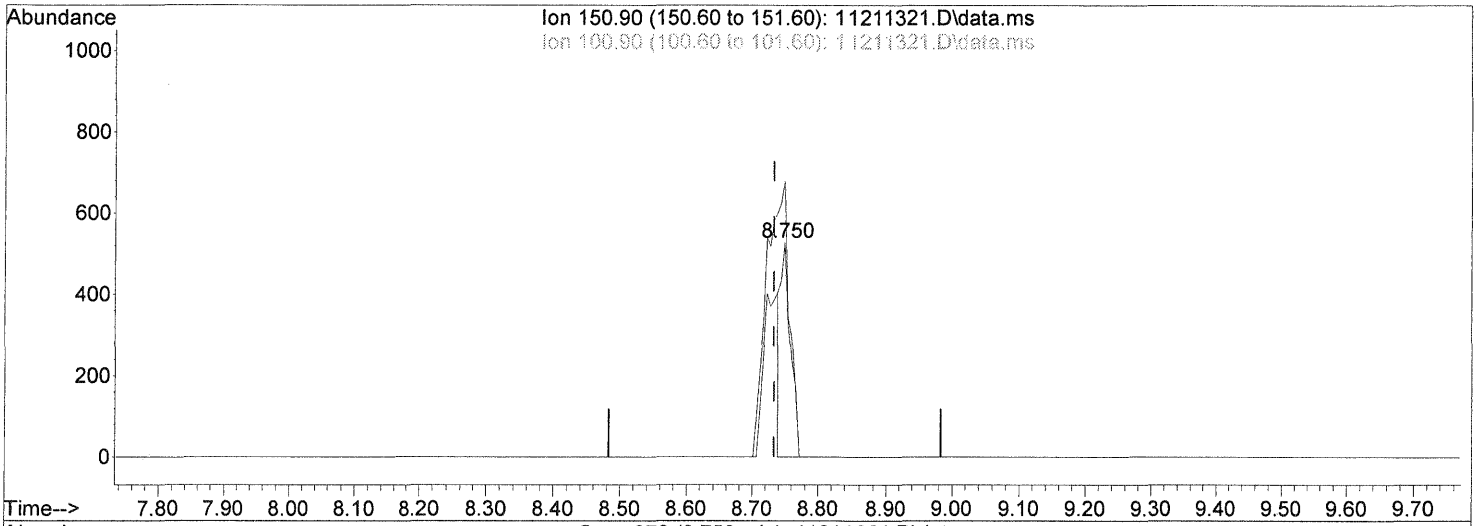
Quant Time: Nov 22 06:51:03 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

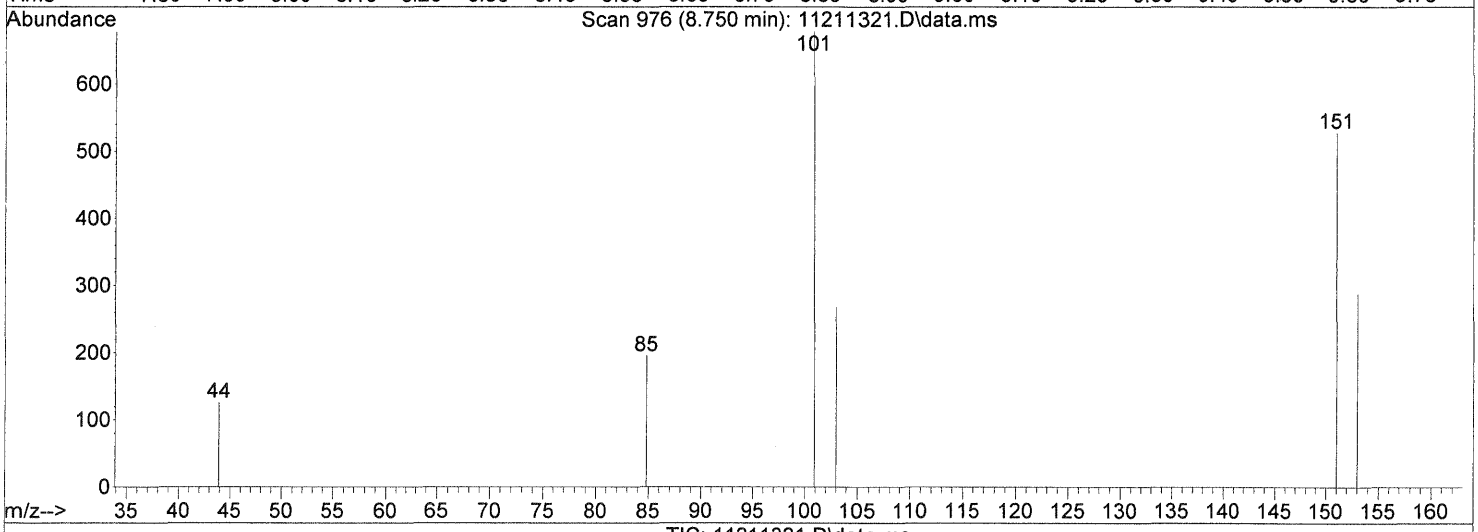
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) Trichloroethene	13.86	130	1948	0.109	ng		96
48) 1,4-Dioxane	13.89	88	1179m	0.107	ng		
49) 2,2,4-Trimethylpentane...	13.94	57	5808	0.105	ng		98
50) Methyl Methacrylate	14.09	100	894	0.152	ng	#	87
51) n-Heptane	14.20	71	1164	0.092	ng		83
52) cis-1,3-Dichloropropene	14.74	75	1730	0.085	ng		93
53) 4-Methyl-2-pentanone	14.81	58	988	0.092	ng	#	77
54) trans-1,3-Dichloropropene	15.26	75	1393	0.079	ng		92
55) 1,1,2-Trichloroethane	15.43	97	1267	0.089	ng		98
58) Toluene	15.72	91	5974	0.092	ng		99
59) 2-Hexanone	16.00	43	2825	0.116	ng		90
60) Dibromochloromethane	16.13	129	1351	0.077	ng		96
61) 1,2-Dibromoethane	16.37	107	1273	0.075	ng		83
62) n-Butyl Acetate	16.62	43	2836	0.106	ng		93
63) n-Octane	16.72	57	1160	0.101	ng		96
64) Tetrachloroethene	16.86	166	1690	0.072	ng		96
65) Chlorobenzene	17.53	112	4025	0.090	ng		98
66) Ethylbenzene	17.91	91	7032	0.100	ng		93
67) m- & p-Xylenes	18.08	91	10802	0.189	ng		91
68) Bromoform	18.14	173	1025	0.063	ng		95
69) Styrene	18.42	104	3559	0.081	ng		98
70) o-Xylene	18.53	91	5176	0.088	ng		92
71) n-Nonane	18.74	43	2648	0.104	ng		98
72) 1,1,2,2-Tetrachloroethane	18.51	83	2081	0.079	ng		96
74) Cumene	19.09	105	6280	0.080	ng		94
75) alpha-Pinene	19.46	93	2984	0.081	ng		66
76) n-Propylbenzene	19.57	91	8204	0.091	ng		94
77) 3-Ethyltoluene	19.67	105	6020	0.080	ng		100
78) 4-Ethyltoluene	19.71	105	5600	0.078	ng		100
79) 1,3,5-Trimethylbenzene	19.78	105	5061	0.080	ng		100
80) alpha-Methylstyrene	19.93	118	2531	0.074	ng		90
81) 2-Ethyltoluene	19.97	105	5917	0.080	ng		97
82) 1,2,4-Trimethylbenzene	20.18	105	5044	0.080	ng		99
83) n-Decane	20.28	57	2675	0.092	ng		92
84) Benzyl Chloride	20.31	91	2367	0.056	ng		94
85) 1,3-Dichlorobenzene	20.32	146	3282	0.080	ng		100
86) 1,4-Dichlorobenzene	20.39	146	3372	0.080	ng		94
87) sec-Butylbenzene	20.44	105	6568	0.080	ng		98
88) 4-Isopropyltoluene (p-...	20.59	119	6326	0.078	ng		97
89) 1,2,3-Trimethylbenzene	20.59	105	5218	0.082	ng		96
90) 1,2-Dichlorobenzene	20.72	146	2955	0.075	ng		98
91) d-Limonene	20.73	68	1667	0.082	ng		94
92) 1,2-Dibromo-3-Chloropr...	21.15	157	699	0.051	ng		85
93) n-Undecane	21.51	57	2627	0.087	ng		92
94) 1,2,4-Trichlorobenzene	22.40	180	2131	0.065	ng		97
95) Naphthalene	22.52	128	5469	0.057	ng		88
96) n-Dodecane	22.53	57	2202	0.078	ng		97
97) Hexachlorobutadiene	22.87	225	1490	0.065	ng		92
98) Cyclohexanone	18.24	55	1616	0.097	ng	#	48
99) tert-Butylbenzene	20.18	119	5269	0.084	ng		96
100) n-Butylbenzene	21.01	91	5178	0.084	ng		97

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

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(21) Trichlorotrifluoroethane (T)

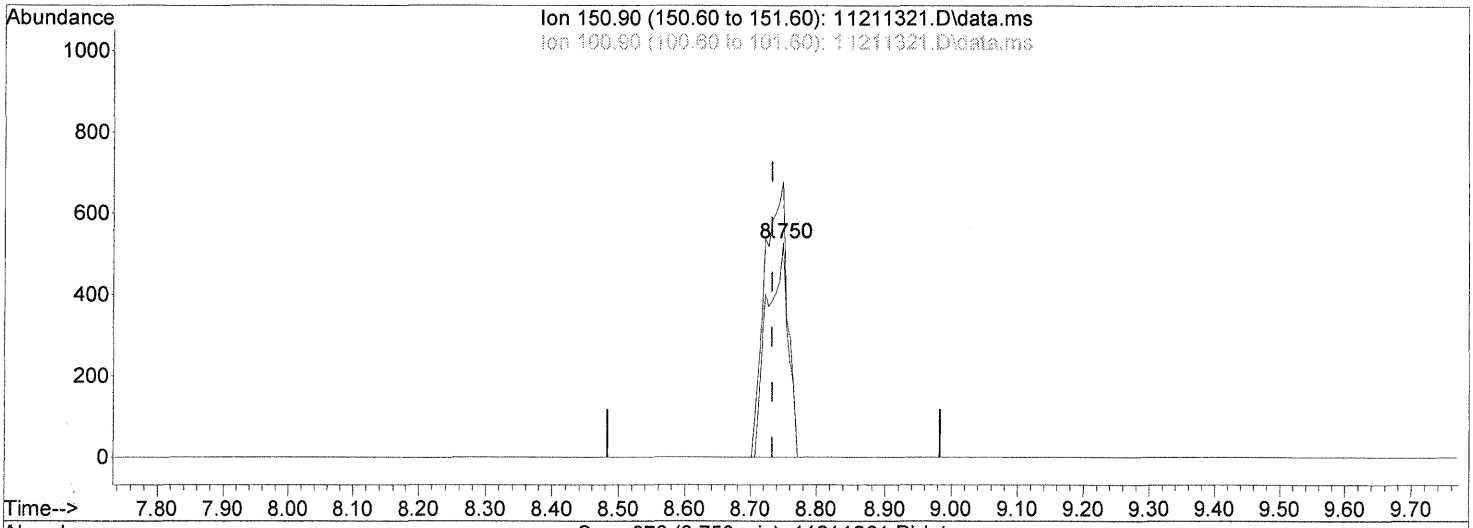
8.750min (+0.016) 0.04ng

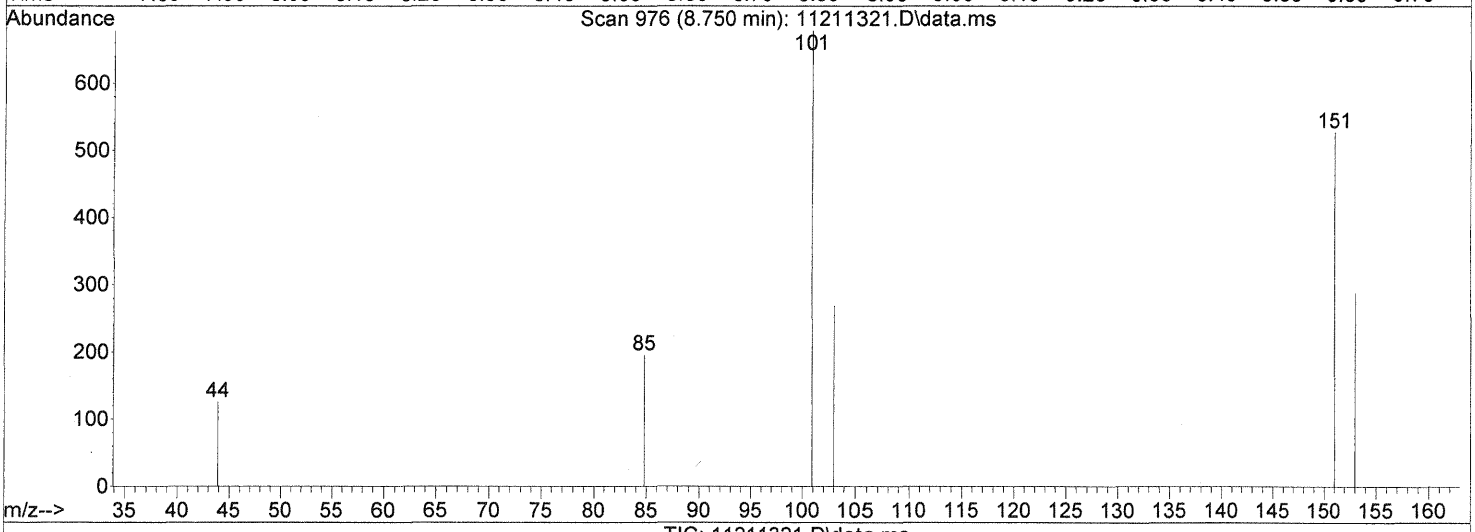
response 547

Ion	Exp%	Act%
150.90	100	100
100.90	114.70	295.06#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(21) Trichlorotrifluoroethane (T)

8.750min (+0.016) 0.08ng m

response 1176

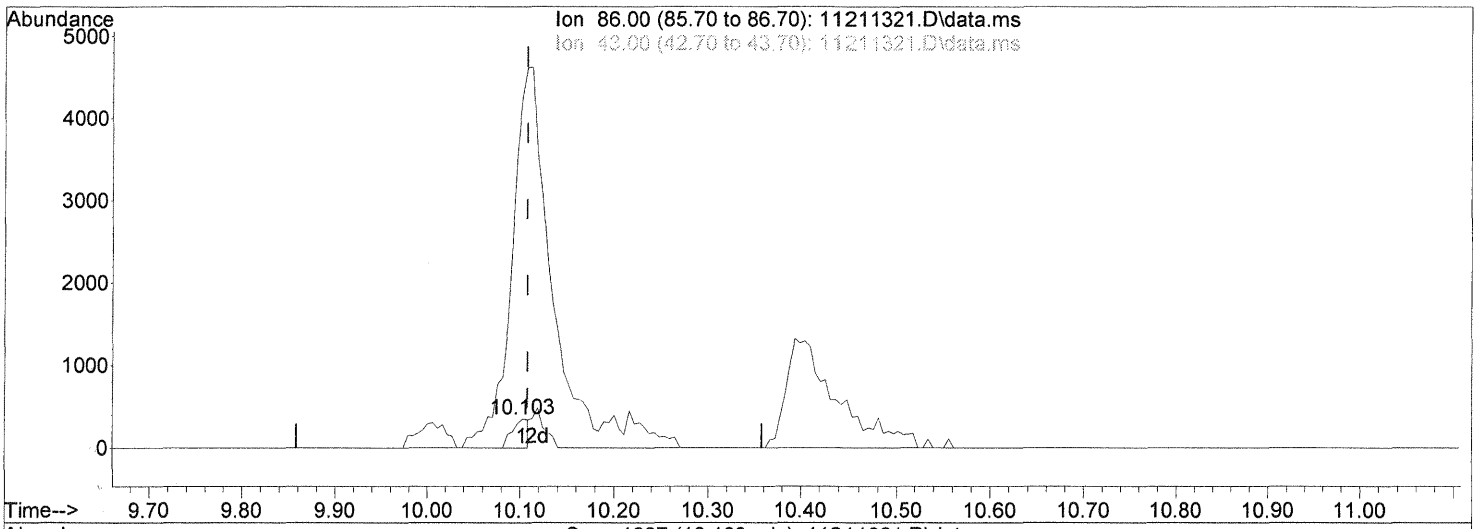
Ion	Exp%	Act%
150.90	100	100
100.90	114.70	137.24#
0.00	0.00	0.00
0.00	0.00	0.00

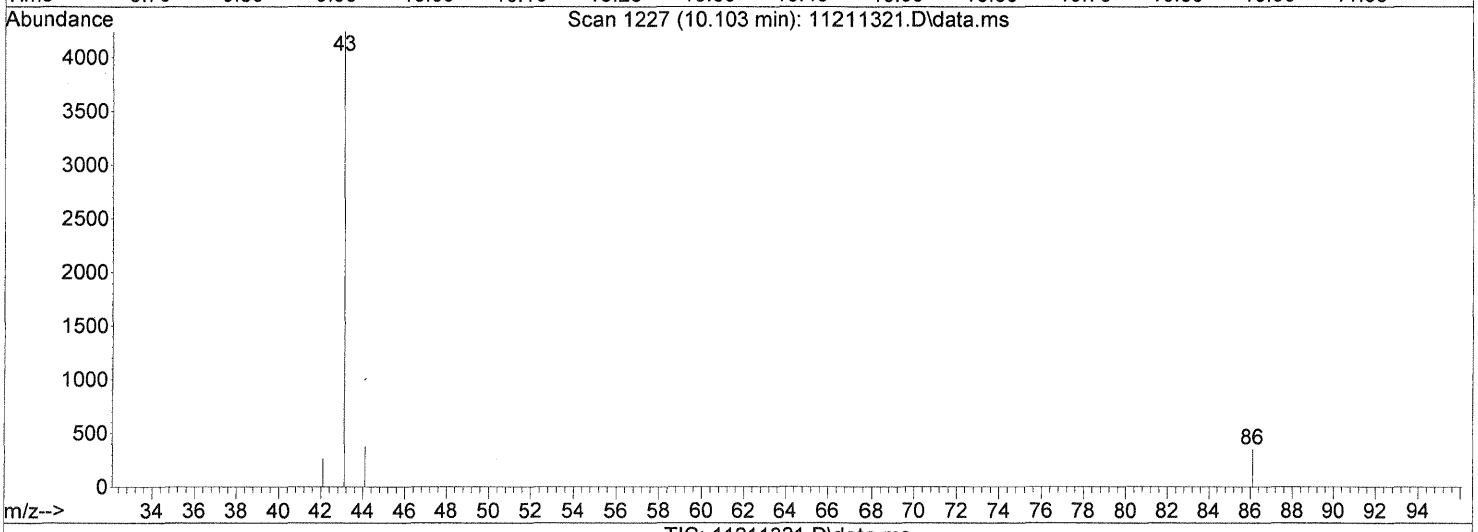
SP
CM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(26) Vinyl Acetate (T)

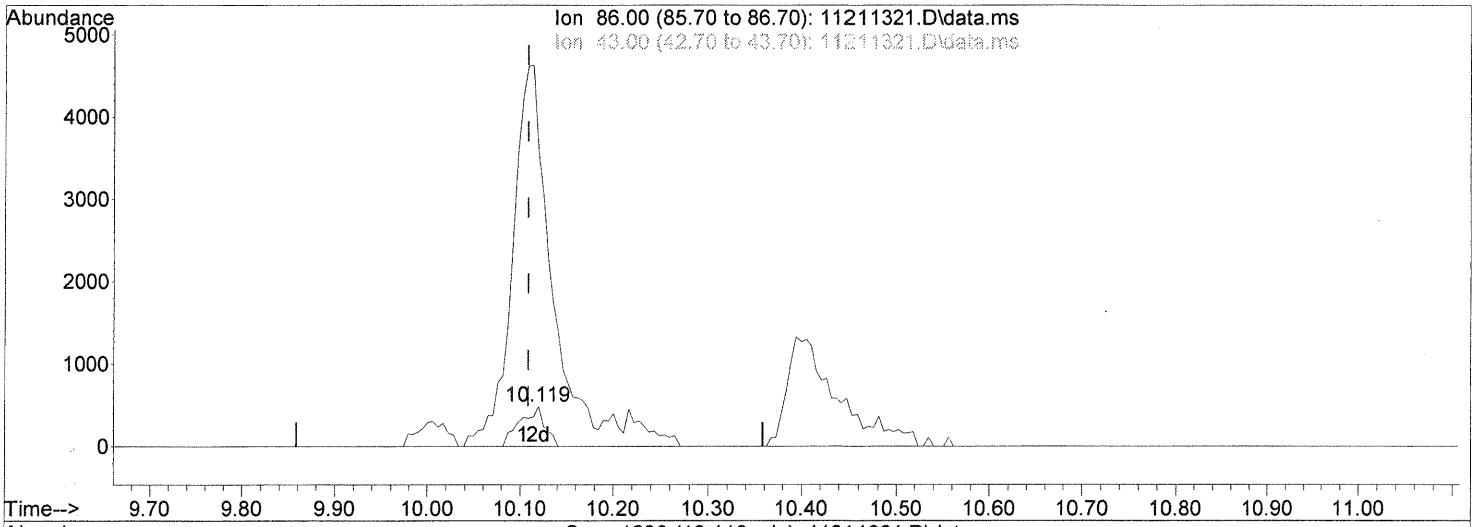
10.103min (-0.005) 0.15ng

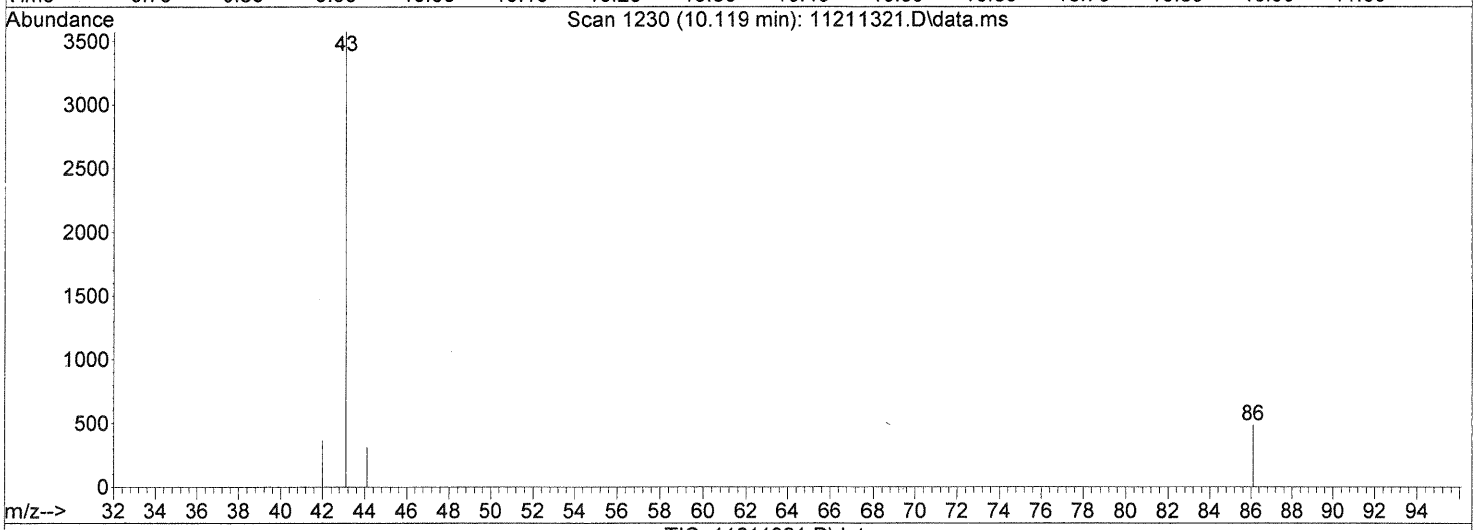
response 436

Ion	Exp%	Act%
86.00	100	100
43.00	1162.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(26) Vinyl Acetate (T)

10.119min (+0.011) 0.32ng m

response 891

Ion	Exp%	Act%
86.00	100	100
43.00	1162.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

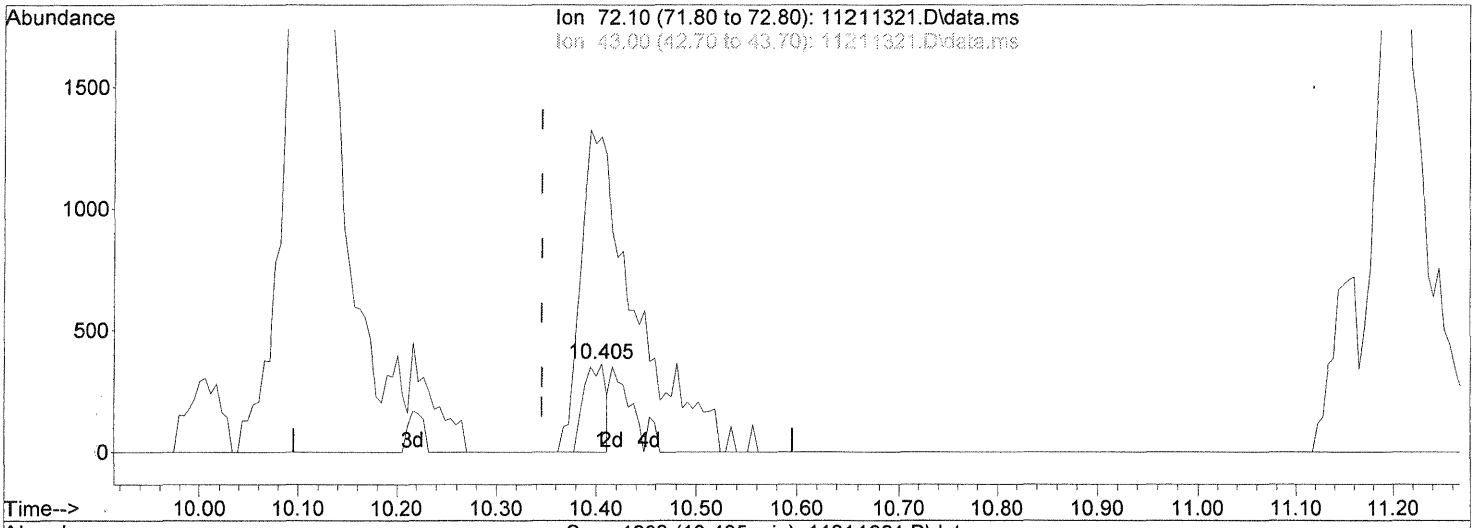
SP
EM 11/22/13

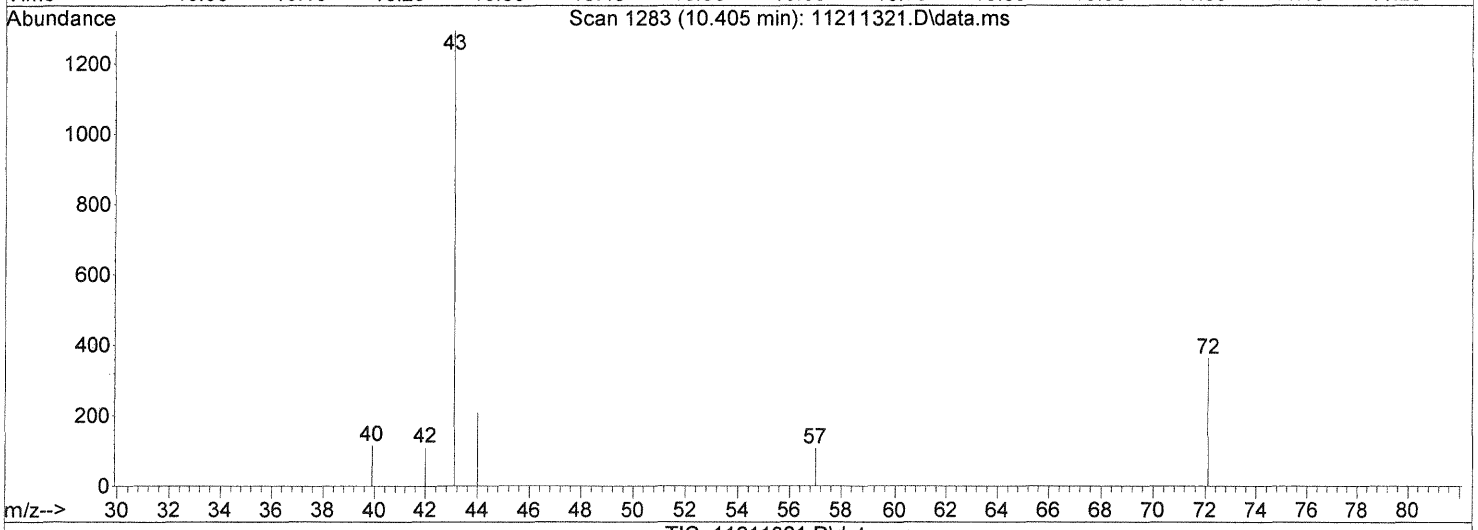
11/22/13

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(27) 2-Butanone (MEK) (T)

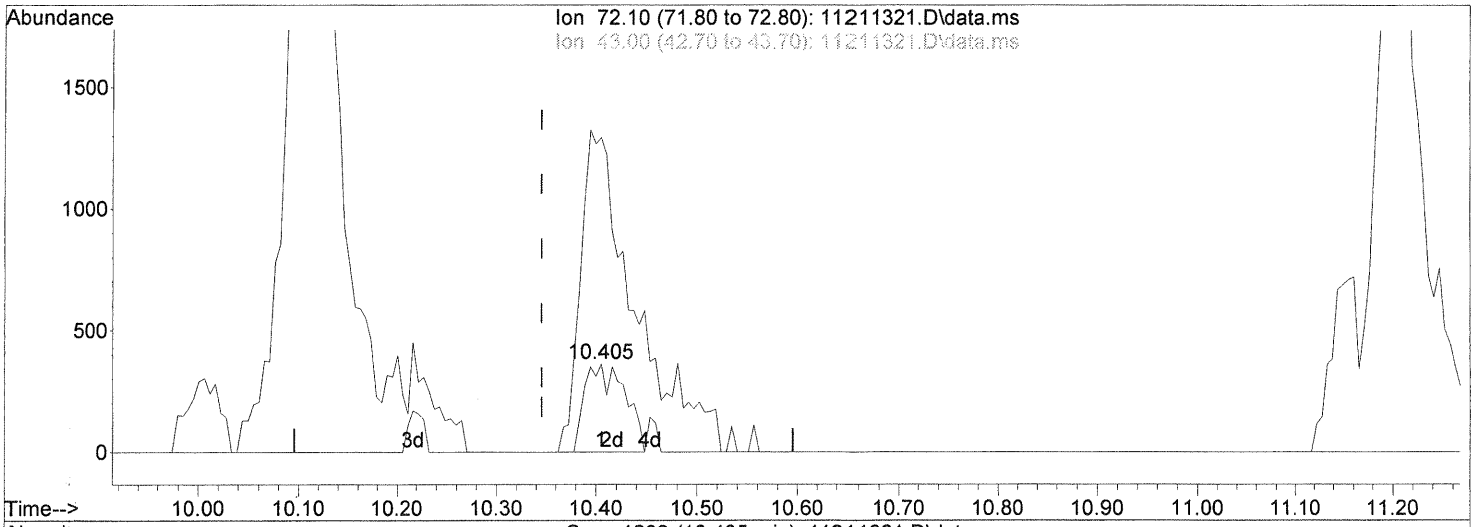
10.405min (+0.059) 0.07ng

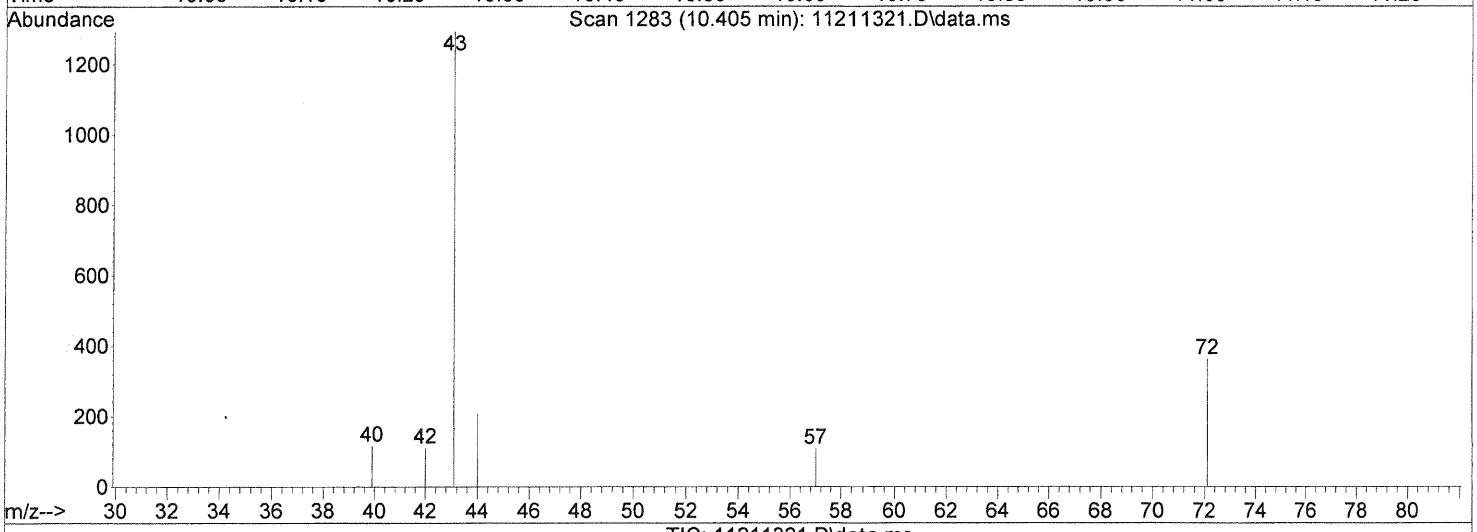
response 540

Ion	Exp%	Act%
72.10	100	100
43.00	414.50	817.59#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(27) 2-Butanone (MEK) (T)

10.405min (+0.059) 0.12ng m

response 1000

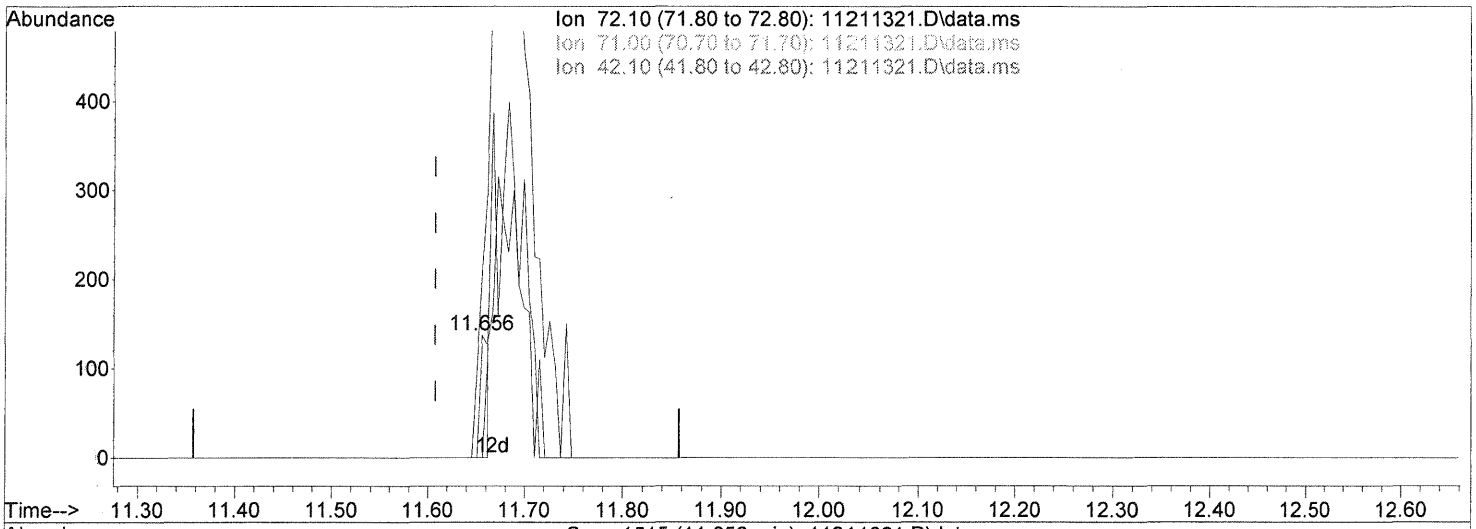
Ion	Exp%	Act%
72.10	100	100
43.00	414.50	441.50#
0.00	0.00	0.00
0.00	0.00	0.00

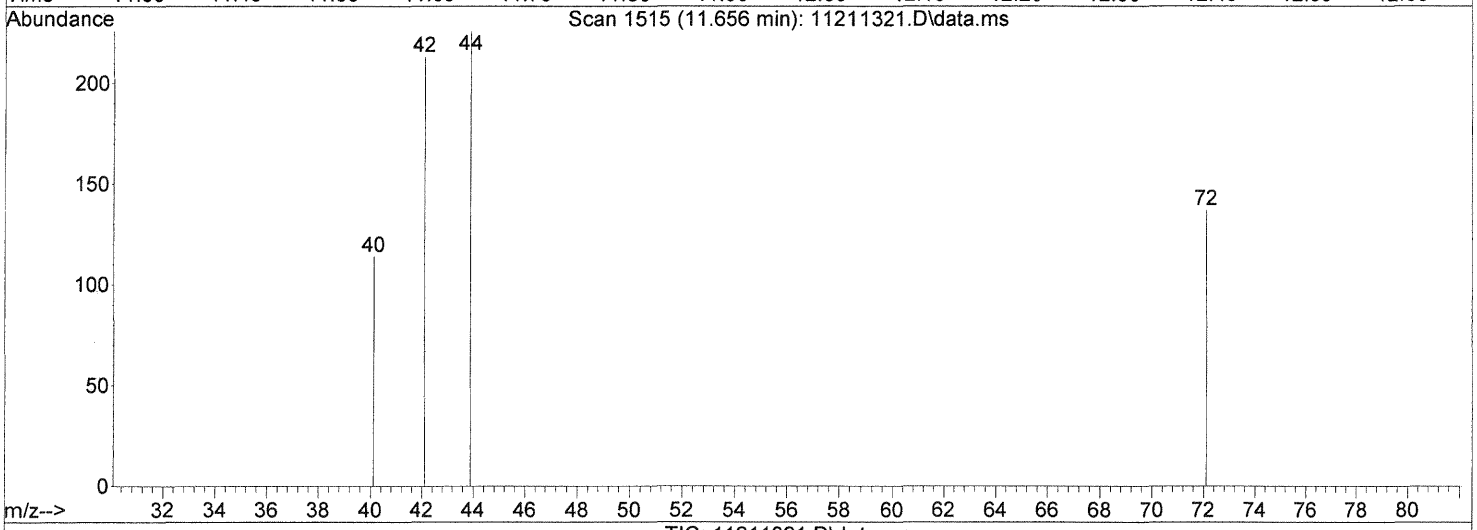
SP
OM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(34) Tetrahydrofuran (THF) (T)

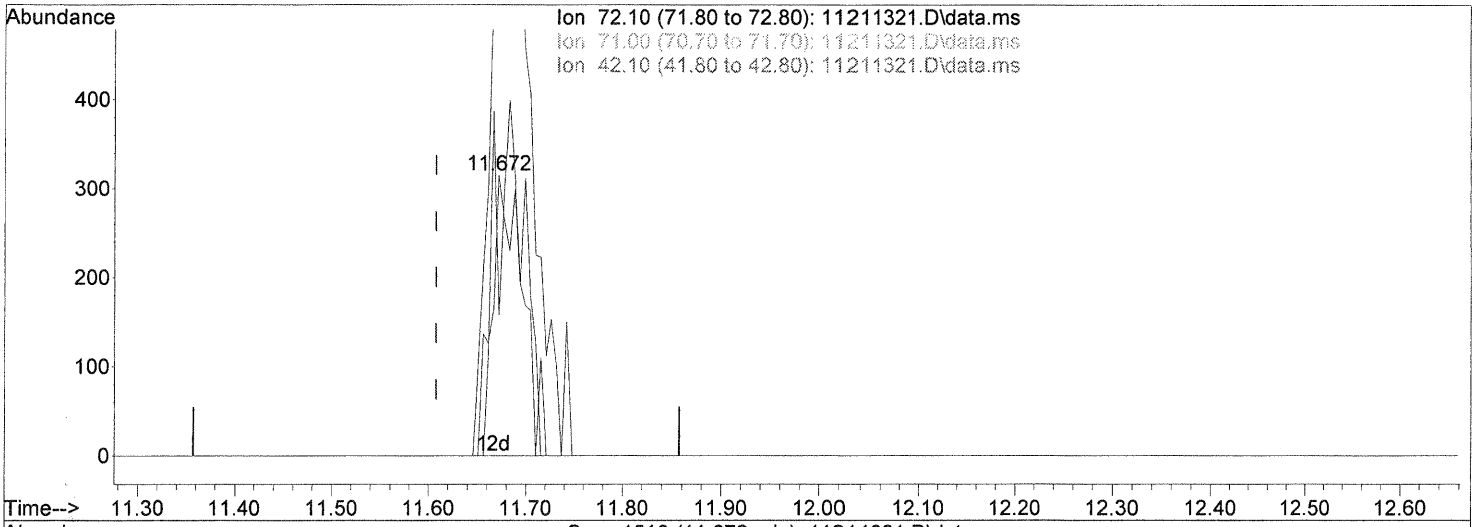
11.656min (+0.048) 0.01ng

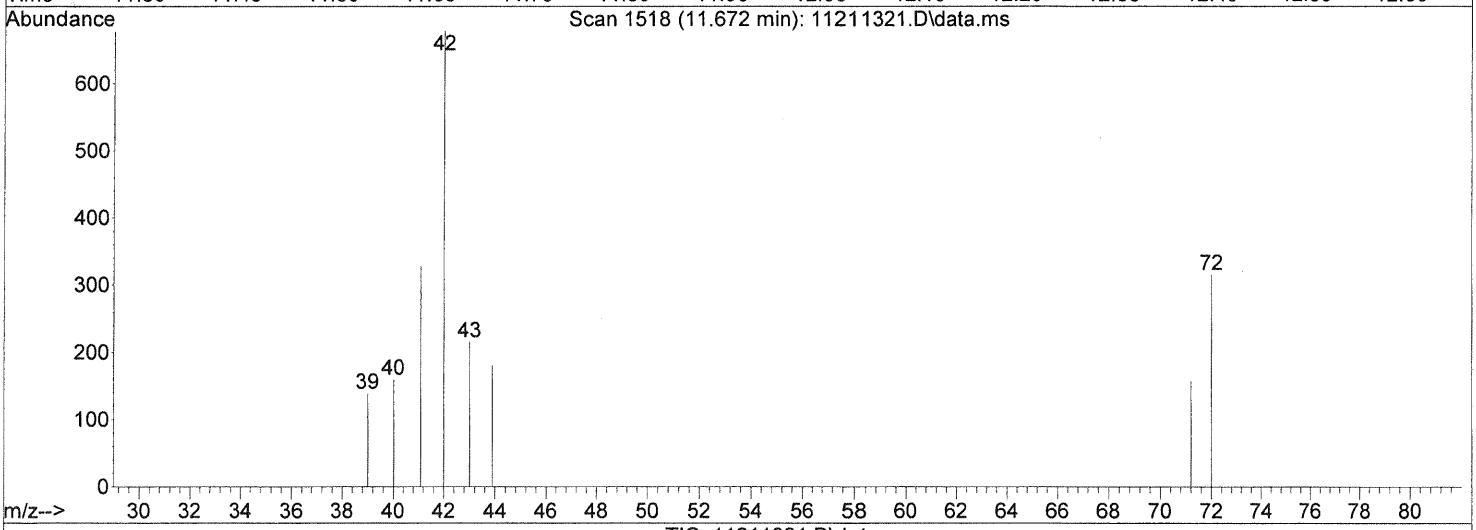
response 85

Ion	Exp%	Act%
72.10	100	100
71.00	96.50	0.00#
42.10	229.90	0.00#
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(34) Tetrahydrofuran (THF) (T)

