



Former Lockheed Martin French Road Facility
Utica, New York
West Lot Site
(NYSDEC Site ID #633036)

Summary of Third Quarter 2014 Groundwater Sampling

October 17, 2014

I. Background

Based on the results of previous investigations, Lockheed Martin Corporation (Lockheed Martin) has agreed to perform additional groundwater sampling at the West Lot portion of the French Road facility in Utica, New York, in accordance with frequencies and methodology approved by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) in NYSDEC's letter dated December 13, 2013. Groundwater gauging, sampling, and analysis are scheduled to be performed quarterly during 2014. The intent of the sampling is to supplement previous investigations and assess the suitability of the site for closure. A Site Location Map is presented in the attached Figure 1.

Sampling is being performed using passive diffusion bags (PDBs) which is consistent with past sampling events as approved by NYSDEC/NYSDOH. The program includes a total of 13 monitoring wells; the well locations are shown on the attached Figure 2.

II. Quarter 3 Well Gauging and Sampling

The Quarter 3 (Q3) sampling event was performed during the period September 2 through September 18, 2014. Groundwater levels were gauged on September 2, 2014. PDB samplers were then deployed into 12 of the 13 wells on the same day. Well PZ-2 did not have a water column of sufficient depth to accept a PDB thus none was deployed. The PDBs were retrieved on September 18, 2014. Well PZ-2 was sampled by bailing; due to slow recovery the well was bailed dry and a sample was obtained several hours later when the water level recovered enough to obtain a sample. The fluids in the PDBs were transferred to 40-ml vials. A field duplicate sample was obtained from well MW-F for QA/QC purposes. The samples were chilled and shipped to Accutest Laboratories of Marlboro, Massachusetts under chain-of-custody protocol; samples were received at the lab on September 20, 2014. The samples were analyzed for volatile organic compounds (VOCs) using USEPA Method 8260C.

III. Discussion of Results

A. Groundwater Flow Direction

Q3 water level readings are summarized on Table 1; Figure 3 depicts groundwater contours based on the water level readings. Groundwater flow is generally toward the south across the study area with only minor variation. This is generally consistent with conditions observed in previous sampling/gauging events.

**West Lot Continued Groundwater Monitoring
Summary of Third Quarter 2014 Groundwater Sampling**

B. Groundwater Quality

The analytical results are summarized in Table 2 and depicted graphically on Figure 4. A copy of the laboratory report is included in Attachment 1, and a Data Usability Summary Report prepared for the data is included as Attachment 2.

Of the 13 wells sampled, five wells showed no detections of VOCs. Of the remaining eight wells, six wells showed detections of one or more VOCs at concentrations below the NYSDEC groundwater standards for the compounds detected. The remaining two wells (MW-F and MW-1-DOT) each exhibited concentrations of trichloroethene (TCE) at concentrations that exceeded the NYSDEC groundwater standard of 5 µg/L: MW-F (located on the southern property line) showed TCE at 15.2 micrograms per liter (µg/L); and MW-1-DOT (located on the adjacent property southeast of MW-F), showed cis-1,2-dichloroethene at 5.5 µg/L.

The results from MW-F are consistent with the results of previous sampling events at this location, and the observed TCE exceedence is well below the historic (past five years) high TCE concentration of 35 µg/L seen in August 2009. Historic and current results (Table 2) indicate that although TCE levels have shown exceedences in this well in the past, the levels have remained stable over the past five years. cis-1,2-Dichloroethene is also typically detected in this well, however the concentration has not exceeded the groundwater standard for this compound.

cis-1,2-dichloroethene is the only compound detected in well MW-1-DOT during the sampling history (Table 2). The concentrations have consistently remained within a narrow range, slightly above or below the groundwater standard.

Note that wells MW-23 and MW-24 (located south of the former burn pit), which exhibited some VOCs at levels exceeding respective standards in Q2 sampling, did not exhibit exceedances in Q3. This is similar to the results of Q1 monitoring. MW-23 was non-detect for all analytes. Three VOCs were detected in MW-24, all of which were reported at concentrations below groundwater standards. Exceedances at these locations in Q2 appear to have been a result of variations due to normal groundwater fluctuation and are not considered to be indicative of contaminant migration or plume instability.

The Q3 monitoring results demonstrate stable groundwater quality conditions in the West Lot. An additional round of sampling is scheduled for Q4 (December 2014). Upon review of those data, the potential closure of the West Lot site will be discussed with NYSDEC/NYSDOH.

Attachments:

Table 1 -	Groundwater Elevation Measurements
Table 2 -	Summary of Volatile Organic Compounds in Groundwater Samples
Figure 1-	Site Location Map
Figure 2 -	Monitoring Well Network
Figure 3 -	Groundwater Contours
Figure 4 -	Groundwater Monitoring Data
Attachment 1 -	Laboratory Report
Attachment 2 -	Data Usability Summary Report

TABLES

Table 1. Groundwater Elevation Measurements
West Lot Site, Former Lockheed Martin French Road Facility, Utica, New York.

Monitoring Well	Top of PVC Riser Elevation	Depth to Water (from top of PVC riser)	Groundwater Elevation (ft)
		September 2, 2014	
West Lot Site			
MW-1-DOT	508.70	9.97	498.73
MW-22	509.30	7.76	501.54
MW-23	508.70	7.24	501.46
MW-24	508.80	7.19	501.61
MW-B	509.85	6.35	503.50
MW-C	509.10	NG	- -
MW-D	508.95	6.97	501.98
MW-E	508.50	6.94	501.56
MW-F	509.75	8.11	501.64
PW-1	503.26	2.24	501.02
10-Acre Parcel			
MW-1	508.65	6.25	502.40
MW-5	509.75	8.06	501.69
Western Parking Lot			
PZ-1	508.56	7.46	501.10
PZ-2	508.95	8.09	500.86

NOTES:

1. All elevations are reported as feet mean sea level (ft msl).
2. Survey data are referenced horizontally to the NAD83 and projected on the New York State Plane Coordinate System (Central Zone).
3. The reference vertical benchmark is the finished floor elevation of the southeasterly corner of the Boiler House Building (Elevation 506.50 feet).
4. NG = Not Gaged



Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-1-DOT						
		08/24/09	10/26/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	0.51	< 0.40	< 1.0	< 0.94 [< 0.94]	< 1.0	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 0.75	< 0.75	< 1.0	< 0.37 [< 0.37]	< 1.0	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 0.50	< 0.50	< 1.0	< 0.35 [< 0.35]	< 1.0	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.30 [< 0.30]	< 1.0	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.26 [< 0.26]	< 1.0	< 1.0	< 1.0
BENZENE	1	< 0.41	< 0.41	< 0.50	< 0.45 [< 0.45]	< 0.50	< 0.50	< 0.50
CHLOROBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.48 [< 0.48]	< 1.0	< 1.0	< 1.0
CHLOROETHANE	5	< 0.40	< 0.40	< 2.0	< 0.84 [< 0.84]	< 2.0	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	8.0	7.9	6.1	6.5 [6.4]	4.2	4.7	5.5
ETHYLBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.38 [< 0.38]	< 1.0	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 1.0	< 0.70 [< 0.70]	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	NA	< 0.41 [< 0.41]	< 2.0	< 2.0	< 2.0
O-XYLENE	NS	< 0.40	< 0.40	< 1.0	< 0.41 [< 0.41]	< 1.0	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 0.40	< 0.40	< 1.0	< 0.61 [< 0.61]	< 1.0	< 1.0	< 1.0
TOLUENE	5	< 0.60	< 0.60	< 1.0 J	< 0.45 [< 0.45]	< 1.0	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 0.42	< 1.0	< 0.54 [< 0.54]	< 1.0	< 1.0	< 1.0
TRICHLOROETHENE	5	< 0.46	< 0.46	< 1.0	< 0.45 [< 0.45]	< 1.0	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	< 1.0	< 1.0	< 0.61 [< 0.61]	< 1.0	< 1.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 1.0	< 0.41 [< 0.41]	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
- 8) NJ - Indicates the compound was "tentatively identified" and the associated value represents its approximate concentration
- 9) [] - Duplicate sample result.
- 10) < - Reporting Limit presented when a ND result was found
- 11) These data are validated as per the attached DUSR.



Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-1						MW-2	MW-3	MW-4
		08/24/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14	08/25/09	08/24/09	08/24/09
1,1,1-TRICHLOROETHANE	5	< 0.40	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
1,1-DICHLOROETHANE	5	< 0.75	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0	< 0.75	< 0.75	< 0.75
1,2-DICHLOROBENZENE	3	< 0.50	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50
1,3-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
1,4-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
BENZENE	1	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50	< 0.41	< 0.41	< 0.41
CHLOROBENZENE	5	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
CHLOROETHANE	5	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0	< 0.40	< 0.40	< 0.40
CIS-1,2-DICHLOROETHENE	5	< 0.40	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
ETHYLBENZENE	5	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	< 0.41	< 2.0	< 2.0	< 2.0	NA	NA	NA
O-XYLENE	NS	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
TETRACHLOROETHENE	5	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0	< 0.40	< 0.40	< 0.40
TOLUENE	5	< 0.60	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0	< 0.60	< 0.60	< 0.60
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0	< 0.42	< 0.42	< 0.42
TRICHLOROETHENE	5	< 0.46	< 1.0	< 0.45	< 1.0	< 1.0	< 1.0	< 0.46	< 0.46	< 0.46
VINYL CHLORIDE	2	< 1.0	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 J	< 1.0	< 1.0	< 1.0
XYLENES, TOTAL	5	< 1.0	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
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Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-5					
		08/24/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 0.40	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 0.75	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 0.50	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0
BENZENE	1	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50
CHLOROBENZENE	5	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0
CHLOROETHANE	5	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	< 0.40	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0
ETHYLBENZENE	5	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	< 0.41	< 2.0	< 2.0	< 2.0
O-XYLENE	NS	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0
TOLUENE	5	< 0.60	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0
TRICHLOROETHENE	5	< 0.46	< 1.0	< 0.45	< 1.0	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0

Notes:

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Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-22				
		05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 1.0	< 0.94	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 1.0	< 0.37	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 1.0	< 0.35	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 1.0	< 0.30	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 1.0	< 0.26	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
BENZENE	1	< 0.50	< 0.45	< 0.50 [$\leq$ 0.50]	< 0.50	< 0.50
CHLOROBENZENE	5	< 1.0	< 0.48	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
CHLOROETHANE	5	< 2.0	< 0.84	< 2.0 [$\leq$ 2.0]	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	< 1.0	< 0.54	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
ETHYLBENZENE	5	< 1.0	< 0.38	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 0.70	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	< 0.41	< 2.0 [$\leq$ 2.0]	< 2.0	< 2.0
O-XYLENE	NS	< 1.0	< 0.41	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 1.0	< 0.61	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
TOLUENE	5	< 1.0 J	< 0.45	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 1.0	< 0.54	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
TRICHLOROETHENE	5	< 1.0	< 0.45	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	< 0.61	< 1.0 [$\leq$ 1.0]	< 1.0	0.75 NJ
XYLENES, TOTAL	5	< 1.0	< 0.41	< 1.0 [$\leq$ 1.0]	< 1.0	< 1.0

Notes:

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- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
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- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
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West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-23				
		05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0
BENZENE	1	< 0.50	< 0.45	< 0.50	0.78	< 0.50
CHLOROBENZENE	5	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0
CHLOROETHANE	5	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	< 1.0	7.3	< 1.0	19.8	< 1.0
ETHYLBENZENE	5	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	< 0.41	< 2.0	< 2.0	< 2.0
O-XYLENE	NS	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0
TOLUENE	5	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0
TRICHLOROETHENE	5	< 1.0	< 0.45	< 1.0	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	10.6	< 1.0	46.8	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
- 8) NJ - Indicates the compound was "tentatively identified" and the associated value represents its approximate concentration
- 9) [] - Duplicate sample result.
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-24				
		05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0
BENZENE	1	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50
CHLOROBENZENE	5	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0
CHLOROETHANE	5	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	< 1.0	20.4	< 1.0	31.0	1.2
ETHYLBENZENE	5	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	< 0.41	< 2.0	< 2.0	< 2.0
O-XYLENE	NS	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 1.0	15.7	1.2	30.0	3.3
TOLUENE	5	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 1.0	< 0.54	< 1.0	0.77 J	< 1.0
TRICHLOROETHENE	5	< 1.0	23.5	< 1.0	44.4	2.2
VINYL CHLORIDE	2	< 1.0	7.6	< 1.0	11.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
- 8) NJ - Indicates the compound was "tentatively identified" and the associated value represents its approximate concentration
- 9) [] - Duplicate sample result.
- 10) < - Reporting Limit presented when a ND result was found
- 11) These data are validated as per the attached DUSR.



Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-B						MW-C
		08/24/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14	
1,1,1-TRICHLOROETHANE	5	< 0.40	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0	< 0.40
1,1-DICHLOROETHANE	5	< 0.75	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0	< 0.75
1,2-DICHLOROBENZENE	3	< 0.50	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0	< 0.50
1,3-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0	< 0.40
1,4-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0	< 0.40
BENZENE	1	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50	< 0.41
CHLOROBENZENE	5	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0	< 0.40
CHLOROETHANE	5	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0	< 0.40
CIS-1,2-DICHLOROETHENE	5	< 0.40	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0	< 0.40
ETHYLBENZENE	5	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0	< 0.40
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	< 0.41	< 2.0	< 2.0	< 2.0	NA
O-XYLENE	NS	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0	< 0.40
TETRACHLOROETHENE	5	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0	< 0.40
TOLUENE	5	5.0	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0	< 0.60
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0	< 0.42
TRICHLOROETHENE	5	< 0.46	< 1.0	< 0.45	< 1.0	< 1.0	< 1.0	< 0.46
VINYL CHLORIDE	2	< 1.0	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 J	< 1.0
XYLENES, TOTAL	5	< 1.0	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
- 8) NJ - Indicates the compound was "tentatively identified" and the associated value represents its approximate concentration
- 9) [] - Duplicate sample result.
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-D						
		08/25/09	10/26/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 0.40	< 0.40	< 1.0	< 0.94	< 1.0	< 1.0 [< 1.0]	< 1.0
1,1-DICHLOROETHANE	5	< 0.75	< 0.75	< 1.0	< 0.37	< 1.0	< 1.0 [< 1.0]	< 1.0
1,2-DICHLOROBENZENE	3	< 0.50	< 0.50	< 1.0	< 0.35	< 1.0	< 1.0 [< 1.0]	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0 [< 1.0]	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0 [< 1.0]	< 1.0
BENZENE	1	< 0.41	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50 [< 0.50]	< 0.50
CHLOROBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0 [< 1.0]	< 1.0
CHLOROETHANE	5	< 0.40	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0 [< 2.0]	< 2.0
CIS-1,2-DICHLOROETHENE	5	48	56	1.4	2.3	< 1.0	1.4 [1.5]	1.1
ETHYLBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0 [< 1.0]	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0 [< 1.0]	< 1.0
METHYLENE CHLORIDE	5	NA	NA	NA	< 0.41	< 2.0	< 2.0 [< 2.0]	< 2.0
O-XYLENE	NS	< 0.40	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0 [< 1.0]	< 1.0
TETRACHLOROETHENE	5	0.59	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0 [< 1.0]	< 1.0
TOLUENE	5	< 0.60	< 0.60	< 1.0 J	< 0.45	< 1.0	< 1.0 [< 1.0]	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	0.81	< 1.0	< 0.54	< 1.0	< 1.0 [< 1.0]	< 1.0
TRICHLOROETHENE	5	3.9	3.3	< 1.0	< 0.45	< 1.0	< 1.0 [< 1.0]	< 1.0
VINYL CHLORIDE	2	15	18	< 1.0	< 0.61	< 1.0	0.93 J [0.96 J]	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 1.0	< 0.41	< 1.0	< 1.0 [< 1.0]	< 1.0

Notes:

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- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
- 8) NJ - Indicates the compound was "tentatively identified" and the associated value represents its approximate concentration
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-E						
		08/24/09	10/26/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	10	7.1	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	4.4	2.5	< 1.0	< 0.37	< 1.0	< 1.0	0.61 NJ
1,2-DICHLOROBENZENE	3	< 0.50	< 0.50	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0
BENZENE	1	< 0.41	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50
CHLOROBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0
CHLOROETHANE	5	< 0.40	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	14	9	4.9	1.5	< 1.0	0.90 J	2.2
ETHYLBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	NA	< 0.41	< 2.0	< 2.0	< 2.0
O-XYLENE	NS	< 0.40	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 0.40	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0
TOLUENE	5	< 0.60	< 0.60	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 0.42	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0
TRICHLOROETHENE	5	26	23	< 1.0	< 0.45	< 1.0	0.73 J	4.2
VINYL CHLORIDE	2	< 1.0	< 1.0	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	MW-F						
		08/24/09	10/26/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	1.3	1.2	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0 [< 1.0]
1,1-DICHLOROETHANE	5	< 0.75	< 0.75	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0 [< 1.0]
1,2-DICHLOROBENZENE	3	< 0.50	< 0.50	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0 [< 1.0]
1,3-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0 [< 1.0]
1,4-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0 [< 1.0]
BENZENE	1	< 0.41	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50 [< 0.50]
CHLOROBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0 [< 1.0]
CHLOROETHANE	5	< 0.40	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0 [< 2.0]
CIS-1,2-DICHLOROETHENE	5	3.3	3.2	1.8	1.8	< 1.0	1.5	2.1 [2.3]
ETHYLBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0 [< 1.0]
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0 [< 1.0]
METHYLENE CHLORIDE	5	NA	NA	NA	0.81 J	< 2.0	< 2.0	< 2.0 [< 2.0]
O-XYLENE	NS	< 0.40	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0 [< 1.0]
TETRACHLOROETHENE	5	< 0.40	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 [< 1.0]
TOLUENE	5	< 0.60	< 0.60	< 1.0 J	< 0.45	< 1.0	< 1.0	< 1.0 [< 1.0]
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 0.42	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0 [< 1.0]
TRICHLOROETHENE	5	35	30	18.7	13.0	3.5	10.3	15.2 [15.6]
VINYL CHLORIDE	2	< 1.0	0.54 J	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 J [< 1.0 J]
XYLENES, TOTAL	5	< 1.0	< 1.0	< 1.0	0.42 J	< 1.0	< 1.0	< 1.0 [< 1.0]

Notes:

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- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	PW-1						
		08/24/09	10/26/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 0.40	< 0.40	< 1.0	< 0.94	< 1.0	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 0.75	< 0.75	< 1.0	< 0.37	< 1.0	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 0.50	0.51	< 1.0	< 0.35	< 1.0	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.30	< 1.0	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 0.40	< 1.0	< 0.26	< 1.0	< 1.0	< 1.0
BENZENE	1	< 0.41	< 0.41	< 0.50	< 0.45	< 0.50	< 0.50	< 0.50
CHLOROBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.48	< 1.0	< 1.0	< 1.0
CHLOROETHANE	5	< 0.40	< 0.40	< 2.0	< 0.84	< 2.0	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	2.4	1.5	0.88	< 0.54	< 1.0	< 1.0	0.88 NJ
ETHYLBENZENE	5	< 0.40	< 0.40	< 1.0	< 0.38	< 1.0	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 1.0	< 0.70	< 1.0	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	NA	< 0.41	< 2.0	< 2.0	< 2.0
O-XYLENE	NS	< 0.40	< 0.40	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 0.40	< 0.40	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0
TOLUENE	5	< 0.60	< 0.60	< 1.0 J	0.47	< 1.0	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 0.42	< 1.0	< 0.54	< 1.0	< 1.0	< 1.0
TRICHLOROETHENE	5	1.1	2.5	< 1.0	< 0.45	< 1.0	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	< 1.0	< 1.0	< 0.61	< 1.0	< 1.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 1.0	< 0.41	< 1.0	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
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- 7) J - Estimated Value
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- 10) < - Reporting Limit presented when a ND result was found
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	PZ-1					
		08/24/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 0.40	< 1.0	< 0.94	not sampled	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 0.75	< 1.0	< 0.37	not sampled	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 0.50	< 1.0	< 0.35	not sampled	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.30	not sampled	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.26	not sampled	< 1.0	< 1.0
BENZENE	1	< 0.41	< 0.50	< 0.45	not sampled	< 0.50	< 0.50
CHLOROBENZENE	5	< 0.40	< 1.0	< 0.48	not sampled	< 1.0	< 1.0
CHLOROETHANE	5	< 0.40	< 2.0	< 0.84	not sampled	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	1.8	1.2	1.7	not sampled	1.4	2.0
ETHYLBENZENE	5	< 0.40	< 1.0	< 0.38	not sampled	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 0.70	not sampled	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	< 0.41	not sampled	< 2.0	< 2.0
O-XYLENE	NS	< 0.40	< 1.0	< 0.41	not sampled	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 0.40	< 1.0	< 0.61	not sampled	< 1.0	< 1.0
TOLUENE	5	< 0.60	< 1.0 J	< 0.45	not sampled	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 1.0	< 0.54	not sampled	< 1.0	< 1.0
TRICHLOROETHENE	5	< 0.46	< 1.0	< 0.45	not sampled	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	< 1.0	< 0.61	not sampled	< 1.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 0.41	not sampled	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
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Table 2. Summary of Volatile Organic Compounds in Groundwater Samples

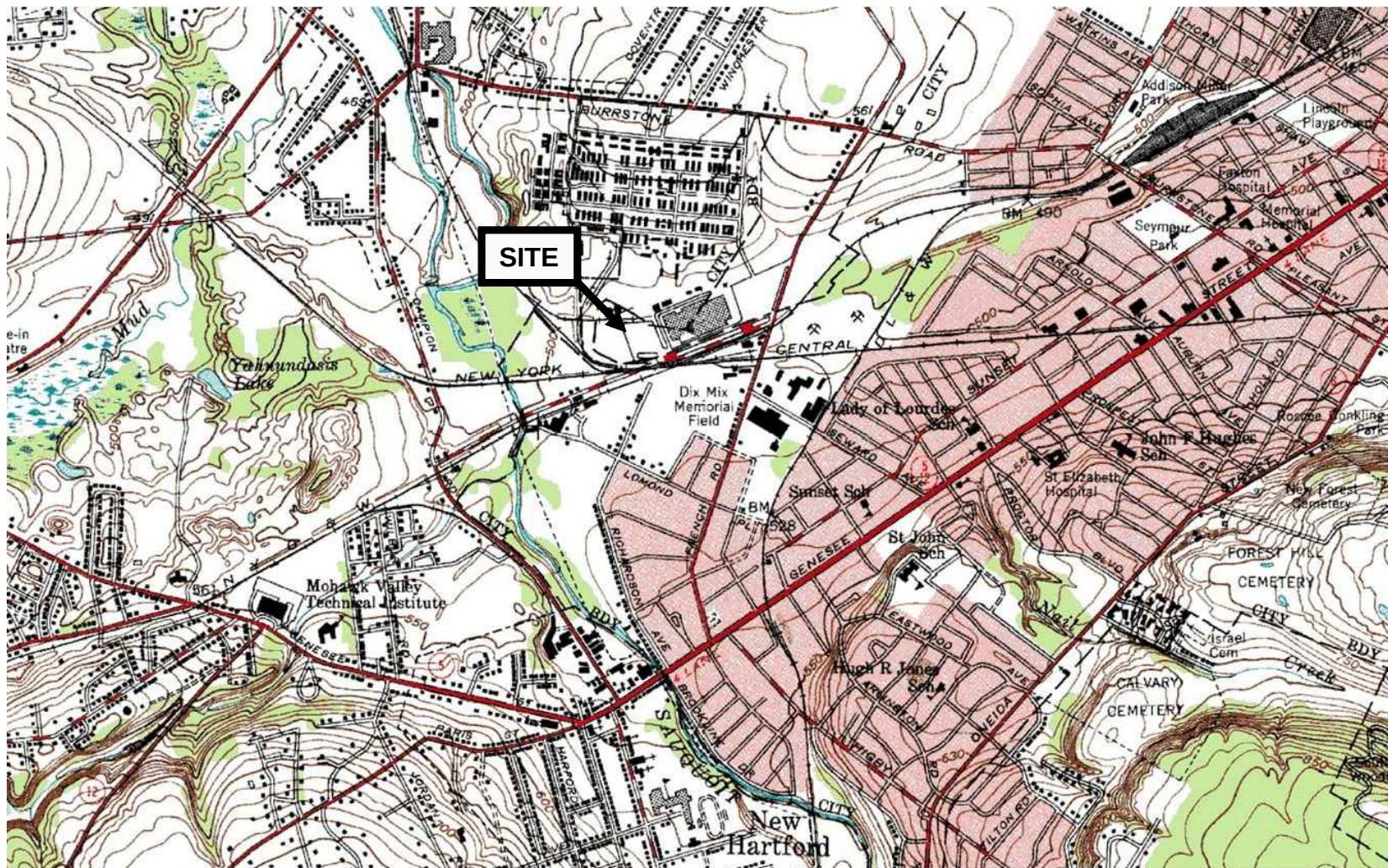
West Lot Site, Former Lockheed Martin
French Road Facility Utica, New York

Constituent	NYSDEC TOGS 1.1.1 Water Guidance Values	PZ-2					
		08/25/09	05/08/12	08/14/13	03/19/14	06/12/14	09/18/14
1,1,1-TRICHLOROETHANE	5	< 0.40	< 1.0	< 0.94	not sampled	< 1.0	< 1.0
1,1-DICHLOROETHANE	5	< 0.75	< 1.0	< 0.37	not sampled	< 1.0	< 1.0
1,2-DICHLOROBENZENE	3	< 0.50	< 1.0	< 0.35	not sampled	< 1.0	< 1.0
1,3-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.30	not sampled	< 1.0	< 1.0
1,4-DICHLOROBENZENE	3	< 0.40	< 1.0	< 0.26	not sampled	< 1.0	< 1.0
BENZENE	1	< 0.41	< 0.50	< 0.45	not sampled	< 0.50	< 0.50
CHLOROBENZENE	5	< 0.40	< 1.0	< 0.48	not sampled	< 1.0	< 1.0
CHLOROETHANE	5	< 0.40	< 2.0	< 0.84	not sampled	< 2.0	< 2.0
CIS-1,2-DICHLOROETHENE	5	< 0.40	< 1.0	< 0.54	not sampled	< 1.0	< 1.0
ETHYLBENZENE	5	< 0.40	< 1.0	< 0.38	not sampled	< 1.0	< 1.0
M-XYLENE & P-XYLENE	5	< 1.0	< 1.0	< 0.70	not sampled	< 1.0	< 1.0
METHYLENE CHLORIDE	5	NA	NA	< 0.41	not sampled	< 2.0	< 2.0
O-XYLENE	NS	< 0.40	< 1.0	< 0.41	not sampled	< 1.0	< 1.0
TETRACHLOROETHENE	5	< 0.40	< 1.0	< 0.61	not sampled	< 1.0	< 1.0
TOLUENE	5	< 0.60	< 1.0 J	< 0.45	not sampled	< 1.0	< 1.0
TRANS-1,2-DICHLOROETHENE	5	< 0.42	< 1.0	< 0.54	not sampled	< 1.0	< 1.0
TRICHLOROETHENE	5	< 0.46	< 1.0	< 0.45	not sampled	< 1.0	< 1.0
VINYL CHLORIDE	2	< 1.0	< 1.0	< 0.61	not sampled	< 1.0	< 1.0 J
XYLENES, TOTAL	5	< 1.0	< 1.0	< 0.41	not sampled	< 1.0	< 1.0

Notes:

- 1) All units are ug/L.
- 2) Data compared to TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.
- 3) NS - No Standard
- 4) NA - Data Not Available
- 5) **BOLD** - Detected Compound
- 6) Exceedances noted as shaded
- 7) J - Estimated Value
- 8) NJ - Indicates the compound was "tentatively identified" and the associated value represents its approximate concentration
- 9) [] - Duplicate sample result.
- 10) < - Reporting Limit presented when a ND result was found
- 11) These data are validated as per the attached DUSR.

FIGURES

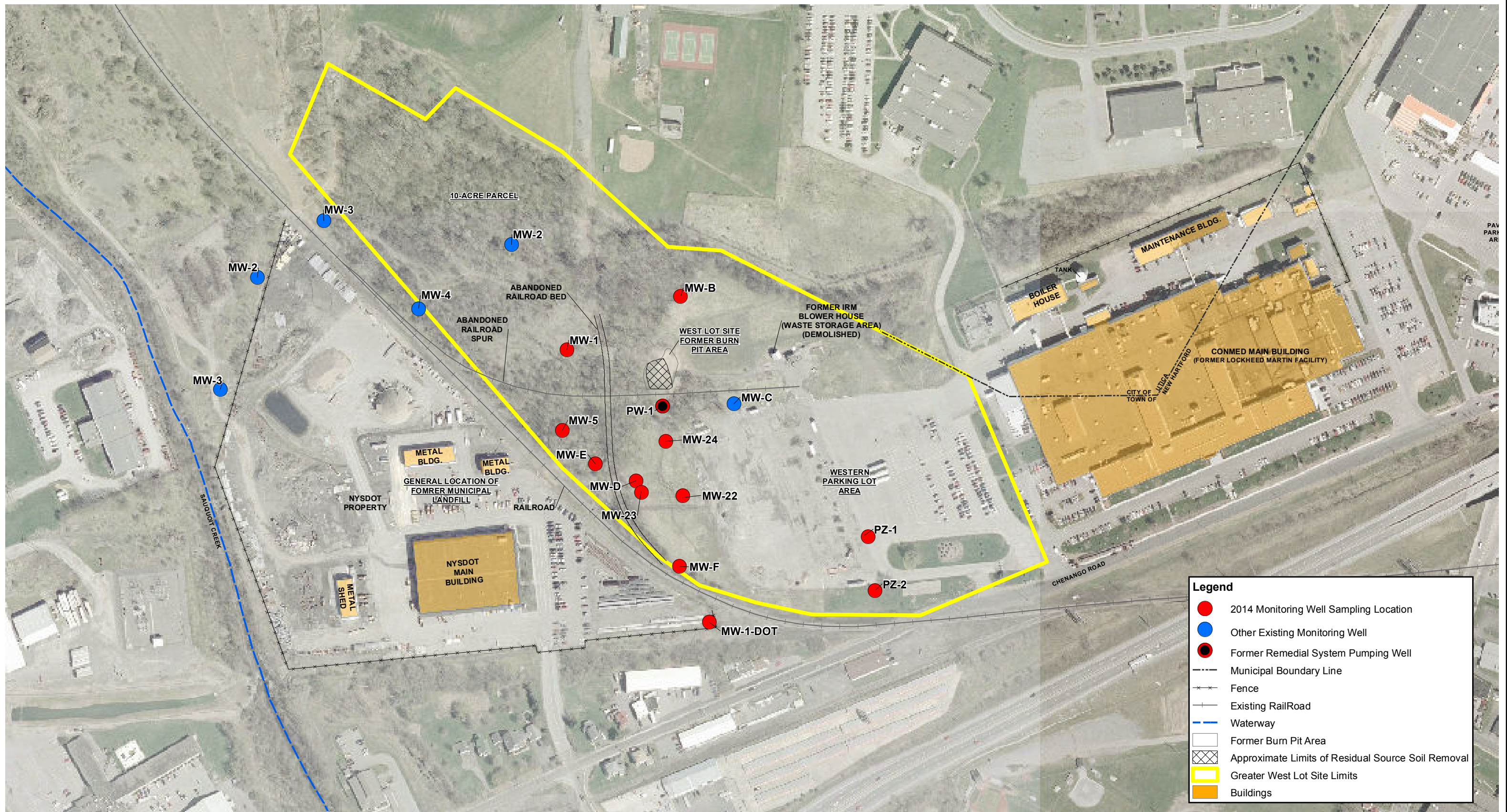


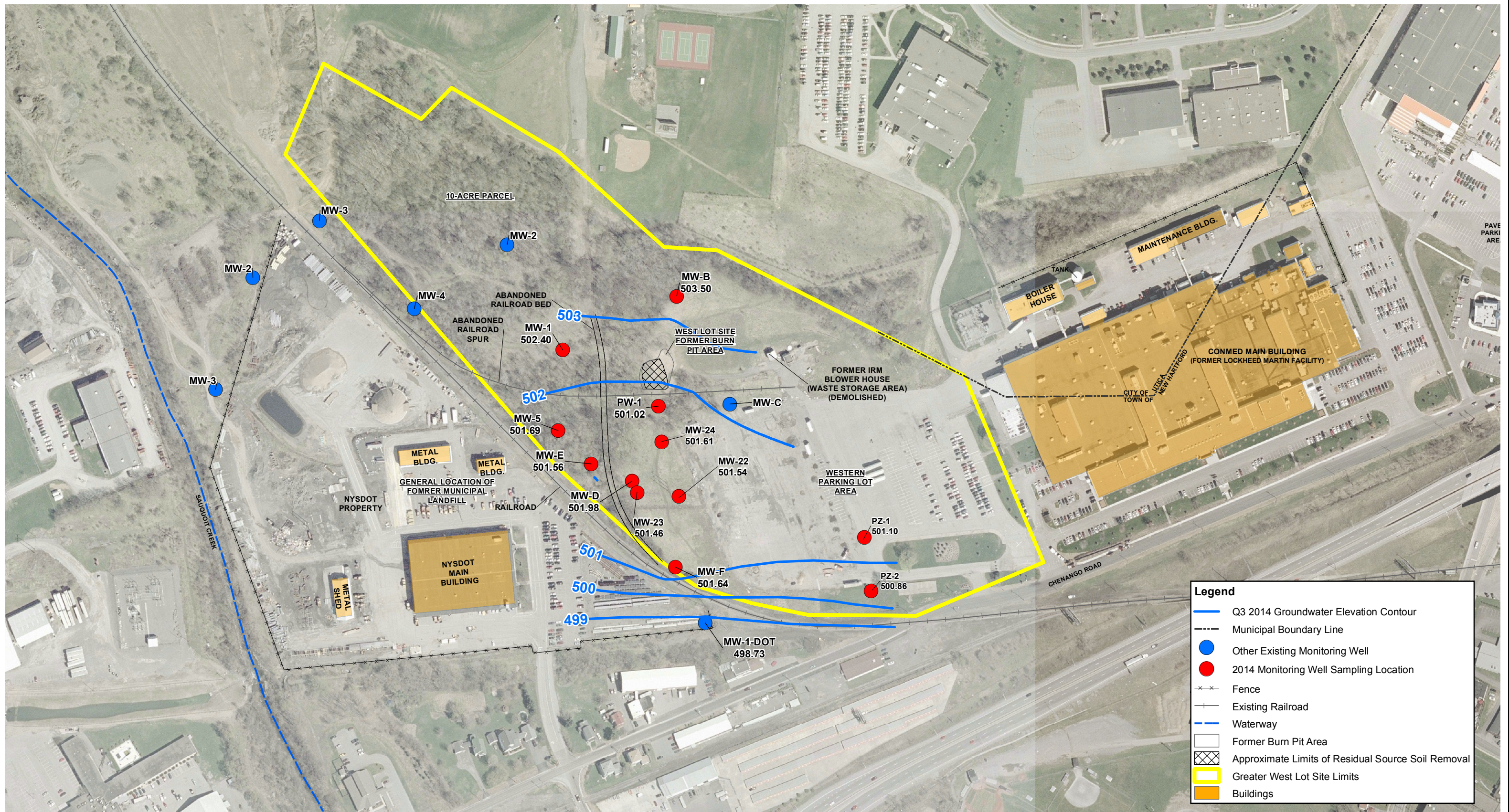
0 1000 2000
SCALE IN FEET

CONTINUED INVESTIGATION ACTIVITIES
WEST LOT SITE
FORMER LOCKHEED MARTIN, FRENCH ROAD FACILITY
UTICA, NEW YORK

SITE LOCATION MAP







Source Notes:
Aerial taken in 2003
Coordinate System: NAD 1983 StatePlane,
New York Central, FIPS 3102

ArcGIS Version: ArcInfo 10.1

Map Date:
10/3/2014
8:23:59 AM

Server: Rochester

Document Path:
U:\190500800\07_photos_maps_images\DRAWINGS\Report Figures\6-West Lot\GIS\Q3\MXD\Q3_2014_Fig3_GroundwaterContourMap.mxd

Last Edited By:
lbest

Checked By:
B. Mahoney

Project Manager:
P. Nielsen

Data:
Q3_2014_Fig3_GroundwaterContourMap

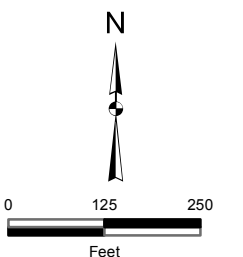
Project Number:
190500800

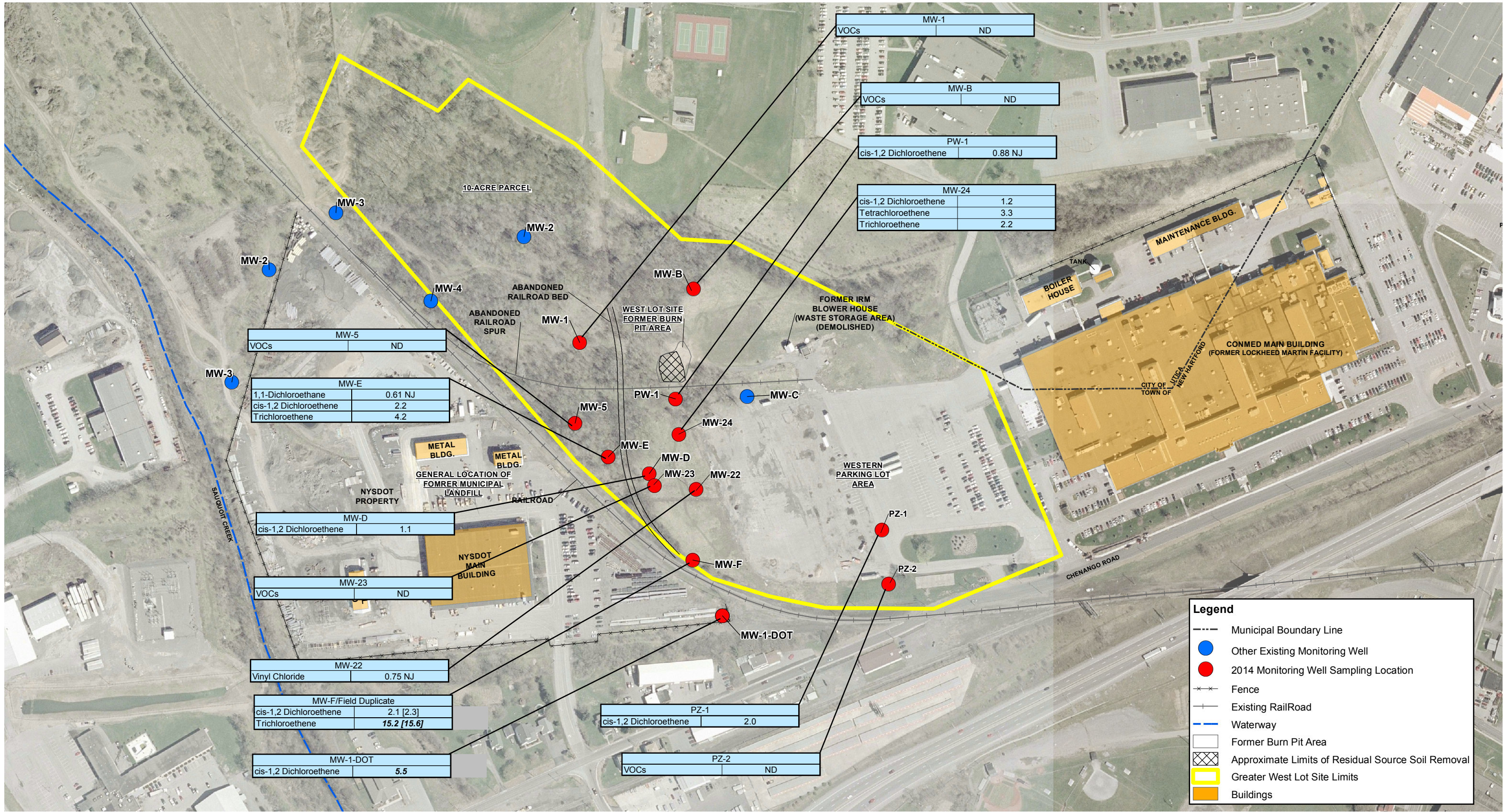
Figure:
3

Groundwater Contours

September 2014
Continued Investigation Activities
West Lot Site / Former Lockheed Martin French Road Facility
Utica, New York

General Notes:
1.) Groundwater levels measured on September 2, 2014
2.) Base map adapted from drawing entitled:
"Monitoring Well Network, West Lot Site,
Former Lockheed Martin French Road Facility,
Utica, New York," by ARCADIS, dated Sept. 19, 2013



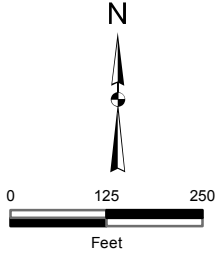


Source Notes: ArcGIS Version: ArcInfo 10.1
Aerial taken in 2003 Coordinate System: NAD 1983 StatePlane,
New York Central, FIPS 3102
All samples were analyzed for TCL VOCs
ND = no analytes detected
[ND] = indicates results of field duplicate
NJ = indicates a "tentatively identified compound"; value is an estimated concentration
Analytical results given in ug/L (Micrograms per Liter)
General Notes:
1.) Base map adapted from drawing entitled: "Monitoring Well Network, West Lot Site,
Former Lockheed Martin French Road Facility, Utica, New York,"
by ARCADIS, dated Sept. 19, 2013

Map Date: 10/8/2014 7:57:48 AM
Server: Rochester
Document Path: U:\190500800\07_photos_maps_images\DRAWINGS\Report Figures\6-West Lot\GIS\Q3\MXD\Q3_2014_Fig4_GroundwaterMonitoringDataMap.mxd
Last Edited By: lbest
Checked By: B. Mahoney
Project Manager: P. Nielsen
Data: Q3_2014_Fig4_GroundwaterMonitoringDataMap
Project Number: 190500800
Figure: 4

Groundwater Monitoring Data

September 2014
Continued Investigation Activities
West Lot Site / Former Lockheed Martin French Road Facility
Utica, New York



ATTACHMENT 1

Laboratory Report



10/01/14

Technical Report for

Stantec Consulting Corporation

LMC - Utica West Lot

Accutest Job Number: MC33777

Sampling Date: 09/18/14

Report to:

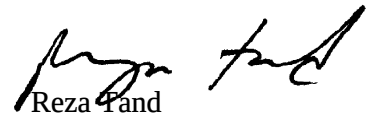
Stantec Consulting Corporation
61 Commercial Street
Rochester, NY 14614
bob.mahoney@stantec.com

ATTN: Bob Mahoney

Total number of pages in report: **235**



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


Reza Fand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

Stantec Consulting Corporation

Job No: MC33777

LMC - Utica West Lot

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC33777-1	09/18/14	10:55 BH	09/20/14	AQ	Ground Water	MW-1(DOT)
MC33777-2	09/18/14	11:50 BH	09/20/14	AQ	Ground Water	MW-1
MC33777-3	09/18/14	11:30 BH	09/20/14	AQ	Ground Water	MW-5
MC33777-4	09/18/14	13:00 BH	09/20/14	AQ	Ground Water	MW-22
MC33777-5	09/18/14	12:50 BH	09/20/14	AQ	Ground Water	MW-23
MC33777-6	09/18/14	12:30 BH	09/20/14	AQ	Ground Water	MW-24
MC33777-7	09/18/14	12:00 BH	09/20/14	AQ	Ground Water	MW-B
MC33777-8	09/18/14	12:40 BH	09/20/14	AQ	Ground Water	MW-D
MC33777-9	09/18/14	11:40 BH	09/20/14	AQ	Ground Water	MW-E
MC33777-10	09/18/14	11:10 BH	09/20/14	AQ	Ground Water	MW-F
MC33777-11	09/18/14	12:20 BH	09/20/14	AQ	Ground Water	PW-1
MC33777-12	09/18/14	10:40 BH	09/20/14	AQ	Ground Water	PZ-1
MC33777-13	09/18/14	15:20 BH	09/20/14	AQ	Ground Water	PZ-2



Sample Summary
(continued)

Stantec Consulting Corporation
LMC - Utica West Lot

Job No: MC33777

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC33777-14	09/18/14	11:15 BH	09/20/14	AQ	Ground Water	FIELD DUPLICATE
MC33777-15	09/18/14	16:00 BH	09/20/14	AQ	Trip Blank Water	TRIP BLANK



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Stantec Consulting Corporation

Job No MC33777

Site: LMC - Utica West Lot

Report Date 10/1/2014 11:13:26 AM

14 Sample(s) and 1 Trip Blank were collected on 09/18/2014 and were received at Accutest on 09/20/2014 properly preserved, at 1.4 Deg. C and intact. These Samples received an Accutest job number of MC33777. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ

Batch ID: MSN3355

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33777-1MS, MC33777-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 2-Butanone (MEK), 2-Hexanone, Naphthalene are outside control limits. Blank Spike meets program technical requirements.
- MC33777-1MS/MSD Recovery(s) for Acetone, Naphthalene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC33777-13: The pH of the sample aliquot for VOA analysis was >2 at time of analysis.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (MC33777).

Summary of Hits

Job Number: MC33777
Account: Stantec Consulting Corporation
Project: LMC - Utica West Lot
Collected: 09/18/14



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33777-1 MW-1(DOT)						
cis-1,2-Dichloroethene		5.5	1.0	0.84	ug/l	SW846 8260C
MC33777-2 MW-1						
Carbon tetrachloride		0.66 J	1.0	0.53	ug/l	SW846 8260C
MC33777-3 MW-5						
No hits reported in this sample.						
MC33777-4 MW-22						
Vinyl chloride		0.75 J	1.0	0.58	ug/l	SW846 8260C
MC33777-5 MW-23						
No hits reported in this sample.						
MC33777-6 MW-24						
cis-1,2-Dichloroethene		1.2	1.0	0.84	ug/l	SW846 8260C
Tetrachloroethene		3.3	1.0	0.59	ug/l	SW846 8260C
Trichloroethene		2.2	1.0	0.47	ug/l	SW846 8260C
MC33777-7 MW-B						
No hits reported in this sample.						
MC33777-8 MW-D						
cis-1,2-Dichloroethene		1.1	1.0	0.84	ug/l	SW846 8260C
MC33777-9 MW-E						
1,1-Dichloroethane		0.61 J	1.0	0.36	ug/l	SW846 8260C
cis-1,2-Dichloroethene		2.2	1.0	0.84	ug/l	SW846 8260C
Trichloroethene		4.2	1.0	0.47	ug/l	SW846 8260C
MC33777-10 MW-F						
cis-1,2-Dichloroethene		2.1	1.0	0.84	ug/l	SW846 8260C
Trichloroethene		15.2	1.0	0.47	ug/l	SW846 8260C

Summary of Hits

Page 2 of 2

Job Number: MC33777
Account: Stantec Consulting Corporation
Project: LMC - Utica West Lot
Collected: 09/18/14



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

MC33777-11 PW-1

cis-1,2-Dichloroethene	0.88 J	1.0	0.84	ug/l	SW846 8260C
------------------------	--------	-----	------	------	-------------

MC33777-12 PZ-1

cis-1,2-Dichloroethene	2.0	1.0	0.84	ug/l	SW846 8260C
------------------------	-----	-----	------	------	-------------

MC33777-13 PZ-2

No hits reported in this sample.

MC33777-14 FIELD DUPLICATE

cis-1,2-Dichloroethene	2.3	1.0	0.84	ug/l	SW846 8260C
Trichloroethene	15.6	1.0	0.47	ug/l	SW846 8260C

MC33777-15 TRIP BLANK

No hits reported in this sample.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 3

Client Sample ID:	MW-1(DOT)	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-1	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90687.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.5	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1(DOT)	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-1	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1(DOT)	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-1	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 3

Client Sample ID:	MW-1	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-2	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90688.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	0.66	1.0	0.53	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-2	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1
Lab Sample ID: MC33777-2
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-5	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-3	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90689.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-3	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-3	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-22	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-4	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90690.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-22	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-4	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	0.75	1.0	0.58	ug/l	J
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-22
Lab Sample ID: MC33777-4
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-23	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-5	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90691.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-23
Lab Sample ID: MC33777-5
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-23
Lab Sample ID: MC33777-5
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-24	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-6	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90692.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.2	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-24	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-6	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	3.3	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	2.2	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-24
Lab Sample ID: MC33777-6
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-B	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-7	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90693.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-B
Lab Sample ID: MC33777-7
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14

Date Received: 09/20/14

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-B	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-7	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-D	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-8	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90694.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-D	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-8	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-D
Lab Sample ID: MC33777-8
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

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

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

Accutest Laboratories

Report of Analysis

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Client Sample ID:	MW-E	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-9	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90695.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	0.61	1.0	0.36	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.2	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-E	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-9	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	4.2	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-E	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-9	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	MW-F	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-10	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90696.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.1	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-F	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-10	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	15.2	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-F	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-10	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	PW-1	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-11	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90697.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.88	1.0	0.84	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PW-1
Lab Sample ID: MC33777-11
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14

Date Received: 09/20/14

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PW-1
Lab Sample ID: MC33777-11
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	PZ-1	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-12	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90698.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.0	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-1	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-12	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PZ-1
Lab Sample ID: MC33777-12
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: LMC - Utica West Lot

Date Sampled: 09/18/14
Date Received: 09/20/14
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

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

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

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Report of Analysis

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Client Sample ID:	PZ-2	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-13	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	N90699.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-2	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-13	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ-2	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-13	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

(a) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 3

Client Sample ID:	FIELD DUPLICATE	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-14	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90700.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.3	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD DUPLICATE	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-14	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	15.6	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD DUPLICATE	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-14	Date Received:	09/20/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 3

Client Sample ID:	TRIP BLANK	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-15	Date Received:	09/20/14
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90686.D	1	09/29/14	JB	n/a	n/a	MSN3355
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-15	Date Received:	09/20/14
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	09/18/14
Lab Sample ID:	MC33777-15	Date Received:	09/20/14
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	LMC - Utica West Lot		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

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

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

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

Client / Reporting Information Company Name: Stantec Street Address: 61 Commercial St City: Rochester State: NY Zip: 14614 Project Contact: Bob Mahoney E-mail: bob.mahoney@stantec.com Phone #: 585 413 5301 Fax #: 585 978 5248 Sampler(s) Name(s): Ben Haravitch Phone #: 585 978 5248		Project Information Project Name: LMC - Utica West Lot Street: _____ City: _____ State: _____ Zip: _____ Billing Information (if different from Report to) Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project Manager: Peter Nielsen Attention: Ben Haravitch		Requested Analysis (see TEST CODE sheet) Matrix Codes: VOC 8260 DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Field ID / Point of Collection MECH/Oil Well # _____ Date: 9/18/14 Time: 1520 Sampled by: BH Matrix: GW # of bottles: 1		Data Deliverable Information ☒ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ CT RCP ☐ MA MCP ☐ NYASP Category A ☒ NYASP Category B ☐ State Forms ☒ EDD Format NYSDEC ☐ Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary		Comments / Special Instructions P2-2 only enough water for one VOC vial. Please contact us abt. whether it can be analyzed. ACCUTEST	
Turnaround Time (Business days) ☒ Std. 10 Business Days ☐ Std. 5 Business Days (By Contract only) ☐ 5 Day RUSH ☐ 3 Day EMERGENCY ☐ 2 Day EMERGENCY ☐ 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: _____		Sample Custody must be documented below each time samples change possession, including courier delivery.	
1 Released by Sampler: Ben Haravitch Date Time: 9/18/14 17:30		2 Received By: Ben Haravitch Date Time: 9/18/14 17:30		3 Released By: Ben Haravitch Date Time: 9/18/14 17:30	
3 Relinquished by Sampler: Ben Haravitch Date Time: 9/20/14 10:00		4 Received By: Ben Haravitch Date Time: 9/20/14 10:00		5 Relinquished By: Ben Haravitch Date Time: 9/20/14 10:00	
5 Relinquished by: _____ Date Time: _____		6 Received By: _____ Date Time: _____		7 Relinquished By: _____ Date Time: _____	
Custody Seal # _____		☐ Intact ☐ Not intact		Preserved where applicable: _____ ☐ On Ice ☐ Cooler Temp.	

MC33777: Chain of Custody

Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC33777 **Client:** STANTEC **Project:** LMC UTICA WEST LOT
Date / Time Received: 9/20/2014 10:00:00 AM **Delivery Method:** _____ **Airbill #s:** _____
Cooler Temps (Initial/Adjusted): #1: (1.4/1.4); _____

Cooler Security

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

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☒		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation

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

Sample Integrity - Documentation

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

Sample Integrity - Condition

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

Sample Integrity - Instructions

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

Comments

Internal Sample Tracking Chronicle

Stantec Consulting Corporation

Job No: MC33777

LMC - Utica West Lot

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33777-1 Collected: 18-SEP-14 10:55 By: BH Received: 20-SEP-14 By: MW-1(DOT)						
MC33777-1	SW846 8260C	29-SEP-14 11:15	JB			V8260STD
MC33777-2 Collected: 18-SEP-14 11:50 By: BH Received: 20-SEP-14 By: MW-1						
MC33777-2	SW846 8260C	29-SEP-14 11:43	JB			V8260STD
MC33777-3 Collected: 18-SEP-14 11:30 By: BH Received: 20-SEP-14 By: MW-5						
MC33777-3	SW846 8260C	29-SEP-14 12:12	JB			V8260STD
MC33777-4 Collected: 18-SEP-14 13:00 By: BH Received: 20-SEP-14 By: MW-22						
MC33777-4	SW846 8260C	29-SEP-14 12:40	JB			V8260STD
MC33777-5 Collected: 18-SEP-14 12:50 By: BH Received: 20-SEP-14 By: MW-23						
MC33777-5	SW846 8260C	29-SEP-14 13:08	JB			V8260STD
MC33777-6 Collected: 18-SEP-14 12:30 By: BH Received: 20-SEP-14 By: MW-24						
MC33777-6	SW846 8260C	29-SEP-14 13:37	JB			V8260STD
MC33777-7 Collected: 18-SEP-14 12:00 By: BH Received: 20-SEP-14 By: MW-B						
MC33777-7	SW846 8260C	29-SEP-14 14:05	JB			V8260STD
MC33777-8 Collected: 18-SEP-14 12:40 By: BH Received: 20-SEP-14 By: MW-D						
MC33777-8	SW846 8260C	29-SEP-14 14:33	JB			V8260STD

Internal Sample Tracking Chronicle

Stantec Consulting Corporation

Job No: MC33777

LMC - Utica West Lot

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33777-9 Collected: 18-SEP-14 11:40 By: BH Received: 20-SEP-14 By: MW-E						
MC33777-9	SW846 8260C	29-SEP-14 15:01	JB			V8260STD
MC33777-10 Collected: 18-SEP-14 11:10 By: BH Received: 20-SEP-14 By: MW-F						
MC33777-10	SW846 8260C	29-SEP-14 15:30	JB			V8260STD
MC33777-11 Collected: 18-SEP-14 12:20 By: BH Received: 20-SEP-14 By: PW-1						
MC33777-11	SW846 8260C	29-SEP-14 15:58	JB			V8260STD
MC33777-12 Collected: 18-SEP-14 10:40 By: BH Received: 20-SEP-14 By: PZ-1						
MC33777-12	SW846 8260C	29-SEP-14 16:26	JB			V8260STD
MC33777-13 Collected: 18-SEP-14 15:20 By: BH Received: 20-SEP-14 By: PZ-2						
MC33777-13	SW846 8260C	29-SEP-14 16:55	JB			V8260STD
MC33777-14 Collected: 18-SEP-14 11:15 By: BH Received: 20-SEP-14 By: FIELD DUPLICATE						
MC33777-14	SW846 8260C	29-SEP-14 17:23	JB			V8260STD
MC33777-15 Collected: 18-SEP-14 16:00 By: BH Received: 20-SEP-14 By: TRIP BLANK						
MC33777-15	SW846 8260C	29-SEP-14 10:47	JB			V8260STD

Accutest Internal Chain of Custody

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Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot
Received: 09/20/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33777-1.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-1.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-1.1	GCMSN	Jaclyn Bergeron	09/29/14 15:44	Unload from Instrument
MC33777-1.1	Jaclyn Bergeron	VOC Ref #5	09/29/14 15:44	Return to Storage
MC33777-1.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-1.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-1.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-1.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-2.3	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-2.3	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-2.3	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-2.3	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-3.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-3.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-3.1	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-3.1	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-4.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-4.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-4.1	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-4.1	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-5.3	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-5.3	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-5.3	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-5.3	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-6.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-6.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-6.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-6.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-7.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-7.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-7.1	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-7.1	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-8.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-8.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-8.1	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-8.1	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage

Accutest Internal Chain of Custody

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Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot
Received: 09/20/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33777-9.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-9.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-9.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-9.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-10.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-10.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-10.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-10.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-11.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-11.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-11.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-11.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-12.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-12.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-12.1	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-12.1	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-13.1	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-13.1	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-13.1	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-13.1	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-14.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-14.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-14.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-14.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage
MC33777-15.2	VOC Ref #5	Jaclyn Bergeron	09/29/14 09:33	Retrieve from Storage
MC33777-15.2	Jaclyn Bergeron	GCMSN	09/29/14 09:33	Load on Instrument
MC33777-15.2	GCMSN	Jaclyn Bergeron	09/30/14 10:31	Unload from Instrument
MC33777-15.2	Jaclyn Bergeron	VOC Ref #5	09/30/14 10:31	Return to Storage

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

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Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3355-MB	N90685.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.5	ug/l	
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.35	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.57	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.61	ug/l	
74-83-9	Bromomethane	ND	2.0	1.8	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	1.1	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.42	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.53	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.43	ug/l	
75-00-3	Chloroethane	ND	2.0	0.53	ug/l	
67-66-3	Chloroform	ND	1.0	0.41	ug/l	
74-87-3	Chloromethane	ND	2.0	1.1	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.38	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.45	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.38	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.87	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.56	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.71	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.84	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.89	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.47	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.42	ug/l	

Method Blank Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3355-MB	N90685.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.7	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.6	ug/l	
74-88-4	Iodomethane	ND	5.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.35	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.37	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.99	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.52	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	0.69	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.49	ug/l	
100-42-5	Styrene	ND	5.0	0.85	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.40	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.45	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.47	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.55	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.81	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.38	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.71	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.58	ug/l	
	m,p-Xylene	ND	1.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

Method Blank Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3355-MB	N90685.D	1	09/29/14	JB	n/a	n/a	MSN3355

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

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	95% 70-130%
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	99% 70-130%

Blank Spike Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3355-BS	N90682.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	51.5	103	70-130
71-43-2	Benzene	50	48.6	97	70-130
108-86-1	Bromobenzene	50	52.4	105	70-130
74-97-5	Bromochloromethane	50	53.8	108	70-130
75-27-4	Bromodichloromethane	50	53.2	106	70-130
75-25-2	Bromoform	50	54.7	109	70-130
74-83-9	Bromomethane	50	49.7	99	70-130
78-93-3	2-Butanone (MEK)	50	68.3	137* a	70-130
104-51-8	n-Butylbenzene	50	57.4	115	70-130
135-98-8	sec-Butylbenzene	50	54.6	109	70-130
98-06-6	tert-Butylbenzene	50	53.3	107	70-130
75-15-0	Carbon disulfide	50	61.6	123	70-130
56-23-5	Carbon tetrachloride	50	54.3	109	70-130
108-90-7	Chlorobenzene	50	49.7	99	70-130
75-00-3	Chloroethane	50	57.6	115	70-130
67-66-3	Chloroform	50	48.1	96	70-130
74-87-3	Chloromethane	50	45.6	91	70-130
95-49-8	o-Chlorotoluene	50	52.2	104	70-130
106-43-4	p-Chlorotoluene	50	51.5	103	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	61.8	124	70-130
124-48-1	Dibromochloromethane	50	54.6	109	70-130
106-93-4	1,2-Dibromoethane	50	55.0	110	70-130
95-50-1	1,2-Dichlorobenzene	50	55.9	112	70-130
541-73-1	1,3-Dichlorobenzene	50	53.2	106	70-130
106-46-7	1,4-Dichlorobenzene	50	56.4	113	70-130
75-71-8	Dichlorodifluoromethane	50	42.3	85	70-130
75-34-3	1,1-Dichloroethane	50	51.4	103	70-130
107-06-2	1,2-Dichloroethane	50	48.4	97	70-130
75-35-4	1,1-Dichloroethene	50	62.2	124	70-130
156-59-2	cis-1,2-Dichloroethene	50	50.6	101	70-130
156-60-5	trans-1,2-Dichloroethene	50	51.4	103	70-130
78-87-5	1,2-Dichloropropane	50	56.4	113	70-130
142-28-9	1,3-Dichloropropane	50	55.0	110	70-130
594-20-7	2,2-Dichloropropane	50	57.9	116	70-130
563-58-6	1,1-Dichloropropene	50	59.8	120	70-130
10061-01-5	cis-1,3-Dichloropropene	50	56.5	113	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3355-B5	N90682.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	59.5	119	70-130
100-41-4	Ethylbenzene	50	51.5	103	70-130
87-68-3	Hexachlorobutadiene	50	59.9	120	70-130
591-78-6	2-Hexanone	50	69.0	138* a	70-130
74-88-4	Iodomethane	50	50.8	102	70-130
98-82-8	Isopropylbenzene	50	52.9	106	70-130
99-87-6	p-Isopropyltoluene	50	55.5	111	70-130
1634-04-4	Methyl Tert Butyl Ether	50	50.1	100	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	57.5	115	70-130
74-95-3	Methylene bromide	50	53.2	106	70-130
75-09-2	Methylene chloride	50	50.7	101	70-130
91-20-3	Naphthalene	50	67.1	134* a	70-130
103-65-1	n-Propylbenzene	50	54.8	110	70-130
100-42-5	Styrene	50	56.4	113	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	51.8	104	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	57.1	114	70-130
127-18-4	Tetrachloroethene	50	52.1	104	70-130
108-88-3	Toluene	50	50.1	100	70-130
87-61-6	1,2,3-Trichlorobenzene	50	62.6	125	70-130
120-82-1	1,2,4-Trichlorobenzene	50	62.1	124	70-130
71-55-6	1,1,1-Trichloroethane	50	58.2	116	70-130
79-00-5	1,1,2-Trichloroethane	50	49.6	99	70-130
79-01-6	Trichloroethene	50	48.2	96	70-130
75-69-4	Trichlorofluoromethane	50	48.6	97	70-130
96-18-4	1,2,3-Trichloropropane	50	54.0	108	70-130
95-63-6	1,2,4-Trimethylbenzene	50	48.6	97	70-130
108-67-8	1,3,5-Trimethylbenzene	50	46.7	93	70-130
108-05-4	Vinyl Acetate	50	43.9	88	70-130
75-01-4	Vinyl chloride	50	52.8	106	70-130
	m,p-Xylene	100	97.2	97	70-130
95-47-6	o-Xylene	50	49.8	100	70-130
1330-20-7	Xylene (total)	150	147	98	70-130

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3355-BS	N90682.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: MC33777

Account: STANNYR Stantec Consulting Corporation

Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33777-1MS	N90705.D	5	09/29/14	JB	n/a	n/a	MSN3355
MC33777-1MSD	N90706.D	5	09/29/14	JB	n/a	n/a	MSN3355
MC33777-1	N90687.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Compound	MC33777-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	119	48* a	250	115	46* a	3	70-130/30
71-43-2	Benzene	ND	250	236	94	250	239	96	1	70-130/30
108-86-1	Bromobenzene	ND	250	253	101	250	255	102	1	70-130/30
74-97-5	Bromochloromethane	ND	250	268	107	250	269	108	0	70-130/30
75-27-4	Bromodichloromethane	ND	250	254	102	250	257	103	1	70-130/30
75-25-2	Bromoform	ND	250	260	104	250	266	106	2	70-130/30
74-83-9	Bromomethane	ND	250	216	86	250	239	96	10	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	230	92	250	234	94	2	70-130/30
104-51-8	n-Butylbenzene	ND	250	269	108	250	275	110	2	70-130/30
135-98-8	sec-Butylbenzene	ND	250	262	105	250	270	108	3	70-130/30
98-06-6	tert-Butylbenzene	ND	250	253	101	250	259	104	2	70-130/30
75-15-0	Carbon disulfide	ND	250	298	119	250	300	120	1	70-130/30
56-23-5	Carbon tetrachloride	ND	250	267	107	250	276	110	3	70-130/30
108-90-7	Chlorobenzene	ND	250	235	94	250	246	98	5	70-130/30
75-00-3	Chloroethane	ND	250	293	117	250	292	117	0	70-130/30
67-66-3	Chloroform	ND	250	239	96	250	235	94	2	70-130/30
74-87-3	Chloromethane	ND	250	220	88	250	231	92	5	70-130/30
95-49-8	o-Chlorotoluene	ND	250	251	100	250	256	102	2	70-130/30
106-43-4	p-Chlorotoluene	ND	250	246	98	250	252	101	2	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	296	118	250	288	115	3	70-130/30
124-48-1	Dibromochloromethane	ND	250	259	104	250	264	106	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	267	107	250	272	109	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	268	107	250	272	109	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	254	102	250	258	103	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	271	108	250	274	110	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	226	90	250	232	93	3	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	257	103	250	252	101	2	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	236	94	250	238	95	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	315	126	250	308	123	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	5.5	250	254	99	250	251	98	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	262	105	250	256	102	2	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	275	110	250	281	112	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	262	105	250	270	108	3	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	280	112	250	273	109	3	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	294	118	250	300	120	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	281	112	250	281	112	0	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33777-1MS	N90705.D	5	09/29/14	JB	n/a	n/a	MSN3355
MC33777-1MSD	N90706.D	5	09/29/14	JB	n/a	n/a	MSN3355
MC33777-1	N90687.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Compound	MC33777-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	292	117	250	298	119	2	70-130/30
100-41-4	Ethylbenzene	ND	250	243	97	250	252	101	4	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	270	108	250	292	117	8	70-130/30
591-78-6	2-Hexanone	ND	250	215	86	250	220	88	2	70-130/30
74-88-4	Iodomethane	ND	250	254	102	250	257	103	1	70-130/30
98-82-8	Isopropylbenzene	ND	250	259	104	250	259	104	0	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	264	106	250	268	107	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	255	102	250	249	100	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	262	105	250	264	106	1	70-130/30
74-95-3	Methylene bromide	ND	250	258	103	250	268	107	4	70-130/30
75-09-2	Methylene chloride	ND	250	255	102	250	250	100	2	70-130/30
91-20-3	Naphthalene	ND	250	334	134* a	250	339	136* a	1	70-130/30
103-65-1	n-Propylbenzene	ND	250	265	106	250	268	107	1	70-130/30
100-42-5	Styrene	ND	250	263	105	250	274	110	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	248	99	250	256	102	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	280	112	250	281	112	0	70-130/30
127-18-4	Tetrachloroethene	ND	250	245	98	250	253	101	3	70-130/30
108-88-3	Toluene	ND	250	243	97	250	250	100	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	293	117	250	312	125	6	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	286	114	250	305	122	6	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	295	118	250	290	116	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	243	97	250	245	98	1	70-130/30
79-01-6	Trichloroethene	ND	250	234	94	250	240	96	3	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	241	96	250	238	95	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	271	108	250	272	109	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	240	96	250	246	98	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	229	92	250	232	93	1	70-130/30
108-05-4	Vinyl Acetate	ND	250	218	87	250	215	86	1	70-130/30
75-01-4	Vinyl chloride	ND	250	265	106	250	270	108	2	70-130/30
	m,p-Xylene	ND	500	455	91	500	468	94	3	70-130/30
95-47-6	o-Xylene	ND	250	234	94	250	243	97	4	70-130/30
1330-20-7	Xylene (total)	ND	750	689	92	750	711	95	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: MC33777

Account: STANNYR Stantec Consulting Corporation

Project: LMC - Utica West Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33777-1MS	N90705.D	5	09/29/14	JB	n/a	n/a	MSN3355
MC33777-1MSD	N90706.D	5	09/29/14	JB	n/a	n/a	MSN3355
MC33777-1	N90687.D	1	09/29/14	JB	n/a	n/a	MSN3355

The QC reported here applies to the following samples:

Method: SW846 8260C

MC33777-1, MC33777-2, MC33777-3, MC33777-4, MC33777-5, MC33777-6, MC33777-7, MC33777-8, MC33777-9, MC33777-10, MC33777-11, MC33777-12, MC33777-13, MC33777-14, MC33777-15

CAS No.	Surrogate Recoveries	MS	MSD	MC33777-1	Limits
1868-53-7	Dibromofluoromethane	97%	94%	96%	70-130%
2037-26-5	Toluene-D8	103%	104%	100%	70-130%
460-00-4	4-Bromofluorobenzene	93%	94%	97%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-BFB	Injection Date: 09/18/14
Lab File ID: N90385.D	Injection Time: 13:17
Instrument ID: GCMSN	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	27584	25.4	Pass
75	30.0 - 60.0% of mass 95	54529	50.3	Pass
95	Base peak, 100% relative abundance	108414	100.0	Pass
96	5.0 - 9.0% of mass 95	7647	7.05	Pass
173	Less than 2.0% of mass 174	581	0.54 (0.79) ^a	Pass
174	50.0 - 150.0% of mass 95	73592	67.9	Pass
175	5.0 - 9.0% of mass 174	5197	4.79 (7.06) ^a	Pass
176	95.0 - 101.0% of mass 174	71013	65.5 (96.5) ^a	Pass
177	5.0 - 9.0% of mass 176	4495	4.15 (6.33) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3345-IC3345	N90391.D	09/18/14	16:07	02:50	Initial cal 0.5
MSN3345-IC3345	N90392.D	09/18/14	16:35	03:18	Initial cal 1
MSN3345-IC3345	N90393.D	09/18/14	17:03	03:46	Initial cal 2
MSN3345-IC3345	N90394.D	09/18/14	17:32	04:15	Initial cal 5
MSN3345-IC3345	N90395.D	09/18/14	18:00	04:43	Initial cal 10
MSN3345-IC3345	N90396.D	09/18/14	18:30	05:13	Initial cal 25
MSN3345-ICC3345	N90397.D	09/18/14	18:59	05:42	Initial cal 50
MSN3345-IC3345	N90398.D	09/18/14	19:27	06:10	Initial cal 100
MSN3345-IC3345	N90399.D	09/18/14	19:55	06:38	Initial cal 200
MSN3345-IC3345	N90400.D	09/18/14	20:23	07:06	Initial cal 400

Instrument Performance Check (BFB)