11.672min (+0.065) 0.09ng m

response 759

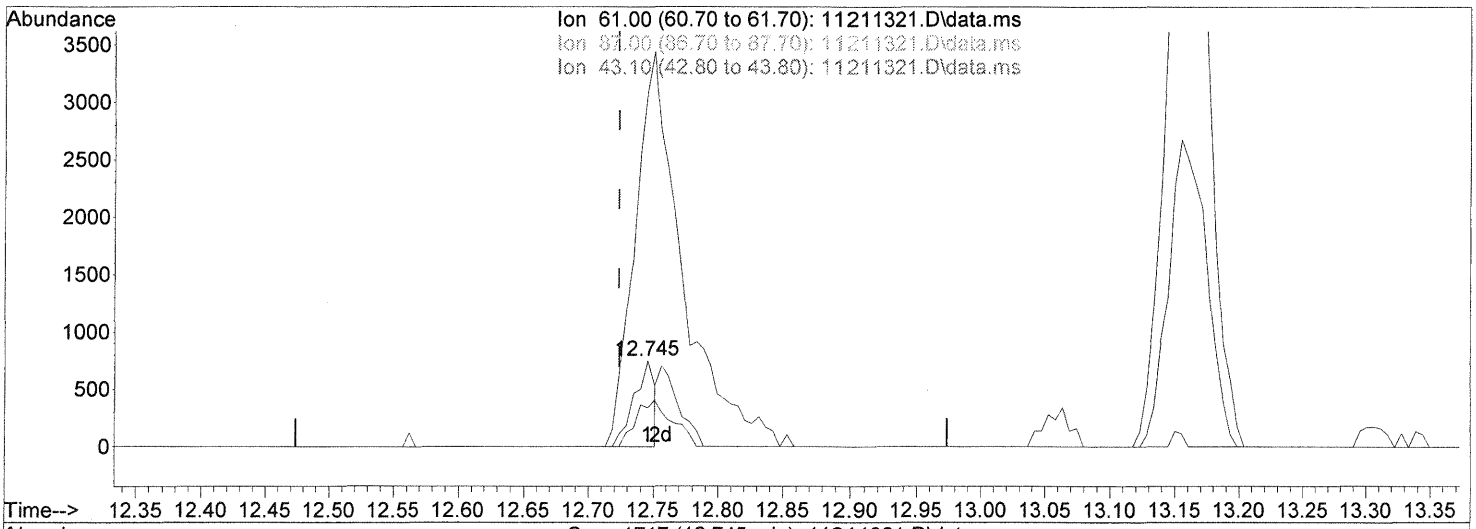
Ion	Exp%	Act%
72.10	100	100
71.00	96.50	0.00#
42.10	229.90	0.00#
0.00	0.00	0.00

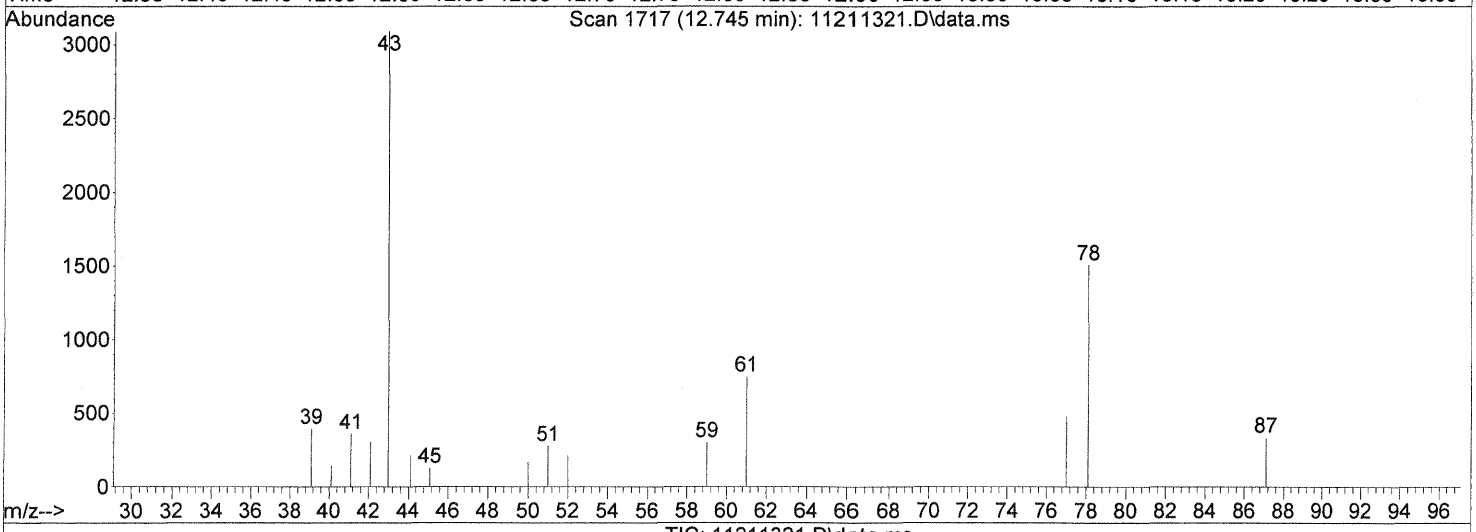
MP
EM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(39) Isopropyl Acetate (T)

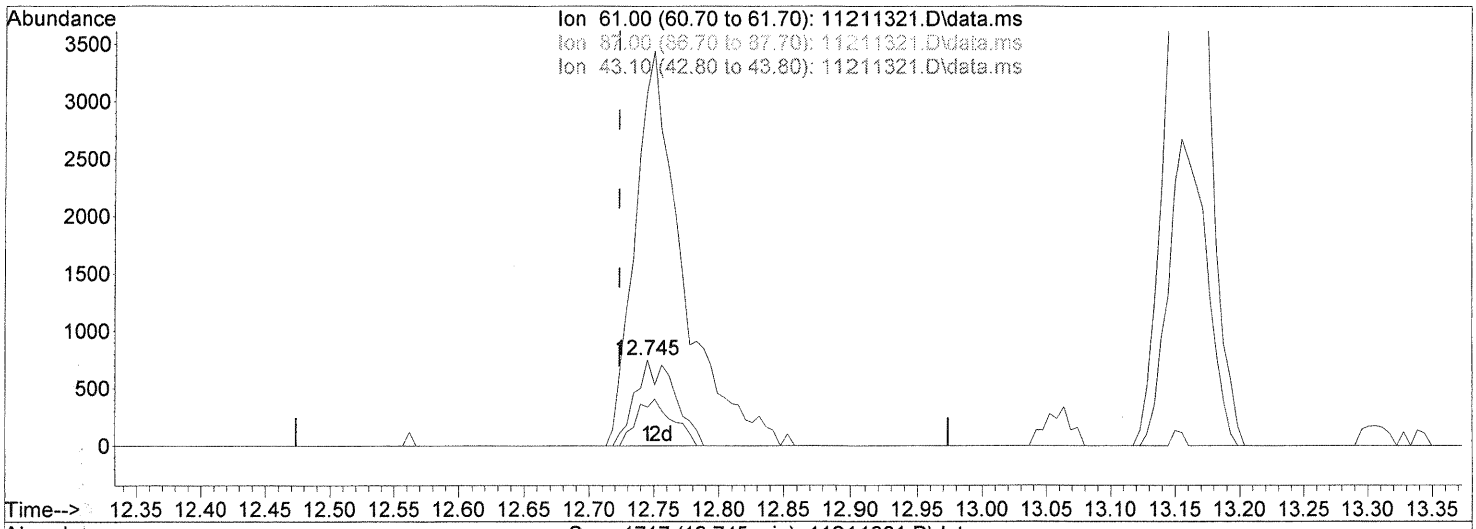
12.745min (+0.021) 0.11ng

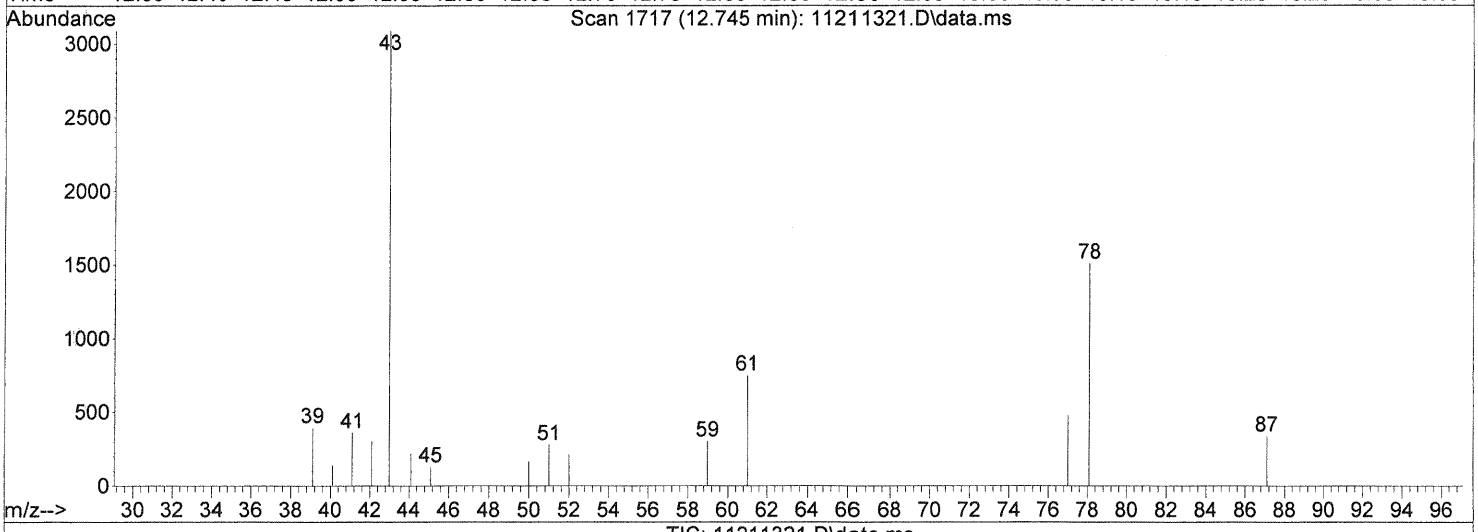
response 820

Ion	Exp%	Act%
61.00	100	100
87.00	51.90	96.10#
43.10	548.60	1055.73#
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:47:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(39) Isopropyl Acetate (T)

12.745min (+0.021) 0.21ng m

response 1582

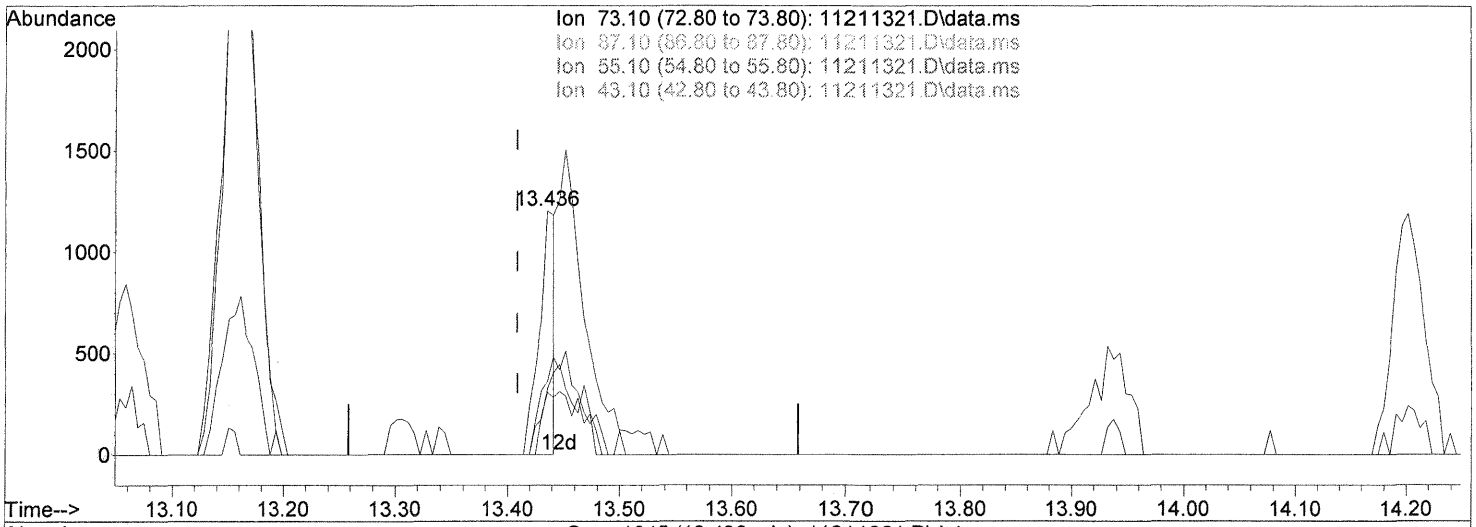
Ion	Exp%	Act%
61.00	100	100
87.00	51.90	49.81
43.10	548.60	547.22
0.00	0.00	0.00

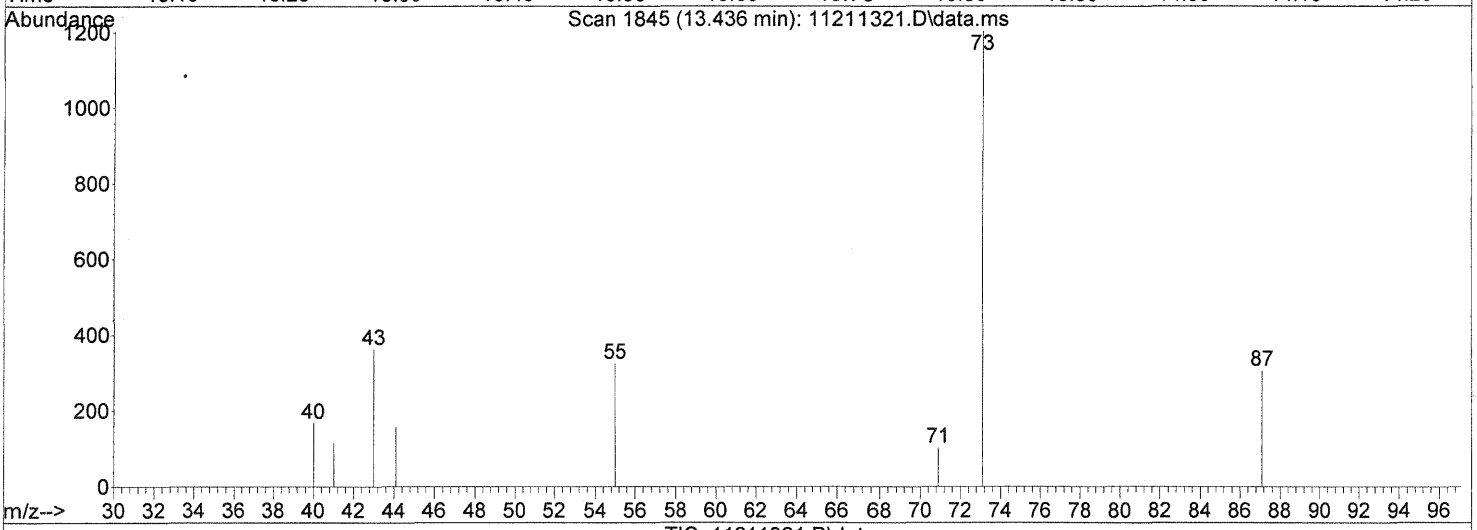
SP
EM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:49:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(44) tert-Amyl Methyl Ether (T)

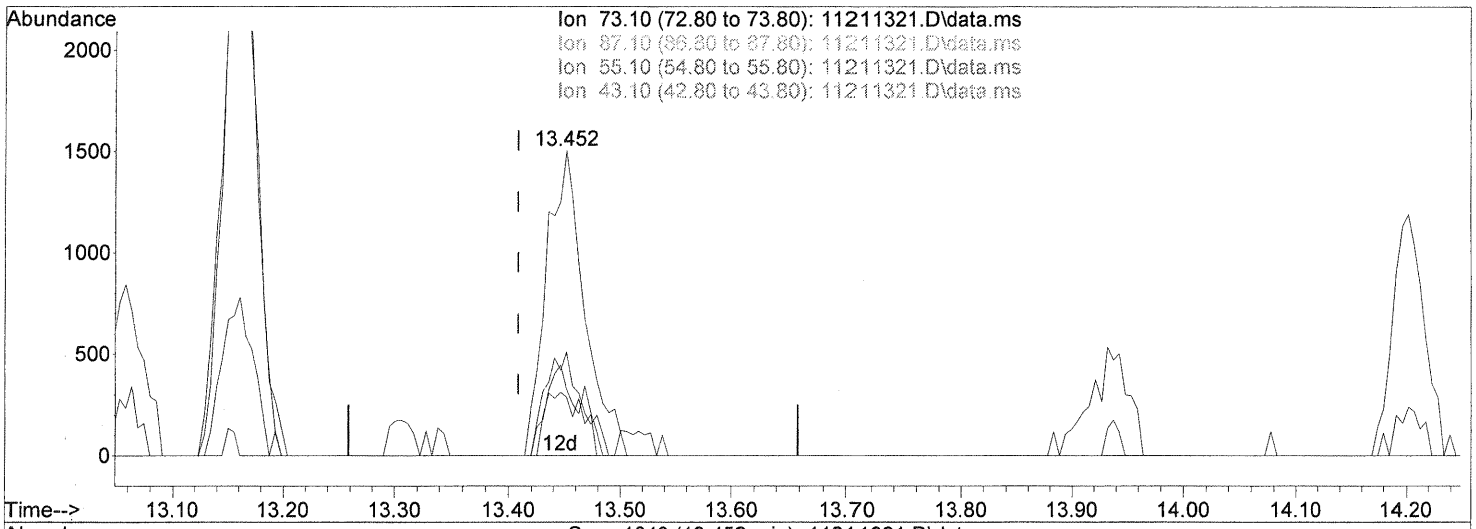
13.436min (+0.027) 0.03ng

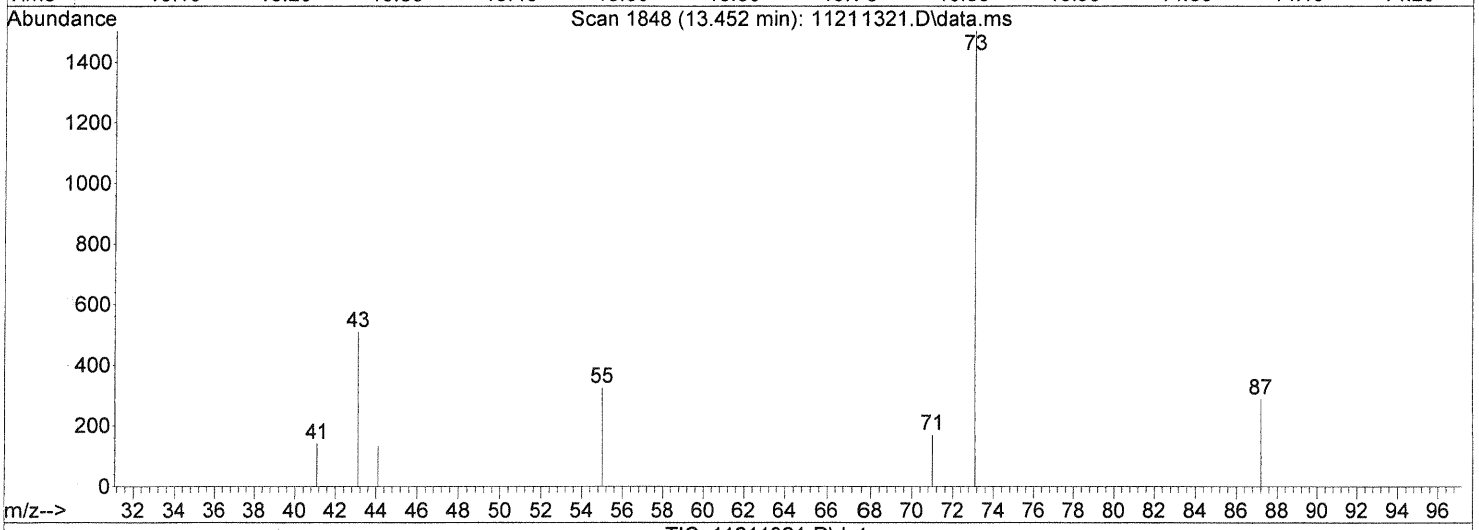
response 1200

Ion	Exp%	Act%
73.10	100	100
87.10	23.50	0.00#
55.10	23.10	0.00#
43.10	31.80	0.00#

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:49:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(44) tert-Amyl Methyl Ether (T)

13.452min (+0.043) 0.09ng m

response 3576

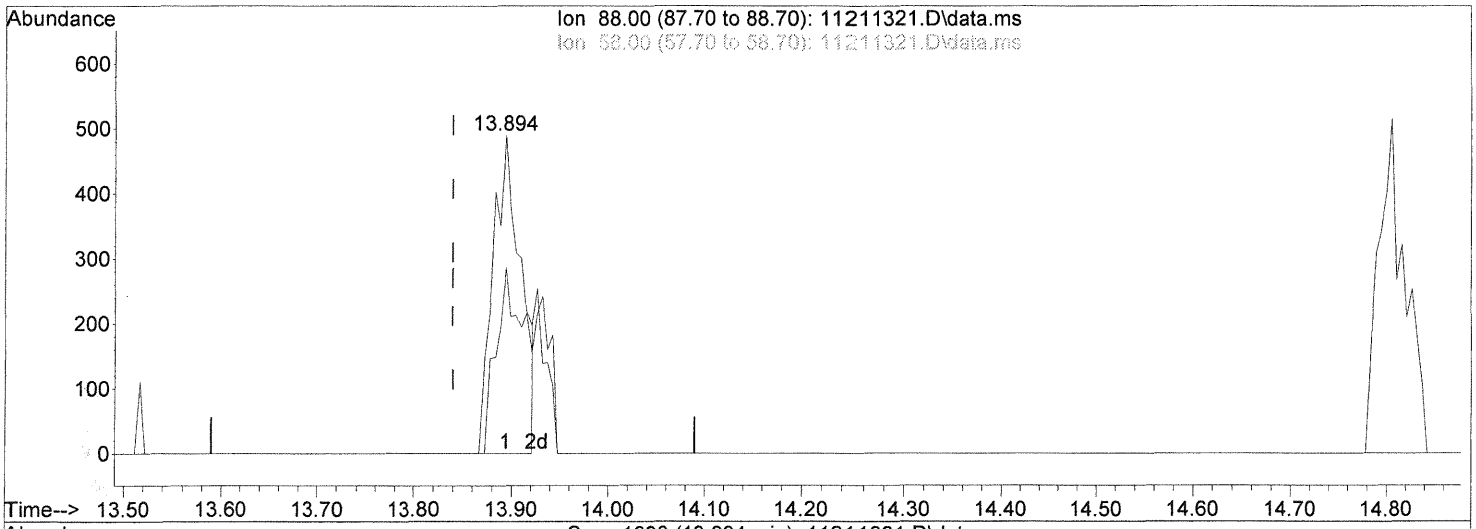
Ion	Exp%	Act%
73.10	100	100
87.10	23.50	0.00#
55.10	23.10	0.00#
43.10	31.80	0.00#

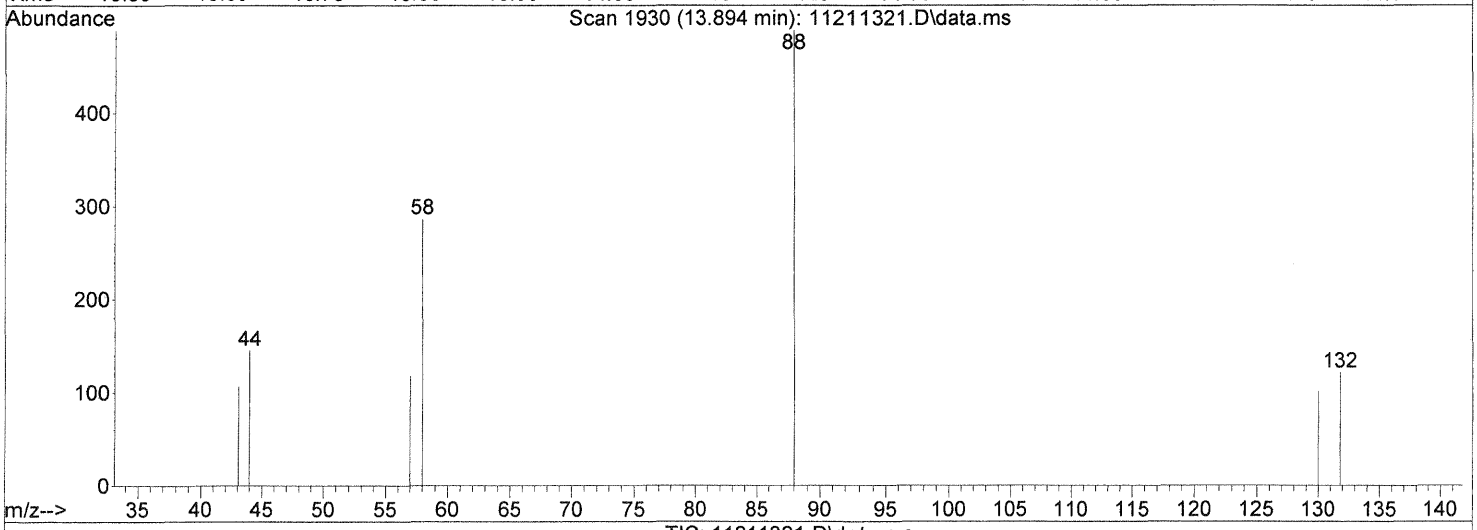
SP
EM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:49:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(48) 1,4-Dioxane (T)

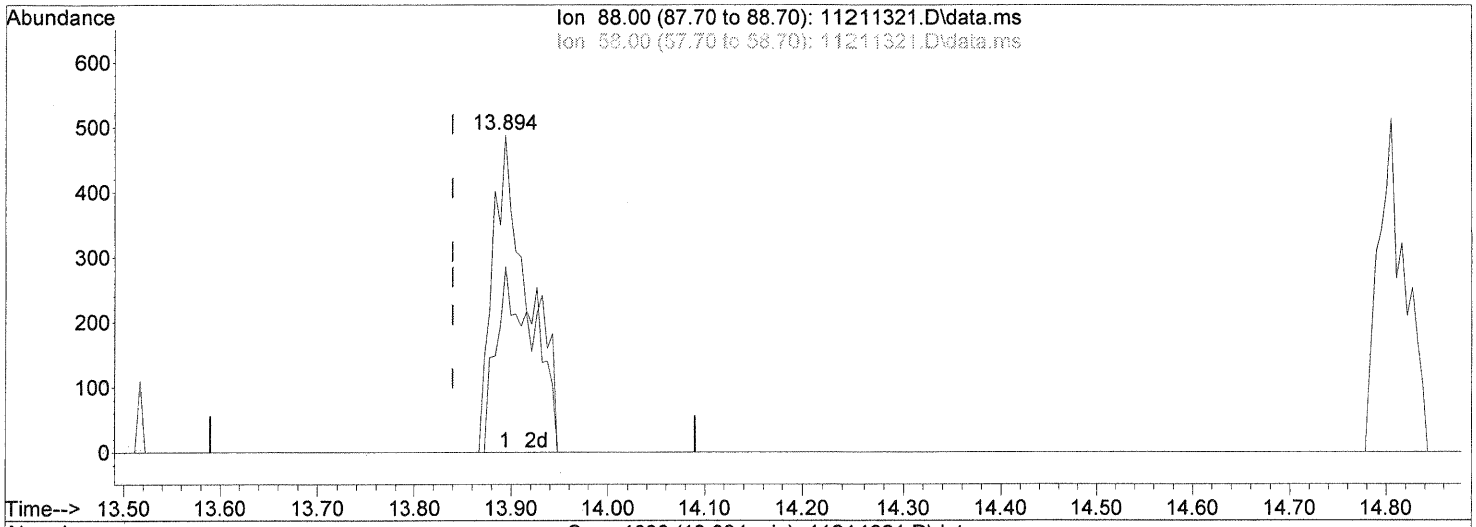
13.894min (+0.054) 0.09ng

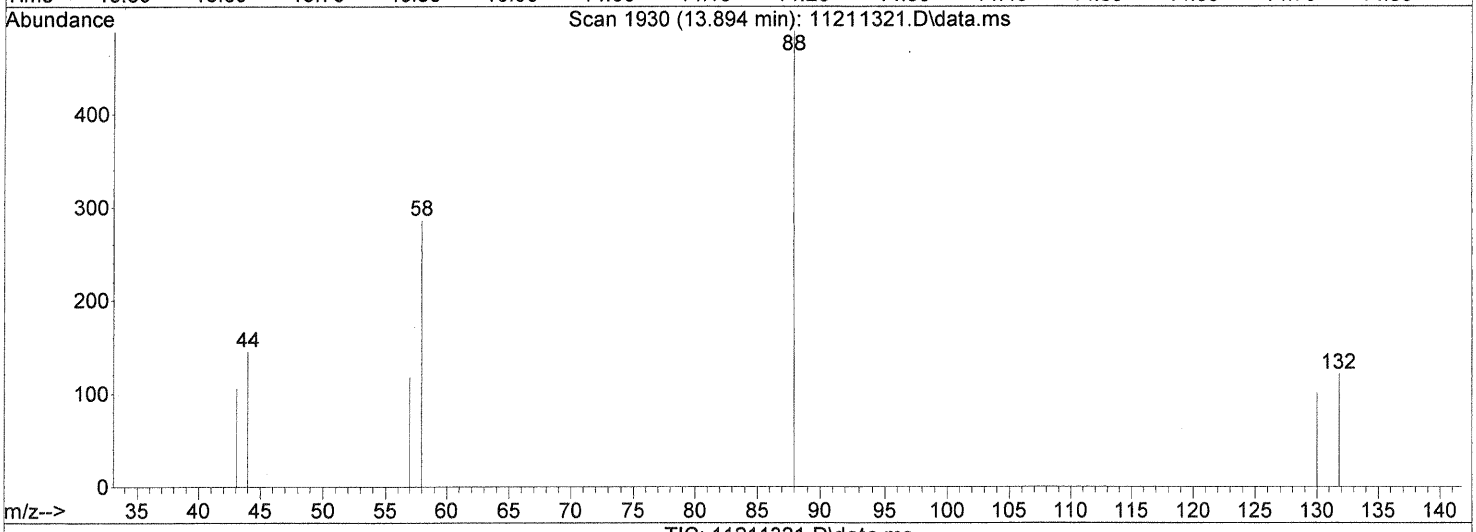
response 973

Ion	Exp%	Act%
88.00	100	100
58.00	61.70	58.68
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211321.D Vial: 11
Acq On : 21 Nov 2013 22:58 Operator: EM
Sample : 0.08ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:49:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211321.D\data.ms

(48) 1,4-Dioxane (T)

13.894min (+0.054) 0.11ng m

response 1179

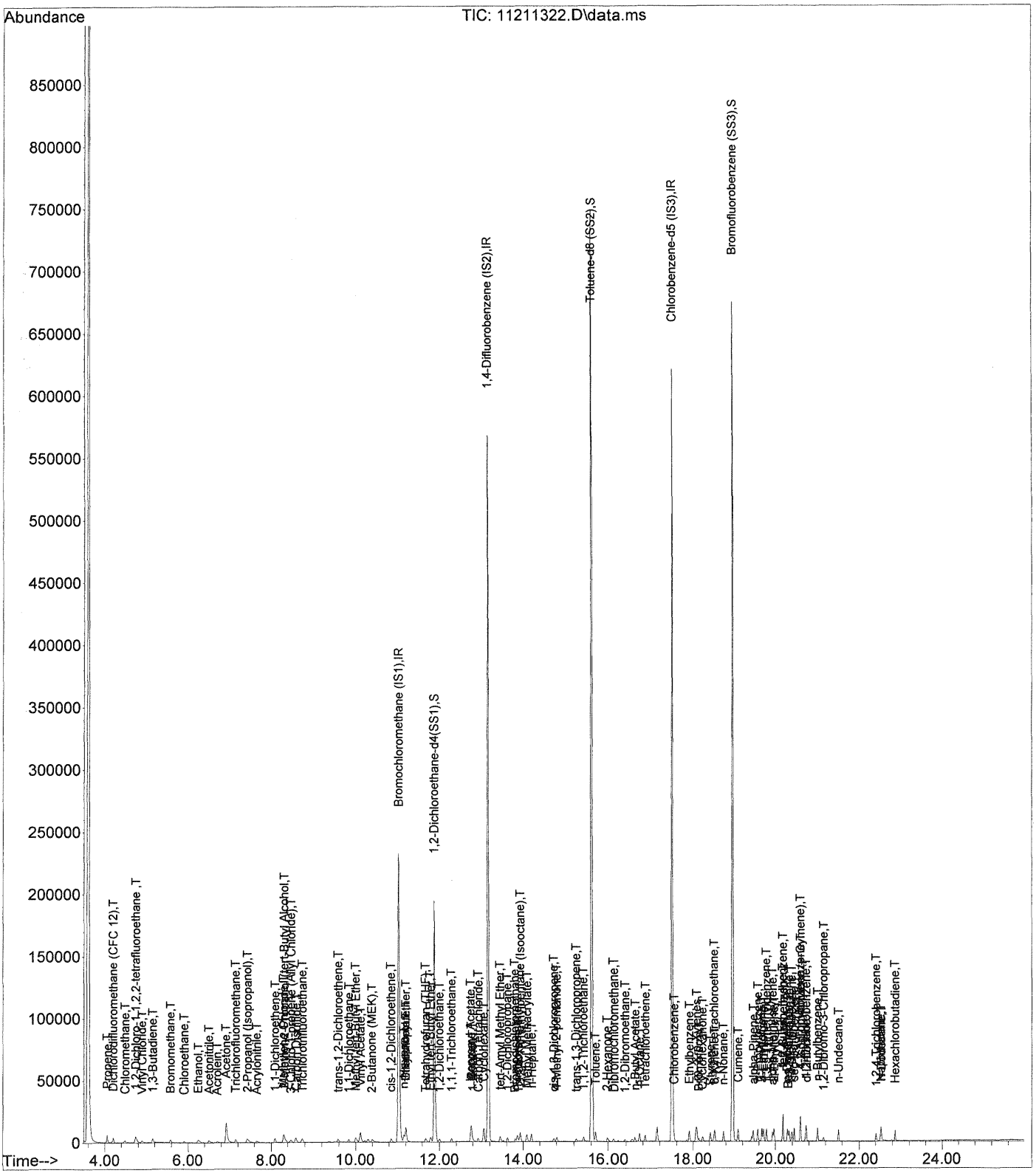
Ion	Exp%	Act%
88.00	100	100
58.00	61.70	48.43
0.00	0.00	0.00
0.00	0.00	0.00

SP
EM 11/22/13

C: 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:54:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:54:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	111908	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	558801	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	219105	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	155542	14.352	ng		-0.01
Spiked Amount 12.500			Recovery = 114.80%				
57) Toluene-d8 (SS2)	15.61	98	578559	12.015	ng		0.00
Spiked Amount 12.500			Recovery = 96.08%				
73) Bromofluorobenzene (SS3)	18.95	174	235292	10.370	ng		0.00
Spiked Amount 12.500			Recovery = 82.96%				
Target Compounds							Qvalue
2) Propene	4.06	42	1818	0.162	ng		96
3) Dichlorodifluoromethan...	4.20	85	3458	0.126	ng		96
4) Chloromethane	4.48	50	2176m	0.125	ng		
5) 1,2-Dichloro-1,1,2,2-t...	4.74	135	1699	0.099	ng		97
6) Vinyl Chloride	4.89	62	2295	0.125	ng	#	57
7) 1,3-Butadiene	5.15	54	1557	0.131	ng		90
8) Bromomethane	5.58	94	2092	0.154	ng		97
9) Chloroethane	5.90	64	1111	0.115	ng		88
10) Ethanol	6.24	45	5469	0.671	ng		76
11) Acetonitrile	6.51	41	3212	0.151	ng		93
12) Acrolein	6.70	56	997	0.143	ng		93
13) Acetone	6.91	58	9387	1.082	ng		91
14) Trichlorofluoromethane	7.14	101	3109	0.127	ng		100
15) 2-Propanol (Isopropanol)	7.43	45	8390	0.309	ng		94
16) Acrylonitrile	7.65	53	1740	0.121	ng		84
17) 1,1-Dichloroethene	8.10	96	1614m	0.126	ng		
18) 2-Methyl-2-Propanol (t...	8.32	59	7319	0.267	ng		89
19) Methylene Chloride	8.30	84	2991	0.216	ng		98
20) 3-Chloro-1-propene (Al...	8.47	41	1908m	0.139	ng		
21) Trichlorotrifluoroethane	8.74	151	1557	0.111	ng		96
22) Carbon Disulfide	8.59	76	8137	0.171	ng		91
23) trans-1,2-Dichloroethene	9.59	61	2105	0.128	ng		97
24) 1,1-Dichloroethane	9.83	63	2753	0.127	ng		99
25) Methyl tert-Butyl Ether	10.00	73	4640	0.126	ng		90
26) Vinyl Acetate	10.11	86	1377	0.540	ng	#	91
27) 2-Butanone (MEK)	10.39	72	1004m	0.137	ng		
28) cis-1,2-Dichloroethene	10.85	61	2296	0.146	ng		95
29) Diisopropyl Ether	11.20	87	1452	0.128	ng	#	85
30) Ethyl Acetate	11.20	61	890	0.233	ng		95
31) n-Hexane	11.15	57	2766	0.169	ng	#	87
32) Chloroform	11.19	83	2813	0.132	ng		98
34) Tetrahydrofuran (THF)	11.68	72	933	0.123	ng	#	89
35) Ethyl tert-Butyl Ether	11.79	87	1756	0.118	ng		96
36) 1,2-Dichloroethane	12.00	62	1943	0.130	ng		99
38) 1,1,1-Trichloroethane	12.28	97	2205	0.113	ng		91
39) Isopropyl Acetate	12.75	61	1855	0.275	ng		95
40) 1-Butanol	12.80	56	2232m	0.247	ng		
41) Benzene	12.77	78	8901	0.170	ng		97
42) Carbon Tetrachloride	12.93	117	1994	0.115	ng		96
43) Cyclohexane	13.06	84	4851	0.251	ng		100
44) tert-Amyl Methyl Ether	13.45	73	4320	0.123	ng		95
45) 1,2-Dichloropropane	13.62	63	1681	0.143	ng		88
46) Bromodichloromethane	13.80	83	2054	0.128	ng		96

EM 11/22/13

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

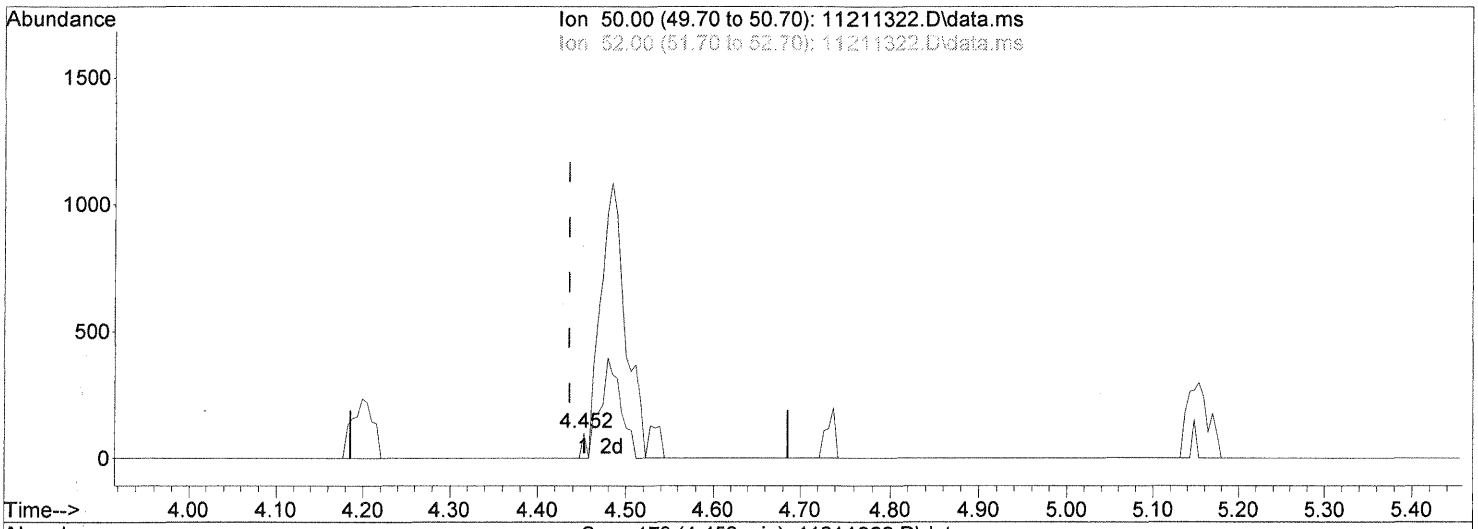
Quant Time: Nov 22 06:54:16 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