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-BFB	Injection Date: 09/19/14
Lab File ID: N90407.D	Injection Time: 13:04
Instrument ID: GCMSN	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	31008	23.4	Pass
75	30.0 - 60.0% of mass 95	66272	49.9	Pass
95	Base peak, 100% relative abundance	132736	100.0	Pass
96	5.0 - 9.0% of mass 95	8223	6.20	Pass
173	Less than 2.0% of mass 174	660	0.50 (0.72) ^a	Pass
174	50.0 - 150.0% of mass 95	91480	68.9	Pass
175	5.0 - 9.0% of mass 174	5584	4.21 (6.10) ^a	Pass
176	95.0 - 101.0% of mass 174	88016	66.3 (96.2) ^a	Pass
177	5.0 - 9.0% of mass 176	5211	3.93 (5.92) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3345-ICV3345	N90407.D	09/19/14	13:04	00:00	Initial cal verification 50
MSN3345-BS	N90407.D	09/19/14	13:04	00:00	Blank Spike
MSN3345-CC3345	N90407.D	09/19/14	13:04	00:00	Continuing cal 50
MSN3345-MB	N90410.D	09/19/14	14:28	01:24	Method Blank
ZZZZZZ	N90411.D	09/19/14	15:09	02:05	(unrelated sample)
ZZZZZZ	N90412.D	09/19/14	15:37	02:33	(unrelated sample)
ZZZZZZ	N90413.D	09/19/14	16:05	03:01	(unrelated sample)
ZZZZZZ	N90414.D	09/19/14	16:33	03:29	(unrelated sample)
ZZZZZZ	N90415.D	09/19/14	17:02	03:58	(unrelated sample)
ZZZZZZ	N90416.D	09/19/14	17:30	04:26	(unrelated sample)
ZZZZZZ	N90417.D	09/19/14	17:58	04:54	(unrelated sample)
ZZZZZZ	N90418.D	09/19/14	18:26	05:22	(unrelated sample)
ZZZZZZ	N90422.D	09/19/14	20:19	07:15	(unrelated sample)
ZZZZZZ	N90423.D	09/19/14	20:47	07:43	(unrelated sample)
ZZZZZZ	N90424.D	09/19/14	21:16	08:12	(unrelated sample)
ZZZZZZ	N90425.D	09/19/14	21:44	08:40	(unrelated sample)
ZZZZZZ	N90426.D	09/19/14	22:12	09:08	(unrelated sample)
ZZZZZZ	N90427.D	09/19/14	22:40	09:36	(unrelated sample)
ZZZZZZ	N90428.D	09/19/14	23:09	10:05	(unrelated sample)
ZZZZZZ	N90429.D	09/19/14	23:37	10:33	(unrelated sample)
ZZZZZZ	N90430.D	09/20/14	00:05	11:01	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3355-BFB
Lab File ID: N90681.D
Instrument ID: GCMSN
Injection Date: 09/29/14
Injection Time: 08:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	32728	24.6	Pass
75	30.0 - 60.0% of mass 95	66328	49.8	Pass
95	Base peak, 100% relative abundance	133056	100.0	Pass
96	5.0 - 9.0% of mass 95	8924	6.71	Pass
173	Less than 2.0% of mass 174	797	0.60 (0.87) ^a	Pass
174	50.0 - 150.0% of mass 95	91920	69.1	Pass
175	5.0 - 9.0% of mass 174	6562	4.93 (7.14) ^a	Pass
176	95.0 - 101.0% of mass 174	89544	67.3 (97.4) ^a	Pass
177	5.0 - 9.0% of mass 176	6231	4.68 (6.96) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3355-CC3345	N90681.D	09/29/14	08:26	00:00	Continuing cal 50
MSN3355-BS	N90682.D	09/29/14	08:54	00:28	Blank Spike
MSN3355-MB	N90685.D	09/29/14	10:18	01:52	Method Blank
MC33777-15	N90686.D	09/29/14	10:47	02:21	TRIP BLANK
MC33777-1	N90687.D	09/29/14	11:15	02:49	MW-1(DOT)
MC33777-2	N90688.D	09/29/14	11:43	03:17	MW-1
MC33777-3	N90689.D	09/29/14	12:12	03:46	MW-5
MC33777-4	N90690.D	09/29/14	12:40	04:14	MW-22
MC33777-5	N90691.D	09/29/14	13:08	04:42	MW-23
MC33777-6	N90692.D	09/29/14	13:37	05:11	MW-24
MC33777-7	N90693.D	09/29/14	14:05	05:39	MW-B
MC33777-8	N90694.D	09/29/14	14:33	06:07	MW-D
MC33777-9	N90695.D	09/29/14	15:01	06:35	MW-E
MC33777-10	N90696.D	09/29/14	15:30	07:04	MW-F
MC33777-11	N90697.D	09/29/14	15:58	07:32	PW-1
MC33777-12	N90698.D	09/29/14	16:26	08:00	PZ-1
MC33777-13	N90699.D	09/29/14	16:55	08:29	PZ-2
MC33777-14	N90700.D	09/29/14	17:23	08:57	FIELD DUPLICATE
ZZZZZZ	N90701.D	09/29/14	17:51	09:25	(unrelated sample)
ZZZZZZ	N90702.D	09/29/14	18:20	09:54	(unrelated sample)
ZZZZZZ	N90704.D	09/29/14	19:16	10:50	(unrelated sample)
MC33777-1MS	N90705.D	09/29/14	19:44	11:18	Matrix Spike
MC33777-1MSD	N90706.D	09/29/14	20:13	11:47	Matrix Spike Duplicate

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Check Std: MSN3355-CC3345
Lab File ID: N90681.D
Instrument ID: GCMSN
Injection Date: 09/29/14
Injection Time: 08:26
Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	309070	9.11	478600	9.99	252687	13.24	209144	15.79	111912	6.69
Upper Limit ^a	618140	9.61	957200	10.49	505374	13.74	418288	16.29	223824	7.19
Lower Limit ^b	154535	8.61	239300	9.49	126344	12.74	104572	15.29	55956	6.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3355-BS	313745	9.12	487480	9.99	260206	13.24	215375	15.80	122333	6.69
MSN3355-MB	292440	9.12	462061	9.98	228778	13.24	172210	15.80	97945	6.71
MC33777-15	289272	9.12	453340	9.99	232527	13.24	170691	15.80	89761	6.72
MC33777-1	281384	9.12	438112	9.99	224895	13.24	165662	15.80	108562	6.71
MC33777-2	275233	9.12	428916	9.99	217310	13.24	157320	15.80	98479	6.71
MC33777-3	273652	9.12	428674	9.99	222753	13.24	162983	15.80	125067	6.71
MC33777-4	270309	9.12	416095	9.99	212255	13.24	156141	15.80	98029	6.71
MC33777-5	265318	9.11	414408	9.99	212852	13.24	153000	15.80	103680	6.72
MC33777-6	265378	9.12	411474	9.99	214192	13.24	157249	15.80	118335	6.71
MC33777-7	257597	9.12	399280	9.99	205812	13.24	151141	15.80	91288	6.71
MC33777-8	258408	9.11	402704	9.99	206154	13.24	151033	15.80	99461	6.72
MC33777-9	256852	9.12	396822	9.99	208189	13.24	149254	15.80	102954	6.71
MC33777-10	258425	9.12	402663	9.99	208512	13.24	154944	15.80	101312	6.71
MC33777-11	255274	9.12	399475	9.99	209711	13.24	152614	15.80	116272	6.72
MC33777-12	255759	9.11	397688	9.98	205119	13.24	154455	15.80	104333	6.70
MC33777-13 ^c	255597	9.12	400350	9.98	206619	13.24	145395	15.80	88448	6.71
MC33777-14	252564	9.12	394031	9.99	203846	13.24	151904	15.80	109954	6.72
ZZZZZZ	258625	9.11	419634	9.99	215529	13.24	166947	15.80	97857	6.71
ZZZZZZ	271735	9.12	421585	9.99	218156	13.24	176994	15.80	95588	6.71
ZZZZZZ	278070	9.12	449297	9.99	231909	13.24	189510	15.80	97974	6.71
MC33777-1MS	312180	9.12	499936	9.99	270838	13.24	214916	15.80	119935	6.70
MC33777-1MSD	319054	9.12	494303	9.99	264962	13.24	214276	15.80	114340	6.70

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

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

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

(c) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: MC33777

Account: STANNYR Stantec Consulting Corporation

Project: LMC - Utica West Lot

Method: SW846 8260C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33777-1	N90687.D	96	100	97
MC33777-2	N90688.D	97	100	102
MC33777-3	N90689.D	98	101	101
MC33777-4	N90690.D	96	101	100
MC33777-5	N90691.D	97	101	100
MC33777-6	N90692.D	98	100	100
MC33777-7	N90693.D	98	101	101
MC33777-8	N90694.D	97	100	100
MC33777-9	N90695.D	97	103	102
MC33777-10	N90696.D	97	102	98
MC33777-11	N90697.D	100	101	100
MC33777-12	N90698.D	98	101	98
MC33777-13	N90699.D	100	100	102
MC33777-14	N90700.D	98	101	98
MC33777-15	N90686.D	97	100	99
MC33777-1MS	N90705.D	97	103	93
MC33777-1MSD	N90706.D	94	104	94
MSN3355-BS	N90682.D	96	105	92
MSN3355-MB	N90685.D	95	98	99

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

70-130%

S2 = Toluene-D8

70-130%

S3 = 4-Bromofluorobenzene

70-130%

6.6.1

6

Initial Calibration Summary

Page 1 of 5

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

Response Factor Report MSN

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Calibration Files

0.5 =N90391.D 1 =N90392.D 2 =N90393.D 5 =N90394.D
10 =N90395.D 25 =N90396.D 50 =N90397.D 100 =N90398.D
200 =N90399.D 400 =N90400.D = =

Compound	0.5	1	2	5	10	25	50	100	200	400	Avg	%RSD	

1) p tert butyl alcohol-d9	-----ISTD-----												
2) tertiary butyl alcohol			2.116	1.627	1.612	1.771	1.676	1.849	1.793	1.619	1.758	9.68	
3) Ethanol			0.328	0.262	0.247	0.238	0.240	0.268	0.252	0.213	0.256	13.14	
4) I pentafluorobenzene	-----ISTD-----												
5) dichlorodifluoromethane			0.516	0.577	0.615	0.804	0.734	0.755	0.682	0.584	0.658	15.30	
6) chloromethane			0.767	0.747	0.841	0.869	0.752	0.851	0.895	0.733	0.807	7.86	
7) vinyl chloride			1.342	0.494	0.598	0.649	0.644	0.566	0.574	0.499	0.671	41.33	
	---- Linear regression ----					Coefficient = 0.9910							
	Response Ratio = 0.01192 + 0.53102 *A												
8) bromomethane			0.110	0.137	0.189	0.216	0.234	0.300	0.320		0.215	36.20	
	---- Quadratic regression ----					Coefficient = 0.9971							
	Response Ratio = -0.00728 + 0.23503 *A + 0.02290 *A^2												
9) chloroethane			0.291	0.341	0.380	0.377	0.315	0.315	0.300	0.266	0.323	12.46	
10) ethyl ether			0.547	0.531	0.530	0.499	0.465	0.450	0.404	0.489		10.63	
11) acetonitrile			0.081	0.086	0.096	0.083	0.070	0.068	0.059	0.078		16.51	
12) trichlorofluoromethane			1.604	0.647	0.741	0.827	1.023	0.937	0.953		0.962	32.39	
	---- Linear regression ----					Coefficient = 0.9926							
	Response Ratio = 0.00133 + 0.94402 *A												
13) freon-113			0.308	0.360	0.495	0.466	0.451	0.457	0.390	0.418		16.06	
14) acrolein			0.066	0.066	0.066	0.062	0.050	0.048	0.041	0.057		18.10	
15) 1,1-dichloroethene			0.705	0.558	0.360	0.365	0.444	0.399	0.407	0.401	0.355	0.444	26.16
	---- Linear regression ----					Coefficient = 0.9952							
	Response Ratio = 0.00648 + 0.37622 *A												
16) acetone			0.129	0.136	0.126	0.099	0.085				0.115	18.91	
17) Methyl Acetate													

6.7.1
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Initial Calibration Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

		0.486	0.501	0.512	0.429	0.379	0.340		0.441	16.01			
18)	methylene chloride												
		0.687	0.546	0.552	0.553	0.471	0.469	0.461	0.418	0.520	16.20		
19)	methyl tert butyl ether												
		1.122	0.965	0.910	0.696	0.601	1.488	1.264	1.271	1.292	1.197	1.080	26.10
	----	Linear regression ---- Coefficient = 0.9931											
		Response Ratio = -0.00807 + 1.23694 *A											
20)	acrylonitrile												
		0.226	0.256	0.258	0.225	0.201	0.183	0.169	0.217			15.81	
21)	allyl chloride												
		0.926	0.937	1.042	0.942	0.952	0.925	0.773	0.928			8.55	
22)	trans-1,2-dichloroethene												
		0.720	0.570	0.439	0.439	0.494	0.467	0.475	0.479	0.435	0.502	18.22	
23)	iodomethane												
		0.079	0.127	0.198	0.260	0.345	0.377	0.322	0.244			46.56	
	----	Linear regression ---- Coefficient = 0.9910											
		Response Ratio = -0.01973 + 0.33574 *A											
24)	carbon disulfide												
		1.276	1.336	1.599	1.453	1.506	1.545	1.400	1.445			7.99	
25)	propionitrile												
		0.002	0.005	0.007	0.008	0.008	0.007		0.006#			39.82	
	----	Linear regression ---- Coefficient = 0.9963											
		Response Ratio = -0.00052 + 0.00771 *A											
26)	vinyl acetate												
		0.478	0.688	0.779	0.738	0.775	0.752	0.707	0.702			14.90	
27)	chloroprene												
		0.769	0.848	1.045	0.979	0.972	0.944	0.750	0.901			12.54	
28)	di-isopropyl ether												
		2.977	2.567	2.526	2.687	2.402	2.305	2.085	1.618	2.396		17.12	
29)	methacrylonitrile												
		0.378	0.408	0.383	0.347	0.339	0.330	0.289	0.353			11.14	
30)	2-butanone												
		0.046	0.063	0.070	0.063	0.057	0.052	0.043	0.056#			17.20	
31)	Hexane												
		0.885	0.850	1.061	0.958	0.916	0.851	0.648	0.881			14.34	
32)	1,1-dichloroethane												
		1.637	1.395	1.116	1.176	1.246	1.129	1.161	1.162	1.056	1.231	14.61	
33)	tert-butyl ethyl ether												
		0.263	0.258	0.249	1.348	1.155	1.271	1.514	1.383	0.930		60.92	
	----	Quadratic regression ---- Coefficient = 0.9907											
		Response Ratio = -0.08188 + 1.36516 *A + 0.00714 *A^2											
34)	isobutyl alcohol												
		0.397	0.397	0.426	0.383	0.359	0.328	0.253	0.363			15.91	
35)	2,2-dichloropropane												
		0.150	0.271	0.870	0.827	0.874	0.890	0.779	0.666			47.34	
	----	Linear regression ---- Coefficient = 0.9920											
		Response Ratio = -0.06601 + 0.84378 *A											
36)	cis-1,2-dichloroethene												
		0.745	0.638	0.543	0.539	0.563	0.523	0.545	0.553	0.496	0.572	13.19	
37)	ethyl acetate												
		1.867	1.939	2.101	1.913	1.795	1.643	1.264	1.789			15.11	
38)	bromochloromethane												
		0.244	0.238	0.254	0.236	0.244	0.237	0.186	0.234			9.38	
39)	chloroform												
		1.557	1.259	1.045	1.049	1.096	1.005	1.027	1.004	0.854	1.099	18.31	

Initial Calibration Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

40)	dibromofluoromethane (s)	0.507	0.527	0.506	0.532	0.531	0.523	0.466	0.513	4.58			
41)	Tetrahydrofuran	0.155	0.189	0.184	0.164	0.153	0.140	0.121	0.158	15.17			
42)	1,1,1-trichloroethane	0.625	0.687	0.662	0.805	0.999	0.960	1.000	0.992	0.856	0.843	18.31	
43) I	1,4-difluorobenzene	-----ISTD-----											
44)	Cyclohexane	0.508	0.568	0.797	0.763	0.778	0.731	0.602	0.679	17.12			
45)	carbon tetrachloride	0.577	0.490	0.355	0.402	0.544	0.517	0.545	0.523	0.449	0.489	14.98	
46)	1,1-dichloropropene	0.359	0.403	0.495	0.472	0.483	0.460	0.404	0.439	11.59			
47)	benzene	1.840	1.953	1.639	1.307	1.321	1.388	1.256	1.315	1.227	1.089	1.433	19.65
48)	1,2-dichloroethane	0.959	0.799	0.623	0.616	0.666	0.616	0.640	0.589	0.531	0.671	19.38	
49)	tert-amyl methyl ether	0.203	0.137	0.146	0.472	0.416	0.419	0.529	0.578	0.363	48.41		
	---- Quadratic regression ----	Coefficient = 0.9954											
	Response Ratio =	-0.01811 + 0.42102 *A + 0.02063 *A^2											
50)	heptane	0.339	0.327	0.473	0.448	0.464	0.442	0.379	0.410	14.87			
51)	trichloroethene	0.541	0.583	0.496	0.379	0.390	0.418	0.387	0.395	0.368	0.323	0.428	19.51
52)	1,2-dichloropropane	0.445	0.402	0.411	0.449	0.412	0.427	0.387	0.331	0.408	9.20		
53)	dibromomethane	0.260	0.199	0.206	0.226	0.201	0.207	0.193	0.174	0.208	12.26		
54)	bromodichloromethane	0.677	0.579	0.479	0.499	0.545	0.509	0.552	0.520	0.472	0.537	11.75	
55)	Methylcyclohexane	0.374	0.404	0.584	0.566	0.573	0.547	0.471	0.503	17.23			
56)	2-chloroethyl vinyl ether	0.402	0.411	0.449	0.412	0.427	0.387	0.331	0.403	9.23			
57)	methyl methacrylate	0.172	0.191	0.210	0.197	0.196	0.178	0.163	0.187	8.81			
58)	1,4-dioxane	0.002	0.003	0.003	0.003	0.003	0.002	0.003#	24.96				
	---- Quadratic regression ----	Coefficient = 0.9959											
	Response Ratio =	-0.00071 + 0.00349 *A + -0.00006 *A^2											
59)	cis-1,3-dichloropropene	0.251	0.328	0.359	0.354	0.422	0.569	0.532	0.567	0.544	0.497	0.442	25.91
	---- Linear regression ----	Coefficient = 0.9961											
	Response Ratio =	-0.00412 + 0.52238 *A											
60)	toluene-d8 (s)	1.146	1.244	1.256	1.297	1.252	1.154	1.045	1.199	7.33			
61)	4-methyl-2-pentanone	0.379	0.434	0.450	0.404	0.373	0.333	0.300	0.382	13.96			
62)	toluene	1.213	0.978	0.799	0.809	0.895	0.811	0.832	0.753	0.658	0.861	18.45	
63)	trans-1,3-dichloropropene	0.362	0.443	0.389	0.329	0.349	0.485	0.447	0.477	0.458	0.430	0.417	13.35
64)	1,1,2-trichloroethane	0.397	0.310	0.248	0.261	0.274	0.251	0.251	0.227	0.277	19.46		
65)	ethyl methacrylate												

Initial Calibration Summary

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

		0.332	0.366	0.416	0.381	0.378	0.326	0.285	0.355	12.23	
66)	I chlorobenzene-d5	-----ISTD-----									
67)	tetrachloroethene	0.842	0.876	0.722	0.541	0.558	0.611	0.590	0.637	0.596	18.74
68)	1,3-dichloropropane	0.995	0.954	0.999	0.941	0.986	0.912	0.808	0.942	7.14	
69)	dibromochloromethane	0.699	0.774	0.746	0.609	0.628	0.656	0.644	0.705	0.666	8.41
70)	1,2-dibromoethane	0.640	0.501	0.526	0.554	0.505	0.543	0.501	0.453	0.528	10.42
71)	2-hexanone	0.557	0.650	0.661	0.616	0.585	0.521	0.453	0.577	12.79	
72)	chlorobenzene	2.540	2.055	1.668	1.578	1.684	1.541	1.653	1.569	1.405	19.89
73)	1,1,1,2-tetrachloroethane	0.819	0.686	0.594	0.596	0.629	0.593	0.637	0.605	0.555	12.32
74)	ethylbenzene	4.620	3.654	2.927	2.958	3.193	2.994	3.220	3.025	2.660	17.87
75)	m,p-xylene	1.485	1.631	1.323	1.058	1.037	1.109	0.999	1.070	0.983	19.74
76)	o-xylene	1.376	1.583	1.374	1.064	1.060	1.089	1.015	1.090	1.003	18.73
77)	styrene	1.561	1.639	1.756	1.666	1.810	1.736	1.552	1.674	5.89	
78)	bromoform	0.531	0.384	0.337	0.355	0.382	0.374	0.412	0.392	0.359	14.47
79)	trans-1,4-dichloro-2-butene	0.095	0.124	0.173	0.170	0.183	0.183	0.175	0.157	21.77	
	---- Linear regression ----	Coefficient = 0.9990									
	Response Ratio =	-0.00840 + 0.18004 *A									
80)	I 1,4-dichlorobenzene-d	-----ISTD-----									
81)	isopropylbenzene	3.339	3.416	3.795	3.596	3.680	3.592	3.395	3.544	4.71	
82)	bromofluorobenzene (s)	1.264	1.244	1.169	1.248	1.236	1.205	1.167	1.219	3.20	
83)	bromobenzene	0.861	0.819	0.858	0.808	0.860	0.842	0.823	0.839	2.64	
84)	1,1,1,2-tetrachloroethane	1.268	1.484	1.115	0.911	0.876	0.878	0.783	1.045	24.37	
	---- Quadratic regression ----	Coefficient = 0.9972									
	Response Ratio =	0.00619 + 0.90872 *A + -0.12790 *A^2									
85)	1,2,3-trichloropropane	0.838	0.857	0.931	0.874	0.868	0.832	0.802	0.857	4.72	
86)	n-propylbenzene	4.328	4.375	4.903	4.552	4.704	4.616	4.288	4.538	4.93	
87)	2-chlorotoluene	2.936	2.880	2.999	2.796	2.924	2.911	2.754	2.886	2.93	
88)	4-chlorotoluene	3.058	3.031	3.171	2.962	3.116	3.103	2.899	3.049	3.08	
89)	1,3,5-trimethylbenzene	5.065	4.012	3.251	3.233	3.475	3.266	3.394	3.276	3.053	17.58
90)	tert-butylbenzene	1.926	1.988	2.250	2.152	2.203	2.146	1.959	2.089	6.17	
91)	1,2,4-trimethylbenzene	4.967	3.993	3.209	3.277	3.416	3.258	3.357	3.241	3.029	17.06
92)	sec-butylbenzene										

Initial Calibration Summary

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Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

		3.728	3.740	4.344	4.122	4.217	4.053	3.706	3.987	6.55		
93)	1,3-dichlorobenzene	2.816	2.133	1.697	1.622	1.668	1.597	1.677	1.631	1.558	1.822	22.48
	---- Linear regression ----	Coefficient = 0.9992										
	Response Ratio =	0.02230 + 1.58947 *A										
94)	p-isopropyltoluene	3.149	3.245	3.581	3.385	3.435	3.247	2.764	3.258	8.01		
95)	1,4-dichlorobenzene	2.996	2.124	1.705	1.601	1.633	1.523	1.547	1.454	1.333	1.768	28.84
	---- Linear regression ----	Coefficient = 0.9964										
	Response Ratio =	0.03514 + 1.40180 *A										
96)	1,2-dichlorobenzene	2.549	1.951	1.550	1.521	1.650	1.583	1.602	1.523	1.431	1.707	20.38
	---- Linear regression ----	Coefficient = 0.9979										
	Response Ratio =	0.02128 + 1.48476 *A										
97)	n-butylbenzene	3.054	3.132	3.712	3.557	3.630	3.457	3.115	3.380	8.08		
98)	1,2-dibromo-3-chloropropane	0.124	0.127	0.158	0.144	0.136	0.130	0.127	0.135	9.05		
99)	1,2,4-trichlorobenzene	0.446	0.573	0.776	0.777	0.750	0.733	0.669	0.675	18.39		
100)	1,3,5-trichlorobenzene	1.075	1.052	1.152	1.096	1.062	0.984	0.895	1.045	7.95		
101)	hexachlorobutadiene	0.525	0.520	0.595	0.559	0.528	0.506	0.471	0.529	7.40		
102)	naphthalene	0.313	0.398	0.895	1.024	0.995	1.037	0.993	0.808	38.81		
	---- Linear regression ----	Coefficient = 0.9982										
	Response Ratio =	-0.08156 + 1.02758 *A										
103)	1,2,3-trichlorobenzene	0.248	0.332	0.533	0.553	0.513	0.522	0.474	0.453	25.81		
	---- Linear regression ----	Coefficient = 0.9947										
	Response Ratio =	-0.01826 + 0.50273 *A										
104)	2-methylnaphthalene	0.271	0.248	0.304	0.297	0.282	0.274	0.252	0.276	7.62		
105)	1-methylnaphthalene	0.206	0.221	0.213	0.225	0.205	0.197	0.174	0.206	8.34		

(#) = Out of Range ### Number of calibration levels exceeded format ###

n140918w.m Fri Sep 19 12:07:17 2014

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Initial Calibration Verification

Page 1 of 4

Job Number: MC33777
 Account: STANNYR Stantec Consulting Corporation
 Project: LMC - Utica West Lot

Sample: MSN3345-ICV3345
 Lab FileID: N90407.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N140919\N90407.D Vial: 16
 Acq On : 19 Sep 2014 1:04 pm Operator: krystend
 Sample : cc3345-50 Inst : MSN
 Misc : ms32746,MSN3345,,,,5,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
 Title : SW-846 Method 8260
 Last Update : Fri Sep 19 12:01:33 2014
 Response via : Multiple Level 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)	R.T.
1 p	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	6.70
2 P	tertiary butyl alcohol	1.758	1.894	-7.7	116	0.00	6.78
3 p	Ethanol	0.256	0.299	-16.8	128	0.01	5.56
4 I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	9.12
5 p	dichlorodifluoromethane	0.658	0.844	-28.3#	124	0.00	4.39
6 P	chloromethane	0.807	0.815	-1.0	117	0.00	4.66
	----- Amount Calc. %Drift -----						
7 p	vinyl chloride	50.000	59.685	-19.4	123	0.00	4.90
8 p	bromomethane	50.000	50.545	-1.1	117	0.00	5.40
	----- AvgRF CCRF %Dev -----						
9 p	chloroethane	0.323	0.388	-20.1#	133	0.00	5.56
10 p	ethyl ether	0.489	0.551	-12.7	119	0.00	6.43
11 p	acetonitrile	0.078	0.089	-14.1	116	0.00	6.43
	----- Amount Calc. %Drift -----						
12 p	trichlorofluoromethane	50.000	55.869	-11.7	122	0.00	6.21
	----- AvgRF CCRF %Dev -----						
13 p	freon-113	0.418	0.430	-2.9	100	0.00	6.96
14 p	acrolein	0.057	0.058	-1.8	100	0.00	6.20
	----- Amount Calc. %Drift -----						
15 p	1,1-dichloroethene	50.000	52.865	-5.7	109	0.00	6.79
	----- AvgRF CCRF %Dev -----						
16 p	acetone	0.115	0.100	13.0	109	0.00	6.34
17 M	Methyl Acetate	0.441	0.605	-37.2#	152	0.00	6.96
18 p	methylene chloride	0.520	0.485	6.7	111	0.00	6.94
	----- Amount Calc. %Drift -----						
19 p	methyl tert butyl ether	50.000	54.924	-9.8	115	0.00	7.70
	----- AvgRF CCRF %Dev -----						
20 p	acrylonitrile	0.217	0.221	-1.8	106	0.00	6.85
21 p	allyl chloride	0.928	1.042	-12.3	119	0.00	7.03
22 p	trans-1,2-dichloroethene	0.502	0.491	2.2	113	0.00	7.62
	----- Amount Calc. %Drift -----						
23 p	iodomethane	50.000	38.452	23.1#	99	0.00	6.86

Initial Calibration Verification

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

24 p	carbon disulfide	AvgRF 1.445	CCRF 1.333	%Dev 7.8	99	0.00	7.22
25 p	propionitrile	Amount 50.000	Calc. 56.235	%Drift -12.5	111	0.00	6.85
26 p	vinyl acetate	AvgRF 0.702	CCRF 0.564	%Dev 19.7	82	0.00	7.97
27 p	chloroprene	0.901	1.156	-28.3#	127	0.00	8.23
28 p	di-isopropyl ether	2.396	2.580	-7.7	116	0.00	8.26
29 p	methacrylonitrile	0.353	0.360	-2.0	112	0.00	8.39
30 p	2-butanone	0.056	0.065#	-16.1	112	0.00	8.28
31 p	Hexane	0.881	0.948	-7.6	107	0.00	8.25
32 P	1,1-dichloroethane	1.231	1.260	-2.4	120	0.00	7.88
33 p	tert-butyl ethyl ether	Amount 50.000	Calc. 46.992	%Drift 6.0	113	0.00	8.66
34 p	isobutyl alcohol	AvgRF 0.363	CCRF 0.396	%Dev -9.1	112	0.00	8.26
35 p	2,2-dichloropropane	Amount 50.000	Calc. 58.647	%Drift -17.3	120	0.00	8.73
36 p	cis-1,2-dichloroethene	AvgRF 0.572	CCRF 0.567	%Dev 0.9	117	0.00	8.44
37 p	ethyl acetate	1.789	1.981	-10.7	112	0.00	8.26
38 p	bromochloromethane	0.234	0.250	-6.8	114	0.00	8.61
39 p	chloroform	1.099	1.099	0.0	118	0.00	8.64
40 S	dibromofluoromethane (s)	0.513	0.498	2.9	101	0.00	8.77
41 p	Tetrahydrofuran	0.158	0.165	-4.4	109	0.00	8.97
42 p	1,1,1-trichloroethane	0.843	1.001	-18.7	112	0.00	9.39
43 I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	9.99
44 p	Cyclohexane	0.679	0.765	-12.7	107	0.00	9.67
45 p	carbon tetrachloride	0.489	0.545	-11.5	113	0.00	9.75
46 p	1,1-dichloropropene	0.439	0.515	-17.3	117	0.00	9.57
47 p	benzene	1.433	1.379	3.8	118	0.00	9.79
48 p	1,2-dichloroethane	0.671	0.688	-2.5	120	0.00	9.30
49 p	tert-amyl methyl ether	Amount 50.000	Calc. 49.536	%Drift 0.9	108	0.00	9.90
50 p	heptane	AvgRF 0.410	CCRF 0.453	%Dev -10.5	108	0.00	10.25
51 p	trichloroethene	0.428	0.417	2.6	115	0.00	10.41
52 p	1,2-dichloropropane	0.408	0.478	-17.2	124	0.00	10.38
53 p	dibromomethane	0.208	0.222	-6.7	119	0.00	10.36
54 p	bromodichloromethane	0.537	0.608	-13.2	128	0.00	10.46
55 p	Methylcyclohexane	0.503	0.563	-11.9	107	0.00	10.92
56 p	2-chloroethyl vinyl ether	0.403	0.478	-18.6	124	0.00	10.38
57 p	methyl methacrylate	0.187	0.211	-12.8	115	0.00	10.55
58 p	1,4-dioxane	Amount 250.000	Calc. 243.850	%Drift 2.5	100	0.00	10.56
59 p	cis-1,3-dichloropropene	50.000	59.102	-18.2	123	0.00	11.08
60 S	toluene-d8 (s)	AvgRF 1.199	CCRF 1.261	%Dev -5.2	104	0.00	11.78

Initial Calibration Verification

Job Number: MC33777
 Account: STANNYR Stantec Consulting Corporation
 Project: LMC - Utica West Lot

Sample: MSN3345-ICV3345
 Lab FileID: N90407.D

61 p	4-methyl-2-pentanone	0.382	0.416	-8.9	110	0.00	11.17
62 p	toluene	0.861	0.861	0.0	114	0.00	11.85
63 p	trans-1,3-dichloropropene	0.417	0.524	-25.7#	125	0.00	11.49
64 p	1,1,2-trichloroethane	0.277	0.287	-3.6	122	0.00	11.67
65 p	ethyl methacrylate	0.355	0.380	-7.0	107	0.00	11.86
66 I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	13.24
67 p	tetrachloroethene	0.651	0.667	-2.5	118	0.00	12.59
68 p	1,3-dichloropropane	0.942	1.045	-10.9	116	0.00	11.90
69 p	dibromochloromethane	0.673	0.758	-12.6	122	0.00	12.19
70 p	1,2-dibromoethane	0.528	0.577	-9.3	119	0.00	12.45
71 p	2-hexanone	0.577	0.657	-13.9	111	0.00	12.02
72 P	chlorobenzene	1.744	1.707	2.1	115	0.00	13.28
73 p	1,1,1,2-tetrachloroethane	0.635	0.696	-9.6	122	0.00	13.19
74 p	ethylbenzene	3.250	3.247	0.1	113	0.00	13.45
75 p	m,p-xylene	1.188	1.103	7.2	115	0.00	13.63
76 p	o-xylene	1.154	1.113	3.6	114	0.00	14.04
77 p	styrene	1.674	1.816	-8.5	113	0.00	13.97
78 P	bromoform	0.392	0.434	-10.7	121	0.00	13.80
----- Amount Calc. %Drift -----							
79 p	trans-1,4-dichloro-2-bute	50.000	50.549	-1.1	106	0.00	14.19
----- AvgRF CCRF %Dev -----							
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	15.80
81 p	isopropylbenzene	3.544	3.702	-4.5	108	0.00	14.40
82 S	bromofluorobenzene (s)	1.219	1.162	4.7	97	0.00	14.46
83 p	bromobenzene	0.839	0.901	-7.4	117	0.00	14.69
----- Amount Calc. %Drift -----							
84 P	1,1,2,2-tetrachloroethane	50.000	57.874	-15.7	118	0.00	14.05
----- AvgRF CCRF %Dev -----							
85 p	1,2,3-trichloropropane	0.857	0.957	-11.7	115	0.00	14.19
86 p	n-propylbenzene	4.538	4.825	-6.3	111	0.00	14.85
87 p	2-chlorotoluene	2.886	3.017	-4.5	113	0.00	14.97
88 p	4-chlorotoluene	3.049	3.161	-3.7	112	0.00	15.04
89 p	1,3,5-trimethylbenzene	3.558	3.303	7.2	106	0.00	15.12
90 p	tert-butylbenzene	2.089	2.180	-4.4	106	0.00	15.43
91 p	1,2,4-trimethylbenzene	3.527	3.468	1.7	111	0.00	15.54
92 M	sec-butylbenzene	3.987	4.179	-4.8	106	0.00	15.65
----- Amount Calc. %Drift -----							
93 p	1,3-dichlorobenzene	50.000	54.075	-8.2	114	0.00	15.76
----- AvgRF CCRF %Dev -----							
94 p	p-isopropyltoluene	3.258	3.465	-6.4	107	0.00	15.82
----- Amount Calc. %Drift -----							
95 p	1,4-dichlorobenzene	50.000	57.928	-15.9	114	0.00	15.83
96 p	1,2-dichlorobenzene	50.000	57.489	-15.0	114	0.00	16.19
----- AvgRF CCRF %Dev -----							
97 p	n-butylbenzene	3.380	3.685	-9.0	108	0.00	16.24
98 p	1,2-dibromo-3-chloropropa	0.135	0.169	-25.2#	122	0.00	16.66
99 p	1,2,4-trichlorobenzene	0.675	0.809	-19.9	109	0.00	18.02
100 p	1,3,5-trichlorobenzene	1.045	1.153	-10.3	110	0.00	17.47
101 p	hexachlorobutadiene	0.529	0.576	-8.9	108	0.00	18.30

Initial Calibration Verification

Page 4 of 4

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

		Amount	Calc.	%Drift			
102 p	naphthalene	50.000	62.845	-25.7#	124	0.00	18.29
103 p	1,2,3-trichlorobenzene	50.000	58.201	-16.4	107	0.00	18.49
		AvgRF	CCRF	%Dev			
104 p	2-methylnaphthalene	0.276	0.250	9.4	88	0.00	19.67
105 p	1-methylnaphthalene	0.206	0.188	8.7	87	0.00	19.92

(#) = Out of Range
 N90397.D n140918w.m SPCC's out = 1 CCC's out = 0
 Fri Sep 19 15:32:19 2014

6.7.2
6

Continuing Calibration Summary

Page 1 of 4

Job Number: MC33777
 Account: STANNYR Stantec Consulting Corporation
 Project: LMC - Utica West Lot

Sample: MSN3355-CC3345
 Lab FileID: N90681.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N140929\N90681.D Vial: 16
 Acq On : 29 Sep 2014 8:26 am Operator: jaclynb
 Sample : cc3345-50 Inst : MSN
 Misc : ms32833,MSN3355,,,,5,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
 Title : SW-846 Method 8260
 Last Update : Fri Sep 19 12:01:33 2014
 Response via : Multiple Level 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)	R.T.
1 p	tert butyl alcohol-d9	1.000	1.000	0.0	105	0.00	6.69
2 P	tertiary butyl alcohol	1.758	1.866	-6.1	117	0.00	6.78
3 p	Ethanol	0.256	0.291	-13.7	127	0.01	5.56
4 I	pentafluorobenzene	1.000	1.000	0.0	110	0.00	9.11
5 p	dichlorodifluoromethane	0.658	0.615	6.5	92	0.00	4.39
6 P	chloromethane	0.807	0.672	16.7	98	0.00	4.66
	----- Amount	Calc.	%Drift	-----			
7 p	vinyl chloride	50.000	51.307	-2.6	108	0.00	4.90
8 p	bromomethane	50.000	44.744	10.5	104	0.00	5.40
	----- AvgRF	CCRF	%Dev	-----			
9 p	chloroethane	0.323	0.316	2.2	110	0.00	5.57
10 p	ethyl ether	0.489	0.473	3.3	104	0.00	6.43
11 p	acetonitrile			-----NA-----			
	----- Amount	Calc.	%Drift	-----			
12 p	trichlorofluoromethane	50.000	47.540	4.9	105	0.00	6.21
	----- AvgRF	CCRF	%Dev	-----			
13 p	freon-113	0.418	0.455	-8.9	107	0.00	6.96
14 p	acrolein	0.057	0.061	-7.0	108	0.00	6.20
	----- Amount	Calc.	%Drift	-----			
15 p	1,1-dichloroethene	50.000	50.508	-1.0	106	0.00	6.79
	----- AvgRF	CCRF	%Dev	-----			
16 p	acetone	0.115	0.101	12.2	112	0.00	6.33
17 M	Methyl Acetate	0.441	0.435	1.4	111	0.00	6.96
18 p	methylene chloride	0.520	0.476	8.5	111	0.00	6.94
	----- Amount	Calc.	%Drift	-----			
19 p	methyl tert butyl ether	50.000	44.985	10.0	96	0.00	7.70
	----- AvgRF	CCRF	%Dev	-----			
20 p	acrylonitrile	0.217	0.237	-9.2	116	0.00	6.85
21 p	allyl chloride	0.928	0.929	-0.1	108	0.00	7.03
22 p	trans-1,2-dichloroethene	0.502	0.465	7.4	109	0.00	7.62
	----- Amount	Calc.	%Drift	-----			
23 p	iodomethane	50.000	41.418	17.2	109	0.00	6.86

Continuing Calibration Summary

Page 2 of 4

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3355-CC3345
Lab FileID: N90681.D

24 p	carbon disulfide	AvgRF 1.445	CCRF 1.305	%Dev 9.7	99	0.00	7.22
25 p	propionitrile	Amount 50.000	Calc. 50.128	%Drift -0.3	100	0.00	6.84
26 p	vinyl acetate	AvgRF 0.702	CCRF 0.935	%Dev -33.2#	139	0.00	7.97
27 p	chloroprene	0.901	0.974	-8.1	109	0.00	8.23
28 p	di-isopropyl ether	2.396	2.525	-5.4	115	0.00	8.26
29 p	methacrylonitrile	0.353	0.346	2.0	109	0.00	8.40
30 p	2-butanone	0.056	0.066#	-17.9	116	0.01	8.29
31 p	Hexane	0.881	0.962	-9.2	110	0.00	8.25
32 P	1,1-dichloroethane	1.231	1.157	6.0	113	0.00	7.88
33 p	tert-butyl ethyl ether	Amount 50.000	Calc. 30.220	%Drift 39.6#	71	0.00	8.66
34 p	isobutyl alcohol	AvgRF 0.363	CCRF 0.395	%Dev -8.8	113	0.00	8.26
35 p	2,2-dichloropropane	Amount 50.000	Calc. 54.858	%Drift -9.7	114	0.00	8.73
36 p	cis-1,2-dichloroethene	AvgRF 0.572	CCRF 0.541	%Dev 5.4	114	0.00	8.44
37 p	ethyl acetate	1.789	1.976	-10.5	113	0.00	8.26
38 p	bromochloromethane	0.234	0.241	-3.0	112	0.00	8.61
39 p	chloroform	1.099	1.047	4.7	114	0.00	8.64
40 S	dibromofluoromethane (s)	0.513	0.490	4.5	101	0.00	8.77
41 p	Tetrahydrofuran	0.158	0.171	-8.2	115	0.00	8.98
42 p	1,1,1-trichloroethane	0.843	0.955	-13.3	109	0.00	9.39
43 I	1,4-difluorobenzene	1.000	1.000	0.0	109	0.00	9.99
44 p	Cyclohexane	0.679	0.754	-11.0	108	0.00	9.67
45 p	carbon tetrachloride	0.489	0.513	-4.9	108	0.00	9.75
46 p	1,1-dichloropropene	0.439	0.474	-8.0	110	0.00	9.57
47 p	benzene	1.433	1.331	7.1	115	0.00	9.79
48 p	1,2-dichloroethane	0.671	0.625	6.9	111	0.00	9.30
49 p	tert-amyl methyl ether	Amount 50.000	Calc. 32.158	%Drift 35.7#	68	0.00	9.90
50 p	heptane	AvgRF 0.410	CCRF 0.490	%Dev -19.5	119	0.00	10.25
51 p	trichloroethene	0.428	0.398	7.0	112	0.00	10.41
52 p	1,2-dichloropropane	0.408	0.457	-12.0	121	0.00	10.37
53 p	dibromomethane	0.208	0.219	-5.3	119	0.00	10.36
54 p	bromodichloromethane	0.537	0.551	-2.6	118	0.00	10.46
55 p	Methylcyclohexane	0.503	0.591	-17.5	114	0.00	10.92
56 p	2-chloroethyl vinyl ether	0.403	0.457	-13.4	121	0.00	10.37
57 p	methyl methacrylate	0.187	0.205	-9.6	113	0.00	10.55
58 p	1,4-dioxane	Amount 250.000	Calc. 261.893	%Drift -4.8	110	0.00	10.56
59 p	cis-1,3-dichloropropene	50.000	56.617	-13.2	120	0.00	11.08
60 S	toluene-d8 (s)	AvgRF 1.199	CCRF 1.263	%Dev -5.3	106	0.00	11.78

6.7.3
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Continuing Calibration Summary

Page 3 of 4

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3355-CC3345
Lab FileID: N90681.D

61 p	4-methyl-2-pentanone	0.382	0.462	-20.9#	124	0.00	11.17
62 p	toluene	0.861	0.852	1.0	114	0.00	11.85
63 p	trans-1,3-dichloropropene	0.417	0.484	-16.1	118	0.00	11.49
64 p	1,1,2-trichloroethane	0.277	0.287	-3.6	125	0.00	11.67
65 p	ethyl methacrylate	0.355	0.419	-18.0	120	0.00	11.87
66 I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	13.24
67 p	tetrachloroethene	0.651	0.682	-4.8	119	0.00	12.59
68 p	1,3-dichloropropane	0.942	1.083	-15.0	118	0.00	11.90
69 p	dibromochloromethane	0.673	0.750	-11.4	120	0.00	12.19
70 p	1,2-dibromoethane	0.528	0.579	-9.7	118	0.00	12.45
71 p	2-hexanone	0.577	0.732	-26.9#	122	0.00	12.02
72 P	chlorobenzene	1.744	1.771	-1.5	118	0.00	13.28
73 p	1,1,1,2-tetrachloroethane	0.635	0.705	-11.0	122	0.00	13.19
74 p	ethylbenzene	3.250	3.458	-6.4	119	0.00	13.45
75 p	m,p-xylene	1.188	1.177	0.9	121	0.00	13.63
76 p	o-xylene	1.154	1.206	-4.5	122	0.00	14.04
77 p	styrene	1.674	1.940	-15.9	120	0.00	13.97
78 P	bromoform	0.392	0.462	-17.9	127	0.00	13.80
----- Amount Calc. %Drift -----							
79 p	trans-1,4-dichloro-2-bute	50.000	58.142	-16.3	122	0.00	14.19
----- AvgRF CCRF %Dev -----							
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	15.79
81 p	isopropylbenzene	3.544	3.891	-9.8	118	0.00	14.40
82 S	bromofluorobenzene (s)	1.219	1.154	5.3	101	0.00	14.46
83 p	bromobenzene	0.839	0.922	-9.9	124	0.00	14.70
----- Amount Calc. %Drift -----							
84 P	1,1,2,2-tetrachloroethane	50.000	62.372	-24.7#	131	0.00	14.05
----- AvgRF CCRF %Dev -----							
85 p	1,2,3-trichloropropane	0.857	0.984	-14.8	123	0.00	14.19
86 p	n-propylbenzene	4.538	5.087	-12.1	122	0.00	14.85
87 p	2-chlorotoluene	2.886	3.097	-7.3	121	0.00	14.97
88 p	4-chlorotoluene	3.049	3.321	-8.9	122	0.00	15.05
89 p	1,3,5-trimethylbenzene	3.558	3.601	-1.2	120	0.00	15.12
90 p	tert-butylbenzene	2.089	2.332	-11.6	118	0.00	15.43
91 p	1,2,4-trimethylbenzene	3.527	3.563	-1.0	119	0.00	15.54
92 M	sec-butylbenzene	3.987	4.553	-14.2	120	0.00	15.65
----- Amount Calc. %Drift -----							
93 p	1,3-dichlorobenzene	50.000	56.554	-13.1	124	0.00	15.76
----- AvgRF CCRF %Dev -----							
94 p	p-isopropyltoluene	3.258	3.733	-14.6	120	0.00	15.82
----- Amount Calc. %Drift -----							
95 p	1,4-dichlorobenzene	50.000	61.281	-22.6#	125	0.00	15.82
96 p	1,2-dichlorobenzene	50.000	59.873	-19.7	124	0.00	16.19
----- AvgRF CCRF %Dev -----							
97 p	n-butylbenzene	3.380	4.045	-19.7	124	0.00	16.24
98 p	1,2-dibromo-3-chloropropa	0.135	0.165	-22.2#	124	0.00	16.67
99 p	1,2,4-trichlorobenzene	0.675	0.843	-24.9#	118	0.00	18.02
100 p	1,3,5-trichlorobenzene	1.045	1.218	-16.6	121	0.00	17.48
101 p	hexachlorobutadiene	0.529	0.627	-18.5	122	0.00	18.30

6.7.3
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Continuing Calibration Summary

Page 4 of 4

Job Number: MC33777
Account: STANNYR Stantec Consulting Corporation
Project: LMC - Utica West Lot

Sample: MSN3355-CC3345
Lab FileID: N90681.D

		Amount	Calc.	%Drift			
102 p	naphthalene	50.000	58.741	-17.5	120	0.00	18.29
103 p	1,2,3-trichlorobenzene	50.000	60.676	-21.4#	116	0.00	18.49
		AvgRF	CCRF	%Dev			
104 p	2-methylnaphthalene	0.276	0.334	-21.0#	122	0.00	19.67
105 p	1-methylnaphthalene	0.206	0.258	-25.2#	124	0.00	19.92

(#) = Out of Range SPCC's out = 2 CCC's out = 0
 N90397.D n140918w.m Mon Sep 29 09:26:14 2014

6.7.3

6

GC/MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90687.D
 Acq On : 29 Sep 2014 11:15 am
 Operator : jaclynb
 Sample : mc33777-1
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 29 11:40:32 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	108562	500.00	ug/L	0.02
4) pentafluorobenzene	9.115	168	281384	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	438112	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	224895	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.800	152	165662	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	139085	48.18	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	96.36%		
60) toluene-d8 (s)	11.784	98	524009	49.87	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	99.74%		
82) bromofluorobenzene (s)	14.464	95	196832	48.73	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.46%		
Target Compounds						
36) cis-1,2-dichloroethene	8.451	96	17770	5.52	ug/L	Qvalue 87

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

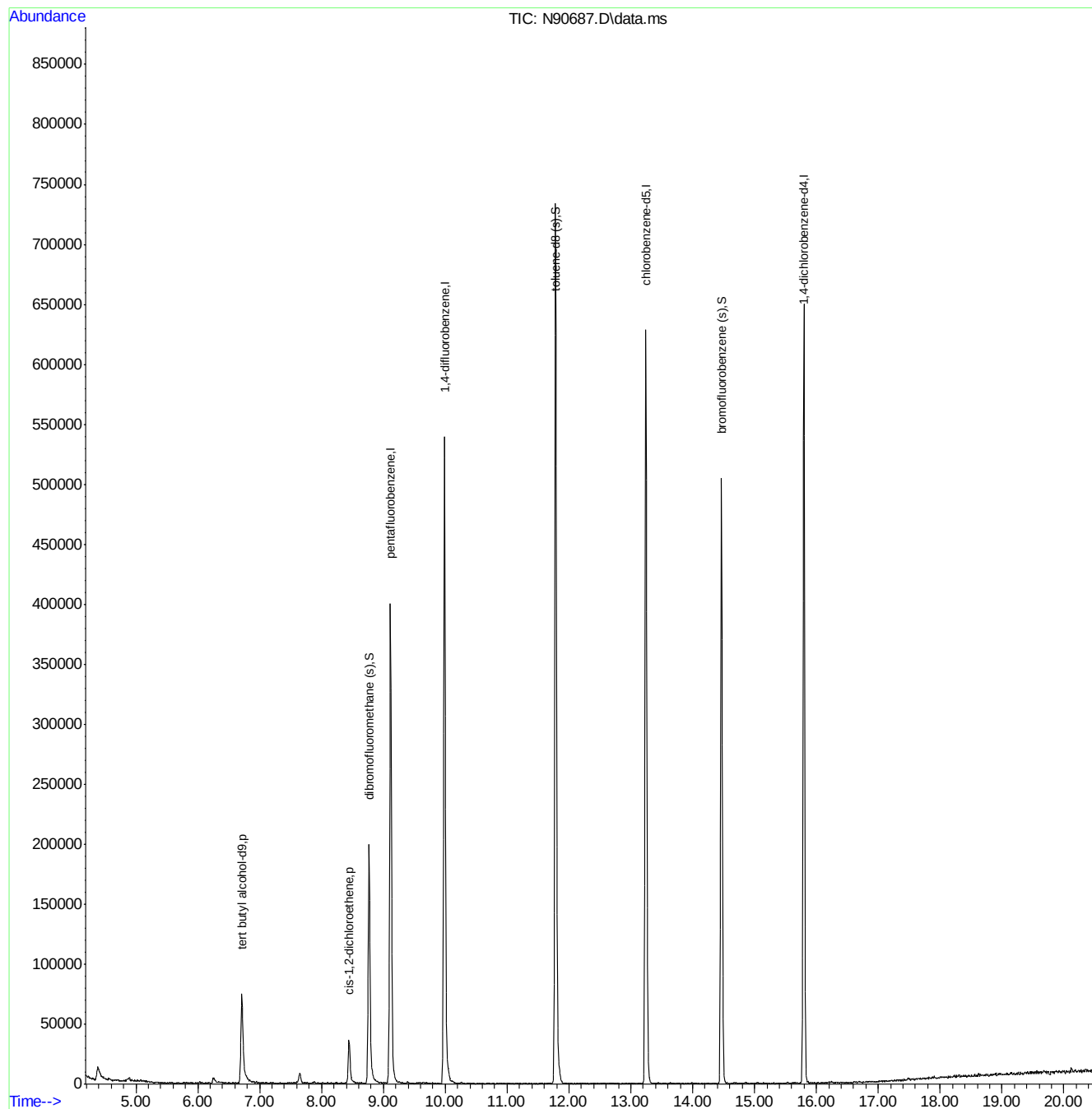
7.1.1

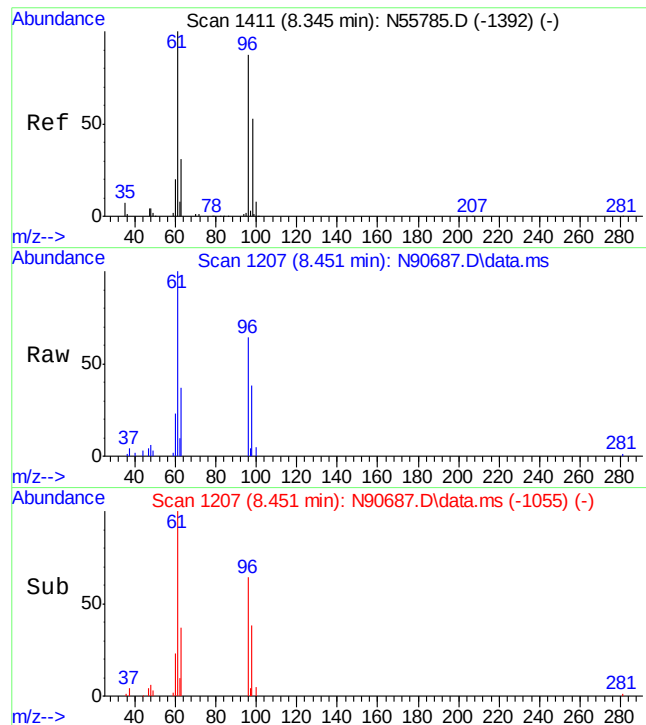
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90687.D
Acq On : 29 Sep 2014 11:15 am
Operator : jaclynb
Sample : mc33777-1
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

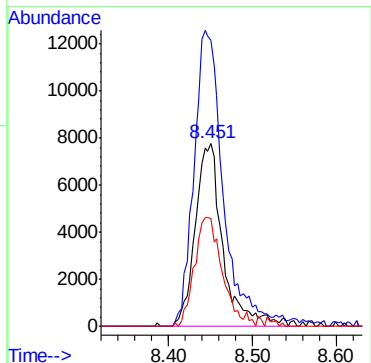
Quant Time: Sep 29 11:40:32 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





#36
cis-1,2-dichloroethene
Concen: 5.52 ug/L
RT: 8.451 min Scan# 1207
Delta R.T. 0.008 min
Lab File: N90687.D
Acq: 29 Sep 2014 11:15 am

Tgt Ion:	96	Resp:	17770
Ion Ratio	Lower	Upper	
96	100		
61	156.0	148.4	208.4
98	58.8	32.3	92.3



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90688.D
 Acq On : 29 Sep 2014 11:43 am
 Operator : jaclynb
 Sample : mc33777-2
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 29 12:10:41 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	98479	500.00	ug/L	# 0.02
4) pentafluorobenzene	9.115	168	275233	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	428916	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	217310	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	157320	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	137128	48.56	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.12%		
60) toluene-d8 (s)	11.784	98	515093	50.07	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.14%		
82) bromofluorobenzene (s)	14.467	95	194717	50.76	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	101.52%		
Target Compounds						
39) chloroform	8.645	83	1312	0.22	ug/L	89
45) carbon tetrachloride	9.751	117	2752	0.66	ug/L	94

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

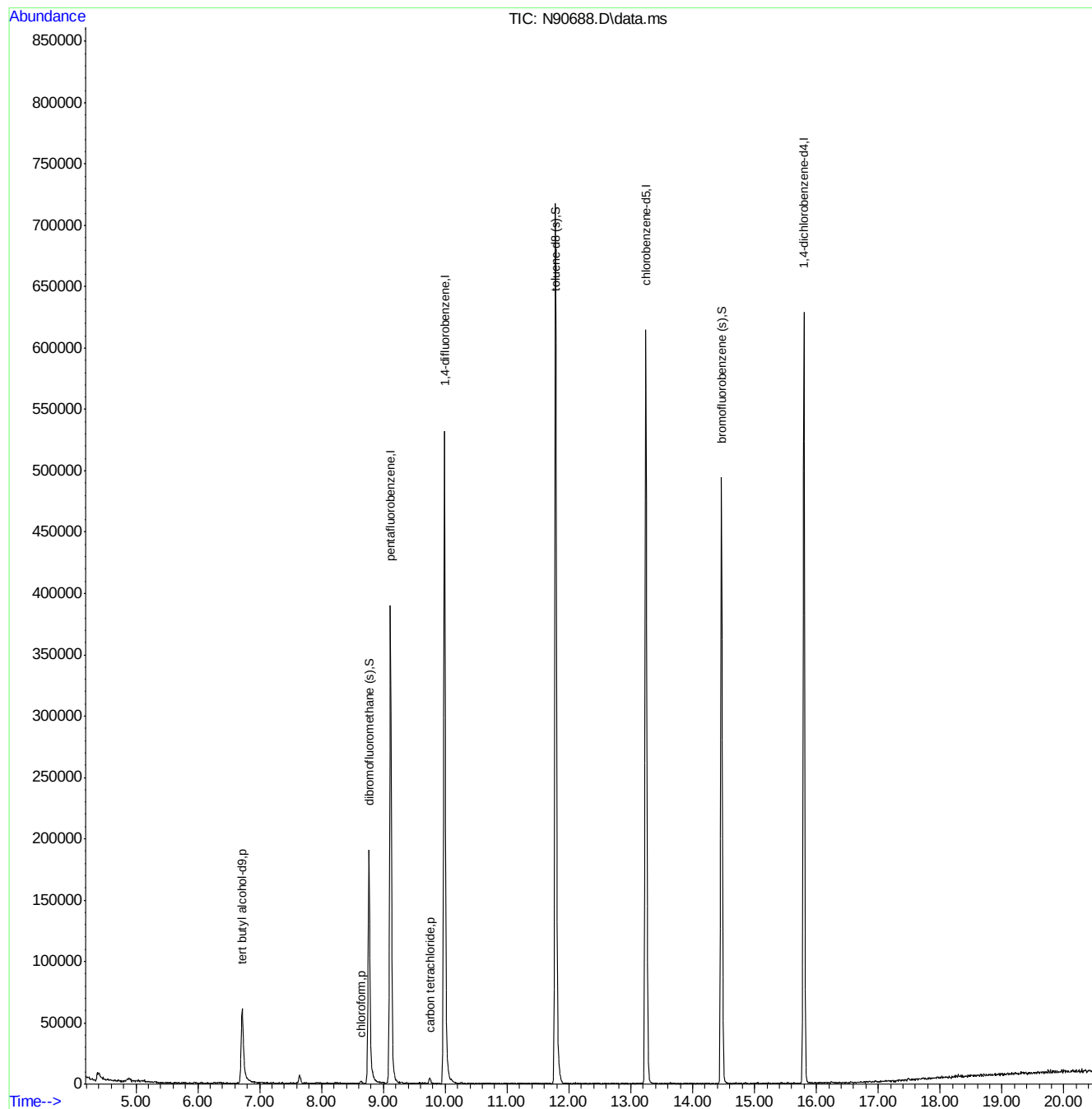
7.1.2

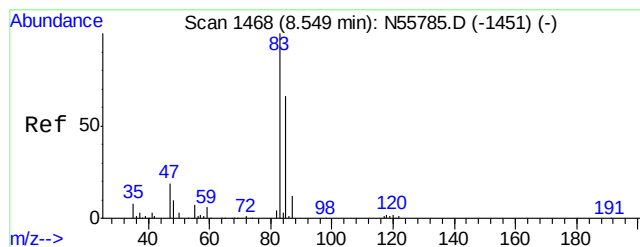
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90688.D
Acq On : 29 Sep 2014 11:43 am
Operator : jaclynb
Sample : mc33777-2
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

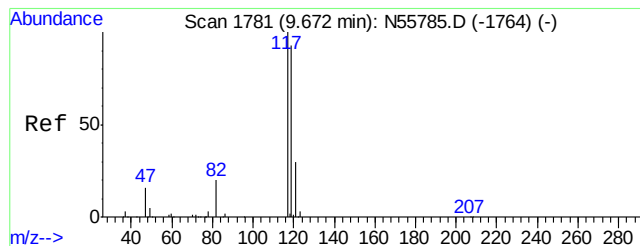
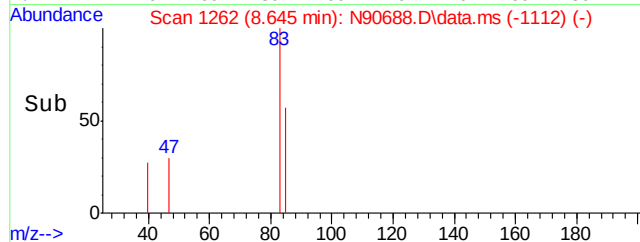
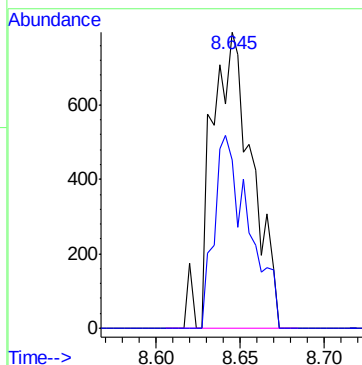
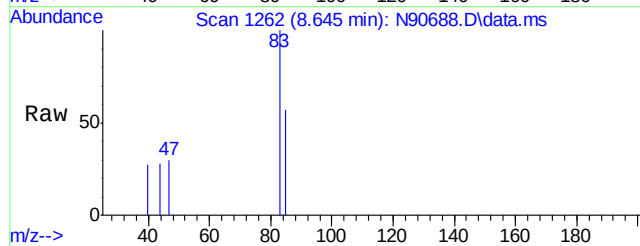
Quant Time: Sep 29 12:10:41 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





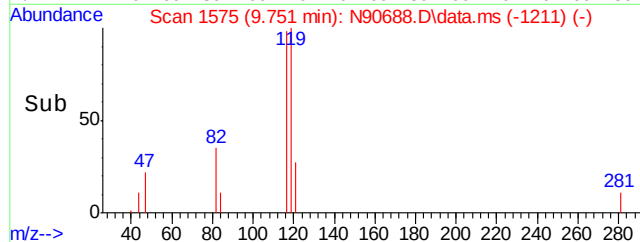
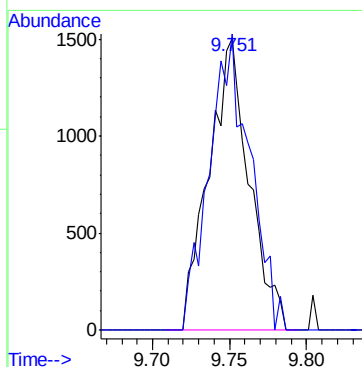
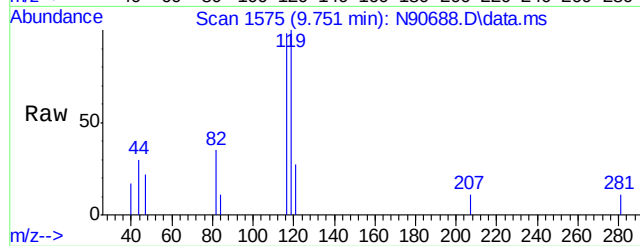
#39
chloroform
Concen: 0.22 ug/L
RT: 8.645 min Scan# 1262
Delta R.T. -0.000 min
Lab File: N90688.D
Acq: 29 Sep 2014 11:43 am

Tgt Ion	Ratio	Lower	Upper
83	100		
85	56.7	35.4	95.4



#45
carbon tetrachloride
Concen: 0.66 ug/L
RT: 9.751 min Scan# 1575
Delta R.T. -0.004 min
Lab File: N90688.D
Acq: 29 Sep 2014 11:43 am

Tgt Ion	Ratio	Lower	Upper
117	100		
119	101.7	65.9	125.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90689.D
 Acq On : 29 Sep 2014 12:12 pm
 Operator : jaclynb
 Sample : mc33777-3
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 29 12:39:55 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	125067	500.00	ug/L	0.02
4) pentafluorobenzene	9.119	168	273652	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	428674	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	222753	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162983	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.772	113	137020	48.80	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.60%		
60) toluene-d8 (s)	11.784	98	518375	50.42	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.84%		
82) bromofluorobenzene (s)	14.464	95	200369	50.42	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.84%		
Target Compounds						
39) chloroform	8.645	83	1321	0.22	ug/L	84
51) trichloroethene	10.402	95	1345	0.37	ug/L #	67

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

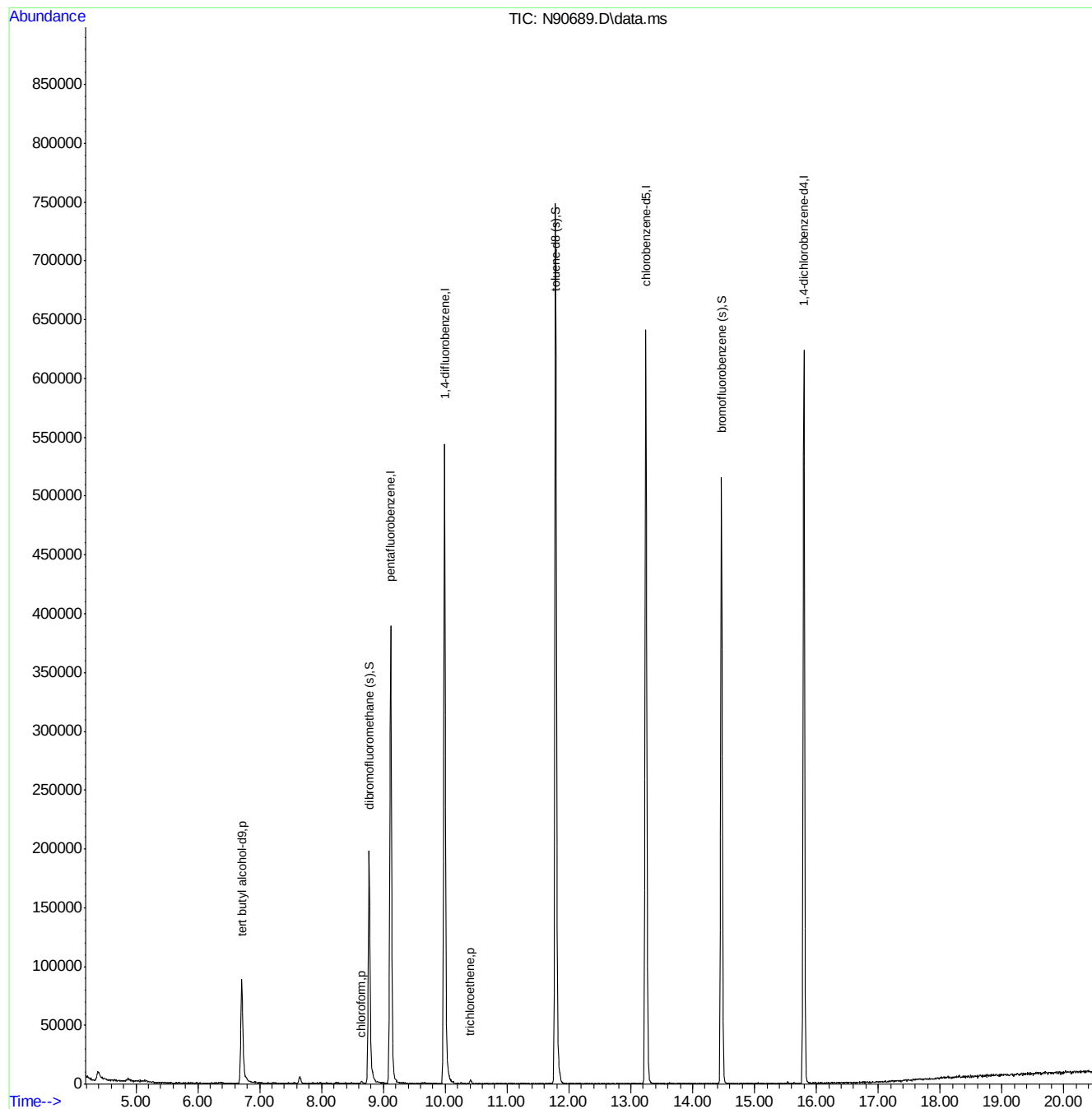
7.1.3

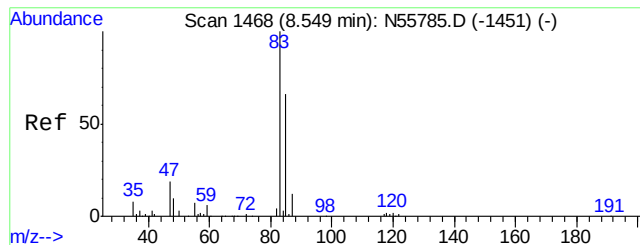
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90689.D
Acq On : 29 Sep 2014 12:12 pm
Operator : jaclynb
Sample : mc33777-3
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

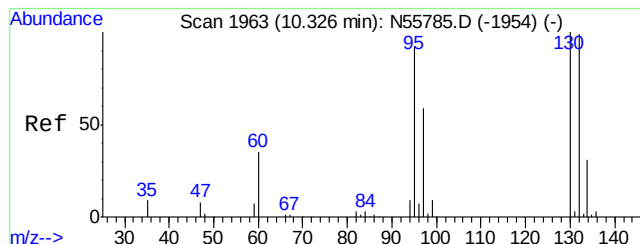
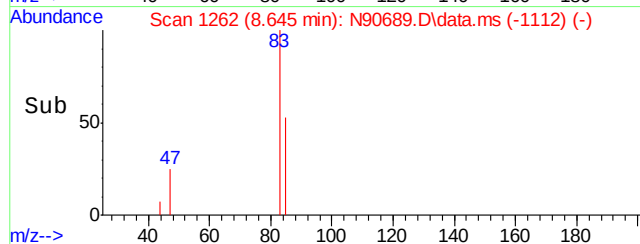
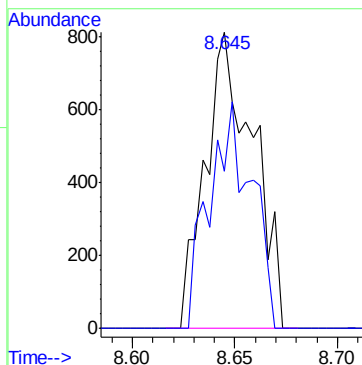
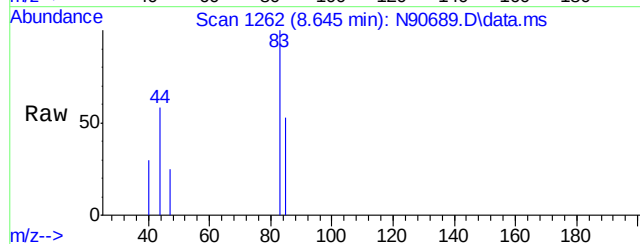
Quant Time: Sep 29 12:39:55 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





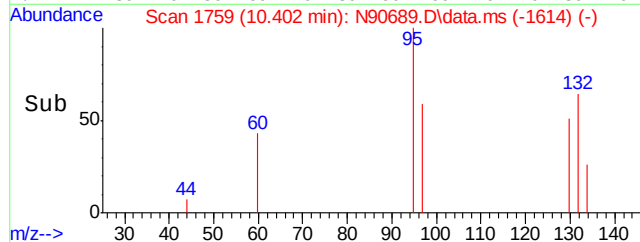
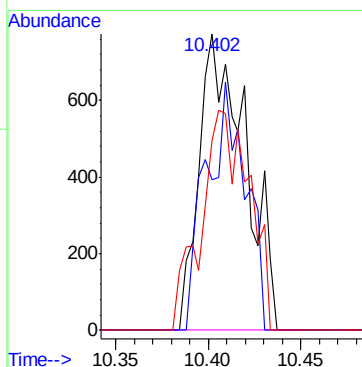
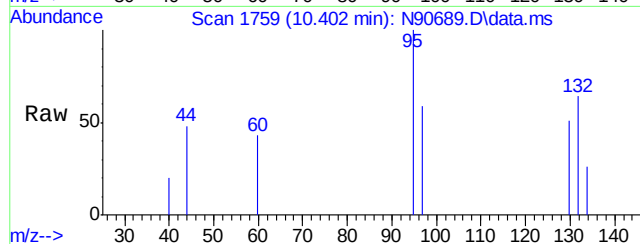
#39
chloroform
Concen: 0.22 ug/L
RT: 8.645 min Scan# 1262
Delta R.T. -0.000 min
Lab File: N90689.D
Acq: 29 Sep 2014 12:12 pm

Tgt Ion: 83 Resp: 1321
Ion Ratio Lower Upper
83 100
85 53.1 35.4 95.4



#51
trichloroethene
Concen: 0.37 ug/L
RT: 10.402 min Scan# 1759
Delta R.T. -0.007 min
Lab File: N90689.D
Acq: 29 Sep 2014 12:12 pm

Tgt Ion: 95 Resp: 1345
Ion Ratio Lower Upper
95 100
130 50.9 59.1 119.1#
132 64.1 56.3 116.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90690.D
 Acq On : 29 Sep 2014 12:40 pm
 Operator : jaclynb
 Sample : mc33777-4
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 29 15:28:54 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

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

Internal Standards						
1) tert butyl alcohol-d9	6.715	65	98029	500.00	ug/L	0.02
4) pentafluorobenzene	9.118	168	270309	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	416095	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	212255	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	156141	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	133675	48.20	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	96.40%		
60) toluene-d8 (s)	11.784	98	502502	50.35	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.70%		
82) bromofluorobenzene (s)	14.464	95	191019	50.18	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.36%		
Target Compounds						
7) vinyl chloride	4.897	62	5387	0.75	ug/L	84
36) cis-1,2-dichloroethene	8.454	96	2472	0.80	ug/L	90

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

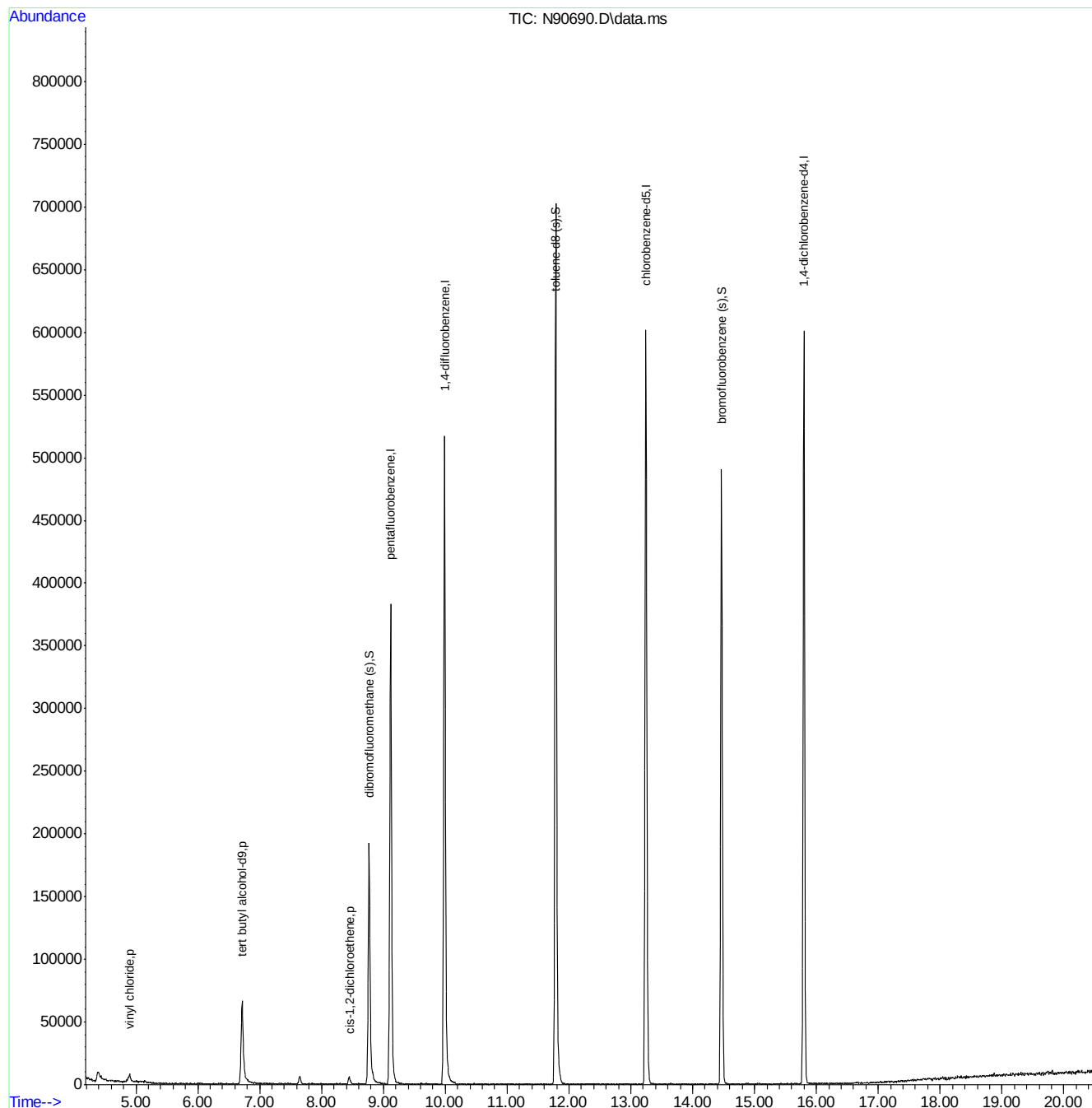
7.1.4

7

(QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90690.D
Acq On : 29 Sep 2014 12:40 pm
Operator : jaclynb
Sample : mc33777-4
Misc : ms32835,MSN3355,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 29 15:28:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

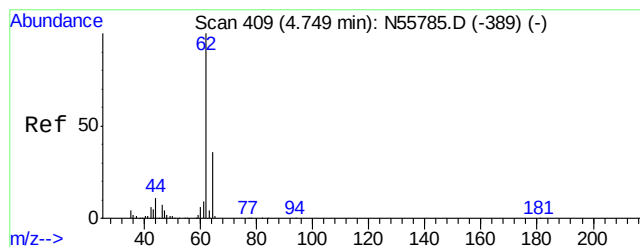


n140918w.m Mon Sep 29 15:29:00 2014

Page: 2

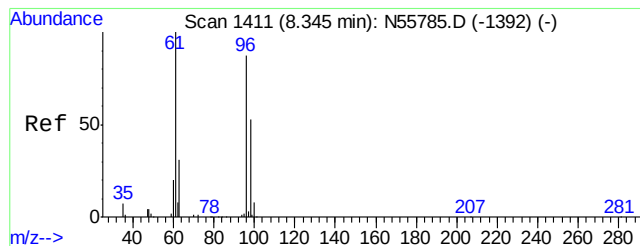
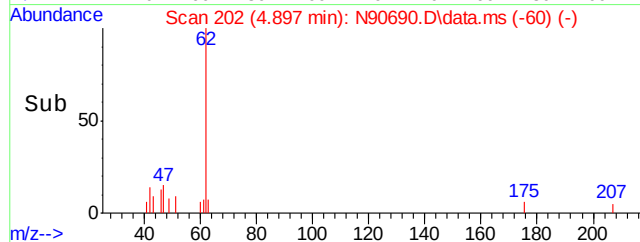
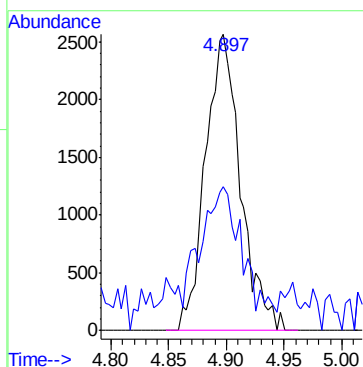
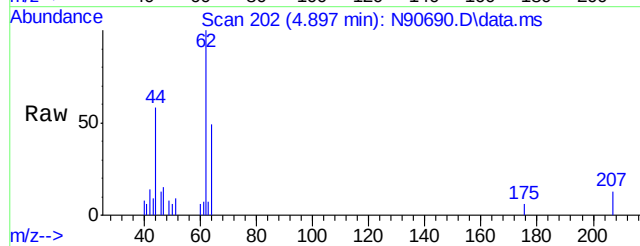
7.1.4





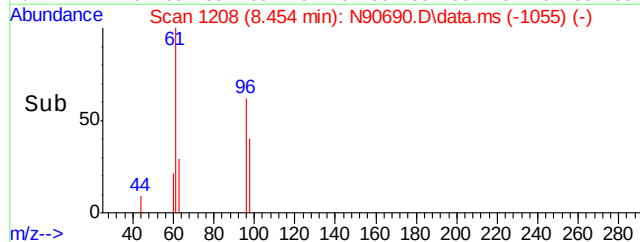
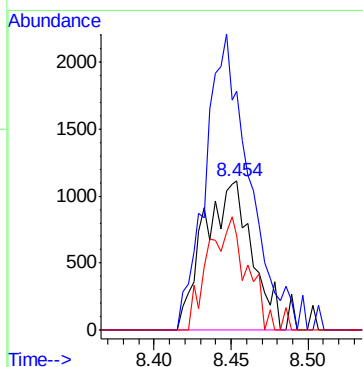
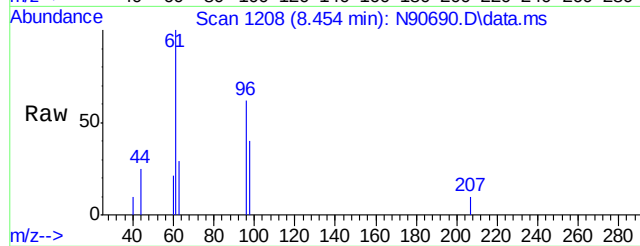
#7
vinyl chloride
Concen: 0.75 ug/L
RT: 4.897 min Scan# 202
Delta R.T. 0.003 min
Lab File: N90690.D
Acq: 29 Sep 2014 12:40 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	40.0	1.0	61.0



#36
cis-1,2-dichloroethene
Concen: 0.80 ug/L
RT: 8.454 min Scan# 1208
Delta R.T. 0.011 min
Lab File: N90690.D
Acq: 29 Sep 2014 12:40 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	160.3	148.4	208.4
98	63.5	32.3	92.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90691.D
 Acq On : 29 Sep 2014 1:08 pm
 Operator : jaclynb
 Sample : mc33777-5
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 29 15:29:11 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.718	65	103680	500.00	ug/L	0.03
4) pentafluorobenzene	9.115	168	265318	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	414408	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	212852	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.800	152	153000	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	131649	48.36	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	96.72%		
60) toluene-d8 (s)	11.784	98	503826	50.69	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	101.38%		
82) bromofluorobenzene (s)	14.464	95	187260	50.20	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.40%		
Target Compounds						
7) vinyl chloride	4.894	62	1296	Below Cal	#	27
36) cis-1,2-dichloroethene	8.454	96	1893	0.62 ug/L	#	49

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

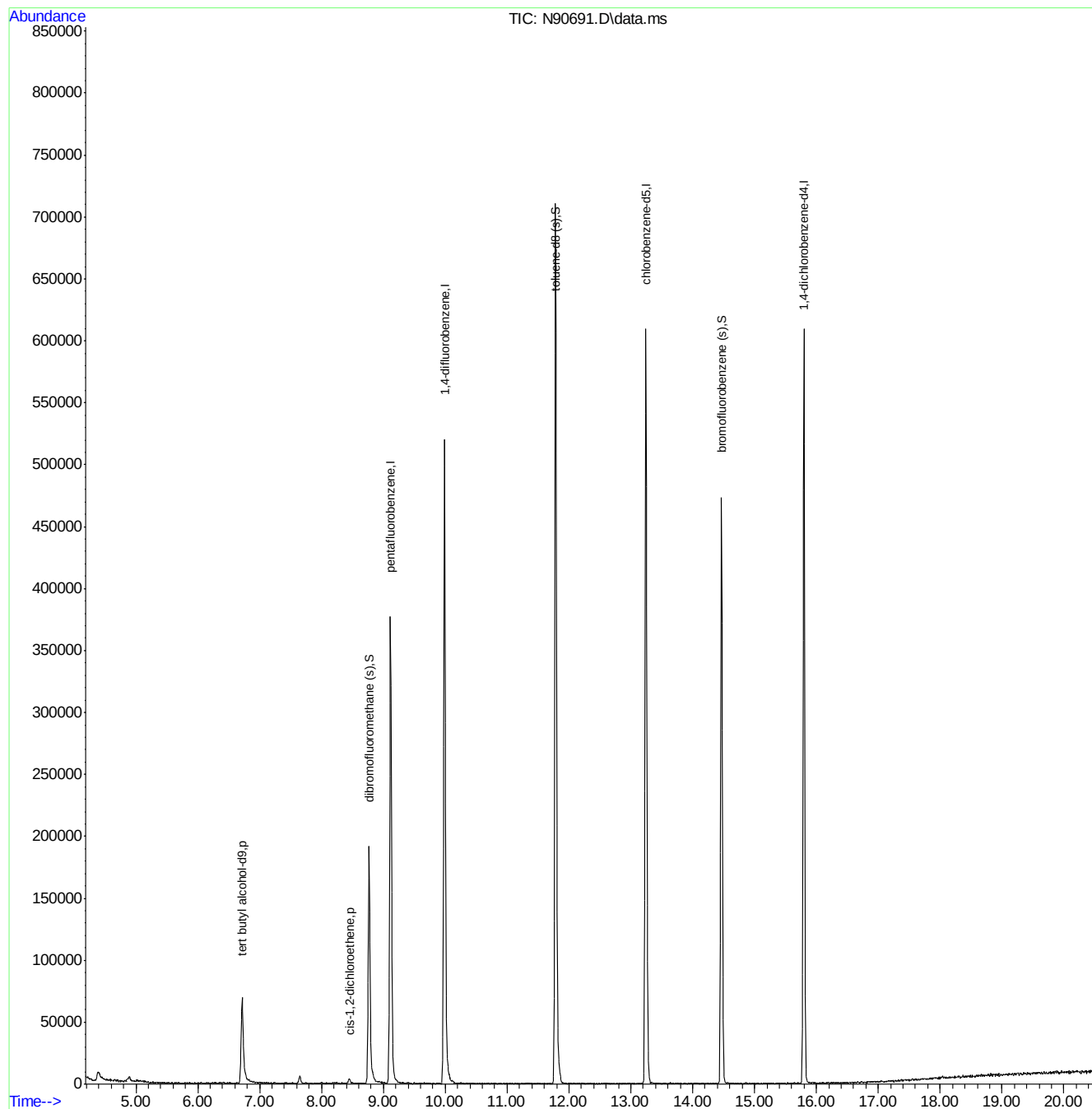
7.1.5

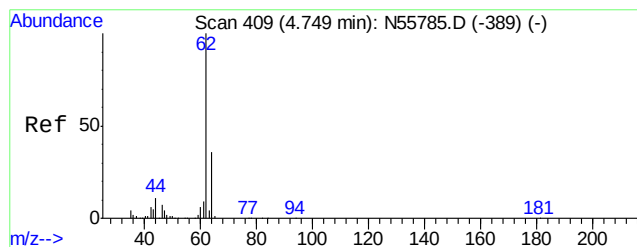
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90691.D
Acq On : 29 Sep 2014 1:08 pm
Operator : jaclynb
Sample : mc33777-5
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

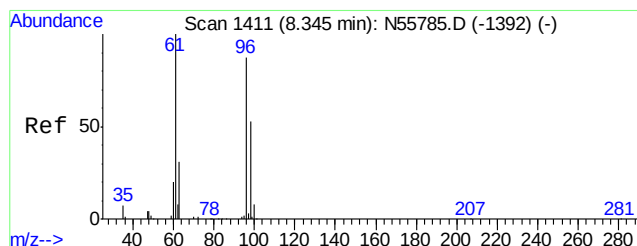
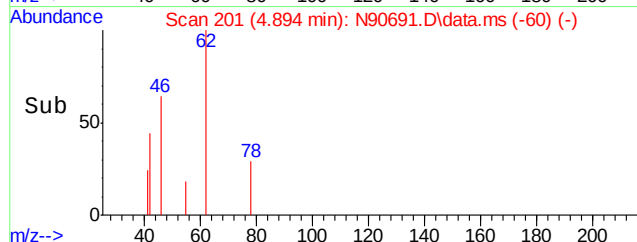
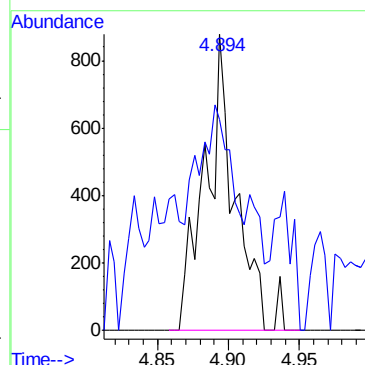
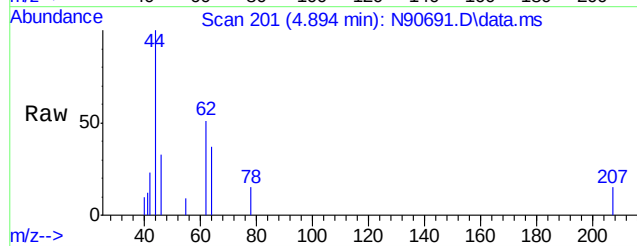
Quant Time: Sep 29 15:29:11 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





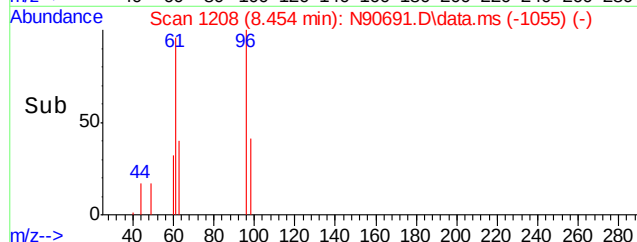
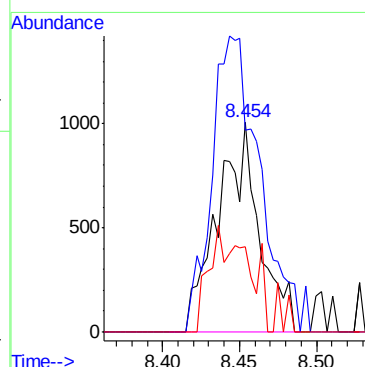
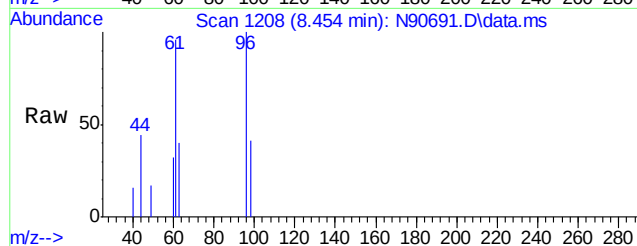
#7
vinyl chloride
Concen: Below Cal
RT: 4.894 min Scan# 201
Delta R.T. -0.000 min
Lab File: N90691.D
Acq: 29 Sep 2014 1:08 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	71.3	1.0	61.0#



#36
cis-1,2-dichloroethene
Concen: 0.62 ug/L
RT: 8.454 min Scan# 1208
Delta R.T. 0.011 min
Lab File: N90691.D
Acq: 29 Sep 2014 1:08 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	96.0	148.4	208.4#
98	40.7	32.3	92.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90692.D
 Acq On : 29 Sep 2014 1:37 pm
 Operator : jaclynb
 Sample : mc33777-6
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 29 15:30:18 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

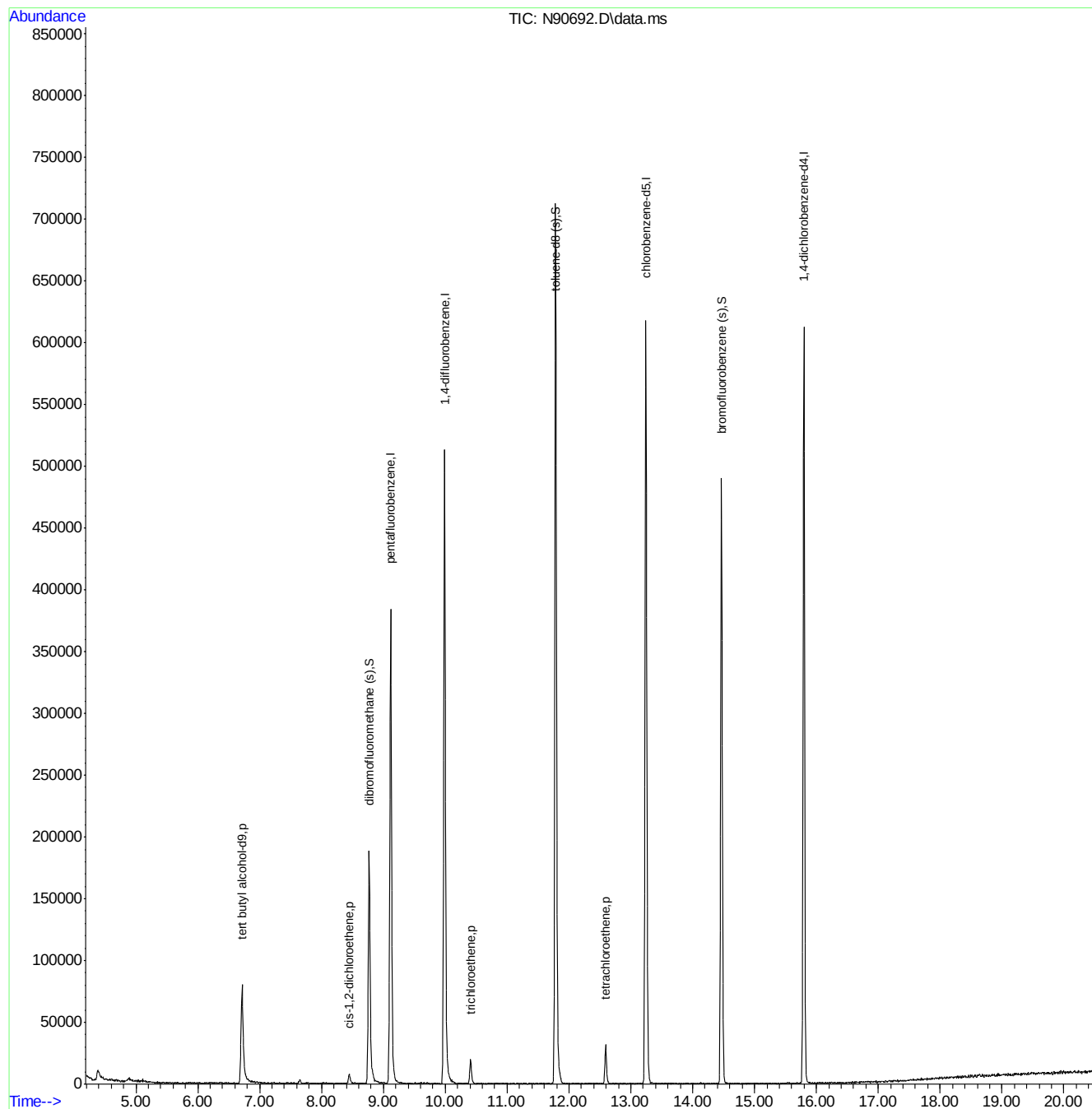
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	118335	500.00	ug/L	0.02
4) pentafluorobenzene	9.119	168	265378	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	411474	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	214192	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	157249	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	133143	48.90	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.80%		
60) toluene-d8 (s)	11.784	98	495656	50.22	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.44%		
82) bromofluorobenzene (s)	14.464	95	191679	49.99	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	99.98%		
Target Compounds						
36) cis-1,2-dichloroethene	8.450	96	3576	1.18	ug/L	Qvalue # 76
51) trichloroethene	10.409	95	7584	2.15	ug/L	96
67) tetrachloroethene	12.594	166	9328	3.34	ug/L	96

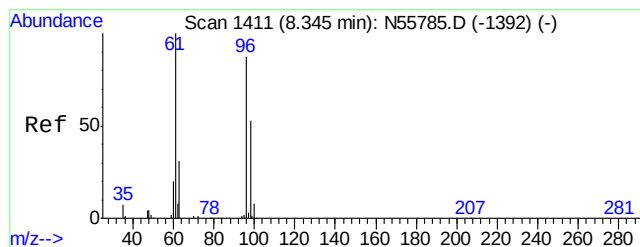
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90692.D
Acq On : 29 Sep 2014 1:37 pm
Operator : jaclynb
Sample : mc33777-6
Misc : ms32835,MSN3355,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 29 15:30:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





#36

cis-1,2-dichloroethene

Concen: 1.18 ug/L

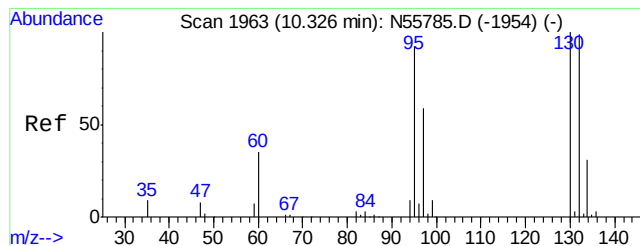
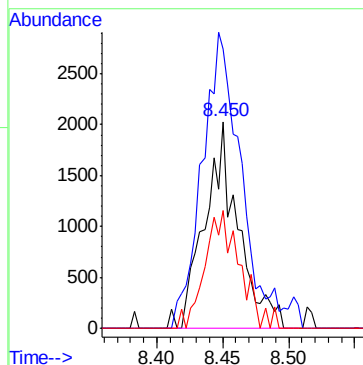
RT: 8.450 min Scan# 1207

Delta R.T. 0.007 min

Lab File: N90692.D

Acq: 29 Sep 2014 1:37 pm

Tgt Ion:	96	Resp:	3576
Ion Ratio	Lower	Upper	
96	100		
61	135.3	148.4	208.4#
98	57.1	32.3	92.3



#51

trichloroethene

Concen: 2.15 ug/L

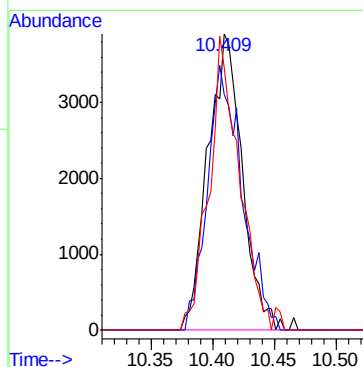
RT: 10.409 min Scan# 1761

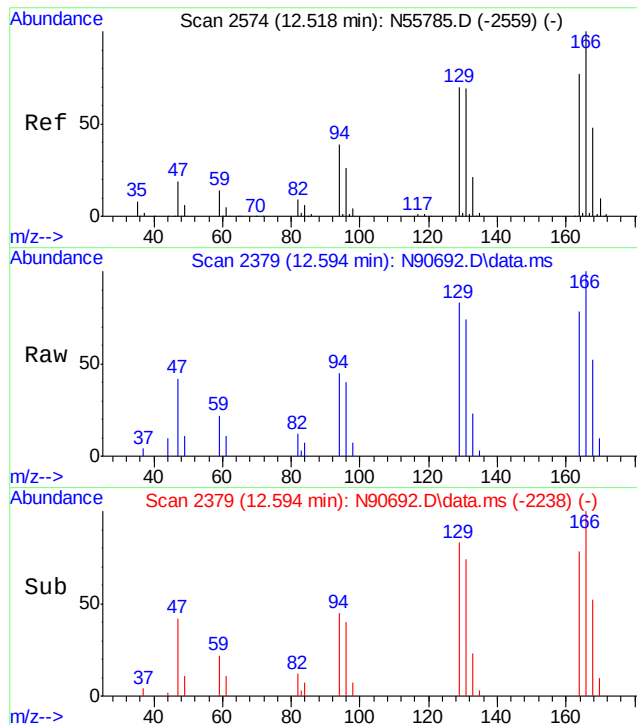
Delta R.T. -0.000 min

Lab File: N90692.D

Acq: 29 Sep 2014 1:37 pm

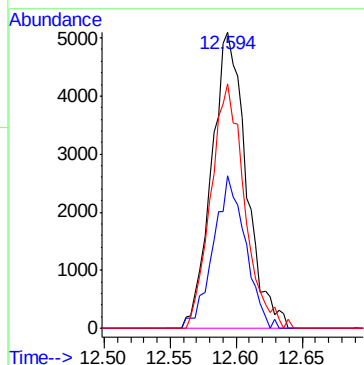
Tgt Ion:	95	Resp:	7584
Ion Ratio	Lower	Upper	
95	100		
130	83.7	59.1	119.1
132	88.6	56.3	116.3





#67
 tetrachloroethene
 Concen: 3.34 ug/L
 RT: 12.594 min Scan# 2379
 Delta R.T. -0.000 min
 Lab File: N90692.D
 Acq: 29 Sep 2014 1:37 pm

Tgt Ion:	166	Resp:	9328
Ion Ratio	Lower	Upper	
166	100		
168	51.6	18.0	78.0
129	82.8	50.2	110.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90693.D
 Acq On : 29 Sep 2014 2:05 pm
 Operator : jaclynb
 Sample : mc33777-7
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 29 15:30:39 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.714	65	91288	500.00	ug/L	# 0.02
4) pentafluorobenzene	9.118	168	257597	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	399280	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	205812	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.796	152	151141	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	130125	49.24	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	98.48%		
60) toluene-d8 (s)	11.784	98	483051	50.44	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.88%		
82) bromofluorobenzene (s)	14.467	95	185811	50.42	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.84%		

Target Compounds Qvalue

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

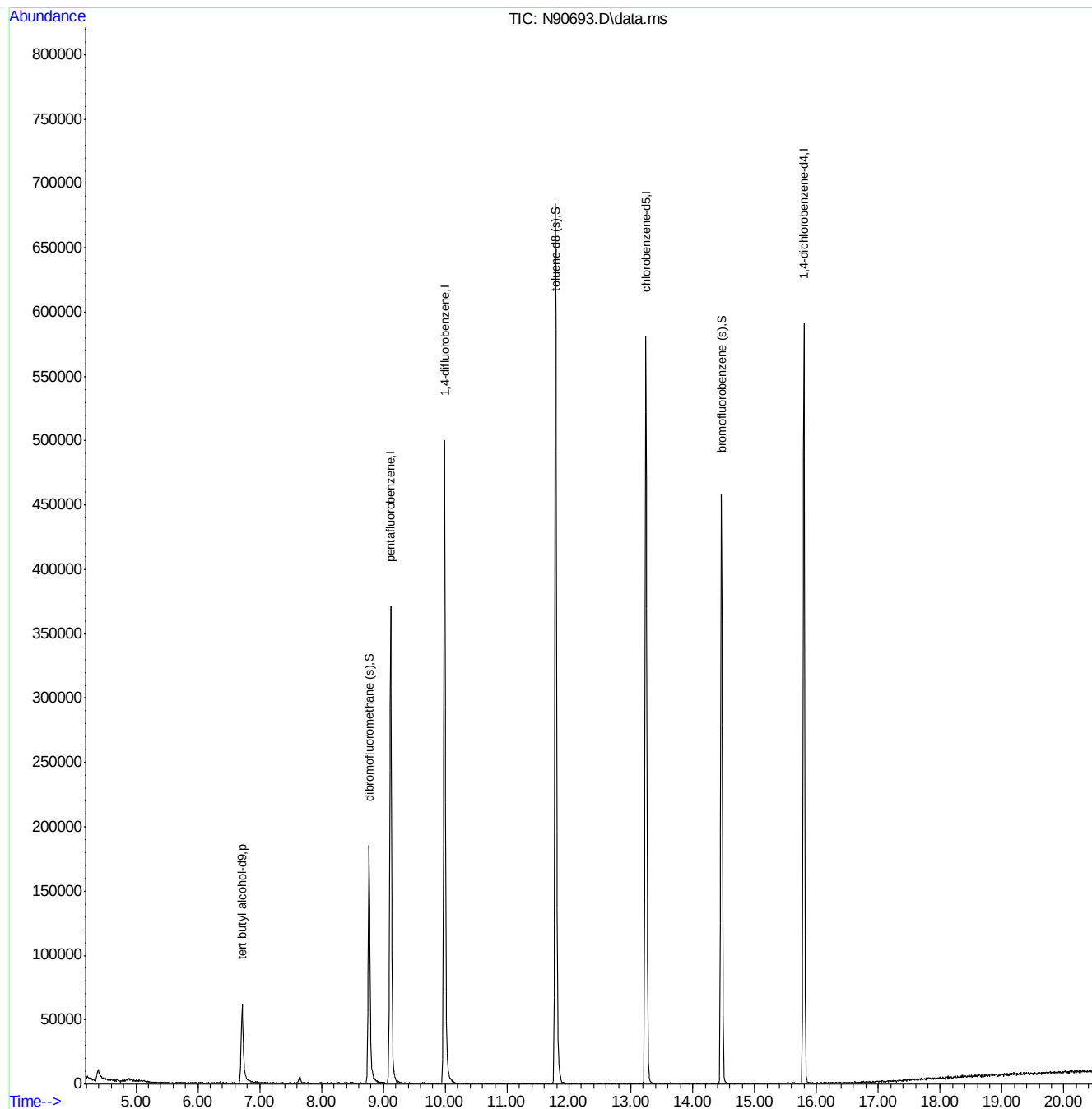
7.1.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90693.D
Acq On : 29 Sep 2014 2:05 pm
Operator : jaclynb
Sample : mc33777-7
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 29 15:30:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90694.D
 Acq On : 29 Sep 2014 2:33 pm
 Operator : jaclynb
 Sample : mc33777-8
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 29 15:30:55 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

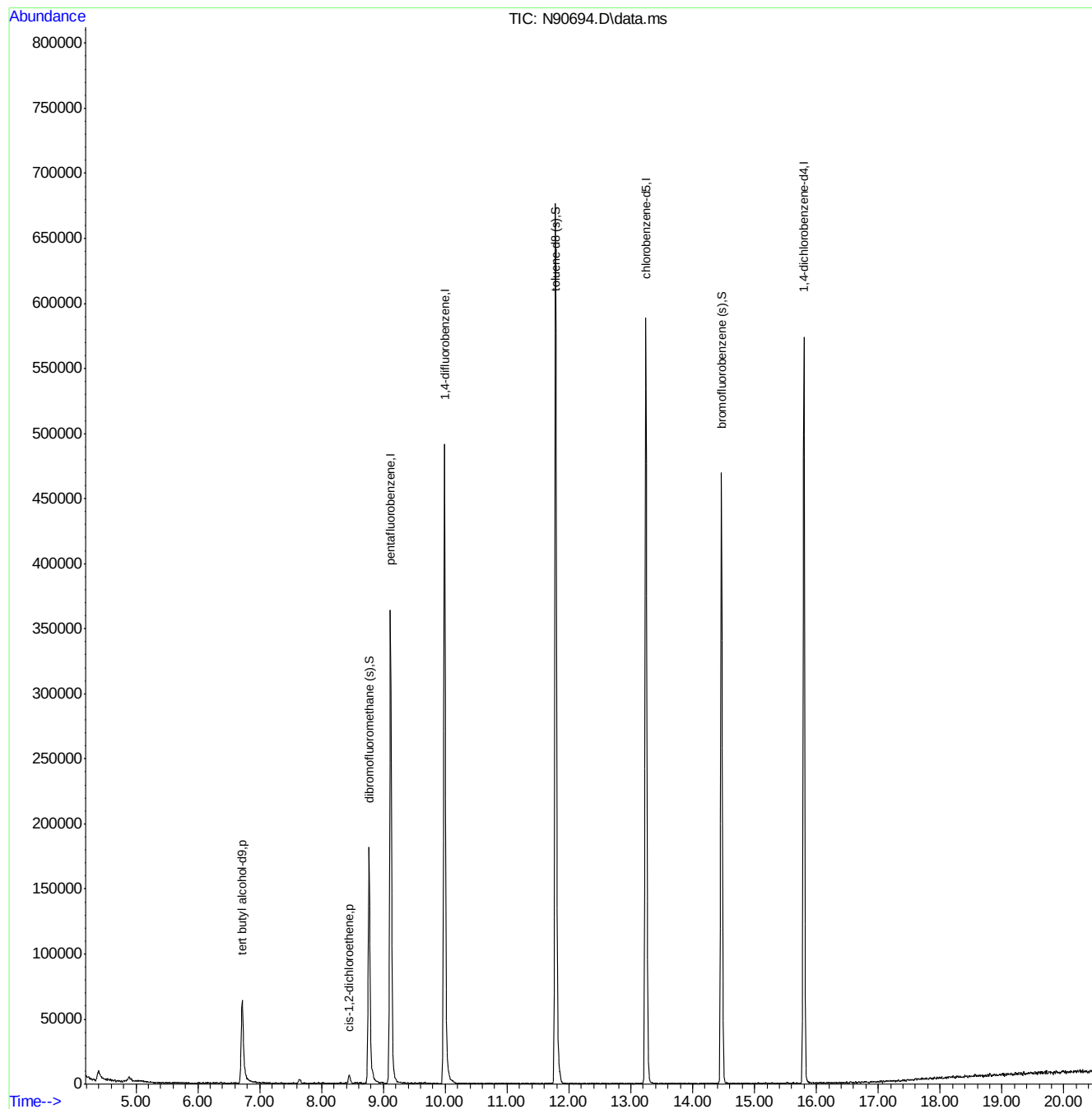
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.722	65	99461	500.00	ug/L	# 0.03
4) pentafluorobenzene	9.115	168	258408	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	402704	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	206154	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	151033	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	128441	48.45	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	96.90%		
60) toluene-d8 (s)	11.784	98	484130	50.12	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.24%		
82) bromofluorobenzene (s)	14.464	95	183687	49.88	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	99.76%		
Target Compounds						
7) vinyl chloride	4.894	62	1372	Below Cal		Qvalue 60
36) cis-1,2-dichloroethene	8.443	96	3260	1.10 ug/L		86

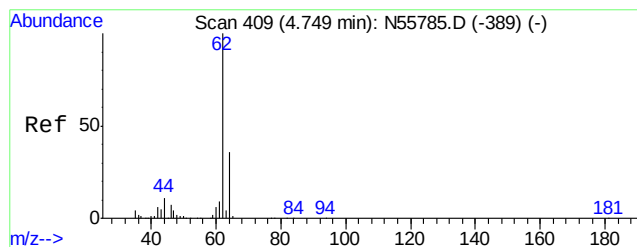
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90694.D
Acq On : 29 Sep 2014 2:33 pm
Operator : jaclynb
Sample : mc33777-8
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

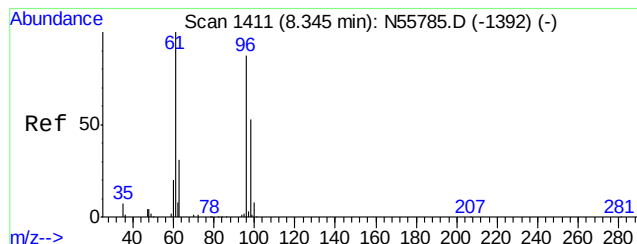
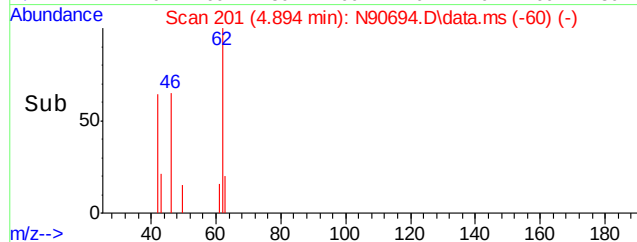
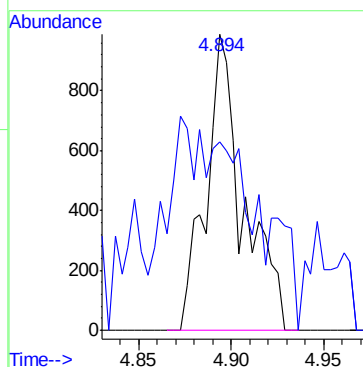
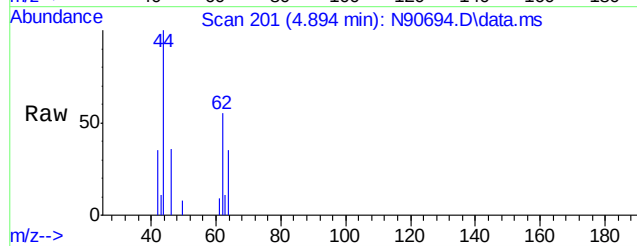
Quant Time: Sep 29 15:30:55 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





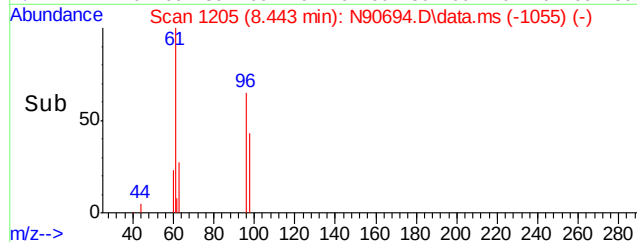
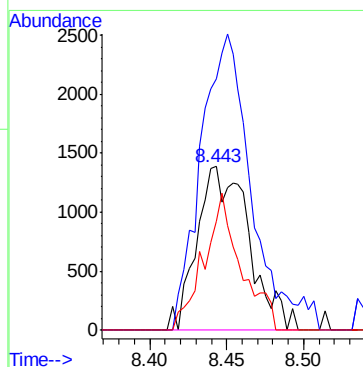
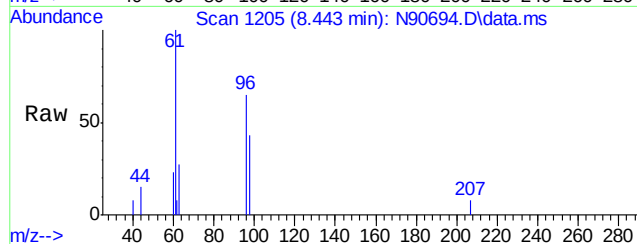
#7
vinyl chloride
Concen: Below Cal
RT: 4.894 min Scan# 201
Delta R.T. -0.000 min
Lab File: N90694.D
Acq: 29 Sep 2014 2:33 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	53.1	1.0	61.0



#36
cis-1,2-dichloroethene
Concen: 1.10 ug/L
RT: 8.443 min Scan# 1205
Delta R.T. 0.000 min
Lab File: N90694.D
Acq: 29 Sep 2014 2:33 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	153.7	148.4	208.4
98	66.5	32.3	92.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90695.D
 Acq On : 29 Sep 2014 3:01 pm
 Operator : jaclynb
 Sample : mc33777-9
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 29 15:31:14 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.714	65	102954	500.00	ug/L	# 0.02
4) pentafluorobenzene	9.118	168	256852	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	396822	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	208189	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	149254	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	127757	48.48	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	96.96%		
60) toluene-d8 (s)	11.784	98	488384	51.31	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	102.62%		
82) bromofluorobenzene (s)	14.467	95	186062	51.13	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	102.26%		
Target Compounds						Qvalue
32) 1,1-dichloroethane	7.878	63	3848	0.61	ug/L	90
36) cis-1,2-dichloroethene	8.447	96	6447	2.20	ug/L	95
42) 1,1,1-trichloroethane	9.391	97	1779	0.41	ug/L	86
51) trichloroethene	10.409	95	14418	4.24	ug/L	90

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

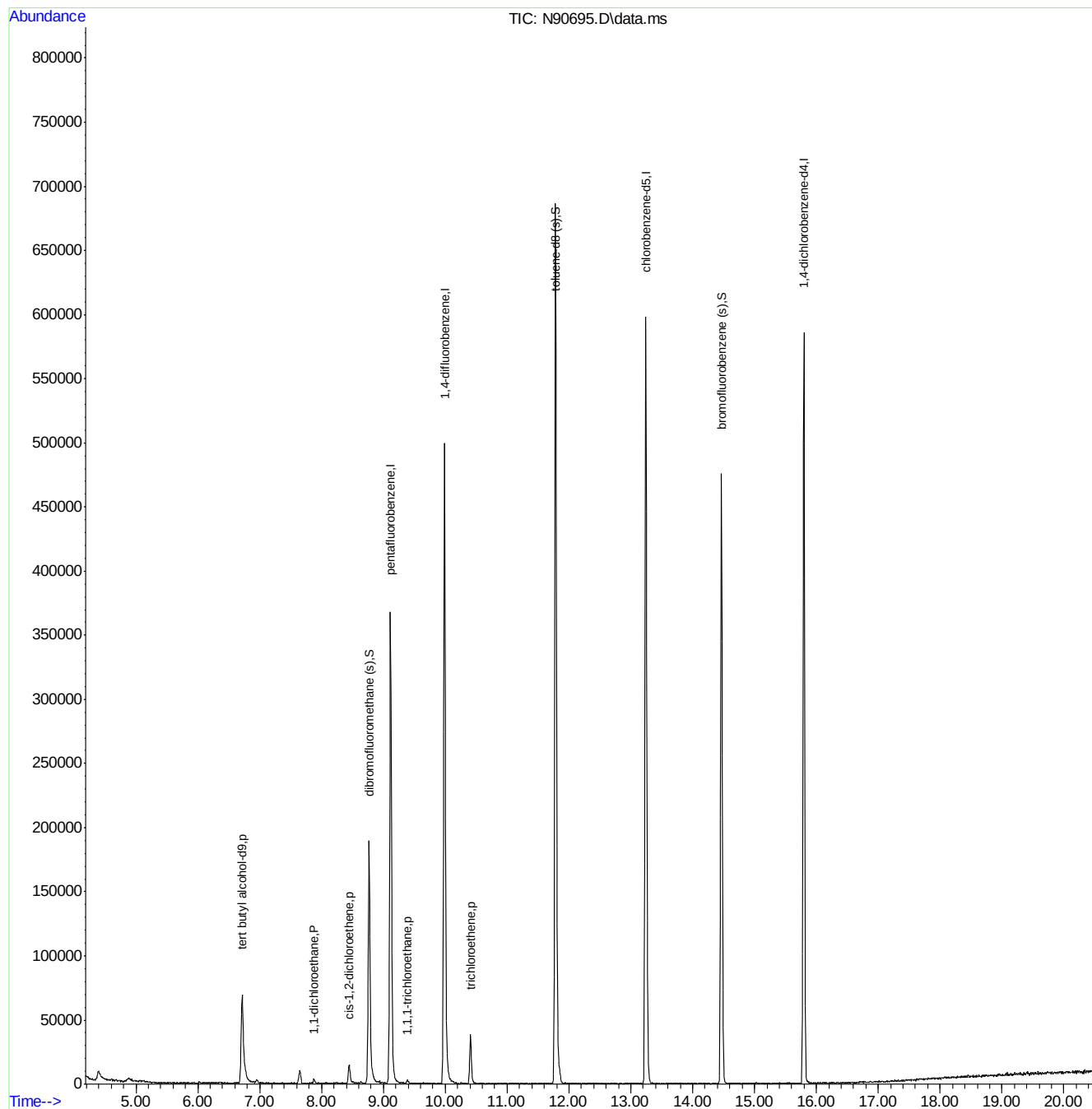
7.1.9

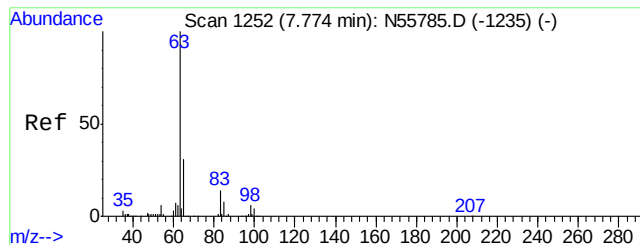
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90695.D
Acq On : 29 Sep 2014 3:01 pm
Operator : jaclynb
Sample : mc33777-9
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

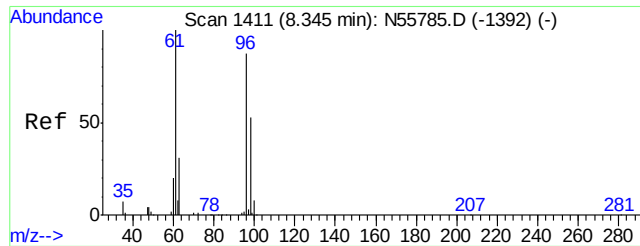
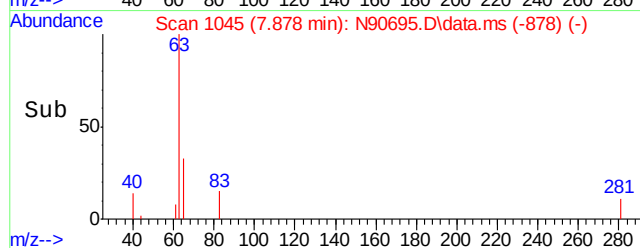
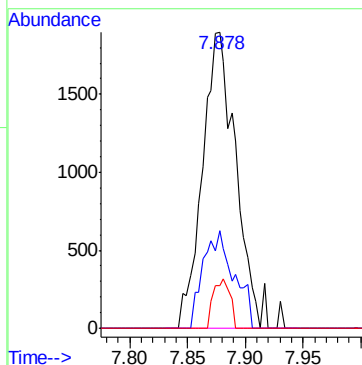
Quant Time: Sep 29 15:31:14 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





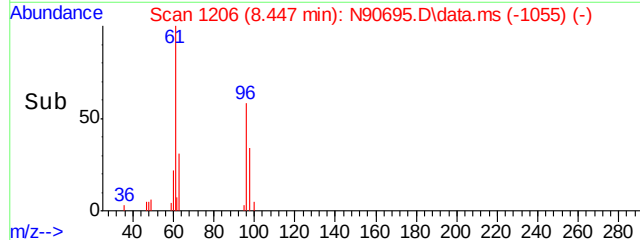
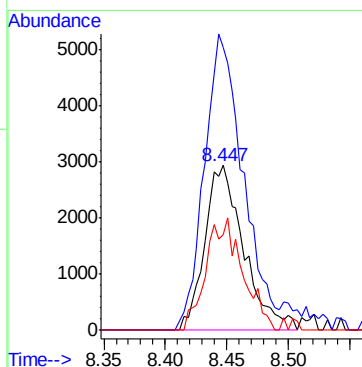
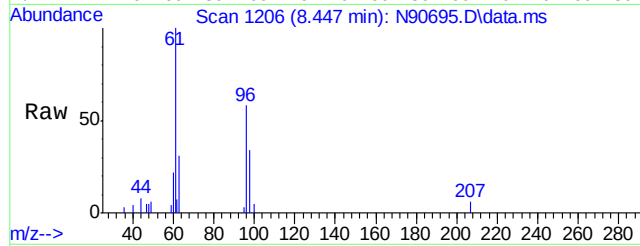
#32
1,1-dichloroethane
Concen: 0.61 ug/L
RT: 7.878 min Scan# 1045
Delta R.T. -0.000 min
Lab File: N90695.D
Acq: 29 Sep 2014 3:01 pm

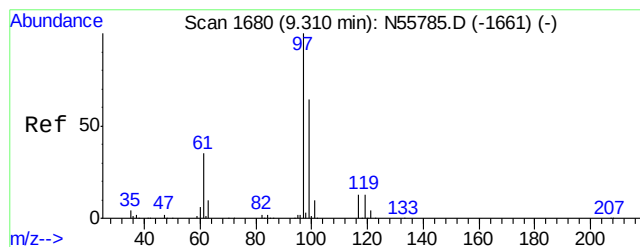
Tgt Ion:	63	Resp:	3848
Ion Ratio	Lower	Upper	
63	100		
65	33.1	0.0	58.3
83	14.5	0.0	39.9



#36
cis-1,2-dichloroethene
Concen: 2.20 ug/L
RT: 8.447 min Scan# 1206
Delta R.T. 0.004 min
Lab File: N90695.D
Acq: 29 Sep 2014 3:01 pm

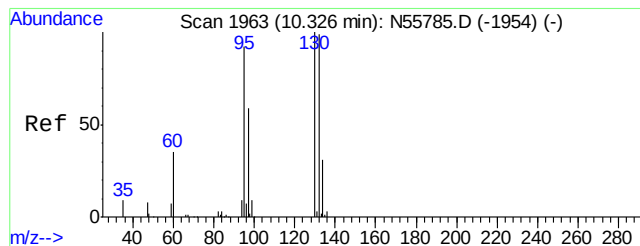
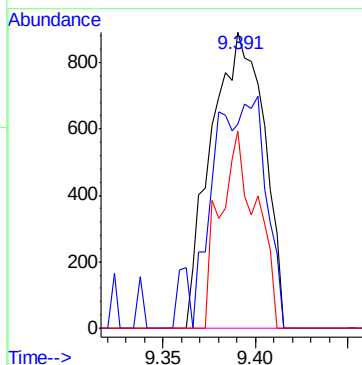
Tgt Ion:	96	Resp:	6447
Ion Ratio	Lower	Upper	
96	100		
61	171.9	148.4	208.4
98	57.9	32.3	92.3





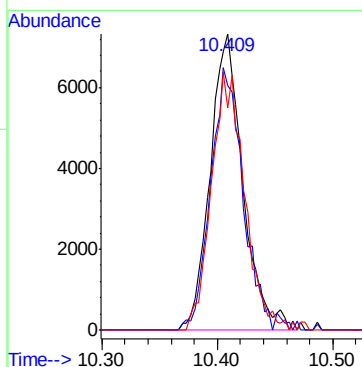
#42
1,1,1-trichloroethane
Concen: 0.41 ug/L
RT: 9.391 min Scan# 1473
Delta R.T. -0.003 min
Lab File: N90695.D
Acq: 29 Sep 2014 3:01 pm

Tgt Ion:	97	Resp:	1779
Ion Ratio	Lower	Upper	
97	100		
99	68.9	34.7	94.7
61	66.8	19.0	79.0



#51
trichloroethene
Concen: 4.24 ug/L
RT: 10.409 min Scan# 1761
Delta R.T. -0.000 min
Lab File: N90695.D
Acq: 29 Sep 2014 3:01 pm

Tgt Ion:	95	Resp:	14418
Ion Ratio	Lower	Upper	
95	100		
130	82.7	59.1	119.1
132	75.0	56.3	116.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90696.D
 Acq On : 29 Sep 2014 3:30 pm
 Operator : jaclynb
 Sample : mc33777-10
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 29 16:40:49 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

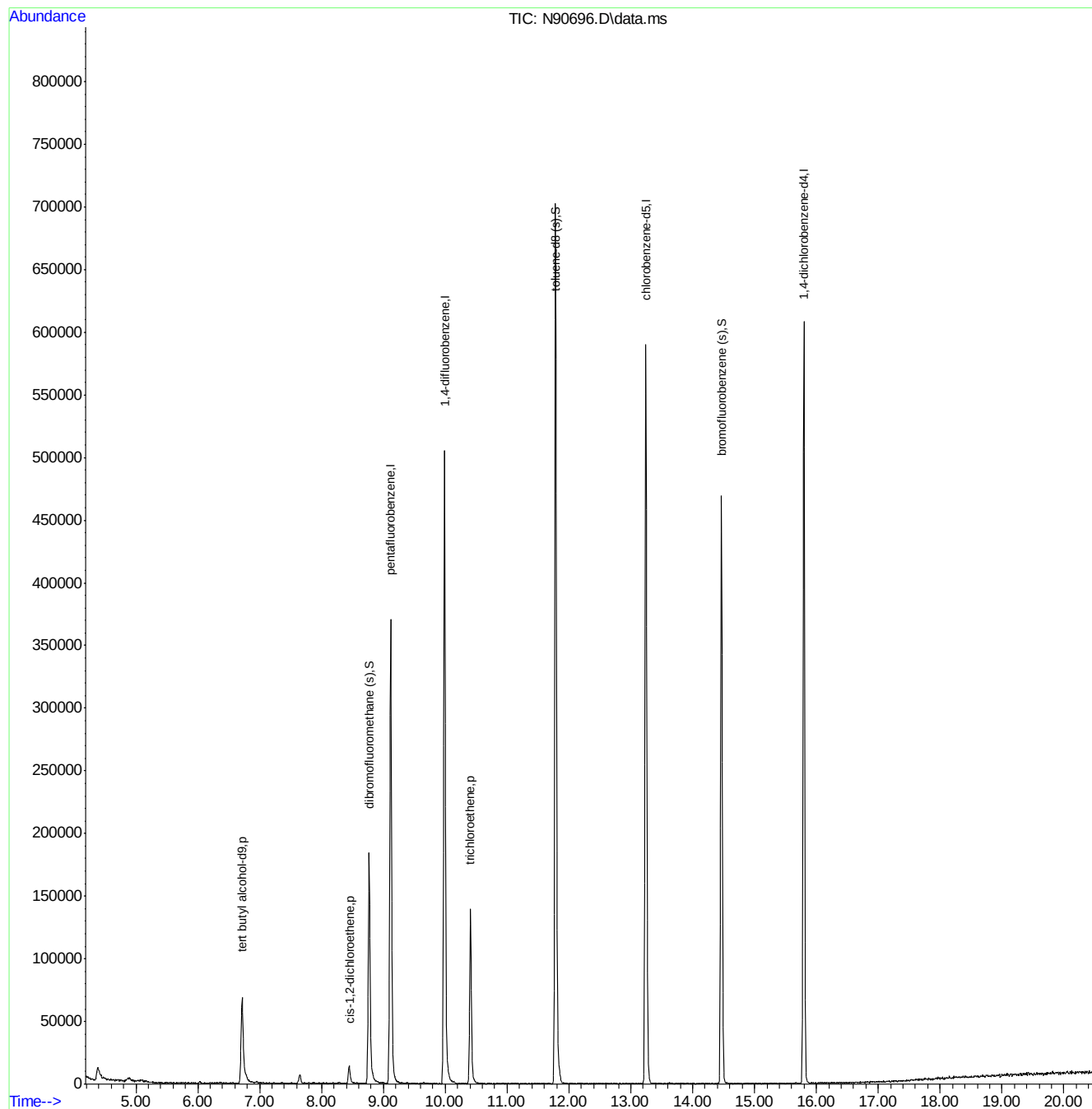
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	101312	500.00	ug/L	# 0.02
4) pentafluorobenzene	9.119	168	258425	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	402663	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	208512	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.800	152	154944	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	129006	48.66	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.32%		
60) toluene-d8 (s)	11.784	98	493616	51.11	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	102.22%		
82) bromofluorobenzene (s)	14.467	95	185035	48.98	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.96%		
Target Compounds						
7) vinyl chloride	4.901	62	1018	Below Cal		Qvalue 67
15) 1,1-dichloroethene	6.778	96	1055	Below Cal	#	61
36) cis-1,2-dichloroethene	8.454	96	6115	2.07	ug/L	# 78
51) trichloroethene	10.405	95	52322	15.18	ug/L	96

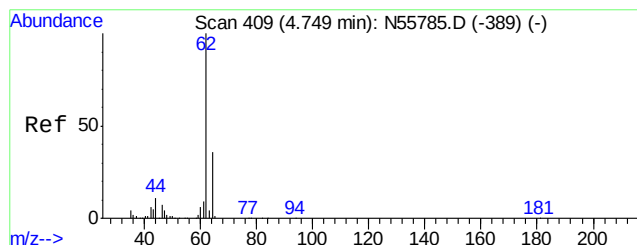
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90696.D
Acq On : 29 Sep 2014 3:30 pm
Operator : jaclynb
Sample : mc33777-10
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 31 Sample Multiplier: 1

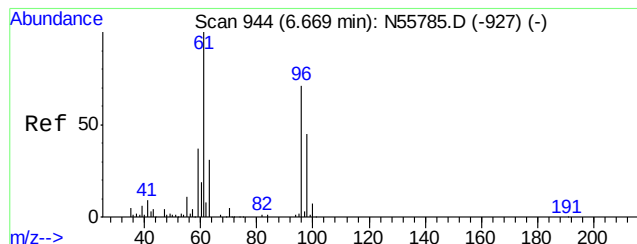
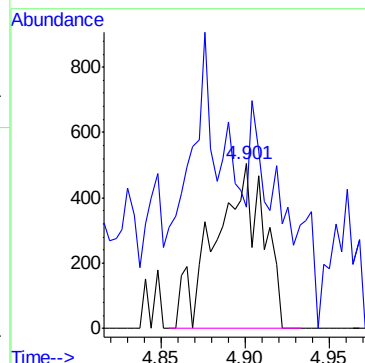
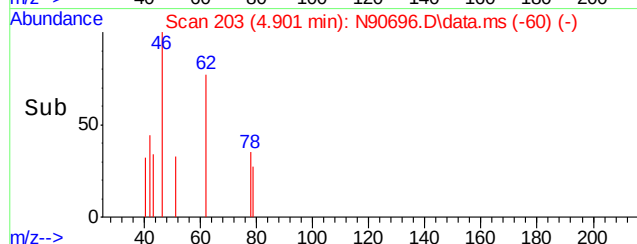
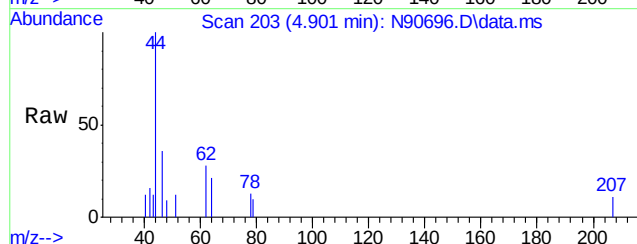
Quant Time: Sep 29 16:40:49 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





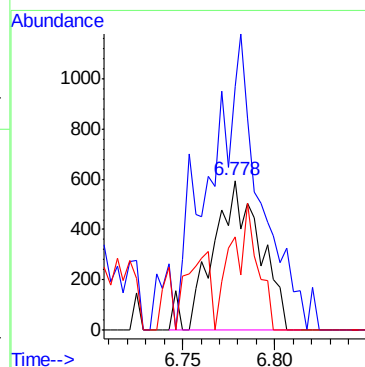
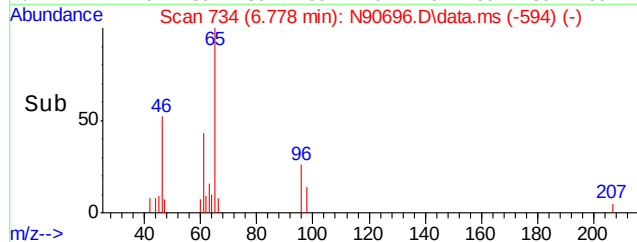
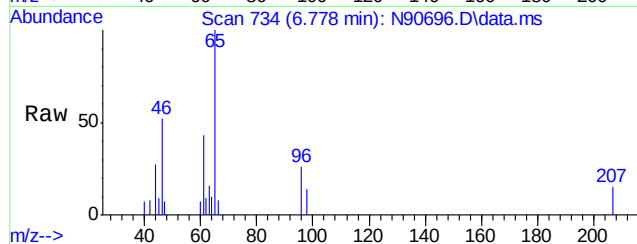
#7
vinyl chloride
Concen: Below Cal
RT: 4.901 min Scan# 203
Delta R.T. 0.007 min
Lab File: N90696.D
Acq: 29 Sep 2014 3:30 pm

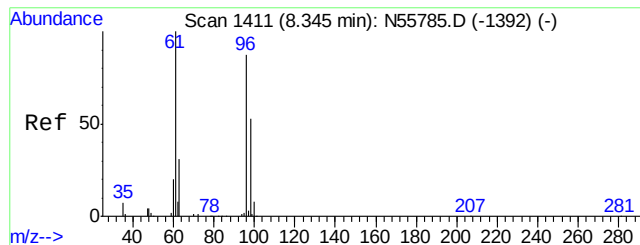
Tgt Ion: 62 Resp: 1018
Ion Ratio Lower Upper
62 100
64 12.7 1.0 61.0



#15
1,1-dichloroethene
Concen: Below Cal
RT: 6.778 min Scan# 734
Delta R.T. -0.007 min
Lab File: N90696.D
Acq: 29 Sep 2014 3:30 pm

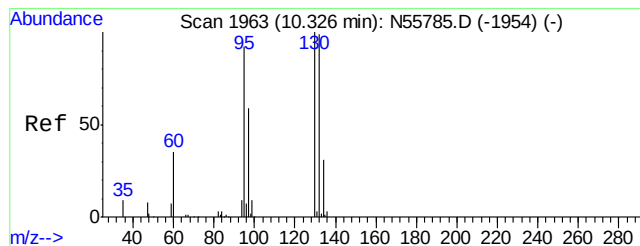
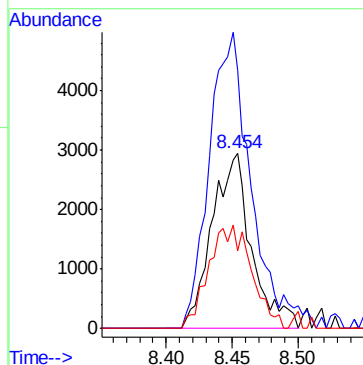
Tgt Ion: 96 Resp: 1055
Ion Ratio Lower Upper
96 100
61 136.5 186.8 246.8#
63 62.5 34.9 94.9





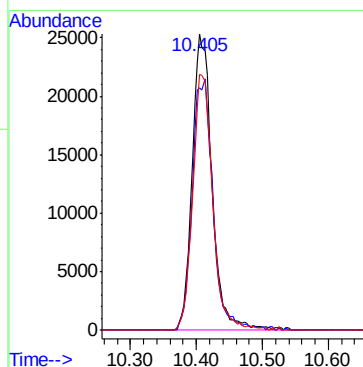
#36
cis-1,2-dichloroethene
Concen: 2.07 ug/L
RT: 8.454 min Scan# 1208
Delta R.T. 0.011 min
Lab File: N90696.D
Acq: 29 Sep 2014 3:30 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	147.1	148.4	208.4#
98	44.3	32.3	92.3



#51
trichloroethene
Concen: 15.18 ug/L
RT: 10.405 min Scan# 1760
Delta R.T. -0.004 min
Lab File: N90696.D
Acq: 29 Sep 2014 3:30 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	82.0	59.1	119.1
132	86.4	56.3	116.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90697.D
 Acq On : 29 Sep 2014 3:58 pm
 Operator : jaclynb
 Sample : mc33777-11
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 29 16:41:09 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.718	65	116272	500.00	ug/L	0.03
4) pentafluorobenzene	9.119	168	255274	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	399475	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	209711	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	152614	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	130839	49.96	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	99.92%		
60) toluene-d8 (s)	11.784	98	484434	50.56	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	101.12%		
82) bromofluorobenzene (s)	14.464	95	186225	50.05	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.10%		
Target Compounds						
36) cis-1,2-dichloroethene	8.443	96	2581	0.88	ug/L #	77
51) trichloroethene	10.413	95	1159	0.34	ug/L #	73

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

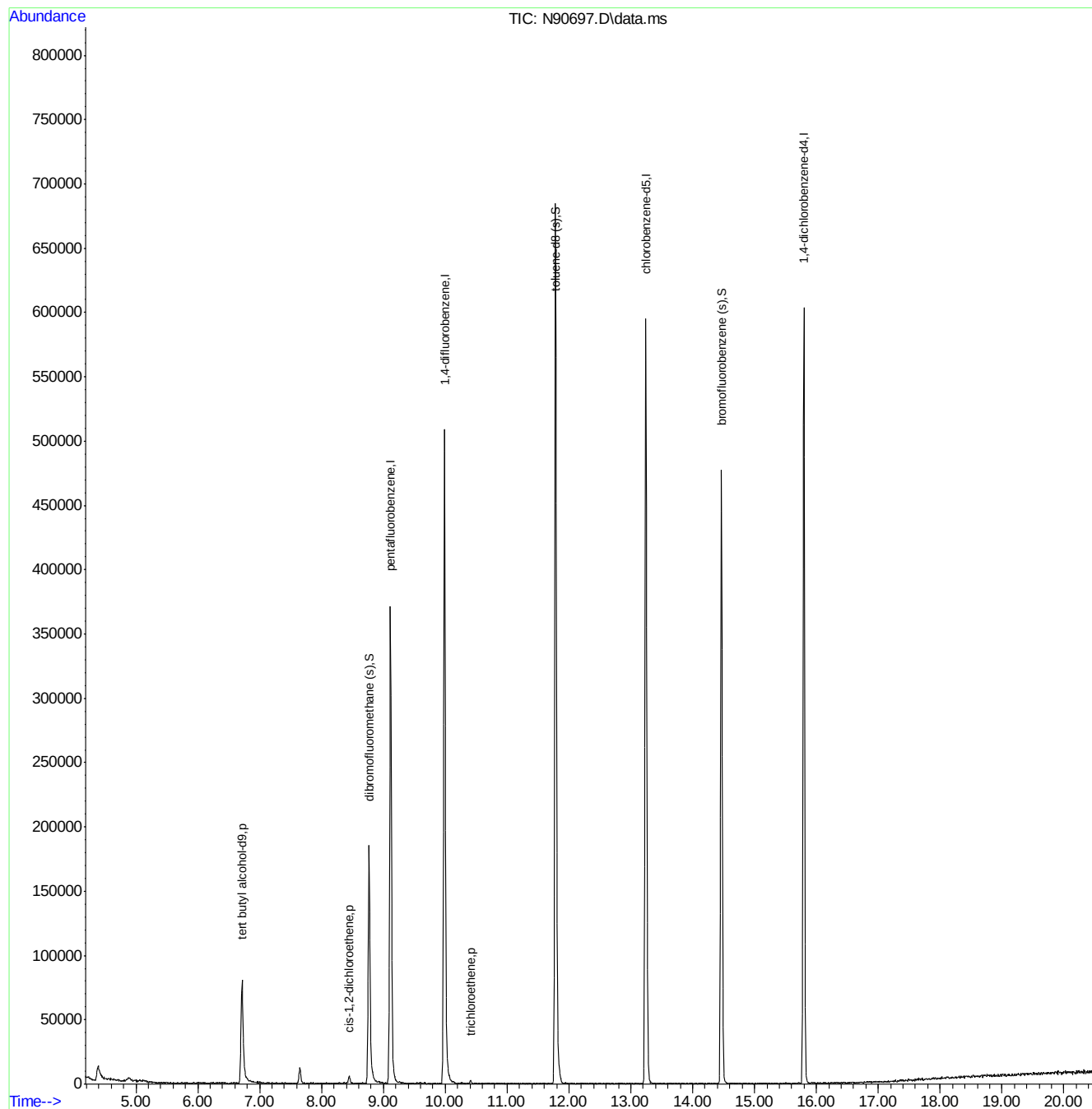
7.1.11

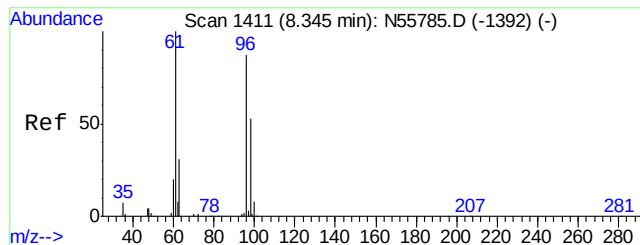
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90697.D
Acq On : 29 Sep 2014 3:58 pm
Operator : jaclynb
Sample : mc33777-11
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