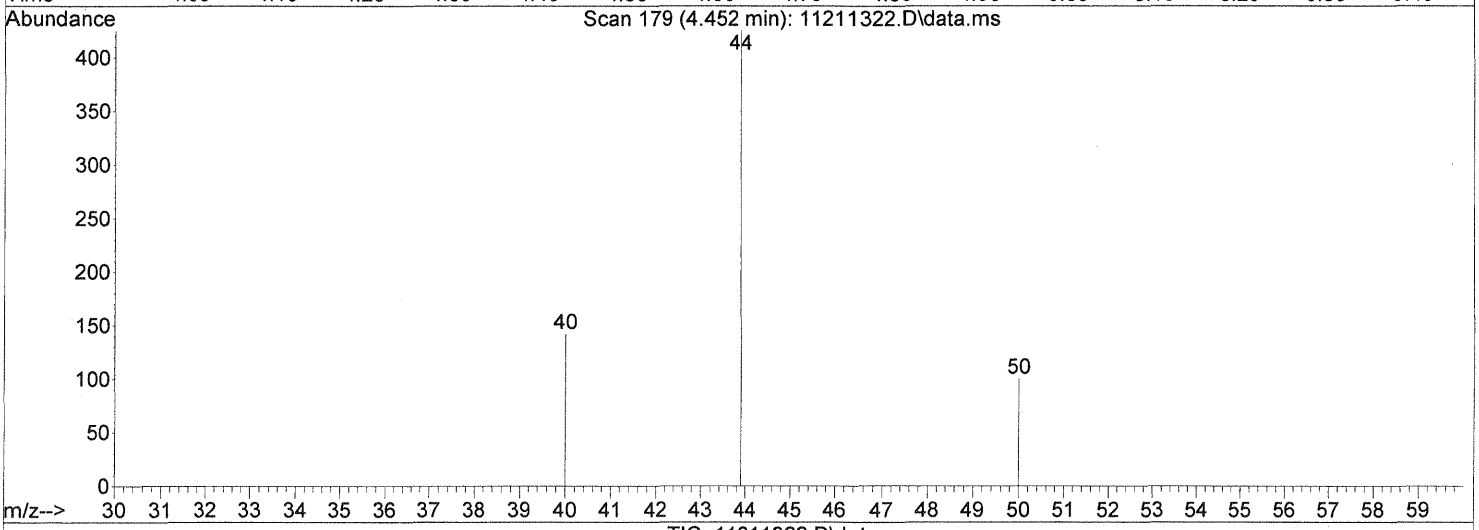
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) Trichloroethene	13.87	130	2218	0.138	ng		98
48) 1,4-Dioxane	13.89	88	1194m	0.121	ng		
49) 2,2,4-Trimethylpentane...	13.94	57	7307	0.147	ng		99
50) Methyl Methacrylate	14.09	100	979	0.185	ng	#	65
51) n-Heptane	14.21	71	1561	0.138	ng		96
52) cis-1,3-Dichloropropene	14.74	75	2088	0.114	ng		71
53) 4-Methyl-2-pentanone	14.80	58	1254m	0.129	ng		
54) trans-1,3-Dichloropropene	15.26	75	1674	0.105	ng		98
55) 1,1,2-Trichloroethane	15.42	97	1519	0.119	ng		95
58) Toluene	15.71	91	6950	0.118	ng		100
59) 2-Hexanone	15.99	43	3214	0.146	ng		98
60) Dibromochloromethane	16.12	129	1713	0.108	ng		92
61) 1,2-Dibromoethane	16.37	107	1616	0.104	ng		92
62) n-Butyl Acetate	16.62	43	3479	0.144	ng		94
63) n-Octane	16.72	57	1362	0.131	ng		90
64) Tetrachloroethene	16.86	166	1805	0.085	ng		91
65) Chlorobenzene	17.54	112	4562	0.113	ng		91
66) Ethylbenzene	17.91	91	7646	0.120	ng		99
67) m- & p-Xylenes	18.08	91	11843	0.229	ng		99
68) Bromoform	18.14	173	1445	0.098	ng		99
69) Styrene	18.42	104	4221	0.105	ng		96
70) o-Xylene	18.53	91	5848	0.110	ng		99
71) n-Nonane	18.74	43	3293	0.143	ng		91
72) 1,1,2,2-Tetrachloroethane	18.51	83	2576	0.108	ng		98
74) Cumene	19.09	105	7555	0.106	ng		96
75) alpha-Pinene	19.46	93	3532	0.106	ng		94
76) n-Propylbenzene	19.57	91	9258	0.113	ng		95
77) 3-Ethyltoluene	19.67	105	7379	0.108	ng		98
78) 4-Ethyltoluene	19.71	105	7123	0.110	ng		91
79) 1,3,5-Trimethylbenzene	19.78	105	6093	0.107	ng		97
80) alpha-Methylstyrene	19.93	118	2744	0.089	ng		95
81) 2-Ethyltoluene	19.97	105	6908	0.103	ng		97
82) 1,2,4-Trimethylbenzene	20.18	105	6158	0.107	ng		99
83) n-Decane	20.28	57	3326	0.126	ng		92
84) Benzyl Chloride	20.30	91	3148	0.082	ng		82
85) 1,3-Dichlorobenzene	20.33	146	3569	0.096	ng		97
86) 1,4-Dichlorobenzene	20.39	146	3822	0.100	ng		98
87) sec-Butylbenzene	20.44	105	8285	0.111	ng		99
88) 4-Isopropyltoluene (p-...	20.59	119	7104	0.096	ng		97
89) 1,2,3-Trimethylbenzene	20.59	105	6068	0.105	ng		99
90) 1,2-Dichlorobenzene	20.73	146	3653	0.102	ng		98
91) d-Limonene	20.74	68	1986	0.108	ng		100
92) 1,2-Dibromo-3-Chloropr...	21.15	157	1077	0.087	ng		95
93) n-Undecane	21.51	57	3169	0.115	ng		91
94) 1,2,4-Trichlorobenzene	22.41	180	2658	0.090	ng		96
95) Naphthalene	22.52	128	6703	0.077	ng		94
96) n-Dodecane	22.53	57	2702	0.106	ng		98
97) Hexachlorobutadiene	22.86	225	1886	0.090	ng		96
98) Cyclohexanone	18.23	55	1766	0.117	ng	#	85
99) tert-Butylbenzene	20.18	119	6106	0.107	ng		98
100) n-Butylbenzene	21.00	91	6107	0.109	ng		97

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

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(4) Chloromethane (T)

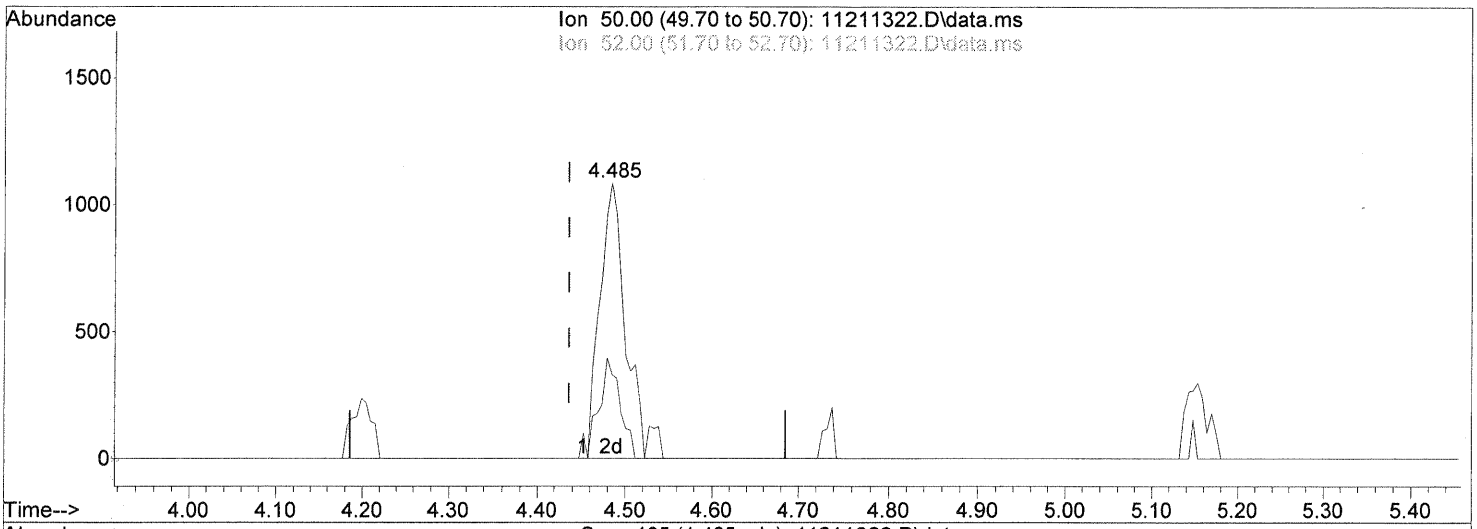
4.452min (+0.016) 0.00ng

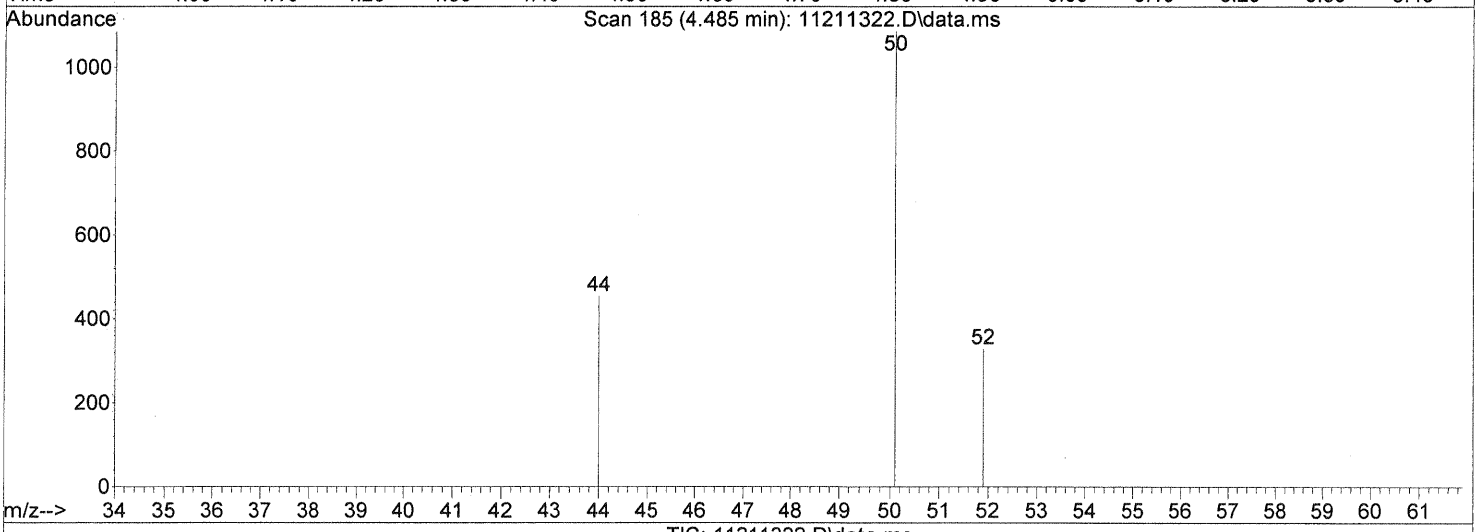
response 32

Ion	Exp%	Act%
50.00	100	100
52.00	32.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(4) Chloromethane (T)

4.485min (+0.049) 0.12ng m

response 2176

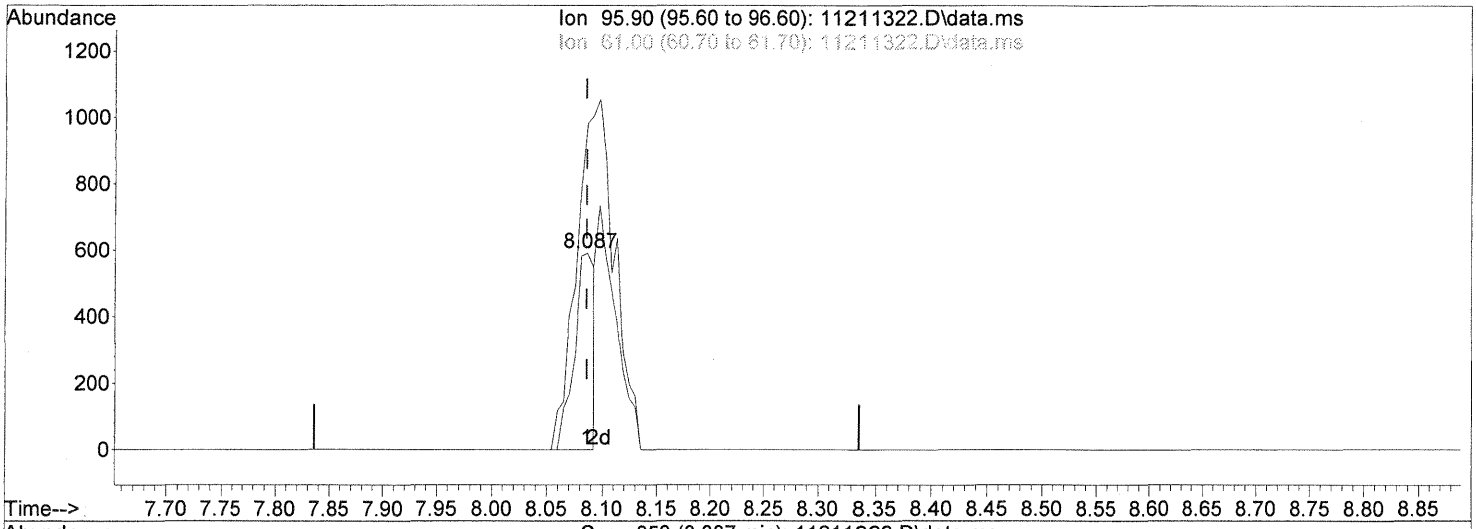
Ion	Exp%	Act%
50.00	100	100
52.00	32.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

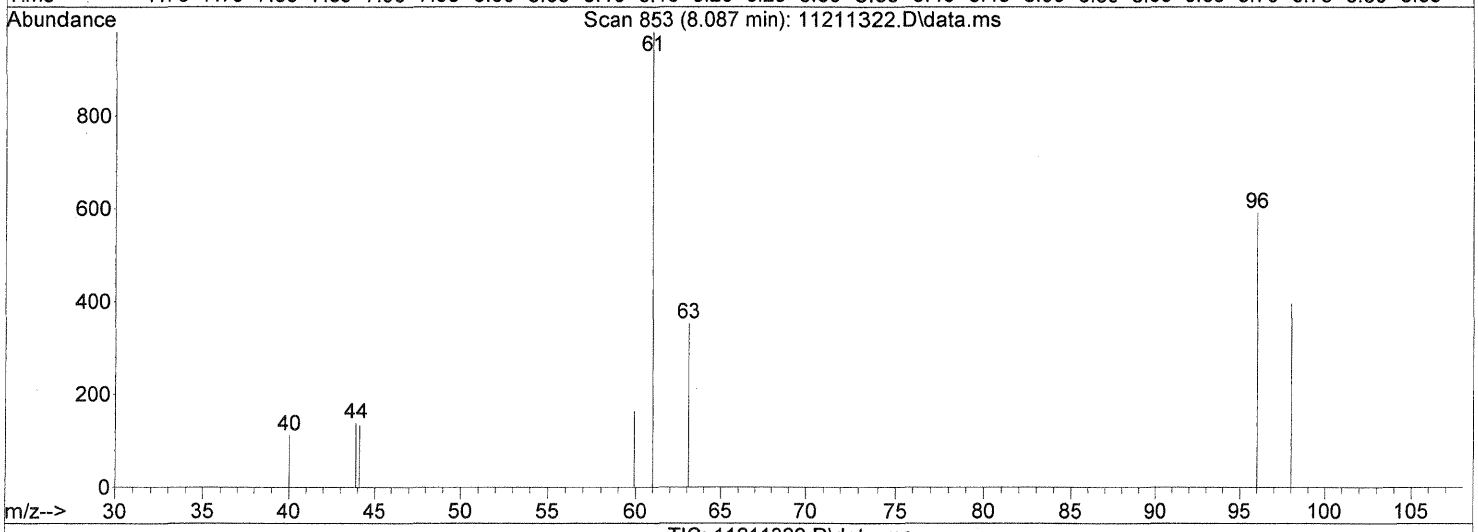
MP
EM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(17) 1,1-Dichloroethene (T)

8.087min (+0.000) 0.06ng

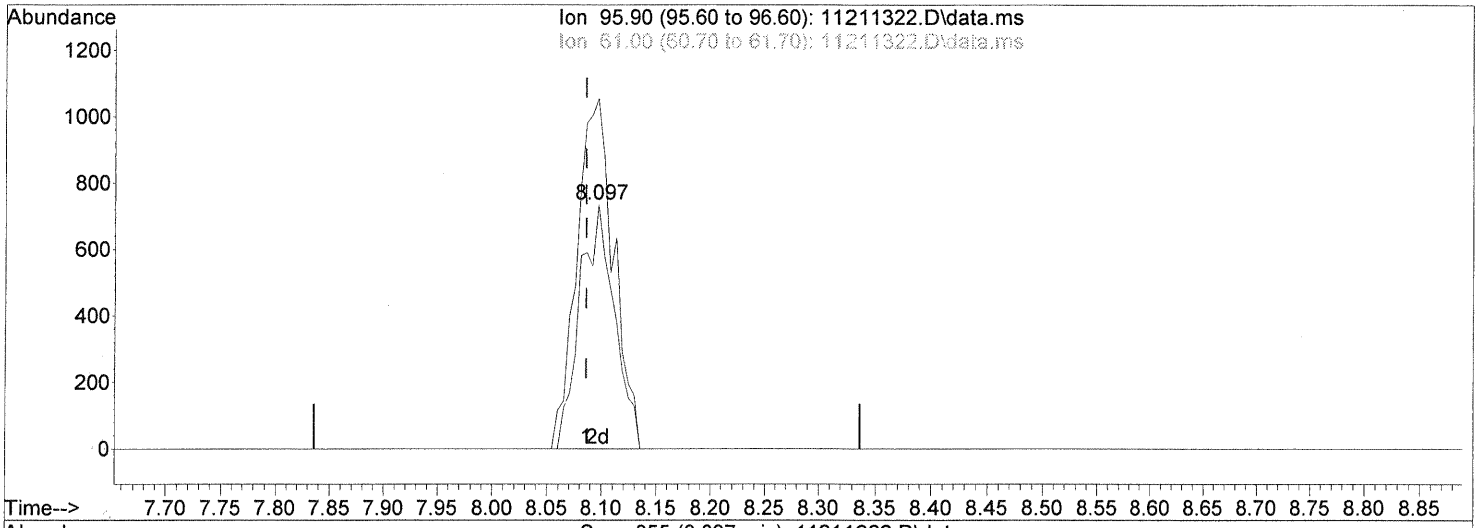
response 743

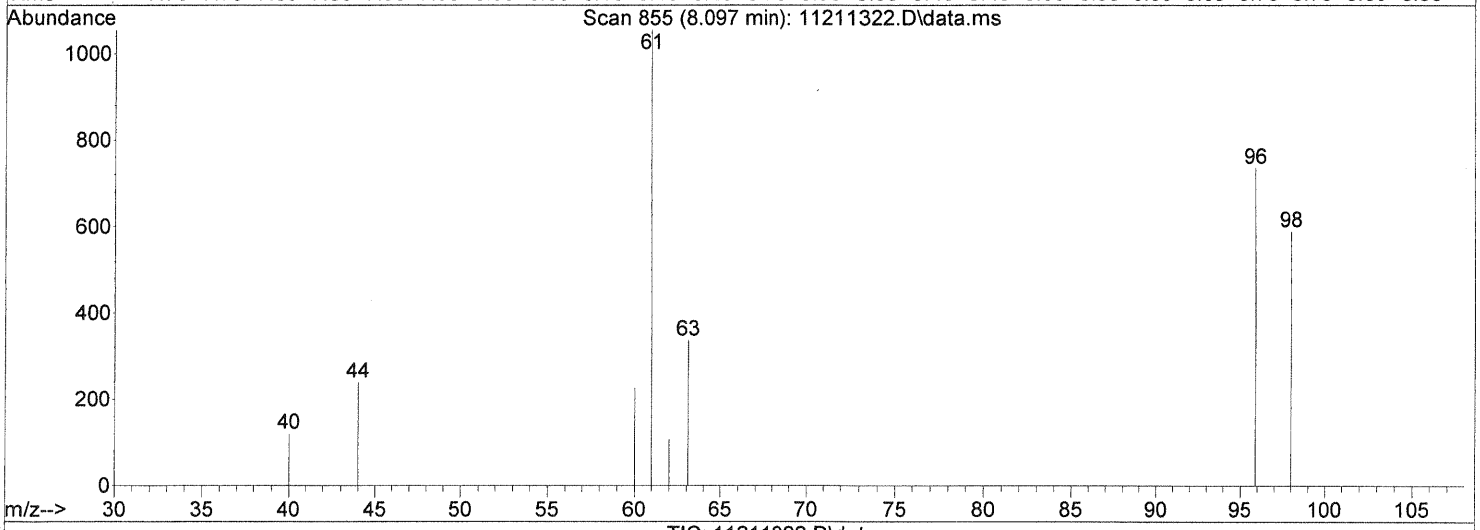
Ion	Exp%	Act%
95.90	100	100
61.00	157.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(17) 1,1-Dichloroethene (T)

8.097min (+0.011) 0.13ng m

response 1614

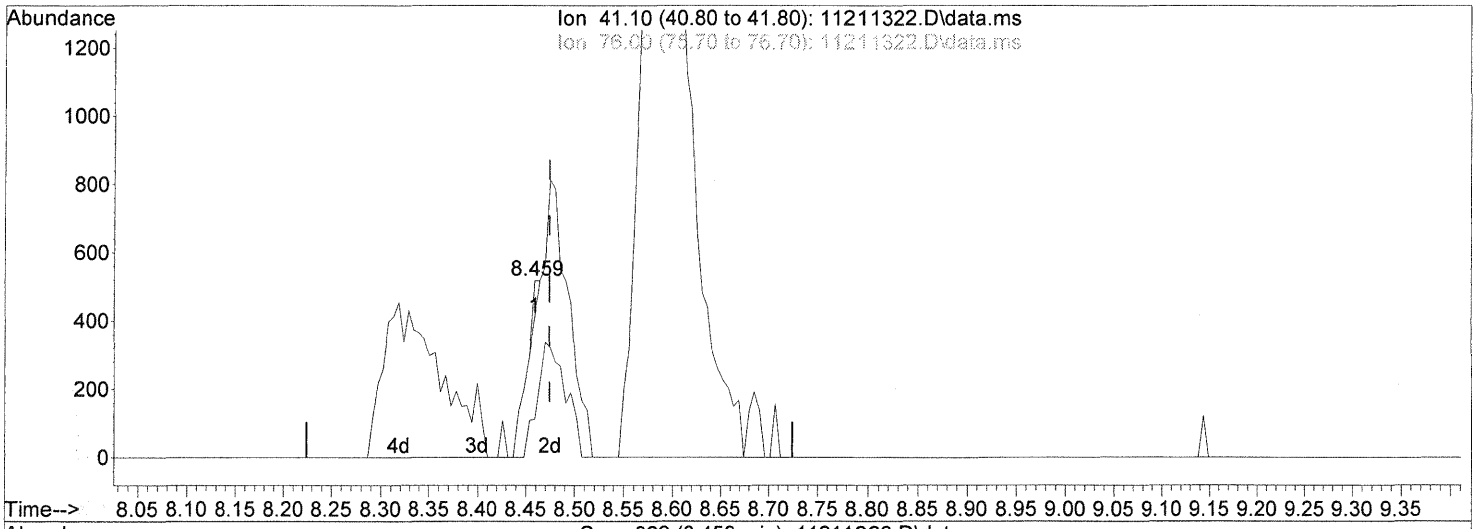
Ion	Exp%	Act%
95.90	100	100
61.00	157.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

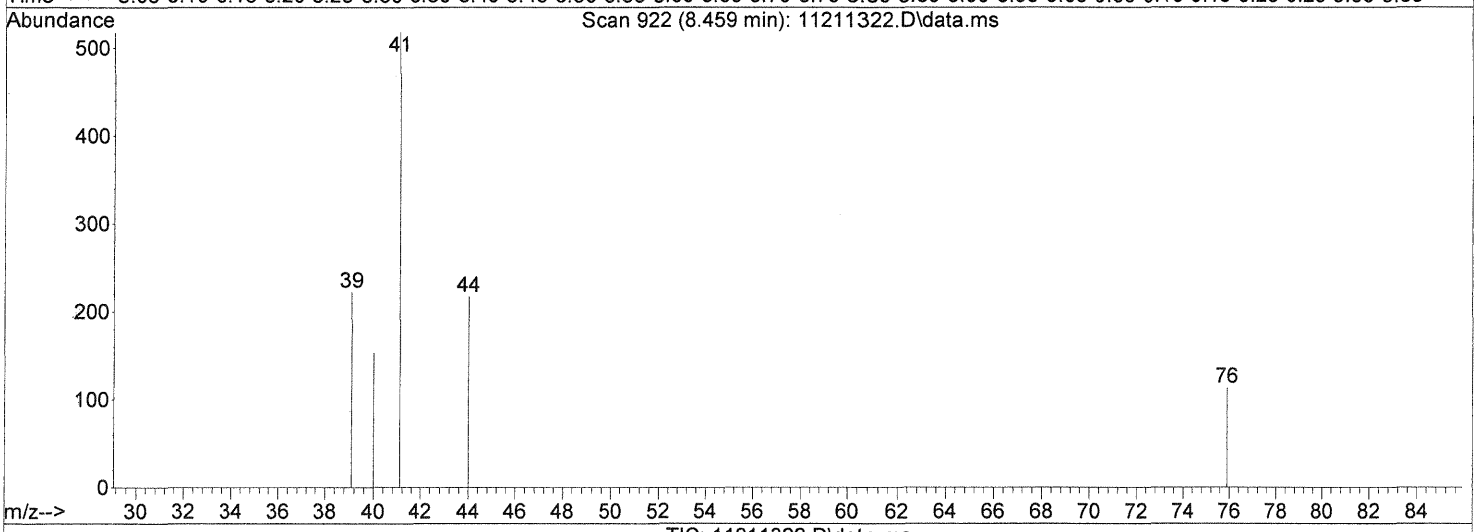
SP
CM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(20) 3-Chloro-1-propene (Allyl Chloride) (T)

8.459min (-0.016) 0.01ng

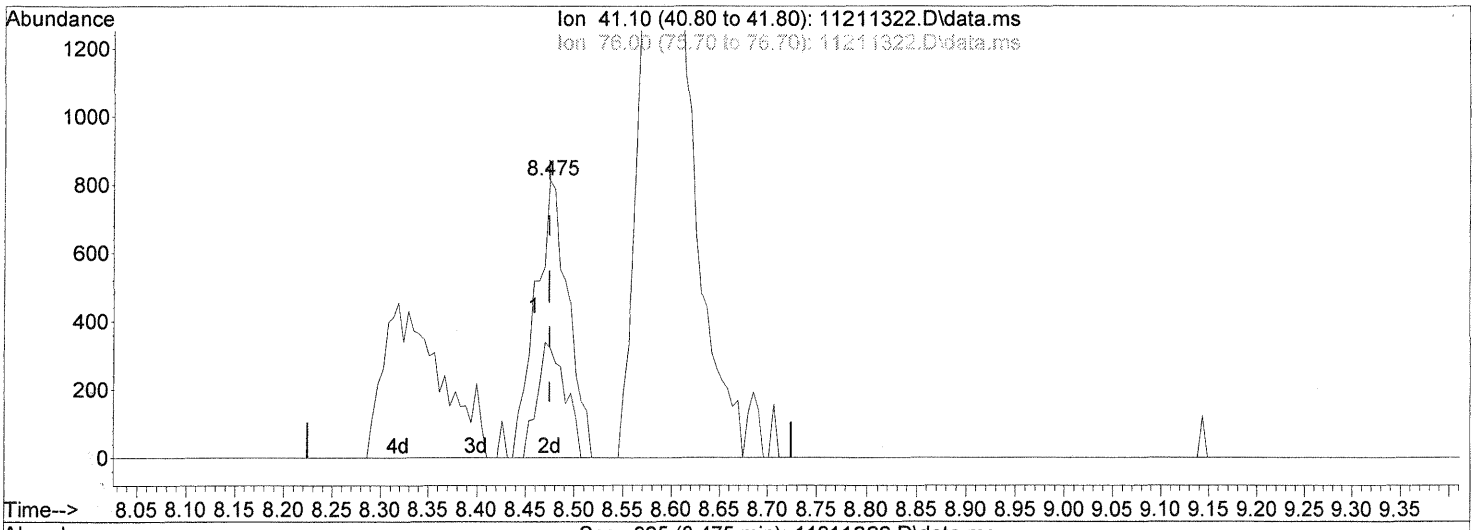
response 168

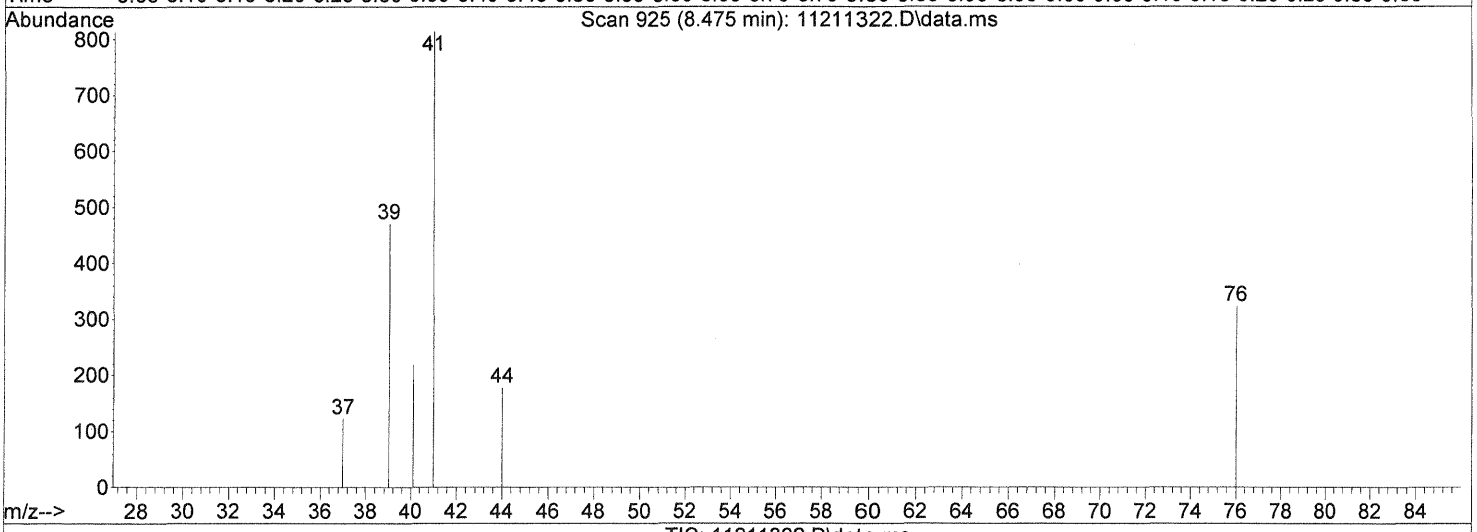
Ion	Exp%	Act%
41.10	100	100
76.00	34.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(20) 3-Chloro-1-propene (Allyl Chloride) (T)

8.475min (+0.000) 0.14ng m

response 1908

Ion	Exp%	Act%
41.10	100	100
76.00	34.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

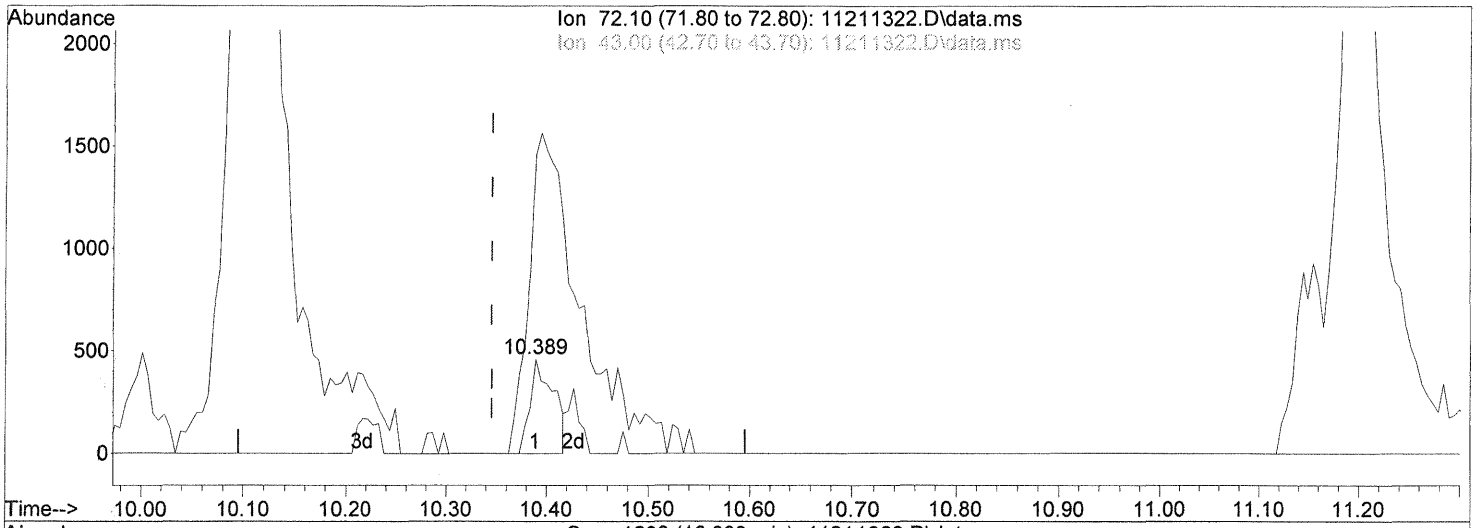
MP
CM 11/22/13

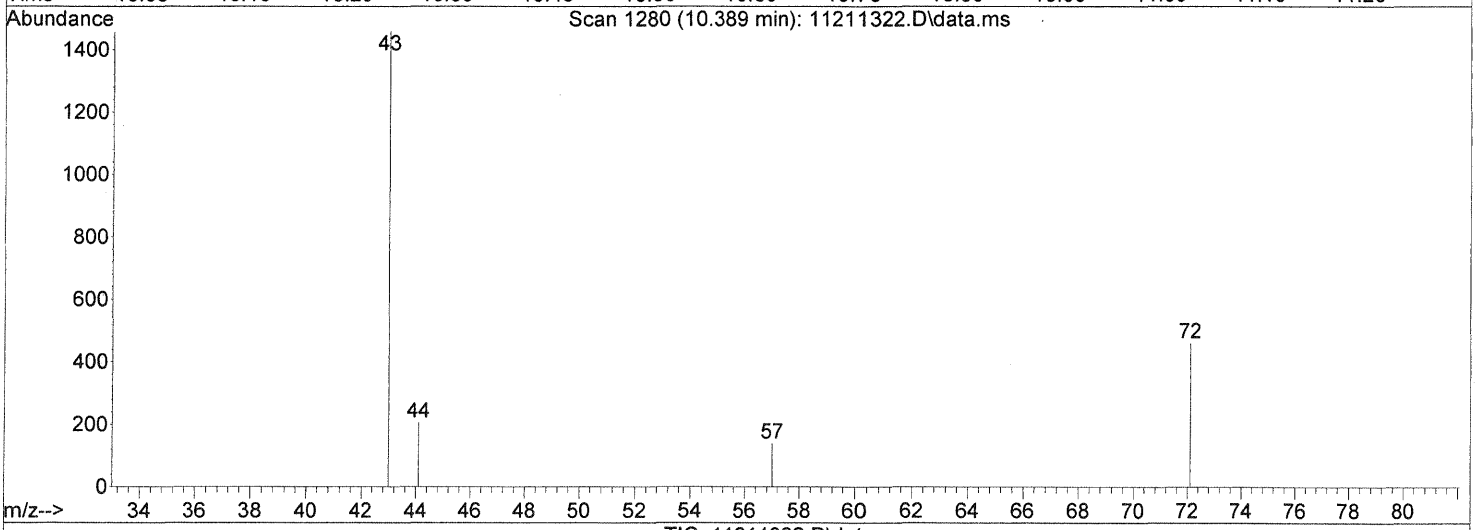
C 11/22/13

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(27) 2-Butanone (MEK) (T)

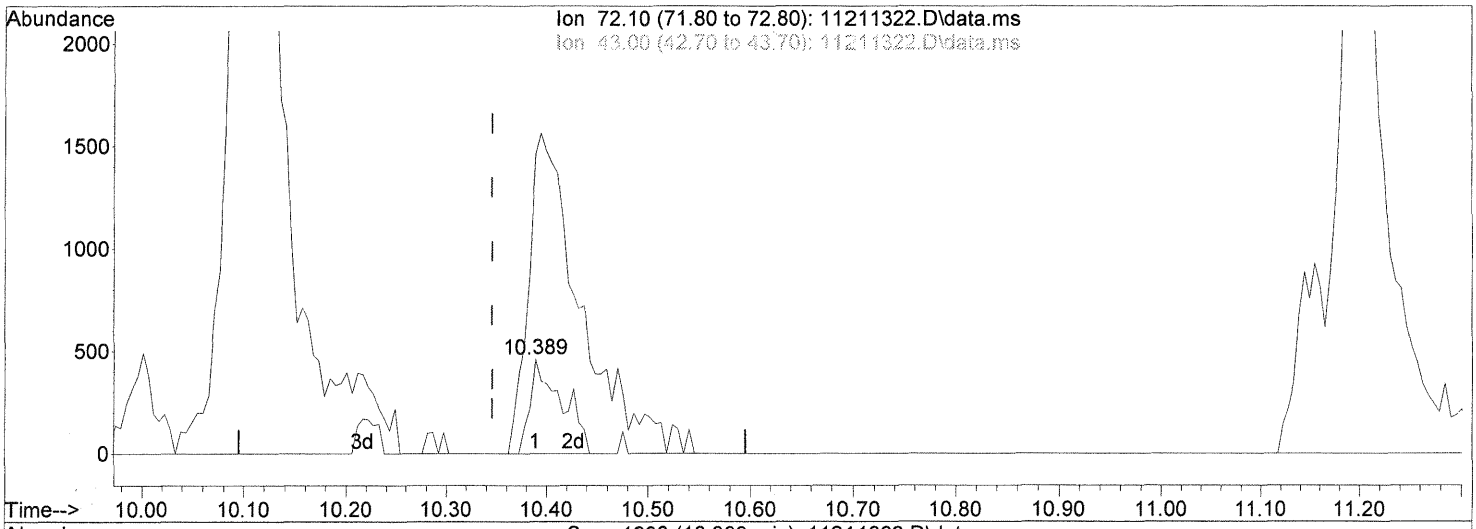
10.389min (+0.043) 0.10ng

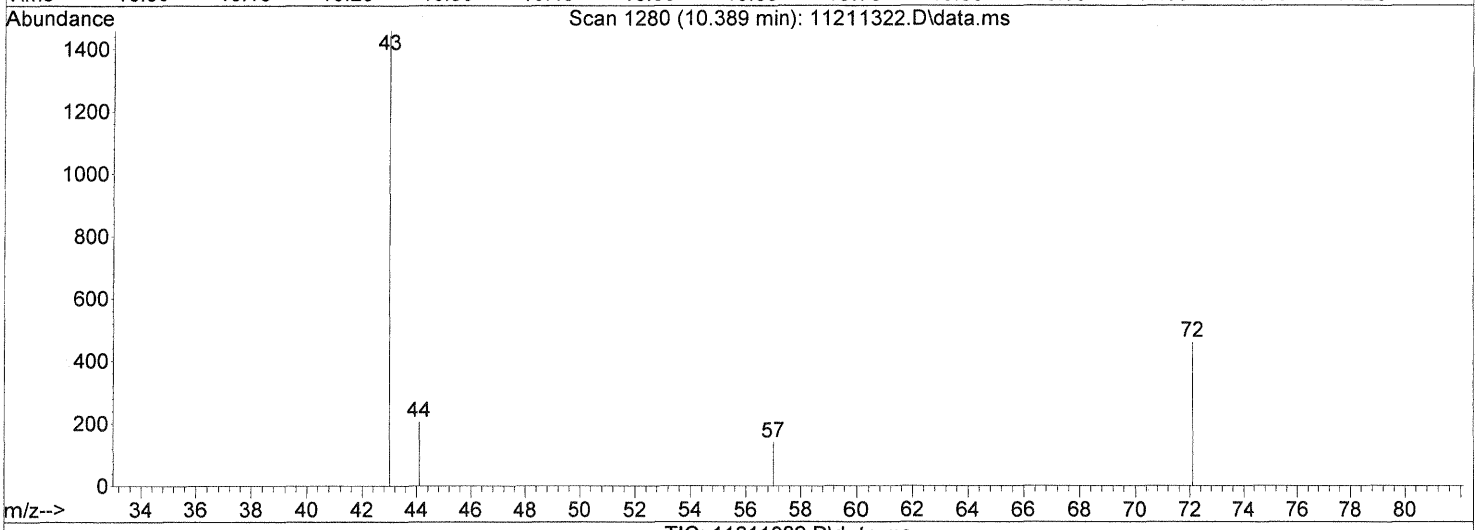
response 748

Ion	Exp%	Act%
72.10	100	100
43.00	414.50	663.77#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(27) 2-Butanone (MEK) (T)

10.389min (+0.043) 0.14ng m

response 1004

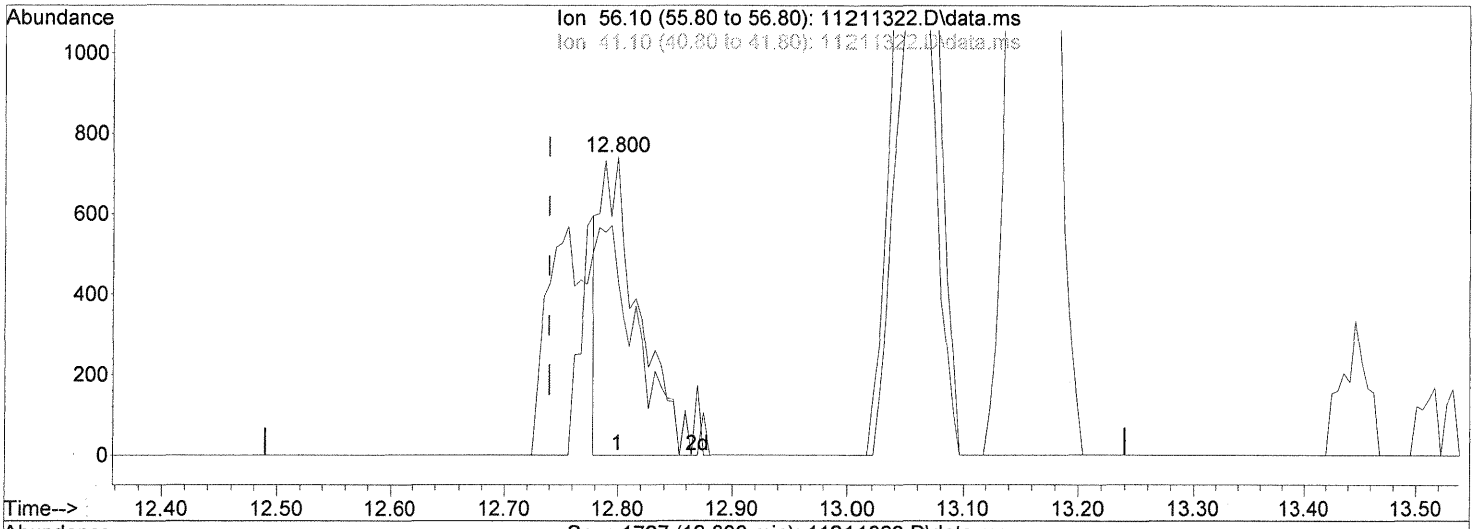
Ion	Exp%	Act%
72.10	100	100
43.00	414.50	494.52#
0.00	0.00	0.00
0.00	0.00	0.00

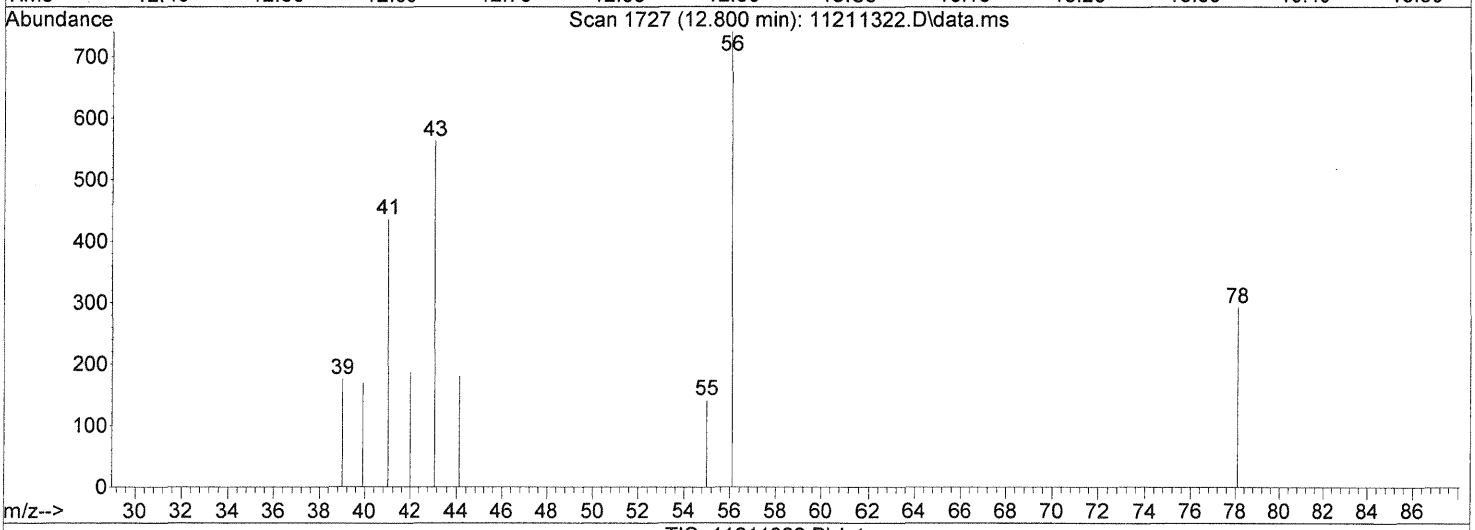
SP
CM 11/22/13
11/22/13

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(40) 1-Butanol (T)