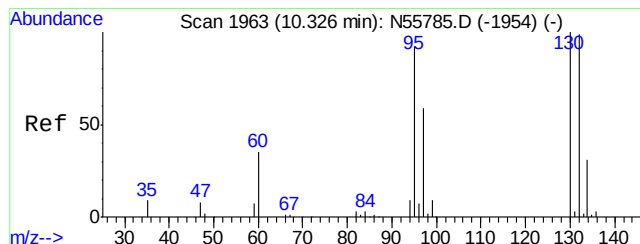
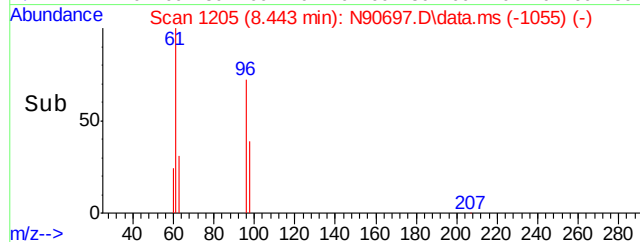
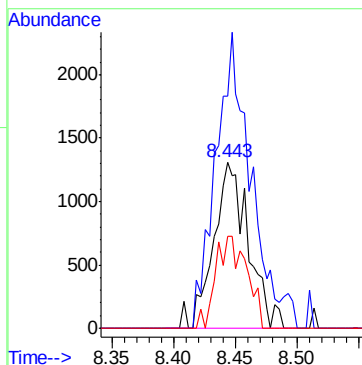
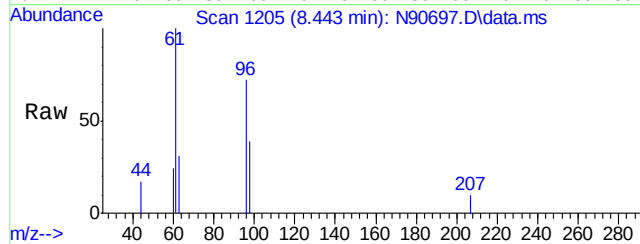
Quant Time: Sep 29 16:41:09 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





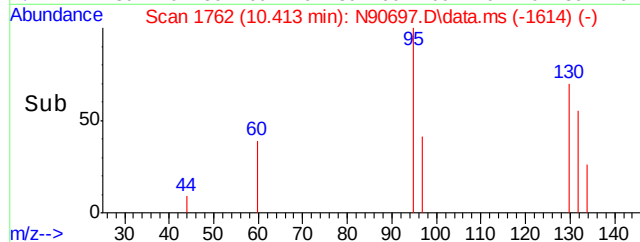
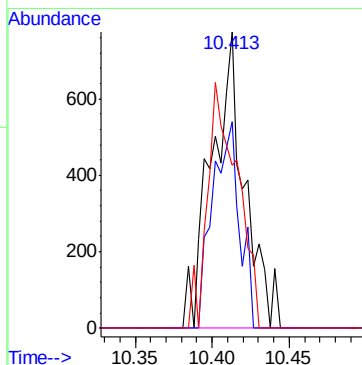
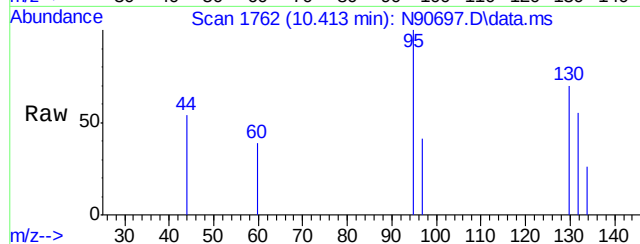
#36
cis-1,2-dichloroethene
Concen: 0.88 ug/L
RT: 8.443 min Scan# 1205
Delta R.T. 0.000 min
Lab File: N90697.D
Acq: 29 Sep 2014 3:58 pm

Tgt Ion:	96	Resp:	2581
Ion Ratio	Lower	Upper	
96	100		
61	139.7	148.4	208.4#
98	55.1	32.3	92.3



#51
trichloroethene
Concen: 0.34 ug/L
RT: 10.413 min Scan# 1762
Delta R.T. 0.004 min
Lab File: N90697.D
Acq: 29 Sep 2014 3:58 pm

Tgt Ion:	95	Resp:	1159
Ion Ratio	Lower	Upper	
95	100		
130	69.8	59.1	119.1
132	54.8	56.3	116.3#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90698.D
 Acq On : 29 Sep 2014 4:26 pm
 Operator : jaclynb
 Sample : mc33777-12
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 07:45:45 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

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

Internal Standards						
1) tert butyl alcohol-d9	6.704	65	104333	500.00	ug/L	# 0.01
4) pentafluorobenzene	9.112	168	255759	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.985	114	397688	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	205119	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.800	152	154455	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	128688	49.04	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	98.08%		
60) toluene-d8 (s)	11.781	98	481683	50.50	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	101.00%		
82) bromofluorobenzene (s)	14.464	95	185079	49.15	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	98.30%		
Target Compounds						
36) cis-1,2-dichloroethene	8.440	96	5735	1.96	ug/L	Qvalue 92

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

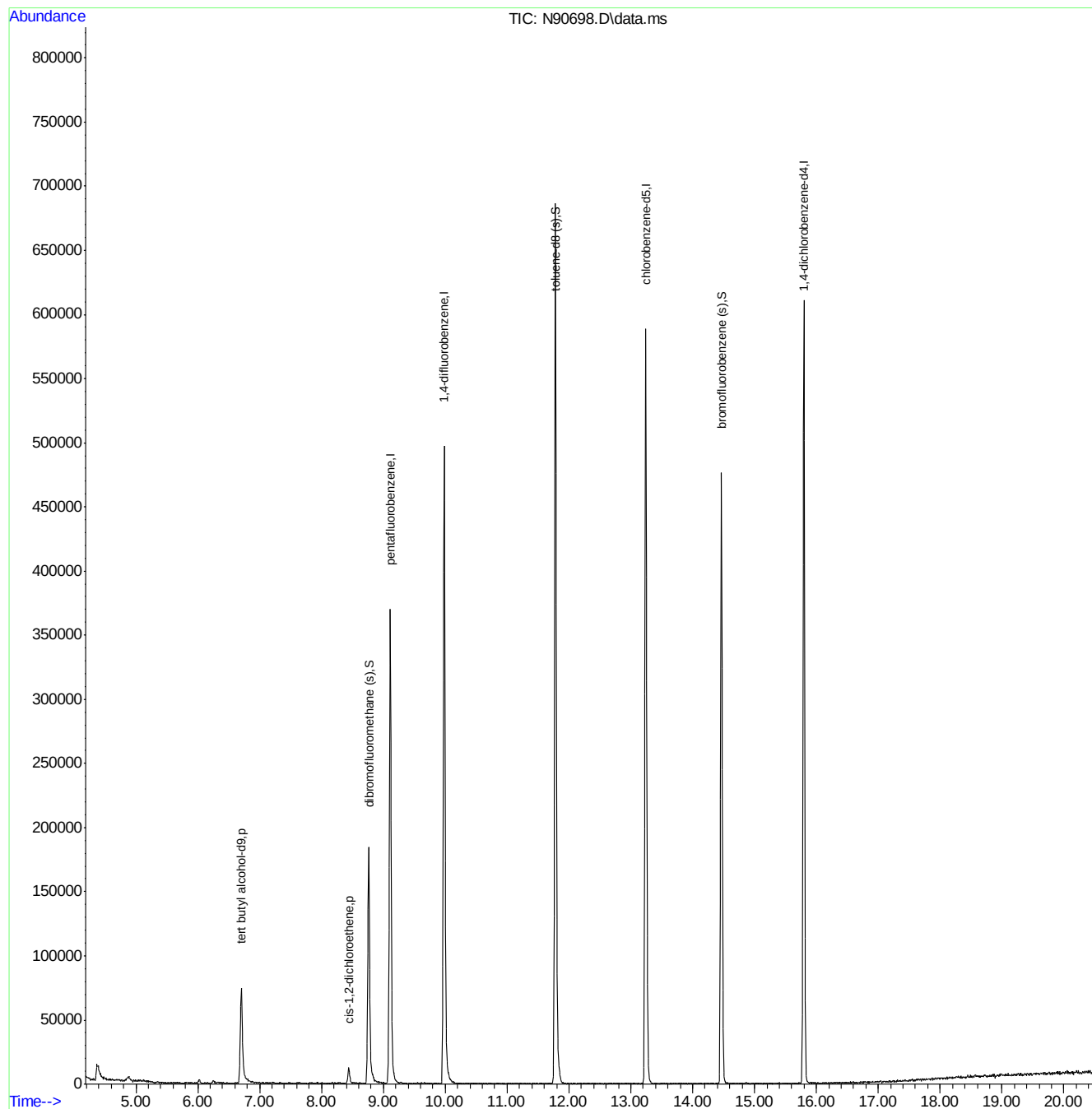
7.1.12

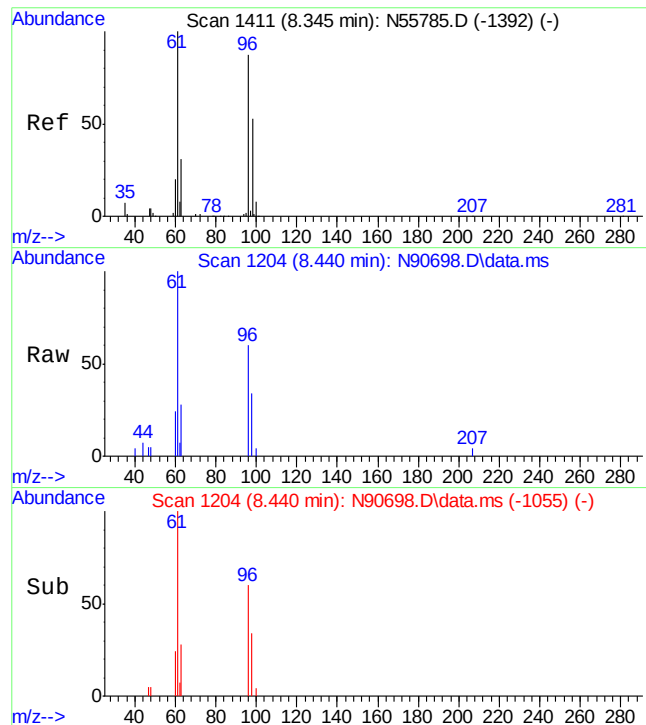
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90698.D
Acq On : 29 Sep 2014 4:26 pm
Operator : jaclynb
Sample : mc33777-12
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

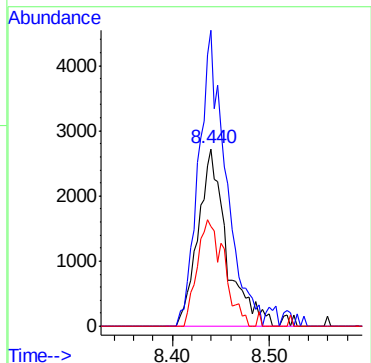
Quant Time: Sep 30 07:45:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





#36
cis-1,2-dichloroethene
Concen: 1.96 ug/L
RT: 8.440 min Scan# 1204
Delta R.T. -0.003 min
Lab File: N90698.D
Acq: 29 Sep 2014 4:26 pm

Tgt Ion:	96	Resp:	5735
Ion Ratio	Lower	Upper	
96	100		
61	166.9	148.4	208.4
98	56.1	32.3	92.3



7.1.12
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90699.D
Acq On : 29 Sep 2014 4:55 pm
Operator : jaclynb
Sample : mc33777-13
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 30 07:46:02 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.711	65	88448	500.00	ug/L	# 0.02
4) pentafluorobenzene	9.115	168	255597	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.985	114	400350	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	206619	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	145395	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.762	113	131343	50.09	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.18%
60) toluene-d8 (s)	11.784	98	478012	49.78	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.56%
82) bromofluorobenzene (s)	14.464	95	180844	51.01	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.02%

Target Compounds Qvalue

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

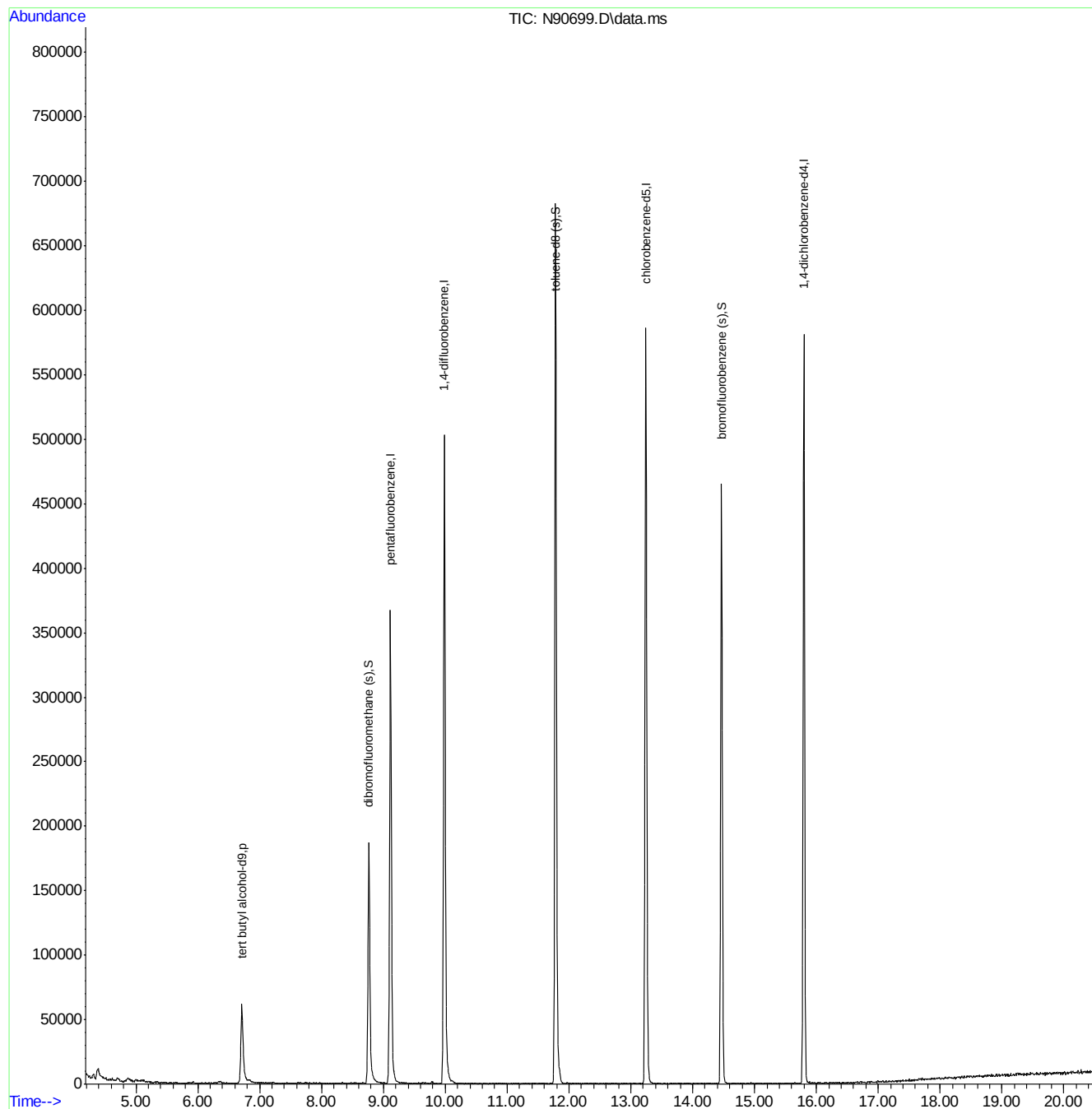
7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90699.D
Acq On : 29 Sep 2014 4:55 pm
Operator : jaclynb
Sample : mc33777-13
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 30 07:46:02 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90700.D
 Acq On : 29 Sep 2014 5:23 pm
 Operator : jaclynb
 Sample : mc33777-14
 Misc : ms32835,MSN3355,,,,5,1
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 30 07:46:17 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.718	65	109954	500.00	ug/L	# 0.03
4) pentafluorobenzene	9.119	168	252564	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	394031	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	203846	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	151904	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	126517	48.83	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.66%		
60) toluene-d8 (s)	11.784	98	479477	50.74	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	101.48%		
82) bromofluorobenzene (s)	14.464	95	180655	48.78	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.56%		
Target Compounds						
7) vinyl chloride	4.890	62	1001	Below Cal	#	29
36) cis-1,2-dichloroethene	8.450	96	6560	2.27	ug/L	88
51) trichloroethene	10.409	95	52547	15.58	ug/L	93

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

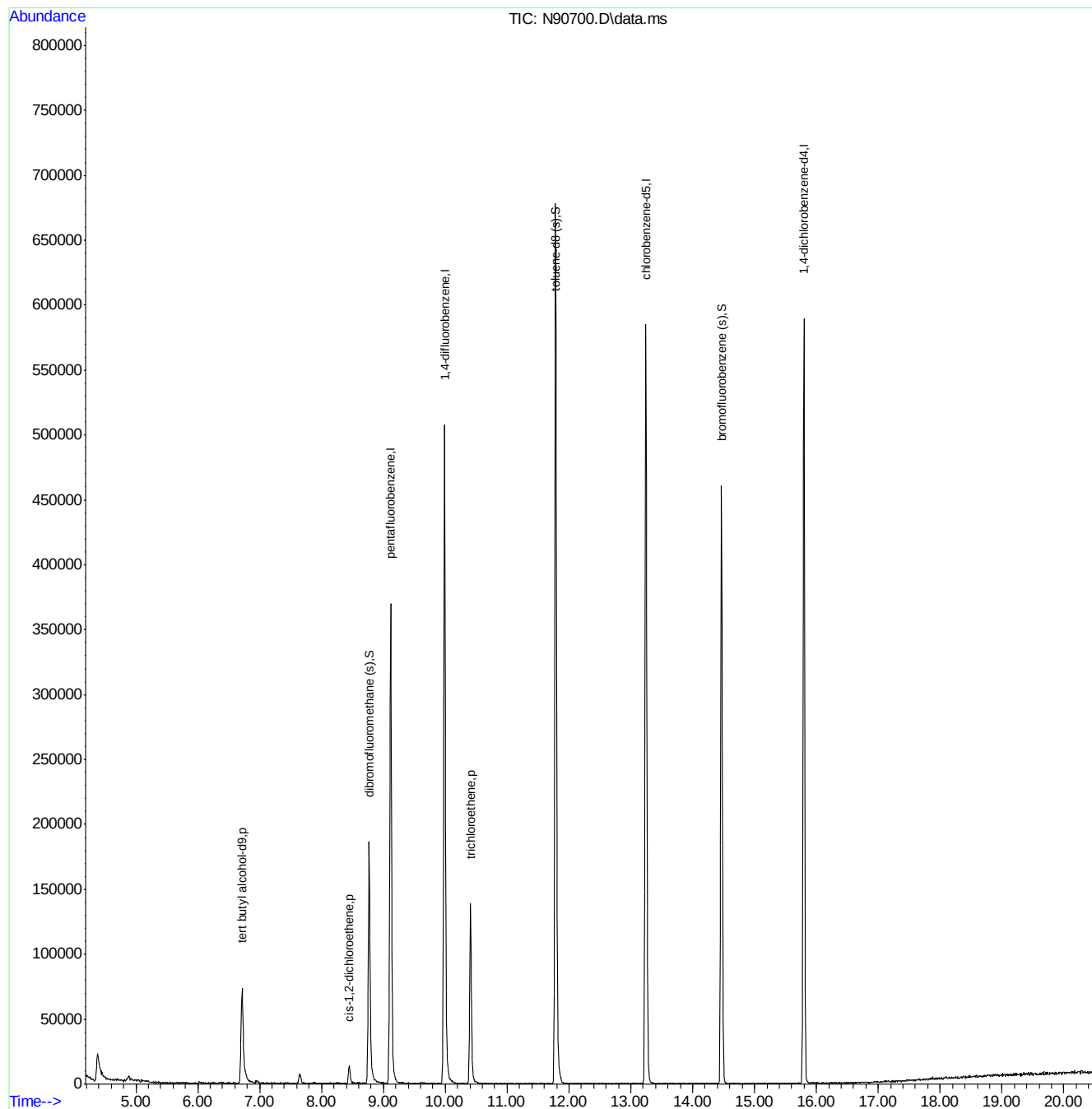
7.1.14

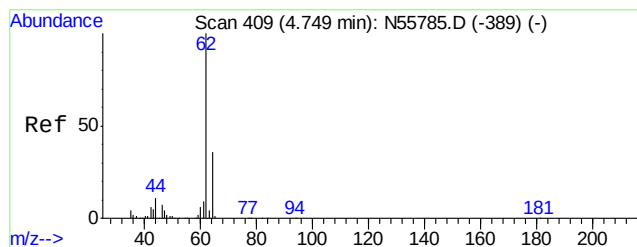
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90700.D
Acq On : 29 Sep 2014 5:23 pm
Operator : jaclynb
Sample : mc33777-14
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 35 Sample Multiplier: 1

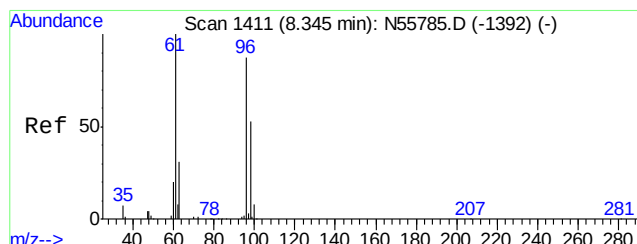
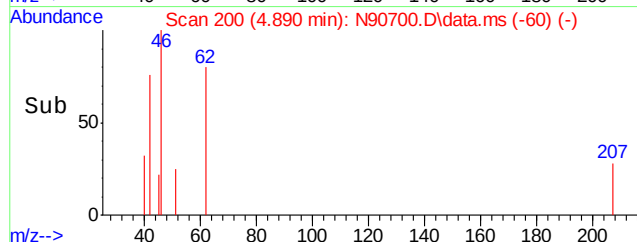
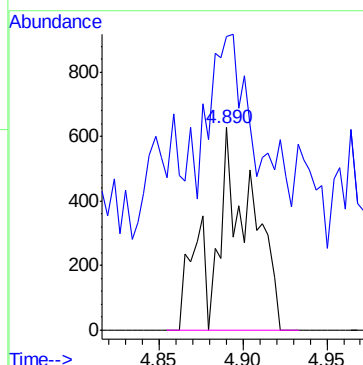
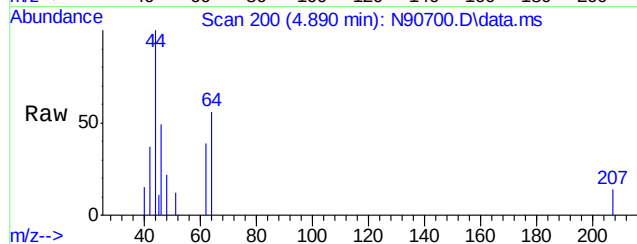
Quant Time: Sep 30 07:46:17 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





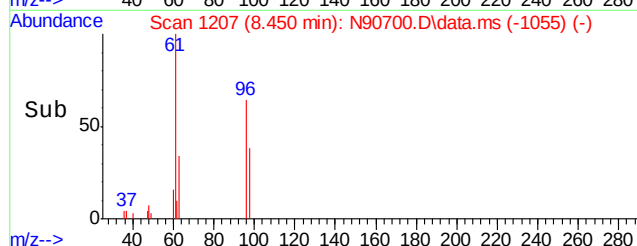
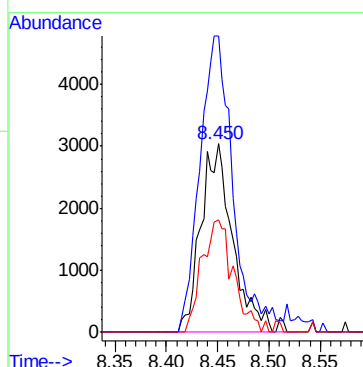
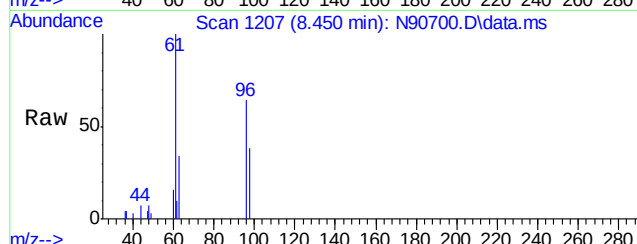
#7
vinyl chloride
Concen: Below Cal
RT: 4.890 min Scan# 200
Delta R.T. -0.004 min
Lab File: N90700.D
Acq: 29 Sep 2014 5:23 pm

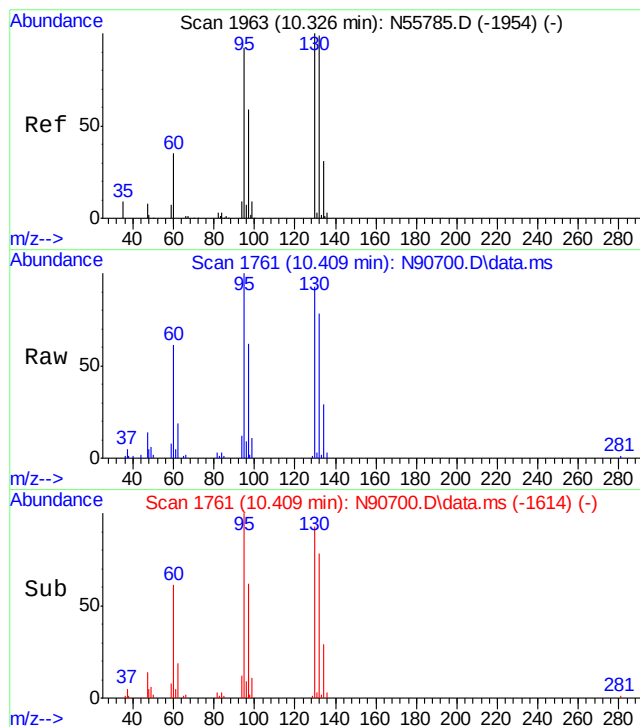
Tgt Ion	Ratio	Lower	Upper
62	100		
64	69.9	1.0	61.0#



#36
cis-1,2-dichloroethene
Concen: 2.27 ug/L
RT: 8.450 min Scan# 1207
Delta R.T. 0.007 min
Lab File: N90700.D
Acq: 29 Sep 2014 5:23 pm

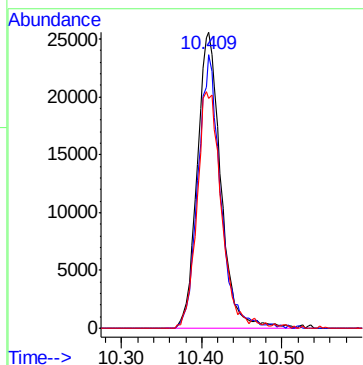
Tgt Ion	Ratio	Lower	Upper
96	100		
61	157.1	148.4	208.4
98	59.6	32.3	92.3





#51
trichloroethene
Concen: 15.58 ug/L
RT: 10.409 min Scan# 1761
Delta R.T. -0.000 min
Lab File: N90700.D
Acq: 29 Sep 2014 5:23 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	92.6	59.1	119.1
132	77.6	56.3	116.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90686.D
Acq On : 29 Sep 2014 10:47 am
Operator : jaclynb
Sample : mc33777-15
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 29 11:40:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.718	65	89761	500.00	ug/L	0.03
4) pentafluorobenzene	9.119	168	289272	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	453340	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	232527	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	170691	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	144407	48.66	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.32%		
60) toluene-d8 (s)	11.784	98	545954	50.21	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	100.42%		
82) bromofluorobenzene (s)	14.464	95	204979	49.25	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	98.50%		

Target Compounds Qvalue

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

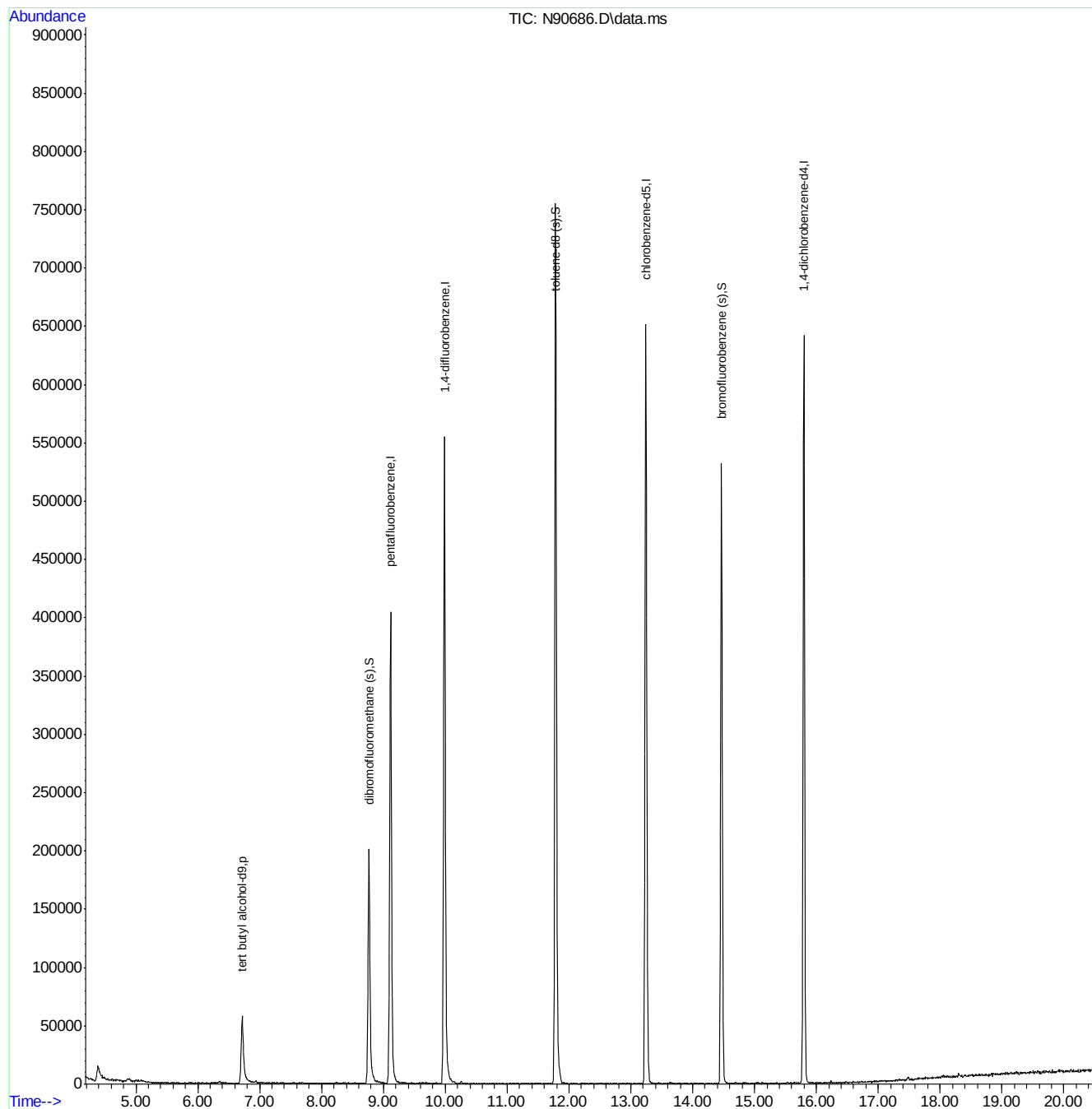
7.1.15

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90686.D
Acq On : 29 Sep 2014 10:47 am
Operator : jaclynb
Sample : mc33777-15
Misc : ms32835,MSN3355,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 29 11:40:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90685.D
Acq On : 29 Sep 2014 10:18 am
Operator : jaclynb
Sample : mb
Misc : ms32833,MSN3355,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 29 11:39:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	97945	500.00	ug/L	0.02
4) pentafluorobenzene	9.115	168	292440	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.985	114	462061	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	228778	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	172210	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	142944	47.64	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	95.28%		
60) toluene-d8 (s)	11.784	98	544065	49.09	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	98.18%		
82) bromofluorobenzene (s)	14.464	95	207147	49.34	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	98.68%		
Target Compounds						Qvalue
93) 1,3-dichlorobenzene	15.758	146	1122	Below Cal		93
95) 1,4-dichlorobenzene	15.829	146	1259	Below Cal		90
96) 1,2-dichlorobenzene	15.829	146	1259	Below Cal		92

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

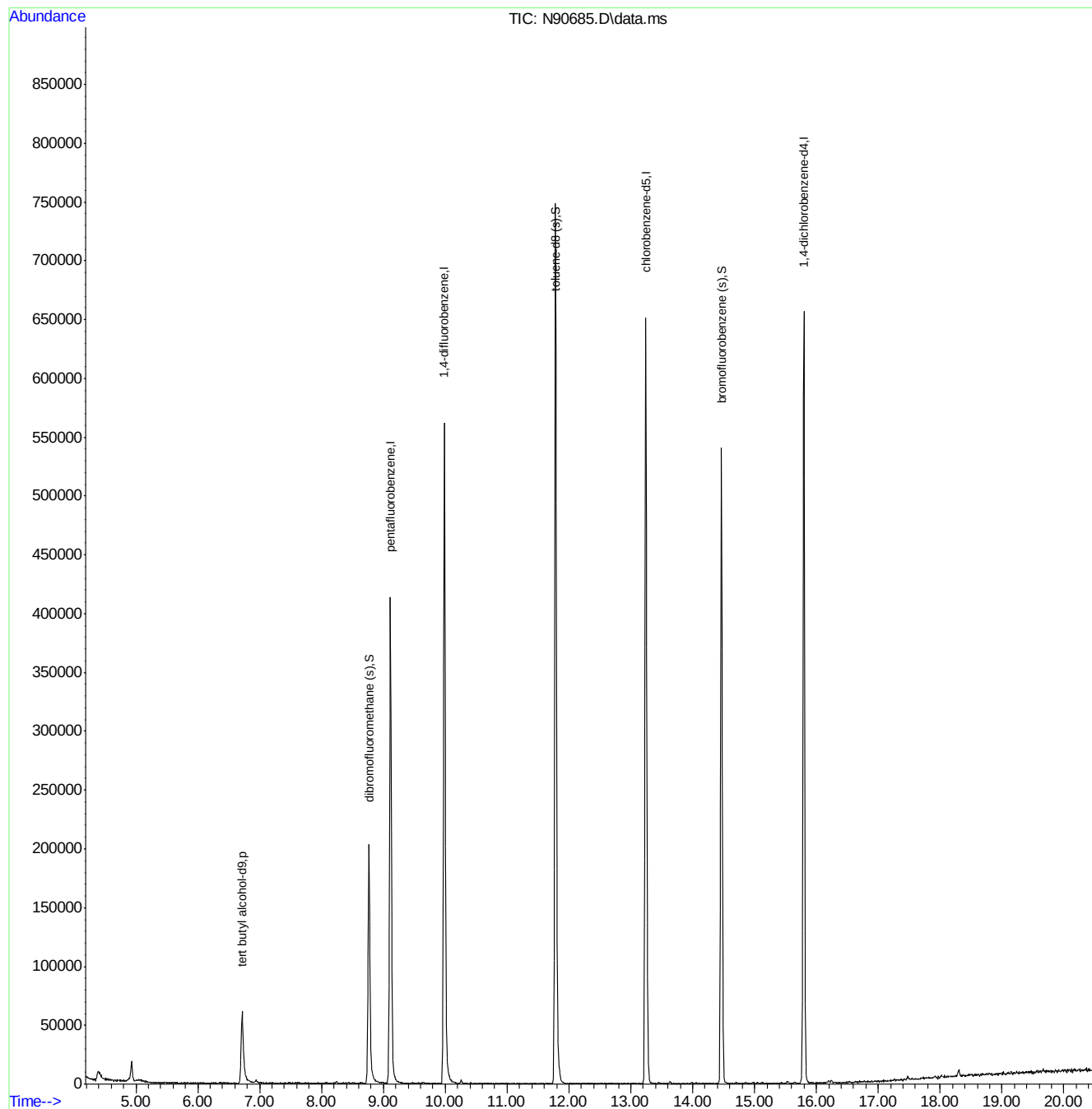
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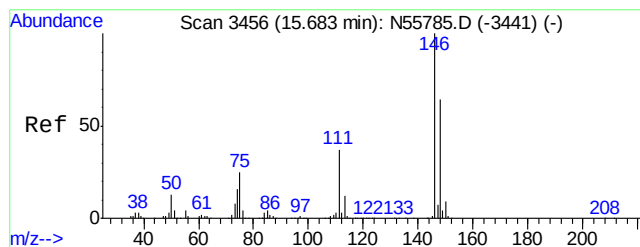
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90685.D
Acq On : 29 Sep 2014 10:18 am
Operator : jaclynb
Sample : mb
Misc : ms32833,MSN3355,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

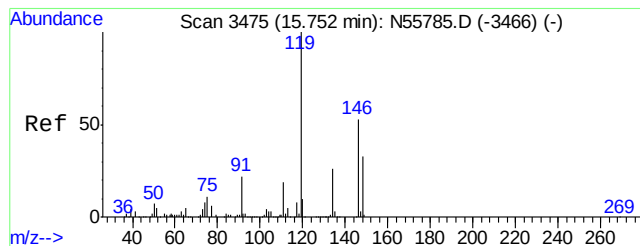
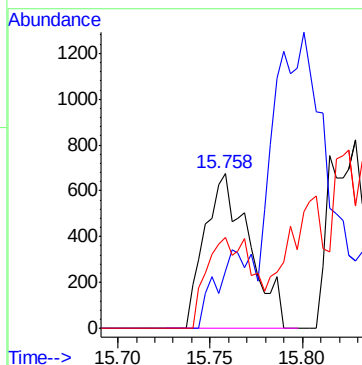
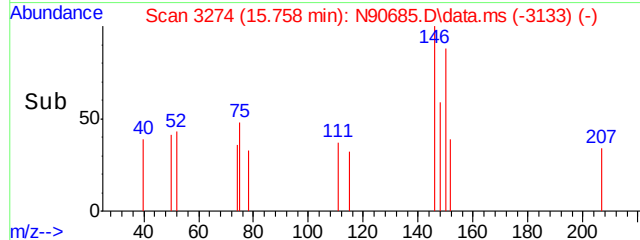
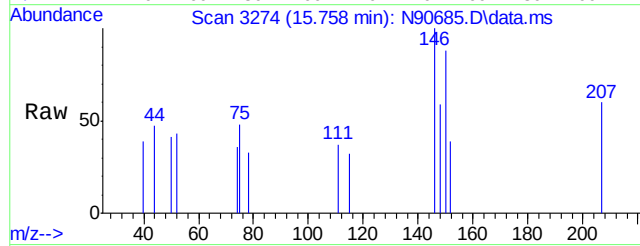
Quant Time: Sep 29 11:39:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





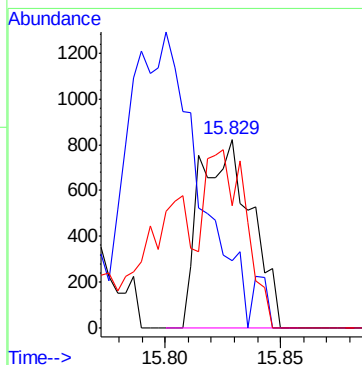
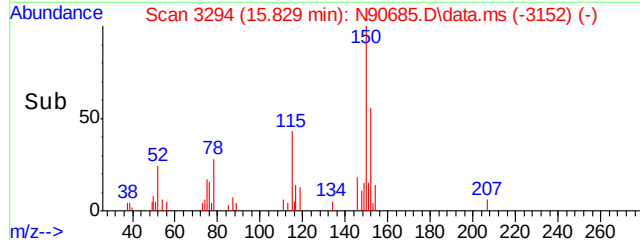
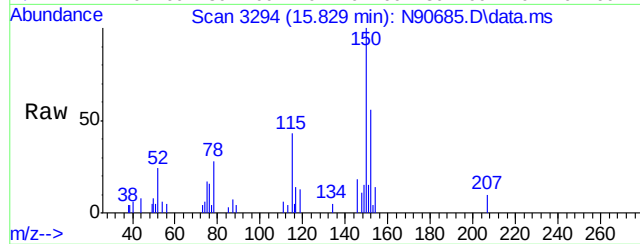
#93
1,3-dichlorobenzene
Concen: Below Cal
RT: 15.758 min Scan# 3274
Delta R.T. 0.000 min
Lab File: N90685.D
Acq: 29 Sep 2014 10:18 am

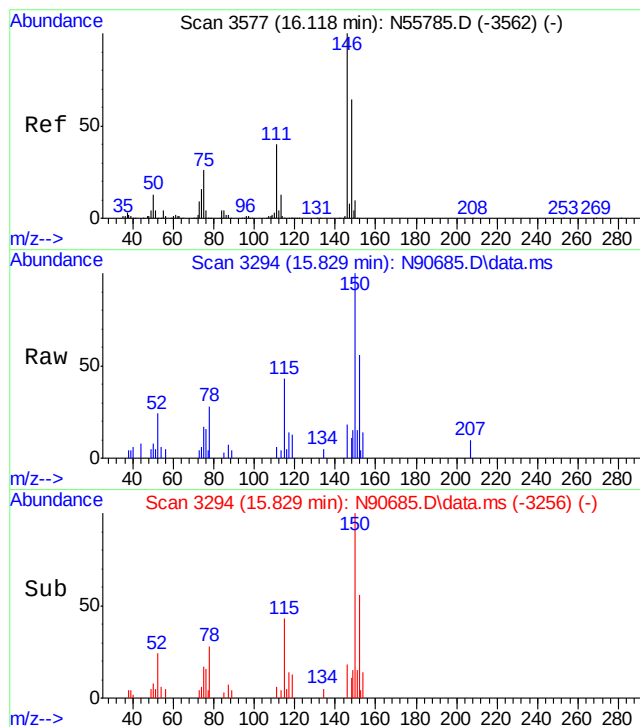
Tgt Ion	146	Resp	1122
Ratio	Lower	Upper	
146	100		
111	37.2	15.6	75.6
148	58.9	31.5	91.5



#95
1,4-dichlorobenzene
Concen: Below Cal
RT: 15.829 min Scan# 3294
Delta R.T. 0.004 min
Lab File: N90685.D
Acq: 29 Sep 2014 10:18 am

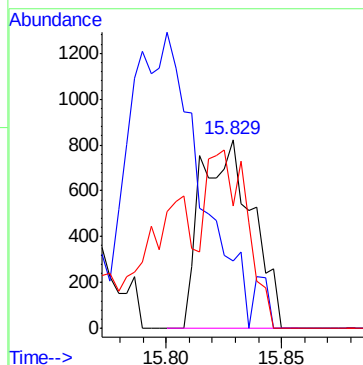
Tgt Ion	146	Resp	1259
Ratio	Lower	Upper	
146	100		
111	35.4	16.9	76.9
148	64.8	31.6	91.6





#96
1,2-dichlorobenzene
Concen: Below Cal
RT: 15.829 min Scan# 3294
Delta R.T. -0.364 min
Lab File: N90685.D
Acq: 29 Sep 2014 10:18 am

Tgt Ion	Ratio	Lower	Upper
146	100		
111	35.4	15.3	75.3
148	64.8	33.1	93.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90682.D
 Acq On : 29 Sep 2014 8:54 am
 Operator : jaclynb
 Sample : bs
 Misc : ms32833,MSN3355,,,,5,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 29 09:23:58 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.693	65	122333	500.00	ug/L	0.00
4) pentafluorobenzene	9.119	168	313745	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	487480	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	260206	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	215375	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	154010	47.85	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	95.70%		
60) toluene-d8 (s)	11.781	98	613225	52.45	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	104.90%		
82) bromofluorobenzene (s)	14.464	95	240732	45.84	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	91.68%		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.782	59	114737	266.77	ug/L	# 100
3) Ethanol	5.558	45	368520	5883.18	ug/L	99
5) dichlorodifluoromethane	4.392	85	174750	42.30	ug/L	100
6) chloromethane	4.653	50	230885	45.60	ug/L	95
7) vinyl chloride	4.894	62	179588	52.77	ug/L	99
8) bromomethane	5.396	96	78049	49.66	ug/L	99
9) chloroethane	5.562	64	116707	57.56	ug/L	97
10) ethyl ether	6.428	59	172033	56.01	ug/L	91
11) acetonitrile	6.439	41	26566	54.50	ug/L	97
12) trichlorofluoromethane	6.205	101	288046	48.56	ug/L	99
13) freon-113	6.962	101	160943	61.32	ug/L	96
14) acrolein	6.202	56	88578	247.42	ug/L	92
15) 1,1-dichloroethene	6.785	96	148813	62.17	ug/L	97
16) acetone	6.333	58	37140	51.46	ug/L	# 75
17) Methyl Acetate	6.962	43	203255	73.41	ug/L	# 94
18) methylene chloride	6.944	84	165296	50.70	ug/L	90
19) methyl tert butyl ether	7.704	73	386375	50.11	ug/L	100
20) acrylonitrile	6.849	53	75532	55.54	ug/L	92
21) allyl chloride	7.029	41	348520	59.84	ug/L	94
22) trans-1,2-dichloroethene	7.623	96	162008	51.43	ug/L	97
23) iodomethane	6.856	142	100826	50.80	ug/L	96
24) carbon disulfide	7.224	76	558927	61.64	ug/L	99
25) propionitrile	6.849	54	2683	58.79	ug/L	100
26) vinyl acetate	7.970	43	193350	43.87	ug/L	100
27) chloroprene	8.235	53	370677	65.57	ug/L	92
28) di-isopropyl ether	8.263	45	771290	51.30	ug/L	98
29) methacrylonitrile	8.397	41	117402	52.95	ug/L	96
30) 2-butanone	8.284	72	24166	68.32	ug/L	# 32
31) Hexane	8.249	41	333896	60.37	ug/L	99
32) 1,1-dichloroethane	7.878	63	396852	51.39	ug/L	96
33) tert-butyl ethyl ether	8.662	59	310889	39.13	ug/L	92
34) isobutyl alcohol	8.259	43	663067	290.94	ug/L	98
35) 2,2-dichloropropane	8.730	77	285599	57.85	ug/L	99
36) cis-1,2-dichloroethene	8.443	96	181663	50.65	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90682.D
 Acq On : 29 Sep 2014 8:54 am
 Operator : jaclynb
 Sample : bs
 Misc : ms32833,MSN3355,,,,5,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 29 09:23:58 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.259	43	668179	59.53	ug/L	93
38) bromochloromethane	8.613	128	78981	53.79	ug/L #	86
39) chloroform	8.648	83	331799	48.10	ug/L	97
41) Tetrahydrofuran	8.977	42	59113	59.57	ug/L	97
42) 1,1,1-trichloroethane	9.394	97	307674	58.17	ug/L	99
44) Cyclohexane	9.674	56	423672	64.04	ug/L	96
45) carbon tetrachloride	9.755	117	258799	54.28	ug/L	98
46) 1,1-dichloropropene	9.564	75	256357	59.85	ug/L	99
47) benzene	9.794	78	679698	48.64	ug/L	99
48) 1,2-dichloroethane	9.299	62	316548	48.38	ug/L	98
49) tert-amyl methyl ether	9.907	73	161865	40.01	ug/L	96
50) heptane	10.257	43	263153	65.82	ug/L	91
51) trichloroethene	10.409	95	201043	48.18	ug/L	94
52) 1,2-dichloropropane	10.377	63	224574	56.43	ug/L	99
53) dibromomethane	10.352	93	108003	53.18	ug/L	98
54) bromodichloromethane	10.462	83	278524	53.22	ug/L	96
55) Methylcyclohexane	10.918	83	316965	64.67	ug/L	98
56) 2-chloroethyl vinyl ether	10.377	63	224574	57.17	ug/L #	100
57) methyl methacrylate	10.550	69	104903	57.65	ug/L #	79
58) 1,4-dioxane	10.557	88	4536	151.04	ug/L	95
59) cis-1,3-dichloropropene	11.077	75	285908	56.53	ug/L	98
61) 4-methyl-2-pentanone	11.169	43	214221	57.52	ug/L	95
62) toluene	11.855	92	420323	50.08	ug/L	95
63) trans-1,3-dichloropropene	11.494	75	241818	59.50	ug/L	98
64) 1,1,2-trichloroethane	11.667	83	134145	49.60	ug/L	97
65) ethyl methacrylate	11.865	69	191012	55.17	ug/L	91
67) tetrachloroethene	12.594	166	176603	52.12	ug/L	94
68) 1,3-dichloropropane	11.904	76	269768	55.02	ug/L	100
69) dibromochloromethane	12.198	129	191508	54.64	ug/L	100
70) 1,2-dibromoethane	12.452	107	151010	54.98	ug/L	96
71) 2-hexanone	12.021	43	207452	69.03	ug/L	94
72) chlorobenzene	13.276	112	450614	49.66	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	171256	51.84	ug/L	96
74) ethylbenzene	13.446	91	870644	51.47	ug/L	100
75) m,p-xylene	13.630	106	601232	97.22	ug/L	95
76) o-xylene	14.043	106	299275	49.82	ug/L	96
77) styrene	13.973	104	491703	56.43	ug/L	100
78) bromoform	13.799	173	111608	54.74	ug/L	97
79) trans-1,4-dichloro-2-b...	14.188	53	48234	53.81	ug/L #	86
81) isopropylbenzene	14.400	105	806899	52.85	ug/L	99
83) bromobenzene	14.697	156	189417	52.43	ug/L	95
84) 1,1,2,2-tetrachloroethane	14.047	83	188995	57.13	ug/L	99
85) 1,2,3-trichloropropane	14.192	75	199366	53.98	ug/L	97
86) n-propylbenzene	14.846	91	1070699	54.77	ug/L	99
87) 2-chlorotoluene	14.969	91	648500	52.17	ug/L	98
88) 4-chlorotoluene	15.044	91	676322	51.50	ug/L	99
89) 1,3,5-trimethylbenzene	15.121	105	715531	46.68	ug/L	99
90) tert-butylbenzene	15.429	91	479778	53.32	ug/L	100
91) 1,2,4-trimethylbenzene	15.535	105	738872	48.63	ug/L	99
92) sec-butylbenzene	15.648	105	937266	54.57	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90682.D
Acq On : 29 Sep 2014 8:54 am
Operator : jaclynb
Sample : bs
Misc : ms32833,MSN3355,,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 29 09:23:58 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	369139	53.21	ug/L	100
94)	p-isopropyltoluene	15.821	119	779482	55.54	ug/L	98
95)	1,4-dichlorobenzene	15.825	146	348053	56.39	ug/L	98
96)	1,2-dichlorobenzene	16.189	146	362181	55.91	ug/L	98
97)	n-butylbenzene	16.235	91	835711	57.41	ug/L	99
98)	1,2-dibromo-3-chloropr...	16.670	75	35980	61.82	ug/L	95
99)	1,2,4-trichlorobenzene	18.017	180	180598	62.13	ug/L	95
100)	1,3,5-trichlorobenzene	17.476	180	253272	56.26	ug/L	97
101)	hexachlorobutadiene	18.303	225	136582	59.93	ug/L	96
102)	naphthalene	18.289	128	279322m	67.07	ug/L	
103)	1,2,3-trichlorobenzene	18.498	180	131525	62.55	ug/L	95
104)	2-methylnaphthalene	19.668	142	57812	48.70	ug/L #	100
105)	1-methylnaphthalene	19.919	142	43681	49.24	ug/L	97

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

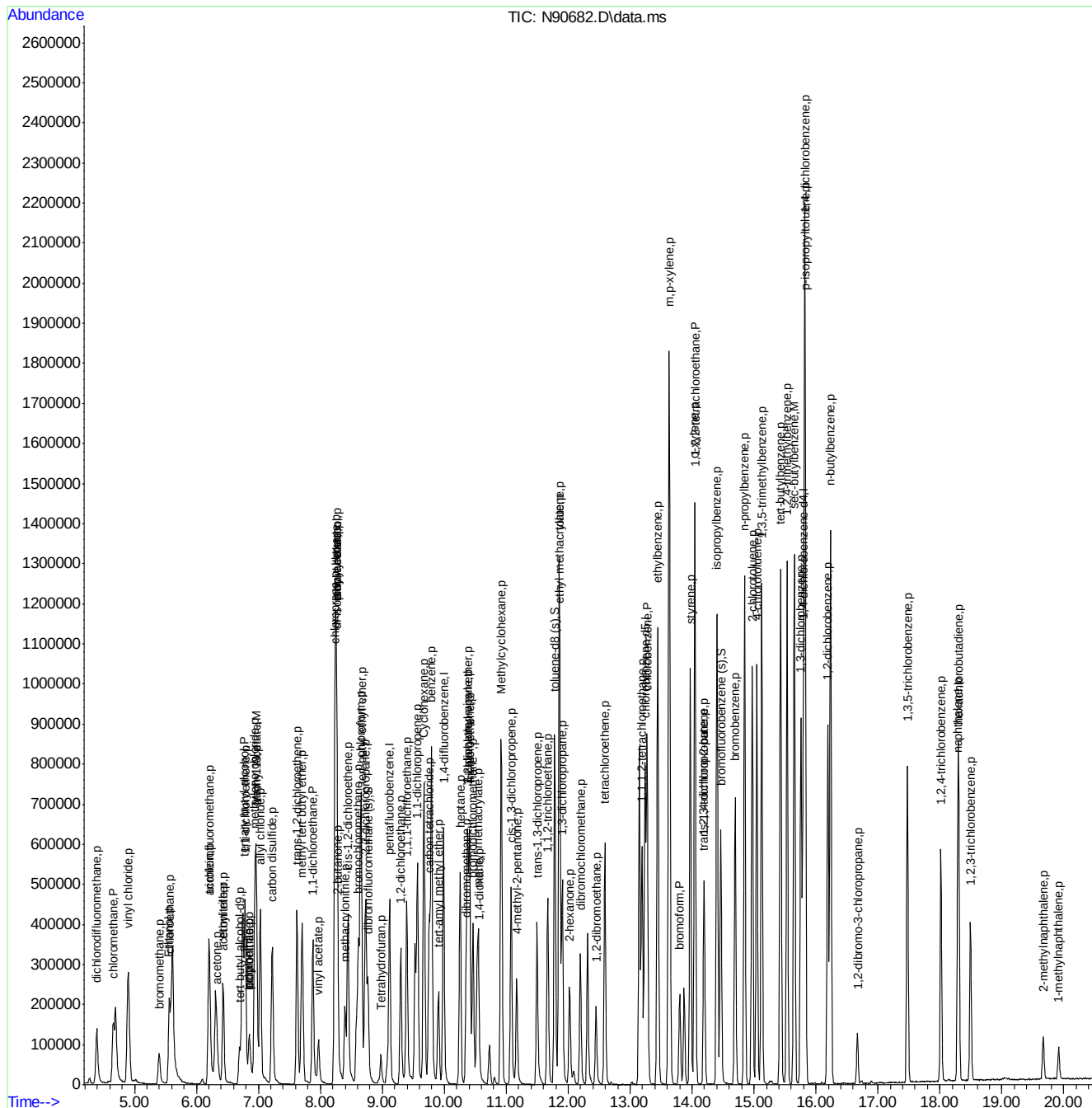
7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90682.D
Acq On : 29 Sep 2014 8:54 am
Operator : jaclynb
Sample : bs
Misc : ms32833,MSN3355,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 29 09:23:58 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



n140918w.m Mon Sep 29 09:26:21 2014

Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90705.D
 Acq On : 29 Sep 2014 7:44 pm
 Operator : jaclynb
 Sample : mc33777-1ms
 Misc : ms32835,MSN3355,,,,5,5
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 07:52:43 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.697	65	119935	500.00	ug/L	0.00
4) pentafluorobenzene	9.119	168	312180	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	499936	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	270838	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	214916	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	155787	48.64	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.28%		
60) toluene-d8 (s)	11.784	98	618815	51.61	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	103.22%		
82) bromofluorobenzene (s)	14.464	95	244634	46.69	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	93.38%		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.785	59	114409	271.33	ug/L	# 100
3) Ethanol	5.562	45	350423m	5706.13	ug/L	
5) dichlorodifluoromethane	4.392	85	185857	45.21	ug/L	100
6) chloromethane	4.653	50	222080	44.08	ug/L	99
7) vinyl chloride	4.894	62	179177	52.92	ug/L	95
8) bromomethane	5.396	96	66295	43.10	ug/L	99
9) chloroethane	5.566	64	118094	58.54	ug/L	98
10) ethyl ether	6.435	59	182262	59.64	ug/L	91
11) acetonitrile	6.432	41	26388	54.41	ug/L	99
12) trichlorofluoromethane	6.205	101	284081	48.13	ug/L	98
13) freon-113	6.969	101	158592	60.73	ug/L	99
14) acrolein	6.198	56	86385	242.50	ug/L	98
15) 1,1-dichloroethene	6.789	96	150053	63.02	ug/L	90
16) acetone	6.340	58	17077	23.78	ug/L	96
17) Methyl Acetate	6.962	43	206136	74.83	ug/L	# 94
18) methylene chloride	6.944	84	165593	51.05	ug/L	89
19) methyl tert butyl ether	7.708	73	390622	50.91	ug/L	98
20) acrylonitrile	6.852	53	73905	54.62	ug/L	99
21) allyl chloride	7.033	41	341229	58.88	ug/L	93
22) trans-1,2-dichloroethene	7.623	96	164263	52.41	ug/L	99
23) iodomethane	6.856	142	100236	50.76	ug/L	97
24) carbon disulfide	7.224	76	536925	59.51	ug/L	99
25) propionitrile	6.852	54	2720	59.84	ug/L	100
26) vinyl acetate	7.973	43	191021	43.55	ug/L	97
27) chloroprene	8.238	53	373470	66.39	ug/L	96
28) di-isopropyl ether	8.263	45	776839	51.93	ug/L	98
29) methacrylonitrile	8.397	41	113105	51.27	ug/L	94
30) 2-butanone	8.284	72	16183	45.98	ug/L	# 82
31) Hexane	8.249	41	324763	59.02	ug/L	97
32) 1,1-dichloroethane	7.878	63	394664	51.36	ug/L	98
33) tert-butyl ethyl ether	8.659	59	312824	39.54	ug/L	93
34) isobutyl alcohol	8.259	43	608597	268.38	ug/L	95
35) 2,2-dichloropropane	8.730	77	274408	56.00	ug/L	99
36) cis-1,2-dichloroethene	8.447	96	181178	50.76	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90705.D
 Acq On : 29 Sep 2014 7:44 pm
 Operator : jaclynb
 Sample : mc33777-1ms
 Misc : ms32835,MSN3355,,,,,5,5
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 07:52:43 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.259	43	607648	54.41	ug/L	97
38) bromochloromethane	8.613	128	78423	53.68	ug/L	90
39) chloroform	8.648	83	327529	47.72	ug/L	99
41) Tetrahydrofuran	8.981	42	53032	53.71	ug/L	99
42) 1,1,1-trichloroethane	9.394	97	310521	59.00	ug/L	98
44) Cyclohexane	9.674	56	428847	63.21	ug/L	97
45) carbon tetrachloride	9.758	117	261264	53.43	ug/L	98
46) 1,1-dichloropropene	9.568	75	258273	58.79	ug/L	99
47) benzene	9.794	78	676401	47.19	ug/L	98
48) 1,2-dichloroethane	9.299	62	316866	47.23	ug/L	99
49) tert-amyl methyl ether	9.907	73	166548	40.14	ug/L	93
50) heptane	10.253	43	238856	58.25	ug/L	93
51) trichloroethene	10.409	95	199956	46.72	ug/L	98
52) 1,2-dichloropropane	10.381	63	224359	54.97	ug/L	100
53) dibromomethane	10.356	93	107607	51.67	ug/L	97
54) bromodichloromethane	10.465	83	272749	50.82	ug/L	97
55) Methylcyclohexane	10.922	83	312275	62.12	ug/L	98
56) 2-chloroethyl vinyl ether	10.381	63	224359	55.69	ug/L #	100
57) methyl methacrylate	10.550	69	105166	56.35	ug/L #	77
58) 1,4-dioxane	10.564	88	3871	126.41	ug/L #	72
59) cis-1,3-dichloropropene	11.077	75	291042	56.12	ug/L	98
61) 4-methyl-2-pentanone	11.169	43	200315	52.44	ug/L	95
62) toluene	11.855	92	417971	48.56	ug/L	97
63) trans-1,3-dichloropropene	11.498	75	243700	58.47	ug/L	97
64) 1,1,2-trichloroethane	11.671	83	134779	48.59	ug/L	98
65) ethyl methacrylate	11.865	69	189675	53.42	ug/L	97
67) tetrachloroethene	12.594	166	173064	49.07	ug/L	97
68) 1,3-dichloropropane	11.908	76	267117	52.34	ug/L	98
69) dibromochloromethane	12.198	129	188730	51.73	ug/L	93
70) 1,2-dibromoethane	12.449	107	152645	53.39	ug/L	97
71) 2-hexanone	12.025	43	134367	42.96	ug/L	96
72) chlorobenzene	13.276	112	444245	47.04	ug/L	98
73) 1,1,1,2-tetrachloroethane	13.191	131	170518	49.59	ug/L	97
74) ethylbenzene	13.446	91	856603	48.66	ug/L	99
75) m,p-xylene	13.630	106	585731	90.99	ug/L	96
76) o-xylene	14.043	106	293057	46.87	ug/L	99
77) styrene	13.969	104	477082	52.60	ug/L	99
78) bromoform	13.799	173	110337	51.99	ug/L	97
79) trans-1,4-dichloro-2-b...	14.192	53	46311	49.82	ug/L	96
81) isopropylbenzene	14.400	105	790220	51.87	ug/L	99
83) bromobenzene	14.694	156	182753	50.70	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.047	83	185338	55.91	ug/L	98
85) 1,2,3-trichloropropane	14.192	75	199434	54.11	ug/L	98
86) n-propylbenzene	14.846	91	1031947	52.91	ug/L	99
87) 2-chlorotoluene	14.969	91	623078	50.23	ug/L	98
88) 4-chlorotoluene	15.044	91	644132	49.16	ug/L	98
89) 1,3,5-trimethylbenzene	15.125	105	699371	45.73	ug/L	98
90) tert-butylbenzene	15.429	91	454260	50.59	ug/L	99
91) 1,2,4-trimethylbenzene	15.532	105	726647	47.93	ug/L	100
92) sec-butylbenzene	15.648	105	898191	52.41	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90705.D
Acq On : 29 Sep 2014 7:44 pm
Operator : jaclynb
Sample : mc33777-1ms
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 07:52:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	351445	50.74	ug/L	98
94)	p-isopropyltoluene	15.818	119	739818	52.83	ug/L	99
95)	1,4-dichlorobenzene	15.825	146	334355	54.24	ug/L	97
96)	1,2-dichlorobenzene	16.189	146	346556	53.59	ug/L	99
97)	n-butylbenzene	16.235	91	782303	53.85	ug/L	99
98)	1,2-dibromo-3-chloropr...	16.670	75	34349	59.15	ug/L	98
99)	1,2,4-trichlorobenzene	18.013	180	165943	57.21	ug/L	98
100)	1,3,5-trichlorobenzene	17.476	180	239474	53.31	ug/L	99
101)	hexachlorobutadiene	18.303	225	122685	53.95	ug/L	98
102)	naphthalene	18.289	128	277601	66.82	ug/L	100
103)	1,2,3-trichlorobenzene	18.494	180	122731	58.61	ug/L	97
104)	2-methylnaphthalene	19.668	142	51854	43.78	ug/L #	100
105)	1-methylnaphthalene	19.915	142	38992	44.05	ug/L	97

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

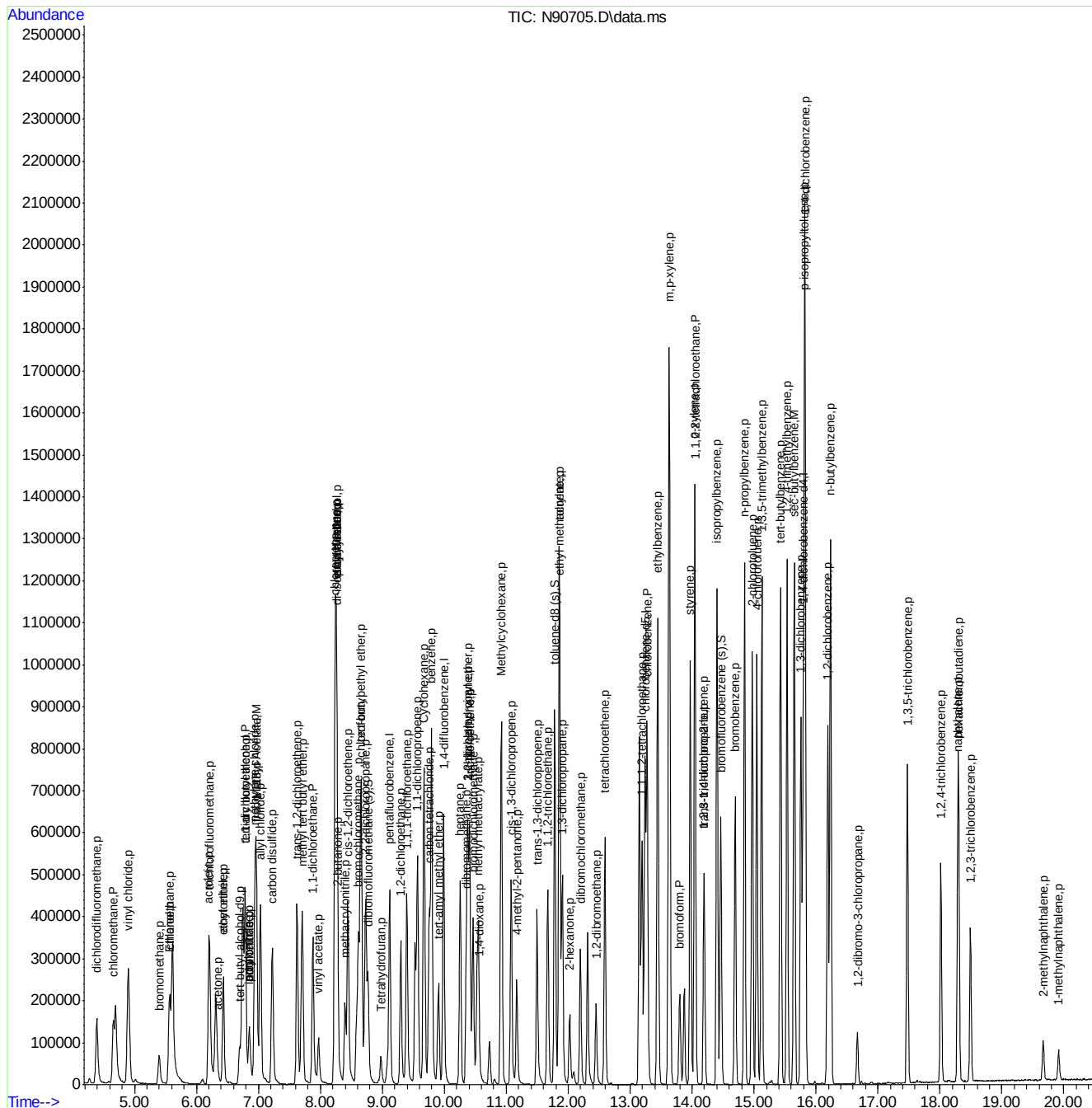
7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90705.D
Acq On : 29 Sep 2014 7:44 pm
Operator : jaclynb
Sample : mc33777-1ms
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

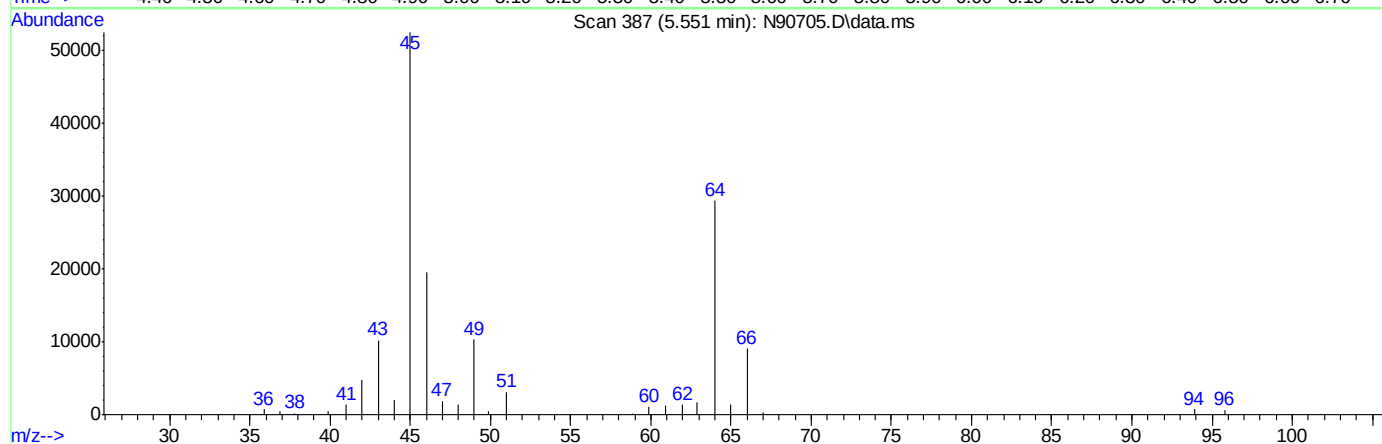
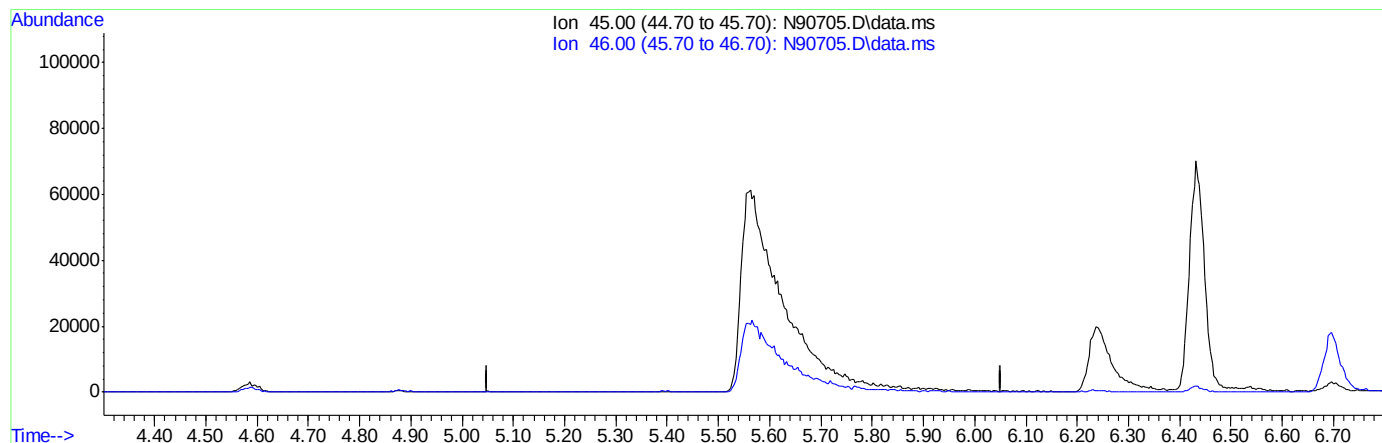
Quant Time: Sep 30 07:52:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90705.D
Acq On : 29 Sep 2014 7:44 pm
Operator : jaclynb
Sample : mc33777-1ms
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 07:52:37 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