12.800min (+0.059) 0.19ng

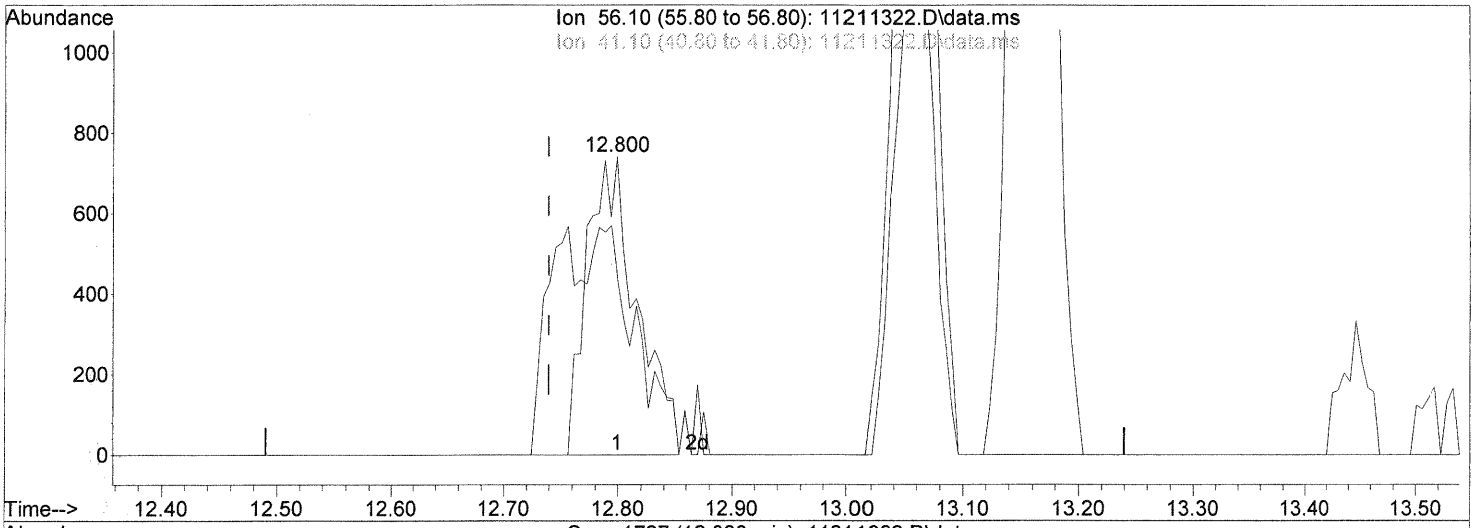
response 1728

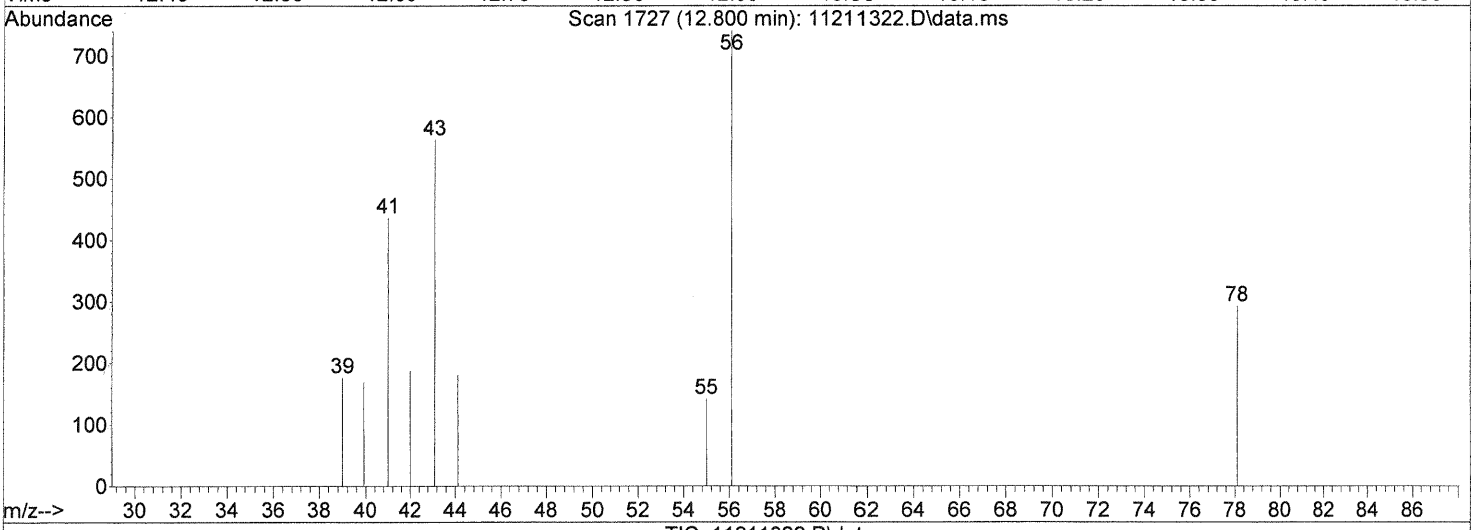
Ion	Exp%	Act%
56.10	100	100
41.10	106.00	74.94#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(40) 1-Butanol (T)

12.800min (+0.059) 0.25ng m

response 2232

Ion	Exp%	Act%
56.10	100	100
41.10	106.00	58.02#
0.00	0.00	0.00
0.00	0.00	0.00

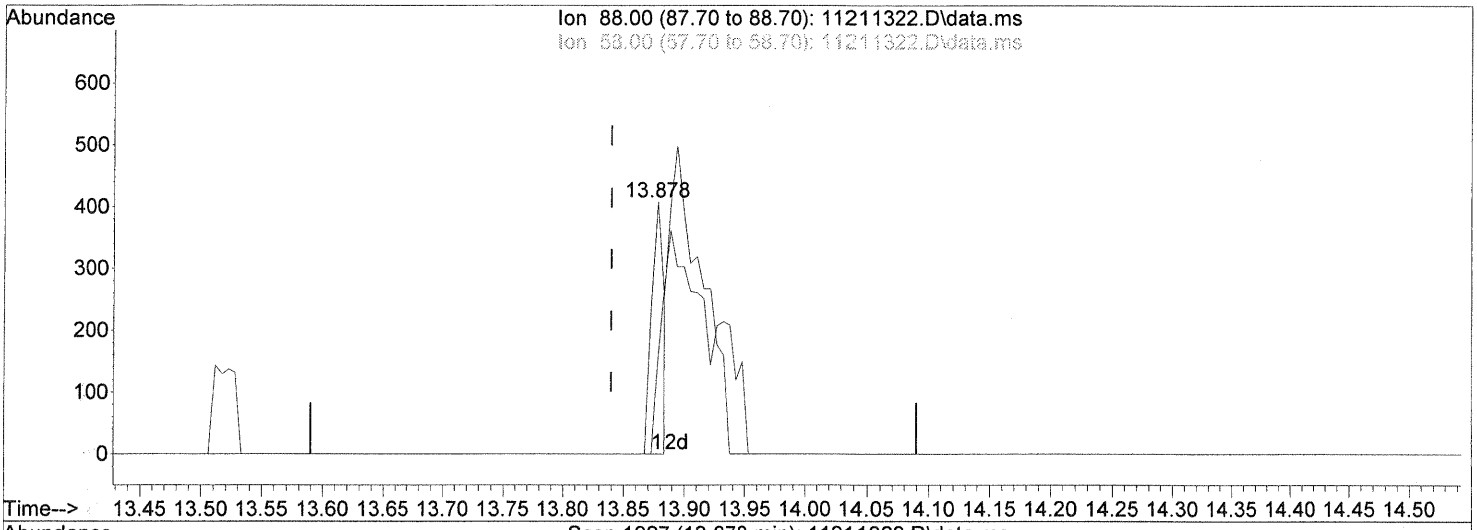
SP
cm 11/22/13

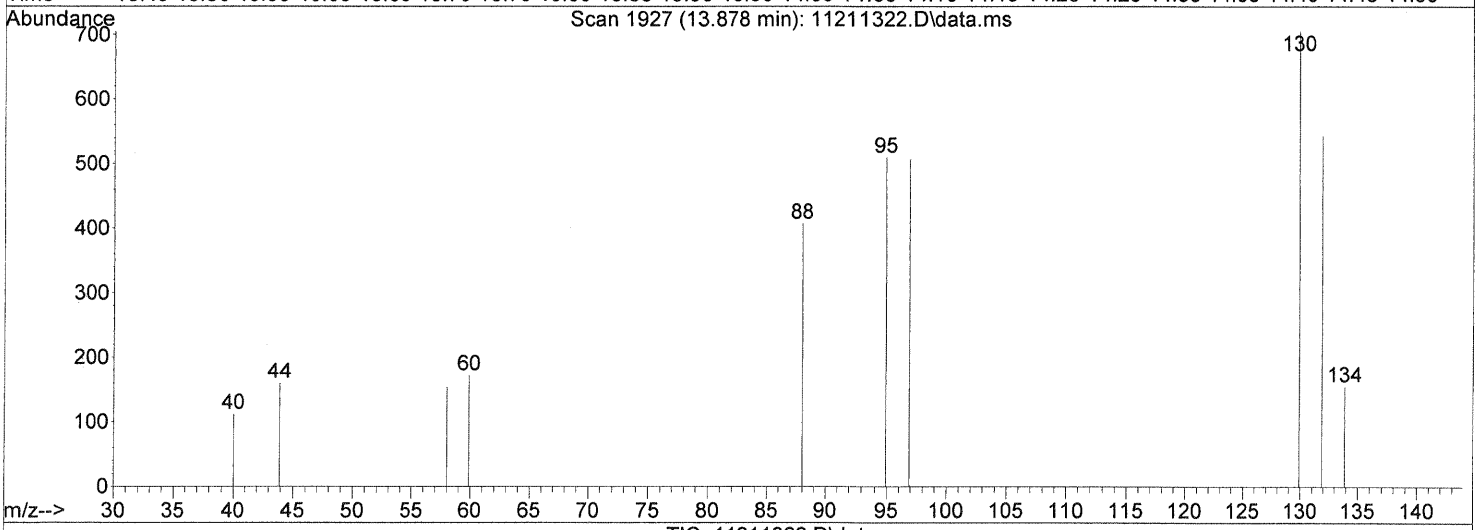
11/22/13

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(48) 1,4-Dioxane (T)

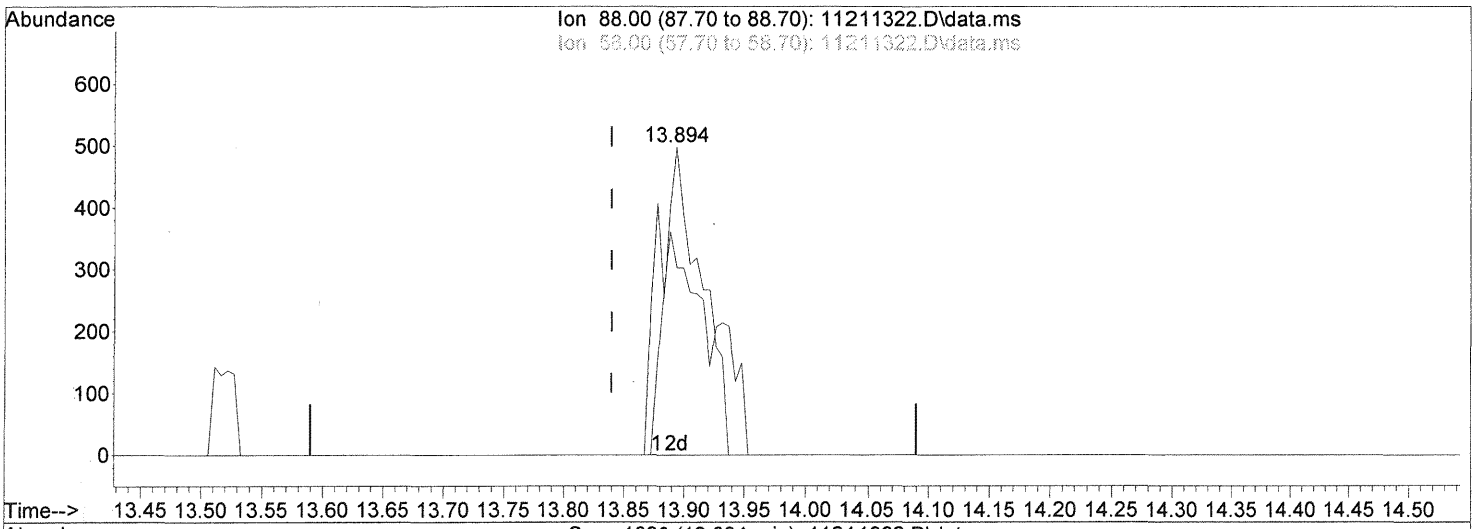
13.878min (+0.038) 0.03ng

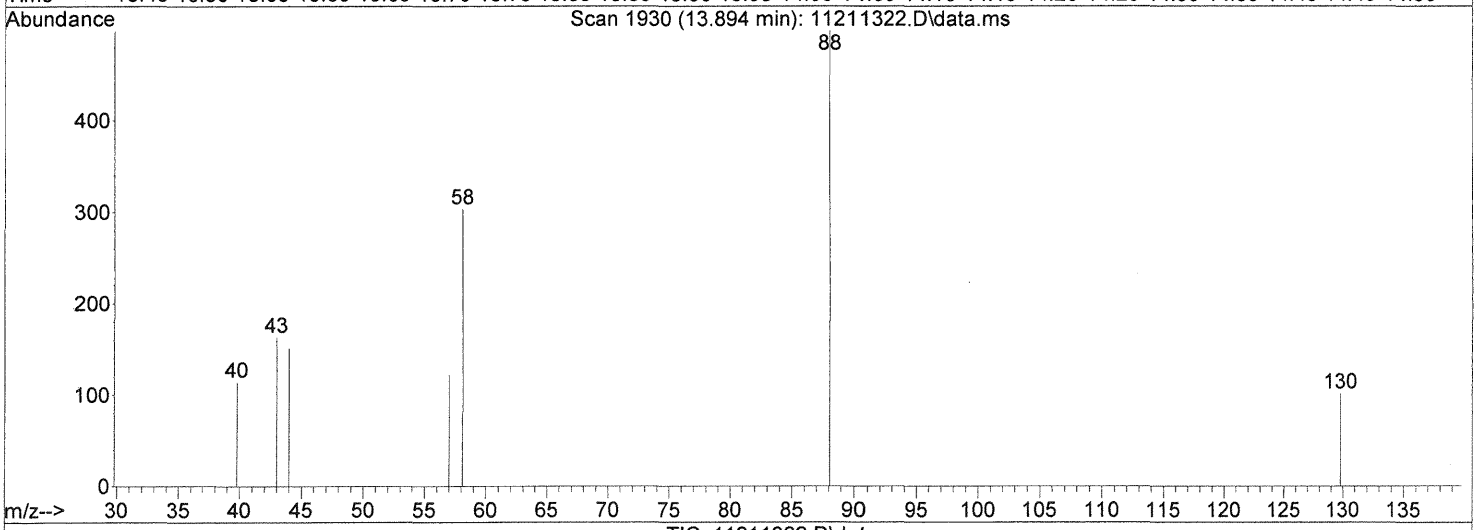
response 293

Ion	Exp%	Act%
88.00	100	100
58.00	61.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(48) 1,4-Dioxane (T)

13.894min (+0.054) 0.12ng m

response 1194

Ion	Exp%	Act%
88.00	100	100
58.00	61.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

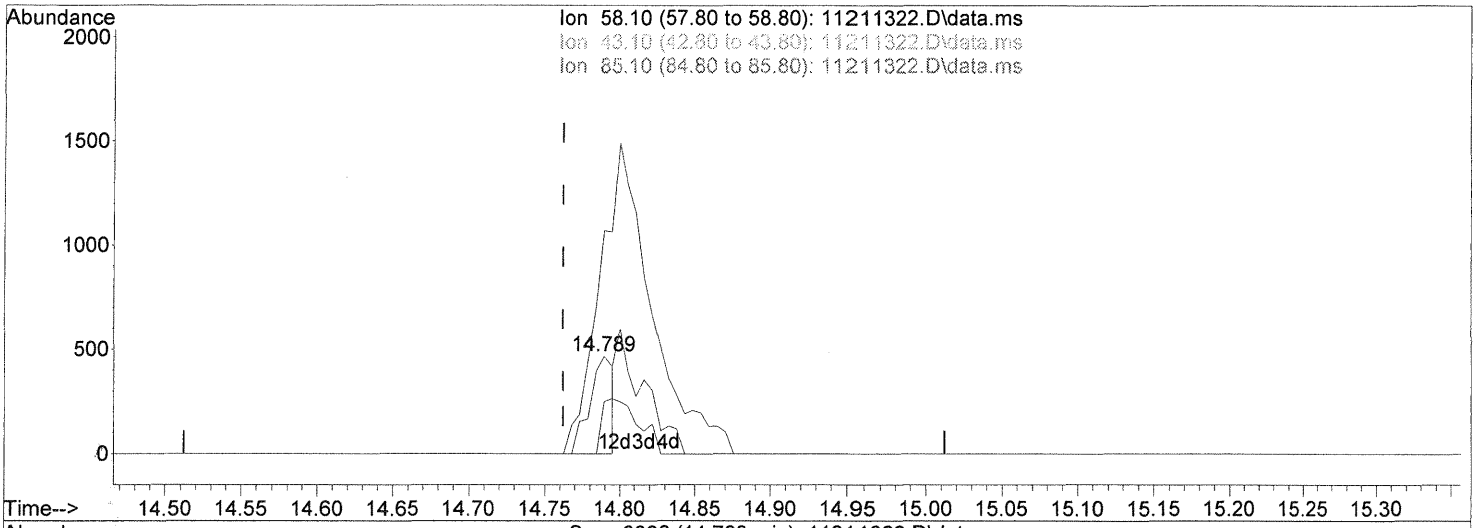
MP
EM 11/22/13

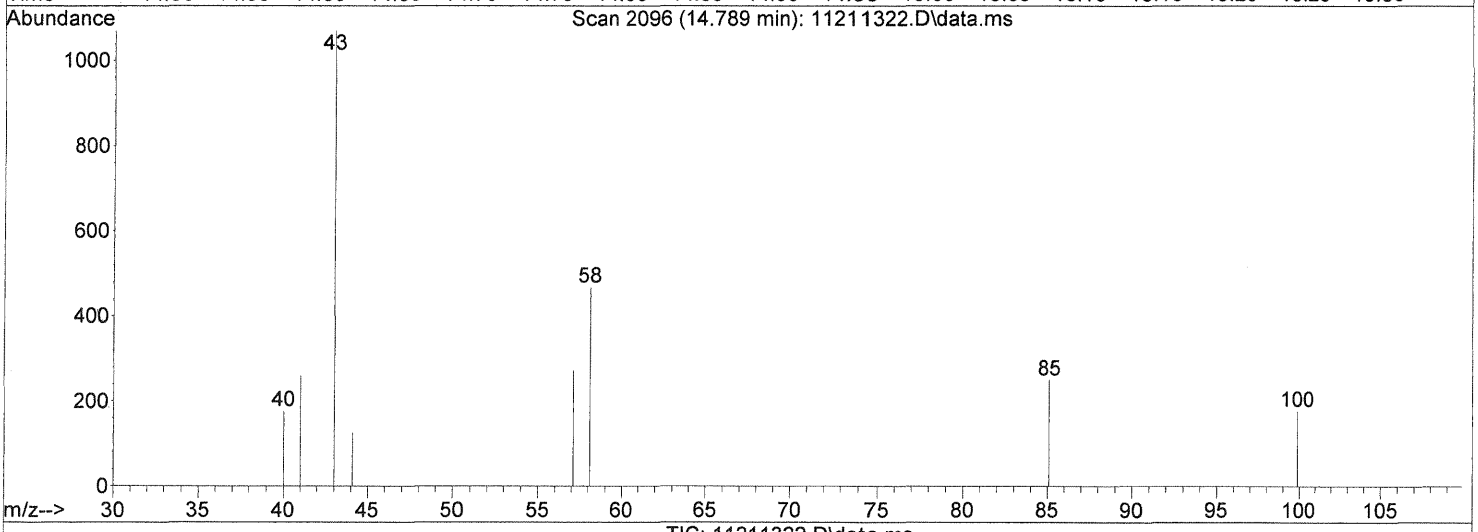
11/22/13

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(53) 4-Methyl-2-pentanone (T)

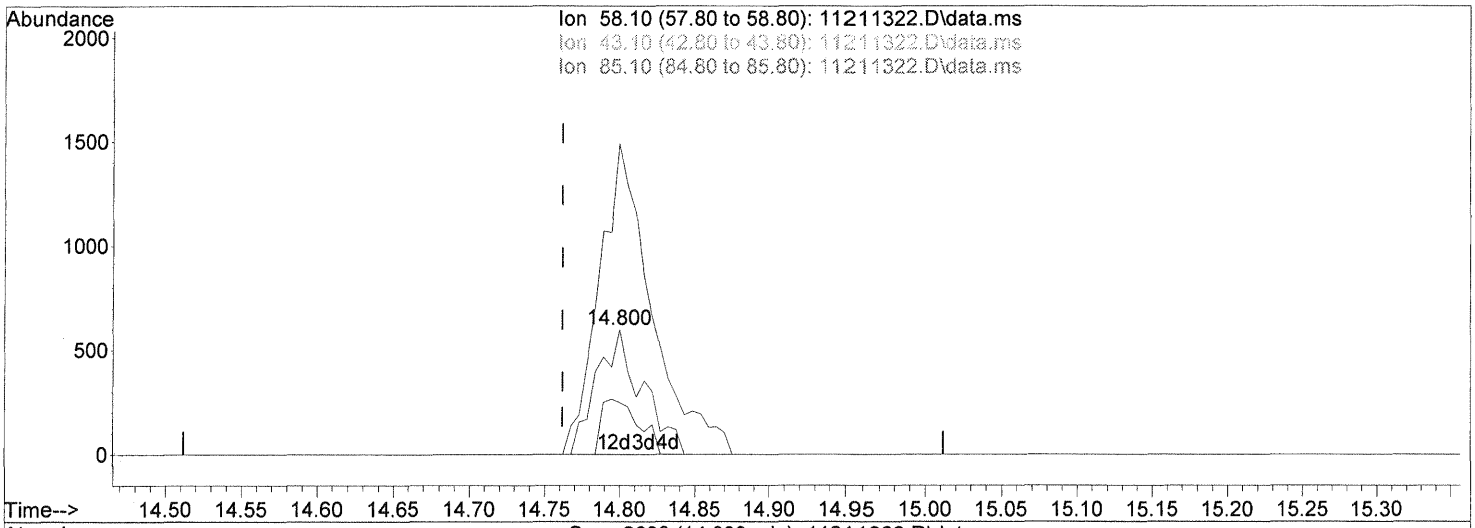
14.789min (+0.027) 0.05ng

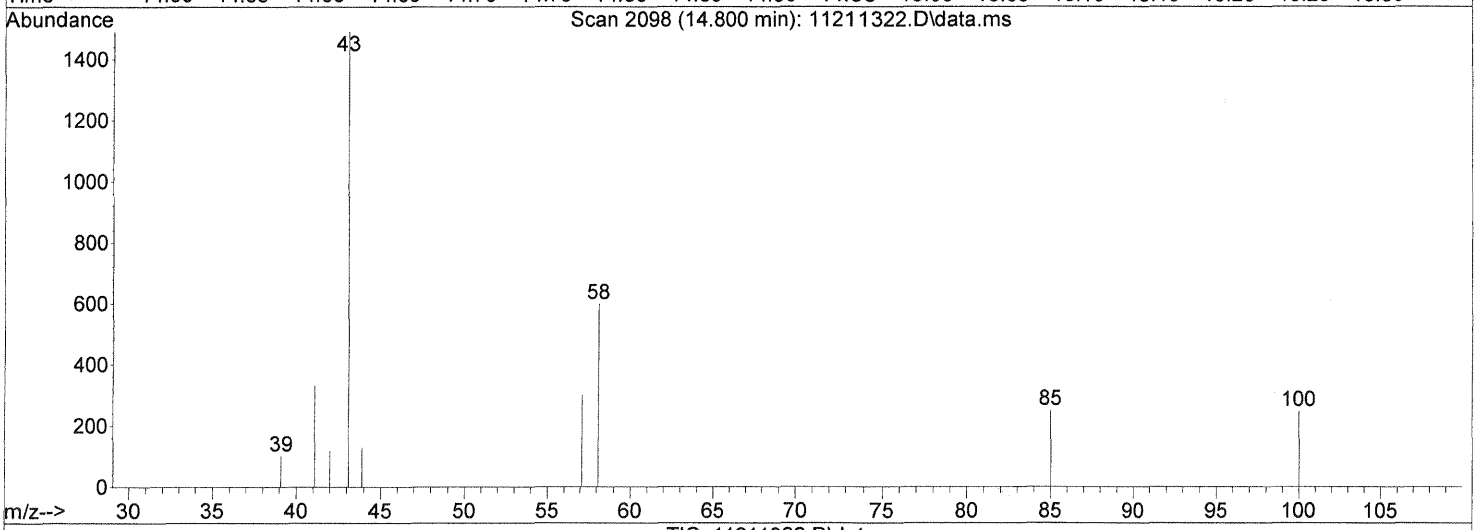
response 518

Ion	Exp%	Act%
58.10	100	100
43.10	252.80	0.00#
85.10	44.10	0.00#
0.00	0.00	0.00

Data File : I:\MS13\DATA\2013_11\21\11211322.D Vial: 11
Acq On : 21 Nov 2013 23:33 Operator: EM
Sample : 0.1ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:51:59 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211322.D\data.ms

(53) 4-Methyl-2-pentanone (T)

14.800min (+0.038) 0.13ng m

response 1254

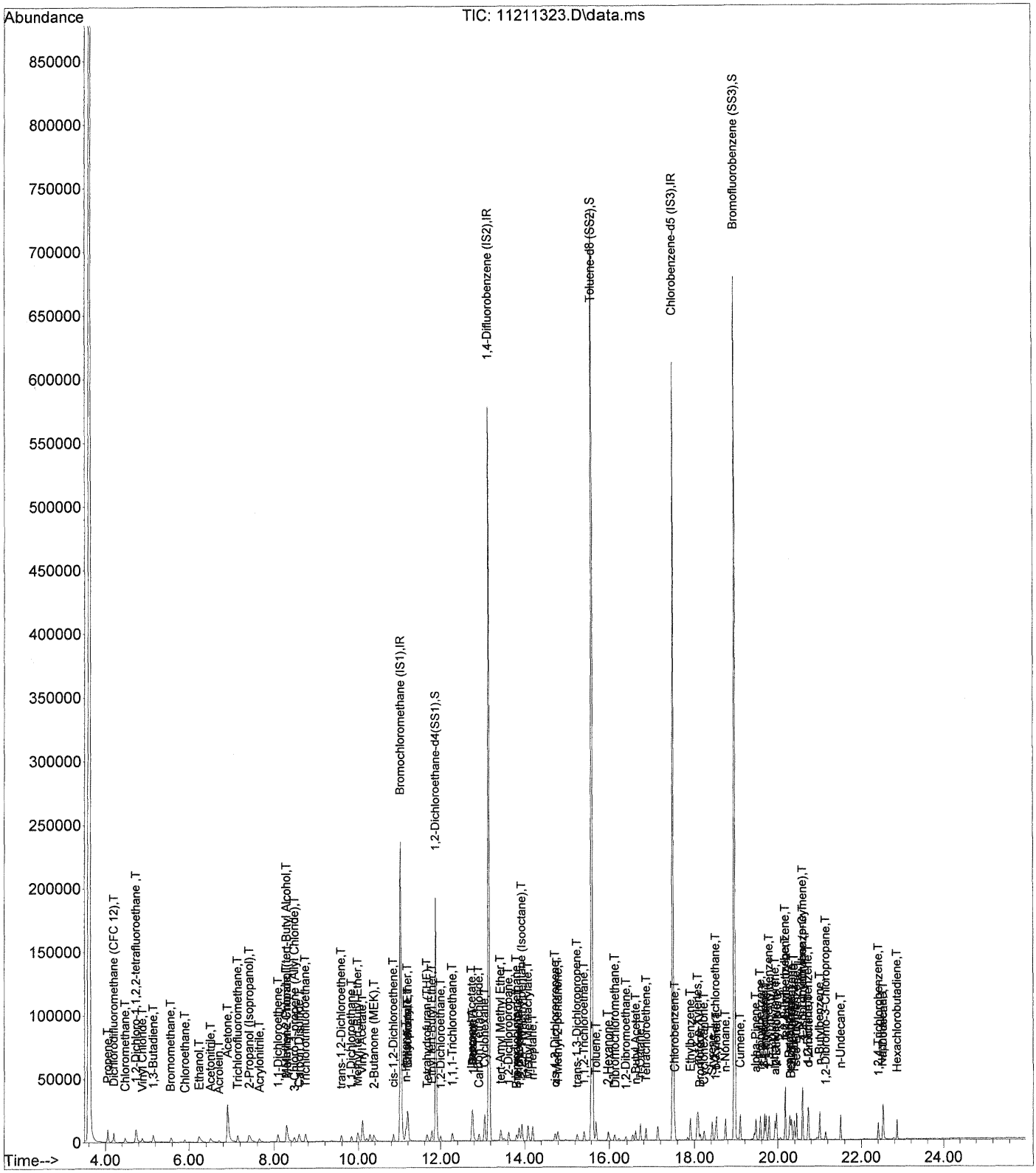
Ion	Exp%	Act%
58.10	100	100
43.10	252.80	0.00#
85.10	44.10	0.00#
0.00	0.00	0.00

SP
EM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211323.D Vial: 11
Acq On : 22 Nov 2013 00:08 Operator: EM
Sample : 0.2ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:55:04 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211323.D Vial: 11
Acq On : 22 Nov 2013 00:08 Operator: EM
Sample : 0.2ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:55:04 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	110368	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	556653	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	216963	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	155207	14.521	ng		-0.01
Spiked Amount 12.500			Recovery = 116.16%				
57) Toluene-d8 (SS2)	15.61	98	569346	11.940	ng		0.00
Spiked Amount 12.500			Recovery = 95.52%				
73) Bromofluorobenzene (SS3)	18.95	174	232876	10.365	ng		0.00
Spiked Amount 12.500			Recovery = 82.88%				
Target Compounds							Qvalue
2) Propene	4.05	42	3265	0.295	ng		96
3) Dichlorodifluoromethan...	4.20	85	6769	0.250	ng		99
4) Chloromethane	4.47	50	4444	0.258	ng		97
5) 1,2-Dichloro-1,1,2,2-t...	4.73	135	3447	0.204	ng		96
6) Vinyl Chloride	4.89	62	3981	0.220	ng		97
7) 1,3-Butadiene	5.15	54	2915	0.249	ng		94
8) Bromomethane	5.56	94	3442	0.257	ng		95
9) Chloroethane	5.90	64	2234	0.235	ng		95
10) Ethanol	6.24	45	10977	1.365	ng		95
11) Acetonitrile	6.50	41	5961	0.283	ng		87
12) Acrolein	6.70	56	1929	0.281	ng		94
13) Acetone	6.91	58	17682	2.068	ng		91
14) Trichlorofluoromethane	7.14	101	5786	0.239	ng		97
15) 2-Propanol (Isopropanol)	7.42	45	15411	0.575	ng		100
16) Acrylonitrile	7.65	53	3680	0.260	ng		90
17) 1,1-Dichloroethene	8.10	96	3215	0.255	ng		95
18) 2-Methyl-2-Propanol (t...	8.30	59	14377	0.532	ng		90
19) Methylene Chloride	8.30	84	4542	0.333	ng		100
20) 3-Chloro-1-propene (Al...	8.49	41	3537	0.261	ng		99
21) Trichlorotrifluoroethane	8.74	151	3283	0.238	ng		94
22) Carbon Disulfide	8.59	76	13894	0.297	ng		98
23) trans-1,2-Dichloroethene	9.59	61	3996	0.246	ng		99
24) 1,1-Dichloroethane	9.83	63	5742	0.269	ng		97
25) Methyl tert-Butyl Ether	9.98	73	9151	0.253	ng		97
26) Vinyl Acetate	10.10	86	2860	1.138	ng	#	83
27) 2-Butanone (MEK)	10.38	72	2366	0.327	ng	#	83
28) cis-1,2-Dichloroethene	10.85	61	4233	0.273	ng		93
29) Diisopropyl Ether	11.19	87	2913	0.260	ng	#	82
30) Ethyl Acetate	11.20	61	1967	0.522	ng		89
31) n-Hexane	11.15	57	5259	0.326	ng		97
32) Chloroform	11.20	83	5469	0.261	ng		99
34) Tetrahydrofuran (THF)	11.67	72	1818	0.243	ng	#	86
35) Ethyl tert-Butyl Ether	11.79	87	3343	0.228	ng		92
36) 1,2-Dichloroethane	12.01	62	3846	0.260	ng		68
38) 1,1,1-Trichloroethane	12.28	97	4845	0.249	ng		99
39) Isopropyl Acetate	12.75	61	3725	0.555	ng		94
40) 1-Butanol	12.78	56	4884	0.543	ng	#	70
41) Benzene	12.77	78	14644	0.281	ng		100
42) Carbon Tetrachloride	12.92	117	3912	0.226	ng		98
43) Cyclohexane	13.06	84	9105	0.473	ng		99
44) tert-Amyl Methyl Ether	13.43	73	8340	0.239	ng		94
45) 1,2-Dichloropropane	13.62	63	3042	0.259	ng		99
46) Bromodichloromethane	13.81	83	3801	0.237	ng		100

EM 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211323.D Vial: 11
Acq On : 22 Nov 2013 00:08 Operator: EM
Sample : 0.2ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:55:04 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

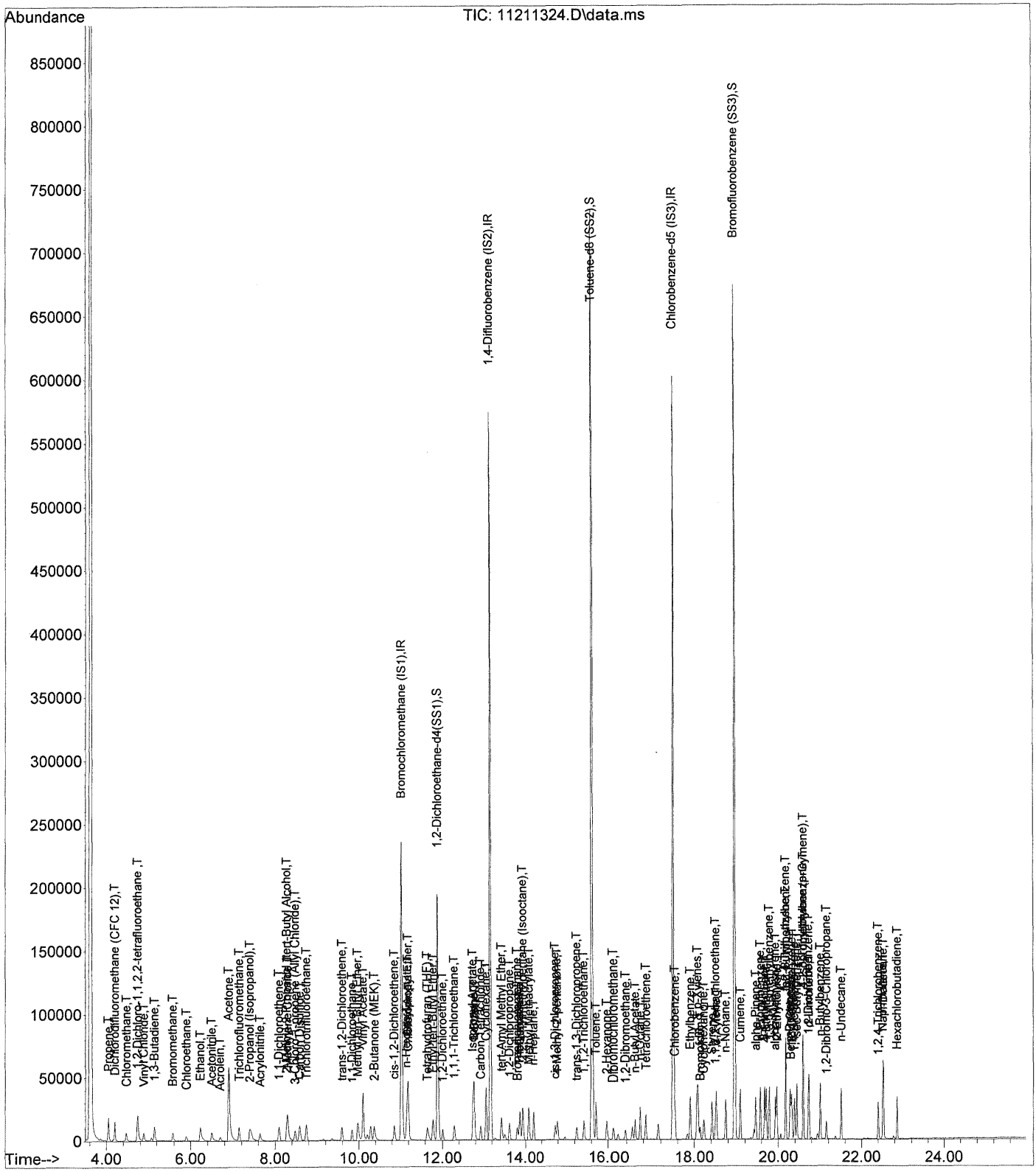
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	3900	0.244	ng	100
48) 1,4-Dioxane	13.88	88	2726	0.277	ng	96
49) 2,2,4-Trimethylpentane...	13.94	57	13271	0.268	ng	99
50) Methyl Methacrylate	14.09	100	2285	0.434	ng	99
51) n-Heptane	14.20	71	3155	0.279	ng	96
52) cis-1,3-Dichloropropene	14.74	75	4209	0.231	ng	98
53) 4-Methyl-2-pentanone	14.79	58	2736	0.283	ng	93
54) trans-1,3-Dichloropropene	15.25	75	3506	0.221	ng	96
55) 1,1,2-Trichloroethane	15.43	97	3099	0.243	ng	98
58) Toluene	15.71	91	13789	0.236	ng	94
59) 2-Hexanone	15.98	43	6804	0.312	ng	96
60) Dibromochloromethane	16.12	129	3307	0.211	ng	98
61) 1,2-Dibromoethane	16.37	107	3056	0.199	ng	96
62) n-Butyl Acetate	16.61	43	7249	0.303	ng	98
63) n-Octane	16.72	57	2396	0.232	ng	91
64) Tetrachloroethene	16.86	166	3659	0.174	ng	95
65) Chlorobenzene	17.53	112	8648	0.216	ng	94
66) Ethylbenzene	17.91	91	14374	0.227	ng	98
67) m- & p-Xylenes	18.08	91	22916	0.447	ng	97
68) Bromoform	18.13	173	2696	0.185	ng	98
69) Styrene	18.42	104	8060	0.203	ng	96
70) o-Xylene	18.53	91	11565	0.219	ng	98
71) n-Nonane	18.74	43	6406	0.280	ng	98
72) 1,1,2,2-Tetrachloroethane	18.50	83	4962	0.209	ng	97
74) Cumene	19.09	105	14568	0.206	ng	99
75) alpha-Pinene	19.46	93	6861	0.208	ng	100
76) n-Propylbenzene	19.57	91	17061	0.210	ng	98
77) 3-Ethyltoluene	19.67	105	14156	0.209	ng	100
78) 4-Ethyltoluene	19.71	105	13011	0.203	ng	99
79) 1,3,5-Trimethylbenzene	19.78	105	11871	0.210	ng	96
80) alpha-Methylstyrene	19.93	118	5303	0.174	ng	97
81) 2-Ethyltoluene	19.97	105	14194	0.214	ng	99
82) 1,2,4-Trimethylbenzene	20.18	105	11578	0.203	ng	99
83) n-Decane	20.28	57	6396	0.245	ng	98
84) Benzyl Chloride	20.31	91	6181	0.162	ng	95
85) 1,3-Dichlorobenzene	20.33	146	7177	0.195	ng	99
86) 1,4-Dichlorobenzene	20.39	146	7161	0.189	ng	99
87) sec-Butylbenzene	20.44	105	15887	0.215	ng	98
88) 4-Isopropyltoluene (p-...	20.59	119	14506	0.199	ng	99
89) 1,2,3-Trimethylbenzene	20.59	105	12215	0.213	ng	96
90) 1,2-Dichlorobenzene	20.72	146	6827	0.193	ng	98
91) d-Limonene	20.74	68	4145	0.228	ng	96
92) 1,2-Dibromo-3-Chloropr...	21.15	157	2058	0.168	ng	91
93) n-Undecane	21.51	57	6257	0.230	ng	98
94) 1,2,4-Trichlorobenzene	22.41	180	5238	0.179	ng	97
95) Naphthalene	22.52	128	14145	0.165	ng	95
96) n-Dodecane	22.53	57	6073	0.241	ng	99
97) Hexachlorobutadiene	22.86	225	3595	0.174	ng	93
98) Cyclohexanone	18.22	55	3857	0.257	ng	98
99) tert-Butylbenzene	20.18	119	11299	0.201	ng	98
100) n-Butylbenzene	21.00	91	12197	0.221	ng	99

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

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211324.D Vial: 11
Acq On : 22 Nov 2013 00:42 Operator: EM
Sample : 0.4ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:56:15 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211324.D Vial: 11
Acq On : 22 Nov 2013 00:42 Operator: EM
Sample : 0.4ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

Quant Time: Nov 22 06:56:15 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	109278	12.500	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	13.16	114	551017	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	215311	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	154939	14.640	ng		-0.01
Spiked Amount 12.500			Recovery = 117.12%				
57) Toluene-d8 (SS2)	15.61	98	560929	11.854	ng		0.00
Spiked Amount 12.500			Recovery = 94.80%				
73) Bromofluorobenzene (SS3)	18.95	174	230193	10.324	ng		0.00
Spiked Amount 12.500			Recovery = 82.56%				
Target Compounds							Qvalue
2) Propene	4.05	42	6854	0.626	ng		98
3) Dichlorodifluoromethan...	4.20	85	13212	0.493	ng		99
4) Chloromethane	4.47	50	8115	0.476	ng		97
5) 1,2-Dichloro-1,1,2,2-t...	4.73	135	6779	0.405	ng		97
6) Vinyl Chloride	4.88	62	7754	0.432	ng		99
7) 1,3-Butadiene	5.15	54	6007	0.519	ng		99
8) Bromomethane	5.57	94	5603	0.422	ng		97
9) Chloroethane	5.90	64	4351	0.462	ng		98
10) Ethanol	6.23	45	20500	2.575	ng		96
11) Acetonitrile	6.50	41	11405	0.547	ng		93
12) Acrolein	6.70	56	4144	0.610	ng	#	59
13) Acetone	6.90	58	35145	4.150	ng		88
14) Trichlorofluoromethane	7.15	101	11274	0.470	ng		98
15) 2-Propanol (Isopropanol)	7.40	45	28569	1.077	ng		97
16) Acrylonitrile	7.64	53	7499	0.534	ng		94
17) 1,1-Dichloroethene	8.10	96	6036	0.484	ng		100
18) 2-Methyl-2-Propanol (t...	8.28	59	25677	0.960	ng		97
19) Methylene Chloride	8.30	84	7278	0.538	ng		96
20) 3-Chloro-1-propene (Al...	8.47	41	7873	0.588	ng		94
21) Trichlorotrifluoroethane	8.74	151	5805	0.425	ng		96
22) Carbon Disulfide	8.58	76	25594	0.552	ng		98
23) trans-1,2-Dichloroethene	9.59	61	8470	0.526	ng		97
24) 1,1-Dichloroethane	9.83	63	10980	0.520	ng		99
25) Methyl tert-Butyl Ether	9.97	73	18305	0.511	ng		99
26) Vinyl Acetate	10.10	86	6206	2.493	ng		99
27) 2-Butanone (MEK)	10.37	72	4326	0.605	ng	#	64
28) cis-1,2-Dichloroethene	10.85	61	8164	0.532	ng		95
29) Diisopropyl Ether	11.19	87	5669	0.512	ng	#	82
30) Ethyl Acetate	11.18	61	4109	1.102	ng		98
31) n-Hexane	11.15	57	10105	0.633	ng		95
32) Chloroform	11.20	83	10720	0.517	ng		99
34) Tetrahydrofuran (THF)	11.65	72	3975	0.537	ng		97
35) Ethyl tert-Butyl Ether	11.78	87	6556	0.451	ng		94
36) 1,2-Dichloroethane	12.00	62	7597	0.519	ng		97
38) 1,1,1-Trichloroethane	12.28	97	8992	0.466	ng		99
39) Isopropyl Acetate	12.73	61	7216	1.085	ng		95
40) 1-Butanol	12.77	56	9814	1.102	ng	#	80
41) Benzene	12.77	78	26773	0.518	ng		99
42) Carbon Tetrachloride	12.92	117	7787	0.454	ng		100
43) Cyclohexane	13.06	84	18207	0.955	ng		100
44) tert-Amyl Methyl Ether	13.43	73	16378	0.473	ng		95
45) 1,2-Dichloropropane	13.62	63	6289	0.542	ng		100
46) Bromodichloromethane	13.81	83	7829	0.494	ng		99