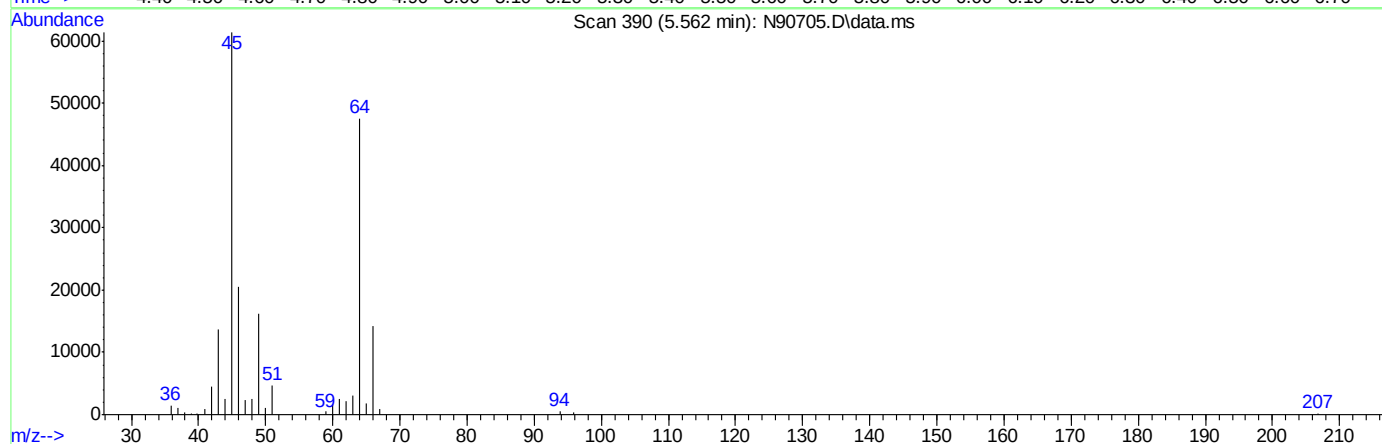
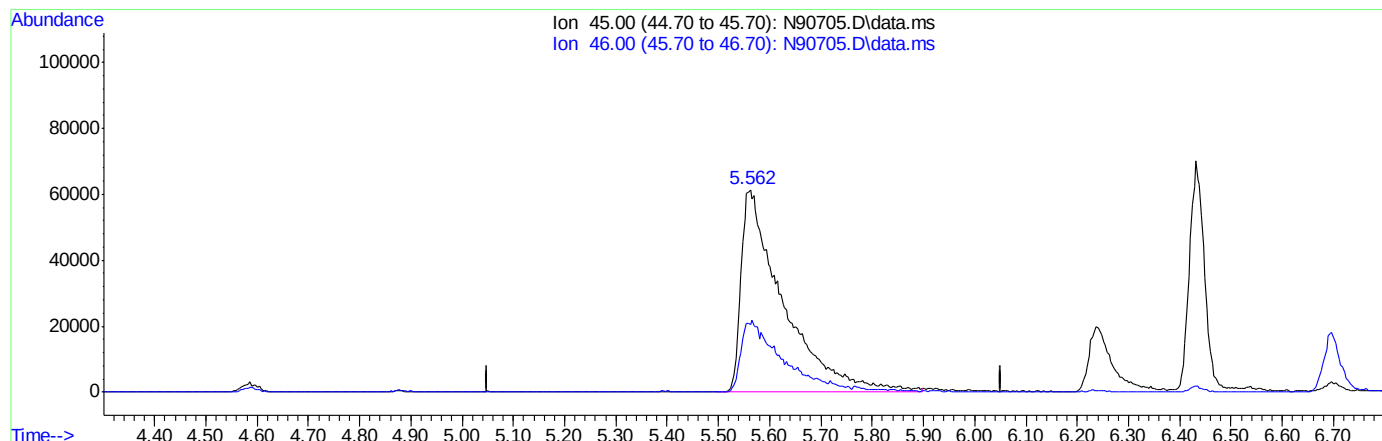
response 0

Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90705.D
Acq On : 29 Sep 2014 7:44 pm
Operator : jaclynb
Sample : mc33777-1ms
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 07:52:37 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.562min (+0.011) 5706.13ug/L m

response 350423

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90706.D
 Acq On : 29 Sep 2014 8:13 pm
 Operator : jaclynb
 Sample : mc33777-1msd
 Misc : ms32835,MSN3355,,,,5,5
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 07:53:00 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.697	65	114340	500.00	ug/L	0.00
4) pentafluorobenzene	9.115	168	319054	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	494303	50.00	ug/L	0.00
66) chlorobenzene-d5	13.237	82	264962	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	214276	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	153943	47.03	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	94.06%		
60) toluene-d8 (s)	11.784	98	618566	52.18	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	104.36%		
82) bromofluorobenzene (s)	14.461	95	244644	46.83	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	93.66%		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.782	59	113739	282.94	ug/L	# 100
3) Ethanol	5.562	45	350240m	5982.22	ug/L	
5) dichlorodifluoromethane	4.392	85	195093	46.44	ug/L	100
6) chloromethane	4.654	50	237977	46.21	ug/L	96
7) vinyl chloride	4.894	62	186979	54.06	ug/L	97
8) bromomethane	5.396	96	76168	47.87	ug/L	99
9) chloroethane	5.569	64	120522	58.46	ug/L	95
10) ethyl ether	6.428	59	176046	56.37	ug/L	97
12) trichlorofluoromethane	6.206	101	287243	47.61	ug/L	100
13) freon-113	6.966	101	164141	61.50	ug/L	96
14) acrolein	6.198	56	86361	237.21	ug/L	98
15) 1,1-dichloroethene	6.789	96	149840	61.55	ug/L	94
16) acetone	6.336	58	16949	23.10	ug/L	# 73
17) Methyl Acetate	6.962	43	202644	71.97	ug/L	# 96
18) methylene chloride	6.944	84	165464	49.91	ug/L	90
19) methyl tert butyl ether	7.708	73	391130	49.88	ug/L	97
20) acrylonitrile	6.845	53	73992	53.51	ug/L	97
21) allyl chloride	7.029	41	351369	59.33	ug/L	94
22) trans-1,2-dichloroethene	7.623	96	164054	51.21	ug/L	94
23) iodomethane	6.856	142	103770	51.37	ug/L	99
24) carbon disulfide	7.224	76	552660	59.93	ug/L	98
25) propionitrile	6.849	54	2812	60.49	ug/L	100
26) vinyl acetate	7.970	43	192608	42.97	ug/L	96
27) chloroprene	8.231	53	367194	63.87	ug/L	94
28) di-isopropyl ether	8.263	45	772895	50.56	ug/L	99
29) methacrylonitrile	8.397	41	112036	49.69	ug/L	94
30) 2-butanone	8.288	72	16828	46.79	ug/L	# 46
31) Hexane	8.245	41	324839	57.76	ug/L	93
32) 1,1-dichloroethane	7.878	63	395682	50.39	ug/L	97
33) tert-butyl ethyl ether	8.659	59	317974	39.34	ug/L	96
34) isobutyl alcohol	8.256	43	606753	261.80	ug/L	88
35) 2,2-dichloropropane	8.730	77	273273	54.67	ug/L	99
36) cis-1,2-dichloroethene	8.443	96	183425	50.29	ug/L	96
37) ethyl acetate	8.256	43	606956	53.17	ug/L	87

7.4.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90706.D
 Acq On : 29 Sep 2014 8:13 pm
 Operator : jaclynb
 Sample : mc33777-1msd
 Misc : ms32835,MSN3355,,,5,5
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 07:53:00 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.610	128	80218	53.72	ug/L	93
39) chloroform	8.648	83	329562	46.98	ug/L	99
41) Tetrahydrofuran	8.977	42	52015	51.54	ug/L	90
42) 1,1,1-trichloroethane	9.394	97	311770	57.96	ug/L	99
44) Cyclohexane	9.674	56	428782	63.92	ug/L	99
45) carbon tetrachloride	9.759	117	266935	55.21	ug/L	96
46) 1,1-dichloropropene	9.568	75	260381	59.95	ug/L	99
47) benzene	9.790	78	677581	47.81	ug/L	98
48) 1,2-dichloroethane	9.295	62	316081	47.65	ug/L	99
49) tert-amyl methyl ether	9.903	73	166953	40.64	ug/L	97
50) heptane	10.253	43	244957	60.42	ug/L	93
51) trichloroethene	10.409	95	202746	47.92	ug/L	95
52) 1,2-dichloropropane	10.377	63	226489	56.12	ug/L	100
53) dibromomethane	10.356	93	110232	53.53	ug/L	96
54) bromodichloromethane	10.466	83	273099	51.46	ug/L	99
55) Methylcyclohexane	10.922	83	315212	63.42	ug/L	98
56) 2-chloroethyl vinyl ether	10.377	63	226489	56.86	ug/L #	100
57) methyl methacrylate	10.550	69	103293	55.98	ug/L #	72
58) 1,4-dioxane	10.568	88	4054	133.60	ug/L #	72
59) cis-1,3-dichloropropene	11.077	75	287977	56.16	ug/L	99
61) 4-methyl-2-pentanone	11.169	43	199620	52.86	ug/L	94
62) toluene	11.855	92	425349	49.98	ug/L	94
63) trans-1,3-dichloropropene	11.494	75	245822	59.65	ug/L	98
64) 1,1,2-trichloroethane	11.668	83	134294	48.97	ug/L	98
65) ethyl methacrylate	11.862	69	188877	53.80	ug/L	92
67) tetrachloroethene	12.594	166	174297	50.52	ug/L	100
68) 1,3-dichloropropane	11.904	76	269700	54.02	ug/L	100
69) dibromochloromethane	12.194	129	188741	52.88	ug/L	99
70) 1,2-dibromoethane	12.449	107	152070	54.37	ug/L	100
71) 2-hexanone	12.021	43	134908	44.09	ug/L	95
72) chlorobenzene	13.276	112	455368	49.28	ug/L	96
73) 1,1,1,2-tetrachloroethane	13.191	131	172343	51.23	ug/L	93
74) ethylbenzene	13.446	91	867245	50.35	ug/L	100
75) m,p-xylene	13.630	106	589503	93.61	ug/L	98
76) o-xylene	14.043	106	296962	48.55	ug/L	100
77) styrene	13.969	104	485713	54.74	ug/L	100
78) bromoform	13.799	173	110357	53.15	ug/L	99
79) trans-1,4-dichloro-2-b...	14.192	53	45675	50.21	ug/L	96
81) isopropylbenzene	14.400	105	786875	51.80	ug/L	100
83) bromobenzene	14.697	156	183352	51.01	ug/L	96
84) 1,1,2,2-tetrachloroethane	14.047	83	185592	56.21	ug/L	99
85) 1,2,3-trichloropropane	14.192	75	199828	54.38	ug/L	99
86) n-propylbenzene	14.846	91	1041485	53.55	ug/L	100
87) 2-chlorotoluene	14.970	91	632425	51.14	ug/L	94
88) 4-chlorotoluene	15.044	91	657348	50.32	ug/L	99
89) 1,3,5-trimethylbenzene	15.125	105	708116	46.44	ug/L	99
90) tert-butylbenzene	15.429	91	463876	51.82	ug/L	100
91) 1,2,4-trimethylbenzene	15.532	105	744193	49.23	ug/L	99
92) sec-butylbenzene	15.648	105	921873	53.95	ug/L	99
93) 1,3-dichlorobenzene	15.758	146	355851	51.54	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90706.D
Acq On : 29 Sep 2014 8:13 pm
Operator : jaclynb
Sample : mc33777-1msd
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 07:53:00 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

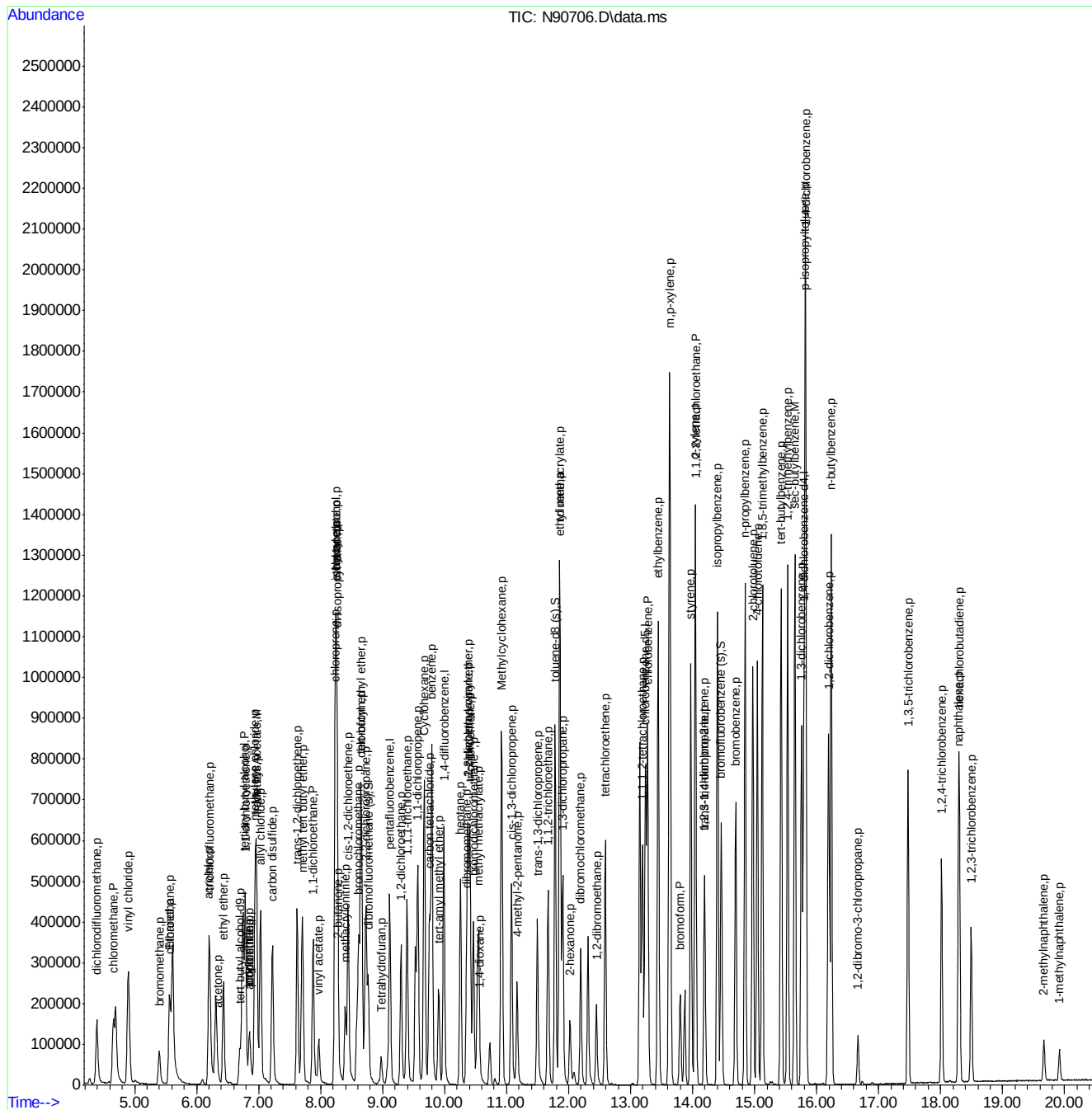
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.818	119	748747	53.63	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	337008	54.84	ug/L	95
96) 1,2-dichlorobenzene	16.193	146	350580	54.38	ug/L	96
97) n-butylbenzene	16.235	91	797048	55.03	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.667	75	33397	57.68	ug/L	91
99) 1,2,4-trichlorobenzene	18.017	180	176185	60.92	ug/L	98
100) 1,3,5-trichlorobenzene	17.476	180	245711	54.86	ug/L	99
101) hexachlorobutadiene	18.300	225	132526	58.45	ug/L	97
102) naphthalene	18.289	128	281381	67.86	ug/L	100
103) 1,2,3-trichlorobenzene	18.494	180	130722	62.49	ug/L	97
104) 2-methylnaphthalene	19.664	142	54838	46.44	ug/L #	100
105) 1-methylnaphthalene	19.915	142	42617	48.29	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90706.D
Acq On : 29 Sep 2014 8:13 pm
Operator : jaclynb
Sample : mc33777-1msd
Misc : ms32835,MSN3355,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 07:53:00 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



n140918w.m Tue Sep 30 07:53:09 2014

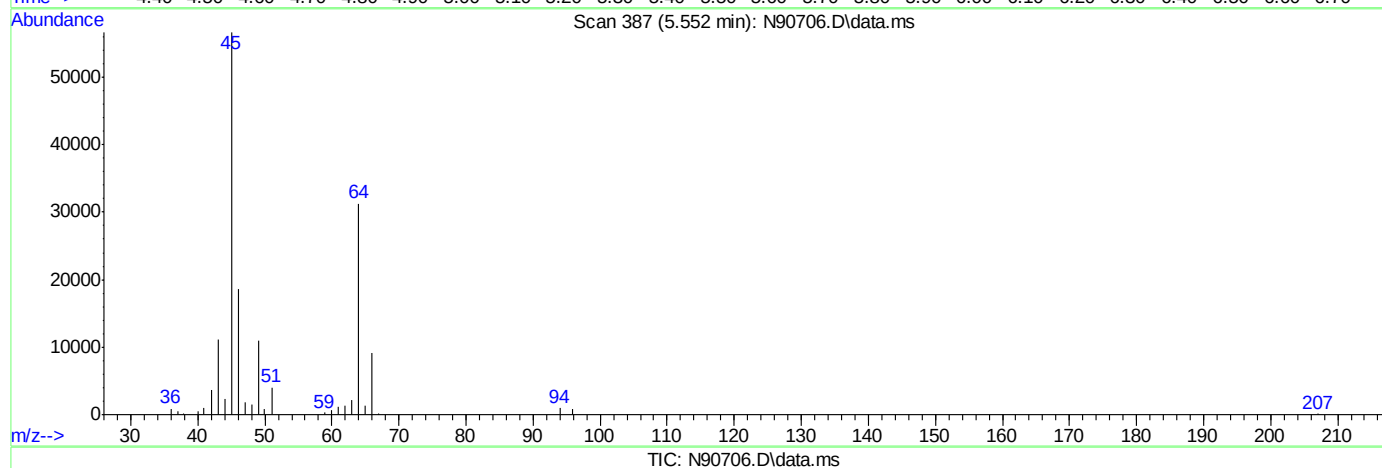
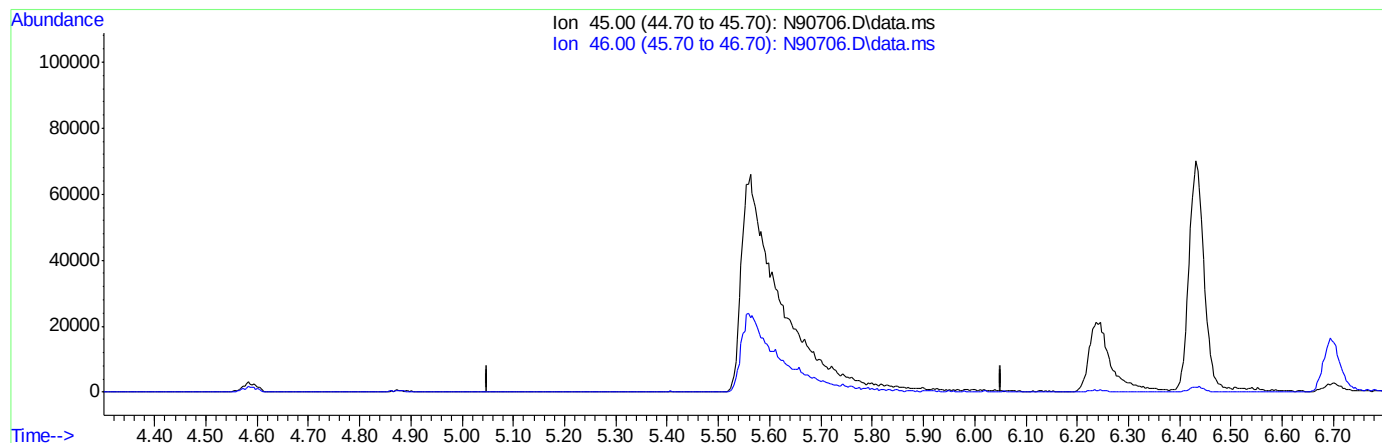
Page: 4

7.4.2

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90706.D
Acq On : 29 Sep 2014 8:13 pm
Operator : jaclynb
Sample : mc33777-1msd
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 07:52:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

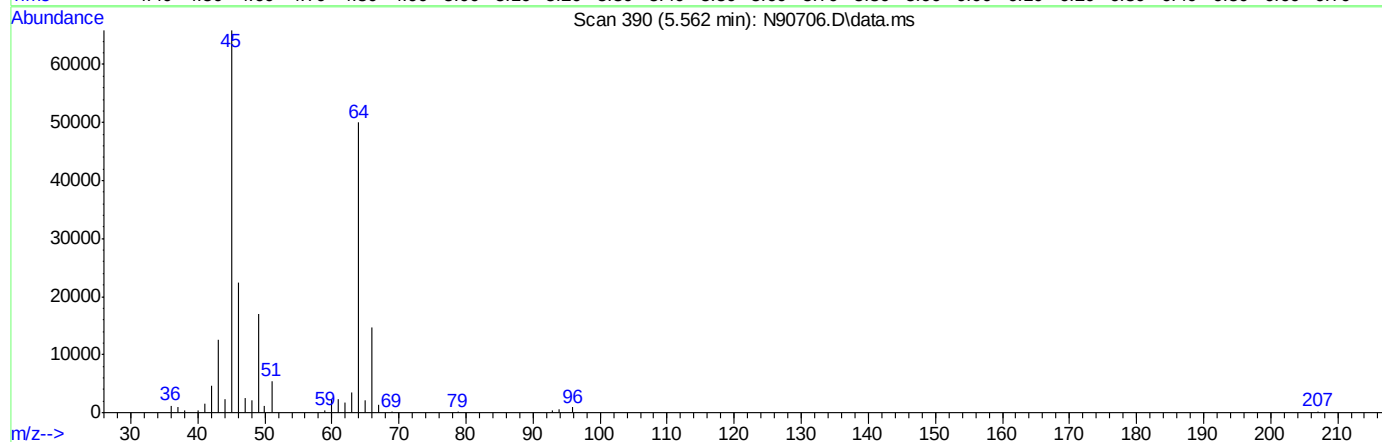
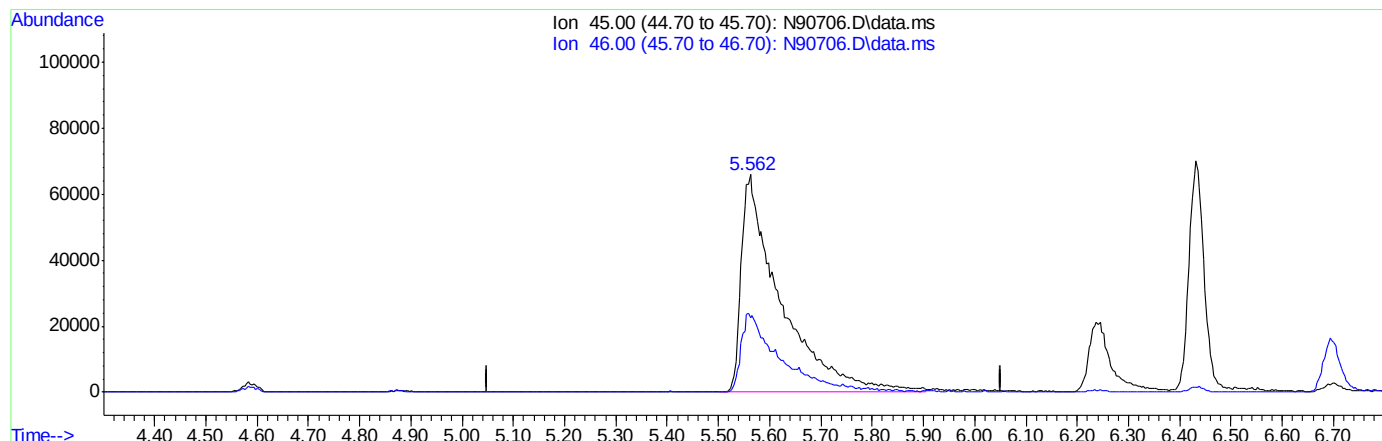
response 0

Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90706.D
Acq On : 29 Sep 2014 8:13 pm
Operator : jaclynb
Sample : mc33777-1msd
Misc : ms32835,MSN3355,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 07:52:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.562min (+0.011) 5982.22ug/L m

response 350240

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140918\N90385.D

Vial: 1

Acq On : 18 Sep 2014 1:17 pm

Operator: krystend

Sample : bfb

Inst : MSN

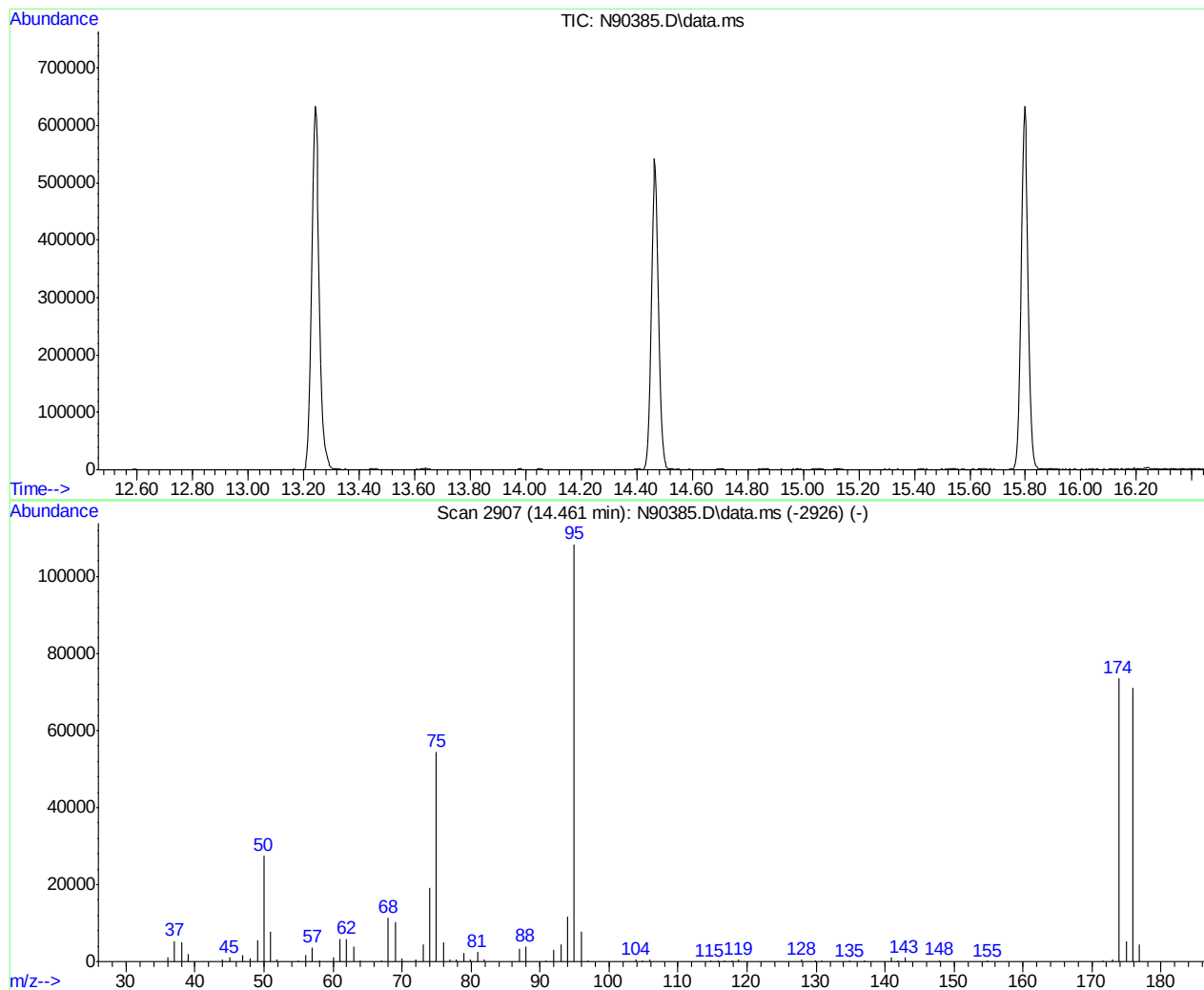
Misc : ms32746,MSN3345,,,,5,1

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)

Title : SW-846 Method 8260



Spectrum Information: Scan 2907

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.4	27584	PASS
75	95	30	60	50.3	54529	PASS
95	95	100	100	100.0	108414	PASS
96	95	5	9	7.1	7647	PASS
173	174	0.00	2	0.8	581	PASS
174	95	50	150	67.9	73592	PASS
175	174	5	9	7.1	5197	PASS
176	174	95	101	96.5	71013	PASS
177	176	5	9	6.3	4495	PASS

N90385.D n140918w.m Fri Sep 19 12:05:43 2014

Scan 2907 (14.461 min): N90385.D\data.ms (-2926)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1109	51.90	434	68.00	11486	79.90	614
37.00	5353	54.90	360	69.00	10366	80.90	2579
38.00	5006	56.00	1599	70.00	915	81.90	489
39.00	1935	57.00	3672	72.00	648	87.00	3260
43.95	527	58.00	255	73.00	4505	87.90	3962
45.00	1050	60.00	1022	74.00	19096	90.90	234
46.90	1577	61.00	5721	75.00	54529	92.00	3006
48.00	770	62.00	5839	76.00	5024	93.00	4463
49.00	5584	63.00	3927	77.00	614	94.00	11768
50.00	27584	63.90	373	77.90	480	94.95	108414
51.00	7835	67.00	227	78.90	2332	96.00	7647

Scan 2907 (14.461 min): N90385.D\data.ms (-2926)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.90	239	130.90	200	174.90	5197		
103.90	533	134.90	211	175.85	71013		
104.80	202	137.00	154	176.90	4495		
105.90	441	140.90	1031				
114.70	201	141.90	157				
115.80	373	142.90	1040				
116.70	371	147.90	304				
117.90	247	154.90	211				
118.80	486	171.50	172				
127.90	462	172.90	581				
129.90	348	173.85	73592				

7.5.1

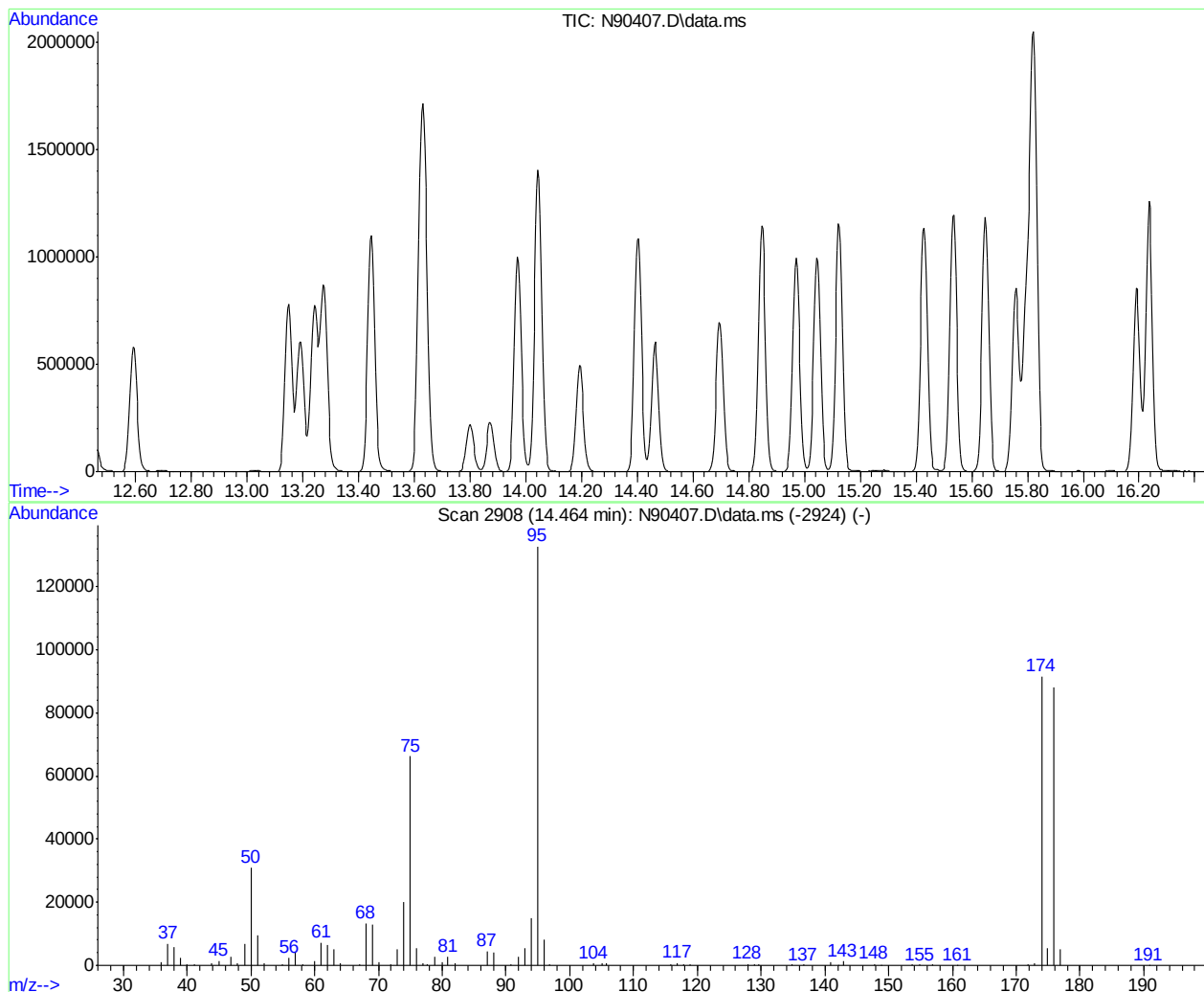
7

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140919\N90407.D
 Acq On : 19 Sep 2014 1:04 pm
 Sample : bfb
 Misc : ms32746,MSN3345,,,,5,1
 MS Integration Params: RTEINT.P

Vial: 16
 Operator: krystend
 Inst : MSN
 Multiplr: 1.00

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
 Title : SW-846 Method 8260



Spectrum Information: Scan 2908

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	31008	PASS
75	95	30	60	49.9	66272	PASS
95	95	100	100	100.0	132736	PASS
96	95	5	9	6.2	8223	PASS
173	174	0.00	2	0.7	660	PASS
174	95	50	150	68.9	91480	PASS
175	174	5	9	6.1	5584	PASS
176	174	95	101	96.2	88016	PASS
177	176	5	9	5.9	5211	PASS

Scan 2908 (14.464 min): N90407.D\data.ms (-2924)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1163	50.00	31008	64.00	620	77.70	433
37.00	6912	51.00	9648	67.00	509	78.90	2614
38.00	5948	52.00	558	68.00	13330	80.00	1046
39.00	2409	54.90	471	69.00	12916	80.90	2774
40.00	185	56.00	2388	70.00	1053	82.00	861
41.20	188	57.00	3990	72.00	508	87.00	4533
43.90	610	58.10	207	73.00	5014	88.00	4031
45.00	1437	60.00	1472	74.00	20120	90.80	466
46.90	2625	61.00	7154	75.00	66272	92.00	2892
47.90	758	62.00	6425	76.00	5455	93.00	5404
49.00	6644	63.00	5163	77.00	703	94.00	14983

Scan 2908 (14.464 min): N90407.D\data.ms (-2924)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.95	132736	128.90	234	156.90	186		
96.00	8223	129.70	389	160.80	180		
96.90	193	134.80	225	171.90	189		
103.80	620	136.70	233	172.90	660		
105.00	557	140.90	1171	174.00	91480		
105.80	560	142.00	158	174.90	5584		
115.90	364	142.90	1229	175.90	88016		
116.90	736	147.80	458	176.90	5211		
117.80	319	148.80	155	190.80	164		
118.80	502	153.70	186				
127.90	494	154.90	187				

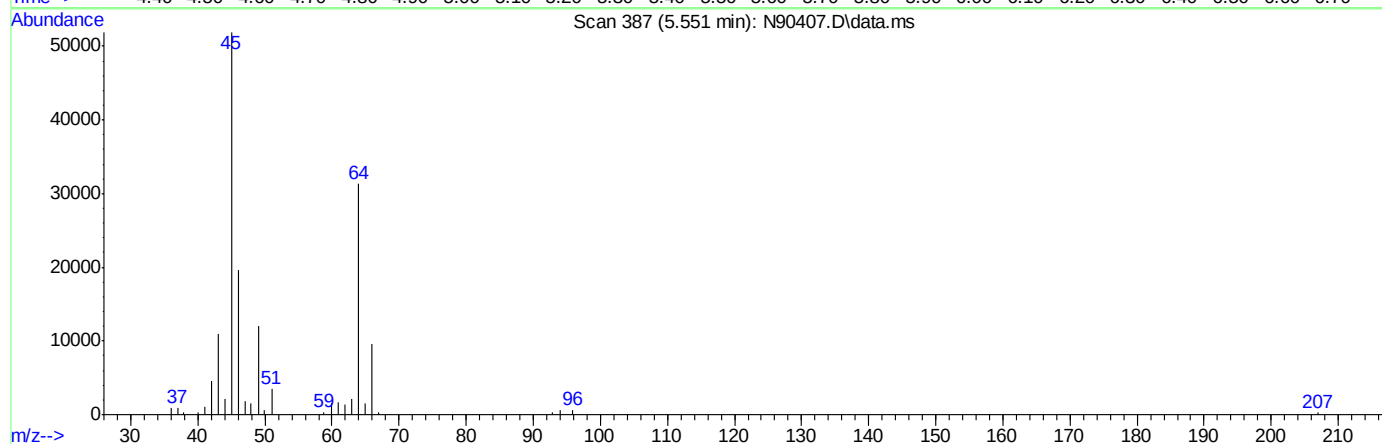
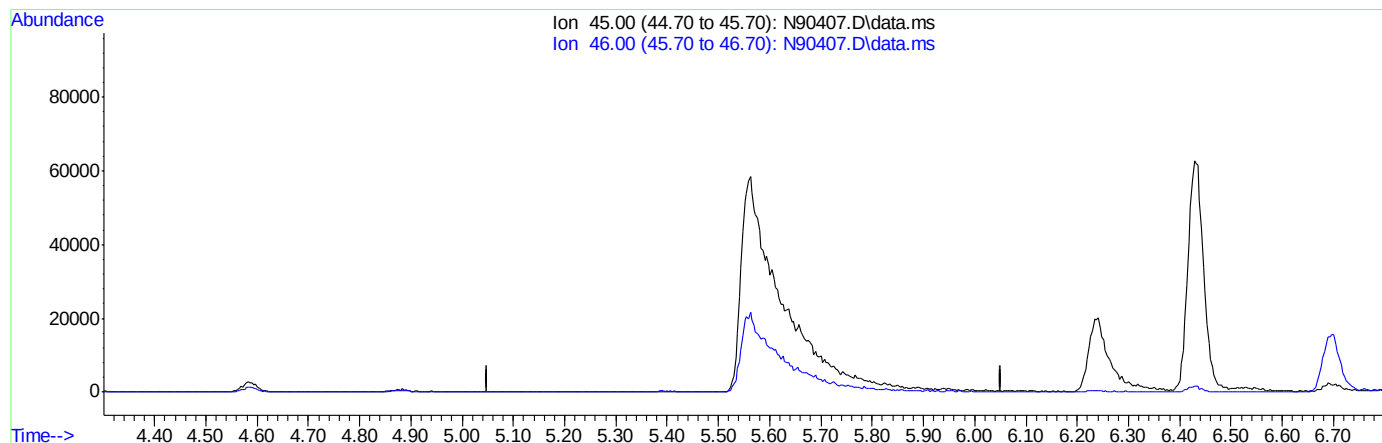
7.5.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

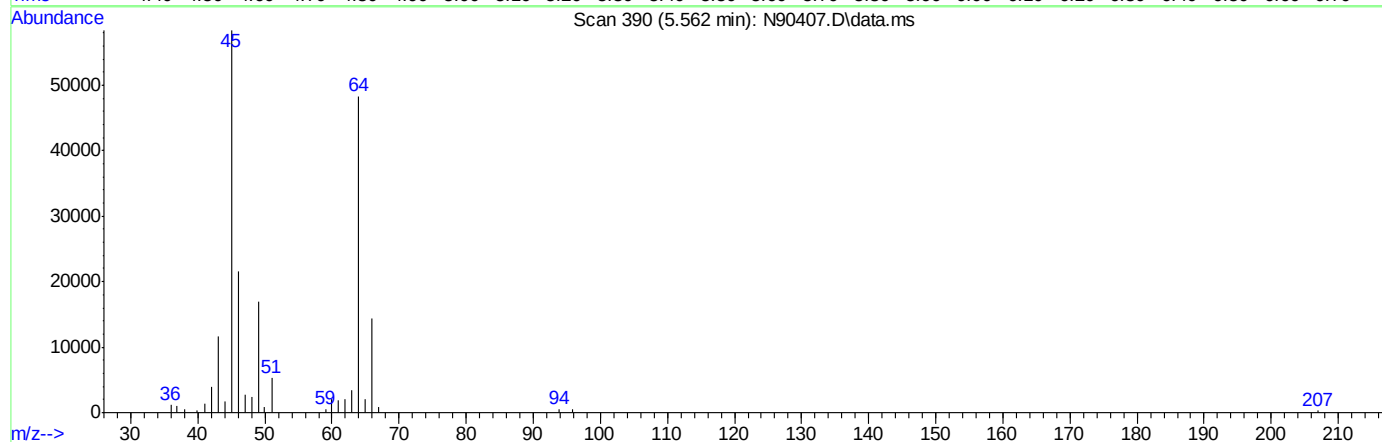
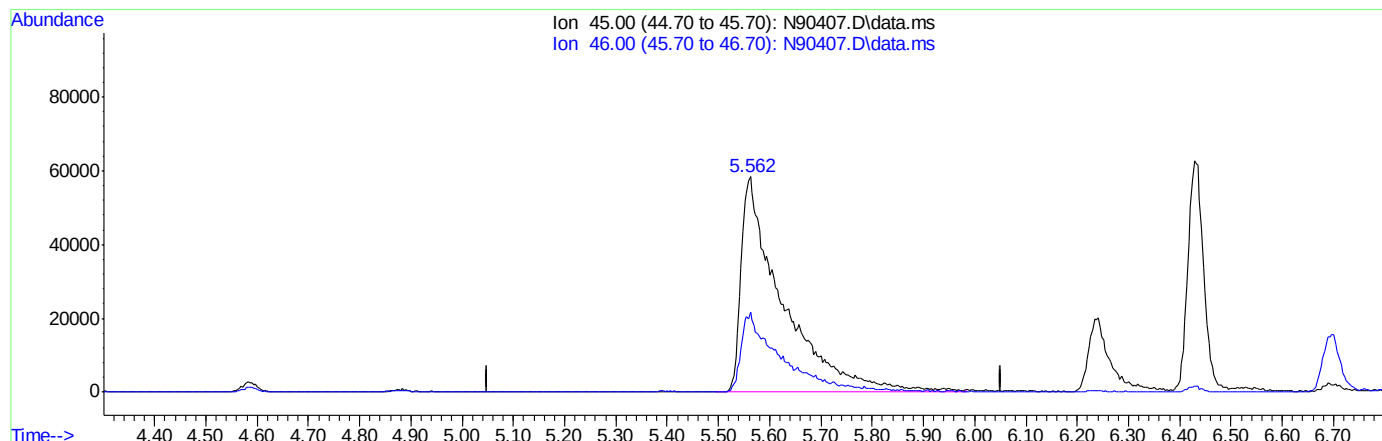
response 0

Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



TIC: N90407.D\data.ms

(3) Ethanol (p)

5.562min (+0.011) 5845.90ug/L m

response 328301

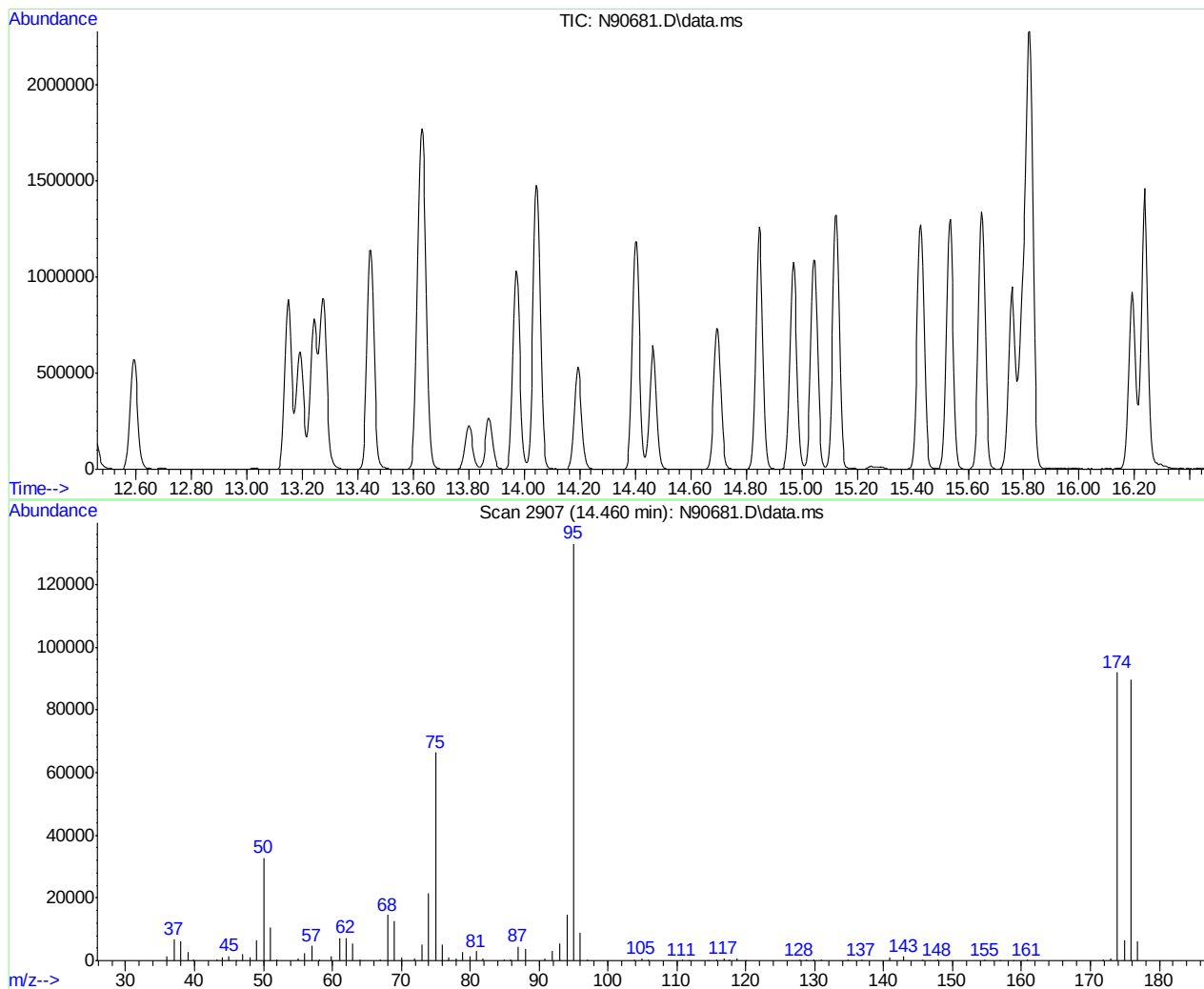
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140929\N90681.D
Acq On : 29 Sep 2014 8:26 am
Sample : bfb
Misc : ms32833,MSN3355,,,5,1
MS Integration Params: RTEINT.P

Vial: 16
Operator: jaclynb
Inst : MSN
Multiplr: 1.00

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Scan 2907

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.6	32728	PASS
75	95	30	60	49.8	66328	PASS
95	95	100	100	100.0	133056	PASS
96	95	5	9	6.7	8924	PASS
173	174	0.00	2	0.9	797	PASS
174	95	50	150	69.1	91920	PASS
175	174	5	9	7.1	6562	PASS
176	174	95	101	97.4	89544	PASS
177	176	5	9	7.0	6231	PASS

Scan 2907 (14.460 min): N90681.D\data.ms
cc3345-50

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	1490	49.00	6466	63.00	5300	76.90	1088
37.00	6814	50.00	32728	64.00	442	78.00	561
38.00	6259	51.00	10645	67.00	412	78.90	2729
39.00	2657	51.90	398	68.00	14633	79.90	1336
39.90	222	55.00	615	69.00	12785	80.90	3015
43.20	270	56.00	2454	70.00	1140	81.90	564
44.00	1077	57.00	4723	71.90	660	85.00	187
45.00	1407	58.10	365	73.00	5154	85.90	359
46.00	174	59.90	1535	74.00	21400	86.90	4543
46.90	2050	61.00	7141	75.00	66328	88.00	3804
48.00	921	62.00	7275	76.00	5145	90.80	575

Scan 2907 (14.460 min): N90681.D\data.ms
cc3345-50

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.90	3018	114.60	158	136.80	334	173.90	91920
93.00	5629	115.70	377	140.80	1174	174.90	6562
94.00	14703	116.80	679	142.90	1213	175.90	89544
95.00	133056	117.70	327	145.70	277	176.90	6231
96.00	8924	118.70	602	147.80	209		
97.00	317	120.00	173	154.70	242		
103.90	414	127.80	328	156.90	170		
104.90	587	128.80	225	158.80	151		
105.90	464	129.90	304	160.80	197		
110.80	242	130.90	222	171.90	231		
111.70	163	134.80	190	172.90	797		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90391.D
 Acq On : 18 Sep 2014 4:07 pm
 Operator : krystend
 Sample : IC3345-0.5
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:55:14 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:12:51 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.708	65	120097	500.00	ug/L	0.01
4) pentafluorobenzene	9.119	168	275131	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	415480	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	219528	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162408	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery	=	0.00%#	
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery	=	0.00%#	
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery	=	0.00%#	
Target Compounds						
7) vinyl chloride	4.898	62	1639m	0.53	ug/L	
19) methyl tert butyl ether	7.719	73	3086m	0.44	ug/L	
47) benzene	9.797	78	7643	0.73	ug/L	99
51) trichloroethene	10.406	95	2246	0.70	ug/L	86
59) cis-1,3-dichloropropene	11.077	75	1041	0.24	ug/L	56
63) trans-1,3-dichloropropene	11.505	75	1504	0.40	ug/L	87
67) tetrachloroethene	12.587	166	1848	0.71	ug/L #	58
69) dibromochloromethane	12.198	129	1535	0.54	ug/L	84
75) m,p-xylene	13.633	106	6519	1.49	ug/L	84
76) o-xylene	14.047	106	3021	0.68	ug/L	85
84) 1,1,2,2-tetrachloroethane	14.050	83	2059	0.81	ug/L	83

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

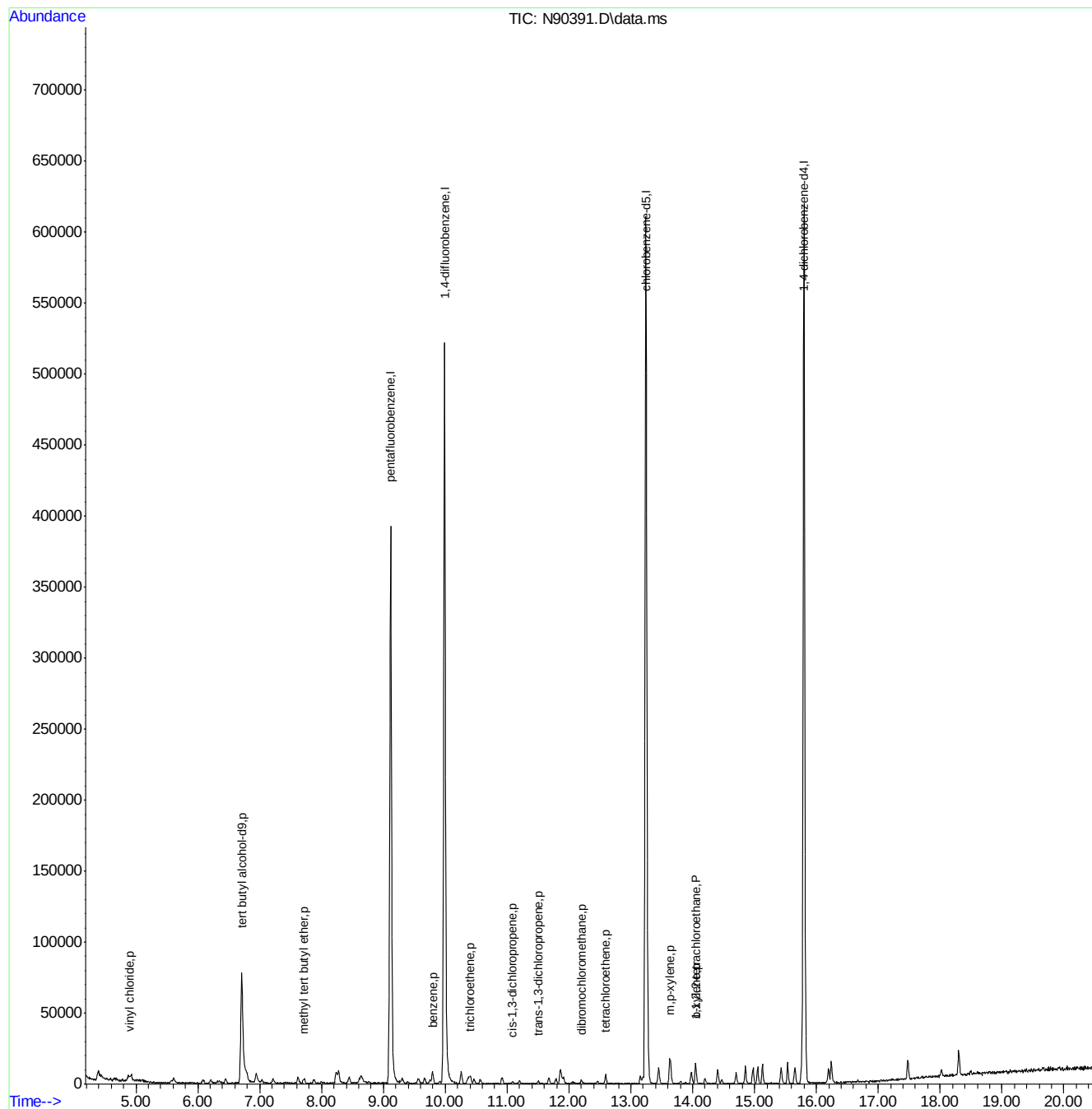
7.6.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90391.D
Acq On : 18 Sep 2014 4:07 pm
Operator : krystend
Sample : IC3345-0.5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:55:14 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:12:51 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90392.D
 Acq On : 18 Sep 2014 4:35 pm
 Operator : krystend
 Sample : IC3345-1
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 10:01:48 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.708	65	115293	500.00	ug/L	0.01
4) pentafluorobenzene	9.119	168	271362	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	419952	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	219703	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	167035	50.00	ug/L	0.00

System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#

Target Compounds						Qvalue
7) vinyl chloride	4.890	62	7283	1.62	ug/L	97
12) trichlorofluoromethane	6.198	101	8704	1.59	ug/L	84
15) 1,1-dichloroethene	6.785	96	3828	1.01	ug/L	93
19) methyl tert butyl ether	7.719	73	5236m	Below Cal		
22) trans-1,2-dichloroethene	7.623	96	3906	1.43	ug/L	# 76
32) 1,1-dichloroethane	7.885	63	8882	1.33	ug/L	99
36) cis-1,2-dichloroethene	8.450	96	4043	1.30	ug/L	84
39) chloroform	8.648	83	8452	1.42	ug/L	89
42) 1,1,1-trichloroethane	9.398	97	3394	0.74	ug/L	87
45) carbon tetrachloride	9.758	117	4847	1.18	ug/L	90
47) benzene	9.794	78	16400	1.36	ug/L	93
48) 1,2-dichloroethane	9.302	62	8058	1.43	ug/L	100
51) trichloroethene	10.409	95	4897	1.36	ug/L	91
54) bromodichloromethane	10.469	83	5684	1.26	ug/L	88
59) cis-1,3-dichloropropene	11.088	75	2757	1.02	ug/L	99
62) toluene	11.855	92	10192	1.41	ug/L	95
63) trans-1,3-dichloropropene	11.501	75	3719	1.06	ug/L	95
64) 1,1,2-trichloroethane	11.664	83	3333	1.43	ug/L	# 58
67) tetrachloroethene	12.594	166	3847	1.34	ug/L	95
69) dibromochloromethane	12.198	129	3400	1.15	ug/L	100
72) chlorobenzene	13.276	112	11161	1.46	ug/L	92
73) 1,1,1,2-tetrachloroethane	13.195	131	3600	1.29	ug/L	78
74) ethylbenzene	13.449	91	20302	1.42	ug/L	95
75) m,p-xylene	13.633	106	14337	2.75	ug/L	91
76) o-xylene	14.043	106	6957	1.37	ug/L	91
78) bromoform	13.803	173	2334	1.36	ug/L	86
84) 1,1,2,2-tetrachloroethane	14.047	83	4956	1.30	ug/L	86
89) 1,3,5-trimethylbenzene	15.129	105	16921	1.42	ug/L	84
91) 1,2,4-trimethylbenzene	15.539	105	16592	1.41	ug/L	94
93) 1,3-dichlorobenzene	15.761	146	9407	1.07	ug/L	95
95) 1,4-dichlorobenzene	15.822	146	10009	0.88	ug/L	89
96) 1,2-dichlorobenzene	16.196	146	8517	1.00	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

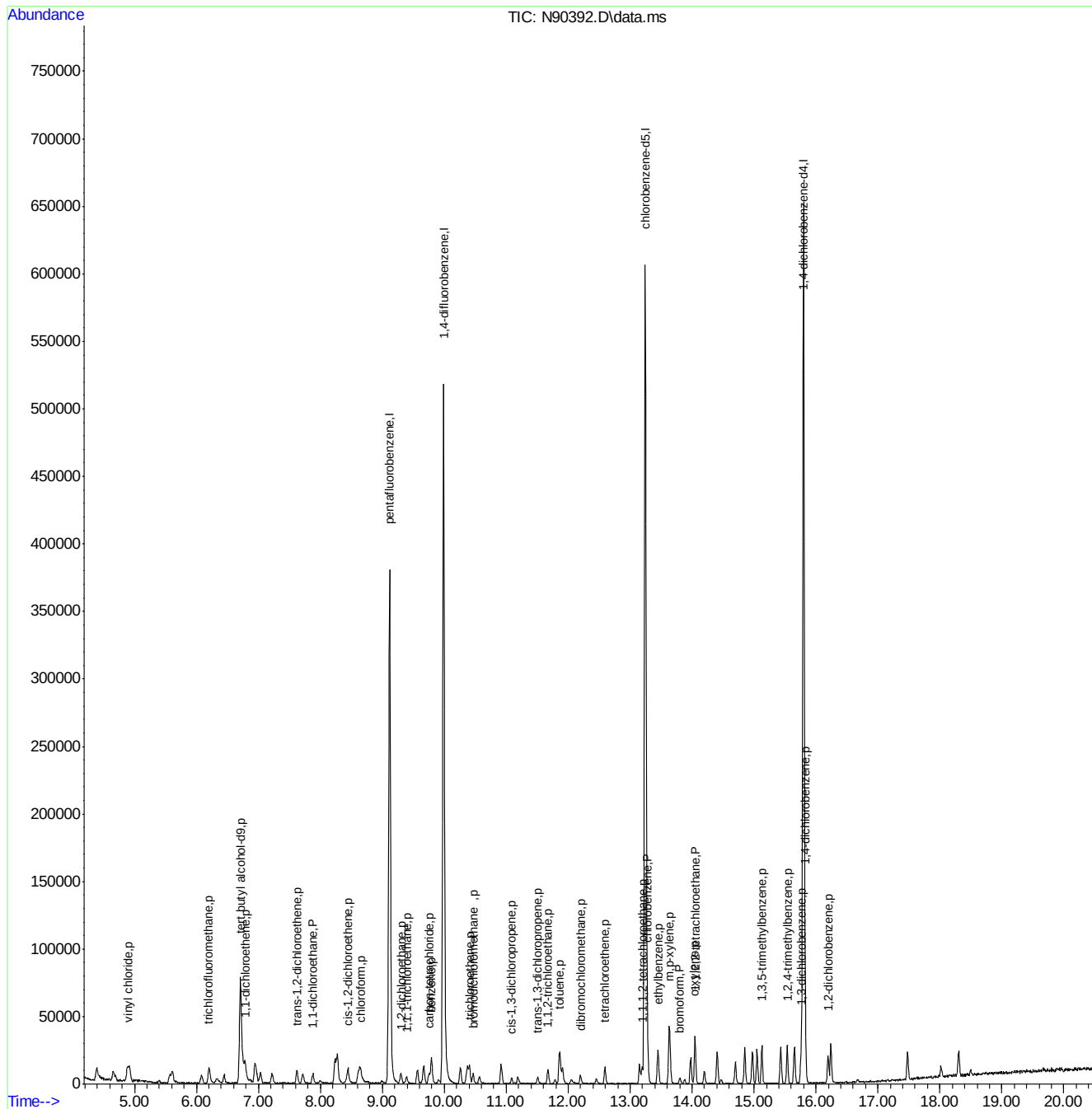
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration



n140918w.m Fri Sep 19 12:06:26 2014

Page: 3

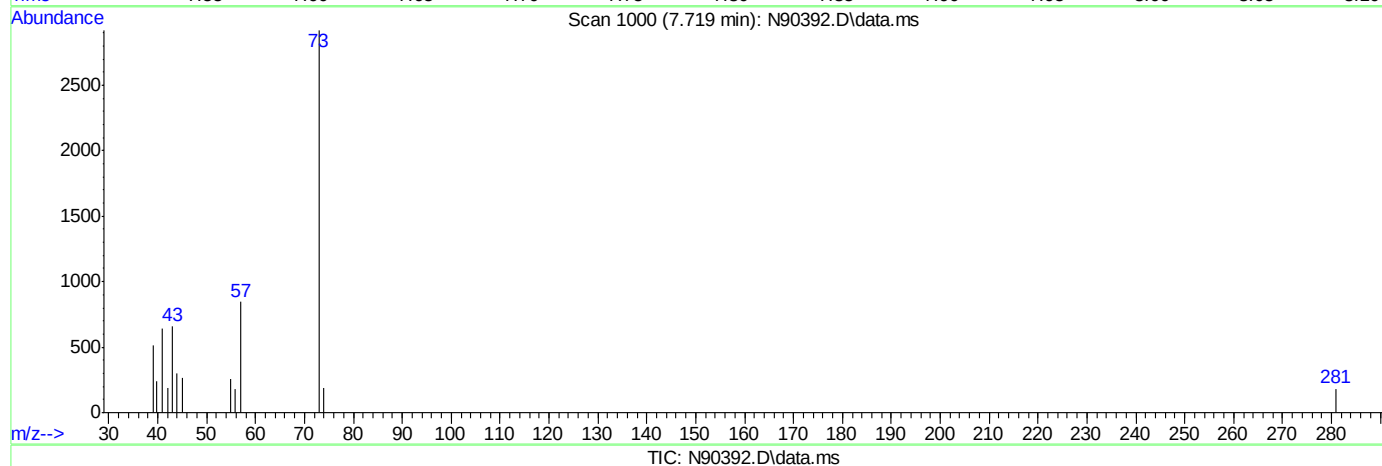
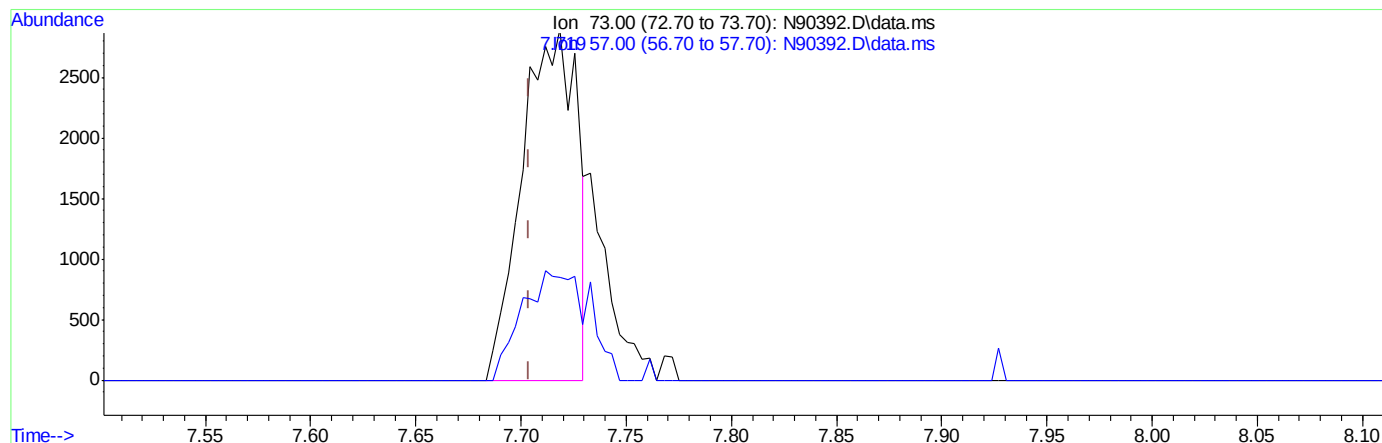
7.6.2



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 09:16:03 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:14:20 2014
Response via : Initial Calibration



(19) methyl tert butyl ether (p)

7.719min (+0.015) 0.76ug/L m

response 5236

Ion	Exp%	Act%
73.00	100	100
57.00	28.40	28.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90393.D
 Acq On : 18 Sep 2014 5:03 pm
 Operator : krystend
 Sample : IC3345-2
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:17:10 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.707	65	112920	500.00	ug/L	0.01
4) pentafluorobenzene	9.119	168	263657	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	403108	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	215261	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	164137	50.00	ug/L	0.00

System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.792	59	9557	25.25	ug/L	# 100
3) Ethanol	5.576	45	14818	272.84	ug/L	# 78
5) dichlorodifluoromethane	4.395	85	5443	1.41	ug/L	85
6) chloromethane	4.660	50	8094	2.04	ug/L	79
7) vinyl chloride	4.897	62	5215	1.04	ug/L	85
8) bromomethane	5.392	96	1165	0.95	ug/L	# 64
9) chloroethane	5.569	64	3070	1.85	ug/L	92
12) trichlorofluoromethane	6.198	101	6827	1.02	ug/L	93
15) 1,1-dichloroethene	6.785	96	5890	2.02	ug/L	95
18) methylene chloride	6.937	84	7249	2.92	ug/L	81
19) methyl tert butyl ether	7.715	73	9597	1.47	ug/L	99
22) trans-1,2-dichloroethene	7.620	96	6008	1.92	ug/L	# 82
28) di-isopropyl ether	8.274	45	31392	2.48	ug/L	85
32) 1,1-dichloroethane	7.871	63	14708	2.02	ug/L	90
33) tert-butyl ethyl ether	8.677	59	2769	0.45	ug/L	97
36) cis-1,2-dichloroethene	8.454	96	6725	2.01	ug/L	93
39) chloroform	8.645	83	13274	1.96	ug/L	83
42) 1,1,1-trichloroethane	9.391	97	7250	1.73	ug/L	93
45) carbon tetrachloride	9.751	117	7899	1.79	ug/L	93
47) benzene	9.797	78	26423	1.95	ug/L	95
48) 1,2-dichloroethane	9.299	62	12882	2.03	ug/L	99
49) tert-amyl methyl ether	9.910	73	3280	0.98	ug/L	93
51) trichloroethene	10.409	95	8004	1.97	ug/L	84
52) 1,2-dichloropropane	10.381	63	7182	2.16	ug/L	92
53) dibromomethane	10.352	93	4198	2.60	ug/L	84
54) bromodichloromethane	10.462	83	9343	1.96	ug/L	96
59) cis-1,3-dichloropropene	11.084	75	5783	1.94	ug/L	94
62) toluene	11.855	92	15764	1.93	ug/L	96
63) trans-1,3-dichloropropene	11.505	75	6265	1.86	ug/L	86
64) 1,1,2-trichloroethane	11.678	83	5003	1.92	ug/L	96
67) tetrachloroethene	12.594	166	6221	1.88	ug/L	93
69) dibromochloromethane	12.198	129	6427	2.12	ug/L	84
70) 1,2-dibromoethane	12.452	107	5514	2.54	ug/L	72
72) chlorobenzene	13.280	112	17695	2.01	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration

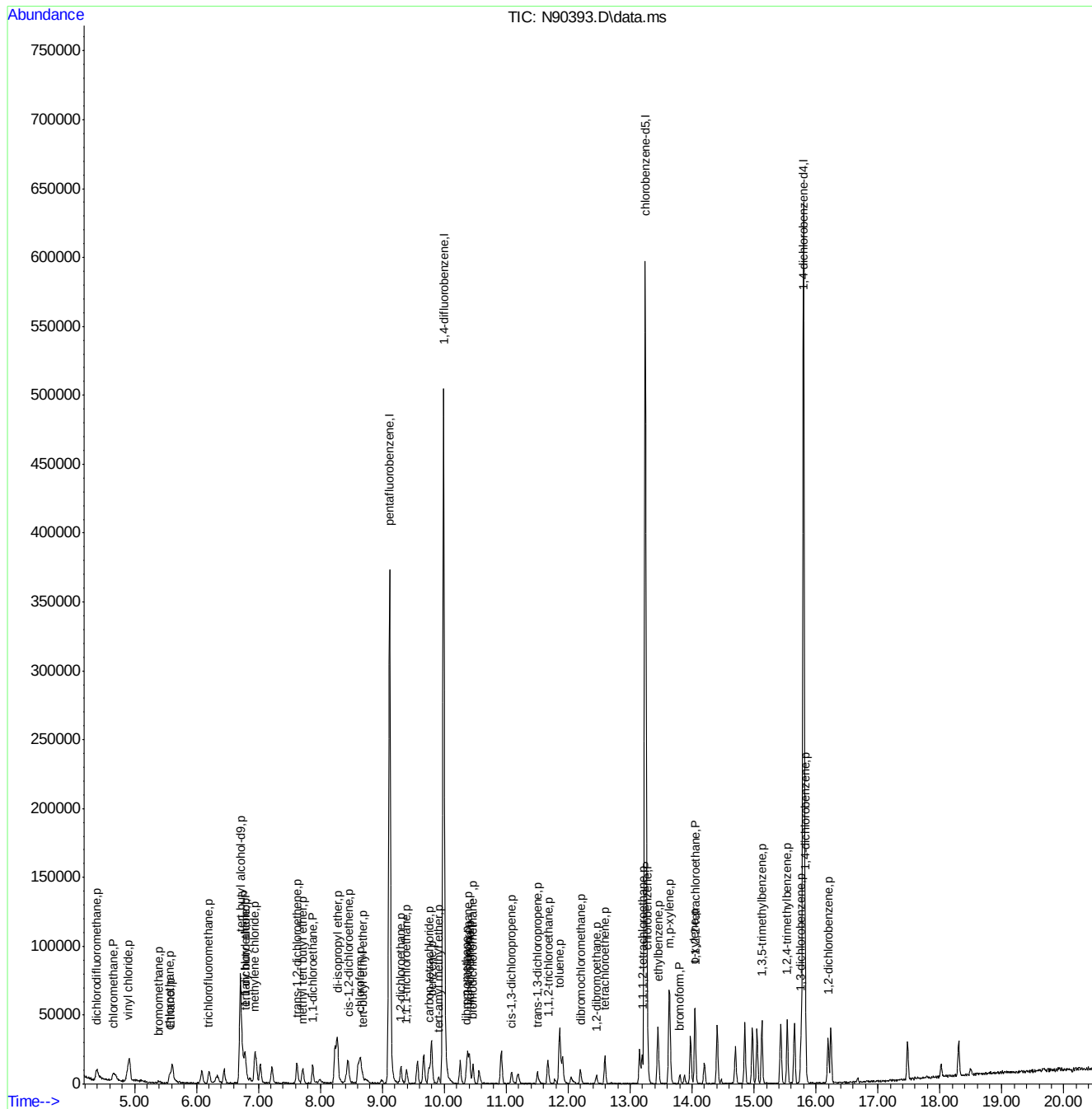
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73) 1,1,1,2-tetrachloroethane	13.195	131	5905	1.94	ug/L	96
74) ethylbenzene	13.449	91	31464	1.92	ug/L	97
75) m,p-xylene	13.637	106	22784	3.86	ug/L	89
76) o-xylene	14.043	106	11834	2.07	ug/L	92
78) bromoform	13.796	173	3307	1.70	ug/L	79
84) 1,1,2,2-tetrachloroethane	14.047	83	7319	1.89	ug/L	96
89) 1,3,5-trimethylbenzene	15.125	105	26341	1.93	ug/L	98
91) 1,2,4-trimethylbenzene	15.535	105	26213	1.94	ug/L	98
93) 1,3-dichlorobenzene	15.758	146	14005	1.93	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	13942	1.88	ug/L	90
96) 1,2-dichlorobenzene	16.196	146	12806	1.89	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90394.D
 Acq On : 18 Sep 2014 5:32 pm
 Operator : krystend
 Sample : IC3345-5
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:20:13 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.707	65	115311	500.00	ug/L	0.01
4) pentafluorobenzene	9.118	168	257045	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	404691	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	212989	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162164	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	13026	4.76	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	9.52%#		
60) toluene-d8 (s)	11.784	98	46384	4.42	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	8.84%#		
82) bromofluorobenzene (s)	14.467	95	20500	5.07	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	10.14%#		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.796	59	18756	42.89	ug/L	# 100
3) Ethanol	5.576	45	30201	460.66	ug/L	95
5) dichlorodifluoromethane	4.388	85	14822	4.61	ug/L	96
6) chloromethane	4.657	50	19212	4.92	ug/L	91
7) vinyl chloride	4.897	62	15363	3.73	ug/L	97
8) bromomethane	5.392	96	3523	3.98	ug/L	83
9) chloroethane	5.562	64	8770	5.63	ug/L	95
10) ethyl ether	6.439	59	14068	5.48	ug/L	88
11) acetonitrile	6.435	41	2094	4.92	ug/L	85
12) trichlorofluoromethane	6.205	101	19036	3.48	ug/L	96
13) freon-113	6.965	101	7927	3.31	ug/L	93
14) acrolein	6.205	56	8493	26.69	ug/L	92
15) 1,1-dichloroethene	6.785	96	9242	3.24	ug/L	96
16) acetone	6.343	58	3316	6.52	ug/L	# 80
17) Methyl Acetate	6.973	43	12498	5.67	ug/L	# 89
18) methylene chloride	6.941	84	14027	4.71	ug/L	# 82
19) methyl tert butyl ether	7.711	73	17899	3.08	ug/L	98
20) acrylonitrile	6.859	53	5811	5.03	ug/L	92
21) allyl chloride	7.036	41	23791	4.91	ug/L	92
22) trans-1,2-dichloroethene	7.619	96	11294	3.75	ug/L	91
23) iodomethane	6.863	142	2022	1.28	ug/L	82
24) carbon disulfide	7.220	76	32790	4.39	ug/L	95
25) propionitrile	6.789	54	47m	1.16	ug/L	
26) vinyl acetate	7.984	43	12276	3.24	ug/L	93
27) chloroprene	8.231	53	19763	3.93	ug/L	86
28) di-isopropyl ether	8.266	45	65977	4.77	ug/L	87
29) methacrylonitrile	8.411	41	9719	5.45	ug/L	94
30) 2-butanone	8.302	72	1194	3.71	ug/L	# 1
31) Hexane	8.252	41	22755	4.62	ug/L	# 64
32) 1,1-dichloroethane	7.878	63	28678	4.02	ug/L	98
33) tert-butyl ethyl ether	8.662	59	6641	1.82	ug/L	81
34) isobutyl alcohol	8.266	43	51083	25.96	ug/L	85
35) 2,2-dichloropropane	8.733	77	3847	0.90	ug/L	91
36) cis-1,2-dichloroethene	8.450	96	13951	4.27	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90394.D
 Acq On : 18 Sep 2014 5:32 pm
 Operator : krystend
 Sample : IC3345-5
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:20:13 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.266	43	47978	4.88	ug/L #	70
38) bromochloromethane	8.613	128	6266	5.18	ug/L	97
39) chloroform	8.641	83	26857	4.10	ug/L	95
41) Tetrahydrofuran	8.991	42	3997	4.74	ug/L	93
42) 1,1,1-trichloroethane	9.394	97	17023	4.37	ug/L	97
44) Cyclohexane	9.670	56	20575	3.33	ug/L #	88
45) carbon tetrachloride	9.748	117	14363	3.36	ug/L	90
46) 1,1-dichloropropene	9.567	75	14512	3.80	ug/L	86
47) benzene	9.790	78	52890	3.91	ug/L	97
48) 1,2-dichloroethane	9.302	62	25221	3.94	ug/L	97
49) tert-amyl methyl ether	9.907	73	5540	2.21	ug/L	73
50) heptane	10.257	43	13703	3.78	ug/L	98
51) trichloroethene	10.409	95	15353	3.78	ug/L	94
52) 1,2-dichloropropane	10.377	63	16284	4.69	ug/L	98
53) dibromomethane	10.363	93	8062	4.32	ug/L	98
54) bromodichloromethane	10.458	83	19383	4.07	ug/L	95
55) Methylcyclohexane	10.914	83	15134	3.30	ug/L	97
56) 2-chloroethyl vinyl ether	10.377	63	16284	4.88	ug/L #	97
57) methyl methacrylate	10.564	69	6956	4.35	ug/L	81
58) 1,4-dioxane	10.575	88	305m	11.91	ug/L	
59) cis-1,3-dichloropropene	11.081	75	14326	4.82	ug/L	94
61) 4-methyl-2-pentanone	11.187	43	15348	4.69	ug/L	93
62) toluene	11.858	92	32323	3.99	ug/L	100
63) trans-1,3-dichloropropene	11.505	75	13309	4.01	ug/L	90
64) 1,1,2-trichloroethane	11.671	83	10052	3.89	ug/L	97
65) ethyl methacrylate	11.872	69	13448	4.36	ug/L	95
67) tetrachloroethene	12.594	166	11517	3.57	ug/L	96
68) 1,3-dichloropropane	11.908	76	21203	5.29	ug/L	94
69) dibromochloromethane	12.201	129	12977	4.26	ug/L	95
70) 1,2-dibromoethane	12.449	107	10672	4.37	ug/L	97
71) 2-hexanone	12.042	43	11863	4.52	ug/L	97
72) chlorobenzene	13.276	112	35521	4.08	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	12646	4.24	ug/L	93
74) ethylbenzene	13.446	91	62342	3.90	ug/L	97
75) m,p-xylene	13.633	106	45068	7.78	ug/L	91
76) o-xylene	14.047	106	22661	3.98	ug/L	96
77) styrene	13.972	104	33240	4.68	ug/L	100
78) bromoform	13.810	173	7181	3.92	ug/L	89
79) trans-1,4-dichloro-2-b...	14.195	53	2021	2.79	ug/L #	72
81) isopropylbenzene	14.404	105	54139	4.64	ug/L	96
83) bromobenzene	14.697	156	13958	5.33	ug/L	94
84) 1,1,2,2-tetrachloroethane	14.047	83	14779	3.92	ug/L	92
85) 1,2,3-trichloropropane	14.192	75	13586	4.79	ug/L	95
86) n-propylbenzene	14.849	91	70187	4.75	ug/L	99
87) 2-chlorotoluene	14.973	91	47616	5.25	ug/L	92
88) 4-chlorotoluene	15.047	91	49594	5.16	ug/L	98
89) 1,3,5-trimethylbenzene	15.128	105	52715	3.95	ug/L	99
90) tert-butylbenzene	15.429	91	31228	4.47	ug/L	98
91) 1,2,4-trimethylbenzene	15.539	105	52034	3.94	ug/L	97
92) sec-butylbenzene	15.652	105	60459	4.52	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

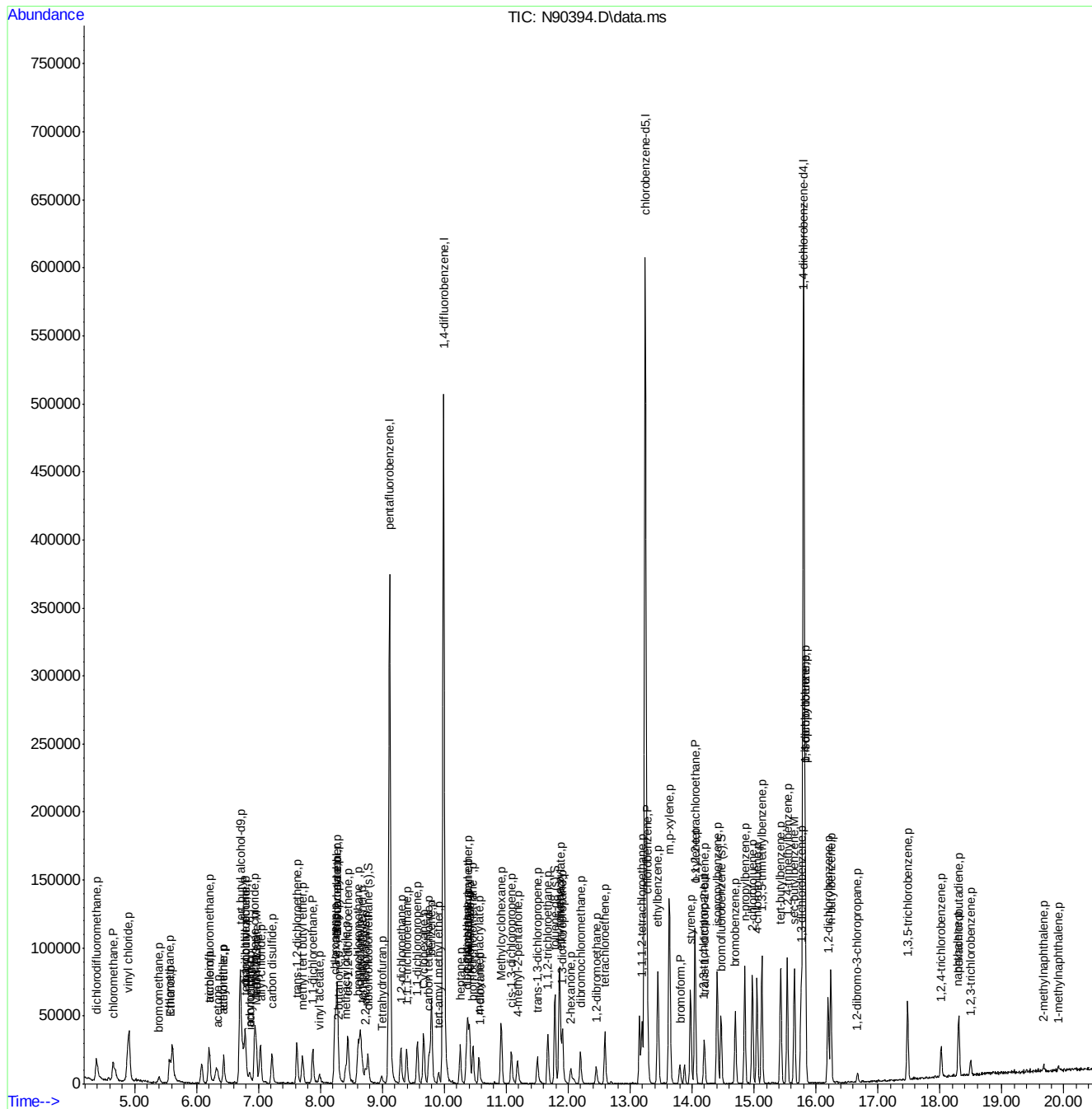
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.761	146	27513	3.89	ug/L	99
94) p-isopropyltoluene	15.825	119	51068	4.65	ug/L	98
95) 1,4-dichlorobenzene	15.825	146	27643	3.85	ug/L	95
96) 1,2-dichlorobenzene	16.196	146	25142	3.82	ug/L	95
97) n-butylbenzene	16.239	91	49528	4.29	ug/L	93
98) 1,2-dibromo-3-chloropr...	16.663	75	2015	4.30	ug/L #	73
99) 1,2,4-trichlorobenzene	18.020	180	7236	2.87	ug/L	85
100) 1,3,5-trichlorobenzene	17.476	180	17439	4.91	ug/L	97
101) hexachlorobutadiene	18.300	225	8509	4.69	ug/L	94
102) naphthalene	18.293	128	5069	1.53	ug/L	100
103) 1,2,3-trichlorobenzene	18.498	180	4017	2.24	ug/L	74
104) 2-methylnaphthalene	19.678	142	2198	2.28	ug/L #	100
105) 1-methylnaphthalene	19.919	142	1667	2.28	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration



n140918w.m Fri Sep 19 12:06:36 2014

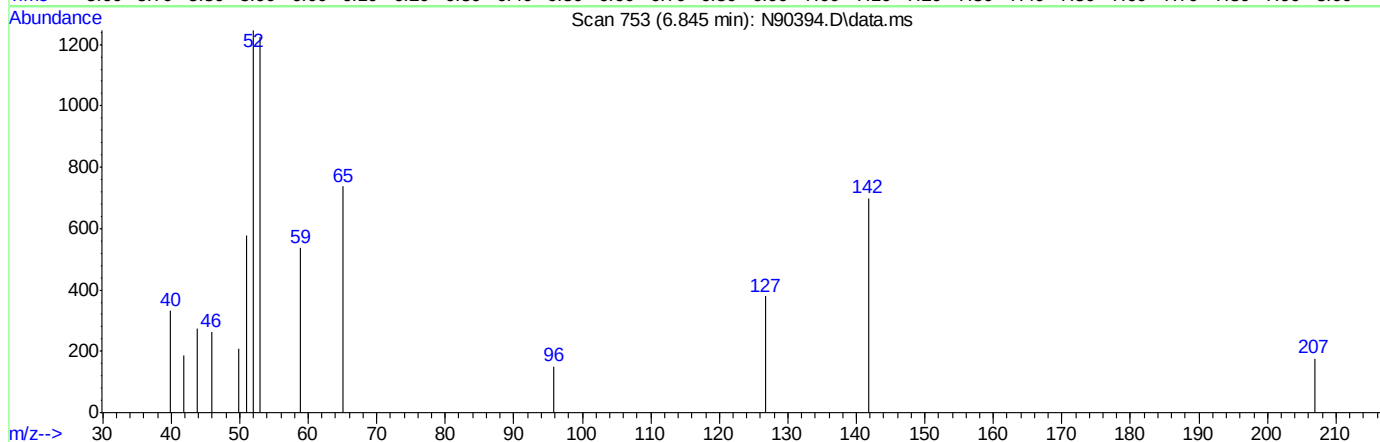
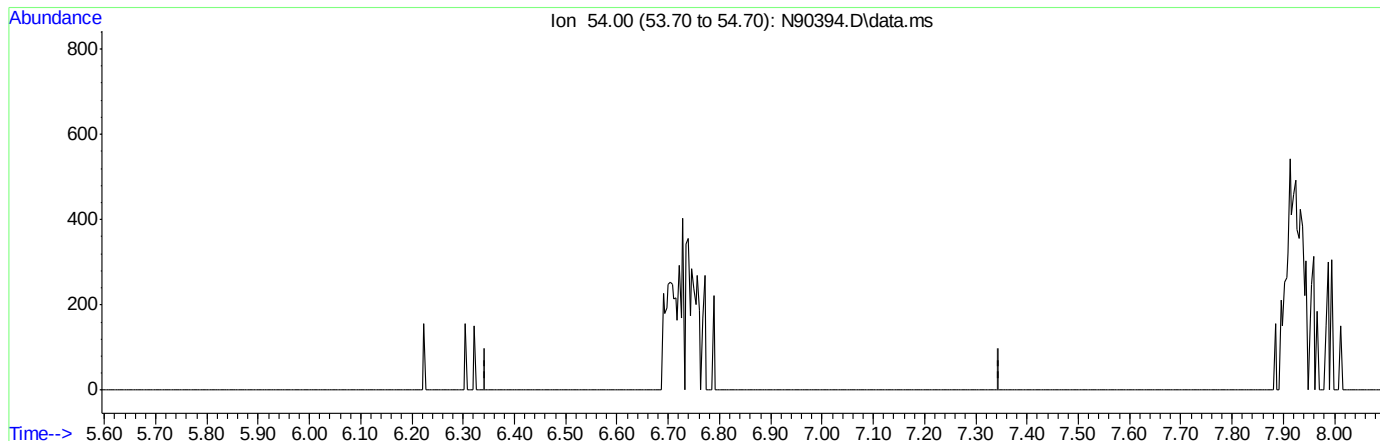
Page: 4

7.6.4

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration



TIC: N90394.D\data.ms

(25) propionitrile (p)

6.845min (-6.845) 0.00ug/L

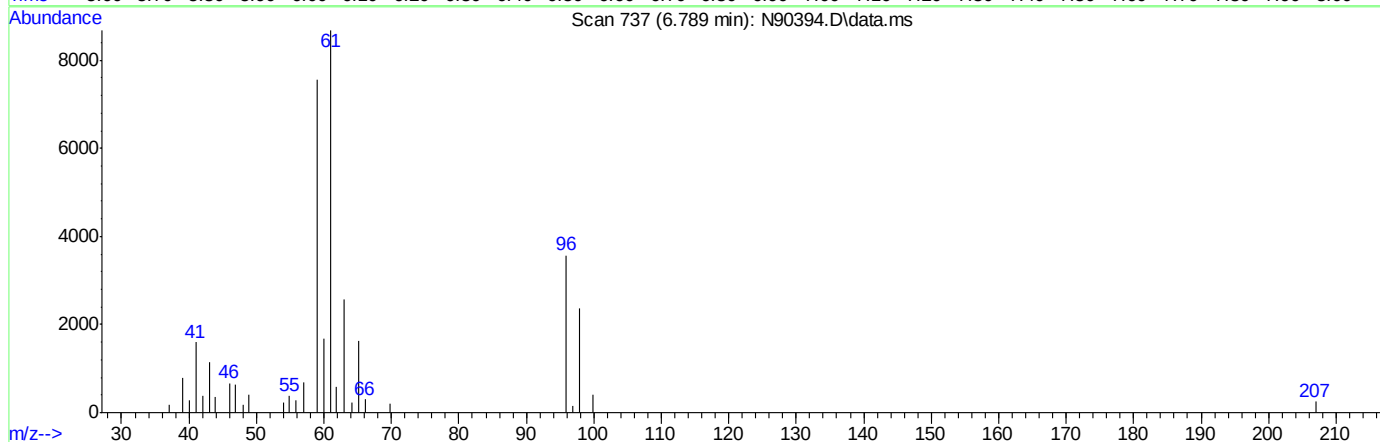
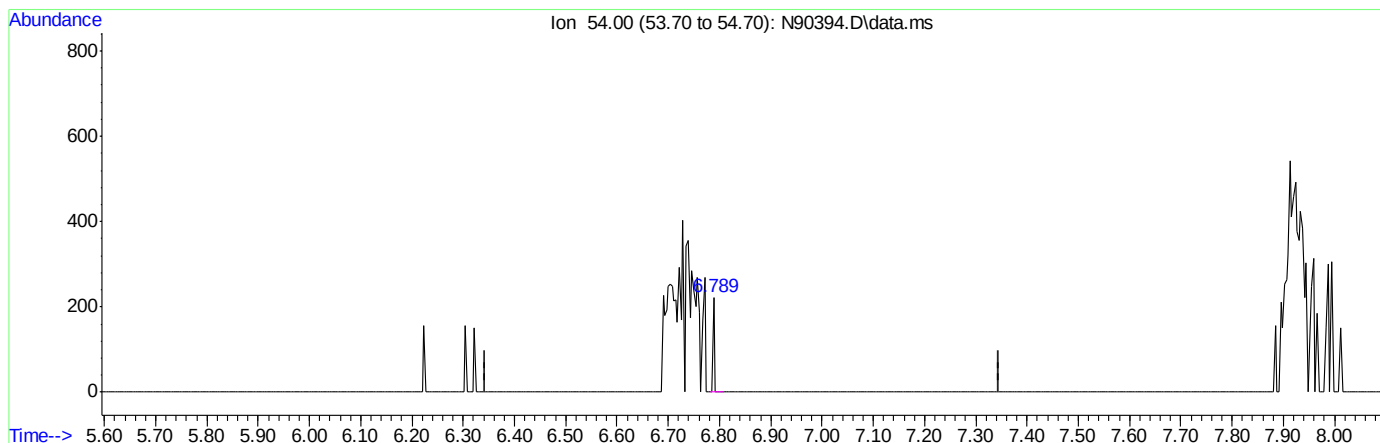
response 0

Ion	Exp%	Act%
54.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration



TIC: N90394.D\data.ms

(25) propionitrile (p)

6.789min (-0.056) 1.16ug/L m

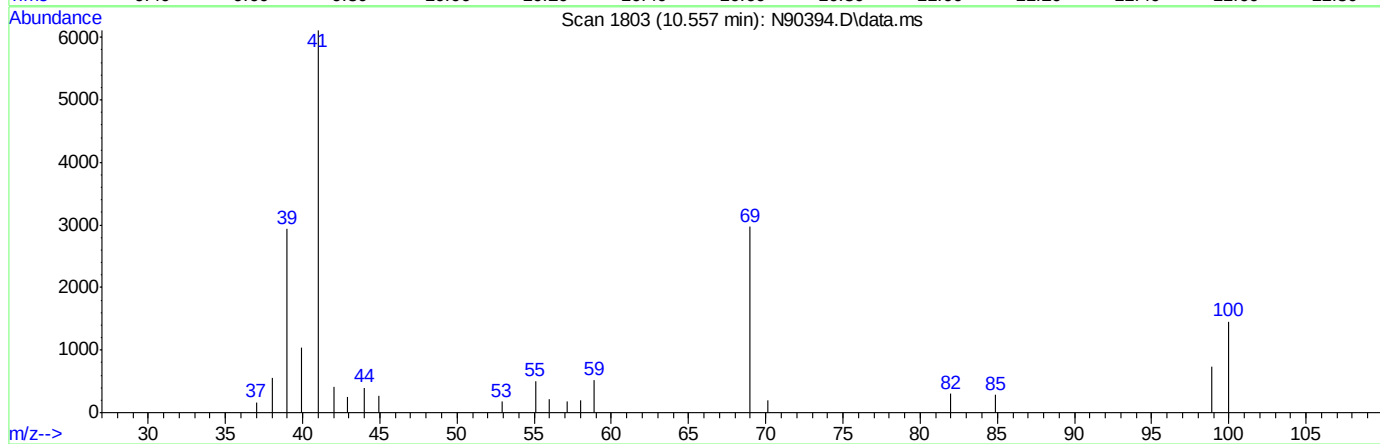
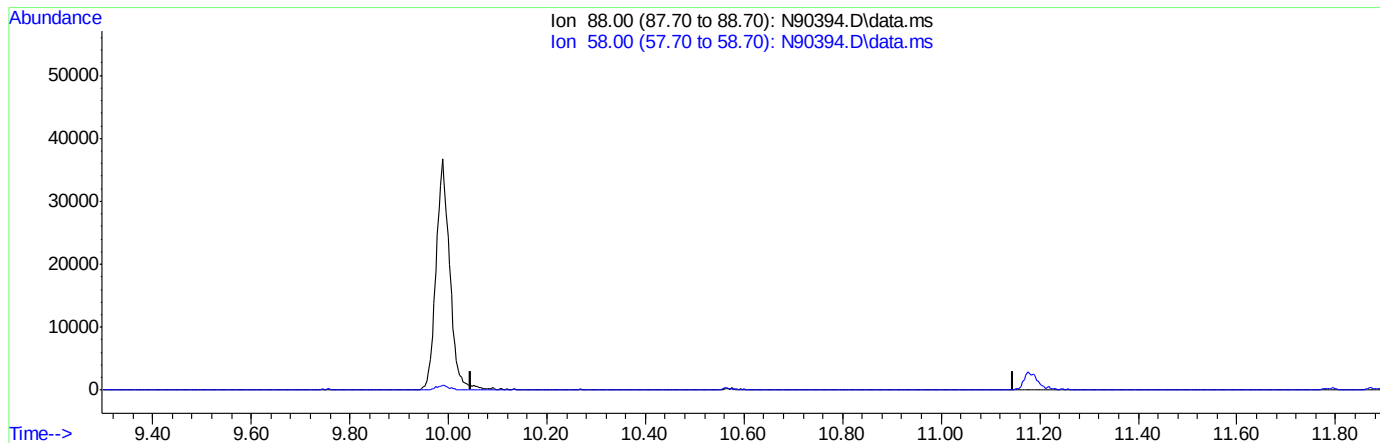
response 47

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration



(58) 1,4-dioxane (p)

10.557min (-10.557) 0.00ug/L

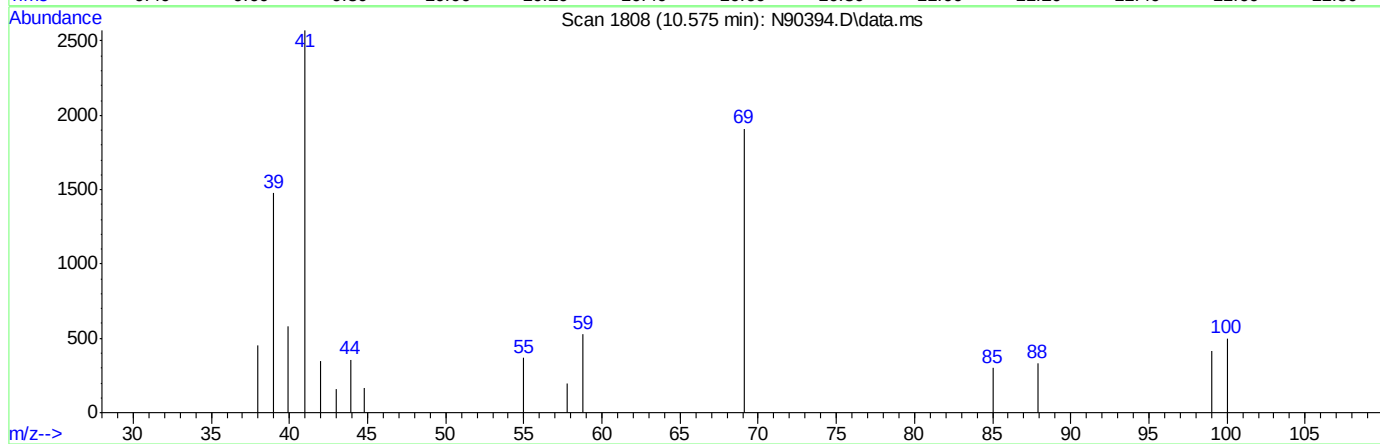
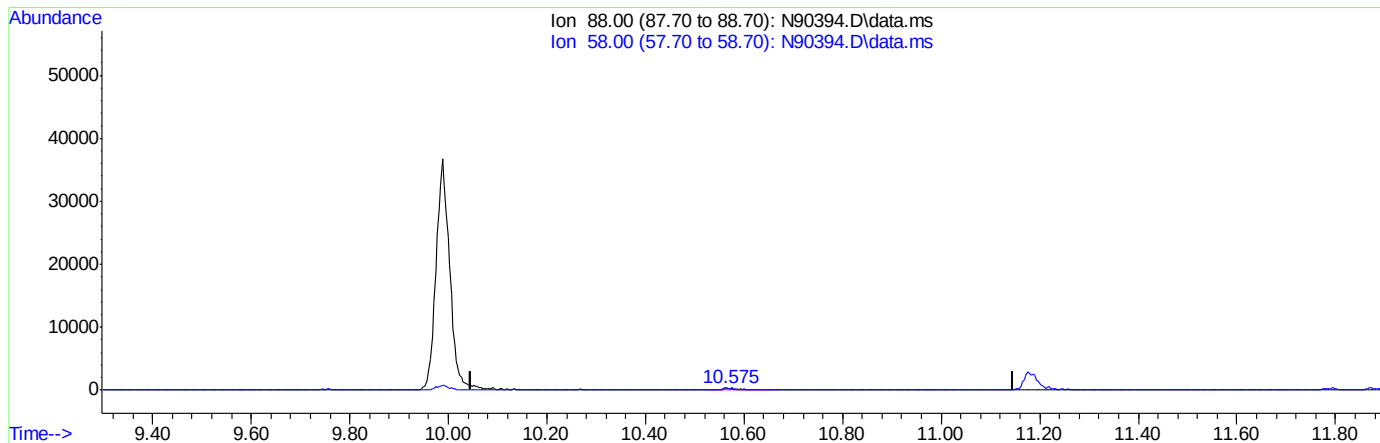
response 0

Ion	Exp%	Act%
88.00	100	0.00
58.00	134.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration



(58) 1,4-dioxane (p)

10.575min (+0.018) 11.91ug/L m

response 305

Ion	Exp%	Act%
88.00	100	100
58.00	134.00	59.28#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90395.D
 Acq On : 18 Sep 2014 6:00 pm
 Operator : krystend
 Sample : IC3345-10
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:21:41 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.704	65	126512	500.00	ug/L	0.01
4) pentafluorobenzene	9.119	168	258191	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	407845	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	221249	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	172320	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	27210	10.14	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	20.28%#		
60) toluene-d8 (s)	11.784	98	101486	10.19	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	20.38%#		
82) bromofluorobenzene (s)	14.464	95	42884	9.91	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	19.82%#		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.789	59	40778	89.23	ug/L	# 100
3) Ethanol	5.566	45	62418	891.15	ug/L	97
5) dichlorodifluoromethane	4.385	85	31777	10.11	ug/L	87
6) chloromethane	4.654	50	43406	11.12	ug/L	97
7) vinyl chloride	4.897	62	33509	8.65	ug/L	96
8) bromomethane	5.392	96	9737	11.76	ug/L	74
9) chloroethane	5.569	64	19605	12.03	ug/L	91
10) ethyl ether	6.439	59	27414	10.15	ug/L	97
11) acetonitrile	6.435	41	4465	10.53	ug/L	87
12) trichlorofluoromethane	6.206	101	42717	8.42	ug/L	99
13) freon-113	6.969	101	18580	9.29	ug/L	86
14) acrolein	6.206	56	17077	51.68	ug/L	92
15) 1,1-dichloroethene	6.785	96	18873	7.23	ug/L	91
16) acetone	6.336	58	7023	11.93	ug/L	# 80
17) Methyl Acetate	6.969	43	25886	10.96	ug/L	# 91
18) methylene chloride	6.944	84	28490	9.71	ug/L	99
19) methyl tert butyl ether	7.712	73	31021	5.88	ug/L	96
20) acrylonitrile	6.856	53	13194	11.34	ug/L	97
21) allyl chloride	7.033	41	48398	10.04	ug/L	94
22) trans-1,2-dichloroethene	7.627	96	22666	8.00	ug/L	90
23) iodomethane	6.860	142	6549	6.59	ug/L	84
24) carbon disulfide	7.224	76	68989	9.79	ug/L	98
25) propionitrile	6.867	54	233m	9.28	ug/L	
26) vinyl acetate	7.980	43	35528	11.32	ug/L	97
27) chloroprene	8.231	53	43807	9.71	ug/L	96
28) di-isopropyl ether	8.270	45	130436	9.54	ug/L	91
29) methacrylonitrile	8.405	41	21048	11.24	ug/L	85
30) 2-butanone	8.295	72	3279	11.65	ug/L	# 1
31) Hexane	8.256	41	43898	9.22	ug/L	# 69
32) 1,1-dichloroethane	7.878	63	60716	8.92	ug/L	100
33) tert-butyl ethyl ether	8.666	59	12883	4.46	ug/L	96
34) isobutyl alcohol	8.267	43	102422	50.85	ug/L	88
35) 2,2-dichloropropane	8.733	77	14007	5.55	ug/L	100
36) cis-1,2-dichloroethene	8.443	96	27812	8.80	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90395.D
 Acq On : 18 Sep 2014 6:00 pm
 Operator : krystend
 Sample : IC3345-10
 Misc : ms32746,MSN3345,,,,,5,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:21:41 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.267	43	100144	10.26	ug/L	85
38) bromochloromethane	8.613	128	12292	9.93	ug/L	88
39) chloroform	8.645	83	54158	8.62	ug/L	99
41) Tetrahydrofuran	8.984	42	9778	11.85	ug/L	82
42) 1,1,1-trichloroethane	9.391	97	41591	10.98	ug/L	97
44) Cyclohexane	9.670	56	46371	8.94	ug/L	93
45) carbon tetrachloride	9.755	117	32807	8.30	ug/L	97
46) 1,1-dichloropropene	9.564	75	32906	9.72	ug/L	93
47) benzene	9.794	78	107734	8.26	ug/L	98
48) 1,2-dichloroethane	9.299	62	50274	8.23	ug/L	98
49) tert-amyl methyl ether	9.911	73	11881	5.78	ug/L	88
50) heptane	10.257	43	26634	8.30	ug/L	97
51) trichloroethene	10.409	95	31842	8.18	ug/L	90
52) 1,2-dichloropropane	10.377	63	33512	9.78	ug/L	98
53) dibromomethane	10.360	93	16811	9.37	ug/L	93
54) bromodichloromethane	10.462	83	40713	8.90	ug/L	95
55) Methylcyclohexane	10.918	83	32926	8.59	ug/L	99
56) 2-chloroethyl vinyl ether	10.377	63	33512	10.09	ug/L #	100
57) methyl methacrylate	10.554	69	15574	10.34	ug/L	81
58) 1,4-dioxane	10.558	88	1262	66.24	ug/L #	61
59) cis-1,3-dichloropropene	11.081	75	34438	11.58	ug/L	94
61) 4-methyl-2-pentanone	11.176	43	35384	11.07	ug/L	95
62) toluene	11.858	92	65958	8.51	ug/L	100
63) trans-1,3-dichloropropene	11.501	75	28470	8.86	ug/L	98
64) 1,1,2-trichloroethane	11.671	83	21305	8.66	ug/L	92
65) ethyl methacrylate	11.873	69	29881	10.27	ug/L	96
67) tetrachloroethene	12.590	166	24673	7.81	ug/L	87
68) 1,3-dichloropropane	11.904	76	42223	9.86	ug/L	94
69) dibromochloromethane	12.194	129	27781	9.04	ug/L	92
70) 1,2-dibromoethane	12.449	107	23274	9.58	ug/L	91
71) 2-hexanone	12.035	43	28753	11.08	ug/L	97
72) chlorobenzene	13.276	112	69810	8.09	ug/L	97
73) 1,1,1,2-tetrachloroethane	13.195	131	26388	8.86	ug/L	94
74) ethylbenzene	13.446	91	130881	8.33	ug/L	98
75) m,p-xylene	13.630	106	91775	15.96	ug/L	96
76) o-xylene	14.047	106	46892	8.26	ug/L	91
77) styrene	13.973	104	72509	10.16	ug/L	97
78) bromoform	13.803	173	15696	8.72	ug/L	95
79) trans-1,4-dichloro-2-b...	14.192	53	5470	9.33	ug/L #	62
81) isopropylbenzene	14.404	105	117713	9.85	ug/L	99
83) bromobenzene	14.697	156	28241	9.82	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.050	83	30205	7.88	ug/L	93
85) 1,2,3-trichloropropane	14.195	75	29533	10.01	ug/L	100
86) n-propylbenzene	14.849	91	150782	9.85	ug/L	99
87) 2-chlorotoluene	14.970	91	99253	10.05	ug/L	98
88) 4-chlorotoluene	15.047	91	104462	10.07	ug/L	95
89) 1,3,5-trimethylbenzene	15.125	105	111408	8.29	ug/L	97
90) tert-butylbenzene	15.433	91	68511	9.75	ug/L	91
91) 1,2,4-trimethylbenzene	15.535	105	112937	8.50	ug/L	96
92) sec-butylbenzene	15.652	105	128895	9.53	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.761	146	55907	7.87	ug/L	98
94)	p-isopropyltoluene	15.822	119	111832	9.93	ug/L	98
95)	1,4-dichlorobenzene	15.825	146	55167	7.67	ug/L	96
96)	1,2-dichlorobenzene	16.196	146	52420	7.97	ug/L	99
97)	n-butylbenzene	16.235	91	107958	9.48	ug/L	98
98)	1,2-dibromo-3-chloropr...	16.670	75	4379	9.46	ug/L	87
99)	1,2,4-trichlorobenzene	18.021	180	19744	9.37	ug/L	94
100)	1,3,5-trichlorobenzene	17.476	180	36268	9.69	ug/L	100
101)	hexachlorobutadiene	18.300	225	17924	9.60	ug/L	94
102)	naphthalene	18.293	128	13706	5.95	ug/L	100
103)	1,2,3-trichlorobenzene	18.491	180	11426	8.28	ug/L	84
104)	2-methylnaphthalene	19.668	142	4279	4.37	ug/L #	100
105)	1-methylnaphthalene	19.919	142	3816	5.14	ug/L	90

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

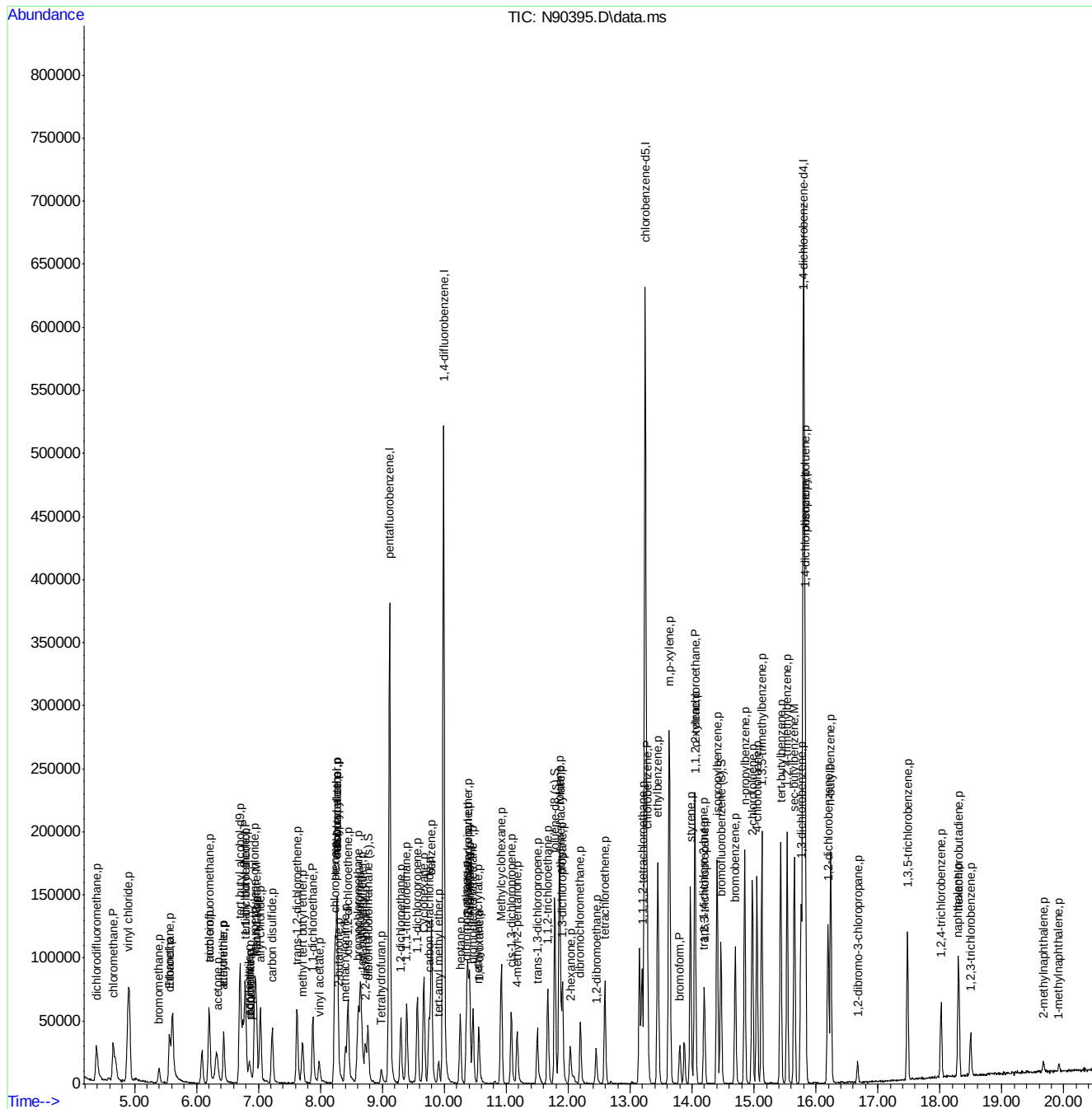
7.6.5

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration



n140918w.m Fri Sep 19 12:06:42 2014

Page: 4

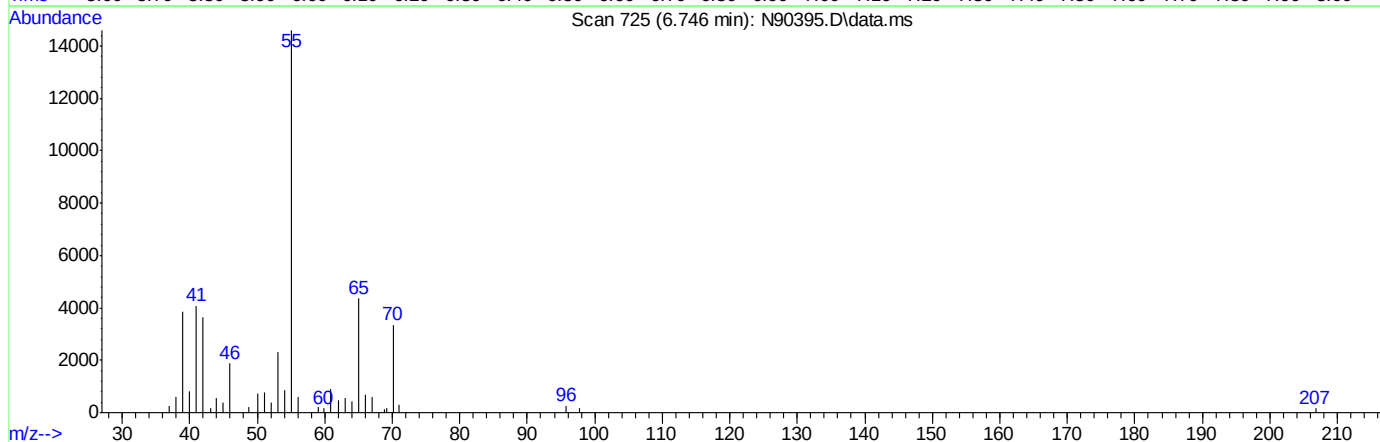
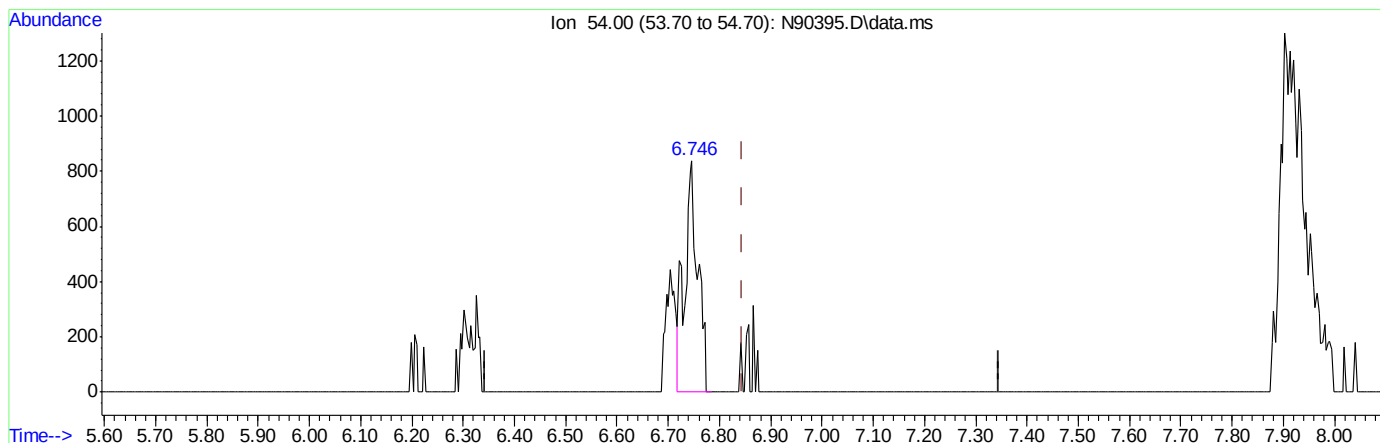
7.6.5



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:21:52 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration



TIC: N90395.D\data.ms

(25) propionitrile (p)

6.746min (-0.099) 58.32ug/L

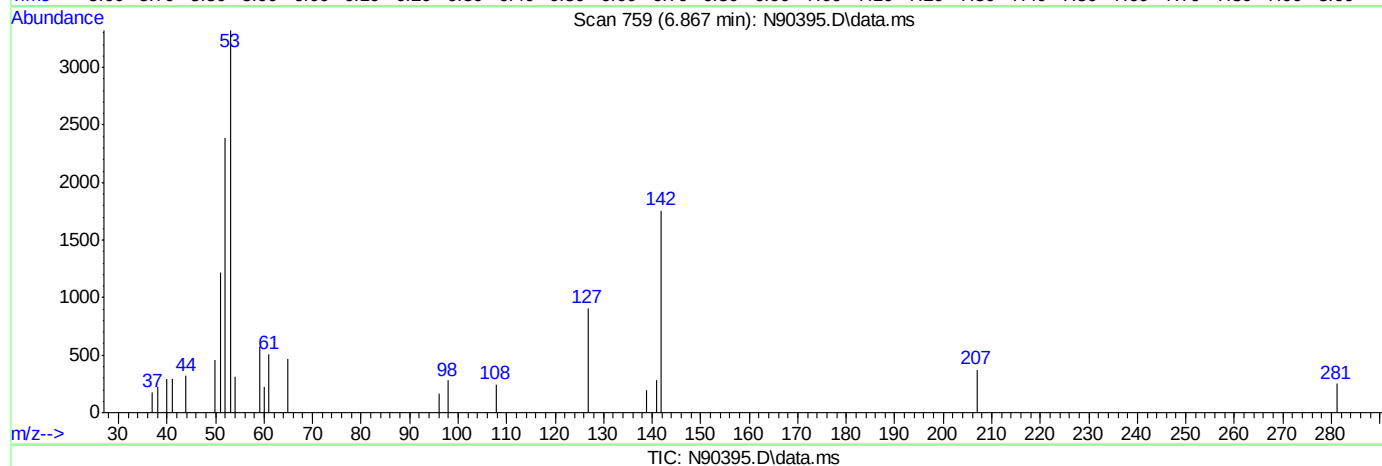
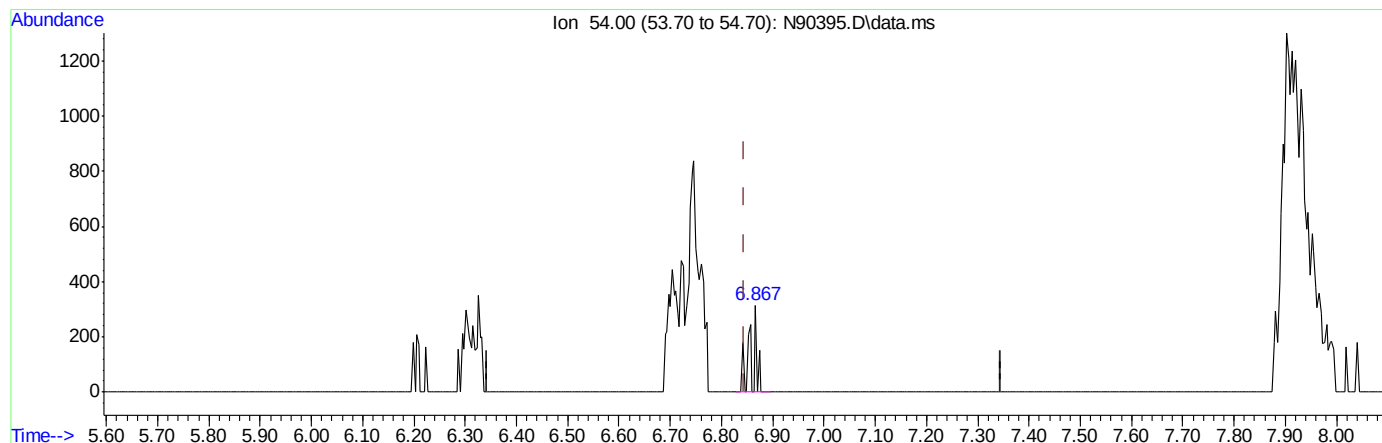
response 1464

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:21:52 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration



(25) propionitrile (p)

6.867min (+0.022) 9.28ug/L m

response 233

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90396.D
 Acq On : 18 Sep 2014 6:30 pm
 Operator : krystend
 Sample : IC3345-25
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:22:58 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.701	65	120614	500.00	ug/L	0.00
4) pentafluorobenzene	9.115	168	269555	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	416772	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	236720	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	182873	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.772	113	68146	24.21	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	48.42%#		
60) toluene-d8 (s)	11.784	98	261827	25.56	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	51.12%#		
82) bromofluorobenzene (s)	14.464	95	106932	23.35	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	46.70%#		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.782	59	106832	251.98	ug/L	# 100
3) Ethanol	5.569	45	143564	2210.06	ug/L	99
5) dichlorodifluoromethane	4.392	85	108337	32.92	ug/L	99
6) chloromethane	4.654	50	117106	27.96	ug/L	97
7) vinyl chloride	4.894	62	86744m	22.05	ug/L	
8) bromomethane	5.392	96	29142	32.29	ug/L	91
9) chloroethane	5.566	64	50784	28.40	ug/L	98
10) ethyl ether	6.432	59	71425	25.20	ug/L	95
11) acetonitrile	6.428	41	13004	28.86	ug/L	95
12) trichlorofluoromethane	6.206	101	137908	26.89	ug/L	96
13) freon-113	6.966	101	66715	32.73	ug/L	95
14) acrolein	6.202	56	44259	126.88	ug/L	92
15) 1,1-dichloroethene	6.785	96	59783	23.22	ug/L	97
16) acetone	6.333	58	16952	25.92	ug/L	# 71
17) Methyl Acetate	6.966	43	69044	27.13	ug/L	# 94
18) methylene chloride	6.944	84	74505	24.50	ug/L	89
19) methyl tert butyl ether	7.705	73	200510	39.68	ug/L	96
20) acrylonitrile	6.849	53	34793	27.42	ug/L	90
21) allyl chloride	7.029	41	140420	27.86	ug/L	94
22) trans-1,2-dichloroethene	7.623	96	66641	23.46	ug/L	93
23) iodomethane	6.856	142	26748	29.08	ug/L	95
24) carbon disulfide	7.224	76	215554	29.51	ug/L	98
25) propionitrile	6.842	54	1003m	39.21	ug/L	
26) vinyl acetate	7.970	43	105054	30.71	ug/L	98
27) chloroprene	8.235	53	140800	30.18	ug/L	96
28) di-isopropyl ether	8.263	45	362119	25.66	ug/L	96
29) methacrylonitrile	8.401	41	51556	25.33	ug/L	97
30) 2-butanone	8.291	72	9414	30.37	ug/L	# 12
31) Hexane	8.249	41	143049	29.55	ug/L	87
32) 1,1-dichloroethane	7.878	63	167870	24.13	ug/L	94
33) tert-butyl ethyl ether	8.659	59	181704m	70.00	ug/L	
34) isobutyl alcohol	8.260	43	286914	135.67	ug/L	100
35) 2,2-dichloropropane	8.726	77	117204	52.25	ug/L	99
36) cis-1,2-dichloroethene	8.443	96	75927	23.58	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90396.D
 Acq On : 18 Sep 2014 6:30 pm
 Operator : krystend
 Sample : IC3345-25
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:22:58 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.260	43	283186	27.56	ug/L	98
38) bromochloromethane	8.613	128	34175	26.51	ug/L	92
39) chloroform	8.645	83	147660	23.15	ug/L	98
41) Tetrahydrofuran	8.977	42	24818	27.13	ug/L	98
42) 1,1,1-trichloroethane	9.394	97	134617	33.38	ug/L	97
44) Cyclohexane	9.670	56	166174	32.50	ug/L	96
45) carbon tetrachloride	9.759	117	113386	29.06	ug/L	98
46) 1,1-dichloropropene	9.568	75	103088	30.07	ug/L	98
47) benzene	9.794	78	289268	22.35	ug/L	100
48) 1,2-dichloroethane	9.299	62	138871	23.05	ug/L	97
49) tert-amyl methyl ether	9.903	73	98393	52.35	ug/L	96
50) heptane	10.257	43	98465	31.84	ug/L	90
51) trichloroethene	10.409	95	87170	22.60	ug/L	97
52) 1,2-dichloropropane	10.374	63	93646	26.90	ug/L	100
53) dibromomethane	10.356	93	47095	26.09	ug/L	98
54) bromodichloromethane	10.462	83	113562	24.84	ug/L	97
55) Methylcyclohexane	10.922	83	121705	32.60	ug/L	95
56) 2-chloroethyl vinyl ether	10.374	63	93646	27.51	ug/L #	98
57) methyl methacrylate	10.554	69	43779	28.13	ug/L #	77
58) 1,4-dioxane	10.554	88	3404	157.76	ug/L	82
59) cis-1,3-dichloropropene	11.081	75	118669	38.04	ug/L	100
61) 4-methyl-2-pentanone	11.173	43	93859	27.75	ug/L	95
62) toluene	11.859	92	186586	24.28	ug/L	94
63) trans-1,3-dichloropropene	11.498	75	100993	31.36	ug/L	97
64) 1,1,2-trichloroethane	11.671	83	57148	23.36	ug/L	99
65) ethyl methacrylate	11.869	69	86783	28.93	ug/L	88
67) tetrachloroethene	12.590	166	72359	22.21	ug/L	98
68) 1,3-dichloropropane	11.904	76	118265	25.92	ug/L	100
69) dibromochloromethane	12.198	129	77666	24.01	ug/L	96
70) 1,2-dibromoethane	12.449	107	65527	25.48	ug/L	93
71) 2-hexanone	12.025	43	78190	27.18	ug/L	95
72) chlorobenzene	13.276	112	199271	22.43	ug/L	96
73) 1,1,1,2-tetrachloroethane	13.191	131	74429	23.90	ug/L	95
74) ethylbenzene	13.446	91	377929	23.27	ug/L	99
75) m,p-xylene	13.633	106	262473	44.16	ug/L	97
76) o-xylene	14.047	106	128847	21.85	ug/L	98
77) styrene	13.973	104	207891	27.07	ug/L	99
78) bromoform	13.799	173	45255	24.13	ug/L	97
79) trans-1,4-dichloro-2-b...	14.195	53	20420	33.29	ug/L #	83
81) isopropylbenzene	14.404	105	346975	27.50	ug/L	99
83) bromobenzene	14.697	156	78466	25.87	ug/L	94
84) 1,1,2,2-tetrachloroethane	14.047	83	80326	20.47	ug/L	93
85) 1,2,3-trichloropropane	14.195	75	85102	27.17	ug/L	99
86) n-propylbenzene	14.846	91	448308	27.74	ug/L	99
87) 2-chlorotoluene	14.973	91	274255	26.12	ug/L	100
88) 4-chlorotoluene	15.047	91	289963	26.28	ug/L	98
89) 1,3,5-trimethylbenzene	15.125	105	317710	23.07	ug/L	98
90) tert-butylbenzene	15.429	91	205705	27.82	ug/L	99
91) 1,2,4-trimethylbenzene	15.535	105	312329	22.83	ug/L	99
92) sec-butylbenzene	15.648	105	397173	28.11	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	152517	21.14	ug/L	97
94) p-isopropyltoluene	15.822	119	327476	27.47	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	149300	20.52	ug/L	97
96) 1,2-dichlorobenzene	16.193	146	150865	22.53	ug/L	98
97) n-butylbenzene	16.239	91	339391	28.57	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.667	75	14448	29.95	ug/L	92
99) 1,2,4-trichlorobenzene	18.017	180	70970	32.41	ug/L	99
100) 1,3,5-trichlorobenzene	17.476	180	105304	26.79	ug/L	98
101) hexachlorobutadiene	18.303	225	54373	27.80	ug/L	96
102) naphthalene	18.289	128	81792	38.69	ug/L	100
103) 1,2,3-trichlorobenzene	18.498	180	48696	35.26	ug/L	93
104) 2-methylnaphthalene	19.672	142	13906	13.97	ug/L #	100
105) 1-methylnaphthalene	19.919	142	9742	12.25	ug/L	94

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

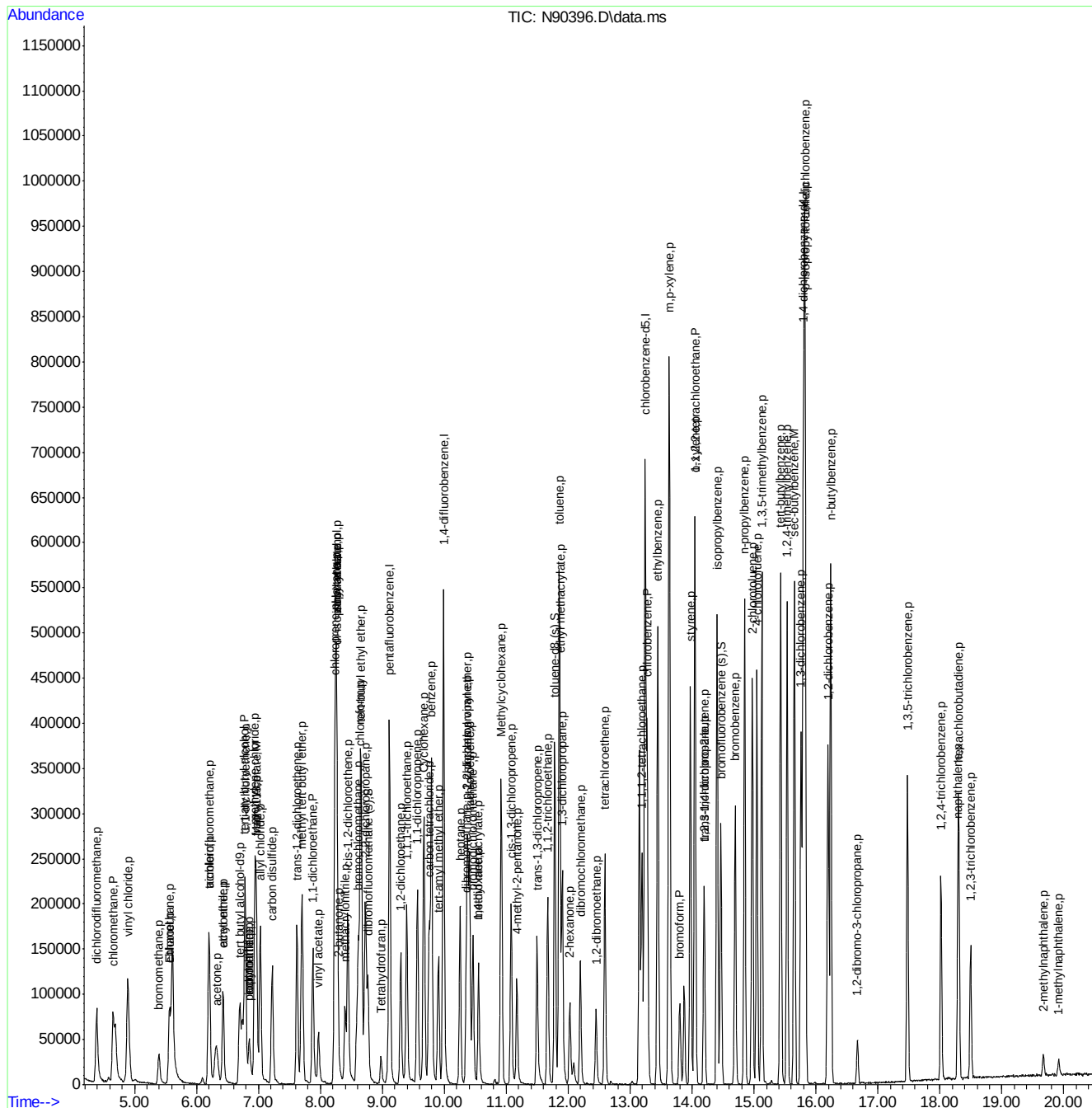
7.6.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration



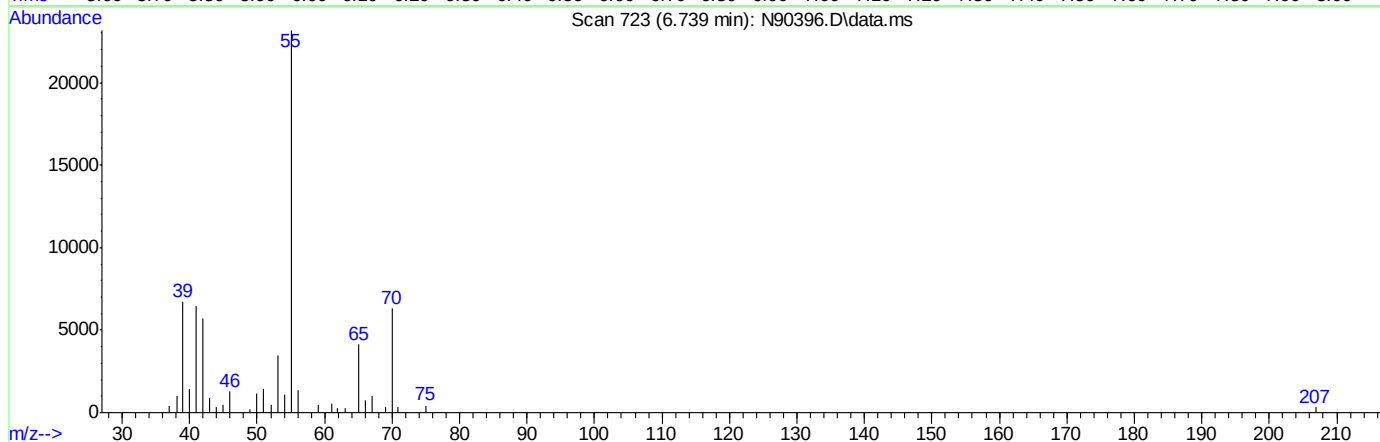
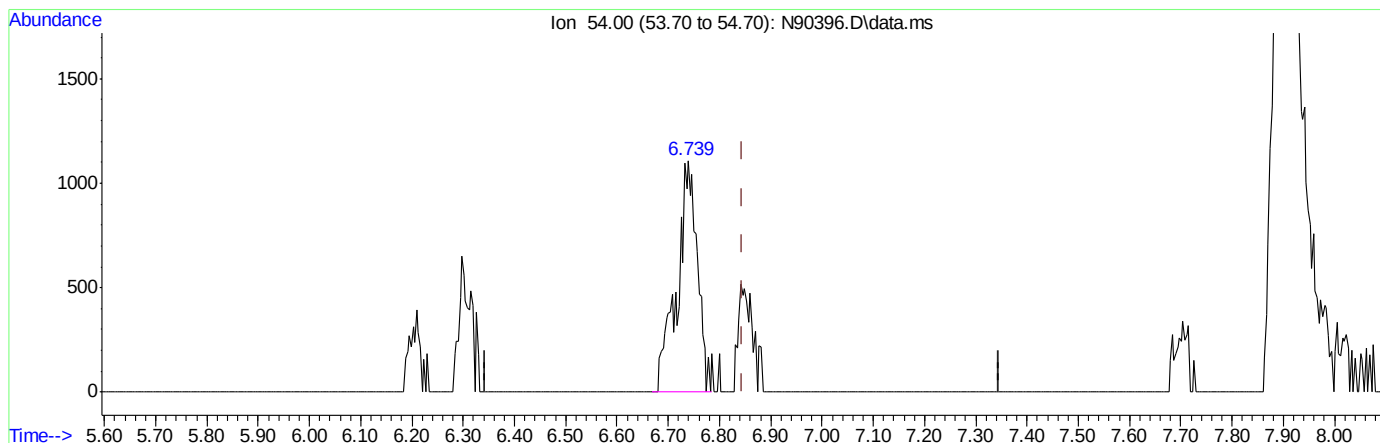
n140918w.m Fri Sep 19 12:06:46 2014

Page: 4

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:23:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration



TIC: N90396.D\data.ms

(25) propionitrile (p)

6.739min (-0.106) 118.92ug/L

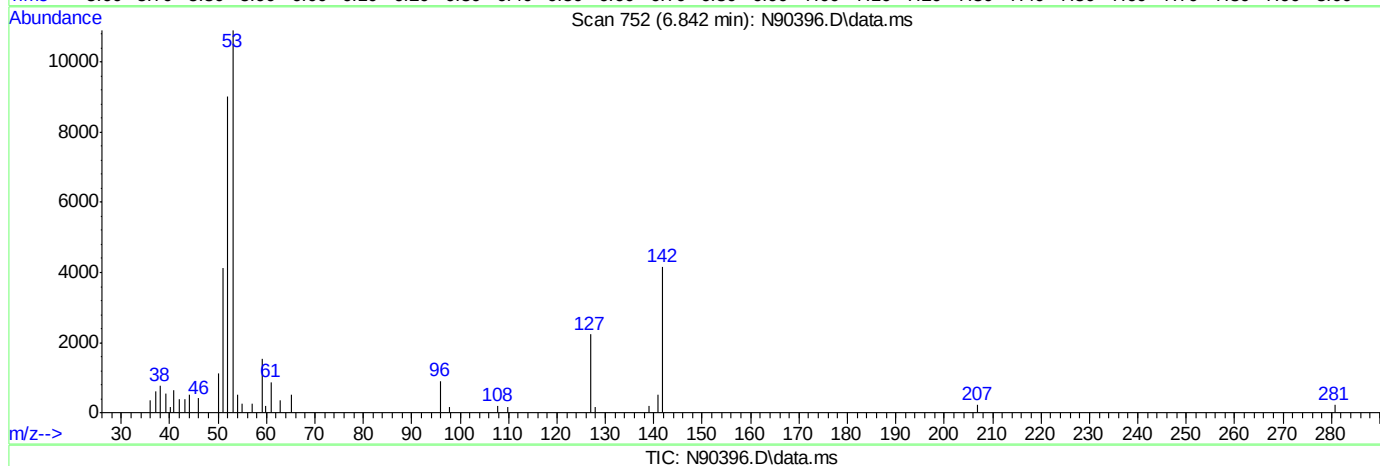
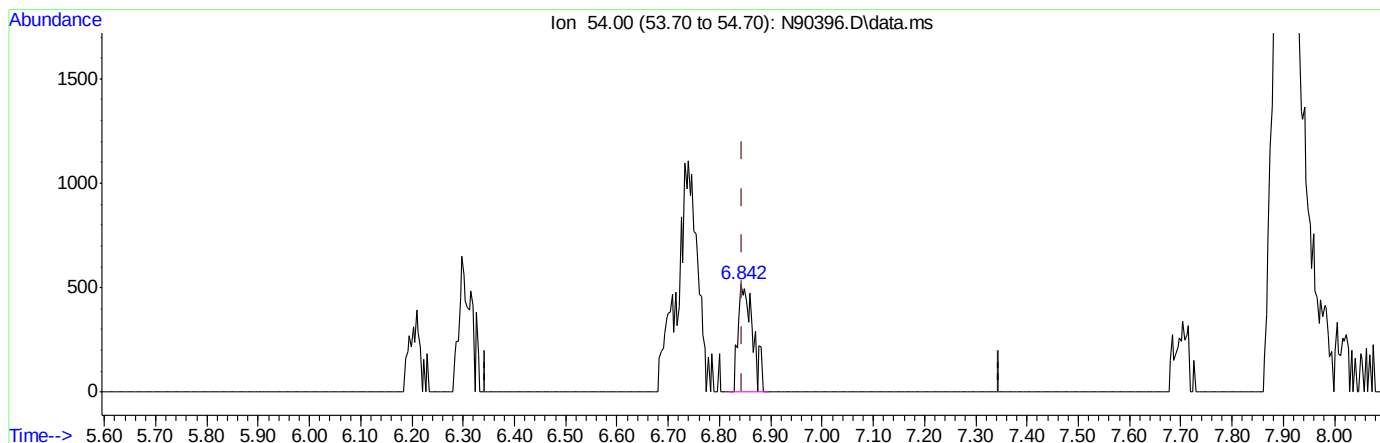
response 3042

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:23:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration



(25) propionitrile (p)