OM 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211324.D Vial: 11
Acq On : 22 Nov 2013 00:42 Operator: EM
Sample : 0.4ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11191301 (12/18)

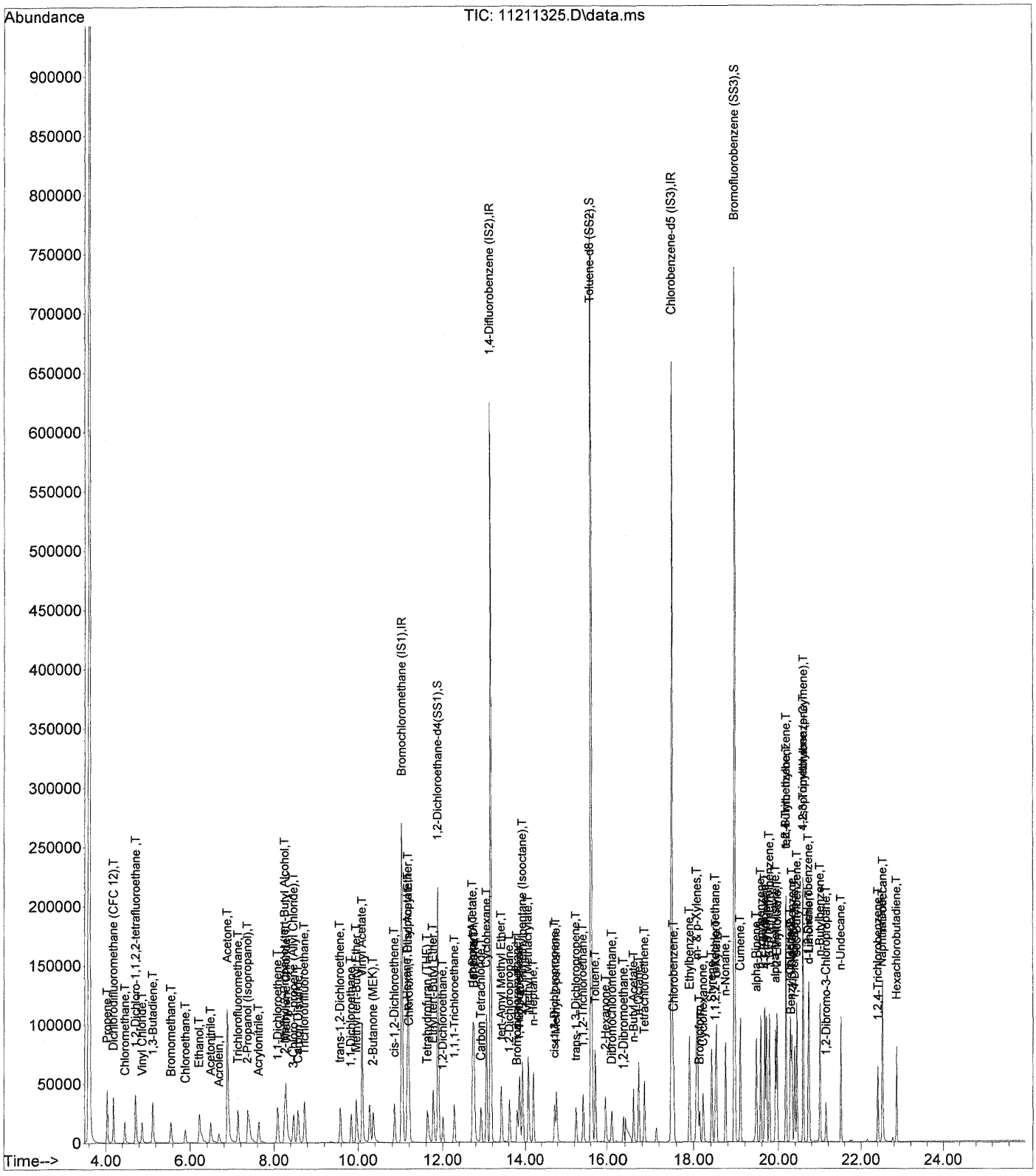
Quant Time: Nov 22 06:56:15 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	7324	0.463	ng	100
48) 1,4-Dioxane	13.87	88	5197	0.533	ng	99
49) 2,2,4-Trimethylpentane...	13.94	57	25613	0.522	ng	99
50) Methyl Methacrylate	14.09	100	4509	0.864	ng	99
51) n-Heptane	14.20	71	5890	0.527	ng	97
52) cis-1,3-Dichloropropene	14.73	75	8113	0.451	ng	100
53) 4-Methyl-2-pentanone	14.78	58	5512	0.576	ng	97
54) trans-1,3-Dichloropropene	15.25	75	7434	0.474	ng	96
55) 1,1,2-Trichloroethane	15.42	97	5836	0.463	ng	100
58) Toluene	15.71	91	25726	0.444	ng	96
59) 2-Hexanone	15.98	43	13807	0.638	ng	98
60) Dibromochloromethane	16.11	129	6588	0.423	ng	99
61) 1,2-Dibromoethane	16.37	107	6623	0.435	ng	98
62) n-Butyl Acetate	16.60	43	15040	0.633	ng	97
63) n-Octane	16.73	57	5084	0.497	ng	99
64) Tetrachloroethene	16.86	166	7213	0.345	ng	97
65) Chlorobenzene	17.53	112	17095	0.429	ng	100
66) Ethylbenzene	17.91	91	27985	0.445	ng	100
67) m- & p-Xylenes	18.08	91	43661	0.858	ng	99
68) Bromoform	18.14	173	5688	0.392	ng	99
69) Styrene	18.42	104	16657	0.423	ng	99
70) o-Xylene	18.53	91	22268	0.425	ng	100
71) n-Nonane	18.74	43	12288	0.541	ng	99
72) 1,1,2,2-Tetrachloroethane	18.50	83	10532	0.448	ng	97
74) Cumene	19.09	105	28366	0.405	ng	99
75) alpha-Pinene	19.46	93	13887	0.424	ng	92
76) n-Propylbenzene	19.57	91	34288	0.425	ng	99
77) 3-Ethyltoluene	19.67	105	28390	0.422	ng	98
78) 4-Ethyltoluene	19.71	105	26673	0.418	ng	100
79) 1,3,5-Trimethylbenzene	19.78	105	23479	0.418	ng	98
80) alpha-Methylstyrene	19.93	118	11082	0.366	ng	87
81) 2-Ethyltoluene	19.97	105	26945	0.409	ng	99
82) 1,2,4-Trimethylbenzene	20.18	105	23539	0.417	ng	99
83) n-Decane	20.28	57	12342	0.476	ng	95
84) Benzyl Chloride	20.30	91	14007	0.370	ng	95
85) 1,3-Dichlorobenzene	20.32	146	14574	0.400	ng	99
86) 1,4-Dichlorobenzene	20.39	146	14428	0.384	ng	98
87) sec-Butylbenzene	20.44	105	31136	0.425	ng	99
88) 4-Isopropyltoluene (p-...	20.59	119	28706	0.396	ng	98
89) 1,2,3-Trimethylbenzene	20.59	105	23812	0.418	ng	99
90) 1,2-Dichlorobenzene	20.72	146	13542	0.386	ng	98
91) d-Limonene	20.73	68	8454	0.468	ng	100
92) 1,2-Dibromo-3-Chloropr...	21.15	157	4332	0.356	ng	92
93) n-Undecane	21.51	57	12812	0.475	ng	99
94) 1,2,4-Trichlorobenzene	22.40	180	10559	0.364	ng	99
95) Naphthalene	22.52	128	29936	0.351	ng	98
96) n-Dodecane	22.53	57	13071	0.522	ng	97
97) Hexachlorobutadiene	22.86	225	7389	0.360	ng	95
98) Cyclohexanone	18.22	55	8323	0.559	ng	99
99) tert-Butylbenzene	20.18	119	23373	0.419	ng	100
100) n-Butylbenzene	21.00	91	25071	0.457	ng	99

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

Data File : I:\MS13\DATA\2013_11\21\11211325.D Vial: 10
Acq On : 22 Nov 2013 1:17 Operator: EM
Sample : 1.0ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181302 (12/17)

Quant Time: Nov 22 06:59:02 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211325.D Vial: 10
Acq On : 22 Nov 2013 1:17 Operator: EM
Sample : 1.0ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181302 (12/17)

Quant Time: Nov 22 06:59:02 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	121835	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	13.16	114	593044	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	235346	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	169704	14.383	ng		-0.01
Spiked Amount 12.500			Recovery = 115.04%				
57) Toluene-d8 (SS2)	15.61	98	610914	11.811	ng		0.00
Spiked Amount 12.500			Recovery = 94.48%				
73) Bromofluorobenzene (SS3)	18.95	174	254446	10.440	ng		0.00
Spiked Amount 12.500			Recovery = 83.52%				
Target Compounds							Qvalue
2) Propene	4.03	42	16768	1.373	ng		99
3) Dichlorodifluoromethan...	4.18	85	35266	1.180	ng		99
4) Chloromethane	4.46	50	22427	1.180	ng		94
5) 1,2-Dichloro-1,1,2,2-t...	4.72	135	18351	0.983	ng		99
6) Vinyl Chloride	4.87	62	21213	1.060	ng		98
7) 1,3-Butadiene	5.13	54	17855	1.383	ng		100
8) Bromomethane	5.56	94	15653	1.058	ng		100
9) Chloroethane	5.89	64	12092	1.153	ng		100
10) Ethanol	6.22	45	50877	5.732	ng		97
11) Acetonitrile	6.48	41	28078	1.209	ng		98
12) Acrolein	6.68	56	9426	1.245	ng		97
13) Acetone	6.88	58	61504	6.515	ng		99
14) Trichlorofluoromethane	7.14	101	29864	1.116	ng		100
15) 2-Propanol (Isopropanol)	7.37	45	81054	2.742	ng		99
16) Acrylonitrile	7.63	53	20165	1.289	ng		98
17) 1,1-Dichloroethene	8.09	96	16423	1.180	ng		99
18) 2-Methyl-2-Propanol (t...	8.26	59	78863	2.644	ng		98
19) Methylene Chloride	8.30	84	17830	1.183	ng		100
20) 3-Chloro-1-propene (Al...	8.47	41	21317	1.427	ng		98
21) Trichlorotrifluoroethane	8.73	151	15929	1.045	ng		100
22) Carbon Disulfide	8.58	76	56658	1.096	ng		99
23) trans-1,2-Dichloroethene	9.57	61	22304	1.242	ng		100
24) 1,1-Dichloroethane	9.83	63	28391	1.207	ng		99
25) Methyl tert-Butyl Ether	9.96	73	47567	1.191	ng		99
26) Vinyl Acetate	10.10	86	15706	5.660	ng	#	90
27) 2-Butanone (MEK)	10.36	72	10659	1.336	ng		98
28) cis-1,2-Dichloroethene	10.85	61	22529	1.316	ng		100
29) Diisopropyl Ether	11.18	87	15542	1.259	ng	#	91
30) Ethyl Acetate	11.18	61	11197	2.693	ng		100
31) n-Hexane	11.15	57	24641	1.384	ng		97
32) Chloroform	11.20	83	28672	1.239	ng		100
34) Tetrahydrofuran (THF)	11.63	72	10391	1.259	ng		99
35) Ethyl tert-Butyl Ether	11.76	87	19129	1.181	ng		97
36) 1,2-Dichloroethane	12.00	62	20158	1.235	ng		100
38) 1,1,1-Trichloroethane	12.29	97	23147	1.115	ng		96
39) Isopropyl Acetate	12.73	61	20249	2.830	ng	#	89
40) 1-Butanol	12.75	56	24624	2.569	ng		86
41) Benzene	12.76	78	65610	1.180	ng		100
42) Carbon Tetrachloride	12.92	117	21140	1.145	ng		98
43) Cyclohexane	13.06	84	46762	2.280	ng		100
44) tert-Amyl Methyl Ether	13.42	73	44889	1.206	ng		98
45) 1,2-Dichloropropane	13.62	63	16085	1.287	ng		98
46) Bromodichloromethane	13.80	83	20893	1.224	ng		100

EM 11/22/13

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211325.D Vial: 10
Acq On : 22 Nov 2013 1:17 Operator: EM
Sample : 1.0ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181302 (12/17)

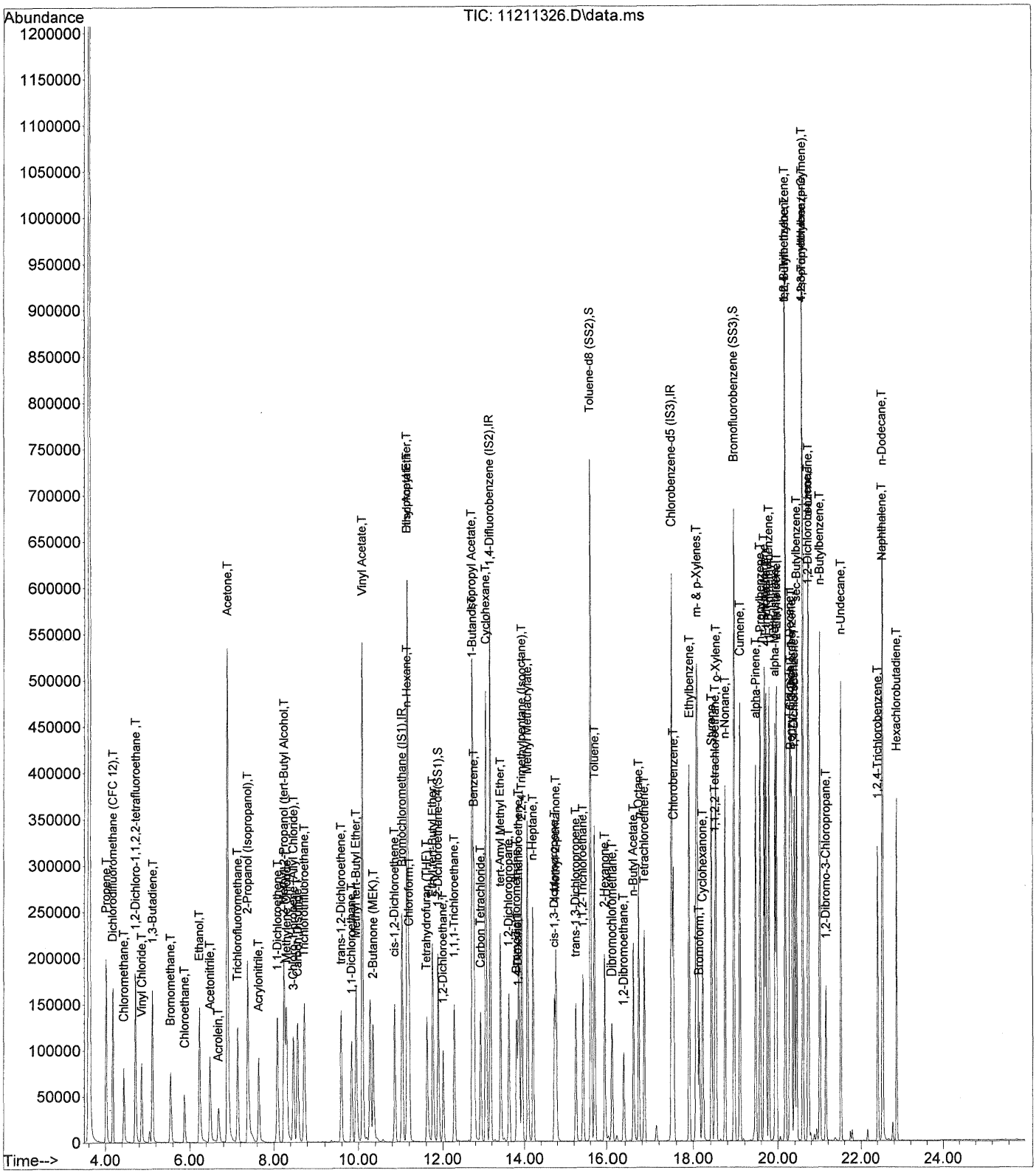
Quant Time: Nov 22 06:59:02 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	17599	1.033	ng	99
48) 1,4-Dioxane	13.85	88	12795	1.218	ng	98
49) 2,2,4-Trimethylpentane...	13.94	57	68805	1.304	ng	99
50) Methyl Methacrylate	14.07	100	12786	2.278	ng	96
51) n-Heptane	14.20	71	15058	1.251	ng	99
52) cis-1,3-Dichloropropene	14.73	75	22738	1.173	ng	99
53) 4-Methyl-2-pentanone	14.77	58	14391	1.396	ng	95
54) trans-1,3-Dichloropropene	15.25	75	19176	1.135	ng	99
55) 1,1,2-Trichloroethane	15.42	97	15908	1.172	ng	99
58) Toluene	15.71	91	64924	1.026	ng	98
59) 2-Hexanone	15.96	43	36640	1.548	ng	96
60) Dibromochloromethane	16.12	129	18056	1.061	ng	100
61) 1,2-Dibromoethane	16.37	107	17311	1.041	ng	99
62) n-Butyl Acetate	16.60	43	40161	1.546	ng	99
63) n-Octane	16.72	57	13211	1.181	ng	99
64) Tetrachloroethene	16.85	166	19210	0.841	ng	99
65) Chlorobenzene	17.53	112	44082	1.013	ng	100
66) Ethylbenzene	17.91	91	73300	1.067	ng	99
67) m- & p-Xylenes	18.08	91	116681	2.098	ng	99
68) Bromoform	18.14	173	14987	0.946	ng	97
69) Styrene	18.42	104	44175	1.026	ng	99
70) o-Xylene	18.53	91	58149	1.016	ng	100
71) n-Nonane	18.74	43	31879	1.285	ng	100
72) 1,1,2,2-Tetrachloroethane	18.50	83	26178	1.019	ng	100
74) Cumene	19.09	105	75044	0.981	ng	99
75) alpha-Pinene	19.46	93	37121	1.037	ng	97
76) n-Propylbenzene	19.57	91	90072	1.021	ng	100
77) 3-Ethyltoluene	19.67	105	75770	1.030	ng	100
78) 4-Ethyltoluene	19.71	105	69597	0.999	ng	99
79) 1,3,5-Trimethylbenzene	19.78	105	62570	1.019	ng	99
80) alpha-Methylstyrene	19.93	118	31007	0.936	ng	98
81) 2-Ethyltoluene	19.97	105	72073	1.000	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	61437	0.995	ng	100
83) n-Decane	20.28	57	33283	1.175	ng	99
84) Benzyl Chloride	20.30	91	37416	0.904	ng	99
85) 1,3-Dichlorobenzene	20.32	146	36593	0.918	ng	98
86) 1,4-Dichlorobenzene	20.39	146	36390	0.886	ng	100
87) sec-Butylbenzene	20.44	105	82531	1.032	ng	99
88) 4-Isopropyltoluene (p-...	20.59	119	76355	0.964	ng	99
89) 1,2,3-Trimethylbenzene	20.59	105	63741	1.023	ng	100
90) 1,2-Dichlorobenzene	20.72	146	34843	0.908	ng	99
91) d-Limonene	20.74	68	22864	1.158	ng	98
92) 1,2-Dibromo-3-Chloropr...	21.15	157	10204	0.768	ng	94
93) n-Undecane	21.51	57	33261	1.129	ng	100
94) 1,2,4-Trichlorobenzene	22.41	180	22718	0.716	ng	99
95) Naphthalene	22.52	128	62346	0.669	ng	99
96) n-Dodecane	22.53	57	30446	1.112	ng	99
97) Hexachlorobutadiene	22.86	225	16274	0.725	ng	100
98) Cyclohexanone	18.22	55	21178	1.301	ng	99
99) tert-Butylbenzene	20.18	119	61056	1.000	ng	100
100) n-Butylbenzene	21.00	91	64605	1.078	ng	100

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

Data File : I:\MS13\DATA\2013_11\21\11211326.D Vial: 10
Acq On : 22 Nov 2013 1:51 Operator: EM
Sample : 5.0ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181302 (12/17)

Quant Time: Nov 22 07:00:09 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211326.D Vial: 10
Acq On : 22 Nov 2013 1:51 Operator: EM
Sample : 5.0ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181302 (12/17)

Quant Time: Nov 22 07:00:09 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.04	130	111369	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	13.17	114	551390	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	218521	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.89	65	157905	14.641	ng		0.00
Spiked Amount 12.500			Recovery = 117.12%				
57) Toluene-d8 (SS2)	15.61	98	562071	11.703	ng		0.00
Spiked Amount 12.500			Recovery = 93.60%				
73) Bromofluorobenzene (SS3)	18.95	174	233751	10.330	ng		0.00
Spiked Amount 12.500			Recovery = 82.64%				
Target Compounds							Qvalue
2) Propene	4.02	42	74901	6.709	ng		100
3) Dichlorodifluoromethan...	4.17	85	158728	5.811	ng		100
4) Chloromethane	4.44	50	98753	5.685	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	82284	4.823	ng		99
6) Vinyl Chloride	4.86	62	97818	5.348	ng		99
7) 1,3-Butadiene	5.12	54	82347	6.976	ng		99
8) Bromomethane	5.55	94	62408	4.616	ng		100
9) Chloroethane	5.88	64	52792	5.506	ng		99
10) Ethanol	6.23	45	229980	28.347	ng		100
11) Acetonitrile	6.49	41	127770	6.017	ng		100
12) Acrolein	6.68	56	45743	6.608	ng		97
13) Acetone	6.89	58	277400	32.144	ng		99
14) Trichlorofluoromethane	7.13	101	131669	5.384	ng		99
15) 2-Propanol (Isopropanol)	7.37	45	368045	13.620	ng		99
16) Acrylonitrile	7.63	53	95357	6.667	ng		100
17) 1,1-Dichloroethene	8.09	96	73383	5.770	ng		100
18) 2-Methyl-2-Propanol (t...	8.25	59	349217	12.810	ng		99
19) Methylene Chloride	8.31	84	75291	5.464	ng		99
20) 3-Chloro-1-propene (Al...	8.47	41	102551	7.509	ng		99
21) Trichlorotrifluoroethane	8.73	151	70961	5.094	ng		100
22) Carbon Disulfide	8.57	76	257708	5.455	ng		100
23) trans-1,2-Dichloroethene	9.59	61	105499	6.428	ng		99
24) 1,1-Dichloroethane	9.84	63	129545	6.024	ng		100
25) Methyl tert-Butyl Ether	9.95	73	216487	5.928	ng		100
26) Vinyl Acetate	10.10	86	79742	31.436	ng	#	93
27) 2-Butanone (MEK)	10.35	72	47907	6.569	ng		98
28) cis-1,2-Dichloroethene	10.86	61	101923	6.512	ng		98
29) Diisopropyl Ether	11.17	87	70252	6.224	ng	#	93
30) Ethyl Acetate	11.17	61	51541	13.563	ng		100
31) n-Hexane	11.15	57	108525	6.667	ng		99
32) Chloroform	11.20	83	128391	6.072	ng		99
34) Tetrahydrofuran (THF)	11.61	72	47311	6.271	ng		98
35) Ethyl tert-Butyl Ether	11.76	87	85744	5.792	ng		99
36) 1,2-Dichloroethane	12.01	62	91136	6.106	ng		99
38) 1,1,1-Trichloroethane	12.29	97	109171	5.654	ng		99
39) Isopropyl Acetate	12.72	61	89172	13.402	ng		99
40) 1-Butanol	12.73	56	122479	13.741	ng		92
41) Benzene	12.77	78	285944	5.534	ng		100
42) Carbon Tetrachloride	12.93	117	97754	5.697	ng		99
43) Cyclohexane	13.06	84	212933	11.167	ng		100
44) tert-Amyl Methyl Ether	13.41	73	205963	5.950	ng		99
45) 1,2-Dichloropropane	13.62	63	71146	6.122	ng		99
46) Bromodichloromethane	13.81	83	97000	6.114	ng		100

EM 11/22/13

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211326.D Vial: 10
Acq On : 22 Nov 2013 1:51 Operator: EM
Sample : 5.0ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181302 (12/17)

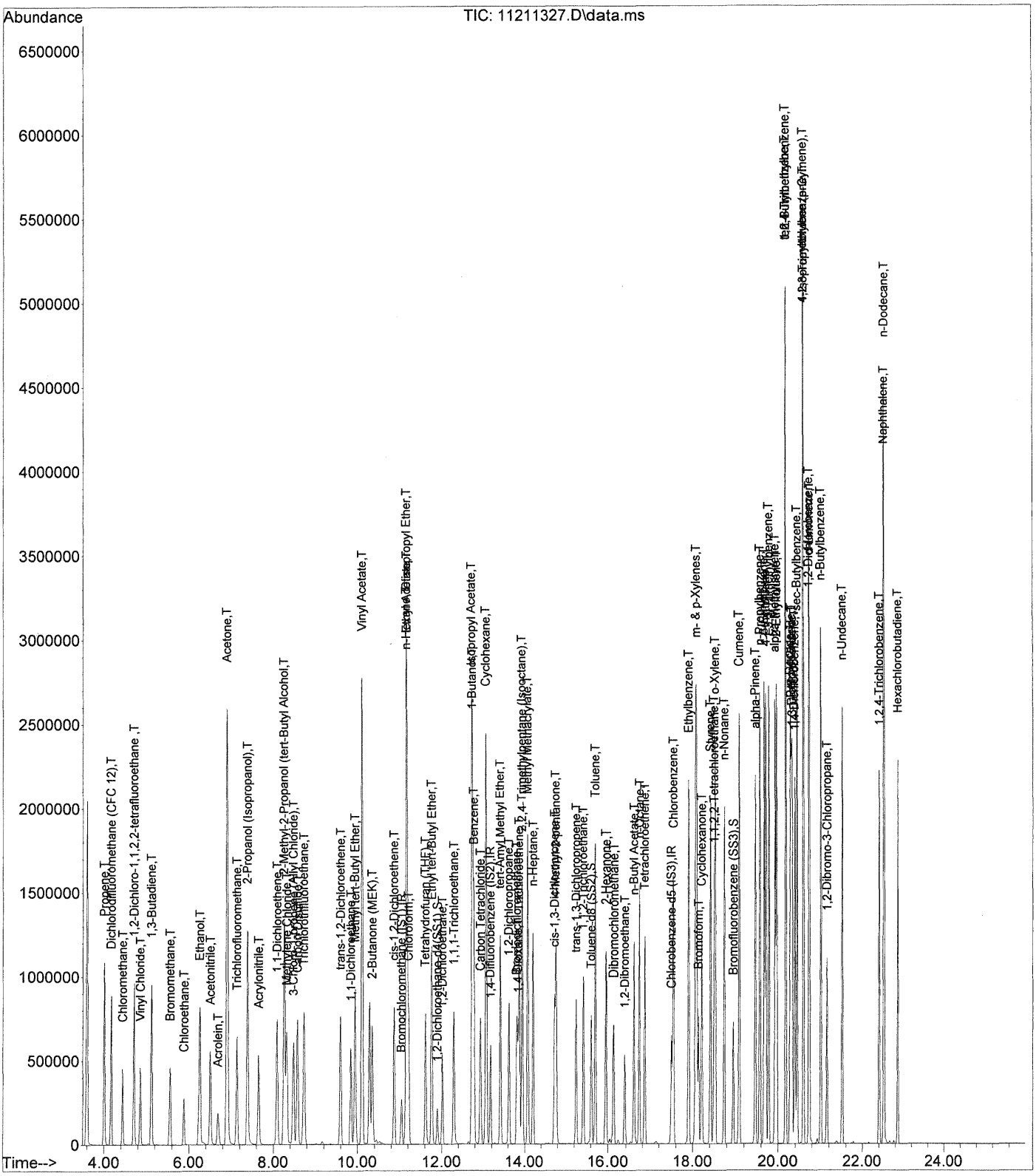
Quant Time: Nov 22 07:00:09 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	78857	4.977	ng	99
48) 1,4-Dioxane	13.84	88	57921	5.931	ng	98
49) 2,2,4-Trimethylpentane...	13.94	57	307867	6.274	ng	100
50) Methyl Methacrylate	14.07	100	59012	11.306	ng	98
51) n-Heptane	14.20	71	66098	5.909	ng	99
52) cis-1,3-Dichloropropene	14.73	75	106481	5.909	ng	100
53) 4-Methyl-2-pentanone	14.77	58	66840	6.976	ng	97
54) trans-1,3-Dichloropropene	15.25	75	95883	6.106	ng	100
55) 1,1,2-Trichloroethane	15.42	97	70092	5.555	ng	99
58) Toluene	15.71	91	294573	5.011	ng	100
59) 2-Hexanone	15.96	43	167798	7.635	ng	100
60) Dibromochloromethane	16.12	129	84474	5.344	ng	100
61) 1,2-Dibromoethane	16.37	107	79521	5.148	ng	98
62) n-Butyl Acetate	16.60	43	186184	7.721	ng	100
63) n-Octane	16.72	57	59671	5.744	ng	100
64) Tetrachloroethene	16.85	166	85885	4.052	ng	99
65) Chlorobenzene	17.53	112	194983	4.825	ng	100
66) Ethylbenzene	17.91	91	331151	5.193	ng	100
67) m- & p-Xylenes	18.08	91	526925	10.202	ng	100
68) Bromoform	18.14	173	72487	4.928	ng	99
69) Styrene	18.42	104	209446	5.241	ng	100
70) o-Xylene	18.53	91	267186	5.028	ng	100
71) n-Nonane	18.74	43	147379	6.399	ng	99
72) 1,1,2,2-Tetrachloroethane	18.50	83	122010	5.114	ng	99
74) Cumene	19.09	105	342122	4.815	ng	100
75) alpha-Pinene	19.46	93	173763	5.226	ng	100
76) n-Propylbenzene	19.57	91	411985	5.027	ng	100
77) 3-Ethyltoluene	19.67	105	348487	5.104	ng	100
78) 4-Ethyltoluene	19.71	105	319716	4.941	ng	99
79) 1,3,5-Trimethylbenzene	19.78	105	278148	4.877	ng	100
80) alpha-Methylstyrene	19.93	118	149301	4.854	ng	99
81) 2-Ethyltoluene	19.97	105	327079	4.886	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	282843	4.932	ng	99
83) n-Decane	20.28	57	151784	5.772	ng	99
84) Benzyl Chloride	20.30	91	210115	5.469	ng	99
85) 1,3-Dichlorobenzene	20.32	146	169686	4.584	ng	100
86) 1,4-Dichlorobenzene	20.39	146	166871	4.373	ng	99
87) sec-Butylbenzene	20.44	105	380028	5.117	ng	99
88) 4-Isopropyltoluene (p-...	20.59	119	348047	4.730	ng	100
89) 1,2,3-Trimethylbenzene	20.59	105	291547	5.039	ng	100
90) 1,2-Dichlorobenzene	20.72	146	160430	4.505	ng	100
91) d-Limonene	20.73	68	107284	5.853	ng	100
92) 1,2-Dibromo-3-Chloropr...	21.15	157	52427	4.250	ng	97
93) n-Undecane	21.51	57	159599	5.832	ng	99
94) 1,2,4-Trichlorobenzene	22.40	180	108075	3.667	ng	99
95) Naphthalene	22.52	128	308004	3.561	ng	100
96) n-Dodecane	22.53	57	150812	5.932	ng	99
97) Hexachlorobutadiene	22.86	225	76146	3.656	ng	99
98) Cyclohexanone	18.21	55	100382	6.641	ng	99
99) tert-Butylbenzene	20.18	119	276527	4.880	ng	100
100) n-Butylbenzene	21.00	91	304252	5.468	ng	100

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

Data File : I:\MS13\DATA\2013_11\21\11211327.D Vial: 9
Acq On : 22 Nov 2013 2:26 Operator: EM
Sample : 25ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 06:45:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211327.D Vial: 9
Acq On : 22 Nov 2013 2:26 Operator: EM
Sample : 25ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 06:45:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	11.04	130	118447	12.500	ng	0.00
37) 1,4-Difluorobenzene (IS2)	13.17	114	557160	12.500	ng	0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	224316	12.500	ng	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	11.89	65	162917	14.203	ng	0.00
Spiked Amount 12.500			Recovery =	113.60%		
57) Toluene-d8 (SS2)	15.61	98	582176	11.809	ng	0.00
Spiked Amount 12.500			Recovery =	94.48%		
73) Bromofluorobenzene (SS3)	18.95	174	245222	10.556	ng	0.00
Spiked Amount 12.500			Recovery =	84.48%		
Target Compounds						Qvalue
2) Propene	4.00	42	393681	33.154	ng	100
3) Dichlorodifluoromethan...	4.16	85	830462	28.587	ng	100
4) Chloromethane	4.44	50	523342	28.328	ng	100
5) 1,2-Dichloro-1,1,2,2-t...	4.70	135	433229	23.876	ng	100
6) Vinyl Chloride	4.85	62	521533	26.811	ng	100
7) 1,3-Butadiene	5.12	54	486766	38.773	ng	100
8) Bromomethane	5.55	94	363126	25.252	ng	100
9) Chloroethane	5.88	64	281185	27.572	ng	100
10) Ethanol	6.26	45	1401904	162.472	ng	100
11) Acetonitrile	6.51	41	746663	33.063	ng	100
12) Acrolein	6.69	56	253386	34.416	ng	100
13) Acetone	6.89	58	1433615	156.195	ng	100
14) Trichlorofluoromethane	7.13	101	685130	26.341	ng	100
15) 2-Propanol (Isopropanol)	7.39	45	2098128	73.006	ng	100
16) Acrylonitrile	7.65	53	540353	35.521	ng	100
17) 1,1-Dichloroethene	8.09	96	396387	29.307	ng	100
18) 2-Methyl-2-Propanol (t...	8.25	59	2001311	69.025	ng	100
19) Methylene Chloride	8.32	84	400042	27.297	ng	100
20) 3-Chloro-1-propene (Al...	8.47	41	593533	40.864	ng	100
21) Trichlorotrifluoroethane	8.73	151	375791	25.365	ng	100
22) Carbon Disulfide	8.58	76	1422229	28.304	ng	100
23) trans-1,2-Dichloroethene	9.60	61	569023	32.599	ng	100
24) 1,1-Dichloroethane	9.84	63	686011	29.992	ng	100
25) Methyl tert-Butyl Ether	9.94	73	1155565	29.752	ng	100
26) Vinyl Acetate	10.11	86	434587	161.085	ng	100
27) 2-Butanone (MEK)	10.35	72	259402	33.446	ng	100
28) cis-1,2-Dichloroethene	10.86	61	546655	32.839	ng	100
29) Diisopropyl Ether	11.17	87	365355	30.434	ng	100
30) Ethyl Acetate	11.17	61	265491	65.690	ng	100
31) n-Hexane	11.15	57	502063	29.001	ng	100
32) Chloroform	11.21	83	673337	29.940	ng	100
34) Tetrahydrofuran (THF)	11.61	72	259535	32.347	ng	100
35) Ethyl tert-Butyl Ether	11.76	87	459211	29.164	ng	100
36) 1,2-Dichloroethane	12.01	62	480714	30.285	ng	100
38) 1,1,1-Trichloroethane	12.29	97	579340	29.695	ng	100
39) Isopropyl Acetate	12.72	61	469401	69.817	ng	100
40) 1-Butanol	12.74	56	774196	85.960	ng	100
41) Benzene	12.77	78	1460477	27.970	ng	100
42) Carbon Tetrachloride	12.93	117	528307	30.469	ng	100
43) Cyclohexane	13.06	84	1095809	56.873	ng	100
44) tert-Amyl Methyl Ether	13.41	73	1101862	31.500	ng	100
45) 1,2-Dichloropropane	13.62	63	373770	31.830	ng	100
46) Bromodichloromethane	13.81	83	523948	32.681	ng	100

Data File : I:\MS13\DATA\2013_11\21\11211327.D Vial: 9
Acq On : 22 Nov 2013 2:26 Operator: EM
Sample : 25ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

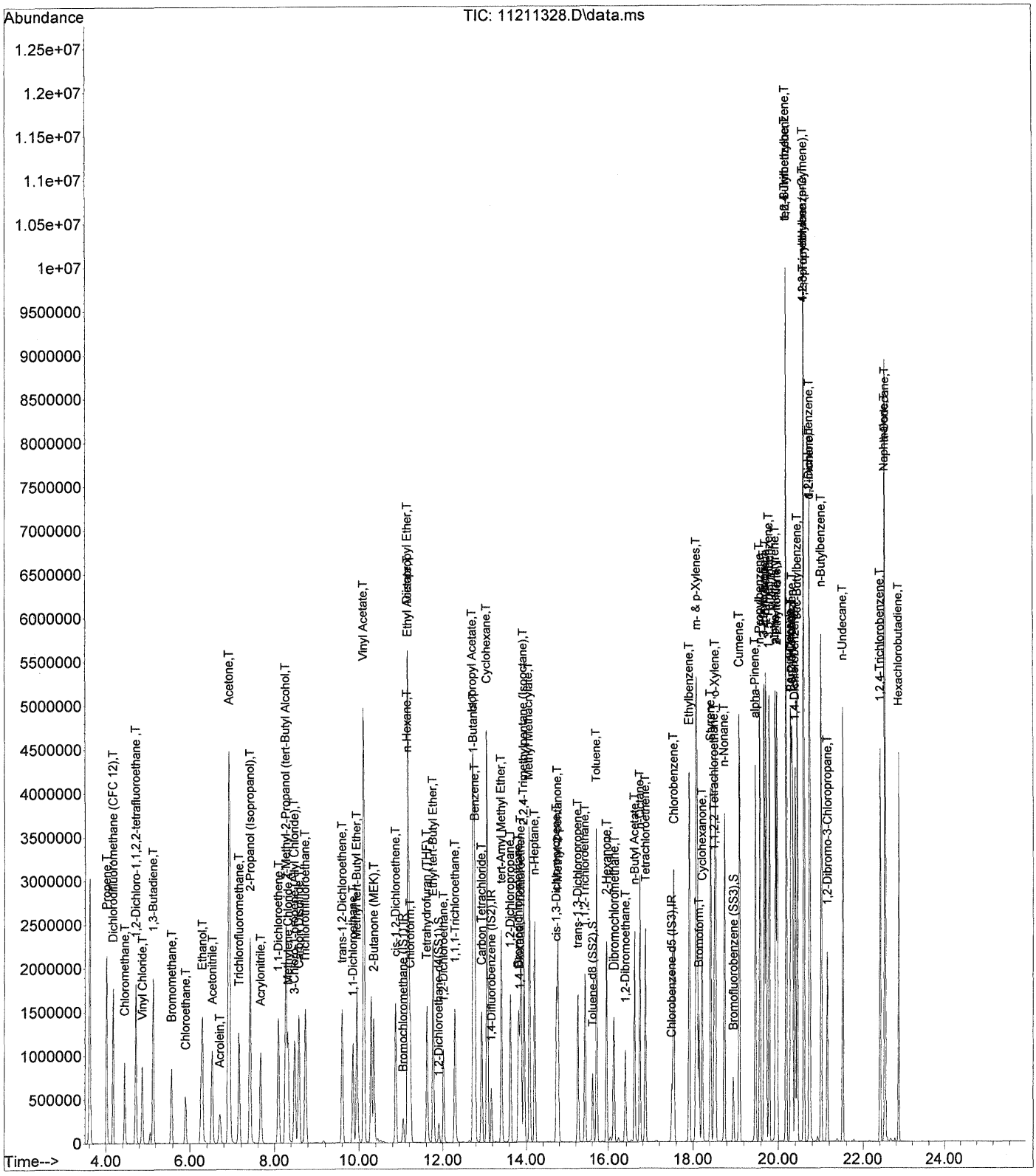
Quant Time: Nov 22 06:45:24 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.87	130	413472	25.828	ng	100
48) 1,4-Dioxane	13.84	88	324813	32.918	ng	100
49) 2,2,4-Trimethylpentane...	13.94	57	1622332	32.717	ng	100
50) Methyl Methacrylate	14.08	100	312151	59.185	ng	100
51) n-Heptane	14.21	71	328761	29.084	ng	100
52) cis-1,3-Dichloropropene	14.73	75	585877	32.174	ng	100
53) 4-Methyl-2-pentanone	14.76	58	366222	37.825	ng	100
54) trans-1,3-Dichloropropene	15.25	75	547735	34.517	ng	100
55) 1,1,2-Trichloroethane	15.42	97	378644	29.699	ng	100
58) Toluene	15.72	91	1543095	25.574	ng	100
59) 2-Hexanone	15.96	43	911971	40.423	ng	100
60) Dibromochloromethane	16.12	129	466130	28.729	ng	100
61) 1,2-Dibromoethane	16.37	107	442933	27.936	ng	100
62) n-Butyl Acetate	16.60	43	1047758	42.328	ng	100
63) n-Octane	16.73	57	310637	29.131	ng	100
64) Tetrachloroethene	16.85	166	457897	21.044	ng	100
65) Chlorobenzene	17.53	112	1047076	25.241	ng	100
66) Ethylbenzene	17.91	91	1797277	27.459	ng	100
67) m- & p-Xylenes	18.08	91	2834579	53.463	ng	100
68) Bromoform	18.14	173	425064	28.148	ng	100
69) Styrene	18.42	104	1169658	28.514	ng	100
70) o-Xylene	18.53	91	1444252	26.475	ng	100
71) n-Nonane	18.74	43	765185	32.364	ng	100
72) 1,1,2,2-Tetrachloroethane	18.50	83	696087	28.424	ng	100
74) Cumene	19.09	105	1840944	25.238	ng	100
75) alpha-Pinene	19.46	93	946244	27.724	ng	100
76) n-Propylbenzene	19.57	91	2222412	26.419	ng	100
77) 3-Ethyltoluene	19.67	105	1865305	26.614	ng	100
78) 4-Ethyltoluene	19.71	105	1769134	26.634	ng	100
79) 1,3,5-Trimethylbenzene	19.78	105	1541936	26.336	ng	100
80) alpha-Methylstyrene	19.93	118	870426	27.568	ng	100
81) 2-Ethyltoluene	19.97	105	1801865	26.224	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	1578717	26.816	ng	100
83) n-Decane	20.28	57	808134	29.940	ng	100
84) Benzyl Chloride	20.31	91	1388953	35.219	ng	100
85) 1,3-Dichlorobenzene	20.33	146	979172	25.770	ng	100
86) 1,4-Dichlorobenzene	20.39	146	966177	24.668	ng	100
87) sec-Butylbenzene	20.44	105	2073971	27.202	ng	100
88) 4-Isopropyltoluene (p-...	20.59	119	1935671	25.627	ng	100
89) 1,2,3-Trimethylbenzene	20.59	105	1646291	27.719	ng	100
90) 1,2-Dichlorobenzene	20.72	146	935764	25.599	ng	100
91) d-Limonene	20.74	68	616137	32.748	ng	100
92) 1,2-Dibromo-3-Chloropr...	21.15	157	351412	27.752	ng	100
93) n-Undecane	21.51	57	866519	30.846	ng	100
94) 1,2,4-Trichlorobenzene	22.41	180	752637	24.878	ng	100
95) Naphthalene	22.52	128	2299681	25.900	ng	100
96) n-Dodecane	22.53	57	891068	34.141	ng	100
97) Hexachlorobutadiene	22.86	225	472209	22.085	ng	100
98) Cyclohexanone	18.21	55	589416	37.988	ng	100
99) tert-Butylbenzene	20.18	119	1521439	26.155	ng	100
100) n-Butylbenzene	21.00	91	1720973	30.128	ng	100