6.842min (-0.003) 39.21ug/L m

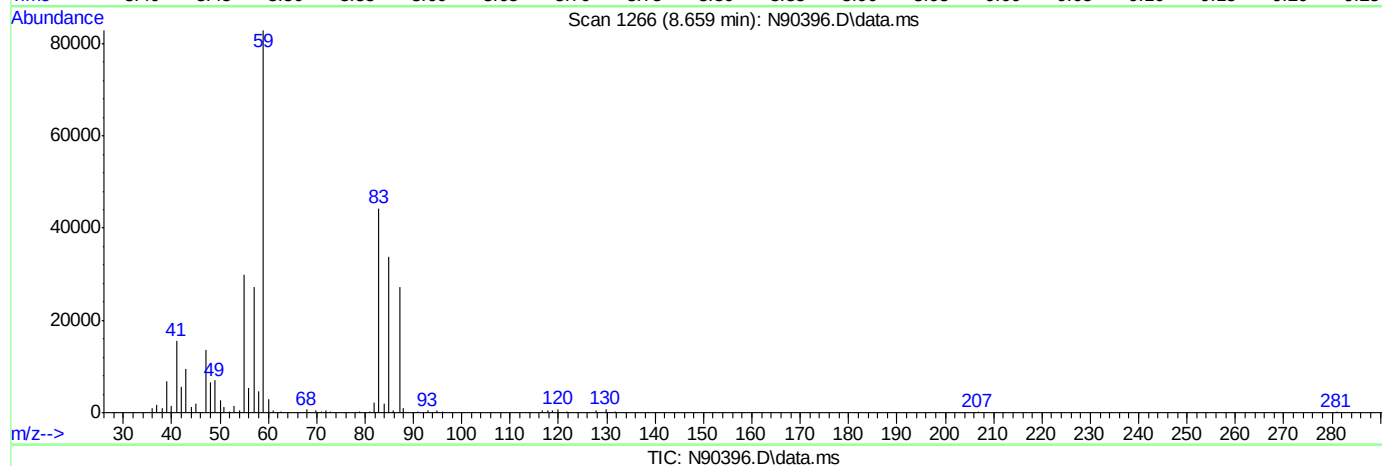
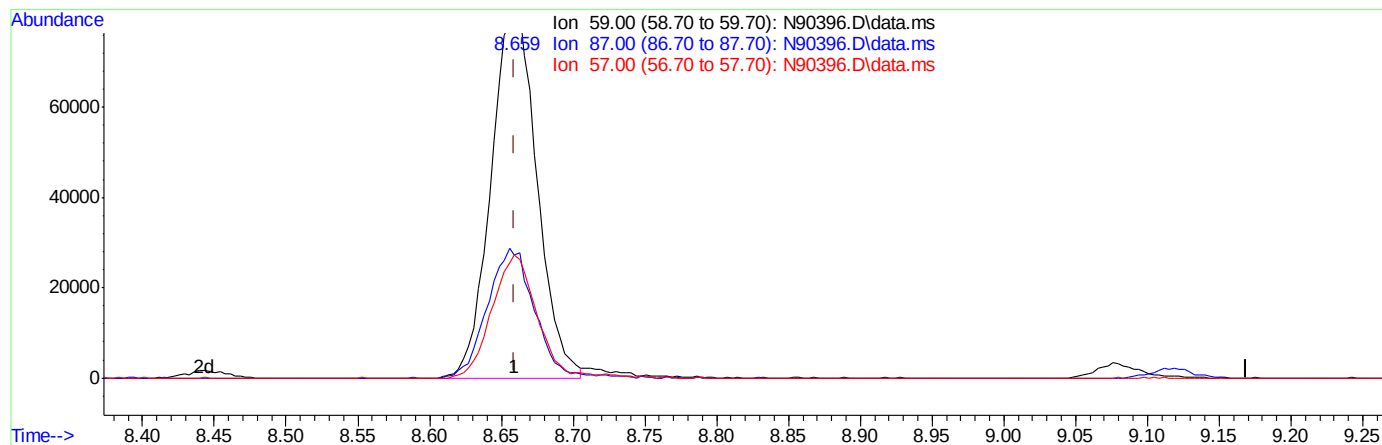
response 1003

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:54:37 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration



(33) tert-butyl ethyl ether (p)

8.659min (+0.000) 70.00ug/L m

response 181704

Ion	Exp%	Act%
59.00	100	100
87.00	36.60	32.97
57.00	28.30	32.73
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90397.D
 Acq On : 18 Sep 2014 6:59 pm
 Operator : krystend
 Sample : ICC3345-50
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:29:04 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.693	65	106714	500.00	ug/L	0.00
4) pentafluorobenzene	9.115	168	281457	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	439257	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	245477	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	192160	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	149849	51.89	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	103.78%		
60) toluene-d8 (s)	11.784	98	569513	54.06	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	108.12%		
82) bromofluorobenzene (s)	14.460	95	239740	51.17	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	102.34%		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.778	59	178874	476.77	ug/L	# 100
3) Ethanol	5.562	45	256631	4696.59	ug/L	100
5) dichlorodifluoromethane	4.392	85	206560	55.73	ug/L	98
6) chloromethane	4.650	50	211740	46.61	ug/L	98
7) vinyl chloride	4.890	62	159184	44.39	ug/L	100
8) bromomethane	5.389	96	65724	51.61	ug/L	97
9) chloroethane	5.566	64	88569	48.70	ug/L	99
10) ethyl ether	6.432	59	140520	51.00	ug/L	93
11) acetonitrile	6.432	41	23300	53.28	ug/L	97
12) trichlorofluoromethane	6.205	101	263802	49.79	ug/L	99
13) freon-113	6.962	101	131158	55.71	ug/L	95
14) acrolein	6.202	56	87100	271.20	ug/L	98
15) 1,1-dichloroethene	6.785	96	112259	44.93	ug/L	91
16) acetone	6.336	58	27850	47.66	ug/L	90
17) Methyl Acetate	6.958	43	120617	51.27	ug/L	95
18) methylene chloride	6.941	84	132628	45.35	ug/L	88
19) methyl tert butyl ether	7.704	73	355716	57.25	ug/L	94
20) acrylonitrile	6.845	53	63219	51.82	ug/L	93
21) allyl chloride	7.029	41	265155	50.75	ug/L	92
22) trans-1,2-dichloroethene	7.620	96	131390	46.50	ug/L	94
23) iodomethane	6.859	142	73206m	46.09	ug/L	
24) carbon disulfide	7.220	76	409043	50.28	ug/L	99
25) propionitrile	6.845	54	2222	64.56	ug/L	100
26) vinyl acetate	7.970	43	207683	52.52	ug/L	99
27) chloroprene	8.235	53	275545	54.33	ug/L	92
28) di-isopropyl ether	8.263	45	676008	50.12	ug/L	98
29) methacrylonitrile	8.397	41	97653	49.10	ug/L	92
30) 2-butanone	8.288	72	17611	55.50	ug/L	# 34
31) Hexane	8.249	41	269705	54.36	ug/L	93
32) 1,1-dichloroethane	7.874	63	317674	45.86	ug/L	98
33) tert-butyl ethyl ether	8.659	59	325210	61.83	ug/L	94
34) isobutyl alcohol	8.259	43	538584	263.43	ug/L	99
35) 2,2-dichloropropane	8.730	77	232879	62.14	ug/L	98
36) cis-1,2-dichloroethene	8.443	96	147082	45.71	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90397.D
 Acq On : 18 Sep 2014 6:59 pm
 Operator : krystend
 Sample : ICC3345-50
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:29:04 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.259	43	538334	53.46	ug/L	97
38) bromochloromethane	8.613	128	66289	50.33	ug/L	94
39) chloroform	8.645	83	282850	45.70	ug/L	100
41) Tetrahydrofuran	8.977	42	46189	51.89	ug/L	93
42) 1,1,1-trichloroethane	9.394	97	270114	56.93	ug/L	98
44) Cyclohexane	9.674	56	335346	56.26	ug/L	98
45) carbon tetrachloride	9.755	117	226988	52.83	ug/L	98
46) 1,1-dichloropropene	9.568	75	207260	53.70	ug/L	100
47) benzene	9.794	78	551800	43.82	ug/L	97
48) 1,2-dichloroethane	9.299	62	270470	45.88	ug/L	100
49) tert-amyl methyl ether	9.903	73	182725	57.37	ug/L	97
50) heptane	10.257	43	196771	54.62	ug/L	93
51) trichloroethene	10.409	95	169855	45.17	ug/L	95
52) 1,2-dichloropropane	10.377	63	181006	50.47	ug/L	100
53) dibromomethane	10.356	93	88125	48.16	ug/L	98
54) bromodichloromethane	10.462	83	223382	47.37	ug/L	98
55) Methylcyclohexane	10.922	83	248696	56.31	ug/L	96
56) 2-chloroethyl vinyl ether	10.377	63	181006	51.14	ug/L #	99
57) methyl methacrylate	10.550	69	86698	52.87	ug/L	80
58) 1,4-dioxane	10.557	88	6949	303.99	ug/L #	75
59) cis-1,3-dichloropropene	11.077	75	233756	60.14	ug/L	99
61) 4-methyl-2-pentanone	11.169	43	177530	52.90	ug/L	94
62) toluene	11.855	92	356132	47.09	ug/L	99
63) trans-1,3-dichloropropene	11.498	75	196378	53.62	ug/L	97
64) 1,1,2-trichloroethane	11.671	83	110046	46.53	ug/L	99
65) ethyl methacrylate	11.865	69	167344	53.64	ug/L	94
67) tetrachloroethene	12.594	166	144901	45.33	ug/L	96
68) 1,3-dichloropropane	11.904	76	230986	49.93	ug/L	97
69) dibromochloromethane	12.194	129	158011	47.79	ug/L	99
70) 1,2-dibromoethane	12.449	107	124011	47.86	ug/L	98
71) 2-hexanone	12.021	43	151222	53.34	ug/L	94
72) chlorobenzene	13.276	112	378269	44.19	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	145634	46.73	ug/L	97
74) ethylbenzene	13.446	91	734987	46.06	ug/L	100
75) m,p-xylene	13.633	106	490378	86.48	ug/L	98
76) o-xylene	14.047	106	249121	43.96	ug/L	98
77) styrene	13.972	104	409033	49.76	ug/L	99
78) bromoform	13.799	173	91775	47.71	ug/L	93
79) trans-1,4-dichloro-2-b...	14.192	53	41766	54.05	ug/L	99
81) isopropylbenzene	14.404	105	691045	50.73	ug/L	99
83) bromobenzene	14.697	156	155170	48.14	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.047	83	150552	42.35	ug/L	93
85) 1,2,3-trichloropropane	14.192	75	167959	50.97	ug/L	97
86) n-propylbenzene	14.849	91	874622	50.15	ug/L	100
87) 2-chlorotoluene	14.969	91	537322	48.45	ug/L	98
88) 4-chlorotoluene	15.044	91	569106	48.57	ug/L	99
89) 1,3,5-trimethylbenzene	15.125	105	627680	45.90	ug/L	98
90) tert-butylbenzene	15.429	91	413466	51.50	ug/L	98
91) 1,2,4-trimethylbenzene	15.535	105	625962	46.18	ug/L	99
92) sec-butylbenzene	15.652	105	792099	51.69	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

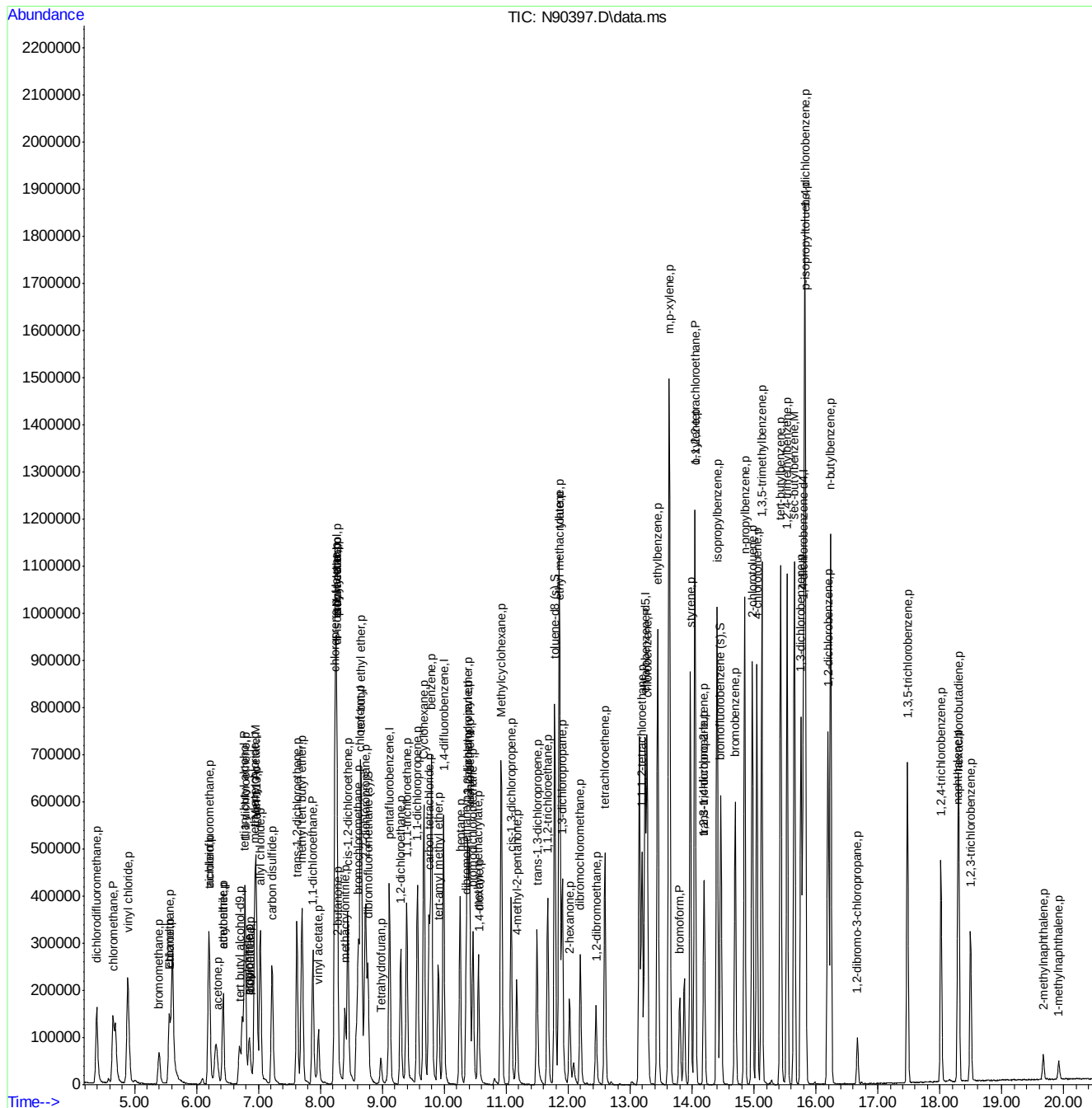
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	306812	43.81	ug/L	98
94) p-isopropyltoluene	15.821	119	650478	51.95	ug/L	100
95) 1,4-dichlorobenzene	15.825	146	292741	43.07	ug/L	97
96) 1,2-dichlorobenzene	16.193	146	304149	46.37	ug/L	98
97) n-butylbenzene	16.235	91	683495	52.62	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.666	75	27754	53.45	ug/L	91
99) 1,2,4-trichlorobenzene	18.017	180	149343	57.58	ug/L	99
100) 1,3,5-trichlorobenzene	17.476	180	210588	52.43	ug/L	99
101) hexachlorobutadiene	18.307	225	107474	52.85	ug/L	99
102) naphthalene	18.289	128	196686	63.37	ug/L	100
103) 1,2,3-trichlorobenzene	18.494	180	106358	61.02	ug/L	90
104) 2-methylnaphthalene	19.668	142	28564	26.97	ug/L #	100
105) 1-methylnaphthalene	19.915	142	21661	27.37	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

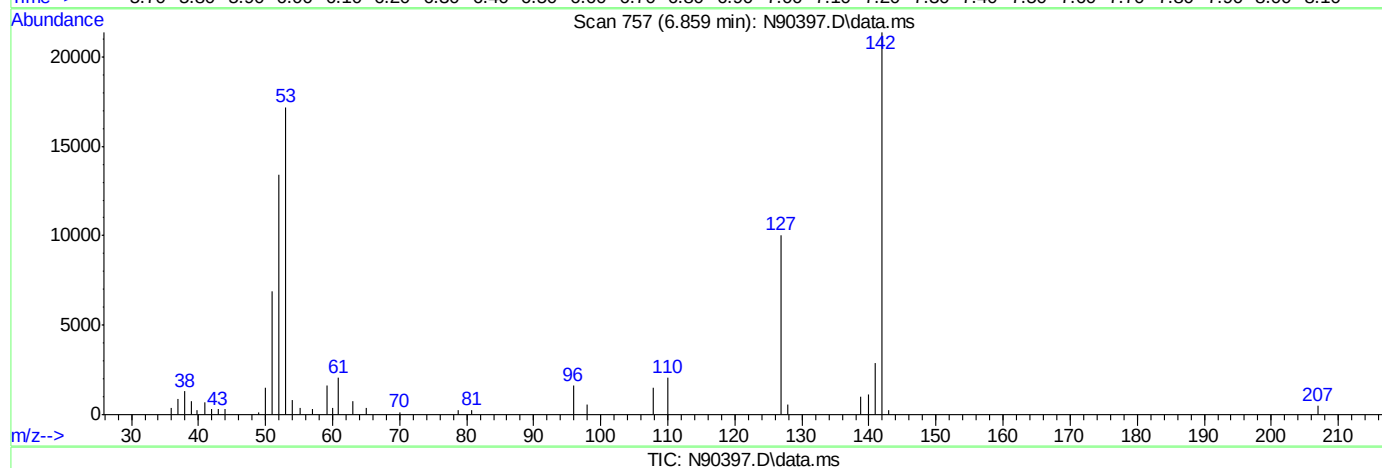
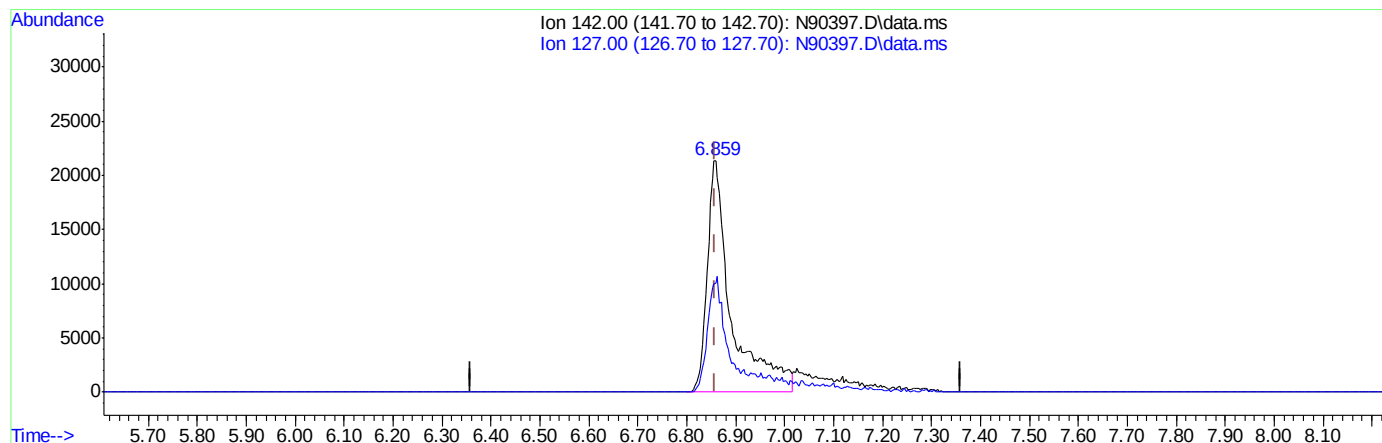
Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:29:16 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.859min (+0.000) 46.09ug/L m

response 73206

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.07
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90398.D
 Acq On : 18 Sep 2014 7:27 pm
 Operator : krystend
 Sample : IC3345-100
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:24:14 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.690	65	86941	500.00	ug/L	0.00
4) pentafluorobenzene	9.111	168	321164	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	503335	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	272919	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.793	152	222509	50.00	ug/L	0.00

System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	340784	102.44	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	204.88%#		
60) toluene-d8 (s)	11.781	98	1260602	101.33	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	202.66%#		
82) bromofluorobenzene (s)	14.464	95	550022	100.37	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	200.74%#		

Target Compounds				Qvalue		
2) tertiary butyl alcohol	6.775	59	321546	1050.49	ug/L #	100
3) Ethanol	5.555	45	466743	10204.72	ug/L	99
5) dichlorodifluoromethane	4.388	85	484826	116.27	ug/L	95
6) chloromethane	4.650	50	546668	107.01	ug/L	94
7) vinyl chloride	4.890	62	369002	80.03	ug/L	98
8) bromomethane	5.396	96	192798	169.42	ug/L	99
9) chloroethane	5.562	64	202535	92.55	ug/L	99
10) ethyl ether	6.428	59	298590	88.23	ug/L	93
11) acetonitrile	6.428	41	45145	80.97	ug/L	98
12) trichlorofluoromethane	6.198	101	612431	98.98	ug/L	98
13) freon-113	6.962	101	289946	110.83	ug/L	99
14) acrolein	6.195	56	161817	387.88	ug/L	99
15) 1,1-dichloroethene	6.785	96	261306	86.21	ug/L	89
16) acetone	6.329	58	54794	69.67	ug/L #	80
17) Methyl Acetate	6.955	43	243399	78.60	ug/L	96
18) methylene chloride	6.937	84	301121	83.45	ug/L	96
19) methyl tert butyl ether	7.701	73	816114	123.48	ug/L	97
20) acrylonitrile	6.842	53	128825	83.19	ug/L	97
21) allyl chloride	7.029	41	611548	99.00	ug/L	96
22) trans-1,2-dichloroethene	7.620	96	304835	91.00	ug/L	95
23) iodomethane	6.859	142	221764m	194.44	ug/L	
24) carbon disulfide	7.220	76	967448	106.36	ug/L	99
25) propionitrile	6.838	54	4877	140.10	ug/L	100
26) vinyl acetate	7.966	43	497804	115.54	ug/L	97
27) chloroprene	8.231	53	624373	106.79	ug/L	92
28) di-isopropyl ether	8.259	45	1480791	87.60	ug/L	97
29) methacrylonitrile	8.390	41	217812	89.52	ug/L	93
30) 2-butanone	8.274	72	36852	94.69	ug/L #	37
31) Hexane	8.245	41	588275	97.56	ug/L	97
32) 1,1-dichloroethane	7.874	63	746004	90.54	ug/L	97
33) tert-butyl ethyl ether	8.655	59	816527	192.21	ug/L	95
34) isobutyl alcohol	8.256	43	1152942	448.00	ug/L	96
35) 2,2-dichloropropane	8.730	77	561197	165.01	ug/L	99
36) cis-1,2-dichloroethene	8.443	96	350075	92.12	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90398.D
 Acq On : 18 Sep 2014 7:27 pm
 Operator : krystend
 Sample : IC3345-100
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:24:14 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.256	43	1152942	91.82	ug/L	94
38) bromochloromethane	8.609	128	156904	100.64	ug/L	90
39) chloroform	8.645	83	659697	87.90	ug/L	98
41) Tetrahydrofuran	8.974	42	98393	88.40	ug/L	93
42) 1,1,1-trichloroethane	9.391	97	642494	126.64	ug/L	98
44) Cyclohexane	9.674	56	783611	118.04	ug/L	97
45) carbon tetrachloride	9.755	117	548283	113.27	ug/L	100
46) 1,1-dichloropropene	9.564	75	486561	111.85	ug/L	98
47) benzene	9.790	78	1323933	86.02	ug/L	98
48) 1,2-dichloroethane	9.295	62	643920	89.67	ug/L	99
49) tert-amyl methyl ether	9.903	73	421873	152.49	ug/L	95
50) heptane	10.253	43	467240	117.09	ug/L	93
51) trichloroethene	10.405	95	397347	86.49	ug/L	95
52) 1,2-dichloropropane	10.377	63	430101	100.76	ug/L	100
53) dibromomethane	10.352	93	208342	94.74	ug/L	97
54) bromodichloromethane	10.462	83	555698	100.74	ug/L	97
55) Methylcyclohexane	10.922	83	577325	118.99	ug/L	99
56) 2-chloroethyl vinyl ether	10.377	63	430101	102.05	ug/L	# 99
57) methyl methacrylate	10.547	69	196817	101.53	ug/L	82
58) 1,4-dioxane	10.561	88	13407	482.86	ug/L	91
59) cis-1,3-dichloropropene	11.077	75	571283	141.10	ug/L	99
61) 4-methyl-2-pentanone	11.165	43	375940	89.58	ug/L	95
62) toluene	11.855	92	837499	90.68	ug/L	97
63) trans-1,3-dichloropropene	11.494	75	480193	119.13	ug/L	98
64) 1,1,2-trichloroethane	11.667	83	252218	86.32	ug/L	98
65) ethyl methacrylate	11.865	69	380759	101.13	ug/L	92
67) tetrachloroethene	12.594	166	347962	94.15	ug/L	99
68) 1,3-dichloropropane	11.904	76	538093	101.37	ug/L	100
69) dibromochloromethane	12.194	129	384775	103.74	ug/L	96
70) 1,2-dibromoethane	12.449	107	296302	99.56	ug/L	99
71) 2-hexanone	12.021	43	319069	94.15	ug/L	95
72) chlorobenzene	13.273	112	902383	89.65	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	347623	97.55	ug/L	97
74) ethylbenzene	13.446	91	1757690	94.96	ug/L	99
75) m,p-xylene	13.630	106	1168212	173.36	ug/L	99
76) o-xylene	14.043	106	595192	89.16	ug/L	99
77) styrene	13.969	104	988231	109.36	ug/L	96
78) bromoform	13.799	173	224773	104.55	ug/L	97
79) trans-1,4-dichloro-2-b...	14.188	53	99706	130.20	ug/L	# 81
81) isopropylbenzene	14.400	105	1637531	104.06	ug/L	100
83) bromobenzene	14.694	156	382890	102.86	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.047	83	321843	69.20	ug/L	98
85) 1,2,3-trichloropropane	14.192	75	386362	99.24	ug/L	98
86) n-propylbenzene	14.846	91	2093154	103.62	ug/L	100
87) 2-chlorotoluene	14.969	91	1301367	100.74	ug/L	98
88) 4-chlorotoluene	15.044	91	1386623	101.98	ug/L	99
89) 1,3,5-trimethylbenzene	15.121	105	1510453	91.32	ug/L	100
90) tert-butylbenzene	15.429	91	980280	105.97	ug/L	99
91) 1,2,4-trimethylbenzene	15.535	105	1493723	91.05	ug/L	97
92) sec-butylbenzene	15.648	105	1876508	105.85	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

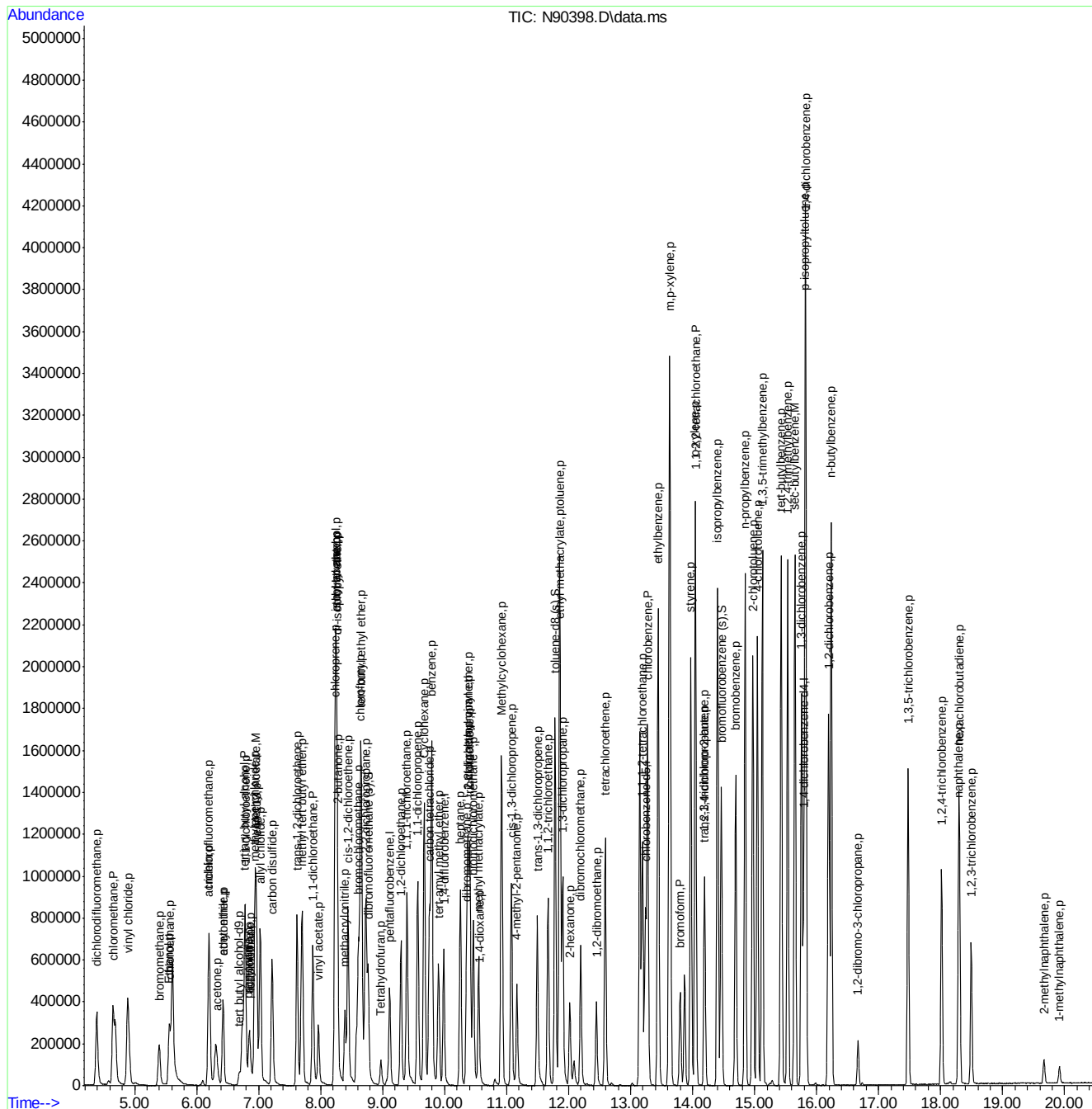
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	746124	87.23	ug/L	98
94) p-isopropyltoluene	15.818	119	1528773	102.85	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	688495	80.15	ug/L	99
96) 1,2-dichlorobenzene	16.193	146	712980	88.97	ug/L	98
97) n-butylbenzene	16.235	91	1615624	107.93	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.666	75	60415	98.06	ug/L	97
99) 1,2,4-trichlorobenzene	18.017	180	333607	116.57	ug/L	97
100) 1,3,5-trichlorobenzene	17.476	180	472545	97.08	ug/L	99
101) hexachlorobutadiene	18.300	225	234892	96.02	ug/L	97
102) naphthalene	18.289	128	442762	151.42	ug/L	100
103) 1,2,3-trichlorobenzene	18.494	180	228474	123.32	ug/L	98
104) 2-methylnaphthalene	19.668	142	62659	50.25	ug/L #	100
105) 1-methylnaphthalene	19.915	142	45593	47.35	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90398.D
 Acq On : 18 Sep 2014 7:27 pm
 Operator : krystend
 Sample : IC3345-100
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 28 Sample Multiplier: 1

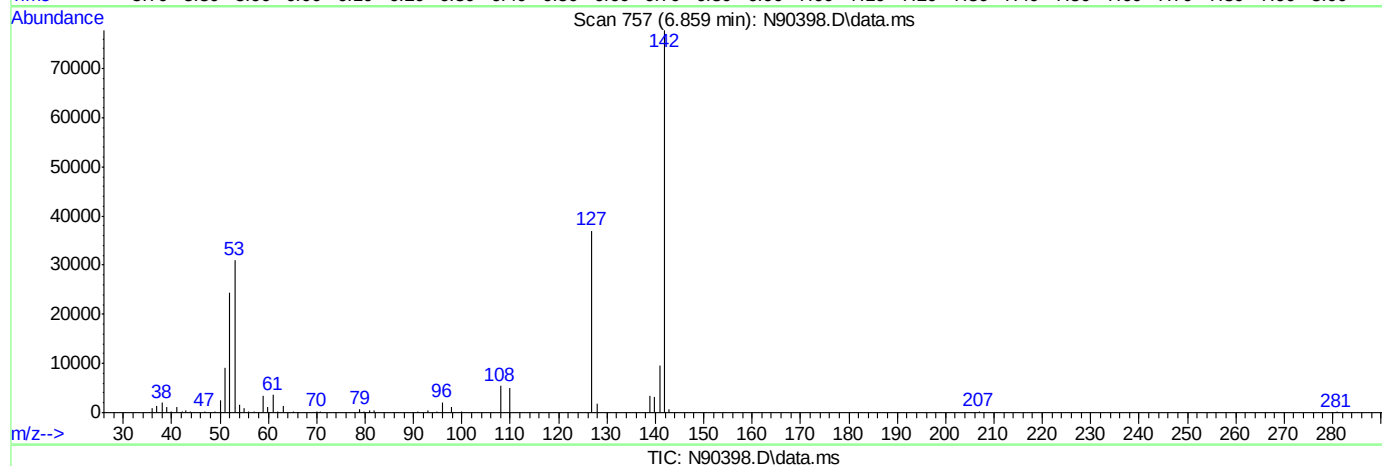
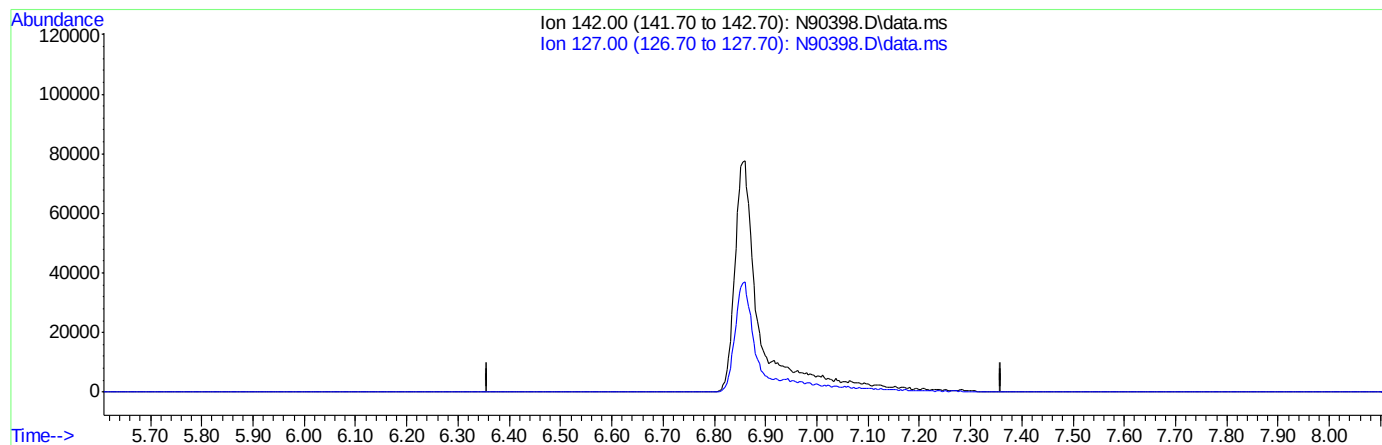
Quant Time: Sep 19 09:36:06 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:24:14 2014
 Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:29 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

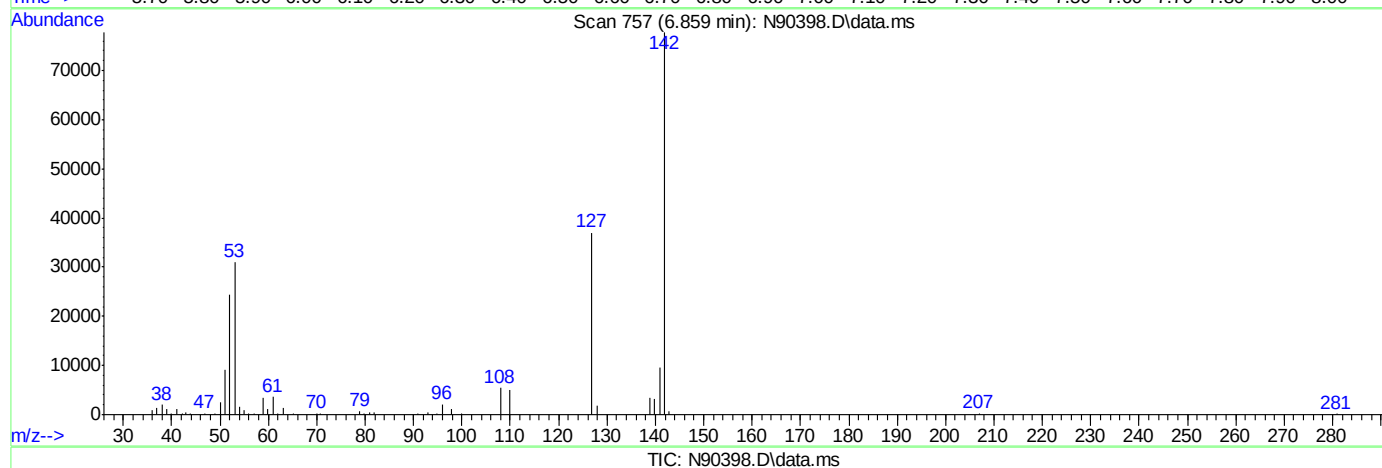
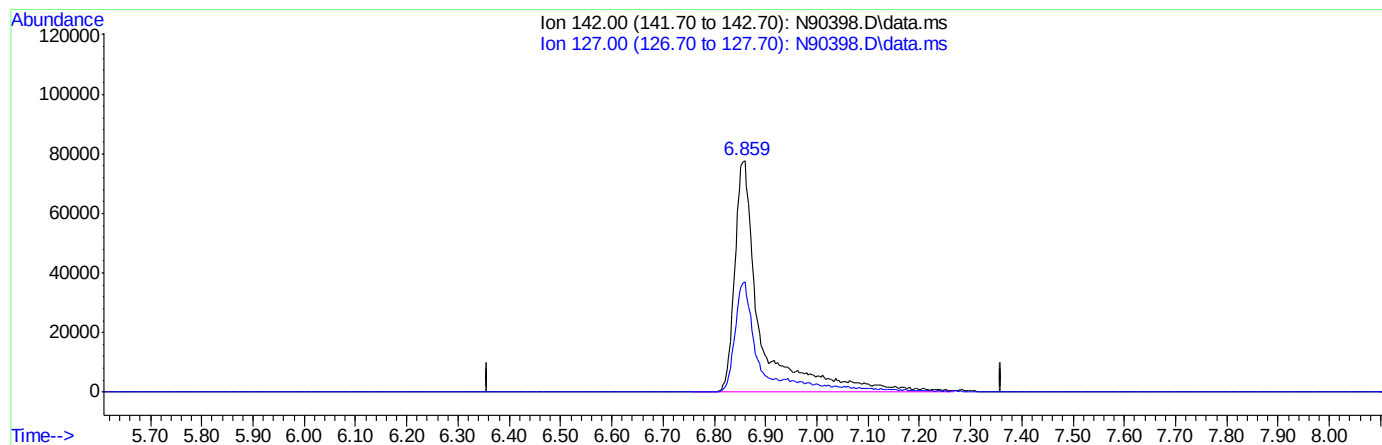
response 0

Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:29 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.859min (+0.000) 239.50ug/L m

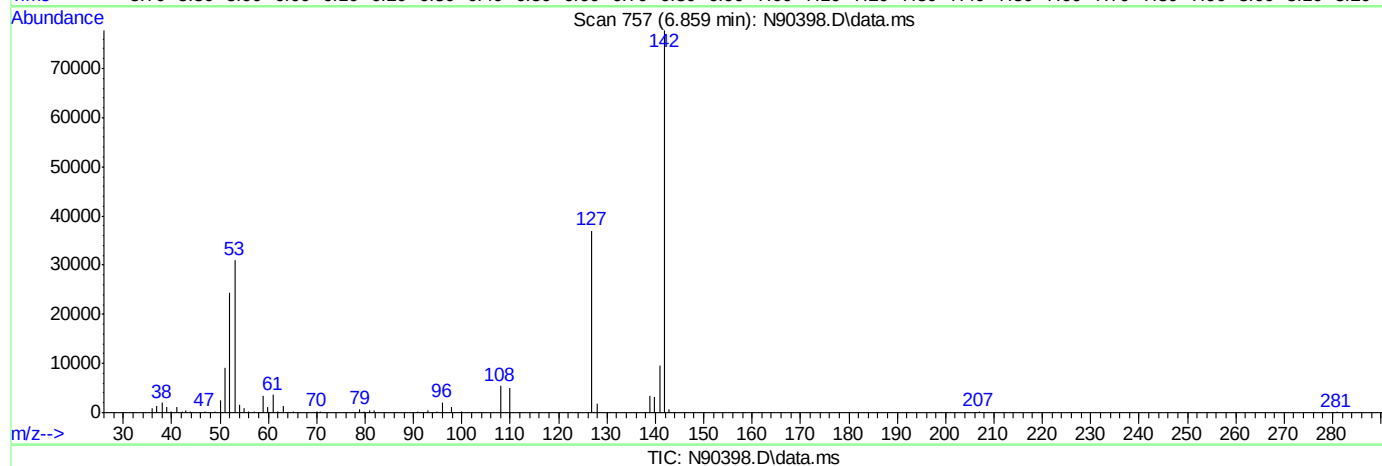
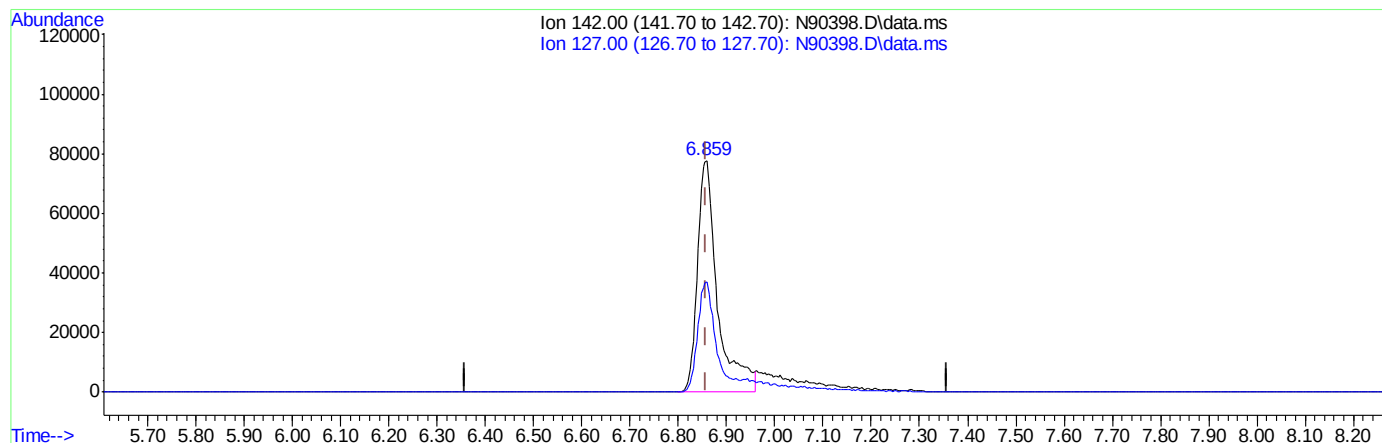
response 273157

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.859min (+0.000) 194.44ug/L m

response 221764

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90399.D
 Acq On : 18 Sep 2014 7:55 pm
 Operator : krystend
 Sample : IC3345-200
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:25:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.683	65	84015	500.00	ug/L	-0.01
4) pentafluorobenzene	9.115	168	355487	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.985	114	578959	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	310360	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	241599	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	743597	200.96	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	401.92%#		
60) toluene-d8 (s)	11.781	98	2673529	186.34	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	372.68%#		
82) bromofluorobenzene (s)	14.460	95	1164646	195.59	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	391.18%#		
Target Compounds						
2) tertiary butyl alcohol	6.771	59	602715	2020.64	ug/L	# 100
3) Ethanol	5.558	45	846290m	19082.31	ug/L	
5) dichlorodifluoromethane	4.388	85	970284	204.68	ug/L	96
6) chloromethane	4.650	50	1272600	222.46	ug/L	96
7) vinyl chloride	4.887	62	709805	143.16	ug/L	99
8) bromomethane	5.396	96	455659	324.24	ug/L	96
9) chloroethane	5.562	64	426436	178.27	ug/L	98
10) ethyl ether	6.428	59	639251	174.77	ug/L	94
11) acetonitrile	6.428	41	96008	161.73	ug/L	99
12) trichlorofluoromethane	6.202	101	1319586	192.97	ug/L	99
13) freon-113	6.965	101	650175	219.77	ug/L	98
14) acrolein	6.191	56	341330	773.89	ug/L	92
15) 1,1-dichloroethene	6.782	96	570550	173.48	ug/L	90
16) acetone	6.326	58	117334	143.50	ug/L	# 75
17) Methyl Acetate	6.955	43	483647	147.42	ug/L	96
18) methylene chloride	6.937	84	655037	168.66	ug/L	98
19) methyl tert butyl ether	7.701	73	1837835	243.07	ug/L	98
20) acrylonitrile	6.842	53	260284	157.14	ug/L	98
21) allyl chloride	7.026	41	1315057	192.72	ug/L	97
22) trans-1,2-dichloroethene	7.616	96	681775	186.28	ug/L	98
23) iodomethane	6.856	142	536598m	332.34	ug/L	
24) carbon disulfide	7.220	76	2196280	215.41	ug/L	99
25) propionitrile	6.842	54	10370	249.16	ug/L	100
26) vinyl acetate	7.962	43	1069138	217.44	ug/L	100
27) chloroprene	8.231	53	1341946	204.59	ug/L	94
28) di-isopropyl ether	8.259	45	2965340	161.83	ug/L	93
29) methacrylonitrile	8.390	41	468896	177.83	ug/L	95
30) 2-butanone	8.274	72	73236	171.83	ug/L	# 39
31) Hexane	8.249	41	1209556	182.12	ug/L	90
32) 1,1-dichloroethane	7.874	63	1651702	183.58	ug/L	97
33) tert-butyl ethyl ether	8.655	59	2152404	396.77	ug/L	95
34) isobutyl alcohol	8.259	43	2331503	835.87	ug/L	96
35) 2,2-dichloropropane	8.730	77	1265525	297.50	ug/L	99
36) cis-1,2-dichloroethene	8.440	96	786879	189.20	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90399.D
 Acq On : 18 Sep 2014 7:55 pm
 Operator : krystend
 Sample : IC3345-200
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:25:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.259	43	2336184	170.88	ug/L	91
38) bromochloromethane	8.609	128	336356	194.66	ug/L	95
39) chloroform	8.645	83	1427099	174.82	ug/L	97
41) Tetrahydrofuran	8.970	42	199285	165.61	ug/L	98
42) 1,1,1-trichloroethane	9.391	97	1409962	241.88	ug/L	99
44) Cyclohexane	9.673	56	1693487	214.06	ug/L	99
45) carbon tetrachloride	9.755	117	1210921	213.45	ug/L	98
46) 1,1-dichloropropene	9.567	75	1065050	207.92	ug/L	99
47) benzene	9.790	78	2841607	163.36	ug/L	99
48) 1,2-dichloroethane	9.295	62	1363371	167.53	ug/L	100
49) tert-amyl methyl ether	9.900	73	1224651	353.88	ug/L	96
50) heptane	10.253	43	1023267	215.57	ug/L	96
51) trichloroethene	10.409	95	851442	163.88	ug/L	97
52) 1,2-dichloropropane	10.377	63	896574	182.38	ug/L	100
53) dibromomethane	10.352	93	446422	178.04	ug/L	97
54) bromodichloromethane	10.462	83	1203112	189.42	ug/L	98
55) Methylcyclohexane	10.918	83	1267064	218.74	ug/L	99
56) 2-chloroethyl vinyl ether	10.377	63	896574	184.19	ug/L #	100
57) methyl methacrylate	10.547	69	411811	184.12	ug/L #	76
58) 1,4-dioxane	10.561	88	27286	860.26	ug/L	79
59) cis-1,3-dichloropropene	11.077	75	1260385	257.42	ug/L	99
61) 4-methyl-2-pentanone	11.165	43	771381	163.19	ug/L	96
62) toluene	11.851	92	1743267	166.32	ug/L	98
63) trans-1,3-dichloropropene	11.494	75	1061561	223.61	ug/L	99
64) 1,1,2-trichloroethane	11.667	83	526541	159.79	ug/L	98
65) ethyl methacrylate	11.862	69	754960	173.93	ug/L	98
67) tetrachloroethene	12.590	166	739689	177.29	ug/L	98
68) 1,3-dichloropropane	11.904	76	1132443	187.09	ug/L	100
69) dibromochloromethane	12.194	129	826797	195.12	ug/L	96
70) 1,2-dibromoethane	12.449	107	621384	183.74	ug/L	100
71) 2-hexanone	12.017	43	646866	169.84	ug/L	95
72) chlorobenzene	13.272	112	1947935	172.72	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	750738	185.90	ug/L	96
74) ethylbenzene	13.446	91	3755551	179.71	ug/L	98
75) m,p-xylene	13.629	106	2441778	324.04	ug/L	99
76) o-xylene	14.043	106	1245006	166.26	ug/L	99
77) styrene	13.972	104	2155006	205.86	ug/L	96
78) bromoform	13.799	173	486701	197.78	ug/L	99
79) trans-1,4-dichloro-2-b...	14.188	53	227506	246.37	ug/L #	70
81) isopropylbenzene	14.404	105	3470936	201.50	ug/L	99
83) bromobenzene	14.694	156	813544	200.14	ug/L	95
84) 1,1,2,2-tetrachloroethane	14.047	83	612897	126.23	ug/L	99
85) 1,2,3-trichloropropane	14.192	75	804171	190.52	ug/L	99
86) n-propylbenzene	14.846	91	4461050	201.92	ug/L	98
87) 2-chlorotoluene	14.969	91	2812983	200.25	ug/L	100
88) 4-chlorotoluene	15.044	91	2998397	202.29	ug/L	97
89) 1,3,5-trimethylbenzene	15.125	105	3166027	178.50	ug/L	99
90) tert-butylbenzene	15.429	91	2073714	204.02	ug/L	99
91) 1,2,4-trimethylbenzene	15.535	105	3132505	178.14	ug/L	98
92) sec-butylbenzene	15.648	105	3916792	201.13	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90399.D
 Acq On : 18 Sep 2014 7:55 pm
 Operator : krystend
 Sample : IC3345-200
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:25:33 2014
 Response via : Initial Calibration

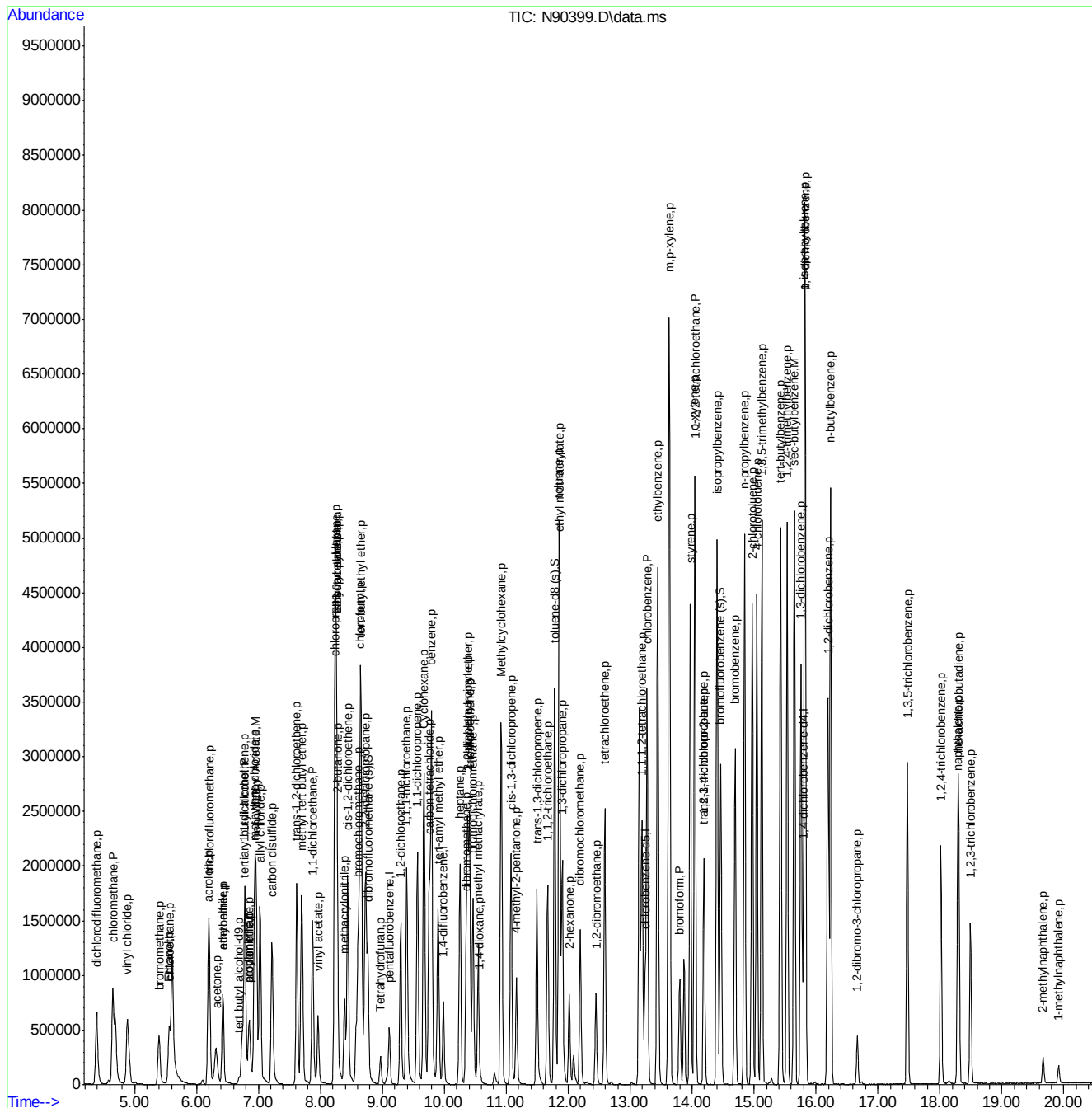
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	1576372	172.89	ug/L	99
94) p-isopropyltoluene	15.818	119	3137629	193.31	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	1404920	155.03	ug/L	98
96) 1,2-dichlorobenzene	16.193	146	1471866	171.87	ug/L	99
97) n-butylbenzene	16.235	91	3340819	202.33	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.666	75	125191	187.88	ug/L	93
99) 1,2,4-trichlorobenzene	18.017	180	707934	220.51	ug/L	97
100) 1,3,5-trichlorobenzene	17.476	180	950650	180.92	ug/L	98
101) hexachlorobutadiene	18.303	225	488881	185.54	ug/L	99
102) naphthalene	18.289	128	1002390	286.27	ug/L	100
103) 1,2,3-trichlorobenzene	18.494	180	504633	239.67	ug/L	96
104) 2-methylnaphthalene	19.664	142	132620	97.85	ug/L #	100
105) 1-methylnaphthalene	19.919	142	95280	92.10	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration



n140918w.m Fri Sep 19 12:07:02 2014

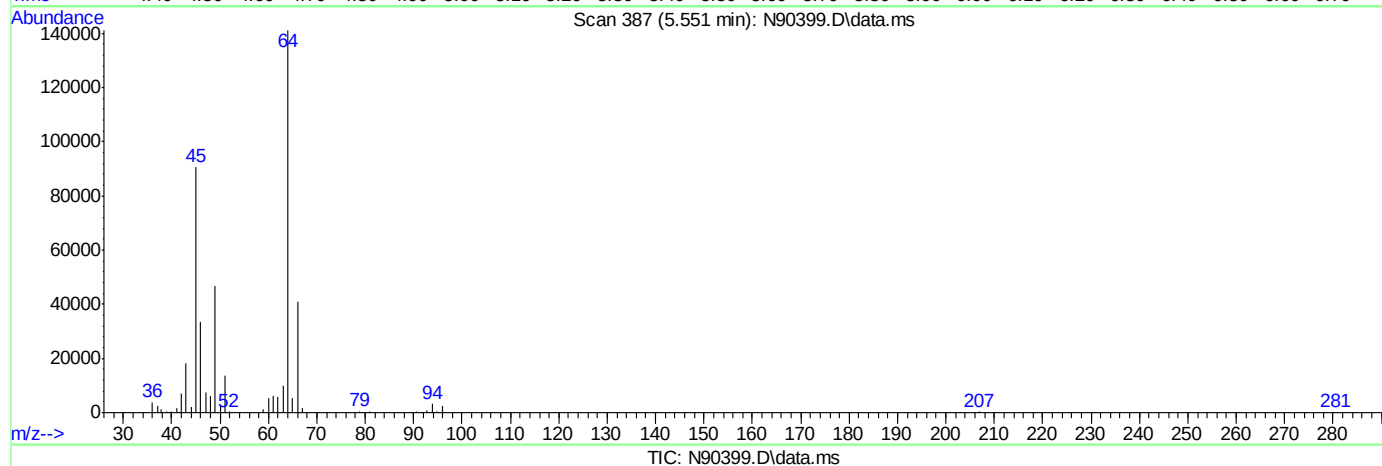
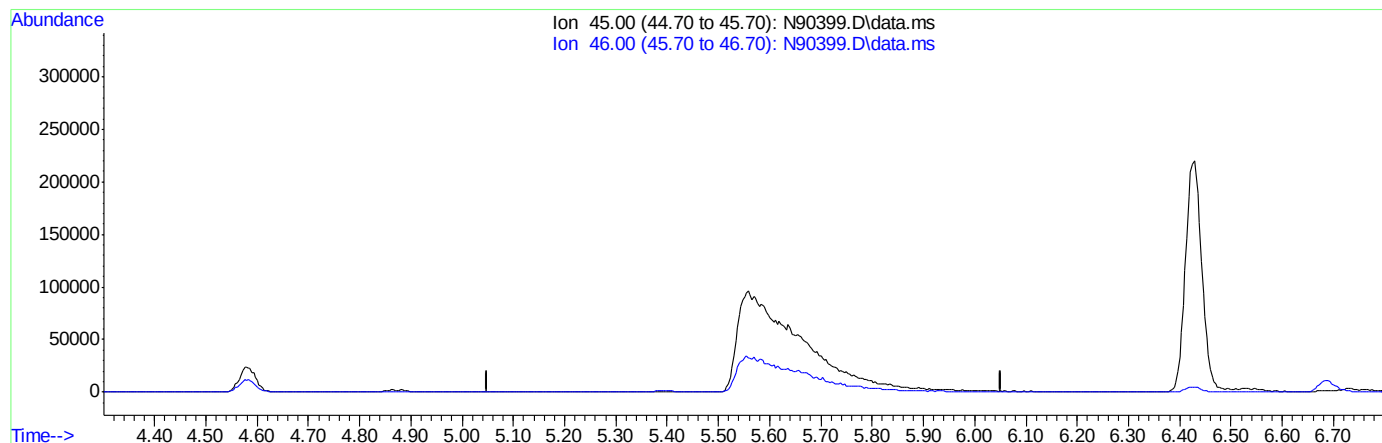
Page: 4

7.6.9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

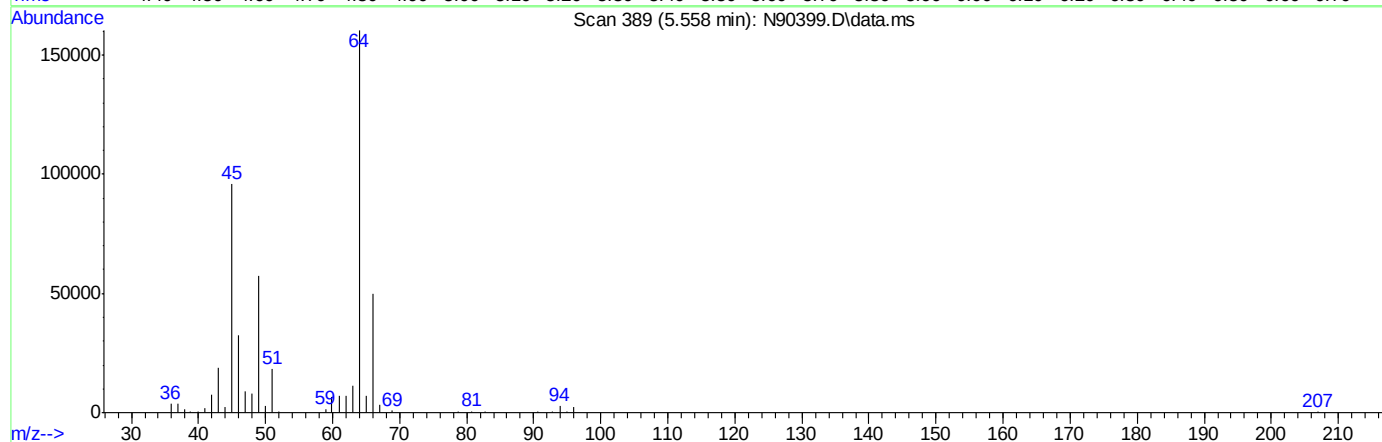
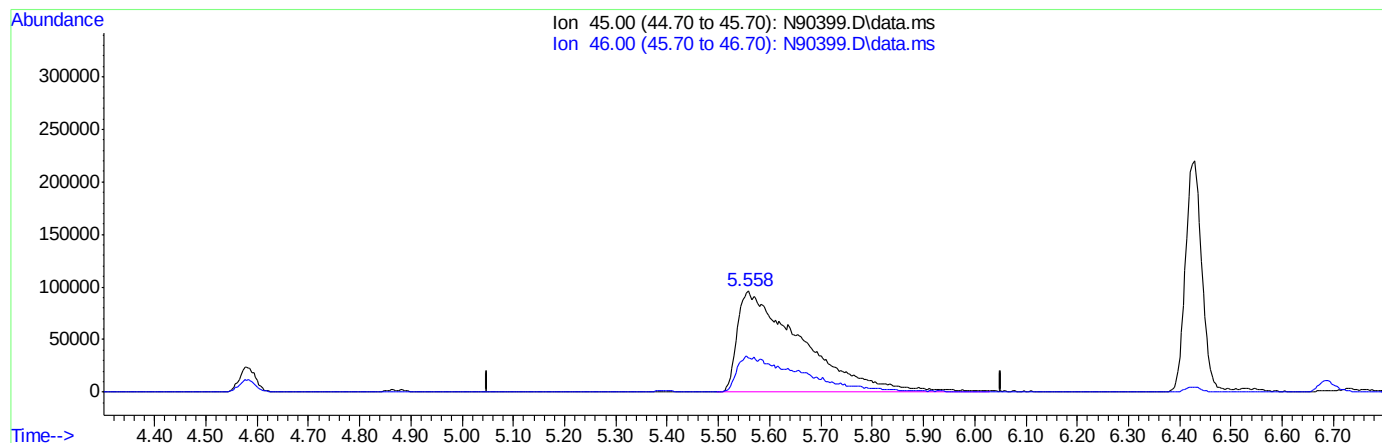
response 0

Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.558min (+0.007) 19082.31ug/L m

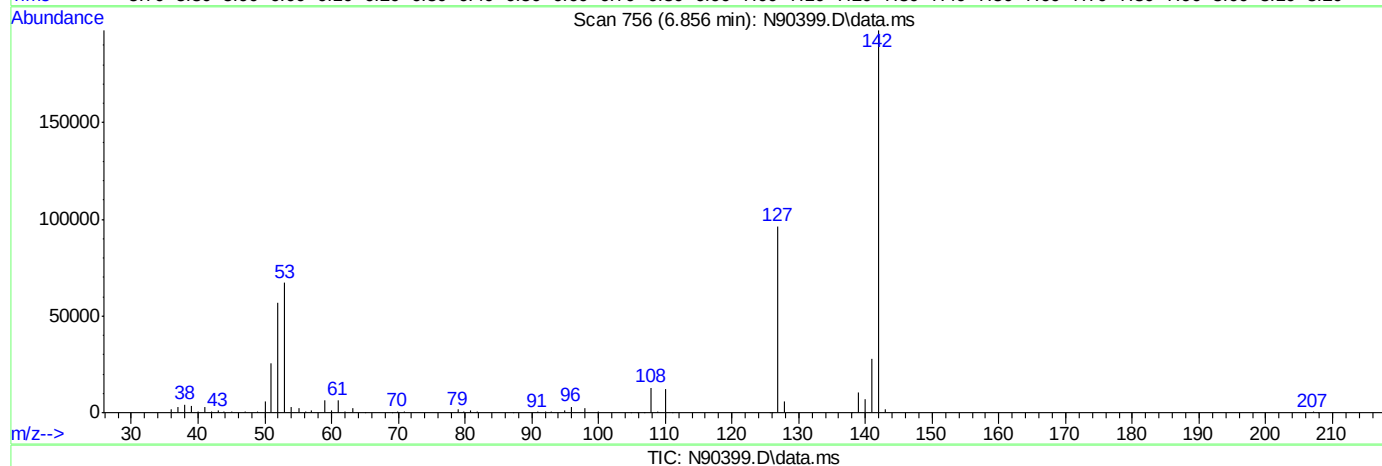
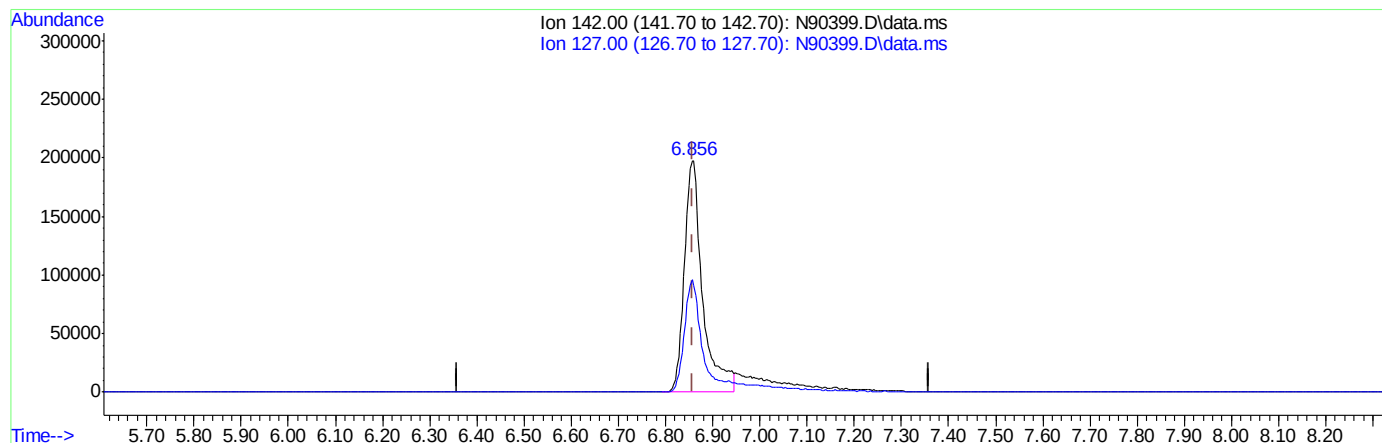
response 846290

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:59 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.856min (-0.003) 332.34ug/L m

response 536598

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	48.69
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90400.D
 Acq On : 18 Sep 2014 8:23 pm
 Operator : krystend
 Sample : IC3345-400
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:26:59 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.690	65	91817	500.00	ug/L	0.00
4) pentafluorobenzene	9.111	168	394186	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	630290	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	338772	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.800	152	244502	50.00	ug/L	0.00

System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	1468431	357.60	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	715.20%#		
60) toluene-d8 (s)	11.784	98	5266774	341.06	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	682.12%#		
82) bromofluorobenzene (s)	14.467	95	2282447	380.16	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	760.32%#		