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

Data File : I:\MS13\DATA\2013_11\21\11211328.D Vial: 9
Acq On : 22 Nov 2013 3:01 Operator: EM
Sample : 50ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:03:18 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2013_11\21\11211328.D Vial: 9
Acq On : 22 Nov 2013 3:01 Operator: EM
Sample : 50ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:03:18 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.05	130	121122	12.500	ng		0.01
37) 1,4-Difluorobenzene (IS2)	13.17	114	581966	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	234409	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.90	65	167486	14.278	ng		0.00
Spiked Amount 12.500			Recovery =	114.24%			
57) Toluene-d8 (SS2)	15.61	98	600716	11.660	ng		0.00
Spiked Amount 12.500			Recovery =	93.28%			
73) Bromofluorobenzene (SS3)	18.95	174	253722	10.452	ng		0.00
Spiked Amount 12.500			Recovery =	83.60%			
Target Compounds							Qvalue
2) Propene	4.02	42	787247	64.834	ng		100
3) Dichlorodifluoromethan...	4.17	85	1630910	54.901	ng		100
4) Chloromethane	4.45	50	1117573	59.156	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	862732	46.497	ng		100
6) Vinyl Chloride	4.87	62	1051862	52.880	ng		100
7) 1,3-Butadiene	5.13	54	985425	76.761	ng		100
8) Bromomethane	5.57	94	670921	45.625	ng		100
9) Chloroethane	5.89	64	561975	53.888	ng		99
10) Ethanol	6.29	45	2727411	309.109	ng		99
11) Acetonitrile	6.53	41	1487555	64.416	ng		100
12) Acrolein	6.71	56	495612	65.830	ng		100
13) Acetone	6.92	58	2723002	290.124	ng		97
14) Trichlorofluoromethane	7.14	101	1355527	50.965	ng		100
15) 2-Propanol (Isopropanol)	7.41	45	4067878	138.419	ng		99
16) Acrylonitrile	7.66	53	1072098	68.919	ng		100
17) 1,1-Dichloroethene	8.10	96	780631	56.441	ng		100
18) 2-Methyl-2-Propanol (t...	8.28	59	3776391	127.372	ng		100
19) Methylene Chloride	8.33	84	793585	52.954	ng		99
20) 3-Chloro-1-propene (Al...	8.49	41	1181257	79.533	ng		99
21) Trichlorotrifluoroethane	8.74	151	743536	49.078	ng		100
22) Carbon Disulfide	8.59	76	2777312	54.051	ng		100
23) trans-1,2-Dichloroethene	9.60	61	1125401	63.050	ng		100
24) 1,1-Dichloroethane	9.86	63	1362088	58.235	ng		100
25) Methyl tert-Butyl Ether	9.95	73	2287945	57.607	ng		100
26) Vinyl Acetate	10.12	86	865637	313.773	ng	#	88
27) 2-Butanone (MEK)	10.36	72	512918	64.672	ng		99
28) cis-1,2-Dichloroethene	10.87	61	1085917	63.792	ng		100
29) Diisopropyl Ether	11.17	87	610536m	49.734	ng		
30) Ethyl Acetate	11.18	61	524324	126.867	ng		99
31) n-Hexane	11.15	57	1011169	57.119	ng		100
32) Chloroform	11.22	83	1319479	57.375	ng		100
34) Tetrahydrofuran (THF)	11.61	72	512524	62.468	ng		100
35) Ethyl tert-Butyl Ether	11.76	87	908648	56.434	ng		99
36) 1,2-Dichloroethane	12.02	62	950336	58.549	ng		99
38) 1,1,1-Trichloroethane	12.30	97	1145091	56.192	ng		100
39) Isopropyl Acetate	12.73	61	918234	130.753	ng		97
40) 1-Butanol	12.75	56	1513361	160.869	ng		99
41) Benzene	12.78	78	2864277	52.517	ng		100
42) Carbon Tetrachloride	12.93	117	1049340	57.939	ng		100
43) Cyclohexane	13.07	84	2143837	106.524	ng		100
44) tert-Amyl Methyl Ether	13.41	73	2179313	59.647	ng		100
45) 1,2-Dichloropropane	13.62	63	748769	61.046	ng		100
46) Bromodichloromethane	13.81	83	1039207	62.056	ng		100

EM 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211328.D Vial: 9
Acq On : 22 Nov 2013 3:01 Operator: EM
Sample : 50ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

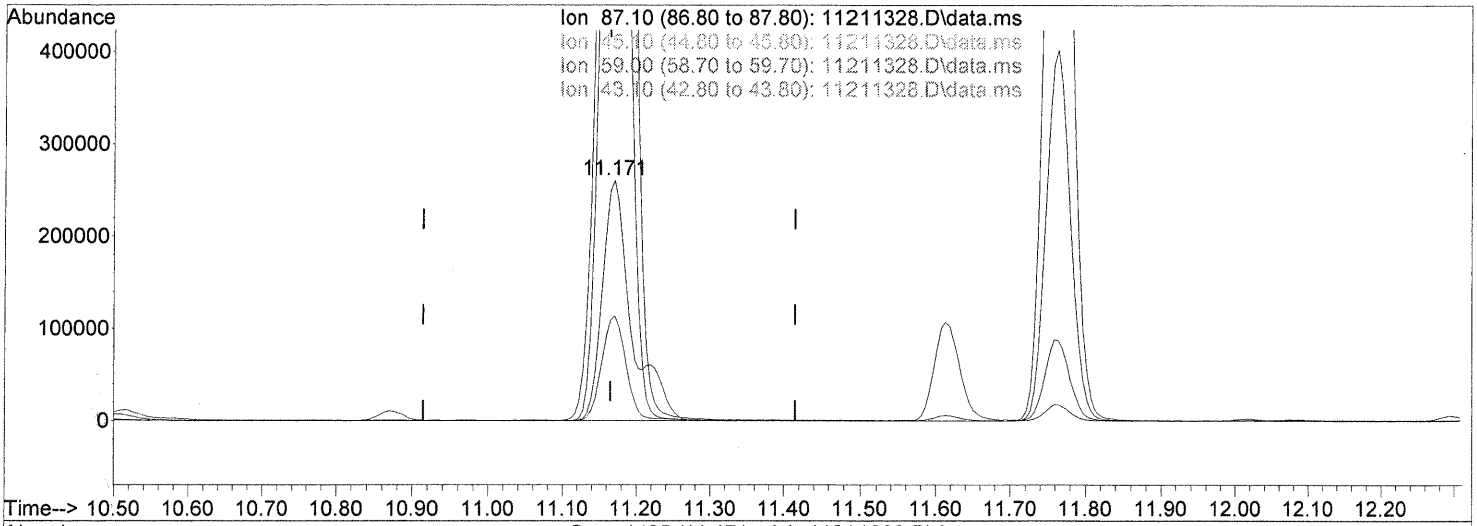
Quant Time: Nov 22 07:03:18 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

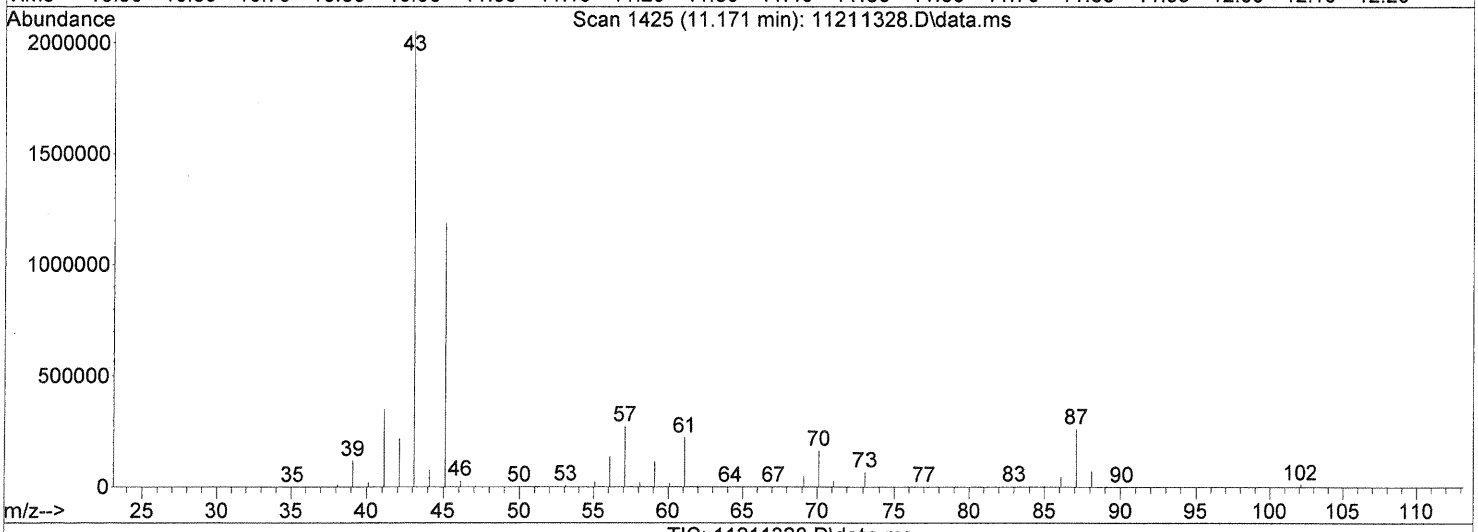
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.87	130	829711	49.620	ng	99
48) 1,4-Dioxane	13.84	88	641490	62.241	ng	99
49) 2,2,4-Trimethylpentane...	13.94	57	3129561	60.422	ng	100
50) Methyl Methacrylate	14.08	100	630992	114.540	ng	97
51) n-Heptane	14.21	71	664541	56.282	ng	100
52) cis-1,3-Dichloropropene	14.73	75	1177067	61.885	ng	100
53) 4-Methyl-2-pentanone	14.77	58	716525	70.852	ng	100
54) trans-1,3-Dichloropropene	15.25	75	1107193	66.799	ng	100
55) 1,1,2-Trichloroethane	15.43	97	755205	56.710	ng	100
58) Toluene	15.72	91	3077531	48.808	ng	100
59) 2-Hexanone	15.96	43	1800947	76.389	ng	99
60) Dibromochloromethane	16.12	129	938567	55.356	ng	100
61) 1,2-Dibromoethane	16.37	107	884079	53.358	ng	99
62) n-Butyl Acetate	16.60	43	2050631	79.276	ng	99
63) n-Octane	16.72	57	610040	54.745	ng	99
64) Tetrachloroethene	16.86	166	920801	40.495	ng	99
65) Chlorobenzene	17.54	112	2082631	48.043	ng	100
66) Ethylbenzene	17.91	91	3535824	51.694	ng	100
67) m- & p-Xylenes	18.09	91	5576031	100.642	ng	100
68) Bromoform	18.14	173	848338	53.760	ng	100
69) Styrene	18.42	104	2306684	53.811	ng	99
70) o-Xylene	18.53	91	2825312	49.562	ng	100
71) n-Nonane	18.74	43	1471640	59.564	ng	99
72) 1,1,2,2-Tetrachloroethane	18.50	83	1369999	53.534	ng	100
74) Cumene	19.09	105	3594095	47.152	ng	100
75) alpha-Pinene	19.46	93	1861232	52.184	ng	99
76) n-Propylbenzene	19.57	91	4303817	48.958	ng	99
77) 3-Ethyltoluene	19.67	105	3542686	48.371	ng	96
78) 4-Ethyltoluene	19.71	105	3545568	51.079	ng	97
79) 1,3,5-Trimethylbenzene	19.79	105	3012608	49.240	ng	100
80) alpha-Methylstyrene	19.93	118	1716069	52.011	ng	100
81) 2-Ethyltoluene	19.97	105	3504765	48.811	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	3085387	50.152	ng	99
83) n-Decane	20.28	57	1549687	54.941	ng	100
84) Benzyl Chloride	20.31	91	2763191	67.048	ng	99
85) 1,3-Dichlorobenzene	20.33	146	1921904	48.404	ng	100
86) 1,4-Dichlorobenzene	20.39	146	1919563	46.899	ng	100
87) sec-Butylbenzene	20.45	105	4015187	50.396	ng	100
88) 4-Isopropyltoluene (p-...	20.60	119	3751591	47.530	ng	100
89) 1,2,3-Trimethylbenzene	20.60	105	3195140	51.480	ng	99
90) 1,2-Dichlorobenzene	20.73	146	1830342	47.914	ng	99
91) d-Limonene	20.74	68	1192461	60.651	ng	99
92) 1,2-Dibromo-3-Chloropr...	21.15	157	693868	52.438	ng	99
93) n-Undecane	21.51	57	1661338	56.594	ng	99
94) 1,2,4-Trichlorobenzene	22.41	180	1500170	47.452	ng	100
95) Naphthalene	22.52	128	4466569	48.139	ng	99
96) n-Dodecane	22.53	57	1673359	61.354	ng	98
97) Hexachlorobutadiene	22.86	225	946356	42.354	ng	100
98) Cyclohexanone	18.22	55	1149798	70.913	ng	99
99) tert-Butylbenzene	20.18	119	2978882	49.004	ng	100
100) n-Butylbenzene	21.01	91	3335172	55.873	ng	99

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

Data File : I:\MS13\DATA\2013_11\21\11211328.D Vial: 9
Acq On : 22 Nov 2013 3:01 Operator: EM
Sample : 50ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:02:10 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211328.D\data.ms

(29) Diisopropyl Ether (T)

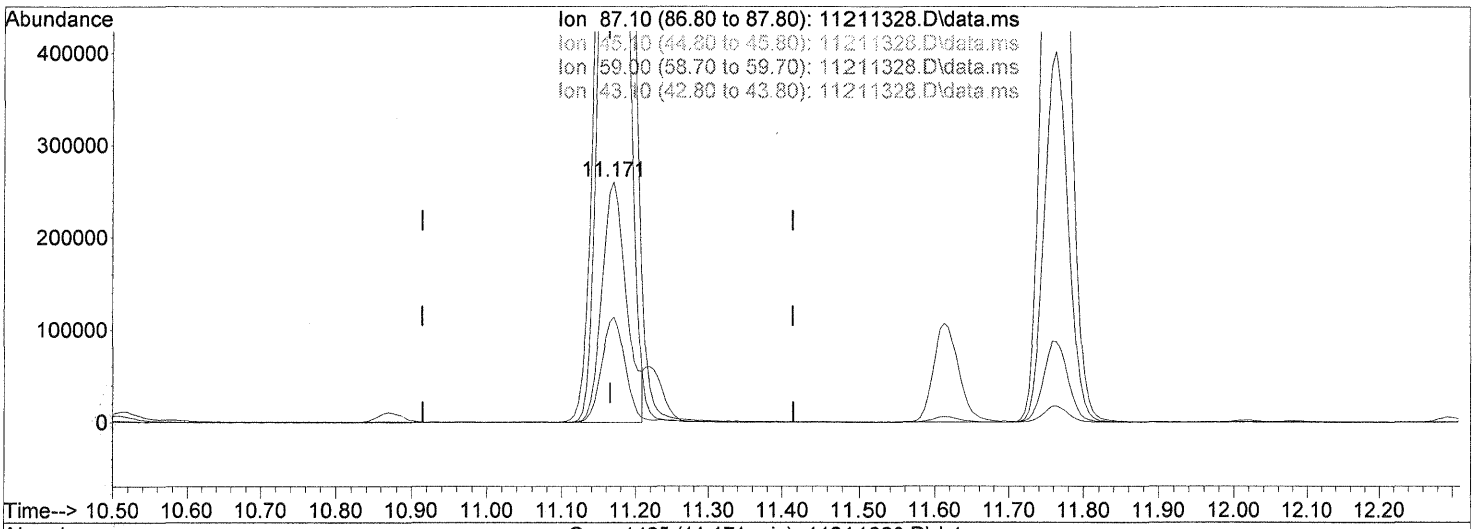
11.171min (+0.005) 58.13ng

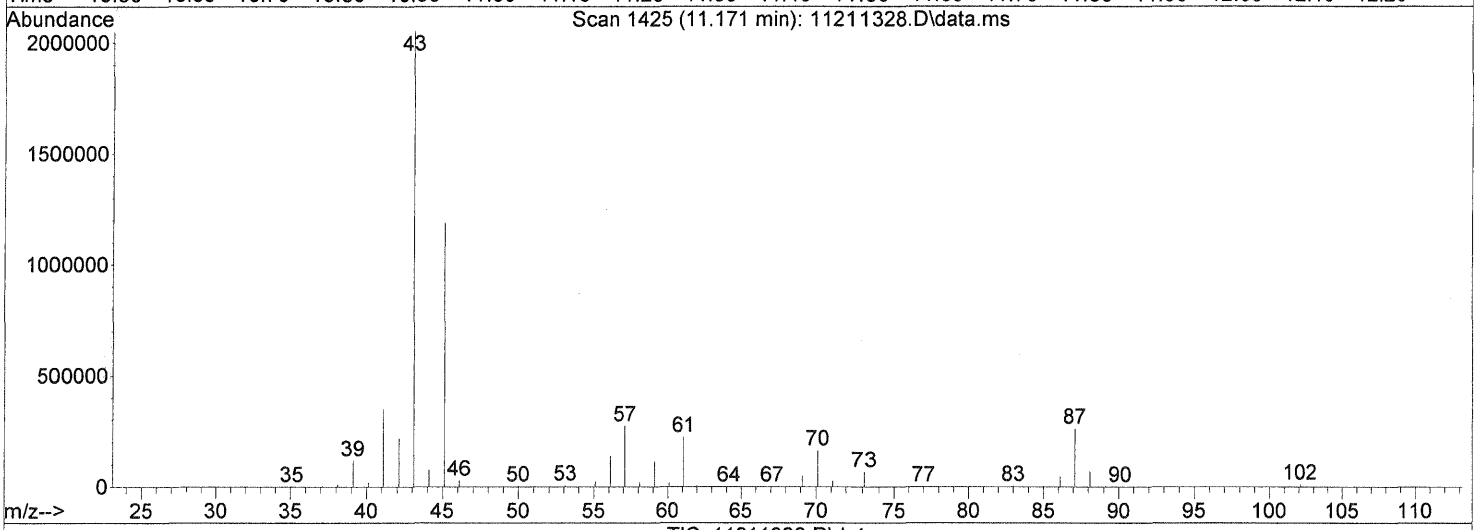
response 713627

Ion	Exp%	Act%
87.10	100	100
45.10	386.90	376.63
59.00	35.50	36.50
43.10	717.50	704.86

Data File : I:\MS13\DATA\2013_11\21\11211328.D Vial: 9
Acq On : 22 Nov 2013 3:01 Operator: EM
Sample : 50ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:02:10 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211328.D\data.ms

(29) Diisopropyl Ether (T)

11.171min (+0.005) 49.73ng m

response 610536

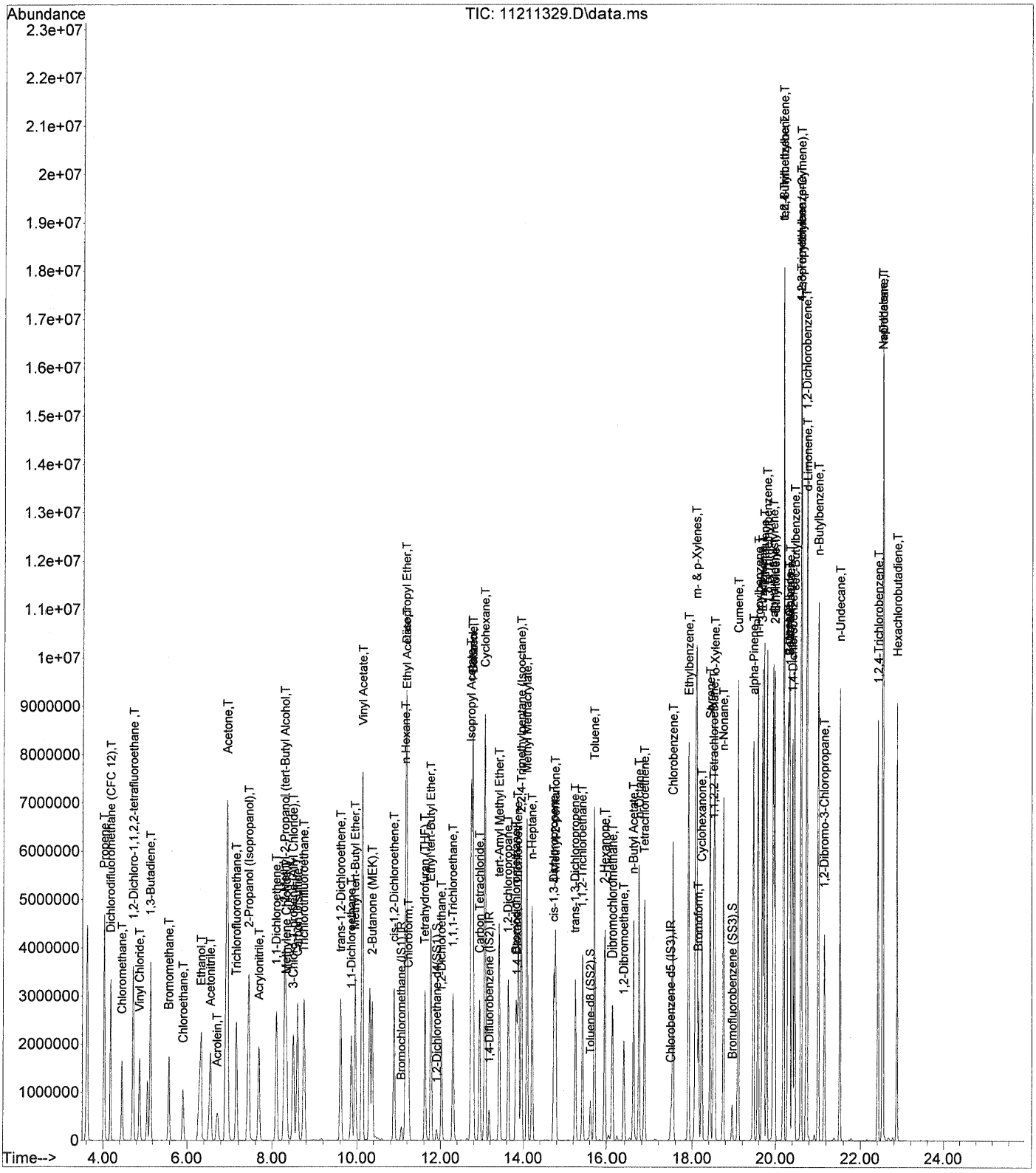
Ion	Exp%	Act%
87.10	100	100
45.10	386.90	440.22#
59.00	35.50	42.66
43.10	717.50	823.88#

IPC
EM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211329.D Vial: 9
Acq On : 22 Nov 2013 3:37 Operator: EM
Sample : 100ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:05:28 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2013_11\21\11211329.D Vial: 9
Acq On : 22 Nov 2013 3:37 Operator: EM
Sample : 100ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:05:28 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.06	130	124185	12.500	ng		0.02
37) 1,4-Difluorobenzene (IS2)	13.18	114	604626	12.500	ng		0.01
56) Chlorobenzene-d5 (IS3)	17.49	82	240256	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.91	65	171869	14.291	ng		0.02
Spiked Amount 12.500			Recovery = 114.32%				
57) Toluene-d8 (SS2)	15.62	98	620327	11.748	ng		0.00
Spiked Amount 12.500			Recovery = 94.00%				
73) Bromofluorobenzene (SS3)	18.96	174	255168	10.256	ng		0.00
Spiked Amount 12.500			Recovery = 82.08%				
Target Compounds							Qvalue
2) Propene	4.02	42	1847786	148.423	ng		99
3) Dichlorodifluoromethan...	4.17	85	3191716	104.792	ng		100
4) Chloromethane	4.45	50	2166833	111.868	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.72	135	1791528	94.173	ng		100
6) Vinyl Chloride	4.87	62	2188985	107.331	ng		100
7) 1,3-Butadiene	5.14	54	1974970	150.048	ng		99
8) Bromomethane	5.57	94	1396888	92.651	ng		99
9) Chloroethane	5.90	64	1123610	105.085	ng		99
10) Ethanol	6.33	45	5318939	587.949	ng		99
11) Acetonitrile	6.56	41	2999165	126.670	ng		100
12) Acrolein	6.71	56	976753	126.538	ng		100
13) Acetone	6.94	58	5175302	537.806	ng		91
14) Trichlorofluoromethane	7.15	101	2702619	99.107	ng		100
15) 2-Propanol (Isopropanol)	7.44	45	6802506	225.762	ng		99
16) Acrylonitrile	7.68	53	2143374	134.387	ng		99
17) 1,1-Dichloroethene	8.10	96	1551422	109.404	ng		99
18) 2-Methyl-2-Propanol (t...	8.30	59	6002371	197.457	ng		99
19) Methylene Chloride	8.34	84	1561291	101.611	ng		98
20) 3-Chloro-1-propene (Al...	8.50	41	2334024	153.271	ng		99
21) Trichlorotrifluoroethane	8.74	151	1488138	95.803	ng		100
22) Carbon Disulfide	8.59	76	5523556	104.846	ng		100
23) trans-1,2-Dichloroethene	9.61	61	2240617	122.434	ng		99
24) 1,1-Dichloroethane	9.86	63	2723210	113.556	ng		100
25) Methyl tert-Butyl Ether	9.95	73	4492732	110.329	ng		99
26) Vinyl Acetate	10.14	86	1729368	611.393	ng	#	64
27) 2-Butanone (MEK)	10.37	72	1025341	126.093	ng		97
28) cis-1,2-Dichloroethene	10.88	61	2153174	123.369	ng		100
29) Diisopropyl Ether	11.18	87	1178778m	93.654	ng		
30) Ethyl Acetate	11.19	61	1013783	239.248	ng		97
31) n-Hexane	11.16	57	1996161	109.978	ng		99
32) Chloroform	11.23	83	2631355	111.597	ng		100
34) Tetrahydrofuran (THF)	11.62	72	1025947	121.961	ng		100
35) Ethyl tert-Butyl Ether	11.76	87	1809302	109.599	ng		98
36) 1,2-Dichloroethane	12.02	62	1890194	113.580	ng		100
38) 1,1,1-Trichloroethane	12.30	97	2285497	107.951	ng		100
39) Isopropyl Acetate	12.73	61	1775877	243.402	ng	#	92
40) 1-Butanol	12.77	56	2949321	301.761	ng		98
41) Benzene	12.78	78	5523378	97.476	ng		99
42) Carbon Tetrachloride	12.94	117	2094152	111.295	ng		100
43) Cyclohexane	13.07	84	4206890	201.200	ng		98
44) tert-Amyl Methyl Ether	13.42	73	4143259	109.150	ng		99
45) 1,2-Dichloropropane	13.63	63	1492239	117.101	ng		100
46) Bromodichloromethane	13.82	83	2071095	119.040	ng		100

EM 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211329.D Vial: 9
Acq On : 22 Nov 2013 3:37 Operator: EM
Sample : 100ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

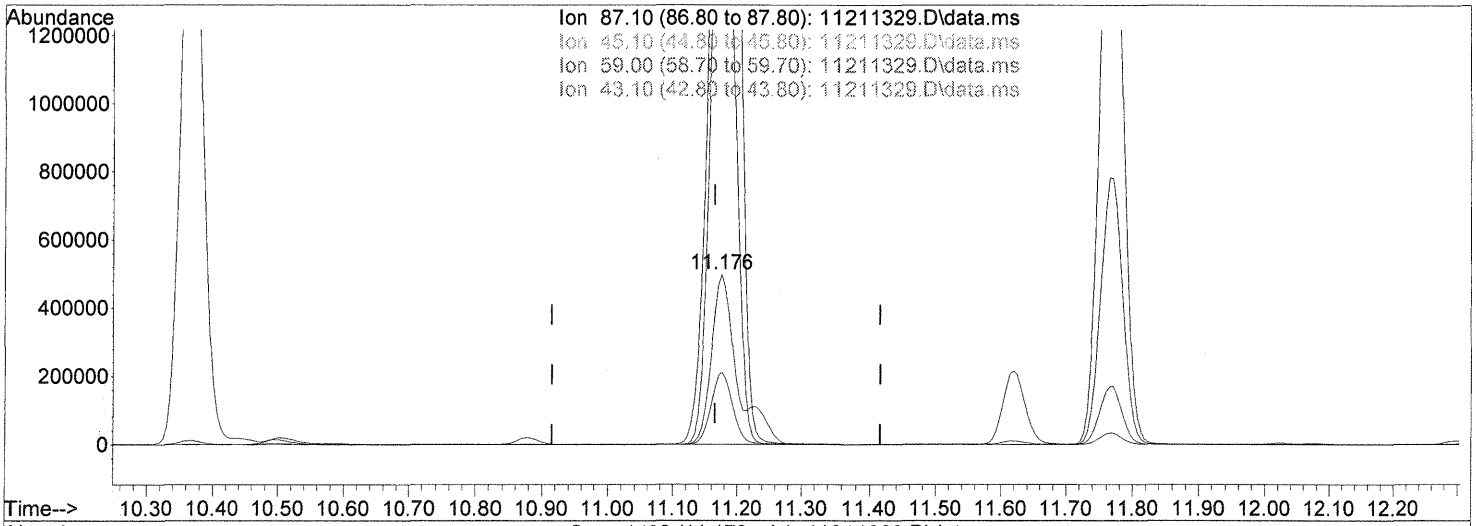
Quant Time: Nov 22 07:05:28 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

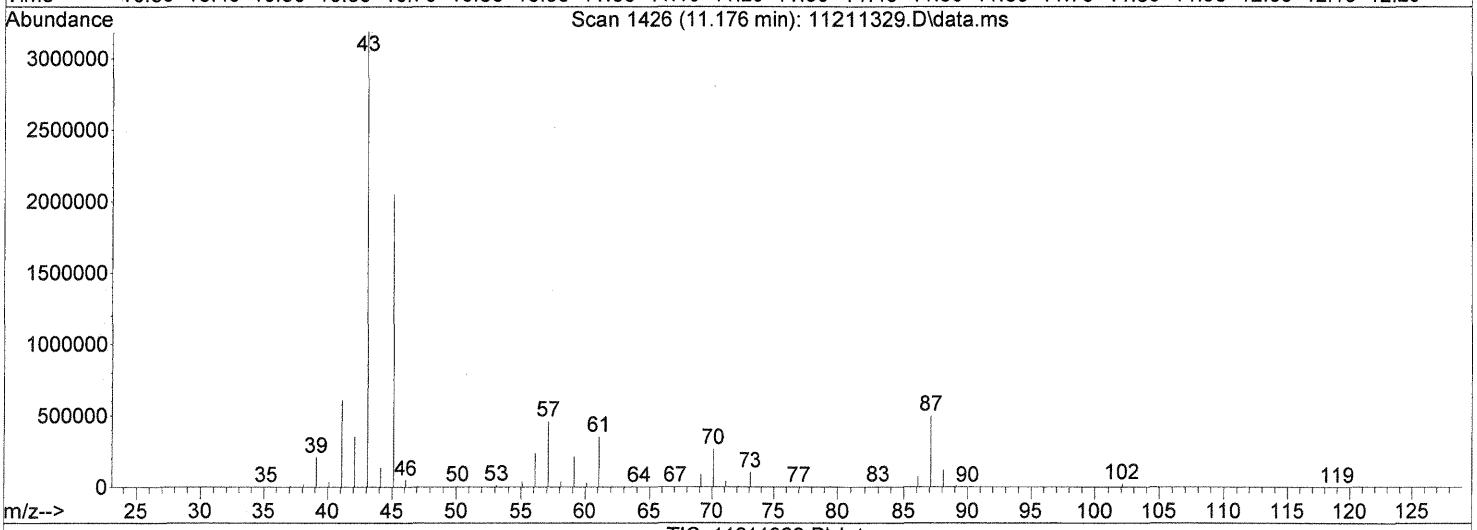
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.87	130	1682776	96.865	ng	100
48) 1,4-Dioxane	13.85	88	1274803	119.053	ng	99
49) 2,2,4-Trimethylpentane...	13.95	57	6049552	112.421	ng	100
50) Methyl Methacrylate	14.09	100	1246621	217.810	ng	95
51) n-Heptane	14.21	71	1311773	106.935	ng	99
52) cis-1,3-Dichloropropene	14.74	75	2352741	119.061	ng	100
53) 4-Methyl-2-pentanone	14.77	58	1409294	134.132	ng	97
54) trans-1,3-Dichloropropene	15.25	75	2206002	128.103	ng	100
55) 1,1,2-Trichloroethane	15.43	97	1511949	109.280	ng	100
58) Toluene	15.72	91	6093780	94.293	ng	99
59) 2-Hexanone	15.96	43	3477461	143.911	ng	98
60) Dibromochloromethane	16.12	129	1878457	108.093	ng	100
61) 1,2-Dibromoethane	16.37	107	1765871	103.984	ng	100
62) n-Butyl Acetate	16.60	43	3973301	149.868	ng	99
63) n-Octane	16.73	57	1189517	104.149	ng	98
64) Tetrachloroethene	16.86	166	1872419	80.342	ng	99
65) Chlorobenzene	17.54	112	4154689	93.510	ng	99
66) Ethylbenzene	17.91	91	6866545	97.947	ng	98
67) m- & p-Xylenes	18.09	91	10806062	190.292	ng	98
68) Bromoform	18.14	173	1732860	107.140	ng	100
69) Styrene	18.42	104	4565601	103.916	ng	99
70) o-Xylene	18.54	91	5501051	94.152	ng	99
71) n-Nonane	18.75	43	2787984	110.096	ng	97
72) 1,1,2,2-Tetrachloroethane	18.51	83	2706854	103.198	ng	100
74) Cumene	19.09	105	6930069	88.704	ng	98
75) alpha-Pinene	19.46	93	3660865	100.144	ng	99
76) n-Propylbenzene	19.58	91	8100510	89.905	ng	97
77) 3-Ethyltoluene	19.67	105	6985789	93.061	ng	98
78) 4-Ethyltoluene	19.72	105	6642750	93.369	ng	98
79) 1,3,5-Trimethylbenzene	19.79	105	5866290	93.549	ng	99
80) alpha-Methylstyrene	19.94	118	3400043	100.542	ng	100
81) 2-Ethyltoluene	19.97	105	6726728	91.404	ng	98
82) 1,2,4-Trimethylbenzene	20.19	105	5937320	94.161	ng	98
83) n-Decane	20.29	57	2938378	101.639	ng	98
84) Benzyl Chloride	20.31	91	5427566	128.492	ng	98
85) 1,3-Dichlorobenzene	20.33	146	3831916	94.159	ng	100
86) 1,4-Dichlorobenzene	20.40	146	3814951	90.938	ng	100
87) sec-Butylbenzene	20.45	105	7625231	93.378	ng	98
88) 4-Isopropyltoluene (p-...	20.60	119	7072047	87.417	ng	98
89) 1,2,3-Trimethylbenzene	20.60	105	6158695	96.815	ng	98
90) 1,2-Dichlorobenzene	20.73	146	3654605	93.342	ng	99
91) d-Limonene	20.74	68	2258647	112.083	ng	96
92) 1,2-Dibromo-3-Chloropr...	21.15	157	1408229	103.835	ng	97
93) n-Undecane	21.51	57	3148481	104.643	ng	98
94) 1,2,4-Trichlorobenzene	22.41	180	3060067	94.437	ng	99
95) Naphthalene	22.52	128	8397770	88.306	ng	97
96) n-Dodecane	22.53	57	3042677	108.845	ng	95
97) Hexachlorobutadiene	22.87	225	1954219	85.332	ng	100
98) Cyclohexanone	18.22	55	2248334	135.290	ng	99
99) tert-Butylbenzene	20.19	119	5750002	92.289	ng	98
100) n-Butylbenzene	21.01	91	6356406	103.895	ng	97

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

Data File : I:\MS13\DATA\2013_11\21\11211329.D Vial: 9
Acq On : 22 Nov 2013 3:37 Operator: EM
Sample : 100ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:04:26 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211329.D\data.ms

(29) Diisopropyl Ether (T)

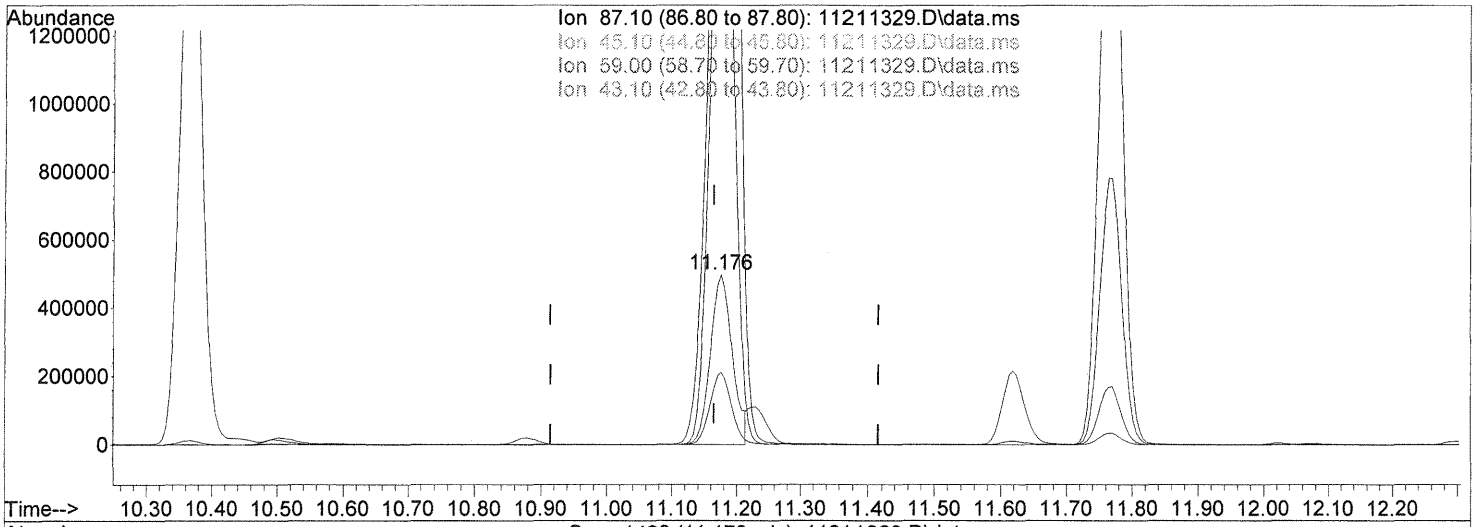
11.176min (+0.011) 111.44ng

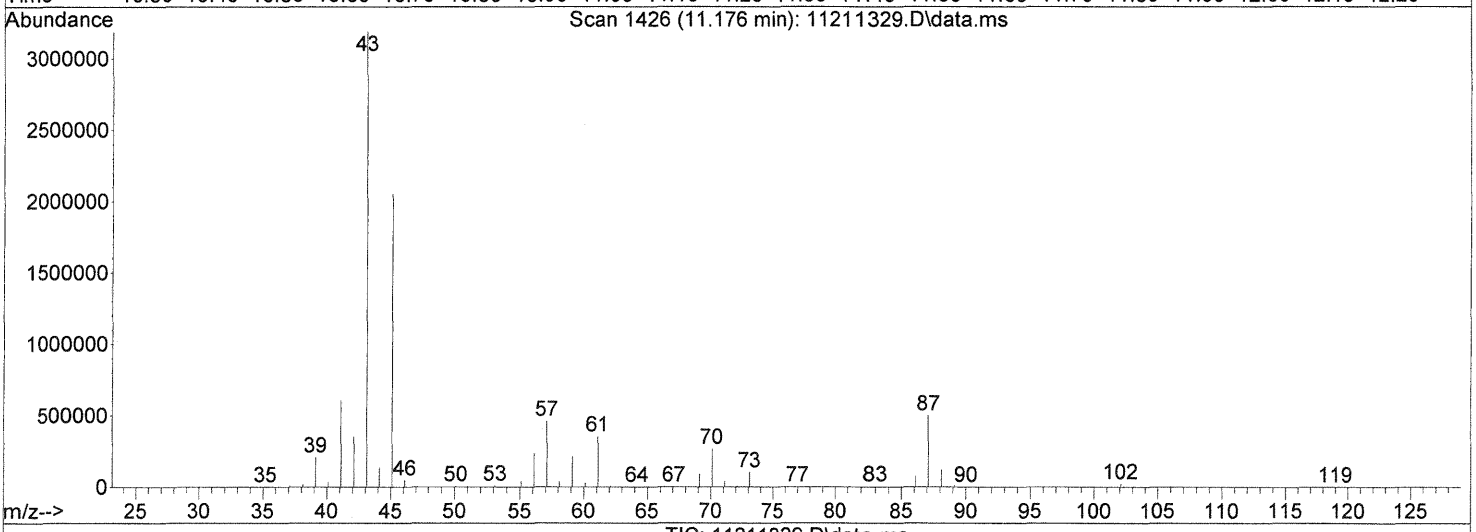
response 1402644

Ion	Exp%	Act%
87.10	100	100
45.10	386.90	354.59#
59.00	35.50	35.21
43.10	717.50	664.04#

Data File : I:\MS13\DATA\2013_11\21\11211329.D Vial: 9
Acq On : 22 Nov 2013 3:37 Operator: EM
Sample : 100ng TO-15 ICAL STD Inst : GCMS13
Misc : S25-11211303/S25-11181304 (12/17)

Quant Time: Nov 22 07:04:26 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 06:45:13 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M





TIC: 11211329.D\data.ms

(29) Diisopropyl Ether (T)

11.176min (+0.011) 93.65ng m

response 1178778

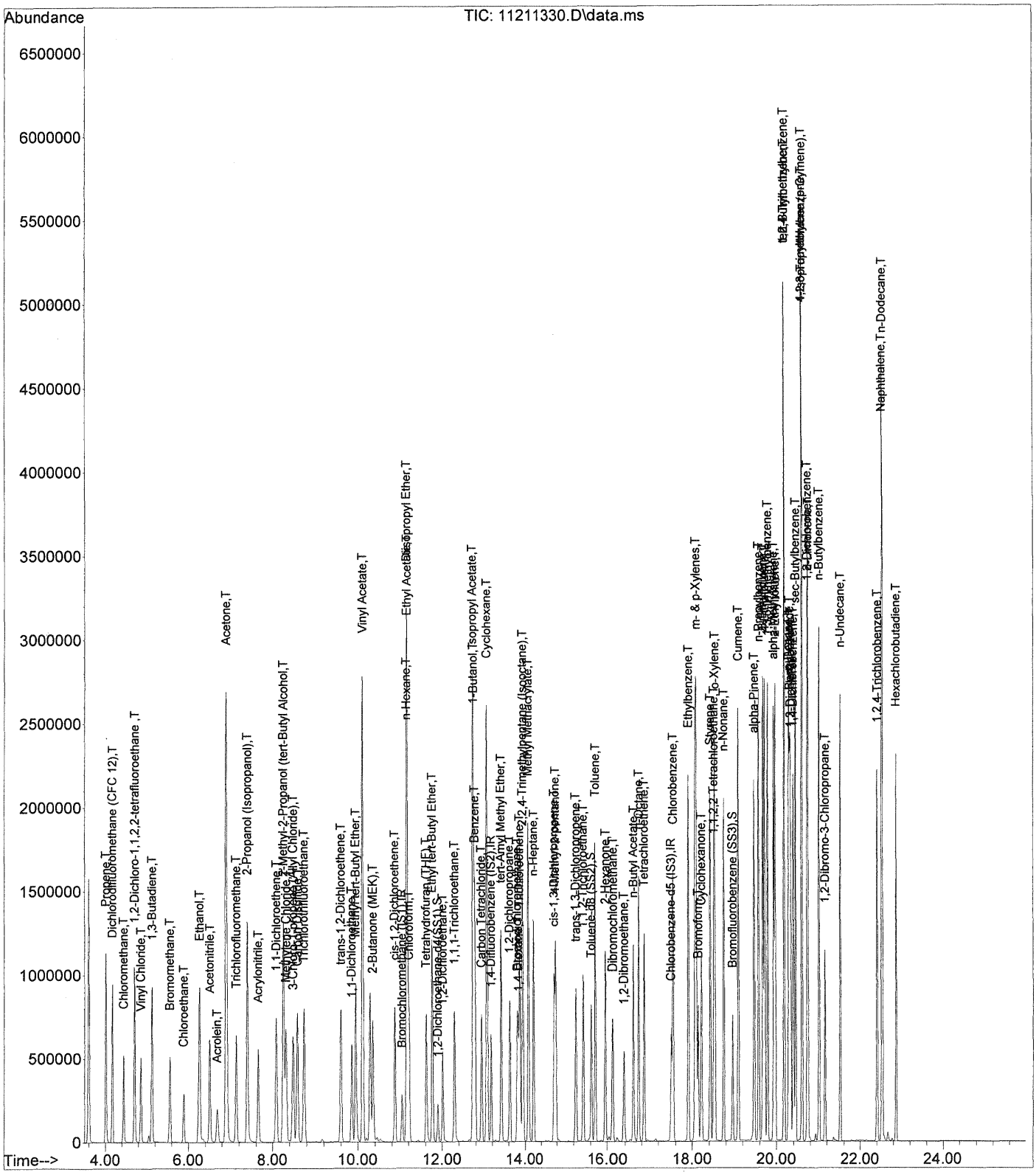
Ion	Exp%	Act%
87.10	100	100
45.10	386.90	421.94#
59.00	35.50	41.89
43.10	717.50	790.15#

IPC
OM 11/22/13

11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211330.D Vial: 16
Acq On : 22 Nov 2013 4:11 Operator: EM
Sample : 25ng TO-15 ICV STD (125ml) Inst : GCMS13
Misc : S25-11211303/S25-10301303 (11/28)

Quant Time: Nov 22 07:45:03 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 07:17:55 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2013_11\21\11211330.D Vial: 16
Acq On : 22 Nov 2013 4:11 Operator: EM
Sample : 25ng TO-15 ICV STD (125ml) Inst : GCMS13
Misc : S25-11211303/S25-10301303 (11/28)

Quant Time: Nov 22 07:45:03 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 07:17:55 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	11.04	130	125694	12.500	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	13.17	114	601938	12.500	ng	-0.01
56) Chlorobenzene-d5 (IS3)	17.49	82	238931	12.500	ng	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	11.89	65	171367	12.214	ng	-0.02
Spiked Amount 12.500			Recovery = 97.68%			
57) Toluene-d8 (SS2)	15.61	98	618475	12.445	ng	0.00
Spiked Amount 12.500			Recovery = 99.60%			
73) Bromofluorobenzene (SS3)	18.95	174	258522	12.580	ng	0.00
Spiked Amount 12.500			Recovery = 100.64%			
Target Compounds						Qvalue
2) Propene	4.00	42	419711	22.490	ng	99
3) Dichlorodifluoromethan...	4.16	85	853322	23.555	ng	100
4) Chloromethane	4.44	50	600421	24.590	ng	100
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	465304	24.519	ng	100
6) Vinyl Chloride	4.85	62	589826	25.366	ng	99
7) 1,3-Butadiene	5.12	54	477777	30.441	ng	100
8) Bromomethane	5.55	94	399059	24.762	ng	100
9) Chloroethane	5.88	64	305123	24.290	ng	100
10) Ethanol	6.26	45	1585939	139.330	ng	99
11) Acetonitrile	6.51	41	831682	25.795	ng	99
12) Acrolein	6.68	56	272640	26.918	ng	99
13) Acetone	6.89	58	1521463	121.677	ng	98
14) Trichlorofluoromethane	7.13	101	680242	21.901	ng	100
15) 2-Propanol (Isopropanol)	7.39	45	2154602	53.443	ng	99
16) Acrylonitrile	7.64	53	569403	28.356	ng	100
17) 1,1-Dichloroethene	8.09	96	394043	24.509	ng	99
18) 2-Methyl-2-Propanol (t...	8.25	59	1972052	53.103	ng	100
19) Methylene Chloride	8.32	84	407464	23.389	ng	99
20) 3-Chloro-1-propene (Al...	8.47	41	623500	29.767	ng	100
21) Trichlorotrifluoroethane	8.73	151	380979	25.249	ng	100
22) Carbon Disulfide	8.58	76	1474549	23.810	ng	100
23) trans-1,2-Dichloroethene	9.59	61	591738	26.201	ng	100
24) 1,1-Dichloroethane	9.84	63	700288	24.376	ng	100
25) Methyl tert-Butyl Ether	9.94	73	1195450	25.455	ng	99
26) Vinyl Acetate	10.11	86	434833	125.567	ng	99
27) 2-Butanone (MEK)	10.35	72	267504	24.842	ng	100
28) cis-1,2-Dichloroethene	10.86	61	549489	25.304	ng	100
29) Diisopropyl Ether	11.17	87	379091	27.020	ng	99
30) Ethyl Acetate	11.17	61	279153	54.086	ng	99
31) n-Hexane	11.15	57	534940	22.499	ng	99
32) Chloroform	11.21	83	667278	23.854	ng	100
34) Tetrahydrofuran (THF)	11.61	72	253719	25.635	ng	98
35) Ethyl tert-Butyl Ether	11.76	87	476097	26.255	ng	99
36) 1,2-Dichloroethane	12.01	62	475217	23.819	ng	100
38) 1,1,1-Trichloroethane	12.29	97	580405	24.707	ng	100
39) Isopropyl Acetate	12.72	61	483071	53.855	ng	100
40) 1-Butanol	12.74	56	797767	61.435	ng	100
41) Benzene	12.77	78	1482655	22.627	ng	100
42) Carbon Tetrachloride	12.93	117	529503	26.038	ng	100
43) Cyclohexane	13.06	84	1153806	49.990	ng	99
44) tert-Amyl Methyl Ether	13.41	73	1134087	26.263	ng	99
45) 1,2-Dichloropropane	13.62	63	382323	24.829	ng	100
46) Bromodichloromethane	13.81	83	535123	26.762	ng	100

EOM 11/22/13

Data File : I:\MS13\DATA\2013_11\21\11211330.D Vial: 16
Acq On : 22 Nov 2013 4:11 Operator: EM
Sample : 25ng TO-15 ICV STD (125ml) Inst : GCMS13
Misc : S25-11211303/S25-10301303 (11/28)

Quant Time: Nov 22 07:45:03 2013
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Nov 22 07:17:55 2013
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.87	130	420794	22.447	ng	100
48) 1,4-Dioxane	13.83	88	329739	26.576	ng	99
49) 2,2,4-Trimethylpentane...	13.94	57	1657169	24.660	ng	100
50) Methyl Methacrylate	14.07	100	323591	54.639	ng	98
51) n-Heptane	14.21	71	349363	24.492	ng	99
52) cis-1,3-Dichloropropene	14.73	75	660156	29.164	ng	100
53) 4-Methyl-2-pentanone	14.76	58	372249	27.744	ng	99
54) trans-1,3-Dichloropropene	15.25	75	584559	28.440	ng	100
55) 1,1,2-Trichloroethane	15.42	97	384063	25.639	ng	100
58) Toluene	15.72	91	1561798	24.174	ng	100
59) 2-Hexanone	15.96	43	909708	27.557	ng	99
60) Dibromochloromethane	16.12	129	484472	28.309	ng	99
61) 1,2-Dibromoethane	16.37	107	447953	27.306	ng	99
62) n-Butyl Acetate	16.60	43	1016481	28.298	ng	100
63) n-Octane	16.73	57	319580	24.595	ng	99
64) Tetrachloroethene	16.85	166	462655	23.196	ng	100
65) Chlorobenzene	17.53	112	1066095	25.254	ng	100
66) Ethylbenzene	17.91	91	1808585	25.210	ng	100
67) m- & p-Xylenes	18.08	91	2876659	50.083	ng	100
68) Bromoform	18.14	173	452781	30.072	ng	100
69) Styrene	18.42	104	1178714	27.962	ng	100
70) o-Xylene	18.53	91	1454850	24.768	ng	100
71) n-Nonane	18.74	43	786793	24.657	ng	100
72) 1,1,2,2-Tetrachloroethane	18.50	83	712773	26.113	ng	100
74) Cumene	19.09	105	1865842	24.561	ng	100
75) alpha-Pinene	19.46	93	939388	25.705	ng	99
76) n-Propylbenzene	19.57	91	2250410	24.228	ng	100
77) 3-Ethyltoluene	19.67	105	1893764	26.092	ng	100
78) 4-Ethyltoluene	19.71	105	1804218	26.359	ng	100
79) 1,3,5-Trimethylbenzene	19.78	105	1557839	26.105	ng	100
80) alpha-Methylstyrene	19.93	118	858297	27.591	ng	100
81) 2-Ethyltoluene	19.97	105	1823764	26.066	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	1581396	26.127	ng	100
83) n-Decane	20.28	57	829484	25.296	ng	100
84) Benzyl Chloride	20.31	91	1420537	32.078	ng	100
85) 1,3-Dichlorobenzene	20.33	146	979854	27.503	ng	100
86) 1,4-Dichlorobenzene	20.39	146	981205	26.406	ng	100
87) sec-Butylbenzene	20.44	105	2109333	26.786	ng	99
88) 4-Isopropyltoluene (p-...	20.59	119	1932968	25.419	ng	100
89) 1,2,3-Trimethylbenzene	20.59	105	1648570	26.954	ng	100
90) 1,2-Dichlorobenzene	20.72	146	945869	27.403	ng	100
91) d-Limonene	20.74	68	608322	27.606	ng	99
92) 1,2-Dibromo-3-Chloropr...	21.15	157	362774	30.751	ng	100
93) n-Undecane	21.51	57	885408	26.148	ng	100
94) 1,2,4-Trichlorobenzene	22.41	180	758710	29.158	ng	100
95) Naphthalene	22.52	128	2372260	30.378	ng	100
96) n-Dodecane	22.53	57	895981	28.089	ng	100
97) Hexachlorobutadiene	22.86	225	479837	27.480	ng	100
98) Cyclohexanone	18.21	55	528426	26.912	ng	100
99) tert-Butylbenzene	20.18	119	1542925	26.346	ng	100
100) n-Butylbenzene	21.00	91	1734612	28.433	ng	100

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

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: **11211330.D**
Data File Path: **I:\MS13\DATA\2013_11\21**
Operator: **EM**
Date Acquired: **11/22/2013** **4:11**

Acq. Method File: **TO15.M**
Sample Name: **25ng TO-15 ICV STD (125ml)**
Misc Info: **S25-11211303/S25-10301303 (**
Instrument Name: **GCMS13**

#	Compound Name	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
2)	Propene	4.00	22.5	25.00	90	70	130	*
3)	Dichlorodifluoromethane (CFC 1	4.16	23.6	25.50	93	70	130	*
4)	Chloromethane	4.44	24.6	24.75	99	70	130	*
5)	1,2-Dichloro-1,1,2,2-tetrafluoroetl	4.71	24.5	25.50	96	70	130	*
6)	Vinyl Chloride	4.85	25.4	25.00	102	70	130	*
7)	1,3-Butadiene	5.12	30.4	26.50	115	70	130	*
8)	Bromomethane	5.55	24.8	25.00	99	70	130	*
9)	Chloroethane	5.88	24.3	25.25	96	70	130	*
10)	Ethanol	6.26	139	127.75	109	70	130	*
11)	Acetonitrile	6.51	25.8	25.25	102	70	130	*
12)	Acrolein	6.68	26.9	26.75	101	70	130	*
13)	Acetone	6.89	122	134.50	91	70	130	*
14)	Trichlorofluoromethane	7.13	21.9	24.75	88	70	130	*
15)	2-Propanol (Isopropanol)	7.39	53.4	52.50	102	70	130	*
16)	Acrylonitrile	7.64	28.4	26.00	109	70	130	*
17)	1,1-Dichloroethene	8.09	24.5	26.75	92	70	130	*
18)	2-Methyl-2-Propanol (tert-Butyl Alc	8.25	53.1	52.25	102	70	130	*
19)	Methylene Chloride	8.32	23.4	27.00	87	70	130	*
20)	3-Chloro-1-propene (Allyl Chlorid	8.47	29.8	27.00	110	70	130	*
21)	Trichlorotrifluoroethane	8.73	25.2	26.75	94	70	130	*
22)	Carbon Disulfide	8.58	23.8	24.50	97	70	130	*
23)	trans-1,2-Dichloroethene	9.59	26.2	26.50	99	70	130	*
24)	1,1-Dichloroethane	9.84	24.4	26.00	94	70	130	*
25)	Methyl tert-Butyl Ether	9.94	25.5	26.50	96	70	130	*
26)	Vinyl Acetate	10.11	126	128.00	98	70	130	*
27)	2-Butanone (MEK)	10.35	24.8	27.25	91	70	130	*
28)	cis-1,2-Dichloroethene	10.86	25.3	26.75	95	70	130	*
29)	Diisopropyl Ether	11.17	27.0	27.25	99	70	130	*
30)	Ethyl Acetate	11.17	54.1	53.25	102	70	130	*
31)	n-Hexane	11.15	22.5	26.25	86	70	130	*
32)	Chloroform	11.21	23.9	26.75	89	70	130	*
34)	Tetrahydrofuran (THF)	11.61	25.6	25.75	99	70	130	*
35)	Ethyl tert-Butyl Ether	11.76	26.3	26.50	99	70	130	*
36)	1,2-Dichloroethane	12.01	23.8	26.25	91	70	130	*
38)	1,1,1-Trichloroethane	12.29	24.7	25.75	96	70	130	*
39)	Isopropyl Acetate	12.72	53.9	54.50	99	70	130	*
40)	1-Butanol	12.74	61.4	54.75	112	70	130	*
41)	Benzene	12.77	22.6	27.50	82	70	130	*
42)	Carbon Tetrachloride	12.93	26.0	26.25	99	70	130	*
43)	Cyclohexane	13.06	50.0	52.50	95	70	130	*
44)	tert-Amyl Methyl Ether	13.41	26.3	26.25	100	70	130	*
45)	1,2-Dichloropropane	13.62	24.8	26.50	94	70	130	*
46)	Bromodichloromethane	13.81	26.8	26.75	100	70	130	*
47)	Trichloroethene	13.87	22.4	26.00	86	70	130	*
48)	1,4-Dioxane	13.83	26.6	27.25	98	70	130	*
49)	2,2,4-Trimethylpentane (Isooctane)	13.94	24.7	26.00	95	70	130	*

EM 11/22/13

I:\MS13\0-Instrument Info\0-Security Certificates\ICV_07081301.CRT

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: **11211330.D** Acq. Method File: **TO15.M**
Data File Path: **I:\MS13\DATA\2013_11\21** Sample Name: **25ng TO-15 ICV STD (125ml)**
Operator: **EM** Misc Info: **S25-11211303/S25-10301303 (**
Date Acquired: **11/22/2013 4:11** Instrument Name: **GCMS13**

#	Compound Name	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
50)	**Methyl Methacrylate**	**14.07**	**54.6**	**52.50**	104	**70**	**130**	*
51)	**n-Heptane**	**14.21**	**24.5**	**26.75**	92	**70**	**130**	*
52)	**cis-1,3-Dichloropropene**	**14.73**	**29.2**	**28.25**	103	**70**	**130**	*
53)	**4-Methyl-2-pentanone**	**14.76**	**27.7**	**27.25**	102	**70**	**130**	*
54)	**trans-1,3-Dichloropropene**	**15.25**	**28.4**	**27.00**	105	**70**	**130**	*
55)	**1,1,2-Trichloroethane**	**15.42**	**25.6**	**26.25**	98	**70**	**130**	*
58)	**Toluene**	**15.72**	**24.2**	**26.25**	92	**70**	**130**	*
59)	**2-Hexanone**	**15.96**	**27.6**	**27.75**	99	**70**	**130**	*
60)	**Dibromochloromethane**	**16.12**	**28.3**	**27.50**	103	**70**	**130**	*
61)	**1,2-Dibromoethane**	**16.37**	**27.3**	**27.00**	101	**70**	**130**	*
62)	**n-Butyl Acetate**	**16.60**	**28.3**	**28.00**	101	**70**	**130**	*
63)	**n-Octane**	**16.73**	**24.6**	**26.00**	95	**70**	**130**	*
64)	**Tetrachloroethene**	**16.85**	**23.2**	**24.50**	95	**70**	**130**	*
65)	**Chlorobenzene**	**17.53**	**25.3**	**27.00**	94	**70**	**130**	*
66)	**Ethylbenzene**	**17.91**	**25.2**	**26.50**	95	**70**	**130**	*
67)	**m- & p-Xylenes**	**18.08**	**50.1**	**52.50**	95	**70**	**130**	*
68)	**Bromoform**	**18.14**	**30.1**	**27.00**	111	**70**	**130**	*
69)	**Styrene**	**18.42**	**28.0**	**27.25**	103	**70**	**130**	*
70)	**o-Xylene**	**18.53**	**24.8**	**25.75**	96	**70**	**130**	*
71)	**n-Nonane**	**18.74**	**24.7**	**25.75**	96	**70**	**130**	*
72)	**1,1,2,2-Tetrachloroethane**	**18.50**	**26.1**	**25.25**	103	**70**	**130**	*
74)	**Cumene**	**19.09**	**24.6**	**25.50**	96	**70**	**130**	*
75)	**alpha-Pinene**	**19.46**	**25.7**	**26.00**	99	**70**	**130**	*
76)	**n-Propylbenzene**	**19.57**	**24.2**	**25.25**	96	**70**	**130**	*
77)	3-Ethyltoluene	19.67	26.1	26.50	98	**70**	**130**	*
78)	**4-Ethyltoluene**	**19.71**	**26.4**	**26.50**	**100**	**70**	**130**	*
79)	**1,3,5-Trimethylbenzene**	**19.78**	**26.1**	**26.50**	**98**	**70**	**130**	*
80)	alpha-Methylstyrene	19.93	27.6	26.00	**106**	**70**	**130**	*
81)	2-Ethyltoluene	19.97	26.1	26.25	**99**	**70**	**130**	*
82)	**1,2,4-Trimethylbenzene**	**20.18**	**26.1**	**26.50**	**98**	**70**	**130**	*
83)	n-Decane	20.28	25.3	25.75	**98**	**70**	**130**	*
84)	**Benzyl Chloride**	**20.31**	**32.1**	**27.75**	**116**	**70**	**130**	*
85)	**1,3-Dichlorobenzene**	**20.33**	**27.5**	**27.75**	**99**	**70**	**130**	*
86)	**1,4-Dichlorobenzene**	**20.39**	**26.4**	**26.75**	**99**	**70**	**130**	*
87)	sec-Butylbenzene	20.44	26.8	27.00	**99**	**70**	**130**	*
88)	4-Isopropyltoluene (p-Cymene)	20.59	25.4	25.25	**101**	**70**	**130**	*
89)	1,2,3-Trimethylbenzene	20.59	27.0	26.50	**102**	**70**	**130**	*
90)	**1,2-Dichlorobenzene**	**20.72**	**27.4**	**27.25**	**101**	**70**	**130**	*
91)	**d-Limonene**	**20.74**	**27.6**	**26.25**	**105**	**70**	**130**	*
92)	**1,2-Dibromo-3-Chloropropane**	**21.15**	**30.8**	**26.50**	**116**	**70**	**130**	*
93)	n-Undecane	21.51	26.1	25.75	**101**	**70**	**130**	*
94)	**1,2,4-Trichlorobenzene**	**22.41**	**29.2**	**27.50**	**106**	**70**	**130**	*
95)	**Naphthalene**	**22.52**	**30.4**	**25.50**	**119**	**70**	**130**	*
96)	n-Dodecane	22.53	28.1	26.00	**108**	**70**	**130**	*
97)	**Hexachlorobutadiene**	**22.86**	**27.5**	**27.25**	**101**	**70**	**130**	*
98)	Cyclohexanone	18.21	26.9	27.50	98	**70**	**130**	*
99)	tert-Butylbenzene	20.18	26.3	26.75	98	**70**	**130**	*
100)	n-Butylbenzene	21.00	28.4	27.50	103	**70**	**130**	*

Bold = 75 Compound List
*** = Pass**

EM 11/22/13

I:\MS13\0-Instrument Info\0-Security Certificates\ICV_07081301.CRT

Data File : I:\MS13\DATA\2014_04\03\04031402.D Vial: 3
Acq On : 3 Apr 2014 14:34 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 03 14:58:41 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	98	-0.01
2	T	Propene	1.856	1.683	9.3	96	0.00
3	T	Dichlorodifluoromethane (CF	3.603	3.682	-2.2	102	0.00
4	T	Chloromethane	2.428	2.163	10.9	92	0.00
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.887	2.024	-7.3	108	0.00
6	T	Vinyl Chloride	2.312	2.460	-6.4	107	0.00
7	T	1,3-Butadiene	1.561	1.732	-11.0	109	-0.02
8	T	Bromomethane	1.603	1.546	3.6	105	-0.02
9	T	Chloroethane	1.249	1.243	0.5	100	-0.02
10	T	Ethanol	1.132	1.174	-3.7	113	-0.04
11	T	Acetonitrile	3.206	3.074	4.1	104	-0.02
12	T	Acrolein	1.007	0.866	14.0	87	-0.02
13	T	Acetone	1.244	1.160	6.8	97	-0.02
14	T	Trichlorofluoromethane	3.089	3.069	0.6	101	0.00
15	T	2-Propanol (Isopropanol)	4.009	3.970	1.0	99	-0.03
16	T	Acrylonitrile	1.997	2.047	-2.5	98	-0.02
17	T	1,1-Dichloroethene	1.599	1.518	5.1	96	-0.01
18	T	2-Methyl-2-Propanol (tert-B	3.693	3.411	7.6	89	-0.02
19	T	Methylene Chloride	1.732	1.651	4.7	97	-0.02
20	T	3-Chloro-1-propene (Allyl C	2.083	2.033	2.4	94	-0.01
21	T	Trichlorotrifluoroethane	1.501	1.465	2.4	98	0.00
22	T	Carbon Disulfide	6.159	5.997	2.6	100	-0.02
23	T	trans-1,2-Dichloroethene	2.246	2.235	0.5	96	-0.02
24	T	1,1-Dichloroethane	2.857	2.773	2.9	97	-0.02
25	T	Methyl tert-Butyl Ether	4.670	4.609	1.3	98	0.00
26	T	Vinyl Acetate	0.344	0.329	4.4	92	-0.02
27	T	2-Butanone (MEK)	1.071	0.989	7.7	97	0.00
28	T	cis-1,2-Dichloroethene	2.160	2.101	2.7	97	-0.01
29	T	Diisopropyl Ether	1.395	1.463	-4.9	97	0.00
30	T	Ethyl Acetate	0.513	0.536	-4.5	95	0.00
31	T	n-Hexane	2.364	2.412	-2.0	100	0.00
32	T	Chloroform	2.782	2.714	2.4	98	-0.01
33	S	1,2-Dichloroethane-d4(SS1)	1.395	1.528	-9.5	106	-0.01
34	T	Tetrahydrofuran (THF)	0.984	0.966	1.8	96	0.00
35	T	Ethyl tert-Butyl Ether	1.803	1.822	-1.1	98	0.00
36	T	1,2-Dichloroethane	1.984	2.035	-2.6	103	0.00
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	99	0.00
38	T	1,1,1-Trichloroethane	0.488	0.483	1.0	100	0.00
39	T	Isopropyl Acetate	0.186	0.177	4.8	95	0.00
40	T	1-Butanol	0.270	0.263	2.6	103	0.00
41	T	Benzene	1.361	1.130	17.0	95	0.00
42	T	Carbon Tetrachloride	0.422	0.413	2.1	96	0.00
43	T	Cyclohexane	0.479	0.456	4.8	96	0.00
44	T	tert-Amyl Methyl Ether	0.897	0.871	2.9	96	0.00
45	T	1,2-Dichloropropane	0.320	0.291	9.1	95	0.00
46	T	Bromodichloromethane	0.415	0.409	1.4	98	0.00
47	T	Trichloroethene	0.389	0.333	14.4	96	0.00
48	T	1,4-Dioxane	0.258	0.245	5.0	101	0.00
49	T	2,2,4-Trimethylpentane (Iso	1.396	1.281	8.2	94	0.00
50	T	Methyl Methacrylate	0.123	0.125	-1.6	96	0.00
51	T	n-Heptane	0.296	0.284	4.1	98	0.00

EOM 4/4/14

Data File : I:\MS13\DATA\2014_04\03\04031402.D Vial: 3
Acq On : 3 Apr 2014 14:34 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 03 14:58:41 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.470	0.468	0.4	98	0.00
53	T	4-Methyl-2-pentanone	0.279	0.274	1.8	96	0.00
54	T	trans-1,3-Dichloropropene	0.427	0.427	0.0	100	0.00
55	T	1,1,2-Trichloroethane	0.311	0.292	6.1	96	0.00
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	102	0.00
57	S	Toluene-d8 (SS2)	2.600	2.509	3.5	99	0.00
58	T	Toluene	3.380	2.977	11.9	95	0.00
59	T	2-Hexanone	1.727	1.631	5.6	96	0.00
60	T	Dibromochloromethane	0.895	0.845	5.6	96	0.00
61	T	1,2-Dibromoethane	0.858	0.811	5.5	97	0.00
62	T	n-Butyl Acetate	1.879	1.802	4.1	96	0.00
63	T	n-Octane	0.680	0.628	7.6	96	0.00
64	T	Tetrachloroethene	1.043	0.964	7.6	98	0.00
65	T	Chlorobenzene	2.209	1.960	11.3	96	0.00
66	T	Ethylbenzene	3.753	3.357	10.6	96	0.00
67	T	m- & p-Xylenes	3.005	2.712	9.8	96	-0.01
68	T	Bromoform	0.788	0.746	5.3	99	0.00
69	T	Styrene	2.205	2.059	6.6	95	0.00
70	T	o-Xylene	3.073	2.808	8.6	96	0.00
71	T	n-Nonane	1.669	1.536	8.0	94	0.00
72	T	1,1,2,2-Tetrachloroethane	1.428	1.316	7.8	97	0.00
73	S	Bromofluorobenzene (SS3)	1.075	1.112	-3.4	106	0.00
74	T	Cumene	3.974	3.784	4.8	99	0.00
75	T	alpha-Pinene	1.912	1.750	8.5	93	0.00
76	T	n-Propylbenzene	4.859	4.374	10.0	94	0.00
77	T	3-Ethyltoluene	3.797	3.656	3.7	98	0.00
78	T	4-Ethyltoluene	3.581	3.338	6.8	97	0.00
79	T	1,3,5-Trimethylbenzene	3.122	2.993	4.1	101	0.00
80	T	alpha-Methylstyrene	1.627	1.518	6.7	94	0.00
81	T	2-Ethyltoluene	3.660	3.366	8.0	96	0.00
82	T	1,2,4-Trimethylbenzene	3.167	2.936	7.3	97	0.00
83	T	n-Decane	1.716	1.549	9.7	92	0.00
84	T	Benzyl Chloride	2.317	2.137	7.8	99	0.00
85	T	1,3-Dichlorobenzene	1.864	1.729	7.2	99	0.00
86	T	1,4-Dichlorobenzene	1.944	1.775	8.7	100	0.00
87	T	sec-Butylbenzene	4.120	3.781	8.2	94	0.00
88	T	4-Isopropyltoluene (p-Cymen	3.978	3.865	2.8	100	0.00
89	T	1,2,3-Trimethylbenzene	3.200	3.088	3.5	101	0.00
90	T	1,2-Dichlorobenzene	1.806	1.670	7.5	100	0.00
91	T	d-Limonene	1.153	1.070	7.2	93	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.617	0.607	1.6	109	0.00
93	T	n-Undecane	1.771	1.572	11.2	88	0.00
94	T	1,2,4-Trichlorobenzene	1.361	1.288	5.4	115	0.00
95	T	Naphthalene	4.085	4.069	0.4	120	0.00
96	T	n-Dodecane	1.669	1.264	24.3	77	0.00
97	T	Hexachlorobutadiene	0.914	0.820	10.3	104	0.00
98	T	Cyclohexanone	1.027	0.938	8.7	93	0.00
99	T	tert-Butylbenzene	3.064	2.799	8.6	96	0.00
100	T	n-Butylbenzene	3.192	2.978	6.7	96	0.00

DM 4/4/14

Data File : I:\MS13\DATA\2014_04\03\04031402.D Vial: 3
Acq On : 3 Apr 2014 14:34 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 03 14:58:41 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

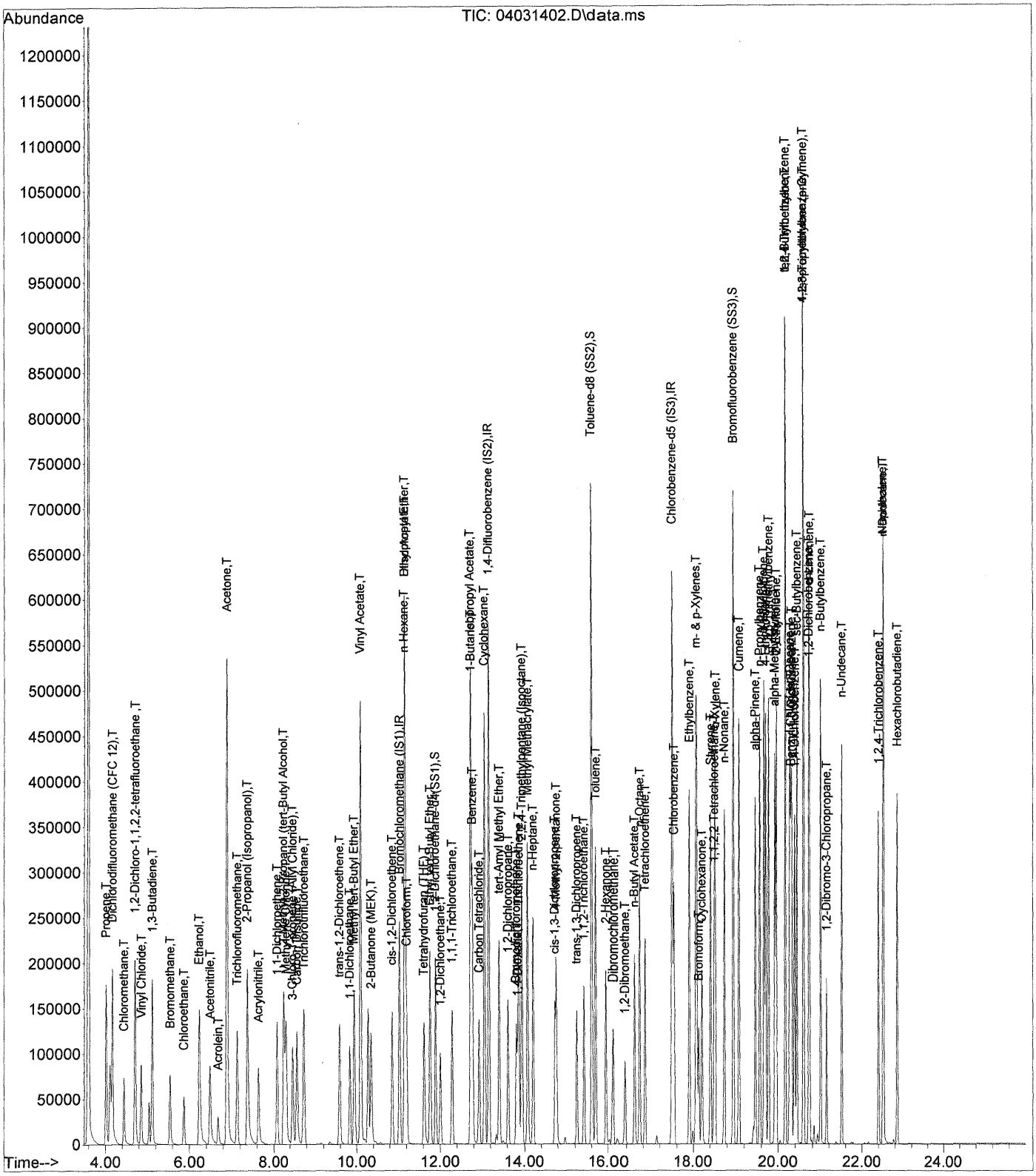
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

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

Data File : I:\MS13\DATA\2014_04\03\04031402.D Vial: 3
Acq On : 3 Apr 2014 14:34 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 03 14:58:41 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2014_04\03\04031402.D Vial: 3
Acq On : 3 Apr 2014 14:34 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 03 14:58:41 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.03	130	109387	12.500	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	13.16	114	545806	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	221834	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.88	65	167159	13.690	ng		-0.01
Spiked Amount 12.500			Recovery = 109.52%				
57) Toluene-d8 (SS2)	15.61	98	556548	12.062	ng		0.00
Spiked Amount 12.500			Recovery = 96.48%				
73) Bromofluorobenzene (SS3)	18.95	174	246613	12.926	ng		0.00
Spiked Amount 12.500			Recovery = 103.44%				
Target Compounds							Qvalue
2) Propene	4.01	42	72161	4.443	ng		98
3) Dichlorodifluoromethan...	4.16	85	161112	5.110	ng		99
4) Chloromethane	4.44	50	90848	4.275	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.70	135	88557	5.362	ng		99
6) Vinyl Chloride	4.85	62	104400	5.159	ng		99
7) 1,3-Butadiene	5.11	54	89444	6.548	ng		97
8) Bromomethane	5.54	94	65610	4.678	ng		100
9) Chloroethane	5.87	64	52745	4.825	ng		99
10) Ethanol	6.22	45	259350	26.181	ng		98
11) Acetonitrile	6.48	41	133167	4.746	ng		99
12) Acrolein	6.68	56	39777	4.513	ng		98
13) Acetone	6.88	58	268513	24.675	ng		89
14) Trichlorofluoromethane	7.13	101	132927	4.918	ng		100
15) 2-Propanol (Isopropanol)	7.36	45	363082	10.349	ng		97
16) Acrylonitrile	7.63	53	93153	5.331	ng		98
17) 1,1-Dichloroethene	8.08	96	70416	5.033	ng		96
18) 2-Methyl-2-Propanol (t...	8.24	59	310396	9.604	ng		98
19) Methylene Chloride	8.30	84	72941	4.811	ng		98
20) 3-Chloro-1-propene (Al...	8.46	41	96070	5.270	ng		99
21) Trichlorotrifluoroethane	8.73	151	69218	5.271	ng		99
22) Carbon Disulfide	8.56	76	257167	4.772	ng		99
23) trans-1,2-Dichloroethene	9.58	61	101725	5.176	ng		97
24) 1,1-Dichloroethane	9.83	63	126193	5.048	ng		99
25) Methyl tert-Butyl Ether	9.94	73	211736	5.181	ng		99
26) Vinyl Acetate	10.09	86	73514	24.393	ng	#	91
27) 2-Butanone (MEK)	10.34	72	46302	4.941	ng		97
28) cis-1,2-Dichloroethene	10.86	61	99261	5.252	ng		97
29) Diisopropyl Ether	11.16	87	68495	5.610	ng	#	94
30) Ethyl Acetate	11.16	61	49012	10.912	ng		99
31) n-Hexane	11.15	57	108693	5.253	ng		99
32) Chloroform	11.20	83	125888	5.171	ng		99
34) Tetrahydrofuran (THF)	11.61	72	45229	5.251	ng		99
35) Ethyl tert-Butyl Ether	11.75	87	83720	5.305	ng		99
36) 1,2-Dichloroethane	12.00	62	93472	5.383	ng		100
38) 1,1,1-Trichloroethane	12.29	97	108720	5.104	ng		99
39) Isopropyl Acetate	12.72	61	84295	10.364	ng	#	93
40) 1-Butanol	12.73	56	125917	10.694	ng		91
41) Benzene	12.76	78	271369	4.567	ng		99
42) Carbon Tetrachloride	12.92	117	93748	5.084	ng		99
43) Cyclohexane	13.06	84	205172	9.804	ng		99
44) tert-Amyl Methyl Ether	13.41	73	197877	5.054	ng		98
45) 1,2-Dichloropropane	13.62	63	67330	4.822	ng		99
46) Bromodichloromethane	13.80	83	95538	5.269	ng		99

DM 4/4/14

Data File : I:\MS13\DATA\2014_04\03\04031402.D Vial: 3
Acq On : 3 Apr 2014 14:34 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 03 14:58:41 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	75512	4.442	ng	100
48) 1,4-Dioxane	13.84	88	58279	5.180	ng	100
49) 2,2,4-Trimethylpentane...	13.94	57	288166	4.729	ng	97
50) Methyl Methacrylate	14.07	100	56706	10.560	ng	98
51) n-Heptane	14.20	71	65086	5.032	ng	100
52) cis-1,3-Dichloropropene	14.73	75	104172	5.075	ng	99
53) 4-Methyl-2-pentanone	14.76	58	64086	5.268	ng	98
54) trans-1,3-Dichloropropene	15.24	75	96000	5.151	ng	99
55) 1,1,2-Trichloroethane	15.42	97	67564	4.974	ng	99
58) Toluene	15.71	91	280025	4.668	ng	100
59) 2-Hexanone	15.95	43	160687	5.243	ng	100
60) Dibromochloromethane	16.12	129	80966	5.096	ng	99
61) 1,2-Dibromoethane	16.37	107	77045	5.058	ng	100
62) n-Butyl Acetate	16.59	43	179121	5.371	ng	100
63) n-Octane	16.72	57	57413	4.759	ng	98
64) Tetrachloroethene	16.86	166	83859	4.528	ng	100
65) Chlorobenzene	17.53	112	187800	4.792	ng	100
66) Ethylbenzene	17.91	91	318737	4.785	ng	99
67) m- & p-Xylenes	18.07	91	505425	9.478	ng	100
68) Bromoform	18.14	173	71468	5.113	ng	99
69) Styrene	18.42	104	199133	5.088	ng	99
70) o-Xylene	18.53	91	256612	4.705	ng	99
71) n-Nonane	18.74	43	139065	4.694	ng	100
72) 1,1,2,2-Tetrachloroethane	18.50	83	117901	4.652	ng	100
74) Cumene	19.08	105	339108	4.808	ng	100
75) alpha-Pinene	19.46	93	161464	4.759	ng	98
76) n-Propylbenzene	19.57	91	388159	4.501	ng	99
77) 3-Ethyltoluene	19.67	105	340628	5.055	ng	100
78) 4-Ethyltoluene	19.71	105	310971	4.893	ng	100
79) 1,3,5-Trimethylbenzene	19.78	105	281494	5.081	ng	100
80) alpha-Methylstyrene	19.92	118	140120	4.852	ng	99
81) 2-Ethyltoluene	19.96	105	313620	4.828	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	273544	4.868	ng	99
83) n-Decane	20.28	57	140181	4.604	ng	99
84) Benzyl Chloride	20.30	91	208617	5.074	ng	99
85) 1,3-Dichlorobenzene	20.32	146	168807	5.103	ng	100
86) 1,4-Dichlorobenzene	20.39	146	166978	4.840	ng	100
87) sec-Butylbenzene	20.43	105	359001	4.910	ng	100
88) 4-Isopropyltoluene (p-...	20.59	119	349772	4.954	ng	99
89) 1,2,3-Trimethylbenzene	20.59	105	293156	5.163	ng	99
90) 1,2-Dichlorobenzene	20.72	146	160072	4.995	ng	99
91) d-Limonene	20.73	68	99673	4.872	ng	99
92) 1,2-Dibromo-3-Chloropr...	21.14	157	57076	5.211	ng	95
93) n-Undecane	21.51	57	140903	4.482	ng	100
94) 1,2,4-Trichlorobenzene	22.40	180	124537	5.155	ng	99
95) Naphthalene	22.51	128	368297	5.080	ng	99
96) n-Dodecane	22.52	57	116676	3.940	ng	99
97) Hexachlorobutadiene	22.86	225	79332	4.893	ng	100
98) Cyclohexanone	18.21	55	93223	5.114	ng	96
99) tert-Butylbenzene	20.18	119	265798	4.888	ng	100
100) n-Butylbenzene	21.00	91	290692	5.132	ng	99

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

Data File : I:\MS13\DATA\2014_04\04\04041302.D Vial: 3
Acq On : 4 Apr 2014 10:15 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 04 11:13:00 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	98	0.00
2	T	Propene	1.856	1.650	11.1	94	0.01
3	T	Dichlorodifluoromethane (CF	3.603	3.539	1.8	97	0.01
4	T	Chloromethane	2.428	2.108	13.2	90	0.00
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.887	1.966	-4.2	104	0.00
6	T	Vinyl Chloride	2.312	2.453	-6.1	106	0.00
7	T	1,3-Butadiene	1.561	1.722	-10.3	108	0.00
8	T	Bromomethane	1.603	1.511	5.7	103	0.00
9	T	Chloroethane	1.249	1.188	4.9	95	0.00
10	T	Ethanol	1.132	1.131	0.1	109	-0.03
11	T	Acetonitrile	3.206	3.017	5.9	102	-0.02
12	T	Acrolein	1.007	0.838	16.8	84	-0.01
13	T	Acetone	1.244	1.128	9.3	94	-0.01
14	T	Trichlorofluoromethane	3.089	3.029	1.9	100	0.00
15	T	2-Propanol (Isopropanol)	4.009	3.872	3.4	96	-0.02
16	T	Acrylonitrile	1.997	1.970	1.4	94	-0.02
17	T	1,1-Dichloroethene	1.599	1.489	6.9	94	0.00
18	T	2-Methyl-2-Propanol (tert-B	3.693	3.286	11.0	86	-0.01
19	T	Methylene Chloride	1.732	1.587	8.4	93	-0.01
20	T	3-Chloro-1-propene (Allyl C	2.083	1.979	5.0	91	0.00
21	T	Trichlorotrifluoroethane	1.501	1.436	4.3	95	0.00
22	T	Carbon Disulfide	6.159	5.866	4.8	97	-0.01
23	T	trans-1,2-Dichloroethene	2.246	2.167	3.5	93	-0.01
24	T	1,1-Dichloroethane	2.857	2.699	5.5	95	-0.01
25	T	Methyl tert-Butyl Ether	4.670	4.511	3.4	96	0.00
26	T	Vinyl Acetate	0.344	0.322	6.4	90	-0.01
27	T	2-Butanone (MEK)	1.071	0.973	9.2	95	0.00
28	T	cis-1,2-Dichloroethene	2.160	2.044	5.4	95	-0.01
29	T	Diisopropyl Ether	1.395	1.417	-1.6	94	0.00
30	T	Ethyl Acetate	0.513	0.525	-2.3	93	0.00
31	T	n-Hexane	2.364	2.358	0.3	98	0.00
32	T	Chloroform	2.782	2.589	6.9	93	-0.01
33	S	1,2-Dichloroethane-d4(SS1)	1.395	1.504	-7.8	104	0.00
34	T	Tetrahydrofuran (THF)	0.984	0.931	5.4	92	0.00
35	T	Ethyl tert-Butyl Ether	1.803	1.755	2.7	94	0.00
36	T	1,2-Dichloroethane	1.984	1.998	-0.7	101	0.00
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	97	0.00
38	T	1,1,1-Trichloroethane	0.488	0.480	1.6	97	0.00
39	T	Isopropyl Acetate	0.186	0.176	5.4	92	0.00
40	T	1-Butanol	0.270	0.261	3.3	100	0.00
41	T	Benzene	1.361	1.119	17.8	93	0.00
42	T	Carbon Tetrachloride	0.422	0.410	2.8	94	0.00
43	T	Cyclohexane	0.479	0.448	6.5	93	0.00
44	T	tert-Amyl Methyl Ether	0.897	0.849	5.4	92	0.00
45	T	1,2-Dichloropropane	0.320	0.289	9.7	92	0.00
46	T	Bromodichloromethane	0.415	0.402	3.1	95	0.00
47	T	Trichloroethene	0.389	0.329	15.4	93	0.00
48	T	1,4-Dioxane	0.258	0.241	6.6	97	0.00
49	T	2,2,4-Trimethylpentane (Iso	1.396	1.253	10.2	90	0.00
50	T	Methyl Methacrylate	0.123	0.122	0.8	93	0.00
51	T	n-Heptane	0.296	0.279	5.7	95	0.00