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.775	59	1188886	3641.75	ug/L	# 100
3) Ethanol	5.576	45	1562443	32449.33	ug/L	99
5) dichlorodifluoromethane	4.388	85	1841997	349.25	ug/L	99
6) chloromethane	4.646	50	2312179	358.75	ug/L	97
7) vinyl chloride	4.880	62	1113616	210.01	ug/L	100
8) bromomethane	5.392	96	956856m	563.98	ug/L	
9) chloroethane	5.558	64	839384	321.44	ug/L	98
10) ethyl ether	6.428	59	1275138	321.15	ug/L	90
11) acetonitrile	6.432	41	185292	290.76	ug/L	99
12) trichlorofluoromethane	6.202	101	2554034	338.30	ug/L	98
13) freon-113	6.965	101	1229863	368.82	ug/L	96
14) acrolein	6.191	56	649467	1379.97	ug/L	100
15) 1,1-dichloroethene	6.785	96	1119679	312.20	ug/L	93
16) acetone	6.329	58	217918	252.22	ug/L	87
17) Methyl Acetate	6.958	43	877793	252.34	ug/L	97
18) methylene chloride	6.937	84	1319120	313.32	ug/L	97
19) methyl tert butyl ether	7.701	73	3774003	438.34	ug/L	99
20) acrylonitrile	6.842	53	533057	300.97	ug/L	100
21) allyl chloride	7.029	41	2438548	324.25	ug/L	100
22) trans-1,2-dichloroethene	7.619	96	1371526	340.86	ug/L	100
23) iodomethane	6.852	142	1014660m	482.90	ug/L	
24) carbon disulfide	7.220	76	4416422	385.68	ug/L	99
25) propionitrile	6.842	54	19665	409.33	ug/L	100
26) vinyl acetate	7.962	43	2230655	403.26	ug/L	99
27) chloroprene	8.235	53	2365560	324.00	ug/L	99
28) di-isopropyl ether	8.263	45	5102914	258.19	ug/L	93
29) methacrylonitrile	8.394	41	912486	317.97	ug/L	97
30) 2-butanone	8.281	72	136629	296.04	ug/L	# 93
31) Hexane	8.249	41	2043722	281.70	ug/L	96
32) 1,1-dichloroethane	7.878	63	3329344	337.18	ug/L	97
33) tert-butyl ethyl ether	8.659	59	4361829	635.76	ug/L	98
34) isobutyl alcohol	8.263	43	3986757	1325.23	ug/L	92
35) 2,2-dichloropropane	8.730	77	2456098	481.56	ug/L	99
36) cis-1,2-dichloroethene	8.443	96	1565191	341.69	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
 Data File : N90400.D
 Acq On : 18 Sep 2014 8:23 pm
 Operator : krystend
 Sample : IC3345-400
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 09:26:59 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.263	43	3986757	269.52	ug/L	94
38) bromochloromethane	8.613	128	587268	307.87	ug/L	98
39) chloroform	8.645	83	2692432	302.20	ug/L	97
41) Tetrahydrofuran	8.970	42	380248	293.37	ug/L	96
42) 1,1,1-trichloroethane	9.394	97	2698204	406.78	ug/L	99
44) Cyclohexane	9.673	56	3036585	348.49	ug/L	96
45) carbon tetrachloride	9.758	117	2263535	363.44	ug/L	99
46) 1,1-dichloropropene	9.567	75	2036048	362.72	ug/L	99
47) benzene	9.794	78	5492578	296.07	ug/L	99
48) 1,2-dichloroethane	9.299	62	2677170	308.44	ug/L	100
49) tert-amyl methyl ether	9.900	73	2916533	697.48	ug/L	99
50) heptane	10.253	43	1911708	365.19	ug/L	97
51) trichloroethene	10.409	95	1627935	293.72	ug/L	96
52) 1,2-dichloropropane	10.381	63	1669731	315.97	ug/L	99
53) dibromomethane	10.352	93	878959	327.13	ug/L	96
54) bromodichloromethane	10.465	83	2378054	346.20	ug/L	98
55) Methylcyclohexane	10.921	83	2373109	370.53	ug/L	93
56) 2-chloroethyl vinyl ether	10.381	63	1669731	319.29	ug/L #	99
57) methyl methacrylate	10.547	69	821385	341.86	ug/L	85
58) 1,4-dioxane	10.561	88	54498	1615.89	ug/L	80
59) cis-1,3-dichloropropene	11.077	75	2506516	455.70	ug/L	98
61) 4-methyl-2-pentanone	11.165	43	1512500	303.23	ug/L	98
62) toluene	11.855	92	3319976	297.20	ug/L	100
63) trans-1,3-dichloropropene	11.494	75	2170446	414.52	ug/L	98
64) 1,1,2-trichloroethane	11.671	83	1026098	293.41	ug/L	97
65) ethyl methacrylate	11.862	69	1439335	311.36	ug/L	86
67) tetrachloroethene	12.594	166	1458132	324.27	ug/L	98
68) 1,3-dichloropropane	11.908	76	2188787	334.89	ug/L	100
69) dibromochloromethane	12.198	129	1646207	356.88	ug/L	98
70) 1,2-dibromoethane	12.449	107	1226872	336.25	ug/L	100
71) 2-hexanone	12.017	43	1228361	303.08	ug/L	96
72) chlorobenzene	13.276	112	3807602	314.67	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	1503100	344.02	ug/L	95
74) ethylbenzene	13.446	91	7208304	320.07	ug/L	98
75) m,p-xylene	13.633	106	4628802	574.88	ug/L	88
76) o-xylene	14.043	106	2406472	300.03	ug/L	91
77) styrene	13.972	104	4206443	366.33	ug/L	98
78) bromoform	13.803	173	973399	362.89	ug/L	99
79) trans-1,4-dichloro-2-b...	14.192	53	473221	452.02	ug/L #	66
81) isopropylbenzene	14.404	105	6639975	380.42	ug/L	100
83) bromobenzene	14.697	156	1608930	391.07	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.050	83	1129564	239.69	ug/L	98
85) 1,2,3-trichloropropane	14.195	75	1569124	370.26	ug/L	97
86) n-propylbenzene	14.849	91	8388125	374.57	ug/L	99
87) 2-chlorotoluene	14.973	91	5387353	378.87	ug/L	97
88) 4-chlorotoluene	15.047	91	5670780	377.32	ug/L	100
89) 1,3,5-trimethylbenzene	15.125	105	5971227	337.18	ug/L	97
90) tert-butylbenzene	15.429	91	3832246	371.31	ug/L	96
91) 1,2,4-trimethylbenzene	15.539	105	5924845	337.54	ug/L	98
92) sec-butylbenzene	15.655	105	7248458	367.45	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

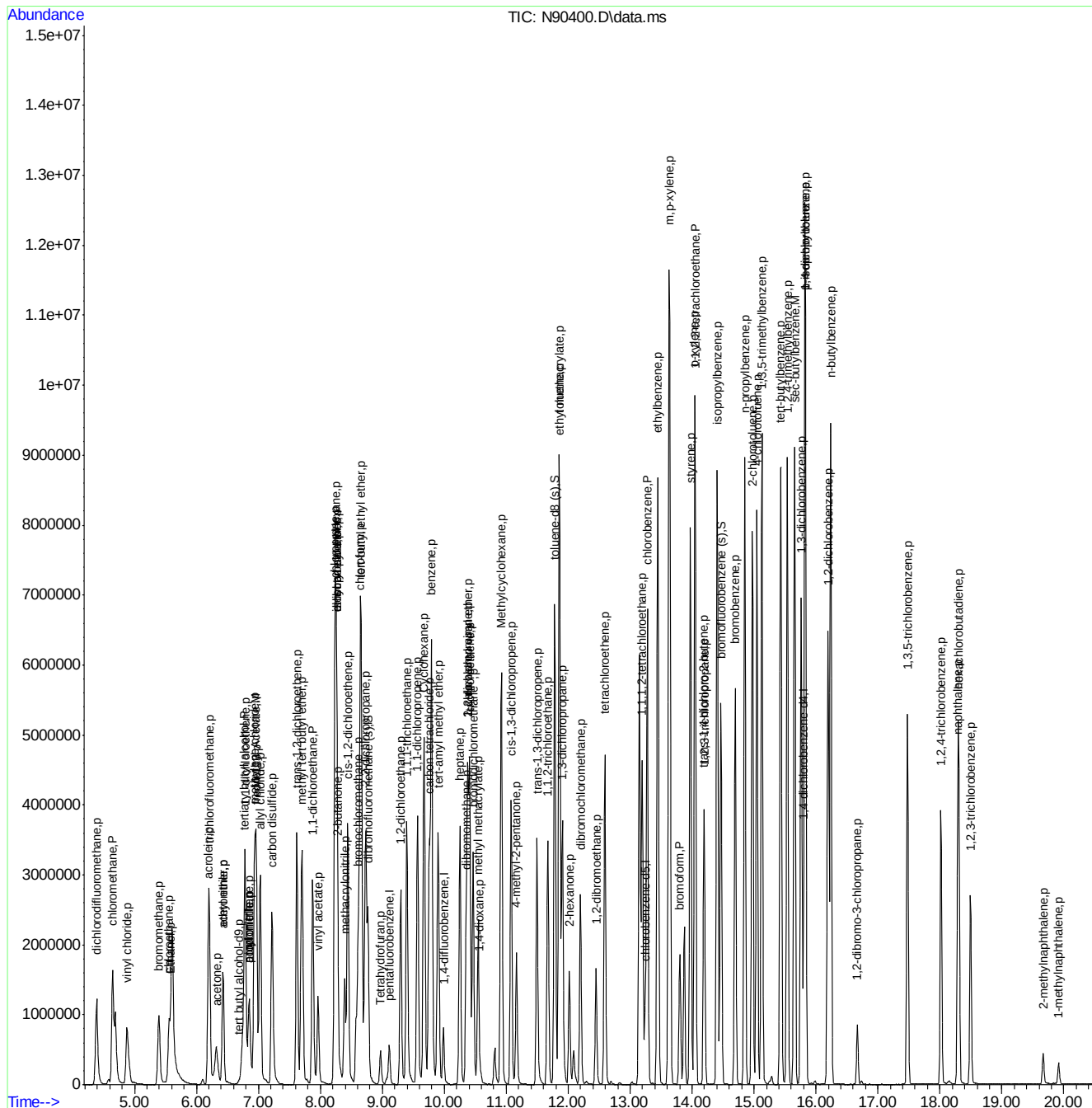
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.761	146	3047779	335.98	ug/L	98
94) p-isopropyltoluene	15.821	119	5405618	330.92	ug/L	96
95) 1,4-dichlorobenzene	15.828	146	2607427	292.53	ug/L	96
96) 1,2-dichlorobenzene	16.193	146	2798884	328.73	ug/L	97
97) n-butylbenzene	16.239	91	6092781	363.91	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.666	75	247810	371.23	ug/L	95
99) 1,2,4-trichlorobenzene	18.017	180	1309025	396.13	ug/L	97
100) 1,3,5-trichlorobenzene	17.476	180	1751047	334.61	ug/L	98
101) hexachlorobutadiene	18.303	225	921687	349.86	ug/L	99
102) naphthalene	18.289	128	1942414	511.38	ug/L	100
103) 1,2,3-trichlorobenzene	18.494	180	926393	420.85	ug/L	90
104) 2-methylnaphthalene	19.668	142	246522	180.38	ug/L #	100
105) 1-methylnaphthalene	19.915	142	170161	164.70	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration



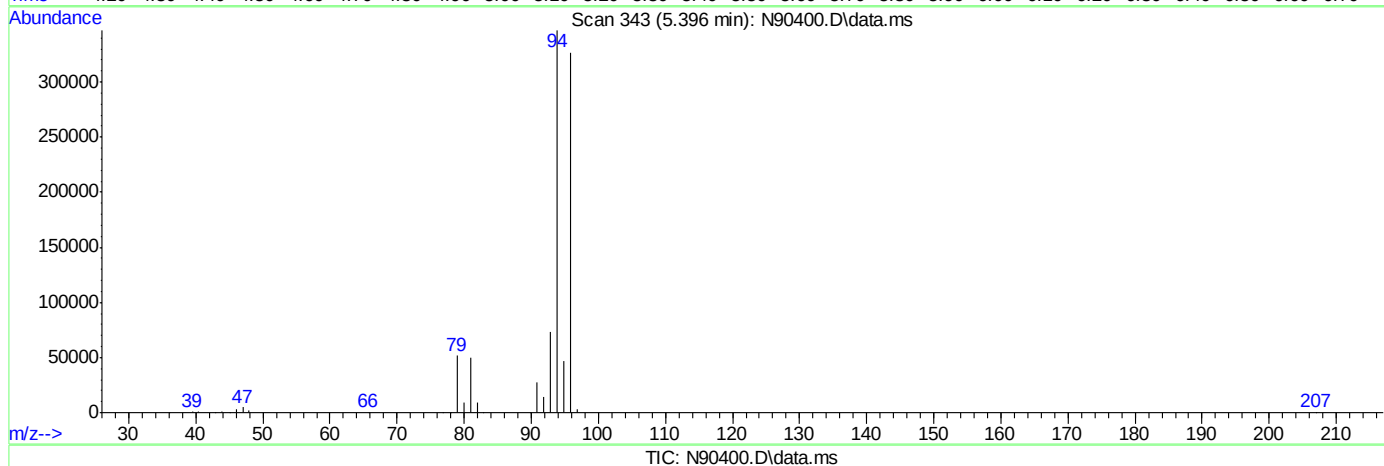
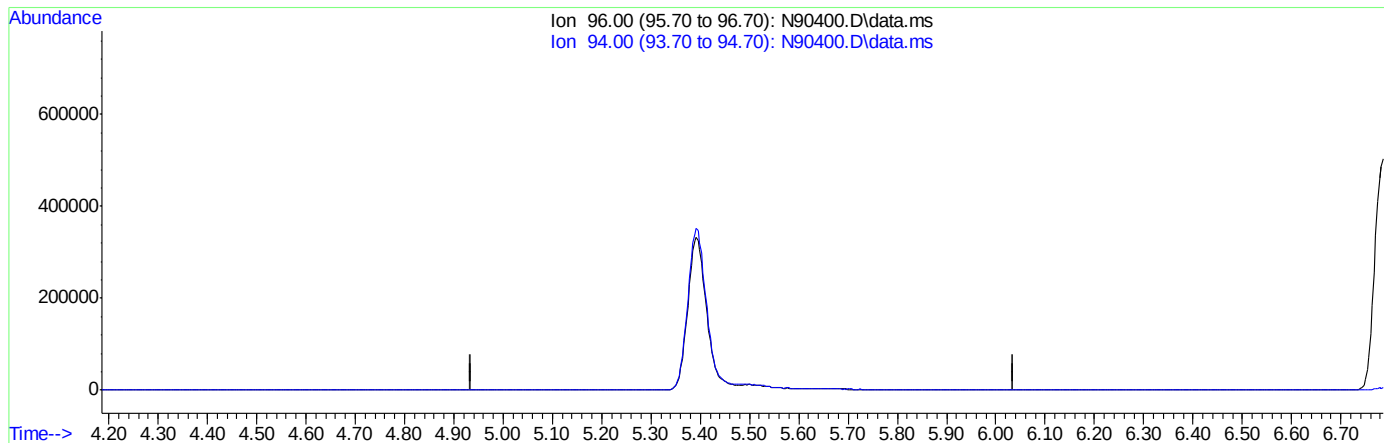
n140918w.m Fri Sep 19 12:07:06 2014

Page: 4

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration



(8) bromomethane (p)

5.396min (-5.396) 0.00ug/L

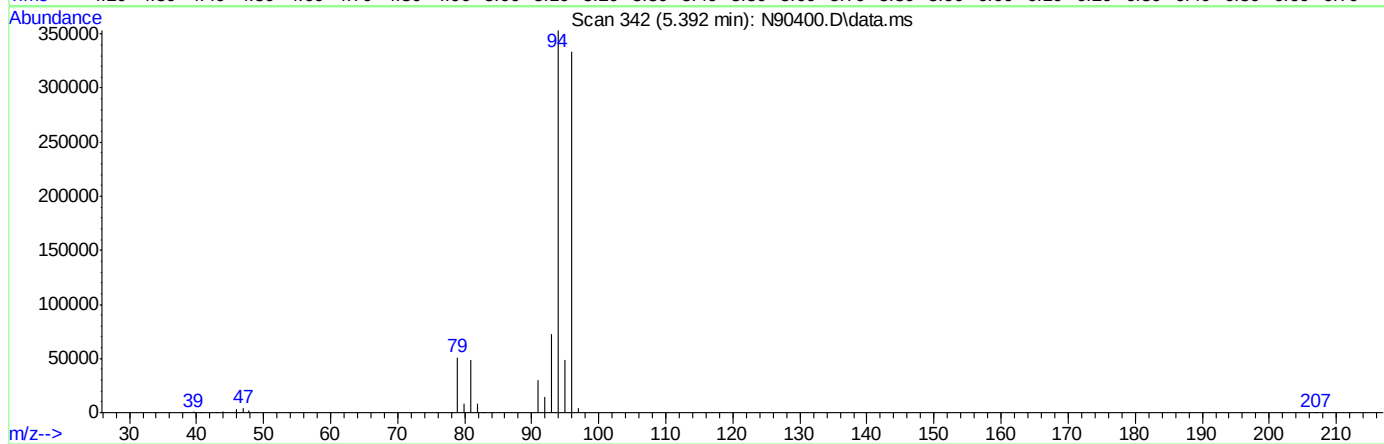
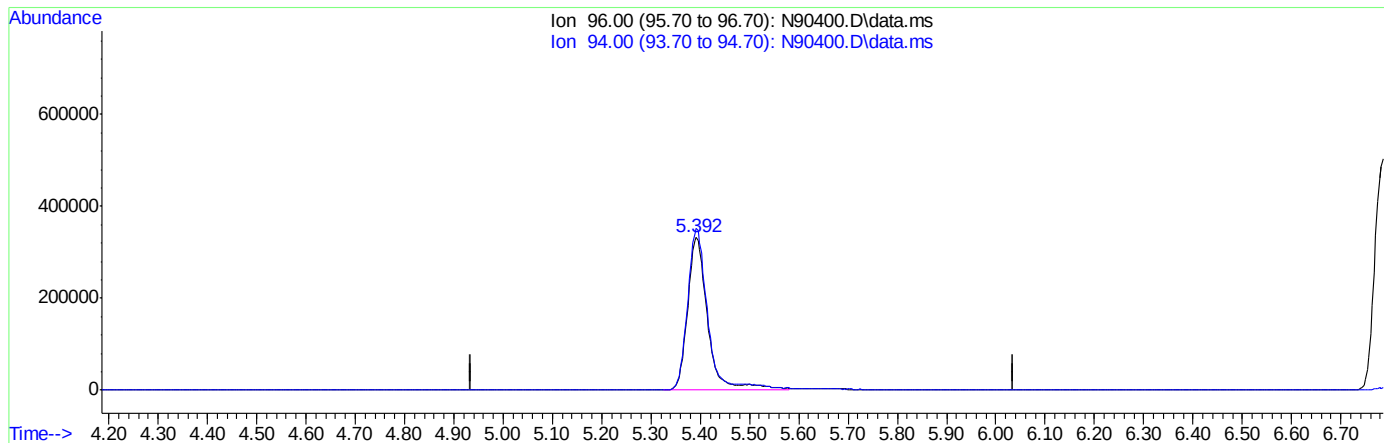
response 0

Ion	Exp%	Act%
96.00	100	0.00
94.00	103.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration



TIC: N90400.D\data.ms

(8) bromomethane (p)

5.392min (-0.004) 563.98ug/L m

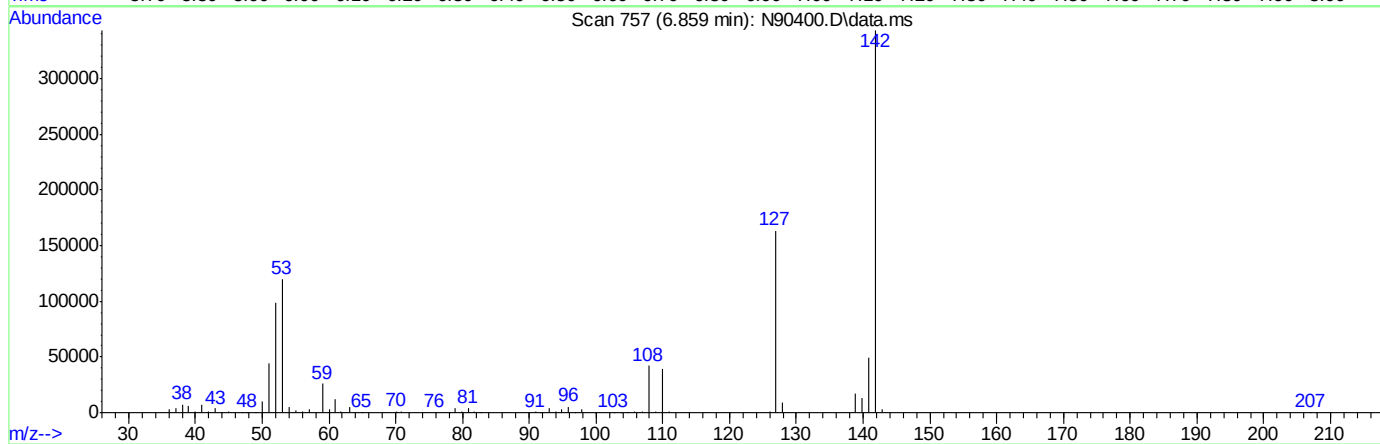
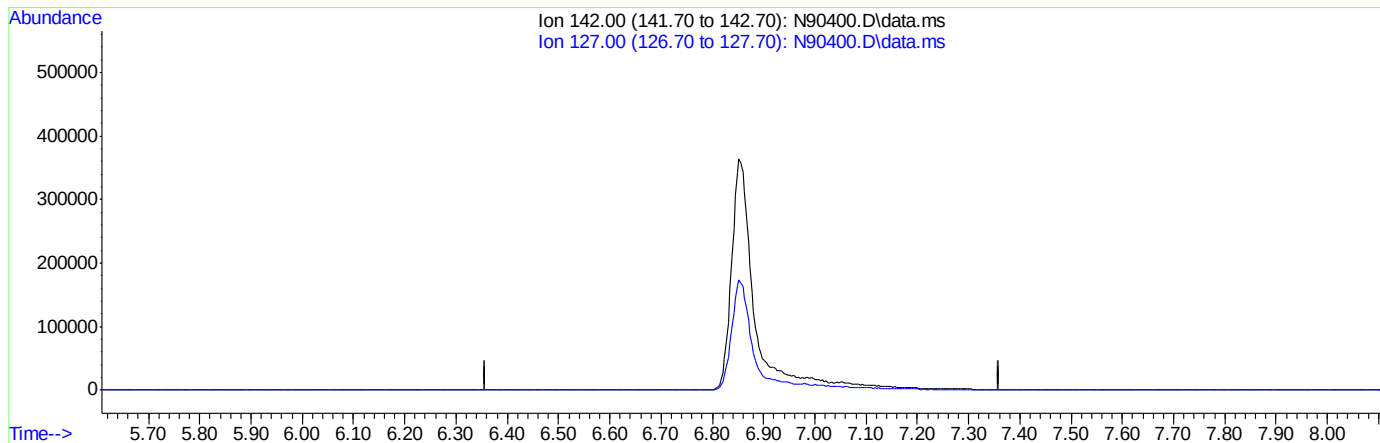
response 956856

Ion	Exp%	Act%
96.00	100	100
94.00	103.80	105.85
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration



TIC: N90400.D\data.ms

(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

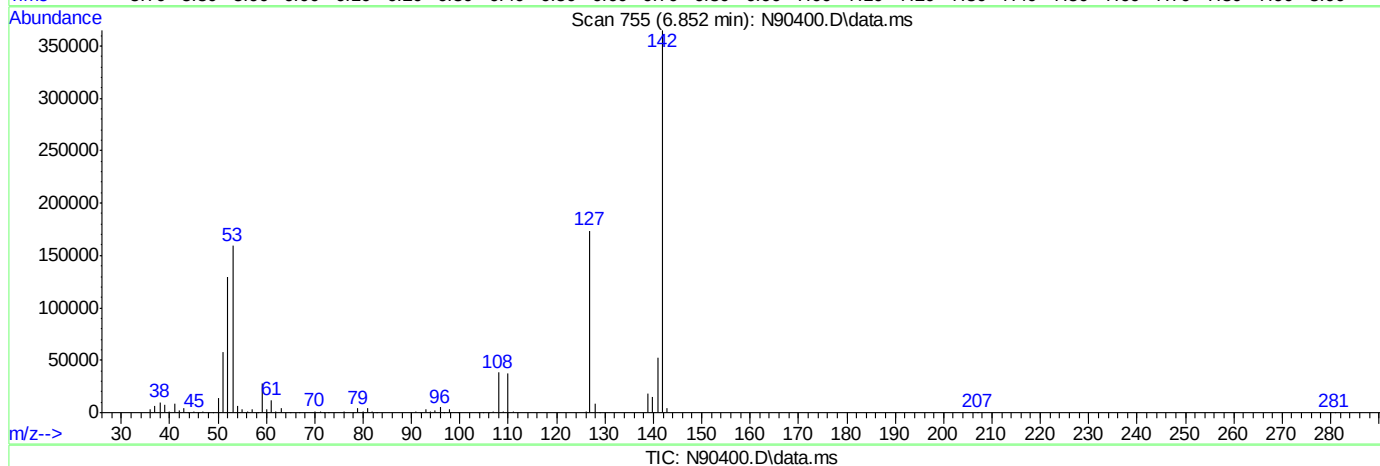
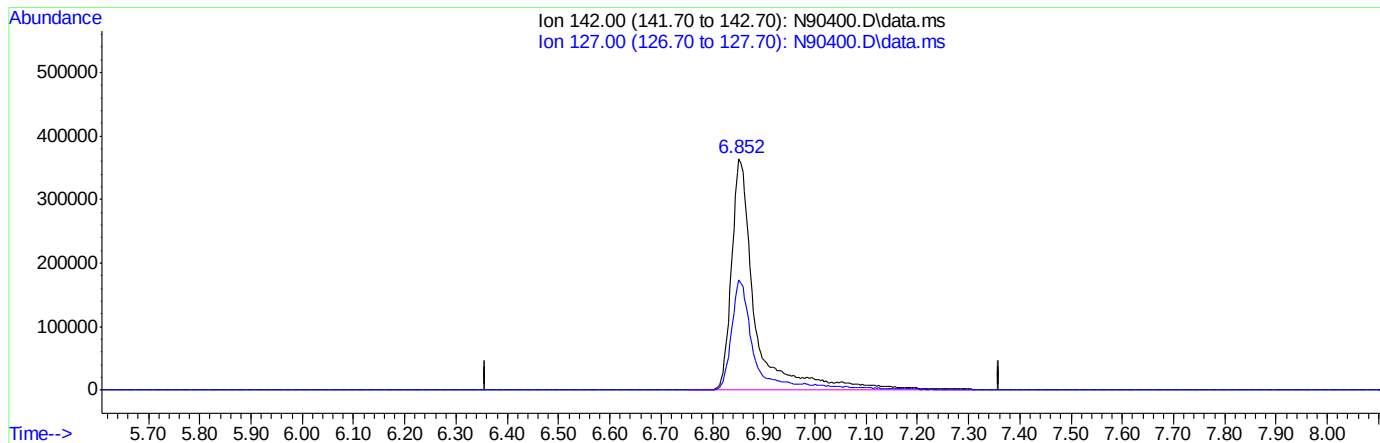
response 0

Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.852min (-0.007) 564.61ug/L m

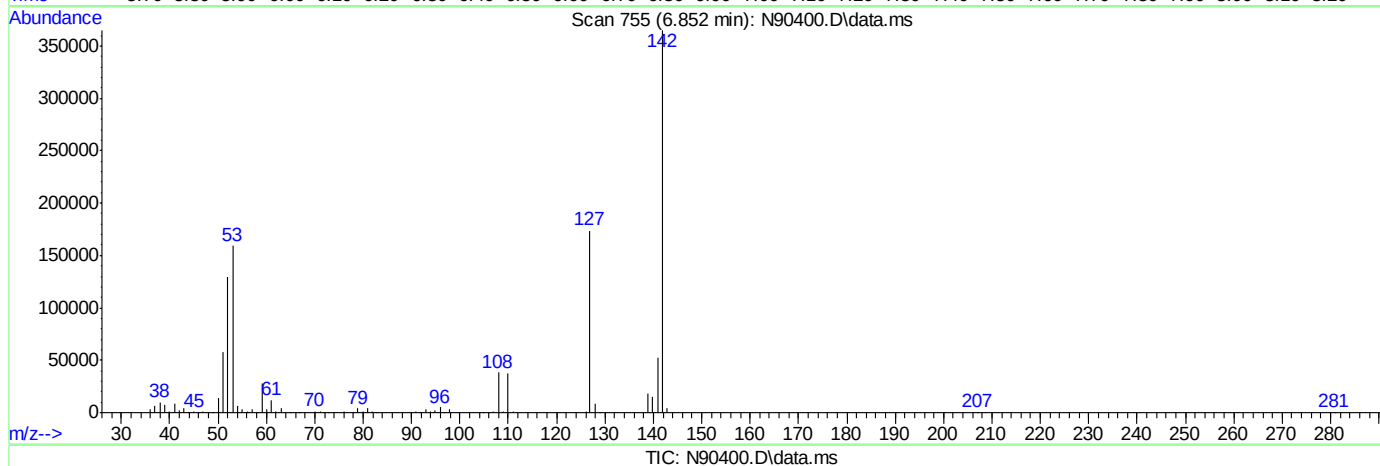
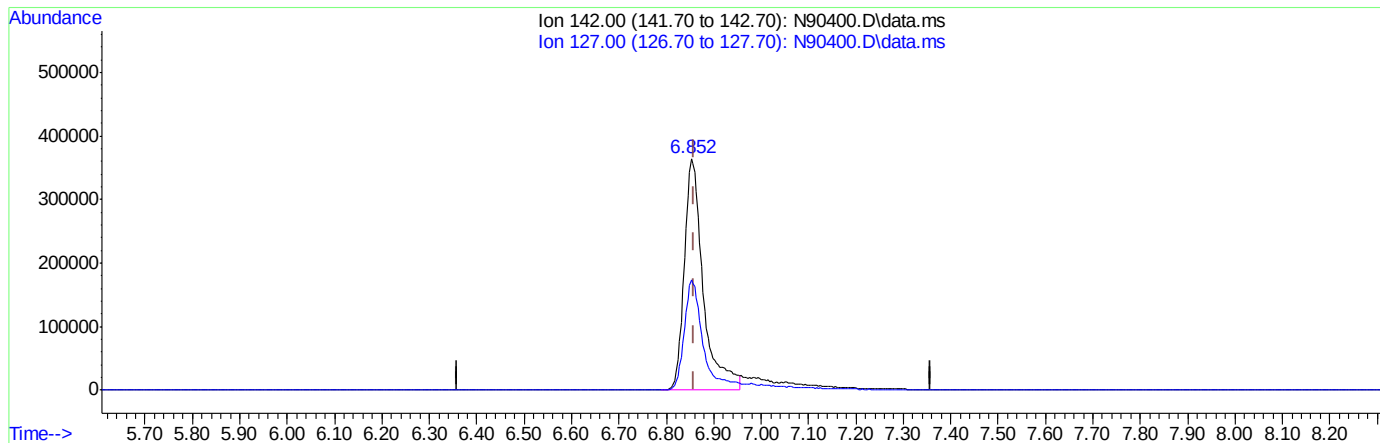
response 1186346

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:28:16 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration



(23) iodomethane (p)

6.852min (-0.007) 482.90ug/L m

response 1014660

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
 Data File : N90407.D
 Acq On : 19 Sep 2014 1:04 pm
 Operator : krystend
 Sample : bs
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.697	65	109677	500.00	ug/L	0.00
4) pentafluorobenzene	9.115	168	303532	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	470411	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	255267	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	201040	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	151085	48.52	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	97.04%		
60) toluene-d8 (s)	11.781	98	592963	52.56	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	105.12%		
82) bromofluorobenzene (s)	14.464	95	233597	47.66	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	95.32%		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.782	59	103894	269.44	ug/L	# 100
3) Ethanol	5.562	45	328301m	5845.90	ug/L	
5) dichlorodifluoromethane	4.392	85	256233	64.11	ug/L	97
6) chloromethane	4.657	50	247452	50.51	ug/L	98
7) vinyl chloride	4.897	62	196022	59.69	ug/L	94
8) bromomethane	5.399	96	77011	50.54	ug/L	98
9) chloroethane	5.562	64	117801	60.06	ug/L	95
10) ethyl ether	6.432	59	167151	56.26	ug/L	98
11) acetonitrile	6.432	41	27076	57.42	ug/L	96
12) trichlorofluoromethane	6.209	101	320581	55.87	ug/L	99
13) freon-113	6.962	101	130506	51.40	ug/L	99
14) acrolein	6.198	56	87506	252.65	ug/L	100
15) 1,1-dichloroethene	6.785	96	122707	52.87	ug/L	91
16) acetone	6.336	58	30439	43.60	ug/L	84
17) Methyl Acetate	6.962	43	183707	68.58	ug/L	# 92
18) methylene chloride	6.941	84	147063	46.63	ug/L	91
19) methyl tert butyl ether	7.705	73	409974	54.92	ug/L	98
20) acrylonitrile	6.845	53	67014	50.94	ug/L	94
21) allyl chloride	7.029	41	316359	56.15	ug/L	93
22) trans-1,2-dichloroethene	7.623	96	149104	48.93	ug/L	98
23) iodomethane	6.860	142	72383	38.45	ug/L	97
24) carbon disulfide	7.220	76	404653	46.13	ug/L	99
25) propionitrile	6.852	54	2476	56.23	ug/L	100
26) vinyl acetate	7.970	43	171062	40.11	ug/L	96
27) chloroprene	8.235	53	350980	64.17	ug/L	93
28) di-isopropyl ether	8.263	45	783247	53.85	ug/L	97
29) methacrylonitrile	8.394	41	109220	50.92	ug/L	93
30) 2-butanone	8.281	72	19790	57.83	ug/L	# 78
31) Hexane	8.249	41	287716	53.77	ug/L	86
32) 1,1-dichloroethane	7.878	63	382325	51.18	ug/L	99
33) tert-butyl ethyl ether	8.659	59	366503	46.99	ug/L	94
34) isobutyl alcohol	8.260	43	601650	272.88	ug/L	99
35) 2,2-dichloropropane	8.730	77	280369	58.65	ug/L	99
36) cis-1,2-dichloroethene	8.443	96	171953	49.55	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
 Data File : N90407.D
 Acq On : 19 Sep 2014 1:04 pm
 Operator : krystend
 Sample : bs
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.260	43	601428	55.38	ug/L	98
38) bromochloromethane	8.613	128	75756	53.33	ug/L	90
39) chloroform	8.645	83	333542	49.98	ug/L	97
41) Tetrahydrofuran	8.974	42	50164	52.25	ug/L	95
42) 1,1,1-trichloroethane	9.394	97	303810	59.37	ug/L	100
44) Cyclohexane	9.670	56	359704	56.35	ug/L	97
45) carbon tetrachloride	9.755	117	256419	55.73	ug/L	95
46) 1,1-dichloropropene	9.568	75	242242	58.60	ug/L	98
47) benzene	9.794	78	648540	48.09	ug/L	100
48) 1,2-dichloroethane	9.295	62	323777	51.29	ug/L	99
49) tert-amyl methyl ether	9.903	73	197220	49.54	ug/L	95
50) heptane	10.253	43	213210	55.26	ug/L	91
51) trichloroethene	10.409	95	196165	48.72	ug/L	93
52) 1,2-dichloropropane	10.377	63	224809	58.54	ug/L	100
53) dibromomethane	10.356	93	104523	53.34	ug/L	96
54) bromodichloromethane	10.462	83	286031	56.64	ug/L	99
55) Methylcyclohexane	10.918	83	264884	56.00	ug/L	97
56) 2-chloroethyl vinyl ether	10.377	63	224809	59.31	ug/L #	99
57) methyl methacrylate	10.550	69	99350	56.58	ug/L #	79
58) 1,4-dioxane	10.561	88	3507	121.93	ug/L	81
59) cis-1,3-dichloropropene	11.077	75	288523	59.10	ug/L	99
61) 4-methyl-2-pentanone	11.169	43	195879	54.50	ug/L	93
62) toluene	11.855	92	405078	50.01	ug/L	96
63) trans-1,3-dichloropropene	11.494	75	246408	62.83	ug/L	99
64) 1,1,2-trichloroethane	11.668	83	134803	51.65	ug/L	99
65) ethyl methacrylate	11.862	69	178921	53.55	ug/L	91
67) tetrachloroethene	12.594	166	170304	51.23	ug/L	93
68) 1,3-dichloropropane	11.904	76	266851	55.47	ug/L	99
69) dibromochloromethane	12.194	129	193508	56.28	ug/L	95
70) 1,2-dibromoethane	12.449	107	147384	54.70	ug/L	98
71) 2-hexanone	12.021	43	167694	56.88	ug/L	96
72) chlorobenzene	13.276	112	435746	48.95	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.191	131	177699	54.83	ug/L	97
74) ethylbenzene	13.446	91	828883	49.95	ug/L	99
75) m,p-xylene	13.630	106	562899	92.78	ug/L	96
76) o-xylene	14.043	106	284187	48.23	ug/L	97
77) styrene	13.973	104	463567	54.23	ug/L	100
78) bromoform	13.799	173	110698	55.34	ug/L	97
79) trans-1,4-dichloro-2-b...	14.192	53	44319	50.55	ug/L	96
81) isopropylbenzene	14.404	105	744170	52.22	ug/L	99
83) bromobenzene	14.694	156	181227	53.74	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.047	83	178255	57.87	ug/L	97
85) 1,2,3-trichloropropane	14.192	75	192325	55.79	ug/L	100
86) n-propylbenzene	14.846	91	969987	53.16	ug/L	100
87) 2-chlorotoluene	14.970	91	606503	52.27	ug/L	98
88) 4-chlorotoluene	15.044	91	635395	51.84	ug/L	98
89) 1,3,5-trimethylbenzene	15.122	105	664031	46.41	ug/L	100
90) tert-butylbenzene	15.429	91	438328	52.19	ug/L	98
91) 1,2,4-trimethylbenzene	15.535	105	697238	49.16	ug/L	99
92) sec-butylbenzene	15.648	105	840100	52.40	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
 Data File : N90407.D
 Acq On : 19 Sep 2014 1:04 pm
 Operator : krystend
 Sample : bs
 Misc : ms32746,MSN3345,,,,5,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	350072	54.07	ug/L	98
94)	p-isopropyltoluene	15.822	119	696545	53.17	ug/L	99
95)	1,4-dichlorobenzene	15.825	146	333567	57.93	ug/L	97
96)	1,2-dichlorobenzene	16.189	146	347482	57.49	ug/L	99
97)	n-butylbenzene	16.235	91	740787	54.51	ug/L	99
98)	1,2-dibromo-3-chloropr...	16.663	75	33892	62.39	ug/L	89
99)	1,2,4-trichlorobenzene	18.017	180	162541	59.90	ug/L	98
100)	1,3,5-trichlorobenzene	17.473	180	231772	55.15	ug/L	99
101)	hexachlorobutadiene	18.300	225	115864	54.46	ug/L	99
102)	naphthalene	18.289	128	243260	62.85	ug/L	100
103)	1,2,3-trichlorobenzene	18.494	180	113975	58.20	ug/L	91
104)	2-methylnaphthalene	19.668	142	50146	45.26	ug/L #	100
105)	1-methylnaphthalene	19.915	142	37746	45.58	ug/L	95

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

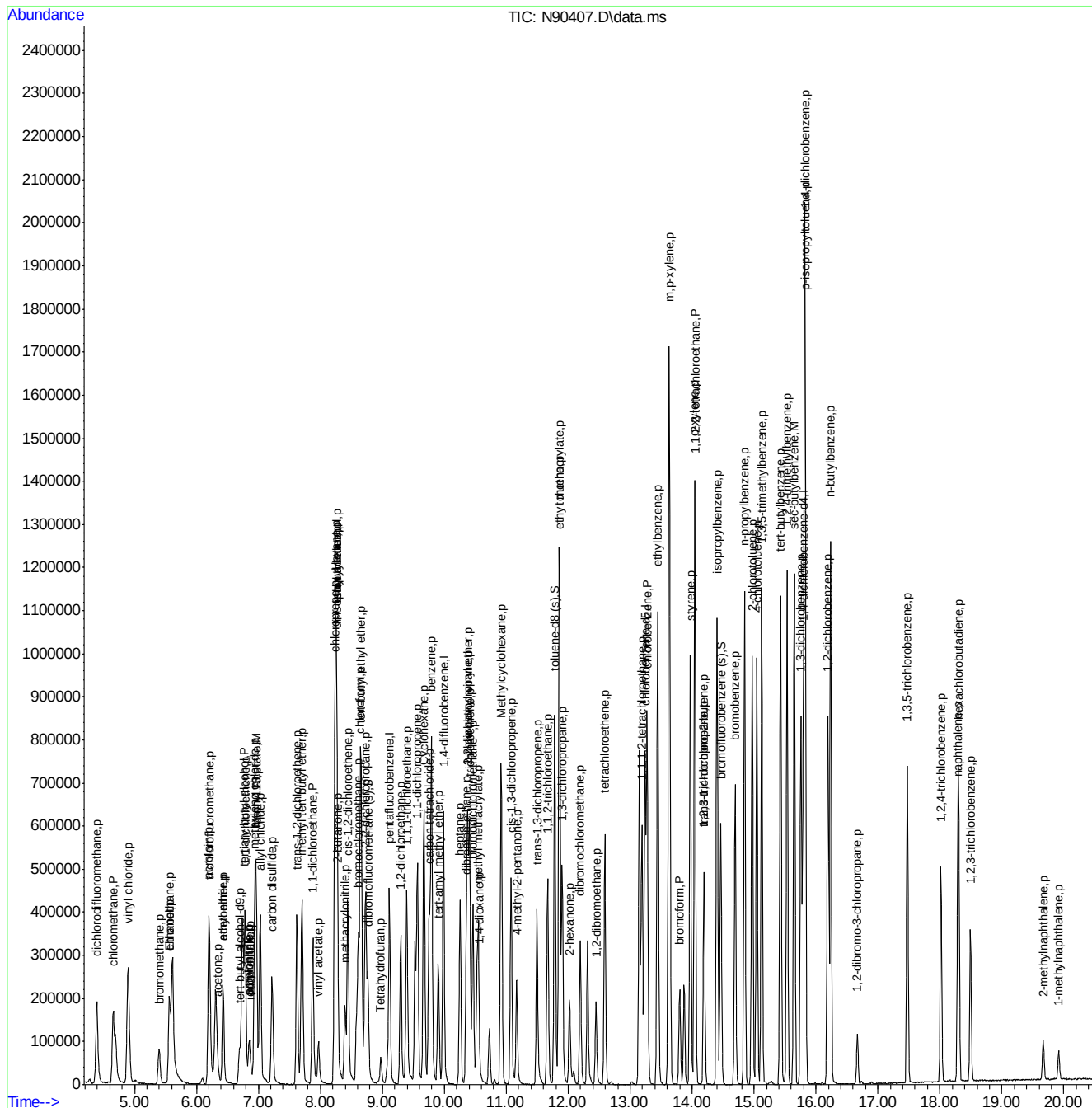
7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



n140918w.m Fri Sep 19 15:36:13 2014

Page: 4

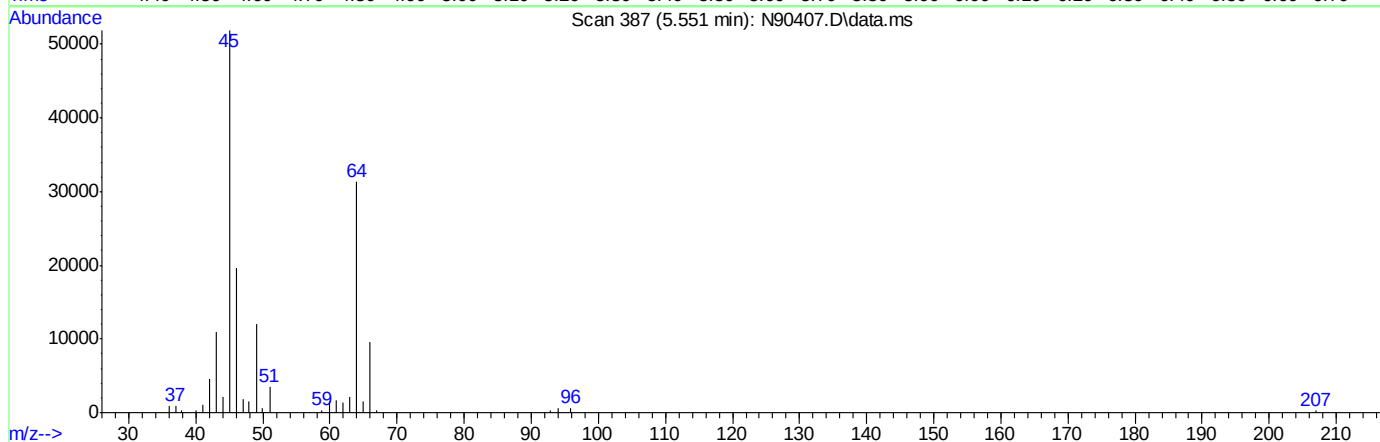
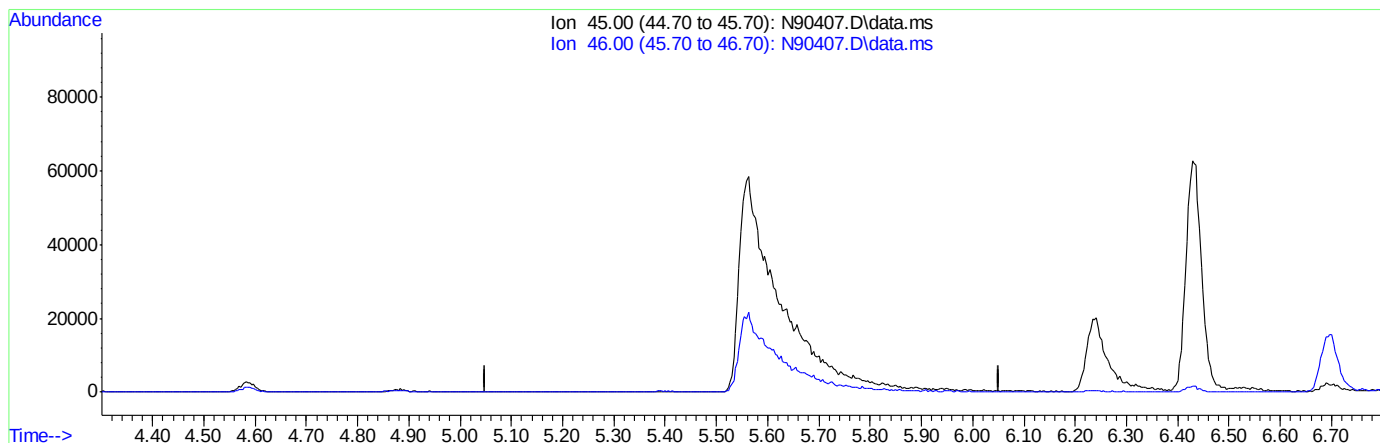
7.6.11



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

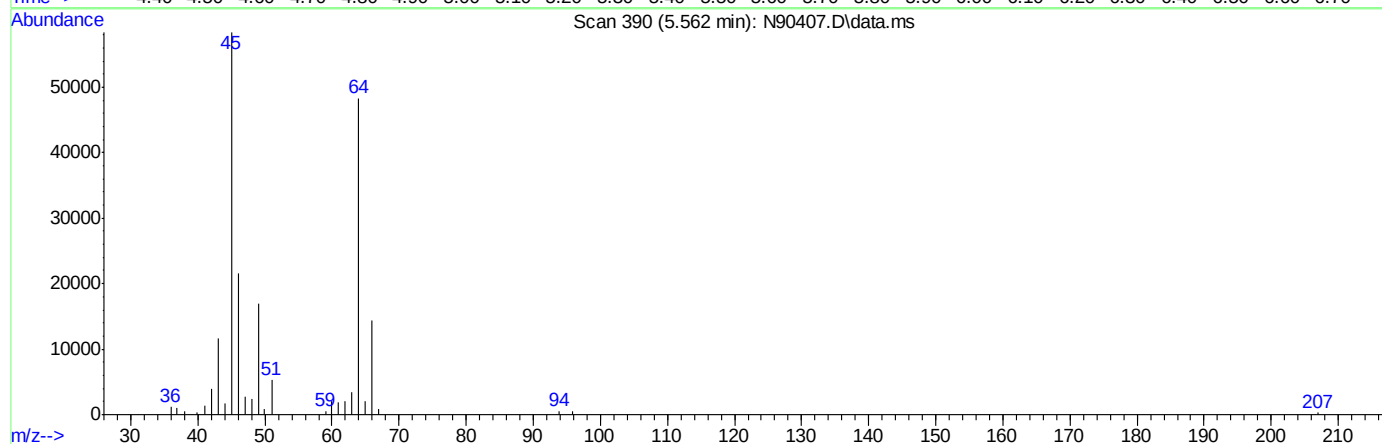
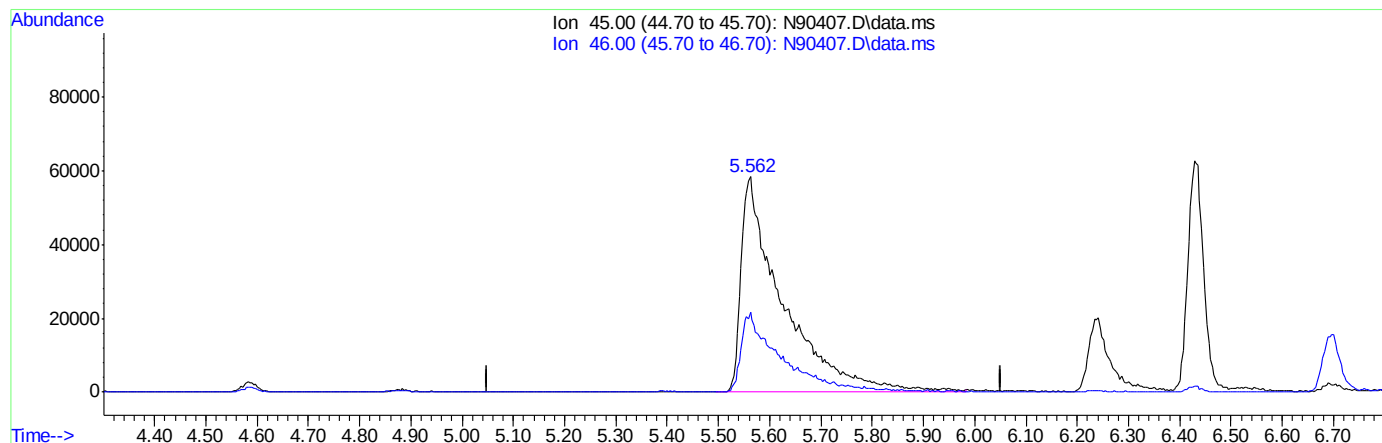
response 0

Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



TIC: N90407.D\data.ms

(3) Ethanol (p)

5.562min (+0.011) 5845.90ug/L m

response 328301

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90681.D
 Acq On : 29 Sep 2014 8:26 am
 Operator : jaclynb
 Sample : cc3345-50
 Misc : ms32833,MSN3355,,,,5,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 29 08:47:06 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.693	65	111912	500.00	ug/L	0.00
4) pentafluorobenzene	9.115	168	309070	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	478600	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	252687	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.793	152	209144	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	151546	47.79	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	95.58%		
60) toluene-d8 (s)	11.784	98	604452	52.66	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	105.32%		
82) bromofluorobenzene (s)	14.464	95	241308	47.32	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	94.64%		
Target Compounds						
					Qvalue	
2) tertiary butyl alcohol	6.782	59	208872	530.87	ug/L	# 100
3) Ethanol	5.562	45	325996	5688.93	ug/L	100
5) dichlorodifluoromethane	4.388	85	190004	46.69	ug/L	96
6) chloromethane	4.657	50	207816	41.66	ug/L	97
7) vinyl chloride	4.897	62	172097	51.31	ug/L	96
8) bromomethane	5.399	96	68424	44.74	ug/L	96
9) chloroethane	5.566	64	97630	48.88	ug/L	95
10) ethyl ether	6.432	59	146101	48.29	ug/L	94
12) trichlorofluoromethane	6.205	101	277824	47.54	ug/L	99
13) freon-113	6.962	101	140673	54.41	ug/L	99
14) acrolein	6.202	56	93842	266.09	ug/L	99
15) 1,1-dichloroethene	6.785	96	119464	50.51	ug/L	99
16) acetone	6.333	58	31197	43.88	ug/L	# 82
17) Methyl Acetate	6.962	43	134386	49.27	ug/L	# 91
18) methylene chloride	6.944	84	147185	45.83	ug/L	91
19) methyl tert butyl ether	7.704	73	341460	44.98	ug/L	97
20) acrylonitrile	6.849	53	73285	54.71	ug/L	92
21) allyl chloride	7.033	41	287237	50.07	ug/L	94
22) trans-1,2-dichloroethene	7.620	96	143643	46.29	ug/L	97
23) iodomethane	6.859	142	79858	41.42	ug/L	98
24) carbon disulfide	7.224	76	403464	45.17	ug/L	100
25) propionitrile	6.842	54	2230	50.13	ug/L	100
26) vinyl acetate	7.970	43	289028	66.56	ug/L	97
27) chloroprene	8.235	53	301030	54.05	ug/L	93
28) di-isopropyl ether	8.263	45	780455	52.70	ug/L	99
29) methacrylonitrile	8.397	41	106855	48.92	ug/L	95
30) 2-butanone	8.288	72	20489	58.80	ug/L	# 26
31) Hexane	8.245	41	297221	54.56	ug/L	99
32) 1,1-dichloroethane	7.878	63	357669	47.02	ug/L	96
33) tert-butyl ethyl ether	8.659	59	230517	30.22	ug/L	95
34) isobutyl alcohol	8.263	43	611010	272.16	ug/L	90
35) 2,2-dichloropropane	8.730	77	265724	54.86	ug/L	98
36) cis-1,2-dichloroethene	8.443	96	167336	47.36	ug/L	99
37) ethyl acetate	8.263	43	610748	55.23	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
 Data File : N90681.D
 Acq On : 29 Sep 2014 8:26 am
 Operator : jaclynb
 Sample : cc3345-50
 Misc : ms32833,MSN3355,,,,5,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 29 08:47:06 2014
 Quant Method : C:\msdchem\1\methods\n140918w.m
 Quant Title : SW-846 Method 8260
 QLast Update : Fri Sep 19 12:01:33 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.613	128	74554	51.54	ug/L	92
39) chloroform	8.645	83	323533	47.61	ug/L	100
41) Tetrahydrofuran	8.977	42	52918	54.13	ug/L	93
42) 1,1,1-trichloroethane	9.394	97	295021	56.62	ug/L	99
44) Cyclohexane	9.670	56	360630	55.53	ug/L	97
45) carbon tetrachloride	9.755	117	245314	52.40	ug/L	99
46) 1,1-dichloropropene	9.567	75	227038	53.98	ug/L	99
47) benzene	9.794	78	637089	46.43	ug/L	100
48) 1,2-dichloroethane	9.299	62	299217	46.58	ug/L	99
49) tert-amyl methyl ether	9.903	73	125017	32.16	ug/L	95
50) heptane	10.253	43	234464	59.73	ug/L	91
51) trichloroethene	10.409	95	190606	46.53	ug/L	97
52) 1,2-dichloropropane	10.374	63	218907	56.02	ug/L	100
53) dibromomethane	10.356	93	104734	52.53	ug/L	98
54) bromodichloromethane	10.462	83	263875	51.36	ug/L	97
55) Methylcyclohexane	10.918	83	282619	58.73	ug/L	98
56) 2-chloroethyl vinyl ether	10.374	63	218907	56.76	ug/L #	100
57) methyl methacrylate	10.550	69	98340	55.04	ug/L	82
58) 1,4-dioxane	10.561	88	7657	261.89	ug/L #	68
59) cis-1,3-dichloropropene	11.077	75	281124	56.62	ug/L	99
61) 4-methyl-2-pentanone	11.169	43	220961	60.43	ug/L	93
62) toluene	11.855	92	407533	49.46	ug/L	95
63) trans-1,3-dichloropropene	11.494	75	231498	58.01	ug/L	99
64) 1,1,2-trichloroethane	11.667	83	137388	51.74	ug/L	99
65) ethyl methacrylate	11.865	69	200705	59.05	ug/L	94
67) tetrachloroethene	12.590	166	172355	52.38	ug/L	98
68) 1,3-dichloropropane	11.904	76	273596	57.46	ug/L	100
69) dibromochloromethane	12.194	129	189539	55.69	ug/L	97
70) 1,2-dibromoethane	12.449	107	146288	54.85	ug/L	98
71) 2-hexanone	12.021	43	184860	63.34	ug/L	97
72) chlorobenzene	13.276	112	447549	50.79	ug/L	96
73) 1,1,1,2-tetrachloroethane	13.191	131	178210	55.55	ug/L	98
74) ethylbenzene	13.446	91	873811	53.20	ug/L	99
75) m,p-xylene	13.633	106	594738	99.03	ug/L	95
76) o-xylene	14.043	106	304643	52.23	ug/L	96
77) styrene	13.969	104	490281	57.94	ug/L	100
78) bromoform	13.799	173	116843	59.01	ug/L	99
79) trans-1,4-dichloro-2-b...	14.192	53	50780	58.14	ug/L	92
81) isopropylbenzene	14.404	105	813794	54.89	ug/L	99
83) bromobenzene	14.697	156	192740	54.94	ug/L	98
84) 1,1,2,2-tetrachloroethane	14.047	83	196750	62.37	ug/L	98
85) 1,2,3-trichloropropane	14.192	75	205882	57.40	ug/L	98
86) n-propylbenzene	14.846	91	1064017	56.05	ug/L	99
87) 2-chlorotoluene	14.969	91	647709	53.66	ug/L	96
88) 4-chlorotoluene	15.047	91	694491	54.46	ug/L	98
89) 1,3,5-trimethylbenzene	15.125	105	753128	50.60	ug/L	99
90) tert-butylbenzene	15.429	91	487635	55.81	ug/L	99
91) 1,2,4-trimethylbenzene	15.535	105	745134	50.50	ug/L	100
92) sec-butylbenzene	15.648	105	952328	57.10	ug/L	99
93) 1,3-dichlorobenzene	15.758	146	380663	56.55	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90681.D
Acq On : 29 Sep 2014 8:26 am
Operator : jaclynb
Sample : cc3345-50
Misc : ms32833,MSN3355,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 29 08:47:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

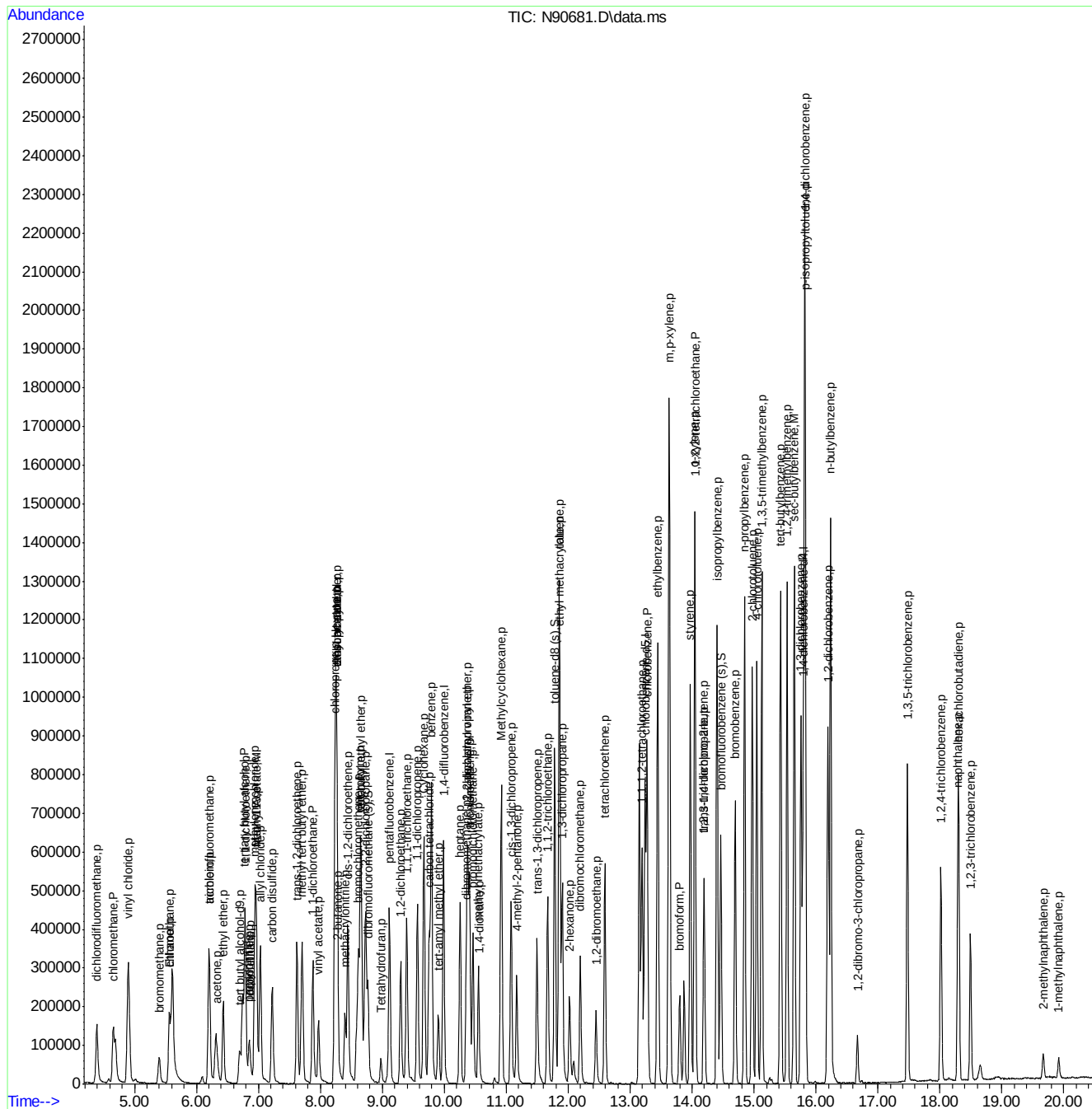
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.821	119	780666	57.28	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	366677	61.28	ug/L	98
96) 1,2-dichlorobenzene	16.193	146	376294	59.87	ug/L	99
97) n-butylbenzene	16.235	91	845924	59.84	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.670	75	34462	60.98	ug/L	95
99) 1,2,4-trichlorobenzene	18.017	180	176376	62.48	ug/L	97
100) 1,3,5-trichlorobenzene	17.476	180	254667	58.25	ug/L	99
101) hexachlorobutadiene	18.303	225	131170	59.27	ug/L	99
102) naphthalene	18.289	128	235426	58.74	ug/L	100
103) 1,2,3-trichlorobenzene	18.491	180	123774	60.68	ug/L	93
104) 2-methylnaphthalene	19.668	142	34933	30.31	ug/L #	100
105) 1-methylnaphthalene	19.915	142	26953	31.29	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140929\
Data File : N90681.D
Acq On : 29 Sep 2014 8:26 am
Operator : jaclynb
Sample : cc3345-50
Misc : ms32833,MSN3355,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 29 08:47:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



n140918w.m Mon Sep 29 09:26:15 2014

Page: 4

7.6.12



Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/mL
926	CCgas	200
910	BSU	200
904	BSgas	200
840	ISU	125
895	SS	200

Daily Saved File

Tune file 1: N90385
Tune file 2: NA
Initial Cal: 9/18/14
ID File: N140918W.M
ICAL Verified: KD
Sequence verified: KD

Date: 9/18/14

Batch ID: MSN3345

Analysts KD

Signature: *[Signature]*

*Note: If sample matrix is soil - method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90385	bfb	NA	MS9895	Curve	15	W	5mL	NA	1:1	NA	✓✓
86	test 0.5	2,1	MS9911/926		16						OK
87	test 5	↓	↓		17						OK
88	test 400	↓	↓		18						OK
89	blank	NA	NA		19						-
90	blank	↓	↓		20						-
91	IC3345-0.52,1	MS9911/926			21						✓✓
92	-1				22						✓
93	-2				23						✓✓
94	-5				24						✓✓
95	-10				25						✓✓
96	✓ -25				26						✓✓
97	IC3345-50				27						✓✓
98	IC3345-100				28						✓✓
99	↓ -200				29						✓✓
N90400	↓ -400				30						✓✓
01	Blank	NA	NA		31						ICC
02	↓	↓	↓		32						Stopped
03	ICV3345-50 2,2	MS9910/904			33						
04	↓	↓	↓		34						
05	Blank	NA	NA		35						
06	↓	↓	↓		36						

KD

MTX = Matrix: Designate W for water, S for soil, O for oil.

Sample amount is reported in grams (wet) for soil and oil, mls for water

MS001-05 Date: 07/22/13

Review: *[Signature]*

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Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/ml
926	CCgas	
910	BS	
904	BSgas	
905	IS+SS	125ug/ml

Daily Saved File

Tune file 1: N90407
Tune file 2: 9/18/14
Initial Cal: N140918W.M
ID File: (Tune file 2: NA)
ICAL Verified: KD
Sequence verified: GK

Date: 9/19/14

Batch ID: MSN3345

Analysts KD

Signature: *[Signature]*

*Note: If sample matrix is soil - method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90406	blank	NA	NA	NA	15	NA	5mL	NA	1:1	NA	-
07	BS (CC)	2, 2	MS9910/904		16						ICU VV
08	BSD	↓	↓		17						-
09	ibik	NA	NA		18						-
10	mb	↓	↓		19	↓					VV
11	MC33464-9	2	MS32776	RCP	20	WTB				42	VV
12	MC33644-8	1			21	↓					VV
13	MC33645-1	1			22	↓					VV
14	MC33644-1	11			23	GW					VV
15	-4	10			24						VV
16	-5	12			25						VV
17	-7	12			26						VV
18	-3	9			27		↓		↓		VV
19	-2	11			28		500mL		1:10		RR1:5 od11
20	MC33645-2	1			29	↓			↓		RR1:1 od11
21	-4	2			30		↓				RR1:2 od11
22	MC33464-1	2			31		5mL		1:1		VV
23	-2	2			32						VV
24	-3	2			33						VV
25	-4	1			34						VV
26	-5	2			35						VV
27	-6	2			36						VV
28	-7	1			37						VV
29	-8	1			38						VV
30	MC33646-1	6			39	↓					VV
31	BLANK	NA	NA	NA	40	NA				↓	VV
32					41					NA	-
33					42						-
34					43						-
35					44						-
36					45						-

= Matrix: Designate W for water, S for soil, O for oil.

Sample amount is reported in grams (wet) for soil and oil, mls for water.

1-05 Date: 07/22/13

Review: *[Signature]*

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Daily Saved File

Lot #	Description	Conc
MS9911	8260 CC	200mg/ml
926	cc gas	
910	bs	
904	bs gas	
929	TS/STC	125mg/ml

Tune file 1:	N90681
Tune file 2:	N/A
Initial Cal:	9/18/14
ID File:	N140918
ICAL Verified:	KD
Sequence verified:	MY

Date: 9/29/14

Batch ID: MSN3355

Analysts: JBB

Signature: JBB

*Note: If sample matrix is soil - method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90680	1b1K	N/A	N/A	8260	15	N/A	5mL	N/A	1:1	N/A	✓
681	CC3345-50	2,1	MSM11 2 MS9926 1		16						bfbw
682	bs	3,2	MS9910 3 MS9904 2		17						✓
683	bsd	1			18						✓
684	1b1K	N/A	N/A		19						✓
685	mb	1			20						✓
686	MC3377-15	2	MS33835 4/14 MS33835 7/6 STD, MTB		21	WTB				<2	✓
687	-1	2	MS33835		22	SLW					✓
688	-2	3			23						✓
689	-3	1			24						✓
690	-4	1			25						✓
691	-5	3			26						✓
692	-6	2			27						✓
693	-7	1			28						✓
694	-8	1			29						✓
695	-9	2			30						✓
696	-10	2			31						✓
697	-11	2			32						✓
698	-12	1			33						✓
699	-13	1			34						✓
700	-14	2			35					72	✓
701	MC33826-2	4	MS33833	STAR	36		500ul		1:10		✓
702	MC33874-1	2		BTXMN	37		1		1		✓
703	-2	3			38		250ul		1:20		✓
704	-3	4			39		1mL		1:5		✓
705	MC3377-1ms	2	MS33835	STD, MTB	40						✓
706	-1mad	2			41						✓

MTX = Matrix: Designate W for water, S for soil, O for oil.

Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ATTACHMENT 2

Data Usability Summary Report

Stantec Data Usability Summary Report**Report No. 100714-EC-01**

Project Name: Lockheed, Utica, NY	Project Number: 190500800		
Stantec Validator: Elizabeth Crowley	Laboratory: Accutest – Marlborough, MA		
Date Validated: 10/03/14	Laboratory Project Number: MC33777		
Sample Start-End Date: 09/18/14	Laboratory Report Date: 10/01/14		
Parameters Validated: Volatile Organic Compounds by EPA SW-846 8260C			
Samples Validated: 14 aqueous field samples and 1 Trip Blank – See Samples Validated Table			
VALIDATION CRITERIA CHECK			
Data review based on <i>Quality Assurance Program Plan, Solvent Deck Area, Former French Road Facility, Utica, NY</i> October 14, 2009, <i>USEPA National Functional Guidelines</i> (USEPA, 1999b), USEPA Region II SOPs and NYSDEC ASP 2005 – Tier III Validation			
Validation Flags Applicable to this Review:			
U	The analyte was analyzed for, but not detected above the reported sample quantitation limit.		
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.		
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.		
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a “tentative identification”.		
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.		
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.		
B	The analyte was detected in the method, field and/or trip blank.		
1.	Were all the analyses requested for the samples submitted with each COC completed by the lab?	Yes X	No
Comments:			
2.	Did the laboratory identify any non-conformances related to the analytical result?	Yes X	No
Comments: Refer to laboratory report Case Narrative for matrix non-conformance. Matrix information discussed in item 12 for this report.			
3.	Were sample Chain-of-Custody forms complete?	Yes X	No
Comments:			
4.	Were samples received in good condition and at the appropriate temperature?	Yes X	No
Comments:			
5.	Were sample holding times met?	Yes X	No
Comments:			
6.	Were correct concentration units reported?	Yes X	No

Comments:		
7. Were detections found in laboratory blank samples?	Yes	No X
Comments:		
8. Were detections found in field blank, equipment rinse blank, and/or trip blank samples?	Yes	No X
Comments:		
9. Were instrument calibrations within method criteria?	Yes	No X
Comments: Instrument GCMSN ICAL dated 09/19/14 - %RSD above limits for bromomethane, 2,2-dichloropropane, iodomethane, naphthalene and vinyl chloride. Linear regression coefficient within limits. Associated sample results flagged "UJ" if non-detect or "J" if positive. Reason Code – ICAL ICAL dated 09/19/14 – RRF below 0.05 for first and last calibration concentrations. The average RRF exceeds 0.050. Associated sample results flagged "R". Reason Code – RRF ICV dated 09/19/14 – %D ±25% below limits for dichlorodifluoromethane, trans-1,3-dichloropropene, 1,2-dibromo-3-chloropropane and naphthalene. All sample results are non-detect and flagged "UJ". Reason Code – ICV CCAL dated 09/29/14 - %D±25% below limits for vinyl acetate and 2-hexanone. All sample results are non-detect and flagged "UJ". Reason Code - CCAL		
10. Were surrogate recoveries within 70-130% control limits?	Yes X	No
Comments:		
11. Were laboratory control (LC/LD) sample recoveries within 70-130% control limits?	Yes	No X
Comments: Batch MSN3355 - %R above 70% limit for 2-butanone, 2-hexanone and naphthalene. Associated sample results are non-detect. No qualifying action required.		
12. Were site specific matrix spike (MS/MD) recoveries within 70-130% control limits?	Yes	No X
Comments: Site specific MS/MD sample MW-1 (DOT) analyzed in batch MSN3355. MSM/D %Rs below 70% limit for acetone. Associated MW-1 (DOT) results non-detect and flagged "UJ". No additional qualifying action required. Reason Code – MS		
13. Were RPDs within 30% control limit?	Yes X	No
Comments:		
14. Were dilutions required on any samples?	Yes	No X

Comments:			
15. Were Tentatively Identified Compounds (TIC) present?	Yes X	No	
Comments: Sample results below the reporting limit do not possess the degree of qualitative or quantitative confidence required. The value may be a false positive and is an estimated value and is flagged "NJ". Reason Code – SQL			
16. Were organic system performance/instrument tune criteria met?	Yes X	No	
Comments:			
17. Were GC/MS internal standards within method criteria?	Yes X	No	
Comments:			
18. Were inorganic method performance criteria met?	Yes	No	
	NA		
Comments: No inorganic analyses requested.			
19. Were field duplicates collected? If so, discuss the precision (RPD) of the results.	Yes X	No	
Duplicate Sample Nos. FIELD DUPLICATE MW-F			
Comments: All RPDs within $\pm 25\%$ limit.			
20. Were at least 10 percent of the hard copy results compared to the Electronic Data Deliverable Results?	Yes X	No	Initials EAC
Comments:			
21. Other:	Yes	No X	
Comments:			
PRECISION, ACCURACY, METHOD COMPLIANCE AND COMPLETENESS ASSESSMENT Data are usable as flagged. See Form 1s for flagged data.			
Precision:	Acceptable X	Unacceptable	Initials EAC
Comments:			
Sensitivity:	Acceptable X	Unacceptable	Initials EAC
Comments:			
Accuracy:	Acceptable X	Unacceptable	Initials EAC
Comments:			

Representativeness:	Acceptable X	Unacceptable	Initials EAC
Comments:			
Method Compliance:	Acceptable X	Unacceptable	Initials EAC
Comments:			
Completeness:	Acceptable X	Unacceptable	Initials EAC
Comments:			