EM 4/4/14

Data File : I:\MS13\DATA\2014_04\04\04041302.D Vial: 3
Acq On : 4 Apr 2014 10:15 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 04 11:13:00 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.470	0.455	3.2	94	0.00
53	T	4-Methyl-2-pentanone	0.279	0.264	5.4	91	0.00
54	T	trans-1,3-Dichloropropene	0.427	0.421	1.4	97	0.00
55	T	1,1,2-Trichloroethane	0.311	0.289	7.1	94	0.00
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	99	0.00
57	S	Toluene-d8 (SS2)	2.600	2.532	2.6	98	0.00
58	T	Toluene	3.380	2.959	12.5	92	0.00
59	T	2-Hexanone	1.727	1.638	5.2	94	0.00
60	T	Dibromochloromethane	0.895	0.843	5.8	93	0.00
61	T	1,2-Dibromoethane	0.858	0.803	6.4	94	0.00
62	T	n-Butyl Acetate	1.879	1.769	5.9	92	0.00
63	T	n-Octane	0.680	0.628	7.6	94	0.00
64	T	Tetrachloroethene	1.043	0.950	8.9	94	0.00
65	T	Chlorobenzene	2.209	1.952	11.6	94	0.00
66	T	Ethylbenzene	3.753	3.358	10.5	94	0.00
67	T	m- & p-Xylenes	3.005	2.723	9.4	94	0.00
68	T	Bromoform	0.788	0.746	5.3	96	0.00
69	T	Styrene	2.205	2.040	7.5	92	0.00
70	T	o-Xylene	3.073	2.796	9.0	93	0.00
71	T	n-Nonane	1.669	1.534	8.1	92	0.00
72	T	1,1,2,2-Tetrachloroethane	1.428	1.304	8.7	94	0.00
73	S	Bromofluorobenzene (SS3)	1.075	1.110	-3.3	103	0.00
74	T	Cumene	3.974	3.763	5.3	96	0.00
75	T	alpha-Pinene	1.912	1.756	8.2	91	0.00
76	T	n-Propylbenzene	4.859	4.365	10.2	92	0.00
77	T	3-Ethyltoluene	3.797	3.603	5.1	94	0.00
78	T	4-Ethyltoluene	3.581	3.332	7.0	95	0.00
79	T	1,3,5-Trimethylbenzene	3.122	2.989	4.3	99	0.00
80	T	alpha-Methylstyrene	1.627	1.504	7.6	91	0.00
81	T	2-Ethyltoluene	3.660	3.363	8.1	94	0.00
82	T	1,2,4-Trimethylbenzene	3.167	2.928	7.5	94	0.00
83	T	n-Decane	1.716	1.542	10.1	90	0.00
84	T	Benzyl Chloride	2.317	2.147	7.3	97	0.00
85	T	1,3-Dichlorobenzene	1.864	1.716	7.9	96	0.00
86	T	1,4-Dichlorobenzene	1.944	1.767	9.1	97	0.00
87	T	sec-Butylbenzene	4.120	3.743	9.2	91	0.00
88	T	4-Isopropyltoluene (p-Cymen	3.978	3.860	3.0	98	0.00
89	T	1,2,3-Trimethylbenzene	3.200	3.093	3.3	98	0.00
90	T	1,2-Dichlorobenzene	1.806	1.666	7.8	97	0.00
91	T	d-Limonene	1.153	1.071	7.1	91	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.617	0.601	2.6	105	0.00
93	T	n-Undecane	1.771	1.567	11.5	86	0.00
94	T	1,2,4-Trichlorobenzene	1.361	1.278	6.1	112	0.00
95	T	Naphthalene	4.085	4.034	1.2	116	0.00
96	T	n-Dodecane	1.669	1.230	26.3	74	0.00
97	T	Hexachlorobutadiene	0.914	0.817	10.6	101	0.00
98	T	Cyclohexanone	1.027	0.949	7.6	92	0.00
99	T	tert-Butylbenzene	3.064	2.782	9.2	93	0.00
100	T	n-Butylbenzene	3.192	2.973	6.9	93	0.00

Data File : I:\MS13\DATA\2014_04\04\04041302.D Vial: 3
Acq On : 4 Apr 2014 10:15 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 04 11:13:00 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

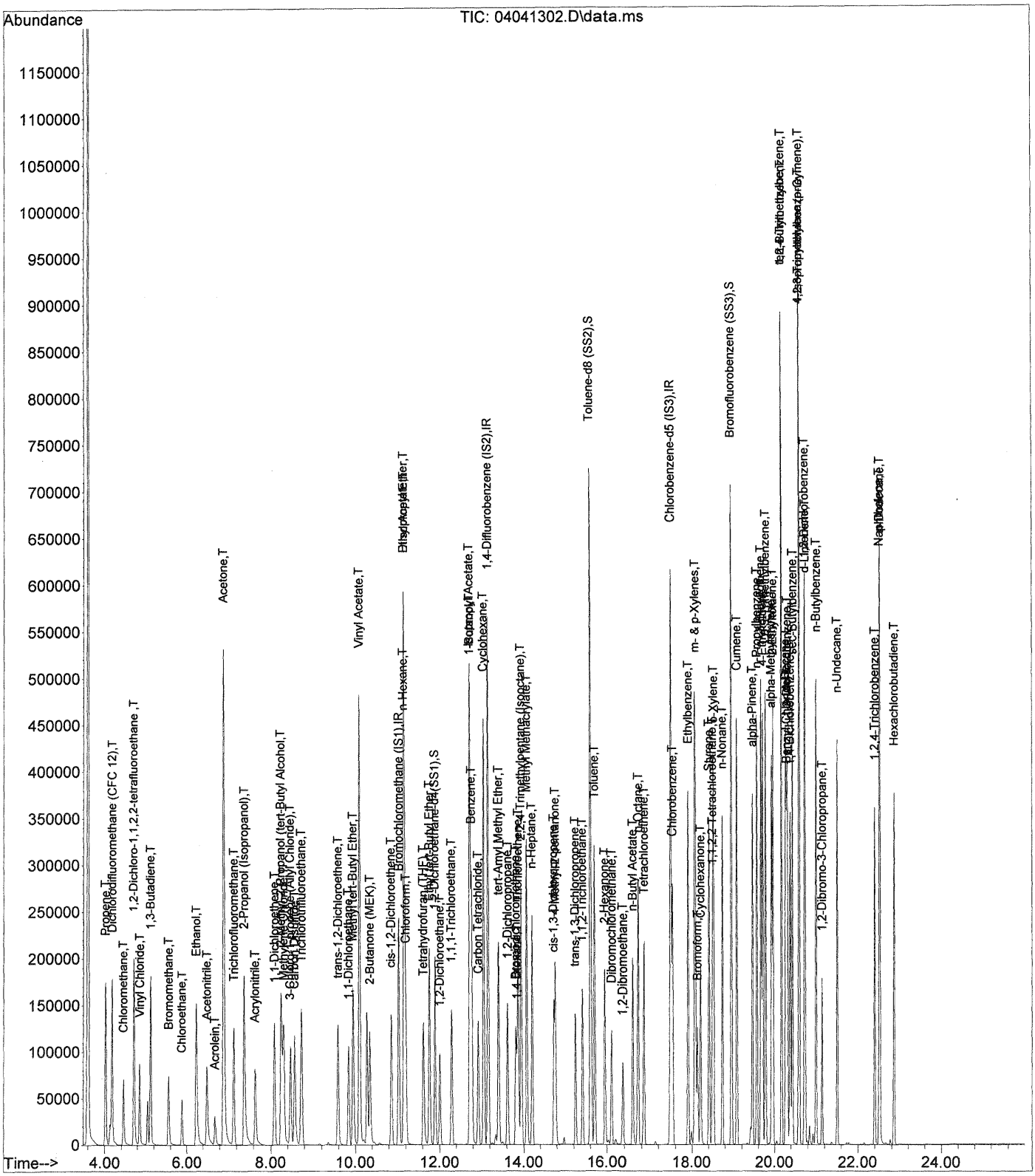
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

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

Data File : I:\MS13\DATA\2014_04\04\04041302.D Vial: 3
Acq On : 4 Apr 2014 10:15 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 04 11:13:00 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : I:\MS13\DATA\2014_04\04\04041302.D Vial: 3
Acq On : 4 Apr 2014 10:15 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 04 11:13:00 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	11.04	130	109250	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	13.17	114	537544	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	17.49	82	216769	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	11.89	65	164321	13.474	ng		0.00
Spiked Amount 12.500			Recovery =	107.76%			
57) Toluene-d8 (SS2)	15.61	98	548793	12.172	ng		0.00
Spiked Amount 12.500			Recovery =	97.36%			
73) Bromofluorobenzene (SS3)	18.95	174	240508	12.900	ng		0.00
Spiked Amount 12.500			Recovery =	103.20%			
Target Compounds							Qvalue
2) Propene	4.02	42	70660	4.356	ng		98
3) Dichlorodifluoromethan...	4.17	85	154642	4.911	ng		99
4) Chloromethane	4.45	50	88414	4.166	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	4.71	135	85936	5.210	ng		100
6) Vinyl Chloride	4.86	62	103999	5.146	ng		98
7) 1,3-Butadiene	5.12	54	88786	6.508	ng		96
8) Bromomethane	5.55	94	64045	4.572	ng		99
9) Chloroethane	5.88	64	50341	4.611	ng		99
10) Ethanol	6.23	45	249669	25.236	ng		100
11) Acetonitrile	6.49	41	130506	4.657	ng		100
12) Acrolein	6.68	56	38470	4.370	ng		97
13) Acetone	6.89	58	260688	23.986	ng		88
14) Trichlorofluoromethane	7.13	101	131022	4.853	ng		100
15) 2-Propanol (Isopropanol)	7.37	45	353642	10.092	ng		97
16) Acrylonitrile	7.63	53	89524	5.129	ng		98
17) 1,1-Dichloroethene	8.09	96	68955	4.934	ng		96
18) 2-Methyl-2-Propanol (t...	8.24	59	298676	9.253	ng		98
19) Methylene Chloride	8.31	84	70050	4.626	ng		99
20) 3-Chloro-1-propene (Al...	8.47	41	93386	5.129	ng		99
21) Trichlorotrifluoroethane	8.73	151	67757	5.166	ng		99
22) Carbon Disulfide	8.57	76	251238	4.668	ng		99
23) trans-1,2-Dichloroethene	9.59	61	98487	5.017	ng		98
24) 1,1-Dichloroethane	9.84	63	122653	4.912	ng		99
25) Methyl tert-Butyl Ether	9.94	73	206976	5.071	ng		98
26) Vinyl Acetate	10.10	86	71810	23.858	ng	#	91
27) 2-Butanone (MEK)	10.34	72	45478	4.859	ng		99
28) cis-1,2-Dichloroethene	10.86	61	96449	5.110	ng		97
29) Diisopropyl Ether	11.16	87	66235	5.432	ng	#	94
30) Ethyl Acetate	11.16	61	47950	10.689	ng		99
31) n-Hexane	11.15	57	106154	5.137	ng		99
32) Chloroform	11.20	83	119936	4.933	ng		99
34) Tetrahydrofuran (THF)	11.61	72	43539	5.061	ng		99
35) Ethyl tert-Butyl Ether	11.76	87	80520	5.109	ng		98
36) 1,2-Dichloroethane	12.00	62	91687	5.287	ng		99
38) 1,1,1-Trichloroethane	12.29	97	106199	5.062	ng		99
39) Isopropyl Acetate	12.72	61	82418	10.289	ng	#	93
40) 1-Butanol	12.73	56	123084	10.614	ng		91
41) Benzene	12.76	78	264743	4.524	ng		100
42) Carbon Tetrachloride	12.92	117	91711	5.050	ng		99
43) Cyclohexane	13.06	84	198520	9.632	ng		99
44) tert-Amyl Methyl Ether	13.41	73	189921	4.925	ng		98
45) 1,2-Dichloropropane	13.62	63	65770	4.783	ng		99
46) Bromodichloromethane	13.81	83	92411	5.175	ng		100

DM 4/4/14

Data File : I:\MS13\DATA\2014_04\04\04041302.D Vial: 3
Acq On : 4 Apr 2014 10:15 Operator: EM
Sample : 5ng TO-15 CCV STD Inst : MS13
Misc : S29-03311401/S29-03131413 (4/11)

Quant Time: Apr 04 11:13:00 2014
Quant Method : I:\MS13\METHODS\R13112113.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Mar 04 15:29:07 2014
Response via : Initial Calibration
DataAcq Meth:TO15.M

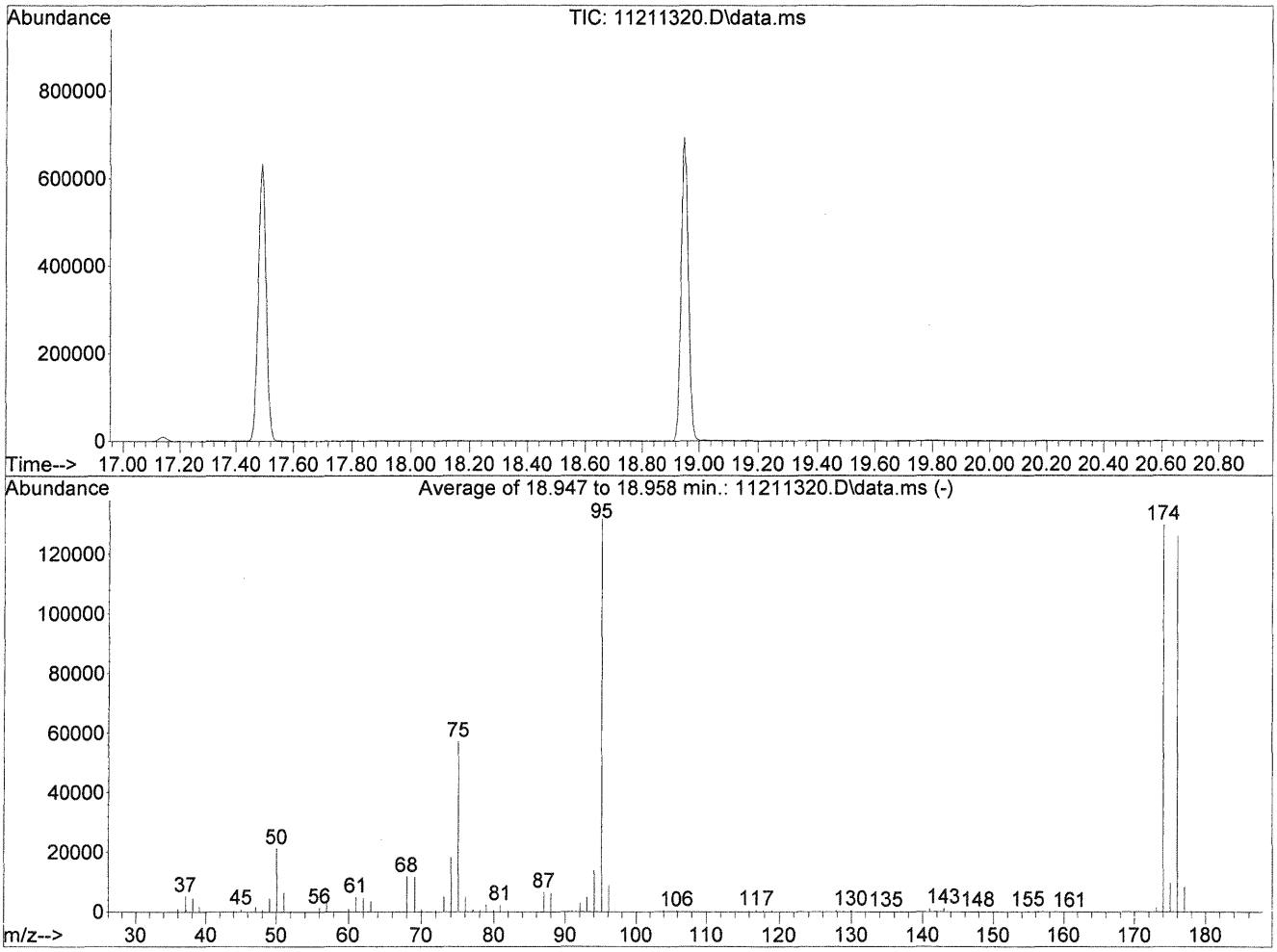
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Trichloroethene	13.86	130	73588	4.396	ng	100
48) 1,4-Dioxane	13.84	88	56395	5.090	ng	99
49) 2,2,4-Trimethylpentane...	13.94	57	277534	4.625	ng	96
50) Methyl Methacrylate	14.07	100	54760	10.354	ng	98
51) n-Heptane	14.20	71	63032	4.948	ng	100
52) cis-1,3-Dichloropropene	14.73	75	99840	4.939	ng	100
53) 4-Methyl-2-pentanone	14.77	58	60847	5.078	ng	94
54) trans-1,3-Dichloropropene	15.24	75	93283	5.082	ng	99
55) 1,1,2-Trichloroethane	15.42	97	65920	4.928	ng	99
58) Toluene	15.71	91	271924	4.639	ng	100
59) 2-Hexanone	15.95	43	157676	5.265	ng	96
60) Dibromochloromethane	16.12	129	78973	5.086	ng	100
61) 1,2-Dibromoethane	16.37	107	74504	5.006	ng	99
62) n-Butyl Acetate	16.59	43	171818	5.272	ng	99
63) n-Octane	16.72	57	56082	4.757	ng	98
64) Tetrachloroethene	16.86	166	80696	4.459	ng	100
65) Chlorobenzene	17.53	112	182811	4.773	ng	100
66) Ethylbenzene	17.91	91	311546	4.787	ng	100
67) m- & p-Xylenes	18.08	91	495882	9.516	ng	99
68) Bromoform	18.14	173	69863	5.115	ng	100
69) Styrene	18.42	104	192825	5.042	ng	99
70) o-Xylene	18.53	91	249750	4.687	ng	98
71) n-Nonane	18.74	43	135638	4.685	ng	100
72) 1,1,2,2-Tetrachloroethane	18.50	83	114191	4.611	ng	100
74) Cumene	19.09	105	329573	4.782	ng	100
75) alpha-Pinene	19.46	93	158330	4.775	ng	97
76) n-Propylbenzene	19.57	91	378488	4.491	ng	99
77) 3-Ethyltoluene	19.67	105	328011	4.981	ng	100
78) 4-Ethyltoluene	19.71	105	303329	4.885	ng	99
79) 1,3,5-Trimethylbenzene	19.78	105	274713	5.074	ng	100
80) alpha-Methylstyrene	19.92	118	135586	4.804	ng	98
81) 2-Ethyltoluene	19.96	105	306140	4.823	ng	100
82) 1,2,4-Trimethylbenzene	20.18	105	266603	4.855	ng	100
83) n-Decane	20.28	57	136352	4.583	ng	99
84) Benzyl Chloride	20.30	91	204752	5.096	ng	99
85) 1,3-Dichlorobenzene	20.32	146	163675	5.064	ng	100
86) 1,4-Dichlorobenzene	20.39	146	162432	4.818	ng	99
87) sec-Butylbenzene	20.44	105	347296	4.861	ng	100
88) 4-Isopropyltoluene (p-...	20.59	119	341363	4.948	ng	99
89) 1,2,3-Trimethylbenzene	20.59	105	286919	5.171	ng	99
90) 1,2-Dichlorobenzene	20.72	146	156023	4.982	ng	99
91) d-Limonene	20.73	68	97501	4.877	ng	99
92) 1,2-Dibromo-3-Chloropr...	21.14	157	55225	5.160	ng	94
93) n-Undecane	21.51	57	137188	4.466	ng	99
94) 1,2,4-Trichlorobenzene	22.40	180	120757	5.115	ng	100
95) Naphthalene	22.51	128	356748	5.035	ng	99
96) n-Dodecane	22.52	57	110896	3.832	ng	100
97) Hexachlorobutadiene	22.86	225	77242	4.876	ng	100
98) Cyclohexanone	18.21	55	92196	5.175	ng	98
99) tert-Butylbenzene	20.18	119	258066	4.857	ng	100
100) n-Butylbenzene	21.00	91	283552	5.123	ng	99

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

Data Path : I:\MS13\DATA\2013_11\21\
Data File : 11211320.D
Acq On : 21 Nov 2013 22:23
Operator : EM
Sample : 12.5ng TO-15 BFB
Misc : S25-11211303
ALS Vial : 8 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\MS13\METHODS\R13112113.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Oct 25 08:58:51 2013



AutoFind: Scans 2867, 2868, 2869; Background Corrected with Scan 2859

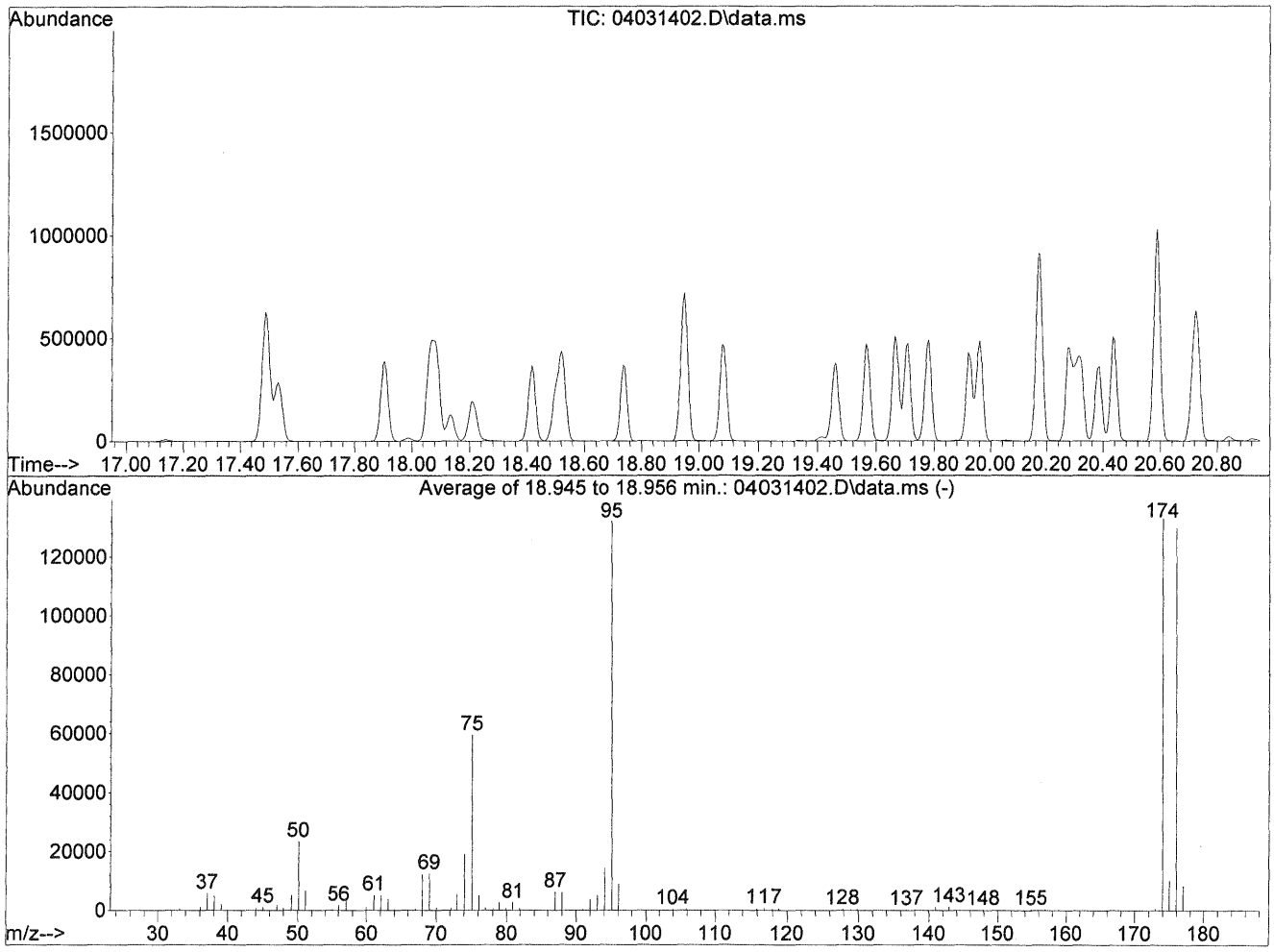
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.1	21235	PASS
75	95	30	66	43.3	57067	PASS
95	95	100	100	100.0	131728	PASS
96	95	5	9	6.7	8830	PASS
173	174	0.00	2	1.2	1560	PASS
174	95	50	120	98.5	129789	PASS
175	174	4	9	7.4	9590	PASS
176	174	93	101	97.1	126061	PASS
177	176	5	9	6.7	8415	PASS

EM 11/22/13

Data Path : I:\MS13\DATA\2014_04\03\
Data File : 04031402.D
Acq On : 3 Apr 2014 14:34
Operator : EM
Sample : 5ng TO-15 CCV STD
Misc : S29-03311401/S29-03131413 (4/11)
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\MS13\METHODS\R13112113.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Mar 04 15:29:07 2014



AutoFind: Scans 2811, 2812, 2813; Background Corrected with Scan 2803

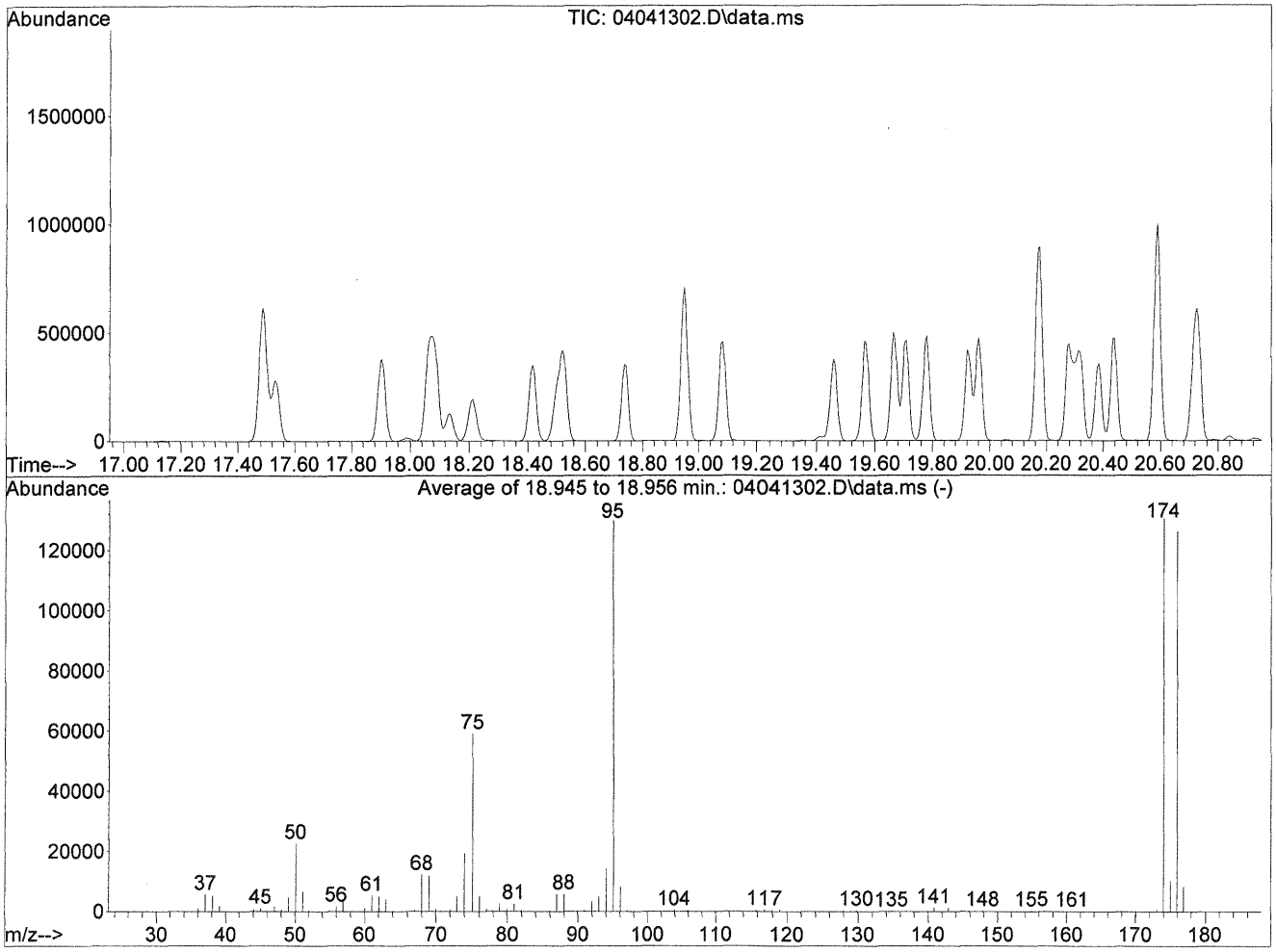
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.7	23403	PASS
75	95	30	66	45.1	59453	PASS
95	95	100	100	100.0	131915	PASS
96	95	5	9	6.7	8857	PASS
173	174	0.00	2	0.4	505	PASS
174	95	50	120	100.7	132779	PASS
175	174	4	9	7.6	10048	PASS
176	174	93	101	97.5	129472	PASS
177	176	5	9	6.5	8366	PASS

EOM 4/4/14

Data Path : I:\MS13\DATA\2014_04\04\
Data File : 04041302.D
Acq On : 4 Apr 2014 10:15
Operator : EM
Sample : 5ng TO-15 CCV STD
Misc : S29-03311401/S29-03131413 (4/11)
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\MS13\METHODS\R13112113.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Mar 04 15:29:07 2014



AutoFind: Scans 2811, 2812, 2813; Background Corrected with Scan 2803

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.4	22557	PASS
75	95	30	66	45.5	58987	PASS
95	95	100	100	100.0	129683	PASS
96	95	5	9	6.4	8243	PASS
173	174	0.00	2	0.5	616	PASS
174	95	50	120	100.4	130200	PASS
175	174	4	9	7.9	10315	PASS
176	174	93	101	96.9	126131	PASS
177	176	5	9	6.5	8221	PASS

EM 4/4/14

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	11/20/2013 22:34	11211301.D	5ng Custom CCV STD	S25-11111301/S25-10221304 (11/20)	EM	14	*CF, not used*
2	11/20/2013 23:09	11211302.D	25ng TO-15 CCV STD	S25-11111301/S25-10241304 (11/22)	EM	13	*CF, not used*
3	11/20/2013 23:43	11211303.D	Blank (100ml)	S25-11111301	EM	8	*CF, not used*
4	11/21/2013 0:18	11211304.D	TO-15 Method Blank (1000ml)	S25-11111301	EM	8	*CF, not used*
5	11/21/2013 10:18	11211305.D	25ng TO-15 CCV STD	S25-11111301/S25-11181304 (12/17)	EM	9	*CF, not used*
6	11/21/2013 11:03	11211306.D	Blank (100ml)	S25-11111301	EM	8	*Filament 2*
7	11/21/2013 11:37	11211307.D	25ng std check	S25-11111301/S25-10241304 (11/22)	EM	13	*See Instrument*
8	11/21/2013 14:44	11211308.D	0.5ng std check (EM=1788)	S25-112113XX/S25-11191301 (12/18)	EM	11	*maintenance*
9	11/21/2013 16:03	11211309.D	2.5ng std check	S25-11211303/S25-11201303 (12/19)	EM	14	*for details*
10	11/21/2013 16:37	11211310.D	10ng std check	S25-11211303/S25-11141305 (12/13)	EM	13	

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
11	11/21/2013 17:12	11211311.D	12.5ng Custom BFB	S25-11211303	EM	8	***Passed***
12	11/21/2013 17:46	11211312.D	0.4ng TO-15 Custom ICAL STD	S25-11211303/S25-11201303 (12/19)	EM	14	
13	11/21/2013 18:20	11211313.D	1.0ng TO-15 Custom ICAL STD	S25-11211303/S25-11201303 (12/19)	EM	14	
14	11/21/2013 18:55	11211314.D	2.5ng TO-15 Custom ICAL STD	S25-11211303/S25-11201303 (12/19)	EM	14	***ICAL***
15	11/21/2013 19:30	11211315.D	5.0ng TO-15 Custom ICAL STD	S25-11211303/S25-11201303 (12/19)	EM	14	***ACF13112113.M***
16	11/21/2013 20:05	11211316.D	25ng TO-15 Custom ICAL STD	S25-11211303/S25-11141305 (12/13)	EM	13	
17	11/21/2013 20:39	11211317.D	50ng TO-15 Custom ICAL STD	S25-11211303/S25-11141305 (12/13)	EM	13	
18	11/21/2013 21:14	11211318.D	100ng TO-15 Custom ICAL STD	S25-11211303/S25-11141305 (12/13)	EM	13	
19	11/21/2013 21:49	11211319.D	25ng TO-15 Custom ICV (125ml)	S25-11211303/S25-11141303 (12/13)	EM	4	***Passed, except***

1,2,3-Trichlorobenzene

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
20	11/21/2013 22:23	11211320.D	12.5ng TO-15 BFB	S25-11211303	EM	8	***Passed***
21	11/21/2013 22:58	11211321.D	0.08ng TO-15 ICAL STD	S25-11211303/S25-11191301 (12/18)	EM	11	
22	11/21/2013 23:33	11211322.D	0.1ng TO-15 ICAL STD	S25-11211303/S25-11191301 (12/18)	EM	11	
23	11/22/2013 0:08	11211323.D	0.2ng TO-15 ICAL STD	S25-11211303/S25-11191301 (12/18)	EM	11	
24	11/22/2013 0:42	11211324.D	0.4ng TO-15 ICAL STD	S25-11211303/S25-11191301 (12/18)	EM	11	***ICAL***
25	11/22/2013 1:17	11211325.D	1.0ng TO-15 ICAL STD	S25-11211303/S25-11181302 (12/17)	EM	10	***R13112113.M***
26	11/22/2013 1:51	11211326.D	5.0ng TO-15 ICAL STD	S25-11211303/S25-11181302 (12/17)	EM	10	
27	11/22/2013 2:26	11211327.D	25ng TO-15 ICAL STD	S25-11211303/S25-11181304 (12/17)	EM	9	
28	11/22/2013 3:01	11211328.D	50ng TO-15 ICAL STD	S25-11211303/S25-11181304 (12/17)	EM	9	
29	11/22/2013 3:37	11211329.D	100ng TO-15 ICAL STD	S25-11211303/S25-11181304 (12/17)	EM	9	
30	11/22/2013 4:11	11211330.D	25ng TO-15 ICV STD (125ml)	S25-11211303/S25-10301303 (11/28)	EM	16	***Passed***

ICAL R13112113.M 0.1ng-100ng= Bromoform, 1,2-Dibromo-3-chloropropane, 1,2,4-Trichlorobenzene, Naphthalene, Dodecane; 0.2ng-100ng= Bromomethane, Hexane, trans-1,3-Dichloropropene; 0.4ng-100ng= Methylene Chloride, Carbon Disulfide, Benzyl Chloride 0.4ng-200ng= 1-Butanol; 2ng-500ng= Acetone, Vinyl Acetate.

EM 11/22/13

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	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
26	4/2/2014 18:13	04021426.D	5ng Custom CCV STD	S29-03311401/S29-03131406 (4/11)	EM	1	*Passed*
27	4/2/2014 18:48	04021427.D	5ng TO-15 CCV STD	S29-03311401/S29-03131413 (4/11)	EM	3	*Passed*
28	4/2/2014 19:22	04021428.D	25ng MAPH CCV STD	S29-03311401/S29-03271402 (5/24)	EM	3	*CF, not used*
29	4/2/2014 19:57	04021429.D	TO-15 Method Blank (1000ml)	S29-03311401	EM	3	*Passed*
30	4/2/2014 20:31	04021430.D	25ng TO-15 LCS STD (125ml)	S29-03311401/S29-03171403 (4/15)	EM	16	*Passed*
31	4/2/2014 21:06	04021431.D	P1401242-002 dil (15ml)		EM	11	
32	4/2/2014 21:40	04021432.D	P1401242-003 dil (30ml)		EM	12	
33	4/2/2014 22:15	04021433.D	P1401242-005 dil (40ml)		EM	14	
34	4/2/2014 22:49	04021434.D	P1401242-006 dil (50ml)		EM	8	
35	4/2/2014 23:24	04021435.D	P1401242-007 dil (15ml)		EM	2	
36	4/2/2014 23:58	04021436.D	P1401242-008 dil (45ml)		EM	5	
37	4/3/2014 0:33	04021437.D	P1401242-009 (100ml)		EM	6	CF, over dil.
38	4/3/2014 1:07	04021438.D	P1401242-009 dup (100ml)		EM	6	Pass as Batch Dup
39	4/3/2014 1:42	04021439.D	P1401242-010 (25ml)		EM	7	
40	4/3/2014 2:16	04021440.D	25ng TO-15 LCSD STD (125ml)	S29-03311401/S29-03171403 (4/15)	EM	16	CF, not used
41	4/3/2014 8:11	04021441.D	P1401328-011 (11ml)		EM	4	
42	4/3/2014 8:45	04021442.D	P1401328-013 (6ml)		EM	4	
43	4/3/2014 9:19	04021443.D	P1401328-015 (4ml)		EM	4	
44	4/3/2014 9:54	04021444.D	P1401328-013 dil (3ml)		EM	4	
45	4/3/2014 10:28	04021445.D	P1401328-015 dil (2ml)		EM	4	
46	4/3/2014 11:03	04021446.D	P1401153-001 (10ml)		EM	4	
47	4/3/2014 11:39	04021447.D	P1401153-001 dil (3ml)		EM	4	
48	4/3/2014 12:14	04021448.D	P1401153-002 (5ml)		EM	4	CF, over dil.
49	4/3/2014 12:48	04021449.D	P1401170-001 dil (4ml)		EM	4	
50	4/3/2014 13:22	04021450.D	P1401242-009 (140ml)		EM	6	

EM 4/3/14

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	4/3/2014 14:00	04031401.D	5ng Custom CCV STD	S29-03311401/S29-03131406 (4/11)	EM	1	*Passed*
2	4/3/2014 14:34	04031402.D	5ng TO-15 CCV STD	S29-03311401/S29-03131413 (4/11)	EM	3	*Passed*
3	4/3/2014 15:09	04031403.D	TO-15 Method Blank (1000ml)	S29-03311401	EM	3	*Passed*
4	4/3/2014 15:43	04031404.D	P1401202-001 (0.1ml)		EM	4	*CF, over dil.*
5	4/3/2014 16:18	04031405.D	P1401202-001 (0.5ml)		EM	4	
6	4/3/2014 17:11	04031406.D	P1401229-001 (4ml)		EM	4	
7	4/3/2014 17:46	04031407.D	P1401229-002 (4ml)		EM	4	
8	4/3/2014 18:20	04031408.D	P1401229-003 (30ml)		EM	7	
9	4/3/2014 18:55	04031409.D	P1401229-003 dil (15ml)		EM	7	
10	4/3/2014 19:29	04031410.D	25ng TO-15 LCS STD (125ml)	S29-03311401/S29-03171403 (4/15)	EM	16	*Passed*
11	4/3/2014 20:04	04031411.D	P1401250-001 (50ml)		EM	9	*CF, over dil.*
12	4/3/2014 20:38	04031412.D	P1401250-002 (1000ml)		EM	10	
13	4/3/2014 21:13	04031413.D	P1401233-001 (100ml)		EM	8	
14	4/3/2014 21:47	04031414.D	P1401170-001 (15ml)		EM	2	*CF, over max cal.*
15	4/3/2014 22:22	04031415.D	25ng TO-15 LCSD STD (125ml)	S29-03311401/S29-03171403 (4/15)	EM	16	*Passed*

EM 4/4/14

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
16	4/3/2014 22:56	04031416.D	P1401201-001 (25ml)		EM	11	CF, over dil.
17	4/3/2014 23:31	04031417.D	P1401201-005 (1000ml)		EM	12	
18	4/4/2014 0:05	04031418.D	P1401201-006 (1000ml)		EM	13	
19	4/4/2014 0:40	04031419.D	P1401201-006 dup (1000ml)		EM	13	Passed
20	4/4/2014 1:15	04031420.D	P1401201-007 (1000ml)		EM	14	
21	4/4/2014 1:49	04031421.D	P1401201-008 (1000ml)		EM	15	
22	4/4/2014 2:24	04031422.D	P1401153-002 (15ml)		EM	5	
23	4/4/2014 2:58	04031423.D	P1401153-003 (30ml)		EM	6	
24	4/4/2014 3:33	04031424.D	Blank (200ml)	S29-03311401	EM	3	
25	4/4/2014 8:33	04031425.D	P1401250-001 (500ml)		EM	9	
26	4/4/2014 9:07	04031426.D	P1401170-001 (8ml)		EM	4	

EM 4/4/14

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	4/4/2014 9:41	04041301.D	5ng Custom CCV STD	S29-03311401/S29-03131406 (4/11)	EM	1	Passed
2	4/4/2014 10:15	04041302.D	5ng TO-15 CCV STD	S29-03311401/S29-03131413 (4/11)	EM	3	Passed
3	4/4/2014 10:50	04041303.D	TO-15 Method Blank (1000ml)	S29-03311401	EM	3	Passed
4	4/4/2014 11:24	04041304.D	25ng TO-15 LCS STD (125ml)	S29-03311401/S29-03171403 (4/15)	EM	16	Passed
5	4/4/2014 12:18	04041305.D	P1401201-001 (1000ml)		EM	11	
6	4/4/2014 12:52	04041306.D	P1401233-001 (1000ml)		EM	8	
7	4/4/2014 13:27	04041307.D	P1401233-001 dup (1000ml)		EM	8	Passed
8	4/4/2014 14:01	04041408.D	P1401386-001 (100ml)		EM	8	
9	4/4/2014 14:36	04041409.D	P1401185-001 (0.5ml)		EM	4	CF, over dil.
10	4/4/2014 15:11	04041410.D	P1401185-001 (2ml)		EM	4	CF, over dil.
11	4/4/2014 15:45	04041411.D	P1401185-002 (0.05ml)		EM	4	CF, over dil.
12	4/4/2014 16:20	04041412.D	P1401185-002 (0.15ml)		EM	4	
13	4/4/2014 16:55	04041413.D	P1401185-001 (4ml)		EM	4	
14	4/4/2014 17:57	04041414.D	P1401244-001 (0.5ml)		EM	4	
15	4/4/2014 18:31	04041415.D	Blank (200ml)	S29-03311401	EM	4	
16	4/4/2014 19:06	04041416.D	P1401201-002 (1000ml)		EM	2	
17	4/4/2014 19:40	04041417.D	P1401201-003 (1000ml)		EM	5	
18	4/4/2014 20:15	04041418.D	P1401201-003 dil (100ml)		EM	5	CF, not used
19	4/4/2014 20:49	04041419.D	P1401201-004 (1000ml)		EM	6	
20	4/4/2014 21:24	04041420.D	P1401203-001 (1000ml)		EM	7	
21	4/4/2014 21:59	04041421.D	P1401203-001 dil (100ml)		EM	7	CF, not used
22	4/4/2014 22:33	04041422.D	P1401375-001 (30ml)		EM	8	CF, over dil.
23	4/4/2014 23:08	04041423.D	P1401274-001 (60ml)		EM	9	CF, over dil.
24	4/4/2014 23:42	04041424.D	P1401274-002 (1000ml)		EM	10	
25	4/5/2014 0:17	04041425.D	P1401274-002 dil (100ml)		EM	10	
26	4/5/2014 0:51	04041426.D	25ng TO-15 LCSD STD (125ml)	S29-03311401/S29-03171403 (4/15)	EM	16	CF, not used

EM 4/7/14

EM 4/7/14